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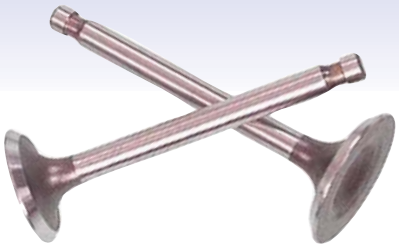
TopLine

Automotive Engineering, Inc.

The Import Engine Parts Leader



Hylift Johnson Lifters

American Made for 70+ Years and Going Strong!

ACURA

MODEL	ILX HYBRID	INTEGRA	INTEGRA
ENGINE CODE	**LEA2**	**D16A1**	**D16A1**
DISPLACEMENT	**1496cc(91.3")**	**1590cc(97")**	**1590cc(97")**
YEARS	**2013-2014**	**1988-1989**	**1986-1987**
DESCRIPTION	8 vlv; SOHC; f.inj; FHEV	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	73mm(2.874")	75mm(2.953")	75mm(2.953")
STROKE	89.4mm(3.52")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	1.9676/1.9685"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.5739/1.5748"	1.7707/1.7716"	1.7707/1.7716"
ENGINE KITS			
MAJOR KIT		EKH16LM	
RE-RING KIT		EKH16R	EKH16R
BEARING SETS			
MAIN BEARING SET	MBH42	MBH16	MBH16
ROD BEARING SET	RBH42	RBH16	RBH16
THRUST WASHER SET	TWH16	TWH16	TWH16
GASKETS			
FULL GASKET SET		CGSH16	CGSH16
HEAD GASKET SET		HSH16	HSH16
HEAD GASKETS		HDGH16	HDGH16
CONVERSION SET		CBSH16	CBSH16
HEAD BOLT SET	HBH42		
PISTONS, RINGS, PLUGS			
PISTONS		PAH16L (domed)	
RING SETS		RSH21L	RSH21L
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSH16 (22mm snout)
CONNECTING ROD			CRH16
OIL PUMP			
NEW OIL PUMP	OPH42		

ACURA

MODEL	ILX HYBRID	INTEGRA	INTEGRA
ENGINE CODE	**LEA2**	**D16A1**	**D16A1**
DISPLACEMENT	**1496cc(91.3")**	**1590cc(97")**	**1590cc(97")**
YEARS	**2013-2014**	**1988-1989**	**1986-1987**
DESCRIPTION	8 vlv; SOHC; f.inj; FHEV	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	73mm(2.874")	75mm(2.953")	75mm(2.953")
STROKE	89.4mm(3.52")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	1.9676/1.9685"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.5739/1.5748"	1.7707/1.7716"	1.7707/1.7716"
VALVE TRAIN			
ROCKER ARMS		RAH16	RAH16
INTAKE VALVE	IVH42HY	IVH16	IVH16
EXHAUST VALVE	EVH42HY	EVH16	EVH16
INTAKE GUIDE	IVGH21	IVGH16	IVGH16
EXHAUST GUIDE	IVGH21	EVGH16	EVGH16
VALVE SEALS	VSSH21	VSSH19	VSSH19
WATER PUMP & TIMING			
TIMING BELT		TBH16	TBH16
TENSIONERS		BTH16	BTH16

ACURA

MODEL	INTEGRA VTEC	INTEGRA VTEC TYPE R	INTEGRA VTEC GS-R
ENGINE CODE	**B17A1**	**B18C5**	**B18C1**
DISPLACEMENT	**1678cc(102.4")**	**1797cc(109.6")**	**1797cc(109.6")**
YEARS	**1992-1993**	**1997-2001**	**1994-2001**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	81mm(3.19")	87.2mm(3.43")	87.2mm(3.43")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.7707/1.7716"
ENGINE KITS			
GOLD KIT		EKH18RG	
BRONZE KITS		EKH18RB	
MAJOR KIT		EKH18RM	
RE-RING KIT	EKAC3R	EKH18VR	EKH18VR
BEARING SETS			
MAIN BEARING SET	MBH18	MBH18	MBH18
ROD BEARING SET	RBH16	RBH18V	RBH18V
THRUST WASHER SET	TWH16	TWH16	TWH16
GASKETS			
FULL GASKET SET	CGSH18V	CGSH18V	CGSH18V
HEAD GASKET SET	HSH18V	HSH18V	HSH18V
HEAD GASKETS	HDGH18V	HDGH18V	HDGH18V
CONVERSION SET	CBSH18	CBSH18	CBSH18
HEAD BOLT SET		HBH18V	HBH18V
PISTONS, RINGS, PLUGS			
PISTONS		PAH18R	
RING SETS	RSH18	RSH18	RSH18
CRANKSHAFT & RODS			
CONNECTING ROD		CRH18V	CRH18V
OIL PUMP			
NEW OIL PUMP	OPH18L	OPH18S	OPH18S (96-on) OPH18L (94-95)

ACURA

MODEL	INTEGRA VTEC	INTEGRA VTEC TYPE R	INTEGRA VTEC GS-R
ENGINE CODE	**B17A1**	**B18C5**	**B18C1**
DISPLACEMENT	**1678cc(102.4")**	**1797cc(109.6")**	**1797cc(109.6")**
YEARS	**1992-1993**	**1997-2001**	**1994-2001**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	81mm(3.19")	87.2mm(3.43")	87.2mm(3.43")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.7707/1.7716"
VALVE TRAIN			
INTAKE CAMSHAFT		CAMH18SI	CAMH18SI
EXHAUST CAMSHAFT		CAMH18SE	CAMH18SE
LIFTERS	LIFAC3❶		
INTAKE VALVE	IVAC3	IVAC3	IVAC3
EXHAUST VALVE	EVAC3	EVAC3	EVAC3
INTAKE GUIDE	IVGAC3	IVGAC3	IVGAC3
EXHAUST GUIDE	EVGAC3	EVGAC3	EVGAC3
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP		WPH18R	WPH18R
TIMING BELT	TBH32	TBH18V	TBH18V
TENSIONERS	BTH18	BTH18	BTH18

❶ (lost motion assembly)

ACURA

MODEL	INTEGRA	INTEGRA	TLX TURBO
ENGINE CODE	**B18B1**	**B18A1/B18B1**	**K20C6**
DISPLACEMENT	**1834cc(111.8")**	**1834cc(111.8")**	**1996cc(121.8")**
YEARS	**1996-2001**	**1990-1995**	**2021-2022**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. TURB
BORE	81mm(3.189")	81mm(3.189")	86.0mm(3.386")
STROKE	89mm(3.50")	89mm(3.50")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.8888/1.8890"
ENGINE KITS			
GOLD KIT	EKH18LG	EKH18G	
BRONZE KITS	EKH18LB	EKH18B	
MAJOR KIT	EKH18LM	EKH18M	
RE-RING KIT	EKH18LR	EKH18R	
BEARING SETS			
MAIN BEARING SET	MBH18	MBH18	
ROD BEARING SET	RBH16	RBH16	RBH53
THRUST WASHER SET	TWH16	TWH16	TWH53
GASKETS			
FULL GASKET SET	CGSH18L	CGSH18	
HEAD GASKET SET	HSH18L	HSH18	
HEAD GASKETS	HDGH18L	HDGH18	
CONVERSION SET	CBSH18	CBSH18	CBSH46
PISTONS, RINGS, PLUGS			
PISTONS	PAH18L	PAH18L	
RING SETS	RSH18	RSH18	
CRANKSHAFT & RODS			
CONNECTING ROD	CRH18L	CRH18L	
OIL PUMP			
NEW OIL PUMP	OPH18S	OPH18L	

ACURA			
MODEL	**INTEGRA**	**INTEGRA**	**TLX TURBO**
ENGINE CODE	**B18B1**	**B18A1/B18B1**	**K20C6**
DISPLACEMENT	**1834cc(111.8")**	**1834cc(111.8")**	**1996cc(121.8")**
YEARS	**1996-2001**	**1990-1995**	**2021-2022**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. TURB
BORE	81mm(3.189")	81mm(3.189")	86.0mm(3.386")
STROKE	89mm(3.50")	89mm(3.50")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.8888/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVH18L	IVH18	
EXHAUST VALVE	EVH18L	EVH19	
INTAKE GUIDE	IVGH16	IVGH16	IVGH21
EXHAUST GUIDE	EVGH16	EVGH16	
VALVE SEALS	VSSH19	VSSH19	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH18L	WPH18	
TIMING BELT	TBH18	TBH18	
TENSIONERS	BTH18	BTH18	

ACURA

MODEL	RDX TURBO	ILX	RSX
ENGINE CODE	**K20C4**	**R20A5**	**K20A3**
DISPLACEMENT	**1996cc(121.8")**	**1997cc(122")**	**1998cc(122")**
YEARS	**2019-2022**	**2013-2015**	**2002-2006**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE SOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ.
BORE	86.0mm(3.386")	81.0mm(3.189")	86mm(3.386")
STROKE	86.0mm(3.39")	96.9mm(3.815")	86mm(3.38")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.8888/1.8890"	1.7707/1.7716"	1.7707/1.7716"
ENGINE KITS			
MAJOR KIT			EKH46M
RE-RING KIT			EKH46R
BEARING SETS			
MAIN BEARING SET		MBH45	MBH18
ROD BEARING SET	RBH53	RBH45	RBH36
THRUST WASHER SET	TWH53	TWH36	TWH16
GASKETS			
FULL GASKET SET		CGSH45	CGSH46
HEAD GASKET SET		HSH45	HSH46
CONVERSION SET	CBSH46	CBSH45	CBSH46
HEAD BOLT SET		HBH45	HBH48
PISTONS, RINGS, PLUGS			
PISTONS			PAH46
RING SETS		RSH45	RSH46
CRANKSHAFT & RODS			
CONNECTING ROD			CRH46

ACURA

MODEL	RDX TURBO	ILX	RSX
ENGINE CODE	**K20C4**	**R20A5**	**K20A3**
DISPLACEMENT	**1996cc(121.8")**	**1997cc(122")**	**1998cc(122")**
YEARS	**2019-2022**	**2013-2015**	**2002-2006**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE SOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ.
BORE	86.0mm(3.386")	81.0mm(3.189")	86mm(3.386")
STROKE	86.0mm(3.39")	96.9mm(3.815")	86mm(3.38")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.8888/1.8890"	1.7707/1.7716"	1.7707/1.7716"
VALVE TRAIN			
INTAKE VALVE		IVH45L	IVAC7
EXHAUST VALVE		EVH25	EVAC7S
INTAKE GUIDE	IVGH21	IVGH21	VGH43
EXHAUST GUIDE		EVGH21	EVGH44
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
GEARLESS TIMING KIT		CTKH45	

ACURA

MODEL	RSX TYPE S	CL	CL
ENGINE CODE	**K20A2 / K20Z1**	**F22B1**	**F23A1**
DISPLACEMENT	**1998cc(122")**	**2156cc(132")**	**2260cc(138")**
YEARS	**2002-2006**	**1997**	**1998-1999**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ
BORE	86mm(3.386")	85mm(3.346")	86mm(3.385")
STROKE	86mm(3.38")	95mm(3.74")	97mm(3.82")
MAIN JOURNAL DIA.	2.1642/2.1654"	1.9674/1.9685"	2.1646/2.1655"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8890"	1.7707/1.7716"
ENGINE KITS			
GOLD KIT		EKH26BG	EKH36G
BRONZE KITS		EKH26BB	EKH36B
MAJOR KIT	EKH46LM	EKH26BM	EKH36M
RE-RING KIT	EKH46R	EKH26BR	EKH36R
BEARING SETS			
MAIN BEARING SET	MBH18	MBH20	MBH16
ROD BEARING SET	RBH46	RBH20	RBH36
THRUST WASHER SET	TWH16	TWH12	TWH36
GASKETS			
FULL GASKET SET	CGSH46	CGSH26B	CGSH36
HEAD GASKET SET	HSH46	HSH26B	HSH36
HEAD GASKETS		HDGH26	HDGH36
CONVERSION SET	CBSH46	CBSH20	CBSH36
HEAD BOLT SET	HBH48		HBH36
PISTONS, RINGS, PLUGS			
PISTONS	PAH46L (Type S)	PAH20	PAH36
RING SETS	RSH46	RSH20	RSH36
PIN BUSHINGS			PBH36
CRANKSHAFT & RODS			
CONNECTING ROD			CRH36
OIL PUMP			
NEW OIL PUMP		OPH26	OPH26

ACURA

MODEL	RSX TYPE S	CL	CL
ENGINE CODE	**K20A2 / K20Z1**	**F22B1**	**F23A1**
DISPLACEMENT	**1998cc(122")**	**2156cc(132")**	**2260cc(138")**
YEARS	**2002-2006**	**1997**	**1998-1999**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ
BORE	86mm(3.386")	85mm(3.346")	86mm(3.385")
STROKE	86mm(3.38")	95mm(3.74")	97mm(3.82")
MAIN JOURNAL DIA.	2.1642/2.1654"	1.9674/1.9685"	2.1646/2.1655"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8890"	1.7707/1.7716"
VALVE TRAIN			
ROCKER ARMS		RAH34C (outer roller) RAH34D (inner roller) RAH34E (outer pad) RAH34A (cast A) RAH34B (cast B)	RAH34C (outer roller) RAH34D (inner roller) RAH34E (outer pad) RAH34A (cast A) RAH34B (cast B)
INTAKE VALVE	IVAC7S	IVH34	IVH34
EXHAUST VALVE	EVAC7S	EVH34	EVH34
INTAKE GUIDE	VGH43	IVGH21	IVGH21
EXHAUST GUIDE	EVGH44	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP		WPH20	WPH20
TIMING BELT		TBH34	TBH34
TENSIONERS		BTH20	BTH20
BALANCE SHAFT BELT		TBH20B	TBH20B
BALANCE SHAFT BELT TENSIONER		BTH20B	BTH20B

ACURA

MODEL	RDX TURBO	ILX	TSX
ENGINE CODE	**K23A1**	**K24Z7**	**K24Z3**
DISPLACEMENT	**2300cc(140.3")**	**2354cc(143.6")**	**2354cc(143.6")**
YEARS	**2007-2012**	**2013-2015**	**2009-2014**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	86.0mm(3.385")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.888/1.889"	1.8888/1.8890"	1.8888/1.8890"
BEARING SETS			
MAIN BEARING SET	MBH18	MBH18	MBH18
ROD BEARING SET	RBH46	RBH46	RBH46
THRUST WASHER SET	TWH36	TWH36	TWH36
GASKETS			
FULL GASKET SET		CGSH50	CGSH50
HEAD GASKET SET		HSH50	HSH50
CONVERSION SET	CBSH46	CBSH46	CBSH46
HEAD BOLT SET	HBH48	HBH45	HBH45
PISTONS, RINGS, PLUGS			
PISTONS		PAH50SI	PAH50SI
RING SETS		RSH50❶	RSH50L❷
		RSH50L❷	RSH50❶
PIN BUSHINGS		PBD34	PBD34
OIL PUMP			
NEW OIL PUMP		OPH50	OPH50

❶ (1.2mm 2nd ring)

❷ (1.0mm 2nd Ring)

ACURA

MODEL	RDX TURBO	ILX	TSX
ENGINE CODE	**K23A1**	**K24Z7**	**K24Z3**
DISPLACEMENT	**2300cc(140.3")**	**2354cc(143.6")**	**2354cc(143.6")**
YEARS	**2007-2012**	**2013-2015**	**2009-2014**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	86.0mm(3.385")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.888/1.889"	1.8888/1.8890"	1.8888/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVAC7	IVH50	IVH50
EXHAUST VALVE	EVAC7S	EVH50	EVH50
INTAKE GUIDE	VGH43	VGH43	VGH43
EXHAUST GUIDE	EVGH44	EVGH44	EVGH44
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKH50	CTKH50
PARTIAL TIMING KIT		PTKH50	PTKH50

ACURA

MODEL	TSX	ILX	TLX
ENGINE CODE	**K24A2**	**K24V7**	**K24W7**
DISPLACEMENT	**2354cc(143.6")**	**2356cc(144.0")**	**2356cc(144.0")**
YEARS	**2004-2008**	**2016-2022**	**2015-2020**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 vlv, DOHC 4; F.INJ, DI	16 vlv, DOHC 4; F.INJ, DI
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1647/2.1657"	2.1647/2.1657"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8898"	1.8888/1.8898"
ENGINE KITS			
GOLD KIT	EKH48TXG		
MAJOR KIT	EKH48TXM		
RE-RING KIT	EKH48TXR		
BEARING SETS			
MAIN BEARING SET	MBH18	MBH53	MBH53
ROD BEARING SET	RBH46	RBH53	RBH53
THRUST WASHER SET	TWH36	TWH36	TWH36
GASKETS			
FULL GASKET SET	CGSH48	CGSH53❶	CGSH53❶
HEAD GASKET SET	HSH48	HSH53❶	HSH53❶
HEAD GASKETS	HDGH48		
CONVERSION SET	CBSH46	CBSH53	CBSH53
HEAD BOLT SET	HBH48	HBH45	HBH45
PISTONS, RINGS, PLUGS			
PISTONS	PAH48TX		
RING SETS	RSH48TSX	RSH53	RSH53
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CONNECTING ROD	CRH48TSX		
OIL PUMP			
NEW OIL PUMP	OPH48		

❶ (w/o intake manifold bypass ring seals)

ACURA

MODEL	TSX	ILX	TLX
ENGINE CODE	**K24A2**	**K24V7**	**K24W7**
DISPLACEMENT	**2354cc(143.6")**	**2356cc(144.0")**	**2356cc(144.0")**
YEARS	**2004-2008**	**2016-2022**	**2015-2020**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 vlv, DOHC 4; F.INJ, DI	16 vlv, DOHC 4; F.INJ, DI
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1647/2.1657"	2.1647/2.1657"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8898"	1.8888/1.8898"
VALVE TRAIN			
INTAKE VALVE	IVAC7S	IVH53	IVH53
EXHAUST VALVE	EVAC7S	EVH53	EVH53
INTAKE GUIDE	VGH43	VGH43	VGH43
EXHAUST GUIDE	EVGH44	EVGH53	EVGH53
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKH48TSX	CTKH53	CTKH53
PARTIAL TIMING KIT	PTKH48		

ACURA

MODEL	TL	VIGOR	LEGEND
ENGINE CODE	**G25A4**	**G25A1**	**C25A1**
DISPLACEMENT	**2451cc(149.5")**	**2451cc(149.5")**	**2494cc(152.2")**
YEARS	**1996-1998**	**1992-1994**	**1986-1987**
DESCRIPTION	20 VALVE; SOHC 5; F.INJ	20 VALVE; SOHC 5; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	85mm(3.346")	85mm(3.346")	84mm(3.307")
STROKE	86.4mm(3.40")	86.4mm(3.40")	75mm(2.95")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.5187/2.5197"
ROD JOURNAL DIA.	1.7701/1.7717"	1.7701/1.7717"	2.0465/2.0472"
ENGINE KITS			
RE-RING KIT	EKAC5R	EKAC5VR	EKAC1R
BEARING SETS			
MAIN BEARING SET	MBAC5	MBAC5	MBAC1
ROD BEARING SET	RBAC5	RBAC5	RBH27
THRUST WASHER SET	TWH16	TWH16	TWAC1
GASKETS			
FULL GASKET SET	CGSAC5	CGSAC5V	CGSAC1
HEAD GASKET SET	HSAC5	HSAC5V	HSAC1
HEAD GASKETS			HDGAC1
CONVERSION SET	CBSAC5	CBSAC5	CBSAC1
PISTONS, RINGS, PLUGS			
RING SETS	RSAC5V	RSAC5V	RSAC1
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSAC5V	CSAC5V	CSAC1L
CONNECTING ROD	CRAC5	CRAC5	
OIL PUMP			
NEW OIL PUMP			OPAC1 (gauge) OPAC1S (switch)

ACURA

MODEL	TL	VIGOR	LEGEND
ENGINE CODE	**G25A4**	**G25A1**	**C25A1**
DISPLACEMENT	**2451cc(149.5")**	**2451cc(149.5")**	**2494cc(152.2")**
YEARS	**1996-1998**	**1992-1994**	**1986-1987**
DESCRIPTION	20 VALVE; SOHC 5; F.INJ	20 VALVE; SOHC 5; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	85mm(3.346")	85mm(3.346")	84mm(3.307")
STROKE	86.4mm(3.40")	86.4mm(3.40")	75mm(2.95")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.5187/2.5197"
ROD JOURNAL DIA.	1.7701/1.7717"	1.7701/1.7717"	2.0465/2.0472"
VALVE TRAIN			
INTAKE VALVE	IVH20	IVH20	IVH19
EXHAUST VALVE	EVAC5	EVAC5	EVAC1
INTAKE GUIDE	IVGH21	IVGH21	IVGAC1
EXHAUST GUIDE	EVGH21	EVGH21	EVGAC1
VALVE SEALS	VSSH21	VSSH21	VSSH19
WATER PUMP & TIMING			
TIMING BELT	TBAC5	TBAC5	TBAC1
TENSIONERS			BTAC1
ENGINES & HEADS			
HEAD W/VALVES		CHVAC5V	

ACURA

MODEL	LEGEND	MDX HYBRID	CL
ENGINE CODE	**C27A1**	**JNA2**	**J30A1**
DISPLACEMENT	**2675cc(163.2")**	**2997cc(182.9")**	**2997cc(182.9")**
YEARS	**1987-1990**	**2017-2020**	**1997-1999**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24vlv; SOHC; V6; F.INJ; HYBRID	24 VALVE; SOHC V6; F.INJ
BORE	87mm(3.425")	86mm(3.385")	86mm(3.385")
STROKE	75mm(2.95")	86.0mm(3.39")	86mm(3.38")
MAIN JOURNAL DIA.	2.5187/2.5197"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.0465/2.0472"	2.0857/2.0866"	2.0857/2.0866"
ENGINE KITS			
GOLD KIT	EKAC1LG (gauge) EKAC1LSG (switch)		
MAJOR KIT	EKAC1LM		EKH37M
RE-RING KIT	EKAC1LR		EKH37R
BEARING SETS			
MAIN BEARING SET	MBH27		MBH37
ROD BEARING SET	RBH27		RBH37
THRUST WASHER SET	TWAC1		TWH37
GASKETS			
FULL GASKET SET	CGSAC1L		CGSH37
HEAD GASKET SET	HSAC1L		HSH37
HEAD GASKETS			HDGH37
CONVERSION SET	CBSAC1		CBSH37
HEAD BOLT SET			HBH37
PISTONS, RINGS, PLUGS			
PISTONS	PAH27		PAH37
RING SETS	RSH27		RSH37
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSAC1L		
CONNECTING ROD			CRH37
OIL PUMP			
NEW OIL PUMP	OPAC1 (gauge) OPAC1S (switch)	OPH52	OPH37

ACURA

MODEL	LEGEND	MDX HYBRID	CL
ENGINE CODE	**C27A1**	**JNA2**	**J30A1**
DISPLACEMENT	**2675cc(163.2")**	**2997cc(182.9")**	**2997cc(182.9")**
YEARS	**1987-1990**	**2017-2020**	**1997-1999**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24vlv; SOHC; V6; F.INJ; HYBRID	24 VALVE; SOHC V6; F.INJ
BORE	87mm(3.425")	86mm(3.385")	86mm(3.385")
STROKE	75mm(2.95")	86.0mm(3.39")	86mm(3.38")
MAIN JOURNAL DIA.	2.5187/2.5197"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.0465/2.0472"	2.0857/2.0866"	2.0857/2.0866"
VALVE TRAIN			
INTAKE VALVE	IVH19	IVAC9M	IVH34
EXHAUST VALVE	EVAC1	EVAC9	EVH34
VALVE GUIDE	IVGAC1 (int)		IVGH21 (int)
	EVGAC1 (ex)		EVGH21 (ex)
INTAKE GUIDE		IVGH21	
EXHAUST GUIDE		EVGH21	
VALVE SEALS	VSSH19	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP			WPH37
TIMING BELT	TBAC1	TBH37L	TBH37
TENSIONERS	BTAC1	- (hydraulic)	BTH37H (hydraulic)
		BTH38I (idler)	BTH37R (roller)
		BTH38R (roller)	BTH37I (idler)

ACURA

MODEL	SLX	TL	LEGEND
ENGINE CODE	**6VD1**	**C32A6**	**C32A1**
DISPLACEMENT	**3165cc(193.1")**	**3206cc(195.7")**	**3206cc(195.7")**
YEARS	**1996-1997**	**1996-1998**	**1991-1995**
DESCRIPTION	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.
BORE	94mm(3.701")	90.0mm(3.543")	90.0mm(3.543")
STROKE	77mm(3.03")	84mm(3.31")	84mm(3.31")
MAIN JOURNAL DIA.	2.5165/2.5170"	2.6762/2.6772"	2.6762/2.6772"
ROD JOURNAL DIA.	2.1229/2.1235"	2.1248/2.1257"	2.1248/2.1257"
ENGINE KITS			
GOLD KIT	EKIS12LG	EKAC2LG	
BRONZE KITS	EKIS12LB		
MAJOR KIT	EKIS12LM	EKAC2M	EKAC2M
RE-RING KIT	EKIS12LR	EKAC2R	EKAC2R
BEARING SETS			
MAIN BEARING SET	MBIS12	MBAC2	MBAC2
ROD BEARING SET	RBIS12	RBAC2	RBAC2
THRUST WASHER SET	TWIS12	TWAC2	TWAC2
GASKETS			
FULL GASKET SET	CGSIS12L	CGSAC2	CGSAC2
HEAD GASKET SET	HSIS12L	HSAC2	HSAC2
HEAD GASKETS	HDGIS12 (set)	HDGAC2 (set of 2)	HDGAC2 (set of 2)
CONVERSION SET	CBSIS12	CBSAC2	CBSAC2
HEAD BOLT SET	HBIS12		
PISTONS, RINGS, PLUGS			
PISTONS	PAIS12L	PAAC2	PAAC2
RING SETS	RSIS12	RSAC2	RSAC2
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSAC2	CSAC2
CONNECTING ROD	CRIS12	CRAC2	CRAC2
OIL PUMP			
NEW OIL PUMP	OPIS12	OPAC2L	

ACURA

MODEL	SLX	TL	LEGEND
ENGINE CODE	**6VD1**	**C32A6**	**C32A1**
DISPLACEMENT	**3165cc(193.1")**	**3206cc(195.7")**	**3206cc(195.7")**
YEARS	**1996-1997**	**1996-1998**	**1991-1995**
DESCRIPTION	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.
BORE	94mm(3.701")	90.0mm(3.543")	90.0mm(3.543")
STROKE	77mm(3.03")	84mm(3.31")	84mm(3.31")
MAIN JOURNAL DIA.	2.5165/2.5170"	2.6762/2.6772"	2.6762/2.6772"
ROD JOURNAL DIA.	2.1229/2.1235"	2.1248/2.1257"	2.1248/2.1257"
VALVE TRAIN			
LIFTERS	ALAMA12		
ROCKER ARMS	RAIS12I (int.) RAIS12E (ex.) RAIS12S		
ROCKER ARM SHAFTS	RASIIS12		
ROCKER ARM SHAFTS	RASEIS12		
INTAKE VALVE	IVIS12	IVAC2 (33mm head)	IVAC2 (33mm head) IVAC2GS (34mm head)
EXHAUST VALVE	EVIS12	EVAC2	EVAC2
VALVE GUIDE	VGIS12 (both)	IVGH21 (int) EVGH21 (ex)	IVGH21 (int) EVGH21 (ex)
VALVE SEALS	VSSTO15	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPIS12		WPAC22 (2 outlets)
TIMING BELT	TBIS12	TBAC2	TBAC2
TENSIONERS	BTIS12L (roller) BTIS13H (hydraulic)		

ACURA

MODEL	TL	CL TL TYPE S	TL CL
ENGINE CODE	**J32A3**	**J32A2**	**J32A1**
DISPLACEMENT	**3210cc**	**3210cc**	**3210cc**
YEARS	**2004-2008**	**2001-2003**	**2000-2003**
DESCRIPTION	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.
BORE	89mm(3.504")	90.0mm(3.543")	89mm(3.504")
STROKE	86.0mm(3.39")	84mm(3.31")	86mm(3.39")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBH37
ROD BEARING SET	RBH38	RBH38	RBH38
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET	CGSH38A3		
HEAD GASKET SET	HSH38A3		
CONVERSION SET	CBSH37	CBSH37	CBSH37
HEAD BOLT SET	HBH37	HBH37	HBH37
PISTONS, RINGS, PLUGS			
PISTONS	PAAC8A3		
RING SETS	RSH38	RSH38	RSH38
OIL PUMP			
NEW OIL PUMP	OPH37L	OPH37 (w/auto trans) OPH37L❶	OPH37 OPH37L❶

❶ (for 2003 CL with manual trans)

ACURA

MODEL	TL	CL TL TYPE S	TL CL
ENGINE CODE	**J32A3**	**J32A2**	**J32A1**
DISPLACEMENT	**3210cc**	**3210cc**	**3210cc**
YEARS	**2004-2008**	**2001-2003**	**2000-2003**
DESCRIPTION	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.
BORE	89mm(3.504")	90.0mm(3.543")	89mm(3.504")
STROKE	86.0mm(3.39")	84mm(3.31")	86mm(3.39")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
VALVE TRAIN			
INTAKE VALVE	IVAC9	IVAC9S (Type S)	IVAC9 (35mm head)
EXHAUST VALVE	EVAC9	EVAC9	EVAC9 (30mm head)
VALVE GUIDE	IVGH21 (int) EVGH21 (ex)	IVGH21 (int) EVGH21 (ex)	IVGH21 (int) EVGH21 (ex)
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH37	WPH37
TIMING BELT	TBH37	TBH37	TBH37
TENSIONERS	BTH38R (roller) BTH38I (idler) - (hydraulic)	- (hydraulic) BTH37R (roller) BTH37I (idler)	- (hydraulic) BTH37R (roller) BTH37I (idler)

ACURA

MODEL	TL	TL TSX (10-14)	RL TL TYPE S
ENGINE CODE	**J32A1**	**J35Z6**	**J35A8**
DISPLACEMENT	**3210cc**	**3471cc(211.8")**	**3471cc(211.8")**
YEARS	**1999**	**2009-2014**	**2005-2008**
DESCRIPTION	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	86mm(3.39")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBH37
ROD BEARING SET	RBH38	RBH38	RBH38
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET		CGSH51	
HEAD GASKET SET		HSH51	
CONVERSION SET	CBSH37	CBSH37	CBSH37
HEAD BOLT SET	HBH37	HBH37	HBH37
PISTONS, RINGS, PLUGS			
RING SETS	RSH38	RSH51	RSH38
OIL PUMP			
NEW OIL PUMP	OPH37	OPH51❶	OPH37L

❶ (Sensor not included)

ACURA

MODEL	TL	TL TSX (10-14)	RL TL TYPE S
ENGINE CODE	**J32A1**	**J35Z6**	**J35A8**
DISPLACEMENT	**3210cc**	**3471cc(211.8")**	**3471cc(211.8")**
YEARS	**1999**	**2009-2014**	**2005-2008**
DESCRIPTION	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	86mm(3.39")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
VALVE TRAIN			
INTAKE VALVE	IVH34 (34mm head)	IVAC9M	IVAC9
EXHAUST VALVE	EVH34 (29mm head)	EVAC9	EVAC9
VALVE GUIDE	IVGH21 (int)	IVGH21 (int)	IVGH21 (int)
	EVGH21 (ex)	EVGH21 (ex)	EVGH21 (ex)
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH37	WPH51	WPH51
TIMING BELT	TBH37	TBH37L	TBH37L
TENSIONERS	- (hydraulic)	- (hydraulic)	- (hydraulic)
	BTH37R (roller)	BTH38R (roller)	BTH38R (roller)
	BTH37I (idler)	BTH38I (idler)	BTH38I (idler)

ACURA

MODEL	MDX	MDX	TLX
ENGINE CODE	J35A5	J35A3	J35Y6
DISPLACEMENT	3471cc(211.8")	3471cc(211.8")	3471cc(212.1")
YEARS	2003-2006	2001-2002	2015-2020
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.1644-2.1654"
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBH52
ROD BEARING SET	RBH38	RBH38	RBH52
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET	CGSH38Z❶	CGSH38A4	CGSH52A
HEAD GASKET SET	HSH38Z❶	HSH38A4	HSH52A
HEAD GASKETS		HDGH38 (set of 2)	
CONVERSION SET	CBSH37	CBSH37	CBSH52
HEAD BOLT SET	HBH37	HBH37	HBH52❷
PISTONS, RINGS, PLUGS			
PISTONS	PAH38L❸	PAH38L❸	PAH52A
RING SETS	RSH38	RSH38	RSH52A
OIL PUMP			
NEW OIL PUMP	OPH37L	OPH37	OPH52

❶ (Rubber upper intake manifold cover gasket not included)

❷ (12 pc. 163mm, 4 pc. 188mm)

❸ (w/o Oil Squirter Slot)

ACURA			
MODEL	**MDX**	**MDX**	**TLX**
ENGINE CODE	**J35A5**	**J35A3**	**J35Y6**
DISPLACEMENT	**3471cc(211.8")**	**3471cc(211.8")**	**3471cc(212.1")**
YEARS	**2003-2006**	**2001-2002**	**2015-2020**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.1644-2.1654"
VALVE TRAIN			
INTAKE VALVE	IVAC9	IVAC9	IVAC9M
EXHAUST VALVE	EVAC9	EVAC9	EVAC9
VALVE GUIDE	IVGH21 (int)	IVGH21 (int)	IVGH21 (int)
	EVGH21 (ex)	EVGH21 (ex)	EVGH21 (ex)
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH37	
TIMING BELT	TBH37L	TBH37	TBH37L
TENSIONERS	- (hydraulic)	- (hydraulic)	BTH38I (idler)
	BTH38R (roller)	BTH37R (roller)	
	BTH38I (idler)	BTH37I (idler)	

ACURA

MODEL	MDX	RLX	RLX HYBRID
ENGINE CODE	J35Y5	J35Y4	JNB1
DISPLACEMENT	3471cc(212.1")	3471cc(212.1")	3471cc(212.1")
YEARS	2014-2020	2014-2020	2014-2020
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24vlv; SOHC; V6; F.INJ; HYBRID
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.1644-2.1654"	2.1644-2.1654"	2.165/2.171"
BEARING SETS			
MAIN BEARING SET	MBH52	MBH52	MBH52
ROD BEARING SET	RBH52	RBH52	RBH52
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET	CGSH52A	CGSH52A	CGSH52A
HEAD GASKET SET	HSH52A	HSH52A	HSH52A
CONVERSION SET	CBSH52	CBSH52	CBSH52
HEAD BOLT SET	HBH52❶	HBH52❶	HBH52❶
PISTONS, RINGS, PLUGS			
PISTONS	PAH52A	PAH52A	PAH52A
RING SETS	RSH52A	RSH52A	RSH52A
OIL PUMP			
NEW OIL PUMP	OPH52		

❶ (12 pc. 163mm, 4 pc. 188mm)

ACURA

MODEL	MDX	RLX	RLX HYBRID
ENGINE CODE	**J35Y5**	**J35Y4**	**JNB1**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2014-2020**	**2014-2020**	**2014-2020**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24vlv; SOHC; V6; F.INJ; HYBRID
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.1644-2.1654"	2.1644-2.1654"	2.165/2.171"
VALVE TRAIN			
INTAKE VALVE	IVAC9M	IVAC9M	IVAC9M
EXHAUST VALVE	EVAC9	EVAC9	EVAC9
VALVE GUIDE	IVGH21 (int)	IVGH21 (int)	IVGH21 (int)
	EVGH21 (ex)	EVGH21 (ex)	EVGH21 (ex)
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH51	WPH51
TIMING BELT	TBH37L	TBH37L	TBH37L
TENSIONERS	BTH38I (idler)	BTH38I (idler)	BTH38I (idler)

ACURA

MODEL	RDX	RDX	RL
ENGINE CODE	J35Z2	J35Z2	C35A1
DISPLACEMENT	3471cc(212.1")	3471cc(212.1")	3474cc(212.1")
YEARS	2016-2018	2013-2015	1996-2004
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	90.0mm(3.543")
STROKE	93mm(3.66")	93mm(3.66")	91mm(3.58")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.6762/2.6772"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.1248/2.1257"
ENGINE KITS			
RE-RING KIT			EKAC6R
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBAC2
ROD BEARING SET	RBH38	RBH38	RBAC2
THRUST WASHER SET	TWH37	TWH37	TWAC2
GASKETS			
FULL GASKET SET		CGSH51	CGSAC2
HEAD GASKET SET		HSH51	HSAC2
HEAD GASKETS			HDGAC2 (set of 2)
CONVERSION SET	CBSH37	CBSH37	CBSAC2
HEAD BOLT SET	HBH52❶	HBH37	
PISTONS, RINGS, PLUGS			
PISTONS	PAH51	PAH51	PAAC6
RING SETS	RSH51	RSH51	RSAC6
CRANKSHAFT & RODS			
CONNECTING ROD			CRAC6
OIL PUMP			
NEW OIL PUMP	OPH52	OPH51❷	

❶ (12 pc. 163mm, 4 pc. 188mm)

❷ (Sensor not included)

ACURA

MODEL	RDX	RDX	RL
ENGINE CODE	**J35Z2**	**J35Z2**	**C35A1**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3474cc(212.1")**
YEARS	**2016-2018**	**2013-2015**	**1996-2004**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	90.0mm(3.543")
STROKE	93mm(3.66")	93mm(3.66")	91mm(3.58")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.6762/2.6772"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.1248/2.1257"
VALVE TRAIN			
INTAKE VALVE	IVAC9M	IVAC9M	IVAC2 (33mm head)
EXHAUST VALVE	EVAC9	EVAC9	EVAC2
VALVE GUIDE	IVGH21 (int) EVGH21 (ex)	IVGH21 (int) EVGH21 (ex)	IVGH21 (int) EVGH21 (ex)
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH51	
TIMING BELT	TBH37L	TBH37L	TBAC6 -
TENSIONERS	BTH38R (roller) BTH38I (idler)	BTH38R (roller) BTH38I (idler)	

ACURA

MODEL	SLX	RL (09-12) TL AWD	ZDX
ENGINE CODE	**6VE1**	**J37A2/J37A4**	**J37A5**
DISPLACEMENT	**3494cc(213.2")**	**3664cc(223.6")**	**3664cc(223.6")**
YEARS	**1998-1999**	**2009-2014**	**2010-2013**
DESCRIPTION	24 VALVE; DOHC V6;F.INJ.	24vlv; SOHC; V6; F.INJ; AWD	24 VALVE; SOHC V6; F.INJ.
BORE	93.4mm(3.677")	90.0mm(3.543")	90.0mm(3.543")
STROKE	85mm(3.35")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.5165/2.5170"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.1229/2.1235"	2.2431/2.2441"	2.2431/2.2441"
ENGINE KITS			
GOLD KIT	EKIS14G		
BRONZE KITS	EKIS14B		
MAJOR KIT	EKIS14M		
RE-RING KIT	EKIS13R		
BEARING SETS			
MAIN BEARING SET	MBIS12	MBH37	MBH37
ROD BEARING SET	RBIS12	RBAC9	RBAC9
THRUST WASHER SET	TWIS12	TWH37	TWH37
GASKETS			
FULL GASKET SET	CGSIS13		
HEAD GASKET SET	HSIS13		
HEAD GASKETS	HDGIS13		
CONVERSION SET	CBSIS12	CBSH37	CBSH37
HEAD BOLT SET	HBIS13	HBH37	HBH37
PISTONS, RINGS, PLUGS			
PISTONS	PAIS14L		
RING SETS	RSIS13		
CRANKSHAFT & RODS			
CONNECTING ROD	CRIS13		
OIL PUMP			
NEW OIL PUMP	OPIS13		OPH51❶

❶ (Sensor not included)

ACURA

MODEL	SLX	RL (09-12) TL AWD	ZDX
ENGINE CODE	**6VE1**	**J37A2/J37A4**	**J37A5**
DISPLACEMENT	**3494cc(213.2")**	**3664cc(223.6")**	**3664cc(223.6")**
YEARS	**1998-1999**	**2009-2014**	**2010-2013**
DESCRIPTION	24 VALVE; DOHC V6;F.INJ.	24vlv; SOHC; V6; F.INJ; AWD	24 VALVE; SOHC V6; F.INJ.
BORE	93.4mm(3.677")	90.0mm(3.543")	90.0mm(3.543")
STROKE	85mm(3.35")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.5165/2.5170"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.1229/2.1235"	2.2431/2.2441"	2.2431/2.2441"
VALVE TRAIN			
LIFTERS	LIFIS13		
INTAKE VALVE	IVIS13	IVAC9M	IVAC9M
EXHAUST VALVE	EVIS13	EVAC9	EVAC9
VALVE GUIDE	VGIS12		
INTAKE GUIDE		IVGH21	IVGH21 (int)
EXHAUST GUIDE		EVGH21	EVGH21 (ex)
VALVE SEALS	VSSTO15	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPIS13	WPH51	WPH51
TIMING BELT	TBIS13	TBH37L	TBH37L
TENSIONERS	BTIS13H (hydraulic) BTIS13I (idler) BTIS13R (pulley)	BTH38R (roller) BTH38I (idler)	BTH38R (roller) BTH38I (idler)

ACURA

MODEL	MDX	MDX	
ENGINE CODE	J37A1	J37A1	
DISPLACEMENT	3664cc(223.6")	3664cc(223.6")	
YEARS	2010-2013	2007-2009	
DESCRIPTION	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	
BORE	90.0mm(3.543")	90.0mm(3.543")	
STROKE	96mm(3.78")	96mm(3.78")	
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	
ROD JOURNAL DIA.	2.2431/2.2441"	2.2431/2.2441"	
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	
ROD BEARING SET	RBAC9	RBAC9	
THRUST WASHER SET	TWH37	TWH37	
GASKETS			
CONVERSION SET	CBSH37	CBSH37	
HEAD BOLT SET	HBH37	HBH37	
PISTONS, RINGS, PLUGS			
RING SETS		RSAC9	
OIL PUMP			
NEW OIL PUMP		OPH51❶	

❶ (2008-09 only, Sensor not included)

MODEL	MDX	MDX	
ENGINE CODE	**J37A1**	**J37A1**	
DISPLACEMENT	**3664cc(223.6")**	**3664cc(223.6")**	
YEARS	**2010-2013**	**2007-2009**	
DESCRIPTION	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	
BORE	90.0mm(3.543")	90.0mm(3.543")	
STROKE	96mm(3.78")	96mm(3.78")	
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	
ROD JOURNAL DIA.	2.2431/2.2441"	2.2431/2.2441"	
VALVE TRAIN			
INTAKE VALVE	IVAC9M	IVAC9M	
EXHAUST VALVE	EVAC9	EVAC9	
INTAKE GUIDE	IVGH21 (int)	IVGH21 (int)	
EXHAUST GUIDE	EVGH21 (ex)	EVGH21 (ex)	
VALVE SEALS	VSSH21	VSSH21	
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH51	
TIMING BELT	TBH37L	TBH37L	
TENSIONERS	BTH38R (roller) BTH38I (idler)	BTH38R (roller) BTH38I (idler)	

AUDI

MODEL	FOX	4000 TURBO DIESEL	4000 DIESEL
ENGINE CODE	**XR-XZ**	**CY**	**CR/JK**
DISPLACEMENT	**1471cc(89.8")**	**1588cc(96.9")**	**1588cc(96.9")**
YEARS	**1973-1974**	**1982-1983**	**1982-1983**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	DIESEL SOHC 4	DIESEL SOHC 4
BORE	76.5mm(3.012")	76.5mm(3.012")	76.5mm(3.012")
STROKE	80mm(3.15")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8802/1.8810"	1.8802/1.8810"
ENGINE KITS			
GOLD KIT		EK069TG	EK069G
BRONZE KITS		EK069TB	EK069B
MAJOR KIT		EK069TM	EK069M
RE-RING KIT		EK069R	EK069R
BEARING SETS			
MAIN BEARING SET	MB056	MB056	MB056
ROD BEARING SET	RB056	RB068	RB068
INTERMEDIATE SET	ISB056	ISB056	ISB056
			JS069
GASKETS			
FULL GASKET SET	CGS0495	CGS068 (no HDG)	CGS068 (no HDG)
HEAD GASKET SET	HS049	HS068 (no HDG)	HS068 (no HDG)
CONVERSION SET	CBS0495	CBS0495	CBS0495
PISTONS, RINGS, PLUGS			
PISTONS		PA0686T	PA0686
RING SETS		RS068	RS068
PIN BUSHINGS		PB069	PB069
FREEZE PLUG SET	EPS049	EPS049	EPS049
CRANKSHAFT & RODS			
CONNECTING ROD	CR521N (nut type)	CR621	CR621
OIL PUMP			
NEW OIL PUMP		OP068W/O	OP068W/O

AUDI

MODEL	FOX	4000 TURBO DIESEL	4000 DIESEL
ENGINE CODE	**XR-XZ**	**CY**	**CR/JK**
DISPLACEMENT	**1471cc(89.8")**	**1588cc(96.9")**	**1588cc(96.9")**
YEARS	**1973-1974**	**1982-1983**	**1982-1983**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	DIESEL SOHC 4	DIESEL SOHC 4
BORE	76.5mm(3.012")	76.5mm(3.012")	76.5mm(3.012")
STROKE	80mm(3.15")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
CAMSHAFTS	CAM049	CAM068	CAM068
LIFTERS	LIF056	LIF056	LIF056
INTAKE VALVE		IV069	IV069 (3 keeper)
EXHAUST VALVE		EV069	EV069 (3 keeper)
VALVE GUIDE	VG056	VG056	VG056
VALVE SEALS	VSS056	VSS056	VSS056
WATER PUMP & TIMING			
WATER PUMP		WP026	WP026
TIMING BELT	TB056	TB068	TB068
BALANCE SHAFTS	JS056	JS069	

AUDI

MODEL	4000 FOX	4000	4000
ENGINE CODE	Y Series	WT	MG/JN
DISPLACEMENT	1588cc(96.9")	1715cc(104.6")	1781cc(108.6")
YEARS	1975-1980	1981-1983	1984-1987
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	79.5mm(3.130")	79.5mm(3.130")	81mm(3.189")
STROKE	80mm(3.15")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8086/1.8094"	1.8802/1.8810"
ENGINE KITS			
GOLD KIT			EK054G
BRONZE KITS			EK054B
MAJOR KIT			EK054M
RE-RING KIT			EK054R
BEARING SETS			
MAIN BEARING SET	MB056	MB056	MB056
ROD BEARING SET	RB056	RB056	RB068
INTERMEDIATE SET	ISB056	ISB056	ISB056
GASKETS			
FULL GASKET SET	CGS0495	CGS0495	CGS051
HEAD GASKET SET	HS049	HS049	HS051
HEAD GASKETS			HDG051
CONVERSION SET	CBS0495	CBS0495	CBS0495
PISTONS, RINGS, PLUGS			
PISTONS			PA051❶
RING SETS			-
PIN BUSHINGS			PB026
FREEZE PLUG SET	EPS049	EPS049	EPS049
CRANKSHAFT & RODS			
CONNECTING ROD	CR521N (nut type)	CR521N (nut type)	CR526
OIL PUMP			
NEW OIL PUMP	OP049	OP049	OP027

❶ (low compression)

MODEL	4000 FOX	4000	4000
ENGINE CODE	**Y Series**	**WT**	**MG/JN**
DISPLACEMENT	**1588cc(96.9")**	**1715cc(104.6")**	**1781cc(108.6")**
YEARS	**1975-1980**	**1981-1983**	**1984-1987**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	79.5mm(3.130")	79.5mm(3.130")	81mm(3.189")
STROKE	80mm(3.15")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8086/1.8094"	1.8802/1.8810"
VALVE TRAIN			
CAMSHAFTS	CAM049	CAM049	
LIFTERS	LIF056	LIF056	LIF049
INTAKE VALVE		IV049 (3 keeper)	IV051H (38 mm) IVA5H (40 mm)
EXHAUST VALVE		EV049 (3 keeper)	EV051H
VALVE GUIDE	VG056	VG056	VG056
VALVE SEALS	VSS056	VSS056	VSS056
WATER PUMP & TIMING			
WATER PUMP			WP026
TIMING BELT	TB056	TB056	TB056
BALANCE SHAFTS	JS056	JS056	JS056

AUDI

MODEL	A4 A4 Quattro (01-05)	TT TT Quattro	A4 A4 Quattro
ENGINE CODE	**AWM; AMB**	**ATC; AWP; BEA; AMU**	**ATW**
DISPLACEMENT	**1781cc(108.7")**	**1781cc(108.7")**	**1781cc(108.7")**
YEARS	**2001-2006**	**2000-2006**	**2000**
DESCRIPTION	20 VALVE; DOHC 4; F.INJ. Turb	20 VALVE; DOHC 4; F.INJ. Turb	20 VALVE; DOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW12	MBVW12	MBVW12
ROD BEARING SET	RBVW12 (.002 O.D.) RBVW12S (Std housing)	RBVW12 (.002 O.D.) RBVW12S (Std housing)	RB053
THRUST WASHER SET	TWVW12	TWVW12	TWVW12
GASKETS			
FULL GASKET SET	CGSVW12	CGSVW12	CGSVW12
HEAD GASKET SET	HSVW12	HSVW12	HSVW12
HEAD GASKETS	HDGVW12	HDGVW12	HDGVW12
CONVERSION SET	CBSVW12❶	CBSVW12❶	CBSVW12❶
REAR SEAL/COVER	-	-	-
HEAD BOLT SET	HBVW12❷ HBVW12DT16 (136mm)	HBVW12❷ HBVW12DT16 (136mm)	HBVW12❷ HBVW12DT16 (136mm)
PISTONS, RINGS, PLUGS			
PISTONS	PAVW12NB (19 mm pin)	PAVW12NB (19 mm pin) PAVW12 (20 mm pin)	PAVW12 (20 mm pin)
RING SETS	RSVW12	RSVW12❸ RSVW12E❹	RSVW12E
PIN BUSHINGS	PBVW12	PBVW12	PB026
FREEZE PLUG SET	EPS049	EPS049	EPS049
CRANKSHAFT & RODS			
CONNECTING ROD	CRVW12 (cracked rod)	CRVW12 (cracked rod)	CR053
OIL PUMP			
NEW OIL PUMP	OPVW13	OPVW13	OPVW12 (A4) OPVW13 (TT)

❶ (Rear Main Seal/Cover not included)
❷ (112 mm length)
❸ (for 19mm pin piston)
❹ (for 20mm pin piston)

MODEL	A4 A4 Quattro (01-05)	TT TT Quattro	A4 A4 Quattro
ENGINE CODE	**AWM; AMB**	**ATC; AWP; BEA; AMU**	**ATW**
DISPLACEMENT	**1781cc(108.7")**	**1781cc(108.7")**	**1781cc(108.7")**
YEARS	**2001-2006**	**2000-2006**	**2000**
DESCRIPTION	20 VALVE; DOHC 4; F.INJ. Turb	20 VALVE; DOHC 4; F.INJ. Turb	20 VALVE; DOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW12E (x8) LIFVW12I (x12)	LIFVW12E (x8) LIFVW12I (x12)	LIFVW12E (x8) LIFVW12I (x12)
INTAKE VALVE	IVVW12	IVVW12	IVVW12
EXHAUST VALVE	EVVW12❶	EVVW12❶	EVVW12❶
VALVE GUIDE	VGVW12	VGVW12	VGVW12
VALVE SEALS	VSSVW12	VSSVW12	VSSVW12
WATER PUMP & TIMING			
TIMING BELT	TBVW12A (150 teeth)	TBVW12A (150 teeth)	TBVW12 (152 teeth) TBVW12E (153 teeth)

❶ Evv01

AUDI

MODEL	A4 A4 Quattro	A3	A3 TURBO DIESEL
ENGINE CODE	**AEB**	**CNSB**	**DEJA**
DISPLACEMENT	**1781cc(108.7")**	**1798cc(110")**	**1968cc(120.1")**
YEARS	**1997-1999**	**2015-2016**	**2016**
DESCRIPTION	20 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. TURB	16vlv; DOHC; 4; F.INJ; Turbo Die
BORE	81mm(3.189")	82.5mm(3.248")	81mm(3.189")
STROKE	86.4mm(3.40")	84.1mm(3.31")	95.5mm(3.76")
MAIN JOURNAL DIA.	2.1243/2.1251"		
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	
BEARING SETS			
MAIN BEARING SET	MBVW12		
ROD BEARING SET	RB053	RBVW17L	
THRUST WASHER SET	TWVW12	TWVW17L (with no tabs) TWVW17LX❶	TWVW12
GASKETS			
FULL GASKET SET	CGSVW12		
HEAD GASKET SET	HSVW12		
HEAD GASKETS	HDGVW12		
CONVERSION SET	CBSVW12❷		
REAR SEAL/COVER	-		
HEAD BOLT SET	HBVW12❸ HBVW12DT16 (136mm)		
PISTONS, RINGS, PLUGS			
PISTONS	PAVW12 (20 mm pin)		
RING SETS	RSVW12E		
PIN BUSHINGS	PB026		
FREEZE PLUG SET	EPS049		
CRANKSHAFT & RODS			
CONNECTING ROD	CR053		
OIL PUMP			
NEW OIL PUMP	OPVW12 (A4) OPVW13 (TT)		

❶ (with 2 notch hook)
❷ (Rear Main Seal/Cover not included)
❸ (112 mm length)

MODEL	A4 A4 Quattro	A3	A3 TURBO DIESEL
ENGINE CODE	**AEB**	**CNSB**	**DEJA**
DISPLACEMENT	**1781cc(108.7")**	**1798cc(110")**	**1968cc(120.1")**
YEARS	**1997-1999**	**2015-2016**	**2016**
DESCRIPTION	20 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. TURB	16vlv; DOHC; 4; F.INJ; Turbo Die
BORE	81mm(3.189")	82.5mm(3.248")	81mm(3.189")
STROKE	86.4mm(3.40")	84.1mm(3.31")	95.5mm(3.76")
MAIN JOURNAL DIA.	2.1243/2.1251"		
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	
VALVE TRAIN			
LIFTERS	LIFVW12E (x8) LIFVW12I (x12)	LIFVW22	LIFVW25
INTAKE VALVE	IVVW12		IVVW25
EXHAUST VALVE	EVVW12❶		EVVW25
VALVE GUIDE	VGVW12	VGVW21	
VALVE SEALS	VSSVW12	VSSVW21	VSSVW21
WATER PUMP & TIMING			
TIMING BELT	TBVW12 (152 teeth) TBVW12E (153 teeth)		

❶ Evv01

AUDI

MODEL	A3 TURBO DIESEL	A3 TURBO DIESEL	A4 (17-18) A4 Quattro A4 allroad A5 Quattro (2018) A5 Sportback (2018) Q7 (17-18)
ENGINE CODE	**CRUA**	**CBEA**	**CYMC**
DISPLACEMENT	**1968cc(120.1")**	**1968cc(120.1")**	**1984cc(121.1")**
YEARS	**2015**	**2010-2013**	**2017-2019**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo Die	16 VALVE DOHC 4; TDI	16 vlv; DOHC 4; F.INJ. Turbo
BORE	81mm(3.189")	81mm(3.189")	82.5mm(3.248")
STROKE	95.5mm(3.76")	95.5mm(3.76")	92.8mm(3.65")
MAIN JOURNAL DIA.		2.1243/2.1251"	2.0456"/2.0464"
ROD JOURNAL DIA.		2.0022/2.0030"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET		MBVW12	MBVW17N
ROD BEARING SET		RBVW25 (Standard OD)	RBVW17L
THRUST WASHER SET	TWVW12	TWVW12	TWVW17N
GASKETS			
HEAD BOLT SET			HBVW17L❶

❶ (w/o Washers)

AUDI

MODEL	A3 TURBO DIESEL	A3 TURBO DIESEL	A4 (17-18) A4 Quattro A4 allroad A5 Quattro (2018) A5 Sportback (2018) Q7 (17-18)
ENGINE CODE	**CRUA**	**CBEA**	**CYMC**
DISPLACEMENT	**1968cc(120.1")**	**1968cc(120.1")**	**1984cc(121.1")**
YEARS	**2015**	**2010-2013**	**2017-2019**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo Die	16 VALVE DOHC 4; TDI	16 vlv; DOHC 4; F.INJ. Turbo
BORE	81mm(3.189")	81mm(3.189")	82.5mm(3.248")
STROKE	95.5mm(3.76")	95.5mm(3.76")	92.8mm(3.65")
MAIN JOURNAL DIA.		2.1243/2.1251"	2.0456"/2.0464"
ROD JOURNAL DIA.		2.0022/2.0030"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW25	LIFVW25	LIFVW22
INTAKE VALVE	IVVW25	IVVW25	
EXHAUST VALVE	EVVW25	EVVW25	
VALVE GUIDE			VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21
WATER PUMP & TIMING			
TIMING BELT		TBVW25	

AUDI

MODEL	A4	Q5	S3
ENGINE CODE	DBPA	DAYB	DJJA
DISPLACEMENT	1984cc(121.1")	1984cc(121.1")	1984cc(121.1")
YEARS	2017-2019	2018	2018
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.		2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.		1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET		MBVW17N	MBVW17N
ROD BEARING SET		RBVW17L	RBVW17L
THRUST WASHER SET		TWVW17N	TWVW17N
GASKETS			
HEAD BOLT SET	HBVW17L❶	HBVW17L❶	HBVW17L❶

❶ (w/o Washers)

AUDI

MODEL	A4	Q5	S3
ENGINE CODE	**DBPA**	**DAYB**	**DJJA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2017-2019**	**2018**	**2018**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.		2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.		1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE		IVVW17❶	
EXHAUST VALVE		EVVW17❶	
VALVE GUIDE		VGVW21	VGVW21
VALVE SEALS			VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	A3	A6 A6 Quattro	A3 Quattro TT Quattro (16-18)
ENGINE CODE	**CZRA**	**CYNB**	**CNTC**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2017-2018**	**2016-2018**	**2015-2018**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17L	MBVW17N	MBVW17N
ROD BEARING SET	RBVW17L	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17L❶ TWVW17LX❷	TWVW17N	TWVW17N
GASKETS			
HEAD BOLT SET	HBVW17L❸	HBVW17L❸	HBVW17L❸

❶ (w/o locating tabs)
❷ (with 2 notch hook)
❸ (w/o Washers)

MODEL	A3	A6 A6 Quattro	A3 Quattro TT Quattro (16-18)
ENGINE CODE	**CZRA**	**CYNB**	**CNTC**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2017-2018**	**2016-2018**	**2015-2018**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE			IVVW17❶
EXHAUST VALVE			EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	S3 (15-17) TTS Quattro (16-18)	Q3 Q3 Quattro	A5 Cabriolet A5 Quattro A4 Quattro (14-16) A6 Quattro (14-15) A6 (14-15) A4 (14-16)
ENGINE CODE	**CYFB**	**CCTA**	**CAED**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2015-2018**	**2015-2018**	**2014-2017**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.0456"/2.0464"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17N	MBVW17L	MBVW17L
ROD BEARING SET	RBVW17L	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17N	TWVW17L❶	TWVW17L❶
		TWVW17LX❷	TWVW17LX❷
GASKETS			
FULL GASKET SET		CGSVW17L❸	CGSVW17L❸
HEAD GASKET SET		HSVW17L	HSVW17L
HEAD GASKETS		HDGVW17L	HDGVW17L
CONVERSION SET		CBSVW17L❸	CBSVW17L❸
HEAD BOLT SET	HBVW17L❹	HBVW13❺	HBVW17L❹
PISTONS, RINGS, PLUGS			
PISTONS		PAVW17DD (23mm pin)	PAVW17DD (23mm pin)
RING SETS	RSVW17LA4 (1.2*1.2*2.0)	RSVW17LA4 (1.2*1.2*2.0)	RSVW17LA4 (1.2x1.2X2.0)
OIL PUMP			
NEW OIL PUMP		OPVW17L	

❶ (w/o locating tabs)
❷ (with 2 notch hook)
❸ (Rear Main Seal/Cover not included)
❹ (w/o Washers)
❺ (with Washers)

AUDI

MODEL	S3 (15-17) TTS Quattro (16-18)	Q3 Q3 Quattro	A5 Cabriolet A5 Quattro A4 Quattro (14-16) A6 Quattro (14-15) A6 (14-15) A4 (14-16)
ENGINE CODE	**CYFB**	**CCTA**	**CAED**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2015-2018**	**2015-2018**	**2014-2017**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.0456"/2.0464"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE		IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW21	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	Q5 A5 Quattro A4 Quattro (14-16) A4 allroad (14-16)	Q5 HYBRID	TT Quattro
ENGINE CODE	**CPMB**	**CHJA**	**CETA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2014-2017**	**2013-2016**	**2011-2015**
DESCRIPTION	16vlv; DOHC; 4; Turbo; FLEX	16vlv; DOHC; 4; Turbo; Hybrid	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17L	MBVW17L	MBVW17L
ROD BEARING SET	RBVW17L	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17L❶ TWVW17LX❷	TWVW17L❶ TWVW17LX❷	TWVW17L❶ TWVW17LX❷
GASKETS			
FULL GASKET SET	CGSVW17L❸	CGSVW17L❸	CGSVW17L❸
HEAD GASKET SET	HSVW17L	HSVW17L	HSVW17L
HEAD GASKETS	HDGVW17L	HDGVW17L	HDGVW17L
CONVERSION SET	CBSVW17L❸	CBSVW17L❸	CBSVW17L❸
HEAD BOLT SET	HBVW17L❹	HBVW17L❹	HBVW17L❹
PISTONS, RINGS, PLUGS			
PISTONS	PAVW17DD (23mm pin)	PAVW17DD (23mm pin)	PAVW17DD (23mm pin)
RING SETS	RSVW17LA4 (1.2x1.2X2.0)	RSVW17LA4 (1.2x1.2X2.0)	RSVW17LA4 (1.2x1.2X2.0)

❶ (w/o locating tabs)
❷ (with 2 notch hook)
❸ (Rear Main Seal/Cover not included)
❹ (w/o Washers)

MODEL	Q5 A5 Quattro A4 Quattro (14-16) A4 allroad (14-16)	Q5 HYBRID	TT Quattro
ENGINE CODE	**CPMB**	**CHJA**	**CETA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2014-2017**	**2013-2016**	**2011-2015**
DESCRIPTION	16vlv; DOHC; 4; Turbo; FLEX	16vlv; DOHC; 4; Turbo; Hybrid	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	TTS Quattro	Q5 A4 allroad A4 Quattro A5 Quattro	A4 A6 Q5 (2012 only) A4 Quattro A4 allroad
ENGINE CODE	**CDMA**	**CPMA**	**CAEB**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2009-2015**	**2013**	**2012-2013**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16vlv; DOHC; 4; Flex; Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW12	MBVW17L	MBVW17L
ROD BEARING SET	RBVW12 (.002 O.D.) RBVW12S (Std housing)	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17❶	TWVW17L❷ TWVW17LX❸	TWVW17L❷ TWVW17LX❸
GASKETS			
FULL GASKET SET	CGSVW17❹	CGSVW17L❹	CGSVW17L❹
HEAD GASKET SET	HSVW17	HSVW17L	HSVW17L
HEAD GASKETS	HDGVW17	HDGVW17L	HDGVW17L
CONVERSION SET	CBSVW17❹	CBSVW17L❹	CBSVW17L❹
REAR SEAL/COVER	-		
HEAD BOLT SET	HBVW13❺	HBVW17L❻	HBVW17L❻
PISTONS, RINGS, PLUGS			
PISTONS	PAVW17	PAVW17DD (23mm pin)	PAVW17DD (23mm pin)
RING SETS	RSVW17	RSVW17LA4 (1.2x1.2X2.0)	RSVW17LA4 (1.2x1.2X2.0)

❶ (w/o locating tabs)
❷ (w/o locating tabs)
❸ (with 2 notch hook)
❹ (Rear Main Seal/Cover not included)
❺ (with Washers)
❻ (w/o Washers)

MODEL	TTS Quattro	Q5 A4 allroad A4 Quattro A5 Quattro	A4 A6 Q5 (2012 only) A4 Quattro A4 allroad
ENGINE CODE	**CDMA**	**CPMA**	**CAEB**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2009-2015**	**2013**	**2012-2013**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16vlv; DOHC; 4; Flex; Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21
WATER PUMP & TIMING			
TIMING BELT	TBVW17		

❶ Not Sodium Filled

AUDI

MODEL	A3 A3 Quattro	A4 A4 Quattro A5 A5 Quattro Q5	A3 A3 Quattro (09) (Chain Driven)
ENGINE CODE	**CCTA**	**CAEB**	**CBFA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2011-2013**	**2011**	**2008-2011**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17L	MBVW17L	MBVW17L
ROD BEARING SET	RBVW17L	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17L❶ TWVW17LX❷	TWVW17L❶ TWVW17LX❷	TWVW17L❶ TWVW17LX❷
GASKETS			
FULL GASKET SET	CGSVW17L❸	CGSVW17L❸	CGSVW17L❸
HEAD GASKET SET	HSVW17L (2008-11)	HSVW17L	HSVW17L
HEAD GASKETS	HDGVW17L	HDGVW17L	HDGVW17L
CONVERSION SET	CBSVW17L❸	CBSVW17L❸	CBSVW17L❸
HEAD BOLT SET	HBVW13❹	HBVW17L❺ HBVW13❹	HBVW13❹
PISTONS, RINGS, PLUGS			
PISTONS	PAVW17DD (23mm pin)	PAVW17L (21mm pin) PAVW17DD (23mm pin)	PAVW17L (21mm pin)
RING SETS	RSVW17LA4 (1.2*1.2*2.0)	RSVW17L (1.2x1.5x2.0) RSVW17LA4 (1.2x1.2X2.0) RSVW17A5 (1.0*1.2*1.5)	RSVW17L (1.2x1.5x2.0)
OIL PUMP			
NEW OIL PUMP	OPVW17L		OPVW17L

❶ (w/o locating tabs)
❷ (with 2 notch hook)
❸ (Rear Main Seal/Cover not included)
❹ (with Washers)
❺ (w/o Washers)

MODEL	A3 A3 Quattro	A4 A4 Quattro A5 A5 Quattro Q5	A3 A3 Quattro (09) (Chain Driven)
ENGINE CODE	**CCTA**	**CAEB**	**CBFA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2011-2013**	**2011**	**2008-2011**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	A4 A4 Quattro A5 (2010) A5 Quattro (2010)	A3 TT (2009) TT Quattro (09-10) A3 Quattro (09-10) (Chain Driven)	A4 A4 CABRIOLET A4 Quattro
ENGINE CODE	**CAEB**	**CCTA**	**BWT**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2009-2010**	**2008-2010**	**2007-2009**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17L	MBVW17L	MBVW12
ROD BEARING SET	RBVW17L	RBVW17L	RBVW12 (.002 O.D.) RBVW12S (Standard OD)
THRUST WASHER SET	TWVW17L❶ TWVW17LX❷	TWVW17L❶ TWVW17LX❷	TWVW17 (2pc set)
GASKETS			
FULL GASKET SET	CGSVW17L❸	CGSVW17L❸	CGSVW17❸
HEAD GASKET SET	HSVW17L	HSVW17L (2008-11)	HSVW17
HEAD GASKETS	HDGVW17L	HDGVW17L	HDGVW17
CONVERSION SET	CBSVW17L❸	CBSVW17L❸	CBSVW17❸
REAR SEAL/COVER			-
HEAD BOLT SET	HBVW13❹	HBVW13❹	HBVW13❹
PISTONS, RINGS, PLUGS			
PISTONS	PAVW17L (21mm pin)	PAVW17L (21mm pin)	PAVW17
RING SETS	RSVW17L (1.2x1.5x2.0)	RSVW17L (1.2x1.5x2.0)	RSVW17
OIL PUMP			
NEW OIL PUMP		OPVW17L	

❶ (w/o locating tabs)
❷ (with 2 notch hook)
❸ (Rear Main Seal/Cover not included)
❹ (with Washers)

MODEL	A4 A4 Quattro A5 (2010) A5 Quattro (2010)	A3 TT (2009) TT Quattro (09-10) A3 Quattro (09-10) (Chain Driven)	A4 A4 CABRIOLET A4 Quattro
ENGINE CODE	**CAEB**	**CCTA**	**BWT**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2009-2010**	**2008-2010**	**2007-2009**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21
WATER PUMP & TIMING			
TIMING BELT			TBVW17

❶ Not Sodium Filled

AUDI

MODEL	TT (08-09) A3 (06-08) (Belt Driven)	A4 A4 Quattro	80 90
ENGINE CODE	**BPY**	**BPG**	**3A**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2006-2009**	**2005-2006**	**1988-1990**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16vlv; DOHC; 4; F.INJ; Turbo; vin	8 VALVE; SOHC 4; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW12	MBVW12	MB056
ROD BEARING SET	RBVW12 (.002 O.D.) RBVW12S (Standard OD)	RBVW12 (.002 O.D.) RBVW12S (Standard OD)	RB053
THRUST WASHER SET	TWVW17	TWVW17 (2pc set)	
INTERMEDIATE SET			ISB056
GASKETS			
FULL GASKET SET	CGSVW17❶	CGSVW17❶	
HEAD GASKET SET	HSVW17	HSVW17	
HEAD GASKETS	HDGVW17	HDGVW17	
CONVERSION SET	CBSVW17❶	CBSVW17❶	CBS053
REAR SEAL/COVER	-	-	
HEAD BOLT SET	HBVW17L❷	HBVW13❸	
PISTONS, RINGS, PLUGS			
PISTONS	PAVW17 (20 mm pin)	PAVW17	
RING SETS	RSVW17	RSVW17	
PIN BUSHINGS			PB026
FREEZE PLUG SET			EPS049
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CS053
CONNECTING ROD			CR053
OIL PUMP			
NEW OIL PUMP			OP037

❶ (Rear Main Seal/Cover not included)
❷ (w/o Washers)
❸ (with Washers)

MODEL	TT (08-09) A3 (06-08) (Belt Driven)	A4 A4 Quattro	80 90
ENGINE CODE	**BPY**	**BPG**	**3A**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2006-2009**	**2005-2006**	**1988-1990**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16vlv; DOHC; 4; F.INJ; Turbo; vin	8 VALVE; SOHC 4; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIF049
INTAKE VALVE	IVVW17❶	IVVW17❶	IV051H (38 mm) IVA5H (40 mm)
EXHAUST VALVE	EVVW17❶	EVVW17❶	EV051H
VALVE GUIDE	VGVW21	VGVW21	VG056
VALVE SEALS	VSSVW21	VSSVW21	VSS056
WATER PUMP & TIMING			
WATER PUMP			WP026
TIMING BELT	TBVW17	TBVW17	TB056

❶ Not Sodium Filled

AUDI

MODEL	5000 TURBO	5000 DIESEL	5000 TURBO
ENGINE CODE	**DE**	**CN**	**KH**
DISPLACEMENT	**1986cc(121.1")**	**1986cc(121.1")**	**2144cc(130.8")**
YEARS	**1979-1982**	**1979-1982**	**1984-1985**
DESCRIPTION	10 VALVE; SOHC 5; DIESEL	10 VALVE; SOHC 5; DIESEL	10 VALVE; SOHC 5; F.INJ.
BORE	76.5mm(3.012")	76.5mm(3.012")	79.5mm(3.130")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.2818/2.826"	2.2818/2.826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8086/1.8094"
GASKETS			
HEAD GASKET SET	HSA6	HSA6	
PISTONS, RINGS, PLUGS			
PISTONS	PAA6T	PA0686	
PIN BUSHINGS	PB069	PB069	
CRANKSHAFT & RODS			
CONNECTING ROD	CRA6T	CR621	CR521N (nut type)

MODEL	5000 TURBO	5000 DIESEL	5000 TURBO
ENGINE CODE	**DE**	**CN**	**KH**
DISPLACEMENT	**1986cc(121.1")**	**1986cc(121.1")**	**2144cc(130.8")**
YEARS	**1979-1982**	**1979-1982**	**1984-1985**
DESCRIPTION	10 VALVE; SOHC 5; DIESEL	10 VALVE; SOHC 5; DIESEL	10 VALVE; SOHC 5; F.INJ.
BORE	76.5mm(3.012")	76.5mm(3.012")	79.5mm(3.130")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.2818/2.826"	2.2818/2.826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8086/1.8094"
VALVE TRAIN			
LIFTERS	LIF056	LIF056	LIF056
EXHAUST VALVE	EV069 (3 keeper)	EV069 (3 keeper)	EV051
VALVE GUIDE	VG049	VG049	VG049
VALVE SEALS	VSS056	VSS056	VSS056
WATER PUMP & TIMING			
TIMING BELT	TBA6	TBA6	

AUDI

MODEL	5000	5000 TURBO	4000 5000 COUPE
ENGINE CODE	**WU**	**WK**	**WD/WE**
DISPLACEMENT	**2144cc(130.8")**	**2144cc(130.8")**	**2144cc(130.8")**
YEARS	**1984**	**1980-1983**	**1978-1983**
DESCRIPTION	10 VALVE; SOHC 5; F.INJ.	10 VALVE; SOHC 5; F.INJ.	10 VALVE; SOHC 5; F.INJ.
BORE	79.5mm(3.130")	79.5mm(3.130")	79.5mm(3.130")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8086/1.8094"	1.8086/1.8094"
CRANKSHAFT & RODS			
CONNECTING ROD	CR521N (nut type)	CR521N (nut type)	CR521N (nut type)

AUDI

MODEL	5000	5000 TURBO	4000 5000 COUPE
ENGINE CODE	**WU**	**WK**	**WD/WE**
DISPLACEMENT	**2144cc(130.8")**	**2144cc(130.8")**	**2144cc(130.8")**
YEARS	**1984**	**1980-1983**	**1978-1983**
DESCRIPTION	10 VALVE; SOHC 5; F.INJ.	10 VALVE; SOHC 5; F.INJ.	10 VALVE; SOHC 5; F.INJ.
BORE	79.5mm(3.130")	79.5mm(3.130")	79.5mm(3.130")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8086/1.8094"	1.8086/1.8094"
VALVE TRAIN			
LIFTERS	LIF056	LIF049	LIF056
INTAKE VALVE		IV051H (38 mm) IVA5H (40 mm)	
EXHAUST VALVE	EV049 (3 keeper)	EV051H	EV049 (3 keeper)
VALVE GUIDE	VG049	VG049	VG049
VALVE SEALS	VSS056	VSS056	VSS056

AUDI

MODEL	4000/5000/200 COUPE 5000 TURBO	5000 COUPE 80/90/100	COUPE Quattro 90 Quattro
ENGINE CODE	**JT/KX/KZ/MC**	**NF/NG**	**7A**
DISPLACEMENT	**2226cc(135.8")**	**2309cc(140.8")**	**2309cc(140.8")**
YEARS	**1984-1991**	**1987-1992**	**1990-1991**
DESCRIPTION	10 VALVE; SOHC 5; F.INJ.	10 VALVE; SOHC 5; F.INJ.	20 VALVE; DOHC 5; F.INJ.
BORE	81.0mm(3.189")	82.5mm(3.248")	82.5mm(3.248")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
PISTONS, RINGS, PLUGS			
PIN BUSHINGS	PB026	PB026	PB069
CRANKSHAFT & RODS			
CONNECTING ROD	CR526	CR526	

MODEL	4000/5000/200 COUPE 5000 TURBO	5000 COUPE 80/90/100	COUPE Quattro 90 Quattro
ENGINE CODE	**JT/KX/KZ/MC**	**NF/NG**	**7A**
DISPLACEMENT	**2226cc(135.8")**	**2309cc(140.8")**	**2309cc(140.8")**
YEARS	**1984-1991**	**1987-1992**	**1990-1991**
DESCRIPTION	10 VALVE; SOHC 5; F.INJ.	10 VALVE; SOHC 5; F.INJ.	20 VALVE; DOHC 5; F.INJ.
BORE	81.0mm(3.189")	82.5mm(3.248")	82.5mm(3.248")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIF049	LIF049	LIF049
INTAKE VALVE	IV051H (38 mm) IVA5H (40 mm)	IV051H (38 mm) IVA5H (40 mm)	IV027
EXHAUST VALVE	EV051H	EV051H	EV027
VALVE GUIDE	VG049	VG049	VG027
VALVE SEALS	VSS056	VSS056	VSS027

AUDI

MODEL	TT RS Quattro (18-19) RS3	TT RS Quattro	A6 Quattro (03-04) Allroad Quattro
ENGINE CODE	**DAZA**	**CEPB**	**BEL**
DISPLACEMENT	**2480cc(151.3")**	**2480cc(151.3")**	**2671cc(163.0")**
YEARS	**2017-2019**	**2012-2013**	**2003-2005**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	30vlv; DOHC; V6; TURBO
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	86.4mm(3.40")
MAIN JOURNAL DIA.		2.2818/2.2826"	2.5574/2.5580"
ROD JOURNAL DIA.		1.8802/1.8810"	2.1243/2.1251"
BEARING SETS			
MAIN BEARING SET		MBVW21	MBVW14
ROD BEARING SET		RBVW21	RBVW14
THRUST WASHER SET		TWVW21	TWVW14
GASKETS			
FULL GASKET SET		CGSVW21	
HEAD GASKET SET		HSVW21	HSVW18
CONVERSION SET		CBSVW21	
HEAD BOLT SET		HBVW21	HBVW15
PISTONS, RINGS, PLUGS			
RING SETS		RSVW21	RSVW18

MODEL	TT RS Quattro (18-19) RS3	TT RS Quattro	A6 Quattro (03-04) Allroad Quattro
ENGINE CODE	**DAZA**	**CEPB**	**BEL**
DISPLACEMENT	**2480cc(151.3")**	**2480cc(151.3")**	**2671cc(163.0")**
YEARS	**2017-2019**	**2012-2013**	**2003-2005**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	30vlv; DOHC; V6; TURBO
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	86.4mm(3.40")
MAIN JOURNAL DIA.		2.2818/2.2826"	2.5574/2.5580"
ROD JOURNAL DIA.		1.8802/1.8810"	2.1243/2.1251"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW12E (x12) LIFVW12I (x18)
INTAKE VALVE		IVVW17❶	IVVW12
EXHAUST VALVE		EVVW17❶	EVVW12❷
VALVE GUIDE	VGVW21	VGVW21	VGVW12
VALVE SEALS	VSSVW21	VSSVW21	VSSVW12
WATER PUMP & TIMING			
TIMING BELT			TBVW14L

❶ Not Sodium Filled

❷ Evv01

AUDI

MODEL	A6 Quattro S4 Allroad Quattro	A4 A4 Quattro A6 A6 Quattro	A4 A6 90 Quattro CABRIOLET A4 Quattro A6 Quattro 90
ENGINE CODE	**APB**	**AHA/ATQ**	**AFC**
DISPLACEMENT	**2671cc(163.0")**	**2771cc(169.1")**	**2771cc(169.1")**
YEARS	**2000-2002**	**1998-2001**	**1995-1998**
DESCRIPTION	30vlv; DOHC; V6; TURBO	30 VALVE; DOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.5574/2.5580"	2.5574/2.5580"	2.5574/2.5580"
ROD JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
BEARING SETS			
MAIN BEARING SET	MBVW14	MBVW14	MBVW14
ROD BEARING SET	RBVW14	RBVW14	RBVW14
THRUST WASHER SET	TWVW14	TWVW14	TWVW14
GASKETS			
FULL GASKET SET		CGSVW15	CGSVW14
HEAD GASKET SET	HSVW18	HSVW15	HSVW14
CONVERSION SET		CBSVW15	CBSVW14
HEAD BOLT SET	HBVW15	HBVW15	HBVW14
PISTONS, RINGS, PLUGS			
RING SETS	RSVW18	RSVW14	RSVW14

MODEL	A6 Quattro S4 Allroad Quattro	A4 A4 Quattro A6 A6 Quattro	A4 A6 90 Quattro CABRIOLET A4 Quattro A6 Quattro 90
ENGINE CODE	**APB**	**AHA/ATQ**	**AFC**
DISPLACEMENT	**2671cc(163.0")**	**2771cc(169.1")**	**2771cc(169.1")**
YEARS	**2000-2002**	**1998-2001**	**1995-1998**
DESCRIPTION	30vlv; DOHC; V6; TURBO	30 VALVE; DOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.5574/2.5580"	2.5574/2.5580"	2.5574/2.5580"
ROD JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
VALVE TRAIN			
LIFTERS	LIFVW12E (x12) LIFVW12I (x18)	LIFVW12E (x12) LIFVW12I (x18)	LIF049 (95-97) LIF037 (1998)
INTAKE VALVE	IVVW12	IVVW12	IV037
EXHAUST VALVE	EVVW12❶	EVVW15	EV037
VALVE GUIDE	VGVW12	VGVW12	VG027 (7mm I/D)
VALVE SEALS	VSSVW12	VSSVW12	VSS027
WATER PUMP & TIMING			
TIMING BELT	TBVW14L	TBVW14L	TBVW14

❶ Evv01

AUDI

MODEL	90 (93-95) 90 Quattro (93-94) CABRIOLET (94) 100 (92-94) 100 Quattro (92-94)	Q5 A6 Quattro A7 Quattro A8 Quattro (15-16) TURBO DIESEL	Q7 DIESEL
ENGINE CODE	**AAH**	**CPNB**	**CNRB**
DISPLACEMENT	**2771cc(169.1")**	**2967cc(181.0")**	**2967cc(181.0")**
YEARS	**1992-1995**	**2014-2016**	**2013-2015**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24vlv; DOHC; V6; Turbo; Diesel	24vlv; DOHC; V6; Turbo; Diesel
BORE	82.5mm(3.248")	83.0mm(3.267")	83.0mm(3.267")
STROKE	86.4mm(3.40")	91.4mm(3.60")	91.4mm(3.60")
MAIN JOURNAL DIA.	2.5574/2.5580"	2.3605/2.3613"	
ROD JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	
BEARING SETS			
MAIN BEARING SET	MBVW14	-	
ROD BEARING SET	RBVW14		
THRUST WASHER SET	TWVW14		
GASKETS			
FULL GASKET SET	CGSVW14		
HEAD GASKET SET	HSVW14		
CONVERSION SET	CBSVW14		
HEAD BOLT SET	HBVW14		
PISTONS, RINGS, PLUGS			
RING SETS	RSVW14		

MODEL	90 (93-95) 90 Quattro (93-94) CABRIOLET (94) 100 (92-94) 100 Quattro (92-94)	Q5 A6 Quattro A7 Quattro A8 Quattro (15-16) TURBO DIESEL	Q7 DIESEL
ENGINE CODE	**AAH**	**CPNB**	**CNRB**
DISPLACEMENT	**2771cc(169.1")**	**2967cc(181.0")**	**2967cc(181.0")**
YEARS	**1992-1995**	**2014-2016**	**2013-2015**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24vlv; DOHC; V6; Turbo; Diesel	24vlv; DOHC; V6; Turbo; Diesel
BORE	82.5mm(3.248")	83.0mm(3.267")	83.0mm(3.267")
STROKE	86.4mm(3.40")	91.4mm(3.60")	91.4mm(3.60")
MAIN JOURNAL DIA.	2.5574/2.5580"	2.3605/2.3613"	
ROD JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	
VALVE TRAIN			
LIFTERS	LIF049	LIFVW25	LIFVW25
INTAKE VALVE		IVVW25	IVVW25
EXHAUST VALVE	EV051H		
VALVE GUIDE	VG056 (8mm I/D)		
VALVE SEALS	VSS056	VSSVW21	VSSVW21
WATER PUMP & TIMING			
TIMING BELT	TBVW14		

AUDI

MODEL	A8 Quattro DIESEL	Q7 DIESEL	A4 (2005) A4 Quattro
ENGINE CODE	**CPNA**	**CATA**	**BGN**
DISPLACEMENT	**2967cc(181.0")**	**2967cc(181.0")**	**2976cc(181.6")**
YEARS	**2014**	**2009-2012**	**2005-2006**
DESCRIPTION	24vlv; DOHC; V6; Turbo; Diesel	24vlv; DOHC; V6; Turbo; Diesel	30 VALVE; DOHC V6; F.INJ.
BORE	83.0mm(3.267")	83.0mm(3.267")	82.5mm(3.248")
STROKE	91.4mm(3.60")	91.4mm(3.60")	92.7mm(3.65")
MAIN JOURNAL DIA.			2.5574/2.558"
ROD JOURNAL DIA.			2.1243/2.1251
BEARING SETS			
MAIN BEARING SET			MBVW14
ROD BEARING SET			RBVW14
THRUST WASHER SET			TWVW14

AUDI

MODEL	A8 Quattro DIESEL	Q7 DIESEL	A4 (2005) A4 Quattro
ENGINE CODE	**CPNA**	**CATA**	**BGN**
DISPLACEMENT	**2967cc(181.0")**	**2967cc(181.0")**	**2976cc(181.6")**
YEARS	**2014**	**2009-2012**	**2005-2006**
DESCRIPTION	24vlv; DOHC; V6; Turbo; Diesel	24vlv; DOHC; V6; Turbo; Diesel	30 VALVE; DOHC V6; F.INJ.
BORE	83.0mm(3.267")	83.0mm(3.267")	82.5mm(3.248")
STROKE	91.4mm(3.60")	91.4mm(3.60")	92.7mm(3.65")
MAIN JOURNAL DIA.			2.5574/2.558"
ROD JOURNAL DIA.			2.1243/2.1251
VALVE TRAIN			
LIFTERS	LIFVW25	LIFVW25	LIFVW12E (x12) LIFVW12I (x18)
INTAKE VALVE	IVVW25		IVVW12
EXHAUST VALVE			EVVW15
VALVE GUIDE			VGVW12
VALVE SEALS	VSSVW21	VSSVW21	VSSVW12
WATER PUMP & TIMING			
TIMING BELT			TBVW20

AUDI

MODEL	A4 A6 A4 Quattro A6 Quattro	A6 Quattro A7 Quattro	Q7 (17-18) A6 Quattro A7 Quattro A8 Quattro
ENGINE CODE	**AVK**	**CREH**	**CREC**
DISPLACEMENT	**2976cc(181.6")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2002-2004**	**2017-2018**	**2016-2018**
DESCRIPTION	30 VALVE; DOHC V6; F.INJ.	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	82.5mm(3.248")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.7mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.5574/2.558"		
ROD JOURNAL DIA.	2.1243/2.1251		
BEARING SETS			
MAIN BEARING SET	MBVW14	-	-
ROD BEARING SET	RBVW14		
THRUST WASHER SET	TWVW14		

MODEL	A4 A6 A4 Quattro A6 Quattro	A6 Quattro A7 Quattro	Q7 (17-18) A6 Quattro A7 Quattro A8 Quattro
ENGINE CODE	**AVK**	**CREH**	**CREC**
DISPLACEMENT	**2976cc(181.6")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2002-2004**	**2017-2018**	**2016-2018**
DESCRIPTION	30 VALVE; DOHC V6; F.INJ.	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	82.5mm(3.248")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.7mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.5574/2.558"		
ROD JOURNAL DIA.	2.1243/2.1251		
VALVE TRAIN			
LIFTERS	LIFVW12E (x12) LIFVW12I (x18)	LIFVW22	LIFVW22
INTAKE VALVE	IVVW12	IVVW16	IVVW16
EXHAUST VALVE	EVVW15	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW12		
VALVE SEALS	VSSVW12	VSSVW21	VSSVW21
WATER PUMP & TIMING			
TIMING BELT	TBVW20		

❶ Not Sodium Filled

AUDI

MODEL	SQ5 SUPERCHARGED	Q5 SUPERCHARGED	S4 (14-16) S5 (14-17) A8 Quattro (13-14) SUPERCHARGED
ENGINE CODE	**CTUD**	**CTUC**	**CTUB**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2014-2017**	**2013-2017**	**2013-2017**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.		2.3605/2.3613"	
ROD JOURNAL DIA.		2.1243/2.1251"	
BEARING SETS			
MAIN BEARING SET	-	-	-

MODEL	SQ5 SUPERCHARGED	Q5 SUPERCHARGED	S4 (14-16) S5 (14-17) A8 Quattro (13-14) SUPERCHARGED
ENGINE CODE	**CTUD**	**CTUC**	**CTUB**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2014-2017**	**2013-2017**	**2013-2017**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.		2.3605/2.3613"	
ROD JOURNAL DIA.		2.1243/2.1251"	
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW16	IVVW16	IVVW16
EXHAUST VALVE	EVVW21	EVVW21	EVVW17❶
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	A6 Quattro A7 Quattro SUPERCHARGED	Q7 SUPERCHARGED	Q7 SUPERCHARGED
ENGINE CODE	**CTUA**	**CTWA**	**CTWB**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2013-2015**	**2013-2015**	**2013-2015**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-

MODEL	A6 Quattro A7 Quattro SUPERCHARGED	Q7 SUPERCHARGED	Q7 SUPERCHARGED
ENGINE CODE	**CTUA**	**CTWA**	**CTWB**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2013-2015**	**2013-2015**	**2013-2015**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW16	IVVW16	IVVW16
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	S4 S5 SUPERCHARGED	Q7 SUPERCHARGED	A6 Quattro A7 Quattro SUPERCHARGED
ENGINE CODE	**CGXC**	**CJWE**	**CGXB**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2013**	**2012**	**2012**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-

MODEL	S4 S5 SUPERCHARGED	Q7 SUPERCHARGED	A6 Quattro A7 Quattro SUPERCHARGED
ENGINE CODE	**CGXC**	**CJWE**	**CGXB**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2013**	**2012**	**2012**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW16	IVVW16	IVVW16
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	Q7 SUPERCHARGED	S4 S5 SUPERCHARGED	S5 SUPERCHARGED
ENGINE CODE	**CJWB**	**CCBA**	**CAKA**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2011-2012**	**2010-2012**	**2010-2012**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-

MODEL	Q7 SUPERCHARGED	S4 S5 SUPERCHARGED	S5 SUPERCHARGED
ENGINE CODE	**CJWB**	**CCBA**	**CAKA**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2011-2012**	**2010-2012**	**2010-2012**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW16	IVVW16	IVVW16
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	Q7 SUPERCHARGED	A6 Quattro SUPERCHARGED	A6 Quattro SUPERCHARGED
ENGINE CODE	**CJWC**	**CCAA**	**CAJA**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2011**	**2009-2011**	**2009**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-

MODEL	Q7 SUPERCHARGED	A6 Quattro SUPERCHARGED	A6 Quattro SUPERCHARGED
ENGINE CODE	**CJWC**	**CCAA**	**CAJA**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2011**	**2009-2011**	**2009**
DESCRIPTION	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch	24vlv; DOHC; V6; F.INJ; Superch
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW16	IVVW16	IVVW16
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	A4 (06-08) A4 Quattro A6 (06-09) A6 Quattro (05-08)	A3 Quattro TT Quattro	A3 Quattro
ENGINE CODE	**BKH**	**CBRA**	**BUB**
DISPLACEMENT	**3123cc(190.6")**	**3189cc(194.6")**	**3189cc(194.6")**
YEARS	**2005-2009**	**2008-2009**	**2006-2007**
DESCRIPTION	24 VALVE DOHC 6; VR6	24 VALVE; DOHC V6	24 VALVE; DOHC V6
BORE	84.5mm(3.327")	84mm(3.307")	84mm(3.307")
STROKE	92.8mm(3.65")	95.9mm(3.78")	95.9mm(3.78")
MAIN JOURNAL DIA.	2.3605/2.3613"	2.3605/2.3613"	2.3605/2.3613"
ROD JOURNAL DIA.	2.1243/2.1251"	2.124/2.125"	2.124/2.125"
BEARING SETS			
MAIN BEARING SET		MBVW11	MBVW11
ROD BEARING SET		RBVW11	RBVW11
THRUST WASHER SET	TWVW14	TWVW11❶	TWVW11❶
GASKETS			
HEAD BOLT SET		HBVW22	HBVW22
PISTONS, RINGS, PLUGS			
PIN BUSHINGS		PBVW11	PBVW11

❶ (available in STD. and .020" oversized)

AUDI

MODEL	A4 (06-08) A4 Quattro A6 (06-09) A6 Quattro (05-08)	A3 Quattro TT Quattro	A3 Quattro
ENGINE CODE	**BKH**	**CBRA**	**BUB**
DISPLACEMENT	**3123cc(190.6")**	**3189cc(194.6")**	**3189cc(194.6")**
YEARS	**2005-2009**	**2008-2009**	**2006-2007**
DESCRIPTION	24 VALVE DOHC 6; VR6	24 VALVE; DOHC V6	24 VALVE; DOHC V6
BORE	84.5mm(3.327")	84mm(3.307")	84mm(3.307")
STROKE	92.8mm(3.65")	95.9mm(3.78")	95.9mm(3.78")
MAIN JOURNAL DIA.	2.3605/2.3613"	2.3605/2.3613"	2.3605/2.3613"
ROD JOURNAL DIA.	2.1243/2.1251"	2.124/2.125"	2.124/2.125"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW16	IVVW22 (102mm) IVVW22L (136mm)	IVVW22 (102mm) IVVW22L (136mm)
EXHAUST VALVE	EVVW21	EVVW22 (103mm) EVVW22L (136mm)	EVVW22 (103mm) EVVW22L (136mm)
VALVE GUIDE	VGVW21	VGVW22S (44mm long) VGVW22L (65mm long)	VGVW22S (44mm long) VGVW22L (65mm long)
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

AUDI

MODEL	TT Quattro	Q5	A4 Quattro (09) A5 Quattro (08-10) A6 (09-11)
ENGINE CODE	**BHE**	**CALB**	**CALA**
DISPLACEMENT	**3189cc(194.6")**	**3197cc(195.1")**	**3197cc(195.1")**
YEARS	**2004-2006**	**2009-2012**	**2008-2011**
DESCRIPTION	24 VALVE; DOHC V6	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	84mm(3.307")	85.5mm(3.33")	84.5mm(3.327")
STROKE	95.9mm(3.78")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.3605/2.3613"	2.3605/2.3613"	2.3605/2.3613"
ROD JOURNAL DIA.	2.124/2.125"	2.1243/2.1251"	2.1243/2.1251"
BEARING SETS			
MAIN BEARING SET	MBVW11		
ROD BEARING SET	RBVW11		
THRUST WASHER SET	TWVW11❶	TWVW14	TWVW14
GASKETS			
HEAD BOLT SET	HBVW22		
PISTONS, RINGS, PLUGS			
PIN BUSHINGS	PBVW11		
OIL PUMP			
NEW OIL PUMP	OPVW11		

❶ (available in STD. and .020" oversized)

AUDI

MODEL	TT Quattro	Q5	A4 Quattro (09) A5 Quattro (08-10) A6 (09-11)
ENGINE CODE	**BHE**	**CALB**	**CALA**
DISPLACEMENT	**3189cc(194.6")**	**3197cc(195.1")**	**3197cc(195.1")**
YEARS	**2004-2006**	**2009-2012**	**2008-2011**
DESCRIPTION	24 VALVE; DOHC V6	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	84mm(3.307")	85.5mm(3.33")	84.5mm(3.327")
STROKE	95.9mm(3.78")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.3605/2.3613"	2.3605/2.3613"	2.3605/2.3613"
ROD JOURNAL DIA.	2.124/2.125"	2.1243/2.1251"	2.1243/2.1251"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW22 (102mm) IVVW22L (136mm)	IVVW16	IVVW16
EXHAUST VALVE	EVVW22 (103mm) EVVW22L (136mm)	EVVW21	EVVW21
VALVE GUIDE	VGVW22S (44mm long) VGVW22L (65mm long)		VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

AUDI

MODEL	Q7	S6 S7	A8 Quattro
ENGINE CODE	BHK	CTGE	CTGF
DISPLACEMENT	3598cc(219.6")	3993cc(243.7")	3993cc(243.7")
YEARS	2007-2010	2016-2018	2016-2018
DESCRIPTION	24 VALVE; DOHC VR6	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo
BORE	89mm(3.50")	84.5mm(3.327")	84.5mm(3.327")
STROKE	96.4mm(3.80")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.	2.3605/2.3613"		
ROD JOURNAL DIA.	2.1243/2.1251"		
BEARING SETS			
MAIN BEARING SET	MBVW11	-	-
ROD BEARING SET		-	-
THRUST WASHER SET	TWVW11❶		
PISTONS, RINGS, PLUGS			
PIN BUSHINGS	PBVW11		

❶ (available in STD. and .020" oversized)

MODEL	Q7	S6 S7	A8 Quattro
ENGINE CODE	**BHK**	**CTGE**	**CTGF**
DISPLACEMENT	**3598cc(219.6")**	**3993cc(243.7")**	**3993cc(243.7")**
YEARS	**2007-2010**	**2016-2018**	**2016-2018**
DESCRIPTION	24 VALVE; DOHC VR6	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo
BORE	89mm(3.50")	84.5mm(3.327")	84.5mm(3.327")
STROKE	96.4mm(3.80")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.	2.3605/2.3613"		
ROD JOURNAL DIA.	2.1243/2.1251"		
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW22 (102mm) IVVW22L (136mm)	IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW22 (103mm) EVVW22L (136mm)		
VALVE GUIDE	VGVW22S (44mm long) VGVW22L (65mm long)		
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	S8	RS7	RS7
ENGINE CODE	DDTA	CWUB	CWUC
DISPLACEMENT	3993cc(243.7")	3993cc(243.7")	3993cc(243.7")
YEARS	2016-2018	2016-2018	2016-2018
DESCRIPTION	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	89.0mm(3.50")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-
ROD BEARING SET	-	-	-

MODEL	S8	RS7	RS7
ENGINE CODE	DDTA	CWUB	CWUC
DISPLACEMENT	3993cc(243.7")	3993cc(243.7")	3993cc(243.7")
YEARS	2016-2018	2016-2018	2016-2018
DESCRIPTION	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	89.0mm(3.50")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	S8	A8 Quattro	RS7
ENGINE CODE	CTFA	CTGA	CRDB
DISPLACEMENT	3993cc(243.7")	3993cc(243.7")	3993cc(243.7")
YEARS	2015-2016	2015	2014-2015
DESCRIPTION	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	89.0mm(3.50")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-
ROD BEARING SET	-	-	-

MODEL	S8	A8 Quattro	RS7
ENGINE CODE	CTFA	CTGA	CRDB
DISPLACEMENT	3993cc(243.7")	3993cc(243.7")	3993cc(243.7")
YEARS	2015-2016	2015	2014-2015
DESCRIPTION	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	89.0mm(3.50")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	S6 S7	A8 Quattro	S8
ENGINE CODE	**CEUC**	**CEUA**	**CGTA**
DISPLACEMENT	**3993cc(243.7")**	**3993cc(243.7")**	**3993cc(243.7")**
YEARS	**2013-2015**	**2013-2014**	**2013-2014**
DESCRIPTION	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	89.0mm(3.50")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-
ROD BEARING SET	-	-	-

MODEL	S6 S7	A8 Quattro	S8
ENGINE CODE	**CEUC**	**CEUA**	**CGTA**
DISPLACEMENT	**3993cc(243.7")**	**3993cc(243.7")**	**3993cc(243.7")**
YEARS	**2013-2015**	**2013-2014**	**2013-2014**
DESCRIPTION	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo	32 vlv; DOHC; V8; FI; Turbo
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	89.0mm(3.50")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	A8 Quattro	S5	A8 Quattro (07-10) A6 Quattro
ENGINE CODE	**CDRA**	**CAUA**	**BVJ**
DISPLACEMENT	**4163cc(254")**	**4163cc(254")**	**4163cc(254")**
YEARS	**2011-2012**	**2008-2012**	**2007-2011**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-
ROD BEARING SET	-	-	-

MODEL	A8 Quattro	S5	A8 Quattro (07-10) A6 Quattro
ENGINE CODE	**CDRA**	**CAUA**	**BVJ**
DISPLACEMENT	**4163cc(254")**	**4163cc(254")**	**4163cc(254")**
YEARS	**2011-2012**	**2008-2012**	**2007-2011**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	84.5mm(3.327")	84.5mm(3.327")	84.5mm(3.327")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE		IVVW16	IVVW16
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

AUDI

MODEL	**Q7**		
ENGINE CODE	**BAR**		
DISPLACEMENT	**4163cc(254")**		
YEARS	**2007-2010**		
DESCRIPTION	32 VALVE DOHC V8; F.INJ.		
BORE	84.5mm(3.327")		
STROKE	92.8mm(3.65")		
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-		
ROD BEARING SET	-		

MODEL	Q7		
ENGINE CODE	**BAR**		
DISPLACEMENT	**4163cc(254")**		
YEARS	**2007-2010**		
DESCRIPTION	32 VALVE DOHC V8; F.INJ.		
BORE	84.5mm(3.327")		
STROKE	92.8mm(3.65")		
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22		
INTAKE VALVE	IVVW16		
EXHAUST VALVE	EVVW17❶		
VALVE GUIDE	VGVW21		
VALVE SEALS	VSSVW21		

❶ Not Sodium Filled

CHRYSLER

MODEL	CHAMP COLT	COLT 12 valve	COLT 12 valve
ENGINE CODE	**G12B**	**4G15**	**4G15**
DISPLACEMENT	**1410cc(86.0")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**1979-1984**	**1994**	**1991-1993**
DESCRIPTION	8 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	75.5mm(2.972")	75.5mm(2.972")
STROKE	82mm(3.22")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.6528/1.6535"
ENGINE KITS			
GOLD KIT		EKMI2LG	EKMI2LG
BRONZE KITS		EKMI2LB	EKMI2LB
MAJOR KIT		EKMI2LM	EKMI2LM
RE-RING KIT	EKC11R	EKMI2LR	EKMI2LR
BEARING SETS			
MAIN BEARING SET	MBC11L	MBC11L	MBC11L
ROD BEARING SET	RBC11	RBMI2	RBMI2
GASKETS			
FULL GASKET SET	CGSC10	CGSMI2	CGSMI2
HEAD GASKET SET	HSC10	HSMI2	HSMI2
HEAD GASKETS	HDGC10	HDGMI2	HDGMI2
CONVERSION SET	CBSC10	CBSC10	CBSC10
PISTONS, RINGS, PLUGS			
PISTONS		PAMI2	PAMI2
RING SETS		RSMI2	RSMI2
FREEZE PLUG SET	EPSC11	EPSC11	EPSC11
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC11L	CSMI2	CSMI2
CONNECTING ROD	CRC11	CRMI2	CRMI2
OIL PUMP			
NEW OIL PUMP	OPC10	OPMI2	OPMI2

MODEL	CHAMP COLT	COLT 12 valve	COLT 12 valve
ENGINE CODE	**G12B**	**4G15**	**4G15**
DISPLACEMENT	**1410cc(86.0")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**1979-1984**	**1994**	**1991-1993**
DESCRIPTION	8 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	75.5mm(2.972")	75.5mm(2.972")
STROKE	82mm(3.22")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.6528/1.6535"
VALVE TRAIN			
CAMSHAFTS	CAMC10		
ROCKER ARMS		RAMI2RA (1 & 3 CYL)	RAMI2RA (1 & 3 CYL)
		RAMI2RB (2 & 4 CYL)	RAMI2RB (2 & 4 CYL)
ROCKER ARMS		RAMI2RC (1 & 3 CYL)	RAMI2RC (1 & 3 CYL)
		RAMI2RD (2 & 4 CYL)	RAMI2RD (2 & 4 CYL)
ROCKER ARM SHAFTS		RASIMI2	RASIMI2
ROCKER ARM SHAFTS		RASEMI2	RASEMI2
INTAKE VALVE	IVC11	IVMI2A (31mm)	IVMI2A (31mm)
		IVMI2B (26mm)	IVMI2B (26mm)
EXHAUST VALVE	EVC11	EVMI2L	EVMI2L
INTAKE GUIDE	IVGC11	IVGC11	IVGC11
EXHAUST GUIDE	EVGC11	EVGC11	EVGC11
SUB VALVES	CAVC23		
VALVE SEALS	VSSC11	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPC10 (81-84)	WPC10	WPC10
TIMING BELT	TBC11	TBMI2L	TBMI2L
TENSIONERS	BTC11	BTMI2L	BTMI2L

CHRYSLER

MODEL	COLT VISTA	COLT WITH JET VALVES; CA	COLT TURBO
ENGINE CODE	**4G15**	**G15B**	**4G61**
DISPLACEMENT	**1468cc(89.5")**	**1468cc(89.5")**	**1595cc(97")**
YEARS	**1989-1990**	**1985-1988**	**1989**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB	16 vlv; DOHC 4; F.INJ. Turbo
BORE	75.5mm(2.972")	75.5mm(2.972")	82.3mm(3.240")
STROKE	82mm(3.22")	82mm(3.22")	75mm(2.95")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	2.2433/2.2441"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKMI2G	EKC10G (85-86) EKC10LG (87-88)	
BRONZE KITS	EKMI2B	EKC10B (85-86) EKC10LB (87-88)	
MAJOR KIT	EKMI2M	EKC10M (85-86) EKC10LM (87-88)	
RE-RING KIT	EKMI2R❶	EKC10R❷	EKMI21R
BEARING SETS			
MAIN BEARING SET	MBC11L	MBC11L	MBC17
ROD BEARING SET	RBMI2 (.614" length)	RBC11 (.694" length)	RBC15L
GASKETS			
FULL GASKET SET	CGSC10	CGSC10	CGSMI6
HEAD GASKET SET	HSC10	HSC10	HSMI6
HEAD GASKETS	HDGC10	HDGC10	HDGMI6
CONVERSION SET	CBSC10	CBSC10	CBSMI4
HEAD BOLT SET			HBMI6
PISTONS, RINGS, PLUGS			
PISTONS	PAC10L	PAC10 (85-86) PAC10L (87-88)	
RING SETS	RSC10	RSC10	RSMI21
FREEZE PLUG SET	EPSC11	EPSC11	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI2	CSC11L	CSMI21
CONNECTING ROD	CRMI2	CRC11	CRMI4
OIL PUMP			
NEW OIL PUMP	OPC10	OPC10	OPMI21❸

❶ (.614" length rod)
❷ (.694" length rod)
❸ (w/o bal. shaft)

MODEL	COLT VISTA	COLT WITH JET VALVES; CA	COLT TURBO
ENGINE CODE	**4G15**	**G15B**	**4G61**
DISPLACEMENT	**1468cc(89.5")**	**1468cc(89.5")**	**1595cc(97")**
YEARS	**1989-1990**	**1985-1988**	**1989**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB	16 vlv; DOHC 4; F.INJ. Turbo
BORE	75.5mm(2.972")	75.5mm(2.972")	82.3mm(3.240")
STROKE	82mm(3.22")	82mm(3.22")	75mm(2.95")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	2.2433/2.2441"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS	CAMMI2	CAMC10	
LIFTERS			LIFMI6
ROCKER ARMS	RAMI2A (1 & 3 CYL) RAMI2B (2 & 4 CYL)		RAMI6
ROCKER ARMS	RAMI2A (1 & 3 CYL) RAMI2B (2 & 4 CYL)		
INTAKE VALVE	IVMI2	IVC11	IVMI6
EXHAUST VALVE	EVC11	EVC11	EVMI6
INTAKE GUIDE	IVGC11	IVGC11	IVGMI6
EXHAUST GUIDE	EVGC11	EVGC11	EVGMI6
SUB VALVES		CAVC23	
VALVE SEALS	VSSC11	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPC10	WPC10	
TIMING BELT	TBMI2	TBC11 (85-86) TBMI2 (87-88)	TBMI21
TENSIONERS	BTC11	BTC11	BTMI6 (hydraulic)
IDLERS AND PULLEYS			BTC18

CHRYSLER

MODEL	COLT TURBO	OMNI HORIZON	LASER
ENGINE CODE	**G32B**	**- -**	**4G37**
DISPLACEMENT	**1597cc(97.5")**	**1715cc(104.7")**	**1755cc(107")**
YEARS	**1984-1988**	**1978-1983**	**1990-1994**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4; F.INJ.
BORE	76.9mm(3.028")	79.5mm(3.130")	80.6mm(3.173")
STROKE	86mm(3.39")	86.4mm(3.40")	86mm(3.39")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.1243/2.1251"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.8086/1.8094"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT			EKMI20G
BRONZE KITS			EKMI20B
MAJOR KIT			EKMI20M
RE-RING KIT			EKMI20R
BEARING SETS			
MAIN BEARING SET	MBC17	MB056	MBC17
ROD BEARING SET	RBC15L	RB056	RBC15L
INTERMEDIATE SET		ISB056	ISBMI20
GASKETS			
FULL GASKET SET		CGS0495	CGSMI20
HEAD GASKET SET		HS049	HSMI20
HEAD GASKETS			HDGMI20
CONVERSION SET		CBS0495	CBSMI20
PISTONS, RINGS, PLUGS			
PISTONS			PAMI20
RING SETS			RSMI20
FREEZE PLUG SET		EPS049	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI20		CSMI20
CONNECTING ROD	CRMI20	CR521N	CRMI20
OIL PUMP			
NEW OIL PUMP		OP049	OPMI20

CHRYSLER

MODEL	COLT TURBO	OMNI HORIZON	LASER
ENGINE CODE	**G32B**	**- -**	**4G37**
DISPLACEMENT	**1597cc(97.5")**	**1715cc(104.7")**	**1755cc(107")**
YEARS	**1984-1988**	**1978-1983**	**1990-1994**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4; F.INJ.
BORE	76.9mm(3.028")	79.5mm(3.130")	80.6mm(3.173")
STROKE	86mm(3.39")	86.4mm(3.40")	86mm(3.39")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.1243/2.1251"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.8086/1.8094"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS	CAMC16	CAM049	CAMMI20
LIFTERS	ALAMI4H	LIF056	ALAMI4H
ROCKER ARMS			RAMI20
ROCKER ARM SHAFTS			RASIMI20
ROCKER ARM SHAFTS			RASEMI20
INTAKE VALVE			IVMI20
EXHAUST VALVE			EVMI20
VALVE GUIDE		VG056	
INTAKE GUIDE	IVGMI20		IVGMI20
EXHAUST GUIDE	EVGMI20		EVGMI20
SUB VALVES	CAVC23		
VALVE SEALS	VSSC17	VSS056	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPMI20		WPMI20
TIMING BELT		TB056	TBMI20
TENSIONERS			BTMI20
BALANCE SHAFT BELT			TBMI20B
BALANCE SHAFTS		JS056	JSMI20S (small gear) JSMI20L (large gear)
BALANCE SHAFT BELT TENSIONER			BTMI20B

CHRYSLER

MODEL	CALIBER	COLT VISTA	PICKUP
ENGINE CODE	**EBA**	**4G93**	**G52B**
DISPLACEMENT	**1798cc(109.7")**	**1834cc(111.9")**	**1994cc(121.8")**
YEARS	**2007-2009**	**1992-1994**	**1979-1982**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB
BORE	86.0mm(3.386")	81mm(3.189")	84mm(3.307")
STROKE	77mm(3.05")	89mm(3.50")	89.9mm(3.54")
MAIN JOURNAL DIA.	2.0450/2.0457"	1.9678/1.9685	2.3611/2.3622"
ROD JOURNAL DIA.	1.8894/1.8900"	1.7713/1.7717"	2.0858/2.0866"
ENGINE KITS			
GOLD KIT		EKMI22G	
BRONZE KITS		EKMI22B	
MAJOR KIT		EKMI22M	
RE-RING KIT		EKMI22R	EKC21R (60mm mains)
BEARING SETS			
MAIN BEARING SET	MBHY11	MBMI22	MBC23 (60mm mains)
ROD BEARING SET	RBHY11	RBMI22	RBC23
THRUST WASHER SET	TWHY11	TWMI22	
INTERMEDIATE SET			ISBC23
GASKETS			
FULL GASKET SET	CGSCHR1❶	CGSMI22	CGSC23
HEAD GASKET SET	HSCHR1	HSMI22	HSC23
HEAD GASKETS		HDGMI22	HDGC23
CONVERSION SET	CBSHY11L❶	CBSMI22	CBSC23
HEAD BOLT SET	HBHY11	HBMI22	
PISTONS, RINGS, PLUGS			
PISTONS		PAMI22	
RING SETS	RSCHR1	RSMI22	-
FREEZE PLUG SET		EPSMI4	EPSC23
CRANKSHAFT & RODS			
CONNECTING ROD		CRMI22	-
OIL PUMP			
NEW OIL PUMP	OPMI37	OPMI22	OPC23

❶ (rear seal/cover not included)

MODEL	CALIBER	COLT VISTA	PICKUP
ENGINE CODE	**EBA**	**4G93**	**G52B**
DISPLACEMENT	**1798cc(109.7")**	**1834cc(111.9")**	**1994cc(121.8")**
YEARS	**2007-2009**	**1992-1994**	**1979-1982**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB
BORE	86.0mm(3.386")	81mm(3.189")	84mm(3.307")
STROKE	77mm(3.05")	89mm(3.50")	89.9mm(3.54")
MAIN JOURNAL DIA.	2.0450/2.0457"	1.9678/1.9685	2.3611/2.3622"
ROD JOURNAL DIA.	1.8894/1.8900"	1.7713/1.7717"	2.0858/2.0866"
VALVE TRAIN			
ROCKER ARMS			RAC24I
FRONT INTAKE ROCKER ARM		RAMI22A	
REAR INTAKE ROCKER ARM		RAMI22B	
ROCKER ARMS		RAMI22E	RAC23E
ROCKER ARM SHAFTS		RASIMI22	
ROCKER ARM SHAFTS		RASEMI22	
INTAKE VALVE	IVHY11	IVMI22	
EXHAUST VALVE	EVHY11	EVMI22	
VALVE GUIDE	VGHY11		
INTAKE GUIDE		IVGMI22	IVGC21
EXHAUST GUIDE		EVGMI22	EVGC23
SUB VALVES			CAVC23
VALVE SEALS	VSSHY11	VSSTO15	VSSC17
WATER PUMP & TIMING			
WATER PUMP	-	WPMI22	
TIMING CHAIN KIT	CTKCHR1❶		CTKC23
TIMING BELT		TBMI22	
TENSIONERS		BTMI22 (roller type)	
BALANCE SHAFTS			JSC22❷ JSC23

❶ (Cam Gear not included)

❷ (oil pump drive)

CHRYSLER

MODEL	NEON	NEON R/T	NEON ES, SE STRATUS BREEZE CIRRUS
ENGINE CODE	**VIN C**	**VIN F**	**A588**
DISPLACEMENT	**1996cc(121.8")**	**1996cc(121.8")**	**1996cc(121.8")**
YEARS	**2002-2005**	**2001-2004**	**2000-2001**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83mm(3.26")	83mm(3.26")	83mm(3.26")
MAIN JOURNAL DIA.	2.0469/2.0475"	2.0469/2.0475"	2.0469/2.0475"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.8894/1.8900"
ENGINE KITS			
GOLD KIT			EKC27CG
BRONZE KITS	EKC27CB		EKC27CB
MAJOR KIT	EKC27CM		EKC27CM
RE-RING KIT	EKC27CR	EKC27CR	EKC27CR
BEARING SETS			
MAIN BEARING SET	MBC26❶	MBC26❶ MBC26E❷	MBC26❶
ROD BEARING SET	RBC26❸ RBC26S (STD O/D)	RBC26❸ RBC26S (STD O/D)	RBC26❸ RBC26S (STD O/D)
GASKETS			
FULL GASKET SET	CGSC27L	CGSC27L	CGSC27L
HEAD GASKET SET	HSC27L	HSC27L	HSC27L
HEAD GASKETS	HDGC27	HDGC27	HDGC27
CONVERSION SET	CBSC26	CBSC26	CBSC26
HEAD BOLT SET	HBC27	HBC27	HBC27
PISTONS, RINGS, PLUGS			
PISTONS	PAC27		PAC27
RING SETS	RSC26	RSC26	RSC26
FREEZE PLUG SET	EPSC26	EPSC26	EPSC26
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC26❶		CSC26❶
CONNECTING ROD	CRC26	CRC26	CRC26
OIL PUMP			
NEW OIL PUMP	OPC26L (03-05) OPC26 (2002 only)	OPC26 (2001-02) OPC26L (2003-04)	OPC26

❶ (lock tabs 1/2 & 1/2)
❷ (lock tabs all left)
❸ (.002 over O/D)

MODEL	NEON	NEON R/T	NEON ES, SE STRATUS BREEZE CIRRUS
ENGINE CODE	**VIN C**	**VIN F**	**A588**
DISPLACEMENT	**1996cc(121.8")**	**1996cc(121.8")**	**1996cc(121.8")**
YEARS	**2002-2005**	**2001-2004**	**2000-2001**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83mm(3.26")	83mm(3.26")	83mm(3.26")
MAIN JOURNAL DIA.	2.0469/2.0475"	2.0469/2.0475"	2.0469/2.0475"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.8894/1.8900"
VALVE TRAIN			
CAMSHAFTS	CAMC27L		CAMC27L
ROCKER ARMS	RAC27I (int.)	RAC27I (int.)	RAC27I (int.)
	RAC27E (ex.)		RAC27E (ex.)
ROCKER ARMS		RAC27E (ex.)	
ROCKER ARM SHAFTS	RASIC27	RASIC27	RASIC27
ROCKER ARM SHAFTS	RASEC27	RASEC27	RASEC27
INTAKE VALVE	IVC27 (1 keeper)	IVC27L (3 keeper)	IVC27 (1 keeper)
	IVC27L (3 keeper)		IVC27L (3 keeper)
EXHAUST VALVE	EVC27 (1 keeper)	EVC27L (3 keeper)	EVC27 (1 keeper)
	EVC27L (3 keeper)		EVC27L (3 keeper)
VALVE GUIDE	VGC27		VGC27
INTAKE GUIDE		VGC27	
EXHAUST GUIDE		VGC27	
VALVE SEALS	VSSC26	VSSC26	VSSC26
WATER PUMP & TIMING			
WATER PUMP	WPC26	WPC26	WPC26
TIMING BELT	TBC27	TBC27	TBC27
TENSIONERS	BTC26R	BTC26R	

CHRYSLER

MODEL	AVENGER NEON SEBRING	NEON STRATUS BREEZE	LASER TURBO
ENGINE CODE	**4A20**	**A588**	**4G63**
DISPLACEMENT	**1996cc(121.8")**	**1996cc(121.8")**	**1997cc(122.1")**
YEARS	**1995-1999**	**1995-1999**	**1993-1994**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. TURB
BORE	87.5mm(3.445")	87.5mm(3.445")	85mm(3.346")
STROKE	83mm(3.26")	83mm(3.26")	88mm(3.46")
MAIN JOURNAL DIA.	2.0469/2.0475"	2.0469/2.0475"	2.2433/2.2441"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKC26G❶	EKC27G❷ EKC27LG❶	EKMI23TG
BRONZE KITS	EKC26EB❷ EKC26B❶	EKC27B❷ EKC27LB❶	EKMI23TB
MAJOR KIT	EKC26EM❷ EKC26M❶	EKC27M❷ EKC27LM❶	EKMI23TM
RE-RING KIT	EKC26ER❷ EKC26R❶	EKC27R❷	EKMI23R
BEARING SETS			
MAIN BEARING SET	MBC26E❷ MBC26❶	MBC26E❷ MBC26❶	MBMI23
ROD BEARING SET	RBC26❸ RBC26S (STD O/D)	RBC26❸ RBC26S (STD O/D)	RBMI23
INTERMEDIATE SET			ISBMI3
GASKETS			
FULL GASKET SET	CGSC26	CGSC27	CGSMI23
HEAD GASKET SET	HSC26	HSC27	HSMI23
HEAD GASKETS	HDGC26	HDGC27	HDGMI23
CONVERSION SET	CBSC26	CBSC26	CBSMI23
HEAD BOLT SET	HBC26	HBC27	HBMI23
PISTONS, RINGS, PLUGS			
PISTONS	PAC26	PAC27	PAMI23T
RING SETS	RSC26	RSC26	RSMI23
FREEZE PLUG SET	EPSC26	EPSC26	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC26❶	CSC26❶	
CONNECTING ROD	CRC26	CRC26	CRMI6
OIL PUMP			
NEW OIL PUMP	OPC26	OPC26	OPMI24

❶ (lock tabs 1/2 & 1/2)
❷ (lock tabs all left)
❸ (.002 over O/D)

MODEL	AVENGER NEON SEBRING	NEON STRATUS BREEZE	LASER TURBO
ENGINE CODE	**4A20**	**A588**	**4G63**
DISPLACEMENT	**1996cc(121.8")**	**1996cc(121.8")**	**1997cc(122.1")**
YEARS	**1995-1999**	**1995-1999**	**1993-1994**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. TURB
BORE	87.5mm(3.445")	87.5mm(3.445")	85mm(3.346")
STROKE	83mm(3.26")	83mm(3.26")	88mm(3.46")
MAIN JOURNAL DIA.	2.0469/2.0475"	2.0469/2.0475"	2.2433/2.2441"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS	CAMC26NE	CAMC27L	CAMMI6E
LIFTERS	LIFC28		LIFMI6
ROCKER ARMS	RAC26	RAC27I	RAMI6
ROCKER ARMS		RAC27E	
ROCKER ARM SHAFTS		RASIC27	
ROCKER ARM SHAFTS		RASEC27	
INTAKE VALVE	IVC26	IVC27	IVMI6
EXHAUST VALVE	EVC26	EVC27	EVMI6
INTAKE GUIDE	VGC26	VGC27	IVGMI6
EXHAUST GUIDE	VGC26	VGC27	EVGMI6
VALVE SEALS	VSSC26	VSSC26	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPC26	WPC26	WPMI6
TIMING BELT	TBC26	TBC27	TBMI6
TENSIONERS	BTC26 (hydraulic)	BTC26❶ BTC26R (roller)	BTMI23 (hydraulic)
BALANCE SHAFT BELT			TBMI6B
BALANCE SHAFT BELT TENSIONER	BTC26R (roller)		BTMI6R

❶ (hydraulic 95-98)

CHRYSLER

MODEL	LASER	LASER	LASER TURBO
ENGINE CODE	**4G63**	**4G63**	**4G63**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1993-1994**	**1990-1992**	**1990-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKMI23G	EKMI6G	EKMI6TG
BRONZE KITS	EKMI23B	EKMI6B	EKMI6TB
MAJOR KIT	EKMI23M	EKMI6M	EKMI6TM
RE-RING KIT	EKMI23R	EKMI6R	EKMI6R
BEARING SETS			
MAIN BEARING SET	MBMI23	MBC17	MBC17
ROD BEARING SET	RBMI23	RBC15L	RBC15L
INTERMEDIATE SET	ISBMI3	ISBMI3	ISBMI3
GASKETS			
FULL GASKET SET	CGSMI23	CGSMI6	CGSMI6
HEAD GASKET SET	HSMI23	HSMI6	HSMI6
HEAD GASKETS	HDGMI23	HDGMI6	HDGMI6
CONVERSION SET	CBSMI23	CBSMI4	CBSMI4
HEAD BOLT SET	HBMI23	HBMI6	HBMI6
PISTONS, RINGS, PLUGS			
PISTONS	PAMI23	PAMI6	PAMI6T
RING SETS	RSMI23	RSMI6T	RSMI6T
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI6	CRMI4	CRMI4
OIL PUMP			
NEW OIL PUMP	OPMI24	OPMI6	OPMI6

MODEL	LASER	LASER	LASER TURBO
ENGINE CODE	**4G63**	**4G63**	**4G63**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1993-1994**	**1990-1992**	**1990-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS	CAMMI6E	CAMMI6E	CAMMI6E (ex.)
LIFTERS	LIFMI6	LIFMI6	LIFMI6
ROCKER ARMS	RAMI6	RAMI6	RAMI6
INTAKE VALVE	IVMI6	IVMI6	IVMI6
EXHAUST VALVE	EVMI6	EVMI6	EVMI6
INTAKE GUIDE	IVGMI6	IVGMI6	IVGMI6
EXHAUST GUIDE	EVGMI6	EVGMI6	EVGMI6
VALVE SEALS	VSSC11	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPMI6	WPMI6	WPMI6
TIMING BELT	TBMI6	TBMI6	TBMI6
TENSIONERS	BTMI23 (hydraulic)	BTMI6 (hydraulic)	BTMI6 (hydraulic)
BALANCE SHAFT BELT	TBMI6B	TBMI6B	TBMI6B
BALANCE SHAFT BELT TENSIONER	BTMI6R	BTMI6R	BTMI6R
ENGINES & HEADS			
HEAD W/VALVES		CHVMI6	CHVMI6

CHRYSLER

MODEL	COLT VISTA	COLT VISTA (84-88) RAM 50 PICKUP	CALIBER
ENGINE CODE	**G63B**	**G63B**	**ECN**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1998cc(122")**
YEARS	**1990-1991**	**1983-1989**	**2007-2012**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB	16 VALVE DOHC 4; F.INJ.
BORE	85mm(3.346")	85mm(3.346")	86.0mm(3.386")
STROKE	88mm(3.46")	88mm(3.46")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.8894/1.8900"
ENGINE KITS			
MAJOR KIT	EKMI4M	EKMI4M	
RE-RING KIT	EKMI4LR	EKMI4R (2mm top ring) EKMI4LR❶	
BEARING SETS			
MAIN BEARING SET	MBC17	MBC17	MBHY11
ROD BEARING SET	RBC15L	RBC15L	RBHY11
THRUST WASHER SET			TWHY11
INTERMEDIATE SET	ISBMI3	ISBMI3	-
GASKETS			
FULL GASKET SET	CGSMI4L	CGSMI4L	CGSCHR1❷
HEAD GASKET SET	HSMI4L	HSMI4L	HSCHR1
HEAD GASKETS	HDGMI4	HDGMI4	
CONVERSION SET	CBSMI4	CBSMI4	CBSHY11L❷
HEAD BOLT SET			HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAMI4L❸	PAMI4L❸	PACHR1
RING SETS	RSMI6❶	RSMI4 (2mm top ring) RSMI6❶	RSCHR1
FREEZE PLUG SET	EPSMI4	EPSMI4	
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI4	CRMI4	CRCHR1

❶ (1.5mm top ring)
❷ (rear seal/cover not included)
❸ (Not for forklift application)

MODEL	COLT VISTA	COLT VISTA (84-88) RAM 50 PICKUP	CALIBER
ENGINE CODE	**G63B**	**G63B**	**ECN**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1998cc(122")**
YEARS	**1990-1991**	**1983-1989**	**2007-2012**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB	16 VALVE DOHC 4; F.INJ.
BORE	85mm(3.346")	85mm(3.346")	86.0mm(3.386")
STROKE	88mm(3.46")	88mm(3.46")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.8894/1.8900"
VALVE TRAIN			
CAMSHAFTS	CAMMI4L		
LIFTERS	ALAMI4H	ALAMI4H	
ROCKER ARMS	RAMI4RA (1 & 3 CYL)	RAMI5A (#1 & 3 cyl)	
	RAMI4RB (2 & 4 CYL)	RAMI5B (#2 & 4 cyl)	
		RAMI5C (#1 & 3 cyl)	
		RAMI5D (#2 & 4 cyl)	
ROCKER ARM SHAFTS	RASIMI4	RASIMI4	
ROCKER ARM SHAFTS	RASEMI4	RASEMI4	
INTAKE VALVE	IVMI3L	IVMI3L	IVHY11
EXHAUST VALVE	EVMI3L	EVMI3L	EVHY11
VALVE GUIDE			VGHY11
INTAKE GUIDE	IVGC21	IVGC21 (int.)	
EXHAUST GUIDE	EVGC23	EVGC23 (ex.)	
SUB VALVES		CAVC23 (83-86)	
VALVE SEALS	VSSC17	VSSC17	VSSHY11
WATER PUMP & TIMING			
WATER PUMP		WPMI4P (Pickup only)	-
TIMING CHAIN KIT			CTKCHR1❶
TIMING BELT	TBMI4L	TBMI4	
TENSIONERS	BTMI4L	BTMI4	
BALANCE SHAFT BELT	TBMI4B	TBMI4B	
BALANCE SHAFT BELT TENSIONER	BTMI4B	BTMI4R	

❶ (Cam Gear not included)

CHRYSLER

MODEL	SHADOW/SUNDANCE OMNI/HORIZON LeBARON ARIES/DAYTONA	CARAVAN/VOYAGER OMNI/HORIZON/ARIES ARIES/LeBARON LANCER/DAYTONA CHARGER/TURISMO NEW YORKER	TURBO DAYTONA/LASER LeBARON CHARGER/SHADOW SUNDANCE
ENGINE CODE	**2.2L**	**2.2L**	**2.2L**
DISPLACEMENT	**2213cc(135")**	**2213cc(135")**	**2213cc(135")**
YEARS	**1989-1994**	**1986-1988**	**1986-1988**
DESCRIPTION	8 VALVE; SOHC 4;F.INJ.	8 VALVE; SOHC 4	8 VALVE; SOHC 4
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.3617/2.3627"	2.3617/2.3627"	2.3617/2.3627"
ROD JOURNAL DIA.	1.9677/1.9687"	1.9677/1.9687"	1.9677/1.9687"
ENGINE KITS			
RE-RING KIT		EKC24R	EKC24R
BEARING SETS			
MAIN BEARING SET	MBC24	MBC24	MBC24
ROD BEARING SET	RBC24	RBC24	RBC24
INTERMEDIATE SET	ISBC24	ISBC24	ISBC24
GASKETS			
HEAD BOLT SET	HBC25 (11 mm)	HBC25 (11 mm)	HBC25 (11 mm)
PISTONS, RINGS, PLUGS			
RING SETS	RSC24	RSC24	RSC24
FREEZE PLUG SET	EPSC24	EPSC24	EPSC24
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC24LB	CSC24L	CSC24L
CONNECTING ROD	CRC24	CRC24	CRC24
	CRC24LW (LW casting)	CRC24LW (LW casting)	CRC24LW (LW casting)

MODEL	SHADOW/SUNDANCE OMNI/HORIZON LeBARON ARIES/DAYTONA	CARAVAN/VOYAGER OMNI/HORIZON/ARIES ARIES/LeBARON LANCER/DAYTONA CHARGER/TURISMO NEW YORKER	TURBO DAYTONA/LASER LeBARON CHARGER/SHADOW SUNDANCE
ENGINE CODE	**2.2L**	**2.2L**	**2.2L**
DISPLACEMENT	**2213cc(135")**	**2213cc(135")**	**2213cc(135")**
YEARS	**1989-1994**	**1986-1988**	**1986-1988**
DESCRIPTION	8 VALVE; SOHC 4;F.INJ.	8 VALVE; SOHC 4	8 VALVE; SOHC 4
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.3617/2.3627"	2.3617/2.3627"	2.3617/2.3627"
ROD JOURNAL DIA.	1.9677/1.9687"	1.9677/1.9687"	1.9677/1.9687"
VALVE TRAIN			
CAMSHAFTS		CAMC24 (86-87)	
LIFTERS	LIFC24	LIFC24	LIFC24
ROCKER ARMS	RAC25R	RAC25R (roller type) RAC25 (pad type)	RAC25R (roller type) RAC25 (pad type)
INTAKE VALVE	IVC24L	IVC24L	IVC24L
EXHAUST VALVE	EVC24L	EVC24L	EVC24L
INTAKE GUIDE	IVGC24	IVGC24	IVGC24
EXHAUST GUIDE	EVGC24	EVGC24	EVGC24
VALVE SEALS	VSSC24	VSSC24	VSSC24
WATER PUMP & TIMING			
TIMING BELT	TBC24L	TBC24	TBC24

CHRYSLER

MODEL	CARAVAN/VOYAGER OMNI/HORIZON ARIES/LeBARON RELIANT/DAYTONA CHARGER/TURISMO NEW YORKER	TURBO LeBARON OMNI HORIZON	STRATUS COUPE SEBRING COUPE
ENGINE CODE	**2.2L**	**2.2L**	**4G64**
DISPLACEMENT	**2213cc(135")**	**2213cc(135")**	**2350cc(143.4")**
YEARS	**1981-1985**	**1981-1985**	**2001-2005**
DESCRIPTION	8 VALVE; SOHC 4	8 VALVE; SOHC 4	16 VALVE; SOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	86.5mm(3.406")
STROKE	92mm(3.62")	92mm(3.62")	100mm(3.94")
MAIN JOURNAL DIA.	2.3617/2.3627"	2.3617/2.3627"	2.2433/2.2441"
ROD JOURNAL DIA.	1.9677/1.9687"	1.9677/1.9687"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT			EKMI29G
MAJOR KIT			EKMI29M
RE-RING KIT	EKC24R	EKC24R	EKMI29R
BEARING SETS			
MAIN BEARING SET	MBC24	MBC24	MBMI24
ROD BEARING SET	RBC24	RBC24	RBMI23
THRUST WASHER SET			TWMI24
INTERMEDIATE SET	ISBC24	ISBC24	ISBMI3
GASKETS			
FULL GASKET SET			CGSMI29
HEAD GASKET SET			HSMI29
HEAD GASKETS			HDGMI29
CONVERSION SET			CBSMI29
HEAD BOLT SET			HBMI23
PISTONS, RINGS, PLUGS			
PISTONS			PAMI29
RING SETS	RSC24	RSC24	RSMI24
FREEZE PLUG SET	EPSC24	EPSC24	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC24	CSC24L	CSMI24L
CONNECTING ROD	CRC24	CRC24	CRMI6
OIL PUMP			
NEW OIL PUMP			OPMI29

CHRYSLER

MODEL	CARAVAN/VOYAGER OMNI/HORIZON ARIES/LeBARON RELIANT/DAYTONA CHARGER/TURISMO NEW YORKER	TURBO LeBARON OMNI HORIZON	STRATUS COUPE SEBRING COUPE
ENGINE CODE	**2.2L**	**2.2L**	**4G64**
DISPLACEMENT	**2213cc(135")**	**2213cc(135")**	**2350cc(143.4")**
YEARS	**1981-1985**	**1981-1985**	**2001-2005**
DESCRIPTION	8 VALVE; SOHC 4	8 VALVE; SOHC 4	16 VALVE; SOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	86.5mm(3.406")
STROKE	92mm(3.62")	92mm(3.62")	100mm(3.94")
MAIN JOURNAL DIA.	2.3617/2.3627"	2.3617/2.3627"	2.2433/2.2441"
ROD JOURNAL DIA.	1.9677/1.9687"	1.9677/1.9687"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS	CAMC24		
LIFTERS	LIFC24	LIFC24	ALAMI4H
ROCKER ARMS	RAC25	RAC25	RAMI24A (int.A) RAMI24B (int.B) RAMI24E (ex.)
INTAKE VALVE			IVMI24
EXHAUST VALVE			EVMI24
INTAKE GUIDE	IVGC24	IVGC24	IVGMI22
EXHAUST GUIDE	EVGC24	EVGC24	EVGMI22
VALVE SEALS	VSSC24	VSSC24	VSSTO15
WATER PUMP & TIMING			
TIMING BELT	TBC24	TBC24	TBMI25
TENSIONERS			BTMI24
BALANCE SHAFT BELT			TBMI6B

CHRYSLER

MODEL	COLT VISTA	RAM 50 COLT VISTA	AVENGER (08-14) CALIBER (07-12) SEBRING (07-10) 200 (11-14) JOURNEY (09-20)
ENGINE CODE	**4G64**	**G64B**	**ED3/EDG**
DISPLACEMENT	**2350cc(143.4")**	**2350cc(143.4")**	**2359cc(144")**
YEARS	**1993-1994**	**1990-1993**	**2007-2020**
DESCRIPTION	16vlv; SOHC; 4; F.INJ; Vin G	8 VALVE SOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. non tu
BORE	86.5mm(3.406")	86.5mm(3.406")	88mm(3.465")
STROKE	100mm(3.94")	100mm(3.94")	97mm(3.82")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.8894/1.8900"
ENGINE KITS			
GOLD KIT	EKMI24G		
BRONZE KITS	EKMI24B		
MAJOR KIT	EKMI24M	EKMI5M	
RE-RING KIT	EKMI24R	EKMI5R	
BEARING SETS			
MAIN BEARING SET	MBMI23	MBC17	MBHY11
ROD BEARING SET	RBMI23	RBC15L	RBHY11
THRUST WASHER SET			TWHY11
INTERMEDIATE SET	ISBMI3	ISBMI3	
GASKETS			
FULL GASKET SET	CGSMI24	CGSMI5	CGSCHR2❶
HEAD GASKET SET	HSMI24	HSMI5	HSCHR2
HEAD GASKETS	HDGMI24	HDGMI5	
CONVERSION SET	CBSMI23	CBSMI4	CBSHY11L❶
HEAD BOLT SET	HBMI23		HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAMI24	PAMI5❷	PAHY11
RING SETS	RSMI24	RSMI5	RSHY11
FREEZE PLUG SET	EPSMI4	EPSMI4	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI24		
CONNECTING ROD	CRMI6	CRMI4	
OIL PUMP			
NEW OIL PUMP	OPMI24		

❶ (rear seal/cover not included)

❷ (Not for forklift application)

MODEL	COLT VISTA	RAM 50 COLT VISTA	AVENGER (08-14) CALIBER (07-12) SEBRING (07-10) 200 (11-14) JOURNEY (09-20)
ENGINE CODE	**4G64**	**G64B**	**ED3/EDG**
DISPLACEMENT	**2350cc(143.4")**	**2350cc(143.4")**	**2359cc(144")**
YEARS	**1993-1994**	**1990-1993**	**2007-2020**
DESCRIPTION	16vlv; SOHC; 4; F.INJ; Vin G	8 VALVE SOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. non tu
BORE	86.5mm(3.406")	86.5mm(3.406")	88mm(3.465")
STROKE	100mm(3.94")	100mm(3.94")	97mm(3.82")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.8894/1.8900"
VALVE TRAIN			
LIFTERS	ALAMI4H	ALAMI4H	
ROCKER ARMS	RAMI24A (int.A)	RAMI5A❶	
	RAMI24B (int.B)	RAMI5B❷	
	RAMI24E (ex.)	RAMI5C❸	
		RAMI5D❹	
ROCKER ARM SHAFTS	RASIMI24	RASIMI4	
ROCKER ARM SHAFTS	RASEMI24	RASEMI4	
INTAKE VALVE	IVMI24	IVMI5	IVHY11
EXHAUST VALVE	EVMI24	EVMI5	EVHY11
VALVE GUIDE			VGHY11
INTAKE GUIDE	IVGMI22	IVGC21	
EXHAUST GUIDE	EVGMI22	EVGC23	
SUB VALVES		CAVC23	
VALVE SEALS	VSSTO15	VSSC17	VSSHY11
WATER PUMP & TIMING			
WATER PUMP	WPMI23	WPMI4P (Ram only)	-
TIMING CHAIN KIT			CTKCHR1❺
TIMING BELT	TBMI24	TBMI5	
TENSIONERS	BTMI23C (hydraulic)	BTMI4	
BALANCE SHAFT BELT	TBMI6B	TBMI4B	

❶ (#1 & 3 cyl int.)
❷ (#2 & 4 cyl int.)
❸ (#1 & 3 cyl ex.)
❹ (#2 & 4 cyl ex.)
❺ (Cam Gear not included)

CHRYSLER

MODEL	CALIBER SRT-4 TURBO	PT CRUISER	NEON SRT-4 (03-05) PT CRUISER turbo
ENGINE CODE		EDZ	EDV/EDT
DISPLACEMENT	2359cc(144")	2429cc(149.2")	2429cc(149.2")
YEARS	2008-2009	2003-2010	2003-2009
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE; DOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo
BORE	88mm(3.465")	87.5mm(3.445")	87.5mm(3.445")
STROKE	97mm(3.82")	101mm(3.98")	101mm(3.98")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.3610/2.3625"	2.3610/2.3625"
ROD JOURNAL DIA.	1.8894/1.8900"	1.967/1.969"	1.967/1.969"
BEARING SETS			
MAIN BEARING SET	MBHY11	MBC28	MBC28
ROD BEARING SET		RBC28❶	
		RBC28S (std O/D)	
THRUST WASHER SET	TWHY11		
GASKETS			
FULL GASKET SET		CGSC28PTL	CGSC28PTT
HEAD GASKET SET		HSC28PTL	HSC28PTT
HEAD GASKETS		HDGC28L	HDGC28L
CONVERSION SET		CBSC28PT	CBSC28PT
HEAD BOLT SET	HBHY11	HBC28	HBC28
PISTONS, RINGS, PLUGS			
PISTONS		PAC30PTL	PAC30PTT
RING SETS		RSC28L❷	RSC30PTT
		RSC28E❸	
PIN BUSHINGS			PBC30PTT
FREEZE PLUG SET		EPSC26	EPSC26
CRANKSHAFT & RODS			
CONNECTING ROD		CRC28	
OIL PUMP			
NEW OIL PUMP		OPC30PTT	OPC30PTT

❶ (.002 over O/D shell)
❷ (1.2mm top ring)
❸ (1.5mm top ring)

MODEL	CALIBER SRT-4 TURBO	PT CRUISER	NEON SRT-4 (03-05) PT CRUISER turbo
ENGINE CODE		EDZ	EDV/EDT
DISPLACEMENT	2359cc(144")	2429cc(149.2")	2429cc(149.2")
YEARS	2008-2009	2003-2010	2003-2009
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE; DOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo
BORE	88mm(3.465")	87.5mm(3.445")	87.5mm(3.445")
STROKE	97mm(3.82")	101mm(3.98")	101mm(3.98")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.3610/2.3625"	2.3610/2.3625"
ROD JOURNAL DIA.	1.8894/1.8900"	1.967/1.969"	1.967/1.969"
VALVE TRAIN			
LIFTERS		LIFC28	LIFC28
ROCKER ARMS		RAC26	
INTAKE VALVE	IVHY11	IVC26L (3 keeper)	IVC26L (3 keeper)
EXHAUST VALVE	EVHY11	EVC26L (3 keeper)	EVC26T
VALVE GUIDE	VGHY11	VGC26	VGC26
VALVE SEALS	VSSHY11	VSSC26	VSSC26
WATER PUMP & TIMING			
WATER PUMP	-	WPC28L❶ WPC28❷	
TIMING CHAIN KIT	CTKCHR1❸		
TIMING BELT		TBC28	TBC28
TENSIONERS		BTC28I (idler)	BTC28I (idler)

❶ (for roller tensioner)
❷ (for hydraulic tensioner)
❸ (Cam Gear not included)

CHRYSLER

MODEL	SEBRING (03-06) STRATUS (03-06) CARAVAN VOYAGER (03)	PT CRUISER	CARAVAN SEBRING STRATUS VOYAGER
ENGINE CODE	**EDZ**	**EDZ**	**EDZ**
DISPLACEMENT	**2429cc(149.2")**	**2429cc(149.2")**	**2429cc(149.2")**
YEARS	**2003-2007**	**2002**	**2001-2002**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	101mm(3.98")	101mm(3.98")	101mm(3.98")
MAIN JOURNAL DIA.	2.3610/2.3625"	2.3610/2.3625"	2.3610/2.3625"
ROD JOURNAL DIA.	1.967/1.969"	1.967/1.969"	1.967/1.969"
ENGINE KITS			
GOLD KIT	EKC28LLG		EKC28LG
MAJOR KIT	EKC28LLM		EKC28LM
RE-RING KIT	EKC28LLR		EKC28LR❶ EKC28ER❷
BEARING SETS			
MAIN BEARING SET	MBC28	MBC28	MBC28
ROD BEARING SET	RBC28❸ RBC28S (std O/D)	RBC28❸ RBC28S (std O/D)	RBC28❸ RBC28S (Standard OD)
GASKETS			
FULL GASKET SET	CGSC28LL	CGSC28PTL	CGSC28L
HEAD GASKET SET	HSC28LL	HSC28PTL	HSC28L
HEAD GASKETS	HDGC28LL	HDGC28L	HDGC28
CONVERSION SET	CBSC28	CBSC28PT	CBSC28
HEAD BOLT SET	HBC28	HBC28	HBC28
PISTONS, RINGS, PLUGS			
PISTONS	PAC30PTL	PAC30PTL	PAC30PTL
RING SETS	RSC28L	RSC28E❷ RSC28L❶	RSC28E❷ RSC28L❷
FREEZE PLUG SET	EPSC26	EPSC26	EPSC26
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSC28	CSC28
CONNECTING ROD	CRC28	CRC28	CRC28
OIL PUMP			
NEW OIL PUMP	OPC30L❹	OPC30PT	OPC30

❶ (1.2mm top ring)
❷ (1.5mm top ring)
❸ (.002 over O/D shell)
❹ (does not work for Jeep Applications)

MODEL	SEBRING (03-06) STRATUS (03-06) CARAVAN VOYAGER (03)	PT CRUISER	CARAVAN SEBRING STRATUS VOYAGER
ENGINE CODE	**EDZ**	**EDZ**	**EDZ**
DISPLACEMENT	**2429cc(149.2")**	**2429cc(149.2")**	**2429cc(149.2")**
YEARS	**2003-2007**	**2002**	**2001-2002**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	101mm(3.98")	101mm(3.98")	101mm(3.98")
MAIN JOURNAL DIA.	2.3610/2.3625"	2.3610/2.3625"	2.3610/2.3625"
ROD JOURNAL DIA.	1.967/1.969"	1.967/1.969"	1.967/1.969"
VALVE TRAIN			
LIFTERS	LIFC28	LIFC28	LIFC28
ROCKER ARMS	RAC26	RAC26	RAC26
INTAKE VALVE	IVC26L (3 keeper)	IVC26L (3 keeper)	IVC26L (3 keeper)
EXHAUST VALVE	EVC26L (3 keeper)	EVC26L (3 keeper)	EVC26L (3 keeper)
VALVE GUIDE	VGC26	VGC26	VGC26
VALVE SEALS	VSSC26	VSSC26	VSSC26
WATER PUMP & TIMING			
WATER PUMP	WPC28L	WPC28L❶ WPC28❷	WPC28L❶
TIMING BELT	TBC28	TBC28	TBC28
TENSIONERS	BTC28I (idler)	BTC28R (roller) BTC28I (idler)	BTC28R (roller) BTC28I (idler)

❶ (for roller tensioner)

❷ (for hydraulic tensioner)

CHRYSLER

MODEL	PT CRUISER	CIRRUS SEBRING STRATUS	CARAVAN VOYAGER
ENGINE CODE	**EDZ**	**EDZ**	**EDZ**
DISPLACEMENT	**2429cc(149.2")**	**2429cc(149.2")**	**2429cc(149.2")**
YEARS	**2001**	**1997-2000**	**1996-2000**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	101mm(3.98")	101mm(3.98")	101mm(3.98")
MAIN JOURNAL DIA.	2.3610/2.3625"	2.3610/2.3625"	2.3610/2.3625"
ROD JOURNAL DIA.	1.967/1.969"	1.967/1.969"	1.967/1.969"
ENGINE KITS			
GOLD KIT		EKC28G	EKC28G
BRONZE KITS		EKC28B	EKC28LB
MAJOR KIT	EKC28PTM	EKC28M	EKC28M
RE-RING KIT	EKC28PTR	EKC28LR	EKC28ER❶ EKC28LR❷
BEARING SETS			
MAIN BEARING SET	MBC28	MBC28	MBC28
ROD BEARING SET	RBC28❸ RBC28 (std O/D)	RBC28❸ RBC28S (std O/D)	RBC28❸ RBC28S (Standard OD)
GASKETS			
FULL GASKET SET	CGSC28PT	CGSC28	CGSC28
HEAD GASKET SET	HSC28PT	HSC28	HSC28
HEAD GASKETS	HDGC28	HDGC26	HDGC26
CONVERSION SET	CBSC28PT	CBSC28	CBSC28
HEAD BOLT SET	HBC28	HBC28	HBC28
PISTONS, RINGS, PLUGS			
PISTONS	PAC30PTL	PAC28L	PAC28L
RING SETS	RSC28L❷ RSC28E❶	RSC28L❷	RSC28E❶ RSC28L❷
FREEZE PLUG SET	EPSC26	EPSC26	EPSC26
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC28	CSC28	CSC28
CONNECTING ROD	CRC28	CRC28	CRC28
OIL PUMP			
NEW OIL PUMP	OPC30PT	OPC28L	OPC28L

❶ (1.5mm top ring)
❷ (1.2mm top ring)
❸ (.002 over O/D shell)

CHRYSLER

MODEL	PT CRUISER	CIRRUS SEBRING STRATUS	CARAVAN VOYAGER
ENGINE CODE	**EDZ**	**EDZ**	**EDZ**
DISPLACEMENT	**2429cc(149.2")**	**2429cc(149.2")**	**2429cc(149.2")**
YEARS	**2001**	**1997-2000**	**1996-2000**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	101mm(3.98")	101mm(3.98")	101mm(3.98")
MAIN JOURNAL DIA.	2.3610/2.3625"	2.3610/2.3625"	2.3610/2.3625"
ROD JOURNAL DIA.	1.967/1.969"	1.967/1.969"	1.967/1.969"
VALVE TRAIN			
LIFTERS	LIFC28	LIFC28	LIFC28
ROCKER ARMS	RAC26	RAC26	RAC26
INTAKE VALVE	IVC26L (3 keeper)	IVC26 (1 keeper)	IVC26 (1 keeper) IVC26L (3 keeper)
EXHAUST VALVE	EVC26L (3 keeper)	EVC26 (1 keeper)	EVC26 (1 keeper) EVC26L (3 keeper)
VALVE GUIDE	VGC26	VGC26	VGC26
VALVE SEALS	VSSC26	VSSC26	VSSC26
WATER PUMP & TIMING			
WATER PUMP	WPC28L❶ WPC28❷	WPC28L❶ WPC28❷	WPC28❷ WPC28L❶
TIMING BELT	TBC28	TBC28	TBC28
TENSIONERS	BTC28R (roller) BTC28I (idler)	BTC26 (hydraulic) BTC28I (idler) BTC28R❸	BTC26 (hydraulic) BTC28I (idler) BTC28R❹
ENGINES & HEADS			
HEAD W/VALVES		CHVC28❺	CHVC28❺

❶ (for roller tensioner)
❷ (for hydraulic tensioner)
❸ (roller 2000 only)
❹ (roller 99-00 only)
❺ (have specific block and head casting # and application when ordering)

CHRYSLER

MODEL	CIRRUS SEBRING STRATUS	AVENGER CIRRUS/STRATUS SEBRING	DAYTONA/NEW YORK CARAVAN/VOYAGER SHADOW/SUNDANCE ACCLAIM/DYNASTY SPIRIT/RAMVAN
ENGINE CODE	**EDZ**	**6G73**	**2.5L**
DISPLACEMENT	**2429cc(149.2")**	**2497cc(152.3")**	**2507cc(153")**
YEARS	**1995-1996**	**1995-2000**	**1989-1995**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	24 VALVE; SOHC V6; F.INJ.	8 VALVE; SOHC 4;F.INJ.
BORE	87.5mm(3.445")	83.5mm(2.992")	87.5mm(3.445")
STROKE	101mm(3.98")	76mm(3.46")	104mm(4.09")
MAIN JOURNAL DIA.	2.3610/2.3625"	2.2433/2.2441"	2.3617/2.3627"
ROD JOURNAL DIA.	1.967/1.969"	1.7713/1.7717"	1.9677/1.9687"
ENGINE KITS			
GOLD KIT	EKC28EG	EKMI28G	
BRONZE KITS	EKC28EB❶	EKMI28B	
	EKC28LB❷		
MAJOR KIT	EKC28M	EKMI28M	
RE-RING KIT	EKC28ER	EKMI28R	
BEARING SETS			
MAIN BEARING SET	MBC28	MBMI9	MBC24
ROD BEARING SET	RBC28❸	RBMI9	RBC24
	RBC28S (Standard OD)		
THRUST WASHER SET		TWMI9	
INTERMEDIATE SET			ISBC24
GASKETS			
FULL GASKET SET	CGSC28	CGSMI28	
HEAD GASKET SET	HSC28	HSMI28	
HEAD GASKETS	HDGC26	HDGMI28 (set of 2)	
CONVERSION SET	CBSC28	CBSMI28	
HEAD BOLT SET	HBC28		HBC25 (11 mm)
PISTONS, RINGS, PLUGS			
PISTONS	PAC28L	PAMI28	
RING SETS	RSC28E❹	RSMI28	RSC24
FREEZE PLUG SET	EPSC26	EPSMI9	EPSC24
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC28	CSMI28	CSC25L
CONNECTING ROD	CRC28	CRMI9	CRC25L
OIL PUMP			
NEW OIL PUMP	OPC28	OPMI28	

❶ (w/hyd. tensioner)
❷ (w/roller tensioner)
❸ (.002 over O/D shell)
❹ (1.5mm top ring)

MODEL	CIRRUS SEBRING STRATUS	AVENGER CIRRUS/STRATUS SEBRING	DAYTONA/NEW YORK CARAVAN/VOYAGER SHADOW/SUNDANCE ACCLAIM/DYNASTY SPIRIT/RAMVAN
ENGINE CODE	**EDZ**	**6G73**	**2.5L**
DISPLACEMENT	**2429cc(149.2")**	**2497cc(152.3")**	**2507cc(153")**
YEARS	**1995-1996**	**1995-2000**	**1989-1995**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	24 VALVE; SOHC V6; F.INJ.	8 VALVE; SOHC 4;F.INJ.
BORE	87.5mm(3.445")	83.5mm(2.992")	87.5mm(3.445")
STROKE	101mm(3.98")	76mm(3.46")	104mm(4.09")
MAIN JOURNAL DIA.	2.3610/2.3625"	2.2433/2.2441"	2.3617/2.3627"
ROD JOURNAL DIA.	1.967/1.969"	1.7713/1.7717"	1.9677/1.9687"
VALVE TRAIN			
LIFTERS	LIFC28	ALAMI4H	LIFC24
ROCKER ARMS	RAC26	RAMI24A (int.A) RAMI24B (int.B) RAMI24E (ex.)	RAC25R (roller type)
INTAKE VALVE	IVC26 (1 keeper)	IVMI24	IVC24L
EXHAUST VALVE	EVC26	EVMI24	EVC24L
VALVE GUIDE	VGC26	IVGMI22 (int.) EVGMI22 (ex.)	
INTAKE GUIDE			IVGC24
EXHAUST GUIDE			EVGC24
VALVE SEALS	VSSC26	VSSTO15	VSSC24
WATER PUMP & TIMING			
WATER PUMP	WPC28❶ WPC28L❷	WPMI28	
TIMING BELT	TBC28	TBMI28	TBC24L
TENSIONERS	BTC26 (hydraulic) BTC28I (idler)	BTMI31 (hydraulic)	
BALANCE SHAFTS			JSC25
ENGINES & HEADS			
HEAD W/VALVES	CHVC28❸		

❶ (for hydraulic tensioner)
❷ (for roller tensioner)
❸ (have specific block and head casting # and application when ordering)

CHRYSLER

MODEL	TURBO DAYTONA SPIRIT/SHADOW SUNDANCE	DAYTONA/LANCER CARAVAN/VOYAGER SHADOW/SUNDANCE CARAVELLE RAMVAN	RAIDER RAM PICKUP
ENGINE CODE	**2.5T**	**2.5L**	**G54B RWD**
DISPLACEMENT	**2507cc(153")**	**2507cc(153")**	**2555cc(155.9")**
YEARS	**1989-1995**	**1986-1988**	**1984-1989**
DESCRIPTION	8 VALVE; SOHC 4;F.INJ.	8 VALVE; SOHC 4;F.INJ.	8 VALVE SOHC 4; CARB.
BORE	87.5mm(3.445")	87.5mm(3.445")	91.1mm(3.587")
STROKE	104mm(4.09")	104mm(4.09")	98mm(3.86")
MAIN JOURNAL DIA.	2.3617/2.3627"	2.3617/2.3627"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9687"	1.9677/1.9687"	2.0858/2.0866"
ENGINE KITS			
PLATINUM KIT			EKC23LP
GOLD KIT			EKC23LG
SILVER KIT			EKC23LS
MAJOR KIT			EKC23LM
RE-RING KIT		EKC25R	EKC23LR
BEARING SETS			
MAIN BEARING SET	MBC24	MBC24	MBC23
ROD BEARING SET	RBC24	RBC24	RBC23
INTERMEDIATE SET	ISBC24	ISBC24	ISBC23
GASKETS			
FULL GASKET SET		CGSC25	CGSC23
HEAD GASKET SET			HSC23
HEAD GASKETS			HDGC23
CONVERSION SET			CBSC23
HEAD BOLT SET	HBC25 (11 mm)	HBC25 (11 mm)	HBC23
PISTONS, RINGS, PLUGS			
PISTONS	PAC25T		PAC23L
RING SETS	RSC24	RSC24	RSC23L
FREEZE PLUG SET	EPSC24	EPSC24	EPSC23
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC25T	CSC25	
CONNECTING ROD	CRC25L	CRC25	-
OIL PUMP			
NEW OIL PUMP			OPC23

MODEL	TURBO DAYTONA SPIRIT/SHADOW SUNDANCE	DAYTONA/LANCER CARAVAN/VOYAGER SHADOW/SUNDANCE CARAVELLE RAMVAN	RAIDER RAM PICKUP
ENGINE CODE	**2.5T**	**2.5L**	**G54B RWD**
DISPLACEMENT	**2507cc(153")**	**2507cc(153")**	**2555cc(155.9")**
YEARS	**1989-1995**	**1986-1988**	**1984-1989**
DESCRIPTION	8 VALVE; SOHC 4;F.INJ.	8 VALVE; SOHC 4;F.INJ.	8 VALVE SOHC 4; CARB.
BORE	87.5mm(3.445")	87.5mm(3.445")	91.1mm(3.587")
STROKE	104mm(4.09")	104mm(4.09")	98mm(3.86")
MAIN JOURNAL DIA.	2.3617/2.3627"	2.3617/2.3627"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9687"	1.9677/1.9687"	2.0858/2.0866"
VALVE TRAIN			
CAMSHAFTS	CAMC25 (roller type)	CAMC24 (86-87)	
LIFTERS	LIFC24	LIFC24	ALAMI4H
ROCKER ARMS	RAC25R	RAC25R (roller type)	RAMI5A (int.)
		RAC25 (pad type)	RAMI5C (ex.)
INTAKE VALVE	IVC24L	IVC24L	IVC23L
EXHAUST VALVE	EVC24L	EVC24L	EVC23L
VALVE GUIDE		IVGC24 (int.)	
		EVGC24 (ex.)	
INTAKE GUIDE	IVGC24		IVGC21
EXHAUST GUIDE	EVGC24		EVGC23
SUB VALVES			CAVC23
VALVE SEALS	VSSC24	VSSC24	VSSC17
WATER PUMP & TIMING			
TIMING CHAIN KIT			CTKC23
CAM DRIVE TIMING KIT			CTKC23C
TIMING BELT	TBC24L	TBC25L (88)	
		TBC25 (86-87)	
BALANCE SHAFTS	JSC25	JSC25	JSC22❶
			JSC23

❶ (oil pump drive)

CHRYSLER

MODEL	TURBO CONQUEST	CARAVAN VOYAGER	ARIES/RELIANT LeBARON NEW YORKER 400/600
ENGINE CODE	**G54B TURBO**	**G54B FWD**	**G54B FWD**
DISPLACEMENT	**2555cc(155.9")**	**2555cc(155.9")**	**2555cc(155.9")**
YEARS	**1984-1989**	**1984-1987**	**1981-1985**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ	8 VALVE; SOHC 4; CARB	8 VALVE; SOHC 4; CARB.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	98mm(3.86")	98mm(3.86")	98mm(3.86")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	2.0858/2.0866"	2.0858/2.0866"	2.0858/2.0866"
ENGINE KITS			
PLATINUM KIT		EKC23LP	EKC23LP
GOLD KIT		EKC23LG	EKC23LG
SILVER KIT	EKC23TS	EKC23LS	EKC23LS
MAJOR KIT	EKC23TM	EKC23LM	EKC23LM
RE-RING KIT	EKC23LR	EKC23LR	EKC23LR❶ EKC23R❷
BEARING SETS			
MAIN BEARING SET	MBC23	MBC23	MBC23
ROD BEARING SET	RBC23	RBC23	RBC23
INTERMEDIATE SET	ISBC23	ISBC23	ISBC23
GASKETS			
FULL GASKET SET	CGSC23	CGSC23	CGSC23
HEAD GASKET SET	HSC23	HSC23	HSC23
HEAD GASKETS	HDGC23	HDGC23	HDGC23
CONVERSION SET	CBSC23	CBSC23	CBSC23
HEAD BOLT SET	HBC23	HBC23	HBC23
PISTONS, RINGS, PLUGS			
PISTONS	PAC23T	PAC23L	PAC23L
RING SETS	RSC23L	RSC23L	RSC23L❶ RSC23❷
FREEZE PLUG SET	EPSC23	EPSC23	EPSC23
CRANKSHAFT & RODS			
CONNECTING ROD	-	-	-
OIL PUMP			
NEW OIL PUMP		OPC23	OPC23

❶ (1.5mm top ring)
❷ (2.0mm top ring)

MODEL	TURBO CONQUEST	CARAVAN VOYAGER	ARIES/RELIANT LeBARON NEW YORKER 400/600
ENGINE CODE	**G54B TURBO**	**G54B FWD**	**G54B FWD**
DISPLACEMENT	**2555cc(155.9")**	**2555cc(155.9")**	**2555cc(155.9")**
YEARS	**1984-1989**	**1984-1987**	**1981-1985**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ	8 VALVE; SOHC 4; CARB	8 VALVE; SOHC 4; CARB.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	98mm(3.86")	98mm(3.86")	98mm(3.86")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	2.0858/2.0866"	2.0858/2.0866"	2.0858/2.0866"
VALVE TRAIN			
LIFTERS	ALAMI4H		ALAMI4H
ROCKER ARMS	RAMI5A (int.) RAMI5C (ex.)	RAC23E	RAMI5A (int.hyd) RAMI5C (exc. hyd)
INTAKE VALVE	IVC23L	IVC23L	IVC23L (hyd. lash)
EXHAUST VALVE	EVC23L	EVC23L	EVC23L
INTAKE GUIDE	IVGC21	IVGC21	IVGC21
EXHAUST GUIDE	EVGC23	EVGC23	EVGC23
SUB VALVES	CAVC23		CAVC23
VALVE SEALS	VSSC17	VSSC17	VSSC17
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKC23	CTKC23	CTKC23
CAM DRIVE TIMING KIT	CTKC23C	CTKC23C	CTKC23C
BALANCE SHAFTS	JSC22❶ JSC23	JSC22❶ JSC23	JSC22❶ JSC23

❶ (oil pump drive)

CHRYSLER

MODEL	CHALLENGER SAPPORO D50 PICKUP	CHALLENGER SAPPORO D50 PICKUP ARROW COLT	SEBRING 300 (05-10) MAGNUM (05-08) AVENGER (08-10) CHARGER (06-10)
ENGINE CODE	**G54B RWD**	**G54B RWD**	**2.7L**
DISPLACEMENT	**2555cc(155.9")**	**2555cc(155.9")**	**2736cc(167")**
YEARS	**1981-1984**	**1978-1980**	**2004-2010**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	8 VALVE SOHC 4; CARB.	24 VALVE; DOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	86mm(3.386")
STROKE	98mm(3.86")	98mm(3.86")	78.50mm(3.09")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.5976/2.5984"	2.4997/2.5004
ROD JOURNAL DIA.	2.0858/2.0866"	2.0858/2.0866"	2.1060/2.1067
ENGINE KITS			
PLATINUM KIT	EKC23LP		EKC31LP
GOLD KIT	EKC23LG		EKC31G
SILVER KIT	EKC23LS		EKC31LS
BRONZE KITS			EKC31B
MAJOR KIT	EKC23LM		EKC31M
RE-RING KIT	EKC23LR		EKC31R
ULTRA KIT			EKC31LU
BEARING SETS			
MAIN BEARING SET	MBC23		MBC31
ROD BEARING SET	RBC23	RBC23	RBC31S (STD O/D) RBC31❶
THRUST WASHER SET			TWC31
INTERMEDIATE SET	ISBC23	ISBC23	
GASKETS			
FULL GASKET SET	CGSC23	CGSC23	CGSC31
HEAD GASKET SET	HSC23	HSC23	HSC31
HEAD GASKETS	HDGC23	HDGC23	HDGC31 (set of 2)
CONVERSION SET	CBSC23	CBSC23	CBSC31
HEAD BOLT SET	HBC23	HBC23	HBC31
PISTONS, RINGS, PLUGS			
PISTONS	PAC23L		PAC31
RING SETS	RSC23L	RSC23	RSC31
PIN BUSHINGS			PBTO33
FREEZE PLUG SET	EPSC23	EPSC23	EPSC31
CRANKSHAFT & RODS			
CONNECTING ROD	-	-	CRC31❷
OIL PUMP			
NEW OIL PUMP	OPC23	OPC23	OPC31

❶ (.002 over O/D)

❷ (with STD housing)

MODEL	CHALLENGER SAPPORO D50 PICKUP	CHALLENGER SAPPORO D50 PICKUP ARROW COLT	SEBRING 300 (05-10) MAGNUM (05-08) AVENGER (08-10) CHARGER (06-10)
ENGINE CODE	**G54B RWD**	**G54B RWD**	**2.7L**
DISPLACEMENT	**2555cc(155.9")**	**2555cc(155.9")**	**2736cc(167")**
YEARS	**1981-1984**	**1978-1980**	**2004-2010**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	8 VALVE SOHC 4; CARB.	24 VALVE; DOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	86mm(3.386")
STROKE	98mm(3.86")	98mm(3.86")	78.50mm(3.09")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.5976/2.5984"	2.4997/2.5004
ROD JOURNAL DIA.	2.0858/2.0866"	2.0858/2.0866"	2.1060/2.1067
VALVE TRAIN			
LIFTERS			LIFC31
ROCKER ARMS	RAC24I (int.) RAC23E (ex.)	RAC24I (int.) RAC23E (ex.)	RAC31
INTAKE VALVE	IVC23		IVC31
EXHAUST VALVE	EVC23		EVC31
VALVE GUIDE			VGC31
INTAKE GUIDE	IVGC21	IVGC21	
EXHAUST GUIDE	EVGC23	EVGC23	
SUB VALVES	CAVC23	CAVC23	
VALVE SEALS	VSSC17	VSSC17	VSSC26
WATER PUMP & TIMING			
WATER PUMP			WPC31 (03-07 only)
TIMING CHAIN KIT	CTKC23	CTKC23	CTKC31L (03-07 only) PTKC31L (03-07 only)
CAM DRIVE TIMING KIT	CTKC23C	CTKC23C	
BALANCE SHAFTS	JSC22❶ JSC23	JSC22❶ JSC23	

❶ (oil pump drive)

CHRYSLER

MODEL	INTREPID CONCORDE STRATUS	INTREPID CONCORDE STRATUS SEBRING	INTREPID CONCORDE STRATUS SEBRING
ENGINE CODE	**2.7L**	**2.7L**	**2.7L**
DISPLACEMENT	**2736cc(167")**	**2736cc(167")**	**2736cc(167")**
YEARS	**2003-2006**	**2001-2002**	**1998-2000**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	78.50mm(3.09")	78.50mm(3.09")	78.50mm(3.09")
MAIN JOURNAL DIA.	2.4997/2.5004	2.4997/2.5004	2.4997/2.5004
ROD JOURNAL DIA.	2.1060/2.1067	2.1060/2.1067	2.1060/2.1067
ENGINE KITS			
PLATINUM KIT	EKC31LP	EKC31DP	EKC31P
GOLD KIT	EKC31G	EKC31G	EKC31G
SILVER KIT	EKC31LS	EKC31DS	EKC31S
BRONZE KITS	EKC31B	EKC31B	EKC31B
MAJOR KIT	EKC31M	EKC31M	EKC31M
RE-RING KIT	EKC31R	EKC31R	EKC31R
ULTRA KIT	EKC31LU	EKC31DU	EKC31U
BEARING SETS			
MAIN BEARING SET	MBC31	MBC31	MBC31
ROD BEARING SET	RBC31S (STD O/D) RBC31❶	RBC31S (STD O/D) RBC31❶	RBC31S (STD O/D) RBC31❶
THRUST WASHER SET	TWC31	TWC31	TWC31
GASKETS			
FULL GASKET SET	CGSC31	CGSC31	CGSC31
HEAD GASKET SET	HSC31	HSC31	HSC31
HEAD GASKETS	HDGC31 (set of 2)	HDGC31 (set of 2)	HDGC31 (set of 2)
CONVERSION SET	CBSC31	CBSC31	CBSC31
HEAD BOLT SET	HBC31	HBC31	HBC31
PISTONS, RINGS, PLUGS			
PISTONS	PAC31	PAC31	PAC31
RING SETS	RSC31	RSC31	RSC31
PIN BUSHINGS	PBTO33	PBTO33	PBTO33
FREEZE PLUG SET	EPSC31	EPSC31	EPSC31
CRANKSHAFT & RODS			
CONNECTING ROD	CRC31❷	CRC31❷	CRC31❷
OIL PUMP			
NEW OIL PUMP	OPC31	OPC31	OPC31

❶ (.002 over O/D)

❷ (with STD housing)

MODEL	INTREPID CONCORDE STRATUS	INTREPID CONCORDE STRATUS SEBRING	INTREPID CONCORDE STRATUS SEBRING
ENGINE CODE	**2.7L**	**2.7L**	**2.7L**
DISPLACEMENT	**2736cc(167")**	**2736cc(167")**	**2736cc(167")**
YEARS	**2003-2006**	**2001-2002**	**1998-2000**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	78.50mm(3.09")	78.50mm(3.09")	78.50mm(3.09")
MAIN JOURNAL DIA.	2.4997/2.5004	2.4997/2.5004	2.4997/2.5004
ROD JOURNAL DIA.	2.1060/2.1067	2.1060/2.1067	2.1060/2.1067
VALVE TRAIN			
LIFTERS	LIFC31	LIFC31	LIFC31
ROCKER ARMS	RAC31	RAC31	RAC31
INTAKE VALVE	IVC31	IVC31	IVC31
EXHAUST VALVE	EVC31	EVC31	EVC31
VALVE GUIDE	VGC31	VGC31	VGC31
VALVE SEALS	VSSC26	VSSC26	VSSC26
WATER PUMP & TIMING			
WATER PUMP	WPC31	WPC31	WPC31
TIMING CHAIN KIT	CTKC31L PTKC31L	CTKC31D	CTKC31
GEARLESS TIMING KIT		PTKC31L	PTKC31

CHRYSLER

MODEL	INTREPID CONCORDE	SEBRING STRATUS	CARAVAN/VOYAGER SEBRING LeBARON/ACCLAIM SHADOW/SUNDANCE
ENGINE CODE	**2.7L**	**6G72**	**6G72 FWD**
DISPLACEMENT	**2736cc(167")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1998-2000**	**2001-2005**	**1994-2000**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	86mm(3.386")	91.1mm(3.587")	91.1mm(3.587")
STROKE	78.50mm(3.09")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.4997/2.5004	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	2.1060/2.1067	1.9677/1.9685"	1.9677/1.9685"
ENGINE KITS			
PLATINUM KIT	EKC31P		EKMI10FG
GOLD KIT	EKC31G		EKMI10FB
SILVER KIT	EKC31S		EKMI10M
BRONZE KITS	EKC31B		EKMI10R
MAJOR KIT	EKC31M	EKMI32M	
RE-RING KIT	EKC31R	EKMI32R	
ULTRA KIT	EKC31U		
BEARING SETS			
MAIN BEARING SET	MBC31	MBMI9	MBMI9
ROD BEARING SET	RBC31S (STD O/D)	RBMI9	RBMI9
	RBC31❶		
THRUST WASHER SET	TWC31	TWMI9	TWMI9
GASKETS			
FULL GASKET SET	CGSC31	CGSMI32	CGSMI9
HEAD GASKET SET	HSC31	HSMI32	HSMI9
HEAD GASKETS	HDGC31 (set of 2)	HDGMI32	HDGMI9 (each)
CONVERSION SET	CBSC31	CBSMI32	CBSMI9
HEAD BOLT SET	HBC31	HBMI9	HBMI9
PISTONS, RINGS, PLUGS			
PISTONS	PAC31	PAMI32	PAMI10
RING SETS	RSC31	RSMI9D	RSMI10
PIN BUSHINGS	PBTO33		
FREEZE PLUG SET	EPSC31	EPSMI9	EPSMI9
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSMI32	CSMI9
CONNECTING ROD	CRC31❷	CRMI9	CRMI9
OIL PUMP			
NEW OIL PUMP	OPC31	OPMI32	OPMI9

❶ (.002 over O/D)

❷ (with STD housing)

CHRYSLER

MODEL	INTREPID CONCORDE	SEBRING STRATUS	CARAVAN/VOYAGER SEBRING LeBARON/ACCLAIM SHADOW/SUNDANCE
ENGINE CODE	**2.7L**	**6G72**	**6G72 FWD**
DISPLACEMENT	**2736cc(167")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1998-2000**	**2001-2005**	**1994-2000**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	86mm(3.386")	91.1mm(3.587")	91.1mm(3.587")
STROKE	78.50mm(3.09")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.4997/2.5004	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	2.1060/2.1067	1.9677/1.9685"	1.9677/1.9685"
VALVE TRAIN			
CAMSHAFTS			CAMMI9R❶
LIFTERS	LIFC31	ALAMI4H	ALAMI4H
ROCKER ARMS	RAC31	RAMI24A (int.A)	RAMI9 (pad type)
		RAMI24B (int.B)	RAMI9R (roller type)
		RAMI24E (ex.)	
ROCKER ARM SHAFTS		RASIMI30	RASIMI9
ROCKER ARM SHAFTS		RASEMI30	RASEMI9
INTAKE VALVE	IVC31	IVMI24	IVMI9
EXHAUST VALVE	EVC31	EVMI24	EVMI9
VALVE GUIDE	VGC31		
INTAKE GUIDE		IVGMI22	IVGMI9
EXHAUST GUIDE		EVGMI22	EVGMI9
VALVE SEALS	VSSC26	VSSTO15	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPC31		WPMI9
TIMING CHAIN KIT	CTKC31		
GEARLESS TIMING KIT	PTKC31		
TIMING BELT		TBMI28	TBMI9
TENSIONERS		BTMI31 (hydraulic)	BTMI9

❶ (right side for pad rockers)

CHRYSLER

MODEL	STEALTH	STEALTH TURBO	STEALTH
ENGINE CODE	**6G72**	**6G72**	**6G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1994-1996**	**1992-1996**	**1991-1996**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
ENGINE KITS			
GOLD KIT	EKMI10SG	EKMI27TG	EKMI27G (93-96)
BRONZE KITS	EKMI10SB	EKMI27TB	EKMI27B (93-96)
MAJOR KIT	EKMI10M	EKMI27TM	EKMI27M
RE-RING KIT	EKMI10R	EKMI27TR	EKMI27R
BEARING SETS			
MAIN BEARING SET	MBMI9	MBMI27	MBMI27
ROD BEARING SET	RBMI9	RBMI9	RBMI9
THRUST WASHER SET	TWMI9	TWMI9	TWMI9
GASKETS			
FULL GASKET SET	CGSMI9	CGSMI27T	CGSMI27
HEAD GASKET SET	HSMI9	HSMI27T	HSMI27
HEAD GASKETS	HDGMI9 (each)	HDGMI27 (each)	HDGMI27 (each)
CONVERSION SET	CBSMI9	CBSMI27	CBSMI27
HEAD BOLT SET	HBMI9	HBMI9	HBMI9
PISTONS, RINGS, PLUGS			
PISTONS	PAMI10	PAMI27T	PAMI27
RING SETS	RSMI10	RSMI27	RSMI27
FREEZE PLUG SET	EPSMI9	EPSMI9	EPSMI9
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI9		
CONNECTING ROD	CRMI9	CRMI9	CRMI9
OIL PUMP			
NEW OIL PUMP	OPMI10L	OPMI27T (93-96)	OPMI27 (93-on)

MODEL	STEALTH	STEALTH TURBO	STEALTH
ENGINE CODE	**6G72**	**6G72**	**6G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1994-1996**	**1992-1996**	**1991-1996**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
VALVE TRAIN			
LIFTERS	ALAMI4H	LIFMI6	LIFMI6
ROCKER ARMS	RAMI9R (roller type)	RAMI6	RAMI6
ROCKER ARM SHAFTS	RASIMI9		
ROCKER ARM SHAFTS	RASEMI9		
INTAKE VALVE	IVMI9	IVMI27	IVMI27
EXHAUST VALVE	EVMI9	EVMI27	EVMI27
INTAKE GUIDE	IVGMI9	IVGMI6	IVGMI6
EXHAUST GUIDE	EVGMI9	EVGMI6	EVGMI6
VALVE SEALS	VSSC17	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPMI9	WPMI27	WPMI27
TIMING BELT	TBMI9	TBMI27	TBMI27
TENSIONERS	BTMI9	BTMI27H (hydraulic)	BTMI27H (hydraulic)

CHRYSLER

MODEL	STEALTH	CARAVAN/VOYAGER DAYTONA LeBARON/SPIRIT SHADOW/SUNDANCE ACCLAIM/NEW YORKE	RAM RAIDER
ENGINE CODE	**6G72**	**6G72 FWD**	**6G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1991-1993**	**1988-1993**	**1989-1991**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
ENGINE KITS			
PLATINUM KIT		EKMI9G	
GOLD KIT	EKMI10LG	EKMI9B	EKMI10G
SILVER KIT		EKMI9M	
BRONZE KITS	EKMI10LB	EKMI9R	EKMI10B
MAJOR KIT	EKMI9M		EKMI9M
RE-RING KIT	EKMI9R		EKMI9R
BEARING SETS			
MAIN BEARING SET	MBMI9	MBMI9	MBMI9
ROD BEARING SET	RBMI9	RBMI9	RBMI9
THRUST WASHER SET	TWMI9	TWMI9	TWMI9
GASKETS			
FULL GASKET SET	CGSMI9	CGSMI9	CGSMI9
HEAD GASKET SET	HSMI9	HSMI9	HSMI9
HEAD GASKETS	HDGMI9 (each)	HDGMI9 (each)	HDGMI9 (each)
CONVERSION SET	CBSMI9	CBSMI9	CBSMI9
HEAD BOLT SET	HBMI9	HBMI9	HBMI9
PISTONS, RINGS, PLUGS			
PISTONS	PAMI9 (set of 6)	PAMI9 (set of 6)	PAMI9 (set of 6)
RING SETS	RSMI9	RSMI9	RSMI9
FREEZE PLUG SET	EPSMI9	EPSMI9	EPSMI9
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI9	CSMI9	CSMI9
CONNECTING ROD	CRMI9	CRMI9	CRMI9
OIL PUMP			
NEW OIL PUMP	OPMI10L	OPMI9	OPMI10

MODEL	STEALTH	CARAVAN/VOYAGER DAYTONA LeBARON/SPIRIT SHADOW/SUNDANCE ACCLAIM/NEW YORKE	RAM RAIDER
ENGINE CODE	**6G72**	**6G72 FWD**	**6G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1991-1993**	**1988-1993**	**1989-1991**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
VALVE TRAIN			
RIGHT CAMSHAFT	CAMMI9R❶	CAMMI9R❶	CAMMI9R❶
LIFTERS	ALAMI4H	ALAMI4H	ALAMI4H
ROCKER ARMS	RAMI9 (pad type) RAMI9R (roller type)	RAMI9 (pad type) RAMI9R (roller type)	RAMI9 (pad type) RAMI9R (roller type)
ROCKER ARM SHAFTS	RASIMI9	RASIMI9	RASIMI9
ROCKER ARM SHAFTS	RASEMI9	RASEMI9	RASEMI9
INTAKE VALVE	IVMI9	IVMI9	IVMI9
EXHAUST VALVE	EVMI9	EVMI9	EVMI9
INTAKE GUIDE	IVGMI9	IVGMI9	IVGMI9
EXHAUST GUIDE	EVGMI9	EVGMI9	EVGMI9
VALVE SEALS	VSSC17	VSSC17	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPMI9	WPMI9	WPMI9
TIMING BELT	TBMI9	TBMI9	TBMI9
TENSIONERS	BTMI9	BTMI9	BTMI9

❶ (for pad rockers)

DAEWOO

MODEL	LANOS	NUBIRA	LEGANZA
ENGINE CODE	**A16**	**X20SE**	**X22SE**
DISPLACEMENT	**1597cc(97.4")**	**1998cc(121.9")**	**2198cc(134.1")**
YEARS	**1999-2002**	**1999-2002**	**1999-2002**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	79mm (3.110")	86mm(3.386")	86mm(3.386")
STROKE		86mm(3.38")	94.6mm(3.72")
MAIN JOURNAL DIA.	2.165	2.2884/2.2833"	2.2884/2.2833"
ROD JOURNAL DIA.	1.692	1.9279/1.9287"	1.9279/1.9287"
ENGINE KITS			
MAJOR KIT			EKIS16M
RE-RING KIT		EKIS16R	EKIS16R
BEARING SETS			
MAIN BEARING SET	MBGM1	MBIS16	MBIS16
ROD BEARING SET	RBGM1	RBIS16	RBIS16
GASKETS			
FULL GASKET SET	CGSDW3	CGSIS16	CGSIS16
HEAD GASKET SET	HSDW3	HSIS16	HSIS16
HEAD GASKETS	HDGDW3	HDGIS16	HDGIS16
CONVERSION SET	CBSDW3	CBSIS16	CBSIS16
HEAD BOLT SET	HBDW3	HBIS16	HBIS16
PISTONS, RINGS, PLUGS			
PISTONS			PAIS16 (dished)
RING SETS	RSGM1	RSIS16	RSIS16
FREEZE PLUG SET		EPSIS16	EPSIS16
CRANKSHAFT & RODS			
CONNECTING ROD			CRIS16
OIL PUMP			
NEW OIL PUMP	OPGM1	OPDW1	OPDW2

DAEWOO

MODEL	LANOS	NUBIRA	LEGANZA
ENGINE CODE	**A16**	**X20SE**	**X22SE**
DISPLACEMENT	**1597cc(97.4")**	**1998cc(121.9")**	**2198cc(134.1")**
YEARS	**1999-2002**	**1999-2002**	**1999-2002**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	79mm (3.110")	86mm(3.386")	86mm(3.386")
STROKE		86mm(3.38")	94.6mm(3.72")
MAIN JOURNAL DIA.	2.165	2.2884/2.2833"	2.2884/2.2833"
ROD JOURNAL DIA.	1.692	1.9279/1.9287"	1.9279/1.9287"
VALVE TRAIN			
LIFTERS	LIFIS16	LIFIS16	LIFIS16
INTAKE VALVE	IVDW3	IVIS16	IVIS16
EXHAUST VALVE	EVDW3	EVIS16	EVIS16
INTAKE GUIDE	VGC31 (int)	IVGIS16	IVGIS16
EXHAUST GUIDE	VGC31 (ex)	EVGIS16	EVGIS16
VALVE SEALS	VSSDW3	VSSIS16	VSSIS16
WATER PUMP & TIMING			
WATER PUMP		WPIS16	WPIS16
TIMING BELT	TBGM1	TBDW1	TBIS16

EAGLE

MODEL	SUMMIT with 1995 Calif. Emmissions	SUMMIT without 1995 Calif. Emmissions	SUMMIT without Jet Valves
ENGINE CODE	**4G15**	**4G15**	**4G15**
DISPLACEMENT	**1468cc(89.5")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**1995-1996**	**1991-1995**	**1989-1990**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	75.5mm(2.972")	75.5mm(2.972")	75.5mm(2.972")
STROKE	82mm(3.22")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.6528/1.6535"
ENGINE KITS			
GOLD KIT		EKMI2LG	EKMI2G❶
BRONZE KITS		EKMI2LB	EKMI2B❶
MAJOR KIT	EKMI2LM	EKMI2LM	EKMI2M❶
RE-RING KIT	EKMI2LR	EKMI2LR	EKMI2R❶
BEARING SETS			
MAIN BEARING SET	MBC11L	MBC11L	MBC11L
ROD BEARING SET	RBMI2	RBMI2	RBMI2 (.614" length)
GASKETS			
FULL GASKET SET	CGSMI2	CGSMI2	CGSC10
HEAD GASKET SET	HSMI2	HSMI2	HSC10
HEAD GASKETS	HDGMI2	HDGMI2	HDGC10
CONVERSION SET	CBSC10	CBSC10	CBSC10
PISTONS, RINGS, PLUGS			
PISTONS	PAMI2	PAMI2	PAC10L
RING SETS	RSMI2	RSMI2	RSC10
FREEZE PLUG SET	EPSC11	EPSC11	EPSC11
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI2	CSMI2	CSMI2❶
CONNECTING ROD	CRMI2	CRMI2	CRMI2❷
OIL PUMP			
NEW OIL PUMP		OPMI2	OPC10

❶ (.614" length rod bearing for all kits)

❷ (.614" length rod bearing)

EAGLE

MODEL	SUMMIT with 1995 Calif. Emmissions	SUMMIT without 1995 Calif. Emmissions	SUMMIT without Jet Valves
ENGINE CODE	**4G15**	**4G15**	**4G15**
DISPLACEMENT	**1468cc(89.5")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**1995-1996**	**1991-1995**	**1989-1990**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	75.5mm(2.972")	75.5mm(2.972")	75.5mm(2.972")
STROKE	82mm(3.22")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.6528/1.6535"
VALVE TRAIN			
CAMSHAFTS			CAMMI2
ROCKER ARMS	RAMI2RA (1 & 3 CYL)	RAMI2RA (1 & 3 CYL)	RAMI2A (1 & 3 CYL)
	RAMI2RB (2 & 4 CYL)	RAMI2RB (2 & 4 CYL)	RAMI2B (2 & 4 CYL)
ROCKER ARMS	RAMI2RC (1 & 3 CYL)	RAMI2RC (1 & 3 CYL)	RAMI2A (1 & 3 CYL)
	RAMI2RD (2 & 4 CYL)	RAMI2RD (2 & 4 CYL)	RAMI2B (2 & 4 CYL)
ROCKER ARM SHAFTS	RASIMI2	RASIMI2	
ROCKER ARM SHAFTS	RASEMI2	RASEMI2	
INTAKE VALVE	IVMI2A (31mm)	IVMI2A (31mm)	IVMI2
	IVMI2B (26mm)	IVMI2B (26mm)	
EXHAUST VALVE	EVMI2L	EVMI2L	EVC11
INTAKE GUIDE	IVGC11	IVGC11	IVGC11
EXHAUST GUIDE	EVGC11	EVGC11	EVGC11
VALVE SEALS	VSSC11	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPC10	WPC10	WPC10
TIMING BELT	TBMI2L	TBMI2L	TBMI2
TENSIONERS	BTMI2L	BTMI2L	BTC11

EAGLE

MODEL	SUMMIT	TALON	SUMMIT
ENGINE CODE	**4G61**	**4G37**	**4G93**
DISPLACEMENT	**1595cc(97.3")**	**1755cc(107")**	**1834cc(111.9")**
YEARS	**1989-1990**	**1993-1994**	**1992-1996**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	82.3mm(3.240")	80.6mm(3.173")	81mm(3.189")
STROKE	75mm(2.95")	86mm(3.39")	89mm(3.50")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	1.9678/1.9685"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKMI21G	EKMI20G	EKMI22G (92-95)
BRONZE KITS		EKMI20B	EKMI22B (92-95)
MAJOR KIT	EKMI21M	EKMI20M	EKMI22M
RE-RING KIT	EKMI21R	EKMI20R	EKMI22R
BEARING SETS			
MAIN BEARING SET	MBC17	MBC17	MBMI22
ROD BEARING SET	RBC15L	RBC15L	RBMI22
THRUST WASHER SET			TWMI22
INTERMEDIATE SET		ISBMI20	
GASKETS			
FULL GASKET SET	CGSMI6	CGSMI20	CGSMI22
HEAD GASKET SET	HSMI6	HSMI20	HSMI22
HEAD GASKETS	HDGMI6	HDGMI20	HDGMI22
CONVERSION SET	CBSMI4	CBSMI20	CBSMI22
HEAD BOLT SET	HBMI6		HBMI22
PISTONS, RINGS, PLUGS			
PISTONS	PAMI21	PAMI20	PAMI22
RING SETS	RSMI21	RSMI20	RSMI22
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI21	CSMI20	
CONNECTING ROD	CRMI4	CRMI20	CRMI22
OIL PUMP			
NEW OIL PUMP	OPMI21❶	OPMI20	OPMI22 (92-95)

❶ (w/o bal. shaft)

MODEL	SUMMIT	TALON	SUMMIT
ENGINE CODE	**4G61**	**4G37**	**4G93**
DISPLACEMENT	**1595cc(97.3")**	**1755cc(107")**	**1834cc(111.9")**
YEARS	**1989-1990**	**1993-1994**	**1992-1996**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	82.3mm(3.240")	80.6mm(3.173")	81mm(3.189")
STROKE	75mm(2.95")	86mm(3.39")	89mm(3.50")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	1.9678/1.9685"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
INTAKE CAMSHAFT	CAMMI21I		
EXHAUST CAMSHAFT	CAMMI21E		
CAMSHAFTS		CAMMI20	
LIFTERS	LIFMI6	ALAMI4H	
ROCKER ARMS	RAMI6		RAMI22E (exhaust)
FRONT INTAKE ROCKER ARM			RAMI22A
REAR INTAKE ROCKER ARM			RAMI22B
ROCKER ARM SHAFTS		RASIMI20	RASIMI22
ROCKER ARM SHAFTS		RASEMI20	RASEMI22
INTAKE VALVE	IVMI6	IVMI20	IVMI22
EXHAUST VALVE	EVMI6	EVMI20	EVMI22
INTAKE GUIDE	IVGMI6	IVGMI20	IVGMI22
EXHAUST GUIDE	EVGMI6	EVGMI20	EVGMI22
VALVE SEALS	VSSC11	VSSC17	VSSTO15
WATER PUMP & TIMING			
WATER PUMP		WPMI20	WPMI22
TIMING BELT	TBMI21	TBMI20	TBMI22
TENSIONERS	BTMI6 (hydraulic)	BTMI20	BTMI22
IDLERS AND PULLEYS	BTC18		
BALANCE SHAFT BELT		TBMI20B	
BALANCE SHAFTS		JSMI20S (small gear)	
		JSMI20L (large gear)	
BALANCE SHAFT BELT TENSIONER		BTMI20B	

EAGLE

MODEL	TALON	TALON TURBO	TALON
ENGINE CODE	**420A**	**4G63**	**4G63**
DISPLACEMENT	**1996cc(121.8")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1995-1998**	**1995-1998**	**1993-1994**
DESCRIPTION	16 VALVE;DOHC 4; F.INJ	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE DOHC 4; F.INJ. non tu
BORE	87.5mm(3.445")	85mm(3.346")	85mm(3.346")
STROKE	83mm(3.26")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.0469/2.0475"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.8894/1.8890"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKC26EG❶	EKMI23TLG (95-97)	EKMI23G
	EKC26G❷	EKMI23TTG (1998)	
BRONZE KITS	EKC26EB❶	EKMI23TLB (95-97)	EKMI23B
	EKC26B❷	EKMI23TTB (1998)	
MAJOR KIT	EKC26EM❶	EKMI23TLM (95-97)	EKMI23M
	EKC26M❷	EKMI23TTM (1998)	
RE-RING KIT	EKC26ER❶	EKMI23TR (95-97)	EKMI23R
	EKC26R❷	EKMI23TTR (1998)	
BEARING SETS			
MAIN BEARING SET	MBC26E❶	MBMI23 (95-97)	MBMI23
	MBC26❷	MBMI24 (1998)	
ROD BEARING SET	RBC26❸	RBMI23	RBMI23
	RBC26S (STD O/D)		
THRUST WASHER SET		TWMI24 (1998)	
INTERMEDIATE SET		ISBMI3	ISBMI3
GASKETS			
FULL GASKET SET	CGSC26	CGSMI23T	CGSMI23
HEAD GASKET SET	HSC26	HSMI23T	HSMI23
HEAD GASKETS	HDGC26	HDGMI23	HDGMI23
CONVERSION SET	CBSC26	CBSMI23	CBSMI23
HEAD BOLT SET	HBC26	HBMI23	HBMI23
PISTONS, RINGS, PLUGS			
PISTONS	PAC26		PAMI23
RING SETS	RSC26	RSMI23T	RSMI23
FREEZE PLUG SET	EPSC26	EPSMI23T	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC26❷		
CONNECTING ROD	CRC26	CRMI6	CRMI6
OIL PUMP			
NEW OIL PUMP	OPC26	OPMI24	OPMI24

❶ (lock tabs all left)
❷ ((lock tabs 1/2 & 1/2)
❸ (.002 over O/D)

MODEL	TALON	TALON TURBO	TALON
ENGINE CODE	**420A**	**4G63**	**4G63**
DISPLACEMENT	**1996cc(121.8")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1995-1998**	**1995-1998**	**1993-1994**
DESCRIPTION	16 VALVE;DOHC 4; F.INJ	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE DOHC 4; F.INJ. non tu
BORE	87.5mm(3.445")	85mm(3.346")	85mm(3.346")
STROKE	83mm(3.26")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.0469/2.0475"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.8894/1.8890"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS			CAMMI6E (ex.)
LIFTERS	LIFC28	LIFMI6	LIFMI6
ROCKER ARMS	RAC26	RAMI6	RAMI6
INTAKE VALVE	IVC26	IVMI6	IVMI6
EXHAUST VALVE	EVC26	EVMI6	EVMI6
VALVE GUIDE	VGC26		
INTAKE GUIDE		IVGMI6	IVGMI6
EXHAUST GUIDE		EVGMI6	EVGMI6
VALVE SEALS	VSSC26	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPC26		WPMI6
TIMING BELT	TBC26	TBMI6	TBMI6
TENSIONERS	BTC26 (hydraulic)	BTMI23C (hydraulic)	BTMI23 (hydraulic)
BALANCE SHAFT BELT		TBMI6B	TBMI6B
BALANCE SHAFT BELT TENSIONER		BTMI6R	BTMI6R

EAGLE

MODEL	TALON TURBO	TALON	TALON TURBO
ENGINE CODE	**4G63**	**4G63**	**4G63**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1993-1994**	**1990-1992**	**1990-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKMI23TG	EKMI6G	EKMI6TG
BRONZE KITS	EKMI23TB	EKMI6B	EKMI6TB
MAJOR KIT	EKMI23TM	EKMI6M	EKMI6TM
RE-RING KIT	EKMI23R	EKMI6R	EKMI6R
BEARING SETS			
MAIN BEARING SET	MBMI23	MBC17	MBC17
ROD BEARING SET	RBMI23	RBC15L	RBC15L
INTERMEDIATE SET	ISBMI3	ISBMI3	ISBMI3
GASKETS			
FULL GASKET SET	CGSMI23	CGSMI6	CGSMI6
HEAD GASKET SET	HSMI23	HSMI6	HSMI6
HEAD GASKETS	HDGMI23	HDGMI6	HDGMI6
CONVERSION SET	CBSMI23	CBSMI4	CBSMI4
HEAD BOLT SET	HBMI23	HBMI6	HBMI6
PISTONS, RINGS, PLUGS			
PISTONS	PAMI23T	PAMI6	PAMI6T
RING SETS	RSMI23	RSMI6T	RSMI6T
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI6	CRMI4	CRMI4
OIL PUMP			
NEW OIL PUMP	OPMI24	OPMI6	OPMI6

MODEL	TALON TURBO	TALON	TALON TURBO
ENGINE CODE	**4G63**	**4G63**	**4G63**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1993-1994**	**1990-1992**	**1990-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS	CAMMI6E (ex.)	CAMMI6E (ex.)	CAMMI6E (ex.)
LIFTERS	LIFMI6	LIFMI6	LIFMI6
ROCKER ARMS	RAMI6	RAMI6	RAMI6
INTAKE VALVE	IVMI6	IVMI6	IVMI6
EXHAUST VALVE	EVMI6	EVMI6	EVMI6
VALVE GUIDE		IVGMI6 (int.)	IVGMI6 (int.)
		EVGMI6 (ex.)	EVGMI6 (ex.)
INTAKE GUIDE	IVGMI6		
EXHAUST GUIDE	EVGMI6		
VALVE SEALS	VSSC11	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPMI6	WPMI6	WPMI6
TIMING BELT	TBMI6	TBMI6	TBMI6
TENSIONERS	BTMI23 (hydraulic)	BTMI6 (hydraulic)	BTMI6 (hydraulic)
BALANCE SHAFT BELT	TBMI6B	TBMI6B	TBMI6B
LEFT BALANCE SHAFT	JSMI4L		
RIGHT BALANCE SHAFT	JSMI4R		
BALANCE SHAFT BELT TENSIONER	BTMI6R	BTMI6R	BTMI6R
ENGINES & HEADS			
HEAD W/VALVES		CHVMI6	CHVMI6

EAGLE

MODEL	SUMMIT WAGON	SUMMIT WAGON	
ENGINE CODE	**4G64K**	**4G64**	
DISPLACEMENT	**2350cc(143.4")**	**2350cc(143.4")**	
YEARS	**1993-1996**	**1992**	
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ	
BORE	86.5mm(3.406")	86.5mm(3.406")	
STROKE	100mm(3.94")	100mm(3.94")	
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	
ENGINE KITS			
GOLD KIT	EKMI24G		
BRONZE KITS	EKMI24B		
MAJOR KIT	EKMI24M	EKMI5LM	
RE-RING KIT	EKMI24R	EKMI5R	
BEARING SETS			
MAIN BEARING SET	MBMI23	MBC17	
ROD BEARING SET	RBMI23	RBC15L	
INTERMEDIATE SET	ISBMI3	ISBMI3	
GASKETS			
FULL GASKET SET	CGSMI24	CGSMI5	
HEAD GASKET SET	HSMI24	HSMI5	
HEAD GASKETS	HDGMI24	HDGMI5	
CONVERSION SET	CBSMI23	CBSMI4	
HEAD BOLT SET	HBMI23		
PISTONS, RINGS, PLUGS			
PISTONS	PAMI24	PAMI5	
RING SETS	RSMI24	RSMI5	
FREEZE PLUG SET	EPSMI4	EPSMI4	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI24		
CONNECTING ROD	CRMI6	CRMI4	
OIL PUMP			
NEW OIL PUMP	OPMI24		

MODEL	SUMMIT WAGON	SUMMIT WAGON	
ENGINE CODE	**4G64K**	**4G64**	
DISPLACEMENT	**2350cc(143.4")**	**2350cc(143.4")**	
YEARS	**1993-1996**	**1992**	
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ	
BORE	86.5mm(3.406")	86.5mm(3.406")	
STROKE	100mm(3.94")	100mm(3.94")	
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	
VALVE TRAIN			
CAMSHAFTS		CAMMI4L	
LIFTERS	ALAMI4H	ALAMI4H	
ROCKER ARMS		RAMI4RA (1 & 3 CYL)	
FRONT INTAKE ROCKER ARM	RAMI24A		
ROCKER ARM SHAFTS	RASIMI24	RASIMI4	
ROCKER ARM SHAFTS	RASEMI24	RASEMI4	
INTAKE VALVE	IVMI24	IVMI5	
EXHAUST VALVE	EVMI24	EVMI5	
INTAKE GUIDE	IVGMI22	IVGC21	
EXHAUST GUIDE	EVGMI22	EVGC23	
VALVE SEALS	VSSTO15	VSSC17	
WATER PUMP & TIMING			
TIMING BELT	TBMI24	TBMI5L	
TENSIONERS	BTMI23C	BTMI4L	
BALANCE SHAFT BELT	TBMI6B	TBMI4B	
BALANCE SHAFT BELT TENSIONER	BTMI6R	BTMI4R	

FORD

MODEL	ASPIRE hydraulic lash adjustment	FESTIVA hydraulic lash adjustment	FESTIVA screw adjustment
ENGINE CODE	**B3**	**B3**	**B3**
DISPLACEMENT	**1324cc(80.8")**	**1324cc(80.8")**	**1324cc(80.8")**
YEARS	**1994-1997**	**1990-1993**	**1988-1989**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4	8 VALVE; SOHC 4
BORE	71mm(2.795")	71mm(2.795")	71mm(2.795")
STROKE	83.6mm(3.29")	83.6mm(3.29")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.5724/1.5731"	1.5724/1.5731"	1.5724/1.5731"
ENGINE KITS			
GOLD KIT	EKFD3G	EKFD2G (w/OPMA9) EKFD2LG (w/OPMA13)	EKFD2G (w/OPMA9) EKFD2LG (w/OPMA13)
BRONZE KITS	EKFD3B	EKFD2B (w/OPMA9) EKFD2LB (w/OPMA13)	EKFD2B (w/OPMA9) EKFD2LB (w/OPMA13)
MAJOR KIT	EKFD3M	EKFD2LM	EKFD2M
RE-RING KIT	EKFD3R	EKFD2R	EKFD2R
BEARING SETS			
MAIN BEARING SET	MBMA9	MBMA9	MBMA9
ROD BEARING SET	RBMA19	RBMA19	RBMA19
THRUST WASHER SET	TWMA9	TWMA9	TWMA9
GASKETS			
FULL GASKET SET	CGSFD3	CGSFD2	CGSFD2
HEAD GASKET SET	HSFD2	HSFD2	HSFD2
CONVERSION SET	CBSMA13	CBSMA9	CBSMA9
PISTONS, RINGS, PLUGS			
PISTONS	PAFD2	PAFD2	PAFD2
RING SETS	RSFD2	RSFD2	RSFD2
FREEZE PLUG SET	EPSFD2	EPSFD2	EPSFD2
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSFD2 (22mm snout)	CSFD2 (22mm snout)
CONNECTING ROD	CRFD2	CRFD2	CRFD2
OIL PUMP			
NEW OIL PUMP	OPMA13 (#B3C7)	OPMA9 (#B630) OPMA13 (#B3C7)	OPMA9 (#B630) OPMA13 (#B3C7)

MODEL	ASPIRE hydraulic lash adjustment	FESTIVA hydraulic lash adjustment	FESTIVA screw adjustment
ENGINE CODE	**B3**	**B3**	**B3**
DISPLACEMENT	**1324cc(80.8")**	**1324cc(80.8")**	**1324cc(80.8")**
YEARS	**1994-1997**	**1990-1993**	**1988-1989**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4	8 VALVE; SOHC 4
BORE	71mm(2.795")	71mm(2.795")	71mm(2.795")
STROKE	83.6mm(3.29")	83.6mm(3.29")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.5724/1.5731"	1.5724/1.5731"	1.5724/1.5731"
VALVE TRAIN			
CAMSHAFTS			CAMMA9
LIFTERS	ALAMA12	ALAMA12	
ROCKER ARMS		RAMA9HA (1 & 2 Cyl)	RAMA9A (1 & 2 Cyl) RAMA9B (3 & 4 Cyl)
ROCKER ARM SHAFTS			RASIMA9
ROCKER ARM SHAFTS			RASEMA9
INTAKE VALVE	IVFD2	IVFD2	IVFD2
EXHAUST VALVE	EVFD2	EVFD2	EVFD2
VALVE GUIDE	VGMA9	VGMA9	VGMA9
VALVE SEALS	VSSMA9	VSSMA9	VSSMA9
WATER PUMP & TIMING			
WATER PUMP	WPMA11	WPMA11	WPMA11
TIMING BELT	TBMA11	TBMA11	TBFD2
TENSIONERS	BTMA9	BTMA9	BTMA9

FORD

MODEL	FUSION ESCAPE (17-19) TURBO	ESCAPE (13-16) TRANSIT CONNECT (14-16) FIESTA ST (14-19)	FIESTA
ENGINE CODE	**EcoBoost**	**EcoBoost**	**Ti-VCT**
DISPLACEMENT	**1499cc(91.0")**	**1596cc(97.4")**	**1596cc(97.4")**
YEARS	**2014-2020**	**2013-2019**	**2011-2019**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin D	16vlv; DOHC; 4; Turbo; vin X	16vlv; DOHC; 4; F.INJ; vin J
BORE	79mm(3.110")	79mm (3.110")	79mm (3.110")
STROKE	76.4mm(3.01")	81.4mm(3.20)	81.4mm(3.20)
MAIN JOURNAL DIA.	1.8881/1.8889"	1.8881/1.8889"	1.8881/1.8889"
ROD JOURNAL DIA.	1.7316/1.7323"	1.7316/1.7323"	1.7316/1.7323"
BEARING SETS			
MAIN BEARING SET	MBFD9	MBFD9	MBFD8
ROD BEARING SET	RBFD9 (16mm width)	RBFD9 (16mm width)	RBFD8 (15mm width)
GASKETS			
FULL GASKET SET	CGSFD9D	CGSFD9	CGSFD8
HEAD GASKET SET	HSFD9D	HSFD9	HSFD8
CONVERSION SET	CBSFD8	CBSFD8	CBSFD8
HEAD BOLT SET	HBFD8	HBFD8	HBFD8
PISTONS, RINGS, PLUGS			
PISTONS		PAFD9	PAFD8
RING SETS	RSFD9	RSFD9	RSFD8
OIL PUMP			
NEW OIL PUMP	OPFD9	OPFD9	

MODEL	FUSION ESCAPE (17-19) TURBO	ESCAPE (13-16) TRANSIT CONNECT (14-16) FIESTA ST (14-19)	FIESTA
ENGINE CODE	**EcoBoost**	**EcoBoost**	**Ti-VCT**
DISPLACEMENT	**1499cc(91.0")**	**1596cc(97.4")**	**1596cc(97.4")**
YEARS	**2014-2020**	**2013-2019**	**2011-2019**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin D	16vlv; DOHC; 4; Turbo; vin X	16vlv; DOHC; 4; F.INJ; vin J
BORE	79mm(3.110")	79mm (3.110")	79mm (3.110")
STROKE	76.4mm(3.01")	81.4mm(3.20)	81.4mm(3.20)
MAIN JOURNAL DIA.	1.8881/1.8889"	1.8881/1.8889"	1.8881/1.8889"
ROD JOURNAL DIA.	1.7316/1.7323"	1.7316/1.7323"	1.7316/1.7323"
VALVE TRAIN			
INTAKE VALVE	IVFD9	IVFD9	IVFD8
EXHAUST VALVE	EVFD9	EVFD9	EVFD8
VALVE SEALS	VSSFD9	VSSFD9	
WATER PUMP & TIMING			
TIMING BELT	TBFD8	TBFD8	TBFD8

FORD

MODEL	FUSION SE TURBO	TRACER	TRACER ESCORT
ENGINE CODE	**EcoBoost**	**B6**	**BP**
DISPLACEMENT	**1596cc(97.4")**	**1597cc(97.4")**	**1839cc(112.2")**
YEARS	**2013-2014**	**1988-1989**	**1994-1996**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin R	8 VALVE; SOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ.
BORE	79mm (3.110")	78mm(3.071")	83mm(3.268")
STROKE	81.4mm(3.20)	83.6mm(3.29")	85mm(3.35")
MAIN JOURNAL DIA.	1.8881/1.8889"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.7316/1.7323"	1.7693/1.7699"	1.7693/1.7699"
ENGINE KITS			
GOLD KIT		EKMA9G	EKMA13LG (27mm snout)
BRONZE KITS		EKMA9B	EKMA13LB (27mm snout)
MAJOR KIT		EKMA9M	EKMA13M
RE-RING KIT		EKMA9R	EKMA13R
BEARING SETS			
MAIN BEARING SET	MBFD9	MBMA9	MBMA9
ROD BEARING SET	RBFD9 (16mm width)	RBMA9	RBMA9
THRUST WASHER SET		TWMA9	TWMA9
GASKETS			
FULL GASKET SET	CGSFD9	CGSMA9	CGSMA13
HEAD GASKET SET	HSFD9	HSMA9	HSMA13
HEAD GASKETS		HDGMA9	HDGMA13
CONVERSION SET	CBSFD8	CBSMA9	CBSMA13
HEAD BOLT SET	HBFD8		
PISTONS, RINGS, PLUGS			
PISTONS	PAFD9	PAMA9	PAMA13
RING SETS	RSFD9	RSMA9	RSMA13
FREEZE PLUG SET		EPSMA9	EPSMA13
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSMA9	
CONNECTING ROD		CRMA9	
OIL PUMP			
NEW OIL PUMP	OPFD9	OPMA9	OPMA19 (#B6S8)

MODEL	FUSION SE TURBO	TRACER	TRACER ESCORT
ENGINE CODE	**EcoBoost**	**B6**	**BP**
DISPLACEMENT	**1596cc(97.4")**	**1597cc(97.4")**	**1839cc(112.2")**
YEARS	**2013-2014**	**1988-1989**	**1994-1996**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin R	8 VALVE; SOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ.
BORE	79mm (3.110")	78mm(3.071")	83mm(3.268")
STROKE	81.4mm(3.20)	83.6mm(3.29")	85mm(3.35")
MAIN JOURNAL DIA.	1.8881/1.8889"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.7316/1.7323"	1.7693/1.7699"	1.7693/1.7699"
VALVE TRAIN			
CAMSHAFTS		CAMMA9	
LIFTERS			LIFMA13
FRONT INTAKE ROCKER ARM		RAMA9A	
REAR INTAKE ROCKER ARM		RAMA9B	
ROCKER ARM SHAFTS		RASIMA9	
INTAKE VALVE	IVFD9	IVMA9	IVMA13
EXHAUST VALVE	EVFD9	EVMA9	EVMA13
VALVE GUIDE		VGMA9	IVGMA13L (int.)
			EVGMA13L (ex.)
VALVE SEALS	VSSFD9	VSSMA9	VSSMA13
WATER PUMP & TIMING			
WATER PUMP		WPMA11	WPMA13
TIMING BELT	TBFD8	TBMA9	TBMA13
TENSIONERS		BTMA9	BTMA13
IDLERS AND PULLEYS			BTMA13R

FORD

MODEL	TRACER ESCORT	ESCAPE	COURIER
ENGINE CODE	**BP**	**ZETEC VIN B**	**MA**
DISPLACEMENT	**1839cc(112.2")**	**1989cc(121.3")**	**1989cc(122.0")**
YEARS	**1991-1993**	**2001-2004**	**1979-1982**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	83mm(3.268")	84.8mm(3.339")	80mm(3.150")
STROKE	85mm(3.35")	87.9mm(3.46")	89mm(3.86")
MAIN JOURNAL DIA.	1.9661/1.9668"	2.2827/2.2834"	2.4779/2.4785"
ROD JOURNAL DIA.	1.7693/1.7699"	1.8461/1.8468"	2.0842/2.0848
ENGINE KITS			
PLATINUM KIT			EKMA7P
SILVER KIT			EKMA7S
MAJOR KIT	EKMA13M		EKMA7M
RE-RING KIT	EKMA13R		EKMA7R (1.5x2.0x4)
			EKMA6R (1.2x1.5x4)
BEARING SETS			
MAIN BEARING SET	MBMA9		MBMA7
ROD BEARING SET	RBMA9		RBMA7
THRUST WASHER SET	TWMA9		TWMA7
CAM BEARINGS			CBMA7
GASKETS			
FULL GASKET SET	CGSMA13		CGSMA7
HEAD GASKET SET	HSMA13	HSFD7E	HSMA7
HEAD GASKETS	HDGMA13		HDGMA7
CONVERSION SET	CBSMA13		CBSMA7
HEAD BOLT SET		HBFD7	
PISTONS, RINGS, PLUGS			
PISTONS	PAMA13	PAFD7L	PAMA7
RING SETS	RSMA13	RSFD7L	
FREEZE PLUG SET	EPSMA13		EPSMA7
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA13 (22mm snout)		CSMA7
CONNECTING ROD			CRMA7
OIL PUMP			
NEW OIL PUMP		OPFD7L	

MODEL	TRACER ESCORT	ESCAPE	COURIER
ENGINE CODE	**BP**	**ZETEC VIN B**	**MA**
DISPLACEMENT	**1839cc(112.2")**	**1989cc(121.3")**	**1989cc(122.0")**
YEARS	**1991-1993**	**2001-2004**	**1979-1982**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	83mm(3.268")	84.8mm(3.339")	80mm(3.150")
STROKE	85mm(3.35")	87.9mm(3.46")	89mm(3.86")
MAIN JOURNAL DIA.	1.9661/1.9668"	2.2827/2.2834"	2.4779/2.4785"
ROD JOURNAL DIA.	1.7693/1.7699"	1.8461/1.8468"	2.0842/2.0848
VALVE TRAIN			
EXHAUST CAMSHAFT		CAMFD7FE	
LIFTERS	LIFMA13		
ROCKER ARMS			RAMA5I (int.) RAMA5E (ex.)
INTAKE VALVE	IVMA13	IVFD7	IVMA7
EXHAUST VALVE	EVMA13	EVFD7	EVMA7
VALVE GUIDE	IVGMA13L (int.) EVGMA13L (ex.)	VGFD7	VGMA7
VALVE SEALS	VSSMA13		VSSMA7
WATER PUMP & TIMING			
WATER PUMP	WPMA13	WPFD7L	
TIMING CHAIN KIT			CTKMA7
TIMING BELT	TBMA13	TBFD7L	
TENSIONERS	BTMA13	BTFD7L	
IDLERS AND PULLEYS	BTMA13R	BTFD7LR	

FORD

MODEL	PROBE	FOCUS	FOCUS SVT
ENGINE CODE	**FS**	**ZETEC**	**ZETEC**
DISPLACEMENT	**1991cc(121.5")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**1993-1997**	**2000-2004**	**2002-2003**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ, vin 3	16vlv; DOHC; 4; F.INJ, vin 5
BORE	83mm(3.278")	84.8mm(3.341")	84.8mm(3.341")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.2022/2.2030"	2.2827/2.2834"	2.2827/2.2834"
ROD JOURNAL DIA.	1.8874/1.8880"	1.8461/1.8469"	1.8461/1.8469"
ENGINE KITS			
GOLD KIT	EKMA17G		
BRONZE KITS	EKMA17B		
MAJOR KIT	EKMA17M		
RE-RING KIT	EKMA17R		
BEARING SETS			
MAIN BEARING SET	MBMA17	MBFD7	
ROD BEARING SET	RBMA17	RBFD7 (Standard OD)	
THRUST WASHER SET	TWH16		
GASKETS			
FULL GASKET SET	CGSMA17		
HEAD GASKET SET	HSMA17		
HEAD GASKETS	HDGMA17	HDGFD7 (2000-03 only)	
CONVERSION SET	CBSMA17		
HEAD BOLT SET	HBMA17	HBFD7	
PISTONS, RINGS, PLUGS			
PISTONS	PAMA17	PAFD7L	PAFD7L
RING SETS	RSMA17	RSFD7L	RSFD7L
FREEZE PLUG SET	EPSMA17		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA17		
CONNECTING ROD	CRMA17		CRFD7L
OIL PUMP			
NEW OIL PUMP	OPMA17L	OPFD7L	OPFD7L

MODEL	PROBE	FOCUS	FOCUS SVT
ENGINE CODE	**FS**	**ZETEC**	**ZETEC**
DISPLACEMENT	**1991cc(121.5")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**1993-1997**	**2000-2004**	**2002-2003**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ, vin 3	16vlv; DOHC; 4; F.INJ, vin 5
BORE	83mm(3.278")	84.8mm(3.341")	84.8mm(3.341")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.2022/2.2030"	2.2827/2.2834"	2.2827/2.2834"
ROD JOURNAL DIA.	1.8874/1.8880"	1.8461/1.8469"	1.8461/1.8469"
VALVE TRAIN			
LIFTERS	LIFMA13		
INTAKE VALVE	IVMA17	IVFD7	
EXHAUST VALVE	EVMA17	EVFD7	
VALVE GUIDE	VGMA17	VGFD7	
VALVE SEALS	VSSMA13		
WATER PUMP & TIMING			
WATER PUMP	WPMA17	WPFD7L	WPFD7L
TIMING BELT	TBMA17	TBFD7L	TBFD7L
TENSIONERS	BTMA17	BTFD7L	BTFD7L
IDLERS AND PULLEYS	BTMA17R	BTFD7LR	BTFD7LR

FORD

MODEL	ZX2 COUGAR	CONTOUR (98-00) MYSTIQUE (98-00) COUGAR (99-02) ESCORT (98-03)	CONTOUR MYSTIQUE
ENGINE CODE	**VIN 3 ZETEC**	**ZETEC VIN 3**	**ZETEC VIN 3**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**2000-2003**	**1998-2003**	**1995-1997**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	84.8mm(3.341")	84.8mm(3.341")	84.8mm(3.341")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.2827/2.2834"	2.2827/2.2834"	2.2827/2.2834"
ROD JOURNAL DIA.	1.8461/1.8469"	1.8461/1.8469"	1.8461/1.8469"
ENGINE KITS			
GOLD KIT			EKFD7G
MAJOR KIT			EKFD7M
RE-RING KIT			EKFD7R
BEARING SETS			
MAIN BEARING SET	MBFD7	MBFD7	MBFD7
ROD BEARING SET	RBFD7 (Standard OD)	RBFD7 (Standard OD)	RBFD7 (Standard OD)
GASKETS			
FULL GASKET SET			CGSFD7
HEAD GASKET SET			HSFD7
HEAD GASKETS			HDGFD7
CONVERSION SET	CBSFD7L		CBSFD7
HEAD BOLT SET	HBFD7	HBFD7	HBFD7
PISTONS, RINGS, PLUGS			
PISTONS	PAFD7L	PAFD7L	PAFD7
RING SETS	RSFD7L	RSFD7L	RSFD7
CRANKSHAFT & RODS			
CONNECTING ROD	CRFD7L		
OIL PUMP			
NEW OIL PUMP	OPFD7L	OPFD7L	OPFD7

MODEL	ZX2 COUGAR	CONTOUR (98-00) MYSTIQUE (98-00) COUGAR (99-02) ESCORT (98-03)	CONTOUR MYSTIQUE
ENGINE CODE	**VIN 3 ZETEC**	**ZETEC VIN 3**	**ZETEC VIN 3**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**2000-2003**	**1998-2003**	**1995-1997**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	84.8mm(3.341")	84.8mm(3.341")	84.8mm(3.341")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.2827/2.2834"	2.2827/2.2834"	2.2827/2.2834"
ROD JOURNAL DIA.	1.8461/1.8469"	1.8461/1.8469"	1.8461/1.8469"
VALVE TRAIN			
CAMSHAFTS			CAMFD7I (int.) CAMFD7E (ex.)
LIFTERS			LIFFD7
INTAKE VALVE	IVFD7	IVFD7	IVFD7
EXHAUST VALVE	EVFD7	EVFD7	EVFD7
VALVE GUIDE	VGFD7	VGFD7	VGFD7
WATER PUMP & TIMING			
WATER PUMP	WPFD7L	WPFD7L	
TIMING BELT	TBFD7L	TBFD7L	TBFD7
TENSIONERS	BTFD7L	BTFD7L	BTFD7
IDLERS AND PULLEYS	BTFD7LR	BTFD7LR	

FORD

MODEL	FOCUS (08-11) TRANSIT CONNECT (11-13)	FOCUS	PROBE
ENGINE CODE	**DURATEC VIN N**	**DURATEC VIN N**	**F2**
DISPLACEMENT	**1999cc(121.9")**	**1999cc(121.9")**	**2184cc(133.2")**
YEARS	**2008-2013**	**2005-2007**	**1989-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ non tu
BORE	87.5mm(3.445")	87.5mm(3.445")	86mm(3.386")
STROKE	83.1(3.27")	83.1(3.27")	94mm(3.70")
MAIN JOURNAL DIA.	2.0460/2.0470"	2.0460/2.0470"	2.3597/2.3604"
ROD JOURNAL DIA.	1.8496/1.8504"	1.8496/1.8504"	2.0055/2.0061"
ENGINE KITS			
GOLD KIT			EKMA12G
BRONZE KITS			EKMA12B
MAJOR KIT	EKMA28LM	EKMA28M	EKMA12M
RE-RING KIT	EKMA28R	EKMA28R	EKMA12R
BEARING SETS			
MAIN BEARING SET	MBMA25	MBMA25	MBMA8
ROD BEARING SET	RBMA28	RBMA28	RBMA8
GASKETS			
FULL GASKET SET	CGSMA25L❶	CGSMA25❷	CGSMA12
HEAD GASKET SET	HSMA25L	HSMA25❸	HSMA12
HEAD GASKETS		HDGMA25❸	HDGMA12
CONVERSION SET	CBSMA25❷	CBSMA25❷	CBSMA12
HEAD BOLT SET	HBMA25	HBMA25	HBMA12
PISTONS, RINGS, PLUGS			
PISTONS	PAMA28L	PAMA28	PAMA12
RING SETS	RSMA25	RSMA25	RSMA8
FREEZE PLUG SET			EPSMA8
CRANKSHAFT & RODS			
CONNECTING ROD			CRMA12
OIL PUMP			
NEW OIL PUMP	OPMA25F	OPMA25F	OPMA12

❶ (rear seal/cover not included)
❷ (Rear Main Seal/Cover not included)
❸ (For Non Variable Cam Gear Application)

MODEL	FOCUS (08-11) TRANSIT CONNECT (11-13)	FOCUS	PROBE
ENGINE CODE	**DURATEC VIN N**	**DURATEC VIN N**	**F2**
DISPLACEMENT	**1999cc(121.9")**	**1999cc(121.9")**	**2184cc(133.2")**
YEARS	**2008-2013**	**2005-2007**	**1989-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ non tu
BORE	87.5mm(3.445")	87.5mm(3.445")	86mm(3.386")
STROKE	83.1(3.27")	83.1(3.27")	94mm(3.70")
MAIN JOURNAL DIA.	2.0460/2.0470"	2.0460/2.0470"	2.3597/2.3604"
ROD JOURNAL DIA.	1.8496/1.8504"	1.8496/1.8504"	2.0055/2.0061"
VALVE TRAIN			
CAMSHAFTS			CAMMA12F
LIFTERS			ALAMA12
ROCKER ARMS			RAMA12FA (w/cast line)
			RAMA12FB (no cast line)
ROCKER ARM SHAFTS			RASIMA12F
ROCKER ARM SHAFTS			RASEMA12F
INTAKE VALVE	IVMA25	IVMA25	IVMA12
EXHAUST VALVE	EVMA25	EVMA25	EVMA12
VALVE GUIDE	VGMA25	VGMA25	VGMA12
VALVE SEALS	VSSMA25	VSSMA25	VSSMA9
WATER PUMP & TIMING			
WATER PUMP	WPMA28	WPMA28	WPMA12
TIMING CHAIN KIT	CTKMA28ME❶	CTKMA28ME❶	
TIMING BELT			TBMA12
TENSIONERS			BTMA12
IDLERS AND PULLEYS			BTMA12R

❶ (with 134 link chain; 54 link OP chain)

FORD

MODEL	PROBE TURBO	RANGER	FOCUS ST (06-07) FUSION MILAN
ENGINE CODE	**F2**	**99D**	**DURATEC VIN Z**
DISPLACEMENT	**2184cc(133.2")**	**2261cc(138")**	**2261cc(138")**
YEARS	**1989-1992**	**2001-2011**	**2006-2008**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ Turbo	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	86mm(3.386")	87.5mm(3.445")	87.5mm(3.445")
STROKE	94mm(3.70")	94mm(3.70")	94mm(3.70")
MAIN JOURNAL DIA.	2.3597/2.3604"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	2.0055/2.0061"	1.9678/1.9685"	1.9678/1.9685"
ENGINE KITS			
GOLD KIT	EKMA12TG		
BRONZE KITS	EKMA12TB		
MAJOR KIT	EKMA12TM	EKMA25RM	EKMA25LM
RE-RING KIT	EKMA12TR	EKMA25R	EKMA25LR
BEARING SETS			
MAIN BEARING SET	MBMA8	MBMA25	MBMA25
ROD BEARING SET	RBMA8	RBMA25	RBMA25
GASKETS			
FULL GASKET SET	CGSMA12T	CGSMA25❶	CGSMA25L❷
HEAD GASKET SET	HSMA12T	HSMA25❸	HSMA25L
HEAD GASKETS	HDGMA12	HDGMA25❸	
CONVERSION SET	CBSMA12	CBSMA25❶	CBSMA25❶
HEAD BOLT SET	HBMA12	HBMA25	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA12T	PAMA25R	PAMA25
RING SETS	RSMA8	RSMA25	RSMA25
FREEZE PLUG SET	EPSMA8		
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSMA25 (01-09 only)	
CONNECTING ROD	CRMA12	CRMA25S (Std housing) CRMA25❹	CRMA25S (Std housing) CRMA25❹
OIL PUMP			
NEW OIL PUMP	OPMA12	OPMA25F	OPMA25

❶ (Rear Main Seal/Cover not included)
❷ (rear seal/cover not included)
❸ (For Non Variable Cam Gear Application)
❹ (.002" housing)

MODEL	PROBE TURBO	RANGER	FOCUS ST (06-07) FUSION MILAN
ENGINE CODE	**F2**	**99D**	**DURATEC VIN Z**
DISPLACEMENT	**2184cc(133.2")**	**2261cc(138")**	**2261cc(138")**
YEARS	**1989-1992**	**2001-2011**	**2006-2008**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ Turbo	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	86mm(3.386")	87.5mm(3.445")	87.5mm(3.445")
STROKE	94mm(3.70")	94mm(3.70")	94mm(3.70")
MAIN JOURNAL DIA.	2.3597/2.3604"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	2.0055/2.0061"	1.9678/1.9685"	1.9678/1.9685"
VALVE TRAIN			
CAMSHAFTS	CAMMA12F		
LIFTERS	ALAMA12		
ROCKER ARMS	RAMA12FA (w/cast line)		
	RAMA12FB (no cast line)		
ROCKER ARM SHAFTS	RASIMA12F		
ROCKER ARM SHAFTS	RASEMA12F		
INTAKE VALVE	IVMA12	IVMA25	IVMA25
EXHAUST VALVE	EVMA12	EVMA25	EVMA25
VALVE GUIDE	VGMA12	VGMA25	VGMA25
VALVE SEALS	VSSMA9	VSSMA25	VSSMA25
WATER PUMP & TIMING			
WATER PUMP	WPMA12		WPMA28
TIMING CHAIN KIT		CTKMA25F❶	
CAM DRIVE TIMING KIT			CTKMA25FC
TIMING BELT	TBMA12		
TENSIONERS	BTMA12		
IDLERS AND PULLEYS	BTMA12R		

❶ (w/138 link chain; 54 link OP chain)

FORD

MODEL	ESCAPE MARINER	FOCUS	FUSION MILAN (10-11)
ENGINE CODE	**DURATEC VIN Z**	**DURATEC VIN Z**	**L5-VE MZR**
DISPLACEMENT	**2261cc(138")**	**2261cc(138")**	**2488cc(151.8")**
YEARS	**2005-2008**	**2003-2005**	**2010-2013**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	89mm(3.504")
STROKE	94mm(3.70")	94mm(3.70")	100mm(3.94")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.9678/1.9685"	1.9678/1.9685"	2.0465/2.0472"
ENGINE KITS			
MAJOR KIT	EKMA25RM	EKMA25M	
RE-RING KIT	EKMA25R	EKMA25R	
BEARING SETS			
MAIN BEARING SET	MBMA25	MBMA25	MBMA25
ROD BEARING SET	RBMA25	RBMA25	RBMA30 (w/o tabs) RBMA25T❶
GASKETS			
FULL GASKET SET	CGSMA25❷	CGSMA25❷	CGSMA30❷
HEAD GASKET SET	HSMA25❸	HSMA25❸	HSMA30
HEAD GASKETS	HDGMA25❸	HDGMA25❸	
CONVERSION SET	CBSMA25❷	CBSMA25❷	CBSMA25❷
HEAD BOLT SET	HBMA25	HBMA25	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA25R	PAMA25	PAMA30
RING SETS	RSMA25	RSMA25	RSMA30
CRANKSHAFT & RODS			
CONNECTING ROD	CRMA25S (Std housing) CRMA25❹	CRMA25S (Std housing) CRMA25❹	
OIL PUMP			
NEW OIL PUMP	OPMA25	OPMA25	OPMA30

❶ (with left tab)
❷ (Rear Main Seal/Cover not included)
❸ (For Non Variable Cam Gear Application)
❹ (.002" housing)

MODEL	ESCAPE MARINER	FOCUS	FUSION MILAN (10-11)
ENGINE CODE	**DURATEC VIN Z**	**DURATEC VIN Z**	**L5-VE MZR**
DISPLACEMENT	**2261cc(138")**	**2261cc(138")**	**2488cc(151.8")**
YEARS	**2005-2008**	**2003-2005**	**2010-2013**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	89mm(3.504")
STROKE	94mm(3.70")	94mm(3.70")	100mm(3.94")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.9678/1.9685"	1.9678/1.9685"	2.0465/2.0472"
VALVE TRAIN			
INTAKE VALVE	IVMA25	IVMA25	IVMA25
EXHAUST VALVE	EVMA25	EVMA25	EVMA25
VALVE GUIDE	VGMA25	VGMA25	VGMA25
VALVE SEALS	VSSMA25	VSSMA25	VSSMA25
WATER PUMP & TIMING			
WATER PUMP		WPMA28	

FORD

MODEL	ESCAPE MARINER (09-11)	ESCAPE MARINER (09-11) FUSION (10-12) MILAN (10-11) LINCOLN MKZ (11-12) HYBRID	PROBE
ENGINE CODE	**L5-VE MZR**	**L5-VE MZR**	**KL**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2497cc(152.3")**
YEARS	**2009-2013**	**2009-2012**	**1993-1997**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 vlv, DOHC 4; F.INJ. FHEV	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	84.5mm(3.327")
STROKE	100mm(3.94")	100mm(3.94")	74.2mm(2.92")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.4385/2.4392"
ROD JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0843/2.0848"
ENGINE KITS			
GOLD KIT			EKMA15G
BRONZE KITS			EKMA15B❶
MAJOR KIT			EKMA15M
RE-RING KIT			EKMA15R
BEARING SETS			
MAIN BEARING SET	MBMA25	MBMA25	MBMA15
ROD BEARING SET	RBMA30 (w/o tabs)	RBMA30 (w/o tabs)	RBMA10
	RBMA25T❷	RBMA25T❷	
THRUST WASHER SET			TWMA10
GASKETS			
FULL GASKET SET	CGSMA30❸	CGSMA30❸	CGSMA15
HEAD GASKET SET	HSMA30	HSMA30	HSMA15
HEAD GASKETS			HDGMA15 (set of 2)
CONVERSION SET	CBSMA25❸	CBSMA25❸	CBSMA15
HEAD BOLT SET	HBMA25	HBMA25	HBMA15
PISTONS, RINGS, PLUGS			
PISTONS	PAMA30	PAMA30H	PAMA15
RING SETS	RSMA30	RSMA30	RSMA15
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSMA15L (1997)
CONNECTING ROD			CRMA15
OIL PUMP			
NEW OIL PUMP	OPMA30	OPMA30	OPMA15

❶ (32mm WP pulley)
❷ (with left tab)
❸ (Rear Main Seal/Cover not included)

MODEL	ESCAPE MARINER (09-11)	ESCAPE MARINER (09-11) FUSION (10-12) MILAN (10-11) LINCOLN MKZ (11-12) HYBRID	PROBE
ENGINE CODE	**L5-VE MZR**	**L5-VE MZR**	**KL**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2497cc(152.3")**
YEARS	**2009-2013**	**2009-2012**	**1993-1997**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 vlv, DOHC 4; F.INJ. FHEV	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	84.5mm(3.327")
STROKE	100mm(3.94")	100mm(3.94")	74.2mm(2.92")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.4385/2.4392"
ROD JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0843/2.0848"
VALVE TRAIN			
LIFTERS			LIFMA13 (30mm) LIFMA15 (33mm)
INTAKE VALVE	IVMA25	IVMA25	IVMA15
EXHAUST VALVE	EVMA25	EVMA25	EVMA15
VALVE GUIDE	VGMA25	VGMA25	VGMA17
VALVE SEALS	VSSMA25	VSSMA25	VSSMA13
WATER PUMP & TIMING			
WATER PUMP			WPMA15 (32mm pulley)
CAM DRIVE TIMING KIT	CTKMA25FC	CTKMA25FC	
TIMING BELT			TBMA15
TENSIONERS			BTMA15H (hydraulic)
IDLERS AND PULLEYS			BTMA15 (lower) BTMA15F (roller tens.) BTMA15R (upper)
ENGINES & HEADS			
HEAD W/VALVES			CHVMA15R

FORD

MODEL	BRONCO RANGER	VILLAGER	VILLAGER
ENGINE CODE	**VIN T**	**VG30E**	**VG30E**
DISPLACEMENT	**2935cc(177")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1986-1992**	**1996-1998**	**1995**
DESCRIPTION	12 VALVE; OHV V6; F.INJ	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	93mm(3.661")	87mm(3.425")	87mm(3.425")
STROKE	72mm(2.83")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	2.1252/2.1260"	1.9667/1.9675"	1.9667/1.9675"
ENGINE KITS			
GOLD KIT		EKD26QLG	EKD26QG
BRONZE KITS		EKD26QLB	EKD26QB
MAJOR KIT		EKD26QM	EKD26QM
RE-RING KIT		EKD26QR	EKD26QR
BEARING SETS			
MAIN BEARING SET	MBFD4 (86-89) MBFD5 (90-92)	MBD26	MBD26
ROD BEARING SET	RBFD4	RBD26	RBD26
GASKETS			
FULL GASKET SET		CGSD26Q	CGSD26Q
HEAD GASKET SET		HSD26Q	HSD26Q
HEAD GASKETS		HDGD26Q	HDGD26Q
CONVERSION SET		CBSD26	CBSD26
HEAD BOLT SET	HBFD5	HBD26	HBD26
PISTONS, RINGS, PLUGS			
PISTONS		PAD26Q	PAD26Q
RING SETS		RSD26	RSD26
PIN BUSHINGS		PBD26	PBD26
FREEZE PLUG SET		EPSD26	EPSD26
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSD35	
CONNECTING ROD		CRD35	CRD26L (21V casting) CRD35 (0W0 casting)
OIL PUMP			
NEW OIL PUMP	OPFD4	OPD26QL	OPD26QE

MODEL	BRONCO RANGER	VILLAGER	VILLAGER
ENGINE CODE	**VIN T**	**VG30E**	**VG30E**
DISPLACEMENT	**2935cc(177")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1986-1992**	**1996-1998**	**1995**
DESCRIPTION	12 VALVE; OHV V6; F.INJ	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	93mm(3.661")	87mm(3.425")	87mm(3.425")
STROKE	72mm(2.83")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	2.1252/2.1260"	1.9667/1.9675"	1.9667/1.9675"
VALVE TRAIN			
CAMSHAFTS		CAMD26QL CAMD26QR	
LIFTERS	A-2083	LIFD26	LIFD26
ROCKER ARMS		RAD26	RAD26
INTAKE VALVE		IVD26Q	IVD26
EXHAUST VALVE		EVD26Q	EVD26Q
VALVE GUIDE		IVGD26 (int.) EVGD26 (ex.)	IVGD26 (int.) EVGD26 (ex.)
VALVE SEALS		VSSD10 (int.) VSSD3 (ex.)	VSSD10 (int.) VSSD3 (ex.)
WATER PUMP & TIMING			
WATER PUMP		WPD26Q	WPD26Q
TIMING BELT		TBD35	TBD35
TENSIONERS		BTD26	BTD26
ENGINES & HEADS			
BARE HEADS	TL-290-86TM		

FORD

MODEL	VILLAGER	TAURUS SABLE	ESCAPE MARINER
ENGINE CODE	**VG30E**	**DURATEC V6**	**DURATEC V6**
DISPLACEMENT	**2960cc(180.5")**	**2967cc(181.0")**	**2968cc(181.0")**
YEARS	**1993-1994**	**1996-2005**	**2007-2008**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	87mm(3.425")	89mm(3.504")	89mm(3.504")
STROKE	83mm(3.27")	79.5mm(3.13")	79.5mm(3.13")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
ENGINE KITS			
GOLD KIT	EKD26QEG		
BRONZE KITS	EKD26QEB		
MAJOR KIT	EKD26QEM		
RE-RING KIT	EKD26BR		
BEARING SETS			
MAIN BEARING SET	MBD26	MBMA27	MBMA27
ROD BEARING SET	RBD26	RBMA27	RBMA27
THRUST WASHER SET		TWMA27	TWMA27
GASKETS			
FULL GASKET SET	CGSD26B		CGSMA27❶
HEAD GASKET SET	HSD26B		HSMA27❶
HEAD GASKETS	HDGD26	HDGMA27TR (pair)	HDGMA27 (pair)
CONVERSION SET	CBSD26	CBSMA27❷ CBSMA27L (04-05)	CBSMA27L
HEAD BOLT SET	HBD26	HBMA27	HBMA27
PISTONS, RINGS, PLUGS			
PISTONS	PAD26Q	PAMA27	PAMA27
RING SETS	RSD26	RSMA27	RSMA27
PIN BUSHINGS	PBD26		
FREEZE PLUG SET	EPSD26		
CRANKSHAFT & RODS			
CONNECTING ROD	CRD26L		
OIL PUMP			
NEW OIL PUMP	OPD26QE	OPMA27	OPMA27S

❶ valve cover set not included

❷ (1996-2003 only)

MODEL	VILLAGER	TAURUS SABLE	ESCAPE MARINER
ENGINE CODE	**VG30E**	**DURATEC V6**	**DURATEC V6**
DISPLACEMENT	**2960cc(180.5")**	**2967cc(181.0")**	**2968cc(181.0")**
YEARS	**1993-1994**	**1996-2005**	**2007-2008**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	87mm(3.425")	89mm(3.504")	89mm(3.504")
STROKE	83mm(3.27")	79.5mm(3.13")	79.5mm(3.13")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
VALVE TRAIN			
LIFTERS	LIFD26	A-2271	A-2271
ROCKER ARMS	RAD26		
INTAKE VALVE	IVD26	IVMA27	IVMA27
EXHAUST VALVE	EVD26Q	EVMA27	EVMA27
VALVE GUIDE		VGMA27	VGMA27
INTAKE GUIDE	IVGD26		
EXHAUST GUIDE	EVGD26		
VALVE SEALS	VSSD10 (int.) VSSD3 (ex.)	VSSMA27	VSSMA27
WATER PUMP & TIMING			
WATER PUMP	WPD26Q		
TIMING CHAIN KIT		PTKMA27	PTKMA27
TIMING BELT	TBD26❶		
TENSIONERS	BTD26		

❶ (square tooth belt)

FORD

MODEL	FUSION MILAN ZEPHYR	ESCAPE MARINER	ESCAPE
ENGINE CODE	**DURATEC V6**	**DURATEC V6**	**DURATEC V6**
DISPLACEMENT	**2968cc(181.0")**	**2968cc(181.0")**	**2968cc(181.0")**
YEARS	**2006-2008**	**2005-2006**	**2001-2004**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	79.5mm(3.13")	79.5mm(3.13")	79.5mm(3.13")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
BEARING SETS			
MAIN BEARING SET	MBMA27	MBMA27	MBMA27
ROD BEARING SET	RBMA27	RBMA27	RBMA27
THRUST WASHER SET	TWMA27	TWMA27	TWMA27
GASKETS			
FULL GASKET SET	CGSMA27❶	CGSMA27ES	CGSMA27TR CGSMA27TRL❷
HEAD GASKET SET	HSMA27❶	HSMA27ES	HSMA27TR
HEAD GASKETS	HDGMA27 (pair)		HDGMA27TR (pair)
CONVERSION SET	CBSMA27L	CBSMA27L	CBSMA27L❷ CBSMA27❸
HEAD BOLT SET	HBMA27	HBMA27	HBMA27
PISTONS, RINGS, PLUGS			
PISTONS	PAMA27	PAMA27	PAMA27
RING SETS	RSMA27	RSMA27	RSMA27
OIL PUMP			
NEW OIL PUMP	OPMA27S	OPMA27	OPMA27

❶ valve cover set not included
❷ (pan gasket w/o bolt holes)
❸ (pan gasket has bolt holes)

FORD

MODEL	FUSION MILAN ZEPHYR	ESCAPE MARINER	ESCAPE
ENGINE CODE	**DURATEC V6**	**DURATEC V6**	**DURATEC V6**
DISPLACEMENT	**2968cc(181.0")**	**2968cc(181.0")**	**2968cc(181.0")**
YEARS	**2006-2008**	**2005-2006**	**2001-2004**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	79.5mm(3.13")	79.5mm(3.13")	79.5mm(3.13")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
VALVE TRAIN			
LIFTERS	A-2271	A-2271	A-2271
INTAKE VALVE	IVMA27	IVMA27	IVMA27
EXHAUST VALVE	EVMA27	EVMA27	EVMA27
VALVE GUIDE	VGMA27	VGMA27	VGMA27
VALVE SEALS	VSSMA27	VSSMA27	VSSMA27
WATER PUMP & TIMING			
TIMING CHAIN KIT		PTKMA27	PTKMA27

FORD

MODEL	VILLAGER	EXPLORER MOUNTAINEER (98-04)	RANGER EXPLORER AEROSTAR
ENGINE CODE	**VG33E**	**VIN E**	**VIN X**
DISPLACEMENT	**3272cc(199.7")**	**4015cc(244")**	**4015cc(244")**
YEARS	**1999-2002**	**1997-2004**	**1997-2000**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC 4; F.INJ	12 VALVE; OHV V6; F.INJ.
BORE	91.5mm(3.602")	100.4mm(3.952")	100.4mm(3.952")
STROKE	83mm(3.27")	84mm(3.31")	84mm(3.31")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.9667/1.9675"	2.1252/2.1260"	2.1252/2.1260"
ENGINE KITS			
GOLD KIT	EKD35QG		
BRONZE KITS	EKD35QB		
MAJOR KIT	EKD35M		
RE-RING KIT	EKD35R		
BEARING SETS			
MAIN BEARING SET	MBD26		
ROD BEARING SET	RBD26	RBFD4 (Standard OD)	RBFD4 (Standard OD)
INTERMEDIATE SET		ISBFD6	
GASKETS			
FULL GASKET SET	CGSD35Q		
HEAD GASKET SET	HSD35Q		
HEAD GASKETS	HDGD35 (pair)		
CONVERSION SET	CBSD35		
HEAD BOLT SET	HBD26		HBFD5
PISTONS, RINGS, PLUGS			
PISTONS	PAD35		
RING SETS	RSD35		
PIN BUSHINGS	PBD26		
FREEZE PLUG SET	EPSD26		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSD35		
CONNECTING ROD	CRD35		
OIL PUMP			
NEW OIL PUMP	OPD26QL	OPFD4	OPFD4

MODEL	VILLAGER	EXPLORER MOUNTAINEER (98-04)	RANGER EXPLORER AEROSTAR
ENGINE CODE	**VG33E**	**VIN E**	**VIN X**
DISPLACEMENT	**3272cc(199.7")**	**4015cc(244")**	**4015cc(244")**
YEARS	**1999-2002**	**1997-2004**	**1997-2000**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC 4; F.INJ	12 VALVE; OHV V6; F.INJ.
BORE	91.5mm(3.602")	100.4mm(3.952")	100.4mm(3.952")
STROKE	83mm(3.27")	84mm(3.31")	84mm(3.31")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.9667/1.9675"	2.1252/2.1260"	2.1252/2.1260"
VALVE TRAIN			
LIFTERS	LIFD26	A-2271	A-2244
ROCKER ARMS	RAD26		
INTAKE VALVE	IVD26Q	IVFD6	
EXHAUST VALVE	EVD26Q	EVFD6	
INTAKE GUIDE	IVGD26		
EXHAUST GUIDE	EVGD26		
VALVE SEALS	VSSD10 (int.) VSSD3 (ex)		VSSFD4
WATER PUMP & TIMING			
TIMING CHAIN KIT			CTKFD5L
TIMING BELT	TBD35		
TENSIONERS	BTD26		
ENGINES & HEADS			
BARE HEADS			TL-F2-4098-CC-A❶

❶ (OEM replacement head)

FORD

MODEL	AEROSTAR RANGER EXPLORER	AEROSTAR RANGER EXPLORER	
ENGINE CODE	**X; ZZL**	**X; ZZL**	
DISPLACEMENT	**4015cc(244")**	**4015cc(244")**	
YEARS	**1995-1996**	**1990-1994**	
DESCRIPTION	12 VALVE; OHV V6; F.INJ.	12 VALVE; OHV V6; F.INJ.	
BORE	100.4mm(3.952")	100.4mm(3.952")	
STROKE	84mm(3.31")	84mm(3.31")	
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	
ROD JOURNAL DIA.	2.1252/2.1260"	2.1252/2.1260"	
BEARING SETS			
MAIN BEARING SET		MBFD5	
ROD BEARING SET	RBFD4 (Standard OD)	RBFD4 (Standard OD)	
GASKETS			
HEAD GASKET SET		HSFD5	
HEAD GASKETS		HDGFD5 (set of 2)	
CONVERSION SET		CBSFD5	
HEAD BOLT SET	HBFD5	HBFD5	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSFD5 (5/8" keyway) CSFD5L❶	CSFD5 (5/8" keyway)	
OIL PUMP			
NEW OIL PUMP	OPFD4	OPFD4	

❶ (1-1/8" keyway)

MODEL	AEROSTAR RANGER EXPLORER	AEROSTAR RANGER EXPLORER	
ENGINE CODE	**X; ZZL**	**X; ZZL**	
DISPLACEMENT	**4015cc(244")**	**4015cc(244")**	
YEARS	**1995-1996**	**1990-1994**	
DESCRIPTION	12 VALVE; OHV V6; F.INJ.	12 VALVE; OHV V6; F.INJ.	
BORE	100.4mm(3.952")	100.4mm(3.952")	
STROKE	84mm(3.31")	84mm(3.31")	
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	
ROD JOURNAL DIA.	2.1252/2.1260"	2.1252/2.1260"	
VALVE TRAIN			
LIFTERS	A-2244	A-2244	
ROCKER ARMS		RAFD5	
INTAKE VALVE		IVFD5	
EXHAUST VALVE		EVFD5	
VALVE GUIDE		VGFD4	
VALVE SEALS	VSSFD4	VSSFD4	
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKFD5L	CTKFD5	
ENGINES & HEADS			
BARE HEADS	TL-F2-4098-CC-A❶	TL-F2-4090-A0-T❶ TL-F2-4098-CC-A❷	

❶ (OEM replacement head)

❷ (special replacement)

GEO - G.M.

MODEL	METRO FIREFLY	METRO FIREFLY	METRO FIREFLY
ENGINE CODE	**G10**	**G10**	**G10**
DISPLACEMENT	**0993cc(60.6")**	**0993cc(60.6")**	**0993cc(60.6")**
YEARS	**1999-2000**	**1996-1998**	**1989-1995**
DESCRIPTION	6 VALVE; SOHC 3; F.INJ.	6 VALVE; SOHC 3; F.INJ.	6 VALVE; SOHC 3; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.7712/1.7716"	1.7712/1.7716"	1.7712/1.7716"
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	1.6531/1.6535"
ENGINE KITS			
GOLD KIT	EKSZ1XG	EKSZ1XG	EKSZ1LG❶ EKSZ1L5G (5-bolt gear)
BRONZE KITS	EKSZ1XB	EKSZ1XB	EKSZ1LB❶ EKSZ1L5B (5-bolt gear)
MAJOR KIT	EKSZ1XM	EKSZ1XM	EKSZ1LM❶ EKSZ1L5M (5-bolt gear)
RE-RING KIT	EKSZ1XR	EKSZ1LR	EKSZ1LR
BEARING SETS			
MAIN BEARING SET	MBSZ1	MBSZ1	MBSZ1
ROD BEARING SET	RBSZ1	RBSZ1	RBSZ1
THRUST WASHER SET	TWSZ2	TWSZ2	TWSZ2
GASKETS			
FULL GASKET SET	CGSSZ1L	CGSSZ1L	CGSSZ1L
HEAD GASKET SET	HSSZ1L	HSSZ1L	HSSZ1L
HEAD GASKETS	HDGSZ1L	HDGSZ1L	HDGSZ1L
CONVERSION SET	CBSSZ1	CBSSZ1	CBSSZ1
HEAD BOLT SET	HBSZ1L	HBSZ1L	HBSZ1L
PISTONS, RINGS, PLUGS			
PISTONS	PASZ1L	PASZ1L	PASZ1L
RING SETS	RSSZ1M (3-ring)	RSSZ1 (3-ring)	RSSZ1 (3-ring)
CRANKSHAFT & RODS			
CONNECTING ROD	CRSZ2M	CRSZ2M	CRSZ2M
OIL PUMP			
NEW OIL PUMP	OPSZ5	OPSZ5	OPSZ2

❶ (4bolt crank gear)

MODEL	METRO FIREFLY	METRO FIREFLY	METRO FIREFLY
ENGINE CODE	**G10**	**G10**	**G10**
DISPLACEMENT	**0993cc(60.6")**	**0993cc(60.6")**	**0993cc(60.6")**
YEARS	**1999-2000**	**1996-1998**	**1989-1995**
DESCRIPTION	6 VALVE; SOHC 3; F.INJ.	6 VALVE; SOHC 3; F.INJ.	6 VALVE; SOHC 3; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.7712/1.7716"	1.7712/1.7716"	1.7712/1.7716"
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	1.6531/1.6535"
VALVE TRAIN			
LIFTERS	LIFSZ8	LIFSZ8	LIFSZ8
INTAKE VALVE	IVSZ2L	IVSZ2L	IVSZ2L
EXHAUST VALVE	EVSZ2L	EVSZ2L	EVSZ2L
VALVE GUIDE	VGSZ2L	VGSZ2L	VGSZ2L
VALVE SEALS	VSSSZ2L	VSSSZ2L	VSSSZ2L
WATER PUMP & TIMING			
WATER PUMP	WPSZ2M	WPSZ2M	WPSZ2M
TIMING BELT	TBSZ2X	TBSZ2X	TBSZ2L (4 bolt gear) TBSZ2L5 (5-bolt gear)
TENSIONERS			BTSZ2L

GEO - G.M.

MODEL	SPRINT TURBO	SPRINT	SPARK
ENGINE CODE	**G10**	**G10**	**LL0**
DISPLACEMENT	**0993cc(60.6")**	**0993cc(60.6")**	**1249cc(76.2")**
YEARS	**1987-1988**	**1985-1988**	**2013-2015**
DESCRIPTION	6 vlv; SOHC 3; F.INJ; Turbo	6 VALVE; SOHC 3; CARB.	
BORE	74mm(2.913")	74mm(2.913")	70.5mm(2.786")
STROKE	77mm(3.03")	77mm(3.03")	80.0mm(3.15")
MAIN JOURNAL DIA.	1.7712/1.7716"	1.7712/1.7716"	
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	
ENGINE KITS			
GOLD KIT		EKSZ1G	
MAJOR KIT		EKSZ1M	
RE-RING KIT	EKSZ1R (3-ring)	EKSZ1R (3-ring)	
BEARING SETS			
MAIN BEARING SET	MBSZ1	MBSZ1	
ROD BEARING SET	RBSZ1	RBSZ1	
THRUST WASHER SET	TWSZ2	TWSZ2	
GASKETS			
FULL GASKET SET	CGSSZ1	CGSSZ1	
HEAD GASKET SET	HSSZ1	HSSZ1	
HEAD GASKETS	HDGSZ1	HDGSZ1	
CONVERSION SET	CBSSZ1	CBSSZ1	
HEAD BOLT SET	HBSZ1L	HBSZ1L	
PISTONS, RINGS, PLUGS			
PISTONS		PASZ2	
RING SETS	RSSZ1 (3-ring)	RSSZ1 (3-ring)	
CRANKSHAFT & RODS			
CONNECTING ROD		CRSZ2M	
OIL PUMP			
NEW OIL PUMP	OPSZ2	OPSZ2	

MODEL	SPRINT TURBO	SPRINT	SPARK
ENGINE CODE	**G10**	**G10**	**LL0**
DISPLACEMENT	**0993cc(60.6")**	**0993cc(60.6")**	**1249cc(76.2")**
YEARS	**1987-1988**	**1985-1988**	**2013-2015**
DESCRIPTION	6 vlv; SOHC 3; F.INJ; Turbo	6 VALVE; SOHC 3; CARB.	
BORE	74mm(2.913")	74mm(2.913")	70.5mm(2.786")
STROKE	77mm(3.03")	77mm(3.03")	80.0mm(3.15")
MAIN JOURNAL DIA.	1.7712/1.7716"	1.7712/1.7716"	
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	
VALVE TRAIN			
ROCKER ARMS	RASZ2	RASZ2	
INTAKE VALVE	IVSZ2	IVSZ2	
EXHAUST VALVE	EVSZ2	EVSZ2	
VALVE GUIDE	VGSZ2	VGSZ2	
VALVE SEALS	VSSSZ2	VSSSZ2	
WATER PUMP & TIMING			
TIMING BELT	TBSZ2	TBSZ2	
TENSIONERS	BTSZ2	BTSZ2	
ENGINES & HEADS			
HEAD W/VALVES		CHVSZ1	

GEO - G.M.

MODEL	METRO FIREFLY	METRO FIREFLY	METRO
ENGINE CODE	**G13BA**	**G13BA**	**G13BB**
DISPLACEMENT	**1295cc(79.0")**	**1295cc(79.0")**	**1298cc(79.2")**
YEARS	**1996-1997**	**1995**	**1998-2001**
DESCRIPTION	16 vlv; SOHC 4; F.INJ. vin 9	16 vlv; SOHC 4; F.INJ. vin 9	16 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	75.5mm(2.97")	75.5mm(2.97")	75.5mm(2.97")
MAIN JOURNAL DIA.	1.7712/1.7716"	1.7712/1.7716"	1.7712/1.7716"
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	1.6531/1.6535"
ENGINE KITS			
GOLD KIT			EKSZ6G
BRONZE KITS			EKSZ6B
MAJOR KIT			EKSZ6M
RE-RING KIT			EKSZ6R
BEARING SETS			
MAIN BEARING SET	MBSZ2	MBSZ2	MBSZ2
ROD BEARING SET	RBSZ2	RBSZ2	RBSZ2
THRUST WASHER SET	TWSZ2	TWSZ2	TWSZ2
GASKETS			
FULL GASKET SET	CGSSZ2ML	CGSSZ2M	CGSSZ6
HEAD GASKET SET	HSSZ2M	HSSZ2M	HSSZ6
HEAD GASKETS	HDGSZ2	HDGSZ2	HDGSZ2
CONVERSION SET	CBSSZ6	CBSSZ2	CBSSZ6
PISTONS, RINGS, PLUGS			
PISTONS	PASZ2M	PASZ2M	PASZ6
RING SETS	RSSZ2	RSSZ2	RSSZ6
CRANKSHAFT & RODS			
CONNECTING ROD	CRSZ2M	CRSZ2M	
OIL PUMP			
NEW OIL PUMP	OPSZ2 (no sensor) OPSZ5 (with sensor)	OPSZ2 (no sensor) OPSZ5 (with sensor)	OPSZ5

MODEL	METRO FIREFLY	METRO FIREFLY	METRO
ENGINE CODE	**G13BA**	**G13BA**	**G13BB**
DISPLACEMENT	**1295cc(79.0")**	**1295cc(79.0")**	**1298cc(79.2")**
YEARS	**1996-1997**	**1995**	**1998-2001**
DESCRIPTION	16 vlv; SOHC 4; F.INJ. vin 9	16 vlv; SOHC 4; F.INJ. vin 9	16 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	75.5mm(2.97")	75.5mm(2.97")	75.5mm(2.97")
MAIN JOURNAL DIA.	1.7712/1.7716"	1.7712/1.7716"	1.7712/1.7716"
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	1.6531/1.6535"
VALVE TRAIN			
CAMSHAFTS	CAMSZ2M	CAMSZ2M	CAMSZ6
LIFTERS	ALAMA12	ALAMA12	
ROCKER ARMS			RASZ5I (int.)
ROCKER ARM SHAFTS	RASISZ2M	RASISZ2M	
ROCKER ARM SHAFTS	RASESZ2M	RASESZ2M	
INTAKE VALVE	IVSZ2	IVSZ2	IVSZ5
EXHAUST VALVE	EVSZ2	EVSZ2	EVSZ5
VALVE GUIDE	VGSZ2	VGSZ2	VGSZ2L
VALVE SEALS	VSSSZ2	VSSSZ2	VSSSZ2L
WATER PUMP & TIMING			
WATER PUMP	WPSZ2M	WPSZ2M	WPSZ2M
TIMING BELT	TBSZ2M	TBSZ2M	TBSZ2X
TENSIONERS	BTSZ5	BTSZ5	BTSZ5
ENGINES & HEADS			
HEAD W/VALVES	CHVSZ2M	CHVSZ2M	

GEO - G.M.

MODEL	SONIC (12-20) TRAX (13-21) CRUZE (13-15) ENCORE (13-21) CRUZE Limited	CRUZE	VOLT (11-15) ELR (14-16)
ENGINE CODE	**LUV**	**LUJ**	**LUU**
DISPLACEMENT	**1364cc(83.2")**	**1364cc(83.2")**	**1398cc(85.0")**
YEARS	**2012-2021**	**2011-2012**	**2011-2016**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo vin	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv, DOHC 4; F.INJ. PHEV
BORE	72.5mm(2.854")	72.5mm(2.854")	72.5mm(2.854")
STROKE	82.6mm(3.25")	82.6mm(3.25")	82.6mm(3.25")
MAIN JOURNAL DIA.	1.9687"/1.9692"	1.9687"/1.9692"	1.9687"/1.9692"
ROD JOURNAL DIA.	1.6918"/1.6924"	1.6918"/1.6924"	1.6918"/1.6924"
ENGINE KITS			
MAJOR KIT	EKGM5M	EKGM5M	
RE-RING KIT	EKGM5R	EKGM5R	
BEARING SETS			
MAIN BEARING SET	MBGM5	MBGM5	MBGM5
ROD BEARING SET	RBGM5	RBGM5	RBGM5
GASKETS			
FULL GASKET SET	CGSGM5	CGSGM5	
HEAD GASKET SET	HSGM5	HSGM5	
CONVERSION SET	CBSGM5	CBSGM5	CBSGM5
HEAD BOLT SET	HBGM5	HBGM5	HBGM5
PISTONS, RINGS, PLUGS			
PISTONS	PAGM5	PAGM5	
RING SETS	RSGM5	RSGM5	
OIL PUMP			
NEW OIL PUMP	OPGM5	OPGM5	OPGM5

MODEL	SONIC (12-20) TRAX (13-21) CRUZE (13-15) ENCORE (13-21) CRUZE Limited	CRUZE	VOLT (11-15) ELR (14-16)
ENGINE CODE	**LUV**	**LUJ**	**LUU**
DISPLACEMENT	**1364cc(83.2")**	**1364cc(83.2")**	**1398cc(85.0")**
YEARS	**2012-2021**	**2011-2012**	**2011-2016**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo vin	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv, DOHC 4; F.INJ. PHEV
BORE	72.5mm(2.854")	72.5mm(2.854")	72.5mm(2.854")
STROKE	82.6mm(3.25")	82.6mm(3.25")	82.6mm(3.25")
MAIN JOURNAL DIA.	1.9687"/1.9692"	1.9687"/1.9692"	1.9687"/1.9692"
ROD JOURNAL DIA.	1.6918"/1.6924"	1.6918"/1.6924"	1.6918"/1.6924"
VALVE TRAIN			
LIFTERS	LIFGM5	LIFGM5	LIFGM5
INTAKE VALVE	IVGM5	IVGM5	IVGM5
EXHAUST VALVE	EVGM5	EVGM5	
VALVE GUIDE	VGGM3	VGGM3	VGGM3
VALVE SEALS	VSSGM5	VSSGM5	VSSGM5
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKGM5❶	CTKGM5❶	CTKGM5❶
TIMING COVER	TCGM5❷	TCGM5❷	TCGM5❷

❶ (Cam Sprockets not included)

❷ (includes oil pump only)

GEO - G.M.

MODEL	CRUZE (16-19) ENCORE (16-22) TRAX (21-22) TURBO	SPARK	SPECTRUM TURBO
ENGINE CODE	**LE2**	**LV7**	**4XC1T**
DISPLACEMENT	**1399cc(85.0")**	**1399cc(85.0")**	**1471cc(89.7")**
YEARS	**2016-2022**	**2016-2021**	**1987-1989**
DESCRIPTION	16vlv; DOHC; 4;Turbo; vin M	16vlv; DOHC; 4; F.INJ; vin A	8 vlv, SOHC 4; F.INJ. turbo
BORE	74mm(2.913")	74mm(2.913")	77mm(3.031")
STROKE	81.3mm(3.20")	81.3mm(3.20")	79mm(3.11")
MAIN JOURNAL DIA.	1.8501"/1.8507"	1.8501"/1.8507"	1.8865/1.8873"
ROD JOURNAL DIA.	1.7320"/1.7326"	1.7320"/1.7326"	1.5726/1.5734"
BEARING SETS			
MAIN BEARING SET	MBGM7	MBGM7	MBIS3
ROD BEARING SET	RBGM7	RBGM7	RBIS3
THRUST WASHER SET			TWIS3
GASKETS			
FULL GASKET SET	CGSGM7		
HEAD GASKET SET	HSGM7❶		
CONVERSION SET	CBSGM7❷		CBSIS3
HEAD BOLT SET	HBGM7		
PISTONS, RINGS, PLUGS			
PISTONS			PAIS3T
RING SETS			RSIS3T (3-ring)
FREEZE PLUG SET			EPSC11
CRANKSHAFT & RODS			
CONNECTING ROD			CRIS3
OIL PUMP			
NEW OIL PUMP	OPGM7	OPGM7	OPIS3

❶ (w/o Exh. Heat Shield)

❷ (w/o Crankshaft Seals)

MODEL	CRUZE (16-19) ENCORE (16-22) TRAX (21-22) TURBO	SPARK	SPECTRUM TURBO
ENGINE CODE	**LE2**	**LV7**	**4XC1T**
DISPLACEMENT	**1399cc(85.0")**	**1399cc(85.0")**	**1471cc(89.7")**
YEARS	**2016-2022**	**2016-2021**	**1987-1989**
DESCRIPTION	16vlv; DOHC; 4;Turbo; vin M	16vlv; DOHC; 4; F.INJ; vin A	8 vlv, SOHC 4; F.INJ. turbo
BORE	74mm(2.913")	74mm(2.913")	77mm(3.031")
STROKE	81.3mm(3.20")	81.3mm(3.20")	79mm(3.11")
MAIN JOURNAL DIA.	1.8501"/1.8507"	1.8501"/1.8507"	1.8865/1.8873"
ROD JOURNAL DIA.	1.7320"/1.7326"	1.7320"/1.7326"	1.5726/1.5734"
VALVE TRAIN			
CAMSHAFTS			CAMIS3
LIFTERS	A-2319	A-2319	
ROCKER ARMS			RAIS3
ROCKER ARM SHAFTS			RASIIS3 (int.) RASEIS3 (ex.)
INTAKE VALVE	IVGM7		IVIS3
EXHAUST VALVE	EVGM7		EVIS3
VALVE GUIDE			IVGIS3 (int.) EVGIS3 (ex.)
VALVE SEALS	VSSGM7	VSSGM7	VSSIS3
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKGM7		
TIMING BELT			TBIS3
TENSIONERS			BTIS3

GEO - G.M.

MODEL	SPECTRUM	EQUINOX TERRAIN TURBO	MALIBU TURBO
ENGINE CODE	**4XC1**	**LYX**	**LFV**
DISPLACEMENT	**1471cc(89.7")**	**1490cc(90.9")**	**1490cc(90.9")**
YEARS	**1985-1989**	**2018-2022**	**2018-2022**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	16vlv; DOHC; 4; F.INJ; TURBO vi	16vlv; DOHC; 4; F.INJ; Turbo vin
BORE	77mm(3.031")	74mm(2.913")	74mm(2.913")
STROKE	79mm(3.11")	86.6mm(3.40")	86.6mm(3.40")
MAIN JOURNAL DIA.	1.8865/1.8873"	1.8501"/1.8507"	1.8501"/1.8507"
ROD JOURNAL DIA.	1.5726/1.5734"	1.7320"/1.7326"	1.7320"/1.7326"
ENGINE KITS			
GOLD KIT	EKIS3G		
MAJOR KIT	EKIS3M		
RE-RING KIT	EKIS3R		
BEARING SETS			
MAIN BEARING SET	MBIS3	MBGM7	MBGM7
ROD BEARING SET	RBIS3	RBGM7	RBGM7
THRUST WASHER SET	TWIS3		
GASKETS			
FULL GASKET SET	CGSIS3	CGSGM7	CGSGM7
HEAD GASKET SET	HSIS3	HSGM7❶	HSGM7❶
HEAD GASKETS	HDGIS3		
CONVERSION SET	CBSIS3	CBSGM7❷	CBSGM7❷
HEAD BOLT SET		HBGM7	HBGM7
PISTONS, RINGS, PLUGS			
PISTONS	PAIS3❸	PAGM7	PAGM7
RING SETS	RSIS3❹	RSGM7	RSGM7
FREEZE PLUG SET	EPSC11		
CRANKSHAFT & RODS			
CONNECTING ROD	CRIS3		
OIL PUMP			
NEW OIL PUMP	OPIS3	OPGM7	OPGM7

❶ (w/o Exh. Heat Shield)
❷ (w/o Crankshaft Seals)
❸ (heavy duty 3-ring piston)
❹ (2-ring for OEM)

MODEL	SPECTRUM	EQUINOX TERRAIN TURBO	MALIBU TURBO
ENGINE CODE	**4XC1**	**LYX**	**LFV**
DISPLACEMENT	**1471cc(89.7")**	**1490cc(90.9")**	**1490cc(90.9")**
YEARS	**1985-1989**	**2018-2022**	**2018-2022**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	16vlv; DOHC; 4; F.INJ; TURBO vi	16vlv; DOHC; 4; F.INJ; Turbo vin
BORE	77mm(3.031")	74mm(2.913")	74mm(2.913")
STROKE	79mm(3.11")	86.6mm(3.40")	86.6mm(3.40")
MAIN JOURNAL DIA.	1.8865/1.8873"	1.8501"/1.8507"	1.8501"/1.8507"
ROD JOURNAL DIA.	1.5726/1.5734"	1.7320"/1.7326"	1.7320"/1.7326"
VALVE TRAIN			
CAMSHAFTS	CAMIS3		
LIFTERS		A-2319	A-2319
ROCKER ARMS	RAIS3		
ROCKER ARM SHAFTS	RASIIS3 (int.)		
	RASEIS3 (ex.)		
INTAKE VALVE	IVIS3	IVGM7	IVGM7
EXHAUST VALVE	EVIS3	EVGM7	EVGM7
VALVE GUIDE	IVGIS3 (int.)		
	EVGIS3 (ex.)		
VALVE SEALS	VSSIS3	VSSGM7	VSSGM7
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKGM7	CTKGM7
TIMING BELT	TBIS3		
TENSIONERS	BTIS3		

GEO - G.M.

MODEL	VOLT HYBRID	PRISM	PRISM Gsi
ENGINE CODE	**L3A**	**4AFE**	**4AGE**
DISPLACEMENT	**1490cc(90.9")**	**1587cc(96.8")**	**1587cc(96.8")**
YEARS	**2016-2019**	**1990-1992**	**1990-1992**
DESCRIPTION	16vlv; DOHC; 4; PHEV; vin 5	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	74mm(2.913")	81mm(3.189")	81mm(3.189")
STROKE	81.3mm(3.20")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8501"/1.8507"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.7320"/1.7326"	1.5742/1.5748"	1.6529/1.6535"
ENGINE KITS			
GOLD KIT		EKTO28G	EKTO30LG
BRONZE KITS		EKTO28B	
MAJOR KIT		EKTO28M	EKTO30LM
RE-RING KIT		EKTO28R	EKTO30LR
BEARING SETS			
MAIN BEARING SET	MBGM7	MBTO18	MBTO18
ROD BEARING SET	RBGM7	RBTO16L	RBTO18
THRUST WASHER SET		TWTO16	TWTO16
GASKETS			
FULL GASKET SET		CGSTO28	CGSTO30
HEAD GASKET SET		HSTO28	HSTO30
HEAD GASKETS		HDGTO28	HDGTO18LB
CONVERSION SET		CBSTO28	CBSTO18
HEAD BOLT SET	HBGM7	HBTO28	HBTO28
PISTONS, RINGS, PLUGS			
PISTONS		PATO18L	PATO30 (domed piston)
RING SETS		RSTO28	RSTO30❶
PIN BUSHINGS			PBTO18
FREEZE PLUG SET		EPSTO18	EPSTO18
OIL PUMP			
NEW OIL PUMP	OPGM7	OPTO18	OPTO18

❶ (1.2mm top ring)

MODEL	VOLT HYBRID	PRISM	PRISM Gsi
ENGINE CODE	**L3A**	**4AFE**	**4AGE**
DISPLACEMENT	**1490cc(90.9")**	**1587cc(96.8")**	**1587cc(96.8")**
YEARS	**2016-2019**	**1990-1992**	**1990-1992**
DESCRIPTION	16vlv; DOHC; 4; PHEV; vin 5	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	74mm(2.913")	81mm(3.189")	81mm(3.189")
STROKE	81.3mm(3.20")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8501"/1.8507"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.7320"/1.7326"	1.5742/1.5748"	1.6529/1.6535"
VALVE TRAIN			
CAMSHAFTS		CAMTO28I (int.)	
LIFTERS	A-2319	LIFTO18	LIFTO18
INTAKE VALVE	IVGM7	IVTO28	IVTO18F
EXHAUST VALVE		EVTO28	EVTO18F
VALVE GUIDE			VGTO18L
INTAKE GUIDE		VGTO28	
EXHAUST GUIDE		VGTO28	
VALVE SEALS	VSSGM7	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP		WPTO28	
TIMING CHAIN KIT	CTKGM7		
TIMING BELT		TBTO28	TBTO18L
TENSIONERS		BTTO18	BTTO18L

GEO - G.M.

MODEL	NOVA	NOVA	PRIZM
ENGINE CODE	- -	4ALC	- -
DISPLACEMENT	1587cc(96.8")	1587cc(96.8")	1588cc(96.8")
YEARS	1988	1985-1988	1993-1997
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	8 VALVE SOHC 4; CARB.	16 vlv; DOHC 4; F.INJ. vin 6
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.6529/1.6535"	1.5742/1.5748"	1.5742/1.5748
ENGINE KITS			
GOLD KIT	EKTO30G	EKTO18LCG	EKTO28LG (93-95) EKTO28SG (with sensor)
BRONZE KITS		EKTO18LCB (FWD only)	EKTO28LB (93-95) EKTO28SB (with sensor)
MAJOR KIT	EKTO30M	EKTO18LCM	EKTO28LM
RE-RING KIT	EKTO30R	EKTO18LCR	EKTO28LR
BEARING SETS			
MAIN BEARING SET	MBTO18	MBTO18	MBTO18
ROD BEARING SET	RBTO18	RBTO16L	RBTO16L
THRUST WASHER SET	TWTO16	TWTO16	TWTO16
GASKETS			
FULL GASKET SET	CGSTO18LB	CGSTO18LC	CGSTO28L
HEAD GASKET SET	HSTO18LB	HSTO18LC	HSTO28L
HEAD GASKETS	HDGTO18LB	HDGTO18L	HDGTO28L
CONVERSION SET	CBSTO18	CBSTO18	CBSTO28L
HEAD BOLT SET			HBTO28
PISTONS, RINGS, PLUGS			
PISTONS	PATO18LB	PATO18	PATO28
RING SETS	RSTO18	RSTO18	RSTO29
PIN BUSHINGS	PBTO18		
FREEZE PLUG SET	EPSTO18	EPSTO18	EPSTO18
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSTO28
CONNECTING ROD			CRTO28
OIL PUMP			
NEW OIL PUMP	OPTO18	OPTO18	OPTO28 (no sensor) OPTO28S (with sensor)

MODEL	NOVA	NOVA	PRIZM
ENGINE CODE	**- -**	**4ALC**	**- -**
DISPLACEMENT	**1587cc(96.8")**	**1587cc(96.8")**	**1588cc(96.8")**
YEARS	**1988**	**1985-1988**	**1993-1997**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	8 VALVE SOHC 4; CARB.	16 vlv; DOHC 4; F.INJ. vin 6
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.6529/1.6535"	1.5742/1.5748"	1.5742/1.5748
VALVE TRAIN			
INTAKE CAMSHAFT			CAMTO29I
LIFTERS	LIFTO18		LIFTO25
ROCKER ARMS		RATO16I	
INTAKE VALVE	IVTO18F	IVTO18	IVTO29
EXHAUST VALVE	EVTO18F	EVTO18	EVTO29
VALVE GUIDE	VGTO18L	IVGTO18 (int.) EVGTO18 (ex.)	VGTO28
VALVE SEALS	VSSTO15	VSSTO18	VSSTO15
WATER PUMP & TIMING			
WATER PUMP		WPTO28 (FWD only)	WPTO28L
TIMING BELT	TBTO18L	TBTO18	TBTO28L
TENSIONERS	BTTO18L	BTTO18	BTTO29

GEO - G.M.

MODEL	STORM	STORM Gsi	TRACKER
ENGINE CODE	**4XE1**	**4XE1W**	**- -**
DISPLACEMENT	**1588cc(96.8")**	**1588cc(96.8")**	**1588cc(96.9")**
YEARS	**1990-1993**	**1990-1991**	**1999-2000**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16vlv; SOHC; 4; F.INJ; vin 6
BORE	80mm(3.150")	80mm(3.150")	75mm(2.953")
STROKE	79mm(3.11")	79mm(3.11")	90mm(3.54")
MAIN JOURNAL DIA.	2.0439/2.0448"	2.0439/2.0448"	2.0465/2.0472"
ROD JOURNAL DIA.	1.5726/1.5734"	1.5726/1.5734"	1.7316/1.7323"
ENGINE KITS			
GOLD KIT	EKIS10G	EKIS8G	EKSZ5KG
BRONZE KITS			EKSZ5VB
MAJOR KIT	EKIS10M	EKIS8M	EKSZ5M
RE-RING KIT	EKIS10R	EKIS8R	EKSZ5XR
BEARING SETS			
MAIN BEARING SET	MBIS8	MBIS8	MBSZ4
ROD BEARING SET	RBIS3	RBIS3	RBSZ4
THRUST WASHER SET	TWIS8	TWIS8	TWSZ4
GASKETS			
FULL GASKET SET	CGSIS10	CGSIS8	CGSSZ5
HEAD GASKET SET	HSIS10	HSIS8	HSSZ5
HEAD GASKETS	HDGIS10	HDGIS8	HDGSZ5
CONVERSION SET	CBSIS8	CBSIS8	CBSSZ4
HEAD BOLT SET			HBSZ5
PISTONS, RINGS, PLUGS			
PISTONS	PAIS10	PAIS8	PASZ5
RING SETS	RSIS8	RSIS8	RSSZ5
FREEZE PLUG SET	EPSIS8	EPSIS8	
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSIS8	
CONNECTING ROD	CRIS8	CRIS8	
OIL PUMP			
NEW OIL PUMP	OPIS10	OPIS8	OPSZ5

MODEL	STORM	STORM Gsi	TRACKER
ENGINE CODE	**4XE1**	**4XE1W**	**- -**
DISPLACEMENT	**1588cc(96.8")**	**1588cc(96.8")**	**1588cc(96.9")**
YEARS	**1990-1993**	**1990-1991**	**1999-2000**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16vlv; SOHC; 4; F.INJ; vin 6
BORE	80mm(3.150")	80mm(3.150")	75mm(2.953")
STROKE	79mm(3.11")	79mm(3.11")	90mm(3.54")
MAIN JOURNAL DIA.	2.0439/2.0448"	2.0439/2.0448"	2.0465/2.0472"
ROD JOURNAL DIA.	1.5726/1.5734"	1.5726/1.5734"	1.7316/1.7323"
VALVE TRAIN			
CAMSHAFTS			CAMSZ5V
LIFTERS		LIFIS8	
ROCKER ARMS	RAIS10		RASZ5I (cast iron)
ROCKER ARM SHAFTS	RASIIS10		
ROCKER ARM SHAFTS	RASEIS10		
INTAKE VALVE	IVIS10	IVIS8	IVSZ5
EXHAUST VALVE	EVIS10	EVIS8	EVSZ5
VALVE GUIDE			VGSZ2L
INTAKE GUIDE	VGIS10	VGIS10	
EXHAUST GUIDE	EVGIS10	EVGIS8	
VALVE SEALS	VSSTO15	VSSTO15	VSSSZ2L
WATER PUMP & TIMING			
WATER PUMP			WPSZ5
TIMING BELT	TBIS10	TBIS8	TBSZ5
TENSIONERS	BTIS10		BTSZ5

GEO - G.M.

MODEL	TRACKER	TRACKER	TRACKER
ENGINE CODE	**- -**	**- -**	**- -**
DISPLACEMENT	**1588cc(96.9")**	**1588cc(96.9")**	**1588cc(96.9")**
YEARS	**1996-1998**	**1994-1995**	**1989-1995**
DESCRIPTION	16vlv; SOHC; 4; F.INJ; vin 6	16vlv; SOHC; 4; F.INJ; vin 6	8vlv; SOHC; 4; F.INJ; vin U
BORE	75mm(2.953")	75mm(2.953")	75mm(2.953")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.7316/1.7323"	1.7316/1.7323"	1.7316/1.7323"
ENGINE KITS			
GOLD KIT	EKSZ5G	EKSZ5G	EKSZ4G
BRONZE KITS	EKSZ5B	EKSZ5B	EKSZ4B
MAJOR KIT	EKSZ5M	EKSZ5M	EKSZ4M
RE-RING KIT	EKSZ5R	EKSZ5R	EKSZ4R
BEARING SETS			
MAIN BEARING SET	MBSZ4	MBSZ4	MBSZ4
ROD BEARING SET	RBSZ4	RBSZ4	RBSZ4
THRUST WASHER SET	TWSZ4	TWSZ4	TWSZ4
GASKETS			
FULL GASKET SET	CGSSZ5	CGSSZ5	CGSSZ4
HEAD GASKET SET	HSSZ5	HSSZ5	HSSZ4
HEAD GASKETS	HDGSZ5	HDGSZ5	HDGSZ5
CONVERSION SET	CBSSZ4	CBSSZ4	CBSSZ4
HEAD BOLT SET	HBSZ5	HBSZ5	HBSZ4
PISTONS, RINGS, PLUGS			
PISTONS	PASZ5	PASZ5	PASZ4❶
RING SETS	RSSZ4	RSSZ4	RSSZ4
CRANKSHAFT & RODS			
CONNECTING ROD			CRSZ4 (89-90)
OIL PUMP			
NEW OIL PUMP	OPSZ4	OPSZ4	OPSZ4

❶ (free float only)

MODEL	TRACKER	TRACKER	TRACKER
ENGINE CODE	- -	- -	- -
DISPLACEMENT	1588cc(96.9")	1588cc(96.9")	1588cc(96.9")
YEARS	1996-1998	1994-1995	1989-1995
DESCRIPTION	16vlv; SOHC; 4; F.INJ; vin 6	16vlv; SOHC; 4; F.INJ; vin 6	8vlv; SOHC; 4; F.INJ; vin U
BORE	75mm(2.953")	75mm(2.953")	75mm(2.953")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.7316/1.7323"	1.7316/1.7323"	1.7316/1.7323"
VALVE TRAIN			
ROCKER ARMS	RASZ5I❶		RASZ2
INTAKE VALVE	IVSZ5	IVSZ5	IVSZ4
EXHAUST VALVE	EVSZ5	EVSZ5	EVSZ4
VALVE GUIDE	VGSZ2L	VGSZ2L	VGSZ2
VALVE SEALS	VSSSZ2L	VSSSZ2L	VSSSZ2
WATER PUMP & TIMING			
WATER PUMP	WPSZ4	WPSZ4	WPSZ4
TIMING BELT	TBSZ5	TBSZ5	TBSZ4
TENSIONERS	BTSZ5	BTSZ5	BTSZ2

❶ (cast iron for 1997-98)

GEO - G.M.

MODEL	AVEO PONTIAC G3 PONTIAC WAVE SUZUKI SWIFT+	AVEO SUZUKI SWIFT+ PONTIAC WAVE	AVEO SUZUKI SWIFT+ PONTIAC WAVE
ENGINE CODE	**LXV E-TECII**	**ETEC (L91)**	**ETEC (L91)**
DISPLACEMENT	**1597cc(97.4")**	**1597cc(97.4")**	**1597cc(97.4")**
YEARS	**2009-2011**	**2006-2008**	**2004-2005**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	79mm (3.110")	79mm (3.110")	79mm (3.110")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.165"	2.165"	2.165"
ROD JOURNAL DIA.	1.692"	1.692"	1.692"
ENGINE KITS			
GOLD KIT		EKGM1LG	EKGM1G
MAJOR KIT		EKGM1LM	EKGM1M
RE-RING KIT		EKGM1LR	EKGM1R
BEARING SETS			
MAIN BEARING SET	MBGM1	MBGM1	MBGM1
ROD BEARING SET	RBGM1	RBGM1	RBGM1
GASKETS			
FULL GASKET SET	CGSGM3	CGSGM1L	CGSGM1
HEAD GASKET SET	HSGM3	HSGM1L	HSGM1
HEAD GASKETS	HDGGM3	HDGGM1L	HDGGM1
CONVERSION SET	CBSGM3	CBSGM1	CBSGM1
HEAD BOLT SET	HBGM3	HBDW3	HBDW3
PISTONS, RINGS, PLUGS			
PISTONS	PAGM3	PAGM1	PAGM1
RING SETS	RSGM3	RSGM1	RSGM1
CRANKSHAFT & RODS			
CONNECTING ROD		CRGM1	CRGM1
OIL PUMP			
NEW OIL PUMP	OPGM6	OPGM1	OPGM1

MODEL	AVEO PONTIAC G3 PONTIAC WAVE SUZUKI SWIFT+	AVEO SUZUKI SWIFT+ PONTIAC WAVE	AVEO SUZUKI SWIFT+ PONTIAC WAVE
ENGINE CODE	**LXV E-TECII**	**ETEC (L91)**	**ETEC (L91)**
DISPLACEMENT	**1597cc(97.4")**	**1597cc(97.4")**	**1597cc(97.4")**
YEARS	**2009-2011**	**2006-2008**	**2004-2005**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	79mm (3.110")	79mm (3.110")	79mm (3.110")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.165"	2.165"	2.165"
ROD JOURNAL DIA.	1.692"	1.692"	1.692"
VALVE TRAIN			
LIFTERS		LIFGM1	LIFGM1
INTAKE VALVE	IVGM3	IVGM1	IVGM1
EXHAUST VALVE	EVGM3	EVGM1	EVGM1
VALVE GUIDE	VGGM3	VGC31	VGC31
VALVE SEALS	VSSGM3	VSSDW3	VSSDW3
WATER PUMP & TIMING			
TIMING BELT	TBGM3	TBGM1	TBGM1

GEO - G.M.

MODEL	PRIZM	VIBE	PRIZM
ENGINE CODE	**- -**	**1ZZFE**	**- -**
DISPLACEMENT	**1762cc(107.5")**	**1794cc(109.5")**	**1794cc(109.5")**
YEARS	**1993-1997**	**2003-2008**	**2000-2002**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin 8	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ; vin 8
BORE	81mm(3.189")	79mm(3.110")	79mm(3.110")
STROKE	85.5mm(3.37")	91.5mm(3.60")	91.5mm(3.60")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.8892/1.8898"	1.7321/1.7323"	1.7321/1.7323"
ENGINE KITS			
PLATINUM KIT		EKTO39LP	EKTO39LP
GOLD KIT	EKTO29G (93-95) EKTO29SG (with sensor)	EKTO39LG	EKTO39LG
SILVER KIT		EKTO39LS	EKTO39LS
BRONZE KITS	EKTO29B (93-95) EKTO29SB (with sensor)	EKTO39LB	EKTO39LB
MAJOR KIT	EKTO29M	EKTO39LM	EKTO39LM
RE-RING KIT	EKTO29R	EKTO39LR	EKTO39LR
ULTRA KIT		EKTO39LU	EKTO39LU
BEARING SETS			
MAIN BEARING SET	MBTO18	MBTO39	MBTO39
ROD BEARING SET	RBTO29	RBTO39	RBTO39
THRUST WASHER SET	TWTO16	TWTO39	TWTO39
GASKETS			
FULL GASKET SET	CGSTO29	CGSTO39L	CGSTO39L
HEAD GASKET SET	HSTO29	HSTO39L	HSTO39L
HEAD GASKETS	HDGTO29	HDGTO39L	HDGTO39L
CONVERSION SET	CBSTO29	CBSTO39	CBSTO39
HEAD BOLT SET	HBTO28	HBTO39L	HBTO39L
PISTONS, RINGS, PLUGS			
PISTONS	PATO29	PATO39L	PATO39L
RING SETS	RSTO29	RSTO39	RSTO39
PIN BUSHINGS		PBTO39	PBTO39
FREEZE PLUG SET	EPSTO18		
CRANKSHAFT & RODS			
CONNECTING ROD		CRTO39	CRTO39
OIL PUMP			
NEW OIL PUMP	OPTO29 (no sensor) OPTO29S❶	OPTO39L	OPTO39L

❶ (w/crank sensor)

MODEL	PRIZM	VIBE	PRIZM
ENGINE CODE	- -	1ZZFE	- -
DISPLACEMENT	1762cc(107.5")	1794cc(109.5")	1794cc(109.5")
YEARS	1993-1997	2003-2008	2000-2002
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin 8	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ; vin 8
BORE	81mm(3.189")	79mm(3.110")	79mm(3.110")
STROKE	85.5mm(3.37")	91.5mm(3.60")	91.5mm(3.60")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.8892/1.8898"	1.7321/1.7323"	1.7321/1.7323"
VALVE TRAIN			
INTAKE CAMSHAFT	CAMTO29I		
LIFTERS	LIFTO25		
INTAKE VALVE	IVTO29	IVTO39L	IVTO39L
EXHAUST VALVE	EVTO29	EVTO39L	EVTO39L
VALVE GUIDE	VGTO28	VGTO39	VGTO39
VALVE SEALS	VSSTO15	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO29	WPTO39	WPTO39
TIMING CHAIN KIT		CTKTO39L	CTKTO39L
TIMING BELT	TBTO29		
TENSIONERS	BTTO29		

GEO - G.M.

MODEL	PRIZM	VIBE GT	CRUZE (11-15) SONIC CRUZE Limited
ENGINE CODE	**- -**	**2ZZGE**	**LUW/LWE**
DISPLACEMENT	**1794cc(109.5")**	**1795cc(109.5")**	**1796cc(109.6")**
YEARS	**1998-1999**	**2003-2006**	**2011-2018**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin 8	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	79mm(3.110")	82mm(3.228")	80.5mm(3.169")
STROKE	91.5mm(3.60")	85mm(3.35")	88.2mm(3.47")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	2.1643/2.1648"
ROD JOURNAL DIA.	1.7321/1.7323"	1.7713/1.7717"	1.6918"/1.6924"
ENGINE KITS			
PLATINUM KIT	EKTO39P	EKTO42P	
GOLD KIT	EKTO39G	EKTO42G	
SILVER KIT	EKTO39S	EKTO42S	
BRONZE KITS	EKTO39B	EKTO42B	
MAJOR KIT	EKTO39M	EKTO42M	
RE-RING KIT	EKTO39R	EKTO42R	
ULTRA KIT	EKTO39U	EKTO42U	
BEARING SETS			
MAIN BEARING SET	MBTO39	MBTO42	MBGM1
ROD BEARING SET	RBTO39	RBTO42	RBGM6❶
THRUST WASHER SET	TWTO39	TWTO39	
GASKETS			
FULL GASKET SET	CGSTO39	CGSTO42	CGSGM6
HEAD GASKET SET	HSTO39	HSTO42	HSGM6
HEAD GASKETS	HDGTO39L	HDGTO42	HDGGM3
CONVERSION SET	CBSTO39	CBSTO42	CBSGM6
HEAD BOLT SET	HBTO39L	HBTO42	HBGM3
PISTONS, RINGS, PLUGS			
PISTONS	PATO39	PATO42	PAGM6
RING SETS	RSTO39	RSTO42	RSGM6
PIN BUSHINGS	PBTO39	PBTO39	
FREEZE PLUG SET		EPSTO42	
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO39	CRTO42	
OIL PUMP			
NEW OIL PUMP	OPTO39L	OPTO42	OPGM6

❶ (1/2 tabs left, 1/2 tabs right)

MODEL	PRIZM	VIBE GT	CRUZE (11-15) SONIC CRUZE Limited
ENGINE CODE	**- -**	**2ZZGE**	**LUW/LWE**
DISPLACEMENT	**1794cc(109.5")**	**1795cc(109.5")**	**1796cc(109.6")**
YEARS	**1998-1999**	**2003-2006**	**2011-2018**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin 8	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	79mm(3.110")	82mm(3.228")	80.5mm(3.169")
STROKE	91.5mm(3.60")	85mm(3.35")	88.2mm(3.47")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	2.1643/2.1648"
ROD JOURNAL DIA.	1.7321/1.7323"	1.7713/1.7717"	1.6918"/1.6924"
VALVE TRAIN			
LIFTERS			LIFGM6
INTAKE VALVE	IVTO39	IVTO42	IVGM6
EXHAUST VALVE	EVTO39	EVTO42	EVGM6
VALVE GUIDE	VGTO39	VGTO42	VGGM3
VALVE SEALS	VSSTO34	VSSTO34	VSSGM3
WATER PUMP & TIMING			
WATER PUMP	WPTO39	WPTO42	
TIMING CHAIN KIT	CTKTO39	CTKTO42	
GEARLESS TIMING KIT		PTKTO42	
TIMING BELT			TBGM3

GEO - G.M.

MODEL	VIBE	STORM Gsi	LUV
ENGINE CODE	**LAY**	**4XF1**	**G180Z**
DISPLACEMENT	**1798cc(109.7")**	**1809cc(110")**	**1817cc(110.9")**
YEARS	**2009-2010**	**1992-1993**	**1976-1982**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin 8	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	80.5mm(3.169")	80mm(3.150")	84mm(3.307")
STROKE	88.3mm(3.48")	90mm(3.54")	82mm(3.23")
MAIN JOURNAL DIA.	1.8893/1.8898"	2.0439/2.0448"	2.2016/2.2022"
ROD JOURNAL DIA.	1.7320/1.7323"	1.8083/1.8089"	1.9262/1.9268"
ENGINE KITS			
GOLD KIT	EKTO55G		
MAJOR KIT	EKTO55M		
RE-RING KIT	EKTO55R		EKC3R (2 X 2 X 4 mm) EKC3LR❶
BEARING SETS			
MAIN BEARING SET	MBTO55	MBIS8	MBC3
ROD BEARING SET	RBTO55		RBC3
THRUST WASHER SET	TWTO39	TWIS8	TWC3
GASKETS			
FULL GASKET SET	CGSTO55	CGSIS11	CGSC3
HEAD GASKET SET	HSTO55	HSIS11	HSC3
HEAD GASKETS			HDGC3
CONVERSION SET	CBSTO55	CBSIS8	CBSC3
HEAD BOLT SET	HBTO55		
PISTONS, RINGS, PLUGS			
PISTONS	PATO55❷		
RING SETS	RSTO55	RSIS8	- (2 X 2 X 4 mm) RSC3L❶
PIN BUSHINGS	PBTO39		
FREEZE PLUG SET			EPSC3
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSIS2
CONNECTING ROD		CRIS11	CRIS2
OIL PUMP			
NEW OIL PUMP	OPTO55	OPIS11	OPIS2

❶ (1.5 X 1.5 X 4)

❷ (1.5mm oil ring groove)

MODEL	VIBE	STORM Gsi	LUV
ENGINE CODE	LAY	4XF1	G180Z
DISPLACEMENT	1798cc(109.7")	1809cc(110")	1817cc(110.9")
YEARS	2009-2010	1992-1993	1976-1982
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin 8	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	80.5mm(3.169")	80mm(3.150")	84mm(3.307")
STROKE	88.3mm(3.48")	90mm(3.54")	82mm(3.23")
MAIN JOURNAL DIA.	1.8893/1.8898"	2.0439/2.0448"	2.2016/2.2022"
ROD JOURNAL DIA.	1.7320/1.7323"	1.8083/1.8089"	1.9262/1.9268"
VALVE TRAIN			
LIFTERS	A-2319		
ROCKER ARMS			RAC3
ROCKER ARM SHAFTS			RASIC3
ROCKER ARM SHAFTS			RASEC3
INTAKE VALVE	IVTO55	IVIS8	IVC4❶
EXHAUST VALVE	EVTO55	EVIS8	EVC4❷
VALVE GUIDE		VGIS10 (int)	IVGC3 (int.)
		EVGIS8 (ex)	EVGC4 (ex.)
INTAKE GUIDE	IVGTO55		
EXHAUST GUIDE	EVGTO55		
VALVE SEALS	VSSTO34	VSSTO15	VSSD3
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKTO55❸		CTKC3
TIMING BELT		TBIS11	

❶ (40.3mm head dia.)
❷ (110.8mm length)
❸ (Cam Sprockets not included)

GEO - G.M.

MODEL	S10 PICKUP	TRACKER	CITY EXPRESS
ENGINE CODE	**G200Z**	**J20**	**L0A**
DISPLACEMENT	**1949cc(118.9")**	**1995cc(121.7")**	**1997cc(121.8")**
YEARS	**1982-1985**	**1999-2003**	**2015-2018**
DESCRIPTION	8 VALVE; SOHC 4	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87mm(3.425")	84mm(3.307")	84mm(3.307")
STROKE	82mm(3.23")	90mm(3.54")	90.1mm(3.55")
MAIN JOURNAL DIA.	2.2016/2.2022"	2.2828/2.2834"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.9262/1.9268"	1.9678/1.9685"	1.7304/1.7311"
ENGINE KITS			
PLATINUM KIT	EKIS2P	EKSZ7P	
GOLD KIT	EKIS2G	EKSZ7G	
SILVER KIT	EKIS2S	EKSZ7S	
BRONZE KITS		EKSZ7B	
MAJOR KIT	EKIS2M	EKSZ7M	
RE-RING KIT	EKIS2R (2 X 2 X 4 mm) EKIS2LR❶	EKSZ7R	
ULTRA KIT		EKSZ7U	
BEARING SETS			
MAIN BEARING SET	MBC3	MBSZ7	MBD49
ROD BEARING SET	RBIS7	RBSZ7	RBD43
THRUST WASHER SET	TWC3	TWSZ7	TWD43
GASKETS			
FULL GASKET SET	CGSIS2	CGSSZ7	CGSD43
HEAD GASKET SET	HSIS2	HSSZ7	HSD43
HEAD GASKETS	HDGIS2	HDGSZ7	HDGD43
CONVERSION SET	CBSC3	CBSSZ7	CBSD43
HEAD BOLT SET		HBSZ7	HBD43
PISTONS, RINGS, PLUGS			
PISTONS	PAIS2	PASZ7	PAD44
RING SETS	RSIS2 (2 X 2 X 4 mm) RSIS2L❶	RSSZ7	RSD43
PIN BUSHINGS			PBTO39
FREEZE PLUG SET	EPSC3		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSIS2		
CONNECTING ROD	CRIS2	CRSZ8	-
OIL PUMP			
NEW OIL PUMP	OPIS2	OPSZ7	

❶ (1.5 X 1.5 X 4)

MODEL	S10 PICKUP	TRACKER	CITY EXPRESS
ENGINE CODE	G200Z	J20	L0A
DISPLACEMENT	1949cc(118.9")	1995cc(121.7")	1997cc(121.8")
YEARS	1982-1985	1999-2003	2015-2018
DESCRIPTION	8 VALVE; SOHC 4	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87mm(3.425")	84mm(3.307")	84mm(3.307")
STROKE	82mm(3.23")	90mm(3.54")	90.1mm(3.55")
MAIN JOURNAL DIA.	2.2016/2.2022"	2.2828/2.2834"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.9262/1.9268"	1.9678/1.9685"	1.7304/1.7311"
VALVE TRAIN			
LIFTERS		LIFSZ8	
ROCKER ARMS	RAC3		
ROCKER ARM SHAFTS	RASIC3		
ROCKER ARM SHAFTS	RASEC3		
INTAKE VALVE	IVC4❶	IVSZ8	IVD44
	IVC3❷		
EXHAUST VALVE	EVC4❸	EVSZ8	EVD44
VALVE GUIDE	IVGC3 (int.)	VGSZ8	VGD44
	EVGC4 (ex.)		
VALVE SEALS	VSSD3	VSSTO15	VSSD29
WATER PUMP & TIMING			
WATER PUMP		WPSZ7	
TIMING CHAIN KIT	CTKIS2	CTKSZ7	CTKD43
GEARLESS TIMING KIT		PTKSZ7	PTKD43

❶ (40.3mm head dia.)
❷ (42.4mm head dia.)
❸ (110.8mm length)

GEO - G.M.

MODEL	OPTRA	Cadillac CTS Chevy Malibu	VIBE
ENGINE CODE	**L34 ETEC II**	**LTG**	**2AZFE**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(122")**	**2362cc(144.1")**
YEARS	**2004-2007**	**2014-2022**	**2009-2010**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ; TURBO	16 VALVE DOHC 4; F.INJ.
BORE	86.0mm(3.386")	86.0mm(3.385")	88.5mm(3.484")
STROKE	86.0mm(3.39")	86.0mm(3.39")	96mm(3.78")
MAIN JOURNAL DIA.	2.2884/2.2833"		2.1648/2.1654"
ROD JOURNAL DIA.	1.9279/1.9287"		1.8892/1.8898"
ENGINE KITS			
PLATINUM KIT			EKTO44LP
GOLD KIT	EKSZ10G		EKTO44LG
SILVER KIT			EKTO44LS
BRONZE KITS			EKTO44LB
MAJOR KIT	EKSZ10M		EKTO44LM
RE-RING KIT	EKSZ10R (3mm oil ring) EKSZ10LR❶		EKTO44LR
ULTRA KIT			EKTO44LU
BEARING SETS			
MAIN BEARING SET	MBSZ10		MBTO44
ROD BEARING SET	RBIS16		RBTO44
THRUST WASHER SET			TWTO44
GASKETS			
FULL GASKET SET	CGSSZ10		CGSTO44L
HEAD GASKET SET	HSSZ10		HSTO44L
HEAD GASKETS	HDGSZ10		HDGTO44L
CONVERSION SET	CBSSZ10		CBSTO44
HEAD BOLT SET	HBIS16		HBTO44L
PISTONS, RINGS, PLUGS			
PISTONS	PASZ10❷		PATO44L
RING SETS	RSIS16❷ RSIS16R❹		RSTO44L❸
PIN BUSHINGS			PBD34
CRANKSHAFT & RODS			
CONNECTING ROD			CRTO44
OIL PUMP			
NEW OIL PUMP	OPDW2		OPTO44

❶ (2.5mm oil ring)
❷ (1.5x1.5x3.0mm)
❸ (1 x 1 x 2.0mm)
❹ (1.2x1.5x2.5mm)

MODEL	OPTRA	Cadillac CTS Chevy Malibu	VIBE
ENGINE CODE	**L34 ETEC II**	**LTG**	**2AZFE**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(122")**	**2362cc(144.1")**
YEARS	**2004-2007**	**2014-2022**	**2009-2010**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ; TURBO	16 VALVE DOHC 4; F.INJ.
BORE	86.0mm(3.386")	86.0mm(3.385")	88.5mm(3.484")
STROKE	86.0mm(3.39")	86.0mm(3.39")	96mm(3.78")
MAIN JOURNAL DIA.	2.2884/2.2833"		2.1648/2.1654"
ROD JOURNAL DIA.	1.9279/1.9287"		1.8892/1.8898"
VALVE TRAIN			
LIFTERS	LIFIS16	LIFCH36	
INTAKE VALVE	IVIS16		IVTO44
EXHAUST VALVE	EVIS16		EVTO44
VALVE GUIDE			EVGTO34❶
INTAKE GUIDE	IVGIS16		
EXHAUST GUIDE	EVGIS16		
VALVE SEALS	VSSIS16		VSSTO34
WATER PUMP & TIMING			
WATER PUMP			WPTO44
TIMING CHAIN KIT			CTKTO44
GEARLESS TIMING KIT			PTKTO44
TIMING BELT	TBDW1		

❶ (intake & exhaust)

GEO - G.M.

MODEL	Chevy Impala Chevy Malibu	EPICA	TRACKER
ENGINE CODE	**LKW**	**XK6**	**H25A**
DISPLACEMENT	**2457cc(153")**	**2492cc(152.1")**	**2494cc(152.2")**
YEARS	**2014-2015**	**2004-2006**	**2001-2004**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	24 VALVE INLINE 6	24 VALVE; DOHC V6; F.INJ.
BORE	88mm(3.46")	77mm(3.031")	84mm(3.307")
STROKE	101mm(3.98")	89.2mm(3.51")	75mm(2.95")
MAIN JOURNAL DIA.			2.5585/2.5590"
ROD JOURNAL DIA.			1.9678/1.9685"
ENGINE KITS			
PLATINUM KIT			EKSZ8P
GOLD KIT			EKSZ8G
SILVER KIT			EKSZ8S
BRONZE KITS			EKSZ8B
MAJOR KIT			EKSZ8M
RE-RING KIT			EKSZ8R
ULTRA KIT			EKSZ8U
BEARING SETS			
MAIN BEARING SET			MBSZ8
ROD BEARING SET			RBSZ8
THRUST WASHER SET			TWSZ7
GASKETS			
FULL GASKET SET			CGSSZ8
HEAD GASKET SET			HSSZ8
HEAD GASKETS			HDGSZ8
CONVERSION SET			CBSSZ7
HEAD BOLT SET			HBSZ8
PISTONS, RINGS, PLUGS			
PISTONS			PASZ8
RING SETS			RSSZ8
CRANKSHAFT & RODS			
CONNECTING ROD			CRSZ8
OIL PUMP			
NEW OIL PUMP			OPSZ8

MODEL	Chevy Impala Chevy Malibu	EPICA	TRACKER
ENGINE CODE	**LKW**	**XK6**	**H25A**
DISPLACEMENT	**2457cc(153")**	**2492cc(152.1")**	**2494cc(152.2")**
YEARS	**2014-2015**	**2004-2006**	**2001-2004**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	24 VALVE INLINE 6	24 VALVE; DOHC V6; F.INJ.
BORE	88mm(3.46")	77mm(3.031")	84mm(3.307")
STROKE	101mm(3.98")	89.2mm(3.51")	75mm(2.95")
MAIN JOURNAL DIA.			2.5585/2.5590"
ROD JOURNAL DIA.			1.9678/1.9685"
VALVE TRAIN			
LIFTERS	LIFCH36		LIFSZ8
INTAKE VALVE		IVSZ14	IVSZ8
EXHAUST VALVE		EVSZ14	EVSZ8
VALVE GUIDE			VGSZ8
VALVE SEALS			VSSTO15
WATER PUMP & TIMING			
WATER PUMP			WPSZ8
TIMING CHAIN KIT			CTKSZ8
GEARLESS TIMING KIT			PTKSZ8
OIL DRIVE KIT			ODKSZ8

GEO - G.M.

MODEL	Cadillac CT5	Cadillac CT6	SATURN VUE
ENGINE CODE	LGY	LGW	J35A3
DISPLACEMENT	3000cc(183")	3000cc(183")	3471cc(212.1")
YEARS	2020-2022	2016-2019	2004-2007
DESCRIPTION	24vlv; DOHC; V6; F.INJ. Turbo	24vlv; DOHC; V6; F.INJ. Turbo	24 VALVE; SOHC V6;F.INJ.
BORE	86.0mm(3.385")	86.0mm(3.385")	89mm(3.504")
STROKE	85.8mm(3.38")	85.8mm(3.38")	93mm(3.66")
MAIN JOURNAL DIA.			2.8337/2.8346"
ROD JOURNAL DIA.			2.165/2.171"
BEARING SETS			
MAIN BEARING SET			MBH37
ROD BEARING SET			RBH38
THRUST WASHER SET			TWH37
GASKETS			
FULL GASKET SET			CGSH38Z❶
HEAD GASKET SET			HSH38Z❶
CONVERSION SET			CBSH37
HEAD BOLT SET			HBH37
PISTONS, RINGS, PLUGS			
PISTONS			PAH38L❷
RING SETS			RSH38
CRANKSHAFT & RODS			
CONNECTING ROD			CRH38A4
OIL PUMP			
NEW OIL PUMP			OPH37

❶ (Rubber upper intake manifold cover gasket not included)

❷ (w/o Oil Squirter Slot)

MODEL	Cadillac CT5	Cadillac CT6	SATURN VUE
ENGINE CODE	**LGY**	**LGW**	**J35A3**
DISPLACEMENT	**3000cc(183")**	**3000cc(183")**	**3471cc(212.1")**
YEARS	**2020-2022**	**2016-2019**	**2004-2007**
DESCRIPTION	24vlv; DOHC; V6; F.INJ. Turbo	24vlv; DOHC; V6; F.INJ. Turbo	24 VALVE; SOHC V6;F.INJ.
BORE	86.0mm(3.385")	86.0mm(3.385")	89mm(3.504")
STROKE	85.8mm(3.38")	85.8mm(3.38")	93mm(3.66")
MAIN JOURNAL DIA.			2.8337/2.8346"
ROD JOURNAL DIA.			2.165/2.171"
VALVE TRAIN			
LIFTERS	LIFCH36	LIFCH36	
INTAKE VALVE			IVAC9
EXHAUST VALVE			EVAC9
VALVE GUIDE			IVGH21 (int)
			EVGH21 (ex)
VALVE SEALS			VSSH21
WATER PUMP & TIMING			
WATER PUMP			WPH37
TIMING BELT			TBH37
TENSIONERS			- (hydraulic)
			BTH37R (roller)
			BTH37I (idler)

GEO - G.M.

MODEL	GMC Canyon Chevy Colorado	Cadillac CTS	Chevy Colorado GMC Canyon
ENGINE CODE	**LFX**	**LFX**	**LGZ**
DISPLACEMENT	**3564cc(217.5")**	**3564cc(217.5")**	**3638cc(222.0")**
YEARS	**2015-2017**	**2014-2015**	**2017-2022**
DESCRIPTION	24vlv; DOHC; V6; F.INJ.	24vlv; DOHC; V6; F.INJ. FLEX	24vlv; DOHC; V6; F.INJ.
BORE	94.0mm(3.700")	94.0mm(3.700")	95mm(3.740")
STROKE	85.6mm(3.37")	85.6mm(3.37")	85.8mm(3.38")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-

MODEL	GMC Canyon Chevy Colorado	Cadillac CTS	Chevy Colorado GMC Canyon
ENGINE CODE	**LFX**	**LFX**	**LGZ**
DISPLACEMENT	**3564cc(217.5")**	**3564cc(217.5")**	**3638cc(222.0")**
YEARS	**2015-2017**	**2014-2015**	**2017-2022**
DESCRIPTION	24vlv; DOHC; V6; F.INJ.	24vlv; DOHC; V6; F.INJ. FLEX	24vlv; DOHC; V6; F.INJ.
BORE	94.0mm(3.700")	94.0mm(3.700")	95mm(3.740")
STROKE	85.6mm(3.37")	85.6mm(3.37")	85.8mm(3.38")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFCH36	LIFCH36	LIFCH36

GEO - G.M.

MODEL	LACROSS REGAL Sportback Cadillac ATS/CT6/CTS Cadillac XT5 / XT6 BLAZER CAMARO ACADIA	Cadillac CT6	Cadillac CTS
ENGINE CODE	**LGX**	**LTA**	**LT4**
DISPLACEMENT	**3638cc(222.0")**	**4179cc(255.0")**	**6162cc(376")**
YEARS	**2016-2022**	**2019-2020**	**2016-2019**
DESCRIPTION	24vlv; DOHC; V6; F.INJ.	32 vlv; DOHC; V8; FI; Turbo	16vlv;OHV;V8;Supercharged
BORE	95mm(3.740")	86.0mm(3.385")	103.2mm(4.06")
STROKE	85.8mm(3.38")	90.2mm(3.55")	92.0mm(3.62")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-

MODEL	LACROSS REGAL Sportback Cadillac ATS/CT6/CTS Cadillac XT5 / XT6 BLAZER CAMARO ACADIA	Cadillac CT6	Cadillac CTS
ENGINE CODE	**LGX**	**LTA**	**LT4**
DISPLACEMENT	**3638cc(222.0")**	**4179cc(255.0")**	**6162cc(376")**
YEARS	**2016-2022**	**2019-2020**	**2016-2019**
DESCRIPTION	24vlv; DOHC; V6; F.INJ.	32 vlv; DOHC; V8; FI; Turbo	16vlv;OHV;V8;Supercharged
BORE	95mm(3.740")	86.0mm(3.385")	103.2mm(4.06")
STROKE	85.8mm(3.38")	90.2mm(3.55")	92.0mm(3.62")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFCH36	LIFCH36	LIFCH36

HONDA

MODEL	INSIGHT HYBRID	INSIGHT HYBRID	CIVIC HYBRID
ENGINE CODE	**ECA1**	**LDA3**	**LDA2**
DISPLACEMENT	**0995cc(61")**	**1339cc(82")**	**1339cc(82")**
YEARS	**2000-2006**	**2010-2014**	**2006-2011**
DESCRIPTION	12 VALVE; SOHC 3; F.INJ. FHE	8 vlv; SOHC; f.inj; FHEV	8 vlv; SOHC; f.inj; FHEV
BORE	72mm(2.834")	73mm(2.874")	73mm(2.874")
STROKE		80mm(3.15")	80mm(3.15")
MAIN JOURNAL DIA.		1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.		1.5739/1.5748"	1.5739/1.5748"
BEARING SETS			
MAIN BEARING SET		MBH42	MBH42
ROD BEARING SET		RBH42	RBH42
THRUST WASHER SET		TWH16	TWH16
GASKETS			
CONVERSION SET	CBSH39		
HEAD BOLT SET		HBH39L	HBH39L
PISTONS, RINGS, PLUGS			
RING SETS		RSH39L2	RSH39L1
OIL PUMP			
NEW OIL PUMP		OPH42	OPH42

MODEL	INSIGHT HYBRID	INSIGHT HYBRID	CIVIC HYBRID
ENGINE CODE	**ECA1**	**LDA3**	**LDA2**
DISPLACEMENT	**0995cc(61")**	**1339cc(82")**	**1339cc(82")**
YEARS	**2000-2006**	**2010-2014**	**2006-2011**
DESCRIPTION	12 VALVE; SOHC 3; F.INJ. FHE	8 vlv; SOHC; f.inj; FHEV	8 vlv; SOHC; f.inj; FHEV
BORE	72mm(2.834")	73mm(2.874")	73mm(2.874")
STROKE		80mm(3.15")	80mm(3.15")
MAIN JOURNAL DIA.		1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.		1.5739/1.5748"	1.5739/1.5748"
VALVE TRAIN			
INTAKE VALVE		IVH42HY	IVH42HY
EXHAUST VALVE		EVH42HY	EVH42HY
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE		IVGH21	IVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21

HONDA

MODEL	CIVIC HYBRID	CIVIC CRX	CRX Si CIVIC Si 2 intake,1 exhaust
ENGINE CODE	**LDA1**	**EV1/D13A2**	**EW3/4/D15A3**
DISPLACEMENT	**1339cc(82")**	**1342cc(81.9")**	**1488cc(90.8")**
YEARS	**2003-2005**	**1984-1987**	**1987**
DESCRIPTION	8 vlv; SOHC; f.inj; FHEV	16 VALVE; SOHC 4; CARB.	12 VALVE; SOHC 4; F.INJ
BORE	73mm(2.874")	74mm(2.913")	74mm(2.913")
STROKE	80mm(3.15")	78mm(3.07")	86.5mm(3.41")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.5739/1.5748"	1.5741/1.5748"	1.6526/1.6535"
ENGINE KITS			
GOLD KIT			EKH14FG
MAJOR KIT			EKH14FM
RE-RING KIT			EKH14FR (4mm oil ring) EKH14R❶
BEARING SETS			
MAIN BEARING SET	MBH42	MBH20 (1.9685" only)	MBH20
ROD BEARING SET	RBH42		RBH12
THRUST WASHER SET	TWH16	TWH12	TWH12
GASKETS			
FULL GASKET SET		CGSH14 (85-87)	CGSH14
HEAD GASKET SET		HSH14 (85-87)	HSH14
CONVERSION SET		CBSH14	CBSH14
HEAD BOLT SET	HBH39L		
PISTONS, RINGS, PLUGS			
PISTONS			PAH14F (set of 4)
RING SETS	RSH39L1	RSH13	RSH11L❶
CRANKSHAFT & RODS			
CONNECTING ROD		CRH13 (84-85) CRH13L (86-87)	CRH14
OIL PUMP			
NEW OIL PUMP	OPH42	OPH14	OPH14

❶ (2.8mm oil ring)

MODEL	CIVIC HYBRID	CIVIC CRX	CRX Si CIVIC Si 2 intake,1 exhaust
ENGINE CODE	**LDA1**	**EV1/D13A2**	**EW3/4/D15A3**
DISPLACEMENT	**1339cc(82")**	**1342cc(81.9")**	**1488cc(90.8")**
YEARS	**2003-2005**	**1984-1987**	**1987**
DESCRIPTION	8 vlv; SOHC; f.inj; FHEV	16 VALVE; SOHC 4; CARB.	12 VALVE; SOHC 4; F.INJ
BORE	73mm(2.874")	74mm(2.913")	74mm(2.913")
STROKE	80mm(3.15")	78mm(3.07")	86.5mm(3.41")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.5739/1.5748"	1.5741/1.5748"	1.6526/1.6535"
VALVE TRAIN			
CAMSHAFTS			CAMH14F
ROCKER ARMS		RAH14A❶	RAH14B❶
		RAH14B❶	RAH14A❶
AUX. ROCKER ARMS		RAH13A❶	
		RAH13B❶	
INTAKE VALVE		IVH13	IVH14
EXHAUST VALVE		EVH13	EVH14L
INTAKE GUIDE	IVGH21	IVGH3	IVGH3
EXHAUST GUIDE	IVGH21	EVGH12	EVGH12
VALVE SEALS	VSSH21	VSSH8	VSSH8
WATER PUMP & TIMING			
TIMING BELT		TBH14	TBH14
TENSIONERS		BTH14	BTH14

❶ (rocker arms sold in pairs A&B)

HONDA

MODEL	CRX Si CIVIC Si 2 intake,1 exhaust	CIVIC CRX 1.5 2 intake,1 exhaust, 1 aux.valve	CIVIC
ENGINE CODE	**EW3/4/D15A3**	**EW1/D15A2**	**EM1**
DISPLACEMENT	**1488cc(90.8")**	**1488cc(90.8")**	**1488cc(90.8")**
YEARS	**1985-1986**	**1984**	**1982-1983**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	12 VALVE SOHC 4; CARB	8 VALVE; SOHC 4; CARB
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	86.5mm(3.41")	86.5mm(3.41")	86.5mm(3.41")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.6526/1.6535"	1.6526/1.6535"	1.6526/1.6535"
ENGINE KITS			
GOLD KIT	EKH14FG	EKH14G	
MAJOR KIT	EKH14FM	EKH14M	
RE-RING KIT	EKH14FR (4mm oil ring) EKH14R❶	EKH14R	EKH11LR
BEARING SETS			
MAIN BEARING SET	MBH20	MBH20	MBH20
ROD BEARING SET	RBH12	RBH12	RBH12
THRUST WASHER SET	TWH12	TWH12	TWH12
GASKETS			
FULL GASKET SET	CGSH14	CGSH14	CGSH11L
HEAD GASKET SET	HSH14	HSH14	HSH11L
HEAD GASKETS	HDGH14	HDGH14	
CONVERSION SET	CBSH14	CBSH14	
PISTONS, RINGS, PLUGS			
PISTONS	PAH14F (set of 4)	PAH14	
RING SETS	RSH11L❶	RSH11L	RSH11L
FREEZE PLUG SET			EPSH11
CRANKSHAFT & RODS			
CONNECTING ROD	CRH14	CRH14	
OIL PUMP			
NEW OIL PUMP	OPH14	OPH14	

❶ (2.8mm oil ring)

MODEL	CRX Si CIVIC Si 2 intake,1 exhaust	CIVIC CRX 1.5 2 intake,1 exhaust, 1 aux.valve	CIVIC
ENGINE CODE	**EW3/4/D15A3**	**EW1/D15A2**	**EM1**
DISPLACEMENT	**1488cc(90.8")**	**1488cc(90.8")**	**1488cc(90.8")**
YEARS	**1985-1986**	**1984**	**1982-1983**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	12 VALVE SOHC 4; CARB	8 VALVE; SOHC 4; CARB
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	86.5mm(3.41")	86.5mm(3.41")	86.5mm(3.41")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.6526/1.6535"	1.6526/1.6535"	1.6526/1.6535"
VALVE TRAIN			
CAMSHAFTS	CAMH14F		
ROCKER ARMS	RAH14B❶ RAH14A❶	RAH14A❶ RAH14B❶	
INTAKE VALVE	IVH14	IVH14	IVH12
EXHAUST VALVE	EVH14L	EVH14	EVH12
INTAKE GUIDE	IVGH3	IVGH3	IVGH8
EXHAUST GUIDE	EVGH12	EVGH12	EVGH12
VALVE SEALS	VSSH8	VSSH8	VSSH8
WATER PUMP & TIMING			
TIMING BELT	TBH14	TBH14	
TENSIONERS	BTH14	BTH14	

❶ (rocker arms sold in pairs A&B)

HONDA

MODEL	CIVIC	CIVIC CVCC	CIVIC
ENGINE CODE	**EM1**	**ED3/4**	**D15B8**
DISPLACEMENT	**1488cc(90.8")**	**1488cc(90.8")**	**1493cc(91.1")**
YEARS	**1980-1981**	**1976-1979**	**1992-1995**
DESCRIPTION	8 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	75mm(2.953")
STROKE	86.5mm(3.41")	86.5mm(3.41")	84.5mm(3.33")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.7707/1.7718"
ROD JOURNAL DIA.	1.6526/1.6535"	1.6526/1.6535"	1.6526/1.6535"
ENGINE KITS			
GOLD KIT			EKH21LG
BRONZE KITS			EKH21LB
MAJOR KIT			EKH21LM
RE-RING KIT	EKH11R		EKH21LR
BEARING SETS			
MAIN BEARING SET	MBH20	MBH20	MBH21
ROD BEARING SET	RBH12	RBH12	RBH12
THRUST WASHER SET	TWH12	TWH12	TWH12
GASKETS			
FULL GASKET SET	CGSH11		CGSH21
HEAD GASKET SET	HSH11		HSH21
HEAD GASKETS			HDGH21
CONVERSION SET			CBSH21
PISTONS, RINGS, PLUGS			
PISTONS			PAH21L
RING SETS			RSH21L
FREEZE PLUG SET	EPSH11	EPSH15	
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSH21L (22mm nose)
OIL PUMP			
NEW OIL PUMP			OPH21

MODEL	CIVIC	CIVIC CVCC	CIVIC
ENGINE CODE	**EM1**	**ED3/4**	**D15B8**
DISPLACEMENT	**1488cc(90.8")**	**1488cc(90.8")**	**1493cc(91.1")**
YEARS	**1980-1981**	**1976-1979**	**1992-1995**
DESCRIPTION	8 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	75mm(2.953")
STROKE	86.5mm(3.41")	86.5mm(3.41")	84.5mm(3.33")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.7707/1.7718"
ROD JOURNAL DIA.	1.6526/1.6535"	1.6526/1.6535"	1.6526/1.6535"
VALVE TRAIN			
ROCKER ARMS			RAH21A
ROCKER ARMS			RAH21D
INTAKE VALVE	IVH8	IVH8	IVH21
EXHAUST VALVE	EVH8	EVH8	EVH21
INTAKE GUIDE	IVGH8	IVGH8	IVGH21
EXHAUST GUIDE	EVGH12	EVGH12	EVGH21
VALVE SEALS	VSSH8	VSSH8	VSSH21
WATER PUMP & TIMING			
WATER PUMP			WPH21L
TIMING BELT	TBH8	TBH8	TBH21
TENSIONERS			BTH21
ENGINES & HEADS			
HEAD W/VALVES			CHVH21HF

HONDA

MODEL	CIVIC VTEC	CIVIC del SOL S (93-95)	CRX HF
ENGINE CODE	**D15Z1**	**D15B7**	**D15B6**
DISPLACEMENT	**1493cc(91.1")**	**1493cc(91.1")**	**1493cc(91.1")**
YEARS	**1992-1995**	**1992-1995**	**1989-1991**
DESCRIPTION	16 VALVE; SOHC 4;F.INJ.	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	75mm(2.953")	75mm(2.953")	75mm(2.953")
STROKE	84.5mm(3.33")	84.5mm(3.33")	84.5mm(3.33")
MAIN JOURNAL DIA.	1.7707/1.7718"	1.7707/1.7718"	1.7707/1.7718"
ROD JOURNAL DIA.	1.6526/1.6535"	1.6526/1.6535"	1.4951/1.4961"
ENGINE KITS			
GOLD KIT	EKH21VG	EKH21LG	
BRONZE KITS	EKH21VB	EKH21LB	
MAJOR KIT	EKH21VM	EKH21LM	
RE-RING KIT	EKH21VR	EKH21LR	
BEARING SETS			
MAIN BEARING SET	MBH21	MBH21	MBH21
ROD BEARING SET	RBH12	RBH12	
THRUST WASHER SET	TWH12	TWH12	TWH12
GASKETS			
FULL GASKET SET	CGSH21V	CGSH21	CGSH21
HEAD GASKET SET	HSH21V	HSH21	HSH21
HEAD GASKETS	HDGH25	HDGH21	HDGH21
CONVERSION SET	CBSH21	CBSH21	CBSH21
PISTONS, RINGS, PLUGS			
PISTONS	PAH21V	PAH21L	
RING SETS	RSH30	RSH21L	RSH21
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSH21L (22mm nose)	CSH21L (22mm nose)	
CONNECTING ROD			CRH21
OIL PUMP			
NEW OIL PUMP	OPH21	OPH21	OPH21

MODEL	CIVIC VTEC	CIVIC del SOL S (93-95)	CRX HF
ENGINE CODE	**D15Z1**	**D15B7**	**D15B6**
DISPLACEMENT	**1493cc(91.1")**	**1493cc(91.1")**	**1493cc(91.1")**
YEARS	**1992-1995**	**1992-1995**	**1989-1991**
DESCRIPTION	16 VALVE; SOHC 4;F.INJ.	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	75mm(2.953")	75mm(2.953")	75mm(2.953")
STROKE	84.5mm(3.33")	84.5mm(3.33")	84.5mm(3.33")
MAIN JOURNAL DIA.	1.7707/1.7718"	1.7707/1.7718"	1.7707/1.7718"
ROD JOURNAL DIA.	1.6526/1.6535"	1.6526/1.6535"	1.4951/1.4961"
VALVE TRAIN			
ROCKER ARMS		RAH21A RAH21B	
ROCKER ARMS		RAH21C RAH21D	
INTAKE VALVE	IVH21Z	IVH21	IVH21
EXHAUST VALVE	EVH21Z	EVH21	EVH21
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	IVGH21	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH25	WPH21L	WPH21L
TIMING BELT	TBH21Z	TBH21	TBH21
TENSIONERS	BTH25	BTH21	BTH21
ENGINES & HEADS			
HEAD W/VALVES			CHVH21HF

HONDA

MODEL	CIVIC CRX	Fit	Fit
ENGINE CODE	**D15B2/D15B1**	**L15A7**	**L15A1**
DISPLACEMENT	**1493cc(91.1")**	**1496cc**	**1496cc**
YEARS	**1988-1991**	**2009-2013**	**2007-2008**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE SOHC 4; F.INJ	16 VALVE SOHC 4; F.INJ
BORE	75mm(2.953")	73mm(2.874")	73mm(2.874")
STROKE	84.5mm(3.33")	89.4mm(3.52")	89.4mm(3.52")
MAIN JOURNAL DIA.	1.7707/1.7718"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.6526/1.6535"	1.5739/1.5748"	1.5739/1.5748"
ENGINE KITS			
GOLD KIT	EKH21LG		
BRONZE KITS	EKH21LB		
MAJOR KIT	EKH21LM	EKH42LM	
RE-RING KIT	EKH21LR	EKH42LR	
BEARING SETS			
MAIN BEARING SET	MBH21	MBH42	MBH42
ROD BEARING SET	RBH12	RBH42	RBH42
THRUST WASHER SET	TWH12	TWH16	TWH16
GASKETS			
FULL GASKET SET	CGSH21	CGSH42L	
HEAD GASKET SET	HSH21	HSH42L	
HEAD GASKETS	HDGH21		
CONVERSION SET	CBSH21	CBSH42L	
HEAD BOLT SET		HBH42	HBH42
PISTONS, RINGS, PLUGS			
PISTONS	PAH21L (set of 4)	PAH42L	PAH42
RING SETS	RSH21L	RSH42L	RSH42
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSH21L (22mm nose)		
OIL PUMP			
NEW OIL PUMP	OPH21	OPH42	OPH42

MODEL	CIVIC CRX	Fit	Fit
ENGINE CODE	**D15B2/D15B1**	**L15A7**	**L15A1**
DISPLACEMENT	**1493cc(91.1")**	**1496cc**	**1496cc**
YEARS	**1988-1991**	**2009-2013**	**2007-2008**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE SOHC 4; F.INJ	16 VALVE SOHC 4; F.INJ
BORE	75mm(2.953")	73mm(2.874")	73mm(2.874")
STROKE	84.5mm(3.33")	89.4mm(3.52")	89.4mm(3.52")
MAIN JOURNAL DIA.	1.7707/1.7718"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.6526/1.6535"	1.5739/1.5748"	1.5739/1.5748"
VALVE TRAIN			
INTAKE VALVE	IVH21	IVH42L	IVH42
EXHAUST VALVE	EVH21	EVH42L	
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH21	IVGH21	IVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH21L		
TIMING CHAIN KIT		CTKH42L	
TIMING BELT	TBH21		
TENSIONERS	BTH21		

HONDA

MODEL	CIVIC HYBRID	INSIGHT HYBRID	CR-V ACCORD TURBO
ENGINE CODE	**LEA2**	**LEB6**	**L15BE**
DISPLACEMENT	**1496cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2012-2015**	**2019-2022**	**2017-2022**
DESCRIPTION	8 vlv; SOHC; f.inj; FHEV	16 vlv, DOHC 4; F.INJ. FHEV	16 vlv; DOHC 4; F.INJ. Turbo
BORE	73mm(2.874")	73mm(2.874")	73mm(2.874")
STROKE	89.4mm(3.52")	89.4mm(3.52")	89.4mm(3.52")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.8101/1.8114"	
ROD JOURNAL DIA.	1.5739/1.5748"	1.5739/1.5748"	
BEARING SETS			
MAIN BEARING SET	MBH42	MBH54T	MBH54T
ROD BEARING SET	RBH42	RBH42	RBH54T
THRUST WASHER SET	TWH16		
GASKETS			
HEAD BOLT SET	HBH42	HBH42	
OIL PUMP			
NEW OIL PUMP	OPH42	OPH42L	OPH54T

MODEL	CIVIC HYBRID	INSIGHT HYBRID	CR-V ACCORD TURBO
ENGINE CODE	**LEA2**	**LEB6**	**L15BE**
DISPLACEMENT	**1496cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2012-2015**	**2019-2022**	**2017-2022**
DESCRIPTION	8 vlv; SOHC; f.inj; FHEV	16 vlv, DOHC 4; F.INJ. FHEV	16 vlv; DOHC 4; F.INJ. Turbo
BORE	73mm(2.874")	73mm(2.874")	73mm(2.874")
STROKE	89.4mm(3.52")	89.4mm(3.52")	89.4mm(3.52")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.8101/1.8114"	
ROD JOURNAL DIA.	1.5739/1.5748"	1.5739/1.5748"	
VALVE TRAIN			
INTAKE VALVE	IVH42HY	IVH42F	IVH54T
EXHAUST VALVE	EVH42HY	EVH42F	EVH54T
VALVE GUIDE			VGH43
INTAKE GUIDE	IVGH21	IVGH21	
EXHAUST GUIDE	IVGH21	EVGH42F	
VALVE SEALS	VSSH21	VSSH21	VSSH21

HONDA

MODEL	CIVIC TURBO	CLARITY HYBRID	CIVIC TURBO
ENGINE CODE	**L15B7**	**LEB3**	**L15BA**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2016-2022**	**2018-2021**	**2017-2021**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv, DOHC 4; F.INJ. PHEV	16 vlv; DOHC 4; F.INJ. Turbo
BORE	73mm(2.874")	73mm(2.874")	73mm(2.874")
STROKE	89.4mm(3.52")	89.4mm(3.52")	89.4mm(3.52")
MAIN JOURNAL DIA.	1.8101/1.8114"	1.8101/1.8114"	
ROD JOURNAL DIA.	1.5739/1.5748"	1.5739/1.5748"	
BEARING SETS			
MAIN BEARING SET	MBH54T	MBH54T	MBH54T
ROD BEARING SET	RBH54T	RBH42	RBH54T
GASKETS			
HEAD BOLT SET		HBH42	
OIL PUMP			
NEW OIL PUMP	OPH54T	OPH42L	OPH54T

MODEL	CIVIC TURBO	CLARITY HYBRID	CIVIC TURBO
ENGINE CODE	**L15B7**	**LEB3**	**L15BA**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2016-2022**	**2018-2021**	**2017-2021**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv, DOHC 4; F.INJ. PHEV	16 vlv; DOHC 4; F.INJ. Turbo
BORE	73mm(2.874")	73mm(2.874")	73mm(2.874")
STROKE	89.4mm(3.52")	89.4mm(3.52")	89.4mm(3.52")
MAIN JOURNAL DIA.	1.8101/1.8114"	1.8101/1.8114"	
ROD JOURNAL DIA.	1.5739/1.5748"	1.5739/1.5748"	
VALVE TRAIN			
INTAKE VALVE	IVH54T	IVH42F	IVH54T
EXHAUST VALVE	EVH54T	EVH42F	EVH54T
VALVE GUIDE	VGH43		VGH43
INTAKE GUIDE		IVGH21	
EXHAUST GUIDE		EVGH42F	
VALVE SEALS	VSSH21	VSSH21	VSSH21

HONDA

MODEL	Fit	Fit	CR-Z HYBRID
ENGINE CODE	**L15B1**	**L15B1**	**LEA1**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2017-2020**	**2015-2016**	**2011-2016**
DESCRIPTION	16 vlv, DOHC 4; F.INJ, DI	16 vlv, DOHC 4; F.INJ, DI	16 vlv, SOHC 4, F.INJ, FHEV
BORE	73mm(2.874")	73mm(2.874")	73mm(2.874")
STROKE	89.4mm(3.52")	89.4mm(3.52")	89.4mm(3.52")
MAIN JOURNAL DIA.	1.8101/1.8114"	1.8101/1.8114"	1.9676/1.9685"
ROD JOURNAL DIA.	1.5739/1.5748"	1.5739/1.5748"	1.5739/1.5748"
ENGINE KITS			
MAJOR KIT			EKH42LM
RE-RING KIT			EKH42LR
BEARING SETS			
MAIN BEARING SET	MBH54T	MBH54T	MBH42
ROD BEARING SET	RBH42	RBH42	RBH42
THRUST WASHER SET			TWH16
GASKETS			
FULL GASKET SET			CGSH42L
HEAD GASKET SET			HSH42L
CONVERSION SET			CBSH42L
HEAD BOLT SET	HBH42	HBH42	HBH42
PISTONS, RINGS, PLUGS			
PISTONS			PAH42L
RING SETS		RSH42L	RSH42L
OIL PUMP			
NEW OIL PUMP	OPH42L	OPH42L	OPH42

MODEL	Fit	Fit	CR-Z HYBRID
ENGINE CODE	**L15B1**	**L15B1**	**LEA1**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2017-2020**	**2015-2016**	**2011-2016**
DESCRIPTION	16 vlv, DOHC 4; F.INJ, DI	16 vlv, DOHC 4; F.INJ, DI	16 vlv, SOHC 4, F.INJ, FHEV
BORE	73mm(2.874")	73mm(2.874")	73mm(2.874")
STROKE	89.4mm(3.52")	89.4mm(3.52")	89.4mm(3.52")
MAIN JOURNAL DIA.	1.8101/1.8114"	1.8101/1.8114"	1.9676/1.9685"
ROD JOURNAL DIA.	1.5739/1.5748"	1.5739/1.5748"	1.5739/1.5748"
VALVE TRAIN			
INTAKE VALVE	IVH42F	IVH42F	IVH42L
EXHAUST VALVE	EVH42F	EVH42F	EVH42L
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH42F	EVGH42F	IVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
TIMING CHAIN KIT			CTKH42L

HONDA

MODEL	CIVIC HX VTEC-E	CIVIC del SOL (96-97)	CIVIC EX VTEC del SOL Si
ENGINE CODE	**D16Y5**	**D16Y7**	**D16Y8**
DISPLACEMENT	**1588cc(96.9")**	**1588cc(96.9")**	**1588cc(96.9")**
YEARS	**1996-2000**	**1996-2000**	**1996-2000**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	75mm(2.953")	75mm(2.953")	75mm(2.953")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.1644/2.1654"	2.1644/2.1654"	2.1644/2.1654"
ROD JOURNAL DIA.	1.7707/1.7717	1.7707/1.7717	1.7707/1.7717
ENGINE KITS			
GOLD KIT	EKH31G	EKH30G	EKH31G
BRONZE KITS	EKH31B	EKH30B	EKH31B
MAJOR KIT	EKH31M	EKH30M	EKH31M
RE-RING KIT	EKH30R	EKH30R	EKH30R
BEARING SETS			
MAIN BEARING SET	MBH16	MBH16	MBH16
ROD BEARING SET	RBH16	RBH16	RBH16
THRUST WASHER SET	TWH16	TWH16	TWH16
GASKETS			
FULL GASKET SET	CGSH30	CGSH30	CGSH30
HEAD GASKET SET	HSH30	HSH30	HSH30
HEAD GASKETS	HDGH25	HDGH25	HDGH25
CONVERSION SET	CBSH30	CBSH30	CBSH30
HEAD BOLT SET	HBH30	HBH30	HBH30
PISTONS, RINGS, PLUGS			
PISTONS	PAH31	PAH30 (Non vtec)	PAH31
RING SETS	RSH30	RSH30	RSH30
OIL PUMP			
NEW OIL PUMP	OPH30	OPH30	OPH30

MODEL	CIVIC HX VTEC-E	CIVIC del SOL (96-97)	CIVIC EX VTEC del SOL Si
ENGINE CODE	**D16Y5**	**D16Y7**	**D16Y8**
DISPLACEMENT	**1588cc(96.9")**	**1588cc(96.9")**	**1588cc(96.9")**
YEARS	**1996-2000**	**1996-2000**	**1996-2000**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	75mm(2.953")	75mm(2.953")	75mm(2.953")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.1644/2.1654"	2.1644/2.1654"	2.1644/2.1654"
ROD JOURNAL DIA.	1.7707/1.7717	1.7707/1.7717	1.7707/1.7717
VALVE TRAIN			
INTAKE VALVE	IVH25	IVH25	IVH25
EXHAUST VALVE	EVH25	EVH25	EVH25
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	IVGH21	IVGH21	IVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH30	WPH30	WPH30
TIMING BELT	TBH25	TBH25	TBH25
TENSIONERS	BTH25	BTH25	BTH25

HONDA

MODEL	CIVIC Si del SOL Si (93-95) VTEC	CIVIC Si CRX Si	CIVIC Si (99-00) del SOL (96-97) VTEC
ENGINE CODE	**D16Z6**	**D16A6**	**B16A2**
DISPLACEMENT	**1588cc(96.9")**	**1588cc(96.9")**	**1595cc(97")**
YEARS	**1992-1995**	**1988-1991**	**1996-2000**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	75mm(2.953")	75mm(2.953")	81mm(3.189")
STROKE	90mm(3.54")	90mm(3.54")	77.4mm(3.05")
MAIN JOURNAL DIA.	2.1644/2.1654"	2.1644/2.1654"	2.1644/2.1654"
ROD JOURNAL DIA.	1.7707/1.7717	1.7707/1.7717	1.7707/1.7717
ENGINE KITS			
GOLD KIT	EKH25G	EKH22G	EKH32LG
BRONZE KITS	EKH25B	EKH22B	EKH32LB
MAJOR KIT	EKH25M	EKH22M	EKH32M
RE-RING KIT	EKH25R	EKH22R	EKH32R
BEARING SETS			
MAIN BEARING SET	MBH16	MBH16	MBH18
ROD BEARING SET	RBH16	RBH16	RBH30
THRUST WASHER SET	TWH16	TWH16	TWH16
GASKETS			
FULL GASKET SET	CGSH25	CGSH21	CGSH18V
HEAD GASKET SET	HSH25	HSH21	HSH18V
HEAD GASKETS	HDGH25	HDGH21	HDGH18V
CONVERSION SET	CBSH21	CBSH21	CBSH18
PISTONS, RINGS, PLUGS			
PISTONS	PAH25	PAH22 (set of 4)	PAH32
RING SETS	RSH21L	RSH21L	RSH18
OIL PUMP			
NEW OIL PUMP	OPH21	OPH21	OPH18S

MODEL	CIVIC Si del SOL Si (93-95) VTEC	CIVIC Si CRX Si	CIVIC Si (99-00) del SOL (96-97) VTEC
ENGINE CODE	**D16Z6**	**D16A6**	**B16A2**
DISPLACEMENT	**1588cc(96.9")**	**1588cc(96.9")**	**1595cc(97")**
YEARS	**1992-1995**	**1988-1991**	**1996-2000**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	75mm(2.953")	75mm(2.953")	81mm(3.189")
STROKE	90mm(3.54")	90mm(3.54")	77.4mm(3.05")
MAIN JOURNAL DIA.	2.1644/2.1654"	2.1644/2.1654"	2.1644/2.1654"
ROD JOURNAL DIA.	1.7707/1.7717	1.7707/1.7717	1.7707/1.7717
VALVE TRAIN			
INTAKE VALVE	IVH25	IVH21	IVAC3
EXHAUST VALVE	EVH25	EVH21	EVAC3
INTAKE GUIDE	IVGH21	IVGH21	IVGAC3
EXHAUST GUIDE	IVGH21	EVGH21	EVGAC3
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH25	WPH21L	
TIMING BELT	TBH25	TBH22	TBH32
TENSIONERS	BTH25	BTH21	BTH18

HONDA

MODEL	del SOL VTEC	ACCORD	CIVIC DX CIVIC LX
ENGINE CODE	**B16A3**	**EF**	**D17A1**
DISPLACEMENT	**1595cc(97")**	**1599cc(97.6")**	**1688cc(102")**
YEARS	**1994-1995**	**1976-1978**	**2001-2005**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	12 VALVE; SOHC 4; CARB	16 VALVE; SOHC 4; F.INJ.
BORE	81mm(3.189")	74mm(2.913")	75mm(2.953")
STROKE	77.4mm(3.05")	93mm(3.66")	94.4mm(3.71")
MAIN JOURNAL DIA.	2.1644/2.1654"	1.9676/1.9685"	2.1644/2.1654"
ROD JOURNAL DIA.	1.7707/1.7717	1.6526/1.6535"	1.7707/1.7717"
ENGINE KITS			
GOLD KIT	EKH32G		EKH41G
BRONZE KITS			EKH41B
MAJOR KIT	EKH32M		EKH41M
RE-RING KIT	EKH32R		EKH41R
BEARING SETS			
MAIN BEARING SET	MBH18	MBH20	MBH16
ROD BEARING SET	RBH30	RBH12	RBH41
THRUST WASHER SET	TWH16	TWH12	TWH16
GASKETS			
FULL GASKET SET	CGSH18V		CGSH41
HEAD GASKET SET	HSH18V		HSH41
HEAD GASKETS	HDGH18V		HDGH41
CONVERSION SET	CBSH18		CBSH41
HEAD BOLT SET			HBH41
PISTONS, RINGS, PLUGS			
PISTONS	PAH32		PAH41
RING SETS	RSH18		RSH41
FREEZE PLUG SET		EPSH15	
OIL PUMP			
NEW OIL PUMP	OPH21		OPH41

MODEL	del SOL VTEC	ACCORD	CIVIC DX CIVIC LX
ENGINE CODE	**B16A3**	**EF**	**D17A1**
DISPLACEMENT	**1595cc(97")**	**1599cc(97.6")**	**1688cc(102")**
YEARS	**1994-1995**	**1976-1978**	**2001-2005**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	12 VALVE; SOHC 4; CARB	16 VALVE; SOHC 4; F.INJ.
BORE	81mm(3.189")	74mm(2.913")	75mm(2.953")
STROKE	77.4mm(3.05")	93mm(3.66")	94.4mm(3.71")
MAIN JOURNAL DIA.	2.1644/2.1654"	1.9676/1.9685"	2.1644/2.1654"
ROD JOURNAL DIA.	1.7707/1.7717	1.6526/1.6535"	1.7707/1.7717"
VALVE TRAIN			
ROCKER ARMS			RAH21A (in) RAH21B (in) RAH21C (ex) RAH21D (ex)
INTAKE VALVE	IVAC3	IVH8	IVH25
EXHAUST VALVE	EVAC3	EVH8	EVH25
INTAKE GUIDE	IVGAC3	IVGH3	IVGH21
EXHAUST GUIDE	EVGAC3	EVGH12	IVGH21
VALVE SEALS	VSSH21	VSSH8	VSSH21
WATER PUMP & TIMING			
WATER PUMP			WPH41
TIMING BELT	TBH32	TBH8	TBH41
TENSIONERS	BTH18		BTH41

HONDA

MODEL	CIVIC EX VTEC	CIVIC HX VTEC-E	ACCORD PRELUDE
ENGINE CODE	**D17A2**	**D17A6**	**EK1**
DISPLACEMENT	**1688cc(102")**	**1688cc(102")**	**1751cc(107")**
YEARS	**2001-2005**	**2001-2005**	**1982-1983**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; CARB
BORE	75mm(2.953")	75mm(2.953")	77mm(3.031")
STROKE	94.4mm(3.71")	94.4mm(3.71")	94mm(3.70")
MAIN JOURNAL DIA.	2.1644/2.1654"	2.1644/2.1654"	1.9676/1.9685"
ROD JOURNAL DIA.	1.7707/1.7717"	1.7707/1.7717"	1.6526/1.6535"
ENGINE KITS			
GOLD KIT	EKH41EXG	EKH41EXG	
BRONZE KITS	EKH41EXB	EKH41EXB	
MAJOR KIT	EKH41EXM	EKH41EXM	
RE-RING KIT	EKH41R	EKH41R	EKH10LR
BEARING SETS			
MAIN BEARING SET	MBH16	MBH16	MBH20
ROD BEARING SET	RBH41	RBH41	RBH12
THRUST WASHER SET	TWH16	TWH16	TWH12
GASKETS			
FULL GASKET SET	CGSH41	CGSH41	CGSH10L
HEAD GASKET SET	HSH41	HSH41	HSH10L
HEAD GASKETS	HDGH41	HDGH41	
CONVERSION SET	CBSH41	CBSH41	
HEAD BOLT SET	HBH41	HBH41	
PISTONS, RINGS, PLUGS			
PISTONS	PAH41EX	PAH41EX	
RING SETS	RSH41	RSH41	RSH9
FREEZE PLUG SET			EPSH15
CRANKSHAFT & RODS			
CONNECTING ROD			CRH9
OIL PUMP			
NEW OIL PUMP	OPH41	OPH41	OPH10 (Std Trans)

MODEL	CIVIC EX VTEC	CIVIC HX VTEC-E	ACCORD PRELUDE
ENGINE CODE	**D17A2**	**D17A6**	**EK1**
DISPLACEMENT	**1688cc(102")**	**1688cc(102")**	**1751cc(107")**
YEARS	**2001-2005**	**2001-2005**	**1982-1983**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; CARB
BORE	75mm(2.953")	75mm(2.953")	77mm(3.031")
STROKE	94.4mm(3.71")	94.4mm(3.71")	94mm(3.70")
MAIN JOURNAL DIA.	2.1644/2.1654"	2.1644/2.1654"	1.9676/1.9685"
ROD JOURNAL DIA.	1.7707/1.7717"	1.7707/1.7717"	1.6526/1.6535"
VALVE TRAIN			
ROCKER ARMS	RAH21A (in) RAH21C (ex) RAH21D (ex) RAH21B (in)	RAH21A (in) RAH21C (ex) RAH21D (ex) RAH21B (in)	
INTAKE VALVE	IVH25	IVH25	IVH10L
EXHAUST VALVE	EVH25	EVH25	EVH10L
INTAKE GUIDE	IVGH21	IVGH21	IVGH10
EXHAUST GUIDE	IVGH21	IVGH21	EVGH10
VALVE SEALS	VSSH21	VSSH21	VSSH8 (int.) VSSH9 (ex.)
WATER PUMP & TIMING			
WATER PUMP	WPH41	WPH41	
TIMING BELT	TBH41	TBH41	TBH8

HONDA

MODEL	ACCORD PRELUDE	ACCORD PRELUDE	HR-V
ENGINE CODE	**EK**	**EK**	**R18Z9**
DISPLACEMENT	**1751cc(107")**	**1751cc(107")**	**1799cc(109.8")**
YEARS	**1981**	**1979-1980**	**2016-2022**
DESCRIPTION	12 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; CARB	16 VALVE SOHC 4; F.INJ
BORE	77mm(3.031")	77mm(3.031")	81.0mm(3.189")
STROKE	94mm(3.70")	94mm(3.70")	87.3mm(3.44")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	2.1642/2.1654"
ROD JOURNAL DIA.	1.6526/1.6535"	1.6526/1.6535"	1.7707/1.7716"
ENGINE KITS			
RE-RING KIT	EKH10R		
BEARING SETS			
MAIN BEARING SET	MBH20	MBH20	MBH45
ROD BEARING SET	RBH12	RBH12	RBH45
THRUST WASHER SET	TWH12	TWH12	TWH36
GASKETS			
FULL GASKET SET	CGSH10B		CGSH45
HEAD GASKET SET		HSH10	HSH45
HEAD GASKETS			HDGH45
CONVERSION SET			CBSH45
HEAD BOLT SET			HBH45
PISTONS, RINGS, PLUGS			
PISTONS			PAH45
RING SETS	RSH9	RSH9	RSH45
PIN BUSHINGS			PBTO39
FREEZE PLUG SET	EPSH15	EPSH15	
CRANKSHAFT & RODS			
CONNECTING ROD	CRH9	CRH9	

MODEL	ACCORD PRELUDE	ACCORD PRELUDE	HR-V
ENGINE CODE	**EK**	**EK**	**R18Z9**
DISPLACEMENT	**1751cc(107")**	**1751cc(107")**	**1799cc(109.8")**
YEARS	**1981**	**1979-1980**	**2016-2022**
DESCRIPTION	12 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; CARB	16 VALVE SOHC 4; F.INJ
BORE	77mm(3.031")	77mm(3.031")	81.0mm(3.189")
STROKE	94mm(3.70")	94mm(3.70")	87.3mm(3.44")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	2.1642/2.1654"
ROD JOURNAL DIA.	1.6526/1.6535"	1.6526/1.6535"	1.7707/1.7716"
VALVE TRAIN			
INTAKE VALVE	IVH9L	IVH9L	IVH45L
EXHAUST VALVE	EVH9L	EVH9L	EVH25
INTAKE GUIDE	IVGH10	IVGH10	IVGH21
EXHAUST GUIDE	EVGH10	EVGH10	EVGH21
VALVE SEALS	VSSH8 (int.) VSSH9 (ex.)	VSSH8 (int.) VSSH9 (ex.)	VSSH21
WATER PUMP & TIMING			
TIMING CHAIN KIT			CTKH45
TIMING BELT	TBH8	TBH8	

HONDA

MODEL	CIVIC	CIVIC	CIVIC (CNG Fuel System)
ENGINE CODE	**R18Z1**	**R18A1**	**R18A4**
DISPLACEMENT	**1799cc(109.8")**	**1799cc(109.8")**	**1799cc(109.8")**
YEARS	**2012-2015**	**2006-2011**	**2006-2011**
DESCRIPTION	16 VALVE SOHC 4; F.INJ	16 VALVE SOHC 4; F.INJ	16vlv; SOHC; 4; F.INJ; CNG
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	87.3mm(3.44")	87.3mm(3.44")	87.3mm(3.44")
MAIN JOURNAL DIA.		2.1643/2.1653"	2.1643/2.1653"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.7707/1.7716"
ENGINE KITS			
GOLD KIT		EKH45G	EKH45G
MAJOR KIT	EKH45M	EKH45M	EKH45M
RE-RING KIT	EKH45R	EKH45R	EKH45R
BEARING SETS			
MAIN BEARING SET	MBH45	MBH45	MBH45
ROD BEARING SET	RBH45	RBH45	RBH45
THRUST WASHER SET	TWH36	TWH36	TWH36
GASKETS			
FULL GASKET SET	CGSH45	CGSH45	CGSH45
HEAD GASKET SET	HSH45	HSH45	HSH45
HEAD GASKETS	HDGH45	HDGH45	HDGH45
CONVERSION SET	CBSH45	CBSH45	CBSH45
HEAD BOLT SET	HBH45	HBH45	HBH45
PISTONS, RINGS, PLUGS			
PISTONS	PAH45	PAH45	PAH45
RING SETS	RSH45	RSH45	RSH45
PIN BUSHINGS	PBTO39	PBTO39	PBTO39
OIL PUMP			
NEW OIL PUMP		OPH45	OPH45

MODEL	CIVIC	CIVIC	CIVIC (CNG Fuel System)
ENGINE CODE	**R18Z1**	**R18A1**	**R18A4**
DISPLACEMENT	**1799cc(109.8")**	**1799cc(109.8")**	**1799cc(109.8")**
YEARS	**2012-2015**	**2006-2011**	**2006-2011**
DESCRIPTION	16 VALVE SOHC 4; F.INJ	16 VALVE SOHC 4; F.INJ	16vlv; SOHC; 4; F.INJ; CNG
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	87.3mm(3.44")	87.3mm(3.44")	87.3mm(3.44")
MAIN JOURNAL DIA.		2.1643/2.1653"	2.1643/2.1653"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.7707/1.7716"
VALVE TRAIN			
INTAKE VALVE	IVH45L	IVH45	IVH45
EXHAUST VALVE	EVH25	EVH25	EVH25
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH21	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP		WPH45	WPH45
TIMING CHAIN KIT	CTKH45	CTKH45	CTKH45

HONDA

MODEL	PRELUDE	PRELUDE	ACCORD
ENGINE CODE	**A18A1**	**ET2**	**ES2/ES3/ET1**
DISPLACEMENT	**1829cc(111.6")**	**1829cc(111.6")**	**1829cc(111.6")**
YEARS	**1987**	**1986**	**1984-1985**
DESCRIPTION	12 VALVE SOHC 4; CARB	8 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; CARB.
BORE	80mm(3.150")	80mm(3.150")	80mm(3.150")
STROKE	91mm(3.58")	91mm(3.58")	91mm(3.58")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.7707/1.7716"
ENGINE KITS			
GOLD KIT	EKH15LBG	EKH15LBG	EKH15G
MAJOR KIT	EKH15LBM	EKH15LBM	EKH15M
RE-RING KIT	EKH15LBR	EKH15LBR	EKH15R
BEARING SETS			
MAIN BEARING SET	MBH20	MBH20	MBH20
ROD BEARING SET	RBH15	RBH15	RBH15
THRUST WASHER SET	TWH12	TWH12	TWH12
GASKETS			
FULL GASKET SET	CGSH15LB	CGSH15LB	CGSH15
HEAD GASKET SET	HSH15LB	HSH15LB	HSH15
HEAD GASKETS	HDGH15LB	HDGH15LB	HDGH15
CONVERSION SET	CBSH15	CBSH15	CBSH15
PISTONS, RINGS, PLUGS			
PISTONS	PAH15 (set of 4)	PAH15 (set of 4)	PAH15 (set of 4)
RING SETS	RSH15	RSH15	RSH15
FREEZE PLUG SET	EPSH15	EPSH15	EPSH15
CRANKSHAFT & RODS			
CONNECTING ROD	CRH15	CRH15	CRH15
OIL PUMP			
NEW OIL PUMP	OPH15L	OPH15L	OPH15L

MODEL	PRELUDE	PRELUDE	ACCORD
ENGINE CODE	**A18A1**	**ET2**	**ES2/ES3/ET1**
DISPLACEMENT	**1829cc(111.6")**	**1829cc(111.6")**	**1829cc(111.6")**
YEARS	**1987**	**1986**	**1984-1985**
DESCRIPTION	12 VALVE SOHC 4; CARB	8 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; CARB.
BORE	80mm(3.150")	80mm(3.150")	80mm(3.150")
STROKE	91mm(3.58")	91mm(3.58")	91mm(3.58")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.7707/1.7716"
VALVE TRAIN			
CAMSHAFTS	CAMH17	CAMH17	
ROCKER ARMS	RAH15A❶	RAH15A❶	RAH15A❶
	RAH15B❶	RAH15B❶	RAH15B❶
INTAKE VALVE	IVH15 (30mm)	IVH15 (30mm)	IVH15 (30mm)
			IVH15L (26mm)
EXHAUST VALVE	EVH15	EVH15	EVH15
INTAKE GUIDE	IVGH3	IVGH3	IVGH3
EXHAUST GUIDE	EVGH10	EVGH10	EVGH10
VALVE SEALS	VSSH8 (int.)	VSSH8 (int.)	VSSH8 (int.)
	VSSH9 (ex.)	VSSH9 (ex.)	VSSH9 (ex.)
WATER PUMP & TIMING			
TIMING BELT	TBH15	TBH15	TBH15
TENSIONERS	BTH15	BTH15	BTH15

❶ (rockers sold in pairs only)

HONDA

MODEL	PRELUDE	ACCORD	ACCORD PRELUDE
ENGINE CODE	**ES1**	**BS/A20A1**	**BT/A20A3**
DISPLACEMENT	**1829cc(111.6")**	**1955cc(119")**	**1955cc(119")**
YEARS	**1983**	**1986-1989**	**1986-1989**
DESCRIPTION	8 VALVE SOHC 4; CARB.	12 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; F.INJ
BORE	80mm(3.150")	82.7mm(3.256")	82.7mm(3.256")
STROKE	91mm(3.58")	91mm(3.58")	91mm(3.58")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.7707/1.7716"
ENGINE KITS			
GOLD KIT		EKH17G	EKH17G
BRONZE KITS		EKH17B	EKH17B
MAJOR KIT		EKH17M	EKH17M
RE-RING KIT	EKH15R	EKH17R	EKH17R
BEARING SETS			
MAIN BEARING SET	MBH20	MBH20	MBH20
ROD BEARING SET	RBH15	RBH15	RBH15
THRUST WASHER SET	TWH12	TWH12	TWH12
GASKETS			
FULL GASKET SET	CGSH15	CGSH17	CGSH17
HEAD GASKET SET	HSH15	HSH17	HSH17
HEAD GASKETS	HDGH15	HDGH17	HDGH17
CONVERSION SET	CBSH15	CBSH15	CBSH15
PISTONS, RINGS, PLUGS			
PISTONS		PAH17 (set of 4)	PAH17 (set of 4)
RING SETS	RSH15	RSH17	RSH17
FREEZE PLUG SET	EPSH15	EPSH15	EPSH15
CRANKSHAFT & RODS			
CONNECTING ROD	CRH15	CRH15	CRH15
OIL PUMP			
NEW OIL PUMP	OPH15L	OPH15L	OPH15L

MODEL	PRELUDE	ACCORD	ACCORD PRELUDE
ENGINE CODE	**ES1**	**BS/A20A1**	**BT/A20A3**
DISPLACEMENT	**1829cc(111.6")**	**1955cc(119")**	**1955cc(119")**
YEARS	**1983**	**1986-1989**	**1986-1989**
DESCRIPTION	8 VALVE SOHC 4; CARB.	12 VALVE; SOHC 4; CARB	12 VALVE; SOHC 4; F.INJ
BORE	80mm(3.150")	82.7mm(3.256")	82.7mm(3.256")
STROKE	91mm(3.58")	91mm(3.58")	91mm(3.58")
MAIN JOURNAL DIA.	1.9676/1.9685"	1.9676/1.9685"	1.9676/1.9685"
ROD JOURNAL DIA.	1.7707/1.7716"	1.7707/1.7716"	1.7707/1.7716"
VALVE TRAIN			
CAMSHAFTS	CAMH15	CAMH17	CAMH17
INTAKE VALVE	IVH15 (30mm)	IVH15 (30mm)	IVH15
EXHAUST VALVE	EVH15	EVH15	EVH15
INTAKE GUIDE	IVGH3	IVGH3	IVGH3
EXHAUST GUIDE	EVGH10	EVGH10	EVGH10
VALVE SEALS	VSSH8 (int.)	VSSH8 (int.)	VSSH8 (int.)
	VSSH9 (ex.)	VSSH9 (ex.)	VSSH9 (ex.)
WATER PUMP & TIMING			
WATER PUMP		WPH17	WPH17
TIMING BELT	TBH15	TBH15	TBH15
TENSIONERS	BTH15	BTH15	BTH15

HONDA

MODEL	PRELUDE	PRELUDE	CR-V
ENGINE CODE	**B20A3**	**B20A5**	**B20Z2**
DISPLACEMENT	**1958cc(111.6")**	**1958cc(119")**	**1973cc(120.4")**
YEARS	**1988-1990**	**1988-1991**	**1999-2001**
DESCRIPTION	12 VALVE; SOHC 4; CARB	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	81mm(3.189")	81mm(3.189")	84mm(3.307")
STROKE	95mm(3.74")	95mm(3.74")	89mm(3.50")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.7707/1.7716"	1.8888/1.8890"	1.7707/1.7716"
ENGINE KITS			
MAJOR KIT	EKH19M	EKH19LM	
RE-RING KIT	EKH19R	EKH19LR	EKH33R
BEARING SETS			
MAIN BEARING SET	MBH16	MBH16	MBH18
ROD BEARING SET	RBH15	RBH20	RBH16
THRUST WASHER SET	TWH16	TWH16	TWH16
GASKETS			
FULL GASKET SET	CGSH19	CGSH19L	CGSH33
HEAD GASKET SET	HSH19	HSH19L	HSH33
HEAD GASKETS	HDGH19	HDGH19	HDGH33
CONVERSION SET	CBSH19	CBSH19	CBSH18
PISTONS, RINGS, PLUGS			
PISTONS	PAH19 (set of 4)	PAH19L (set of 4)	
RING SETS	RSH19	RSH19	RSH33
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSH19 (12mm bolt) CSH19L (14mm bolt)	CSH23 (12mm bolt) CSH23L (14mm bolt)	
CONNECTING ROD	CRH19	CRH23	CRH18L
OIL PUMP			
NEW OIL PUMP			OPH18S

MODEL	PRELUDE	PRELUDE	CR-V
ENGINE CODE	**B20A3**	**B20A5**	**B20Z2**
DISPLACEMENT	**1958cc(111.6")**	**1958cc(119")**	**1973cc(120.4")**
YEARS	**1988-1990**	**1988-1991**	**1999-2001**
DESCRIPTION	12 VALVE; SOHC 4; CARB	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	81mm(3.189")	81mm(3.189")	84mm(3.307")
STROKE	95mm(3.74")	95mm(3.74")	89mm(3.50")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.7707/1.7716"	1.8888/1.8890"	1.7707/1.7716"
VALVE TRAIN			
ROCKER ARMS	RAH15A❶ RAH15B❶	RAH19	
INTAKE VALVE	IVH15	IVH19	IVH18L
EXHAUST VALVE	EVH15	EVH19	EVH18L
INTAKE GUIDE	IVGH3	IVGH16	IVGH16
EXHAUST GUIDE	EVGH10	EVGH16	EVGH16
VALVE SEALS	VSSH8 (int.) VSSH9 (ex.)	VSSH19	VSSH19
WATER PUMP & TIMING			
WATER PUMP			WPH18L
TIMING BELT	TBH19	TBH19L	TBH18
TENSIONERS	BTH15	BTH19	BTH18

❶ (rockers sold in pairs only)

HONDA

MODEL	CR-V	ACCORD CR-V (20-22) HYBRID	ACCORD HYBRID
ENGINE CODE	**B20B4**	**LFB2**	**LFA1**
DISPLACEMENT	**1973cc(120.4")**	**1993cc(122.0")**	**1993cc(122.0")**
YEARS	**1997-1998**	**2018-2022**	**2017-2018**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 vlv, DOHC 4; F.INJ. FHEV	16 vlv, DOHC 4; F.INJ. FHEV
BORE	84mm(3.307")	81.0mm(3.189")	81.0mm(3.189")
STROKE	89mm(3.50")	96.7mm(3.807")	96.7mm(3.807")
MAIN JOURNAL DIA.	2.1642/2.1654"		
ROD JOURNAL DIA.	1.7707/1.7716"		
ENGINE KITS			
GOLD KIT	EKH33G		
BRONZE KITS	EKH33B		
MAJOR KIT	EKH33M		
RE-RING KIT	EKH33R		
BEARING SETS			
MAIN BEARING SET	MBH18		
ROD BEARING SET	RBH16		RBH45
THRUST WASHER SET	TWH16	TWH36	TWH36
GASKETS			
FULL GASKET SET	CGSH33		
HEAD GASKET SET	HSH33		
HEAD GASKETS	HDGH33		
CONVERSION SET	CBSH18		
HEAD BOLT SET		HBH45	HBH45
PISTONS, RINGS, PLUGS			
PISTONS	PAH33		
RING SETS	RSH33		
CRANKSHAFT & RODS			
CONNECTING ROD	CRH18L		
OIL PUMP			
NEW OIL PUMP	OPH18S		

MODEL	CR-V	ACCORD CR-V (20-22) HYBRID	ACCORD HYBRID
ENGINE CODE	**B20B4**	**LFB2**	**LFA1**
DISPLACEMENT	**1973cc(120.4")**	**1993cc(122.0")**	**1993cc(122.0")**
YEARS	**1997-1998**	**2018-2022**	**2017-2018**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 vlv, DOHC 4; F.INJ. FHEV	16 vlv, DOHC 4; F.INJ. FHEV
BORE	84mm(3.307")	81.0mm(3.189")	81.0mm(3.189")
STROKE	89mm(3.50")	96.7mm(3.807")	96.7mm(3.807")
MAIN JOURNAL DIA.	2.1642/2.1654"		
ROD JOURNAL DIA.	1.7707/1.7716"		
VALVE TRAIN			
ROCKER ARMS	RAH19		
INTAKE VALVE	IVH18L		
EXHAUST VALVE	EVH18L		
VALVE GUIDE		EVGH42F	EVGH42F
INTAKE GUIDE	IVGH16		
EXHAUST GUIDE	EVGH16		
VALVE SEALS	VSSH19		
WATER PUMP & TIMING			
WATER PUMP	WPH18L		
TIMING BELT	TBH18		
TENSIONERS	BTH18		

HONDA

MODEL	ACCORD HYBRID	ACCORD Sport TURBO	CIVIC
ENGINE CODE	**LFA1**	**K20C4**	**K20C2**
DISPLACEMENT	**1993cc(122.0")**	**1996cc(121.8")**	**1996cc(121.8")**
YEARS	**2014-2015**	**2018-2022**	**2016-2022**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; F.INJ; Turbo	16vlv; DOHC; 4; F.INJ
BORE	81.0mm(3.189")	86.0mm(3.385")	86.0mm(3.385")
STROKE		85.9mm(3.38")	85.9mm(3.38")
MAIN JOURNAL DIA.		2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.		1.8888/1.8898"	1.8888/1.8890"
BEARING SETS			
MAIN BEARING SET		MBH53L	MBH53L
ROD BEARING SET	RBH45	RBH53	RBH45❶
THRUST WASHER SET	TWH36	TWH53	TWH53
GASKETS			
HEAD BOLT SET	HBH45		
OIL PUMP			
NEW OIL PUMP			OPH53L

❶ (Tab left side)

MODEL	ACCORD HYBRID	ACCORD Sport TURBO	CIVIC
ENGINE CODE	**LFA1**	**K20C4**	**K20C2**
DISPLACEMENT	**1993cc(122.0")**	**1996cc(121.8")**	**1996cc(121.8")**
YEARS	**2014-2015**	**2018-2022**	**2016-2022**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; F.INJ; Turbo	16vlv; DOHC; 4; F.INJ
BORE	81.0mm(3.189")	86.0mm(3.385")	86.0mm(3.385")
STROKE		85.9mm(3.38")	85.9mm(3.38")
MAIN JOURNAL DIA.		2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.		1.8888/1.8898"	1.8888/1.8890"
VALVE TRAIN			
VALVE GUIDE	EVGH42F		
INTAKE GUIDE		IVGH21	IVGH21
VALVE SEALS		VSSH21	VSSH21

HONDA

MODEL	CIVIC TYPE R TURBO	S2000	CIVIC Si
ENGINE CODE	**K20C1**	**F20C1**	**K20Z3**
DISPLACEMENT	**1996cc(121.8")**	**1997cc(122")**	**1998cc(122")**
YEARS	**2017-2021**	**2000-2003**	**2006-2011**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo	16 VALVE;DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	86.0mm(3.385")	87mm(3.425")	86mm(3.386")
STROKE	85.9mm(3.38")	84mm(3.30")	86mm(3.38")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8890"	1.888/1.889"
ENGINE KITS			
MAJOR KIT			EKH46LM
RE-RING KIT			EKH46LR
BEARING SETS			
MAIN BEARING SET	MBH53L	MBH43	MBH18
ROD BEARING SET	RBH53	RBH20	RBH46
THRUST WASHER SET	TWH53	TWH36	TWH16
GASKETS			
FULL GASKET SET			CGSH46L
HEAD GASKET SET			HSH46L
CONVERSION SET			CBSH46
HEAD BOLT SET		HBH43	HBH48
PISTONS, RINGS, PLUGS			
PISTONS			PAH46L
RING SETS		RSH43	RSH46
PIN BUSHINGS			PBD34
OIL PUMP			
NEW OIL PUMP			OPH46L

MODEL	CIVIC TYPE R TURBO	S2000	CIVIC Si
ENGINE CODE	**K20C1**	**F20C1**	**K20Z3**
DISPLACEMENT	**1996cc(121.8")**	**1997cc(122")**	**1998cc(122")**
YEARS	**2017-2021**	**2000-2003**	**2006-2011**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo	16 VALVE;DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	86.0mm(3.385")	87mm(3.425")	86mm(3.386")
STROKE	85.9mm(3.38")	84mm(3.30")	86mm(3.38")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8890"	1.888/1.889"
VALVE TRAIN			
INTAKE VALVE		IVH43	IVAC7S
EXHAUST VALVE		EVH43	EVAC7S
INTAKE GUIDE	IVGH21	VGH43	VGH43
EXHAUST GUIDE		VGH43	EVGH44
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
TIMING CHAIN KIT			CTKH46L

HONDA

MODEL	CIVIC Si	PRELUDE	ODYSSEY
ENGINE CODE	**K20A3**	**B21A1**	**F22B6**
DISPLACEMENT	**1998cc(122")**	**2056cc(125")**	**2156cc(125")**
YEARS	**2002-2005**	**1990-1991**	**1995-1997**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ
BORE	86mm(3.386")	83mm(3.268")	85mm(3.346")
STROKE	86mm(3.38")	95mm(3.74")	95mm(3.74")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	1.9674/1.9685"
ROD JOURNAL DIA.	1.7707/1.7716"	1.8888/1.8890"	1.8888/1.8890"
ENGINE KITS			
GOLD KIT			EKH26LG
BRONZE KITS			EKH26LB
MAJOR KIT	EKH46M	EKH23M	EKH26M
RE-RING KIT	EKH46R	EKH23R	EKH26R
BEARING SETS			
MAIN BEARING SET	MBH18	MBH16	MBH20
ROD BEARING SET	RBH36	RBH20	RBH20
THRUST WASHER SET	TWH16	TWH16	TWH12
GASKETS			
FULL GASKET SET	CGSH46	CGSH23	CGSH26
HEAD GASKET SET	HSH46	HSH23	HSH26
HEAD GASKETS		HDGH23	HDGH26
CONVERSION SET	CBSH46	CBSH19	CBSH20
HEAD BOLT SET	HBH48		
PISTONS, RINGS, PLUGS			
PISTONS	PAH46	PAH23 (set of 4)	PAH20
RING SETS	RSH46	RSH23	RSH20
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSH23L (14mm bolt)	
CONNECTING ROD	CRH46	CRH23	
OIL PUMP			
NEW OIL PUMP	OPH48		OPH26

MODEL	CIVIC Si	PRELUDE	ODYSSEY
ENGINE CODE	**K20A3**	**B21A1**	**F22B6**
DISPLACEMENT	**1998cc(122")**	**2056cc(125")**	**2156cc(125")**
YEARS	**2002-2005**	**1990-1991**	**1995-1997**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ
BORE	86mm(3.386")	83mm(3.268")	85mm(3.346")
STROKE	86mm(3.38")	95mm(3.74")	95mm(3.74")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	1.9674/1.9685"
ROD JOURNAL DIA.	1.7707/1.7716"	1.8888/1.8890"	1.8888/1.8890"
VALVE TRAIN			
ROCKER ARMS		RAH19	RAH20A (inner) RAH20B (outer) RAH20E
INTAKE VALVE	IVAC7	IVH19	IVH26
EXHAUST VALVE	EVAC7S	EVH23	EVH20
INTAKE GUIDE	VGH43	IVGH16	IVGH21
EXHAUST GUIDE	EVGH44	EVGH16	EVGH21
VALVE SEALS	VSSH21	VSSH19	VSSH21
WATER PUMP & TIMING			
WATER PUMP			WPH20
TIMING CHAIN KIT	CTKH46		
TIMING BELT		TBH19L	TBH20
TENSIONERS		BTH19	BTH20
BALANCE SHAFT BELT			TBH20B
BALANCE SHAFT BELT TENSIONER			BTH20B

HONDA

MODEL	ACCORD	ACCORD EX VTEC	PRELUDE S
ENGINE CODE	**F22B2**	**F22B1**	**F22A1**
DISPLACEMENT	**2156cc(132")**	**2156cc(132")**	**2156cc(132")**
YEARS	**1994-1997**	**1994-1997**	**1992-1996**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	95mm(3.74")	95mm(3.74")	95mm(3.74")
MAIN JOURNAL DIA.	1.9674/1.9685"	1.9674/1.9685"	1.9674/1.9685"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8890"	1.8888/1.8890"
ENGINE KITS			
GOLD KIT	EKH26G (94-95) EKH26LG (96-97)	EKH26BG	
BRONZE KITS	EKH26B (94-95) EKH26LB (96-97)	EKH26BB	
MAJOR KIT	EKH26M	EKH26BM	EKH20M
RE-RING KIT	EKH26R	EKH26BR	EKH20R
BEARING SETS			
MAIN BEARING SET	MBH20	MBH20	MBH20
ROD BEARING SET	RBH20	RBH20	RBH20
THRUST WASHER SET	TWH12	TWH12	TWH12
GASKETS			
FULL GASKET SET	CGSH26	CGSH26B	CGSH20
HEAD GASKET SET	HSH26	HSH26B	HSH20
HEAD GASKETS	HDGH26	HDGH26	HDGH20
CONVERSION SET	CBSH20	CBSH20	CBSH20
PISTONS, RINGS, PLUGS			
PISTONS	PAH20	PAH20	PAH20
RING SETS	RSH20	RSH20	RSH20
OIL PUMP			
NEW OIL PUMP	OPH20 (94-95) OPH26 (96-97)	OPH26	OPH26 (1996) OPH20 (92-95)

MODEL	ACCORD	ACCORD EX VTEC	PRELUDE S
ENGINE CODE	**F22B2**	**F22B1**	**F22A1**
DISPLACEMENT	**2156cc(132")**	**2156cc(132")**	**2156cc(132")**
YEARS	**1994-1997**	**1994-1997**	**1992-1996**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	95mm(3.74")	95mm(3.74")	95mm(3.74")
MAIN JOURNAL DIA.	1.9674/1.9685"	1.9674/1.9685"	1.9674/1.9685"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8890"	1.8888/1.8890"
VALVE TRAIN			
ROCKER ARMS	RAH20A (inner) RAH20B (outer) RAH20E (ex)	RAH34C (outer roller) RAH34D (inner roller) RAH34E (outer pad) RAH34A (cast A) RAH34B (cast B)	RAH20A (inner) RAH20B (outer) RAH20E (ex)
INTAKE VALVE	IVH26	IVH34	IVH20
EXHAUST VALVE	EVH20	EVH34	EVH20
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH21	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH20	WPH20	WPH20
TIMING BELT	TBH20	TBH34	TBH20
TENSIONERS	BTH20	BTH20	BTH20
BALANCE SHAFT BELT	TBH20B	TBH20B	TBH20B
BALANCE SHAFT BELT TENSIONER	BTH20B	BTH20B	BTH20B

HONDA

MODEL	ACCORD SE	ACCORD	S2000
ENGINE CODE	**F22A6**	**F22A1/F22A4**	**F22C1**
DISPLACEMENT	**2156cc(132")**	**2156cc(132")**	**2157cc(132")**
YEARS	**1991-1993**	**1990-1993**	**2004-2009**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ	16 VALVE DOHC 4; F.INJ.
BORE	85mm(3.346")	85mm(3.346")	87mm(3.425")
STROKE	95mm(3.74")	95mm(3.74")	90.7mm(3.57")
MAIN JOURNAL DIA.	1.9674/1.9685"	1.9674/1.9685"	2.1646/2.1655"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8890"	1.8888/1.8890"
ENGINE KITS			
GOLD KIT	EKH20G	EKH20G	
BRONZE KITS	EKH20B	EKH20B	
MAJOR KIT	EKH20M	EKH20M	
RE-RING KIT	EKH20R	EKH20R	
BEARING SETS			
MAIN BEARING SET	MBH20	MBH20	MBH43
ROD BEARING SET	RBH20	RBH20	RBH20
THRUST WASHER SET	TWH12	TWH12	TWH36
GASKETS			
FULL GASKET SET	CGSH20	CGSH20	
HEAD GASKET SET	HSH20	HSH20	
HEAD GASKETS	HDGH20	HDGH20	
CONVERSION SET	CBSH20	CBSH20	
HEAD BOLT SET			HBH43
PISTONS, RINGS, PLUGS			
PISTONS	PAH20 (set of 4)	PAH20 (set of 4)	
RING SETS	RSH20	RSH20	RSH43
OIL PUMP			
NEW OIL PUMP	OPH20	OPH20	

MODEL	ACCORD SE	ACCORD	S2000
ENGINE CODE	**F22A6**	**F22A1/F22A4**	**F22C1**
DISPLACEMENT	**2156cc(132")**	**2156cc(132")**	**2157cc(132")**
YEARS	**1991-1993**	**1990-1993**	**2004-2009**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ	16 VALVE DOHC 4; F.INJ.
BORE	85mm(3.346")	85mm(3.346")	87mm(3.425")
STROKE	95mm(3.74")	95mm(3.74")	90.7mm(3.57")
MAIN JOURNAL DIA.	1.9674/1.9685"	1.9674/1.9685"	2.1646/2.1655"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8890"	1.8888/1.8890"
VALVE TRAIN			
ROCKER ARMS	RAH20A (inner) RAH20B (outer) RAH20E (ex)	RAH20A (inner) RAH20B (outer) RAH20E (ex)	
INTAKE VALVE	IVH20	IVH20	IVH43
EXHAUST VALVE	EVH20	EVH20	EVH43
VALVE GUIDE			VGH43
INTAKE GUIDE	IVGH21	IVGH21	
EXHAUST GUIDE	EVGH21	EVGH21	
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH20	WPH20	
TIMING BELT	TBH20	TBH20	
TENSIONERS	BTH20	BTH20	
BALANCE SHAFT BELT	TBH20B	TBH20B	
BALANCE SHAFT BELT TENSIONER	BTH20B	BTH20B	

HONDA

MODEL	PRELUDE VTEC	PRELUDE VTEC	ACCORD EX/LX/SE ODYSSEY (1998)
ENGINE CODE	**H22A4**	**H22A1**	**F23A1/A4/A5/A7**
DISPLACEMENT	**2157cc(132")**	**2157cc(132")**	**2254cc(138")**
YEARS	**1997-2001**	**1993-1996**	**1998-2002**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ
BORE	87mm(3.425")	87mm(3.425")	86mm(3.385")
STROKE	90.7mm(3.57")	90.7mm(3.57")	97mm(3.82")
MAIN JOURNAL DIA.	2.1646/2.1655"	1.9674/1.9685"	2.1646/2.1655"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8890"	1.7707/1.7717"
ENGINE KITS			
GOLD KIT		EKH28BG (96 only)	EKH36G
BRONZE KITS			EKH36B
MAJOR KIT		EKH28M	EKH36M
RE-RING KIT		EKH28R	EKH36R
BEARING SETS			
MAIN BEARING SET	MBH16 (2.16" mains) MBH20 (1.96" mains)	MBH20	MBH16
ROD BEARING SET	RBH20	RBH20	RBH36
THRUST WASHER SET	TWH16❶ TWH12❷	TWH12	TWH36
GASKETS			
FULL GASKET SET	CGSH28L	CGSH28	CGSH36
HEAD GASKET SET	HSH28L	HSH28	HSH36
HEAD GASKETS	HDGH28L	HDGH28	HDGH36
CONVERSION SET	CBSH28L	CBSH28	CBSH36
HEAD BOLT SET			HBH36
PISTONS, RINGS, PLUGS			
PISTONS	PAH28L❸	PAH28❹	PAH36
RING SETS	RSH28	RSH28	RSH36
PIN BUSHINGS			PBH36
CRANKSHAFT & RODS			
CONNECTING ROD			CRH36
OIL PUMP			
NEW OIL PUMP	OPH29 (with sensor)	OPH29❺	OPH26

❶ (for use with 2.16" mains)
❷ (for use with 1.96" mains)
❸ (free float dome)
❹ (press fit dome)
❺ (with sensor); (96 only)

MODEL	PRELUDE VTEC	PRELUDE VTEC	ACCORD EX/LX/SE ODYSSEY (1998)
ENGINE CODE	**H22A4**	**H22A1**	**F23A1/A4/A5/A7**
DISPLACEMENT	**2157cc(132")**	**2157cc(132")**	**2254cc(138")**
YEARS	**1997-2001**	**1993-1996**	**1998-2002**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; SOHC 4; F.INJ
BORE	87mm(3.425")	87mm(3.425")	86mm(3.385")
STROKE	90.7mm(3.57")	90.7mm(3.57")	97mm(3.82")
MAIN JOURNAL DIA.	2.1646/2.1655"	1.9674/1.9685"	2.1646/2.1655"
ROD JOURNAL DIA.	1.8888/1.8890"	1.8888/1.8890"	1.7707/1.7717"
VALVE TRAIN			
INTAKE VALVE	IVH28	IVH28	IVH34
EXHAUST VALVE	EVH28	EVH28	EVH34
INTAKE GUIDE	IVGH28	IVGH28	IVGH21
EXHAUST GUIDE	EVGH28	EVGH28	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH28	WPH28	WPH20
TIMING BELT	TBH28	TBH28	TBH34
TENSIONERS			BTH20
BALANCE SHAFT BELT	TBH20B	TBH20B	TBH20B
BALANCE SHAFTS			JSH36S (short) JSH36L (long)
BALANCE SHAFT BELT TENSIONER			BTH20B

HONDA

MODEL	PRELUDE Si PRELUDE SE	CIVIC Si	CROSSTOUR
ENGINE CODE	**H23A1**	**K24Z7**	**K24Y2**
DISPLACEMENT	**2259cc(138")**	**2354cc(143.6")**	**2354cc(143.6")**
YEARS	**1992-1996**	**2012-2015**	**2012-2015**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	95mm(3.74")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	1.9674/1.9685"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.8888/1.8890"	1.888/1.889"	1.888/1.889"
ENGINE KITS			
GOLD KIT	EKH29LG (1996)		
MAJOR KIT	EKH29M		
RE-RING KIT	EKH29R		
BEARING SETS			
MAIN BEARING SET	MBH20	MBH18	MBH18
ROD BEARING SET	RBH20	RBH46	RBH46
THRUST WASHER SET	TWH12	TWH36	TWH36
GASKETS			
FULL GASKET SET	CGSH29	CGSH50	CGSH50
HEAD GASKET SET	HSH29	HSH50	HSH50
HEAD GASKETS	HDGH29		
CONVERSION SET	CBSH28	CBSH46	CBSH46
HEAD BOLT SET		HBH45	HBH45
PISTONS, RINGS, PLUGS			
PISTONS	PAH29❶	PAH50SI	PAH50C
RING SETS	RSH28	RSH50	RSH50L
PIN BUSHINGS		PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPH29 (with sensor)	OPH50	OPH50

❶ (press fit dish)

MODEL	PRELUDE Si PRELUDE SE	CIVIC Si	CROSSTOUR
ENGINE CODE	**H23A1**	**K24Z7**	**K24Y2**
DISPLACEMENT	**2259cc(138")**	**2354cc(143.6")**	**2354cc(143.6")**
YEARS	**1992-1996**	**2012-2015**	**2012-2015**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	95mm(3.74")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	1.9674/1.9685"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.8888/1.8890"	1.888/1.889"	1.888/1.889"
VALVE TRAIN			
INTAKE VALVE	IVH29	IVH50	IVH50
EXHAUST VALVE	EVH29	EVH50	EVH50
INTAKE GUIDE	IVGH29	VGH43	VGH43
EXHAUST GUIDE	EVGH29	EVGH44	EVGH44
VALVE SEALS	VSSH19	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH29		
TIMING CHAIN KIT		CTKH50	CTKH50
GEARLESS TIMING KIT		PTKH50	PTKH50
TIMING BELT	TBH29		
TENSIONERS	BTH20		
BALANCE SHAFT BELT	TBH20B		
BALANCE SHAFT BELT TENSIONER	BTH20B		

HONDA

MODEL	CR-V	ACCORD	CR-V
ENGINE CODE	K24Z7	K24Z2/K24Z3	K24Z6
DISPLACEMENT	2354cc(143.6")	2354cc(143.6")	2354cc(143.6")
YEARS	2012-2014	2011-2012	2010-2011
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.888/1.889"	1.888/1.889"	1.888/1.889"
ENGINE KITS			
MAJOR KIT		EKH50M	EKH50M
RE-RING KIT			EKH50R
BEARING SETS			
MAIN BEARING SET	MBH18	MBH18	MBH18
ROD BEARING SET	RBH46	RBH46	RBH46
THRUST WASHER SET	TWH36	TWH36	TWH36
GASKETS			
FULL GASKET SET	CGSH50	CGSH50	CGSH50
HEAD GASKET SET	HSH50	HSH50	HSH50
CONVERSION SET	CBSH46	CBSH46	CBSH46
HEAD BOLT SET	HBH45	HBH45	HBH45
PISTONS, RINGS, PLUGS			
PISTONS	PAH50C	PAH50	PAH50
RING SETS	RSH50L	RSH50L❶	RSH50
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP		OPH50	OPH50

❶ (1.0mm 2nd Ring)

MODEL	CR-V	ACCORD	CR-V
ENGINE CODE	**K24Z7**	**K24Z2/K24Z3**	**K24Z6**
DISPLACEMENT	**2354cc(143.6")**	**2354cc(143.6")**	**2354cc(143.6")**
YEARS	**2012-2014**	**2011-2012**	**2010-2011**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.888/1.889"	1.888/1.889"	1.888/1.889"
VALVE TRAIN			
INTAKE VALVE	IVH50	IVH50	IVH50
EXHAUST VALVE	EVH50	EVH50	EVH50
INTAKE GUIDE	VGH43	VGH43	VGH43
EXHAUST GUIDE	EVGH44	EVGH44	EVGH44
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKH50	CTKH50	CTKH50
GEARLESS TIMING KIT	PTKH50	PTKH50	PTKH50

HONDA

MODEL	ACCORD (06-07) ELEMENT (07-11)	ACCORD	CR-V
ENGINE CODE	**K24A8**	**K24Z2/K24Z3**	**K24Z1**
DISPLACEMENT	**2354cc(143.6")**	**2354cc(143.6")**	**2354cc(143.6")**
YEARS	**2006-2011**	**2008-2010**	**2007-2009**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.888/1.889"	1.888/1.889"	1.888/1.889"
ENGINE KITS			
MAJOR KIT	EKH48M	EKH50M	EKH48M
RE-RING KIT	EKH48R	EKH50R	EKH48R
BEARING SETS			
MAIN BEARING SET	MBH18	MBH18	MBH18
ROD BEARING SET	RBH46	RBH46	RBH46
THRUST WASHER SET	TWH36	TWH36	TWH36
GASKETS			
FULL GASKET SET	CGSH48	CGSH50	CGSH48
HEAD GASKET SET	HSH48	HSH50	HSH48
HEAD GASKETS	HDGH48		HDGH48
CONVERSION SET	CBSH46	CBSH46	CBSH46
HEAD BOLT SET	HBH48	HBH45	HBH48
PISTONS, RINGS, PLUGS			
PISTONS	PAH48	PAH50	PAH48
RING SETS	RSH48	RSH50❶	RSH48
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPH48	OPH50	OPH48CRV

❶ (1.2mm 2nd ring)

MODEL	ACCORD (06-07) ELEMENT (07-11)	ACCORD	CR-V
ENGINE CODE	**K24A8**	**K24Z2/K24Z3**	**K24Z1**
DISPLACEMENT	**2354cc(143.6")**	**2354cc(143.6")**	**2354cc(143.6")**
YEARS	**2006-2011**	**2008-2010**	**2007-2009**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1642/2.1654"
ROD JOURNAL DIA.	1.888/1.889"	1.888/1.889"	1.888/1.889"
VALVE TRAIN			
INTAKE VALVE	IVAC7	IVH50	IVAC7
EXHAUST VALVE	EVAC7S	EVH50	EVAC7S
INTAKE GUIDE	VGH43	VGH43	VGH43
EXHAUST GUIDE	EVGH44	EVGH44	EVGH44
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKH48	CTKH50	CTKH48
GEARLESS TIMING KIT	PTKH48	PTKH50	PTKH48

HONDA

MODEL	ACCORD (03-05) ELEMENT (03-06)	CR-V	CR-V
ENGINE CODE	**K24A4**	**K24A1**	**K24W9**
DISPLACEMENT	**2354cc(143.6")**	**2354cc(143.6")**	**2356cc(144.0")**
YEARS	**2003-2006**	**2002-2006**	**2015-2019**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE DOHC 4; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1647/2.1657"
ROD JOURNAL DIA.	1.888/1.889"	1.888/1.889"	1.8888/1.8898"
ENGINE KITS			
MAJOR KIT		EKH48CM	
RE-RING KIT		EKH48CR	
BEARING SETS			
MAIN BEARING SET	MBH18	MBH18	MBH53
ROD BEARING SET	RBH46	RBH46	RBH53
THRUST WASHER SET	TWH36	TWH36	TWH53
GASKETS			
FULL GASKET SET	CGSH48E	CGSH48C	CGSH53
HEAD GASKET SET	HSH48E	HSH48C	HSH53
HEAD GASKETS	HDGH48	HDGH48C	
CONVERSION SET	CBSH46	CBSH46	CBSH53
HEAD BOLT SET	HBH48	HBH48	HBH45
PISTONS, RINGS, PLUGS			
PISTONS	PAH48	PAH48C	PAH53
RING SETS	RSH48	RSH48	RSH53
PIN BUSHINGS	PBD34	PBD34	
OIL PUMP			
NEW OIL PUMP	OPH48	OPH48	

MODEL	ACCORD (03-05) ELEMENT (03-06)	CR-V	CR-V
ENGINE CODE	**K24A4**	**K24A1**	**K24W9**
DISPLACEMENT	**2354cc(143.6")**	**2354cc(143.6")**	**2356cc(144.0")**
YEARS	**2003-2006**	**2002-2006**	**2015-2019**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ	16 VALVE; DOHC 4; F.INJ	16 VALVE DOHC 4; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	99mm(3.90")	99mm(3.90")	99mm(3.90")
MAIN JOURNAL DIA.	2.1642/2.1654"	2.1642/2.1654"	2.1647/2.1657"
ROD JOURNAL DIA.	1.888/1.889"	1.888/1.889"	1.8888/1.8898"
VALVE TRAIN			
INTAKE VALVE	IVAC7	IVAC7	IVH53
EXHAUST VALVE	EVAC7S	EVAC7S	EVH53
INTAKE GUIDE	VGH43	VGH43	VGH43
EXHAUST GUIDE	EVGH44	EVGH44	EVGH53
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKH48	CTKH48	CTKH53
GEARLESS TIMING KIT	PTKH48	PTKH48	

HONDA

MODEL	ACCORD	PASSPORT	ACCORD
ENGINE CODE	K24W1	4ZE1	C27A4
DISPLACEMENT	2356cc(144.0")	2559cc(156.2")	2675cc(163.2")
YEARS	2013-2017	1994-1996	1995-1997
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	24 VALVE; SOHC V6; F.INJ
BORE	87mm(3.425")	92.6mm(3.646")	87mm(3.425")
STROKE	99mm(3.90")	95mm(3.74")	75mm(2.95")
MAIN JOURNAL DIA.	2.1647/2.1657"	2.2016/2.2022"	2.5187/2.5197"
ROD JOURNAL DIA.	1.8888/1.8898"	1.9262/1.9268"	2.0463/2.0472"
ENGINE KITS			
GOLD KIT		EKIS7LG	
BRONZE KITS		EKIS7LB	
MAJOR KIT		EKIS7LM	EKH27M
RE-RING KIT		EKIS7R	EKH27R
BEARING SETS			
MAIN BEARING SET	MBH53	MBIS7	MBH27
ROD BEARING SET	RBH53	RBIS7	RBH27
THRUST WASHER SET	TWH53	TWC3	TWAC1
GASKETS			
FULL GASKET SET	CGSH53	CGSIS7	CGSH27
HEAD GASKET SET	HSH53	HSIS7	HSH27
HEAD GASKETS		HDGIS7	
CONVERSION SET	CBSH53	CBSIS6	CBSAC1
HEAD BOLT SET	HBH45	HBIS7	
PISTONS, RINGS, PLUGS			
PISTONS	PAH53	PAIS7L	PAH27
RING SETS	RSH53	RSIS7	RSH27
FREEZE PLUG SET		EPSIS7	
CRANKSHAFT & RODS			
CONNECTING ROD		CRIS6	
OIL PUMP			
NEW OIL PUMP		OPIS7	

MODEL	ACCORD	PASSPORT	ACCORD
ENGINE CODE	**K24W1**	**4ZE1**	**C27A4**
DISPLACEMENT	**2356cc(144.0")**	**2559cc(156.2")**	**2675cc(163.2")**
YEARS	**2013-2017**	**1994-1996**	**1995-1997**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	24 VALVE; SOHC V6; F.INJ
BORE	87mm(3.425")	92.6mm(3.646")	87mm(3.425")
STROKE	99mm(3.90")	95mm(3.74")	75mm(2.95")
MAIN JOURNAL DIA.	2.1647/2.1657"	2.2016/2.2022"	2.5187/2.5197"
ROD JOURNAL DIA.	1.8888/1.8898"	1.9262/1.9268"	2.0463/2.0472"
VALVE TRAIN			
ROCKER ARMS		RAC3	
ROCKER ARM SHAFTS		RASIC3	
ROCKER ARM SHAFTS		RASEC3	
INTAKE VALVE	IVH53	IVIS7	IVH19
EXHAUST VALVE	EVH53	EVIS7	EVAC1
INTAKE GUIDE	VGH43	IVGC3	IVGAC1
EXHAUST GUIDE	EVGH53	EVGC4	EVGAC1
VALVE SEALS	VSSH21	VSSC24	VSSH19
WATER PUMP & TIMING			
WATER PUMP		WPIS7	
TIMING CHAIN KIT	CTKH53		
TIMING BELT		TBIS7	TBH27
TENSIONERS		BTIS7	BTH27

HONDA

MODEL	ACCORD HYBRID	ACCORD	ACCORD
ENGINE CODE	**JNA1**	**J30A4/J30A5**	**J30A1**
DISPLACEMENT	**2997cc(182.9")**	**2997cc(182.9")**	**2997cc(182.9")**
YEARS	**2005-2007**	**2003-2007**	**1998-2002**
DESCRIPTION	24vlv; SOHC; V6; F.INJ; HYBRID	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	86mm(3.385")	86mm(3.385")	86mm(3.385")
STROKE	86mm(3.38")	86mm(3.38")	86mm(3.38")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.0857/2.0866"	2.0857/2.0866"	2.0857/2.0866"
ENGINE KITS			
GOLD KIT		EKH37AG	EKH37G
BRONZE KITS			EKH37B
MAJOR KIT		EKH37AM	EKH37M
RE-RING KIT		EKH37AR	EKH37R
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBH37
ROD BEARING SET	RBH37	RBH37	RBH37
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET		CGSH37A	CGSH37
HEAD GASKET SET		HSH37A	HSH37
HEAD GASKETS			HDGH37 (set of 2)
CONVERSION SET	CBSH37	CBSH37	CBSH37
HEAD BOLT SET	HBH37	HBH37	HBH37
PISTONS, RINGS, PLUGS			
PISTONS		PAH37A	PAH37
RING SETS		RSH37	RSH37
CRANKSHAFT & RODS			
CONNECTING ROD	CRH37	CRH37	CRH37
OIL PUMP			
NEW OIL PUMP	OPH37L	OPH37L	OPH37

MODEL	ACCORD HYBRID	ACCORD	ACCORD
ENGINE CODE	**JNA1**	**J30A4/J30A5**	**J30A1**
DISPLACEMENT	**2997cc(182.9")**	**2997cc(182.9")**	**2997cc(182.9")**
YEARS	**2005-2007**	**2003-2007**	**1998-2002**
DESCRIPTION	24vlv; SOHC; V6; F.INJ; HYBRID	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	86mm(3.385")	86mm(3.385")	86mm(3.385")
STROKE	86mm(3.38")	86mm(3.38")	86mm(3.38")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.0857/2.0866"	2.0857/2.0866"	2.0857/2.0866"
VALVE TRAIN			
INTAKE VALVE		IVAC9	IVH34
EXHAUST VALVE		EVAC9	EVH34
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH21	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP			WPH37
TIMING BELT	TBH37L	TBH37L	TBH37
TENSIONERS	BTH38R	BTH38R	BTH37R
HYDRAULIC TENSIONER	-	-	BTH37H
IDLERS AND PULLEYS	BTH38I	BTH38I	BTH37I

HONDA

MODEL	PASSPORT	PASSPORT	PASSPORT
ENGINE CODE	**6VD1**	**6VD1**	**6VD1**
DISPLACEMENT	**3165cc(193.1")**	**3165cc(193.1")**	**3165cc(193.1")**
YEARS	**1998-2002**	**1996-1997**	**1994-1995**
DESCRIPTION	24 VALVE; DOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.
BORE	93.4mm(3.677")	93.4mm(3.677")	93.4mm(3.677")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	2.5165/2.5170"	2.5165/2.5170"	2.5165/2.5170"
ROD JOURNAL DIA.	2.1229/2.1235"	2.1229/2.1235"	2.1229/2.1235"
ENGINE KITS			
GOLD KIT	EKIS13G	EKIS12LG	EKIS12G
BRONZE KITS	EKIS13B	EKIS12LB	EKIS12B
MAJOR KIT	EKIS13M	EKIS12LM	EKIS12M
RE-RING KIT	EKIS13R	EKIS12LR	EKIS12R
BEARING SETS			
MAIN BEARING SET	MBIS12	MBIS12	MBIS12
ROD BEARING SET	RBIS12	RBIS12	RBIS12
THRUST WASHER SET	TWIS12	TWIS12	TWIS12
GASKETS			
FULL GASKET SET	CGSIS13	CGSIS12L	CGSIS12
HEAD GASKET SET	HSIS13	HSIS12L	HSIS12
HEAD GASKETS	HDGIS13	HDGIS12	HDGIS12
CONVERSION SET	CBSIS12	CBSIS12	CBSIS12
HEAD BOLT SET	HBIS13	HBIS12	HBIS12
PISTONS, RINGS, PLUGS			
PISTONS	PAIS13	PAIS12L	PAIS12
RING SETS	RSIS13	RSIS12	RSIS12
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSIS13		
CONNECTING ROD	CRIS13	CRIS12	CRIS12
OIL PUMP			
NEW OIL PUMP	OPIS13	OPIS12	OPIS12

MODEL	PASSPORT	PASSPORT	PASSPORT
ENGINE CODE	**6VD1**	**6VD1**	**6VD1**
DISPLACEMENT	**3165cc(193.1")**	**3165cc(193.1")**	**3165cc(193.1")**
YEARS	**1998-2002**	**1996-1997**	**1994-1995**
DESCRIPTION	24 VALVE; DOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.
BORE	93.4mm(3.677")	93.4mm(3.677")	93.4mm(3.677")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	2.5165/2.5170"	2.5165/2.5170"	2.5165/2.5170"
ROD JOURNAL DIA.	2.1229/2.1235"	2.1229/2.1235"	2.1229/2.1235"
VALVE TRAIN			
LIFTERS	LIFIS13	ALAMA12	ALAMA12
ROCKER ARMS		RAIS12I (int.)	RAIS12I (int.)
		RAIS12E (ex.)	RAIS12E (ex.)
		RAIS12S	RAIS12S
ROCKER ARM SHAFTS		RASIIS12	RASIIS12
ROCKER ARM SHAFTS		RASEIS12	RASEIS12
INTAKE VALVE	IVIS13	IVIS12	IVIS12
EXHAUST VALVE	EVIS13	EVIS12	EVIS12
INTAKE GUIDE	VGIS12	VGIS12	VGIS12
EXHAUST GUIDE	VGIS12	VGIS12	VGIS12
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPIS13	WPIS12	WPIS12
TIMING BELT	TBIS13	TBIS12	TBIS12
TENSIONERS	BTIS13R (pulley)	BTIS12L (roller)	BTIS12L (roller)
	BTIS13H (hydraulic)	BTIS13H (hydraulic)	BTIS13H (hydraulic)
	BTIS13I (idler)		

HONDA

MODEL	PASSPORT	ODYSSEY	PILOT RIDGELINE (17-22)
ENGINE CODE	**J35Y6**	**J35Y7**	**J35Y6**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2019-2022**	**2018-2022**	**2016-2022**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.1644-2.1654"	2.1644-2.1654"	2.1644-2.1654"
BEARING SETS			
MAIN BEARING SET	MBH52	MBH52	MBH52
ROD BEARING SET	RBH52	RBH52	RBH52
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET	CGSH52H	CGSH52H	CGSH52H
HEAD GASKET SET	HSH52H	HSH52H	HSH52H
CONVERSION SET	CBSH52	CBSH52	CBSH52
HEAD BOLT SET	HBH52❶	HBH52❶	HBH52❶
PISTONS, RINGS, PLUGS			
PISTONS	PAH52A	PAH52A	PAH52A
RING SETS	RSH52A	RSH52A	RSH52A
OIL PUMP			
NEW OIL PUMP	OPH52	OPH52	OPH52

❶ (12 pc. 163mm, 4 pc. 188mm)

HONDA

MODEL	PASSPORT	ODYSSEY	PILOT RIDGELINE (17-22)
ENGINE CODE	**J35Y6**	**J35Y7**	**J35Y6**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2019-2022**	**2018-2022**	**2016-2022**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.1644-2.1654"	2.1644-2.1654"	2.1644-2.1654"
VALVE TRAIN			
INTAKE VALVE	IVAC9M	IVAC9M	IVAC9M
EXHAUST VALVE	EVAC9	EVAC9	EVAC9
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH21	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH51	WPH51
TIMING BELT	TBH37L	TBH37L	TBH37L
TENSIONERS	BTH38I	BTH38I	BTH38I

HONDA

MODEL	ACCORD	ACCORD CROSSTOUR (13-15)	ODYSSEY
ENGINE CODE	**J35Y2**	**J35Y1**	**J35Z8**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2014-2017**	**2013-2017**	**2011-2017**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
ENGINE KITS			
MAJOR KIT	EKH51M		EKH51M
RE-RING KIT	EKH51R	EKH51R	EKH51R
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBH37
ROD BEARING SET	RBH38	RBH38	RBH38
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET	CGSH51	CGSH51	CGSH51
HEAD GASKET SET	HSH51	HSH51	HSH51
CONVERSION SET	CBSH37	CBSH37	CBSH37
HEAD BOLT SET	HBH52❶	HBH52❶	HBH51 (Star Head)
PISTONS, RINGS, PLUGS			
PISTONS	PAH51	PAH51❷ PAH52❸	PAH51
RING SETS	RSH51	RSH51	RSH51
OIL PUMP			
NEW OIL PUMP	OPH52	OPH52	OPH51❹

❶ (12 pc. 163mm, 4 pc. 188mm)
❷ (auto trans. only)
❸ (manual trans.)
❹ (Sensor not included)

MODEL	ACCORD	ACCORD CROSSTOUR (13-15)	ODYSSEY
ENGINE CODE	**J35Y2**	**J35Y1**	**J35Z8**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2014-2017**	**2013-2017**	**2011-2017**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
VALVE TRAIN			
INTAKE VALVE	IVAC9M	IVAC9M	IVAC9M
EXHAUST VALVE	EVAC9	EVAC9	EVAC9
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH21	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH51	WPH51
TIMING BELT	TBH37L	TBH37L	TBH37L
TENSIONERS	- (hydraulic) BTH38R BTH38I	BTH38R BTH38I	- (hydraulic) BTH38R BTH38I

HONDA

MODEL	PILOT	RIDGELINE	ACCORD CROSSTOUR
ENGINE CODE	**J35Z4**	**J35Z5**	**J35Z2**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2012-2015**	**2009-2014**	**2008-2012**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
ENGINE KITS			
MAJOR KIT	EKH51M		EKH51M
RE-RING KIT	EKH51R	EKH51R	EKH51R
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBH37
ROD BEARING SET	RBH38	RBH38	RBH38
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET	CGSH51	CGSH51	CGSH51
HEAD GASKET SET	HSH51	HSH51	HSH51
CONVERSION SET	CBSH37	CBSH37	CBSH37
HEAD BOLT SET	HBH51 (Star Head)	HBH51 (Star Head)	HBH37
PISTONS, RINGS, PLUGS			
PISTONS	PAH51	PAH52	PAH51
RING SETS	RSH51	RSH51	RSH51
OIL PUMP			
NEW OIL PUMP		OPH51❶	OPH51❶

❶ (Sensor not included)

MODEL	PILOT	RIDGELINE	ACCORD CROSSTOUR
ENGINE CODE	**J35Z4**	**J35Z5**	**J35Z2**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2012-2015**	**2009-2014**	**2008-2012**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
VALVE TRAIN			
INTAKE VALVE	IVAC9M	IVAC9M	IVAC9M
EXHAUST VALVE	EVAC9	EVAC9	EVAC9
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH21	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH51	WPH51
TIMING BELT	TBH37L	TBH37L	TBH37L
TENSIONERS	- (hydraulic)	- (hydraulic)	- (hydraulic)
	BTH38R	BTH38R	BTH38R
	BTH38I	BTH38I	BTH38I

HONDA

MODEL	ACCORD COUPE 6-speed manual	PILOT	ODYSSEY With Variable Cylinder System
ENGINE CODE	**J35Z3**	**J35Z4**	**J35A7**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2008-2012**	**2009-2011**	**2008-2010**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
ENGINE KITS			
MAJOR KIT		EKH51M	EKH51M
RE-RING KIT	EKH51R	EKH51R	EKH51R
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBH37
ROD BEARING SET	RBH38	RBH38	RBH38
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET	CGSH51	CGSH51	CGSH51
HEAD GASKET SET	HSH51	HSH51	HSH51
CONVERSION SET	CBSH37	CBSH37	CBSH37
HEAD BOLT SET	HBH51 (Star Head)	HBH51 (Star Head)	HBH37
PISTONS, RINGS, PLUGS			
PISTONS	PAH52	PAH51	PAH51
RING SETS	RSH51	RSH51	RSH51
OIL PUMP			
NEW OIL PUMP	OPH51❶	OPH51❶	OPH51❶

❶ (Sensor not included)

HONDA

MODEL	ACCORD COUPE 6-speed manual	PILOT	ODYSSEY With Variable Cylinder System
ENGINE CODE	**J35Z3**	**J35Z4**	**J35A7**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2008-2012**	**2009-2011**	**2008-2010**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
VALVE TRAIN			
INTAKE VALVE	IVAC9M	IVAC9M	IVAC9M
EXHAUST VALVE	EVAC9	EVAC9	EVAC9
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH21	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH51	WPH51
TIMING BELT	TBH37L	TBH37L	TBH37L
TENSIONERS	- (hydraulic)	- (hydraulic)	- (hydraulic)
	BTH38R	BTH38R	BTH38R
	BTH38I	BTH38I	BTH38I

HONDA

MODEL	ODYSSEY PILOT (2005) Without Variable Cylinder System	PILOT RIDGELINE	PILOT
ENGINE CODE	**J35A6**	**J35A9**	**J35Z1**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2005-2010**	**2006-2008**	**2006-2008**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
ENGINE KITS			
GOLD KIT		EKH38ZG	
MAJOR KIT	EKH38ZM	EKH38ZM	
RE-RING KIT	EKH38ZR	EKH38ZR	
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBH37
ROD BEARING SET	RBH38	RBH38	RBH38
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET	CGSH38Z❶	CGSH38Z❶	
HEAD GASKET SET	HSH38Z❶	HSH38Z❶	
CONVERSION SET	CBSH37	CBSH37	CBSH37
HEAD BOLT SET	HBH37	HBH37	HBH37
PISTONS, RINGS, PLUGS			
PISTONS	PAH38L❷	PAH38L❷	PAH38Z
RING SETS	RSH38	RSH38	RSH38
CRANKSHAFT & RODS			
CONNECTING ROD	CRH38Z	CRH38Z	
OIL PUMP			
NEW OIL PUMP	OPH51❸ OPH37L (05-07 only)	OPH37L	OPH37L

❶ (Rubber upper intake manifold cover gasket not included)

❷ (w/o Oil Squirter Slot)

❸ (08-10 only, Sensor not included)

MODEL	ODYSSEY PILOT (2005) Without Variable Cylinder System	PILOT RIDGELINE	PILOT
ENGINE CODE	**J35A6**	**J35A9**	**J35Z1**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2005-2010**	**2006-2008**	**2006-2008**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
VALVE TRAIN			
INTAKE VALVE	IVAC9	IVAC9	IVAC9
EXHAUST VALVE	EVAC9	EVAC9	EVAC9
INTAKE GUIDE	IVGH21	IVGH21	IVGH21
EXHAUST GUIDE	EVGH21	EVGH21	EVGH21
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH51	WPH51
TIMING BELT	TBH37L	TBH37L	TBH37L
TENSIONERS	- (hydraulic) BTH38R BTH38I	BTH38R BTH38I	- (hydraulic) BTH38R BTH38I

HONDA

MODEL	ODYSSEY With Variable Cylinder System	ODYSSEY PILOT	ODYSSEY
ENGINE CODE	**J35A7**	**J35A4**	**J35A1**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2005-2007**	**2002-2004**	**1999-2001**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
ENGINE KITS			
GOLD KIT			EKH38G
BRONZE KITS			EKH38B
MAJOR KIT		EKH38A4M	EKH38M
RE-RING KIT		EKH38A4R	EKH38R
BEARING SETS			
MAIN BEARING SET	MBH37	MBH37	MBH37
ROD BEARING SET	RBH38	RBH38	RBH38
THRUST WASHER SET	TWH37	TWH37	TWH37
GASKETS			
FULL GASKET SET		CGSH38A4	CGSH38
HEAD GASKET SET		HSH38A4	HSH38
HEAD GASKETS		HDGH38 (set of 2)	HDGH38
CONVERSION SET	CBSH37	CBSH37	CBSH37
HEAD BOLT SET	HBH37	HBH37	HBH37
PISTONS, RINGS, PLUGS			
PISTONS	PAH38Z	PAH38L❶	PAH38
RING SETS	RSH38	RSH38	RSH38
CRANKSHAFT & RODS			
CONNECTING ROD	CRH38Z		CRH38 (1999-00)
OIL PUMP			
NEW OIL PUMP	OPH37L	OPH37OD (For Odyssey) OPH37 (for pilot)	OPH37

❶ (w/o Oil Squirter Slot)

MODEL	ODYSSEY With Variable Cylinder System	ODYSSEY PILOT	ODYSSEY
ENGINE CODE	**J35A7**	**J35A4**	**J35A1**
DISPLACEMENT	**3471cc(212.1")**	**3471cc(212.1")**	**3471cc(212.1")**
YEARS	**2005-2007**	**2002-2004**	**1999-2001**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ	24 VALVE; SOHC V6; F.INJ
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	93mm(3.66")	93mm(3.66")	93mm(3.66")
MAIN JOURNAL DIA.	2.8337/2.8346"	2.8337/2.8346"	2.8337/2.8346"
ROD JOURNAL DIA.	2.165/2.171"	2.165/2.171"	2.165/2.171"
VALVE TRAIN			
INTAKE VALVE	IVAC9	IVAC9	IVH34
EXHAUST VALVE	EVAC9	EVAC9	EVH34
INTAKE GUIDE	IVGH21	IVGH21 (int)	IVGH21 (int)
EXHAUST GUIDE	EVGH21	EVGH21 (ex)	EVGH21 (ex)
VALVE SEALS	VSSH21	VSSH21	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPH51	WPH37	WPH37
TIMING BELT	TBH37L	TBH37	TBH37
TENSIONERS	- (hydraulic)	BTH37H (hydraulic)	BTH37H (hydraulic)
	BTH38R	BTH37R	BTH37R
	BTH38I	BTH37I	BTH37I

HYUNDAI

MODEL	ELANTRA Eco TURBO	EXCEL SCOUPE (91-92)	EXCEL
ENGINE CODE	**Kappa**	**G4DJ**	**G4DJ**
DISPLACEMENT	**1353cc(82.6")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**2017-2020**	**1990-1994**	**1986-1989**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin A	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	71.6mm(2.922")	75.5mm(2.972")	75.5mm(2.972")
STROKE	84mm(3.31")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.5336/1.5343"	1.6528/1.6535"	1.6528/1.6535"
ENGINE KITS			
GOLD KIT		EKC10LBG (w/OPMI2)	
BRONZE KITS		EKC10LBB (w/OPMI2)	
MAJOR KIT		EKC10LM	EKC10M
RE-RING KIT		EKMI2R❶	EKC10R❷
BEARING SETS			
MAIN BEARING SET		MBC11L	MBC11L
ROD BEARING SET		RBC11 (.694" length) RBMI2 (.614" length)	RBC11 (.694" length)
GASKETS			
FULL GASKET SET		CGSC10	CGSC10
HEAD GASKET SET		HSC10	HSC10
HEAD GASKETS		HDGC10	HDGC10
CONVERSION SET		CBSC10	CBSC10
PISTONS, RINGS, PLUGS			
PISTONS		PAC10L	PAC10
RING SETS		RSC10	RSC10
FREEZE PLUG SET		EPSC11	EPSC11
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSMI2❸ CSC11L (.694" length)	CSC11L❹
CONNECTING ROD		CRMI2	CRC11
OIL PUMP			
NEW OIL PUMP		OPMI2 (8/90-on)	

❶ (with .614" rods)
❷ (with .694" rods)
❸ (.614" rod length)
❹ (.694" rod length)

MODEL	ELANTRA Eco TURBO	EXCEL SCOUPE (91-92)	EXCEL
ENGINE CODE	**Kappa**	**G4DJ**	**G4DJ**
DISPLACEMENT	**1353cc(82.6")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**2017-2020**	**1990-1994**	**1986-1989**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin A	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	71.6mm(2.922")	75.5mm(2.972")	75.5mm(2.972")
STROKE	84mm(3.31")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.5336/1.5343"	1.6528/1.6535"	1.6528/1.6535"
VALVE TRAIN			
CAMSHAFTS		CAMMI2	CAMC10
LIFTERS	LIFHY23		
ROCKER ARMS		RAMI2A (1 & 3 CYL)	
		RAMI2B (2 & 4 CYL)	
ROCKER ARMS		RAMI2A (1 & 3 CYL)	
		RAMI2B (2 & 4 CYL)	
INTAKE VALVE		IVMI2	IVC11
EXHAUST VALVE		EVC11	EVC11
INTAKE GUIDE		IVGC11	IVGC11
EXHAUST GUIDE		EVGC11	EVGC11
SUB VALVES			CAVC23
VALVE SEALS	VSSSU16	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP		WPC10	WPC10
TIMING BELT		TBMI2	TBC11
TENSIONERS		BTC11	BTC11

HYUNDAI

MODEL	ACCENT	ACCENT	ACCENT DOHC
ENGINE CODE	**G4EK**	**G4EK**	**G4FK**
DISPLACEMENT	**1495cc(91.2")**	**1495cc(91.2")**	**1495cc(91.2")**
YEARS	**2000-2002**	**1995-1999**	**1996-1997**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	75.5mm(2.972")	75.5mm(2.972")	75.5mm(2.972")
STROKE	83.5mm(3.28")	83.5mm(3.28")	83.5mm(3.28")
MAIN JOURNAL DIA.	1.9680/1.9685"	1.9680/1.9685"	1.9680/1.9685"
ROD JOURNAL DIA.	1.7710/1.7717"	1.7710/1.7717"	1.7710/1.7717"
ENGINE KITS			
GOLD KIT	EKHY2LG	EKHY2AG	EKHY4G
BRONZE KITS	EKHY2LB	EKHY2AB	
MAJOR KIT	EKHY2LM	EKHY2M	EKHY4M
RE-RING KIT	EKHY2R	EKHY2R	EKHY4R
BEARING SETS			
MAIN BEARING SET	MBHY15	MBHY15	MBHY15
ROD BEARING SET	RBHY2	RBHY2	RBHY2
GASKETS			
FULL GASKET SET	CGSHY2L	CGSHY2L	CGSHY4
HEAD GASKET SET	HSHY2L	HSHY2L	HSHY4
HEAD GASKETS	HDGHY2	HDGHY2	
CONVERSION SET	CBSHY2	CBSHY2	CBSHY4
HEAD BOLT SET	HBHY2	HBHY2	HBHY4
PISTONS, RINGS, PLUGS			
PISTONS	PAHY2L	PAHY2	PAHY4
RING SETS	RSHY2	RSHY2	RSHY4
FREEZE PLUG SET	EPSC11	EPSC11	EPSC11
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY2	CSHY2	CSHY2
CONNECTING ROD	CRHY2 (12mm nut)	CRHY2 (12mm nut)	CRHY2 (12mm nut)
OIL PUMP			
NEW OIL PUMP	OPHY2A	OPHY2A	OPHY4

MODEL	ACCENT	ACCENT	ACCENT DOHC
ENGINE CODE	**G4EK**	**G4EK**	**G4FK**
DISPLACEMENT	**1495cc(91.2")**	**1495cc(91.2")**	**1495cc(91.2")**
YEARS	**2000-2002**	**1995-1999**	**1996-1997**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	75.5mm(2.972")	75.5mm(2.972")	75.5mm(2.972")
STROKE	83.5mm(3.28")	83.5mm(3.28")	83.5mm(3.28")
MAIN JOURNAL DIA.	1.9680/1.9685"	1.9680/1.9685"	1.9680/1.9685"
ROD JOURNAL DIA.	1.7710/1.7717"	1.7710/1.7717"	1.7710/1.7717"
VALVE TRAIN			
LIFTERS	ALAMA12	ALAMA12	LIFHY4
ROCKER ARMS	RAHY2A❶	RAHY2A❶	
	RAHY2B❷	RAHY2B❷	
ROCKER ARMS	RAHY2A	RAHY2A	
ROCKER ARM SHAFTS	RASIHY2	RASIHY2	
ROCKER ARM SHAFTS	RASEHY2	RASEHY2	
INTAKE VALVE	IVHY2	IVHY2	IVHY4
EXHAUST VALVE	EVHY2L	EVHY2L	EVHY4
VALVE GUIDE			VGTO28❸
INTAKE GUIDE	IVGHY2	IVGHY2	
EXHAUST GUIDE	EVGHY2	EVGHY2	
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPC10	WPC10	
TIMING BELT	TBHY2	TBMI2L	TBHY4
TENSIONERS	BTMI2L	BTMI2L	BTHY4
			BTHY4I (idler)
ENGINES & HEADS			
HEAD W/VALVES	CHVHY2L		

❶ (for int. 1 each 'A' & 'B' per cyl)
❷ (for int. 1 each 'A' & 'B' per cyl)
❸ (both int & ex)

HYUNDAI

MODEL	SCOUPE	SCOUPE TURBO	ELANTRA HYBRID
ENGINE CODE	**G4EK**	**G4EK**	**Kappa**
DISPLACEMENT	**1495cc(91.2")**	**1495cc(91.2")**	**1580cc(96.4")**
YEARS	**1993-1995**	**1993-1995**	**2021-2022**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ Turbo	16 vlv, DOHC 4; F.INJ. FHEV
BORE	75.5mm(2.972")	75.5mm(2.972")	72mm(2.835")
STROKE	83.5mm(3.28")	83.5mm(3.28")	97mm(3.82")
MAIN JOURNAL DIA.	1.9680/1.9685"	1.9680/1.9685"	1.8875/1.8882"
ROD JOURNAL DIA.	1.7710/1.7717"	1.7710/1.7717"	1.5336/1.5343"
ENGINE KITS			
MAJOR KIT	EKHY2M (94-95 only)		
RE-RING KIT	EKHY2R (94-95 only)	EKHY2R	
BEARING SETS			
MAIN BEARING SET	MBHY15 (94-95 only)	MBHY15 (94-95 only)	
ROD BEARING SET	RBHY2	RBHY2	
GASKETS			
FULL GASKET SET	CGSHY2L (94-95 only)	CGSHY2L	
HEAD GASKET SET	HSHY2L (94-95 only)	HSHY2L	
HEAD GASKETS	HDGHY2 (94-95 only)	HDGHY2	
CONVERSION SET	CBSHY2	CBSHY2	
HEAD BOLT SET	HBHY2	HBHY2	
PISTONS, RINGS, PLUGS			
PISTONS	PAHY2 (94-95 only)		
RING SETS	RSHY2	RSHY2	
FREEZE PLUG SET	EPSC11	EPSC11	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY2S (94-95 only)	CSHY2S (94-95 only)	
CONNECTING ROD	CRHY2 (12mm nut)	CRHY2 (12mm nut)	
OIL PUMP			
NEW OIL PUMP	OPHY2S (93-94) OPMI2 (1995)	OPHY2S (93-94) OPMI2 (1995)	

MODEL	SCOUPE	SCOUPE TURBO	ELANTRA HYBRID
ENGINE CODE	**G4EK**	**G4EK**	**Kappa**
DISPLACEMENT	**1495cc(91.2")**	**1495cc(91.2")**	**1580cc(96.4")**
YEARS	**1993-1995**	**1993-1995**	**2021-2022**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ Turbo	16 vlv, DOHC 4; F.INJ. FHEV
BORE	75.5mm(2.972")	75.5mm(2.972")	72mm(2.835")
STROKE	83.5mm(3.28")	83.5mm(3.28")	97mm(3.82")
MAIN JOURNAL DIA.	1.9680/1.9685"	1.9680/1.9685"	1.8875/1.8882"
ROD JOURNAL DIA.	1.7710/1.7717"	1.7710/1.7717"	1.5336/1.5343"
VALVE TRAIN			
LIFTERS	ALAMA12 (95)	ALAMA12 (95)	LIFHY23
ROCKER ARMS	RAHY2A❶	RAHY2A❶	
	RAHY2B❷	RAHY2B❷	
ROCKER ARMS	RAHY2A (95 only)	RAHY2A (95 only)	
ROCKER ARM SHAFTS	RASIHY2 (95 only)	RASIHY2 (95 only)	
ROCKER ARM SHAFTS	RASEHY2 (95 only)	RASEHY2 (95 only)	
INTAKE VALVE	IVHY2	IVHY2	
EXHAUST VALVE	EVHY2 (93-94)	EVHY2 (93-94)	
	EVHY2L (95)	EVHY2L (95)	
INTAKE GUIDE	IVGHY2	IVGHY2	
EXHAUST GUIDE	EVGHY2	EVGHY2	
VALVE SEALS	VSSTO15	VSSTO15	VSSSU16
WATER PUMP & TIMING			
WATER PUMP	WPC10	WPC10	
TIMING BELT	TBMI2 (93)	TBMI2 (93)	
	TBMI2L (94-95)	TBMI2L (94-95)	
TENSIONERS	BTMI2L (94-95)	BTMI2L (94-95)	

❶ (95 only for int. 1 each 'A' & 'B' per cyl)

❷ (95 only for int. 1 each 'A' & 'B' per cyl)

HYUNDAI

MODEL	IONIQ HYBRID	VELOSTER TURBO	KONA TURBO
ENGINE CODE	Kappa	G4FJ GAMMA	GAMMA
DISPLACEMENT	1580cc(96.4")	1591cc(97.1")	1591cc(97.1")
YEARS	2017-2020	2019-2021	2018-2021
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; Turbo; GDI	16vlv; DOHC; 4; Turbo; vin 5
BORE	72mm(2.835")	85.4mm(3.012")	77mm(3.031")
STROKE	97mm(3.82")	77mm(3.03")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.5336/1.5343"	1.6517/1.6524"	1.6517/1.6524"
BEARING SETS			
MAIN BEARING SET		MBHY22	MBHY22
ROD BEARING SET		RBHY22T	RBHY22T
THRUST WASHER SET		TWHY22T	TWHY22T
GASKETS			
FULL GASKET SET		CGSHY22ST	CGSHY22ST
HEAD GASKET SET		HSHY22ST	HSHY22ST
CONVERSION SET		CBSHY22	CBSHY22
HEAD BOLT SET		HBHY22L	HBHY22L
PISTONS, RINGS, PLUGS			
PISTONS		PAHY22ST	PAHY22ST
RING SETS		RSHY22ST	RSHY22ST
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSHY22T	CSHY22T
CONNECTING ROD		CRHY22T	CRHY22T
OIL PUMP			
NEW OIL PUMP		OPHY22LK❶	

❶ (cover, rotor set, relief valve & screw kit)

MODEL	IONIQ HYBRID	VELOSTER TURBO	KONA TURBO
ENGINE CODE	**Kappa**	**G4FJ GAMMA**	**GAMMA**
DISPLACEMENT	**1580cc(96.4")**	**1591cc(97.1")**	**1591cc(97.1")**
YEARS	**2017-2020**	**2019-2021**	**2018-2021**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; Turbo; GDI	16vlv; DOHC; 4; Turbo; vin 5
BORE	72mm(2.835")	85.4mm(3.012")	77mm(3.031")
STROKE	97mm(3.82")	77mm(3.03")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.5336/1.5343"	1.6517/1.6524"	1.6517/1.6524"
VALVE TRAIN			
LIFTERS	LIFHY23		
INTAKE VALVE		IVHY22	IVHY22
EXHAUST VALVE		EVHY22	EVHY22
VALVE GUIDE		IVGSU16F	IVGSU16F
VALVE SEALS	VSSSU16	VSSSU16	VSSSU16
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKHY22LB	CTKHY22LB
TIMING COVER		TCHY22L❶	

❶ (includes oil pump)

HYUNDAI

MODEL	ELANTRA TURBO	SONATA TURBO	ACCENT VELOSTER (12-17)
ENGINE CODE	**G4FJ GAMMA**	**G4FJ GAMMA**	**G4FD GAMMA**
DISPLACEMENT	**1591cc(97.1")**	**1591cc(97.1")**	**1591cc(97.1")**
YEARS	**2017-2020**	**2015-2019**	**2012-2019**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin B	16vlv; DOHC; 4; Turbo; vin A	16 VALVE; DOHC 4; GDi
BORE	85.4mm(3.012")	85.4mm(3.012")	85.4mm(3.012")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.6517/1.6524"
ENGINE KITS			
PLATINUM KIT			EKHY22LP
GOLD KIT			EKHY22LG
BEARING SETS			
MAIN BEARING SET	MBHY22	MBHY22	MBHY22
ROD BEARING SET	RBHY22T	RBHY22T	RBHY22
THRUST WASHER SET	TWHY22T	TWHY22T	TWHY22
GASKETS			
FULL GASKET SET	CGSHY22ST	CGSHY22ST	CGSHY22L
HEAD GASKET SET	HSHY22ST	HSHY22ST	HSHY22L
CONVERSION SET	CBSHY22	CBSHY22	CBSHY22
HEAD BOLT SET	HBHY22L	HBHY22L	HBHY22L
PISTONS, RINGS, PLUGS			
PISTONS	PAHY22VT	PAHY22ST	PAHY22L
RING SETS	RSHY22ST	RSHY22ST	RSHY22L
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY22T	CSHY22T	CSHY22L❶
CONNECTING ROD	CRHY22T	CRHY22T	CRHY22
OIL PUMP			
NEW OIL PUMP	OPHY22LK❷	OPHY22LK❷	OPHY22LK❷

❶ (For Non Turbo only)

❷ (cover, rotor set, relief valve & screw kit)

MODEL	ELANTRA TURBO	SONATA TURBO	ACCENT VELOSTER (12-17)
ENGINE CODE	G4FJ GAMMA	G4FJ GAMMA	G4FD GAMMA
DISPLACEMENT	1591cc(97.1")	1591cc(97.1")	1591cc(97.1")
YEARS	2017-2020	2015-2019	2012-2019
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin B	16vlv; DOHC; 4; Turbo; vin A	16 VALVE; DOHC 4; GDi
BORE	85.4mm(3.012")	85.4mm(3.012")	85.4mm(3.012")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.6517/1.6524"
VALVE TRAIN			
INTAKE VALVE	IVHY22	IVHY22	IVHY22
EXHAUST VALVE	EVHY22	EVHY22	EVHY22
VALVE GUIDE	IVGSU16F	IVGSU16F	IVGSU16F
VALVE SEALS	VSSSU16	VSSSU16	VSSSU16
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKHY22LB	CTKHY22LB	CTKHY22L
TIMING COVER	TCHY22L❶	TCHY22L❶	TCHY22L❶

❶ (includes oil pump)

HYUNDAI

MODEL	TUCSON TURBO	VELOSTER TURBO	ACCENT
ENGINE CODE	**G4FJ GAMMA**	**G4FJ GAMMA**	**G4ED ALPHA II**
DISPLACEMENT	**1591cc(97.1")**	**1591cc(97.1")**	**1599cc(95.1")**
YEARS	**2016-2018**	**2013-2017**	**2006-2011**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin 2	16vlv; DOHC; 4; vin E, Turbo	16 VALVE; DOHC 4; F.INJ.
BORE	85.4mm(3.012")	85.4mm(3.012")	76.5mm(3.012")
STROKE	77mm(3.03")	77mm(3.03")	87mm(3.42")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.9680/1.9685"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.7710/1.7717"
ENGINE KITS			
GOLD KIT			EKHY15G
MAJOR KIT			EKHY15M
RE-RING KIT			EKHY15R
BEARING SETS			
MAIN BEARING SET	MBHY22	MBHY22	MBHY15
ROD BEARING SET	RBHY22T	RBHY22T	RBHY2
THRUST WASHER SET	TWHY22T	TWHY22T	
GASKETS			
FULL GASKET SET	CGSHY22ST	CGSHY22VT	CGSHY15
HEAD GASKET SET	HSHY22ST	HSHY22VT	HSHY15
CONVERSION SET	CBSHY22	CBSHY22	CBSHY4
HEAD BOLT SET	HBHY22L	HBHY22L	HBHY4
PISTONS, RINGS, PLUGS			
PISTONS	PAHY22ST	PAHY22VT	PAHY15
RING SETS	RSHY22ST	RSHY22ST	RSHY15
FREEZE PLUG SET			EPSC11
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY22T	CSHY22T	
CONNECTING ROD	CRHY22T	CRHY22T	CRHY2 (12mm nut)
OIL PUMP			
NEW OIL PUMP	OPHY22LK❶	OPHY22LK❶	OPHY4

❶ (cover, rotor set, relief valve & screw kit)

MODEL	TUCSON TURBO	VELOSTER TURBO	ACCENT
ENGINE CODE	**G4FJ GAMMA**	**G4FJ GAMMA**	**G4ED ALPHA II**
DISPLACEMENT	**1591cc(97.1")**	**1591cc(97.1")**	**1599cc(95.1")**
YEARS	**2016-2018**	**2013-2017**	**2006-2011**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin 2	16vlv; DOHC; 4; vin E, Turbo	16 VALVE; DOHC 4; F.INJ.
BORE	85.4mm(3.012")	85.4mm(3.012")	76.5mm(3.012")
STROKE	77mm(3.03")	77mm(3.03")	87mm(3.42")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.9680/1.9685"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.7710/1.7717"
VALVE TRAIN			
LIFTERS			LIFHY4
INTAKE VALVE	IVHY22	IVHY22	IVHY4L
EXHAUST VALVE	EVHY22	EVHY22	EVHY4
VALVE GUIDE	IVGSU16F	IVGSU16F	VGTO28❶
VALVE SEALS	VSSSU16	VSSSU16	VSSTO15
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKHY22LB	CTKHY22L	
TIMING BELT			TBHY4
TENSIONERS			BTHY4
			BTHY4I (idler)
TIMING COVER	TCHY22L❷	TCHY22L❷	

❶ (both int & ex)

❷ (includes oil pump)

HYUNDAI

MODEL	ACCENT	ELANTRA	ELANTRA TIBURON (97)
ENGINE CODE	**G4ED ALPHA II**	**G4GR**	**G4GM**
DISPLACEMENT	**1599cc(95.1")**	**1599cc(97.6")**	**1796cc(109.6")**
YEARS	**2001-2005**	**1992-1995**	**1996-1998**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	76.5mm(3.012")	82.3mm(3.240")	82mm(3.228")
STROKE	87mm(3.42")	75mm(2.95")	85mm(3.35")
MAIN JOURNAL DIA.	1.9680/1.9685"	2.2435/2.2441"	2.2435/2.2441"
ROD JOURNAL DIA.	1.7710/1.7717"	1.7709/1.7717"	1.7707/1.7713"
ENGINE KITS			
GOLD KIT	EKHY4LG	EKMI21G❶ EKMI21WG (w/shafts)	EKHY3G
BRONZE KITS			EKHY3B
MAJOR KIT	EKHY4LM	EKMI21M	EKHY3M
RE-RING KIT	EKHY4LR	EKMI21R	EKHY5R
BEARING SETS			
MAIN BEARING SET	MBHY15	MBC17	MBHY3
ROD BEARING SET	RBHY2	RBC15L	RBHY3
THRUST WASHER SET			TWHY3
INTERMEDIATE SET		ISBMI3❷	
GASKETS			
FULL GASKET SET	CGSHY4L❸	CGSMI6	CGSHY3
HEAD GASKET SET	HSHY4L❸	HSMI6	HSHY3
HEAD GASKETS	HDGHY4L	HDGMI6	HDGHY3
CONVERSION SET	CBSHY4	CBSMI4	CBSHY3
HEAD BOLT SET	HBHY4	HBMI6	HBHY3
PISTONS, RINGS, PLUGS			
PISTONS	PAHY4L	PAMI21	PAHY3
RING SETS	RSHY4L	RSMI21	RSHY5
FREEZE PLUG SET	EPSC11	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSMI21	CSHY3❹
CONNECTING ROD	CRHY2 (12mm nut)	CRMI4	CRHY3
OIL PUMP			
NEW OIL PUMP	OPHY4L	OPMI21❺ OPMI6❻	OPHY3

❶ (no balance shafts)
❷ (if applicable)
❸ (2005 valve cover gasket not included in set)
❹ (20mm rear flange)
❺ (w/o bal.shafts)
❻ (with bal. shaft)

MODEL	ACCENT	ELANTRA	ELANTRA TIBURON (97)
ENGINE CODE	**G4ED ALPHA II**	**G4GR**	**G4GM**
DISPLACEMENT	**1599cc(95.1")**	**1599cc(97.6")**	**1796cc(109.6")**
YEARS	**2001-2005**	**1992-1995**	**1996-1998**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	76.5mm(3.012")	82.3mm(3.240")	82mm(3.228")
STROKE	87mm(3.42")	75mm(2.95")	85mm(3.35")
MAIN JOURNAL DIA.	1.9680/1.9685"	2.2435/2.2441"	2.2435/2.2441"
ROD JOURNAL DIA.	1.7710/1.7717"	1.7709/1.7717"	1.7707/1.7713"
VALVE TRAIN			
INTAKE CAMSHAFT		CAMMI21I	
EXHAUST CAMSHAFT		CAMMI21E	
LIFTERS	LIFHY4	LIFMI6	LIFHY3
ROCKER ARMS		RAMI6	
INTAKE VALVE	IVHY4L	IVMI6	IVHY3
EXHAUST VALVE	EVHY4	EVMI6	EVHY3
VALVE GUIDE	VGTO28❶	IVGMI6	
INTAKE GUIDE			IVGMI22
EXHAUST GUIDE			EVGMI22
VALVE SEALS	VSSTO15	VSSC11	VSSTO15
WATER PUMP & TIMING			
WATER PUMP			WPHY3
TIMING BELT	TBHY4	TBMI21	TBHY3
TENSIONERS	BTHY4	BTMI6 (hydraulic)	BTHY3R
	BTHY4I (idler)		BTHY3
BALANCE SHAFT BELT		TBMI6B	
BALANCE SHAFT BELT TENSIONER		BTMI6R (roller)	

❶ (both int & ex)

HYUNDAI

MODEL	ELANTRA	ELANTRA COUPE (2013) ELANTRA GT (2013)	ELANTRA
ENGINE CODE	**Nu**	**Nu**	**G4CN**
DISPLACEMENT	**1797cc(109.7")**	**1797cc(109.7")**	**1836cc(112")**
YEARS	**2014-2016**	**2011-2013**	**1993-1995**
DESCRIPTION	16 VALVE DOHC 4; MPI	16 VALVE DOHC 4; MPI	16 VALVE; DOHC 4; F.INJ.
BORE	81.0mm(3.189")	81.0mm(3.189")	81.5mm(3.209")
STROKE	87.1mm(3.43")	87.1mm(3.43")	88mm(3.46")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.2435/2.2441"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7709/1.7717"
ENGINE KITS			
GOLD KIT			EKHY1WG (w/OPMI6)
			EKHY1G (w/OPMI21)
BRONZE KITS			EKHY1WB (w/OPMI6)
			EKHY1B (w/OPMI21)
MAJOR KIT			EKHY1M
RE-RING KIT			EKHY1R
BEARING SETS			
MAIN BEARING SET	MBHY23L❶	MBHY23❷	MBC17
	MBHY23❷		
ROD BEARING SET	RBHY23❸	RBHY23E❹	RBC15L
THRUST WASHER SET	TWHY23	TWHY23	
INTERMEDIATE SET			ISBMI3❺
GASKETS			
FULL GASKET SET	CGSHY23	CGSHY23	CGSMI6
HEAD GASKET SET	HSHY23	HSHY23	HSMI6
HEAD GASKETS			HDGMI6
CONVERSION SET	CBSHY23	CBSHY23	CBSMI4
HEAD BOLT SET	HBHY23	HBHY23	HBMI6
PISTONS, RINGS, PLUGS			
PISTONS	PAHY23	PAHY23	PAHY1
RING SETS	RSHY23	RSHY23	RSHY1
FREEZE PLUG SET			EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY23❻	CSHY23E❼	
CONNECTING ROD	CRHY23	CRHY23❽	CRMI4
OIL PUMP			
NEW OIL PUMP		OPHY23K❾	OPMI21①
			OPMI6②

❶ (1 Hole Upper Shell)
❷ (2 Hole Upper Shell)
❸ (1/2 tabs left, 1/2 tabs right)
❹ (Tabs all on one side)
❺ (if applicable)
❻ (6.3 mm tooth-width silent gear)
❼ (8.3 mm tooth-width silent gear)
❽ (requires RBHY23)

MODEL	ELANTRA	ELANTRA COUPE (2013) ELANTRA GT (2013)	ELANTRA
ENGINE CODE	Nu	Nu	G4CN
DISPLACEMENT	1797cc(109.7")	1797cc(109.7")	1836cc(112")
YEARS	2014-2016	2011-2013	1993-1995
DESCRIPTION	16 VALVE DOHC 4; MPI	16 VALVE DOHC 4; MPI	16 VALVE; DOHC 4; F.INJ.
BORE	81.0mm(3.189")	81.0mm(3.189")	81.5mm(3.209")
STROKE	87.1mm(3.43")	87.1mm(3.43")	88mm(3.46")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.2435/2.2441"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7709/1.7717"
VALVE TRAIN			
EXHAUST CAMSHAFT			CAMMI6E
LIFTERS	LIFHY23	LIFHY23	LIFMI6
ROCKER ARMS			RAMI6
INTAKE VALVE	IVHY23	IVHY23	IVMI6
EXHAUST VALVE	EVHY23	EVHY23	EVMI6
VALVE GUIDE	VGHY11	VGHY11	
INTAKE GUIDE			IVGMI6
EXHAUST GUIDE			EVGMI6
VALVE SEALS	VSSHY11	VSSHY11	VSSC11
WATER PUMP & TIMING			
WATER PUMP			WPMI6
GEARLESS TIMING KIT	PTKHY23V❶	PTKHY23❷	
TIMING BELT			TBMI6
TENSIONERS			BTMI6 (hydraulic)
BALANCE SHAFT BELT			TBMI6B
BALANCE SHAFT BELT TENSIONER			BTMI6R
TIMING COVER	TCHY23E❸	TCHY23E❸	

❶ (Silent Chain application)
❷ (with silent chain)
❸ (10mm engine mount stud)

HYUNDAI

MODEL	ELANTRA (07-12) TIBURON (07-08) TUCSON (05-09)	ELANTRA (01-06) TIBURON (03-06)	ELANTRA (99-00) TIBURON (97-01)
ENGINE CODE	**G4GC**	**G4GF**	**G4GF**
DISPLACEMENT	**1975cc(120.5")**	**1975cc(120.5")**	**1975cc(120.5")**
YEARS	**2005-2012**	**2001-2006**	**1997-2001**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	82mm(3.228")	82mm(3.228")	82mm(3.228")
STROKE	93.5mm(3.68")	93.5mm(3.68")	93.5mm(3.68")
MAIN JOURNAL DIA.	2.2435/2.2441"	2.2435/2.2441"	2.2435/2.2441"
ROD JOURNAL DIA.	1.7707/1.7713"	1.7707/1.7713"	1.7707/1.7713"
ENGINE KITS			
GOLD KIT		EKHY5LG (with MBHY3L)	EKHY5G
BRONZE KITS		EKHY5LB (with MBHY3L)	EKHY5B
MAJOR KIT	EKHY5LM	EKHY5LM (with MBHY3L)	EKHY5M
RE-RING KIT	EKHY16R❶	EKHY5LR (with MBHY3L)	EKHY5R
BEARING SETS			
MAIN BEARING SET	MBHY3L❷	MBHY3L❷	MBHY3
ROD BEARING SET	RBHY3	RBHY3	RBHY3
THRUST WASHER SET	TWHY3	TWHY3	TWHY3
GASKETS			
FULL GASKET SET	CGSHY5L	CGSHY5L	CGSHY3
HEAD GASKET SET	HSHY5L	HSHY5L	HSHY3
HEAD GASKETS	HDGHY5L	HDGHY5L	HDGHY3
CONVERSION SET	CBSHY3	CBSHY3	CBSHY3
HEAD BOLT SET	HBHY3	HBHY3	HBHY3
PISTONS, RINGS, PLUGS			
PISTONS	PAHY5L	PAHY5L	PAHY5
RING SETS	RSHY5❸ RSHY16❶	RSHY5	RSHY5
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSHY5❹
CONNECTING ROD			CRHY5
OIL PUMP			
NEW OIL PUMP	OPHY3	OPHY3	OPHY3

❶ (2.0mm oil ring)
❷ (All tabs on 1 side)
❸ (2.5mm oil ring)
❹ (18mm rear flange)

MODEL	ELANTRA (07-12) TIBURON (07-08) TUCSON (05-09)	ELANTRA (01-06) TIBURON (03-06)	ELANTRA (99-00) TIBURON (97-01)
ENGINE CODE	**G4GC**	**G4GF**	**G4GF**
DISPLACEMENT	**1975cc(120.5")**	**1975cc(120.5")**	**1975cc(120.5")**
YEARS	**2005-2012**	**2001-2006**	**1997-2001**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	82mm(3.228")	82mm(3.228")	82mm(3.228")
STROKE	93.5mm(3.68")	93.5mm(3.68")	93.5mm(3.68")
MAIN JOURNAL DIA.	2.2435/2.2441"	2.2435/2.2441"	2.2435/2.2441"
ROD JOURNAL DIA.	1.7707/1.7713"	1.7707/1.7713"	1.7707/1.7713"
VALVE TRAIN			
INTAKE CAMSHAFT			CAMHY5I (Tiburon)
LIFTERS	LIFHY5	LIFHY5	LIFHY3
INTAKE VALVE	IVHY5	IVHY5	IVHY3
EXHAUST VALVE	EVHY5	EVHY5	EVHY3
INTAKE GUIDE	IVGMI22	IVGMI22	IVGMI22
EXHAUST GUIDE	EVGMI22	EVGMI22	EVGMI22
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPHY3	WPHY3	WPHY3
TIMING BELT	TBHY5	TBHY5	TBHY5
TENSIONERS	BTHY3R BTHY3 (2005 only)	BTHY3R BTHY3 (2001-05 only)	BTHY3R BTHY3

HYUNDAI

MODEL	SONATA	SONATA	GENESIS G70 TURBO
ENGINE CODE	G4CP	G4CP	THETA II
DISPLACEMENT	1997cc(121.8")	1997cc(121.8")	1998cc(122")
YEARS	1996-1998	1992-1995	2019-2021
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; GDI; Turbo
BORE	85mm(3.346")	85mm(3.346")	86.0mm(3.386")
STROKE	88mm(3.46")	88mm(3.46")	86mm(3.39")
MAIN JOURNAL DIA.	2.2435/2.2441"	2.2435/2.2441"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7709/1.7717"	1.7709/1.7717"	1.8894/1.8890"
ENGINE KITS			
GOLD KIT	EKMI6LG	EKMI6G	
BRONZE KITS	EKMI6LB	EKMI6B	
MAJOR KIT	EKMI6LM	EKMI6M	
RE-RING KIT	EKMI6LR	EKMI6R	
BEARING SETS			
MAIN BEARING SET	MBC17	MBC17	MBHY11L
ROD BEARING SET	RBC15L	RBC15L	RBHY11L
THRUST WASHER SET			TWHY11
INTERMEDIATE SET	ISBMI3	ISBMI3	
GASKETS			
FULL GASKET SET	CGSMI6S	CGSMI6	
HEAD GASKET SET	HSMI6S	HSMI6	
HEAD GASKETS	HDGMI6	HDGMI6	
CONVERSION SET	CBSMI4	CBSMI4	
HEAD BOLT SET	HBMI6	HBMI6	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAMI6	PAMI6	PAHY20GT
RING SETS	RSMI6T	RSMI6T	RSHY20GT
FREEZE PLUG SET	EPSMI4	EPSMI4	
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI4	CRMI4	
OIL PUMP			
NEW OIL PUMP	OPMI6L	OPMI6	

MODEL	SONATA	SONATA	GENESIS G70 TURBO
ENGINE CODE	**G4CP**	**G4CP**	**THETA II**
DISPLACEMENT	**1997cc(121.8")**	**1997cc(121.8")**	**1998cc(122")**
YEARS	**1996-1998**	**1992-1995**	**2019-2021**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; GDI; Turbo
BORE	85mm(3.346")	85mm(3.346")	86.0mm(3.386")
STROKE	88mm(3.46")	88mm(3.46")	86mm(3.39")
MAIN JOURNAL DIA.	2.2435/2.2441"	2.2435/2.2441"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7709/1.7717"	1.7709/1.7717"	1.8894/1.8890"
VALVE TRAIN			
INTAKE CAMSHAFT	CAMMI6I		
EXHAUST CAMSHAFT	CAMMI6E	CAMMI6E	
LIFTERS	LIFMI6	LIFMI6	
ROCKER ARMS	RAMI6	RAMI6	
INTAKE VALVE	IVMI6	IVMI6	IVHY11
EXHAUST VALVE	EVMI6	EVMI6	EVHY11
VALVE GUIDE			VGHY11
INTAKE GUIDE	IVGMI6	IVGMI6	
EXHAUST GUIDE	EVGMI6	EVGMI6	
VALVE SEALS	VSSC11	VSSC11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP	WPMI6	WPMI6	
TIMING BELT	TBMI6	TBMI6	
TENSIONERS	BTMI23 (hydraulic)	BTMI6 (hydraulic)	
BALANCE SHAFT BELT	TBMI6B	TBMI6B	
BALANCE SHAFT BELT TENSIONER	BTMI6R (roller tens.)	BTMI6R (roller tens.)	

HYUNDAI

MODEL	SANTA FE TURBO	VELOSTER N TURBO	SANTA FE TURBO
ENGINE CODE	THETA II	THETA II	THETA II
DISPLACEMENT	1998cc(122")	1998cc(122")	1998cc(122")
YEARS	2020	2019-2020	2019
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin A	16 VALVE; DOHC 4; GDI; Turbo	16vlv; DOHC; 4; Turbo; vin A
BORE	86.0mm(3.386")	86.0mm(3.386")	86.0mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
BEARING SETS			
MAIN BEARING SET	MBHY11L	MBHY11L	MBHY11L
ROD BEARING SET	RBHY11L	RBHY11L	RBHY11L
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY20GT	CGSHY20SP	CGSHY20GT
HEAD GASKET SET	HSHY20GT	HSHY20SP	HSHY20GT
CONVERSION SET	CBSHY24	CBSHY24	CBSHY24
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY20GT		PAHY20GT
RING SETS	RSHY20GT	RSHY20GT	RSHY20GT

MODEL	SANTA FE TURBO	VELOSTER N TURBO	SANTA FE TURBO
ENGINE CODE	**THETA II**	**THETA II**	**THETA II**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2020**	**2019-2020**	**2019**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin A	16 VALVE; DOHC 4; GDI; Turbo	16vlv; DOHC; 4; Turbo; vin A
BORE	86.0mm(3.386")	86.0mm(3.386")	86.0mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY20GT	PTKHY20GT	PTKHY20GT

HYUNDAI

MODEL	SONATA TURBO	SANTA FE SPORT TURBO	SONATA TURBO
ENGINE CODE	**THETA II**	**THETA II**	**THETA II**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2018-2019**	**2017-2018**	**2015-2017**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin B	16vlv; DOHC; 4; Turbo; vin A	16vlv; DOHC; 4; Turbo; vin B
BORE	86.0mm(3.386")	86.0mm(3.386")	86.0mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
BEARING SETS			
MAIN BEARING SET	MBHY11L	MBHY11L	MBHY11
ROD BEARING SET	RBHY11L	RBHY11L	RBHY11
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY20GT	CGSHY20GT	CGSHY20GT
HEAD GASKET SET	HSHY20GT	HSHY20GT	HSHY20GT
CONVERSION SET	CBSHY24	CBSHY24	CBSHY24
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY20GT	PAHY20GT	PAHY20GT
RING SETS	RSHY20GT	RSHY20GT	RSHY20GT
PIN BUSHINGS	PBHY24	PBHY24	PBHY24
CRANKSHAFT & RODS			
CONNECTING ROD	CRHY20S	CRHY20S	CRHY20S

MODEL	SONATA TURBO	SANTA FE SPORT TURBO	SONATA TURBO
ENGINE CODE	**THETA II**	**THETA II**	**THETA II**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2018-2019**	**2017-2018**	**2015-2017**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin B	16vlv; DOHC; 4; Turbo; vin A	16vlv; DOHC; 4; Turbo; vin B
BORE	86.0mm(3.386")	86.0mm(3.386")	86.0mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKHY20S❶	
GEARLESS TIMING KIT	PTKHY20GT		PTKHY20GT

❶ (03/2011 & later)

HYUNDAI

MODEL	SANTA FE SPORT TURBO	GENESIS COUPE TURBO	SONATA TURBO
ENGINE CODE	**THETA II**	**G4KF**	**THETA II**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2013-2016**	**2013-2014**	**2011-2014**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin A	16vlv; DOHC; 4; Turbo; vin D	16 VALVE; DOHC 4; GDI; Turbo
BORE	86.0mm(3.386")	86.0mm(3.386")	86.0mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBHY11
ROD BEARING SET	RBHY11	RBHY11	RBHY11
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY20S		CGSHY20S
HEAD GASKET SET	HSHY20S		HSHY20S
CONVERSION SET	CBSHY11L		CBSHY11L
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY20S❶ PAHY20FTD❷		PAHY20S❶
RING SETS	RSHY20S		RSHY20S
PIN BUSHINGS	PBHY24	PBHY24	PBHY24
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY20S	CSHY20S	CSHY20S
CONNECTING ROD	CRHY20S	CRHY20S	CRHY20S

❶ (Curved Dome Top)

❷ (Flat Dome Top)

MODEL	SANTA FE SPORT TURBO	GENESIS COUPE TURBO	SONATA TURBO
ENGINE CODE	**THETA II**	**G4KF**	**THETA II**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2013-2016**	**2013-2014**	**2011-2014**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin A	16vlv; DOHC; 4; Turbo; vin D	16 VALVE; DOHC 4; GDI; Turbo
BORE	86.0mm(3.386")	86.0mm(3.386")	86.0mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKHY20S❶		CTKHY20S❶
CAM DRIVE TIMING KIT		PTKHY11C❷	

❶ (03/2011 & later)

❷ 4pc kit (chain, tens, 2 guides)

HYUNDAI

MODEL	TUCSON	GENESIS COUPE TURBO	TUCSON
ENGINE CODE	**THETA II**	**THETA II**	**Nu**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1999cc(109.6")**
YEARS	**2011-2013**	**2010-2012**	**2019-2021**
DESCRIPTION	16 VALVE; DOHC 4; MPI	16vlv; DOHC; 4; Turbo; vin D	16 VALVE; DOHC 4; GDi
BORE	86.0mm(3.386")	86.0mm(3.386")	81.0mm(3.189")
STROKE	86mm(3.39")	86mm(3.39")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.1631/2.1638"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8890"	1.7698" / 1.7706"
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBHY23L❶
ROD BEARING SET	RBHY11	RBHY11	RBHY23❷
THRUST WASHER SET	TWHY11	TWHY11	TWHY23
GASKETS			
FULL GASKET SET	CGSHY19		CGSHY23M
HEAD GASKET SET	HSHY19		HSHY23M
CONVERSION SET	CBSHY11L		CBSHY23
HEAD BOLT SET	HBHY11	HBHY11	HBHY23
PISTONS, RINGS, PLUGS			
PISTONS	PACHR1		
RING SETS	RSCHR1		RSHY23
PIN BUSHINGS			PBHY23
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSHY20S	CSHY23R❸
CONNECTING ROD			CRHY23L
OIL PUMP			
NEW OIL PUMP	OPHY19		

❶ (1 Hole Upper Shell)
❷ (1/2 tabs left, 1/2 tabs right)
❸ (Roller Chain application)

MODEL	TUCSON	GENESIS COUPE TURBO	TUCSON
ENGINE CODE	THETA II	THETA II	Nu
DISPLACEMENT	1998cc(122")	1998cc(122")	1999cc(109.6")
YEARS	2011-2013	2010-2012	2019-2021
DESCRIPTION	16 VALVE; DOHC 4; MPI	16vlv; DOHC; 4; Turbo; vin D	16 VALVE; DOHC 4; GDi
BORE	86.0mm(3.386")	86.0mm(3.386")	81.0mm(3.189")
STROKE	86mm(3.39")	86mm(3.39")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.1631/2.1638"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8890"	1.7698" / 1.7706"
VALVE TRAIN			
LIFTERS			LIFHY23
INTAKE VALVE	IVHY11	IVHY11	IVHY23
EXHAUST VALVE	EVHY11	EVHY11	EVHY23
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
CAM DRIVE TIMING KIT	PTKHY11C❶	PTKHY11C❶	
GEARLESS TIMING KIT			PTKHY23L❷
TIMING COVER			TCHY23F❸

❶ 4pc kit (chain, tens, 2 guides)
❷ (with roller chain)
❸ (12mm engine mount studs)

HYUNDAI

MODEL	VELOSTER	KONA	ELANTRA GT
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2019-2021**	**2018-2021**	**2018-2020**
DESCRIPTION	16vlv; DOHC; 4; MPI; vin F	16vlv; DOHC; 4; MPI; vin A	16vlv; DOHC; 4; GDI; vin E
BORE	81.0mm(3.189")	81mm(3.188")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
BEARING SETS			
MAIN BEARING SET	MBHY23L❶	MBHY23L❶	MBHY23L❶
ROD BEARING SET	RBHY23❷	RBHY23❷	RBHY23❷
THRUST WASHER SET	TWHY23	TWHY23	TWHY23
GASKETS			
FULL GASKET SET	CGSHY23N	CGSHY23N	CGSHY23E
HEAD GASKET SET	HSHY23N	HSHY23N	HSHY23E
CONVERSION SET	CBSHY23	CBSHY23	CBSHY23
HEAD BOLT SET	HBHY23	HBHY23	HBHY23
PISTONS, RINGS, PLUGS			
PISTONS	PAHY23V	PAHY23V	PAHY23E
RING SETS	RSHY23	RSHY23	RSHY23
PIN BUSHINGS	PBHY23	PBHY23	PBHY23
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY23S❸	CSHY23S❸	CSHY23R❹
CONNECTING ROD	CRHY23L	CRHY23L	CRHY23L

❶ (1 Hole Upper Shell)
❷ (1/2 tabs left, 1/2 tabs right)
❸ (Silent Chain application)
❹ (Roller Chain application)

MODEL	VELOSTER	KONA	ELANTRA GT
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2019-2021**	**2018-2021**	**2018-2020**
DESCRIPTION	16vlv; DOHC; 4; MPI; vin F	16vlv; DOHC; 4; MPI; vin A	16vlv; DOHC; 4; GDI; vin E
BORE	81.0mm(3.189")	81mm(3.188")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
VALVE TRAIN			
LIFTERS	LIFHY23	LIFHY23	LIFHY23
INTAKE VALVE	IVHY23	IVHY23	IVHY23
EXHAUST VALVE	EVHY23	EVHY23	EVHY23
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY23V❶	PTKHY23V❶	PTKHY23L❷
TIMING COVER			TCHY23E❸

❶ (Silent Chain application)
❷ (with roller chain)
❸ (10mm engine mount stud)

HYUNDAI

MODEL	ELANTRA	SONATA HYBRID	TUCSON
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2017-2020**	**2016-2019**	**2016-2018**
DESCRIPTION	16vlv; DOHC; 4; MPI; vin F	16vlv; DOHC; 4; PHEV; vin 2	16 VALVE; DOHC 4; GDi
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
BEARING SETS			
MAIN BEARING SET	MBHY23L❶	MBHY23L❶	MBHY23L❶
ROD BEARING SET	RBHY23❷	RBHY23❷	RBHY23❷
THRUST WASHER SET	TWHY23	TWHY23	TWHY23
GASKETS			
FULL GASKET SET	CGSHY23N		CGSHY23E
HEAD GASKET SET	HSHY23N		HSHY23E
CONVERSION SET	CBSHY23		CBSHY23
HEAD BOLT SET	HBHY23	HBHY23	HBHY23
PISTONS, RINGS, PLUGS			
PISTONS	PAHY23V		PAHY23E
RING SETS	RSHY23		RSHY23
PIN BUSHINGS	PBHY23	PBHY23	PBHY23
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY23S❸	CSHY23R❹	CSHY23R❹
CONNECTING ROD	CRHY23L	CRHY23L	CRHY23L

❶ (1 Hole Upper Shell)
❷ (1/2 tabs left, 1/2 tabs right)
❸ (Silent Chain application)
❹ (Roller Chain application)

MODEL	ELANTRA	SONATA HYBRID	TUCSON
ENGINE CODE	Nu	Nu	Nu
DISPLACEMENT	1999cc(109.6")	1999cc(109.6")	1999cc(109.6")
YEARS	2017-2020	2016-2019	2016-2018
DESCRIPTION	16vlv; DOHC; 4; MPI; vin F	16vlv; DOHC; 4; PHEV; vin 2	16 VALVE; DOHC 4; GDi
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
VALVE TRAIN			
LIFTERS	LIFHY23	LIFHY23	LIFHY23
INTAKE VALVE	IVHY23	IVHY23	IVHY23
EXHAUST VALVE	EVHY23	EVHY23	EVHY23
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY23V❶	PTKHY23L❷	PTKHY23L❷
TIMING COVER			TCHY23F❸

❶ (Silent Chain application)
❷ (with roller chain)
❸ (12mm engine mount studs)

HYUNDAI

MODEL	ELANTRA GT	ELANTRA Sport	ELANTRA GT
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2016-2017**	**2016**	**2014-2015**
DESCRIPTION	16vlv; DOHC; 4; GDI; vin H	16vlv; DOHC; 4; GDI; vin H	16vlv; DOHC; 4; GDI; vin H
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
BEARING SETS			
MAIN BEARING SET	MBHY23L❶	MBHY23L❶	MBHY23 (2014 only) MBHY23L (2015 only)
ROD BEARING SET	RBHY23❷	RBHY23❷	RBHY23❷
THRUST WASHER SET	TWHY23	TWHY23	TWHY23
GASKETS			
FULL GASKET SET	CGSHY23E	CGSHY23E	CGSHY23E
HEAD GASKET SET	HSHY23E	HSHY23E	HSHY23E
CONVERSION SET	CBSHY23	CBSHY23	CBSHY23
HEAD BOLT SET	HBHY23	HBHY23	HBHY23
PISTONS, RINGS, PLUGS			
PISTONS	PAHY23E	PAHY23E	PAHY23E
RING SETS	RSHY23	RSHY23	RSHY23
PIN BUSHINGS	PBHY23	PBHY23	PBHY23
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY23R❸	CSHY23R❸	CSHY23R❸
CONNECTING ROD	CRHY23L	CRHY23L	CRHY23L
OIL PUMP			
NEW OIL PUMP			OPHY23K❹

❶ (1 Hole Upper Shell)
❷ (1/2 tabs left, 1/2 tabs right)
❸ (Roller Chain application)
❹ (cover, 12mm rotor set, & screw kit)

MODEL	ELANTRA GT	ELANTRA Sport	ELANTRA GT
ENGINE CODE	Nu	Nu	Nu
DISPLACEMENT	1999cc(109.6")	1999cc(109.6")	1999cc(109.6")
YEARS	2016-2017	2016	2014-2015
DESCRIPTION	16vlv; DOHC; 4; GDI; vin H	16vlv; DOHC; 4; GDI; vin H	16vlv; DOHC; 4; GDI; vin H
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
VALVE TRAIN			
LIFTERS	LIFHY23	LIFHY23	LIFHY23
INTAKE VALVE	IVHY23	IVHY23	IVHY23
EXHAUST VALVE	EVHY23	EVHY23	EVHY23
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY23L❶	PTKHY23L❶	PTKHY23L❶
TIMING COVER	TCHY23E❷	TCHY23E❷	TCHY23E❷

❶ (with roller chain)

❷ (10mm engine mount stud)

HYUNDAI

MODEL	TUCSON	ELANTRA ELANTRA Sport	ELANTRA COUPE
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2014-2015**	**2014-2015**	**2014**
DESCRIPTION	16 VALVE; DOHC 4; GDi	16vlv; DOHC; 4; GDI; vin H	16vlv; DOHC; 4; GDI; vin H
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
BEARING SETS			
MAIN BEARING SET	MBHY23❶	MBHY23L (2015 only) MBHY23 (2014 only)	MBHY23❶
ROD BEARING SET	RBHY23❷	RBHY23❷	RBHY23❷
THRUST WASHER SET	TWHY23	TWHY23	TWHY23
GASKETS			
FULL GASKET SET	CGSHY23E	CGSHY23E	CGSHY23E
HEAD GASKET SET	HSHY23E	HSHY23E	HSHY23E
CONVERSION SET	CBSHY23	CBSHY23	CBSHY23
HEAD BOLT SET	HBHY23	HBHY23	HBHY23
PISTONS, RINGS, PLUGS			
PISTONS	PAHY23E	PAHY23E	PAHY23E
RING SETS	RSHY23	RSHY23	RSHY23
PIN BUSHINGS	PBHY23	PBHY23	PBHY23
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY23R❸	CSHY23R❸	CSHY23R❸
CONNECTING ROD	CRHY23L	CRHY23L	CRHY23L
OIL PUMP			
NEW OIL PUMP	OPHY23K❹		OPHY23K❹

❶ (2 Hole Upper Shell)
❷ (1/2 tabs left, 1/2 tabs right)
❸ (Roller Chain application)
❹ (cover, 12mm rotor set, & screw kit)

MODEL	TUCSON	ELANTRA ELANTRA Sport	ELANTRA COUPE
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2014-2015**	**2014-2015**	**2014**
DESCRIPTION	16 VALVE; DOHC 4; GDi	16vlv; DOHC; 4; GDI; vin H	16vlv; DOHC; 4; GDI; vin H
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
VALVE TRAIN			
LIFTERS	LIFHY23	LIFHY23	LIFHY23
INTAKE VALVE	IVHY23	IVHY23	IVHY23
EXHAUST VALVE	EVHY23	EVHY23	EVHY23
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY23L❶	PTKHY23L❶	PTKHY23L❶
TIMING COVER	TCHY23F❷	TCHY23E❸	TCHY23E❸

❶ (with roller chain)
❷ (12mm engine mount studs)
❸ (10mm engine mount stud)

HYUNDAI

MODEL	SONATA	SONATA (99-05) SANTA FE	TUCSON
ENGINE CODE	**G4CS**	**G4JS SIRIUS**	**THETA II**
DISPLACEMENT	**2350cc(143.4")**	**2351cc(143.4")**	**2359cc(144")**
YEARS	**1989-1991**	**1999-2006**	**2018-2021**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4;F.INJ.	16 VALVE DOHC 4; GDI.
BORE	86.5mm(3.406")	86.5mm(3.405")	88mm(3.464")
STROKE	100mm(3.94")	100mm(3.94")	97mm(3.82")
MAIN JOURNAL DIA.	2.2435/2.2441"	2.2434/2.2442"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7709/1.7717"	1.7709/1.7717"	1.8894/1.8890"
ENGINE KITS			
GOLD KIT		EKHY6G	
BRONZE KITS		EKHY6B	
MAJOR KIT	EKMI5M	EKHY6M	
RE-RING KIT	EKMI5R	EKHY6R	
BEARING SETS			
MAIN BEARING SET	MBC17	MBMI24	MBHY11L
ROD BEARING SET	RBC15L	RBMI23	RBHY11L
THRUST WASHER SET		TWMI24	TWHY11
GASKETS			
FULL GASKET SET	CGSMI5	CGSHY6	CGSHY24SP
HEAD GASKET SET	HSMI5	HSHY6	HSHY24SP
HEAD GASKETS	HDGMI5	HDGHY6	
CONVERSION SET	CBSMI4	CBSHY6	CBSHY24
HEAD BOLT SET		HBHY6	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAMI5	PAHY6	PAHY24
RING SETS	RSMI5	RSMI24	RSHY24
PIN BUSHINGS			PBHY24
FREEZE PLUG SET	EPSMI4	EPSMI4	
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSHY11
CONNECTING ROD	CRMI4	CRHY6	CRHY24❶
OIL PUMP			
NEW OIL PUMP		OPHY6	

❶ (tapered pin end)

MODEL	SONATA	SONATA (99-05) SANTA FE	TUCSON
ENGINE CODE	G4CS	G4JS SIRIUS	THETA II
DISPLACEMENT	2350cc(143.4")	2351cc(143.4")	2359cc(144")
YEARS	1989-1991	1999-2006	2018-2021
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4;F.INJ.	16 VALVE DOHC 4; GDI.
BORE	86.5mm(3.406")	86.5mm(3.405")	88mm(3.464")
STROKE	100mm(3.94")	100mm(3.94")	97mm(3.82")
MAIN JOURNAL DIA.	2.2435/2.2441"	2.2434/2.2442"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7709/1.7717"	1.7709/1.7717"	1.8894/1.8890"
VALVE TRAIN			
LIFTERS	ALAMI4H	LIFMI6	
ROCKER ARMS	RAMI5A❶	RAMI6	
	RAMI5B❷		
	RAMI5C❸		
	RAMI5D❹		
ROCKER ARM SHAFTS	RASIMI4		
ROCKER ARM SHAFTS	RASEMI4		
INTAKE VALVE	IVMI5	IVMI6	IVHY11
EXHAUST VALVE	EVMI5	EVMI6	EVHY11
VALVE GUIDE			VGHY11
INTAKE GUIDE	IVGC21	IVGMI6	
EXHAUST GUIDE	EVGC23	EVGMI6	
SUB VALVES	CAVC23		
VALVE SEALS	VSSC17	VSSC11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP		WPHY6	
GEARLESS TIMING KIT			PTKHY20GT
TIMING BELT	TBMI5	TBHY6	
TENSIONERS	BTMI4	BTMI23C (hydraulic)	
BALANCE SHAFT BELT	TBMI4B	TBHY6B	

❶ (#1 & 3 cyl int.)
❷ (#2 & 4 cyl int.)
❸ (#1 & 3 cyl ex.)
❹ (#2 & 4 cyl ex.)

HYUNDAI

MODEL	SANTA FE	SONATA	SANTA FE SPORT
ENGINE CODE	THETA II	THETA II	THETA II
DISPLACEMENT	2359cc(144")	2359cc(144")	2359cc(144")
YEARS	2019-2020	2015-2019	2016-2018
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin D	16vlv; DOHC; 4; GDI; vin F	16vlv; DOHC; 4; F.INJ; vin B
BORE	88mm(3.464")	88mm(3.464")	88mm(3.464")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
BEARING SETS			
MAIN BEARING SET	MBHY11L	MBHY11L	MBHY11L
ROD BEARING SET	RBHY11L	RBHY11L	RBHY11L
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY24S	CGSHY24S	CGSHY24S
HEAD GASKET SET	HSHY24S	HSHY24S	HSHY24S
CONVERSION SET	CBSHY24	CBSHY24	CBSHY24
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY24	PAHY24	PAHY24
RING SETS	RSHY24	RSHY24	RSHY24
PIN BUSHINGS	PBHY24	PBHY24	PBHY24
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY11	CSHY11	CSHY11
CONNECTING ROD	CRHY24❶	CRHY24❶	CRHY24❶

❶ (tapered pin end)

MODEL	SANTA FE	SONATA	SANTA FE SPORT
ENGINE CODE	THETA II	THETA II	THETA II
DISPLACEMENT	2359cc(144")	2359cc(144")	2359cc(144")
YEARS	2019-2020	2015-2019	2016-2018
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin D	16vlv; DOHC; 4; GDI; vin F	16vlv; DOHC; 4; F.INJ; vin B
BORE	88mm(3.464")	88mm(3.464")	88mm(3.464")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY20GT	PTKHY20GT	PTKHY20GT

HYUNDAI

MODEL	TUCSON	SANTA FE SPORT	SONATA HYBRID
ENGINE CODE	THETA II	THETA II	G4KK
DISPLACEMENT	2359cc(144")	2359cc(144")	2359cc(144")
YEARS	2014-2015	2013-2015	2011-2015
DESCRIPTION	16 VALVE DOHC 4; GDI.	16 VALVE DOHC 4; GDI.	16 vlv, DOHC 4; F.INJ. FHEV
BORE	88mm(3.464")	88mm(3.464")	88mm(3.464")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBHY11
ROD BEARING SET	RBHY11	RBHY11	RBHY11
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY24	CGSHY24 (up to10/2015)	CGSHY24H
HEAD GASKET SET	HSHY24	HSHY24 (up to10/2015)	HSHY24H
HEAD GASKETS			HDGHY11
CONVERSION SET	CBSHY24	CBSHY24	CBSHY24H
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY24	PAHY24	PAHY24H
RING SETS	RSHY24	RSHY24	RSHY24H
PIN BUSHINGS	PBHY24	PBHY24	PBHY24
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY11	CSHY11	CSHY11
CONNECTING ROD	CRHY24❶	CRHY24❶	CRHY24❶

❶ (tapered pin end)

MODEL	TUCSON	SANTA FE SPORT	SONATA HYBRID
ENGINE CODE	**THETA II**	**THETA II**	**G4KK**
DISPLACEMENT	**2359cc(144")**	**2359cc(144")**	**2359cc(144")**
YEARS	**2014-2015**	**2013-2015**	**2011-2015**
DESCRIPTION	16 VALVE DOHC 4; GDI.	16 VALVE DOHC 4; GDI.	16 vlv, DOHC 4; F.INJ. FHEV
BORE	88mm(3.464")	88mm(3.464")	88mm(3.464")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP	WPHY24	WPHY24	
TIMING CHAIN KIT	CTKHY20S❶	CTKHY20S❶	CTKHY21 Hybrid Only
CAM DRIVE TIMING KIT			PTKHY11C Hybrid Only
GEARLESS TIMING KIT			PTKHY21

❶ (03/2011 & later)

HYUNDAI

MODEL	SONATA	TUCSON	SANTA FE
ENGINE CODE	THETA II	THETA II	THETA II
DISPLACEMENT	2359cc(144")	2359cc(144")	2359cc(144")
YEARS	2011-2014	2010-2013	2010-2012
DESCRIPTION	16 VALVE DOHC 4; GDI. Gas	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	88mm(3.464")	88mm(3.464")	88mm(3.464")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
ENGINE KITS			
MAJOR KIT	EKHY24M		
RE-RING KIT	EKHY24R		
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBHY11
ROD BEARING SET	RBHY11	RBHY11	RBHY11
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY24❶	CGSHY21SF	CGSHY21SF
HEAD GASKET SET	HSHY24❶	HSHY21SF	HSHY21SF
HEAD GASKETS		HDGHY11	HDGHY11
CONVERSION SET	CBSHY24	CBSHY11L	CBSHY11L
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY24	PAHY21	PAHY21
RING SETS	RSHY24	RSHY11	RSHY11
PIN BUSHINGS	PBHY24		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY11	CSHY11	CSHY11
CONNECTING ROD	CRHY24❷	CRHY11	CRHY11

❶ (auto trans. only)

❷ (tapered pin end)

MODEL	SONATA	TUCSON	SANTA FE
ENGINE CODE	THETA II	THETA II	THETA II
DISPLACEMENT	2359cc(144")	2359cc(144")	2359cc(144")
YEARS	2011-2014	2010-2013	2010-2012
DESCRIPTION	16 VALVE DOHC 4; GDI. Gas	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	88mm(3.464")	88mm(3.464")	88mm(3.464")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP	WPHY24	WPHY24 (2013 only)	
TIMING CHAIN KIT	CTKHY24❶	CTKHY21❷	CTKHY21L❷
CAM DRIVE TIMING KIT		PTKHY11C❸	PTKHY11C❸
GEARLESS TIMING KIT		PTKHY21	

❶ (Cam Sprockets not included)
❷ (Cam Gear not included)
❸ 4pc kit (chain, tens, 2 guides)

HYUNDAI

MODEL	SONATA	SONATA	SONATA
ENGINE CODE	THETA II	THETA II	G6BW DELTA
DISPLACEMENT	2359cc(144")	2359cc(144")	2493cc(152.1")
YEARS	2009-2010	2006-2008	1999-2001
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	88mm(3.464")	88mm(3.464")	84mm(3.307")
STROKE	97mm(3.82")	97mm(3.82")	75mm(2.95")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.4402/2.4409"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8891/1.8898
ENGINE KITS			
GOLD KIT			EKHY7G
BRONZE KITS			EKHY7B
MAJOR KIT		EKHY11M	EKHY7M
RE-RING KIT		EKHY11R	EKHY7R
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBHY7
ROD BEARING SET	RBHY11	RBHY11	RBHY7 (std O.D.)
THRUST WASHER SET	TWHY11	TWHY11	TWHY7 (80mm OD)
			TWHY7L (82mm OD)
GASKETS			
FULL GASKET SET	CGSHY11L❶	CGSHY11	CGSHY7
HEAD GASKET SET	HSHY11L❶	HSHY11	HSHY7
HEAD GASKETS	HDGHY11	HDGHY11	HDGHY7 (set of 2)
CONVERSION SET	CBSHY11L	CBSHY11L	CBSHY7
HEAD BOLT SET	HBHY11	HBHY11	HBHY7
PISTONS, RINGS, PLUGS			
PISTONS	PAHY21	PAHY11	PAHY7
RING SETS	RSHY11	RSHY11	RSHY7
FREEZE PLUG SET			EPSHY7
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY11	CSHY11	CSHY7
CONNECTING ROD	CRHY11	CRHY11	CRHY7
OIL PUMP			
NEW OIL PUMP			OPHY7

❶ Excludes California Emissions

MODEL	SONATA	SONATA	SONATA
ENGINE CODE	THETA II	THETA II	G6BW DELTA
DISPLACEMENT	2359cc(144")	2359cc(144")	2493cc(152.1")
YEARS	2009-2010	2006-2008	1999-2001
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	88mm(3.464")	88mm(3.464")	84mm(3.307")
STROKE	97mm(3.82")	97mm(3.82")	75mm(2.95")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.4402/2.4409"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8891/1.8898
VALVE TRAIN			
LIFTERS			LIFHY4
INTAKE VALVE	IVHY11	IVHY11	IVHY7
EXHAUST VALVE	EVHY11	EVHY11	EVHY7
VALVE GUIDE	VGHY11	VGHY11	
INTAKE GUIDE			IVGHY7
EXHAUST GUIDE			EVGHY7
VALVE SEALS	VSSHY11	VSSHY11	VSSTO15
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKHY21❶	CTKHY21❶	
CAM DRIVE TIMING KIT	PTKHY11C❷	PTKHY11C❷	
GEARLESS TIMING KIT	PTKHY21	PTKHY21	
TIMING BELT			TBHY7
TENSIONERS			BTHY7L❸ BTHY7R❹ BTHY7H (hydraulic)

❶ (Cam Gear not included)
❷ 4pc kit (chain, tens, 2 guides)
❸ (left tensioner)
❹ (right tensioner)

HYUNDAI

MODEL	SANTA FE	SONATA (02-05) SANTA FE (01-06) TIBURON (03-08) TUCSON (05-09)	XG300
ENGINE CODE	**G6A5 MU**	**G6BA DELTA**	**G6AT**
DISPLACEMENT	**2657cc(162.1")**	**2657cc(162.1")**	**2972cc(181.2")**
YEARS	**2007-2009**	**2001-2009**	**2001**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	86.7mm(3.413")	86.7mm(3.413")	91.1mm(3.587")
STROKE	75mm(2.95")	75mm(2.95")	76mm(2.992")
MAIN JOURNAL DIA.	2.4402/2.4409"	2.4402/2.4409"	2.3614/2.3622"
ROD JOURNAL DIA.	1.8891/1.8898	1.8891/1.8898	1.9677/1.9685"
BEARING SETS			
MAIN BEARING SET	MBHY7	MBHY7	MBMI27
ROD BEARING SET	RBHY7	RBHY7	RBMI9
THRUST WASHER SET	TWHY7 (80mm OD) TWHY7L (82mm OD)	TWHY7 (80mm OD) TWHY7L (82mm OD)	TWMI9
GASKETS			
FULL GASKET SET		CGSHY8	CGSHY10
HEAD GASKET SET		HSHY8	HSHY10
CONVERSION SET	CBSHY7	CBSHY7	CBSHY9
HEAD BOLT SET	HBHY7	HBHY7	
PISTONS, RINGS, PLUGS			
PISTONS	PAHY12	PAHY8	
RING SETS	RSHY12	RSHY8	RSMI10
FREEZE PLUG SET		EPSHY7	EPSMI9
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSHY7	
CONNECTING ROD		CRHY7	CRMI9
OIL PUMP			
NEW OIL PUMP	OPHY12	OPHY7	OPHY10

MODEL	SANTA FE	SONATA (02-05) SANTA FE (01-06) TIBURON (03-08) TUCSON (05-09)	XG300
ENGINE CODE	**G6A5 MU**	**G6BA DELTA**	**G6AT**
DISPLACEMENT	**2657cc(162.1")**	**2657cc(162.1")**	**2972cc(181.2")**
YEARS	**2007-2009**	**2001-2009**	**2001**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	86.7mm(3.413")	86.7mm(3.413")	91.1mm(3.587")
STROKE	75mm(2.95")	75mm(2.95")	76mm(2.992")
MAIN JOURNAL DIA.	2.4402/2.4409"	2.4402/2.4409"	2.3614/2.3622"
ROD JOURNAL DIA.	1.8891/1.8898	1.8891/1.8898	1.9677/1.9685"
VALVE TRAIN			
LIFTERS		LIFHY4	LIFMI6
ROCKER ARMS			RAMI6
INTAKE VALVE	IVHY12	IVHY7	IVHY9
EXHAUST VALVE	EVHY12	EVHY7	EVHY9
INTAKE GUIDE	IVGHY7	IVGHY7	IVGMI6
EXHAUST GUIDE	EVGHY7	EVGHY7	EVGMI6
VALVE SEALS	VSSTO15	VSSTO15	VSSC11
WATER PUMP & TIMING			
WATER PUMP		WPHY7	WPHY9
TIMING BELT	TBHY12	TBHY7	TBHY10
TENSIONERS	BTHY7R (idler-right)	BTHY7L❶ BTHY7R❷ BTHY7H (hydraulic)	BTHY9H (hydraulic) BTHY9R❸ BTHY9I (idler)

❶ (left tensioner)
❷ (right tensioner)
❸ (tension roller)

HYUNDAI

MODEL	SONATA	SONATA	AZERA
ENGINE CODE	G6AT	G6AT	G6DB LAMBDA
DISPLACEMENT	2972cc(181.2")	2972cc(181.2")	3342CC
YEARS	1996-1998	1990-1995	2010-2011
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; MPI
BORE	91.1mm(3.587")	91.1mm(3.587")	92mm(3.622")
STROKE	76mm(2.99")	76mm(2.99")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.7142/2.7149"
ROD JOURNAL DIA.	1.9677/1.9685	1.9677/1.9685	2.1635/2.1642"
ENGINE KITS			
GOLD KIT	EKMI9SG		
BRONZE KITS	EKMI9SB		
MAJOR KIT	EKMI9SM	EKMI9M	
RE-RING KIT	EKMI9SR	EKMI9R	
BEARING SETS			
MAIN BEARING SET	MBMI9	MBMI9	MBHY14
ROD BEARING SET	RBMI9	RBMI9	RBHY14❶
THRUST WASHER SET	TWMI9	TWMI9	TWHY14
GASKETS			
FULL GASKET SET	CGSMI9S	CGSMI9	
HEAD GASKET SET	HSMI9S	HSMI9	
HEAD GASKETS	HDGMI9	HDGMI9	
CONVERSION SET	CBSMI9	CBSMI9	
HEAD BOLT SET	HBMI9	HBMI9	HBHY14
PISTONS, RINGS, PLUGS			
PISTONS	PAMI10	PAMI9 (sets only)	
RING SETS	RSMI10	RSMI9	RSHY13
FREEZE PLUG SET	EPSMI9	EPSMI9	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI9	CSMI9	
CONNECTING ROD	CRMI9	CRMI9	
OIL PUMP			
NEW OIL PUMP	OPMI10S	OPMI10L	OPHY14

❶ (18mm width)

MODEL	SONATA	SONATA	AZERA
ENGINE CODE	G6AT	G6AT	G6DB LAMBDA
DISPLACEMENT	2972cc(181.2")	2972cc(181.2")	3342CC
YEARS	1996-1998	1990-1995	2010-2011
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; MPI
BORE	91.1mm(3.587")	91.1mm(3.587")	92mm(3.622")
STROKE	76mm(2.99")	76mm(2.99")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.7142/2.7149"
ROD JOURNAL DIA.	1.9677/1.9685	1.9677/1.9685	2.1635/2.1642"
VALVE TRAIN			
LIFTERS	ALAMI4H	ALAMI4H	
ROCKER ARMS	RAMI9R (roller type)	RAMI9R (roller type)	
ROCKER ARM SHAFTS	RASIMI9	RASIMI9	
ROCKER ARM SHAFTS	RASEMI9	RASEMI9	
INTAKE VALVE	IVMI9	IVMI9	IVHY14
EXHAUST VALVE	EVMI9	EVMI9	EVHY14
VALVE GUIDE			VGHY14
INTAKE GUIDE	IVGMI9	IVGMI9	
EXHAUST GUIDE	EVGMI9	EVGMI9	
VALVE SEALS	VSSC17	VSSC17	VSSHY14
WATER PUMP & TIMING			
WATER PUMP	WPMI9	WPMI9	
TIMING BELT	TBMI9	TBMI9	
TENSIONERS	BTMI9	BTMI9	

HYUNDAI

MODEL	SANTA FE (07-09) SONATA (07-10)	AZERA	SANTA FE SONATA
ENGINE CODE	**G6DB LAMBDA**	**G6DB LAMBDA**	**G6DB LAMBDA**
DISPLACEMENT	**3342CC**	**3342CC**	**3342CC**
YEARS	**2007-2010**	**2007-2009**	**2006-2007**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
ENGINE KITS			
GOLD KIT	EKHY13G		
MAJOR KIT	EKHY13M		
RE-RING KIT	EKHY13R		
BEARING SETS			
MAIN BEARING SET	MBHY14	MBHY14	MBHY14
ROD BEARING SET	RBHY14❶	RBHY14❶	RBHY14❶
THRUST WASHER SET	TWHY14	TWHY14	TWHY14
GASKETS			
FULL GASKET SET	CGSHY13❷	CGSHY13	CGSHY13E❸
HEAD GASKET SET	HSHY13❷	HSHY13	HSHY13E❸
CONVERSION SET	CBSHY14	CBSHY14	CBSHY14
HEAD BOLT SET	HBHY14	HBHY14	HBHY14
PISTONS, RINGS, PLUGS			
PISTONS	PAHY13		PAHY13
RING SETS	RSHY13	RSHY13	RSHY13
OIL PUMP			
NEW OIL PUMP	OPHY14	OPHY14	OPHY14

❶ (18mm width)
❷ (after 04/20/07)
❸ (up to 04/20/07)

MODEL	SANTA FE (07-09) SONATA (07-10)	AZERA	SANTA FE SONATA
ENGINE CODE	**G6DB LAMBDA**	**G6DB LAMBDA**	**G6DB LAMBDA**
DISPLACEMENT	**3342CC**	**3342CC**	**3342CC**
YEARS	**2007-2010**	**2007-2009**	**2006-2007**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	IVHY14
EXHAUST VALVE	EVHY14	EVHY14	EVHY14
VALVE GUIDE	VGHY14	VGHY14	VGHY14
VALVE SEALS	VSSHY14	VSSHY14	VSSHY14

HYUNDAI

MODEL	GENESIS G90 GENESIS G80 GENESIS G70 TURBO	SANTA FE (16-18) SANTA FE XL	AZERA
ENGINE CODE	**G6DH LAMBDA**	**G6DH LAMBDA**	**G6DH LAMBDA**
DISPLACEMENT	**3342cc(203.9")**	**3342cc(203.9")**	**3342cc(203.9")**
YEARS	**2017-2020**	**2016-2019**	**2016-2017**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. Turbo	24 VALVE; DOHC V6; GDI	24 VALVE; DOHC V6; GDI
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
BEARING SETS			
MAIN BEARING SET	MBHY14L	MBHY14L	MBHY14L
ROD BEARING SET	RBHY14L❶	RBHY14L❶	RBHY14L❶
THRUST WASHER SET	TWHY14	TWHY14	TWHY14
GASKETS			
FULL GASKET SET		CGSHY25	CGSHY25
HEAD GASKET SET		HSHY25	HSHY25
CONVERSION SET		CBSHY17	CBSHY17
HEAD BOLT SET	HBHY14	HBHY14	HBHY14
PISTONS, RINGS, PLUGS			
PISTONS		PAHY25	PAHY25
RING SETS		RSHY25	RSHY25
CRANKSHAFT & RODS			
CONNECTING ROD		CRHY25	CRHY25
OIL PUMP			
NEW OIL PUMP		OPHY17	OPHY17

❶ (16mm width)

MODEL	GENESIS G90 GENESIS G80 GENESIS G70 TURBO	SANTA FE (16-18) SANTA FE XL	AZERA
ENGINE CODE	**G6DH LAMBDA**	**G6DH LAMBDA**	**G6DH LAMBDA**
DISPLACEMENT	**3342cc(203.9")**	**3342cc(203.9")**	**3342cc(203.9")**
YEARS	**2017-2020**	**2016-2019**	**2016-2017**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. Turbo	24 VALVE; DOHC V6; GDI	24 VALVE; DOHC V6; GDI
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	IVHY14
EXHAUST VALVE		EVHY14	EVHY14
VALVE GUIDE	VGHY14	VGHY14	VGHY14
VALVE SEALS		VSSHY14	VSSHY14
WATER PUMP & TIMING			
GEARLESS TIMING KIT		PTKHY25L❶	PTKHY25L❶

❶ (with silent type oil pump chain)

HYUNDAI

MODEL	AZERA	SANTA FE SANTA FE XL	AZERA
ENGINE CODE	G6DH LAMBDA	G6DH LAMBDA	G6DH LAMBDA
DISPLACEMENT	3342cc(203.9")	3342cc(203.9")	3342cc(203.9")
YEARS	2015	2014-2015	2012-2014
DESCRIPTION	24 VALVE; DOHC V6; GDI	24 VALVE; DOHC V6; GDI	24 VALVE; DOHC V6; GDI
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
BEARING SETS			
MAIN BEARING SET	MBHY14	MBHY14L	MBHY14
ROD BEARING SET	RBHY14L❶	RBHY14L❶	RBHY14L❶
THRUST WASHER SET	TWHY14	TWHY14	TWHY14
GASKETS			
FULL GASKET SET	CGSHY25	CGSHY25	CGSHY25
HEAD GASKET SET	HSHY25	HSHY25	HSHY25
CONVERSION SET	CBSHY17	CBSHY17	CBSHY17
HEAD BOLT SET	HBHY14	HBHY14	HBHY14
PISTONS, RINGS, PLUGS			
PISTONS	PAHY25	PAHY25	PAHY25
RING SETS	RSHY25	RSHY25	RSHY25
CRANKSHAFT & RODS			
CONNECTING ROD	CRHY25	CRHY25	CRHY25
OIL PUMP			
NEW OIL PUMP	OPHY17	OPHY17	OPHY17

❶ (16mm width)

MODEL	AZERA	SANTA FE SANTA FE XL	AZERA
ENGINE CODE	**G6DH LAMBDA**	**G6DH LAMBDA**	**G6DH LAMBDA**
DISPLACEMENT	**3342cc(203.9")**	**3342cc(203.9")**	**3342cc(203.9")**
YEARS	**2015**	**2014-2015**	**2012-2014**
DESCRIPTION	24 VALVE; DOHC V6; GDI	24 VALVE; DOHC V6; GDI	24 VALVE; DOHC V6; GDI
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	IVHY14
EXHAUST VALVE	EVHY14	EVHY14	EVHY14
VALVE GUIDE	VGHY14	VGHY14	VGHY14
VALVE SEALS	VSSHY14	VSSHY14	VSSHY14
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY25❶ PTKHY25L❷	PTKHY25❶ PTKHY25L❷	PTKHY25❶

❶ (with Roller Type Oil Pump Chain)

❷ (with silent type oil pump chain)

HYUNDAI

MODEL	SANTA FE SANTA FE XL	SANTA FE	XG350 SANTA FE (03-06)
ENGINE CODE	**G6DH LAMBDA**	**LAMBDA II**	**G6AU SIGMA**
DISPLACEMENT	**3342cc(203.9")**	**3470cc(211.8")**	**3497cc(213.4")**
YEARS	**2013**	**2010-2012**	**2002-2006**
DESCRIPTION	24 VALVE; DOHC V6; GDI	24 VALVE; DOHC V6; SFI	24 VALVE; DOHC V6; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	93mm(3.661")
STROKE	83.8mm(3.30")	87mm(3.43")	85.8mm(3.38")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.5190/2.5197"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1646/2.1654
ENGINE KITS			
GOLD KIT			EKHY9G
MAJOR KIT			EKHY9M
RE-RING KIT			EKHY9R
BEARING SETS			
MAIN BEARING SET	MBHY14	MBHY14	MBMI30
ROD BEARING SET	RBHY14L❶	RBHY14❷	RBMI30
THRUST WASHER SET	TWHY14	TWHY14	TWMI30
GASKETS			
FULL GASKET SET	CGSHY25	CGSHY17	CGSHY9
HEAD GASKET SET	HSHY25	HSHY17	HSHY9
HEAD GASKETS			HDGHY9 (set of 2)
CONVERSION SET	CBSHY17	CBSHY17	CBSHY9
HEAD BOLT SET	HBHY14	HBHY14	HBMI9
PISTONS, RINGS, PLUGS			
PISTONS	PAHY25	PAHY17	PAHY9
RING SETS	RSHY25	RSHY17	RSHY9
PIN BUSHINGS			PBD33
FREEZE PLUG SET			EPSMI9
CRANKSHAFT & RODS			
CONNECTING ROD	CRHY25		CRMI30
OIL PUMP			
NEW OIL PUMP	OPHY17	OPHY17	OPHY9

❶ (16mm width)
❷ (18mm width)

MODEL	SANTA FE SANTA FE XL	SANTA FE	XG350 SANTA FE (03-06)
ENGINE CODE	**G6DH LAMBDA**	**LAMBDA II**	**G6AU SIGMA**
DISPLACEMENT	**3342cc(203.9")**	**3470cc(211.8")**	**3497cc(213.4")**
YEARS	**2013**	**2010-2012**	**2002-2006**
DESCRIPTION	24 VALVE; DOHC V6; GDI	24 VALVE; DOHC V6; SFI	24 VALVE; DOHC V6; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	93mm(3.661")
STROKE	83.8mm(3.30")	87mm(3.43")	85.8mm(3.38")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.5190/2.5197"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1646/2.1654
VALVE TRAIN			
LIFTERS			LIFMI6
ROCKER ARMS			RAMI6
INTAKE VALVE	IVHY14	IVHY14	IVHY9
EXHAUST VALVE	EVHY14	EVHY14	EVHY9
VALVE GUIDE	VGHY14	VGHY14	
INTAKE GUIDE			IVGMI6
EXHAUST GUIDE			EVGMI6
VALVE SEALS	VSSHY14	VSSHY14	VSSC11
WATER PUMP & TIMING			
WATER PUMP			WPHY9
GEARLESS TIMING KIT	PTKHY25❶		
TIMING BELT			TBHY9
TENSIONERS			BTHY9H BTHY9R❷ BTHY9I (idler)

❶ (with Roller Type Oil Pump Chain)

❷ (tension roller)

HYUNDAI

MODEL	PALISADE	GENESIS G80	GENESIS
ENGINE CODE	**3.8 LAMBDA**	**3.8 LAMBDA**	**3.8 LAMBDA**
DISPLACEMENT	**3778cc(230.5")**	**3778cc(230.5")**	**3778cc(230.5")**
YEARS	**2020-2021**	**2017-2020**	**2015-2016**
DESCRIPTION	24vlv; DOHC; V6; GDI; vin E	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
BEARING SETS			
MAIN BEARING SET	MBHY14L	MBHY14L	MBHY14L
ROD BEARING SET	RBHY14L❶	RBHY14L❶	RBHY14L❶
THRUST WASHER SET	TWHY14	TWHY14	TWHY14

❶ (16mm width)

MODEL	PALISADE	GENESIS G80	GENESIS
ENGINE CODE	**3.8 LAMBDA**	**3.8 LAMBDA**	**3.8 LAMBDA**
DISPLACEMENT	**3778cc(230.5")**	**3778cc(230.5")**	**3778cc(230.5")**
YEARS	**2020-2021**	**2017-2020**	**2015-2016**
DESCRIPTION	24vlv; DOHC; V6; GDI; vin E	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	IVHY14
EXHAUST VALVE	EVHY14	EVHY14	EVHY14
VALVE GUIDE	VGHY14	VGHY14	VGHY14
VALVE SEALS	VSSHY14	VSSHY14	VSSHY14
WATER PUMP & TIMING			
GEARLESS TIMING KIT			PTKHY25L❶

❶ (with silent type oil pump chain)

HYUNDAI

MODEL	GENESIS COUPE	GENESIS	GENESIS COUPE
ENGINE CODE	3.8 LAMBDA	3.8 LAMBDA	3.8 LAMBDA
DISPLACEMENT	3778cc(230.5")	3778cc(230.5")	3778cc(230.5")
YEARS	2014-2016	2012-2014	2012-2013
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
BEARING SETS			
MAIN BEARING SET	MBHY14	MBHY14	MBHY14
ROD BEARING SET	RBHY14❶	RBHY14❶	RBHY14❶
THRUST WASHER SET	TWHY14	TWHY14	TWHY14
OIL PUMP			
NEW OIL PUMP	OPHY17	OPHY17	OPHY17

❶ (18mm width)

MODEL	GENESIS COUPE	GENESIS	GENESIS COUPE
ENGINE CODE	**3.8 LAMBDA**	**3.8 LAMBDA**	**3.8 LAMBDA**
DISPLACEMENT	**3778cc(230.5")**	**3778cc(230.5")**	**3778cc(230.5")**
YEARS	**2014-2016**	**2012-2014**	**2012-2013**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	IVHY14
EXHAUST VALVE	EVHY14	EVHY14	EVHY14
VALVE GUIDE	VGHY14	VGHY14	VGHY14
VALVE SEALS	VSSHY14	VSSHY14	VSSHY14
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY25❶ PTKHY25L❷	PTKHY25❶	PTKHY25❶

❶ (with Roller Type Oil Pump Chain)

❷ (with silent type oil pump chain)

HYUNDAI

MODEL	VERACRUZ	GENESIS COUPE	AZERA
ENGINE CODE	**3.8 LAMBDA**	**3.8 LAMBDA**	**3.8 LAMBDA**
DISPLACEMENT	**3778cc(230.5")**	**3778cc(230.5")**	**3778cc(230.5")**
YEARS	**2010-2012**	**2010-2011**	**2010-2011**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
BEARING SETS			
MAIN BEARING SET	MBHY14	MBHY14	MBHY14
ROD BEARING SET	RBHY14❶	RBHY14❶	RBHY14❶
THRUST WASHER SET	TWHY14	TWHY14	TWHY14
GASKETS			
FULL GASKET SET	CGSHY14❷		CGSHY14❷
HEAD GASKET SET	HSHY14❷		HSHY14❷
CONVERSION SET	CBSHY14	CBSHY14	CBSHY14
HEAD BOLT SET	HBHY14	HBHY14	HBHY14
PISTONS, RINGS, PLUGS			
PISTONS	PAHY14L (22mm pin)		PAHY14L (22mm pin)
RING SETS	RSHY14	RSHY14	RSHY14
OIL PUMP			
NEW OIL PUMP	OPHY14	OPHY14	OPHY14

❶ (18mm width)

❷ (Surge tank gaskets included may not fit all applications)

MODEL	VERACRUZ	GENESIS COUPE	AZERA
ENGINE CODE	**3.8 LAMBDA**	**3.8 LAMBDA**	**3.8 LAMBDA**
DISPLACEMENT	**3778cc(230.5")**	**3778cc(230.5")**	**3778cc(230.5")**
YEARS	**2010-2012**	**2010-2011**	**2010-2011**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	IVHY14
EXHAUST VALVE	EVHY14	EVHY14	EVHY14
VALVE GUIDE	VGHY14	VGHY14	VGHY14
VALVE SEALS	VSSHY14	VSSHY14	VSSHY14

HYUNDAI

MODEL	GENESIS	ENTOURAGE (08-10) VERACRUZ (08-09) AZERA (08-09)	ENTOURAGE VERACRUZ AZERA
ENGINE CODE	**3.8 LAMBDA**	**3.8 LAMBDA**	**3.8 LAMBDA**
DISPLACEMENT	**3778cc(230.5")**	**3778cc(230.5")**	**3778cc(230.5")**
YEARS	**2009-2011**	**2008-2010**	**2006-2007**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
ENGINE KITS			
GOLD KIT		EKHY14G	
MAJOR KIT		EKHY14M	
RE-RING KIT		EKHY14R	
BEARING SETS			
MAIN BEARING SET	MBHY14	MBHY14	MBHY14
ROD BEARING SET	RBHY14❶	RBHY14❶	RBHY14❶
THRUST WASHER SET	TWHY14	TWHY14	TWHY14
GASKETS			
FULL GASKET SET		CGSHY14	CGSHY14E❷ CGSHY14❸
HEAD GASKET SET		HSHY14	HSHY14E❷ HSHY14❸
CONVERSION SET	CBSHY14	CBSHY14	CBSHY14
HEAD BOLT SET	HBHY14	HBHY14	HBHY14
PISTONS, RINGS, PLUGS			
PISTONS	PAHY14L (22mm pin)	PAHY14	PAHY14 (2007 only)
RING SETS	RSHY14	RSHY14	RSHY14
OIL PUMP			
NEW OIL PUMP	OPHY14	OPHY14	OPHY14

❶ (18mm width)
❷ (up to 04/20/07)
❸ (from 04/21/07)

MODEL	GENESIS	ENTOURAGE (08-10) VERACRUZ (08-09) AZERA (08-09)	ENTOURAGE VERACRUZ AZERA
ENGINE CODE	**3.8 LAMBDA**	**3.8 LAMBDA**	**3.8 LAMBDA**
DISPLACEMENT	**3778cc(230.5")**	**3778cc(230.5")**	**3778cc(230.5")**
YEARS	**2009-2011**	**2008-2010**	**2006-2007**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	IVHY14
EXHAUST VALVE	EVHY14	EVHY14	EVHY14
VALVE GUIDE	VGHY14	VGHY14	VGHY14
VALVE SEALS	VSSHY14	VSSHY14	VSSHY14

HYUNDAI

MODEL	GENESIS EQUUS (2011)	GENESIS G80 GENESIS G90	GENESIS EQUUS
ENGINE CODE	**TAU V8**	**TAU V8**	**TAU V8**
DISPLACEMENT	**4627cc(282.4")**	**5038cc(307.4")**	**5038cc(307.4")**
YEARS	**2009-2012**	**2017-2021**	**2012-2016**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	92mm(3.622")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-

MODEL	GENESIS EQUUS (2011)	GENESIS G80 GENESIS G90	GENESIS EQUUS
ENGINE CODE	**TAU V8**	**TAU V8**	**TAU V8**
DISPLACEMENT	**4627cc(282.4")**	**5038cc(307.4")**	**5038cc(307.4")**
YEARS	**2009-2012**	**2017-2021**	**2012-2016**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	92mm(3.622")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
INTAKE VALVE	IVHY18	IVHY18	IVHY18
EXHAUST VALVE	EVHY18	EVHY18	EVHY18

INFINITI

MODEL	G20	G20	G20
ENGINE CODE	SR20DE	SR20DE	SR20DE
DISPLACEMENT	1998cc(121.9")	1998cc(121.9")	1998cc(121.9")
YEARS	2000-2002	1994-1999	1991-1993
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.1636/2.1646"	2.1636/2.1646"	2.1636/2.1646"
ROD JOURNAL DIA.	1.8880/1.8887"	1.8880/1.8887"	1.8880/1.8887"
ENGINE KITS			
PLATINUM KIT			EKD30P
GOLD KIT			EKD30G
SILVER KIT			EKD30B
BRONZE KITS			EKD30S
MAJOR KIT			EKD30M
RE-RING KIT			EKD30R
ULTRA KIT			EKD30U
BEARING SETS			
MAIN BEARING SET	MBD30	MBD30	MBD30
ROD BEARING SET	RBD30	RBD30	RBD30
THRUST WASHER SET	TWD30	TWD30	TWD30
GASKETS			
FULL GASKET SET			CGSD30
HEAD GASKET SET			HSD30
HEAD GASKETS			HDGD30
CONVERSION SET	CBSD30	CBSD30	CBSD30
HEAD BOLT SET	HBD30	HBD30	HBD30
PISTONS, RINGS, PLUGS			
PISTONS		PAD30	PAD30
RING SETS	RSD40	RSD30	RSD30
PIN BUSHINGS	PBD30	PBD30	PBD30
FREEZE PLUG SET	EPSD30	EPSD30	EPSD30
CRANKSHAFT & RODS			
CONNECTING ROD	CRD30	CRD30	CRD30
OIL PUMP			
NEW OIL PUMP		OPD30	OPD30

MODEL	G20	G20	G20
ENGINE CODE	SR20DE	SR20DE	SR20DE
DISPLACEMENT	1998cc(121.9")	1998cc(121.9")	1998cc(121.9")
YEARS	2000-2002	1994-1999	1991-1993
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.1636/2.1646"	2.1636/2.1646"	2.1636/2.1646"
ROD JOURNAL DIA.	1.8880/1.8887"	1.8880/1.8887"	1.8880/1.8887"
VALVE TRAIN			
INTAKE CAMSHAFT		CAMD30LI	
CAMSHAFTS			CAMD30I (int.)
LIFTERS	LIFD30	LIFD30	LIFD30
ROCKER ARMS		RAD30	RAD30
INTAKE VALVE	IVD40	IVD30	IVD30
EXHAUST VALVE	EVD40	EVD30	EVD30
VALVE GUIDE			IVGD30 (int.)
			EVGD30 (ex.)
INTAKE GUIDE	IVGD30	IVGD30	
EXHAUST GUIDE	EVGD30	EVGD30	
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD30	WPD30	WPD30
TIMING CHAIN KIT	CTKD30	CTKD30	CTKD30

INFINITI

MODEL	QX60 HYBRID	G25	J30
ENGINE CODE	QR25DER	VQ25HR	VG30DE
DISPLACEMENT	2488cc(151.8")	2495cc(152.2")	2960cc(180.5")
YEARS	2014-2017	2011-2012	1993-1997
DESCRIPTION	16vlv; DOHC; 4; FHEV; Super	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.50")	85mm(3.346")	87mm(3.425")
STROKE	100mm(3.94")	73.3mm(2.89")	83mm(3.27")
MAIN JOURNAL DIA.	2.1636/2.1642"	2.3603/2.3612"	2.4784/2.4793"
ROD JOURNAL DIA.	1.7699/1.7706"		1.9667/1.9675"
ENGINE KITS			
MAJOR KIT			EKD26ZM
RE-RING KIT			EKD26ZR
BEARING SETS			
MAIN BEARING SET	MBD42L	MBD34	MBD33
ROD BEARING SET	RBD42		RBD26
THRUST WASHER SET	TWD42	TWD34	
INTERMEDIATE SET	ISBD42		
GASKETS			
FULL GASKET SET			CGSD26Z
HEAD GASKET SET			HSD26Z
HEAD GASKETS	HDGD42L		HDGD26Z (set of 2)
CONVERSION SET	CBSD42		CBSD26Z
HEAD BOLT SET	HBD42		
PISTONS, RINGS, PLUGS			
PISTONS			PAD26Z
RING SETS			RSD26
PIN BUSHINGS	PBD42		PBD33
FREEZE PLUG SET			EPSD26
CRANKSHAFT & RODS			
CONNECTING ROD	CRD42		CRD33

MODEL	QX60 HYBRID	G25	J30
ENGINE CODE	**QR25DER**	**VQ25HR**	**VG30DE**
DISPLACEMENT	**2488cc(151.8")**	**2495cc(152.2")**	**2960cc(180.5")**
YEARS	**2014-2017**	**2011-2012**	**1993-1997**
DESCRIPTION	16vlv; DOHC; 4; FHEV; Super	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.50")	85mm(3.346")	87mm(3.425")
STROKE	100mm(3.94")	73.3mm(2.89")	83mm(3.27")
MAIN JOURNAL DIA.	2.1636/2.1642"	2.3603/2.3612"	2.4784/2.4793"
ROD JOURNAL DIA.	1.7699/1.7706"		1.9667/1.9675"
VALVE TRAIN			
INTAKE VALVE			IVD26Z
EXHAUST VALVE	EVD42N		EVD26Z
INTAKE GUIDE		VGD27	IVGD26Z
EXHAUST GUIDE		EVGD30	EVGD26Z
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
TIMING BELT			TBD26Z
TENSIONERS			BTD26Z (hydraulic)

INFINITI

MODEL	M30	I30	I30
ENGINE CODE	VG30E	VQ30DE	VQ30DE
DISPLACEMENT	2960cc(180.5")	2988cc(182.3")	2988cc(182.3")
YEARS	1990-1992	2000-2001	1996-1999
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	87mm(3.425")	93mm(3.661")	93mm(3.661")
STROKE	83mm(3.27")	73.3mm(2.88")	73.3mm(2.88")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	1.9667/1.9675"	1.7699/1.7706"	1.7699/1.7706"
ENGINE KITS			
PLATINUM KIT		EKD34MP	EKD34P
GOLD KIT	EKD26BG	EKD34MG	EKD34G
SILVER KIT		EKD34MS	EKD34S
BRONZE KITS	EKD26BB	EKD34MB	EKD34B
MAJOR KIT	EKD26BM	EKD34MM	EKD34M
RE-RING KIT	EKD26BR	EKD34MR	EKD34R
ULTRA KIT		EKD34MU	EKD34U
BEARING SETS			
MAIN BEARING SET	MBD26	MBD34	MBD34
ROD BEARING SET	RBD26	RBD34	RBD34
THRUST WASHER SET		TWD34	TWD34
GASKETS			
FULL GASKET SET	CGSD26B	CGSD34M❶	CGSD34❶
HEAD GASKET SET	HSD26B	HSD34M	HSD34
HEAD GASKETS	HDGD26	HDGD34	HDGD34
CONVERSION SET	CBSD26	CBSD34❶	CBSD34❶
HEAD BOLT SET	HBD26		
PISTONS, RINGS, PLUGS			
PISTONS	PAD26L	PAD34M	PAD34M
RING SETS	RSD26	RSD34	RSD34
PIN BUSHINGS	PBD26	PBD34	PBD34
FREEZE PLUG SET	EPSD26		
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSD34	CSD34
CONNECTING ROD	CRD35	CRD34	CRD34
OIL PUMP			
NEW OIL PUMP	OPD26L	OPD34	OPD34

❶ (Rear Main Seal/Cover not included)

MODEL	M30	I30	I30
ENGINE CODE	VG30E	VQ30DE	VQ30DE
DISPLACEMENT	2960cc(180.5")	2988cc(182.3")	2988cc(182.3")
YEARS	1990-1992	2000-2001	1996-1999
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	87mm(3.425")	93mm(3.661")	93mm(3.661")
STROKE	83mm(3.27")	73.3mm(2.88")	73.3mm(2.88")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	1.9667/1.9675"	1.7699/1.7706"	1.7699/1.7706"
VALVE TRAIN			
LIFTERS	LIFD26	LIFD34	LIFD34
ROCKER ARMS	RAD26		
INTAKE VALVE	IVD26	IVD34	IVD34
EXHAUST VALVE	EVD26Q	EVD34	EVD34
INTAKE GUIDE	IVGD26 (int.)	VGD27	VGD27
EXHAUST GUIDE	EVGD26 (ex.)	EVGD30	EVGD30
VALVE SEALS	VSSD10 (int.)	VSSD27	VSSD27
	VSSD3 (ex.)		
WATER PUMP & TIMING			
WATER PUMP	WPD26Q	WPD34	WPD34
GEARLESS TIMING KIT		PTKD34	PTKD34
TIMING BELT	TBD26		
TENSIONERS	BTD26		

INFINITI

MODEL	Q50 TURBO	QX4	QX60
ENGINE CODE	VR30DDTT	VG33E	VQ35DD
DISPLACEMENT	2997cc(182.9")	3272cc(199.7")	3498cc(213.4")
YEARS	2017-2020	1997-2000	2017-2020
DESCRIPTION	24vlv; DOHC; V6;Turbo; vin E	12 VALVE; SOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	86.0mm(3.385")	91.5mm(3.602")	95.5mm(3.759")
STROKE	86.0mm(3.39")	83mm(3.27")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.5571"/2.5581"	2.4784/2.4793"	2.3603/2.3612"
ROD JOURNAL DIA.	2.1242"/2.1250"	1.9667/1.9675"	2.0455/2.0462"
ENGINE KITS			
GOLD KIT		EKD35G	
BRONZE KITS		EKD35B	
MAJOR KIT		EKD35M	
RE-RING KIT		EKD35R	
BEARING SETS			
MAIN BEARING SET	MBD41HR	MBD26	MBD34
ROD BEARING SET	RBD41HR	RBD26	RBD41
THRUST WASHER SET	TWD41HR		TWD34
GASKETS			
FULL GASKET SET		CGSD35	
HEAD GASKET SET		HSD35	
HEAD GASKETS		HDGD35	
CONVERSION SET		CBSD35	CBSD34❶
HEAD BOLT SET		HBD26	
PISTONS, RINGS, PLUGS			
PISTONS		PAD35	PAD52
RING SETS		RSD35	RSD41A
PIN BUSHINGS		PBD26	PBD34
FREEZE PLUG SET		EPSD26	
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSD35	
CONNECTING ROD		CRD35	
OIL PUMP			
NEW OIL PUMP		OPD35X	

❶ (Rear Main Seal/Cover not included)

MODEL	Q50 TURBO	QX4	QX60
ENGINE CODE	**VR30DDTT**	**VG33E**	**VQ35DD**
DISPLACEMENT	**2997cc(182.9")**	**3272cc(199.7")**	**3498cc(213.4")**
YEARS	**2017-2020**	**1997-2000**	**2017-2020**
DESCRIPTION	24vlv; DOHC; V6;Turbo; vin E	12 VALVE; SOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	86.0mm(3.385")	91.5mm(3.602")	95.5mm(3.759")
STROKE	86.0mm(3.39")	83mm(3.27")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.5571"/2.5581"	2.4784/2.4793"	2.3603/2.3612"
ROD JOURNAL DIA.	2.1242"/2.1250"	1.9667/1.9675"	2.0455/2.0462"
VALVE TRAIN			
LIFTERS		LIFD26	
ROCKER ARMS		RAD26	
INTAKE VALVE		IVD26Q	IVD52
EXHAUST VALVE		EVD26Q	EVD52
INTAKE GUIDE		IVGD26	
EXHAUST GUIDE		EVGD26	
VALVE SEALS		VSSD10 (int.) VSSD3 (ex.)	VSSD27
WATER PUMP & TIMING			
WATER PUMP		WPD35	
TIMING BELT		TBD35	
TENSIONERS		BTD26	

INFINITI

MODEL	Q50 Q70 HYBRID	QX60 (14-16) JX35 (2013)	FX35 (09-12) EX35 (08-12) G35 (07-08) M35 (09-10) M35h (12-13)
ENGINE CODE	**VQ35HR**	**VQ35DE**	**VQ35HR**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2014-2018**	**2013-2016**	**2007-2013**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.5571"/2.5581"	2.3603/2.3612"	2.5571"/2.5581"
ROD JOURNAL DIA.	2.1242"/2.1250"	2.0455/2.0462"	2.1242"/2.1250"
BEARING SETS			
MAIN BEARING SET	MBD41HR	MBD34	MBD41HR
ROD BEARING SET	RBD41HR	RBD41	RBD41HR
THRUST WASHER SET	TWD41HR	TWD34	TWD41HR
GASKETS			
FULL GASKET SET		CGSD41A❶	
HEAD GASKET SET		HSD41A	
CONVERSION SET		CBSD34❶	CBSD34❶
PISTONS, RINGS, PLUGS			
PISTONS		PAD41A	PAD41HR
RING SETS	RSD41HR	RSD41A	RSD41HR
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPD41HR	OPD41	OPD41HR

❶ (Rear Main Seal/Cover not included)

MODEL	Q50 Q70 HYBRID	QX60 (14-16) JX35 (2013)	FX35 (09-12) EX35 (08-12) G35 (07-08) M35 (09-10) M35h (12-13)
ENGINE CODE	**VQ35HR**	**VQ35DE**	**VQ35HR**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2014-2018**	**2013-2016**	**2007-2013**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.5571"/2.5581"	2.3603/2.3612"	2.5571"/2.5581"
ROD JOURNAL DIA.	2.1242"/2.1250"	2.0455/2.0462"	2.1242"/2.1250"
VALVE TRAIN			
INTAKE VALVE	IVD41HR	IVD41HRL	IVD41HR
EXHAUST VALVE	EVD41HR	EVD41HRL	EVD41HR
INTAKE GUIDE	VGD27	VGD27	
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP		WPD41A	

INFINITI

MODEL	FX35 (03-08) M35 (06-08) G35 (03-07)	I35	QX4
ENGINE CODE	**VQ35DE**	**VQ35DE**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2003-2008**	**2002-2004**	**2001-2003**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
ENGINE KITS			
GOLD KIT			EKD41PG
MAJOR KIT			EKD41PM
RE-RING KIT			EKD41PR
BEARING SETS			
MAIN BEARING SET	MBD34	MBD34	MBD34
ROD BEARING SET	RBD41	RBD41	RBD41
THRUST WASHER SET	TWD34	TWD34	TWD34
GASKETS			
FULL GASKET SET	CGSD41Z❶	CGSD41M❶	CGSD41P❶
HEAD GASKET SET	HSD41Z	HSD41M	HSD41P
HEAD GASKETS	HDGD41Z	HDGD41M	HDGD41P (set of 2)
CONVERSION SET	CBSD34❶	CBSD34❶	CBSD34❶
PISTONS, RINGS, PLUGS			
PISTONS	PAD41	PAD41	PAD41P
RING SETS	RSD41	RSD41	RSD41
CRANKSHAFT & RODS			
CONNECTING ROD	CRD41	CRD41	
OIL PUMP			
NEW OIL PUMP	OPD41	OPD41	OPD41

❶ (Rear Main Seal/Cover not included)

MODEL	FX35 (03-08) M35 (06-08) G35 (03-07)	I35	QX4
ENGINE CODE	**VQ35DE**	**VQ35DE**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2003-2008**	**2002-2004**	**2001-2003**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
VALVE TRAIN			
INTAKE VALVE	IVD41	IVD41	IVD41
EXHAUST VALVE	EVD41	EVD41	EVD41
INTAKE GUIDE	VGD27	VGD27	VGD27
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD41	WPD41	
TIMING CHAIN KIT	CTKD41A	CTKD41A	CTKD41R
GEARLESS TIMING KIT	PTKD41A	PTKD41A	

INFINITI

MODEL	Q70 Q70L QX50 QX70 Q40 Q50	G37 (08-13) M37 (11-12) Q60 (14-15)	EX37 FX37 M37
ENGINE CODE	**VQ37VHR**	**VQ37VHR**	**VQ37VHR**
DISPLACEMENT	**3696cc(225.5")**	**3696cc(225.5")**	**3696cc(225.5")**
YEARS	**2014-2018**	**2008-2015**	**2013**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.5571"/2.5581"	2.5571"/2.5581"	2.5571"/2.5581"
ROD JOURNAL DIA.	2.1242"/2.1250"	2.1242"/2.1250"	2.1242"/2.1250"
BEARING SETS			
MAIN BEARING SET	MBD41HR	MBD41HR	MBD41HR
ROD BEARING SET	RBD41HR	RBD41HR	RBD41HR
THRUST WASHER SET	TWD41HR	TWD41HR	TWD41HR
PISTONS, RINGS, PLUGS			
RING SETS		RSD41HR	
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPD41HR	OPD41HR	OPD41HR

MODEL	Q70 Q70L QX50 QX70 Q40 Q50	G37 (08-13) M37 (11-12) Q60 (14-15)	EX37 FX37 M37
ENGINE CODE	**VQ37VHR**	**VQ37VHR**	**VQ37VHR**
DISPLACEMENT	**3696cc(225.5")**	**3696cc(225.5")**	**3696cc(225.5")**
YEARS	**2014-2018**	**2008-2015**	**2013**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.5571"/2.5581"	2.5571"/2.5581"	2.5571"/2.5581"
ROD JOURNAL DIA.	2.1242"/2.1250"	2.1242"/2.1250"	2.1242"/2.1250"
VALVE TRAIN			
INTAKE VALVE	IVD41HR	IVD41HR	IVD41HR
EXHAUST VALVE	EVD41HR	EVD41HR	EVD41HR
INTAKE GUIDE	VGD27	VGD27	VGD27
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27

INFINITI

MODEL	Q45	Q45 FX45 M45	Q45
ENGINE CODE	**VH41DE**	**VK45DE**	**VH45DE**
DISPLACEMENT	**4130cc**	**4494cc(274")**	**4494cc(274")**
YEARS	**1997-2001**	**2002-2010**	**1990-1996**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	93mm(3.661")	93mm(3.661")	93mm(3.661")
STROKE	76mm(2.99")	82.7mm(3.26")	82.7mm(3.26")
MAIN JOURNAL DIA.		2.5174/2.5183"	
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
BEARING SETS			
MAIN BEARING SET		MBD47	
ROD BEARING SET	RBD47	RBD47	RBD47
THRUST WASHER SET	TWD47	TWD47	TWD47
GASKETS			
HEAD BOLT SET		-	
PISTONS, RINGS, PLUGS			
RING SETS		RSD47	

MODEL	Q45	Q45 FX45 M45	Q45
ENGINE CODE	**VH41DE**	**VK45DE**	**VH45DE**
DISPLACEMENT	**4130cc**	**4494cc(274")**	**4494cc(274")**
YEARS	**1997-2001**	**2002-2010**	**1990-1996**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	93mm(3.661")	93mm(3.661")	93mm(3.661")
STROKE	76mm(2.99")	82.7mm(3.26")	82.7mm(3.26")
MAIN JOURNAL DIA.		2.5174/2.5183"	
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
VALVE TRAIN			
INTAKE VALVE		IVD47	
EXHAUST VALVE		EVD47	
VALVE SEALS		VSSD27	

INFINITI

MODEL	QX70	FX50	QX80
ENGINE CODE	VK50VE	VK50VE	VK56VD
DISPLACEMENT	5026cc(306.7")	5026cc(306.7")	5552cc
YEARS	2014	2009-2013	2016-2021
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	95.5mm(3.76")	95.5mm(3.76")	98mm(3.858")
STROKE	87.7mm(3.45")	87.7mm(3.45")	92mm(3.62")
MAIN JOURNAL DIA.	2.5174/2.5183"	2.5174/2.5183"	2.5174/2.5183"
ROD JOURNAL DIA.	2.1243/2.1250"	2.1243/2.1250"	2.1243/2.1250"
BEARING SETS			
MAIN BEARING SET	MBD47	MBD47	MBD47
ROD BEARING SET	RBD46	RBD46	RBD46
THRUST WASHER SET	TWD47	TWD47	TWD47
GASKETS			
HEAD BOLT SET	HBD46	HBD46	HBD46

MODEL	QX70	FX50	QX80
ENGINE CODE	VK50VE	VK50VE	VK56VD
DISPLACEMENT	5026cc(306.7")	5026cc(306.7")	5552cc
YEARS	2014	2009-2013	2016-2021
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	95.5mm(3.76")	95.5mm(3.76")	98mm(3.858")
STROKE	87.7mm(3.45")	87.7mm(3.45")	92mm(3.62")
MAIN JOURNAL DIA.	2.5174/2.5183"	2.5174/2.5183"	2.5174/2.5183"
ROD JOURNAL DIA.	2.1243/2.1250"	2.1243/2.1250"	2.1243/2.1250"
VALVE TRAIN			
INTAKE VALVE			IVD51
EXHAUST VALVE			EVD51
VALVE SEALS	VSSD27	VSSD27	VSSD27

INFINITI

MODEL	Q70	QX80	M56 QX56
ENGINE CODE	**VK56VD**	**VK56DE**	**VK56DE**
DISPLACEMENT	**5552cc**	**5552cc**	**5552cc**
YEARS	**2014-2018**	**2014-2015**	**2011-2013**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	98mm(3.858")	98mm(3.858")	98mm(3.858")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.5174/2.5183"	2.5174/2.5183"	2.5174/2.5183"
ROD JOURNAL DIA.	2.1243/2.1250"	2.1243/2.1250"	2.1243/2.1250"
BEARING SETS			
MAIN BEARING SET	MBD47	MBD47	MBD47
ROD BEARING SET	RBD46	RBD46	RBD46
THRUST WASHER SET	TWD47	TWD47	TWD47
GASKETS			
HEAD BOLT SET	HBD46	HBD46	HBD46

MODEL	Q70	QX80	M56 QX56
ENGINE CODE	**VK56VD**	**VK56DE**	**VK56DE**
DISPLACEMENT	**5552cc**	**5552cc**	**5552cc**
YEARS	**2014-2018**	**2014-2015**	**2011-2013**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	98mm(3.858")	98mm(3.858")	98mm(3.858")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.5174/2.5183"	2.5174/2.5183"	2.5174/2.5183"
ROD JOURNAL DIA.	2.1243/2.1250"	2.1243/2.1250"	2.1243/2.1250"
VALVE TRAIN			
VALVE SEALS	VSSD27	VSSD27	VSSD27

INFINITI

MODEL	QX56		
ENGINE CODE	**VK56DE**		
DISPLACEMENT	**5552cc**		
YEARS	**2004-2010**		
DESCRIPTION	32 VALVE DOHC V8; F.INJ.		
BORE	98mm(3.858")		
STROKE	92mm(3.62")		
MAIN JOURNAL DIA.	2.5174/2.5183"		
ROD JOURNAL DIA.	2.1243/2.1250"		
BEARING SETS			
MAIN BEARING SET	MBD47		
ROD BEARING SET	RBD46		
THRUST WASHER SET	TWD47		
GASKETS			
FULL GASKET SET	CGSD46		
HEAD GASKET SET	HDGD46		
	HSD46		
CONVERSION SET	CBSD46		
HEAD BOLT SET	HBD46		
PISTONS, RINGS, PLUGS			
PISTONS	PAD46		
RING SETS	RSD46		
CRANKSHAFT & RODS			
CONNECTING ROD	CRD46		
OIL PUMP			
NEW OIL PUMP	OPD46		

MODEL	QX56		
ENGINE CODE	**VK56DE**		
DISPLACEMENT	**5552cc**		
YEARS	**2004-2010**		
DESCRIPTION	32 VALVE DOHC V8; F.INJ.		
BORE	98mm(3.858")		
STROKE	92mm(3.62")		
MAIN JOURNAL DIA.	2.5174/2.5183"		
ROD JOURNAL DIA.	2.1243/2.1250"		
VALVE TRAIN			
INTAKE VALVE	IVD41❶		
EXHAUST VALVE	EVD41L❷		
INTAKE GUIDE	VGD27		
EXHAUST GUIDE	EVGD30		
VALVE SEALS	VSSD27		
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKD46		

❶ (96.5mm length)
❷ (98.9mm length)

ISUZU

MODEL	I-MARK TURBO	I-MARK	STYLUS
ENGINE CODE	**4XC1T**	**4XC1**	**4XE1**
DISPLACEMENT	**1471cc(89.7")**	**1471cc(89.7")**	**1588cc(96.8")**
YEARS	**1987-1989**	**1985-1989**	**1991-1993**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	12 VALVE; SOHC 4; F.INJ.
BORE	77mm(3.031")	77mm(3.031")	80mm(3.150")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	1.8865/1.8873"	1.8865/1.8873"	2.0439/2.0448"
ROD JOURNAL DIA.	1.5726/1.5734"	1.5726/1.5734"	1.5726/1.5734"
ENGINE KITS			
GOLD KIT		EKIS3G	EKIS10G
MAJOR KIT		EKIS3M	EKIS10M
RE-RING KIT		EKIS3R	EKIS10R
BEARING SETS			
MAIN BEARING SET	MBIS3	MBIS3	MBIS8
ROD BEARING SET	RBIS3	RBIS3	RBIS3
THRUST WASHER SET	TWIS3	TWIS3	TWIS8
GASKETS			
FULL GASKET SET		CGSIS3	CGSIS10
HEAD GASKET SET		HSIS3	HSIS10
HEAD GASKETS		HDGIS3	HDGIS10
CONVERSION SET	CBSIS3	CBSIS3	CBSIS8
PISTONS, RINGS, PLUGS			
PISTONS	PAIS3T	PAIS3	PAIS10
RING SETS	RSIS3T (3-ring)	RSIS3 (2-ring)	RSIS8
FREEZE PLUG SET	EPSC11	EPSC11	EPSIS8
CRANKSHAFT & RODS			
CONNECTING ROD	CRIS3	CRIS3	CRIS8
OIL PUMP			
NEW OIL PUMP	OPIS3	OPIS3	OPIS10

MODEL	I-MARK TURBO	I-MARK	STYLUS
ENGINE CODE	**4XC1T**	**4XC1**	**4XE1**
DISPLACEMENT	**1471cc(89.7")**	**1471cc(89.7")**	**1588cc(96.8")**
YEARS	**1987-1989**	**1985-1989**	**1991-1993**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	12 VALVE; SOHC 4; F.INJ.
BORE	77mm(3.031")	77mm(3.031")	80mm(3.150")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	1.8865/1.8873"	1.8865/1.8873"	2.0439/2.0448"
ROD JOURNAL DIA.	1.5726/1.5734"	1.5726/1.5734"	1.5726/1.5734"
VALVE TRAIN			
CAMSHAFTS	CAMIS3	CAMIS3	
ROCKER ARMS	RAIS3	RAIS3	RAIS10
ROCKER ARM SHAFTS	RASIIS3	RASIIS3	RASIIS10
ROCKER ARM SHAFTS	RASEIS3	RASEIS3	RASEIS10
INTAKE VALVE	IVIS3	IVIS3	IVIS10
EXHAUST VALVE	EVIS3	EVIS3	EVIS10
INTAKE GUIDE	IVGIS3	IVGIS3	VGIS10
EXHAUST GUIDE	EVGIS3	EVGIS3	EVGIS10
VALVE SEALS	VSSIS3	VSSIS3	VSSTO15
WATER PUMP & TIMING			
TIMING BELT	TBIS3	TBIS3	TBIS10
TENSIONERS	BTIS3	BTIS3	BTIS10

ISUZU

MODEL	IMPULSE TURBO	IMPULSE STYLUS	I-MARK
ENGINE CODE	**4XE1W**	**4XE1W**	**4XE1W**
DISPLACEMENT	**1588cc(96.8")**	**1588cc(96.8")**	**1588cc(96.8")**
YEARS	**1991-1992**	**1990-1991**	**1989**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	80mm(3.150")	80mm(3.150")	80mm(3.150")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	2.0439/2.0448"	2.0439/2.0448"	1.8865/1.8873"
ROD JOURNAL DIA.	1.5726/1.5734"	1.5726/1.5734"	1.5726/1.5734"
ENGINE KITS			
GOLD KIT		EKIS8G	
MAJOR KIT		EKIS8M	
RE-RING KIT		EKIS8R	EKIS8R
BEARING SETS			
MAIN BEARING SET	MBIS8	MBIS8	MBIS8
ROD BEARING SET	RBIS3	RBIS3	RBIS3
THRUST WASHER SET	TWIS8	TWIS8	TWIS8
GASKETS			
FULL GASKET SET		CGSIS8	CGSIS8
HEAD GASKET SET		HSIS8	HSIS8
HEAD GASKETS	HDGIS8	HDGIS8	HDGIS8
CONVERSION SET	CBSIS8	CBSIS8	CBSIS8
PISTONS, RINGS, PLUGS			
PISTONS		PAIS8	PAIS8
RING SETS	RSIS8	RSIS8	RSIS8
FREEZE PLUG SET	EPSIS8	EPSIS8	EPSIS8
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSIS8	CSIS8	
CONNECTING ROD		CRIS8	CRIS8
OIL PUMP			
NEW OIL PUMP		OPIS8	OPIS8

MODEL	IMPULSE TURBO	IMPULSE STYLUS	I-MARK
ENGINE CODE	**4XE1W**	**4XE1W**	**4XE1W**
DISPLACEMENT	**1588cc(96.8")**	**1588cc(96.8")**	**1588cc(96.8")**
YEARS	**1991-1992**	**1990-1991**	**1989**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	80mm(3.150")	80mm(3.150")	80mm(3.150")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	2.0439/2.0448"	2.0439/2.0448"	1.8865/1.8873"
ROD JOURNAL DIA.	1.5726/1.5734"	1.5726/1.5734"	1.5726/1.5734"
VALVE TRAIN			
LIFTERS	LIFIS8	LIFIS8	LIFIS8
INTAKE VALVE	IVIS8	IVIS8	IVIS8
EXHAUST VALVE	EVIS8	EVIS8	EVIS8
INTAKE GUIDE	VGIS10	VGIS10	VGIS10
EXHAUST GUIDE	EVGIS8	EVGIS8	EVGIS8
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
TIMING BELT	TBIS8	TBIS8	TBIS8

ISUZU

MODEL	IMPULSE STYLUS	I-MARK PICKUP	PICKUP IMPULSE TROOPER
ENGINE CODE	**4XF1**	**G180Z**	**G200Z**
DISPLACEMENT	**1809cc(110")**	**1817cc(110.9")**	**1949cc(118.9")**
YEARS	**1992**	**1981-1985**	**1983-1987**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4
BORE	80mm(3.150")	84mm(3.307")	87mm(3.425")
STROKE	90mm(3.54")	82mm(3.23")	82mm(3.23")
MAIN JOURNAL DIA.	2.0439/2.0448"	2.2016/2.2022"	2.2016/2.2022"
ROD JOURNAL DIA.	1.8083/1.8089"	1.9262/1.9268"	1.9262/1.9268"
ENGINE KITS			
PLATINUM KIT			EKIS2P
GOLD KIT			EKIS2G
SILVER KIT			EKIS2S
MAJOR KIT			EKIS2M
RE-RING KIT		EKC3R (2 X 2 X 4 mm)	EKIS2R (2 X 2 X 4 mm)
		EKC3LR❶	EKIS2LR❶
BEARING SETS			
MAIN BEARING SET	MBIS8	MBC3	MBC3
ROD BEARING SET		RBC3	RBIS7
THRUST WASHER SET	TWIS8	TWC3	TWC3
GASKETS			
FULL GASKET SET	CGSIS11	CGSC3	CGSIS2
HEAD GASKET SET	HSIS11	HSC3	HSIS2
HEAD GASKETS		HDGC3	HDGIS2
CONVERSION SET	CBSIS8	CBSC3	CBSC3
PISTONS, RINGS, PLUGS			
PISTONS			PAIS2
RING SETS	RSIS8	- (2 X 2 X 4 mm)	RSIS2 (2 X 2 X 4 mm)
		RSC3L❶	RSIS2L❶
FREEZE PLUG SET	EPSIS8	EPSC3	EPSC3
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSIS2	CSIS2
CONNECTING ROD	CRIS11	CRIS2	CRIS2
OIL PUMP			
NEW OIL PUMP	OPIS11	OPIS2	OPIS2

❶ (1.5 X 1.5 X 4)

MODEL	IMPULSE STYLUS	I-MARK PICKUP	PICKUP IMPULSE TROOPER
ENGINE CODE	**4XF1**	**G180Z**	**G200Z**
DISPLACEMENT	**1809cc(110")**	**1817cc(110.9")**	**1949cc(118.9")**
YEARS	**1992**	**1981-1985**	**1983-1987**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4
BORE	80mm(3.150")	84mm(3.307")	87mm(3.425")
STROKE	90mm(3.54")	82mm(3.23")	82mm(3.23")
MAIN JOURNAL DIA.	2.0439/2.0448"	2.2016/2.2022"	2.2016/2.2022"
ROD JOURNAL DIA.	1.8083/1.8089"	1.9262/1.9268"	1.9262/1.9268"
VALVE TRAIN			
ROCKER ARMS		RAC3	RAC3
ROCKER ARM SHAFTS		RASIC3	RASIC3
ROCKER ARM SHAFTS		RASEC3	RASEC3
INTAKE VALVE	IVIS8	IVC4❶	IVC4❶ IVC3❷
EXHAUST VALVE	EVIS8	EVC4❸	EVC4❸
INTAKE GUIDE	VGIS10	IVGC3	IVGC3
EXHAUST GUIDE	EVGIS8	EVGC4	EVGC4
VALVE SEALS	VSSTO15	VSSD3	VSSD3
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKC3	CTKIS2
TIMING BELT	TBIS11		

❶ (40.3mm head dia.)
❷ (42.4mm head dia.)
❸ (110.8mm length)

ISUZU

MODEL	IMPULSE TURBO	OASIS	HOMBRE
ENGINE CODE	**4ZC1**	**RJ1 HONDA**	**LN2 CHEVY**
DISPLACEMENT	**1994cc(121.7")**	**2156cc(132")**	**2190cc(134")**
YEARS	**1985-1989**	**1996-1997**	**1996-2000**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	8 VALVE; OHV 4; F.INJ.
BORE	88mm(3.465")	85mm(3.346")	89mm(3.504")
STROKE	82mm(3.23")	95mm(3.74")	88mm(3.46")
MAIN JOURNAL DIA.	2.2016/2.2022"	1.9674/1.9685"	2.4945/2.4954"
ROD JOURNAL DIA.	1.9262/1.9268"	1.8888/1.8890"	1.9990/2.0000"
ENGINE KITS			
GOLD KIT	EKIS4G	EKH26LG	
BRONZE KITS		EKH26LB	
MAJOR KIT	EKIS4M	EKH26M	
RE-RING KIT	EKIS4R	EKH26R	
BEARING SETS			
MAIN BEARING SET	MBIS6	MBH20	
ROD BEARING SET	RBIS7	RBH20	
THRUST WASHER SET	TWC3	TWH12	
GASKETS			
FULL GASKET SET	CGSIS4	CGSH26	
HEAD GASKET SET	HSIS4	HSH26	
HEAD GASKETS	HDGIS4	HDGH26	
CONVERSION SET	CBSIS6	CBSH20	
HEAD BOLT SET	HBIS7		
PISTONS, RINGS, PLUGS			
PISTONS	PAIS4	PAH20	
RING SETS	RSIS4	RSH20	
FREEZE PLUG SET	EPSIS6		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSIS4		
CONNECTING ROD	CRIS2		
OIL PUMP			
NEW OIL PUMP	OPIS6	OPH26	

MODEL	IMPULSE TURBO	OASIS	HOMBRE
ENGINE CODE	4ZC1	RJ1 HONDA	LN2 CHEVY
DISPLACEMENT	1994cc(121.7")	2156cc(132")	2190cc(134")
YEARS	1985-1989	1996-1997	1996-2000
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	8 VALVE; OHV 4; F.INJ.
BORE	88mm(3.465")	85mm(3.346")	89mm(3.504")
STROKE	82mm(3.23")	95mm(3.74")	88mm(3.46")
MAIN JOURNAL DIA.	2.2016/2.2022"	1.9674/1.9685"	2.4945/2.4954"
ROD JOURNAL DIA.	1.9262/1.9268"	1.8888/1.8890"	1.9990/2.0000"
VALVE TRAIN			
LIFTERS			A-2270
ROCKER ARMS	RAC3	RAH20A (inner) RAH20B (outer) RAH20E	
ROCKER ARM SHAFTS	RASIC3		
ROCKER ARM SHAFTS	RASEC3		
INTAKE VALVE	IVIS6	IVH26	
EXHAUST VALVE	EVIS6	EVH20	
INTAKE GUIDE	IVGC3	IVGH21	
EXHAUST GUIDE	EVGC4	EVGH21	
VALVE SEALS	VSSC24	VSSH21	
WATER PUMP & TIMING			
WATER PUMP		WPH20	
TIMING BELT	TBIS4	TBH20	
TENSIONERS	BTIS6	BTH20	
BALANCE SHAFT BELT		TBH20B	
BALANCE SHAFT BELT TENSIONER		BTH20B	

ISUZU

MODEL	RODEO RODEO SPORT	AMIGO RODEO SPORT	OASIS
ENGINE CODE	**X22SE**	**X22SE**	**RJ2 HONDA**
DISPLACEMENT	**2198cc(134.1")**	**2198cc(134.1")**	**2254cc(137.5")**
YEARS	**2001-2003**	**1998-2000**	**1998-1999**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	94.6mm(3.72")	94.6mm(3.72")	97mm(3.82")
MAIN JOURNAL DIA.	2.2884/2.2833"	2.2884/2.2833"	2.1646/2.1655"
ROD JOURNAL DIA.	1.9279/1.9287"	1.9279/1.9287"	1.7707/1.7717"
ENGINE KITS			
GOLD KIT	EKIS16RG	EKIS16G	EKH36G
BRONZE KITS	EKIS16RB	EKIS16B	EKH36B
MAJOR KIT	EKIS16RM	EKIS16M	EKH36M
RE-RING KIT	EKIS16R	EKIS16R	EKH36R
BEARING SETS			
MAIN BEARING SET	MBIS16	MBIS16	MBH16
ROD BEARING SET	RBIS16	RBIS16	RBH36
THRUST WASHER SET			TWH36
GASKETS			
FULL GASKET SET	CGSIS16	CGSIS16	CGSH36
HEAD GASKET SET	HSIS16	HSIS16	HSH36
HEAD GASKETS	HDGIS16	HDGIS16	HDGH36
CONVERSION SET	CBSIS16	CBSIS16	CBSH36
HEAD BOLT SET	HBIS16	HBIS16	HBH36
PISTONS, RINGS, PLUGS			
PISTONS	PAIS16R	PAIS16	PAH36
RING SETS	RSIS16R	RSIS16	RSH36
FREEZE PLUG SET	EPSIS16	EPSIS16	
CRANKSHAFT & RODS			
CONNECTING ROD			CRH36
OIL PUMP			
NEW OIL PUMP	OPIS16	OPIS16	OPH26

MODEL	RODEO RODEO SPORT	AMIGO RODEO SPORT	OASIS
ENGINE CODE	**X22SE**	**X22SE**	**RJ2 HONDA**
DISPLACEMENT	**2198cc(134.1")**	**2198cc(134.1")**	**2254cc(137.5")**
YEARS	**2001-2003**	**1998-2000**	**1998-1999**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	94.6mm(3.72")	94.6mm(3.72")	97mm(3.82")
MAIN JOURNAL DIA.	2.2884/2.2833"	2.2884/2.2833"	2.1646/2.1655"
ROD JOURNAL DIA.	1.9279/1.9287"	1.9279/1.9287"	1.7707/1.7717"
VALVE TRAIN			
LIFTERS	LIFIS16	LIFIS16	
INTAKE VALVE	IVIS16	IVIS16	IVH34
EXHAUST VALVE	EVIS16	EVIS16	EVH34
INTAKE GUIDE	IVGIS16	IVGIS16	IVGH21
EXHAUST GUIDE	EVGIS16	EVGIS16	EVGH21
VALVE SEALS	VSSIS16	VSSIS16	VSSH21
WATER PUMP & TIMING			
WATER PUMP	WPIS16	WPIS16	WPH20
TIMING BELT	TBIS16	TBIS16	TBH34
TENSIONERS			BTH20
BALANCE SHAFT BELT			TBH20B
BALANCE SHAFT BELT TENSIONER			BTH20B

ISUZU

MODEL	PICKUP	PICKUP AMIGO TROOPER	IMPULSE
ENGINE CODE	**4ZD1**	**4ZD1**	**4ZD1**
DISPLACEMENT	**2254cc(137.5")**	**2254cc(137.5")**	**2254cc(137.5")**
YEARS	**1995**	**1986-1994**	**1988-1989**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4; F.INJ.
BORE	89.3mm(3.516")	89.3mm(3.516")	89.3mm(3.516")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.2016/2.2022"	2.2016/2.2022"	2.2016/2.2022"
ROD JOURNAL DIA.	1.9262/1.9268"	1.9262/1.9268"	1.9262/1.9268"
ENGINE KITS			
GOLD KIT	EKIS6G	EKIS6G	
BRONZE KITS	EKIS6B	EKIS6B	
MAJOR KIT	EKIS6M	EKIS6M	
RE-RING KIT	EKIS6R	EKIS6R	EKIS6R
BEARING SETS			
MAIN BEARING SET	MBIS6	MBIS6	MBIS6
ROD BEARING SET	RBIS7	RBIS7	RBIS7
THRUST WASHER SET	TWC3	TWC3	TWC3
GASKETS			
FULL GASKET SET	CGSIS6	CGSIS6	CGSIS6
HEAD GASKET SET	HSIS6	HSIS6	HSIS6
HEAD GASKETS	HDGIS6	HDGIS6	HDGIS6
CONVERSION SET	CBSIS6	CBSIS6	CBSIS6
HEAD BOLT SET	HBIS7	HBIS7	HBIS7
PISTONS, RINGS, PLUGS			
PISTONS	PAIS6	PAIS6	
RING SETS	RSIS6	RSIS6	RSIS6
FREEZE PLUG SET	EPSIS6	EPSIS6	EPSIS6
CRANKSHAFT & RODS			
CONNECTING ROD	CRIS6	CRIS6	CRIS6
OIL PUMP			
NEW OIL PUMP	OPIS6	OPIS6	OPIS6

MODEL	PICKUP	PICKUP AMIGO TROOPER	IMPULSE
ENGINE CODE	**4ZD1**	**4ZD1**	**4ZD1**
DISPLACEMENT	**2254cc(137.5")**	**2254cc(137.5")**	**2254cc(137.5")**
YEARS	**1995**	**1986-1994**	**1988-1989**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4; F.INJ.
BORE	89.3mm(3.516")	89.3mm(3.516")	89.3mm(3.516")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.2016/2.2022"	2.2016/2.2022"	2.2016/2.2022"
ROD JOURNAL DIA.	1.9262/1.9268"	1.9262/1.9268"	1.9262/1.9268"
VALVE TRAIN			
ROCKER ARMS	RAC3	RAC3	RAC3
ROCKER ARM SHAFTS	RASIC3	RASIC3	RASIC3
ROCKER ARM SHAFTS	RASEC3	RASEC3	RASEC3
INTAKE VALVE	IVIS6	IVIS6	IVIS7
EXHAUST VALVE	EVIS6	EVIS6	EVIS7
INTAKE GUIDE	IVGC3	IVGC3	IVGC3
EXHAUST GUIDE	EVGC4	EVGC4	EVGC4
VALVE SEALS	VSSC24	VSSC24	VSSC24
WATER PUMP & TIMING			
WATER PUMP	WPIS6	WPIS6	WPIS6
TIMING BELT	TBIS6	TBIS6	TBIS6
TENSIONERS	BTIS6	BTIS6	BTIS6

ISUZU

MODEL	PICKUP AMIGO RODEO	PICKUP AMIGO TROOPER RODEO	AMIGO RODEO RODEO SPORT
ENGINE CODE	**4ZE1**	**4ZE1**	**6VD1W**
DISPLACEMENT	**2559cc(156.2")**	**2559cc(156.2")**	**3165cc(193.1")**
YEARS	**1993-1997**	**1988-1992**	**1998-2004**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ	8 VALVE; SOHC 4; F.INJ	24 VALVE; DOHC V6;F.INJ.
BORE	92.6mm(3.646")	92.6mm(3.646")	93.4mm(3.677")
STROKE	95mm(3.74")	95mm(3.74")	77mm(3.03")
MAIN JOURNAL DIA.	2.2016/2.2022"	2.2016/2.2022"	2.5165/2.5170"
ROD JOURNAL DIA.	1.9262/1.9268"	1.9262/1.9268"	2.1229/2.1235"
ENGINE KITS			
GOLD KIT	EKIS7LG	EKIS7G	EKIS13G
BRONZE KITS	EKIS7LB	EKIS7B	EKIS13B
MAJOR KIT	EKIS7LM	EKIS7M	EKIS13M
RE-RING KIT	EKIS7R	EKIS7R	EKIS13R
BEARING SETS			
MAIN BEARING SET	MBIS7	MBIS7	MBIS12
ROD BEARING SET	RBIS7	RBIS7	RBIS12
THRUST WASHER SET	TWC3	TWC3	TWIS12
GASKETS			
FULL GASKET SET	CGSIS7	CGSIS7	CGSIS13
HEAD GASKET SET	HSIS7	HSIS7	HSIS13
HEAD GASKETS	HDGIS7	HDGIS7	HDGIS13
CONVERSION SET	CBSIS6	CBSIS6	CBSIS12
HEAD BOLT SET	HBIS7	HBIS7	HBIS13
PISTONS, RINGS, PLUGS			
PISTONS	PAIS7L	PAIS7	PAIS13
RING SETS	RSIS7	RSIS7	RSIS13
FREEZE PLUG SET	EPSIS7	EPSIS7	
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSIS13
CONNECTING ROD	CRIS6	CRIS6	CRIS13
OIL PUMP			
NEW OIL PUMP	OPIS7	OPIS7	OPIS13

MODEL	PICKUP AMIGO RODEO	PICKUP AMIGO TROOPER RODEO	AMIGO RODEO RODEO SPORT
ENGINE CODE	**4ZE1**	**4ZE1**	**6VD1W**
DISPLACEMENT	**2559cc(156.2")**	**2559cc(156.2")**	**3165cc(193.1")**
YEARS	**1993-1997**	**1988-1992**	**1998-2004**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ	8 VALVE; SOHC 4; F.INJ	24 VALVE; DOHC V6;F.INJ.
BORE	92.6mm(3.646")	92.6mm(3.646")	93.4mm(3.677")
STROKE	95mm(3.74")	95mm(3.74")	77mm(3.03")
MAIN JOURNAL DIA.	2.2016/2.2022"	2.2016/2.2022"	2.5165/2.5170"
ROD JOURNAL DIA.	1.9262/1.9268"	1.9262/1.9268"	2.1229/2.1235"
VALVE TRAIN			
LIFTERS			LIFIS13
ROCKER ARMS	RAC3	RAC3	
ROCKER ARM SHAFTS	RASIC3	RASIC3	
ROCKER ARM SHAFTS	RASEC3	RASEC3	
INTAKE VALVE	IVIS7	IVIS7	IVIS13
EXHAUST VALVE	EVIS7	EVIS7	EVIS13
VALVE GUIDE			VGIS12
INTAKE GUIDE	IVGC3	IVGC3	
EXHAUST GUIDE	EVGC4	EVGC4	
VALVE SEALS	VSSC24	VSSC24	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPIS7	WPIS7	WPIS13
TIMING BELT	TBIS7	TBIS7	TBIS13
TENSIONERS	BTIS7	BTIS7	BTIS13H (hydraulic)
IDLERS AND PULLEYS			BTIS13I (idler)
			BTIS13R (pulley)

ISUZU

MODEL	TROOPER RODEO	TROOPER RODEO	TROOPER
ENGINE CODE	**6VD1**	**6VD1**	**6VD1 DOHC**
DISPLACEMENT	**3165cc(193.1")**	**3165cc(193.1")**	**3165cc(193.1")**
YEARS	**1996-1997**	**1992-1995**	**1992-1995**
DESCRIPTION	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.	24 VALVE; DOHC V6;F.INJ.
BORE	93.4mm(3.677")	93.4mm(3.677")	93.4mm(3.677")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	2.5165/2.5170"	2.5165/2.5170"	2.5165/2.5170"
ROD JOURNAL DIA.	2.1229/2.1235"	2.1229/2.1235"	2.1229/2.1235"
ENGINE KITS			
GOLD KIT	EKIS12LG	EKIS12G	EKIS12DG
BRONZE KITS	EKIS12LB	EKIS12B	EKIS12DB
MAJOR KIT	EKIS12LM	EKIS12M	EKIS12DM
RE-RING KIT	EKIS12LR	EKIS12R	EKIS12DR
BEARING SETS			
MAIN BEARING SET	MBIS12	MBIS12	MBIS12
ROD BEARING SET	RBIS12	RBIS12	RBIS12
THRUST WASHER SET	TWIS12	TWIS12	TWIS12
GASKETS			
FULL GASKET SET	CGSIS12L	CGSIS12	CGSIS12D
HEAD GASKET SET	HSIS12L	HSIS12	HSIS12D
HEAD GASKETS	HDGIS12	HDGIS12	HDGIS12
CONVERSION SET	CBSIS12	CBSIS12	CBSIS12
HEAD BOLT SET	HBIS12	HBIS12	HBIS12
PISTONS, RINGS, PLUGS			
PISTONS	PAIS12L	PAIS12	PAIS12
RING SETS	RSIS12	RSIS12	RSIS12
CRANKSHAFT & RODS			
CONNECTING ROD	CRIS12	CRIS12	CRIS12
OIL PUMP			
NEW OIL PUMP	OPIS12	OPIS12	OPIS12

MODEL	TROOPER RODEO	TROOPER RODEO	TROOPER
ENGINE CODE	**6VD1**	**6VD1**	**6VD1 DOHC**
DISPLACEMENT	**3165cc(193.1")**	**3165cc(193.1")**	**3165cc(193.1")**
YEARS	**1996-1997**	**1992-1995**	**1992-1995**
DESCRIPTION	24 VALVE; SOHC V6;F.INJ.	24 VALVE; SOHC V6;F.INJ.	24 VALVE; DOHC V6;F.INJ.
BORE	93.4mm(3.677")	93.4mm(3.677")	93.4mm(3.677")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	2.5165/2.5170"	2.5165/2.5170"	2.5165/2.5170"
ROD JOURNAL DIA.	2.1229/2.1235"	2.1229/2.1235"	2.1229/2.1235"
VALVE TRAIN			
LIFTERS	ALAMA12	ALAMA12	LIFIS12D
ROCKER ARMS	RAIS12I	RAIS12I	
ROCKER ARMS	RAIS12E (set of 2)	RAIS12E (set of 2)	
ROCKER ARM SHAFTS	RASIIS12	RASIIS12	
ROCKER ARM SHAFTS	RASEIS12	RASEIS12	
AUX. ROCKER ARMS	RAIS12S	RAIS12S	
INTAKE VALVE	IVIS12	IVIS12	IVIS12D
EXHAUST VALVE	EVIS12	EVIS12	EVIS12D
VALVE GUIDE	VGIS12	VGIS12	VGIS12
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPIS12	WPIS12	WPIS12
TIMING BELT	TBIS12	TBIS12	TBIS12D
TENSIONERS	BTIS13H (hydraulic)	BTIS13H (hydraulic)	
	BTIS12L (roller)	BTIS12L (roller 92-93)	

ISUZU

MODEL	RODEO AXIOM	TROOPER VehiCROSS AXIOM	
ENGINE CODE	**6VE1**	**6VE1**	
DISPLACEMENT	**3494cc(213.2")**	**3494cc(213.2")**	
YEARS	**2004**	**1998-2003**	
DESCRIPTION	24 VALVE; DOHC V6;F.INJ.	24 VALVE; DOHC V6;F.INJ.	
BORE	93.4mm(3.677")	93.4mm(3.677")	
STROKE	85mm(3.35")	85mm(3.35")	
MAIN JOURNAL DIA.	2.5165/2.5170"	2.5165/2.5170"	
ROD JOURNAL DIA.	2.1229/2.1235"	2.1229/2.1235"	
ENGINE KITS			
GOLD KIT		EKIS14G	
BRONZE KITS		EKIS14B	
MAJOR KIT		EKIS14M	
RE-RING KIT		EKIS13R	
BEARING SETS			
MAIN BEARING SET	MBIS12	MBIS12	
ROD BEARING SET	RBIS12	RBIS12	
THRUST WASHER SET	TWIS12	TWIS12	
GASKETS			
FULL GASKET SET		CGSIS13	
HEAD GASKET SET		HSIS13	
HEAD GASKETS		HDGIS13	
CONVERSION SET		CBSIS12	
HEAD BOLT SET	HBIS13	HBIS13	
PISTONS, RINGS, PLUGS			
PISTONS		PAIS14L	
RING SETS		RSIS13	
CRANKSHAFT & RODS			
CONNECTING ROD	CRIS13	CRIS13	
OIL PUMP			
NEW OIL PUMP		OPIS13	

MODEL	RODEO AXIOM	TROOPER VehiCROSS AXIOM	
ENGINE CODE	**6VE1**	**6VE1**	
DISPLACEMENT	**3494cc(213.2")**	**3494cc(213.2")**	
YEARS	**2004**	**1998-2003**	
DESCRIPTION	24 VALVE; DOHC V6;F.INJ.	24 VALVE; DOHC V6;F.INJ.	
BORE	93.4mm(3.677")	93.4mm(3.677")	
STROKE	85mm(3.35")	85mm(3.35")	
MAIN JOURNAL DIA.	2.5165/2.5170"	2.5165/2.5170"	
ROD JOURNAL DIA.	2.1229/2.1235"	2.1229/2.1235"	
VALVE TRAIN			
LIFTERS	LIFIS13	LIFIS13	
INTAKE VALVE		IVIS13	
EXHAUST VALVE		EVIS13	
VALVE GUIDE	EVGHY7	VGIS12	
VALVE SEALS	VSSTO15	VSSTO15	
WATER PUMP & TIMING			
WATER PUMP	WPIS13	WPIS13	
TIMING BELT		TBIS13	
TENSIONERS	BTIS13H (hydraulic)	BTIS13H (hydraulic)	
IDLERS AND PULLEYS	BTIS13I (idler) BTIS13R (pulley)	BTIS13I (idler) BTIS13R (pulley)	

JEEP

MODEL	COMPASS PATRIOT	PATRIOT COMPASS	LIBERTY (03-05) WRANGLER (03-06)
ENGINE CODE	**ECN**	**ED3/EDG**	**EDZ**
DISPLACEMENT	**1998cc(122")**	**2359cc(144")**	**2429cc(149.2")**
YEARS	**2007-2017**	**2007-2017**	**2003-2006**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	86.0mm(3.386")	88mm(3.465")	87.5mm(3.445")
STROKE	86.0mm(3.39")	97mm(3.82")	101mm(3.98")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.3610/2.3625"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.967/1.969"
ENGINE KITS			
MAJOR KIT			EKC28LLM
RE-RING KIT			EKC28LLR
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBC28
ROD BEARING SET	RBHY11	RBHY11	RBC28❶ RBC28S (std O/D)
THRUST WASHER SET	TWHY11	TWHY11	
INTERMEDIATE SET	-		
GASKETS			
FULL GASKET SET	CGSCHR1❷	CGSCHR2❷	CGSC28LL
HEAD GASKET SET	HSCHR1	HSCHR2	HSC28LL
HEAD GASKETS	HDGCHR1		HDGC28LL
CONVERSION SET	CBSHY11L❷	CBSHY11L❷	CBSC28
HEAD BOLT SET	HBHY11	HBHY11	HBC28
PISTONS, RINGS, PLUGS			
PISTONS	PACHR1	PAHY11	PAC30PTL
RING SETS	RSCHR1	RSHY11	RSC28L
FREEZE PLUG SET			EPSC26
CRANKSHAFT & RODS			
CONNECTING ROD	CRCHR1		CRC28

❶ (.002 over O/D shell)

❷ (rear seal/cover not included)

MODEL	COMPASS PATRIOT	PATRIOT COMPASS	LIBERTY (03-05) WRANGLER (03-06)
ENGINE CODE	**ECN**	**ED3/EDG**	**EDZ**
DISPLACEMENT	**1998cc(122")**	**2359cc(144")**	**2429cc(149.2")**
YEARS	**2007-2017**	**2007-2017**	**2003-2006**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	86.0mm(3.386")	88mm(3.465")	87.5mm(3.445")
STROKE	86.0mm(3.39")	97mm(3.82")	101mm(3.98")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.3610/2.3625"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.967/1.969"
VALVE TRAIN			
LIFTERS			LIFC28
ROCKER ARMS			RAC26
INTAKE VALVE	IVHY11	IVHY11	IVC26L (3 keeper)
EXHAUST VALVE	EVHY11	EVHY11	EVC26L (3 keeper)
VALVE GUIDE	VGHY11	VGHY11	VGC26
VALVE SEALS	VSSHY11	VSSHY11	VSSC26
WATER PUMP & TIMING			
WATER PUMP	-	-	WPC28L
TIMING CHAIN KIT	CTKCHR1❶	CTKCHR1❶	
TIMING BELT			TBC28
TENSIONERS			BTC28I (idler)

❶ (Cam Gear not included)

KIA

MODEL	RIO	NIRO HYBRID	SELTOS S SELTOS SX TURBO
ENGINE CODE	**A5D**	**- -**	**GAMMA**
DISPLACEMENT	**1493cc(91.1")**	**1580cc(96.4")**	**1591cc(97.1")**
YEARS	**2001-2002**	**2017-2022**	**2021-2022**
DESCRIPTION	16 VALVE;DOHC 4; F.INJ	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; F.INJ; Turbo vin
BORE	75.5mm(2.972")	72mm(2.834")	77mm(3.031")
STROKE	83mm(3.27")	97mm(3.82")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.9660/1.9668"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.5724/1.5731"	1.5336/1.5343"	1.6517/1.6524"
ENGINE KITS			
GOLD KIT	EKK7G		
MAJOR KIT	EKK7M		
RE-RING KIT	EKK7R		
BEARING SETS			
MAIN BEARING SET	MBMA9		MBHY22
ROD BEARING SET	RBMA19		RBHY22T
THRUST WASHER SET	TWMA9		TWHY22T
GASKETS			
FULL GASKET SET	CGSK7		CGSHY22ST
HEAD GASKET SET	HSK7		HSHY22ST
HEAD GASKETS	HDGK7		
CONVERSION SET	CBSMA13		CBSHY22
HEAD BOLT SET	HBK7		HBHY22L
PISTONS, RINGS, PLUGS			
PISTONS	PAK7		PAHY22ST
RING SETS	RSK7		RSHY22ST
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSHY22T
CONNECTING ROD	CRK7		CRHY22T
OIL PUMP			
NEW OIL PUMP	OPK7		

MODEL	RIO	NIRO HYBRID	SELTOS S SELTOS SX TURBO
ENGINE CODE	**A5D**	**- -**	**GAMMA**
DISPLACEMENT	**1493cc(91.1")**	**1580cc(96.4")**	**1591cc(97.1")**
YEARS	**2001-2002**	**2017-2022**	**2021-2022**
DESCRIPTION	16 VALVE;DOHC 4; F.INJ	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; F.INJ; Turbo vin
BORE	75.5mm(2.972")	72mm(2.834")	77mm(3.031")
STROKE	83mm(3.27")	97mm(3.82")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.9660/1.9668"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.5724/1.5731"	1.5336/1.5343"	1.6517/1.6524"
VALVE TRAIN			
LIFTERS	LIFMA13	LIFHY23	
INTAKE VALVE	IVK7		IVHY22
EXHAUST VALVE	EVK7		EVHY22
VALVE GUIDE	EVGD29❶		IVGSU16F
VALVE SEALS	VSSD29	VSSSU16	VSSSU16
WATER PUMP & TIMING			
TIMING CHAIN KIT			CTKHY22LB
TIMING BELT	TBK7		
TENSIONERS	BTMA13		
IDLERS AND PULLEYS	BTMA13R		

❶ (both int & ex)

KIA

MODEL	SOUL GT-Line TURBO	FORTE GT FORTE5 GT TURBO	OPTIMA TURBO
ENGINE CODE	**GAMMA**	**GAMMA**	**GAMMA**
DISPLACEMENT	**1591cc(97.1")**	**1591cc(97.1")**	**1591cc(97.1")**
YEARS	**2020-2022**	**2020-2022**	**2016-2020**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin F	16vlv; DOHC; 4; Turbo; vin C	16vlv; DOHC; 4; Turbo; vin 1
BORE	77mm(3.031")	77mm(3.031")	77mm(3.031")
STROKE	85.4mm(3.36")	85.4mm(3.36")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.6517/1.6524"
BEARING SETS			
MAIN BEARING SET	MBHY22	MBHY22	MBHY22
ROD BEARING SET	RBHY22T	RBHY22T	RBHY22T
THRUST WASHER SET	TWHY22T	TWHY22T	TWHY22T
GASKETS			
FULL GASKET SET	CGSHY22ST	CGSHY22ST	CGSHY22ST
HEAD GASKET SET	HSHY22ST	HSHY22ST	HSHY22ST
CONVERSION SET	CBSHY22	CBSHY22	CBSHY22
HEAD BOLT SET	HBHY22L	HBHY22L	HBHY22L
PISTONS, RINGS, PLUGS			
PISTONS	PAHY22ST	PAHY22ST	PAHY22ST
RING SETS	RSHY22ST	RSHY22ST	RSHY22ST
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY22T	CSHY22T	CSHY22T
CONNECTING ROD	CRHY22T	CRHY22T	CRHY22T
OIL PUMP			
NEW OIL PUMP	OPHY22LK❶	OPHY22LK❶	OPHY22LK❶

❶ (cover, rotor set, relief valve & screw kit)

MODEL	SOUL GT-Line TURBO	FORTE GT FORTE5 GT TURBO	OPTIMA TURBO
ENGINE CODE	**GAMMA**	**GAMMA**	**GAMMA**
DISPLACEMENT	**1591cc(97.1")**	**1591cc(97.1")**	**1591cc(97.1")**
YEARS	**2020-2022**	**2020-2022**	**2016-2020**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin F	16vlv; DOHC; 4; Turbo; vin C	16vlv; DOHC; 4; Turbo; vin 1
BORE	77mm(3.031")	77mm(3.031")	77mm(3.031")
STROKE	85.4mm(3.36")	85.4mm(3.36")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.6517/1.6524"
VALVE TRAIN			
INTAKE VALVE	IVHY22	IVHY22	IVHY22
EXHAUST VALVE	EVHY22	EVHY22	EVHY22
VALVE GUIDE	IVGSU16F	IVGSU16F	IVGSU16F
VALVE SEALS	VSSSU16	VSSSU16	VSSSU16
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKHY22LB	CTKHY22LB	CTKHY22LB
TIMING COVER	TCHY22L❶	TCHY22L❶	TCHY22L❶

❶ (includes oil pump)

KIA

MODEL	RIO	SOUL TURBO	SOUL
ENGINE CODE	G4FD	GAMMA	GAMMA
DISPLACEMENT	1591cc(97.1")	1591cc(97.1")	1591cc(97.1")
YEARS	2018-2019	2017-2019	2012-2019
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin B	16vlv; DOHC; 4; Turbo; vin A	16vlv; DOHC; 4; F.INJ
BORE	77mm(3.031")	77mm(3.031")	77mm(3.031")
STROKE	85.4mm(3.36")	85.4mm(3.36")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.6517/1.6524"
BEARING SETS			
MAIN BEARING SET	MBHY22	MBHY22	MBHY22
ROD BEARING SET	RBHY22	RBHY22T	RBHY22
THRUST WASHER SET	TWHY22	TWHY22T	TWHY22
GASKETS			
FULL GASKET SET	CGSHY22L	CGSHY22ST	CGSHY22L
HEAD GASKET SET	HSHY22L	HSHY22ST	HSHY22L
CONVERSION SET	CBSHY22	CBSHY22	CBSHY22
HEAD BOLT SET	HBHY22L	HBHY22L	HBHY22L
PISTONS, RINGS, PLUGS			
PISTONS	PAHY22L	PAHY22VT	PAHY22L
RING SETS	RSHY22L	RSHY22ST	RSHY22L
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY22L	CSHY22T	CSHY22L❶
CONNECTING ROD	CRHY22	CRHY22T	CRHY22
OIL PUMP			
NEW OIL PUMP	OPHY22LK❷	OPHY22LK❷	OPHY22LK❷

❶ (For Non Turbo only)

❷ (cover, rotor set, relief valve & screw kit)

MODEL	RIO	SOUL TURBO	SOUL
ENGINE CODE	G4FD	GAMMA	GAMMA
DISPLACEMENT	1591cc(97.1")	1591cc(97.1")	1591cc(97.1")
YEARS	2018-2019	2017-2019	2012-2019
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin B	16vlv; DOHC; 4; Turbo; vin A	16vlv; DOHC; 4; F.INJ
BORE	77mm(3.031")	77mm(3.031")	77mm(3.031")
STROKE	85.4mm(3.36")	85.4mm(3.36")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.6517/1.6524"
VALVE TRAIN			
INTAKE VALVE	IVHY22	IVHY22	IVHY22
EXHAUST VALVE	EVHY22	EVHY22	EVHY22
VALVE GUIDE	IVGSU16F	IVGSU16F	IVGSU16F
VALVE SEALS	VSSSU16	VSSSU16	VSSSU16
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKHY22L	CTKHY22LB	CTKHY22L
TIMING COVER	TCHY22L	TCHY22L❶	TCHY22L❶

❶ (includes oil pump)

KIA

MODEL	FORTE 5 SX FORTE KOUP SX TURBO	RIO	FORTE 5 SX FORTE KOUP SX TURBO
ENGINE CODE	**G4FJ GAMMA**	**G4FD**	**G4FJ GAMMA**
DISPLACEMENT	**1591cc(97.1")**	**1591cc(97.1")**	**1591cc(97.1")**
YEARS	**2017-2018**	**2012-2017**	**2014-2016**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin 3	16vlv; DOHC; 4; F.INJ; vin 3	16vlv; DOHC; 4; Turbo; vin 3
BORE	77mm(3.031")	77mm(3.031")	77mm(3.031")
STROKE	85.4mm(3.36")	85.4mm(3.36")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.6517/1.6524"
BEARING SETS			
MAIN BEARING SET	MBHY22	MBHY22	MBHY22
ROD BEARING SET	RBHY22T	RBHY22	RBHY22T
THRUST WASHER SET	TWHY22T	TWHY22	TWHY22T
GASKETS			
FULL GASKET SET	CGSHY22ST	CGSHY22L	CGSHY22ST
HEAD GASKET SET	HSHY22ST	HSHY22L	HSHY22ST
CONVERSION SET	CBSHY22	CBSHY22	CBSHY22
HEAD BOLT SET	HBHY22L	HBHY22L	HBHY22L
PISTONS, RINGS, PLUGS			
PISTONS	PAHY22VT	PAHY22L	PAHY22VT
RING SETS	RSHY22ST	RSHY22L	RSHY22ST
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY22T	CSHY22L❶	CSHY22T
CONNECTING ROD	CRHY22T	CRHY22	CRHY22T
OIL PUMP			
NEW OIL PUMP	OPHY22LK❷	OPHY22LK❷	OPHY22LK❷

❶ (For Non Turbo only)

❷ (cover, rotor set, relief valve & screw kit)

MODEL	FORTE 5 SX FORTE KOUP SX TURBO	RIO	FORTE 5 SX FORTE KOUP SX TURBO
ENGINE CODE	**G4FJ GAMMA**	**G4FD**	**G4FJ GAMMA**
DISPLACEMENT	**1591cc(97.1")**	**1591cc(97.1")**	**1591cc(97.1")**
YEARS	**2017-2018**	**2012-2017**	**2014-2016**
DESCRIPTION	16vlv; DOHC; 4; Turbo; vin 3	16vlv; DOHC; 4; F.INJ; vin 3	16vlv; DOHC; 4; Turbo; vin 3
BORE	77mm(3.031")	77mm(3.031")	77mm(3.031")
STROKE	85.4mm(3.36")	85.4mm(3.36")	85.4mm(3.36")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.8875/1.8882"	1.8875/1.8882"
ROD JOURNAL DIA.	1.6517/1.6524"	1.6517/1.6524"	1.6517/1.6524"
VALVE TRAIN			
INTAKE VALVE	IVHY22	IVHY22	IVHY22
EXHAUST VALVE	EVHY22	EVHY22	EVHY22
VALVE GUIDE	IVGSU16F	IVGSU16F	IVGSU16F
VALVE SEALS	VSSSU16	VSSSU16	VSSSU16
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKHY22LB	CTKHY22L	CTKHY22L
TIMING COVER	TCHY22L❶	TCHY22L	TCHY22L❶

❶ (includes oil pump)

KIA

MODEL	SOUL	RIO	SEPHIA
ENGINE CODE	GAMMA	A6D	B6ZE
DISPLACEMENT	1591cc(97.1")	1594cc(97")	1597cc(97.4")
YEARS	2010-2011	2003-2005	1995-1997
DESCRIPTION	16 VALVE DOHC 4; MPI	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	77mm(3.031")	78mm(3.071")	78mm(3.071")
STROKE	85.4mm(3.36")	83mm(3.27")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.9660/1.9668"	1.9660/1.9668"
ROD JOURNAL DIA.	1.6517/1.6524"	1.5724/1.5731"	1.7693/1.7699"
ENGINE KITS			
GOLD KIT		EKK8G	EKK2G
BRONZE KITS			EKK2B
MAJOR KIT		EKK8M	EKMA14LM
RE-RING KIT		EKK8R	EKMA14LR
BEARING SETS			
MAIN BEARING SET	MBHY22	MBMA9	MBMA9
ROD BEARING SET	RBHY22	RBMA19	RBMA9
THRUST WASHER SET	TWHY22	TWMA9	TWMA9
GASKETS			
FULL GASKET SET	CGSHY22	CGSK8	CGSMA14L
HEAD GASKET SET	HSHY22	HSK8	HSMA14L
HEAD GASKETS		HDGK8	HDGMA14L
CONVERSION SET	CBSHY22	CBSMA13	CBSMA13
HEAD BOLT SET		HBK8	
PISTONS, RINGS, PLUGS			
PISTONS	PAHY22	PAK8	PAMA14L
RING SETS	RSHY22	RSK8	RSMA14
FREEZE PLUG SET		EPSMA9	EPSMA13
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSMA14
CONNECTING ROD	CRHY22	CRK7	
OIL PUMP			
NEW OIL PUMP	OPHY22	OPK7	OPK2

MODEL	SOUL	RIO	SEPHIA
ENGINE CODE	**GAMMA**	**A6D**	**B6ZE**
DISPLACEMENT	**1591cc(97.1")**	**1594cc(97")**	**1597cc(97.4")**
YEARS	**2010-2011**	**2003-2005**	**1995-1997**
DESCRIPTION	16 VALVE DOHC 4; MPI	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	77mm(3.031")	78mm(3.071")	78mm(3.071")
STROKE	85.4mm(3.36")	83mm(3.27")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.8875/1.8882"	1.9660/1.9668"	1.9660/1.9668"
ROD JOURNAL DIA.	1.6517/1.6524"	1.5724/1.5731"	1.7693/1.7699"
VALVE TRAIN			
LIFTERS		LIFMA13	LIFMA13
INTAKE VALVE	IVHY22	IVK8	IVK7
EXHAUST VALVE	EVHY22	EVK8	EVK7
VALVE GUIDE	IVGSU16F	EVGD29❶	EVGD29❶
VALVE SEALS	VSSSU16	VSSD29	VSSD29
WATER PUMP & TIMING			
WATER PUMP			WPMA13
TIMING CHAIN KIT	CTKHY22		
TIMING BELT		TBK7	TBMA13
TENSIONERS		BTMA13	BTMA13
IDLERS AND PULLEYS		BTMA13R	BTMA13R

❶ (both int & ex)

KIA

MODEL	SEPHIA	K5 TURBO	RIO
ENGINE CODE	B6	GAMMA II	GAMMA II
DISPLACEMENT	1597cc(97.4")	1598cc(97.5")	1598cc(97.5")
YEARS	1994-1995	2021-2022	2020-2022
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ; Turbo vin	16vlv; DOHC; 4; F.INJ; MPI; vin
BORE	78mm(3.071")	75.6mm(2.976")	75.6mm(2.976")
STROKE	83.6mm(3.29")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.	1.9660/1.9668"	1.7694/1.7701"	1.7694/1.7701"
ROD JOURNAL DIA.	1.7693/1.7699"	1.6517/1.6524"	1.6517/1.6524"
ENGINE KITS			
MAJOR KIT	EKMA14M		
RE-RING KIT	EKMA14R		
BEARING SETS			
MAIN BEARING SET	MBMA9		
ROD BEARING SET	RBMA9		
THRUST WASHER SET	TWMA9		
GASKETS			
FULL GASKET SET	CGSMA14		
HEAD GASKET SET	HSMA14		
HEAD GASKETS	HDGMA14		
CONVERSION SET	CBSMA13		
PISTONS, RINGS, PLUGS			
PISTONS	PAMA14		
RING SETS	RSMA14		
FREEZE PLUG SET	EPSMA9		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA14		
CONNECTING ROD	CRMA14		

MODEL	SEPHIA	K5 TURBO	RIO
ENGINE CODE	**B6**	**GAMMA II**	**GAMMA II**
DISPLACEMENT	**1597cc(97.4")**	**1598cc(97.5")**	**1598cc(97.5")**
YEARS	**1994-1995**	**2021-2022**	**2020-2022**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ; Turbo vin	16vlv; DOHC; 4; F.INJ; MPI; vin
BORE	78mm(3.071")	75.6mm(2.976")	75.6mm(2.976")
STROKE	83.6mm(3.29")	89.0mm(3.50")	89.0mm(3.50")
MAIN JOURNAL DIA.	1.9660/1.9668"	1.7694/1.7701"	1.7694/1.7701"
ROD JOURNAL DIA.	1.7693/1.7699"	1.6517/1.6524"	1.6517/1.6524"
VALVE TRAIN			
LIFTERS	ALAMA12		
ROCKER ARMS	RAMA11I (int) RAMA11E (ex)		
INTAKE VALVE	IVMA14		
EXHAUST VALVE	EVMA14		
VALVE GUIDE	VGMA13		
VALVE SEALS	VSSMA13	VSSSU16	VSSSU16
WATER PUMP & TIMING			
WATER PUMP	WPMA11		
TIMING BELT	TBMA11		
TENSIONERS	BTMA9		
IDLERS AND PULLEYS	BTMA13R		

KIA

MODEL	RIO RIO5	SPECTRA	SPECTRA
ENGINE CODE	**G4ED**	**FB**	**FB**
DISPLACEMENT	**1599cc(95.1")**	**1793cc(109.4")**	**1793cc(109.4")**
YEARS	**2006-2011**	**2001-2004**	**2000-2001**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	76.5mm(3.012")	81mm(3.189")	81mm(3.189")
STROKE	87mm(3.42")	87mm(3.42")	87mm(3.42")
MAIN JOURNAL DIA.	1.9680/1.9685"	2.1630/2.1636"	2.1630/2.1636"
ROD JOURNAL DIA.	1.7710/1.7717"	1.7707/1.7713"	1.7707/1.7713"
ENGINE KITS			
GOLD KIT		EKK6SG	
BRONZE KITS		EKK6SB	
MAJOR KIT	EKHY15M	EKK6SM	EKK6M
RE-RING KIT	EKHY15R	EKK6SR	EKK6R
BEARING SETS			
MAIN BEARING SET	MBHY15	MBK6	MBK6
ROD BEARING SET	RBHY2	RBK6	RBK6
THRUST WASHER SET		TWK6	TWK6
GASKETS			
FULL GASKET SET	CGSHY15	CGSK6L❶	CGSK6 (To 05/21/01)
HEAD GASKET SET	HSHY15	HSK6L❶	HSK6 (To 05/21/01)
HEAD GASKETS			HDGK6 (To 05/21/01)
CONVERSION SET	CBSHY4	CBSK6	CBSK6
HEAD BOLT SET	HBHY4	HBK6	HBK6
PISTONS, RINGS, PLUGS			
PISTONS	PAHY15	PAK6S❶	PAK6 (To 05/21/01)
RING SETS	RSHY15	RSK6S❶	RSK6 (To 05/21/01)
PIN BUSHINGS		PBK6	PBK6
FREEZE PLUG SET	EPSC11		
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSK6	CSK6
CONNECTING ROD	CRHY2 (12mm nut)	CRK6	CRK6
OIL PUMP			
NEW OIL PUMP	OPHY4	OPK6S❶	OPK6 (To 05/21/01)

❶ (from 05/23/01)

MODEL	RIO RIO5	SPECTRA	SPECTRA
ENGINE CODE	**G4ED**	**FB**	**FB**
DISPLACEMENT	**1599cc(95.1")**	**1793cc(109.4")**	**1793cc(109.4")**
YEARS	**2006-2011**	**2001-2004**	**2000-2001**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	76.5mm(3.012")	81mm(3.189")	81mm(3.189")
STROKE	87mm(3.42")	87mm(3.42")	87mm(3.42")
MAIN JOURNAL DIA.	1.9680/1.9685"	2.1630/2.1636"	2.1630/2.1636"
ROD JOURNAL DIA.	1.7710/1.7717"	1.7707/1.7713"	1.7707/1.7713"
VALVE TRAIN			
LIFTERS	LIFHY4	LIFMA13	LIFMA13
INTAKE VALVE	IVHY4L	IVK6	IVK6
EXHAUST VALVE	EVHY4	EVK6	EVK6
VALVE GUIDE	VGTO28	VGTO28	VGTO28
VALVE SEALS	VSSTO15	VSSMA13	VSSMA13
WATER PUMP & TIMING			
WATER PUMP		WPK6	WPK6
TIMING BELT	TBHY4	TBK6	TBK6
TENSIONERS	BTHY4	BTK6	BTK6
IDLERS AND PULLEYS	BTHY4I	BTMA13R	BTMA13R
ENGINES & HEADS			
HEAD W/VALVES			CHVK6

KIA

MODEL	SEPHIA	FORTE	SEPHIA
ENGINE CODE	FB	ULEV	BPD
DISPLACEMENT	1793cc(109.4")	1797cc(109.7")	1839cc(109.4")
YEARS	1998-2001	2014-2016	1995-1997
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16vlv;DOHC; 4; F.INJ; vin 6	16 VALVE; DOHC 4; F.INJ.
BORE	81mm(3.189")	81.0mm(3.189")	83mm(3.268")
STROKE	87mm(3.42")	87.1mm(3.43")	85mm(3.35")
MAIN JOURNAL DIA.	2.1630/2.1636"	2.1631/2.1638"	1.9660/1.9668"
ROD JOURNAL DIA.	1.7707/1.7713"	1.7698" / 1.7706"	1.7696/1.7699"
ENGINE KITS			
GOLD KIT			EKK3G
BRONZE KITS			EKK3B
MAJOR KIT	EKK6M		EKMA13M
RE-RING KIT	EKK6R		EKMA13R
BEARING SETS			
MAIN BEARING SET	MBK6	MBHY23❶	MBMA9
ROD BEARING SET	RBK6	RBHY23❷	RBMA9
THRUST WASHER SET	TWK6	TWHY23	TWMA9
GASKETS			
FULL GASKET SET	CGSK6	CGSHY23	CGSMA13
HEAD GASKET SET	HSK6	HSHY23	HSMA13
HEAD GASKETS	HDGK6		HDGMA13
CONVERSION SET	CBSK6	CBSHY23	CBSMA13
HEAD BOLT SET	HBK6	HBHY23	
PISTONS, RINGS, PLUGS			
PISTONS	PAK6	PAHY23	PAMA13
RING SETS	RSK6	RSHY23	RSMA13
PIN BUSHINGS	PBK6		
FREEZE PLUG SET			EPSMA13
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSK6	CSHY23E❸ CSHY23❹	CSK3
CONNECTING ROD	CRK6	CRHY23	
OIL PUMP			
NEW OIL PUMP	OPK6	TCHY23F❺	OPK2

❶ (2 Hole Upper Shell)
❷ (1/2 tabs left, 1/2 tabs right)
❸ (8.3 mm tooth-width silent gear)
❹ (6.3 mm tooth-width silent gear)
❺ (12mm engine mount studs)

MODEL	SEPHIA	FORTE	SEPHIA
ENGINE CODE	FB	ULEV	BPD
DISPLACEMENT	1793cc(109.4")	1797cc(109.7")	1839cc(109.4")
YEARS	1998-2001	2014-2016	1995-1997
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16vlv;DOHC; 4; F.INJ; vin 6	16 VALVE; DOHC 4; F.INJ.
BORE	81mm(3.189")	81.0mm(3.189")	83mm(3.268")
STROKE	87mm(3.42")	87.1mm(3.43")	85mm(3.35")
MAIN JOURNAL DIA.	2.1630/2.1636"	2.1631/2.1638"	1.9660/1.9668"
ROD JOURNAL DIA.	1.7707/1.7713"	1.7698" / 1.7706"	1.7696/1.7699"
VALVE TRAIN			
LIFTERS	LIFMA13	LIFHY23	LIFMA13
INTAKE VALVE	IVK6	IVHY23	IVMA13
EXHAUST VALVE	EVK6	EVHY23	EVMA13
VALVE GUIDE	VGTO28	VGHY11	VGMA13
VALVE SEALS	VSSMA13	VSSHY11	VSSMA13
WATER PUMP & TIMING			
WATER PUMP	WPK6		WPMA13
GEARLESS TIMING KIT		PTKHY23❶ PTKHY23V❷	
TIMING BELT	TBK6		TBMA13
TENSIONERS	BTK6		BTMA13
IDLERS AND PULLEYS	BTMA13R		BTMA13R
TIMING COVER		TCHY23F❸	
ENGINES & HEADS			
HEAD W/VALVES	CHVK6		

❶ (with silent chain)
❷ (Silent Chain application)
❸ (12mm engine mount studs)

KIA

MODEL	SPECTRA (07-09) SPORTAGE (07-10) SOUL (10-11)	SPECTRA SPORTAGE	SPORTAGE
ENGINE CODE	**G4GF BETA**	**G4GF BETA**	**FE**
DISPLACEMENT	**1975cc(120.5")**	**1975cc(120.5")**	**1998cc(121.9")**
YEARS	**2007-2011**	**2004-2006**	**1995-2002**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	82mm(3.228")	82mm(3.228")	86mm(3.386")
STROKE	93.5mm(3.68")	93.5mm(3.68")	86mm(3.39")
MAIN JOURNAL DIA.	2.2435/2.2441"	2.2435/2.2441"	2.3597/2.3604"
ROD JOURNAL DIA.	1.7707/1.7713"	1.7707/1.7713"	2.0055/2.0061"
ENGINE KITS			
GOLD KIT	EKHY5LG	EKHY5LG	EKK5G
BRONZE KITS			EKK5B
MAJOR KIT	EKHY5LM	EKHY5LM	EKK5M
RE-RING KIT	EKHY5LR EKHY16R❶	EKHY5LR	EKK5R
BEARING SETS			
MAIN BEARING SET	MBHY3L	MBHY3L	MBK5
ROD BEARING SET	RBHY3	RBHY3	RBMA16
THRUST WASHER SET	TWHY3	TWHY3	TWK5
GASKETS			
FULL GASKET SET	CGSHY5L	CGSHY5L	CGSK5
HEAD GASKET SET	HSHY5L	HSHY5L	HSK5
HEAD GASKETS	HDGHY5L	HDGHY5L	HDGK5
CONVERSION SET	CBSHY3	CBSHY3	CBSK5
HEAD BOLT SET	HBHY3	HBHY3	
PISTONS, RINGS, PLUGS			
PISTONS	PAHY5L	PAHY5L	PAK5
RING SETS	RSHY5❷ RSHY16❶	RSHY5	RSMA8
PIN BUSHINGS			PBK5
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMA8
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSK5
CONNECTING ROD			CRK5
OIL PUMP			
NEW OIL PUMP	OPHY3	OPHY3	OPK4

❶ (2.0mm oil ring)
❷ (2.5mm oil ring)

MODEL	SPECTRA (07-09) SPORTAGE (07-10) SOUL (10-11)	SPECTRA SPORTAGE	SPORTAGE
ENGINE CODE	**G4GF BETA**	**G4GF BETA**	**FE**
DISPLACEMENT	**1975cc(120.5")**	**1975cc(120.5")**	**1998cc(121.9")**
YEARS	**2007-2011**	**2004-2006**	**1995-2002**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	82mm(3.228")	82mm(3.228")	86mm(3.386")
STROKE	93.5mm(3.68")	93.5mm(3.68")	86mm(3.39")
MAIN JOURNAL DIA.	2.2435/2.2441"	2.2435/2.2441"	2.3597/2.3604"
ROD JOURNAL DIA.	1.7707/1.7713"	1.7707/1.7713"	2.0055/2.0061"
VALVE TRAIN			
INTAKE CAMSHAFT			CAMK5I
LIFTERS	LIFHY5	LIFHY5	LIFK5
INTAKE VALVE	IVHY5	IVHY5	IVK5
EXHAUST VALVE	EVHY5	EVHY5	EVK5
INTAKE GUIDE	IVGMI22	IVGMI22	IVGMA13L (int.)
EXHAUST GUIDE	EVGMI22	EVGMI22	EVGMA13L (ex.)
VALVE SEALS	VSSTO15	VSSTO15	VSSMA13
WATER PUMP & TIMING			
WATER PUMP	WPHY3	WPHY3	WPK5
TIMING BELT	TBHY5	TBHY5	TBK5
TENSIONERS	BTHY3R	BTHY3R	BTMA12
		BTHY3 (04-05)	BTMA12R (roller type)

KIA

MODEL	SPORTAGE	SPORTAGE TURBO	STINGER TURBO
ENGINE CODE	FE	THETA II	THETA II
DISPLACEMENT	1998cc(121.9")	1998cc(122")	1998cc(122")
YEARS	1995	2016-2022	2018-2021
DESCRIPTION	8 VALVE; SOHC 4; F.INJ	16vlv; DOHC; 4; Turbo; GDI	16vlv; DOHC; 4; Turbo; GDI
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.3597/2.3604"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	2.0055/2.0061"	1.8894/1.8890"	1.8894/1.8890"
ENGINE KITS			
GOLD KIT	EKK4G		
BRONZE KITS	EKK4B		
MAJOR KIT	EKK4M		
RE-RING KIT	EKK4R		
BEARING SETS			
MAIN BEARING SET	MBK5	MBHY11L	MBHY11L
ROD BEARING SET	RBMA8	RBHY11L	RBHY11L
THRUST WASHER SET	TWK5	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSK4	CGSHY20SP❶	
HEAD GASKET SET	HSK4	HSHY20SP❶	
HEAD GASKETS	HDGK4		
CONVERSION SET	CBSK4	CBSHY24	
HEAD BOLT SET	HBMA12	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAMA8	PAHY20GT	PAHY20GT
RING SETS	RSMA8	RSHY20GT	RSHY20GT
PIN BUSHINGS		PBHY24	
FREEZE PLUG SET	EPSMA8		
CRANKSHAFT & RODS			
CONNECTING ROD		CRHY20S	
OIL PUMP			
NEW OIL PUMP	OPK4		

❶ (from 04/2016-on)

MODEL	SPORTAGE	SPORTAGE TURBO	STINGER TURBO
ENGINE CODE	FE	THETA II	THETA II
DISPLACEMENT	1998cc(121.9")	1998cc(122")	1998cc(122")
YEARS	1995	2016-2022	2018-2021
DESCRIPTION	8 VALVE; SOHC 4; F.INJ	16vlv; DOHC; 4; Turbo; GDI	16vlv; DOHC; 4; Turbo; GDI
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.3597/2.3604"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	2.0055/2.0061"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
ROCKER ARMS	RAMA8A (1 & 3) RAMA8B (2 & 4)		
ROCKER ARM SHAFTS	RASIMA8		
ROCKER ARM SHAFTS	RASEMA8		
INTAKE VALVE	IVMA8	IVHY11	IVHY11
EXHAUST VALVE	EVMA8	EVHY11	
VALVE GUIDE	VGMA8	VGHY11	VGHY11
VALVE SEALS	VSSMA7	VSSHY11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP	WPMA12		
GEARLESS TIMING KIT		PTKHY20GT	
TIMING BELT	TBK4		
TENSIONERS	BTMA12		
IDLERS AND PULLEYS	BTMA12R (roller type)		

KIA

MODEL	OPTIMA SORENTO (16-18) TURBO	SPORTAGE TURBO	OPTIMA SPORTAGE (11-13) TURBO
ENGINE CODE	**THETA II**	**THETA II**	**THETA II**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2016-2020**	**2014-2015**	**2011-2015**
DESCRIPTION	16vlv; DOHC; 4; Turbo; GDI	16vlv; DOHC; 4; Turbo; vin 6	16vlv; DOHC; 4; Turbo; vin 6
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
BEARING SETS			
MAIN BEARING SET	MBHY11L	MBHY11	MBHY11
ROD BEARING SET	RBHY11L	RBHY11	RBHY11
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY20GT	CGSHY20S	CGSHY20S
HEAD GASKET SET	HSHY20GT	HSHY20S	HSHY20S
CONVERSION SET	CBSHY24	CBSHY11L	CBSHY11L
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY20GT	PAHY20FTD	PAHY20S
RING SETS	RSHY20GT	RSHY20S	RSHY20S
PIN BUSHINGS	PBHY24	PBHY24	PBHY24
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSHY20S	CSHY20S
CONNECTING ROD	CRHY20S	CRHY20S	CRHY20S

MODEL	OPTIMA SORENTO (16-18) TURBO	SPORTAGE TURBO	OPTIMA SPORTAGE (11-13) TURBO
ENGINE CODE	**THETA II**	**THETA II**	**THETA II**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2016-2020**	**2014-2015**	**2011-2015**
DESCRIPTION	16vlv; DOHC; 4; Turbo; GDI	16vlv; DOHC; 4; Turbo; vin 6	16vlv; DOHC; 4; Turbo; vin 6
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKHY20S (2014-15 only)	CTKHY20S❶
GEARLESS TIMING KIT	PTKHY20GT		

❶ (03/2011 & later)

KIA

MODEL	FORTE FORTE KOUP	OPTIMA HYBRID	SOUL
ENGINE CODE	**THETA II**	**Nu**	**Nu**
DISPLACEMENT	**1998cc(122")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2010-2013**	**2017-2020**	**2017-2019**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; FHEV; vin C	16 VALVE DOHC 4; GDI.
BORE	86mm(3.386")	81.0mm(3.189")	81.0mm(3.189")
STROKE	86mm(3.39")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.8894/1.8890"	1.7698" / 1.7706"	1.7698" / 1.7706"
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY23L❶	MBHY23L❶
ROD BEARING SET	RBHY11	RBHY23❷	RBHY23❷
THRUST WASHER SET	TWHY11	TWHY23	TWHY23
GASKETS			
FULL GASKET SET	CGSHY19K❸		CGSHY23M
HEAD GASKET SET	HSHY19K		HSHY23M
CONVERSION SET	CBSHY11L	CBSHY23	CBSHY23
HEAD BOLT SET	HBHY11	HBHY23	HBHY23
PISTONS, RINGS, PLUGS			
PISTONS	PACHR1		PAHY23E
RING SETS	RSCHR1		RSHY23
PIN BUSHINGS		PBHY23	PBHY23
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSHY23R❹	CSHY23R❹
CONNECTING ROD		CRHY23L	CRHY23L
OIL PUMP			
NEW OIL PUMP	OPHY19❺		TCHY23F❻

❶ (1 Hole Upper Shell)
❷ (1/2 tabs left, 1/2 tabs right)
❸ (Calif emission gaskets not included)
❹ (Roller Chain application)
❺ (except California)
❻ (12mm engine mount studs)

MODEL	FORTE FORTE KOUP	OPTIMA HYBRID	SOUL
ENGINE CODE	**THETA II**	**Nu**	**Nu**
DISPLACEMENT	**1998cc(122")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2010-2013**	**2017-2020**	**2017-2019**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; FHEV; vin C	16 VALVE DOHC 4; GDI.
BORE	86mm(3.386")	81.0mm(3.189")	81.0mm(3.189")
STROKE	86mm(3.39")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.8894/1.8890"	1.7698" / 1.7706"	1.7698" / 1.7706"
VALVE TRAIN			
LIFTERS		LIFHY23	LIFHY23
INTAKE VALVE	IVHY11	IVHY23	IVHY23
EXHAUST VALVE	EVHY11	EVHY23	EVHY23
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
CAM DRIVE TIMING KIT	PTKHY11C❶		
GEARLESS TIMING KIT		PTKHY23L❷	PTKHY23L❷
TIMING COVER			TCHY23F❸

❶ 4pc kit (chain, tens, 2 guides)
❷ (with roller chain)
❸ (12mm engine mount studs)

KIA

MODEL	FORTE FORTE KOUP FORTE 5	FORTE (LX or S model)	RONDO
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2017-2018**	**2017-2018**	**2014-2017**
DESCRIPTION	16vlv; DOHC; 4; GDI; vin 8	16vlv; DOHC; 4; MPI; vin 7	16 VALVE; DOHC 4; GDi
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7698" / 1.7706"
BEARING SETS			
MAIN BEARING SET	MBHY23L❶	MBHY23L❶	MBHY23❷ MBHY23L❶
ROD BEARING SET	RBHY23❸	RBHY23❸	RBHY23❸
THRUST WASHER SET	TWHY23	TWHY23	TWHY23
GASKETS			
FULL GASKET SET	CGSHY23E	CGSHY23N	CGSHY23E
HEAD GASKET SET	HSHY23E	HSHY23N	HSHY23E
CONVERSION SET	CBSHY23	CBSHY23	CBSHY23
HEAD BOLT SET	HBHY23	HBHY23	HBHY23
PISTONS, RINGS, PLUGS			
PISTONS	PAHY23E	PAHY23V	PAHY23E
RING SETS	RSHY23	RSHY23	RSHY23
PIN BUSHINGS	PBHY23	PBHY23	PBHY23
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY23R❹	CSHY23S❺	CSHY23R❹
CONNECTING ROD	CRHY23L	CRHY23L	CRHY23L

❶ (1 Hole Upper Shell)
❷ (2 Hole Upper Shell)
❸ (1/2 tabs left, 1/2 tabs right)
❹ (Roller Chain application)
❺ (Silent Chain application)

MODEL	FORTE FORTE KOUP FORTE 5	FORTE (LX or S model)	RONDO
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2017-2018**	**2017-2018**	**2014-2017**
DESCRIPTION	16vlv; DOHC; 4; GDI; vin 8	16vlv; DOHC; 4; MPI; vin 7	16 VALVE; DOHC 4; GDi
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7698" / 1.7706"
VALVE TRAIN			
LIFTERS	LIFHY23	LIFHY23	LIFHY23
INTAKE VALVE	IVHY23	IVHY23	IVHY23
EXHAUST VALVE	EVHY23	EVHY23	EVHY23
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY23L❶	PTKHY23V❷	PTKHY23L❶
TIMING COVER	TCHY23F❸		

❶ (with roller chain)
❷ (Silent Chain application)
❸ (12mm engine mount studs)

KIA

MODEL	FORTE FORTE 5 FORTE KOUP	SOUL	SOUL
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2014-2016**	**2014-2016**	**2012-2013**
DESCRIPTION	16 VALVE DOHC 4; GDI.	16 VALVE DOHC 4; GDI.	16 VALVE DOHC 4; MPI
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
BEARING SETS			
MAIN BEARING SET	MBHY23❶	MBHY23❶	MBHY23❶
ROD BEARING SET	RBHY23❷	RBHY23❷	RBHY23E❸
THRUST WASHER SET	TWHY23	TWHY23	TWHY23
GASKETS			
FULL GASKET SET	CGSHY23E	CGSHY23E	CGSHY23
HEAD GASKET SET	HSHY23E	HSHY23E	HSHY23
CONVERSION SET	CBSHY23	CBSHY23	CBSHY23
HEAD BOLT SET	HBHY23	HBHY23	HBHY23
PISTONS, RINGS, PLUGS			
PISTONS	PAHY23E	PAHY23E	PAHY23K
RING SETS	RSHY23	RSHY23	RSHY23
PIN BUSHINGS	PBHY23	PBHY23	PBHY23
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY23R❹	CSHY23R❹	
CONNECTING ROD	CRHY23L	CRHY23L	CRHY23L❺
OIL PUMP			
NEW OIL PUMP	TCHY23F❻	TCHY23F❻	OPHY23K❼

❶ (2 Hole Upper Shell)
❷ (1/2 tabs left, 1/2 tabs right)
❸ (Tabs all on one side)
❹ (Roller Chain application)
❺ (requires RBHY23)
❻ (12mm engine mount studs)
❼ (cover, 12mm rotor set, & screw kit)

MODEL	FORTE FORTE 5 FORTE KOUP	SOUL	SOUL
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(109.6")**	**1999cc(109.6")**	**1999cc(109.6")**
YEARS	**2014-2016**	**2014-2016**	**2012-2013**
DESCRIPTION	16 VALVE DOHC 4; GDI.	16 VALVE DOHC 4; GDI.	16 VALVE DOHC 4; MPI
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
VALVE TRAIN			
LIFTERS	LIFHY23	LIFHY23	LIFHY23
INTAKE VALVE	IVHY23	IVHY23	IVHY23
EXHAUST VALVE	EVHY23	EVHY23	EVHY23
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY23L❶	PTKHY23L❶	PTKHY23❷
TIMING COVER	TCHY23F❸	TCHY23F❸	

❶ (with roller chain)
❷ (with silent chain)
❸ (12mm engine mount studs)

KIA

MODEL	SELTOS	SOUL	FORTE FORTE 5
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(122")**	**1999cc(122")**	**1999cc(122")**
YEARS	**2021-2022**	**2020-2022**	**2019-2022**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin A	16vlv; DOHC; 4; F.INJ; vin U	16vlv; DOHC; 4; F.INJ; vin D
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
BEARING SETS			
MAIN BEARING SET	MBHY23L❶	MBHY23L❶	MBHY23L❶
ROD BEARING SET	RBHY23❷	RBHY23❷	RBHY23❷
THRUST WASHER SET	TWHY23	TWHY23	TWHY23
GASKETS			
FULL GASKET SET	CGSHY23N	CGSHY23N	CGSHY23N
HEAD GASKET SET	HSHY23N	HSHY23N	HSHY23N
CONVERSION SET	CBSHY23	CBSHY23	CBSHY23
HEAD BOLT SET	HBHY23	HBHY23	HBHY23
PISTONS, RINGS, PLUGS			
PISTONS	PAHY23V	PAHY23V	PAHY23V
RING SETS	RSHY23	RSHY23	RSHY23
PIN BUSHINGS	PBHY23	PBHY23	PBHY23
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY23S❸	CSHY23S❸	CSHY23S❸
CONNECTING ROD	CRHY23L	CRHY23L	CRHY23L

❶ (1 Hole Upper Shell)
❷ (1/2 tabs left, 1/2 tabs right)
❸ (Silent Chain application)

MODEL	SELTOS	SOUL	FORTE FORTE 5
ENGINE CODE	**Nu**	**Nu**	**Nu**
DISPLACEMENT	**1999cc(122")**	**1999cc(122")**	**1999cc(122")**
YEARS	**2021-2022**	**2020-2022**	**2019-2022**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin A	16vlv; DOHC; 4; F.INJ; vin U	16vlv; DOHC; 4; F.INJ; vin D
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.1631/2.1638"	2.1631/2.1638"	2.1631/2.1638"
ROD JOURNAL DIA.	1.7698" / 1.7706"	1.7698" / 1.7706"	1.7698" / 1.7706"
VALVE TRAIN			
LIFTERS	LIFHY23	LIFHY23	LIFHY23
INTAKE VALVE	IVHY23	IVHY23	IVHY23
EXHAUST VALVE	EVHY23	EVHY23	EVHY23
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY23V❶	PTKHY23V❶	PTKHY23V❶

❶ (Silent Chain application)

KIA

MODEL	OPTIMA MAGENTIS	SPORTAGE	OPTIMA
ENGINE CODE	G4JS SIRIUS 2	G4K THETA II	G4K THETA II
DISPLACEMENT	2351cc(143.4")	2359cc(144")	2359cc(144")
YEARS	2001-2006	2017-2022	2016-2020
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ; vin C	16vlv; DOHC; 4; F.INJ; vin 3
BORE	86.5mm(3.405")	88mm(3.464")	88mm(3.464")
STROKE	100mm(3.94")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.2434/2.2442"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7709/1.7717"	1.8894/1.8890"	1.8894/1.8890"
ENGINE KITS			
GOLD KIT	EKHY6G		
BRONZE KITS	EKHY6B		
MAJOR KIT	EKHY6M		
RE-RING KIT	EKHY6R		
BEARING SETS			
MAIN BEARING SET	MBMI24	MBHY11L	MBHY11L
ROD BEARING SET	RBMI23	RBHY11L	RBHY11L
THRUST WASHER SET	TWMI24	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY6	CGSHY24SP	CGSHY24S
HEAD GASKET SET	HSHY6	HSHY24SP	HSHY24S
HEAD GASKETS	HDGHY6		
CONVERSION SET	CBSHY6	CBSHY24	CBSHY24
HEAD BOLT SET	HBHY6	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY6	PAHY24	PAHY24
RING SETS	RSMI24	RSHY24	RSHY24
PIN BUSHINGS		PBHY24	PBHY24
FREEZE PLUG SET	EPSMI4		
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSHY11	CSHY11
CONNECTING ROD	CRHY6	CRHY24❶	CRHY24❶
OIL PUMP			
NEW OIL PUMP	OPHY6		

❶ (tapered pin end)

MODEL	OPTIMA MAGENTIS	SPORTAGE	OPTIMA
ENGINE CODE	**G4JS SIRIUS 2**	**G4K THETA II**	**G4K THETA II**
DISPLACEMENT	**2351cc(143.4")**	**2359cc(144")**	**2359cc(144")**
YEARS	**2001-2006**	**2017-2022**	**2016-2020**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ; vin C	16vlv; DOHC; 4; F.INJ; vin 3
BORE	86.5mm(3.405")	88mm(3.464")	88mm(3.464")
STROKE	100mm(3.94")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.2434/2.2442"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.7709/1.7717"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
LIFTERS	LIFMI6		
ROCKER ARMS	RAMI6		
INTAKE VALVE	IVMI6	IVHY11	IVHY11
EXHAUST VALVE	EVMI6	EVHY11	EVHY11
VALVE GUIDE		VGHY11	VGHY11
INTAKE GUIDE	IVGMI6 (int)		
EXHAUST GUIDE	EVGMI6 (ex)		
VALVE SEALS	VSSC11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP	WPHY6		
GEARLESS TIMING KIT		PTKHY20GT	PTKHY20GT
TIMING BELT	TBHY6		
TENSIONERS	BTMI23C (hydraulic)		
BALANCE SHAFT BELT	TBHY6B		

KIA

MODEL	SORENTO	SORENTO (14-15) SPORTAGE (14-16)	OPTIMA HYBRID
ENGINE CODE	**G4K THETA II**	**G4K THETA II**	**THETA II**
DISPLACEMENT	**2359cc(144")**	**2359cc(144")**	**2359cc(144")**
YEARS	**2016-2020**	**2014-2016**	**2014-2016**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin 3	16 VALVE DOHC 4; GDI. Gas	16 vlv, DOHC 4; F.INJ. FHEV
BORE	88mm(3.464")	88mm(3.464")	88mm(3.465")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
BEARING SETS			
MAIN BEARING SET	MBHY11L	MBHY11	MBHY11
ROD BEARING SET	RBHY11L	RBHY11	RBHY11
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY24S	CGSHY24	CGSHY24H
HEAD GASKET SET	HSHY24S	HSHY24	HSHY24H
HEAD GASKETS			HDGHY11
CONVERSION SET	CBSHY24	CBSHY24	CBSHY24H
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY24	PAHY24	PAHY24H
RING SETS	RSHY24	RSHY24	RSHY24H
PIN BUSHINGS	PBHY24	PBHY24	PBHY24
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY11	CSHY11	CSHY11
CONNECTING ROD	CRHY24❶	CRHY24❶	CRHY24❶

❶ (tapered pin end)

MODEL	SORENTO	SORENTO (14-15) SPORTAGE (14-16)	OPTIMA HYBRID
ENGINE CODE	**G4K THETA II**	**G4K THETA II**	**THETA II**
DISPLACEMENT	**2359cc(144")**	**2359cc(144")**	**2359cc(144")**
YEARS	**2016-2020**	**2014-2016**	**2014-2016**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin 3	16 VALVE DOHC 4; GDI. Gas	16 vlv, DOHC 4; F.INJ. FHEV
BORE	88mm(3.464")	88mm(3.464")	88mm(3.465")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP		WPHY24	
TIMING CHAIN KIT		CTKHY20S❶	CTKHY24❷
GEARLESS TIMING KIT	PTKHY20GT		

❶ (03/2011 & later)

❷ (Cam Sprockets not included)

KIA

MODEL	OPTIMA	SORENTO	OPTIMA
ENGINE CODE	G4K THETA II	G4K THETA II	G4K THETA II
DISPLACEMENT	2359cc(144")	2359cc(144")	2359cc(144")
YEARS	2014-2015	2012-2013	2011-2013
DESCRIPTION	16vlv; DOHC; 4; GDI; vin 7	16vlv; DOHC; 4; GDI; vin 6	16vlv; DOHC; 4; GDI; vin 7
BORE	88mm(3.464")	88mm(3.464")	88mm(3.464")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBHY11
ROD BEARING SET	RBHY11	RBHY11	RBHY11
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY24	CGSHY24	CGSHY24
HEAD GASKET SET	HSHY24	HSHY24	HSHY24
CONVERSION SET	CBSHY24	CBSHY24	CBSHY24
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY24	PAHY24	PAHY24
RING SETS	RSHY24	RSHY24	RSHY24
PIN BUSHINGS	PBHY24	PBHY24	PBHY24
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY11	CSHY11	CSHY11
CONNECTING ROD	CRHY24❶	CRHY24❶	CRHY24❶

❶ (tapered pin end)

MODEL	OPTIMA	SORENTO	OPTIMA
ENGINE CODE	G4K THETA II	G4K THETA II	G4K THETA II
DISPLACEMENT	2359cc(144")	2359cc(144")	2359cc(144")
YEARS	2014-2015	2012-2013	2011-2013
DESCRIPTION	16vlv; DOHC; 4; GDI; vin 7	16vlv; DOHC; 4; GDI; vin 6	16vlv; DOHC; 4; GDI; vin 7
BORE	88mm(3.464")	88mm(3.464")	88mm(3.464")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP	WPHY24	WPHY24	WPHY24
TIMING CHAIN KIT	CTKHY24❶	CTKHY20S❷	CTKHY24❶

❶ (Cam Sprockets not included)

❷ (03/2011 & later)

KIA

MODEL	OPTIMA HYBRID	SORENTO	SPORTAGE
ENGINE CODE	THETA II	G4K THETA II	G4K THETA II
DISPLACEMENT	2359cc(144")	2359cc(144")	2359cc(144")
YEARS	2011-2013	2011-2013	2011-2013
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; MPI; vin 1	16 VALVE DOHC 4; F.INJ.
BORE	88mm(3.465")	88mm(3.465")	88mm(3.465")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBHY11
ROD BEARING SET	RBHY11	RBHY11	RBHY11
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSHY24H	CGSHY21SF	CGSHY21SF
HEAD GASKET SET	HSHY24H	HSHY21SF	HSHY21SF
HEAD GASKETS	HDGHY11	HDGHY11	HDGHY11
CONVERSION SET	CBSHY24H	CBSHY11L	CBSHY11L
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAHY24H	PAHY21	PAHY21
RING SETS	RSHY24H	RSHY11	RSHY11
PIN BUSHINGS	PBHY24		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY11	CSHY11	CSHY11
CONNECTING ROD	CRHY24❶	CRHY11	CRHY11

❶ (tapered pin end)

MODEL	OPTIMA HYBRID	SORENTO	SPORTAGE
ENGINE CODE	**THETA II**	**G4K THETA II**	**G4K THETA II**
DISPLACEMENT	**2359cc(144")**	**2359cc(144")**	**2359cc(144")**
YEARS	**2011-2013**	**2011-2013**	**2011-2013**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; MPI; vin 1	16 VALVE DOHC 4; F.INJ.
BORE	88mm(3.465")	88mm(3.465")	88mm(3.465")
STROKE	97mm(3.82")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8894/1.8890"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP			WPHY24
TIMING CHAIN KIT	CTKHY21 (Hybrid only)	CTKHY21L❶	CTKHY21❶
CAM DRIVE TIMING KIT	PTKHY11C❷	PTKHY11C	PTKHY11C
GEARLESS TIMING KIT	PTKHY21		PTKHY21

❶ (Cam Gear not included)

❷ 4pc kit (chain, tens, 2 guides)

KIA

MODEL	OPTIMA (09-10) FORTE (10-13) MAGENTIS (09-10) RONDO (10-11)	OPTIMA (06-08) RONDO (07-09) MAGENTIS (07-08)	OPTIMA MAGENTIS
ENGINE CODE	**G4K THETA II**	**G4K THETA II**	**G6BV DELTA**
DISPLACEMENT	**2359cc(144")**	**2359cc(144")**	**2493cc(152.1")**
YEARS	**2009-2013**	**2006-2009**	**2001**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	88mm(3.465")	88mm(3.464")	84mm(3.307")
STROKE	97mm(3.82")	97mm(3.82")	75mm(2.95")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.4402/2.4409"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8891/1.8898
ENGINE KITS			
GOLD KIT			EKHY7G
BRONZE KITS			EKHY7B
MAJOR KIT		EKHY11M	EKHY7M
RE-RING KIT		EKHY11R	EKHY7R
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBHY7
ROD BEARING SET	RBHY11	RBHY11	RBHY7
THRUST WASHER SET	TWHY11	TWHY11	TWHY7 (80mm OD) TWHY7L (82mm OD)
GASKETS			
FULL GASKET SET	CGSHY11L	CGSHY11	CGSHY7
HEAD GASKET SET	HSHY11L	HSHY11	HSHY7
HEAD GASKETS	HDGHY11	HDGHY11	HDGHY7 (set of 2)
CONVERSION SET	CBSHY11L	CBSHY11L	CBSHY7
HEAD BOLT SET	HBHY11	HBHY11	HBHY7
PISTONS, RINGS, PLUGS			
PISTONS	PAHY21	PAHY11	PAHY7
RING SETS	RSHY11	RSHY11	RSHY7
FREEZE PLUG SET			EPSHY7
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY11	CSHY11	CSHY7
CONNECTING ROD	CRHY11	CRHY11	CRHY7
OIL PUMP			
NEW OIL PUMP			OPHY7

MODEL	OPTIMA (09-10) FORTE (10-13) MAGENTIS (09-10) RONDO (10-11)	OPTIMA (06-08) RONDO (07-09) MAGENTIS (07-08)	OPTIMA MAGENTIS
ENGINE CODE	**G4K THETA II**	**G4K THETA II**	**G6BV DELTA**
DISPLACEMENT	**2359cc(144")**	**2359cc(144")**	**2493cc(152.1")**
YEARS	**2009-2013**	**2006-2009**	**2001**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	88mm(3.465")	88mm(3.464")	84mm(3.307")
STROKE	97mm(3.82")	97mm(3.82")	75mm(2.95")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.4402/2.4409"
ROD JOURNAL DIA.	1.8894/1.8890"	1.8894/1.8890"	1.8891/1.8898
VALVE TRAIN			
LIFTERS			LIFHY4
INTAKE VALVE	IVHY11	IVHY11	IVHY7
EXHAUST VALVE	EVHY11	EVHY11	EVHY7
VALVE GUIDE	VGHY11	VGHY11	
INTAKE GUIDE			IVGHY7
EXHAUST GUIDE			EVGHY7
VALVE SEALS	VSSHY11	VSSHY11	VSSTO15
WATER PUMP & TIMING			
WATER PUMP			WPHY7
TIMING CHAIN KIT	CTKHY21❶	CTKHY21❶	
CAM DRIVE TIMING KIT	PTKHY11C❷	PTKHY11C❷	
GEARLESS TIMING KIT	PTKHY21	PTKHY21	
TIMING BELT			TBHY7
TENSIONERS			BTHY7H (hydraulic) BTHY7L (left) BTHY7R (right)

❶ (Cam Gear not included)

❷ 4pc kit (chain, tens, 2 guides)

KIA

MODEL	SORENTO	SORENTO TURBO	K5 STINGER TURBO
ENGINE CODE	THETA III	THETA III	THETA III
DISPLACEMENT	2497cc(152.3")	2497cc(152.3")	2497cc(152.3")
YEARS	2021-2022	2021-2022	2021-2022
DESCRIPTION	16vlv; DOHC; 4; vin C	16vlv; DOHC; 4; Turbo; vin F	16vlv; DOHC; 4; Turbo; vin 8
BORE	88.5mm(3.484")	88.5mm(3.484")	88.5mm(3.484")
STROKE	101.5mm(4.00")	101.5mm(4.00")	101.5mm(4.00")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8879/1.8887"	1.8879/1.8887"	1.8879/1.8887"

MODEL	SORENTO	SORENTO TURBO	K5 STINGER TURBO
ENGINE CODE	THETA III	THETA III	THETA III
DISPLACEMENT	2497cc(152.3")	2497cc(152.3")	2497cc(152.3")
YEARS	2021-2022	2021-2022	2021-2022
DESCRIPTION	16vlv; DOHC; 4; vin C	16vlv; DOHC; 4; Turbo; vin F	16vlv; DOHC; 4; Turbo; vin 8
BORE	88.5mm(3.484")	88.5mm(3.484")	88.5mm(3.484")
STROKE	101.5mm(4.00")	101.5mm(4.00")	101.5mm(4.00")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8879/1.8887"	1.8879/1.8887"	1.8879/1.8887"

KIA

MODEL	RONDO	OPTIMA MAGENTIS (07-10)	SPORTAGE
ENGINE CODE	**G6A5 MU**	**G6A5 MU**	**G6BA DELTA**
DISPLACEMENT	**2657cc(162.1")**	**2657cc(162.1")**	**2657cc(162.1")**
YEARS	**2007-2010**	**2006-2010**	**2005-2010**
DESCRIPTION	24vlv; DOHC; V6; F.INJ. vin 6	24vlv; DOHC; V6; F.INJ. vin 4	24 VALVE; DOHC V6; F.INJ.
BORE	86.7mm(3.405")	86.7mm(3.405")	86.7mm(3.405")
STROKE	75mm(2.95")	75mm(2.95")	75mm(2.95")
MAIN JOURNAL DIA.	2.4402/2.4409"	2.4402/2.4409"	2.4402/2.4409"
ROD JOURNAL DIA.	1.8891/1.8898	1.8891/1.8898	1.8891/1.8898
ENGINE KITS			
GOLD KIT			EKHY8G
BRONZE KITS			EKHY8B
MAJOR KIT			EKHY8M
RE-RING KIT			EKHY8R
BEARING SETS			
MAIN BEARING SET	MBHY7	MBHY7	MBHY7
ROD BEARING SET	RBHY7	RBHY7	RBHY7
THRUST WASHER SET	TWHY7 (80mm OD)	TWHY7 (80mm OD)	TWHY7 (80mm OD)
	TWHY7L (82mm OD)	TWHY7L (82mm OD)	TWHY7L (82mm OD)
GASKETS			
FULL GASKET SET			CGSHY8
HEAD GASKET SET			HSHY8
CONVERSION SET	CBSHY7	CBSHY7	CBSHY7
HEAD BOLT SET	HBHY7	HBHY7	HBHY7
PISTONS, RINGS, PLUGS			
PISTONS	PAHY12❶	PAHY12❶	PAHY8
RING SETS	RSHY12	RSHY12	RSHY8
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSHY7
CONNECTING ROD			CRHY7
OIL PUMP			
NEW OIL PUMP	OPHY12❷	OPHY12❷	OPHY7

❶ (has 4 valve pockets)

❷ (with Oil Filter Bracket Mount)

MODEL	RONDO	OPTIMA MAGENTIS (07-10)	SPORTAGE
ENGINE CODE	G6A5 MU	G6A5 MU	G6BA DELTA
DISPLACEMENT	2657cc(162.1")	2657cc(162.1")	2657cc(162.1")
YEARS	2007-2010	2006-2010	2005-2010
DESCRIPTION	24vlv; DOHC; V6; F.INJ. vin 6	24vlv; DOHC; V6; F.INJ. vin 4	24 VALVE; DOHC V6; F.INJ.
BORE	86.7mm(3.405")	86.7mm(3.405")	86.7mm(3.405")
STROKE	75mm(2.95")	75mm(2.95")	75mm(2.95")
MAIN JOURNAL DIA.	2.4402/2.4409"	2.4402/2.4409"	2.4402/2.4409"
ROD JOURNAL DIA.	1.8891/1.8898	1.8891/1.8898	1.8891/1.8898
VALVE TRAIN			
LIFTERS			LIFHY4
INTAKE VALVE	IVHY12	IVHY12	IVHY7
EXHAUST VALVE	EVHY12	EVHY12	EVHY7
INTAKE GUIDE	IVGHY7	IVGHY7	IVGHY7
EXHAUST GUIDE	EVGHY7	EVGHY7	EVGHY7
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP			WPHY7
TIMING BELT	TBHY12	TBHY12	TBHY7
TENSIONERS			BTHY7L (left) BTHY7H (hydraulic) BTHY7R❶

❶ (right tensioner)

KIA

MODEL	OPTIMA (02-06) MAGENTIS (05-06)	STINGER TURBO	CADENZA (17-20) SORENTO (19-20) SEDONA (19-21)
ENGINE CODE	**G6BA DELTA**	**LAMBDA II**	**G6DB LAMBDA**
DISPLACEMENT	**2657cc(162.1")**	**3342cc**	**3342cc**
YEARS	**2002-2006**	**2018-2022**	**2017-2021**
DESCRIPTION	24vlv; DOHC; V6; F.INJ. vin 8	24vlv; DOHC; V6; Turbo; vin C	24 VALVE; DOHC V6; F.INJ.
BORE	86.7mm(3.405")	92mm(3.622")	92mm(3.622")
STROKE	75mm(2.95")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.4402/2.4409"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	1.8891/1.8898	2.1635/2.1642"	2.1635/2.1642"
ENGINE KITS			
GOLD KIT	EKHY8G		
BRONZE KITS	EKHY8B		
MAJOR KIT	EKHY8M		
RE-RING KIT	EKHY8R		
BEARING SETS			
MAIN BEARING SET	MBHY7	MBHY14L	MBHY14L
ROD BEARING SET	RBHY7	RBHY14L❶	RBHY14L❶
THRUST WASHER SET	TWHY7 (80mm OD) TWHY7L (82mm OD)	TWHY14	TWHY14
GASKETS			
FULL GASKET SET	CGSHY8		
HEAD GASKET SET	HSHY8		
CONVERSION SET	CBSHY7		
HEAD BOLT SET	HBHY7	HBHY14 (2018-20 only)	HBHY14
PISTONS, RINGS, PLUGS			
PISTONS	PAHY8		
RING SETS	RSHY8		RSHY25
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSHY7		
CONNECTING ROD	CRHY7		CRHY25
OIL PUMP			
NEW OIL PUMP	OPHY7		

❶ (16mm width)

MODEL	OPTIMA (02-06) MAGENTIS (05-06)	STINGER TURBO	CADENZA (17-20) SORENTO (19-20) SEDONA (19-21)
ENGINE CODE	**G6BA DELTA**	**LAMBDA II**	**G6DB LAMBDA**
DISPLACEMENT	**2657cc(162.1")**	**3342cc**	**3342cc**
YEARS	**2002-2006**	**2018-2022**	**2017-2021**
DESCRIPTION	24vlv; DOHC; V6; F.INJ. vin 8	24vlv; DOHC; V6; Turbo; vin C	24 VALVE; DOHC V6; F.INJ.
BORE	86.7mm(3.405")	92mm(3.622")	92mm(3.622")
STROKE	75mm(2.95")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.4402/2.4409"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	1.8891/1.8898	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
LIFTERS	LIFHY4		
INTAKE VALVE	IVHY7	IVHY14	IVHY14
EXHAUST VALVE	EVHY7		EVHY14
VALVE GUIDE		VGHY14	VGHY14
INTAKE GUIDE	IVGHY7		
EXHAUST GUIDE	EVGHY7		
VALVE SEALS	VSSTO15	VSSHY14	VSSHY14
WATER PUMP & TIMING			
WATER PUMP	WPHY7		
GEARLESS TIMING KIT			PTKHY25L❶
TIMING BELT	TBHY7		
TENSIONERS	BTHY7L (left) BTHY7H (hydraulic) BTHY7R❷		

❶ (with silent type oil pump chain)

❷ (right tensioner)

KIA

MODEL	K900 TURBO	SORENTO (18) CADENZA (15-16) SEDONA (15-18)	SORENTO
ENGINE CODE	**LAMBDA II**	**G6DB LAMBDA**	**G6DB LAMBDA**
DISPLACEMENT	**3342cc**	**3342cc**	**3342cc**
YEARS	**2019-2020**	**2015-2018**	**2014-2017**
DESCRIPTION	24vlv; DOHC; V6; Turbo; vin 6	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
BEARING SETS			
MAIN BEARING SET	MBHY14L	MBHY14L	MBHY14L
ROD BEARING SET	RBHY14L❶	RBHY14L❶	RBHY14L❶
THRUST WASHER SET	TWHY14	TWHY14	TWHY14
GASKETS			
FULL GASKET SET		CGSHY25	CGSHY25
HEAD GASKET SET		HSHY25	HSHY25
CONVERSION SET		CBSHY17	CBSHY17
HEAD BOLT SET	HBHY14 (2019 only)	HBHY14	HBHY14
PISTONS, RINGS, PLUGS			
PISTONS		PAHY25	PAHY25
RING SETS		RSHY25	RSHY25
CRANKSHAFT & RODS			
CONNECTING ROD		CRHY25	CRHY25
OIL PUMP			
NEW OIL PUMP		OPHY17	OPHY17

❶ (16mm width)

MODEL	K900 TURBO	SORENTO (18) CADENZA (15-16) SEDONA (15-18)	SORENTO
ENGINE CODE	**LAMBDA II**	**G6DB LAMBDA**	**G6DB LAMBDA**
DISPLACEMENT	**3342cc**	**3342cc**	**3342cc**
YEARS	**2019-2020**	**2015-2018**	**2014-2017**
DESCRIPTION	24vlv; DOHC; V6; Turbo; vin 6	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	83.8mm(3.30")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	IVHY14
EXHAUST VALVE		EVHY14	EVHY14
VALVE GUIDE	VGHY14	VGHY14	VGHY14
VALVE SEALS	VSSHY14	VSSHY14	VSSHY14
WATER PUMP & TIMING			
GEARLESS TIMING KIT		PTKHY25L❶	PTKHY25❷ PTKHY25L❶

❶ (with silent type oil pump chain)

❷ (with Roller Type Oil Pump Chain)

KIA

MODEL	CADENZA	SORENTO	CARNIVAL
ENGINE CODE	G6DB LAMBDA	G6DB LAMBDA	
DISPLACEMENT	3342cc	3342cc	3470cc(211.8")
YEARS	2014	2008-2009	2022
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24vlv; DOHC; V6; F.INJ. vin 3
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	87mm(3.42")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
ENGINE KITS			
GOLD KIT		EKHY13G	
MAJOR KIT		EKHY13M	
RE-RING KIT		EKHY13R	
BEARING SETS			
MAIN BEARING SET	MBHY14L	MBHY14	
ROD BEARING SET	RBHY14L❶	RBHY14❷	
THRUST WASHER SET	TWHY14	TWHY14	
GASKETS			
FULL GASKET SET	CGSHY25	CGSHY13	
HEAD GASKET SET	HSHY25	HSHY13	
CONVERSION SET	CBSHY17	CBSHY14	
HEAD BOLT SET	HBHY14	HBHY14	
PISTONS, RINGS, PLUGS			
PISTONS	PAHY25	PAHY13	
RING SETS	RSHY25	RSHY13	
CRANKSHAFT & RODS			
CONNECTING ROD	CRHY25		
OIL PUMP			
NEW OIL PUMP	OPHY17	OPHY14	

❶ (16mm width)
❷ (18mm width)

MODEL	CADENZA	SORENTO	CARNIVAL
ENGINE CODE	G6DB LAMBDA	G6DB LAMBDA	
DISPLACEMENT	3342cc	3342cc	3470cc(211.8")
YEARS	2014	2008-2009	2022
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24vlv; DOHC; V6; F.INJ. vin 3
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	83.8mm(3.30")	83.8mm(3.30")	87mm(3.42")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	
EXHAUST VALVE	EVHY14	EVHY14	
VALVE GUIDE	VGHY14	VGHY14	
VALVE SEALS	VSSHY14	VSSHY14	
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY25 (up to 05/14) PTKHY25L❶		

❶ (with silent type oil pump chain)

KIA

MODEL	SORENTO (11-13) SEDONA	SEDONA (02-05) SORENTO AMANTI	TELLURIDE
ENGINE CODE	**LAMBDA II**	**G6AU \ G6CU Sigma**	**LAMBDA II**
DISPLACEMENT	**3470cc(211.8")**	**3497cc(213.4")**	**3778cc(230.5")**
YEARS	**2011-2014**	**2002-2006**	**2020-2022**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24vlv; DOHC; V6; vin C
BORE	92mm(3.622")	93mm(3.661")	96mm(3.780")
STROKE	87mm(3.43")	85.8mm(3.38")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.5190/2.5197"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1646/2.1654	2.1635/2.1642"
ENGINE KITS			
GOLD KIT		EKHY9G	
MAJOR KIT		EKHY9M	
RE-RING KIT		EKHY9R	
BEARING SETS			
MAIN BEARING SET	MBHY14	MBMI30	MBHY14L
ROD BEARING SET	RBHY14❶ RBHY14L❷	RBMI30	RBHY14L❷
THRUST WASHER SET	TWHY14	TWMI30	TWHY14
GASKETS			
FULL GASKET SET	CGSHY17	CGSHY9	
HEAD GASKET SET	HSHY17	HSHY9	
CONVERSION SET	CBSHY17	CBSHY9	
HEAD BOLT SET	HBHY14	HBMI9	
PISTONS, RINGS, PLUGS			
PISTONS	PAHY17	PAHY9	
RING SETS	RSHY17	RSHY9	
PIN BUSHINGS		PBD33	
FREEZE PLUG SET		EPSMI9	
CRANKSHAFT & RODS			
CONNECTING ROD		CRMI30	
OIL PUMP			
NEW OIL PUMP	OPHY17	OPHY9	

❶ (18mm width)
❷ (16mm width)

MODEL	SORENTO (11-13) SEDONA	SEDONA (02-05) SORENTO AMANTI	TELLURIDE
ENGINE CODE	**LAMBDA II**	**G6AU \ G6CU Sigma**	**LAMBDA II**
DISPLACEMENT	**3470cc(211.8")**	**3497cc(213.4")**	**3778cc(230.5")**
YEARS	**2011-2014**	**2002-2006**	**2020-2022**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24vlv; DOHC; V6; vin C
BORE	92mm(3.622")	93mm(3.661")	96mm(3.780")
STROKE	87mm(3.43")	85.8mm(3.38")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.5190/2.5197"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1646/2.1654	2.1635/2.1642"
VALVE TRAIN			
LIFTERS		LIFMI6	
ROCKER ARMS		RAMI6	
INTAKE VALVE	IVHY14	IVHY9	IVHY14
EXHAUST VALVE	EVHY14	EVHY9	EVHY14
VALVE GUIDE	VGHY14		VGHY14
INTAKE GUIDE		IVGMI6	
EXHAUST GUIDE		EVGMI6	
VALVE SEALS	VSSHY14	VSSC11	VSSHY14
WATER PUMP & TIMING			
WATER PUMP		WPHY9	
TIMING BELT		TBHY9	
TENSIONERS		BTHY9H (hydraulic) BTHY9R❶ BTHY9I (idler)	

❶ (tension roller)

KIA

MODEL	K900	SEDONA	BORREGO
ENGINE CODE	3.8 LAMBDA	G6DB LAMBDA	G6DB LAMBDA
DISPLACEMENT	3778cc(230.5")	3778cc(230.5")	3778cc(230.5")
YEARS	2016-2017	2010	2009
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
BEARING SETS			
MAIN BEARING SET	MBHY14L	MBHY14	MBHY14
ROD BEARING SET	RBHY14L❶	RBHY14❷	RBHY14❷
THRUST WASHER SET	TWHY14	TWHY14	TWHY14
GASKETS			
FULL GASKET SET		CGSHY14	
HEAD GASKET SET		HSHY14	
CONVERSION SET		CBSHY14	
HEAD BOLT SET		HBHY14	HBHY14
PISTONS, RINGS, PLUGS			
PISTONS		PAHY14L (22mm pin)	PAHY14 (23mm pin)
RING SETS		RSHY14	RSHY14
OIL PUMP			
NEW OIL PUMP		OPHY14	OPHY14

❶ (16mm width)
❷ (18mm width)

MODEL	K900	SEDONA	BORREGO
ENGINE CODE	3.8 LAMBDA	G6DB LAMBDA	G6DB LAMBDA
DISPLACEMENT	3778cc(230.5")	3778cc(230.5")	3778cc(230.5")
YEARS	2016-2017	2010	2009
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.7142/2.7149"	2.7142/2.7149"
ROD JOURNAL DIA.	2.1635/2.1642"	2.1635/2.1642"	2.1635/2.1642"
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY14	IVHY14
EXHAUST VALVE	EVHY14	EVHY14	EVHY14
VALVE GUIDE	VGHY14	VGHY14	VGHY14
VALVE SEALS	VSSHY14	VSSHY14	VSSHY14
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKHY25L❶		

❶ (with silent type oil pump chain)

KIA

MODEL	SEDONA SORENTO (07-09) AMANTI (07-09	BORREGO	K900
ENGINE CODE	**G6DB LAMBDA**	**TAU V8**	**TAU V8**
DISPLACEMENT	**3778cc(230.5")**	**4627cc(282.4")**	**5038cc(307.4")**
YEARS	**2006-2009**	**2009**	**2015-2017**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	96mm(3.780")	92mm(3.622")	92mm(3.622")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.5583"/2.5591"	
ROD JOURNAL DIA.	2.1635/2.1642"	2.0465/2.0472"	
BEARING SETS			
MAIN BEARING SET	MBHY14	-	-
ROD BEARING SET	RBHY14❶		
THRUST WASHER SET	TWHY14		
GASKETS			
FULL GASKET SET	CGSHY14E❷		
	CGSHY14❸		
HEAD GASKET SET	HSHY14E❷		
	HSHY14❸		
CONVERSION SET	CBSHY14		
HEAD BOLT SET	HBHY14		
PISTONS, RINGS, PLUGS			
PISTONS	PAHY14 (23mm pin)		
RING SETS	RSHY14		
OIL PUMP			
NEW OIL PUMP	OPHY14		

❶ (18mm width)
❷ (06 to 04/20/07 only)
❸ (04/21/07 to 09)

MODEL	SEDONA SORENTO (07-09) AMANTI (07-09	BORREGO	K900
ENGINE CODE	**G6DB LAMBDA**	**TAU V8**	**TAU V8**
DISPLACEMENT	**3778cc(230.5")**	**4627cc(282.4")**	**5038cc(307.4")**
YEARS	**2006-2009**	**2009**	**2015-2017**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	96mm(3.780")	92mm(3.622")	92mm(3.622")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	2.7142/2.7149"	2.5583"/2.5591"	
ROD JOURNAL DIA.	2.1635/2.1642"	2.0465/2.0472"	
VALVE TRAIN			
INTAKE VALVE	IVHY14	IVHY18	IVHY18
EXHAUST VALVE	EVHY14	EVHY18	EVHY18
VALVE GUIDE	VGHY14		
VALVE SEALS	VSSHY14		

LEXUS

MODEL	CT200h HYBRID	CT200h HYBRID	UX200
ENGINE CODE	2ZR-FXE	2ZR-FXE	M20A-FKS
DISPLACEMENT	1797cc(109.7")	1797cc(109.7")	1987cc (121.3")
YEARS	2014-2017	2011-2013	2019-2021
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16 vlv, DOHC 4; F.INJ. FHEV	16 VALVE DOHC 4; F.INJ.
BORE	80.5mm(3.169")	80.5mm(3.169")	80.5mm(3.169")
STROKE	88.3mm(3.48")	88.3mm(3.48")	97.6mm(3.84")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	2.0468"/2.0472"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.8894"/1.8898"
BEARING SETS			
MAIN BEARING SET	MBTO55	MBTO55	MBTO61
ROD BEARING SET	RBTO55	RBTO55	RBTO61
THRUST WASHER SET	TWTO39	TWTO39	TWTO61
GASKETS			
FULL GASKET SET	CGSTO55	CGSTO55	CGSTO61
HEAD GASKET SET	HSTO55	HSTO55	HSTO61
CONVERSION SET	CBSTO55	CBSTO55	CBSTO61
HEAD BOLT SET	HBTO55	HBTO55	HBTO61
PISTONS, RINGS, PLUGS			
PISTONS			PATO61
RING SETS		RSTO55	RSTO61
PIN BUSHINGS	PBTO39	PBTO39	
OIL PUMP			
NEW OIL PUMP			OPTO61

MODEL	CT200h HYBRID	CT200h HYBRID	UX200
ENGINE CODE	**2ZR-FXE**	**2ZR-FXE**	**M20A-FKS**
DISPLACEMENT	**1797cc(109.7")**	**1797cc(109.7")**	**1987cc (121.3")**
YEARS	**2014-2017**	**2011-2013**	**2019-2021**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16 vlv, DOHC 4; F.INJ. FHEV	16 VALVE DOHC 4; F.INJ.
BORE	80.5mm(3.169")	80.5mm(3.169")	80.5mm(3.169")
STROKE	88.3mm(3.48")	88.3mm(3.48")	97.6mm(3.84")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	2.0468"/2.0472"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.8894"/1.8898"
VALVE TRAIN			
LIFTERS	A-2319❶ LIFTO55P (2015-on)	A-2319	LIFTO59
INTAKE VALVE	IVTO55	IVTO55	IVTO61
EXHAUST VALVE	EVTO55	EVTO55	EVTO61
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO55	EVGTO55	
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKTO55P❶	CTKTO55P	

❶ (thru 2014 only)

LEXUS

MODEL	UX250h HYBRID	NX300 TURBO	GS300 (18-19) IS300 RC300 TURBO
ENGINE CODE	**M20A-FXS**	**8AR-FTS**	**8AR-FTS**
DISPLACEMENT	**1987cc (121.3")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**2019-2021**	**2018-2021**	**2018-2021**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; F.INJ; Turbo	16vlv; DOHC; 4; F.INJ; Turbo
BORE	80.5mm(3.169")	86.0mm(3.385")	86.0mm(3.385")
STROKE	97.6mm(3.84")	86.0mm(3.39")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.0468"/2.0472"	2.1649/2.1654"	2.1649/2.1654"
ROD JOURNAL DIA.	1.8894"/1.8898"	2.0272/2.0280"	2.0272/2.0280"
BEARING SETS			
MAIN BEARING SET	MBTO61	MBTO56	MBTO56
ROD BEARING SET	RBTO61	RBTO56	RBTO56
THRUST WASHER SET	TWTO61	TWTO56	TWTO56
GASKETS			
FULL GASKET SET	CGSTO61		
HEAD GASKET SET	HSTO61		
CONVERSION SET	CBSTO61		
HEAD BOLT SET	HBTO61		
PISTONS, RINGS, PLUGS			
PISTONS	PATO61		
RING SETS	RSTO61		
OIL PUMP			
NEW OIL PUMP	OPTO61		

MODEL	UX250h HYBRID	NX300 TURBO	GS300 (18-19) IS300 RC300 TURBO
ENGINE CODE	**M20A-FXS**	**8AR-FTS**	**8AR-FTS**
DISPLACEMENT	**1987cc (121.3")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**2019-2021**	**2018-2021**	**2018-2021**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	16vlv; DOHC; 4; F.INJ; Turbo	16vlv; DOHC; 4; F.INJ; Turbo
BORE	80.5mm(3.169")	86.0mm(3.385")	86.0mm(3.385")
STROKE	97.6mm(3.84")	86.0mm(3.39")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.0468"/2.0472"	2.1649/2.1654"	2.1649/2.1654"
ROD JOURNAL DIA.	1.8894"/1.8898"	2.0272/2.0280"	2.0272/2.0280"
VALVE TRAIN			
INTAKE VALVE	IVTO61		
EXHAUST VALVE	EVTO61		
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34

LEXUS

MODEL	GS200t IS200t RC200t (2016) TURBO	NX200t TURBO	HS250h HYBRID
ENGINE CODE	**8AR-FTS**	**8AR-FTS**	**2AZ-FXE**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**2362cc(144.1")**
YEARS	**2016-2017**	**2015-2017**	**2010-2012**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo	16vlv; DOHC; 4; F.INJ; Turbo	16 vlv, DOHC 4; F.INJ. FHEV
BORE	86.0mm(3.385")	86.0mm(3.385")	88.5mm(3.484")
STROKE	86.0mm(3.39")	86.0mm(3.39")	96mm(3.78")
MAIN JOURNAL DIA.	2.1649/2.1654"	2.1649/2.1654"	2.1648/2.1654"
ROD JOURNAL DIA.	2.0272/2.0280"	2.0272/2.0280"	1.8892/1.8898"
BEARING SETS			
MAIN BEARING SET	MBTO56	MBTO56	MBTO44
ROD BEARING SET	RBTO56	RBTO56	RBTO44
THRUST WASHER SET	TWTO56	TWTO56	TWTO44
CAM BEARINGS			CBTO45
GASKETS			
FULL GASKET SET			CGSTO44L
HEAD GASKET SET			HSTO44L
HEAD GASKETS			HDGTO44L
CONVERSION SET			CBSTO44
HEAD BOLT SET			HBTO44L
PISTONS, RINGS, PLUGS			
PISTONS			PATO44H
RING SETS			RSTO44L❶
PIN BUSHINGS			PBD34
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSTO44
CONNECTING ROD			CRTO44
OIL PUMP			
NEW OIL PUMP			OPTO44

❶ (1 x 1 x 2.0mm)

MODEL	GS200t IS200t RC200t (2016) TURBO	NX200t TURBO	HS250h HYBRID
ENGINE CODE	**8AR-FTS**	**8AR-FTS**	**2AZ-FXE**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**2362cc(144.1")**
YEARS	**2016-2017**	**2015-2017**	**2010-2012**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo	16vlv; DOHC; 4; F.INJ; Turbo	16 vlv, DOHC 4; F.INJ. FHEV
BORE	86.0mm(3.385")	86.0mm(3.385")	88.5mm(3.484")
STROKE	86.0mm(3.39")	86.0mm(3.39")	96mm(3.78")
MAIN JOURNAL DIA.	2.1649/2.1654"	2.1649/2.1654"	2.1648/2.1654"
ROD JOURNAL DIA.	2.0272/2.0280"	2.0272/2.0280"	1.8892/1.8898"
VALVE TRAIN			
INTAKE VALVE			IVTO44
EXHAUST VALVE			EVTO44
VALVE GUIDE			EVGTO34❶
INTAKE GUIDE	IVGTO55	IVGTO55	
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP			WPTO44
TIMING CHAIN KIT			CTKTO44
GEARLESS TIMING KIT			PTKTO44

❶ (intake & exhaust)

LEXUS

MODEL	ES250	ES300h HYBRID	NX300h HYBRID
ENGINE CODE	A25A-FKS	A25A-FXS	2AR-FXE
DISPLACEMENT	2487cc(152")	2487cc(152")	2494cc(152.2")
YEARS	2021	2019-2021	2015-2021
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16 vlv, DOHC 4; F.INJ. FHEV	16 vlv, DOHC 4; F.INJ. FHEV
BORE	87.5mm(3.445")	87.5mm(3.445")	90mm(3.543")
STROKE	103.4mm(4.07")	103.4mm(4.07")	98mm(3.86")
MAIN JOURNAL DIA.	2.2042"/2.2047"	2.2042"/2.2047"	2.1649/2.1654"
ROD JOURNAL DIA.	1.8894"/1.8898"	1.8894"/1.8898"	2.0272/2.0280"
BEARING SETS			
MAIN BEARING SET	MBTO59	MBTO59	MBTO56
ROD BEARING SET	RBTO59	RBTO59	RBTO56
THRUST WASHER SET	TWTO59	TWTO59	TWTO56
GASKETS			
FULL GASKET SET	CGSTO59	CGSTO59	CGSTO56H
HEAD GASKET SET	HSTO59	HSTO59	HSTO56H
CONVERSION SET	CBSTO59	CBSTO59	CBSTO56
HEAD BOLT SET	HBTO59	HBTO59	HBTO44L
PISTONS, RINGS, PLUGS			
PISTONS	PATO59		PATO56H
RING SETS	RSTO59		RSTO56
PIN BUSHINGS			PBD34
OIL PUMP			
NEW OIL PUMP	OPTO59	OPTO59	OPTO56

MODEL	ES250	ES300h HYBRID	NX300h HYBRID
ENGINE CODE	**A25A-FKS**	**A25A-FXS**	**2AR-FXE**
DISPLACEMENT	**2487cc(152")**	**2487cc(152")**	**2494cc(152.2")**
YEARS	**2021**	**2019-2021**	**2015-2021**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16 vlv, DOHC 4; F.INJ. FHEV	16 vlv, DOHC 4; F.INJ. FHEV
BORE	87.5mm(3.445")	87.5mm(3.445")	90mm(3.543")
STROKE	103.4mm(4.07")	103.4mm(4.07")	98mm(3.86")
MAIN JOURNAL DIA.	2.2042"/2.2047"	2.2042"/2.2047"	2.1649/2.1654"
ROD JOURNAL DIA.	1.8894"/1.8898"	1.8894"/1.8898"	2.0272/2.0280"
VALVE TRAIN			
LIFTERS	LIFTO59	LIFTO59	A-2319 (thru 07/2015) LIFTO55P❶
INTAKE VALVE	IVTO59	IVTO59	IVTO56
EXHAUST VALVE	EVTO59	EVTO59	EVTO56
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE			EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
GEARLESS TIMING KIT			PTKTO56

❶ (after 07/2015)

LEXUS

MODEL	ES300h HYBRID	IS 250	ES250
ENGINE CODE	**2AR-FXE**	**4GR-FSE**	**2VZFE**
DISPLACEMENT	**2494cc(152.2")**	**2499cc(152.5")**	**2507cc(152.9")**
YEARS	**2013-2018**	**2006-2015**	**1990-1991**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	90mm(3.543")	83.1mm(3.272")	87.5mm(3.445")
STROKE	98mm(3.86")	76.9mm(3.03")	69.6mm(2.74")
MAIN JOURNAL DIA.	2.1649/2.1654"	2.4001/2.4016"	2.5191/2.5197"
ROD JOURNAL DIA.	2.0272/2.0280"	1.8894/1.8898"	1.8892/1.8898"
ENGINE KITS			
GOLD KIT		EKTO51G	EKTO21G
BRONZE KITS			EKTO21B
MAJOR KIT		EKTO51M	EKTO21M
RE-RING KIT		EKTO51R	EKTO21R
BEARING SETS			
MAIN BEARING SET	MBTO56	MBTO49	MBTO31
ROD BEARING SET	RBTO56	RBTO51	RBTO21
THRUST WASHER SET	TWTO56	TWTO49	TWTO21
GASKETS			
FULL GASKET SET	CGSTO56H	CGSTO51	CGSTO21
HEAD GASKET SET	HSTO56H	HSTO51	HSTO21
HEAD GASKETS			HDGTO21 (set of 2)
CONVERSION SET	CBSTO56	CBSTO51	CBSTO21
HEAD BOLT SET	HBTO44L	HBTO47	HBTO33
PISTONS, RINGS, PLUGS			
PISTONS	PATO56H	PATO51	PATO21 (set of 6)
RING SETS	RSTO56	RSTO51	RSTO21
PIN BUSHINGS	PBD34	PBD34	
FREEZE PLUG SET			EPSTO31
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSTO21
CONNECTING ROD			CRTO21
OIL PUMP			
NEW OIL PUMP	OPTO56	OPTO49❶	OPTO33

❶ (rear cover and rotor set only)

MODEL	ES300h HYBRID	IS 250	ES250
ENGINE CODE	**2AR-FXE**	**4GR-FSE**	**2VZFE**
DISPLACEMENT	**2494cc(152.2")**	**2499cc(152.5")**	**2507cc(152.9")**
YEARS	**2013-2018**	**2006-2015**	**1990-1991**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	90mm(3.543")	83.1mm(3.272")	87.5mm(3.445")
STROKE	98mm(3.86")	76.9mm(3.03")	69.6mm(2.74")
MAIN JOURNAL DIA.	2.1649/2.1654"	2.4001/2.4016"	2.5191/2.5197"
ROD JOURNAL DIA.	2.0272/2.0280"	1.8894/1.8898"	1.8892/1.8898"
VALVE TRAIN			
LIFTERS	A-2319 (thru 07/2015) LIFTO55P❶	A-2319	LIFTO25
INTAKE VALVE	IVTO56	IVTO51	IVTO21
EXHAUST VALVE	EVTO56	EVTO51	EVTO21
VALVE GUIDE			VGTO18L
INTAKE GUIDE	IVGTO55	IVGTO55	
EXHAUST GUIDE	EVGTO55	EVGTO55	
VALVE SEALS	VSSTO34	VSSTO34	VSSTO15
WATER PUMP & TIMING			
WATER PUMP			WPTO33
TIMING CHAIN KIT		CTKTO49❷	
GEARLESS TIMING KIT	PTKTO56		
TIMING BELT			TBTO21
TENSIONERS			BTTO31H (hydraulic)
IDLERS AND PULLEYS			BTTO34LR BTTO34UR

❶ (after 07/2015)

❷ (Cam Phasers not included)

LEXUS

MODEL	ES300	GS300	ES300
ENGINE CODE	3VZFE	3GR-FSE	1MZ-FE
DISPLACEMENT	2958cc(180.5")	2994cc(182.7")	2995cc(183.0")
YEARS	1992-1993	2006	2002-2003
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	82mm(3.23")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.5191/2.5197	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.1649/2.1654		2.0864/2.0866"
ENGINE KITS			
GOLD KIT	EKTO33G		EKTO34CG
BRONZE KITS	EKTO33B		EKTO34CB
MAJOR KIT	EKTO33M		EKTO34CM
RE-RING KIT	EKTO33R		EKTO34CR
BEARING SETS			
MAIN BEARING SET	MBTO31	MBTO49	MBTO34
ROD BEARING SET	RBTO33		RBTO34
THRUST WASHER SET	TWTO21	TWTO49	TWTO34
GASKETS			
FULL GASKET SET	CGSTO33		CGSTO34C
HEAD GASKET SET	HSTO33		HSTO34C
HEAD GASKETS	HDGTO33 (set of 2)		HDGTO34C
CONVERSION SET	CBSTO33	CBSTO34	CBSTO34
HEAD BOLT SET	HBTO33	HBTO47	HBTO34
PISTONS, RINGS, PLUGS			
PISTONS	PATO33 (set of 6)		PATO34
RING SETS	RSTO31		RSTO34
PIN BUSHINGS	PBTO33	PBD34	PBD34
FREEZE PLUG SET	EPSTO31		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO33		
CONNECTING ROD	CRTO33		
OIL PUMP			
NEW OIL PUMP	OPTO33	OPTO49❶	OPTO34S

❶ (rear cover and rotor set only)

MODEL	ES300	GS300	ES300
ENGINE CODE	**3VZFE**	**3GR-FSE**	**1MZ-FE**
DISPLACEMENT	**2958cc(180.5")**	**2994cc(182.7")**	**2995cc(183.0")**
YEARS	**1992-1993**	**2006**	**2002-2003**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	82mm(3.23")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.5191/2.5197	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.1649/2.1654		2.0864/2.0866"
VALVE TRAIN			
LIFTERS	LIFTO25	A-2319	LIFTO25
INTAKE VALVE	IVTO33		IVTO34
EXHAUST VALVE	EVTO33		EVTO34
VALVE GUIDE	VGTO18L		
INTAKE GUIDE			IVGTO34
EXHAUST GUIDE		EVGTO55	EVGTO34
VALVE SEALS	VSSTO15	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO33		WPTO34
TIMING CHAIN KIT		CTKTO49❶	
TIMING BELT	TBTO33		TBTO34
TENSIONERS	BTTO31H (hydraulic)		BTTO46H (hydraulic)
IDLERS AND PULLEYS	BTTO34LR		BTTO46LR (lower)
	BTTO34UR		BTTO34UR (upper)

❶ (Cam Phasers not included)

LEXUS

MODEL	RX300	ES300	ES300
ENGINE CODE	1MZ-FE	1MZ-FE	1MZ-FE
DISPLACEMENT	2995cc(183.0")	2995cc(183.0")	2995cc(183.0")
YEARS	1999-2003	1999-2001	1994-1998
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
ENGINE KITS			
GOLD KIT	EKTO34HG	EKTO34HG	EKTO34G
BRONZE KITS	EKTO34HB	EKTO34HB	EKTO34B
MAJOR KIT	EKTO34HM	EKTO34HM	EKTO34M
RE-RING KIT	EKTO34HR	EKTO34HR	EKTO34R
BEARING SETS			
MAIN BEARING SET	MBTO34	MBTO34	MBTO34
ROD BEARING SET	RBTO34	RBTO34	RBTO34
THRUST WASHER SET	TWTO34	TWTO34	TWTO34
GASKETS			
FULL GASKET SET	CGSTO34H	CGSTO34H	CGSTO34
HEAD GASKET SET	HSTO34H	HSTO34H	HSTO34
HEAD GASKETS	HDGTO34H	HDGTO34H	HDGTO34 (set of 2)
CONVERSION SET	CBSTO34	CBSTO34	CBSTO34
HEAD BOLT SET	HBTO34	HBTO34	HBTO34
PISTONS, RINGS, PLUGS			
PISTONS	PATO34	PATO34	PATO34
RING SETS	RSTO34	RSTO34	RSTO34
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPTO34H	OPTO34H	OPTO34

MODEL	RX300	ES300	ES300
ENGINE CODE	**1MZ-FE**	**1MZ-FE**	**1MZ-FE**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**1999-2003**	**1999-2001**	**1994-1998**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
VALVE TRAIN			
LIFTERS	LIFTO25	LIFTO25	LIFTO25
INTAKE VALVE	IVTO34	IVTO34	IVTO34
EXHAUST VALVE	EVTO34	EVTO34	EVTO34
INTAKE GUIDE	IVGTO34	IVGTO34	IVGTO34
EXHAUST GUIDE	EVGTO34	EVGTO34	EVGTO34
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO34	WPTO34	WPTO34
TIMING BELT	TBTO34	TBTO34	TBTO34
TENSIONERS	BTTO34H (hydraulic)	BTTO34H (hydraulic)	BTTO34H (hydraulic)
IDLERS AND PULLEYS	BTTO34LR (lower) BTTO34UR (upper)	BTTO34LR (lower) BTTO34UR (upper)	BTTO34LR BTTO34UR

LEXUS

MODEL	SC300 GS300 IS300	SC300 GS300	ES330 RX330 RX400h
ENGINE CODE	**2JZ-GE**	**2JZ-GE**	**3MZ-FE**
DISPLACEMENT	**2997cc(183")**	**2997cc(183")**	**3310cc**
YEARS	**1998-2005**	**1992-1997**	**2004-2008**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	86.0mm(3.386")	86.0mm(3.386")	92mm(3.622")
STROKE	86.0mm(3.39")	86.0mm(3.39")	83mm(3.27")
MAIN JOURNAL DIA.	2.4403/2.4409"	2.4403/2.4409"	2.4011/2.4016"
ROD JOURNAL DIA.	2.4065/2.4072"	2.4065/2.4072"	2.0864/2.0866"
ENGINE KITS			
GOLD KIT			EKTO46G
MAJOR KIT			EKTO46M
RE-RING KIT			EKTO46R
BEARING SETS			
MAIN BEARING SET	MBTO36	MBTO36	MBTO34
ROD BEARING SET	RBTO36	RBTO36	RBTO34
THRUST WASHER SET	TWTO36	TWTO36	TWTO34
GASKETS			
FULL GASKET SET			CGSTO46
HEAD GASKET SET		HSTO36	HSTO46
HEAD GASKETS	HDGTO36	HDGTO36	HDGTO46 (set of 2)
CONVERSION SET			CBSTO34
HEAD BOLT SET	HBTO36	HBTO36	HBTO34
PISTONS, RINGS, PLUGS			
PISTONS			PATO46
RING SETS	RSTO36T	RSTO36T	RSTO46
PIN BUSHINGS	PBTO15	PBTO15	
FREEZE PLUG SET	EPSTO36	EPSTO36	
CRANKSHAFT & RODS			
CONNECTING ROD		CRTO36	
OIL PUMP			
NEW OIL PUMP		OPTO36 (92-95)	OPTO34S

MODEL	SC300 GS300 IS300	SC300 GS300	ES330 RX330 RX400h
ENGINE CODE	**2JZ-GE**	**2JZ-GE**	**3MZ-FE**
DISPLACEMENT	**2997cc(183")**	**2997cc(183")**	**3310cc**
YEARS	**1998-2005**	**1992-1997**	**2004-2008**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	86.0mm(3.386")	86.0mm(3.386")	92mm(3.622")
STROKE	86.0mm(3.39")	86.0mm(3.39")	83mm(3.27")
MAIN JOURNAL DIA.	2.4403/2.4409"	2.4403/2.4409"	2.4011/2.4016"
ROD JOURNAL DIA.	2.4065/2.4072"	2.4065/2.4072"	2.0864/2.0866"
VALVE TRAIN			
LIFTERS	LIFTO25	LIFTO25	LIFTO25
INTAKE VALVE	IVTO36	IVTO36	IVTO34
EXHAUST VALVE	EVTO36	EVTO36	EVTO34
INTAKE GUIDE	VGTO28 (in)	VGTO28 (in)	IVGTO34
EXHAUST GUIDE	VGTO18L (ex)	VGTO18L (ex)	EVGTO34
VALVE SEALS	VSSTO15	VSSTO15	VSSTO34
WATER PUMP & TIMING			
TIMING BELT	TBTO36	TBTO36	TBTO34
TENSIONERS	BTTO36H (hydraulic)	BTTO36H (hydraulic)	BTTO46LR (lower) BTTO46H (hydraulic)
IDLERS AND PULLEYS	BTTO36R (roller)	BTTO36R (roller)	BTTO34UR (upper)

LEXUS

MODEL	GS450h RX450h HYBRID	ES350 RX350 (07-15)	RX450h HYBRID
ENGINE CODE	**2GR-FXE**	**2GRFE**	**2GR-FXE**
DISPLACEMENT	**3456cc**	**3456cc**	**3456cc**
YEARS	**2013-2018**	**2007-2018**	**2010-2015**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. FHEV	24 VALVE DOHC 6; F.INJ.	24 vlv; DOHC V6; F.INJ. FHEV
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
ENGINE KITS			
GOLD KIT		EKTO49G	
MAJOR KIT		EKTO49M	
RE-RING KIT		EKTO49R	
BEARING SETS			
MAIN BEARING SET	MBTO49	MBTO49	MBTO49
ROD BEARING SET	RBTO49	RBTO49	RBTO49
THRUST WASHER SET	TWTO49	TWTO49	TWTO49
GASKETS			
FULL GASKET SET		CGSTO49	CGSTO49
HEAD GASKET SET		HSTO49	HSTO49
HEAD GASKETS		HDGTO49 (set of 2)	HDGTO49 (set of 2)
CONVERSION SET	CBSTO49G	CBSTO49	CBSTO49
HEAD BOLT SET	HBTO47	HBTO47	HBTO47
PISTONS, RINGS, PLUGS			
PISTONS		PATO49	
RING SETS		RSTO49	
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CONNECTING ROD		CRTO49 (2007-15 only)	
OIL PUMP			
NEW OIL PUMP	OPTO49❶	OPTO49❶	OPTO49❶

❶ (rear cover and rotor set only)

MODEL	GS450h RX450h HYBRID	ES350 RX350 (07-15)	RX450h HYBRID
ENGINE CODE	**2GR-FXE**	**2GRFE**	**2GR-FXE**
DISPLACEMENT	**3456cc**	**3456cc**	**3456cc**
YEARS	**2013-2018**	**2007-2018**	**2010-2015**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. FHEV	24 VALVE DOHC 6; F.INJ.	24 vlv; DOHC V6; F.INJ. FHEV
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
VALVE TRAIN			
LIFTERS	A-2319	A-2319	A-2319
INTAKE VALVE	IVTO49	IVTO49	IVTO49
EXHAUST VALVE	EVTO49	EVTO49	EVTO49
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKTO49 (2007-15 only)	CTKTO49❶

❶ (Cam Phasers not included)

LEXUS

MODEL	GS450h HYBRID	IS300 IS350 RC300 RC350 ES350 (19-21)	LC500h LS500h HYBRID
ENGINE CODE	**2GR-FSE**	**2GR-FKS**	**8GR-FXS**
DISPLACEMENT	**3456cc**	**3456cc(210.9")**	**3456cc(210.9")**
YEARS	**2007-2011**	**2018-2021**	**2018-2021**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. FHEV	24 VALVE DOHC 6; F.INJ.	24 vlv; DOHC V6; F.INJ. FHEV
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
BEARING SETS			
MAIN BEARING SET	MBTO49	MBTO49	MBTO49
ROD BEARING SET	RBTO49	RBTO49	RBTO49
THRUST WASHER SET	TWTO49	TWTO49	TWTO49
GASKETS			
FULL GASKET SET	CGSTO49G		
HEAD GASKET SET	HSTO49G		
HEAD GASKETS	HDGTO49 (set of 2)		
CONVERSION SET	CBSTO49G		
HEAD BOLT SET	HBTO47	HBTO47	HBTO47
PISTONS, RINGS, PLUGS			
PISTONS	PATO49G		
RING SETS	RSTO49	RSTO49	
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPTO49❶		

❶ (rear cover and rotor set only)

MODEL	GS450h HYBRID	IS300 IS350 RC300 RC350 ES350 (19-21)	LC500h LS500h HYBRID
ENGINE CODE	**2GR-FSE**	**2GR-FKS**	**8GR-FXS**
DISPLACEMENT	**3456cc**	**3456cc(210.9")**	**3456cc(210.9")**
YEARS	**2007-2011**	**2018-2021**	**2018-2021**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. FHEV	24 VALVE DOHC 6; F.INJ.	24 vlv; DOHC V6; F.INJ. FHEV
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
VALVE TRAIN			
LIFTERS	A-2319	A-2319	A-2319
INTAKE VALVE	IVTO49	IVTO49	IVTO49
EXHAUST VALVE	EVTO49	EVTO49	EVTO49
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKTO49❶		

❶ (Cam Phasers not included)

LEXUS

MODEL	GS350 (16-20) RX350 RX350L (18-21)	RX450h RX450hL (18-21) HYBRID	IS300 (16-17) IS350 (16-17) RC300 (16-17) RC350
ENGINE CODE	**2GR-FKS**	**2GR-FXS**	**2GR-FSE**
DISPLACEMENT	**3456cc(210.9")**	**3456cc(210.9")**	**3456cc(210.9")**
YEARS	**2016-2021**	**2016-2021**	**2015-2017**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 vlv; DOHC V6; F.INJ. FHEV	24 VALVE DOHC 6; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
BEARING SETS			
MAIN BEARING SET	MBTO49	MBTO49	MBTO49
ROD BEARING SET	RBTO49	RBTO49	RBTO49
THRUST WASHER SET	TWTO49	TWTO49	TWTO49
GASKETS			
FULL GASKET SET			CGSTO49G
HEAD GASKET SET			HSTO49G
HEAD GASKETS			HDGTO49 (pair)
CONVERSION SET			CBSTO49G
HEAD BOLT SET	HBTO47	HBTO47	HBTO47
PISTONS, RINGS, PLUGS			
RING SETS	RSTO49		RSTO49
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP			OPTO49❶

❶ (rear cover and rotor set only)

MODEL	GS350 (16-20) RX350 RX350L (18-21)	RX450h RX450hL (18-21) HYBRID	IS300 (16-17) IS350 (16-17) RC300 (16-17) RC350
ENGINE CODE	**2GR-FKS**	**2GR-FXS**	**2GR-FSE**
DISPLACEMENT	**3456cc(210.9")**	**3456cc(210.9")**	**3456cc(210.9")**
YEARS	**2016-2021**	**2016-2021**	**2015-2017**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 vlv; DOHC V6; F.INJ. FHEV	24 VALVE DOHC 6; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
VALVE TRAIN			
LIFTERS	A-2319	A-2319	A-2319
INTAKE VALVE	IVTO49	IVTO49	IVTO49
EXHAUST VALVE	EVTO49	EVTO49	EVTO49
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34

LEXUS

MODEL	GS350 (13-15) IS350	GS350 (07-11) IS350	GS400 LS400 SC400
ENGINE CODE	**2GR-FSE**	**2GR-FSE**	**1UZ-FE**
DISPLACEMENT	**3456cc(210.9")**	**3456cc(210.9")**	**3968cc(262")**
YEARS	**2012-2015**	**2006-2011**	**1998-2000**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	87.5mm(3.445")
STROKE	83mm(3.27")	83mm(3.27")	82.5mm(3.25")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.6373/2.6378"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0465/2.0472"
BEARING SETS			
MAIN BEARING SET	MBTO49	MBTO49	MBTO54
ROD BEARING SET	RBTO49	RBTO49	RBTO43
THRUST WASHER SET	TWTO49	TWTO49	TWTO43
GASKETS			
FULL GASKET SET	CGSTO49G	CGSTO49G	
HEAD GASKET SET	HSTO49G	HSTO49G	HSTO53L
HEAD GASKETS	HDGTO49 (pair)	HDGTO49 (set of 2)	
CONVERSION SET	CBSTO49G	CBSTO49G	
HEAD BOLT SET	HBTO47	HBTO47	HBTO54
PISTONS, RINGS, PLUGS			
PISTONS	PATO49G	PATO49G	
RING SETS	RSTO49	RSTO49	
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPTO49❶	OPTO49❶	

❶ (rear cover and rotor set only)

MODEL	GS350 (13-15) IS350	GS350 (07-11) IS350	GS400 LS400 SC400
ENGINE CODE	**2GR-FSE**	**2GR-FSE**	**1UZ-FE**
DISPLACEMENT	**3456cc(210.9")**	**3456cc(210.9")**	**3968cc(262")**
YEARS	**2012-2015**	**2006-2011**	**1998-2000**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	87.5mm(3.445")
STROKE	83mm(3.27")	83mm(3.27")	82.5mm(3.25")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.6373/2.6378"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0465/2.0472"
VALVE TRAIN			
LIFTERS	A-2319	A-2319	LIFTO43
INTAKE VALVE	IVTO49	IVTO49	IVTO43
EXHAUST VALVE	EVTO49	EVTO49	EVTO43
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO34
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO34
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP			WPTO43
TIMING CHAIN KIT		CTKTO49❶	
TIMING BELT			TBTO43
TENSIONERS			BTTO43
			BTTO43H (hydraulic)
IDLERS AND PULLEYS			BTTO43I

❶ (Cam Phasers not included)

LEXUS

MODEL	LS400 SC400	GS430 LS430 SC430	GX460
ENGINE CODE	**1UZ-FE**	**3UZ-FE**	**1UR-FE**
DISPLACEMENT	**3969cc(242")**	**4292cc(262")**	**4608cc(281.2")**
YEARS	**1990-1997**	**2001-2010**	**2010-2021**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	87.5mm(3.445")	86.0mm(3.386")	94.0mm(3.700")
STROKE	82.5mm(3.25")	82.5mm(3.25")	83mm(3.27")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.4403/2.4409"	2.6373/2.6378"
ROD JOURNAL DIA.	2.0465/2.0472"	2.4065/2.4072"	2.2040/2.2047"
BEARING SETS			
MAIN BEARING SET	MBTO54	MBTO54	MBTO50
ROD BEARING SET	RBTO43	RBTO43	-
THRUST WASHER SET	TWTO43	TWTO43	TWTO50
GASKETS			
HEAD GASKET SET			HSTO50
HEAD BOLT SET		HBTO54	HBTO50
PISTONS, RINGS, PLUGS			
RING SETS			RSTO50
PIN BUSHINGS	PBD34	PBD34	PBD34

MODEL	LS400 SC400	GS430 LS430 SC430	GX460
ENGINE CODE	**1UZ-FE**	**3UZ-FE**	**1UR-FE**
DISPLACEMENT	**3969cc(242")**	**4292cc(262")**	**4608cc(281.2")**
YEARS	**1990-1997**	**2001-2010**	**2010-2021**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	87.5mm(3.445")	86.0mm(3.386")	94.0mm(3.700")
STROKE	82.5mm(3.25")	82.5mm(3.25")	83mm(3.27")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.4403/2.4409"	2.6373/2.6378"
ROD JOURNAL DIA.	2.0465/2.0472"	2.4065/2.4072"	2.2040/2.2047"
VALVE TRAIN			
LIFTERS		LIFTO43	A-2319
INTAKE VALVE		IVTO43	IVTO49
EXHAUST VALVE		EVTO43	EVTO50
INTAKE GUIDE		IVGTO34	IVGTO55
EXHAUST GUIDE		EVGTO34	EVGTO55
VALVE SEALS		VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP		WPTO43	
TIMING BELT		TBTO43	
TENSIONERS		BTTO43 BTTO43H (hydraulic)	
IDLERS AND PULLEYS		BTTO43I	

LEXUS

MODEL	LS460	GS460	GX470 LX470
ENGINE CODE	1UR-FSE	1UR-FSE	2UZ-FE
DISPLACEMENT	4608cc(281.2")	4608cc(281.2")	4664cc(285")
YEARS	2007-2017	2008-2011	2005-2009
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94.0mm(3.700")	94.0mm(3.700")	94.0mm(3.700")
STROKE	83mm(3.27")	83mm(3.27")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	2.4403/2.4409"
ROD JOURNAL DIA.	2.2040/2.2047"	2.2040/2.2047"	2.4065/2.4072"
BEARING SETS			
MAIN BEARING SET	MBTO50	MBTO50	MBTO43
ROD BEARING SET	-	-	RBTO43
THRUST WASHER SET	TWTO50	TWTO50	TWTO43
GASKETS			
FULL GASKET SET			CGSTO43L
HEAD GASKET SET			HSTO43L
CONVERSION SET			CBSTO43
HEAD BOLT SET	HBTO50	HBTO50	HBTO43
PISTONS, RINGS, PLUGS			
PISTONS			PATO43L
RING SETS			RSTO43L
PIN BUSHINGS	PBD34	PBD34	PBD34
FREEZE PLUG SET			EPSTO43
OIL PUMP			
NEW OIL PUMP			OPTO43L

MODEL	LS460	GS460	GX470 LX470
ENGINE CODE	**1UR-FSE**	**1UR-FSE**	**2UZ-FE**
DISPLACEMENT	**4608cc(281.2")**	**4608cc(281.2")**	**4664cc(285")**
YEARS	**2007-2017**	**2008-2011**	**2005-2009**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94.0mm(3.700")	94.0mm(3.700")	94.0mm(3.700")
STROKE	83mm(3.27")	83mm(3.27")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	2.4403/2.4409"
ROD JOURNAL DIA.	2.2040/2.2047"	2.2040/2.2047"	2.4065/2.4072"
VALVE TRAIN			
LIFTERS	A-2319	A-2319	LIFTO43
INTAKE VALVE			IVTO43
EXHAUST VALVE	EVTO49	EVTO49	EVTO43
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO34
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO34
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP			WPTO43
TIMING BELT			TBTO43
TENSIONERS			BTTO43
			BTTO43I (idler)
HYDRAULIC TENSIONER			BTTO43H

LEXUS

MODEL	GX470 LX470	LS600h	RC F GS F LC500
ENGINE CODE	**2UZ-FE**	**2UR-FSE**	**2UR-GSE**
DISPLACEMENT	**4664cc(285")**	**4968cc(303.2")**	**4969cc(303.2")**
YEARS	**1998-2004**	**2008-2016**	**2015-2019**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94.0mm(3.700")	94.0mm(3.700")	94.0mm(3.700")
STROKE	86.0mm(3.39")	89.5mm(3.52")	89.5mm(3.52")
MAIN JOURNAL DIA.	2.4403/2.4409"	2.6373/2.6378"	2.6373/2.6378"
ROD JOURNAL DIA.	2.4065/2.4072"	2.2040/2.2047"	2.2040/2.2047"
ENGINE KITS			
GOLD KIT	EKTO43G		
BRONZE KITS	EKTO43B		
MAJOR KIT	EKTO43M		
RE-RING KIT	EKTO43R		
BEARING SETS			
MAIN BEARING SET	MBTO43	MBTO50	
ROD BEARING SET	RBTO43	-	
THRUST WASHER SET	TWTO43	TWTO50	TWTO50
GASKETS			
FULL GASKET SET	CGSTO43		
HEAD GASKET SET	HSTO43		
HEAD GASKETS	HDGTO43 (set of 2)		
CONVERSION SET	CBSTO43		
HEAD BOLT SET	HBTO43	HBTO50	HBTO50
PISTONS, RINGS, PLUGS			
PISTONS	PATO43		
RING SETS	RSTO43		
PIN BUSHINGS	PBD34		
FREEZE PLUG SET	EPSTO43		
OIL PUMP			
NEW OIL PUMP	OPTO43L		

LEXUS

MODEL	GX470 LX470	LS600h	RC F GS F LC500
ENGINE CODE	**2UZ-FE**	**2UR-FSE**	**2UR-GSE**
DISPLACEMENT	**4664cc(285")**	**4968cc(303.2")**	**4969cc(303.2")**
YEARS	**1998-2004**	**2008-2016**	**2015-2019**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94.0mm(3.700")	94.0mm(3.700")	94.0mm(3.700")
STROKE	86.0mm(3.39")	89.5mm(3.52")	89.5mm(3.52")
MAIN JOURNAL DIA.	2.4403/2.4409"	2.6373/2.6378"	2.6373/2.6378"
ROD JOURNAL DIA.	2.4065/2.4072"	2.2040/2.2047"	2.2040/2.2047"
VALVE TRAIN			
LIFTERS	LIFTO43	A-2319	
INTAKE VALVE	IVTO43		
EXHAUST VALVE	EVTO43	EVTO49	
INTAKE GUIDE	IVGTO34	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO34	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO43		
TIMING BELT	TBTO43		
TENSIONERS	BTTO43I (idler) BTTO43		
HYDRAULIC TENSIONER	BTTO43H		

LEXUS

MODEL	IS F	LX570	LX570
ENGINE CODE	2UR-GSE	3UR-FE	3UR-FE
DISPLACEMENT	4969cc(303.2")	5663cc(345.6")	5663cc(345.6")
YEARS	2008-2014	2014-2019	2008-2013
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94.0mm(3.700")	94mm(3.701")	94mm(3.701")
STROKE	89.5mm(3.52")	102mm(4.02")	102mm(4.02")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	2.6373/2.6378"
ROD JOURNAL DIA.	2.2040/2.2047"	2.2040/2.2047"	2.2040/2.2047"
BEARING SETS			
MAIN BEARING SET	MBTO50	MBTO50	MBTO50
ROD BEARING SET		RBTO50	RBTO50
THRUST WASHER SET	TWTO50	TWTO50	TWTO50
GASKETS			
FULL GASKET SET		CGSTO50	CGSTO50
HEAD GASKET SET		HSTO50	HSTO50
CONVERSION SET		CBSTO50	CBSTO50
HEAD BOLT SET	HBTO50	HBTO50	HBTO50
PISTONS, RINGS, PLUGS			
PISTONS		PATO50L	PATO50L
RING SETS		RSTO50	RSTO50
PIN BUSHINGS		PBH36	PBH36
OIL PUMP			
NEW OIL PUMP		OPTO50K❶	OPTO50K❶

❶ (rear cover and rotor set only)

MODEL	IS F	LX570	LX570
ENGINE CODE	2UR-GSE	3UR-FE	3UR-FE
DISPLACEMENT	4969cc(303.2")	5663cc(345.6")	5663cc(345.6")
YEARS	2008-2014	2014-2019	2008-2013
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94.0mm(3.700")	94mm(3.701")	94mm(3.701")
STROKE	89.5mm(3.52")	102mm(4.02")	102mm(4.02")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	2.6373/2.6378"
ROD JOURNAL DIA.	2.2040/2.2047"	2.2040/2.2047"	2.2040/2.2047"
VALVE TRAIN			
LIFTERS		A-2319	A-2319
INTAKE VALVE		IVTO49	IVTO49
EXHAUST VALVE		EVTO50	EVTO50
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKTO50	CTKTO50
TIMING COVER		TCTO50❶	TCTO50❶

❶ (with water & oil pump)

MAZDA

MODEL	PROTÉGÉ	MAZDA 2	PROTÉGÉ
ENGINE CODE	**Z5/DE**	**MZR**	**ZM/DE**
DISPLACEMENT	**1489cc(90.8")**	**1498cc**	**1597cc(97.4")**
YEARS	**1995-1998**	**2011-2014**	**1999-2003**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	75.3mm(2.965")	78mm(3.071")	78mm(3.071")
STROKE	83.6mm(3.29")	78.4mm(3.08")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9667"	1.9661/1.9668"
ROD JOURNAL DIA.	1.5724/1.5731"	1.8875/1.8880"	1.7693/1.7699"
ENGINE KITS			
GOLD KIT	EKMA19G (95-97) EKMA19LG (1998)		EKMA22G
BRONZE KITS	EKMA19B (95-97) EKMA1998B (1998)		EKMA22B
MAJOR KIT	EKMA19M (95-97) EKMA19LM (1998)		EKMA22M
RE-RING KIT	EKMA19R		EKMA22R
BEARING SETS			
MAIN BEARING SET	MBMA9		MBMA9
ROD BEARING SET	RBMA19		RBMA9
THRUST WASHER SET	TWMA9		TWMA9
GASKETS			
FULL GASKET SET	CGSMA19		CGSMA22
HEAD GASKET SET	HSMA19		HSMA22
HEAD GASKETS	HDGMA19		
CONVERSION SET	CBSMA19		CBSMA13
HEAD BOLT SET	HBMA19		HBMA19
PISTONS, RINGS, PLUGS			
PISTONS	PAMA19		PAMA22
RING SETS	RSMA19	RSMA29	RSMA22
FREEZE PLUG SET	EPSMA9		EPSMA9
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA19		
CONNECTING ROD	CRMA19		CRMA9
OIL PUMP			
NEW OIL PUMP	OPMA19		OPMA22

MODEL	PROTÉGÉ	MAZDA 2	PROTÉGÉ
ENGINE CODE	**Z5/DE**	**MZR**	**ZM/DE**
DISPLACEMENT	**1489cc(90.8")**	**1498cc**	**1597cc(97.4")**
YEARS	**1995-1998**	**2011-2014**	**1999-2003**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	75.3mm(2.965")	78mm(3.071")	78mm(3.071")
STROKE	83.6mm(3.29")	78.4mm(3.08")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9667"	1.9661/1.9668"
ROD JOURNAL DIA.	1.5724/1.5731"	1.8875/1.8880"	1.7693/1.7699"
VALVE TRAIN			
INTAKE VALVE	IVMA19		IVMA22
EXHAUST VALVE	EVMA19		EVMA22
VALVE GUIDE	VGMA19	VGMA25	IVGMA13L (int.) EVGMA13L (ex.)
VALVE SEALS	VSSH21	VSSMA25	VSSMA13
WATER PUMP & TIMING			
WATER PUMP	WPMA19		WPMA13
TIMING BELT	TBMA19 (95-97) TBMA22 (1998)		TBMA22
TENSIONERS	BTMA13		BTMA13
IDLERS AND PULLEYS	BTMA13R (lower)		BTMA13R

MAZDA

MODEL	MX3	323	MX3
ENGINE CODE	B6ZE	B6	B6
DISPLACEMENT	1597cc(97.4")	1597cc(97.4")	1597cc(97.4")
YEARS	1994-1995	1990-1994	1992-1993
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	78mm(3.071")	78mm(3.071")	78mm(3.071")
STROKE	83.6mm(3.29")	83.6mm(3.29")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.7693/1.7699"	1.7693/1.7699"	1.7693/1.7699"
ENGINE KITS			
GOLD KIT	EKMA14LG	EKMA9HG (B630 pump) EKMA9BG❶	EKMA14G
BRONZE KITS	EKMA14LB	EKMA9HB (B630 pump) EKMA9BB❶	EKMA14B
MAJOR KIT	EKMA14LM	EKMA9HM	EKMA14M
RE-RING KIT	EKMA14LR	EKMA9HR	EKMA14R
BEARING SETS			
MAIN BEARING SET	MBMA9	MBMA9	MBMA9
ROD BEARING SET	RBMA9	RBMA9	RBMA9
THRUST WASHER SET	TWMA9	TWMA9	TWMA9
GASKETS			
FULL GASKET SET	CGSMA14L	CGSMA9H	CGSMA14
HEAD GASKET SET	HSMA14L	HSMA9H	HSMA14
HEAD GASKETS	HDGMA14L	HDGMA14	HDGMA14
CONVERSION SET	CBSMA13	CBSMA13	CBSMA13
PISTONS, RINGS, PLUGS			
PISTONS	PAMA14L	PAMA9	PAMA14
RING SETS	RSMA14	RSMA9	RSMA14
FREEZE PLUG SET	EPSMA9	EPSMA9	EPSMA9
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA14	CSMA9❷	CSMA14
CONNECTING ROD		CRMA9	CRMA14
OIL PUMP			
NEW OIL PUMP	OPMA19 (#B6S8)	OPMA9❸ OPMA13❹	OPMA13❹

❶ (B3C7/BP02 pump)
❷ (#B630 oil pump)
❸ (#B630 or BP01)
❹ (#B3C7 or BP02)

MODEL	MX3	323	MX3
ENGINE CODE	B6ZE	B6	B6
DISPLACEMENT	1597cc(97.4")	1597cc(97.4")	1597cc(97.4")
YEARS	1994-1995	1990-1994	1992-1993
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	78mm(3.071")	78mm(3.071")	78mm(3.071")
STROKE	83.6mm(3.29")	83.6mm(3.29")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.7693/1.7699"	1.7693/1.7699"	1.7693/1.7699"
VALVE TRAIN			
LIFTERS	LIFMA13	ALAMA12	ALAMA12
ROCKER ARMS		RAMA9HA (1 & 2 Cyl) RAMA9HB (3 & 4 Cyl)	RAMA11I
ROCKER ARMS			RAMA11E
INTAKE VALVE	IVMA9T	IVMA9	IVMA14
EXHAUST VALVE	EVMA9T	EVMA9	EVMA14
VALVE GUIDE	VGMA13	VGMA9	VGMA13
VALVE SEALS	VSSMA13	VSSMA9	VSSMA13
WATER PUMP & TIMING			
WATER PUMP	WPMA13	WPMA11	WPMA11
TIMING BELT	TBMA13	TBMA11	TBMA11
TENSIONERS	BTMA13	BTMA9	BTMA9
IDLERS AND PULLEYS	BTMA13R		BTMA13R

MAZDA

MODEL	MIATA	323	323 GT TURBO
ENGINE CODE	**B6**	**B6**	**B6E**
DISPLACEMENT	**1597cc(97.4")**	**1597cc(97.4")**	**1597cc(97.4")**
YEARS	**1990-1993**	**1988-1989**	**1988-1989**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo
BORE	78mm(3.071")	78mm(3.071")	78mm(3.071")
STROKE	83.6mm(3.29")	83.6mm(3.29")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.7693/1.7699"	1.7693/1.7699"	1.7693/1.7699"
ENGINE KITS			
GOLD KIT		EKMA9G	
BRONZE KITS		EKMA9B	
MAJOR KIT	EKMA9SM	EKMA9M	
RE-RING KIT	EKMA9SR (4mm oil ring) EKMA9AR (3mm oil ring)	EKMA9R	EKMA9SR
BEARING SETS			
MAIN BEARING SET	MBMA9	MBMA9	MBMA9
ROD BEARING SET	RBMA9	RBMA9	RBMA9
THRUST WASHER SET	TWMA9	TWMA9	TWMA9
GASKETS			
FULL GASKET SET	CGSMA9M	CGSMA9	CGSMA9M
HEAD GASKET SET	HSMA9M	HSMA9	HSMA9M
HEAD GASKETS	HDGMA9M	HDGMA9	HDGMA9M
CONVERSION SET	CBSMA13	CBSMA9	CBSMA13
PISTONS, RINGS, PLUGS			
PISTONS	PAMA9S	PAMA9	
RING SETS	RSMA9 (4mm oil ring) RSMA14 (3mm oil ring)	RSMA9	RSMA9
FREEZE PLUG SET	EPSMA9	EPSMA9	EPSMA9
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSMA9	
CONNECTING ROD		CRMA9	
OIL PUMP			
NEW OIL PUMP		OPMA9	

MODEL	MIATA	323	323 GT TURBO
ENGINE CODE	**B6**	**B6**	**B6E**
DISPLACEMENT	**1597cc(97.4")**	**1597cc(97.4")**	**1597cc(97.4")**
YEARS	**1990-1993**	**1988-1989**	**1988-1989**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo
BORE	78mm(3.071")	78mm(3.071")	78mm(3.071")
STROKE	83.6mm(3.29")	83.6mm(3.29")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.7693/1.7699"	1.7693/1.7699"	1.7693/1.7699"
VALVE TRAIN			
LIFTERS	LIFMA13	ALAMA12	LIFMA13
ROCKER ARMS		RAMA9HA (1 & 2 Cyl) RAMA9HB (3 & 4 Cyl)	
INTAKE VALVE	IVMA9T	IVMA9	IVMA9T
EXHAUST VALVE	EVMA9T	EVMA9	EVMA9T
VALVE GUIDE	VGMA13	VGMA9	VGMA13
VALVE SEALS	VSSMA13	VSSMA9	VSSMA13
WATER PUMP & TIMING			
WATER PUMP	WPMA9M	WPMA11	WPMA9M
TIMING BELT	TBMA13	TBMA9	TBMA9T
TENSIONERS	BTMA13	BTMA9	BTMA13
IDLERS AND PULLEYS	BTMA13R		BTMA13R

MAZDA

MODEL	323	MIATA MX5	MIATA MX5
ENGINE CODE	**B6**	**BP/Z3**	**BP4W**
DISPLACEMENT	**1597cc(97.4")**	**1839cc(112.2")**	**1839cc(112.2")**
YEARS	**1986-1987**	**2001-2005**	**1999-2000**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	78mm(3.071")	83mm(3.268")	83mm(3.268")
STROKE	83.6mm(3.29")	85mm(3.35")	85mm(3.35")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.7693/1.7699"	1.7693/1.7699"	1.7693/1.7699"
ENGINE KITS			
GOLD KIT	EKMA9G		
BRONZE KITS	EKMA9B		
MAJOR KIT	EKMA9M		
RE-RING KIT	EKMA9R		
BEARING SETS			
MAIN BEARING SET	MBMA9	MBMA9	MBMA9
ROD BEARING SET	RBMA9	RBMA9	RBMA9
THRUST WASHER SET	TWMA9		TWMA9
GASKETS			
FULL GASKET SET	CGSMA9	CGSMA24❶	CGSMA13
HEAD GASKET SET	HSMA9	HSMA24❶	HSMA13
HEAD GASKETS	HDGMA9		HDGMA13
CONVERSION SET	CBSMA9	CBSMA13	CBSMA24
PISTONS, RINGS, PLUGS			
PISTONS	PAMA9	PAMA24L	PAMA24
RING SETS	RSMA9	RSMA13	RSMA13
FREEZE PLUG SET	EPSMA9	EPSMA9	EPSMA9
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA9		
CONNECTING ROD	CRMA9		
OIL PUMP			
NEW OIL PUMP	OPMA9		OPMA22

❶ (plennum gasket for 02-04 only)

MODEL	323	MIATA MX5	MIATA MX5
ENGINE CODE	B6	BP/Z3	BP4W
DISPLACEMENT	1597cc(97.4")	1839cc(112.2")	1839cc(112.2")
YEARS	1986-1987	2001-2005	1999-2000
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	78mm(3.071")	83mm(3.268")	83mm(3.268")
STROKE	83.6mm(3.29")	85mm(3.35")	85mm(3.35")
MAIN JOURNAL DIA.	1.9661/1.9668"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.7693/1.7699"	1.7693/1.7699"	1.7693/1.7699"
VALVE TRAIN			
CAMSHAFTS	CAMMA9		
LIFTERS		LIFMA13	LIFMA13
ROCKER ARMS	RAMA9A (1 & 2 Cyl)		
	RAMA9B (3 & 4 Cyl)		
ROCKER ARM SHAFTS	RASIMA9		
INTAKE VALVE	IVMA9	IVMA13M	IVMA13
EXHAUST VALVE	EVMA9	EVMA13	EVMA13
VALVE GUIDE	VGMA9	IVGMA13L (int.)	IVGMA13L (int.)
		EVGMA13L (ex.)	EVGMA13L (ex.)
VALVE SEALS	VSSMA9	VSSMA13	VSSMA13
WATER PUMP & TIMING			
WATER PUMP	WPMA11	WPMA13	WPMA13
TIMING BELT	TBMA9	TBMA13	TBMA13
TENSIONERS	BTMA9	BTMA13	BTMA13
IDLERS AND PULLEYS		BTMA13R	BTMA13R

MAZDA

MODEL	PROTÉGÉ	PROTÉGÉ MIATA MX5 (94-97)	PROTÉGÉ
ENGINE CODE	**FP**	**BP-ZE**	**BP01**
DISPLACEMENT	**1839cc(112.2")**	**1839cc(112.2")**	**1839cc(112.2")**
YEARS	**1999-2000**	**1994-1998**	**1990-1994**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	85mm(3.35")	85mm(3.35")	85mm(3.35")
MAIN JOURNAL DIA.	2.2022/2.2030"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.8874/1.8880"	1.7693/1.7699"	1.7693/1.7699"
ENGINE KITS			
GOLD KIT		EKMA13LG	EKMA11G (BP01 pump) EKMA11LG (B6S8 pump)
BRONZE KITS		EKMA13LB	EKMA11B (BP01 pump) EKMA11LB (B6S8 pump)
MAJOR KIT		EKMA13M	EKMA11M
RE-RING KIT		EKMA13R	EKMA11R
BEARING SETS			
MAIN BEARING SET	MBMA17	MBMA9	MBMA9
ROD BEARING SET	RBMA17	RBMA9	RBMA9
THRUST WASHER SET	TWH16	TWMA9	TWMA9
GASKETS			
FULL GASKET SET	CGSMA17L	CGSMA13	CGSMA11
HEAD GASKET SET	HSMA17L	HSMA13	HSMA11
HEAD GASKETS	HDGMA17	HDGMA13	HDGMA11
CONVERSION SET	CBSMA17	CBSMA13	CBSMA13
HEAD BOLT SET	HBMA17		
PISTONS, RINGS, PLUGS			
PISTONS	PAMA23	PAMA13	PAMA11
RING SETS	RSMA17	RSMA13	RSMA13
FREEZE PLUG SET	EPSMA13	EPSMA13	EPSMA13
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSMA11L❶
CONNECTING ROD			CRMA14
OIL PUMP			
NEW OIL PUMP	OPMA17L	OPMA19 (#B6S8)	OPMA9❷ OPMA13❸ OPMA19 (#B6S8)

❶ (B6S8 oil pump)
❷ (#BP01 or B630)
❸ (#BP02 or B3C7)

MODEL	PROTÉGÉ	PROTÉGÉ MIATA MX5 (94-97)	PROTÉGÉ
ENGINE CODE	**FP**	**BP-ZE**	**BP01**
DISPLACEMENT	**1839cc(112.2")**	**1839cc(112.2")**	**1839cc(112.2")**
YEARS	**1999-2000**	**1994-1998**	**1990-1994**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	85mm(3.35")	85mm(3.35")	85mm(3.35")
MAIN JOURNAL DIA.	2.2022/2.2030"	1.9661/1.9668"	1.9661/1.9668"
ROD JOURNAL DIA.	1.8874/1.8880"	1.7693/1.7699"	1.7693/1.7699"
VALVE TRAIN			
LIFTERS	LIFMA13	LIFMA13	ALAMA12
ROCKER ARMS			RAMA11I
ROCKER ARMS			RAMA11E
INTAKE VALVE	IVMA17	IVMA13	IVMA11
EXHAUST VALVE	EVMA17	EVMA13	EVMA11
VALVE GUIDE	VGMA17	IVGMA13L (int.) EVGMA13L (ex.)	VGMA13
VALVE SEALS	VSSMA13	VSSMA13	VSSMA13
WATER PUMP & TIMING			
WATER PUMP	WPMA17	WPMA13	WPMA11
TIMING BELT	TBMA23	TBMA13	TBMA11
TENSIONERS	BTMA17	BTMA13	BTMA9
IDLERS AND PULLEYS	BTMA17R	BTMA13R	BTMA13R

MAZDA

MODEL	PROTÉGÉ	MX3 V6	B2000 626
ENGINE CODE	**BP05**	**K8**	**MA**
DISPLACEMENT	**1839cc(112.2")**	**1844cc(112.5")**	**1970cc(120.2")**
YEARS	**1990-1993**	**1992-1994**	**1979-1984**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	24 VALVE; DOHC V6; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	83mm(3.268")	74.9mm(2.949")	80mm(3.150")
STROKE	85mm(3.35")	69.6mm(2.74")	89mm(3.86")
MAIN JOURNAL DIA.	1.9661/1.9668"	2.4382/2.4392"	2.4779/2.4785"
ROD JOURNAL DIA.	1.7693/1.7699"	1.8872/1.8880"	2.0842/2.0848
ENGINE KITS			
SILVER KIT			EKMA7S
MAJOR KIT	EKMA13M		EKMA7M
RE-RING KIT	EKMA13R	EKMA20R	EKMA7R (1.5x2.0x4) EKMA6R (1.2x1.5x4)
BEARING SETS			
MAIN BEARING SET	MBMA9	MBMA15	MBMA7
ROD BEARING SET	RBMA9	RBMA20	RBMA7
THRUST WASHER SET	TWMA9	TWMA10	TWMA7
CAM BEARINGS			CBMA7
GASKETS			
FULL GASKET SET	CGSMA13	CGSMA20	CGSMA7
HEAD GASKET SET	HSMA13	HSMA20	HSMA7
HEAD GASKETS	HDGMA13		HDGMA7
CONVERSION SET	CBSMA13	CBSMA15	CBSMA7
HEAD BOLT SET		HBMA15	
PISTONS, RINGS, PLUGS			
PISTONS	PAMA13		PAMA7
RING SETS	RSMA13	RSMA20	
FREEZE PLUG SET	EPSMA13		EPSMA7
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA13	CSMA20	CSMA7
CONNECTING ROD		CRMA20	CRMA7

MODEL	PROTÉGÉ	MX3 V6	B2000 626
ENGINE CODE	**BP05**	**K8**	**MA**
DISPLACEMENT	**1839cc(112.2")**	**1844cc(112.5")**	**1970cc(120.2")**
YEARS	**1990-1993**	**1992-1994**	**1979-1984**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	24 VALVE; DOHC V6; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	83mm(3.268")	74.9mm(2.949")	80mm(3.150")
STROKE	85mm(3.35")	69.6mm(2.74")	89mm(3.86")
MAIN JOURNAL DIA.	1.9661/1.9668"	2.4382/2.4392"	2.4779/2.4785"
ROD JOURNAL DIA.	1.7693/1.7699"	1.8872/1.8880"	2.0842/2.0848
VALVE TRAIN			
LIFTERS	LIFMA13	LIFMA13	
ROCKER ARMS			RAMA5I (int.) RAMA5E (ex.)
INTAKE VALVE	IVMA13	IVMA20	IVMA7
EXHAUST VALVE	EVMA13	EVMA20	EVMA7
VALVE GUIDE	IVGMA13L (int.) EVGMA13L (ex.)	VGMA17	VGMA7 (82-84)
VALVE SEALS	VSSMA13	VSSMA13	VSSMA7 (82-84)
WATER PUMP & TIMING			
WATER PUMP	WPMA9M	WPMA15 (32mm pilot)	
TIMING CHAIN KIT			CTKMA7
TIMING BELT	TBMA13	TBMA15	
TENSIONERS	BTMA13	BTMA15H (hyd. 1994)	
IDLERS AND PULLEYS	BTMA13R	BTMA15 (lower) BTMA15R (upper)	

MAZDA

MODEL	TRIBUTE	626 PROTÉGÉ PROTÉGÉ 5	626
ENGINE CODE	**ZETEC**	**FS**	**FS**
DISPLACEMENT	**1989cc(121.3")**	**1991cc(121.5")**	**1991cc(121.5")**
YEARS	**2001-2004**	**2000-2003**	**1998-1999**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	84.8mm(3.339")	83mm(3.268")	83mm(3.268")
STROKE	87.9mm(3.46")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.2827/2.2834"	2.2022/2.2030"	2.2022/2.2030"
ROD JOURNAL DIA.	1.8461/1.8468"	1.8874/1.8880"	1.8874/1.8880"
ENGINE KITS			
GOLD KIT		EKMA17PG	EKMA17LG
BRONZE KITS		EKMA17PM	EKMA17LB
MAJOR KIT		EKMA17PM	EKMA17LM
RE-RING KIT		EKMA17PR	EKMA17LR
BEARING SETS			
MAIN BEARING SET	MBFD7	MBMA17	MBMA17
ROD BEARING SET	RBFD7 (Standard OD)	RBMA17	RBMA17
THRUST WASHER SET		TWH16	TWH16
GASKETS			
FULL GASKET SET		CGSMA17P	CGSMA17L
HEAD GASKET SET	HSFD7E (7/2002-04)	HSMA17P	HSMA17L
HEAD GASKETS			HDGMA17
CONVERSION SET		CBSMA17	CBSMA17
HEAD BOLT SET	HBFD7	HBMA17	HBMA17
PISTONS, RINGS, PLUGS			
PISTONS	PAFD7L	PAMA17	PAMA17
RING SETS	RSFD7L	RSMA17	RSMA17
FREEZE PLUG SET		EPSMA17	EPSMA17
CRANKSHAFT & RODS			
CONNECTING ROD		CRMA17	CRMA17
OIL PUMP			
NEW OIL PUMP	OPFD7L	OPMA17L	OPMA17L

MODEL	TRIBUTE	626 PROTÉGÉ PROTÉGÉ 5	626
ENGINE CODE	**ZETEC**	**FS**	**FS**
DISPLACEMENT	**1989cc(121.3")**	**1991cc(121.5")**	**1991cc(121.5")**
YEARS	**2001-2004**	**2000-2003**	**1998-1999**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	84.8mm(3.339")	83mm(3.268")	83mm(3.268")
STROKE	87.9mm(3.46")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.2827/2.2834"	2.2022/2.2030"	2.2022/2.2030"
ROD JOURNAL DIA.	1.8461/1.8468"	1.8874/1.8880"	1.8874/1.8880"
VALVE TRAIN			
LIFTERS		LIFMA13	LIFMA13
INTAKE VALVE	IVFD7	IVMA17	IVMA17
EXHAUST VALVE	EVFD7	EVMA17	EVMA17
VALVE GUIDE	VGFD7	VGMA17	VGMA17
VALVE SEALS		VSSMA13	VSSMA13
WATER PUMP & TIMING			
WATER PUMP	WPFD7L	WPMA17	WPMA17
TIMING BELT	TBFD7L	TBMA17	TBMA17
TENSIONERS	BTFD7L	BTMA17	BTMA17
IDLERS AND PULLEYS	BTFD7LR	BTMA17R	BTMA17R
ENGINES & HEADS			
HEAD W/VALVES			CHVMA17L

MAZDA

MODEL	626 MX6	B2000	626 TURBO
ENGINE CODE	**FS**	**FE**	**FE**
DISPLACEMENT	**1991cc(121.5")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**1993-1997**	**1986-1987**	**1986-1987**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4	8 VALVE; SOHC 4; F.INJ.
BORE	83mm(3.268")	86mm(3.386")	86mm(3.386")
STROKE	92mm(3.62")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.2022/2.2030"	2.3597/2.3604"	2.3597/2.3604"
ROD JOURNAL DIA.	1.8874/1.8880"	2.0055/2.0061"	2.0055/2.0061"
ENGINE KITS			
GOLD KIT	EKMA17G	EKMA8LG	
BRONZE KITS	EKMA17B	EKMA8LB	
MAJOR KIT	EKMA17M	EKMA8LM	
RE-RING KIT	EKMA17R	EKMA8R	EKMA8R
BEARING SETS			
MAIN BEARING SET	MBMA17	MBMA8	MBMA8
ROD BEARING SET	RBMA17	RBMA8	RBMA8
THRUST WASHER SET	TWH16		
GASKETS			
FULL GASKET SET	CGSMA17	CGSMA8	CGSMA8
HEAD GASKET SET	HSMA17	HSMA8	HSMA8
HEAD GASKETS	HDGMA17	HDGMA8	HDGMA8
CONVERSION SET	CBSMA17	CBSMA8	CBSMA8
HEAD BOLT SET	HBMA17	HBMA12	HBMA12
PISTONS, RINGS, PLUGS			
PISTONS	PAMA17	PAMA8	
RING SETS	RSMA17	RSMA8	RSMA8
FREEZE PLUG SET	EPSMA17	EPSMA8	EPSMA8
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA17 (93-94)		
CONNECTING ROD	CRMA17	CRMA8 (casting #FE) CRMA8L (casting #FH)	CRMA8 (casting #FE)
OIL PUMP			
NEW OIL PUMP	OPMA17L	OPMA8	OPMA8

MODEL	626 MX6	B2000	626 TURBO
ENGINE CODE	**FS**	**FE**	**FE**
DISPLACEMENT	**1991cc(121.5")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**1993-1997**	**1986-1987**	**1986-1987**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4	8 VALVE; SOHC 4; F.INJ.
BORE	83mm(3.268")	86mm(3.386")	86mm(3.386")
STROKE	92mm(3.62")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.2022/2.2030"	2.3597/2.3604"	2.3597/2.3604"
ROD JOURNAL DIA.	1.8874/1.8880"	2.0055/2.0061"	2.0055/2.0061"
VALVE TRAIN			
CAMSHAFTS		CAMMA8L	CAMMA8
LIFTERS	LIFMA13		
ROCKER ARMS		RAMA8A❶	RAMA8A❶
		RAMA8B❷	RAMA8B❷
ROCKER ARM SHAFTS		RASIMA8	RASIMA8
ROCKER ARM SHAFTS		RASEMA8	RASEMA8
INTAKE VALVE	IVMA17	IVMA8	IVMA8
EXHAUST VALVE	EVMA17	EVMA8	EVMA8
VALVE GUIDE	VGMA17	VGMA8	VGMA8
VALVE SEALS	VSSMA13	VSSMA7	VSSMA7
WATER PUMP & TIMING			
WATER PUMP	WPMA17	WPMA8L (round tooth)	WPMA8L (round tooth)
TIMING BELT	TBMA17	TBMA8L	TBMA8L
TENSIONERS	BTMA17	BTMA8	BTMA8
IDLERS AND PULLEYS	BTMA17R		

❶ (w/casting line)
❷ (no casting line)

MAZDA

MODEL	626	626	MAZDA 3
ENGINE CODE	FE	FE	P5-VPS
DISPLACEMENT	1998cc(121.9")	1998cc(121.9")	1998cc(122")
YEARS	1984-1987	1983-1984	2021-2022
DESCRIPTION	8 VALVE; SOHC 4	8 VALVE; SOHC 4	16vlv; DOHC; 4; vin 7; SKYACTI
BORE	86mm(3.386")	86mm(3.386")	83.5mm(3.297")
STROKE	86mm(3.39")	86mm(3.39")	91.2mm(3.59")
MAIN JOURNAL DIA.	2.3597/2.3604"	2.3597/2.3604"	1.8497"/1.8503"
ROD JOURNAL DIA.	2.0055/2.0061"	2.0055/2.0061"	1.8497"/1.8503"
ENGINE KITS			
GOLD KIT	EKMA8LG	EKMA8G	
BRONZE KITS	EKMA8LB		
MAJOR KIT	EKMA8LM	EKMA8M	
RE-RING KIT	EKMA8R	EKMA8R	
BEARING SETS			
MAIN BEARING SET	MBMA8	MBMA8	MBMA32
ROD BEARING SET	RBMA8	RBMA8	RBMA32
THRUST WASHER SET			TWMA32
GASKETS			
FULL GASKET SET	CGSMA8	CGSMA8	CGSMA32
HEAD GASKET SET	HSMA8	HSMA8	HSMA32
HEAD GASKETS	HDGMA8	HDGMA8	
CONVERSION SET	CBSMA8	CBSMA8	CBSMA32
HEAD BOLT SET	HBMA12	HBMA12	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA8	PAMA8	
RING SETS	RSMA8	RSMA8	
FREEZE PLUG SET	EPSMA8	EPSMA8	
CRANKSHAFT & RODS			
CONNECTING ROD	CRMA8 (casting #FE)	CRMA8 (casting #FE)	
OIL PUMP			
NEW OIL PUMP	OPMA8	OPMA8	

MODEL	626	626	MAZDA 3
ENGINE CODE	FE	FE	P5-VPS
DISPLACEMENT	1998cc(121.9")	1998cc(121.9")	1998cc(122")
YEARS	1984-1987	1983-1984	2021-2022
DESCRIPTION	8 VALVE; SOHC 4	8 VALVE; SOHC 4	16vlv; DOHC; 4; vin 7; SKYACTI
BORE	86mm(3.386")	86mm(3.386")	83.5mm(3.297")
STROKE	86mm(3.39")	86mm(3.39")	91.2mm(3.59")
MAIN JOURNAL DIA.	2.3597/2.3604"	2.3597/2.3604"	1.8497"/1.8503"
ROD JOURNAL DIA.	2.0055/2.0061"	2.0055/2.0061"	1.8497"/1.8503"
VALVE TRAIN			
CAMSHAFTS	CAMMA8	CAMMA8	
ROCKER ARMS	RAMA8A❶	RAMA8A❶	
	RAMA8B❷	RAMA8B❷	
ROCKER ARM SHAFTS	RASIMA8	RASIMA8	
ROCKER ARM SHAFTS	RASEMA8	RASEMA8	
INTAKE VALVE	IVMA8	IVMA8	
EXHAUST VALVE	EVMA8	EVMA8	
VALVE GUIDE	VGMA8	VGMA8	
INTAKE GUIDE			IVGMA32
EXHAUST GUIDE			EVGMA32
VALVE SEALS	VSSMA7	VSSMA7	VSSMA32
WATER PUMP & TIMING			
WATER PUMP	WPMA8L (round tooth)		
TIMING BELT	TBMA8L	TBMA8	
TENSIONERS	BTMA8	BTMA8	

❶ (w/casting line)
❷ (no casting line)

MAZDA

MODEL	CX-3	MX-5 MIATA	MX-5 MIATA SKYACTIV
ENGINE CODE	**P5-VPS**	**P5-VPS**	**P5-VPS**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2019-2021**	**2019-2021**	**2016-2018**
DESCRIPTION	16vlv; DOHC; 4; vin 7; SKYACTI	16vlv; DOHC; 4; vin 7; SKYACTI	16vlv; DOHC; 4; vin 7; SKYACTI
BORE	83.5mm(3.297")	83.5mm(3.297")	83.5mm(3.297")
STROKE	91.2mm(3.59")	91.2mm(3.59")	91.2mm(3.59")
MAIN JOURNAL DIA.	1.8497"/1.8503"	1.8497"/1.8503"	1.8497"/1.8503"
ROD JOURNAL DIA.	1.8497"/1.8503"	1.8497"/1.8503"	1.8497"/1.8503"
BEARING SETS			
MAIN BEARING SET	MBMA32	MBMA32	MBMA32
ROD BEARING SET	RBMA32	RBMA32	RBMA32
THRUST WASHER SET	TWMA32	TWMA32	TWMA32
GASKETS			
FULL GASKET SET	CGSMA32	CGSMA32	
HEAD GASKET SET	HSMA32	HSMA32	
CONVERSION SET	CBSMA32	CBSMA32	
HEAD BOLT SET	HBMA25	HBMA25	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS			PAMA32
RING SETS			RSMA32

MODEL	CX-3	MX-5 MIATA	MX-5 MIATA SKYACTIV
ENGINE CODE	P5-VPS	P5-VPS	P5-VPS
DISPLACEMENT	1998cc(122")	1998cc(122")	1998cc(122")
YEARS	2019-2021	2019-2021	2016-2018
DESCRIPTION	16vlv; DOHC; 4; vin 7; SKYACTI	16vlv; DOHC; 4; vin 7; SKYACTI	16vlv; DOHC; 4; vin 7; SKYACTI
BORE	83.5mm(3.297")	83.5mm(3.297")	83.5mm(3.297")
STROKE	91.2mm(3.59")	91.2mm(3.59")	91.2mm(3.59")
MAIN JOURNAL DIA.	1.8497"/1.8503"	1.8497"/1.8503"	1.8497"/1.8503"
ROD JOURNAL DIA.	1.8497"/1.8503"	1.8497"/1.8503"	1.8497"/1.8503"
VALVE TRAIN			
LIFTERS		LIFMA32	LIFMA32
INTAKE VALVE			IVMA32
EXHAUST VALVE			EVMA32
INTAKE GUIDE	IVGMA32	IVGMA32	IVGMA32
EXHAUST GUIDE	EVGMA32	EVGMA32	EVGMA32
VALVE SEALS	VSSMA32	VSSMA32	VSSMA32

MAZDA

MODEL	CX-3 SKYACTIV	MAZDA 3 MAZDA 3 Sport (14-18) SKYACTIV	CX-5 SKYACTIV
ENGINE CODE	**P5-VPS**	**P5-VPS**	**P5-VPS**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2016-2018**	**2012-2018**	**2013-2016**
DESCRIPTION	16vlv; DOHC; 4; vin 7; SKYACTI	16vlv; DOHC; 4; vin 7; SKYACTI	16vlv; DOHC; 4; vin E; SKYACTI
BORE	83.5mm(3.297")	83.5mm(3.297")	83.5mm(3.297")
STROKE	91.2mm(3.59")	91.2mm(3.59")	91.2mm(3.59")
MAIN JOURNAL DIA.	1.8497"/1.8503"	1.8497"/1.8503"	1.8497"/1.8503"
ROD JOURNAL DIA.	1.8497"/1.8503"	1.8497"/1.8503"	1.8497"/1.8503"
BEARING SETS			
MAIN BEARING SET	MBMA32	MBMA32	MBMA32
ROD BEARING SET	RBMA32	RBMA32	RBMA32
THRUST WASHER SET	TWMA32	TWMA32	TWMA32
GASKETS			
FULL GASKET SET	CGSMA32	CGSMA32	CGSMA32
HEAD GASKET SET	HSMA32	HSMA32	HSMA32
CONVERSION SET	CBSMA32	CBSMA32	CBSMA32
HEAD BOLT SET	HBMA25	HBMA25	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA32	PAMA32 (2014-18 only)	PAMA32
RING SETS	RSMA32	RSMA32	RSMA32
OIL PUMP			
NEW OIL PUMP	OPMA32	OPMA32	OPMA32

MODEL	CX-3 SKYACTIV	MAZDA 3 MAZDA 3 Sport (14-18) SKYACTIV	CX-5 SKYACTIV
ENGINE CODE	**P5-VPS**	**P5-VPS**	**P5-VPS**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2016-2018**	**2012-2018**	**2013-2016**
DESCRIPTION	16vlv; DOHC; 4; vin 7; SKYACTI	16vlv; DOHC; 4; vin 7; SKYACTI	16vlv; DOHC; 4; vin E; SKYACTI
BORE	83.5mm(3.297")	83.5mm(3.297")	83.5mm(3.297")
STROKE	91.2mm(3.59")	91.2mm(3.59")	91.2mm(3.59")
MAIN JOURNAL DIA.	1.8497"/1.8503"	1.8497"/1.8503"	1.8497"/1.8503"
ROD JOURNAL DIA.	1.8497"/1.8503"	1.8497"/1.8503"	1.8497"/1.8503"
VALVE TRAIN			
LIFTERS	LIFMA32	LIFMA32	LIFMA32
INTAKE VALVE	IVMA32	IVMA32	IVMA32
EXHAUST VALVE	EVMA32	EVMA32	EVMA32
INTAKE GUIDE	IVGMA32	IVGMA32	IVGMA32
EXHAUST GUIDE	EVGMA32	EVGMA32	EVGMA32
VALVE SEALS	VSSMA32	VSSMA32	VSSMA32
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKMA32	CTKMA32	CTKMA32

MAZDA

MODEL	MAZDA 3 MAZDA 3 Sport SKYACTIV	MIATA MX5	MAZDA3 w/o Skyactive-G
ENGINE CODE	**P5-VPS**	**LFX**	**LFX**
DISPLACEMENT	**1998cc(122")**	**1999cc(121.9")**	**1999cc(121.9")**
YEARS	**2012-2013**	**2009-2015**	**2012-2013**
DESCRIPTION	16vlv; DOHC; 4; vin 8; SKYACTI	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	83.5mm(3.297")	87.5mm(3.445")	87.5mm(3.445")
STROKE	91.2mm(3.59")	83.1(3.27")	83.1(3.27")
MAIN JOURNAL DIA.	1.8497"/1.8503"	2.0460/2.0470"	2.0460/2.0470"
ROD JOURNAL DIA.	1.8497"/1.8503"	1.8496/1.8504"	1.8496/1.8504"
ENGINE KITS			
MAJOR KIT			EKMA28LM
RE-RING KIT			EKMA28R
BEARING SETS			
MAIN BEARING SET	MBMA32	MBMA25	MBMA25
ROD BEARING SET	RBMA32	RBMA28	RBMA28
THRUST WASHER SET	TWMA32		
GASKETS			
FULL GASKET SET	CGSMA32	CGSMA25M❶	CGSMA25L❶
HEAD GASKET SET	HSMA32	HSMA25M	HSMA25L
CONVERSION SET	CBSMA32	CBSMA25❷	CBSMA25❷
HEAD BOLT SET	HBMA25	HBMA25	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS		PAMA28M	PAMA28L
RING SETS	RSMA32	RSMA25	RSMA25
OIL PUMP			
NEW OIL PUMP	OPMA32	OPMA25	OPMA25

❶ (rear seal/cover not included)

❷ (Rear Main Seal/Cover not included)

MODEL	MAZDA 3 MAZDA 3 Sport SKYACTIV	MIATA MX5	MAZDA3 w/o Skyactive-G
ENGINE CODE	**P5-VPS**	**LFX**	**LFX**
DISPLACEMENT	**1998cc(122")**	**1999cc(121.9")**	**1999cc(121.9")**
YEARS	**2012-2013**	**2009-2015**	**2012-2013**
DESCRIPTION	16vlv; DOHC; 4; vin 8; SKYACTI	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	83.5mm(3.297")	87.5mm(3.445")	87.5mm(3.445")
STROKE	91.2mm(3.59")	83.1(3.27")	83.1(3.27")
MAIN JOURNAL DIA.	1.8497"/1.8503"	2.0460/2.0470"	2.0460/2.0470"
ROD JOURNAL DIA.	1.8497"/1.8503"	1.8496/1.8504"	1.8496/1.8504"
VALVE TRAIN			
LIFTERS	LIFMA32		
INTAKE VALVE	IVMA32	IVMA25	IVMA25
EXHAUST VALVE	EVMA32	EVMA25	EVMA25
VALVE GUIDE		VGMA25	VGMA25
INTAKE GUIDE	IVGMA32		
EXHAUST GUIDE	EVGMA32		
VALVE SEALS	VSSMA32	VSSMA25	VSSMA25
WATER PUMP & TIMING			
WATER PUMP		WPMA28	WPMA28
TIMING CHAIN KIT	CTKMA32	CTKMA28ME❶	CTKMA28ME❶

❶ (w/o variable cam gear)

MAZDA

MODEL	MAZDA3	MAZDA3	MIATA MX5
ENGINE CODE	LFX	LFX	LFX
DISPLACEMENT	1999cc(121.9")	1999cc(121.9")	1999cc(121.9")
YEARS	2009-2011	2006-2008	2006-2008
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83.1(3.27")	83.1(3.27")	83.1(3.27")
MAIN JOURNAL DIA.	2.0460/2.0470"	2.0460/2.0470"	2.0460/2.0470"
ROD JOURNAL DIA.	1.8496/1.8504"	1.8496/1.8504"	1.8496/1.8504"
ENGINE KITS			
MAJOR KIT	EKMA28LM	EKMA28LM	
RE-RING KIT	EKMA28R	EKMA28R	
BEARING SETS			
MAIN BEARING SET	MBMA25	MBMA25	MBMA25
ROD BEARING SET	RBMA28	RBMA28	RBMA28
GASKETS			
FULL GASKET SET	CGSMA25L❶	CGSMA25L❶	CGSMA25M❶
HEAD GASKET SET	HSMA25L	HSMA25L	HSMA25M
CONVERSION SET	CBSMA25❷	CBSMA25❷	CBSMA25❷
HEAD BOLT SET	HBMA25	HBMA25	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA28L	PAMA28L	PAMA28M
RING SETS	RSMA25	RSMA25	RSMA25
OIL PUMP			
NEW OIL PUMP	OPMA25	OPMA25	OPMA25

❶ (rear seal/cover not included)

❷ (Rear Main Seal/Cover not included)

MODEL	MAZDA3	MAZDA3	MIATA MX5
ENGINE CODE	LFX	LFX	LFX
DISPLACEMENT	1999cc(121.9")	1999cc(121.9")	1999cc(121.9")
YEARS	2009-2011	2006-2008	2006-2008
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83.1(3.27")	83.1(3.27")	83.1(3.27")
MAIN JOURNAL DIA.	2.0460/2.0470"	2.0460/2.0470"	2.0460/2.0470"
ROD JOURNAL DIA.	1.8496/1.8504"	1.8496/1.8504"	1.8496/1.8504"
VALVE TRAIN			
INTAKE VALVE	IVMA25	IVMA25	IVMA25
EXHAUST VALVE	EVMA25	EVMA25	EVMA25
VALVE GUIDE	VGMA25	VGMA25	VGMA25
VALVE SEALS	VSSMA25	VSSMA25	VSSMA25
WATER PUMP & TIMING			
WATER PUMP	WPMA28	WPMA28	WPMA28
TIMING CHAIN KIT	CTKMA28ME❶	CTKMA28ME❶	CTKMA28ME❶

❶ (w/o variable cam gear)

MAZDA

MODEL	MAZDA3	B2200	626 MX6
ENGINE CODE	**LFX**	**F2**	**F2**
DISPLACEMENT	**1999cc(121.9")**	**2184cc(133.2")**	**2184cc(133.2")**
YEARS	**2004-2005**	**1987-1993**	**1988-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	8 VALVE; SOHC 4	12 VALVE; SOHC 4; F.INJ non tu
BORE	87.5mm(3.445")	86mm(3.386")	86mm(3.386")
STROKE	83.1(3.27")	94mm(3.70")	94mm(3.70")
MAIN JOURNAL DIA.	2.0460/2.0470"	2.3597/2.3604"	2.3597/2.3604"
ROD JOURNAL DIA.	1.8496/1.8504"	2.0055/2.0061"	2.0055/2.0061"
ENGINE KITS			
GOLD KIT	EKMA28G	EKMA12LG	EKMA12G
BRONZE KITS		EKMA12LB	EKMA12B
MAJOR KIT	EKMA28M	EKMA12LM	EKMA12M
RE-RING KIT	EKMA28R	EKMA12LR	EKMA12R
BEARING SETS			
MAIN BEARING SET	MBMA25	MBMA8	MBMA8
ROD BEARING SET	RBMA28	RBMA8	RBMA8
GASKETS			
FULL GASKET SET	CGSMA25❶	CGSMA12L	CGSMA12
HEAD GASKET SET	HSMA25❷	HSMA12L	HSMA12
HEAD GASKETS	HDGMA25❷	HDGMA12	HDGMA12
CONVERSION SET	CBSMA25❶	CBSMA12	CBSMA12
HEAD BOLT SET	HBMA25	HBMA12	HBMA12
PISTONS, RINGS, PLUGS			
PISTONS	PAMA28	PAMA12L	PAMA12
RING SETS	RSMA25	RSMA8	RSMA8
FREEZE PLUG SET		EPSMA8	EPSMA8
CRANKSHAFT & RODS			
CONNECTING ROD		CRMA12	CRMA12
OIL PUMP			
NEW OIL PUMP	OPMA25	OPMA12	OPMA12

❶ (Rear Main Seal/Cover not included)

❷ (For Non Variable Cam Gear Application)

MODEL	MAZDA3	B2200	626 MX6
ENGINE CODE	**LFX**	**F2**	**F2**
DISPLACEMENT	**1999cc(121.9")**	**2184cc(133.2")**	**2184cc(133.2")**
YEARS	**2004-2005**	**1987-1993**	**1988-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	8 VALVE; SOHC 4	12 VALVE; SOHC 4; F.INJ non tu
BORE	87.5mm(3.445")	86mm(3.386")	86mm(3.386")
STROKE	83.1(3.27")	94mm(3.70")	94mm(3.70")
MAIN JOURNAL DIA.	2.0460/2.0470"	2.3597/2.3604"	2.3597/2.3604"
ROD JOURNAL DIA.	1.8496/1.8504"	2.0055/2.0061"	2.0055/2.0061"
VALVE TRAIN			
CAMSHAFTS			CAMMA12F
LIFTERS		ALAMA12	ALAMA12
ROCKER ARMS		RAMA12A❶	RAMA12FA❶
		RAMA12B❷	RAMA12FB❷
ROCKER ARM SHAFTS		RASIMA12	RASIMA12F
ROCKER ARM SHAFTS		RASEMA12	RASEMA12F
INTAKE VALVE	IVMA25	IVMA8	IVMA12
EXHAUST VALVE	EVMA25	EVMA8	EVMA12
VALVE GUIDE	VGMA25	VGMA8	VGMA12
VALVE SEALS	VSSMA25	VSSMA7	VSSMA9
WATER PUMP & TIMING			
WATER PUMP	WPMA28	WPMA12	WPMA12
TIMING CHAIN KIT	CTKMA28ME		
TIMING BELT		TBMA12	TBMA12
HYDRAULIC TENSIONER		BTMA12	BTMA12
IDLERS AND PULLEYS		BTMA12R	BTMA12R

❶ (w/casting line)
❷ (no casting line)

MAZDA

MODEL	626 (88-91) MX6 TURBO	MILLENIA	SPEED 3 CX-7 (10-12) TURBO
ENGINE CODE	**F2**	**KJ**	**MZR**
DISPLACEMENT	**2184cc(133.2")**	**2255cc(138.0")**	**2260cc(138")**
YEARS	**1988-1992**	**1995-2002**	**2010-2013**
DESCRIPTION	12vlv; SOHC 4; F.INJ; Turbo	24 VALVE; DOHC V6; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo
BORE	86mm(3.386")	80.3mm(3.161")	87.5mm(3.445")
STROKE	94mm(3.70")	74.2mm(2.92")	94mm(3.70")
MAIN JOURNAL DIA.	2.3597/2.3604"	2.4385/2.4392"	2.0465/2.0472"
ROD JOURNAL DIA.	2.0055/2.0061"	2.0843/2.0848"	2.0465/2.0472"
ENGINE KITS			
GOLD KIT	EKMA12TG		
BRONZE KITS	EKMA12TB		
MAJOR KIT	EKMA12TM	EKMA21LM	
RE-RING KIT	EKMA12TR	EKMA21R	
BEARING SETS			
MAIN BEARING SET	MBMA8	MBMA15	MBMA25
ROD BEARING SET	RBMA8	RBMA10	RBMA25T❶ RBMA30 (with no tabs)
THRUST WASHER SET		TWMA10	
GASKETS			
FULL GASKET SET	CGSMA12T	CGSMA21	CGSMA25T❷
HEAD GASKET SET	HSMA12T	HSMA21	HSMA25T
HEAD GASKETS	HDGMA12		HDGMA25T
CONVERSION SET	CBSMA12	CBSMA21	CBSMA25❸
HEAD BOLT SET	HBMA12	HBMA21	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA12T	PAMA21L (97-02)	PAMA25TL
RING SETS	RSMA8	RSMA21	RSMA25T
PIN BUSHINGS			PBMA25T
FREEZE PLUG SET	EPSMA8		
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSMA21	
CONNECTING ROD	CRMA12	CRMA21	CRMA25T
OIL PUMP			
NEW OIL PUMP	OPMA12		OPMA25

❶ (with left tab)
❷ (rear seal/cover not included)
❸ (Rear Main Seal/Cover not included)

MODEL	626 (88-91) MX6 TURBO	MILLENIA	SPEED 3 CX-7 (10-12) TURBO
ENGINE CODE	**F2**	**KJ**	**MZR**
DISPLACEMENT	**2184cc(133.2")**	**2255cc(138.0")**	**2260cc(138")**
YEARS	**1988-1992**	**1995-2002**	**2010-2013**
DESCRIPTION	12vlv; SOHC 4; F.INJ; Turbo	24 VALVE; DOHC V6; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo
BORE	86mm(3.386")	80.3mm(3.161")	87.5mm(3.445")
STROKE	94mm(3.70")	74.2mm(2.92")	94mm(3.70")
MAIN JOURNAL DIA.	2.3597/2.3604"	2.4385/2.4392"	2.0465/2.0472"
ROD JOURNAL DIA.	2.0055/2.0061"	2.0843/2.0848"	2.0465/2.0472"
VALVE TRAIN			
CAMSHAFTS	CAMMA12F		
LIFTERS	ALAMA12	LIFMA19	
ROCKER ARMS	RAMA12FA❶		
	RAMA12FB❷		
ROCKER ARM SHAFTS	RASIMA12F		
ROCKER ARM SHAFTS	RASEMA12F		
INTAKE VALVE	IVMA12	IVMA21	IVMA25T
EXHAUST VALVE	EVMA12	EVMA21	EVMA25T
VALVE GUIDE	VGMA12	VGMA17	VGMA25T
VALVE SEALS	VSSMA9	VSSMA13	VSSMA25T
WATER PUMP & TIMING			
WATER PUMP	WPMA12	WPMA21	WPMA28
TIMING CHAIN KIT			CTKMA25T
TIMING BELT	TBMA12	TBMA21	
HYDRAULIC TENSIONER	BTMA12		
IDLERS AND PULLEYS	BTMA12R	BTMA21 (lower)	
		BTMA15R (upper)	

❶ (w/casting line)
❷ (no casting line)

MAZDA

MODEL	SPEED 6 (06-07) SPEED 3 (07-09) CX-7 (07-09) TURBO	MAZDA 5 (08-10)	MAZDA 3 (9/2006-09) MAZDA 6 (9/2006 - 08)
ENGINE CODE	**MZR**	**L3X**	**L3X**
DISPLACEMENT	**2260cc(138")**	**2261cc**	**2261cc**
YEARS	**2006-2009**	**2008-2010**	**2006-2009**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	94mm(3.70")	94.4mm(3.70")	94.4mm(3.70")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	2.0465/2.0472"	1.9678/1.9685"	1.9678/1.9685"
ENGINE KITS			
GOLD KIT		EKMA25LG	EKMA25LG
MAJOR KIT		EKMA25LM	EKMA25LM
RE-RING KIT		EKMA25LR	EKMA25LR
BEARING SETS			
MAIN BEARING SET	MBMA25	MBMA25	MBMA25
ROD BEARING SET	RBMA25T❶ RBMA30 (with no tabs)	RBMA25	RBMA25
GASKETS			
FULL GASKET SET	CGSMA25T❷	CGSMA25L❷	CGSMA25L❸
HEAD GASKET SET	HSMA25T	HSMA25L	HSMA25L (from 09/2006)
HEAD GASKETS	HDGMA25T		
CONVERSION SET	CBSMA25❹	CBSMA25❹	CBSMA25❹
HEAD BOLT SET	HBMA25	HBMA25	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA25T	PAMA25	PAMA25
RING SETS	RSMA25T	RSMA25	RSMA25
PIN BUSHINGS	PBMA25T		
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSMA25	CSMA25
CONNECTING ROD	CRMA25T	CRMA25❺ CRMA25S (Std housing)	CRMA25❺ CRMA25S (Std housing)
OIL PUMP			
NEW OIL PUMP	OPMA25	OPMA25	OPMA25

❶ (with left tab)
❷ (rear seal/cover not included)
❸ (from 09/2006); (rear seal/cover not included)
❹ (Rear Main Seal/Cover not included)
❺ (.002" housing)

MODEL	SPEED 6 (06-07) SPEED 3 (07-09) CX-7 (07-09) TURBO	MAZDA 5 (08-10)	MAZDA 3 (9/2006-09) MAZDA 6 (9/2006 - 08)
ENGINE CODE	**MZR**	**L3X**	**L3X**
DISPLACEMENT	**2260cc(138")**	**2261cc**	**2261cc**
YEARS	**2006-2009**	**2008-2010**	**2006-2009**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	94mm(3.70")	94.4mm(3.70")	94.4mm(3.70")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	2.0465/2.0472"	1.9678/1.9685"	1.9678/1.9685"
VALVE TRAIN			
INTAKE VALVE	IVMA25T	IVMA25	IVMA25
EXHAUST VALVE	EVMA25T	EVMA25	EVMA25
VALVE GUIDE	VGMA25T	VGMA25	VGMA25
VALVE SEALS	VSSMA25T	VSSMA25	VSSMA25
WATER PUMP & TIMING			
WATER PUMP	WPMA28	WPMA28	WPMA28
TIMING CHAIN KIT	CTKMA25T		

MAZDA

MODEL	B2300	TRIBUTE TRIBUTE HYBRID	MAZDA 5 (06-07)
ENGINE CODE	**MZR/L3**	**L3X**	**L3X**
DISPLACEMENT	**2261cc**	**2261cc**	**2261cc**
YEARS	**2001-2009**	**2005-2008**	**2006-2007**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. non tu
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	94.4mm(3.70")	94.4mm(3.70")	94.4mm(3.70")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.9678/1.9685"	1.9678/1.9685"	1.9678/1.9685"
ENGINE KITS			
GOLD KIT			EKMA25G
MAJOR KIT			EKMA25M
RE-RING KIT			EKMA25R
BEARING SETS			
MAIN BEARING SET	MBMA25	MBMA25	MBMA25
ROD BEARING SET	RBMA25	RBMA25	RBMA25
GASKETS			
FULL GASKET SET	CGSMA25❶	CGSMA25❶	CGSMA25❶
HEAD GASKET SET	HSMA25❷	HSMA25❸	HSMA25❸
HEAD GASKETS	HDGMA25	HDGMA25❹	HDGMA25❹
CONVERSION SET	CBSMA25❶	CBSMA25❶	CBSMA25❶
HEAD BOLT SET	HBMA25	HBMA25	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA25R	PAMA25R	PAMA25
RING SETS	RSMA25	RSMA25	RSMA25
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSMA25
CONNECTING ROD		CRMA25❺ CRMA25S (Std housing)	CRMA25❺ CRMA25S (Std housing)
OIL PUMP			
NEW OIL PUMP	OPMA25F	OPMA25	OPMA25

❶ (Rear Main Seal/Cover not included)
❷ (valve cover gasket for aluminum rocker cover only)
❸ (valve cover gasket for aluminum rocker cover only) (For Non Variable Cam Gear Application)
❹ (For Non Variable Cam Gear Application)
❺ (.002" housing)

MODEL	B2300	TRIBUTE TRIBUTE HYBRID	MAZDA 5 (06-07)
ENGINE CODE	**MZR/L3**	**L3X**	**L3X**
DISPLACEMENT	**2261cc**	**2261cc**	**2261cc**
YEARS	**2001-2009**	**2005-2008**	**2006-2007**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. non tu
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	94.4mm(3.70")	94.4mm(3.70")	94.4mm(3.70")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.9678/1.9685"	1.9678/1.9685"	1.9678/1.9685"
VALVE TRAIN			
INTAKE VALVE	IVMA25	IVMA25	IVMA25
EXHAUST VALVE	EVMA25	EVMA25	EVMA25
VALVE GUIDE	VGMA25	VGMA25	VGMA25
VALVE SEALS	VSSMA25	VSSMA25	VSSMA25
WATER PUMP & TIMING			
WATER PUMP	WPMA28	WPMA28	WPMA28
TIMING CHAIN KIT	CTKMA25F❶		CTKMA25M❷

❶ (with 138 link chain)

❷ (with 174 link silent chain)

MAZDA

MODEL	MAZDA 3 (04-8/06) MAZDA 6 (03-8/06)	MPV	CX-30 MAZDA 3 3 Sport with Cylinder Deactivation
ENGINE CODE	**L3X**	**GY / DURATEC**	**PY-VPS**
DISPLACEMENT	**2261cc**	**2450cc(155")**	**2488cc(151.8")**
YEARS	**2003-2006**	**2000-2001**	**2019-2022**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. non tu	24 VALVE; DOHC V6; F.INJ.	16vlv; DOHC; 4; SKYACTIV
BORE	87.5mm(3.445")	81.8mm(3.224")	89.0mm(3.50")
STROKE	94.4mm(3.70")	79.5mm(3.13")	100.1mm(3.94")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.479/2.480"	1.9678"/1.9685"
ROD JOURNAL DIA.	1.9678/1.9685"	1.967/1.968"	1.9678"/1.9685"
ENGINE KITS			
GOLD KIT	EKMA25G		
MAJOR KIT	EKMA25M		
RE-RING KIT	EKMA25R		
BEARING SETS			
MAIN BEARING SET	MBMA25	MBMA27	MBMA31
ROD BEARING SET	RBMA25	RBMA27	RBMA31
THRUST WASHER SET		TWMA27	TWMA31
GASKETS			
FULL GASKET SET	CGSMA25❶		CGSMA31
HEAD GASKET SET	HSMA25❷		HSMA31
HEAD GASKETS	HDGMA25❸		
CONVERSION SET	CBSMA25❶	CBSMA27	CBSMA31
HEAD BOLT SET	HBMA25	HBMA27	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA25		
RING SETS	RSMA25		
PIN BUSHINGS		PBMA27	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA25		
CONNECTING ROD	CRMA25❹ CRMA25S (Std housing)		
OIL PUMP			
NEW OIL PUMP	OPMA25	OPMA27	OPMA31

❶ (Rear Main Seal/Cover not included)

❷ (thru 09/2006); (valve cover gasket for aluminum rocker cover only) (For Non Variable Cam Gear Appli

❸ (thru 09/2006) (For Non Variable Cam Gear Application)

❹ (.002" housing)

MODEL	MAZDA 3 (04-8/06) MAZDA 6 (03-8/06)	MPV	CX-30 MAZDA 3 3 Sport with Cylinder Deactivation
ENGINE CODE	**L3X**	**GY / DURATEC**	**PY-VPS**
DISPLACEMENT	**2261cc**	**2450cc(155")**	**2488cc(151.8")**
YEARS	**2003-2006**	**2000-2001**	**2019-2022**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. non tu	24 VALVE; DOHC V6; F.INJ.	16vlv; DOHC; 4; SKYACTIV
BORE	87.5mm(3.445")	81.8mm(3.224")	89.0mm(3.50")
STROKE	94.4mm(3.70")	79.5mm(3.13")	100.1mm(3.94")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.479/2.480"	1.9678"/1.9685"
ROD JOURNAL DIA.	1.9678/1.9685"	1.967/1.968"	1.9678"/1.9685"
VALVE TRAIN			
LIFTERS		A-2271	
INTAKE VALVE	IVMA25	IVMA26	
EXHAUST VALVE	EVMA25	EVMA26	
VALVE GUIDE	VGMA25	VGMA27	
INTAKE GUIDE			IVGMA32
EXHAUST GUIDE			EVGMA32
VALVE SEALS	VSSMA25	VSSMA27	VSSMA32
WATER PUMP & TIMING			
WATER PUMP	WPMA28		
TIMING CHAIN KIT	CTKMA25M❶		
GEARLESS TIMING KIT		PTKMA27	

❶ (with 174 link silent chain)

MAZDA

MODEL	CX-5 MAZDA 6 SKYACTIV with Cylinder Deactivation	CX-9 MAZDA 6 MAZDA 3 (21-22) CX-5 (19-22) CX-30 (21-22) 3 Sport (21-22)	MAZDA 3 MAZDA 3 Sport SKYACTIV
ENGINE CODE	**PY-VPS**	**PY-VPS**	**PY-VPS**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2018-2022**	**2016-2022**	**2014-2018**
DESCRIPTION	16vlv; DOHC; 4; SKYACTIV	16vlv; DOHC; 4; vin Y; TURBO	16vlv; DOHC; 4; vin 3; SKYACTI
BORE	89.0mm(3.50")	89.0mm(3.50")	89.0mm(3.50")
STROKE	100.1mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	1.9678"/1.9685"	1.9678"/1.9685"	1.9678"/1.9685"
ROD JOURNAL DIA.	1.9678"/1.9685"	1.9678"/1.9685"	1.9678"/1.9685"
BEARING SETS			
MAIN BEARING SET	MBMA31	MBMA31	MBMA31
ROD BEARING SET	RBMA31		RBMA31
THRUST WASHER SET	TWMA31	TWMA31	TWMA31
GASKETS			
FULL GASKET SET	CGSMA31		CGSMA31
HEAD GASKET SET	HSMA31		HSMA31
CONVERSION SET	CBSMA31		CBSMA31
HEAD BOLT SET	HBMA25		HBMA25
PISTONS, RINGS, PLUGS			
PISTONS			PAMA31❶
RING SETS			RSMA31
OIL PUMP			
NEW OIL PUMP	OPMA31		OPMA31

❶ (matched to RSMA31 depth)

MODEL	CX-5 MAZDA 6 SKYACTIV with Cylinder Deactivation	CX-9 MAZDA 6 MAZDA 3 (21-22) CX-5 (19-22) CX-30 (21-22) 3 Sport (21-22)	MAZDA 3 MAZDA 3 Sport SKYACTIV
ENGINE CODE	**PY-VPS**	**PY-VPS**	**PY-VPS**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2018-2022**	**2016-2022**	**2014-2018**
DESCRIPTION	16vlv; DOHC; 4; SKYACTIV	16vlv; DOHC; 4; vin Y; TURBO	16vlv; DOHC; 4; vin 3; SKYACTI
BORE	89.0mm(3.50")	89.0mm(3.50")	89.0mm(3.50")
STROKE	100.1mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	1.9678"/1.9685"	1.9678"/1.9685"	1.9678"/1.9685"
ROD JOURNAL DIA.	1.9678"/1.9685"	1.9678"/1.9685"	1.9678"/1.9685"
VALVE TRAIN			
LIFTERS		LIFMA32	LIFMA32
INTAKE VALVE		IVMA31	IVMA31
EXHAUST VALVE		EVMA31	EVMA31
INTAKE GUIDE	IVGMA32	IVGMA32	IVGMA32
EXHAUST GUIDE	EVGMA32	EVGMA32	EVGMA32
VALVE SEALS	VSSMA32		VSSMA32
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKMA31❶	CTKMA31❶

❶ (Cam Phasers not included)

MAZDA

MODEL	CX-5 MAZDA 6	MAZDA 3 (10-13) MAZDA 5 (12-15) MAZDA 6 (09-13) CX-7 (10-12) 3 Sport (10-13)	TRIBUTE
ENGINE CODE	**PY-VPS**	**L5/VE MZR**	**L5/VE MZR**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2014-2017**	**2009-2015**	**2009-2011**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	89.0mm(3.50")	89mm(3.504")	89mm(3.504")
STROKE	100.1mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	1.9678"/1.9685"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.9678"/1.9685"	2.0465/2.0472"	2.0465/2.0472"
BEARING SETS			
MAIN BEARING SET	MBMA31	MBMA25	MBMA25
ROD BEARING SET	RBMA31	RBMA30 (w/o tabs) RBMA25T❶	RBMA30 (w/o tabs) RBMA25T❶
THRUST WASHER SET	TWMA31		
GASKETS			
FULL GASKET SET	CGSMA31	CGSMA30❷	
HEAD GASKET SET	HSMA31	HSMA30	
CONVERSION SET	CBSMA31	CBSMA25❷	CBSMA25❷
HEAD BOLT SET	HBMA25	HBMA25	HBMA25
PISTONS, RINGS, PLUGS			
PISTONS	PAMA31❸	PAMA30	PAMA30
RING SETS	RSMA31	RSMA30	RSMA30
CRANKSHAFT & RODS			
CONNECTING ROD		CRMA30	
OIL PUMP			
NEW OIL PUMP	OPMA31	OPMA30	OPMA30

❶ (with left tab)
❷ (Rear Main Seal/Cover not included)
❸ (matched to RSMA31 depth)

MODEL	CX-5 MAZDA 6	MAZDA 3 (10-13) MAZDA 5 (12-15) MAZDA 6 (09-13) CX-7 (10-12) 3 Sport (10-13)	TRIBUTE
ENGINE CODE	**PY-VPS**	**L5/VE MZR**	**L5/VE MZR**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2014-2017**	**2009-2015**	**2009-2011**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	89.0mm(3.50")	89mm(3.504")	89mm(3.504")
STROKE	100.1mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	1.9678"/1.9685"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.9678"/1.9685"	2.0465/2.0472"	2.0465/2.0472"
VALVE TRAIN			
LIFTERS	LIFMA32		
INTAKE VALVE	IVMA31	IVMA25	IVMA25
EXHAUST VALVE	EVMA31	EVMA25	EVMA25
VALVE GUIDE		VGMA25	VGMA25
INTAKE GUIDE	IVGMA32		
EXHAUST GUIDE	EVGMA32		
VALVE SEALS	VSSMA32	VSSMA25	VSSMA25
WATER PUMP & TIMING			
WATER PUMP		WPMA28	
TIMING CHAIN KIT	CTKMA31❶		

❶ (Cam Phasers not included)

MAZDA

MODEL	TRIBUTE HYBRID	626	MILLENIA
ENGINE CODE	**L5/VE**	**KL**	**KL**
DISPLACEMENT	**2488cc(151.8")**	**2497cc(152.3")**	**2497cc(152.3")**
YEARS	**2009-2010**	**1998-2002**	**1998-2001**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	84.5mm(3.327")	84.5mm(3.327")
STROKE	100mm(3.94")	74.2mm(2.92")	74.2mm(2.92")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.4385/2.4392"	2.4385/2.4392"
ROD JOURNAL DIA.	2.0465/2.0472"	2.0843/2.0848"	2.0843/2.0848"
ENGINE KITS			
BRONZE KITS		EKMA15LB	EKMA15MB
MAJOR KIT		EKMA15LM	EKMA15MM
RE-RING KIT		EKMA15R	EKMA15MR
BEARING SETS			
MAIN BEARING SET	MBMA25	MBMA15	MBMA15
ROD BEARING SET	RBMA30 (w/o tabs) RBMA25T❶	RBMA10	RBMA10
THRUST WASHER SET		TWMA10	TWMA10
GASKETS			
FULL GASKET SET		CGSMA15	CGSMA15M
HEAD GASKET SET		HSMA15	HSMA15M
HEAD GASKETS		HDGMA15	HDGMA15
CONVERSION SET	CBSMA25❷	CBSMA15	CBSMA15
HEAD BOLT SET	HBMA25	HBMA15	HBMA15
PISTONS, RINGS, PLUGS			
PISTONS	PAMA30	PAMA15L	PAMA15
RING SETS	RSMA30	RSMA15	RSMA15
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSMA15L	CSMA15L
CONNECTING ROD		CRMA15	CRMA15
OIL PUMP			
NEW OIL PUMP	OPMA30		

❶ (with left tab)

❷ (Rear Main Seal/Cover not included)

MODEL	TRIBUTE HYBRID	626	MILLENIA
ENGINE CODE	**L5/VE**	**KL**	**KL**
DISPLACEMENT	**2488cc(151.8")**	**2497cc(152.3")**	**2497cc(152.3")**
YEARS	**2009-2010**	**1998-2002**	**1998-2001**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. FHEV	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	84.5mm(3.327")	84.5mm(3.327")
STROKE	100mm(3.94")	74.2mm(2.92")	74.2mm(2.92")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.4385/2.4392"	2.4385/2.4392"
ROD JOURNAL DIA.	2.0465/2.0472"	2.0843/2.0848"	2.0843/2.0848"
VALVE TRAIN			
LIFTERS			LIFMA13❶
INTAKE VALVE	IVMA25	IVMA15	IVMA15
EXHAUST VALVE	EVMA25	EVMA15	EVMA15
VALVE GUIDE	VGMA25	VGMA17	VGMA17
VALVE SEALS	VSSMA25	VSSMA13	VSSMA13
WATER PUMP & TIMING			
WATER PUMP		WPMA15 (32mm pilot)	WPMA15 (32mm pilot)
TIMING BELT		TBMA15	TBMA15
HYDRAULIC TENSIONER		BTMA15H (hydraulic)	BTMA15H (hydraulic)
IDLERS AND PULLEYS		BTMA15 (lower)	BTMA15 (lower)
		BTMA15F (roller tens.)	BTMA15F (roller tens.)
		BTMA15R (upper)	BTMA15R (upper)

❶ (30mm diameter)

MAZDA

MODEL	626 MILLENIA MX6	B2600	MPV B2600i (90-93)
ENGINE CODE	**KL**	**AM1**	**G6**
DISPLACEMENT	**2497cc(152.3")**	**2555cc(155.9")**	**2606cc(159")**
YEARS	**1993-1997**	**1987-1988**	**1989-1994**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	8 VALVE SOHC 4; CARB.	12 VALVE; SOHC 4; F.INJ.
BORE	84.5mm(3.327")	91.1mm(3.587")	92mm(3.622")
STROKE	74.2mm(2.92")	98mm(3.86")	98mm(3.86")
MAIN JOURNAL DIA.	2.4385/2.4392"	2.3611/2.3622"	2.3598/2.3602"
ROD JOURNAL DIA.	2.0843/2.0848"	2.0855/2.0866"	2.0055/2.0062"
ENGINE KITS			
PLATINUM KIT		EKC23LP	EKMA16P
GOLD KIT		EKC23LG	EKMA16G
SILVER KIT		EKC23LS	EKMA16S
BRONZE KITS	EKMA15B❶		EKMA16B
MAJOR KIT	EKMA15M	EKC23LM	EKMA16M
RE-RING KIT	EKMA15R	EKC23LR	EKMA16R
ULTRA KIT			EKMA16U
BEARING SETS			
MAIN BEARING SET	MBMA15	MBC23	MBMA16
ROD BEARING SET	RBMA10	RBC23	RBMA16
THRUST WASHER SET	TWMA10		
INTERMEDIATE SET		ISBC23	
GASKETS			
FULL GASKET SET	CGSMA15	CGSC23	CGSMA16
HEAD GASKET SET	HSMA15	HSC23	HSMA16
HEAD GASKETS	HDGMA15 (set of 2)	HDGC23	HDGMA16
CONVERSION SET	CBSMA15	CBSC23	CBSMA16
HEAD BOLT SET	HBMA15	HBC23	HBMA12
PISTONS, RINGS, PLUGS			
PISTONS	PAMA15 (set of 6)	PAC23L	PAMA16
RING SETS	RSMA15	RSC23L	RSTO80L
FREEZE PLUG SET		EPSC23	EPSMA16
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA15L (96-97)		CSMA16
CONNECTING ROD	CRMA15	-	CRMA16
OIL PUMP			
NEW OIL PUMP		OPC23	OPMA16

❶ (WP w/32mm pilot)

MODEL	626 MILLENIA MX6	B2600	MPV B2600i (90-93)
ENGINE CODE	**KL**	**AM1**	**G6**
DISPLACEMENT	**2497cc(152.3")**	**2555cc(155.9")**	**2606cc(159")**
YEARS	**1993-1997**	**1987-1988**	**1989-1994**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	8 VALVE SOHC 4; CARB.	12 VALVE; SOHC 4; F.INJ.
BORE	84.5mm(3.327")	91.1mm(3.587")	92mm(3.622")
STROKE	74.2mm(2.92")	98mm(3.86")	98mm(3.86")
MAIN JOURNAL DIA.	2.4385/2.4392"	2.3611/2.3622"	2.3598/2.3602"
ROD JOURNAL DIA.	2.0843/2.0848"	2.0855/2.0866"	2.0055/2.0062"
VALVE TRAIN			
LIFTERS	LIFMA13❶ LIFMA15❷	ALAMI4H	ALAMA12
ROCKER ARMS		RAMI5A (int) RAMI5C (ex)	RAMA16A (1 per cyl.) RAMA16B (2 per cyl.)
ROCKER ARM SHAFTS			RASIMA16
ROCKER ARM SHAFTS			RASEMA16
INTAKE VALVE	IVMA15	IVC23L	IVMA16
EXHAUST VALVE	EVMA15	EVC23L	EVMA16
VALVE GUIDE	VGMA17	IVGC21❸	VGMA12
SUB VALVES		CAVC23	
VALVE SEALS	VSSMA13	VSSC17	VSSMA9
WATER PUMP & TIMING			
WATER PUMP	WPMA15 (32mm pilot)		WPMA16
TIMING CHAIN KIT		CTKC23	PTKMA16 (no gears)
TIMING BELT	TBMA15		
HYDRAULIC TENSIONER	BTMA15H (hydraulic)		
IDLERS AND PULLEYS	BTMA15 (lower) BTMA15F (roller tens.) BTMA15R (upper)		
BALANCE SHAFTS		JSC22❹ JSC23	
ENGINES & HEADS			
HEAD W/VALVES	CHVMA15R (2/94-97)		
RIGHT HEAD W/VALVES	CHVMA15R (2/94-97)		

❶ (30mm diameter)
❷ (33mm diameter)
❸ (int. EVGC23 ex.)
❹ (oil pump drive)

MAZDA

MODEL	MPV	MPV	929
ENGINE CODE	JE	JE	JE48
DISPLACEMENT	2954cc(180.3")	2954cc(180.3")	2954cc(180.3")
YEARS	1996-1998	1994-1995	1992-1995
DESCRIPTION	18 VALVE; SOHC V6; F.INJ.	18 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	90mm(3.543")	90mm(3.543")	90mm(3.543")
STROKE	77.4mm(3.05")	77.4mm(3.05")	77.4mm(3.05")
MAIN JOURNAL DIA.	2.4384/2.4392"	2.4384/2.4392"	2.4384/2.4392"
ROD JOURNAL DIA.	2.0841/2.0848"	2.0841/2.0848"	2.0841/2.0848"
ENGINE KITS			
GOLD KIT		EKMA10LG	
BRONZE KITS		EKMA10LB	
MAJOR KIT	EKMA10LM	EKMA10LM	EKMA18LM
RE-RING KIT	EKMA10R	EKMA10R	EKMA18LR
BEARING SETS			
MAIN BEARING SET	MBMA10	MBMA10	MBMA10
ROD BEARING SET	RBMA10	RBMA10	RBMA10
THRUST WASHER SET	TWMA10	TWMA10	TWMA10
GASKETS			
FULL GASKET SET	CGSMA10	CGSMA10	CGSMA18L
			CGSMA18L
HEAD GASKET SET	HSMA10	HSMA10	HSMA18L
HEAD GASKETS	HDGMA10 (set of 2)	HDGMA10 (set of 2)	HDGMA10 (set of 2)
CONVERSION SET	CBSMA10	CBSMA10	CBSMA10
HEAD BOLT SET	HBMA10	HBMA10	HBMA18
PISTONS, RINGS, PLUGS			
PISTONS	PAMA10L	PAMA10L	PAMA18L
RING SETS	RSMA10	RSMA10	RSMA10
FREEZE PLUG SET	EPSMA10	EPSMA10	EPSMA10
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSMA18L
CONNECTING ROD	CRMA18	CRMA18	CRMA18
OIL PUMP			
NEW OIL PUMP		OPMA10L	

MODEL	MPV	MPV	929
ENGINE CODE	JE	JE	JE48
DISPLACEMENT	2954cc(180.3")	2954cc(180.3")	2954cc(180.3")
YEARS	1996-1998	1994-1995	1992-1995
DESCRIPTION	18 VALVE; SOHC V6; F.INJ.	18 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	90mm(3.543")	90mm(3.543")	90mm(3.543")
STROKE	77.4mm(3.05")	77.4mm(3.05")	77.4mm(3.05")
MAIN JOURNAL DIA.	2.4384/2.4392"	2.4384/2.4392"	2.4384/2.4392"
ROD JOURNAL DIA.	2.0841/2.0848"	2.0841/2.0848"	2.0841/2.0848"
VALVE TRAIN			
LIFTERS	ALAMA12	ALAMA12	LIFMA18
ROCKER ARMS	RAMA10A (1 per cyl.)	RAMA10A (1 per cyl.)	
	RAMA10B (2 per cyl.)	RAMA10B (2 per cyl.)	
ROCKER ARM SHAFTS	RASIMA10	RASIMA10	
ROCKER ARM SHAFTS	RASEMA10	RASEMA10	
INTAKE VALVE	IVMA10	IVMA10	IVMA18
EXHAUST VALVE	EVMA10	EVMA10	EVMA18
VALVE GUIDE			EVGMA13L (int)
			EVGMA18 (ex)
INTAKE GUIDE	IVGMA10 (int.)	IVGMA10 (int.)	
EXHAUST GUIDE	EVGMA10 (ex.)	EVGMA10 (ex.)	
VALVE SEALS	VSSMA9 (int.)	VSSMA9 (int.)	VSSMA13
	VSSMA7 (ex.)	VSSMA7 (ex.)	
WATER PUMP & TIMING			
WATER PUMP	WPMA10L	WPMA10	
TIMING BELT	TBMA10	TBMA10	TBMA18
HYDRAULIC TENSIONER	BTMA10H (hydraulic)	BTMA10H (hydraulic)	
IDLERS AND PULLEYS	BTMA10 (lower)	BTMA10 (lower)	
	BTMA10R (upper)	BTMA10R (upper)	

MAZDA

MODEL	MPV	929	929
ENGINE CODE	JE	JE27	JE
DISPLACEMENT	2954cc(180.3")	2954cc(180.3")	2954cc(180.3")
YEARS	1989-1993	1990-1991	1989-1991
DESCRIPTION	18 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	18 VALVE; SOHC V6; F.INJ.
BORE	90mm(3.543")	90mm(3.543")	90mm(3.543")
STROKE	77.4mm(3.05")	77.4mm(3.05")	77.4mm(3.05")
MAIN JOURNAL DIA.	2.4384/2.4392"	2.4384/2.4392"	2.4384/2.4392"
ROD JOURNAL DIA.	2.0841/2.0848"	2.0841/2.0848"	2.0841/2.0848"
ENGINE KITS			
GOLD KIT	EKMA10G	EKMA18G	EKMA10G
BRONZE KITS	EKMA10B		EKMA10B
MAJOR KIT	EKMA10M	EKMA18M	EKMA10M
RE-RING KIT	EKMA10R	EKMA18R	EKMA10R
BEARING SETS			
MAIN BEARING SET	MBMA10	MBMA10	MBMA10
ROD BEARING SET	RBMA10	RBMA10	RBMA10
THRUST WASHER SET	TWMA10	TWMA10	TWMA10
GASKETS			
FULL GASKET SET	CGSMA10	CGSMA18	CGSMA10
HEAD GASKET SET	HSMA10	HSMA18	HSMA10
HEAD GASKETS	HDGMA10 (set of 2)	HDGMA10 (set of 2)	HDGMA10 (set of 2)
CONVERSION SET	CBSMA10	CBSMA10	CBSMA10
HEAD BOLT SET	HBMA10	HBMA18	HBMA10
PISTONS, RINGS, PLUGS			
PISTONS	PAMA10	PAMA18L	PAMA10
RING SETS	RSMA10	RSMA10	RSMA10
FREEZE PLUG SET	EPSMA10	EPSMA10	EPSMA10
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA10L	CSMA18	CSMA10L❶
CONNECTING ROD	CRMA10	CRMA10	CRMA10
OIL PUMP			
NEW OIL PUMP	OPMA10L	OPMA18	OPMA10L

❶ (3/8" oil drive)

MODEL	MPV	929	929
ENGINE CODE	JE	JE27	JE
DISPLACEMENT	2954cc(180.3")	2954cc(180.3")	2954cc(180.3")
YEARS	1989-1993	1990-1991	1989-1991
DESCRIPTION	18 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	18 VALVE; SOHC V6; F.INJ.
BORE	90mm(3.543")	90mm(3.543")	90mm(3.543")
STROKE	77.4mm(3.05")	77.4mm(3.05")	77.4mm(3.05")
MAIN JOURNAL DIA.	2.4384/2.4392"	2.4384/2.4392"	2.4384/2.4392"
ROD JOURNAL DIA.	2.0841/2.0848"	2.0841/2.0848"	2.0841/2.0848"
VALVE TRAIN			
LIFTERS	ALAMA12	LIFMA18	ALAMA12
ROCKER ARMS	RAMA10A (1 per cyl.)		RAMA10A (1 per cyl.)
	RAMA10B (2 per cyl.)		RAMA10B (2 per cyl.)
ROCKER ARM SHAFTS	RASIMA10		RASIMA10
ROCKER ARM SHAFTS	RASEMA10		RASEMA10
INTAKE VALVE	IVMA10	IVMA18	IVMA10
EXHAUST VALVE	EVMA10	EVMA18	EVMA10
INTAKE GUIDE	IVGMA10 (int.)	EVGMA13L (int)	IVGMA10
EXHAUST GUIDE	EVGMA10 (ex.)	EVGMA18 (ex)	EVGMA10
VALVE SEALS	VSSMA9 (int.)	VSSMA13	VSSMA9 (int.)
	VSSMA7 (ex.)		VSSMA7 (ex.)
WATER PUMP & TIMING			
WATER PUMP	WPMA10		WPMA10
TIMING BELT	TBMA10	TBMA18	TBMA10
HYDRAULIC TENSIONER	BTMA10H (hydraulic)		BTMA10H (hydraulic)
IDLERS AND PULLEYS	BTMA10 (lower)		BTMA10 (lower)
	BTMA10R (upper)		BTMA10R (upper)

MAZDA

MODEL	929	MPV	MPV
ENGINE CODE	JE	AJ	AJ
DISPLACEMENT	2954cc(180.3")	2967cc(181.0")	2967cc(181.0")
YEARS	1988	2004-2006	2002-2003
DESCRIPTION	18 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	90mm(3.543")	89mm(3.504")	89mm(3.504")
STROKE	77.4mm(3.05")	79.5mm(3.13")	79.5mm(3.13")
MAIN JOURNAL DIA.	2.4384/2.4392"	2.479/2.480"	2.479/2.480"
ROD JOURNAL DIA.	2.0841/2.0848"	1.967/1.968"	1.967/1.968"
ENGINE KITS			
MAJOR KIT	EKMA10M		
RE-RING KIT	EKMA10R		
BEARING SETS			
MAIN BEARING SET	MBMA10	MBMA27	MBMA27
ROD BEARING SET	RBMA10	RBMA27	RBMA27
THRUST WASHER SET	TWMA10	TWMA27	TWMA27
GASKETS			
FULL GASKET SET	CGSMA10		
HEAD GASKET SET	HSMA10		
HEAD GASKETS	HDGMA10 (set of 2)		
CONVERSION SET	CBSMA10		CBSMA27
HEAD BOLT SET	HBMA10	HBMA27	HBMA27
PISTONS, RINGS, PLUGS			
PISTONS	PAMA10	PAMA27	PAMA27
RING SETS	RSMA10	RSMA27	RSMA27
FREEZE PLUG SET	EPSMA10		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMA10❶		
CONNECTING ROD	CRMA10		
OIL PUMP			
NEW OIL PUMP		OPMA27	OPMA27

❶ (no oil pump drive)

MODEL	929	MPV	MPV
ENGINE CODE	JE	AJ	AJ
DISPLACEMENT	2954cc(180.3")	2967cc(181.0")	2967cc(181.0")
YEARS	1988	2004-2006	2002-2003
DESCRIPTION	18 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	90mm(3.543")	89mm(3.504")	89mm(3.504")
STROKE	77.4mm(3.05")	79.5mm(3.13")	79.5mm(3.13")
MAIN JOURNAL DIA.	2.4384/2.4392"	2.479/2.480"	2.479/2.480"
ROD JOURNAL DIA.	2.0841/2.0848"	1.967/1.968"	1.967/1.968"
VALVE TRAIN			
LIFTERS	ALAMA12	A-2271	A-2271
ROCKER ARMS	RAMA10A (1 per cyl.) RAMA10B (2 per cyl.)		
ROCKER ARM SHAFTS	RASIMA10		
ROCKER ARM SHAFTS	RASEMA10		
INTAKE VALVE	IVMA10	IVMA27	IVMA27
EXHAUST VALVE	EVMA10	EVMA27	EVMA27
VALVE GUIDE		VGMA27	VGMA27
INTAKE GUIDE	IVGMA10		
EXHAUST GUIDE	EVGMA10		
VALVE SEALS	VSSMA9 (int.) VSSMA7 (ex.)	VSSMA27	VSSMA27
WATER PUMP & TIMING			
WATER PUMP	WPMA10		
GEARLESS TIMING KIT		PTKMA27	PTKMA27
TIMING BELT	TBMA10		
HYDRAULIC TENSIONER	BTMA10H (hydraulic)		
IDLERS AND PULLEYS	BTMA10 (lower) BTMA10R (upper)		

MAZDA

MODEL	TRIBUTE	TRIBUTE	MAZDA 6
ENGINE CODE	AJ	AJ	AJ
DISPLACEMENT	2967cc(181.0")	2968cc(181.0")	2968cc(181.0")
YEARS	2001-2003	2001-2011	2005-2008
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	79.5mm(3.13")	79.5mm(3.13")	79.5mm(3.13")
MAIN JOURNAL DIA.	2.479/2.480"	2.479/2.480"	2.479/2.480"
ROD JOURNAL DIA.	1.967/1.968"	1.967/1.968"	1.967/1.968"
BEARING SETS			
MAIN BEARING SET	MBMA27	MBMA27	MBMA27
ROD BEARING SET	RBMA27	RBMA27	RBMA27
THRUST WASHER SET	TWMA27	TWMA27	TWMA27
GASKETS			
FULL GASKET SET	CGSMA27TR	CGSMA27TR (01-04 only)	
HEAD GASKET SET	HDGMA27TR	HSMA27TR (01-04 only)	HDGMA27
	HSMA27TR		HSMA27
CONVERSION SET	CBSMA27	CBSMA27	
HEAD BOLT SET	HBMA27	HBMA27	HBMA27
PISTONS, RINGS, PLUGS			
PISTONS	PAMA27	PAMA27	PAMA27
RING SETS	RSMA27	RSMA27	RSMA27
PIN BUSHINGS		PBMA27	
OIL PUMP			
NEW OIL PUMP		OPMA27	OPMA27S

MODEL	TRIBUTE	TRIBUTE	MAZDA 6
ENGINE CODE	AJ	AJ	AJ
DISPLACEMENT	2967cc(181.0")	2968cc(181.0")	2968cc(181.0")
YEARS	2001-2003	2001-2011	2005-2008
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	79.5mm(3.13")	79.5mm(3.13")	79.5mm(3.13")
MAIN JOURNAL DIA.	2.479/2.480"	2.479/2.480"	2.479/2.480"
ROD JOURNAL DIA.	1.967/1.968"	1.967/1.968"	1.967/1.968"
VALVE TRAIN			
LIFTERS	A-2271	A-2271	A-2271
INTAKE VALVE	IVMA27	IVMA27	IVMA27
EXHAUST VALVE	EVMA27	EVMA27	EVMA27
VALVE GUIDE	VGMA27	VGMA27	VGMA27
VALVE SEALS	VSSMA27	VSSMA27	VSSMA27
WATER PUMP & TIMING			
GEARLESS TIMING KIT		PTKMA27	

MAZDA

MODEL	MAZDA 6	MAZDA 6	CX-9
ENGINE CODE	AJ	AJ	MZI
DISPLACEMENT	2968cc(181.0")	2968cc(181.0")	3496cc(213.3")
YEARS	2004	2003	2007
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	92.5mm(3.642")
STROKE	79.5mm(3.13")	79.5mm(3.13")	86.7mm(3.41")
MAIN JOURNAL DIA.	2.479/2.480"	2.479/2.480"	
ROD JOURNAL DIA.	1.967/1.968"	1.967/1.968"	
BEARING SETS			
MAIN BEARING SET	MBMA27	MBMA27	
ROD BEARING SET	RBMA27	RBMA27	
THRUST WASHER SET	TWMA27	TWMA27	
GASKETS			
FULL GASKET SET		CGSMA27	
HEAD GASKET SET	HDGMA27	HDGMA27	
	HSMA27❶	HSMA27❶	
CONVERSION SET		CBSMA27	
HEAD BOLT SET	HBMA27	HBMA27	
PISTONS, RINGS, PLUGS			
PISTONS	PAMA27	PAMA27	
RING SETS	RSMA27	RSMA27	
OIL PUMP			
NEW OIL PUMP	OPMA27S	OPMA27S	

❶ (int manifold gaskets not included)

MODEL	MAZDA 6	MAZDA 6	CX-9
ENGINE CODE	AJ	AJ	MZI
DISPLACEMENT	2968cc(181.0")	2968cc(181.0")	3496cc(213.3")
YEARS	2004	2003	2007
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	92.5mm(3.642")
STROKE	79.5mm(3.13")	79.5mm(3.13")	86.7mm(3.41")
MAIN JOURNAL DIA.	2.479/2.480"	2.479/2.480"	
ROD JOURNAL DIA.	1.967/1.968"	1.967/1.968"	
VALVE TRAIN			
LIFTERS	A-2271	A-2271	
INTAKE VALVE	IVMA27	IVMA27	IVMA33
EXHAUST VALVE	EVMA27	EVMA27	EVMA33
VALVE GUIDE	VGMA27	VGMA27	
VALVE SEALS	VSSMA27	VSSMA27	

MAZDA

MODEL	CX-9	MAZDA 6	B4000
ENGINE CODE	MZI	MZI	X; ZZL
DISPLACEMENT	3726cc(227.4")	3726cc(227.4")	4015cc(244")
YEARS	2008-2015	2009-2013	1998-2000
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.	12 VALVE; OHV V6; F.INJ.
BORE	95.5mm(3.76")	95.5mm(3.76")	100.4mm(3.952")
STROKE	86.7mm(3.41")	86.7mm(3.41")	84mm(3.31")
MAIN JOURNAL DIA.			2.2433/2.2441"
ROD JOURNAL DIA.			2.1252/2.1260"
BEARING SETS			
MAIN BEARING SET			MBFD5❶
ROD BEARING SET			RBFD4 (Standard OD)
GASKETS			
HEAD BOLT SET			HBFD5
OIL PUMP			
NEW OIL PUMP			OPFD4

❶ (mains with STD flange length)

MODEL	CX-9	MAZDA 6	B4000
ENGINE CODE	MZI	MZI	X; ZZL
DISPLACEMENT	3726cc(227.4")	3726cc(227.4")	4015cc(244")
YEARS	2008-2015	2009-2013	1998-2000
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.	12 VALVE; OHV V6; F.INJ.
BORE	95.5mm(3.76")	95.5mm(3.76")	100.4mm(3.952")
STROKE	86.7mm(3.41")	86.7mm(3.41")	84mm(3.31")
MAIN JOURNAL DIA.			2.2433/2.2441"
ROD JOURNAL DIA.			2.1252/2.1260"
VALVE TRAIN			
LIFTERS			A-2244
INTAKE VALVE	IVMA33	IVMA33	IVFD5
EXHAUST VALVE	EVMA33	EVMA33	EVFD5
VALVE GUIDE			VGFD4
VALVE SEALS			VSSFD4
WATER PUMP & TIMING			
TIMING CHAIN KIT			CTKFD5L
ENGINES & HEADS			
BARE HEADS			TL-F2-4098-CC-A❶

❶ (OEM replacement head)

MAZDA

MODEL	B4000	NAVAJO B4000 (94)	
ENGINE CODE	**X; ZZL**	**X; ZZL**	
DISPLACEMENT	**4015cc(244")**	**4015cc(244")**	
YEARS	**1995-1997**	**1991-1994**	
DESCRIPTION	12 VALVE; OHV V6; F.INJ.	12 VALVE; OHV V6; F.INJ.	
BORE	100.4mm(3.952")	100.4mm(3.952")	
STROKE	84mm(3.31")	84mm(3.31")	
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	
ROD JOURNAL DIA.	2.1252/2.1260"	2.1252/2.1260"	
BEARING SETS			
MAIN BEARING SET	MBFD5❶	MBFD5❶	
ROD BEARING SET	RBFD4 (Standard OD)	RBFD4 (Standard OD)	
GASKETS			
HEAD GASKETS		HDGFD5 (set of 2)	
HEAD BOLT SET	HBFD5	HBFD5	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSFD5 (5/8" keyway) CSFD5L❷	CSFD5 (5/8" keyway)	
OIL PUMP			
NEW OIL PUMP	OPFD4	OPFD4	

❶ (mains with STD flange length)
❷ (1-1/8" keyway)

MODEL	B4000	NAVAJO B4000 (94)	
ENGINE CODE	**X; ZZL**	**X; ZZL**	
DISPLACEMENT	**4015cc(244")**	**4015cc(244")**	
YEARS	**1995-1997**	**1991-1994**	
DESCRIPTION	12 VALVE; OHV V6; F.INJ.	12 VALVE; OHV V6; F.INJ.	
BORE	100.4mm(3.952")	100.4mm(3.952")	
STROKE	84mm(3.31")	84mm(3.31")	
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	
ROD JOURNAL DIA.	2.1252/2.1260"	2.1252/2.1260"	
VALVE TRAIN			
LIFTERS	A-2244	A-2244	
INTAKE VALVE	IVFD5	IVFD5	
EXHAUST VALVE	EVFD5	EVFD5	
VALVE GUIDE	VGFD4	VGFD4	
VALVE SEALS	VSSFD4	VSSFD4	
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKFD5L	CTKFD5	
ENGINES & HEADS			
BARE HEADS	TL-F2-4098-CC-A❶	TL-F2-4090-A0-T❶	

❶ (OEM replacement head)

MITSUBISHI

MODEL	MIRAGE	MIRAGE	PRECIS
ENGINE CODE	**4G15**	**4G15**	**G4DJ**
DISPLACEMENT	**1468cc(89.5")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**1997-2002**	**1993-1996**	**1990-1994**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ
BORE	75.5mm(2.972")	75.5mm(2.972")	75.5mm(2.972")
STROKE	82mm(3.22")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.6528/1.6535"
ENGINE KITS			
GOLD KIT		EKMI2LG	EKC10LG
BRONZE KITS	EKMI2MB		EKC10LB
MAJOR KIT	EKMI2MM	EKMI2LM	EKC10LM
RE-RING KIT	EKMI2MR	EKMI2LR	EKC10R
BEARING SETS			
MAIN BEARING SET	MBC11L	MBC11L	MBC11L
ROD BEARING SET	RBMI2	RBMI2	RBC11 (.694" length) RBMI2 (.614" length)
GASKETS			
FULL GASKET SET	CGSMI2M	CGSMI2	CGSC10
HEAD GASKET SET	HSMI2M	HSMI2	HSC10
HEAD GASKETS	HDGMI2M	HDGMI2	HDGC10
CONVERSION SET	CBSMI2M	CBSC10	CBSC10
PISTONS, RINGS, PLUGS			
PISTONS	PAMI2M	PAMI2	PAC10L
RING SETS	RSMI2M❶	RSMI2 (3mm oil ring)	RSC10
FREEZE PLUG SET	EPSC11	EPSC11	EPSC11
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI2 (97-99)	CSMI2	CSC11L❷ CSMI2❸
CONNECTING ROD	CRMI2	CRMI2	CRC11❷ CRMI2❸
OIL PUMP			
NEW OIL PUMP	OPMI2M	OPMI2 (93-94 only)	OPC10

❶ (2.8mm oil ring)
❷ (.694" length bearing)
❸ (.614" length bearing)

MODEL	MIRAGE	MIRAGE	PRECIS
ENGINE CODE	**4G15**	**4G15**	**G4DJ**
DISPLACEMENT	**1468cc(89.5")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**1997-2002**	**1993-1996**	**1990-1994**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ
BORE	75.5mm(2.972")	75.5mm(2.972")	75.5mm(2.972")
STROKE	82mm(3.22")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.6528/1.6535"
VALVE TRAIN			
CAMSHAFTS			CAMMI2
LIFTERS	ALAMI4H (98-02 only)		
ROCKER ARMS	RAMI2RA❶	RAMI2RA (1 & 3 CYL)	RAMI2A (1 & 3 CYL)
	RAMI2RB❷	RAMI2RB (2 & 4 CYL)	RAMI2B (2 & 4 CYL)
ROCKER ARMS	RAMI2RC❶	RAMI2RC (1 & 3 CYL)	RAMI2A (1 & 3 CYL)
	RAMI2RD❷	RAMI2RD (2 & 4 CYL)	RAMI2B (2 & 4 CYL)
ROCKER ARM SHAFTS	RASIMI2 (97 only)	RASIMI2	
ROCKER ARM SHAFTS	RASEMI2 (97 only)	RASEMI2	
INTAKE VALVE	IVMI2A (31mm)	IVMI2A (31mm)	IVMI2
	IVMI2B (26mm)	IVMI2B (26mm)	
EXHAUST VALVE	EVMI2L	EVMI2L	EVC11
INTAKE GUIDE	IVGC11	IVGC11	IVGC11
EXHAUST GUIDE	EVGC11	EVGC11	EVGC11
VALVE SEALS	VSSC11	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPMI2	WPC10	WPC10
TIMING BELT	TBMI2LB	TBMI2L	TBMI2
TENSIONERS		BTMI2L	BTC11

❶ (1&3) (97 only)
❷ (2&4) (97 only)

MITSUBISHI

MODEL	MIRAGE	MIRAGE	MIRAGE (85-86) PRECIS (87-89)
ENGINE CODE	**4G15**	**4G15**	**G15B/G4AJ**
DISPLACEMENT	**1468cc(89.5")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**1991-1992**	**1989-1990**	**1985-1989**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE SOHC 4; CARB.
BORE	75.5mm(2.972")	75.5mm(2.972")	75.5mm(2.972")
STROKE	82mm(3.22")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.6528/1.6535"
ENGINE KITS			
GOLD KIT	EKMI2LG	EKMI2G	EKC10G
BRONZE KITS	EKMI2LB	EKMI2B	EKC10B
MAJOR KIT	EKMI2LM	EKMI2M	EKC10M
RE-RING KIT	EKMI2LR	EKMI2R❶	EKC10R
BEARING SETS			
MAIN BEARING SET	MBC11L	MBC11L	MBC11L
ROD BEARING SET	RBMI2	RBMI2 (.614" length)	RBC11 (.694" length)
GASKETS			
FULL GASKET SET	CGSMI2	CGSC10	CGSC10
HEAD GASKET SET	HSMI2	HSC10	HSC10
HEAD GASKETS	HDGMI2	HDGC10	HDGC10
CONVERSION SET	CBSC10	CBSC10	CBSC10
PISTONS, RINGS, PLUGS			
PISTONS	PAMI2	PAC10L	PAC10
RING SETS	RSMI2	RSC10	RSC10
FREEZE PLUG SET	EPSC11	EPSC11	EPSC11
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI2	CSMI2	CSC11L
CONNECTING ROD	CRMI2	CRMI2	CRC11
OIL PUMP			
NEW OIL PUMP	OPMI2	OPC10	OPC10

❶ (.614" length bearing)

MODEL	MIRAGE	MIRAGE	MIRAGE (85-86) PRECIS (87-89)
ENGINE CODE	**4G15**	**4G15**	**G15B/G4AJ**
DISPLACEMENT	**1468cc(89.5")**	**1468cc(89.5")**	**1468cc(89.5")**
YEARS	**1991-1992**	**1989-1990**	**1985-1989**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE SOHC 4; CARB.
BORE	75.5mm(2.972")	75.5mm(2.972")	75.5mm(2.972")
STROKE	82mm(3.22")	82mm(3.22")	82mm(3.22")
MAIN JOURNAL DIA.	1.8890/1.8898"	1.8890/1.8898"	1.8890/1.8898"
ROD JOURNAL DIA.	1.6528/1.6535"	1.6528/1.6535"	1.6528/1.6535"
VALVE TRAIN			
CAMSHAFTS		CAMMI2	CAMC10
ROCKER ARMS	RAMI2RA (1 & 3 CYL)	RAMI2A (1 & 3 CYL)	
	RAMI2RB (2 & 4 CYL)	RAMI2B (2 & 4 CYL)	
ROCKER ARMS	RAMI2RC (1 & 3 CYL)	RAMI2A (1 & 3 CYL)	
	RAMI2RD (2 & 4 CYL)	RAMI2B (2 & 4 CYL)	
ROCKER ARM SHAFTS	RASIMI2		
ROCKER ARM SHAFTS	RASEMI2		
INTAKE VALVE	IVMI2A (31mm)	IVMI2	IVC11
	IVMI2B (26mm)		
EXHAUST VALVE	EVMI2L	EVC11	EVC11
INTAKE GUIDE	IVGC11	IVGC11	IVGC11
EXHAUST GUIDE	EVGC11	EVGC11	EVGC11
SUB VALVES			CAVC23
VALVE SEALS	VSSC11	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPC10	WPC10	WPC10
TIMING BELT	TBMI2L	TBMI2	TBC11
TENSIONERS	BTMI2L	BTC11	BTC11

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MODEL	MIRAGE	MIRAGE	MIRAGE TURBO
ENGINE CODE	**G15B**	**4G61**	**4G61**
DISPLACEMENT	**1468cc(89.5")**	**1595cc(97")**	**1595cc(97")**
YEARS	**1987-1988**	**1991-1992**	**1989**
DESCRIPTION	8 VALVE SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB
BORE	75.5mm(2.972")	82.3mm(3.240")	82.3mm(3.240")
STROKE	82mm(3.22")	75mm(2.95")	75mm(2.95")
MAIN JOURNAL DIA.	1.8890/1.8898"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.6528/1.6535"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKC10LG	EKMI21WG❶	
		EKMI21G❷	
BRONZE KITS	EKC10LB		
MAJOR KIT	EKC10LM	EKMI21M	
RE-RING KIT	EKC10R	EKMI21R	EKMI21R
BEARING SETS			
MAIN BEARING SET	MBC11L	MBC17	MBC17
ROD BEARING SET	RBC11 (.694" length)	RBC15L	RBC15L
INTERMEDIATE SET		ISBMI3❸	ISBMI3❸
GASKETS			
FULL GASKET SET	CGSC10	CGSMI6	CGSMI6
HEAD GASKET SET	HSC10	HSMI6	HSMI6
HEAD GASKETS	HDGC10	HDGMI6	HDGMI6
CONVERSION SET	CBSC10	CBSMI4	CBSMI4
HEAD BOLT SET		HBMI6	
PISTONS, RINGS, PLUGS			
PISTONS	PAC10L	PAMI21	
RING SETS	RSC10	RSMI21	RSMI21
FREEZE PLUG SET	EPSC11	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC11L	CSMI21	CSMI21
CONNECTING ROD	CRC11	CRMI4	CRMI4
OIL PUMP			
NEW OIL PUMP	OPC10	OPMI6❹	OPMI6❹
		OPMI21❺	OPMI21❺

❶ (engine with B/S)
❷ (engine w/o B/S)
❸ (if applicable)
❹ (with bal. shaft)
❺ (w/o bal. shaft)

MODEL	MIRAGE	MIRAGE	MIRAGE TURBO
ENGINE CODE	**G15B**	**4G61**	**4G61**
DISPLACEMENT	**1468cc(89.5")**	**1595cc(97")**	**1595cc(97")**
YEARS	**1987-1988**	**1991-1992**	**1989**
DESCRIPTION	8 VALVE SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB
BORE	75.5mm(2.972")	82.3mm(3.240")	82.3mm(3.240")
STROKE	82mm(3.22")	75mm(2.95")	75mm(2.95")
MAIN JOURNAL DIA.	1.8890/1.8898"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.6528/1.6535"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
INTAKE CAMSHAFT		CAMMI21I	
EXHAUST CAMSHAFT		CAMMI21E	
CAMSHAFTS	CAMC10		
LIFTERS		LIFMI6	LIFMI6
ROCKER ARMS		RAMI6	RAMI6
INTAKE VALVE	IVC11	IVMI6	IVMI6
EXHAUST VALVE	EVC11	EVMI6	EVMI6
INTAKE GUIDE	IVGC11	IVGMI6	IVGMI6
EXHAUST GUIDE	EVGC11	EVGMI6	EVGMI6
VALVE SEALS	VSSC11	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPC10		
TIMING BELT	TBMI2	TBMI21	TBMI21
TENSIONERS	BTC11	BTMI6 (hydraulic)	
IDLERS AND PULLEYS			BTC18

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MODEL	MIRAGE TURBO	ECLIPSE	CORDIA TURBO TREDIA TURBO
ENGINE CODE	**G32B**	**4G37**	**G62B**
DISPLACEMENT	**1597cc(97.4")**	**1755cc(107")**	**1795cc(109.5")**
YEARS	**1985-1988**	**1990-1994**	**1984-1988**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE; SOHC 4; F.INJ.	8 vlv, SOHC 4; F.INJ. turbo
BORE	77mm(3.031")	80.6mm(3.173")	80.6mm(3.173")
STROKE	86mm(3.39")	86mm(3.39")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT		EKMI20G	
BRONZE KITS		EKMI20B	
MAJOR KIT		EKMI20M	
RE-RING KIT		EKMI20R	EKMI3TR
BEARING SETS			
MAIN BEARING SET	MBC17	MBC17	MBC17
ROD BEARING SET	RBC15L	RBC15L	RBC15L
INTERMEDIATE SET		ISBMI20	ISBMI3
GASKETS			
FULL GASKET SET		CGSMI20	CGSMI3L
HEAD GASKET SET		HSMI20	HSMI3L
HEAD GASKETS		HDGMI20	HDGMI3
CONVERSION SET		CBSMI20	CBSMI4
PISTONS, RINGS, PLUGS			
PISTONS		PAMI20	
RING SETS		RSMI20	RSMI20❶
FREEZE PLUG SET		EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI20	CSMI20	
CONNECTING ROD	CRMI20	CRMI20	CRMI4
OIL PUMP			
NEW OIL PUMP		OPMI20	

❶ (1.5mm top ring)

MODEL	MIRAGE TURBO	ECLIPSE	CORDIA TURBO TREDIA TURBO
ENGINE CODE	**G32B**	**4G37**	**G62B**
DISPLACEMENT	**1597cc(97.4")**	**1755cc(107")**	**1795cc(109.5")**
YEARS	**1985-1988**	**1990-1994**	**1984-1988**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE; SOHC 4; F.INJ.	8 vlv, SOHC 4; F.INJ. turbo
BORE	77mm(3.031")	80.6mm(3.173")	80.6mm(3.173")
STROKE	86mm(3.39")	86mm(3.39")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS	CAMC16	CAMMI20	
LIFTERS	ALAMI4H	ALAMI4H	ALAMI4H
ROCKER ARMS		RAMI20	RAMI5A❶ RAMI5B❷
ROCKER ARMS			RAMI5C❶ RAMI5D❷
ROCKER ARM SHAFTS		RASIMI20	RASIMI4 (86-88)
ROCKER ARM SHAFTS		RASEMI20	RASEMI4 (86-88)
INTAKE VALVE		IVMI20	IVMI3L
EXHAUST VALVE		EVMI20	EVMI3L
INTAKE GUIDE	IVGMI20	IVGMI20	IVGC21
EXHAUST GUIDE	EVGMI20	EVGMI20	EVGC23
SUB VALVES	CAVC23		CAVC23
VALVE SEALS	VSSC17	VSSC17	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPMI20	WPMI20	
TIMING BELT		TBMI20	TBMI4
TENSIONERS		BTMI20	BTMI4
BALANCE SHAFT BELT		TBMI20B	TBMI4B
BALANCE SHAFTS		JSMI20S (small gear) JSMI20L (large gear)	
RIGHT BALANCE SHAFT			JSMI4R
BALANCE SHAFT BELT TENSIONER		BTMI20B	BTMI4B (84-87) BTMI4R (88)

❶ (1988 #1 & 3 cyl)
❷ (1988 #2 & 4 cyl)

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MODEL	CORDIA TREDIA	MIRAGE	EXPO LRV (92-94) MIRAGE (93-96)
ENGINE CODE	**G62B**	**4G93K**	**4G93**
DISPLACEMENT	**1795cc(109.5")**	**1834cc(111.9")**	**1834cc(111.9")**
YEARS	**1983**	**1997-2002**	**1992-1996**
DESCRIPTION	8 VALVE; SOHC 4; CARB	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	80.6mm(3.173")	81mm(3.189")	81mm(3.189")
STROKE	88mm(3.46")	89mm(3.50")	89mm(3.50")
MAIN JOURNAL DIA.	2.2433/2.2441"	1.9678/1.9685"	1.9678/1.9685"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT		EKMI22LG	EKMI22G (92-95)
BRONZE KITS		EKMI22LB	EKMI22B (92-95)
MAJOR KIT		EKMI22LM	EKMI22M
RE-RING KIT		EKMI22LR	EKMI22R
BEARING SETS			
MAIN BEARING SET	MBC17	MBMI22	MBMI22
ROD BEARING SET	RBC15L	RBMI22	RBMI22
THRUST WASHER SET		TWMI22	TWMI22
INTERMEDIATE SET	ISBMI3		
GASKETS			
FULL GASKET SET	CGSMI3L	CGSMI22L	CGSMI22
HEAD GASKET SET	HSMI3L	HSMI22L	HSMI22
HEAD GASKETS	HDGMI3	HDGMI22L	HDGMI22
CONVERSION SET	CBSMI4	CBSMI22L	CBSMI22
HEAD BOLT SET		HBMI22	HBMI22
PISTONS, RINGS, PLUGS			
PISTONS		PAMI22L	PAMI22
RING SETS		RSMI22	RSMI22
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI4	CRMI22	CRMI22
OIL PUMP			
NEW OIL PUMP		OPMI22LB	OPMI22 (1992-95)

MODEL	CORDIA TREDIA	MIRAGE	EXPO LRV (92-94) MIRAGE (93-96)
ENGINE CODE	**G62B**	**4G93K**	**4G93**
DISPLACEMENT	**1795cc(109.5")**	**1834cc(111.9")**	**1834cc(111.9")**
YEARS	**1983**	**1997-2002**	**1992-1996**
DESCRIPTION	8 VALVE; SOHC 4; CARB	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	80.6mm(3.173")	81mm(3.189")	81mm(3.189")
STROKE	88mm(3.46")	89mm(3.50")	89mm(3.50")
MAIN JOURNAL DIA.	2.2433/2.2441"	1.9678/1.9685"	1.9678/1.9685"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
ROCKER ARMS		RAMI22E (97 only)	
FRONT INTAKE ROCKER ARM		RAMI22A (97 only)	RAMI22A
REAR INTAKE ROCKER ARM		RAMI22B (97 only)	RAMI22B
ROCKER ARMS			RAMI22E
ROCKER ARM SHAFTS		RASIMI22 (97 only)	RASIMI22
ROCKER ARM SHAFTS		RASEMI22 (97 only)	RASEMI22
INTAKE VALVE		IVMI22	IVMI22
EXHAUST VALVE		EVMI22	EVMI22
VALVE GUIDE		IVGMI22 (int.)	
		EVGMI22 (ex.)	
INTAKE GUIDE	IVGC21		IVGMI22
EXHAUST GUIDE	EVGC23		EVGMI22
SUB VALVES	CAVC23		
VALVE SEALS	VSSC17	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP		WPMI22L	WPMI22
TIMING BELT	TBMI4	TBMI22L	TBMI22
TENSIONERS	BTMI4		BTMI22 (roller type)
BALANCE SHAFT BELT	TBMI4B		
RIGHT BALANCE SHAFT	JSMI3R		
BALANCE SHAFT BELT TENSIONER	BTMI4B		

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MODEL	ECLIPSE	LANCER EVOLUTION TURBO	ECLIPSE TURBO
ENGINE CODE	**420A**	**4G63T**	**4G63**
DISPLACEMENT	**1996cc(121.8")**	**1997cc(121.9")**	**1997cc(122.1")**
YEARS	**1995-1999**	**2003-2006**	**1998-1999**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin Y	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE DOHC 4; F.INJ. TURB
BORE	87.5mm(3.445")	85mm(3.346")	85mm(3.346")
STROKE	83mm(3.26")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.0469/2.0475"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.8894/1.8890"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKC26EG❶ EKC26G❷	EKMI23LEG	EKMI23TTG
BRONZE KITS	EKC26EB❶ EKC26B❷		EKMI23TTB
MAJOR KIT	EKC26EM❶ EKC26M❷	EKMI23LEM	EKMI23TTM
RE-RING KIT	EKC26ER❶ EKC26R❷	EKMI23LER	EKMI23TTR
BEARING SETS			
MAIN BEARING SET	MBC26E❶ MBC26❷	MBMI24	MBMI24
ROD BEARING SET	RBC26❸ RBC26S (STD O/D)	RBMI23	RBMI23
THRUST WASHER SET		TWMI24	TWMI24
INTERMEDIATE SET		ISBMI3	ISBMI3
GASKETS			
FULL GASKET SET	CGSC26	CGSMI23LE	CGSMI23T
HEAD GASKET SET	HSC26	HSMI23LE	HSMI23T
HEAD GASKETS	HDGC26	HDGMI23LE	HDGMI23
CONVERSION SET	CBSC26	CBSMI29	CBSMI23
HEAD BOLT SET	HBC26	HBMI23	HBMI23
PISTONS, RINGS, PLUGS			
PISTONS	PAC26	PAMI23LE	PAMI23T
RING SETS	RSC26	RSMI23LE	RSMI23T
FREEZE PLUG SET	EPSC26	EPSMI23T	EPSMI23T
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSC26❷		
CONNECTING ROD	CRC26		CRMI6
OIL PUMP			
NEW OIL PUMP	OPC26	OPMI29	OPMI24

❶ (lock tabs all left)
❷ (lock tabs 1/2 & 1/2)
❸ (.002 over O/D)

MODEL	ECLIPSE	LANCER EVOLUTION TURBO	ECLIPSE TURBO
ENGINE CODE	**420A**	**4G63T**	**4G63**
DISPLACEMENT	**1996cc(121.8")**	**1997cc(121.9")**	**1997cc(122.1")**
YEARS	**1995-1999**	**2003-2006**	**1998-1999**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin Y	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE DOHC 4; F.INJ. TURB
BORE	87.5mm(3.445")	85mm(3.346")	85mm(3.346")
STROKE	83mm(3.26")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.0469/2.0475"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.8894/1.8890"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
LIFTERS	LIFC28	LIFMI6	LIFMI6
ROCKER ARMS	RAC26		RAMI6
INTAKE VALVE	IVC26	IVMI6	IVMI6
EXHAUST VALVE	EVC26	EVMI6	EVMI6
VALVE GUIDE	VGC26		
INTAKE GUIDE		IVGMI6	IVGMI6
EXHAUST GUIDE		EVGMI6	EVGMI6
VALVE SEALS	VSSC26	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPC26		WPMI23
TIMING BELT	TBC26	TBMI6	TBMI6
TENSIONERS	BTC26 (hydraulic)		BTMI24
HYDRAULIC TENSIONER		BTMI34	
BALANCE SHAFT BELT		TBMI6B	TBMI6B
RIGHT BALANCE SHAFT			JSMI4R

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MODEL	ECLIPSE TURBO	ECLIPSE	ECLIPSE TURBO
ENGINE CODE	**4G63**	**4G63**	**4G63**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1995-1997**	**1993-1994**	**1993-1994**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKMI23TLG	EKMI23G	EKMI23TG
BRONZE KITS	EKMI23TLB	EKMI23B	EKMI23TB
MAJOR KIT	EKMI23TLM	EKMI23M	EKMI23TM
RE-RING KIT	EKMI23TR	EKMI23R	EKMI23R
BEARING SETS			
MAIN BEARING SET	MBMI23	MBMI23	MBMI23
ROD BEARING SET	RBMI23	RBMI23	RBMI23
INTERMEDIATE SET	ISBMI3	ISBMI3	ISBMI3
GASKETS			
FULL GASKET SET	CGSMI23T	CGSMI23	CGSMI23
HEAD GASKET SET	HSMI23T	HSMI23	HSMI23
HEAD GASKETS	HDGMI23	HDGMI23	HDGMI23
CONVERSION SET	CBSMI23	CBSMI23	CBSMI23
HEAD BOLT SET	HBMI23	HBMI23	HBMI23
PISTONS, RINGS, PLUGS			
PISTONS	PAMI23T	PAMI23	PAMI23T
RING SETS	RSMI23T	RSMI23	RSMI23
FREEZE PLUG SET	EPSMI23T	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI6	CRMI6	CRMI6
OIL PUMP			
NEW OIL PUMP	OPMI24	OPMI24	OPMI24

MODEL	ECLIPSE TURBO	ECLIPSE	ECLIPSE TURBO
ENGINE CODE	**4G63**	**4G63**	**4G63**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1995-1997**	**1993-1994**	**1993-1994**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
INTAKE CAMSHAFT		CAMMI6I	CAMMI6I
EXHAUST CAMSHAFT		CAMMI6E	CAMMI6E
LIFTERS	LIFMI6	LIFMI6	LIFMI6
ROCKER ARMS	RAMI6	RAMI6	RAMI6
INTAKE VALVE	IVMI6	IVMI6	IVMI6
EXHAUST VALVE	EVMI6	EVMI6	EVMI6
INTAKE GUIDE	IVGMI6	IVGMI6	IVGMI6
EXHAUST GUIDE	EVGMI6	EVGMI6	EVGMI6
VALVE SEALS	VSSC11	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPMI23	WPMI6	WPMI6
TIMING BELT	TBMI6	TBMI6	TBMI6
TENSIONERS	BTMI23C (1995) BTMI24 (96-97)	BTMI23 (hydraulic)	BTMI23 (hydraulic)
BALANCE SHAFT BELT	TBMI6B	TBMI6B	TBMI6B
RIGHT BALANCE SHAFT	JSMI4R	JSMI4R	JSMI4R
BALANCE SHAFT BELT TENSIONER		BTMI6R	BTMI6R

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MODEL	GALANT	ECLIPSE TURBO GALANT TURBO	ECLIPSE GALANT
ENGINE CODE	**4G63K**	**4G63**	**4G63**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1993**	**1990-1992**	**1989-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. non tu
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT		EKMI6TG	EKMI6G EKMI6GG (92 Galant)
BRONZE KITS		EKMI6TB	EKMI6B EKMI6GB (92 Galant)
MAJOR KIT		EKMI6TM	EKMI6M EKMI6GM (92 Galant)
RE-RING KIT	EKMI25R	EKMI6R	EKMI6R
BEARING SETS			
MAIN BEARING SET	MBMI23	MBC17	MBC17
ROD BEARING SET	RBMI23	RBC15L	RBC15L
INTERMEDIATE SET	ISBMI3	ISBMI3	ISBMI3
GASKETS			
FULL GASKET SET	CGSMI25	CGSMI6	CGSMI6
HEAD GASKET SET	HSMI25	HSMI6	HSMI6
HEAD GASKETS	HDGMI25	HDGMI6	HDGMI6
CONVERSION SET	CBSMI23	CBSMI4	CBSMI4
HEAD BOLT SET	HBMI23	HBMI6	HBMI6
PISTONS, RINGS, PLUGS			
PISTONS		PAMI6T	PAMI6❶ PAMI6G❷
RING SETS	RSMI23	RSMI6T	RSMI6T
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI25		
CONNECTING ROD	CRMI6	CRMI4	CRMI4
OIL PUMP			
NEW OIL PUMP	OPMI24	OPMI6	OPMI6

❶ (exc. 92 Galant) dish with 4 pockets

❷ (92 Galant) flat top with 4 pockets

MODEL	GALANT	ECLIPSE TURBO GALANT TURBO	ECLIPSE GALANT
ENGINE CODE	**4G63K**	**4G63**	**4G63**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1993**	**1990-1992**	**1989-1992**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. non tu	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. non tu
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
INTAKE CAMSHAFT		CAMMI6I	CAMMI6I
EXHAUST CAMSHAFT		CAMMI6E	CAMMI6E
LIFTERS	ALAMI4H	LIFMI6	LIFMI6
ROCKER ARMS	RAMI24A (int.A) RAMI24B (int.B)	RAMI6	RAMI6
ROCKER ARM SHAFTS	RASIMI24		
ROCKER ARM SHAFTS	RASEMI24		
INTAKE VALVE	IVMI24	IVMI6	IVMI6
EXHAUST VALVE	EVMI24	EVMI6	EVMI6
INTAKE GUIDE	IVGMI22	IVGMI6	IVGMI6
EXHAUST GUIDE	EVGMI22	EVGMI6	EVGMI6
VALVE SEALS	VSSTO15	VSSC11	VSSC11
WATER PUMP & TIMING			
WATER PUMP	WPMI23	WPMI6	WPMI6
TIMING BELT	TBMI25	TBMI6	TBMI6
TENSIONERS	BTMI23C (hydraulic)	BTMI6 (hydraulic)	BTMI6 (hydraulic)
BALANCE SHAFT BELT	TBMI6B	TBMI6B	TBMI6B
RIGHT BALANCE SHAFT	JSMI4R	JSMI4R	JSMI4R
BALANCE SHAFT BELT TENSIONER	BTMI6R	BTMI6R	BTMI6R
ENGINES & HEADS			
HEAD W/VALVES	CHVMI25	CHVMI6	CHVMI6

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MODEL	GALANT	MIghty Max Pickup	CORDIA TREDIA PICKUP (84-86)
ENGINE CODE	**4G63**	**G63B**	**G63B**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1989-1992**	**1987-1989**	**1984-1988**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE SOHC 4; CARB.	8 VALVE SOHC 4; CARB.
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT		EKMI4G	EKMI4G (exc. Pickup)
BRONZE KITS		EKMI4B	
MAJOR KIT	EKMI4LM	EKMI4M	EKMI4M
RE-RING KIT	EKMI4LR	EKMI4LR	EKMI4R
BEARING SETS			
MAIN BEARING SET	MBC17	MBC17	MBC17
ROD BEARING SET	RBC15L	RBC15L	RBC15L
INTERMEDIATE SET	ISBMI3	ISBMI3	ISBMI3
GASKETS			
FULL GASKET SET	CGSMI4L	CGSMI4L	CGSMI4L
HEAD GASKET SET	HSMI4L	HSMI4L	HSMI4L
HEAD GASKETS	HDGMI4	HDGMI4	HDGMI4
CONVERSION SET	CBSMI4	CBSMI4	CBSMI4
PISTONS, RINGS, PLUGS			
PISTONS	PAMI4L❶	PAMI4L❶	PAMI4L❶
RING SETS	RSMI6❷	RSMI6❷	RSMI4
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI4	CRMI4	CRMI4

❶ (Not for forklift application)

❷ (1.5mm top ring)

MODEL	GALANT	MIghty Max Pickup	CORDIA TREDIA PICKUP (84-86)
ENGINE CODE	**4G63**	**G63B**	**G63B**
DISPLACEMENT	**1997cc(122.1")**	**1997cc(122.1")**	**1997cc(122.1")**
YEARS	**1989-1992**	**1987-1989**	**1984-1988**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE SOHC 4; CARB.	8 VALVE SOHC 4; CARB.
BORE	85mm(3.346")	85mm(3.346")	85mm(3.346")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS	CAMMI4L		
LIFTERS	ALAMI4H	ALAMI4H	ALAMI4H
ROCKER ARMS	RAMI4RA (1 & 3 CYL)	RAMI5A (#1 & 3 cyl)	RAMI5A (#1 & 3 cyl)
		RAMI5B (#2 & 4 cyl)	RAMI5B (#2 & 4 cyl)
ROCKER ARMS	RAMI4RB (2 & 4 CYL)	RAMI5C (#1 & 3 cyl)	RAMI5C (#1 & 3 cyl)
		RAMI5D (#2 & 4 cyl)	RAMI5D (#2 & 4 cyl)
ROCKER ARM SHAFTS	RASIMI4	RASIMI4	RASIMI4
ROCKER ARM SHAFTS	RASEMI4	RASEMI4	RASEMI4
INTAKE VALVE	IVMI3L	IVMI3L	IVMI3L
EXHAUST VALVE	EVMI3L	EVMI3L	EVMI3L
INTAKE GUIDE	IVGC21	IVGC21	IVGC21
EXHAUST GUIDE	EVGC23	EVGC23	EVGC23
SUB VALVES			CAVC23 (5/84-86)
VALVE SEALS	VSSC17	VSSC17	VSSC17
WATER PUMP & TIMING			
WATER PUMP		WPMI4P (pickup only)	WPMI4P (pickup only)
TIMING BELT	TBMI4L	TBMI4	TBMI4
TENSIONERS	BTMI4L	BTMI4	BTMI4
BALANCE SHAFT BELT	TBMI4B	TBMI4B	TBMI4B
RIGHT BALANCE SHAFT	JSMI4R	JSMI4R	JSMI4R
BALANCE SHAFT BELT TENSIONER	BTMI4B	BTMI4R	BTMI4R (Pickup) BTMI4B❶

❶ (Cordia/Tredia)

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MODEL	CORDIA TREDIA PICKUP	OUTLANDER SPORT RVR	OUTLANDER PHEV
ENGINE CODE	**G63B**	**4B11**	**4B11**
DISPLACEMENT	**1997cc(122.1")**	**1998cc(122")**	**1998cc(122")**
YEARS	**1983-1984**	**2017-2022**	**2018-2020**
DESCRIPTION	8 VALVE SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; PHEV; vin 5
BORE	85mm(3.346")	86.0mm(3.386")	86.0mm(3.386")
STROKE	88mm(3.46")	86mm(3.39")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.0450/2.0457"	2.0450/2.0475"
ROD JOURNAL DIA.	1.7713/1.7717"	1.8894/1.8900"	1.8880/1.8882"
ENGINE KITS			
MAJOR KIT	EKMI4M		
RE-RING KIT	EKMI4R		
BEARING SETS			
MAIN BEARING SET	MBC17	MBHY11	MBHY11
ROD BEARING SET	RBC15L	RBHY11	RBHY11
THRUST WASHER SET		TWHY11	TWHY11
INTERMEDIATE SET	ISBMI3		
GASKETS			
FULL GASKET SET	CGSMI4L	CGSMI37	
HEAD GASKET SET	HSMI4L	HSMI37	
HEAD GASKETS	HDGMI4		
CONVERSION SET	CBSMI4	CBSMI37	CBSMI37
HEAD BOLT SET		HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAMI4L❶	PAMI37	
RING SETS	RSMI4	RSCHR1	
FREEZE PLUG SET	EPSMI4		
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI4		
OIL PUMP			
NEW OIL PUMP		OPMI37	

❶ (Not for forklift application)

MODEL	CORDIA TREDIA PICKUP	OUTLANDER SPORT RVR	OUTLANDER PHEV
ENGINE CODE	**G63B**	**4B11**	**4B11**
DISPLACEMENT	**1997cc(122.1")**	**1998cc(122")**	**1998cc(122")**
YEARS	**1983-1984**	**2017-2022**	**2018-2020**
DESCRIPTION	8 VALVE SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; PHEV; vin 5
BORE	85mm(3.346")	86.0mm(3.386")	86.0mm(3.386")
STROKE	88mm(3.46")	86mm(3.39")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.0450/2.0457"	2.0450/2.0475"
ROD JOURNAL DIA.	1.7713/1.7717"	1.8894/1.8900"	1.8880/1.8882"
VALVE TRAIN			
INTAKE VALVE		IVHY11	
EXHAUST VALVE		EVHY11	
VALVE GUIDE	IVGC21 (int.) EVGC23 (ex.)	VGHY11	
SUB VALVES	CAVC23		
VALVE SEALS	VSSC17	VSSHY11	
WATER PUMP & TIMING			
WATER PUMP	WPMI4P (pickup only)		
CAM DRIVE TIMING KIT		PTKMI37C❶	
TIMING BELT	TBMI4		
TENSIONERS	BTMI4		
BALANCE SHAFT BELT	TBMI4B		
RIGHT BALANCE SHAFT	JSMI3R		
BALANCE SHAFT BELT TENSIONER	BTMI4B		

❶ (Cam Gear not included)

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MODEL	LANCER	OUTLANDER SPORT RVR	LANCER
ENGINE CODE	**4B11**	**4B11**	**4B11**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2016-2017**	**2011-2016**	**2008-2015**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	86.0mm(3.386")	86.0mm(3.386")	86.0mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.8894/1.8900"
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBHY11
ROD BEARING SET	RBHY11	RBHY11	RBHY11
THRUST WASHER SET	TWHY11	TWHY11	TWHY11
GASKETS			
FULL GASKET SET	CGSMI37	CGSMI37	CGSMI37
HEAD GASKET SET	HSMI37	HSMI37	HSMI37
CONVERSION SET	CBSMI37	CBSMI37	CBSMI37
HEAD BOLT SET	HBHY11	HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAMI37	PAMI37	PAMI37
RING SETS	RSCHR1	RSCHR1	RSCHR1
OIL PUMP			
NEW OIL PUMP	OPMI37	OPMI37	OPMI37

MODEL	LANCER	OUTLANDER SPORT RVR	LANCER
ENGINE CODE	**4B11**	**4B11**	**4B11**
DISPLACEMENT	**1998cc(122")**	**1998cc(122")**	**1998cc(122")**
YEARS	**2016-2017**	**2011-2016**	**2008-2015**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	86.0mm(3.386")	86.0mm(3.386")	86.0mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.0450/2.0457"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.8894/1.8900"
VALVE TRAIN			
INTAKE VALVE	IVHY11	IVHY11	IVHY11
EXHAUST VALVE	EVHY11	EVHY11	EVHY11
VALVE GUIDE	VGHY11	VGHY11	VGHY11
VALVE SEALS	VSSHY11	VSSHY11	VSSHY11
WATER PUMP & TIMING			
CAM DRIVE TIMING KIT	PTKMI37C❶	PTKMI37C❶	PTKMI37C❶

❶ (Cam Gear not included)

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MODEL	LANCER EVOLUTION RALLIART	LANCER	GALANT (99-03) ECLIPSE (00-05) OUTLANDER (2003)
ENGINE CODE	**4B11T TURBO**	**4G94**	**4G64**
DISPLACEMENT	**1998cc(122")**	**1999cc(122")**	**2350cc(143.4")**
YEARS	**2008-2015**	**2002-2007**	**1999-2005**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	86.0mm(3.386")	81.5mm(3.208")	86.5mm(3.406")
STROKE	86mm(3.39")	95.8mm(3.772")	100mm(3.94")
MAIN JOURNAL DIA.	2.0462/2.0468"	1.9678/1.9685"	2.2433/2.2441"
ROD JOURNAL DIA.	2.0457/2.0459"	1.9685/1.9692"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT			EKMI29G
MAJOR KIT		EKMI36M	EKMI29M
RE-RING KIT		EKMI36R	EKMI29R
BEARING SETS			
MAIN BEARING SET	MBMI37T	MBMI22	MBMI24
ROD BEARING SET	RBMI37T	RBMI36	RBMI23
THRUST WASHER SET	TWMI37T	TWMI22	TWMI24
INTERMEDIATE SET			ISBMI3
GASKETS			
FULL GASKET SET	CGSMI37T❶	CGSMI22L	CGSMI29
HEAD GASKET SET	HSMI37T	HSMI22L	HSMI29
HEAD GASKETS		HDGMI22L	HDGMI29
CONVERSION SET	CBSMI37T❶	CBSMI22L	CBSMI29
HEAD BOLT SET	HBHY11	HBMI22	HBMI23
PISTONS, RINGS, PLUGS			
PISTONS		PAMI36	PAMI29
RING SETS	RSMI37T	RSMI36	RSMI24
FREEZE PLUG SET			EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSMI24L
CONNECTING ROD			CRMI6
OIL PUMP			
NEW OIL PUMP	OPMI37T	OPMI22LB	OPMI29

❶ (Rear Main Seal/Cover not included)

MODEL	LANCER EVOLUTION RALLIART	LANCER	GALANT (99-03) ECLIPSE (00-05) OUTLANDER (2003)
ENGINE CODE	**4B11T TURBO**	**4G94**	**4G64**
DISPLACEMENT	**1998cc(122")**	**1999cc(122")**	**2350cc(143.4")**
YEARS	**2008-2015**	**2002-2007**	**1999-2005**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	86.0mm(3.386")	81.5mm(3.208")	86.5mm(3.406")
STROKE	86mm(3.39")	95.8mm(3.772")	100mm(3.94")
MAIN JOURNAL DIA.	2.0462/2.0468"	1.9678/1.9685"	2.2433/2.2441"
ROD JOURNAL DIA.	2.0457/2.0459"	1.9685/1.9692"	1.7713/1.7717"
VALVE TRAIN			
LIFTERS		ALAMI4H	ALAMI4H
ROCKER ARMS		RAMI36A	RAMI24A (int.A)
		RAMI36B	RAMI24B (int.B)
			RAMI24E (ex.)
ROCKER ARMS		RAMI36E	
INTAKE VALVE	IVMI37T	IVMI22	IVMI24
EXHAUST VALVE	EVMI37T	EVMI22	EVMI24
VALVE GUIDE	VGHY11		
INTAKE GUIDE		IVGMI22	IVGMI22
EXHAUST GUIDE		EVGMI22	EVGMI22
VALVE SEALS	VSSHY11	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP		WPMI22L	
CAM DRIVE TIMING KIT	PTKMI37C❶		
TIMING BELT		TBMI22	TBMI25
TENSIONERS			BTMI24
BALANCE SHAFT BELT			TBMI6B

❶ (Cam Gear not included)

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MODEL	MONTERO SPORT	ECLIPSE (96-99) GALANT (94-98) EXPO (93-95)	PICKUP
ENGINE CODE	**4G64**	**4G64**	**4G64**
DISPLACEMENT	**2350cc(143.4")**	**2350cc(143.4")**	**2350cc(143.4")**
YEARS	**1997-1999**	**1993-1999**	**1993-1996**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	86.5mm(3.406")	86.5mm(3.406")	86.5mm(3.406")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT		EKMI24G (93-97) EKMI24LG (98-99)	EKMI26G
BRONZE KITS		EKMI24B (93-97) EKMI24LB (98-99)	EKMI26B
MAJOR KIT		EKMI24M (93-97) EKMI24LM (98-99)	EKMI26M
RE-RING KIT	EKMI24MR (98-99)	EKMI24R (93-97) EKMI24LR (98-99)	EKMI26R
BEARING SETS			
MAIN BEARING SET	MBMI23 (1997) MBMI24 (98-99)	MBMI23 (93-97) MBMI24 (98-99)	MBMI23
ROD BEARING SET	RBMI23	RBMI23	RBMI23
THRUST WASHER SET	TWMI24 (98-99)	TWMI24 (98-99)	
INTERMEDIATE SET	ISBMI3	ISBMI3	ISBMI3
GASKETS			
FULL GASKET SET	CGSMI24M	CGSMI24	CGSMI26
HEAD GASKET SET	HSMI24M	HSMI24	HSMI26
HEAD GASKETS	HDGMI24M	HDGMI24	HDGMI5
CONVERSION SET	CBSMI23	CBSMI23	CBSMI23
HEAD BOLT SET	HBMI23	HBMI23	
PISTONS, RINGS, PLUGS			
PISTONS		PAMI24❶	PAMI26
RING SETS	RSMI24	RSMI24	RSMI26
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI24 (1997) CSMI24L (98-99)	CSMI24 (93-97) CSMI24L (98-99)	CSMI24
CONNECTING ROD	CRMI6	CRMI6	CRMI6
OIL PUMP			
NEW OIL PUMP	OPMI24	OPMI24	OPMI26

❶ (pistons do not apply for Cal. ECS)

MODEL	MONTERO SPORT	ECLIPSE (96-99) GALANT (94-98) EXPO (93-95)	PICKUP
ENGINE CODE	**4G64**	**4G64**	**4G64**
DISPLACEMENT	**2350cc(143.4")**	**2350cc(143.4")**	**2350cc(143.4")**
YEARS	**1997-1999**	**1993-1999**	**1993-1996**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	86.5mm(3.406")	86.5mm(3.406")	86.5mm(3.406")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
LIFTERS	ALAMI4H	ALAMI4H	ALAMI4H
ROCKER ARMS	RAMI24A (int.A) RAMI24B (int.B) RAMI24E (ex.)	RAMI24A (int.A) RAMI24B (int.B) RAMI24E (ex.)	RAMI5A (#1 & 3 cyl) RAMI5B (#2 & 4 cyl)
ROCKER ARMS			RAMI5C (#1 & 3 cyl) RAMI5D (#2 & 4 cyl)
ROCKER ARM SHAFTS	RASIMI24	RASIMI24	RASIMI4
ROCKER ARM SHAFTS	RASEMI24	RASEMI24	RASEMI4
INTAKE VALVE	IVMI24	IVMI24	IVMI5
EXHAUST VALVE	EVMI24	EVMI24	EVMI5
INTAKE GUIDE	IVGMI22	IVGMI22	IVGC21
EXHAUST GUIDE	EVGMI22	EVGMI22	EVGC23
VALVE SEALS	VSSTO15	VSSTO15	VSSC17
WATER PUMP & TIMING			
WATER PUMP		WPMI23	WPMI4P
TIMING BELT	TBMI24	TBMI24	TBMI26
TENSIONERS	BTMI23C	BTMI23C (93-95) BTMI24 (96-99)	BTMI4
BALANCE SHAFT BELT	TBMI6B	TBMI6B	TBMI6B
BALANCE SHAFT BELT TENSIONER		BTMI6R (93-95)	BTMI6R

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MODEL	GALANT	EXPO	PICKUP VAN
ENGINE CODE	**4G64K**	**G64B**	**G64B**
DISPLACEMENT	**2350cc(143.4")**	**2350cc(143.4")**	**2350cc(143.4")**
YEARS	**1994**	**1992**	**1989-1992**
DESCRIPTION	16 VALVE SOHC 4; F.INJ	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	86.5mm(3.406")	86.5mm(3.406")	86.5mm(3.406")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT	EKMI24GG		
BRONZE KITS	EKMI24GB		
MAJOR KIT	EKMI24GM	EKMI5LM	EKMI5M
RE-RING KIT	EKMI24GR	EKMI5R	EKMI5R
BEARING SETS			
MAIN BEARING SET	MBMI23	MBC17	MBC17
ROD BEARING SET	RBMI23	RBC15L	RBC15L
INTERMEDIATE SET	ISBMI3	ISBMI3	ISBMI3
GASKETS			
FULL GASKET SET	CGSMI24G	CGSMI5	CGSMI5
HEAD GASKET SET	HSMI24G	HSMI5	HSMI5
HEAD GASKETS		HDGMI5	HDGMI5
CONVERSION SET	CBSMI23	CBSMI4	CBSMI4
PISTONS, RINGS, PLUGS			
PISTONS	PAMI24	PAMI5❶	PAMI5❶
RING SETS	RSMI24	RSMI5	RSMI5
FREEZE PLUG SET	EPSMI4	EPSMI4	EPSMI4
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI6	CRMI4	CRMI4
OIL PUMP			
NEW OIL PUMP	OPMI24		

❶ (Not for forklift application)

MODEL	GALANT	EXPO	PICKUP VAN
ENGINE CODE	**4G64K**	**G64B**	**G64B**
DISPLACEMENT	**2350cc(143.4")**	**2350cc(143.4")**	**2350cc(143.4")**
YEARS	**1994**	**1992**	**1989-1992**
DESCRIPTION	16 VALVE SOHC 4; F.INJ	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	86.5mm(3.406")	86.5mm(3.406")	86.5mm(3.406")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.2433/2.2441"	2.2433/2.2441"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7713/1.7717"	1.7713/1.7717"
VALVE TRAIN			
CAMSHAFTS		CAMMI4L	
LIFTERS	LIFMI6	ALAMI4H	ALAMI4H
ROCKER ARMS	RAMI6	RAMI4RA (1 & 3 CYL)	RAMI5B (#2 & 4 cyl)
ROCKER ARMS			RAMI5D (#2 & 4 cyl)
ROCKER ARM SHAFTS		RASIMI4	RASIMI4
ROCKER ARM SHAFTS		RASEMI4	RASEMI4
INTAKE VALVE	IVMI6	IVMI5	IVMI5
EXHAUST VALVE	EVMI6	EVMI5	EVMI5
INTAKE GUIDE	IVGMI6	IVGC21	IVGC21
EXHAUST GUIDE	EVGMI6	EVGC23	EVGC23
VALVE SEALS	VSSC11	VSSC17	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPMI23		WPMI4P
TIMING BELT	TBMI24G	TBMI5L	TBMI5
TENSIONERS	BTMI23C	BTMI4L	BTMI4
BALANCE SHAFT BELT	TBMI6B	TBMI4B	TBMI4B
BALANCE SHAFT BELT TENSIONER		BTMI4B	BTMI4R

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MODEL	GALANT VAN	OUTLANDER (08-13) LANCER (09-17)	OUTLANDER PHEV
ENGINE CODE	**G64B**	**4B12**	**4B12**
DISPLACEMENT	**2350cc(143.4")**	**2359cc(144")**	**2360cc(144")**
YEARS	**1985-1988**	**2008-2017**	**2021-2022**
DESCRIPTION	8 VALVE SOHC 4; F. INJ.	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; PHEV; vin 7
BORE	86.5mm(3.406")	88mm(3.465")	88mm(3.464")
STROKE	100mm(3.94")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.0450/2.0457"	
ROD JOURNAL DIA.	1.7713/1.7717"	1.8894/1.8900"	
ENGINE KITS			
MAJOR KIT	EKMI5M (87-88)		
RE-RING KIT	EKMI5R		
BEARING SETS			
MAIN BEARING SET	MBC17	MBHY11	
ROD BEARING SET	RBC15L	RBHY11	
THRUST WASHER SET		TWHY11	TWHY11
INTERMEDIATE SET	ISBMI3		
GASKETS			
FULL GASKET SET	CGSMI5	CGSMI38	CGSMI38
HEAD GASKET SET	HSMI5	HSMI38	HSMI38
HEAD GASKETS	HDGMI5		
CONVERSION SET	CBSMI4	CBSMI37	CBSMI37
HEAD BOLT SET		HBHY11	HBHY11
PISTONS, RINGS, PLUGS			
PISTONS	PAMI5❶	PAHY11	
RING SETS	RSMI5	RSMI38❷	
FREEZE PLUG SET	EPSMI4		
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI4		

❶ (Not for forklift application)

❷ (For OEM piston only)

MODEL	GALANT VAN	OUTLANDER (08-13) LANCER (09-17)	OUTLANDER PHEV
ENGINE CODE	**G64B**	**4B12**	**4B12**
DISPLACEMENT	**2350cc(143.4")**	**2359cc(144")**	**2360cc(144")**
YEARS	**1985-1988**	**2008-2017**	**2021-2022**
DESCRIPTION	8 VALVE SOHC 4; F. INJ.	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; PHEV; vin 7
BORE	86.5mm(3.406")	88mm(3.465")	88mm(3.464")
STROKE	100mm(3.94")	97mm(3.82")	97mm(3.82")
MAIN JOURNAL DIA.	2.2433/2.2441"	2.0450/2.0457"	
ROD JOURNAL DIA.	1.7713/1.7717"	1.8894/1.8900"	
VALVE TRAIN			
LIFTERS	ALAMI4H		
ROCKER ARMS	RAMI5B (#2 & 4 cyl)		
ROCKER ARMS	RAMI5D (#2 & 4 cyl)		
ROCKER ARM SHAFTS	RASIMI4		
ROCKER ARM SHAFTS	RASEMI4		
INTAKE VALVE	IVMI5	IVHY11	IVHY11
EXHAUST VALVE	EVMI5	EVHY11	EVHY11
VALVE GUIDE		VGHY11	VGHY11
INTAKE GUIDE	IVGC21		
EXHAUST GUIDE	EVGC23		
SUB VALVES	CAVC23 (85-87)		
VALVE SEALS	VSSC17	VSSHY11	VSSHY11
WATER PUMP & TIMING			
WATER PUMP	WPMI4P (Van only)		
TIMING CHAIN KIT		CTKCHR1❶	
CAM DRIVE TIMING KIT		PTKMI37C❶	
TIMING BELT	TBMI5		
TENSIONERS	BTMI4		
BALANCE SHAFT BELT	TBMI4B		
BALANCE SHAFT BELT TENSIONER	BTMI4R (Van only) BTMI4B (Galant only)		

❶ (Cam Gear not included)

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MODEL	OUTLANDER SPORT	OUTLANDER	ECLIPSE (06-12) GALANT (05-12) LANCER (04-06) OUTLANDER (05-06)
ENGINE CODE	**4B12**	**4J12**	**4G69**
DISPLACEMENT	**2360cc(144")**	**2360cc(144")**	**2378cc(145.1")**
YEARS	**2015-2022**	**2014-2020**	**2004-2012**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16vlv; SOHC; 4; F.INJ; Vin 3	16 VALVE; SOHC 4; F.INJ
BORE	88mm(3.465")	88mm(3.465")	87mm(3.425")
STROKE	97mm(3.82")	97mm(3.82")	100mm(3.94")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.2433/2.2441"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.7713/1.7717"
ENGINE KITS			
GOLD KIT			EKMI34G
MAJOR KIT			EKMI34M
RE-RING KIT			EKMI34R
BEARING SETS			
MAIN BEARING SET	MBHY11	MBHY11	MBMI24
ROD BEARING SET	RBHY11	RBHY11	RBMI23
THRUST WASHER SET	TWHY11	TWHY11	TWMI24
GASKETS			
FULL GASKET SET	CGSMI38		CGSMI34
HEAD GASKET SET	HSMI38		HSMI34
HEAD GASKETS			HDGMI34
CONVERSION SET	CBSMI37		CBSMI29
HEAD BOLT SET	HBHY11	HBHY11	HBMI23
PISTONS, RINGS, PLUGS			
PISTONS	PAHY11		PAMI34
RING SETS	RSMI38❶		RSMI34
CRANKSHAFT & RODS			
CONNECTING ROD			CRMI34
OIL PUMP			
NEW OIL PUMP			OPMI34

❶ (For OEM piston only)

MODEL	OUTLANDER SPORT	OUTLANDER	ECLIPSE (06-12) GALANT (05-12) LANCER (04-06) OUTLANDER (05-06)
ENGINE CODE	**4B12**	**4J12**	**4G69**
DISPLACEMENT	**2360cc(144")**	**2360cc(144")**	**2378cc(145.1")**
YEARS	**2015-2022**	**2014-2020**	**2004-2012**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16vlv; SOHC; 4; F.INJ; Vin 3	16 VALVE; SOHC 4; F.INJ
BORE	88mm(3.465")	88mm(3.465")	87mm(3.425")
STROKE	97mm(3.82")	97mm(3.82")	100mm(3.94")
MAIN JOURNAL DIA.	2.0450/2.0457"	2.0450/2.0457"	2.2433/2.2441"
ROD JOURNAL DIA.	1.8894/1.8900"	1.8894/1.8900"	1.7713/1.7717"
VALVE TRAIN			
INTAKE VALVE	IVHY11		IVMI34
EXHAUST VALVE	EVHY11		EVMI34
VALVE GUIDE	VGHY11		
INTAKE GUIDE			IVGMI22
EXHAUST GUIDE			EVGMI22
VALVE SEALS	VSSHY11		VSSTO15
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKCHR1❶		
CAM DRIVE TIMING KIT	PTKMI37C❶		
TIMING BELT			TBMI34
TENSIONERS			BTMI34
BALANCE SHAFT BELT			TBMI6B

❶ (Cam Gear not included)

MITSUBISHI

MODEL	OUTLANDER	STARION TURBO	MONTERO PICKUP
ENGINE CODE	**PR25DD**	**G54B RWD**	**G54B RWD**
DISPLACEMENT	**2488cc(151.8")**	**2555cc(155.9")**	**2555cc(155.9")**
YEARS	**2022**	**1983-1989**	**1983-1989**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE SOHC 4; CARB.
BORE	89mm(3.504")	91.1mm(3.587")	91.1mm(3.587")
STROKE	100.1mm(3.94")	98mm(3.86")	98mm(3.86")
MAIN JOURNAL DIA.	2.1636/2.1645"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.7699/1.7706"	2.0858/2.0866"	2.0858/2.0866"
ENGINE KITS			
PLATINUM KIT			EKC23LP
GOLD KIT			EKC23LG
SILVER KIT		EKC23TS	EKC23LS
MAJOR KIT		EKC23TM	EKC23LM
RE-RING KIT		EKC23LR	EKC23LR
BEARING SETS			
MAIN BEARING SET	MBD42L	MBC23	MBC23
ROD BEARING SET	RBD42	RBC23	RBC23
THRUST WASHER SET	TWD42		
INTERMEDIATE SET	ISBD42	ISBC23	ISBC23
GASKETS			
FULL GASKET SET		CGSC23	CGSC23
HEAD GASKET SET		HSC23	HSC23
HEAD GASKETS		HDGC23	HDGC23
CONVERSION SET		CBSC23	CBSC23
HEAD BOLT SET	HBD42	HBC23	HBC23
PISTONS, RINGS, PLUGS			
PISTONS		PAC23T	PAC23L
RING SETS		RSC23L	RSC23L
PIN BUSHINGS	PBD42		
FREEZE PLUG SET		EPSC23	EPSC23
CRANKSHAFT & RODS			
CONNECTING ROD	CRD42	-	-
OIL PUMP			
NEW OIL PUMP			OPC23

MODEL	OUTLANDER	STARION TURBO	MONTERO PICKUP
ENGINE CODE	**PR25DD**	**G54B RWD**	**G54B RWD**
DISPLACEMENT	**2488cc(151.8")**	**2555cc(155.9")**	**2555cc(155.9")**
YEARS	**2022**	**1983-1989**	**1983-1989**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE SOHC 4; CARB.
BORE	89mm(3.504")	91.1mm(3.587")	91.1mm(3.587")
STROKE	100.1mm(3.94")	98mm(3.86")	98mm(3.86")
MAIN JOURNAL DIA.	2.1636/2.1645"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.7699/1.7706"	2.0858/2.0866"	2.0858/2.0866"
VALVE TRAIN			
LIFTERS		ALAMI4H	ALAMI4H
ROCKER ARMS		RAMI5A❶	RAMI5A
		RAMI5C❷	RAMI5C
INTAKE VALVE		IVC23L❸	IVC23L
EXHAUST VALVE		EVC23L❸	EVC23L
INTAKE GUIDE		IVGC21	IVGC21
EXHAUST GUIDE		EVGC23	EVGC23
SUB VALVES		CAVC23	CAVC23
VALVE SEALS	VSSD27	VSSC17	VSSC17
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKC23	CTKC23
CAM DRIVE TIMING KIT		CTKC23C	CTKC23C
BALANCE SHAFTS		JSC22❹	JSC22❹
		JSC23	JSC23

❶ (int w/hyd.lash, Use RAC24I;RAC23E; IVC23;EVC23 for 1983 mechanical adjustment)
❷ (ex. w/hyd.lash, Use RAC24I;RAC23E; IVC23;EVC23 for 1983 mechanical adjustment)
❸ (hyd.lash, Use RAC24I;RAC23E; IVC23;EVC23 for 1983 mechanical adjustment)
❹ (oil pump drive)

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MODEL	GALANT (99-03) ECLIPSE (00-05)	MONTERO SPORT	3000GT
ENGINE CODE	**6G72**	**6G72**	**6G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1999-2005**	**2000-2003**	**1997-1999**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
ENGINE KITS			
GOLD KIT		EKMI32G	
BRONZE KITS		EKMI32B	
MAJOR KIT	EKMI32M	EKMI32M	EKMI10M
RE-RING KIT	EKMI32R	EKMI32R	EKMI10R
BEARING SETS			
MAIN BEARING SET	MBMI9	MBMI9	MBMI9
ROD BEARING SET	RBMI9	RBMI9	RBMI9
THRUST WASHER SET	TWMI9	TWMI9	TWMI9
GASKETS			
FULL GASKET SET	CGSMI32	CGSMI32	CGSMI9
HEAD GASKET SET	HSMI32	HSMI32	HSMI9
HEAD GASKETS	HDGMI32	HDGMI32	HDGMI9 (each)
CONVERSION SET	CBSMI32	CBSMI32	CBSMI9
HEAD BOLT SET		HBMI9	HBMI9
PISTONS, RINGS, PLUGS			
PISTONS	PAMI32	PAMI32	PAMI10
RING SETS	RSMI9D	RSMI9D	RSMI10
FREEZE PLUG SET	EPSMI9	EPSMI9	EPSMI9
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI32	CSMI9 (00-01) CSMI32 (02-03)	CSMI9
CONNECTING ROD	CRMI9	CRMI9	CRMI9
OIL PUMP			
NEW OIL PUMP	OPMI32	OPMI31	

MODEL	GALANT (99-03) ECLIPSE (00-05)	MONTERO SPORT	3000GT
ENGINE CODE	**6G72**	**6G72**	**6G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1999-2005**	**2000-2003**	**1997-1999**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
VALVE TRAIN			
LIFTERS	ALAMI4H	ALAMI4H	ALAMI4H
ROCKER ARMS	RAMI24A (int.A) RAMI24B (int.B) RAMI24E (ex.)	RAMI24A (int.A) RAMI24B (int.B)	RAMI9R (roller type)
ROCKER ARMS		RAMI24E (ex.)	
ROCKER ARM SHAFTS	RASIMI30	RASIMI30	RASIMI9
ROCKER ARM SHAFTS	RASEMI30	RASEMI30	RASEMI9
INTAKE VALVE	IVMI24	IVMI24	IVMI9
EXHAUST VALVE	EVMI24	EVMI24	EVMI9
INTAKE GUIDE	IVGMI22	IVGMI22	IVGMI9
EXHAUST GUIDE	EVGMI22	EVGMI22	EVGMI9
VALVE SEALS	VSSTO15	VSSTO15	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPMI28	WPMI28	WPMI9
TIMING BELT	TBMI28	TBMI28	TBMI9
TENSIONERS	BTMI31	BTMI31	BTMI9

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MODEL	3000GT DIAMANTE (91-96)	3000GT TURBO	MONTERO SPORT MONTERO (95-96)
ENGINE CODE	**6G72**	**6G72**	**4G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1991-1999**	**1991-1999**	**1995-1998**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. non turb	24 vlv; DOHC V6; F.INJ. Turbo	24 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
ENGINE KITS			
GOLD KIT	EKMI27G (93-99)	EKMI27TG (93-99)	EKMI33MG
BRONZE KITS	EKMI27B (93-99)	EKMI27TB (93-99)	EKMI33MB
MAJOR KIT	EKMI27M	EKMI27TM	EKMI33MM
RE-RING KIT	EKMI27R	EKMI27TR	EKMI33MR
BEARING SETS			
MAIN BEARING SET	MBMI27	MBMI27	MBMI9
ROD BEARING SET	RBMI9	RBMI9	RBMI9
THRUST WASHER SET	TWMI9	TWMI9	TWMI9
GASKETS			
FULL GASKET SET	CGSMI27	CGSMI27T	CGSMI33M
HEAD GASKET SET	HSMI27	HSMI27T	HSMI33M
HEAD GASKETS	HDGMI27 (each)	HDGMI27 (each)	HDGMI33M
CONVERSION SET	CBSMI27	CBSMI27	CBSMI33M
HEAD BOLT SET	HBMI9	HBMI9	HBMI9
PISTONS, RINGS, PLUGS			
PISTONS	PAMI27	PAMI27T	PAMI33M
RING SETS	RSMI27	RSMI27	RSMI9D
FREEZE PLUG SET	EPSMI9	EPSMI9	EPSMI9
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSMI9
CONNECTING ROD	CRMI9	CRMI9	CRMI9
OIL PUMP			
NEW OIL PUMP	OPMI27 (93-99)	OPMI27T (93-99)	OPMI31

MODEL	3000GT DIAMANTE (91-96)	3000GT TURBO	MONTERO SPORT MONTERO (95-96)
ENGINE CODE	**6G72**	**6G72**	**4G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1991-1999**	**1991-1999**	**1995-1998**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. non turb	24 vlv; DOHC V6; F.INJ. Turbo	24 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
VALVE TRAIN			
LIFTERS	LIFMI6	LIFMI6	ALAMI4H
ROCKER ARMS	RAMI6	RAMI6	RAMI24A (int.A)
			RAMI24B (int.B)
ROCKER ARMS			RAMI24E (ex.)
ROCKER ARM SHAFTS			RASIMI30
ROCKER ARM SHAFTS			RASEMI30
INTAKE VALVE	IVMI27	IVMI27	IVMI24
EXHAUST VALVE	EVMI27	EVMI27	EVMI24
INTAKE GUIDE	IVGMI6	IVGMI6	IVGMI22
EXHAUST GUIDE	EVGMI6	EVGMI6	EVGMI22
VALVE SEALS	VSSC11	VSSC11	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPMI27	WPMI27	WPMI28
TIMING BELT	TBMI27	TBMI27	TBMI28
TENSIONERS	BTMI27H❶	BTMI27H (hydraulic)	BTMI31

❶ (hydraulic for 3000GT only)

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MODEL	DIAMANTE	MONTERO PICKUP	MONTERO PICKUP
ENGINE CODE	**6G72**	**6G72**	**6G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1992-1996**	**1994**	**1989-1993**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
ENGINE KITS			
GOLD KIT	EKMI9DG (92-95)	EKMI10MG	EKMI10G
BRONZE KITS	EKMI9DB (92-95)	EKMI10MB	EKMI10B
MAJOR KIT	EKMI9DM	EKMI10M	EKMI9M
RE-RING KIT	EKMI9DR	EKMI10R	EKMI9R
BEARING SETS			
MAIN BEARING SET	MBMI9	MBMI9	MBMI9
ROD BEARING SET	RBMI9	RBMI9	RBMI9
THRUST WASHER SET	TWMI9	TWMI9	TWMI9
GASKETS			
FULL GASKET SET	CGSMI9	CGSMI9	CGSMI9
HEAD GASKET SET	HSMI9	HSMI9	HSMI9
HEAD GASKETS	HDGMI9 (each)	HDGMI9 (each)	HDGMI9 (each)
CONVERSION SET	CBSMI9	CBSMI9	CBSMI9
HEAD BOLT SET	HBMI9	HBMI9	HBMI9
PISTONS, RINGS, PLUGS			
PISTONS	PAMI9D	PAMI10	PAMI9
RING SETS	RSMI9D	RSMI10	RSMI9
FREEZE PLUG SET	EPSMI9	EPSMI9	EPSMI9
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI9	CSMI9	CSMI9
CONNECTING ROD	CRMI9	CRMI9	CRMI9
OIL PUMP			
NEW OIL PUMP	OPMI10L❶	OPMI10	OPMI10

❶ (92-95; Sedan Only)

MITSUBISHI

MODEL	DIAMANTE	MONTERO PICKUP	MONTERO PICKUP
ENGINE CODE	**6G72**	**6G72**	**6G72**
DISPLACEMENT	**2972cc(181.4")**	**2972cc(181.4")**	**2972cc(181.4")**
YEARS	**1992-1996**	**1994**	**1989-1993**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	91.1mm(3.587")	91.1mm(3.587")
STROKE	76mm(2.992")	76mm(2.992")	76mm(2.992")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.3614/2.3622"	2.3614/2.3622"
ROD JOURNAL DIA.	1.9677/1.9685"	1.9677/1.9685"	1.9677/1.9685"
VALVE TRAIN			
RIGHT CAMSHAFT			CAMMI9R
LIFTERS	ALAMI4H	ALAMI4H	ALAMI4H
ROCKER ARMS	RAMI9R (roller type)	RAMI9R (roller type)	RAMI9 (pad type) RAMI9R (roller type)
ROCKER ARM SHAFTS	RASIMI9	RASIMI9	RASIMI9
ROCKER ARM SHAFTS	RASEMI9	RASEMI9	RASEMI9
INTAKE VALVE	IVMI9	IVMI9	IVMI9
EXHAUST VALVE	EVMI9	EVMI9	EVMI9
INTAKE GUIDE	IVGMI9	IVGMI9	IVGMI9
EXHAUST GUIDE	EVGMI9	EVGMI9	EVGMI9
VALVE SEALS	VSSC17	VSSC17	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPMI9	WPMI9	WPMI9
TIMING BELT	TBMI9	TBMI9	TBMI9
TENSIONERS	BTMI9	BTMI9	BTMI9

MITSUBISHI

MODEL	GALANT SIGMA	OUTLANDER	OUTLANDER
ENGINE CODE	**6G72**	**6B31**	**6B31**
DISPLACEMENT	**2972cc(181.4")**	**2998cc(182.9")**	**2998cc(182.9")**
YEARS	**1988**	**2010-2015**	**2007-2009**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	87.6mm(3.449")	87.6mm(3.449")
STROKE	76mm(2.992")	82.9mm(3.26")	82.9mm(3.26")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.700"	2.700"
ROD JOURNAL DIA.	1.9677/1.9685"	2.100"	2.100"
ENGINE KITS			
GOLD KIT	EKMI10LG		
BRONZE KITS	EKMI10LB		
MAJOR KIT	EKMI9M		
RE-RING KIT	EKMI9R		
BEARING SETS			
MAIN BEARING SET	MBMI9	MBMI40	MBMI40
ROD BEARING SET	RBMI9	RBMI40	RBMI40
THRUST WASHER SET	TWMI9	TWMI40	TWMI40
GASKETS			
FULL GASKET SET	CGSMI9	CGSMI40	CGSMI40
HEAD GASKET SET	HSMI9	HSMI40	HSMI40
HEAD GASKETS	HDGMI9 (each)		
CONVERSION SET	CBSMI9	CBSMI40	CBSMI40
HEAD BOLT SET	HBMI9	HBMI40	HBMI40
PISTONS, RINGS, PLUGS			
PISTONS	PAMI9		PAMI40
RING SETS	RSMI9	RSMI40	RSMI40
FREEZE PLUG SET	EPSMI9		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSMI9		
CONNECTING ROD	CRMI9		
OIL PUMP			
NEW OIL PUMP	OPMI10L	OPMI40	OPMI40

MODEL	GALANT SIGMA	OUTLANDER	OUTLANDER
ENGINE CODE	**6G72**	**6B31**	**6B31**
DISPLACEMENT	**2972cc(181.4")**	**2998cc(182.9")**	**2998cc(182.9")**
YEARS	**1988**	**2010-2015**	**2007-2009**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.
BORE	91.1mm(3.587")	87.6mm(3.449")	87.6mm(3.449")
STROKE	76mm(2.992")	82.9mm(3.26")	82.9mm(3.26")
MAIN JOURNAL DIA.	2.3614/2.3622"	2.700"	2.700"
ROD JOURNAL DIA.	1.9677/1.9685"	2.100"	2.100"
VALVE TRAIN			
RIGHT CAMSHAFT	CAMMI9R		
LIFTERS	ALAMI4H	ALAMI4H	ALAMI4H
ROCKER ARMS	RAMI9 (pad type) RAMI9R (roller type)		
ROCKER ARM SHAFTS	RASIMI9		
ROCKER ARM SHAFTS	RASEMI9		
INTAKE VALVE	IVMI9	IVMI40	IVMI40
EXHAUST VALVE	EVMI9	EVMI40	EVMI40
INTAKE GUIDE	IVGMI9		
EXHAUST GUIDE	EVGMI9		
VALVE SEALS	VSSC17	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPMI9		
TIMING BELT	TBMI9	TBMI40	TBMI40
TENSIONERS	BTMI9		

MITSUBISHI

MODEL	MONTERO SPORT	MONTERO	MONTERO MONTERO SPORT
ENGINE CODE	**6G74**	**6G74**	**6G74**
DISPLACEMENT	**3496cc(213.3")**	**3496cc(213.3")**	**3496cc(213.3")**
YEARS	**2001-2004**	**2001-2002**	**1997-2000**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.
BORE	93mm(3.661")	93mm(3.661")	93mm(3.661")
STROKE	85.8mm(3.38")	85.8mm(3.38")	85.8mm(3.38")
MAIN JOURNAL DIA.	2.5190/2.5197"	2.5190/2.5197"	2.5190/2.5197"
ROD JOURNAL DIA.	2.1646/2.1654	2.1646/2.1654	2.1646/2.1654
ENGINE KITS			
GOLD KIT	EKMI31SG		EKMI31G
BRONZE KITS	EKMI31SB		EKMI31B
MAJOR KIT	EKMI31SM	EKMI31SM	EKMI31M
RE-RING KIT	EKMI31R	EKMI31R	EKMI31R
BEARING SETS			
MAIN BEARING SET	MBMI30	MBMI30	MBMI30
ROD BEARING SET	RBMI30	RBMI30	RBMI30
THRUST WASHER SET	TWMI30	TWMI30	TWMI30
GASKETS			
FULL GASKET SET	CGSMI31	CGSMI31	CGSMI31
HEAD GASKET SET	HSMI31	HSMI31	HSMI31
HEAD GASKETS	HDGMI31	HDGMI31	HDGMI31
CONVERSION SET	CBSMI31	CBSMI31	CBSMI31
HEAD BOLT SET	HBMI9	HBMI9	HBMI9
PISTONS, RINGS, PLUGS			
PISTONS	PAMI31S	PAMI31S	PAMI31M PAMI31D (with Cal ECS)
RING SETS	RSMI30	RSMI30	RSMI30
PIN BUSHINGS	PBD33	PBD33	PBD33
FREEZE PLUG SET	EPSMI9	EPSMI9	EPSMI9
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI30	CRMI30	CRMI30
OIL PUMP			
NEW OIL PUMP	OPMI31	OPMI35M	OPMI31

MODEL	MONTERO SPORT	MONTERO	MONTERO MONTERO SPORT
ENGINE CODE	**6G74**	**6G74**	**6G74**
DISPLACEMENT	**3496cc(213.3")**	**3496cc(213.3")**	**3496cc(213.3")**
YEARS	**2001-2004**	**2001-2002**	**1997-2000**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.
BORE	93mm(3.661")	93mm(3.661")	93mm(3.661")
STROKE	85.8mm(3.38")	85.8mm(3.38")	85.8mm(3.38")
MAIN JOURNAL DIA.	2.5190/2.5197"	2.5190/2.5197"	2.5190/2.5197"
ROD JOURNAL DIA.	2.1646/2.1654	2.1646/2.1654	2.1646/2.1654
VALVE TRAIN			
LIFTERS	ALAMI4H	ALAMI4H	ALAMI4H
ROCKER ARMS	RAMI24A (int.A)	RAMI24A (int.A)	RAMI24A (int.A)
	RAMI24B (int.B)	RAMI24B (int.B)	RAMI24B (int.B)
	RAMI24E (ex.)	RAMI24E (ex.)	RAMI24E (ex.)
ROCKER ARM SHAFTS	RASIMI30	RASIMI30	RASIMI30
ROCKER ARM SHAFTS	RASEMI30	RASEMI30	RASEMI30
INTAKE VALVE	IVMI24	IVMI24	IVMI24
EXHAUST VALVE	EVMI24	EVMI24	EVMI24
INTAKE GUIDE	IVGMI22	IVGMI22	IVGMI22
EXHAUST GUIDE	EVGMI22	EVGMI22	EVGMI22
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPMI28		WPMI28
TIMING BELT	TBMI31	TBMI31M	TBMI31
TENSIONERS	BTMI31	BTMI35 (hydraulic)	BTMI31

MITSUBISHI

MODEL	DIAMANTE	MONTERO	DIAMANTE
ENGINE CODE	**6G74**	**6G74DN**	**6G74**
DISPLACEMENT	**3496cc(213.3")**	**3496cc(213.3")**	**3497cc(215.0")**
YEARS	**1997-2000**	**1994-1996**	**2001-2004**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.
BORE	93mm(3.661")	93mm(3.661")	93mm(3.661")
STROKE	85.8mm(3.38")	85.8mm(3.38")	85.8mm(3.38")
MAIN JOURNAL DIA.	2.5190/2.5197"	2.5190/2.5197"	2.5190/2.5197"
ROD JOURNAL DIA.	2.1646/2.1654	2.1646/2.1654	2.1646/2.1654
ENGINE KITS			
GOLD KIT		EKMI30G	
BRONZE KITS		EKMI30B	
MAJOR KIT	EKMI31DM	EKMI30M	
RE-RING KIT	EKMI31DR	EKMI30R	EKMI31DR
BEARING SETS			
MAIN BEARING SET	MBMI30	MBMI30	MBMI30
ROD BEARING SET	RBMI30	RBMI30	RBMI30
THRUST WASHER SET	TWMI30	TWMI30	TWMI30
GASKETS			
FULL GASKET SET	CGSMI31D	CGSMI30	CGSMI31D
HEAD GASKET SET	HSMI31D	HSMI30	HSMI31D
HEAD GASKETS	HDGMI31	HDGMI30 (each)	HDGMI31
CONVERSION SET	CBSMI31	CBSMI30	CBSMI31
HEAD BOLT SET	HBMI9	HBMI9	
PISTONS, RINGS, PLUGS			
PISTONS	PAMI31D (with Cal ECS)	PAMI30	PAMI31S
RING SETS	RSMI30	RSMI30	RSMI30
PIN BUSHINGS	PBD33	PBD33	PBD33
FREEZE PLUG SET	EPSMI9	EPSMI9	EPSMI9
CRANKSHAFT & RODS			
CONNECTING ROD	CRMI30	CRMI30	CRMI30
OIL PUMP			
NEW OIL PUMP	OPMI35E	OPMI30	OPMI35E

MODEL	DIAMANTE	MONTERO	DIAMANTE
ENGINE CODE	**6G74**	**6G74DN**	**6G74**
DISPLACEMENT	**3496cc(213.3")**	**3496cc(213.3")**	**3497cc(215.0")**
YEARS	**1997-2000**	**1994-1996**	**2001-2004**
DESCRIPTION	24 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; SOHC V6; F.INJ.
BORE	93mm(3.661")	93mm(3.661")	93mm(3.661")
STROKE	85.8mm(3.38")	85.8mm(3.38")	85.8mm(3.38")
MAIN JOURNAL DIA.	2.5190/2.5197"	2.5190/2.5197"	2.5190/2.5197"
ROD JOURNAL DIA.	2.1646/2.1654	2.1646/2.1654	2.1646/2.1654
VALVE TRAIN			
LIFTERS	ALAMI4H	LIFMI6	ALAMI4H
ROCKER ARMS	RAMI24A (int.A)	RAMI6	RAMI24A (int.A)
	RAMI24B (int.B)		RAMI24B (int.B)
	RAMI24E (ex.)		RAMI24E (ex.)
ROCKER ARM SHAFTS	RASIMI30		RASIMI30
ROCKER ARM SHAFTS	RASEMI30		RASEMI30
INTAKE VALVE	IVMI24	IVMI27	IVMI24
EXHAUST VALVE	EVMI24	EVMI27	EVMI24
INTAKE GUIDE	IVGMI22	IVGMI6	IVGMI22
EXHAUST GUIDE	EVGMI22	EVGMI6	EVGMI22
VALVE SEALS	VSSTO15	VSSC11	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPMI28	WPMI30	WPMI28
TIMING BELT	TBMI31	TBMI30	TBMI31
TENSIONERS	BTMI31	BTMI27H (hydraulic)	BTMI31

MITSUBISHI

MODEL	ECLIPSE GT RALLIART (07-09)	ENDEAVOR GALANT (04-09)	MONTERO
ENGINE CODE	**6G75**	**6G75**	**6G75**
DISPLACEMENT	**3828cc(234")**	**3828cc(234")**	**3828cc(234")**
YEARS	**2006-2012**	**2004-2011**	**2003-2006**
DESCRIPTION	24 vlv; SOHC; V6; F.INJ; vin T	24vlv; SOHC;V6;F.INJ	24 VALVE; SOHC V6; F.INJ.
BORE	95mm(3.740")	95mm(3.740")	95mm(3.740")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5190/2.5197"	2.5190/2.5197"	2.5190/2.5197"
ROD JOURNAL DIA.	2.1646/2.1654	2.1646/2.1654	2.1646/2.1654
BEARING SETS			
MAIN BEARING SET	MBMI30	MBMI30	MBMI30
ROD BEARING SET	RBMI30	RBMI30	RBMI30
THRUST WASHER SET	TWMI30	TWMI30	TWMI30
GASKETS			
FULL GASKET SET	CGSMI35E	CGSMI35	CGSMI35
HEAD GASKET SET	HSMI35E	HSMI35	HSMI35
HEAD GASKETS	HDGMI35 (set of 2)	HDGMI35 (set of 2)	HDGMI35 (set of 2)
CONVERSION SET	CBSMI31	CBSMI31	CBSMI31
HEAD BOLT SET	HBMI9	HBMI9	HBMI9
PISTONS, RINGS, PLUGS			
PISTONS		PAMI35	PAMI35
RING SETS	RSMI35	RSMI35	RSMI35
PIN BUSHINGS	PBD33	PBD33	PBD33
OIL PUMP			
NEW OIL PUMP	OPMI35E	OPMI35E	OPMI35M

MITSUBISHI

MODEL	ECLIPSE GT RALLIART (07-09)	ENDEAVOR GALANT (04-09)	MONTERO
ENGINE CODE	**6G75**	**6G75**	**6G75**
DISPLACEMENT	**3828cc(234")**	**3828cc(234")**	**3828cc(234")**
YEARS	**2006-2012**	**2004-2011**	**2003-2006**
DESCRIPTION	24 vlv; SOHC; V6; F.INJ; vin T	24vlv; SOHC;V6;F.INJ	24 VALVE; SOHC V6; F.INJ.
BORE	95mm(3.740")	95mm(3.740")	95mm(3.740")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5190/2.5197"	2.5190/2.5197"	2.5190/2.5197"
ROD JOURNAL DIA.	2.1646/2.1654	2.1646/2.1654	2.1646/2.1654
VALVE TRAIN			
LIFTERS	ALAMI4H	ALAMI4H	ALAMI4H
INTAKE VALVE	IVMI35L	IVMI35	IVMI35
EXHAUST VALVE	EVMI35L	EVMI35	EVMI35
INTAKE GUIDE	IVGMI22	IVGMI22	IVGMI22
EXHAUST GUIDE	EVGMI22	EVGMI22	EVGMI22
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPMI28		
TIMING BELT	TBMI31	TBMI31	TBMI31M
TENSIONERS	BTMI31	BTMI31	BTMI35 (hydraulic)

NISSAN

MODEL	PULSAR NX	SENTRA 310	SENTRA 200SX
ENGINE CODE	**E15T**	**E15S**	**GA16DE**
DISPLACEMENT	**1488cc(90.7")**	**1488cc(90.7")**	**1597cc(97.5")**
YEARS	**1983-1984**	**1982-1983**	**1995-1999**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE; SOHC 4; CARB.	16 VALVE; DOHC 4; F.INJ.
BORE	76mm(2.992")	76mm(2.992")	76mm(2.992")
STROKE	82mm(3.23")	82mm(3.23")	88mm(3.46")
MAIN JOURNAL DIA.	1.9661/1.9671"	1.9661/1.9671"	1.9661/1.9671"
ROD JOURNAL DIA.	1.5730/1.5738"	1.5730/1.5738"	1.5730/1.5738"
ENGINE KITS			
PLATINUM KIT			EKD37P
GOLD KIT			EKD37G
SILVER KIT			EKD37S
BRONZE KITS			EKD37B
MAJOR KIT			EKD37M
RE-RING KIT		EKD24R	EKD37R
ULTRA KIT			EKD37U
BEARING SETS			
MAIN BEARING SET	MBD24	MBD24	MBD25
ROD BEARING SET	RBD24	RBD24	RBD24
THRUST WASHER SET			TWD25
INTERMEDIATE SET	ISBD24	ISBD24	
GASKETS			
FULL GASKET SET		CGSD24	CGSD37
HEAD GASKET SET		HSD24	HSD37
HEAD GASKETS	HDGD24	HDGD24	HDGD37
CONVERSION SET	CBSD24	CBSD24	CBSD25
HEAD BOLT SET			HBD29
PISTONS, RINGS, PLUGS			
PISTONS		PAD24	PAD37 (2-ring)
RING SETS	RSD24	RSD24	RSD37 (2-ring)
PIN BUSHINGS			PBD25
FREEZE PLUG SET	EPSD24	EPSD24	EPSD10
CRANKSHAFT & RODS			
CONNECTING ROD	CRD24	CRD24	
OIL PUMP			
NEW OIL PUMP		OPD24	OPD29

MODEL	PULSAR NX	SENTRA 310	SENTRA 200SX
ENGINE CODE	**E15T**	**E15S**	**GA16DE**
DISPLACEMENT	**1488cc(90.7")**	**1488cc(90.7")**	**1597cc(97.5")**
YEARS	**1983-1984**	**1982-1983**	**1995-1999**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE; SOHC 4; CARB.	16 VALVE; DOHC 4; F.INJ.
BORE	76mm(2.992")	76mm(2.992")	76mm(2.992")
STROKE	82mm(3.23")	82mm(3.23")	88mm(3.46")
MAIN JOURNAL DIA.	1.9661/1.9671"	1.9661/1.9671"	1.9661/1.9671"
ROD JOURNAL DIA.	1.5730/1.5738"	1.5730/1.5738"	1.5730/1.5738"
VALVE TRAIN			
LIFTERS			LIFD29
ROCKER ARMS	RAD24	RAD24	
ROCKER ARM SHAFTS	RASPD24	RASPD24	
INTAKE VALVE		IVD24	IVD29
EXHAUST VALVE		EVD24	EVD37
VALVE GUIDE	VGD24	VGD24	EVGD29 (ex.)
VALVE SEALS	VSSD24	VSSD24	VSSD29
WATER PUMP & TIMING			
WATER PUMP			WPD29
TIMING CHAIN KIT			CTKD29❶
TIMING BELT	TBD24	TBD24	
TENSIONERS	BTD24	BTD24	

❶ (timing kit does not include variable cam timing gear)

NISSAN

MODEL	SENTRA NX	SENTRA PULSAR NX	SENTRA PULSAR NX
ENGINE CODE	**GA16DE**	**GA16i**	**E16/EA16i**
DISPLACEMENT	**1597cc(97.5")**	**1597cc(97.5")**	**1597cc(97.5")**
YEARS	**1991-1994**	**1989-1990**	**1985-1988**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; C & F.I.
BORE	76mm(2.992")	76mm(2.992")	76mm(2.992")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	1.9661/1.9671"	1.9661/1.9671"	1.9661/1.9671"
ROD JOURNAL DIA.	1.5730/1.5738"	1.5730/1.5738"	1.5730/1.5738"
ENGINE KITS			
PLATINUM KIT	EKD29P	EKD25P	
GOLD KIT	EKD29G	EKD25G	EKD24LG
SILVER KIT	EKD29S	EKD25S	
BRONZE KITS	EKD29B	EKD25B	
MAJOR KIT	EKD29M	EKD25M	EKD24LM
RE-RING KIT	EKD29R	EKD25R	EKD24R
ULTRA KIT	EKD29U	EKD25U	
BEARING SETS			
MAIN BEARING SET	MBD25	MBD25	MBD24
ROD BEARING SET	RBD24	RBD24	RBD24
THRUST WASHER SET	TWD25	TWD25	
INTERMEDIATE SET			ISBD24
GASKETS			
FULL GASKET SET	CGSD29	CGSD25	CGSD24
HEAD GASKET SET	HSD29	HSD25	HSD24
HEAD GASKETS	HDGD29	HDGD25	HDGD24
CONVERSION SET	CBSD25	CBSD25	CBSD24
HEAD BOLT SET	HBD29		
PISTONS, RINGS, PLUGS			
PISTONS	PAD29	PAD25	PAD24L
RING SETS	RSD25	RSD25	RSD24
PIN BUSHINGS	PBD25	PBD25	
FREEZE PLUG SET	EPSD10	EPSD10	EPSD24
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSD24L
CONNECTING ROD	CRD29	CRD25	CRD24L
OIL PUMP			
NEW OIL PUMP	OPD29	OPD25	OPD24

MODEL	SENTRA NX	SENTRA PULSAR NX	SENTRA PULSAR NX
ENGINE CODE	**GA16DE**	**GA16i**	**E16/EA16i**
DISPLACEMENT	**1597cc(97.5")**	**1597cc(97.5")**	**1597cc(97.5")**
YEARS	**1991-1994**	**1989-1990**	**1985-1988**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; C & F.I.
BORE	76mm(2.992")	76mm(2.992")	76mm(2.992")
STROKE	88mm(3.46")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	1.9661/1.9671"	1.9661/1.9671"	1.9661/1.9671"
ROD JOURNAL DIA.	1.5730/1.5738"	1.5730/1.5738"	1.5730/1.5738"
VALVE TRAIN			
INTAKE CAMSHAFT	CAMD29I		
CAMSHAFTS		CAMD25	
LIFTERS	LIFD29		
ROCKER ARMS			RAD24
FRONT INTAKE ROCKER ARM		RAD25IF	
REAR INTAKE ROCKER ARM		RAD25IR	
ROCKER ARMS		RAD25EF (cyl 1&3)	RAD24
		RAD25ER (cyl 2&4)	
ROCKER ARM SHAFTS		RASPD25	RASPD24
INTAKE VALVE	IVD29	IVD25	IVD24L
EXHAUST VALVE	EVD29	EVD25	EVD24L
VALVE GUIDE	IVGD29 (int.)	IVGD25 (int.)	VGD24
	EVGD29 (ex.)	EVGD25 (ex.)	
VALVE SEALS	VSSD29	VSSD27 (int.)	VSSD24
		VSSD25E (ex.)	
WATER PUMP & TIMING			
WATER PUMP	WPD29	WPD25	
TIMING CHAIN KIT	CTKD29❶	CTKD25	
TIMING BELT			TBD24
TENSIONERS			BTD24

❶ (timing kit does not include variable cam timing gear)

NISSAN

MODEL	PULSAR NX (SE)	SENTRA PULSAR (83) PULSAR NX (83-86)	KICKS
ENGINE CODE	**CA16DE**	**E16**	**HR16DE**
DISPLACEMENT	**1597cc(97.5")**	**1597cc(97.5")**	**1598cc(97.5")**
YEARS	**1987**	**1983-1987**	**2018-2019**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ	8 VALVE; SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.
BORE	78mm(3.071")	76mm(2.992")	78mm(3.071")
STROKE	83.6mm(3.27")	88mm(3.46")	83.6mm(3.29")
MAIN JOURNAL DIA.	2.0848/2.0853"	1.9661/1.9671"	1.8881/1.8889"
ROD JOURNAL DIA.	1.7701/1.7706"	1.5730/1.5738"	1.5729/1.5737"
ENGINE KITS			
GOLD KIT		EKD24LG	
MAJOR KIT		EKD24LM	
RE-RING KIT	EKD27R	EKD24R	
BEARING SETS			
MAIN BEARING SET	MBD10	MBD24	
ROD BEARING SET	RBD10	RBD24	
THRUST WASHER SET			TWD48
INTERMEDIATE SET		ISBD24	
GASKETS			
FULL GASKET SET	CGSD27	CGSD24	
HEAD GASKET SET	HSD27	HSD24	
HEAD GASKETS	HDGD27	HDGD24	
CONVERSION SET	CBSD27	CBSD24	
HEAD BOLT SET	HBD27		HBD48
PISTONS, RINGS, PLUGS			
PISTONS		PAD24L	
RING SETS	RSD27	RSD24	
PIN BUSHINGS	PBD27		
FREEZE PLUG SET	EPSD10	EPSD24	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSD27	CSD24L	
CONNECTING ROD	CRD27	CRD24L	
OIL PUMP			
NEW OIL PUMP		OPD24	

MODEL	PULSAR NX (SE)	SENTRA PULSAR (83) PULSAR NX (83-86)	KICKS
ENGINE CODE	**CA16DE**	**E16**	**HR16DE**
DISPLACEMENT	**1597cc(97.5")**	**1597cc(97.5")**	**1598cc(97.5")**
YEARS	**1987**	**1983-1987**	**2018-2019**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ	8 VALVE; SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.
BORE	78mm(3.071")	76mm(2.992")	78mm(3.071")
STROKE	83.6mm(3.27")	88mm(3.46")	83.6mm(3.29")
MAIN JOURNAL DIA.	2.0848/2.0853"	1.9661/1.9671"	1.8881/1.8889"
ROD JOURNAL DIA.	1.7701/1.7706"	1.5730/1.5738"	1.5729/1.5737"
VALVE TRAIN			
LIFTERS	LIFD27		
ROCKER ARMS		RAD24	
INTAKE VALVE	IVD27	IVD24L	IVD48L
EXHAUST VALVE	EVD27	EVD24L	
VALVE GUIDE	VGD27	VGD24	
VALVE SEALS	VSSD27	VSSD24	VSSD48
WATER PUMP & TIMING			
TIMING BELT	TBD27	TBD24	
TENSIONERS	BTD27	BTD24	

NISSAN

MODEL	Versa	Versa Note	Versa
ENGINE CODE	HR16DE	HR16DE	HR16DE
DISPLACEMENT	1598cc(97.5")	1598cc(97.5")	1598cc(97.5")
YEARS	2018-2019	2017-2019	2012-2017
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	78mm(3.071")	78mm(3.071")	78mm(3.071")
STROKE	83.6mm(3.29")	83.6mm(3.29")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.8881/1.8889"	1.8881/1.8889"	1.8881/1.8889"
ROD JOURNAL DIA.	1.5729/1.5737"	1.5729/1.5737"	1.5729/1.5737"
BEARING SETS			
MAIN BEARING SET	MBD48	MBD48	MBD48
ROD BEARING SET	RBD48	RBD48	RBD48
THRUST WASHER SET	TWD48	TWD48	TWD48
GASKETS			
FULL GASKET SET			CGSD50
HEAD GASKET SET			HSD50
CONVERSION SET			CBSD50
HEAD BOLT SET	HBD48	HBD48	HBD48
PISTONS, RINGS, PLUGS			
PISTONS	PAD50	PAD50	PAD50
RING SETS	RSD48	RSD48	RSD48
OIL PUMP			
NEW OIL PUMP	OPD50	OPD50	OPD50

MODEL	Versa	Versa Note	Versa
ENGINE CODE	**HR16DE**	**HR16DE**	**HR16DE**
DISPLACEMENT	**1598cc(97.5")**	**1598cc(97.5")**	**1598cc(97.5")**
YEARS	**2018-2019**	**2017-2019**	**2012-2017**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	78mm(3.071")	78mm(3.071")	78mm(3.071")
STROKE	83.6mm(3.29")	83.6mm(3.29")	83.6mm(3.29")
MAIN JOURNAL DIA.	1.8881/1.8889"	1.8881/1.8889"	1.8881/1.8889"
ROD JOURNAL DIA.	1.5729/1.5737"	1.5729/1.5737"	1.5729/1.5737"
VALVE TRAIN			
INTAKE VALVE	IVD48L	IVD48L	IVD48L
EXHAUST VALVE	EVD48	EVD48	EVD48
INTAKE GUIDE	IVGD48	IVGD48	
EXHAUST GUIDE	EVGD48	EVGD48	
VALVE SEALS	VSSD48	VSSD48	VSSD48
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKD50❶	CTKD50❶	CTKD50❶

❶ (Cam Sprockets not included)

NISSAN

MODEL	Versa Note	Versa	SENTRA SR Turbo
ENGINE CODE	**HR16DE**	**HR16DE**	**MR16DDT**
DISPLACEMENT	**1598cc(97.5")**	**1598cc(97.5")**	**1618cc(98.7")**
YEARS	**2014-2016**	**2009-2011**	**2017-2019**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo
BORE	78mm(3.071")	78mm(3.071")	79.7mm(3.138")
STROKE	83.6mm(3.29")	83.6mm(3.29")	81.1mm(3.19")
MAIN JOURNAL DIA.	1.8881/1.8889"	1.8881/1.8889"	
ROD JOURNAL DIA.	1.5729/1.5737"	1.5729/1.5737"	
BEARING SETS			
MAIN BEARING SET	MBD48	MBD48	
ROD BEARING SET	RBD48	RBD48	
THRUST WASHER SET	TWD48	TWD48	TWD43
GASKETS			
FULL GASKET SET	CGSD50	CGSD48	
HEAD GASKET SET	HSD50	HSD48	
CONVERSION SET	CBSD50	CBSD48	
HEAD BOLT SET	HBD48	HBD48	
PISTONS, RINGS, PLUGS			
PISTONS	PAD50	PAD48	
RING SETS	RSD48	RSD48	
OIL PUMP			
NEW OIL PUMP	OPD50		OPD50

MODEL	Versa Note	Versa	SENTRA SR Turbo
ENGINE CODE	HR16DE	HR16DE	MR16DDT
DISPLACEMENT	1598cc(97.5")	1598cc(97.5")	1618cc(98.7")
YEARS	2014-2016	2009-2011	2017-2019
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo
BORE	78mm(3.071")	78mm(3.071")	79.7mm(3.138")
STROKE	83.6mm(3.29")	83.6mm(3.29")	81.1mm(3.19")
MAIN JOURNAL DIA.	1.8881/1.8889"	1.8881/1.8889"	
ROD JOURNAL DIA.	1.5729/1.5737"	1.5729/1.5737"	
VALVE TRAIN			
INTAKE VALVE	IVD48L	IVD48	
EXHAUST VALVE	EVD48	EVD48	
VALVE GUIDE			VGD44
VALVE SEALS	VSSD48	VSSD48	VSSD29
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKD50❶	CTKD48 (2009-10 only)	

❶ (Cam Sprockets not included)

NISSAN

MODEL	Juke Juke Nismo RS	SENTRA	CUBE
ENGINE CODE	**MR16DDT**	**QG18DE**	**MR18DE**
DISPLACEMENT	**1618cc(98.7")**	**1769cc(107.9")**	**1798cc**
YEARS	**2011-2017**	**2000-2006**	**2009-2014**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	79.7mm(3.138")	80mm(3.149")	84mm(3.307")
STROKE	81.1mm(3.19")	88mm(3.46")	81.1mm(3.19")
MAIN JOURNAL DIA.		1.9661/1.9671"	2.0464"
ROD JOURNAL DIA.		1.5730/1.5738"	1.7300"
ENGINE KITS			
PLATINUM KIT		EKD39P	
GOLD KIT		EKD39G	
SILVER KIT		EKD39S	
BRONZE KITS		EKD39B	
MAJOR KIT		EKD39M	EKD43M
RE-RING KIT		EKD39R	EKD43R
ULTRA KIT		EKD39U	
BEARING SETS			
MAIN BEARING SET		MBD39	MBD43
ROD BEARING SET		RBD24	RBD43
THRUST WASHER SET	TWD43	TWD25	TWD43
GASKETS			
FULL GASKET SET		CGSD39	CGSD43
HEAD GASKET SET		HSD39	HSD43
HEAD GASKETS		HDGD39	HDGD43
CONVERSION SET		CBSD39	CBSD43
HEAD BOLT SET		HBD39	HBD43
PISTONS, RINGS, PLUGS			
PISTONS		PAD39	PAD43
RING SETS		RSD39	RSD43
PIN BUSHINGS		PBD25	PBTO39
CRANKSHAFT & RODS			
CONNECTING ROD		CRD29	CRD43
OIL PUMP			
NEW OIL PUMP	OPD50	OPD39	OPD43

MODEL	Juke Juke Nismo RS	SENTRA	CUBE
ENGINE CODE	**MR16DDT**	**QG18DE**	**MR18DE**
DISPLACEMENT	**1618cc(98.7")**	**1769cc(107.9")**	**1798cc**
YEARS	**2011-2017**	**2000-2006**	**2009-2014**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	79.7mm(3.138")	80mm(3.149")	84mm(3.307")
STROKE	81.1mm(3.19")	88mm(3.46")	81.1mm(3.19")
MAIN JOURNAL DIA.		1.9661/1.9671"	2.0464"
ROD JOURNAL DIA.		1.5730/1.5738"	1.7300"
VALVE TRAIN			
LIFTERS		LIFD29	
INTAKE VALVE		IVD29	IVD44
EXHAUST VALVE		EVD37	EVD44
VALVE GUIDE	VGD44	IVGD29 (int.) EVGD29 (ex.)	VGD44
VALVE SEALS	VSSD29	VSSD29	VSSD29
WATER PUMP & TIMING			
WATER PUMP		WPD39	
TIMING CHAIN KIT	CTKD49 (2011-13 only)	CTKD39	
GEARLESS TIMING KIT		PTKD39	

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MODEL	Versa	SENTRA	PULSAR SE
ENGINE CODE	MR18DE	MRA8DE	CA18DE
DISPLACEMENT	1798cc	1798cc(109.7")	1809cc(110.4")
YEARS	2007-2012	2013-2019	1988-1989
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	84mm(3.307")	79.7mm(3.138")	83mm(3.268"
STROKE	81.1mm(3.19")	90.1mm(3.55")	83.6mm(3.29")
MAIN JOURNAL DIA.	2.0464"	2.0456"/2.0464"	2.0848/2.0853"
ROD JOURNAL DIA.	1.7300"	1.7304/1.7311"	1.7701/1.7706"
ENGINE KITS			
GOLD KIT	EKD43G		
MAJOR KIT	EKD43M		
RE-RING KIT	EKD43R		EKD27LR
BEARING SETS			
MAIN BEARING SET	MBD43	MBD49	MBD10
ROD BEARING SET	RBD43	RBD43	RBD10
THRUST WASHER SET	TWD43	TWD43	
GASKETS			
FULL GASKET SET	CGSD43	CGSD49	CGSD27L
HEAD GASKET SET	HSD43	HSD49	HSD27L
HEAD GASKETS	HDGD43		HDGD27L
CONVERSION SET	CBSD43	CBSD49	CBSD27
HEAD BOLT SET	HBD43	HBD43	HBD27
PISTONS, RINGS, PLUGS			
PISTONS	PAD43	PAD49	
RING SETS	RSD43	RSD49	RSD27L
PIN BUSHINGS	PBTO39		PBD27
FREEZE PLUG SET			EPSD10
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSD27
CONNECTING ROD	CRD43		CRD27
OIL PUMP			
NEW OIL PUMP	OPD43	OPD49	

MODEL	Versa	SENTRA	PULSAR SE
ENGINE CODE	**MR18DE**	**MRA8DE**	**CA18DE**
DISPLACEMENT	**1798cc**	**1798cc(109.7")**	**1809cc(110.4")**
YEARS	**2007-2012**	**2013-2019**	**1988-1989**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	84mm(3.307")	79.7mm(3.138")	83mm(3.268"
STROKE	81.1mm(3.19")	90.1mm(3.55")	83.6mm(3.29")
MAIN JOURNAL DIA.	2.0464"	2.0456"/2.0464"	2.0848/2.0853"
ROD JOURNAL DIA.	1.7300"	1.7304/1.7311"	1.7701/1.7706"
VALVE TRAIN			
LIFTERS			LIFD27
INTAKE VALVE	IVD44	IVD49	IVD27L
EXHAUST VALVE	EVD44	EVD49	EVD27
VALVE GUIDE	VGD44	VGD44	VGD27
VALVE SEALS	VSSD29	VSSD29	VSSD27
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKD43	CTKD49❶	
GEARLESS TIMING KIT	PTKD43		
TIMING BELT			TBD27
TENSIONERS			BTD27

❶ (Cam Sprockets not included)

NISSAN

MODEL	200SX TURBO	PICKUP	200SX 510
ENGINE CODE	**CA18ET**	**Z20**	**Z20S/Z20E**
DISPLACEMENT	**1809cc(110.4")**	**1952cc(119.1")**	**1952cc(119.1")**
YEARS	**1984-1986**	**1983-1986**	**1980-1981**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4
BORE	83mm(3.268"	85mm(3.346")	85mm(3.346")
STROKE	83.6mm(3.29")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0848/2.0853"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.7701/1.7706"	1.9670/1.9675"	1.9670/1.9675"
ENGINE KITS			
RE-RING KIT	EKD11TR	EKD15R	EKD15R
BEARING SETS			
MAIN BEARING SET	MBD10	MBD13	MBD13
ROD BEARING SET	RBD10	RBD13	RBD13
GASKETS			
FULL GASKET SET	CGSD11T	CGSD15	CGSD15
HEAD GASKET SET	HSD11T	HSD15	HSD15
CONVERSION SET	CBSD10	CBSD16	CBSD16
PISTONS, RINGS, PLUGS			
RING SETS	RSD27L	RSD15	RSD15
FREEZE PLUG SET	EPSD10	EPSD15	EPSD15
CRANKSHAFT & RODS			
CONNECTING ROD	CRD11T	CRD15	
OIL PUMP			
NEW OIL PUMP	OPD10❶ OPD11T (auto trans.)	OPD3	OPD3

❶ (manual trans.)

MODEL	200SX TURBO	PICKUP	200SX 510
ENGINE CODE	**CA18ET**	**Z20**	**Z20S/Z20E**
DISPLACEMENT	**1809cc(110.4")**	**1952cc(119.1")**	**1952cc(119.1")**
YEARS	**1984-1986**	**1983-1986**	**1980-1981**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4
BORE	83mm(3.268"	85mm(3.346")	85mm(3.346")
STROKE	83.6mm(3.29")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.0848/2.0853"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.7701/1.7706"	1.9670/1.9675"	1.9670/1.9675"
VALVE TRAIN			
CAMSHAFTS	CAMD10		
ROCKER ARMS	RAD10	RAD15I (#1)	RAD15I (#1)
		RAD16E (#2)	RAD16E (#2)
ROCKER ARM SHAFTS	RASID10	RASID15	RASID15
ROCKER ARM SHAFTS	RASED10	RASED15	
INTAKE VALVE			IVD15
EXHAUST VALVE			EVD15
VALVE GUIDE	VGD10	VGD23	VGD23
VALVE SEALS	VSSD10	VSSD3	VSSD3
WATER PUMP & TIMING			
WATER PUMP			WPD18 (w/air cond.)
TIMING CHAIN KIT		CTKD15	CTKD15
TIMING BELT	TBD11T		
TENSIONERS	BTD10		

NISSAN

MODEL	PICKUP 200SX 510 610 710	STANZA SEDAN	200SX
ENGINE CODE	**L20B**	**CA20E**	**CA20E**
DISPLACEMENT	**1952cc(119.1")**	**1974cc(120.4")**	**1974cc(120.4")**
YEARS	**1974-1979**	**1986-1989**	**1986-1988**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	85mm(3.346")	84.5mm(3.327")	84.5mm(3.327")
STROKE	86mm(3.39")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.0848/2.0853"	2.0848/2.0853"
ROD JOURNAL DIA.	1.9670/1.9675"	1.7701/1.7706"	1.7701/1.7706"
ENGINE KITS			
MAJOR KIT		EKD10LBM	EKD10M
RE-RING KIT		EKD10LR (4mm oil ring) EKD10LBR (2.8mm ring)	EKD10R
BEARING SETS			
MAIN BEARING SET	MBD13	MBD10	MBD10
ROD BEARING SET	RBD13	RBD10	RBD10
GASKETS			
FULL GASKET SET		CGSD10L	CGSD10
HEAD GASKET SET		HSD10L	HSD10
HEAD GASKETS	HDGD13L	HDGD10	HDGD10
CONVERSION SET	CBSD16	CBSD10	CBSD10
PISTONS, RINGS, PLUGS			
PISTONS		PAD10	PAD10
RING SETS	RSD13	RSD10 (4mm oil ring) RSD10L❶	RSD10
FREEZE PLUG SET	EPSD15	EPSD10	EPSD10
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSD10	CSD10
CONNECTING ROD		CRD10	CRD10
OIL PUMP			
NEW OIL PUMP	OPD3		

❶ (2.8mm oil ring)

MODEL	PICKUP 200SX 510 610 710	STANZA SEDAN	200SX
ENGINE CODE	**L20B**	**CA20E**	**CA20E**
DISPLACEMENT	**1952cc(119.1")**	**1974cc(120.4")**	**1974cc(120.4")**
YEARS	**1974-1979**	**1986-1989**	**1986-1988**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	85mm(3.346")	84.5mm(3.327")	84.5mm(3.327")
STROKE	86mm(3.39")	88mm(3.46")	88mm(3.46")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.0848/2.0853"	2.0848/2.0853"
ROD JOURNAL DIA.	1.9670/1.9675"	1.7701/1.7706"	1.7701/1.7706"
VALVE TRAIN			
CAMSHAFTS		CAMD10H	CAMD10H
LIFTERS		LIFD10H	LIFD10H
ROCKER ARMS		RAD10H	RAD10H
INTAKE VALVE	IVD14	IVD10H	IVD10H
EXHAUST VALVE	EVD14	EVD10	EVD10
VALVE GUIDE	VGD3	VGD10	VGD10
VALVE SEALS	VSSD3	VSSD10	VSSD10
WATER PUMP & TIMING			
WATER PUMP	WPD18 (w/air cond.)		
TIMING CHAIN KIT	CTKD13		
TIMING BELT		TBD10	TBD10
TENSIONERS		BTD10	BTD10

NISSAN

MODEL	200SX (84-86) STANZA (84-85) STANZA WAGON	STANZA	SENTRA
ENGINE CODE	**CA20E**	**CA20S**	**MR20DE**
DISPLACEMENT	**1974cc(120.4")**	**1974cc(120.4")**	**1995cc(121.7")**
YEARS	**1984-1986**	**1982-1983**	**2007-2012**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.
BORE	84.5mm(3.327")	84.5mm(3.327")	84mm(3.307")
STROKE	88mm(3.46")	88mm(3.46")	90.1mm(3.55")
MAIN JOURNAL DIA.	2.0848/2.0853"	2.0848/2.0853"	2.0464"
ROD JOURNAL DIA.	1.7701/1.7706"	1.7701/1.7706"	1.7300"
ENGINE KITS			
GOLD KIT	EKD10G❶ EKD10AG (auto trans.)	EKD10G	EKD44G
MAJOR KIT	EKD10M	EKD10M	EKD44M
RE-RING KIT	EKD10R	EKD10R	EKD43R
BEARING SETS			
MAIN BEARING SET	MBD10	MBD10	MBD43
ROD BEARING SET	RBD10	RBD10	RBD43
THRUST WASHER SET			TWD43
GASKETS			
FULL GASKET SET	CGSD10	CGSD10	CGSD43
HEAD GASKET SET	HSD10	HSD10	HSD43
HEAD GASKETS	HDGD10	HDGD10	HDGD43
CONVERSION SET	CBSD10	CBSD10	CBSD43
HEAD BOLT SET			HBD43
PISTONS, RINGS, PLUGS			
PISTONS	PAD10	PAD10	PAD44
RING SETS	RSD10	RSD10	RSD43
PIN BUSHINGS			PBTO39
FREEZE PLUG SET	EPSD10	EPSD10	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSD10	CSD10	
CONNECTING ROD	CRD10	CRD10	-
OIL PUMP			
NEW OIL PUMP	OPD10❶ OPD11T (auto trans.)	OPD10	

❶ (manual trans.)

MODEL	200SX (84-86) STANZA (84-85) STANZA WAGON	STANZA	SENTRA
ENGINE CODE	**CA20E**	**CA20S**	**MR20DE**
DISPLACEMENT	**1974cc(120.4")**	**1974cc(120.4")**	**1995cc(121.7")**
YEARS	**1984-1986**	**1982-1983**	**2007-2012**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.
BORE	84.5mm(3.327")	84.5mm(3.327")	84mm(3.307")
STROKE	88mm(3.46")	88mm(3.46")	90.1mm(3.55")
MAIN JOURNAL DIA.	2.0848/2.0853"	2.0848/2.0853"	2.0464"
ROD JOURNAL DIA.	1.7701/1.7706"	1.7701/1.7706"	1.7300"
VALVE TRAIN			
CAMSHAFTS	CAMD10	CAMD10❶	
ROCKER ARMS	RAD10	RAD10	
ROCKER ARM SHAFTS	RASID10	RASID10	
ROCKER ARM SHAFTS	RASED10	RASED10	
INTAKE VALVE	IVD10H	IVD10	IVD44
EXHAUST VALVE	EVD10	EVD10	EVD44
VALVE GUIDE	VGD10	VGD10	VGD44
VALVE SEALS	VSSD10	VSSD10	VSSD29
WATER PUMP & TIMING			
TIMING CHAIN KIT			CTKD43
GEARLESS TIMING KIT			PTKD43
TIMING BELT	TBD10	TBD10	
TENSIONERS	BTD10	BTD10	

❶ (for 1982 you must use fuel pump eccentric 13015-D0101 from the dealer)

NISSAN

MODEL	NV200	ALTIMA TURBO	SENTRA
ENGINE CODE	MR20DE	KR20DDET	MR20DD
DISPLACEMENT	1997cc(121.8")	1997cc(121.9")	1997cc(122")
YEARS	2013-2020	2019-2020	2020-2022
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. TURB	16vlv; DOHC; 4; F.INJ
BORE	84mm(3.307")	84mm(3.307")	84mm(3.307")
STROKE	90.1mm(3.55")	90.1mm(3.55")	90.1mm(3.55")
MAIN JOURNAL DIA.	2.0456"/2.0464"		
ROD JOURNAL DIA.	1.7304/1.7311"		
BEARING SETS			
MAIN BEARING SET	MBD49		
ROD BEARING SET	RBD43		
THRUST WASHER SET	TWD43		TWD43
GASKETS			
FULL GASKET SET	CGSD43		
HEAD GASKET SET	HSD43		
HEAD GASKETS	HDGD43		
CONVERSION SET	CBSD43		
HEAD BOLT SET	HBD43		
PISTONS, RINGS, PLUGS			
RING SETS	RSD43		
PIN BUSHINGS	PBTO39		PBTO39
CRANKSHAFT & RODS			
CONNECTING ROD	-		

MODEL	NV200	ALTIMA TURBO	SENTRA
ENGINE CODE	**MR20DE**	**KR20DDET**	**MR20DD**
DISPLACEMENT	**1997cc(121.8")**	**1997cc(121.9")**	**1997cc(122")**
YEARS	**2013-2020**	**2019-2020**	**2020-2022**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. TURB	16vlv; DOHC; 4; F.INJ
BORE	84mm(3.307")	84mm(3.307")	84mm(3.307")
STROKE	90.1mm(3.55")	90.1mm(3.55")	90.1mm(3.55")
MAIN JOURNAL DIA.	2.0456"/2.0464"		
ROD JOURNAL DIA.	1.7304/1.7311"		
VALVE TRAIN			
INTAKE VALVE	IVD44		
EXHAUST VALVE	EVD44		
VALVE GUIDE	VGD44		
VALVE SEALS	VSSD29		
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKD43		
GEARLESS TIMING KIT	PTKD43		

NISSAN

MODEL	ROGUE SPORT	ROGUE HYBRID	SENTRA
ENGINE CODE	**MR20DD**	**MR20DD**	**SR20DE**
DISPLACEMENT	**1997cc(122")**	**1997cc(122")**	**1998cc(121.9")**
YEARS	**2017-2020**	**2017-2019**	**2000-2001**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16vlv; DOHC; 4; F.INJ; Hybrid	16 VALVE; DOHC 4; F.INJ.
BORE	84mm(3.307")	84mm(3.307")	86mm(3.386")
STROKE	90.1mm(3.55")	90.1mm(3.55")	86mm(3.39")
MAIN JOURNAL DIA.	2.0464"	2.0464"	2.1636/2.1646"
ROD JOURNAL DIA.	1.7300"	1.7300"	1.8880/1.8887"
BEARING SETS			
MAIN BEARING SET	MBD43	MBD43	MBD30
ROD BEARING SET	RBD43	RBD43	RBD30
THRUST WASHER SET	TWD43	TWD43	TWD30
GASKETS			
CONVERSION SET	CBSD43	CBSD43	CBSD30
HEAD BOLT SET	HBD43	HBD43	HBD30
PISTONS, RINGS, PLUGS			
RING SETS			RSD40
PIN BUSHINGS	PBTO39	PBTO39	PBD30
FREEZE PLUG SET			EPSD30
CRANKSHAFT & RODS			
CONNECTING ROD	-	-	CRD30

MODEL	ROGUE SPORT	ROGUE HYBRID	SENTRA
ENGINE CODE	**MR20DD**	**MR20DD**	**SR20DE**
DISPLACEMENT	**1997cc(122")**	**1997cc(122")**	**1998cc(121.9")**
YEARS	**2017-2020**	**2017-2019**	**2000-2001**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16vlv; DOHC; 4; F.INJ; Hybrid	16 VALVE; DOHC 4; F.INJ.
BORE	84mm(3.307")	84mm(3.307")	86mm(3.386")
STROKE	90.1mm(3.55")	90.1mm(3.55")	86mm(3.39")
MAIN JOURNAL DIA.	2.0464"	2.0464"	2.1636/2.1646"
ROD JOURNAL DIA.	1.7300"	1.7300"	1.8880/1.8887"
VALVE TRAIN			
LIFTERS			LIFD30
INTAKE VALVE			IVD40
EXHAUST VALVE			EVD40
VALVE GUIDE	VGD44	VGD44	IVGD30 (int.) EVGD30 (ex.)
VALVE SEALS	VSSD29	VSSD29	VSSD27
WATER PUMP & TIMING			
WATER PUMP			WPD30
TIMING CHAIN KIT			CTKD30

NISSAN

MODEL	SENTRA (98-99) 200SX (95-98)	SENTRA NX (91-93)	200SX PICKUP
ENGINE CODE	**SR20DE**	**SR20DE**	**Z22/Z22E**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**2187cc(133.4")**
YEARS	**1995-1999**	**1991-1994**	**1981-1983**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4
BORE	86mm(3.386")	86mm(3.386")	87mm(3.425")
STROKE	86mm(3.39")	86mm(3.39")	92mm(3.63")
MAIN JOURNAL DIA.	2.1636/2.1646"	2.1636/2.1646"	2.3600/2.3606"
ROD JOURNAL DIA.	1.8880/1.8887"	1.8880/1.8887"	1.9670/1.9675"
ENGINE KITS			
PLATINUM KIT		EKD30P	
GOLD KIT		EKD30G	
SILVER KIT		EKD30S	
BRONZE KITS		EKD30B	
MAJOR KIT		EKD30M	
RE-RING KIT		EKD30R	
ULTRA KIT		EKD30U	
BEARING SETS			
MAIN BEARING SET	MBD30	MBD30	MBD13
ROD BEARING SET	RBD30	RBD30	RBD13
THRUST WASHER SET	TWD30	TWD30	
GASKETS			
FULL GASKET SET		CGSD30	
HEAD GASKET SET		HSD30	
CONVERSION SET	CBSD30	CBSD30	CBSD16
HEAD BOLT SET	HBD30	HBD30	
PISTONS, RINGS, PLUGS			
PISTONS	PAD30	PAD30	
RING SETS	RSD30	RSD30	RSD16
PIN BUSHINGS	PBD30	PBD30	
FREEZE PLUG SET	EPSD30	EPSD30	EPSD15
CRANKSHAFT & RODS			
CONNECTING ROD			CRD16
OIL PUMP			
NEW OIL PUMP	OPD30	OPD30	OPD3❶

❶ (casting #U60 model not available)

MODEL	SENTRA (98-99) 200SX (95-98)	SENTRA NX (91-93)	200SX PICKUP
ENGINE CODE	**SR20DE**	**SR20DE**	**Z22/Z22E**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**2187cc(133.4")**
YEARS	**1995-1999**	**1991-1994**	**1981-1983**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4
BORE	86mm(3.386")	86mm(3.386")	87mm(3.425")
STROKE	86mm(3.39")	86mm(3.39")	92mm(3.63")
MAIN JOURNAL DIA.	2.1636/2.1646"	2.1636/2.1646"	2.3600/2.3606"
ROD JOURNAL DIA.	1.8880/1.8887"	1.8880/1.8887"	1.9670/1.9675"
VALVE TRAIN			
INTAKE CAMSHAFT	CAMD30LI	CAMD30I	
LIFTERS	LIFD30	LIFD30	
ROCKER ARMS	RAD30	RAD30	RAD15I❶
ROCKER ARMS			RAD16E (#2 & 4 cyl)
ROCKER ARM SHAFTS			RASID15
INTAKE VALVE	IVD30	IVD30	IVD15
EXHAUST VALVE	EVD30	EVD30	EVD15
VALVE GUIDE	IVGD30 (int.) EVGD30 (ex.)	IVGD30 (int.) EVGD30 (ex.)	VGD23
VALVE SEALS	VSSD27	VSSD27	VSSD3
WATER PUMP & TIMING			
WATER PUMP	WPD30	WPD30	WPD18
TIMING CHAIN KIT	CTKD30	CTKD30	CTKD15

❶ (#1 & 3 cyl int.)

NISSAN

MODEL	FRONTIER XTERRA	ALTIMA	FRONTIER XTERRA
ENGINE CODE	**KA24DE**	**KA24DE**	**KA24DE**
DISPLACEMENT	**2389cc(145.7")**	**2389cc(145.7")**	**2389cc(145.7")**
YEARS	**2001-2004**	**2000-2001**	**1998-2000**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	96mm(3.78")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9670/1.9675"	1.9670/1.9675"
ENGINE KITS			
PLATINUM KIT	EKD36P	EKD36AP	EKD36P
GOLD KIT	EKD36G	EKD36AG	EKD36G
SILVER KIT	EKD36S	EKD36AS	EKD36S
BRONZE KITS	EKD36B	EKD36AB	EKD36B
MAJOR KIT	EKD36M	EKD36AM	EKD36M
RE-RING KIT	EKD36R	EKD36AR	EKD36R
ULTRA KIT	EKD36U	EKD36AU	EKD36U
BEARING SETS			
MAIN BEARING SET	MBD28	MBD28	MBD28
ROD BEARING SET	RBD28	RBD28	RBD28
GASKETS			
FULL GASKET SET	CGSD36	CGSD31AL	CGSD36
HEAD GASKET SET	HSD36	HSD31AL	HSD36
HEAD GASKETS	HDGD31L	HDGD31A	HDGD31L
CONVERSION SET	CBSD36	CBSD31A	CBSD36
HEAD BOLT SET	HBD31	HBD31	HBD31
PISTONS, RINGS, PLUGS			
PISTONS	PAD36	PAD36	PAD36
RING SETS	RSD36	RSD36	RSD36
PIN BUSHINGS	PBD28	PBD28	PBD28
FREEZE PLUG SET	EPSD15	EPSD15	EPSD15
OIL PUMP			
NEW OIL PUMP	OPD28P	OPD31A	OPD28P

MODEL	FRONTIER XTERRA	ALTIMA	FRONTIER XTERRA
ENGINE CODE	**KA24DE**	**KA24DE**	**KA24DE**
DISPLACEMENT	**2389cc(145.7")**	**2389cc(145.7")**	**2389cc(145.7")**
YEARS	**2001-2004**	**2000-2001**	**1998-2000**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	96mm(3.78")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9670/1.9675"	1.9670/1.9675"
VALVE TRAIN			
LIFTERS	LIFD31		LIFD31
INTAKE VALVE	IVD36	IVD36A	IVD36
EXHAUST VALVE	EVD36	EVD36A	EVD36
INTAKE GUIDE	IVGD31	IVGD31	IVGD31
EXHAUST GUIDE	EVGD31	EVGD31	EVGD31
VALVE SEALS	VSSD10	VSSD10	VSSD10
WATER PUMP & TIMING			
WATER PUMP	WPD28	WPD31A	WPD28
TIMING CHAIN KIT	CTKD36	CTKD36	CTKD36
GEARLESS TIMING KIT	PTKD36	PTKD36	PTKD36

NISSAN

MODEL	ALTIMA	240SX	PICKUP
ENGINE CODE	**KA24DE**	**KA24DE**	**KA24E**
DISPLACEMENT	**2389cc(145.7")**	**2389cc(145.7")**	**2389cc(145.7")**
YEARS	**1998-1999**	**1995-1998**	**1995-1997**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	96mm(3.78")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9670/1.9675"	1.9670/1.9675"
ENGINE KITS			
PLATINUM KIT	EKD36AP	EKD31LP	EKD28LP
GOLD KIT	EKD36AG	EKD31LG	EKD28LG
SILVER KIT	EKD36AS	EKD31LS	EKD28LS
BRONZE KITS	EKD36AB	EKD31LB	EKD28LB
MAJOR KIT	EKD36AM	EKD31LM	EKD28LM
RE-RING KIT	EKD36AR	EKD31LR	EKD28LR
ULTRA KIT	EKD36AU	EKD31LU	EKD28LU
BEARING SETS			
MAIN BEARING SET	MBD28	MBD28	MBD28
ROD BEARING SET	RBD28	RBD28	RBD28
GASKETS			
FULL GASKET SET	CGSD31AL	CGSD31L	CGSD28L
HEAD GASKET SET	HSD31AL	HSD31L	HSD28L
HEAD GASKETS	HDGD31A	HDGD31L	HDGD28
CONVERSION SET	CBSD31A	CBSD31	CBSD28
HEAD BOLT SET	HBD31	HBD31	HBD28
PISTONS, RINGS, PLUGS			
PISTONS	PAD36	PAD31	PAD28P
RING SETS	RSD36	RSD28	RSD28
PIN BUSHINGS	PBD28	PBD28	
FREEZE PLUG SET	EPSD15	EPSD15	EPSD15
OIL PUMP			
NEW OIL PUMP	OPD31A	OPD31L	OPD28P

MODEL	ALTIMA	240SX	PICKUP
ENGINE CODE	**KA24DE**	**KA24DE**	**KA24E**
DISPLACEMENT	**2389cc(145.7")**	**2389cc(145.7")**	**2389cc(145.7")**
YEARS	**1998-1999**	**1995-1998**	**1995-1997**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	96mm(3.78")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9670/1.9675"	1.9670/1.9675"
VALVE TRAIN			
LIFTERS	LIFD31	LIFD31	
FRONT INTAKE ROCKER ARM			RAD28IF (front)
REAR INTAKE ROCKER ARM			RAD28IR (rear)
ROCKER ARMS			RAD28EF (1 & 3)
			RAD28ER (2 & 4)
ROCKER ARM SHAFTS			RASID28
ROCKER ARM SHAFTS			RASED28
INTAKE VALVE	IVD36	IVD31	IVD28
EXHAUST VALVE	EVD36	EVD31	EVD28
INTAKE GUIDE	IVGD31	IVGD31	IVGD28
EXHAUST GUIDE	EVGD31	EVGD31	EVGD28
VALVE SEALS	VSSD10	VSSD10	VSSD10 (int.)
			VSSD3 (ex.)
WATER PUMP & TIMING			
WATER PUMP	WPD31A	WPD28	WPD28
TIMING CHAIN KIT	CTKD36	CTKD31	CTKD28
GEARLESS TIMING KIT	PTKD36		

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MODEL	ALTIMA	240SX	PICKUP
ENGINE CODE	**KA24DE**	**KA24DE**	**KA24E**
DISPLACEMENT	**2389cc(145.7")**	**2389cc(145.7")**	**2389cc(145.7")**
YEARS	**1993-1997**	**1991-1994**	**1990-1994**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	96mm(3.78")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9670/1.9675"	1.9670/1.9675"
ENGINE KITS			
PLATINUM KIT	EKD31AP	EKD31P	EKD28PP
GOLD KIT	EKD31AG	EKD31G	EKD28PG
SILVER KIT	EKD31AS	EKD31S	EKD28PS
BRONZE KITS	EKD31AB	EKD31B	EKD28PB
MAJOR KIT	EKD31AM	EKD31M	EKD28PM
RE-RING KIT	EKD31AR	EKD31R	EKD28R
ULTRA KIT	EKD31AU	EKD31U	EKD28PU
BEARING SETS			
MAIN BEARING SET	MBD28	MBD28	MBD28
ROD BEARING SET	RBD28	RBD28	RBD28
GASKETS			
FULL GASKET SET	CGSD31A	CGSD31	CGSD28
HEAD GASKET SET	HSD31A	HSD31	HSD28
HEAD GASKETS	HDGD31A	HDGD31	HDGD28
CONVERSION SET	CBSD31A	CBSD31	CBSD28
HEAD BOLT SET	HBD31	HBD31	HBD28
PISTONS, RINGS, PLUGS			
PISTONS	PAD31	PAD31	PAD28P
RING SETS	RSD28	RSD28	RSD28
PIN BUSHINGS	PBD28	PBD28	
FREEZE PLUG SET	EPSD15	EPSD15	EPSD15
OIL PUMP			
NEW OIL PUMP	OPD31A	OPD31	OPD28P

MODEL	ALTIMA	240SX	PICKUP
ENGINE CODE	KA24DE	KA24DE	KA24E
DISPLACEMENT	2389cc(145.7")	2389cc(145.7")	2389cc(145.7")
YEARS	1993-1997	1991-1994	1990-1994
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	96mm(3.78")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9670/1.9675"	1.9670/1.9675"
VALVE TRAIN			
INTAKE CAMSHAFT	CAMD31AI (93-96)		
LIFTERS	LIFD31	LIFD31	
FRONT INTAKE ROCKER ARM			RAD28IF
REAR INTAKE ROCKER ARM			RAD28IR
ROCKER ARMS			RAD28EF
			RAD28ER
ROCKER ARM SHAFTS			RASID28
ROCKER ARM SHAFTS			RASED28
INTAKE VALVE	IVD31	IVD31	IVD28
EXHAUST VALVE	EVD31	EVD31	EVD28
VALVE GUIDE			IVGD28 (int)
			EVGD28 (ex)
INTAKE GUIDE	IVGD31	IVGD31	
EXHAUST GUIDE	EVGD31	EVGD31	
VALVE SEALS	VSSD10	VSSD10	VSSD10 (int)
			VSSD3 (ex)
WATER PUMP & TIMING			
WATER PUMP	WPD31A	WPD28	WPD28
TIMING CHAIN KIT	CTKD31A	CTKD31	CTKD28

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MODEL	STANZA AXXESS	240SX	PICKUP PATHFINDER CARGOVAN
ENGINE CODE	**KA24E**	**KA24E**	**Z24/Z24i**
DISPLACEMENT	**2389cc(145.7")**	**2389cc(145.7")**	**2389cc(145.7")**
YEARS	**1990-1992**	**1989-1990**	**1984-1989**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	96mm(3.78")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9670/1.9675"	1.9670/1.9675"
ENGINE KITS			
PLATINUM KIT	EKD28SP	EKD28P	EKD18P
GOLD KIT	EKD28SG	EKD28G	EKD18G
SILVER KIT	EKD28S	EKD28S	EKD18S
BRONZE KITS		EKD28B	EKD18B
MAJOR KIT	EKD28M	EKD28M	EKD18M
RE-RING KIT	EKD28R	EKD28R	EKD18LR (2mm top ring) EKD18R❶
ULTRA KIT		EKD28U	EKD18U
BEARING SETS			
MAIN BEARING SET	MBD28	MBD28	MBD13
ROD BEARING SET	RBD28	RBD28	RBD13
GASKETS			
FULL GASKET SET	CGSD28	CGSD28	CGSD18
HEAD GASKET SET	HSD28	HSD28	HSD18
HEAD GASKETS	HDGD28	HDGD28	HDGD18
CONVERSION SET	CBSD28	CBSD28	CBSD16
HEAD BOLT SET	HBD28	HBD28	
PISTONS, RINGS, PLUGS			
PISTONS	PAD28	PAD28	PAD18
RING SETS	RSD28	RSD28	RSD18L (2mm top ring) RSD18❶
PIN BUSHINGS	PBD28	PBD28	
FREEZE PLUG SET	EPSD15	EPSD15	EPSD15
OIL PUMP			
NEW OIL PUMP	OPD28	OPD28P	OPD3

❶ (1.5mm top ring)

MODEL	STANZA AXXESS	240SX	PICKUP PATHFINDER CARGOVAN
ENGINE CODE	**KA24E**	**KA24E**	**Z24/Z24i**
DISPLACEMENT	**2389cc(145.7")**	**2389cc(145.7")**	**2389cc(145.7")**
YEARS	**1990-1992**	**1989-1990**	**1984-1989**
DESCRIPTION	12 VALVE; SOHC 4; F.INJ.	12 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	96mm(3.78")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.3600/2.3606"	2.3600/2.3606"	2.3600/2.3606"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9670/1.9675"	1.9670/1.9675"
VALVE TRAIN			
ROCKER ARMS			RAD15I❶
FRONT INTAKE ROCKER ARM	RAD28IF	RAD28IF	
REAR INTAKE ROCKER ARM	RAD28IR	RAD28IR	
ROCKER ARMS	RAD28EF	RAD28EF	RAD16E❷
	RAD28ER	RAD28ER	
ROCKER ARM SHAFTS	RASID28	RASID28	RASID15
ROCKER ARM SHAFTS	RASED28	RASED28	RASED15
INTAKE VALVE	IVD28	IVD28	IVD15
EXHAUST VALVE	EVD28	EVD28	EVD15
VALVE GUIDE			VGD23
INTAKE GUIDE	IVGD28	IVGD28	
EXHAUST GUIDE	EVGD28	EVGD28	
VALVE SEALS	VSSD10 (int.)	VSSD10 (int.)	VSSD3
	VSSD3 (ex.)	VSSD3 (ex.)	
WATER PUMP & TIMING			
WATER PUMP		WPD28	WPD18
TIMING CHAIN KIT	CTKD28	CTKD28	CTKD18❸

❶ (#1 & 3 cyl int.)
❷ (#2 & 4 cyl ex.)
❸ (double row kit replacement for single row applications)

NISSAN

MODEL	ALTIMA	ROGUE	FRONTIER
ENGINE CODE	**PR25DD**	**QR25DE**	**QR25DE**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2019-2020**	**2014-2020**	**2005-2019**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	88.9mm(3.50")	89mm(3.504")	89mm(3.504")
STROKE	100.1mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.1636/2.1645"	2.1636/2.1645"	2.1636/2.1645"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7699/1.7706"
ENGINE KITS			
SILVER KIT			EKD42FS
MAJOR KIT			EKD42FM
RE-RING KIT			EKD42FR
BEARING SETS			
MAIN BEARING SET	MBD42L	MBD42L	MBD42
ROD BEARING SET	RBD42	RBD42	RBD42
THRUST WASHER SET	TWD42	TWD42	TWD42
INTERMEDIATE SET	ISBD42	ISBD42	
GASKETS			
FULL GASKET SET		CGSD42B	CGSD42F
HEAD GASKET SET		HSD42B	HSD42F
HEAD GASKETS			HDGD42F
CONVERSION SET		CBSD42	CBSD42
HEAD BOLT SET	HBD42	HBD42	HBD42
PISTONS, RINGS, PLUGS			
PISTONS		PAD42B	PAD42F
RING SETS		RSD42L	RSD42
PIN BUSHINGS	PBD42	PBD42	PBD42
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSD42 (2005-06)
CONNECTING ROD		CRD42	CRD42
OIL PUMP			
NEW OIL PUMP		OPD42B	TCD42F ❶

❶ (timing cover only)

MODEL	ALTIMA	ROGUE	FRONTIER
ENGINE CODE	**PR25DD**	**QR25DE**	**QR25DE**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2019-2020**	**2014-2020**	**2005-2019**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	88.9mm(3.50")	89mm(3.504")	89mm(3.504")
STROKE	100.1mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.1636/2.1645"	2.1636/2.1645"	2.1636/2.1645"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7699/1.7706"
VALVE TRAIN			
INTAKE VALVE		IVD42N	IVD42
EXHAUST VALVE		EVD42N	EVD42
INTAKE GUIDE		IVGD30	IVGD30
EXHAUST GUIDE			EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKD42B (2014-18 only)	CTKD42L (2005-17 only)
GEARLESS TIMING KIT			PTKD42L (2005-17 only)

NISSAN

MODEL	ALTIMA	MURANO HYBRID SUPERCHARGED	ROGUE SELECT
ENGINE CODE	**QR25DE**	**QR25DER**	**QR25DE**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2013-2018**	**2016**	**2014-2015**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16vlv; DOHC; 4; Hybrid; Super	16 VALVE; DOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.50")	89mm(3.504")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.1636/2.1645"	2.1636/2.1642"	2.1636/2.1645"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7699/1.7706"
BEARING SETS			
MAIN BEARING SET	MBD42L	MBD42L	MBD42L
ROD BEARING SET	RBD42	RBD42	RBD42
THRUST WASHER SET	TWD42	TWD42	TWD42
INTERMEDIATE SET	ISBD42	ISBD42	ISBD42
GASKETS			
FULL GASKET SET	CGSD42B		CGSD42L
HEAD GASKET SET	HSD42B		HSD42L
HEAD GASKETS		HDGD42L	HDGD42L
CONVERSION SET	CBSD42	CBSD42	CBSD42
HEAD BOLT SET	HBD42	HBD42	HBD42
PISTONS, RINGS, PLUGS			
PISTONS	PAD42B		PAD42L
RING SETS	RSD42L		RSD42L
PIN BUSHINGS	PBD42	PBD42	PBD42
CRANKSHAFT & RODS			
CONNECTING ROD	CRD42	CRD42	CRD42
OIL PUMP			
NEW OIL PUMP	OPD42B (2013-15 only)	OPD42B	OPD42R

MODEL	ALTIMA	MURANO HYBRID SUPERCHARGED	ROGUE SELECT
ENGINE CODE	**QR25DE**	**QR25DER**	**QR25DE**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2013-2018**	**2016**	**2014-2015**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16vlv; DOHC; 4; Hybrid; Super	16 VALVE; DOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.50")	89mm(3.504")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.1636/2.1645"	2.1636/2.1642"	2.1636/2.1645"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7699/1.7706"
VALVE TRAIN			
INTAKE CAMSHAFT			CAMD42AI
INTAKE VALVE	IVD42N		IVD42L
EXHAUST VALVE	EVD42N	EVD42N	EVD42L
INTAKE GUIDE	IVGD30		IVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKD42B		

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MODEL	PATHFINDER HYBRID SUPERCHARGED	ROGUE	SENTRA SE-R
ENGINE CODE	**QR25DER**	**QR25DE**	**QR25DE**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2014**	**2008-2013**	**2007-2012**
DESCRIPTION	16vlv; DOHC; 4; Hybrid; Super	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	89mm(3.50")	89mm(3.504")	89mm(3.504")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.1636/2.1642"	2.1636/2.1645"	2.1636/2.1645"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7699/1.7706"
ENGINE KITS			
PLATINUM KIT			EKD42RP
GOLD KIT			EKD42RG
SILVER KIT			EKD42RS
BRONZE KITS			EKD42RB
MAJOR KIT			EKD42LM
RE-RING KIT			EKD42LR
ULTRA KIT			EKD42RU
BEARING SETS			
MAIN BEARING SET	MBD42L	MBD42	MBD42
ROD BEARING SET	RBD42	RBD42	RBD42
THRUST WASHER SET	TWD42	TWD42	TWD42
INTERMEDIATE SET	ISBD42	ISBD42	ISBD42
GASKETS			
FULL GASKET SET		CGSD42L	CGSD42L
HEAD GASKET SET		HSD42L	HSD42L
HEAD GASKETS	HDGD42L	HDGD42L	HDGD42L
CONVERSION SET	CBSD42	CBSD42	CBSD42
HEAD BOLT SET	HBD42	HBD42	HBD42
PISTONS, RINGS, PLUGS			
PISTONS		PAD42L	PAD42L ❶
RING SETS		RSD42L	RSD42L
PIN BUSHINGS	PBD42	PBD42	PBD42
CRANKSHAFT & RODS			
CONNECTING ROD	CRD42	CRD42	CRD42
OIL PUMP			
NEW OIL PUMP	OPD42B	OPD42R	OPD42R

❶ (does not fit Spec V submodel)

MODEL	PATHFINDER HYBRID SUPERCHARGED	ROGUE	SENTRA SE-R
ENGINE CODE	**QR25DER**	**QR25DE**	**QR25DE**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2014**	**2008-2013**	**2007-2012**
DESCRIPTION	16vlv; DOHC; 4; Hybrid; Super	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	89mm(3.50")	89mm(3.504")	89mm(3.504")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.1636/2.1642"	2.1636/2.1645"	2.1636/2.1645"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7699/1.7706"
VALVE TRAIN			
CAMSHAFTS		CAMD42AI	CAMD42AI
INTAKE VALVE		IVD42L	IVD42L
EXHAUST VALVE	EVD42N	EVD42L	EVD42L
INTAKE GUIDE		IVGD30	IVGD30
EXHAUST GUIDE		EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP		WPD42	WPD42
TIMING CHAIN KIT		CTKD42L (2008-2010) CTKD42N (2011-13)	CTKD42L
GEARLESS TIMING KIT		PTKD42L (2008-2010)	PTKD42L

NISSAN

MODEL	ALTIMA	ALTIMA HYBRID	ALTIMA SENTRA SE-R X-TRAIL (05-06)
ENGINE CODE	**QR25DE**	**QR25DE**	**QR25DE**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2007-2012**	**2007-2011**	**2002-2006**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 vlv, DOHC 4; F.INJ. FHEV	16 VALVE; DOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.1636/2.1645"	2.1636/2.1645"	2.1636/2.1645"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7699/1.7706"
ENGINE KITS			
PLATINUM KIT			EKD42P
GOLD KIT	EKD42LG	EKD42LG	EKD42G
SILVER KIT			EKD42S
BRONZE KITS			EKD42B
MAJOR KIT	EKD42LM	EKD42LM	EKD42M
RE-RING KIT	EKD42LR	EKD42LR	EKD42R
ULTRA KIT			EKD42U
BEARING SETS			
MAIN BEARING SET	MBD42	MBD42	MBD42
ROD BEARING SET	RBD42	RBD42	RBD42
THRUST WASHER SET	TWD42	TWD42	TWD42
INTERMEDIATE SET	ISBD42	ISBD42	ISBD42
GASKETS			
FULL GASKET SET	CGSD42L	CGSD42L	CGSD42
HEAD GASKET SET	HSD42L	HSD42L	HSD42
HEAD GASKETS	HDGD42L	HDGD42L	HDGD42
CONVERSION SET	CBSD42	CBSD42	CBSD42
HEAD BOLT SET	HBD42	HBD42	HBD42
PISTONS, RINGS, PLUGS			
PISTONS	PAD42L	PAD42L	PAD42
RING SETS	RSD42L	RSD42L	RSD42
PIN BUSHINGS	PBD42	PBD42	PBD42
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSD42❶
CONNECTING ROD	CRD42	CRD42	CRD42
OIL PUMP			
NEW OIL PUMP	OPD42L	OPD42L	OPD42

❶ (3 bolt reluctor wheel)

MODEL	ALTIMA	ALTIMA HYBRID	ALTIMA SENTRA SE-R X-TRAIL (05-06)
ENGINE CODE	**QR25DE**	**QR25DE**	**QR25DE**
DISPLACEMENT	**2488cc(151.8")**	**2488cc(151.8")**	**2488cc(151.8")**
YEARS	**2007-2012**	**2007-2011**	**2002-2006**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 vlv, DOHC 4; F.INJ. FHEV	16 VALVE; DOHC 4; F.INJ.
BORE	89mm(3.504")	89mm(3.504")	89mm(3.504")
STROKE	100mm(3.94")	100mm(3.94")	100mm(3.94")
MAIN JOURNAL DIA.	2.1636/2.1645"	2.1636/2.1645"	2.1636/2.1645"
ROD JOURNAL DIA.	1.7699/1.7706"	1.7699/1.7706"	1.7699/1.7706"
VALVE TRAIN			
CAMSHAFTS	CAMD42AI		
INTAKE VALVE	IVD42L	IVD42L	IVD42
EXHAUST VALVE	EVD42L	EVD42L	EVD42
INTAKE GUIDE	IVGD30	IVGD30	IVGD30
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD42	WPD42	WPD42
TIMING CHAIN KIT	CTKD42L (2007-2009) CTKD42N (2010-12 only)	CTKD42L (2007-2009) CTKD42N (2010-11 only)	CTKD42
GEARLESS TIMING KIT	PTKD42L (2007-2009)	PTKD42L (2007-2009)	PTKD42

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MODEL	280ZX 280ZX TURBO	QUEST	300ZX TWIN TURBO
ENGINE CODE	**L28E**	**VG30E**	**VG30DETT**
DISPLACEMENT	**2753cc(168.0")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1981-1983**	**1996-1998**	**1990-1996**
DESCRIPTION	12 VALVE; SOHC 6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	86mm(3.386")	87mm(3.425")	87mm(3.425")
STROKE	79mm(3.11")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.1631/2.1636"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9667/1.9675"	1.9667/1.9675"
ENGINE KITS			
GOLD KIT		EKD26QLG	
BRONZE KITS		EKD26QLB	
MAJOR KIT		EKD26QM	
RE-RING KIT		EKD26QR	EKD26ZR
BEARING SETS			
MAIN BEARING SET		MBD26	MBD33
ROD BEARING SET		RBD26	RBD26
GASKETS			
FULL GASKET SET		CGSD26Q	CGSD26Z
HEAD GASKET SET		HSD26Q	HSD26Z
HEAD GASKETS		HDGD26Q	HDGD26Z
CONVERSION SET		CBSD26	CBSD26Z
HEAD BOLT SET		HBD26	
PISTONS, RINGS, PLUGS			
PISTONS		PAD26Q	
RING SETS		RSD26	RSD26
PIN BUSHINGS		PBD26	PBD33
FREEZE PLUG SET	EPSD3	EPSD26	EPSD26
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSD35	
CONNECTING ROD		CRD26L (21V casting) CRD35 (OWO casting)	CRD33
OIL PUMP			
NEW OIL PUMP	OPD3	OPD26QL	

MODEL	280ZX 280ZX TURBO	QUEST	300ZX TWIN TURBO
ENGINE CODE	**L28E**	**VG30E**	**VG30DETT**
DISPLACEMENT	**2753cc(168.0")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1981-1983**	**1996-1998**	**1990-1996**
DESCRIPTION	12 VALVE; SOHC 6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	86mm(3.386")	87mm(3.425")	87mm(3.425")
STROKE	79mm(3.11")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.1631/2.1636"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9670/1.9675"	1.9667/1.9675"	1.9667/1.9675"
VALVE TRAIN			
CAMSHAFTS		CAMD26QL CAMD26QR	
LIFTERS		LIFD26	LIFD27
ROCKER ARMS		RAD26	
INTAKE VALVE		IVD26Q	IVD26Z
EXHAUST VALVE		EVD26Q	EVD26Z
VALVE GUIDE		IVGD26 (int.) EVGD26 (ex.)	
INTAKE GUIDE			IVGD26Z
EXHAUST GUIDE			EVGD26Z
VALVE SEALS	VSSD3	VSSD10 (int.) VSSD3 (ex.)	VSSD27
WATER PUMP & TIMING			
WATER PUMP		WPD26Q	
TIMING CHAIN KIT	CTKD3		
TIMING BELT		TBD35 (round tooth)	TBD26Z
TENSIONERS		BTD26	BTD26Z (hydraulic)

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MODEL	300ZX	QUEST	PICKUP
ENGINE CODE	VG30DE	VG30E	VG30E RWD
DISPLACEMENT	2960cc(180.5")	2960cc(180.5")	2960cc(180.5")
YEARS	1990-1996	1995	1990-1995
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
ENGINE KITS			
GOLD KIT		EKD26QG	EKD26BG❶
BRONZE KITS		EKD26QB	EKD26BB❶
MAJOR KIT	EKD26ZM	EKD26QM	EKD26BM❷
RE-RING KIT	EKD26ZR	EKD26QR	EKD26BR❸
			EKD26LBR❹
BEARING SETS			
MAIN BEARING SET	MBD33	MBD26	MBD26
ROD BEARING SET	RBD26	RBD26	RBD26
GASKETS			
FULL GASKET SET	CGSD26Z	CGSD26Q	CGSD26B
HEAD GASKET SET	HSD26Z	HSD26Q	HSD26B
HEAD GASKETS	HDGD26Z	HDGD26Q	HDGD26
CONVERSION SET	CBSD26Z	CBSD26	CBSD26
HEAD BOLT SET		HBD26	HBD26
PISTONS, RINGS, PLUGS			
PISTONS	PAD26Z	PAD26Q (set of 6)	PAD26L (free float)
RING SETS	RSD26	RSD26	RSD26❺
			RSD26L❻
PIN BUSHINGS	PBD33	PBD26	PBD26
FREEZE PLUG SET	EPSD26	EPSD26	EPSD26
CRANKSHAFT & RODS			
CONNECTING ROD	CRD33	CRD26L (21V casting)	CRD26L❼
		CRD35 (OWO casting)	CRD35 (OWO casting)
OIL PUMP			
NEW OIL PUMP		OPD26QE	OPD26L (90-93 RWD)

❶ (90-93 only specify round or square tooth belts for kits)
❷ (specify round or square tooth belts for kits)
❸ (1.5mm top ring specify round or square tooth belts for kits)
❹ (2.0mm top ring specify round or square tooth belts for kits)
❺ (1.5mm top ring)
❻ (2.0mm top ring)
❼ (free floating)

MODEL	300ZX	QUEST	PICKUP
ENGINE CODE	VG30DE	VG30E	VG30E RWD
DISPLACEMENT	2960cc(180.5")	2960cc(180.5")	2960cc(180.5")
YEARS	1990-1996	1995	1990-1995
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
VALVE TRAIN			
LIFTERS	LIFD27	LIFD26	LIFD26
ROCKER ARMS		RAD26	RAD26
INTAKE VALVE	IVD26Z	IVD26Q	IVD26Q
EXHAUST VALVE	EVD26Z	EVD26Q	EVD26Q
INTAKE GUIDE	IVGD26Z	IVGD26 (int.)	IVGD26 (int.)
EXHAUST GUIDE	EVGD26Z	EVGD26 (ex.)	EVGD26 (ex.)
VALVE SEALS	VSSD27	VSSD10 (int.)	VSSD10 (int.)
		VSSD3 (ex.)	VSSD3 (ex.)
WATER PUMP & TIMING			
WATER PUMP		WPD26Q	WPD26P
TIMING BELT	TBD26Z	TBD35 (round tooth)	TBD26❶
			TBD35❷
TENSIONERS	BTD26Z (hydraulic)	BTD26	BTD26

❶ (square tooth belt)
❷ (round tooth belt)

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MODEL	PICKUP PATHFINDER	QUEST	MAXIMA
ENGINE CODE	**VG30E 4x4**	**VG30E**	**VE30DE**
DISPLACEMENT	**2960cc(180.5")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1990-1995**	**1993-1994**	**1992-1994**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
ENGINE KITS			
GOLD KIT	EKD264BG (4x4)	EKD26QEG	
BRONZE KITS	EKD264BB (4x4)	EKD26QEB	
MAJOR KIT	EKD26BM	EKD26QEM	EKD33M
RE-RING KIT	EKD26BR❶	EKD26BR	EKD33R
	EKD26LBR (2.0mm top)		
BEARING SETS			
MAIN BEARING SET	MBD26	MBD26	MBD33
ROD BEARING SET	RBD26	RBD26	RBD26
GASKETS			
FULL GASKET SET	CGSD26B	CGSD26B	CGSD33
HEAD GASKET SET	HSD26B	HSD26B	HDGD33
			HSD33
HEAD GASKETS	HDGD26	HDGD26	
CONVERSION SET	CBSD26	CBSD26	CBSD33
HEAD BOLT SET	HBD26	HBD26	
PISTONS, RINGS, PLUGS			
PISTONS	PAD26L (free float)	PAD26Q (set of 6)	PAD33
RING SETS	RSD26❶	RSD26	RSD26
	RSD26L❷		
PIN BUSHINGS	PBD26	PBD26	PBD33
FREEZE PLUG SET	EPSD26	EPSD26	EPSD26
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSD33
CONNECTING ROD	CRD26L❸	CRD26L (21V casting)	CRD33
	CRD35 (OWO casting)	CRD35 (OWO casting)	
OIL PUMP			
NEW OIL PUMP	OPD26P (4x4)	OPD26QE	

❶ (1.5mm top ring)
❷ (2.0mm top ring)
❸ (free floating)

MODEL	PICKUP PATHFINDER	QUEST	MAXIMA
ENGINE CODE	**VG30E 4x4**	**VG30E**	**VE30DE**
DISPLACEMENT	**2960cc(180.5")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1990-1995**	**1993-1994**	**1992-1994**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
VALVE TRAIN			
LIFTERS	LIFD26	LIFD26	LIFD30
ROCKER ARMS	RAD26	RAD26	RAD33
INTAKE VALVE	IVD26Q	IVD26	IVD33
EXHAUST VALVE	EVD26Q	EVD26Q	EVD33
VALVE GUIDE	IVGD26 (int.) EVGD26 (ex.)		
INTAKE GUIDE		IVGD26 (int.)	IVGD26Z
EXHAUST GUIDE		EVGD26 (ex.)	EVGD26Z
VALVE SEALS	VSSD10 (int.) VSSD3 (ex.)	VSSD10 (int.) VSSD3 (ex.)	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD26P	WPD26Q	
TIMING BELT	TBD26❶ TBD35❷	TBD26 (square tooth)	
TENSIONERS	BTD26	BTD26	

❶ (square tooth belt)
❷ (round tooth belt)

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MODEL	MAXIMA	D21 PICKUP PATHFINDER (1989)	PATHFINDER
ENGINE CODE	**VG30E**	**VG30E/VG30i**	**VG30E/VG30i**
DISPLACEMENT	**2960cc(180.5")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1989-1994**	**1988-1989**	**1987-1989**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
ENGINE KITS			
GOLD KIT	EKD26BG	EKD26LG (2WD)	EKD264G (4WD)
BRONZE KITS	EKD26BB	EKD26LB (2WD)	EKD264B (4WD)
MAJOR KIT	EKD26BM	EKD26LM	EKD26LM
RE-RING KIT	EKD26BR❶	EKD26R❶ EKD26LR❷	EKD26R❶ EKD26LR❷
BEARING SETS			
MAIN BEARING SET	MBD26	MBD26	MBD26
ROD BEARING SET	RBD26	RBD26	RBD26
GASKETS			
FULL GASKET SET	CGSD26B	CGSD26	CGSD26
HEAD GASKET SET	HSD26B	HSD26	HSD26
HEAD GASKETS	HDGD26	HDGD26	HDGD26
CONVERSION SET	CBSD26	CBSD26	CBSD26
HEAD BOLT SET	HBD26	HBD26	HBD26
PISTONS, RINGS, PLUGS			
PISTONS	PAD26L	PAD26L	PAD26L
RING SETS	RSD26❶	RSD26❶ RSD26L❷	RSD26❶ RSD26L❷
PIN BUSHINGS	PBD26	PBD26	PBD26
FREEZE PLUG SET	EPSD26	EPSD26	EPSD26
CRANKSHAFT & RODS			
CONNECTING ROD	CRD26L (21V casting) CRD35 (OWO casting)	CRD26L❸	CRD26L❸
OIL PUMP			
NEW OIL PUMP	OPD26L	OPD26L (2WD)	OPD26P (4WD)

❶ (1.5mm top ring)
❷ (2.0mm top ring)
❸ (free floating)

MODEL	MAXIMA	D21 PICKUP PATHFINDER (1989)	PATHFINDER
ENGINE CODE	**VG30E**	**VG30E/VG30i**	**VG30E/VG30i**
DISPLACEMENT	**2960cc(180.5")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1989-1994**	**1988-1989**	**1987-1989**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
VALVE TRAIN			
LIFTERS	LIFD26	LIFD26	LIFD26
ROCKER ARMS	RAD26	RAD26	RAD26
INTAKE VALVE	IVD26	IVD26	IVD26
EXHAUST VALVE	EVD26Q	EVD26Q	EVD26Q
VALVE GUIDE	IVGD26 (int.)	IVGD26 (int.)	IVGD26 (int.)
	EVGD26 (ex.)	EVGD26 (ex.)	EVGD26 (ex.)
VALVE SEALS	VSSD10 (int.)	VSSD10 (int.)	VSSD10 (int.)
	VSSD3 (ex.)	VSSD3 (ex.)	VSSD3 (ex.)
WATER PUMP & TIMING			
WATER PUMP	WPD26Q	WPD26 (2WD)	WPD26P (4WD)
TIMING BELT	TBD26	TBD26	TBD26
TENSIONERS	BTD26	BTD26	BTD26
ENGINES & HEADS			
HEAD W/VALVES		CHVD26L	CHVD26L
LEFT HEAD W/VALVES		CHVD26L	CHVD26L

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MODEL	200SX 300ZX MAXIMA	300ZX TURBO	MAXIMA
ENGINE CODE	**VG30E/VG30i**	**VG30T**	**VG30E**
DISPLACEMENT	**2960cc(180.5")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1987-1989**	**1984-1989**	**1985-1987**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12vlv; SOHC; V6; FI; Turbo	12 VALVE; SOHC V6; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
ENGINE KITS			
GOLD KIT	EKD26LG		EKD26G
BRONZE KITS	EKD26LB (200&300ZX) EKD26MLB (Maxima)		EKD26MB
MAJOR KIT	EKD26LM		EKD26M
RE-RING KIT	EKD26R❶ EKD26LR❷	EKD26BR (88-89)	EKD26R❶
BEARING SETS			
MAIN BEARING SET	MBD26	MBD26	MBD26
ROD BEARING SET	RBD26	RBD26	RBD26
GASKETS			
FULL GASKET SET	CGSD26	CGSD26B (88-89) CGSD26 (84-87)	CGSD26
HEAD GASKET SET	HSD26	HSD26B (88-89) HSD26 (84-87)	HSD26
HEAD GASKETS	HDGD26	HDGD26	HDGD26
CONVERSION SET	CBSD26	CBSD26	CBSD26
HEAD BOLT SET	HBD26	HBD26	HBD26
PISTONS, RINGS, PLUGS			
PISTONS	PAD26L		PAD26 (press fit)
RING SETS	RSD26❶ RSD26L❷	RSD26	RSD26❶
PIN BUSHINGS	PBD26	PBD26	
FREEZE PLUG SET	EPSD26	EPSD26	EPSD26
CRANKSHAFT & RODS			
CONNECTING ROD	CRD26L❸	CRD26 (press fit) CRD26L❸	CRD26 (press fit)
OIL PUMP			
NEW OIL PUMP	OPD26L		OPD26L

❶ (1.5mm top ring)
❷ (2.0mm top ring)
❸ (free floating)

MODEL	200SX 300ZX MAXIMA	300ZX TURBO	MAXIMA
ENGINE CODE	**VG30E/VG30i**	**VG30T**	**VG30E**
DISPLACEMENT	**2960cc(180.5")**	**2960cc(180.5")**	**2960cc(180.5")**
YEARS	**1987-1989**	**1984-1989**	**1985-1987**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12vlv; SOHC; V6; FI; Turbo	12 VALVE; SOHC V6; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
VALVE TRAIN			
LIFTERS	LIFD26	LIFD26	LIFD26
ROCKER ARMS	RAD26	RAD26	RAD26
INTAKE VALVE	IVD26	IVD26	IVD26
EXHAUST VALVE	EVD26Q	EVD26Q	EVD26Q
VALVE GUIDE	IVGD26 (int.)	IVGD26 (int.)	IVGD26 (int.)
	EVGD26 (ex.)	EVGD26 (ex.)	EVGD26 (ex.)
VALVE SEALS	VSSD10 (int.)	VSSD10 (int.)	VSSD10 (int.)
	VSSD3 (ex.)	VSSD3 (ex.)	VSSD3 (ex.)
WATER PUMP & TIMING			
WATER PUMP	WPD26❶	WPD26	WPD26Q
	WPD26Q (Maxima)		
TIMING BELT	TBD26	TBD26	TBD26
TENSIONERS	BTD26	BTD26	BTD26
ENGINES & HEADS			
HEAD W/VALVES	CHVD26L	CHVD26L	CHVD26L
LEFT HEAD W/VALVES	CHVD26L	CHVD26L	CHVD26L

❶ (200SX & 300ZX)

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MODEL	D21 PICKUP (86-87) 300ZX	MAXIMA	MAXIMA
ENGINE CODE	VG30	VQ30DE	VQ30DE
DISPLACEMENT	2960cc(180.5")	2988cc(182.3")	2988cc(182.3")
YEARS	1984-1987	2000-2001	1995-1999
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	87mm(3.425")	93mm(3.661")	93mm(3.661")
STROKE	83mm(3.27")	73.3mm(2.88")	73.3mm(2.88")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	1.9667/1.9675"	1.7699/1.7706"	1.7699/1.7706"
ENGINE KITS			
PLATINUM KIT		EKD34MP	EKD34P
GOLD KIT	EKD26G	EKD34MG	EKD34G
SILVER KIT		EKD34MS	EKD34S
BRONZE KITS	EKD26B	EKD34MB	EKD34B
MAJOR KIT	EKD26M	EKD34MM	EKD34M
RE-RING KIT	EKD26R❶	EKD34MR	EKD34R
ULTRA KIT		EKD34MU	EKD34U
BEARING SETS			
MAIN BEARING SET	MBD26	MBD34	MBD34
ROD BEARING SET	RBD26	RBD34	RBD34
THRUST WASHER SET		TWD34	TWD34
GASKETS			
FULL GASKET SET	CGSD26	CGSD34M❷	CGSD34❷
HEAD GASKET SET	HSD26	HSD34M	HSD34
HEAD GASKETS	HDGD26	HDGD34	HDGD34
CONVERSION SET	CBSD26	CBSD34❷	CBSD34❷
HEAD BOLT SET	HBD26		
PISTONS, RINGS, PLUGS			
PISTONS	PAD26 (press fit)	PAD34M	PAD34M
RING SETS	RSD26❶	RSD34	RSD34
PIN BUSHINGS		PBD34	PBD34
FREEZE PLUG SET	EPSD26		
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSD34	CSD34
CONNECTING ROD	CRD26 (press fit)	CRD34	CRD34
OIL PUMP			
NEW OIL PUMP	OPD26L OPD26P (4WD)	OPD34	OPD34

❶ (1.5mm top ring)

❷ (Rear Main Seal/Cover not included)

MODEL	D21 PICKUP (86-87) 300ZX	MAXIMA	MAXIMA
ENGINE CODE	**VG30**	**VQ30DE**	**VQ30DE**
DISPLACEMENT	**2960cc(180.5")**	**2988cc(182.3")**	**2988cc(182.3")**
YEARS	**1984-1987**	**2000-2001**	**1995-1999**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	87mm(3.425")	93mm(3.661")	93mm(3.661")
STROKE	83mm(3.27")	73.3mm(2.88")	73.3mm(2.88")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	1.9667/1.9675"	1.7699/1.7706"	1.7699/1.7706"
VALVE TRAIN			
LIFTERS	LIFD26	LIFD34	LIFD34
ROCKER ARMS	RAD26		
INTAKE VALVE	IVD26	IVD34	IVD34
EXHAUST VALVE	EVD26Q	EVD34	EVD34
VALVE GUIDE	IVGD26 (int.)		
	EVGD26 (ex.)		
INTAKE GUIDE		VGD27	VGD27
EXHAUST GUIDE		EVGD30	EVGD30
VALVE SEALS	VSSD10 (int.)	VSSD27	VSSD27
	VSSD3 (ex.)		
WATER PUMP & TIMING			
WATER PUMP	WPD26	WPD34	WPD34
GEARLESS TIMING KIT		PTKD34	PTKD34
TIMING BELT	TBD26		
TENSIONERS	BTD26		
ENGINES & HEADS			
HEAD W/VALVES	CHVD26L		
LEFT HEAD W/VALVES	CHVD26L		

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MODEL	FRONTIER XTERRA	QUEST	PATHFINDER
ENGINE CODE	**VG33E**	**VG33E**	**VG33E**
DISPLACEMENT	**3272cc(199.7")**	**3272cc(199.7")**	**3272cc(199.7")**
YEARS	**1999-2004**	**1999-2002**	**1996-2000**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	91.5mm(3.602")	91.5mm(3.602")	91.5mm(3.602")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
ENGINE KITS			
GOLD KIT	EKD35XG	EKD35QG	EKD35G
BRONZE KITS	EKD35XB	EKD35QB	EKD35B
MAJOR KIT	EKD35M	EKD35M	EKD35M
RE-RING KIT	EKD35R	EKD35R	EKD35R
BEARING SETS			
MAIN BEARING SET	MBD26	MBD26	MBD26
ROD BEARING SET	RBD26	RBD26	RBD26
GASKETS			
FULL GASKET SET	CGSD35Q	CGSD35Q	CGSD35
HEAD GASKET SET	HSD35Q	HSD35Q	HSD35
HEAD GASKETS	HDGD35	HDGD35	HDGD35
CONVERSION SET	CBSD35	CBSD35	CBSD35
HEAD BOLT SET	HBD26	HBD26	HBD26
PISTONS, RINGS, PLUGS			
PISTONS	PAD35❶	PAD35	PAD35
RING SETS	RSD35	RSD35	RSD35
PIN BUSHINGS	PBD26	PBD26	PBD26
FREEZE PLUG SET	EPSD26	EPSD26	EPSD26
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSD35	CSD35	CSD35
CONNECTING ROD	CRD35	CRD35	CRD35
OIL PUMP			
NEW OIL PUMP	OPD35X	OPD35X	OPD26QL

❶ (Not for super charged)

MODEL	FRONTIER XTERRA	QUEST	PATHFINDER
ENGINE CODE	**VG33E**	**VG33E**	**VG33E**
DISPLACEMENT	**3272cc(199.7")**	**3272cc(199.7")**	**3272cc(199.7")**
YEARS	**1999-2004**	**1999-2002**	**1996-2000**
DESCRIPTION	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.	12 VALVE; SOHC V6; F.INJ.
BORE	91.5mm(3.602")	91.5mm(3.602")	91.5mm(3.602")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4784/2.4793"	2.4784/2.4793"	2.4784/2.4793"
ROD JOURNAL DIA.	1.9667/1.9675"	1.9667/1.9675"	1.9667/1.9675"
VALVE TRAIN			
LIFTERS	LIFD26	LIFD26	LIFD26
ROCKER ARMS	RAD26	RAD26	RAD26
INTAKE VALVE	IVD26Q	IVD26Q	IVD26Q
EXHAUST VALVE	EVD26Q	EVD26Q	EVD26Q
VALVE GUIDE		IVGD26 (int.)	IVGD26 (int.)
		EVGD26 (ex.)	EVGD26 (ex.)
INTAKE GUIDE	IVGD26		
EXHAUST GUIDE	EVGD26		
VALVE SEALS	VSSD10 (int.)	VSSD10 (int.)	VSSD10 (int.)
	VSSD3 (ex.)	VSSD3 (ex.)	VSSD3 (ex.)
WATER PUMP & TIMING			
WATER PUMP	WPD35	WPD35Q	WPD35
TIMING BELT	TBD35	TBD35	TBD35
TENSIONERS	BTD26	BTD26	BTD26

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MODEL	PATHFINDER	MAXIMA	ALTIMA (15-18) PATHFINDER (15-16) MURANO
ENGINE CODE	**VQ35DD**	**VQ35DE**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2017-2022**	**2016-2022**	**2015-2022**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
BEARING SETS			
MAIN BEARING SET	MBD34	MBD34	MBD34
ROD BEARING SET	RBD41	RBD41	RBD41
THRUST WASHER SET	TWD34	TWD34	TWD34
GASKETS			
FULL GASKET SET	CGSD52	CGSD41A❶	CGSD41A❶
HEAD GASKET SET	HSD52	HSD41A	HSD41A
CONVERSION SET	CBSD52	CBSD34❶	CBSD34❶
PISTONS, RINGS, PLUGS			
PISTONS	PAD52		
RING SETS	RSD41A		
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CONNECTING ROD			CRD41
OIL PUMP			
NEW OIL PUMP		OPD41M	OPD41M

❶ (Rear Main Seal/Cover not included)

MODEL	PATHFINDER	MAXIMA	ALTIMA (15-18) PATHFINDER (15-16) MURANO
ENGINE CODE	**VQ35DD**	**VQ35DE**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2017-2022**	**2016-2022**	**2015-2022**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
VALVE TRAIN			
INTAKE VALVE	IVD52	IVD41HRL	IVD41HRL
EXHAUST VALVE	EVD52	EVD41HRL	EVD41HRL
INTAKE GUIDE		VGD27	VGD27
EXHAUST GUIDE		EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP		WPD41A	WPD41A
GEARLESS TIMING KIT		PTKD41M	PTKD41M

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MODEL	QUEST	MURANO QUEST	MAXIMA
ENGINE CODE	VQ35DE	VQ35DE	VQ35DE
DISPLACEMENT	3498cc(213.4")	3498cc(213.4")	3498cc(213.4")
YEARS	2015-2017	2014	2014
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
BEARING SETS			
MAIN BEARING SET	MBD34	MBD34	MBD34
ROD BEARING SET	RBD41	RBD41	RBD41
THRUST WASHER SET	TWD34	TWD34	TWD34
GASKETS			
FULL GASKET SET	CGSD41A❶	CGSD41A❶	CGSD41A❶
HEAD GASKET SET	HSD41A	HSD41A	HSD41A
CONVERSION SET	CBSD34❶	CBSD34❶	CBSD34❶
PISTONS, RINGS, PLUGS			
PISTONS		PAD41A	PAD41A
RING SETS		RSD41A	RSD41A
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CONNECTING ROD	CRD41	CRD41	CRD41
OIL PUMP			
NEW OIL PUMP	OPD41M	OPD41	OPD41

❶ (Rear Main Seal/Cover not included)

MODEL	QUEST	MURANO QUEST	MAXIMA
ENGINE CODE	**VQ35DE**	**VQ35DE**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2015-2017**	**2014**	**2014**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
VALVE TRAIN			
INTAKE VALVE		IVD41HR	IVD41HR
EXHAUST VALVE	EVD41HRL	EVD41HR	EVD41HR
INTAKE GUIDE	VGD27	VGD27	VGD27
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD41A	WPD41A	WPD41A
TIMING CHAIN KIT			CTKD41M
GEARLESS TIMING KIT	PTKD41M		PTKD41M

NISSAN

MODEL	ALTIMA PATHFINDER (13-14)	QUEST	MAXIMA
ENGINE CODE	**VQ35DE**	**VQ35DE**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2007-2014**	**2011-2013**	**2009-2013**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
BEARING SETS			
MAIN BEARING SET	MBD34	MBD34	MBD34
ROD BEARING SET	RBD41	RBD41	RBD41
THRUST WASHER SET	TWD34	TWD34	TWD34
GASKETS			
FULL GASKET SET	CGSD41A❶	CGSD41A❶	CGSD41A❶
HEAD GASKET SET	HSD41A	HSD41A	HSD41A
CONVERSION SET	CBSD34❶	CBSD34❶	CBSD34❶
PISTONS, RINGS, PLUGS			
PISTONS	PAD41A	PAD41A	PAD41A
RING SETS	RSD41A	RSD41A	RSD41A
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CONNECTING ROD	CRD41	CRD41	CRD41
OIL PUMP			
NEW OIL PUMP	OPD41	OPD41	OPD41

❶ (Rear Main Seal/Cover not included)

MODEL	ALTIMA PATHFINDER (13-14)	QUEST	MAXIMA
ENGINE CODE	**VQ35DE**	**VQ35DE**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2007-2014**	**2011-2013**	**2009-2013**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
VALVE TRAIN			
INTAKE VALVE	IVD41HR (thru 06/2013) IVD41HRL (from 07/2013)	IVD41HR	IVD41HR
EXHAUST VALVE	EVD41HR (thru 06/2013) EVD41HRL (from 07/2013)	EVD41HR	EVD41HR
INTAKE GUIDE	VGD27	VGD27	VGD27
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD41A	WPD41A	WPD41A
TIMING CHAIN KIT	CTKD41M❶		CTKD41M
GEARLESS TIMING KIT	PTKD41M		PTKD41M

❶ (ex cam gears not included)

NISSAN

MODEL	MURANO	350Z	ALTIMA (02-06) MAXIMA (04-08) QUEST (04-09)
ENGINE CODE	**VQ35DE**	**VQ35HR**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2009-2013**	**2007-2009**	**2002-2009**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.5571"/2.5581"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.1242"/2.1250"	2.0455/2.0462"
ENGINE KITS			
GOLD KIT			EKD41MG
MAJOR KIT			EKD41MM
RE-RING KIT			EKD41MR
BEARING SETS			
MAIN BEARING SET	MBD34	MBD41HR	MBD34
ROD BEARING SET	RBD41	RBD41HR	RBD41
THRUST WASHER SET	TWD34	TWD41HR	TWD34
GASKETS			
FULL GASKET SET	CGSD41A❶		CGSD41M❶
HEAD GASKET SET	HSD41A		HSD41M
HEAD GASKETS			HDGD41M (set of 2)
CONVERSION SET	CBSD34❶	CBSD34❶	CBSD34❶
PISTONS, RINGS, PLUGS			
PISTONS	PAD41A		PAD41
RING SETS	RSD41A	RSD41HR	RSD41
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CONNECTING ROD	CRD41		
OIL PUMP			
NEW OIL PUMP	OPD41	OPD41HR	OPD41

❶ (Rear Main Seal/Cover not included)

MODEL	MURANO	350Z	ALTIMA (02-06) MAXIMA (04-08) QUEST (04-09)
ENGINE CODE	**VQ35DE**	**VQ35HR**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2009-2013**	**2007-2009**	**2002-2009**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.5571"/2.5581"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.1242"/2.1250"	2.0455/2.0462"
VALVE TRAIN			
INTAKE VALVE	IVD41HR	IVD41HR	IVD41
EXHAUST VALVE	EVD41HR	EVD41HR	EVD41
INTAKE GUIDE	VGD27	VGD27	VGD27
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD41A		WPD41
TIMING CHAIN KIT	CTKD41M (2009 only)		CTKD41S
GEARLESS TIMING KIT	PTKD41M (2009 only)		PTKD41S

NISSAN

MODEL	MAXIMA (02-03) MURANO (03-07)	350Z	PATHFINDER
ENGINE CODE	**VQ35DE**	**VQ35DE**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2002-2007**	**2003-2006**	**2001-2004**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
ENGINE KITS			
GOLD KIT	EKD41MG	EKD41ZG	EKD41PG
MAJOR KIT	EKD41MM	EKD41ZM	EKD41PM
RE-RING KIT	EKD41MR	EKD41ZR	EKD41PR
BEARING SETS			
MAIN BEARING SET	MBD34	MBD34	MBD34
ROD BEARING SET	RBD41	RBD41	RBD41
THRUST WASHER SET	TWD34	TWD34	TWD34
GASKETS			
FULL GASKET SET	CGSD41M❶	CGSD41Z❶	CGSD41P❶
HEAD GASKET SET	HSD41M	HSD41Z	HSD41P
HEAD GASKETS	HDGD41M (set of 2)		HDGD41P (pair)
CONVERSION SET	CBSD34❶	CBSD34❶	CBSD34❶
PISTONS, RINGS, PLUGS			
PISTONS	PAD41	PAD41	PAD41P
RING SETS	RSD41	RSD41	RSD41
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CONNECTING ROD		CRD41	
OIL PUMP			
NEW OIL PUMP	OPD41	OPD41	OPD41

❶ (Rear Main Seal/Cover not included)

MODEL	MAXIMA (02-03) MURANO (03-07)	350Z	PATHFINDER
ENGINE CODE	**VQ35DE**	**VQ35DE**	**VQ35DE**
DISPLACEMENT	**3498cc(213.4")**	**3498cc(213.4")**	**3498cc(213.4")**
YEARS	**2002-2007**	**2003-2006**	**2001-2004**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	81.5mm(3.21")	81.5mm(3.21")	81.5mm(3.21")
MAIN JOURNAL DIA.	2.3603/2.3612"	2.3603/2.3612"	2.3603/2.3612"
ROD JOURNAL DIA.	2.0455/2.0462"	2.0455/2.0462"	2.0455/2.0462"
VALVE TRAIN			
INTAKE VALVE	IVD41	IVD41	IVD41
EXHAUST VALVE	EVD41	EVD41	EVD41
INTAKE GUIDE	VGD27	VGD27	VGD27
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD41	WPD41	WPD34
TIMING CHAIN KIT	CTKD41A	CTKD41A	CTKD41R
GEARLESS TIMING KIT	PTKD41A	PTKD41A	

NISSAN

MODEL	370Z	FRONTIER	GT-R
ENGINE CODE	**VQ37VHR**	**VQ38DD**	**VR38DETT**
DISPLACEMENT	**3696cc(225.5")**	**3779cc**	**3799cc**
YEARS	**2009-2020**	**2020-2022**	**2009-2021**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	86mm(3.39")	88.4mm(3.48")	88.4mm(3.48")
MAIN JOURNAL DIA.	2.5571"/2.5581"		
ROD JOURNAL DIA.	2.1242"/2.1250"		
BEARING SETS			
MAIN BEARING SET	MBD41HR		
ROD BEARING SET	RBD41HR		
THRUST WASHER SET	TWD41HR		
PISTONS, RINGS, PLUGS			
RING SETS	RSD41HR		
PIN BUSHINGS	PBD34		
OIL PUMP			
NEW OIL PUMP	OPD41HR		

MODEL	370Z	FRONTIER	GT-R
ENGINE CODE	**VQ37VHR**	**VQ38DD**	**VR38DETT**
DISPLACEMENT	**3696cc(225.5")**	**3779cc**	**3799cc**
YEARS	**2009-2020**	**2020-2022**	**2009-2021**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	86mm(3.39")	88.4mm(3.48")	88.4mm(3.48")
MAIN JOURNAL DIA.	2.5571"/2.5581"		
ROD JOURNAL DIA.	2.1242"/2.1250"		
VALVE TRAIN			
EXHAUST VALVE	EVD41HR		
EXHAUST GUIDE	EVGD30		
VALVE SEALS	VSSD27		

NISSAN

MODEL	NV1500 NV2500 NV3500	FRONTIER XTERRA (13-15)	NV1500 NV2500 NV3500
ENGINE CODE	**VQ40DE**	**VQ40DE**	**VQ40DE**
DISPLACEMENT	**3954cc**	**3954cc**	**3954cc**
YEARS	**2017-2021**	**2013-2019**	**2012-2016**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.7540/2.7549"	2.7540/2.7549"	2.7540/2.7549"
ROD JOURNAL DIA.	2.1242/2.1250"	2.1242/2.1250"	2.1242/2.1250"
ENGINE KITS			
GOLD KIT	EKD45G	EKD45G	EKD45G
MAJOR KIT	EKD45M	EKD45M	EKD45M
RE-RING KIT	EKD45R	EKD45R	EKD45R
BEARING SETS			
MAIN BEARING SET	MBD45	MBD45	MBD45
ROD BEARING SET	RBD45	RBD45	RBD45
THRUST WASHER SET	TWD45	TWD45	TWD45
GASKETS			
FULL GASKET SET	CGSD45	CGSD45	CGSD45
HEAD GASKET SET	HSD45	HSD45	HSD45
HEAD GASKETS	HDGD45 (set of 2)	HDGD45 (set of 2)	HDGD45 (set of 2)
CONVERSION SET	CBSD45	CBSD45	CBSD45
PISTONS, RINGS, PLUGS			
PISTONS	PAD45	PAD45	PAD45
RING SETS	RSD41	RSD41	RSD41
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPD45	OPD45	OPD45

MODEL	NV1500 NV2500 NV3500	FRONTIER XTERRA (13-15)	NV1500 NV2500 NV3500
ENGINE CODE	**VQ40DE**	**VQ40DE**	**VQ40DE**
DISPLACEMENT	**3954cc**	**3954cc**	**3954cc**
YEARS	**2017-2021**	**2013-2019**	**2012-2016**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	95.5mm(3.759")	95.5mm(3.759")	95.5mm(3.759")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.7540/2.7549"	2.7540/2.7549"	2.7540/2.7549"
ROD JOURNAL DIA.	2.1242/2.1250"	2.1242/2.1250"	2.1242/2.1250"
VALVE TRAIN			
INTAKE VALVE	IVD41L	IVD41 (thru 06/2013) IVD41L (from 07/2013)	IVD41 (thru 06/2013) IVD41L (from 07/2013)
EXHAUST VALVE	EVD41L	EVD41 (thru 06/2013) EVD41L (from 07/2013)	EVD41 (thru 06/2013) EVD41L (from 07/2013)
INTAKE GUIDE	VGD27	VGD27	VGD27
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD41	WPD41	WPD41
TIMING CHAIN KIT	CTKD45	CTKD45	CTKD45

NISSAN

MODEL	PATHFINDER FRONTIER XTERRA	TITAN ARMADA TITAN XD	NV2500 NV3500
ENGINE CODE	**VQ40DE**	**VK56VD**	**VK56VD**
DISPLACEMENT	**3954cc**	**5552cc**	**5552cc**
YEARS	**2005-2012**	**2016-2022**	**2018-2021**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	32 vlv; DOHC; V8; F.INJ; GDI	32 vlv; DOHC; V8; F.INJ; GDI
BORE	95.5mm(3.759")	98mm(3.858")	98mm(3.858")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.7540/2.7549"	2.5174/2.5183"	2.5174/2.5183"
ROD JOURNAL DIA.	2.1242/2.1250"	2.1243/2.1250"	2.1243/2.1250"
ENGINE KITS			
GOLD KIT	EKD45G		
MAJOR KIT	EKD45M		
RE-RING KIT	EKD45R		
BEARING SETS			
MAIN BEARING SET	MBD45	MBD47	MBD47
ROD BEARING SET	RBD45	RBD46	RBD46
THRUST WASHER SET	TWD45	TWD47	TWD47
GASKETS			
FULL GASKET SET	CGSD45		
HEAD GASKET SET	HSD45		
HEAD GASKETS	HDGD45 (set of 2)		
CONVERSION SET	CBSD45	CBSD46	CBSD46
HEAD BOLT SET		HBD46	HBD46
PISTONS, RINGS, PLUGS			
PISTONS	PAD45		
RING SETS	RSD41		
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPD45		

MODEL	PATHFINDER FRONTIER XTERRA	TITAN ARMADA TITAN XD	NV2500 NV3500
ENGINE CODE	**VQ40DE**	**VK56VD**	**VK56VD**
DISPLACEMENT	**3954cc**	**5552cc**	**5552cc**
YEARS	**2005-2012**	**2016-2022**	**2018-2021**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	32 vlv; DOHC; V8; F.INJ; GDI	32 vlv; DOHC; V8; F.INJ; GDI
BORE	95.5mm(3.759")	98mm(3.858")	98mm(3.858")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.7540/2.7549"	2.5174/2.5183"	2.5174/2.5183"
ROD JOURNAL DIA.	2.1242/2.1250"	2.1243/2.1250"	2.1243/2.1250"
VALVE TRAIN			
INTAKE VALVE	IVD41	IVD51	IVD51
EXHAUST VALVE	EVD41	EVD51	EVD51
INTAKE GUIDE	VGD27	VGD27	VGD27
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
WATER PUMP	WPD41		
TIMING CHAIN KIT	CTKD45		

NISSAN

MODEL	NV2500 NV3500	TITAN ARMADA PATHFINDER (10-12)	NV2500 NV3500
ENGINE CODE	**VK56DE**	**VK56DE**	**VK56DE**
DISPLACEMENT	**5552cc**	**5552cc**	**5552cc**
YEARS	**2012-2017**	**2010-2015**	**2012-2013**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	98mm(3.858")	98mm(3.858")	98mm(3.858")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.5174/2.5183"	2.5174/2.5183"	2.5174/2.5183"
ROD JOURNAL DIA.	2.1243/2.1250"	2.1243/2.1250"	2.1243/2.1250"
BEARING SETS			
MAIN BEARING SET	MBD47	MBD47	MBD47
ROD BEARING SET	RBD46	RBD46	RBD46
THRUST WASHER SET	TWD47	TWD47	TWD47
GASKETS			
FULL GASKET SET	CGSD46	CGSD46	CGSD46
HEAD GASKET SET	HSD46	HSD46	HSD46
HEAD GASKETS	HDGD46 (pair)	HDGD46 (pair)	HDGD46 (pair)
CONVERSION SET	CBSD46	CBSD46	CBSD46
HEAD BOLT SET	HBD46	HBD46	HBD46
PISTONS, RINGS, PLUGS			
PISTONS	PAD46	PAD46	PAD46
RING SETS	RSD46	RSD46	RSD46
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPD46	OPD46	OPD46

MODEL	NV2500 NV3500	TITAN ARMADA PATHFINDER (10-12)	NV2500 NV3500
ENGINE CODE	**VK56DE**	**VK56DE**	**VK56DE**
DISPLACEMENT	**5552cc**	**5552cc**	**5552cc**
YEARS	**2012-2017**	**2010-2015**	**2012-2013**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	98mm(3.858")	98mm(3.858")	98mm(3.858")
STROKE	92mm(3.62")	92mm(3.62")	92mm(3.62")
MAIN JOURNAL DIA.	2.5174/2.5183"	2.5174/2.5183"	2.5174/2.5183"
ROD JOURNAL DIA.	2.1243/2.1250"	2.1243/2.1250"	2.1243/2.1250"
VALVE TRAIN			
INTAKE VALVE	IVD41❶ IVD41L❷	IVD41❶ IVD41L❷	IVD41
EXHAUST VALVE	EVD41L (99mm length) EVD41❸	EVD41L (99mm length) EVD41❸	EVD41
INTAKE GUIDE	VGD27	VGD27	VGD27
EXHAUST GUIDE	EVGD30	EVGD30	EVGD30
VALVE SEALS	VSSD27	VSSD27	VSSD27
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKD46	PTKD46	PTKD46

❶ (96.5mm length, except Flex Fuel application)
❷ (101.5mm length)
❸ (94mm length, except Flex Fuel application)

NISSAN

MODEL	TITAN ARMADA (04-09) PATHFINDER (08-09)		
ENGINE CODE	**VK56DE**		
DISPLACEMENT	**5552cc**		
YEARS	**2004-2009**		
DESCRIPTION	32 VALVE DOHC V8; F.INJ.		
BORE	98mm(3.858")		
STROKE	92mm(3.62")		
MAIN JOURNAL DIA.	2.5174/2.5183"		
ROD JOURNAL DIA.	2.1243/2.1250"		
BEARING SETS			
MAIN BEARING SET	MBD47		
ROD BEARING SET	RBD46		
THRUST WASHER SET	TWD47		
GASKETS			
FULL GASKET SET	CGSD46		
HEAD GASKET SET	HSD46		
HEAD GASKETS	HDGD46 (pair)		
CONVERSION SET	CBSD46		
HEAD BOLT SET	HBD46		
PISTONS, RINGS, PLUGS			
PISTONS	PAD46		
RING SETS	RSD46		
PIN BUSHINGS	PBD34		
OIL PUMP			
NEW OIL PUMP	OPD46		

MODEL	TITAN ARMADA (04-09) PATHFINDER (08-09)		
ENGINE CODE	**VK56DE**		
DISPLACEMENT	**5552cc**		
YEARS	**2004-2009**		
DESCRIPTION	32 VALVE DOHC V8; F.INJ.		
BORE	98mm(3.858")		
STROKE	92mm(3.62")		
MAIN JOURNAL DIA.	2.5174/2.5183"		
ROD JOURNAL DIA.	2.1243/2.1250"		
VALVE TRAIN			
INTAKE VALVE	IVD41❶		
EXHAUST VALVE	EVD41		
INTAKE GUIDE	VGD27		
EXHAUST GUIDE	EVGD30		
VALVE SEALS	VSSD27		
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKD46		

❶ (except Flex Fuel application)

SAAB

MODEL	9-2x TURBO	9-2x	
ENGINE CODE	**EJ205**	**EJ253**	
DISPLACEMENT	**1994cc**	**2457cc(150")**	
YEARS	**2005**	**2005-2006**	
DESCRIPTION	16 VALVE DOHC H4; F.INJ; Turb	16 VALVE SOHC H4; F.INJ	
BORE	92mm(3.622")	99.5mm(3.917")	
STROKE	75mm(2.95")	79mm(3.11")	
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	
BEARING SETS			
MAIN BEARING SET	MBSU9❶	MBSU9❶	
	MBSU11L❷	MBSU11L❷	
ROD BEARING SET	RBSU9❸	RBSU9❸	
	RBSU11L❹	RBSU11L❹	
GASKETS			
FULL GASKET SET	CGSSU14	CGSSU11S	
HEAD GASKET SET	HSSU14	HSSU11S	
CONVERSION SET	CBSSU11	CBSSU11	
HEAD BOLT SET	HBSU11D	HBSU11S	
PISTONS, RINGS, PLUGS			
PISTONS	PASU14	PASU11S	
RING SETS	RSSU14	RSSU11S	
PIN BUSHINGS	PBSU9	PBSU9	
OIL PUMP			
NEW OIL PUMP	OPSU11	OPSU11	

❶ (For flange in #3 position)
❷ (For flange in #5 position)
❸ (For 52mm journal)
❹ (For 48mm journal)

MODEL	9-2x TURBO	9-2x	
ENGINE CODE	**EJ205**	**EJ253**	
DISPLACEMENT	**1994cc**	**2457cc(150")**	
YEARS	**2005**	**2005-2006**	
DESCRIPTION	16 VALVE DOHC H4; F.INJ; Turb	16 VALVE SOHC H4; F.INJ	
BORE	92mm(3.622")	99.5mm(3.917")	
STROKE	75mm(2.95")	79mm(3.11")	
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	
VALVE TRAIN			
INTAKE VALVE	IVSU14	IVSU11S	
EXHAUST VALVE	EVSU15	EVSU11S	
VALVE GUIDE		VGSU9	
INTAKE GUIDE	IVGSU11		
EXHAUST GUIDE	EVGSU11		
VALVE SEALS	VSSSU9	VSSSU9	
WATER PUMP & TIMING			
WATER PUMP		WPSU11 (2005 only) WPSU11L (2006 only)	
TIMING BELT	TBSU15	TBSU11L	

SCION

MODEL	iQ	xA XB	iM
ENGINE CODE	**1NRFE**	**1NZFE**	**2ZRFAE**
DISPLACEMENT	**1329cc(81.1")**	**1497cc(91.3")**	**1798cc(109.7")**
YEARS	**2012-2015**	**2004-2006**	**2016**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ
BORE	72.5mm(2.854")	75mm(2.952")	80.5mm(3.169")
STROKE	80.5mm(3.17")	85mm(3.34")	88.3(3.48")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8110/1.8115"	
ROD JOURNAL DIA.	1.6532/1.6535"	1.5745/1.5748"	
ENGINE KITS			
MAJOR KIT		EKTO41EM	
RE-RING KIT		EKTO41ER	
BEARING SETS			
MAIN BEARING SET		MBTO41N	MBTO55
ROD BEARING SET		RBTO41	RBTO55
THRUST WASHER SET		TWTO39	TWTO39
GASKETS			
FULL GASKET SET		CGSTO41E	CGSTO55
HEAD GASKET SET		HSTO41E	HSTO55
CONVERSION SET		CBSTO41	CBSTO55
HEAD BOLT SET		HBTO41	HBTO55
PISTONS, RINGS, PLUGS			
PISTONS		PATO41E	
RING SETS		RSTO41E	
PIN BUSHINGS			PBTO39
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSTO41E	
CONNECTING ROD		CRTO41	
OIL PUMP			
NEW OIL PUMP		OPTO41E	

MODEL	iQ	xA XB	iM
ENGINE CODE	**1NRFE**	**1NZFE**	**2ZRFAE**
DISPLACEMENT	**1329cc(81.1")**	**1497cc(91.3")**	**1798cc(109.7")**
YEARS	**2012-2015**	**2004-2006**	**2016**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16vlv; DOHC; 4; F.INJ
BORE	72.5mm(2.854")	75mm(2.952")	80.5mm(3.169")
STROKE	80.5mm(3.17")	85mm(3.34")	88.3(3.48")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8110/1.8115"	
ROD JOURNAL DIA.	1.6532/1.6535"	1.5745/1.5748"	
VALVE TRAIN			
LIFTERS	A-2319 (2012-13 only) LIFTO55P (2014-2015)		LIFTO55P
INTAKE VALVE		IVTO41	IVTO55
EXHAUST VALVE		EVTO41	EVTO55
VALVE GUIDE	EVGTO34	VGTO41	
INTAKE GUIDE			IVGTO55
EXHAUST GUIDE			EVGTO55
VALVE SEALS	VSSTO34	VSSTO41	VSSTO34
WATER PUMP & TIMING			
WATER PUMP		WPTO41E	
TIMING CHAIN KIT			CTKTO55L❶
GEARLESS TIMING KIT		PTKTO41	

❶ (Cam Gear not included)

SCION

MODEL	XD	XD	FR-S
ENGINE CODE	2ZR-FE	2ZR-FE	4UGSE
DISPLACEMENT	1798cc(109.7")	1798cc(109.7")	1998cc(122")
YEARS	2014	2008-2013	2013-2015
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin U	16vlv; DOHC; 4; F.INJ; vin U	16 VALVE DOHC BOXER
BORE	80.5mm(3.169")	80.5mm(3.169")	86.0mm(3.386")
STROKE	88.3(3.48")	88.3(3.48")	86.0mm(3.39")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	2.6766/2.6775"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.9676/1.9685"
ENGINE KITS			
GOLD KIT	EKTO55G	EKTO55G	
MAJOR KIT	EKTO55M	EKTO55M	
RE-RING KIT	EKTO55R	EKTO55R	
BEARING SETS			
MAIN BEARING SET	MBTO55	MBTO55	MBSU16
ROD BEARING SET	RBTO55	RBTO55	RBSU16L
THRUST WASHER SET	TWTO39	TWTO39	
GASKETS			
FULL GASKET SET	CGSTO55	CGSTO55	
HEAD GASKET SET	HSTO55	HSTO55	
CONVERSION SET	CBSTO55	CBSTO55	
HEAD BOLT SET	HBTO55	HBTO55	HBSU11D
PISTONS, RINGS, PLUGS			
PISTONS	PATO55❶	PATO55❶	
RING SETS	RSTO55	RSTO55	
PIN BUSHINGS	PBTO39	PBTO39	PBSU16F
OIL PUMP			
NEW OIL PUMP	OPTO55	OPTO55	

❶ (1.5mm oil ring groove)

MODEL	XD	XD	FR-S
ENGINE CODE	**2ZR-FE**	**2ZR-FE**	**4UGSE**
DISPLACEMENT	**1798cc(109.7")**	**1798cc(109.7")**	**1998cc(122")**
YEARS	**2014**	**2008-2013**	**2013-2015**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; vin U	16vlv; DOHC; 4; F.INJ; vin U	16 VALVE DOHC BOXER
BORE	80.5mm(3.169")	80.5mm(3.169")	86.0mm(3.386")
STROKE	88.3(3.48")	88.3(3.48")	86.0mm(3.39")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	2.6766/2.6775"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.9676/1.9685"
VALVE TRAIN			
LIFTERS	LIFTO55P	A-2319	LIFSU16
INTAKE VALVE	IVTO55	IVTO55	
EXHAUST VALVE	EVTO55	EVTO55	
INTAKE GUIDE	IVGTO55	IVGTO55	IVGSU16F
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGSU16F
VALVE SEALS	VSSTO34	VSSTO34	VSSSU16
WATER PUMP & TIMING			
WATER PUMP			WPSU16F
TIMING CHAIN KIT	CTKTO55❶	CTKTO55❶	

❶ (Cam Sprockets not included)

SCION

MODEL	Tc (07-10) XB	Tc	Tc
ENGINE CODE	**2AZFE**	**2AZFE**	**2ARFE**
DISPLACEMENT	**2362cc(144.1")**	**2362cc(144.1")**	**2494cc(152.2")**
YEARS	**2007-2015**	**2005-2006**	**2015-2016**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	88.5mm(3.484")	88.5mm(3.484")	90mm(3.543")
STROKE	96mm(3.78")	96mm(3.78")	98mm(3.86")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.1649/2.1654"
ROD JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	2.0272/2.0280"
ENGINE KITS			
PLATINUM KIT	EKTO44LP	EKTO44P	
GOLD KIT	EKTO44LG	EKTO44G	
SILVER KIT	EKTO44LS	EKTO44S	
BRONZE KITS	EKTO44LB	EKTO44B	
MAJOR KIT	EKTO44LM	EKTO44M	EKTO56M
RE-RING KIT	EKTO44LR	EKTO44R	EKTO56R
ULTRA KIT	EKTO44LU	EKTO44U	
BEARING SETS			
MAIN BEARING SET	MBTO44	MBTO44	MBTO56
ROD BEARING SET	RBTO44	RBTO44	RBTO56
THRUST WASHER SET	TWTO44	TWTO44	TWTO56
CAM BEARINGS	CBTO45	CBTO45	
GASKETS			
FULL GASKET SET	CGSTO44L	CGSTO44	CGSTO56
HEAD GASKET SET	HSTO44L	HSTO44	HSTO56
HEAD GASKETS	HDGTO44L	HDGTO44	
CONVERSION SET	CBSTO44	CBSTO44	CBSTO56
HEAD BOLT SET	HBTO44L	HBTO44	HBTO44L
PISTONS, RINGS, PLUGS			
PISTONS	PATO44L	PATO44	PATO56
RING SETS	RSTO44L❶	RSTO44	RSTO56
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO44	CSTO44	
CONNECTING ROD	CRTO44	CRTO44	
OIL PUMP			
NEW OIL PUMP	OPTO44	OPTO44	OPTO56

❶ (1 x 1 x 2.0mm)

MODEL	Tc (07-10) XB	Tc	Tc
ENGINE CODE	**2AZFE**	**2AZFE**	**2ARFE**
DISPLACEMENT	**2362cc(144.1")**	**2362cc(144.1")**	**2494cc(152.2")**
YEARS	**2007-2015**	**2005-2006**	**2015-2016**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	88.5mm(3.484")	88.5mm(3.484")	90mm(3.543")
STROKE	96mm(3.78")	96mm(3.78")	98mm(3.86")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.1649/2.1654"
ROD JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	2.0272/2.0280"
VALVE TRAIN			
LIFTERS			LIFTO55P
INTAKE VALVE	IVTO44	IVTO44	IVTO56
EXHAUST VALVE	EVTO44	EVTO44	EVTO56
VALVE GUIDE	EVGTO34❶	EVGTO34❶	
INTAKE GUIDE			IVGTO55
EXHAUST GUIDE			EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO44	WPTO44	
TIMING CHAIN KIT	CTKTO44	CTKTO44	
GEARLESS TIMING KIT	PTKTO44	PTKTO44	PTKTO56

❶ (intake & exhaust)

SCION

MODEL	Tc		
ENGINE CODE	**2ARFE**		
DISPLACEMENT	**2494cc(152.2")**		
YEARS	**2011-2014**		
DESCRIPTION	16 VALVE DOHC 4; F.INJ.		
BORE	90mm(3.543")		
STROKE	98mm(3.86")		
MAIN JOURNAL DIA.	2.1649/2.1654"		
ROD JOURNAL DIA.	2.0272/2.0280"		
ENGINE KITS			
MAJOR KIT	EKTO56M		
RE-RING KIT	EKTO56R		
BEARING SETS			
MAIN BEARING SET	MBTO56		
ROD BEARING SET	RBTO56		
THRUST WASHER SET	TWTO56		
GASKETS			
FULL GASKET SET	CGSTO56		
HEAD GASKET SET	HSTO56		
CONVERSION SET	CBSTO56		
HEAD BOLT SET	HBTO44L		
PISTONS, RINGS, PLUGS			
PISTONS	PATO56		
RING SETS	RSTO56		
PIN BUSHINGS	PBD34		
OIL PUMP			
NEW OIL PUMP	OPTO56		

MODEL	Tc		
ENGINE CODE	**2ARFE**		
DISPLACEMENT	**2494cc(152.2")**		
YEARS	**2011-2014**		
DESCRIPTION	16 VALVE DOHC 4; F.INJ.		
BORE	90mm(3.543")		
STROKE	98mm(3.86")		
MAIN JOURNAL DIA.	2.1649/2.1654"		
ROD JOURNAL DIA.	2.0272/2.0280"		
VALVE TRAIN			
LIFTERS	A-2319		
INTAKE VALVE	IVTO56		
EXHAUST VALVE	EVTO56		
INTAKE GUIDE	IVGTO55		
EXHAUST GUIDE	EVGTO55		
VALVE SEALS	VSSTO34		
WATER PUMP & TIMING			
GEARLESS TIMING KIT	PTKTO56		

SUBARU

MODEL	LOYALE	1800 XT COUPE	XT Turbo LOYALE TURBO (90)
ENGINE CODE	**VIN 5**	**VIN 4**	**VIN 4**
DISPLACEMENT	**1781cc(108.6")**	**1781cc(108.6")**	**1781cc(108.6")**
YEARS	**1990-1994**	**1987-1990**	**1985-1990**
DESCRIPTION	8vlv; SOHC; F.INJ; SPI	8 VALVE SOHC 4; F. INJ.	8 vlv, SOHC 4; F.INJ. turbo
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	67mm(2.64")	67mm(2.64")	67mm(2.64")
MAIN JOURNAL DIA.	2.1636/2.1642"	2.1636/2.1642"	2.1636/2.1642"
ROD JOURNAL DIA.	1.7712/1.7717"	1.7712/1.7717"	1.7712/1.7717"
ENGINE KITS			
RE-RING KIT	EKSU8R	EKSU8R	
BEARING SETS			
MAIN BEARING SET	MBSU6	MBSU6	MBSU6
ROD BEARING SET	RBSU6	RBSU6	RBSU6
GASKETS			
FULL GASKET SET	CGSSU8	CGSSU8	
HEAD GASKET SET	HSSU8	HSSU8	
PISTONS, RINGS, PLUGS			
RING SETS	RSSU6L❶	RSSU6L❶	RSSU6L❶
PIN BUSHINGS	PBSU8	PBSU8	PBSU8
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSSU8	CSSU8	CSSU8
CONNECTING ROD	CRSU6	CRSU6	CRSU6

❶ (1.2mm top ring)

MODEL	LOYALE	1800 XT COUPE	XT Turbo LOYALE TURBO (90)
ENGINE CODE	**VIN 5**	**VIN 4**	**VIN 4**
DISPLACEMENT	**1781cc(108.6")**	**1781cc(108.6")**	**1781cc(108.6")**
YEARS	**1990-1994**	**1987-1990**	**1985-1990**
DESCRIPTION	8vlv; SOHC; F.INJ; SPI	8 VALVE SOHC 4; F. INJ.	8 vlv, SOHC 4; F.INJ. turbo
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	67mm(2.64")	67mm(2.64")	67mm(2.64")
MAIN JOURNAL DIA.	2.1636/2.1642"	2.1636/2.1642"	2.1636/2.1642"
ROD JOURNAL DIA.	1.7712/1.7717"	1.7712/1.7717"	1.7712/1.7717"
VALVE TRAIN			
LIFTERS	LIFSU8	LIFSU8	LIFSU8
INTAKE VALVE	IVSU8	IVSU8	IVSU8
EXHAUST VALVE	EVSU8	EVSU8	EVSU8
VALVE GUIDE	VGSU8	VGSU8	VGSU8
WATER PUMP & TIMING			
TIMING BELT	TBSU8L (driver side) TBSU8R (pass. side)	TBSU8L (driver side) TBSU8R (pass. side)	TBSU8L (driver side) TBSU8R (pass. side)
ENGINES & HEADS			
HEAD W/VALVES		CHVSU8MR	
RIGHT HEAD W/VALVES		CHVSU8MR	

SUBARU

MODEL	BRAT	1800 TURBO BRAT TURBO	IMPREZA
ENGINE CODE	**VIN 5**	**EA81 OHV TURBO**	**EJ18E**
DISPLACEMENT	**1781cc(108.6")**	**1781cc(108.6")**	**1820cc(111.1")**
YEARS	**1985-1987**	**1983-1984**	**1993-1997**
DESCRIPTION	8 VALVE OHV 4; CARB.	8 VALVE; OHV 4; F.INJ.	16 VALVE; OHC H4; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	89.7mm(3.461")
STROKE	67mm(2.64")	67mm(2.64")	75mm(2.95")
MAIN JOURNAL DIA.	2.1636/2.1642"	2.1636/2.1642"	2.3616/2.3622"
ROD JOURNAL DIA.	1.7712/1.7717"	1.7712/1.7717"	2.0466/2.0472"
BEARING SETS			
MAIN BEARING SET	MBSU6	MBSU6	MBSU9❶ MBSU11L❷
ROD BEARING SET	RBSU6	RBSU6	RBSU9❸ RBSU11L❹
GASKETS			
FULL GASKET SET			CGSSU10
HEAD GASKET SET		HSSU6	HSSU10
CONVERSION SET			CBSSU10
HEAD BOLT SET			HBSU9
PISTONS, RINGS, PLUGS			
RING SETS	RSSU6L❺	RSSU6L❺	RSSU10
PIN BUSHINGS	PBSU8	PBSU8	PBSU9
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSSU8		
CONNECTING ROD	CRSU6	CRSU6	
OIL PUMP			
NEW OIL PUMP			OPSU11

❶ (For flange in #3 position)
❷ (For flange in #5 position)
❸ (For 52mm journal)
❹ (For 48mm journal)
❺ (1.2mm top ring)

MODEL	BRAT	1800 TURBO BRAT TURBO	IMPREZA
ENGINE CODE	**VIN 5**	**EA81 OHV TURBO**	**EJ18E**
DISPLACEMENT	**1781cc(108.6")**	**1781cc(108.6")**	**1820cc(111.1")**
YEARS	**1985-1987**	**1983-1984**	**1993-1997**
DESCRIPTION	8 VALVE OHV 4; CARB.	8 VALVE; OHV 4; F.INJ.	16 VALVE; OHC H4; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	89.7mm(3.461")
STROKE	67mm(2.64")	67mm(2.64")	75mm(2.95")
MAIN JOURNAL DIA.	2.1636/2.1642"	2.1636/2.1642"	2.3616/2.3622"
ROD JOURNAL DIA.	1.7712/1.7717"	1.7712/1.7717"	2.0466/2.0472"
VALVE TRAIN			
LIFTERS	LIFSU8		
INTAKE VALVE	IVSU8	IVSU6L	IVSU10
EXHAUST VALVE	EVSU8	EVSU6	EVSU10
VALVE GUIDE	VGSU8	VGSU6	VGSU9
VALVE SEALS			VSSSU9
WATER PUMP & TIMING			
WATER PUMP			WPSU11❶
TIMING BELT	TBSU8L (driver side) TBSU8R (pass. side)		TBSU9

❶ (1 pressed fit tube)

SUBARU

MODEL	WRX TURBO	CROSSTREK HYBRID	CROSSTREK
ENGINE CODE	**EJ205**	**FB20V**	**FB20D**
DISPLACEMENT	**1994cc**	**1995cc(121.7")**	**1995cc(121.7")**
YEARS	**2002-2005**	**2019-2022**	**2018-2022**
DESCRIPTION	16 VALVE DOHC H4; F.INJ; Turb	16 vlv, DOHC 4; F.INJ. PHEV	16 VALVE; DOHC H4; F.INJ.
BORE	92mm(3.622")	84mm(3.307")	84mm(3.307")
STROKE	75m(2.95")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	2.0466/2.0472"	1.8888/1.8898"	1.8888/1.8898"
BEARING SETS			
MAIN BEARING SET	MBSU11L❶ MBSU9❷	MBSU16	MBSU16
ROD BEARING SET	RBSU15	RBSU16	RBSU16
GASKETS			
FULL GASKET SET	CGSSU14		
HEAD GASKET SET	HSSU14		
CONVERSION SET	CBSSU11		
HEAD BOLT SET	HBSU11D	HBSU11D	HBSU11D
PISTONS, RINGS, PLUGS			
PISTONS	PASU14		
RING SETS	RSSU14		
PIN BUSHINGS	PBSU9	PBSU16F	PBSU16F
OIL PUMP			
NEW OIL PUMP	OPSU11		

❶ (For flange in #5 position)

❷ (For flange in #3 position)

MODEL	WRX TURBO	CROSSTREK HYBRID	CROSSTREK
ENGINE CODE	**EJ205**	**FB20V**	**FB20D**
DISPLACEMENT	**1994cc**	**1995cc(121.7")**	**1995cc(121.7")**
YEARS	**2002-2005**	**2019-2022**	**2018-2022**
DESCRIPTION	16 VALVE DOHC H4; F.INJ; Turb	16 vlv, DOHC 4; F.INJ. PHEV	16 VALVE; DOHC H4; F.INJ.
BORE	92mm(3.622")	84mm(3.307")	84mm(3.307")
STROKE	75m(2.95")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	2.0466/2.0472"	1.8888/1.8898"	1.8888/1.8898"
VALVE TRAIN			
LIFTERS		LIFSU16	LIFSU16
INTAKE VALVE	IVSU14	IVSU16F	IVSU16F
EXHAUST VALVE	EVSU15		
INTAKE GUIDE	IVGSU11	IVGSU16F	IVGSU16F
EXHAUST GUIDE	EVGSU11	EVGSU16F	EVGSU16F
VALVE SEALS	VSSSU9	VSSSU16	VSSSU16
WATER PUMP & TIMING			
WATER PUMP		WPSU16F	WPSU16F
TIMING BELT	TBSU15		

SUBARU

MODEL	IMPREZA	XV CROSSTREK CROSSTREK	XV CROSSTREK (14-15 CROSSTREK (2016) HYBRID
ENGINE CODE	**FB20D**	**FB20**	**FB20**
DISPLACEMENT	**1995cc(121.7")**	**1995cc(121.7")**	**1995cc(121.7")**
YEARS	**2017-2022**	**2013-2017**	**2014-2016**
DESCRIPTION	16 VALVE; DOHC H4; F.INJ.	16 VALVE; DOHC H4; F.INJ.	16 VALVE; DOHC H4; Hybrid
BORE	84mm(3.307")	84mm(3.307")	84mm(3.307")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8898"	1.8888/1.8898"
BEARING SETS			
MAIN BEARING SET	MBSU16	MBSU16	MBSU16
ROD BEARING SET	RBSU16	RBSU16	RBSU16
GASKETS			
FULL GASKET SET		CGSSU16	CGSSU16
HEAD GASKET SET		HSSU16	HSSU16
CONVERSION SET		CBSSU16F	CBSSU16F
HEAD BOLT SET	HBSU11D	HBSU11D	HBSU11D
PISTONS, RINGS, PLUGS			
PISTONS		PASU16	
RING SETS		RSSU16	RSSU16
PIN BUSHINGS	PBSU16F	PBSU16F	PBSU16F

MODEL	IMPREZA	XV CROSSTREK CROSSTREK	XV CROSSTREK (14-15 CROSSTREK (2016) HYBRID
ENGINE CODE	**FB20D**	**FB20**	**FB20**
DISPLACEMENT	**1995cc(121.7")**	**1995cc(121.7")**	**1995cc(121.7")**
YEARS	**2017-2022**	**2013-2017**	**2014-2016**
DESCRIPTION	16 VALVE; DOHC H4; F.INJ.	16 VALVE; DOHC H4; F.INJ.	16 VALVE; DOHC H4; Hybrid
BORE	84mm(3.307")	84mm(3.307")	84mm(3.307")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8898"	1.8888/1.8898"
VALVE TRAIN			
LIFTERS	LIFSU16	LIFSU16	LIFSU16
INTAKE VALVE	IVSU16F	IVSU16 (2013) IVSU16F (2014 - on)	IVSU16F
EXHAUST VALVE		EVSU16 (2013) EVSU16F (2014 - on)	EVSU16F
INTAKE GUIDE	IVGSU16F	IVGSU16F	IVGSU16F
EXHAUST GUIDE	EVGSU16F	EVGSU16F	EVGSU16F
VALVE SEALS	VSSSU16	VSSSU16	VSSSU16
WATER PUMP & TIMING			
WATER PUMP		WPSU16F	
GEARLESS TIMING KIT		PTKSU16F (2013-14 only)	PTKSU16F (2014 only)

SUBARU

MODEL	IMPREZA	FORESTER (14-18) WRX TURBO	BRZ
ENGINE CODE	**FB20**	**FA20F**	**FA20D**
DISPLACEMENT	**1995cc(121.7")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**2012-2016**	**2014-2020**	**2013-2020**
DESCRIPTION	16 VALVE; DOHC H4; F.INJ.	16 VALVE DOHC H4; F.INJ; Turb	16 VALVE DOHC H4; F.INJ
BORE	84mm(3.307")	86.0mm(3.386")	86mm(3.386")
STROKE	90mm(3.54")	86mm(3.38")	86mm(3.38")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8888/1.8898"	1.9676/1.9685"	1.9676/1.9685"
BEARING SETS			
MAIN BEARING SET	MBSU16	MBSU16	MBSU16
ROD BEARING SET	RBSU16	RBSU16L	RBSU16L
GASKETS			
FULL GASKET SET	CGSSU16	CGSSU16DIT	
HEAD GASKET SET	HSSU16	HSSU16DIT	
CONVERSION SET	CBSSU16F	CBSSU16F	
HEAD BOLT SET	HBSU11D	HBSU11D	HBSU11D
PISTONS, RINGS, PLUGS			
PISTONS	PASU16	PASU16DIT	
RING SETS	RSSU16	RSSU16DIT	
PIN BUSHINGS	PBSU16F	PBSU16F	PBSU16F

MODEL	IMPREZA	FORESTER (14-18) WRX TURBO	BRZ
ENGINE CODE	**FB20**	**FA20F**	**FA20D**
DISPLACEMENT	**1995cc(121.7")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**2012-2016**	**2014-2020**	**2013-2020**
DESCRIPTION	16 VALVE; DOHC H4; F.INJ.	16 VALVE DOHC H4; F.INJ; Turb	16 VALVE DOHC H4; F.INJ
BORE	84mm(3.307")	86.0mm(3.386")	86mm(3.386")
STROKE	90mm(3.54")	86mm(3.38")	86mm(3.38")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8888/1.8898"	1.9676/1.9685"	1.9676/1.9685"
VALVE TRAIN			
LIFTERS	LIFSU16	LIFSU16	LIFSU16
INTAKE VALVE	IVSU16❶ IVSU16F❷	IVSU16 (2014 only) IVSU16F (2015-on)	
EXHAUST VALVE	EVSU16❸ EVSU16F❹	EVSU16DIT (2015-on)	
INTAKE GUIDE	IVGSU16F	IVGSU16F	IVGSU16F
EXHAUST GUIDE	EVGSU16F	EVGSU16F	EVGSU16F
VALVE SEALS	VSSSU16	VSSSU16	VSSSU16
WATER PUMP & TIMING			
WATER PUMP			WPSU16F
GEARLESS TIMING KIT	PTKSU16F (2012-14 only)		

❶ (2012-14 only), (103.4mm)
❷ (2015-16 only), (105.1mm)
❸ (2012-14 only), (94.2mm)
❹ (2015-16 only), (96.6mm)

SUBARU

MODEL	LEGACY (1999) IMPREZA	LEGACY IMPREZA OUTBACK SPORT	LEGACY IMPREZA
ENGINE CODE	**EJ22E**	**EJ22E**	**EJ22E**
DISPLACEMENT	**2212cc(135.0")**	**2212cc(135.0")**	**2212cc(135.0")**
YEARS	**1999-2001**	**1997-1998**	**1990-1996**
DESCRIPTION	16 VALVE; SOHC H4; F.INJ.	16 VALVE; SOHC H4; F.INJ.	16 VALVE; SOHC H4; F.INJ.
BORE	96.9mm(3.815")	96.9mm(3.815")	96.9mm(3.815")
STROKE	75mm(2.95")	75mm(2.95")	75mm(2.95")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	1.8891/1.8898"	2.0466/2.0472"	2.0466/2.0472"
ENGINE KITS			
MAJOR KIT			EKSU9M
RE-RING KIT		EKSU9R	EKSU9R
BEARING SETS			
MAIN BEARING SET	MBSU9❶ MBSU11L❷	MBSU9	MBSU9
ROD BEARING SET	RBSU9❸ RBSU11L❹	RBSU9	RBSU9
GASKETS			
FULL GASKET SET		CGSSU9	CGSSU9
HEAD GASKET SET		HSSU9	HSSU9
HEAD BOLT SET	HBSU9	HBSU9	HBSU9
PISTONS, RINGS, PLUGS			
PISTONS			PASU9
RING SETS	RSSU9	RSSU9	RSSU9
PIN BUSHINGS	PBSU9	PBSU9	PBSU9
OIL PUMP			
NEW OIL PUMP	OPSU11	OPSU11	OPSU11

❶ (For flange in #3 position)
❷ (For flange in #5 position)
❸ (For 52mm journal)
❹ (For 48mm journal)

MODEL	LEGACY (1999) IMPREZA	LEGACY IMPREZA OUTBACK SPORT	LEGACY IMPREZA
ENGINE CODE	**EJ22E**	**EJ22E**	**EJ22E**
DISPLACEMENT	**2212cc(135.0")**	**2212cc(135.0")**	**2212cc(135.0")**
YEARS	**1999-2001**	**1997-1998**	**1990-1996**
DESCRIPTION	16 VALVE; SOHC H4; F.INJ.	16 VALVE; SOHC H4; F.INJ.	16 VALVE; SOHC H4; F.INJ.
BORE	96.9mm(3.815")	96.9mm(3.815")	96.9mm(3.815")
STROKE	75mm(2.95")	75mm(2.95")	75mm(2.95")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	1.8891/1.8898"	2.0466/2.0472"	2.0466/2.0472"
VALVE TRAIN			
LIFTERS		ALAMA12	ALAMA12
INTAKE VALVE	IVSU11S	IVSU9	IVSU9
EXHAUST VALVE	EVSU11S	EVSU9	EVSU9
VALVE GUIDE		VGSU9	VGSU9
INTAKE GUIDE	IVGSU11		
EXHAUST GUIDE	EVGSU11		
VALVE SEALS	VSSSU9	VSSSU9	VSSSU9
WATER PUMP & TIMING			
WATER PUMP	WPSU11❶	WPSU11❶	WPSU11❶
TIMING BELT	TBSU11L	TBSU9	TBSU9

❶ (1 pressed fit tube)

SUBARU

MODEL	LEGACY TURBO	OUTBACK	ASCENT LEGACY
ENGINE CODE	**EJ22T**	**FA24**	**FA24**
DISPLACEMENT	**2212cc(135.0")**	**2387cc(145.6")**	**2387cc(145.6")**
YEARS	**1991-1994**	**2020-2022**	**2019-2022**
DESCRIPTION	16 vlv; SOHC H4; Turbo	16 vlv; DOHC H4; Turbo; vin G	16 vlv; DOHC H4; Turbo; vin A
BORE	96.9mm(3.815")	94.0mm(3.700")	94.0mm(3.700")
STROKE	75mm(2.95")	86mm(3.38")	86mm(3.38")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	2.0466/2.0472"	1.9676/1.9685"	1.9676/1.9685"
BEARING SETS			
MAIN BEARING SET	MBSU9	MBSU16	MBSU16
ROD BEARING SET	RBSU9	RBSU16L	RBSU16L
GASKETS			
CONVERSION SET	CBSSU9		
HEAD BOLT SET	HBSU9	HBSU11D	HBSU11D
PISTONS, RINGS, PLUGS			
RING SETS	RSSU9		
PIN BUSHINGS	PBSU9	PBSU16F	PBSU16F
OIL PUMP			
NEW OIL PUMP	OPSU11		

MODEL	LEGACY TURBO	OUTBACK	ASCENT LEGACY
ENGINE CODE	**EJ22T**	**FA24**	**FA24**
DISPLACEMENT	**2212cc(135.0")**	**2387cc(145.6")**	**2387cc(145.6")**
YEARS	**1991-1994**	**2020-2022**	**2019-2022**
DESCRIPTION	16 vlv; SOHC H4; Turbo	16 vlv; DOHC H4; Turbo; vin G	16 vlv; DOHC H4; Turbo; vin A
BORE	96.9mm(3.815")	94.0mm(3.700")	94.0mm(3.700")
STROKE	75mm(2.95")	86mm(3.38")	86mm(3.38")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	2.0466/2.0472"	1.9676/1.9685"	1.9676/1.9685"
VALVE TRAIN			
LIFTERS	ALAMA12	LIFSU16	LIFSU16
INTAKE VALVE	IVSU9	IVSU16OL	IVSU16OL
EXHAUST VALVE	EVSU9		
VALVE GUIDE	VGSU9		
INTAKE GUIDE		IVGSU16F	IVGSU16F
EXHAUST GUIDE		EVGSU16F	EVGSU16F
VALVE SEALS	VSSSU9	VSSSU16	VSSSU16
WATER PUMP & TIMING			
WATER PUMP	WPSU11❶		
TIMING BELT	TBSU9		

❶ (1 pressed fit tube)

SUBARU

MODEL	IMPREZA WRX STi (08-) WRX STi (13-20)	IMPREZA WRX (08-14) FORESTER XT (08-13) LEGACY GT (07-09) OUTBACK XT (07-09) IMPREZA GT (09-10) TURBO	LEGACY OUTBACK
ENGINE CODE	**EJ257**	**EJ255**	**EJ253**
DISPLACEMENT	**2457cc(150")**	**2457cc(150")**	**2457cc(150")**
YEARS	**2008-2020**	**2007-2014**	**2010-2012**
DESCRIPTION	16 vlv; DOHC H4; Turbo	16 vlv; DOHC H4; Turbo	16 VALVE; SOHC H4; F.INJ.
BORE	99.5mm(3.917")	99.5mm(3.917")	99.5mm(3.917")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
ENGINE KITS			
MAJOR KIT	EKSU15M		
RE-RING KIT	EKSU15R		
BEARING SETS			
MAIN BEARING SET	MBSU11L	MBSU11L	MBSU11L❶
ROD BEARING SET	RBSU15	RBSU15	RBSU9❷ RBSU11L❸
GASKETS			
FULL GASKET SET	CGSSU15ST	CGSSU15	CGSSU11SL
HEAD GASKET SET	HSSU15ST	HSSU15	HSSU11SL
CONVERSION SET	CBSSU11ST	CBSSU11	CBSSU11
HEAD BOLT SET	HBSU11D	HBSU11D	HBSU11S
PISTONS, RINGS, PLUGS			
PISTONS	PASU15	PASU15	
RING SETS	RSSU15W	RSSU15W	RSSU15W
PIN BUSHINGS	PBSU9	PBSU9	PBSU9
CRANKSHAFT & RODS			
CONNECTING ROD			-❷
OIL PUMP			
NEW OIL PUMP	OPSU15	OPSU11	OPSU11

❶ (For flange in #5 position)
❷ (For 52mm journal)
❸ (For 48mm journal)

MODEL	IMPREZA WRX STi (08-WRX STi (13-20)	IMPREZA WRX (08-14) FORESTER XT (08-13) LEGACY GT (07-09) OUTBACK XT (07-09) IMPREZA GT (09-10) TURBO	LEGACY OUTBACK
ENGINE CODE	**EJ257**	**EJ255**	**EJ253**
DISPLACEMENT	**2457cc(150")**	**2457cc(150")**	**2457cc(150")**
YEARS	**2008-2020**	**2007-2014**	**2010-2012**
DESCRIPTION	16 vlv; DOHC H4; Turbo	16 vlv; DOHC H4; Turbo	16 VALVE; SOHC H4; F.INJ.
BORE	99.5mm(3.917")	99.5mm(3.917")	99.5mm(3.917")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
VALVE TRAIN			
INTAKE VALVE	IVSU15	IVSU15	IVSU11S
EXHAUST VALVE	EVSU15	EVSU15	EVSU11S
VALVE GUIDE	VGSU9	VGSU9	VGSU9
VALVE SEALS	VSSSU9	VSSSU9	VSSSU9
WATER PUMP & TIMING			
WATER PUMP			WPSU11L
TIMING BELT	TBSU15	TBSU15	TBSU11L

SUBARU

MODEL	LEGACY GT TURBO	IMPREZA LEGACY (06-09) OUTBACK (06-09) FORESTER (06-10) OUTBACK SPORT	LEGACY GT (05-06) OUTBACK (05-06) FORESTER XT (04-07) BAJA (04-06) IMPREZA WRX (06-07) TURBO
ENGINE CODE	**EJ255**	**EJ253**	**EJ255**
DISPLACEMENT	**2457cc(150")**	**2457cc(150")**	**2457cc(150")**
YEARS	**2010-2012**	**2006-2011**	**2004-2007**
DESCRIPTION	16 vlv; DOHC H4; Turbo	16 VALVE; SOHC H4; F.INJ.	16 vlv; DOHC H4; Turbo
BORE	99.5mm(3.917")	99.5mm(3.917")	99.5mm(3.917")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
BEARING SETS			
MAIN BEARING SET	MBSU11L	MBSU11L❶	MBSU11L
ROD BEARING SET	RBSU15	RBSU9❷ RBSU11L❸	RBSU15
GASKETS			
FULL GASKET SET		CGSSU11SL	CGSSU15
HEAD GASKET SET		HSSU11SL	HSSU15
CONVERSION SET	CBSSU11	CBSSU11	CBSSU11
HEAD BOLT SET	HBSU11D	HBSU11S	HBSU11D
PISTONS, RINGS, PLUGS			
PISTONS		PASU13	PASU15
RING SETS	RSSU15W	RSSU15W	RSSU15W
PIN BUSHINGS	PBSU9	PBSU9	PBSU9
CRANKSHAFT & RODS			
CONNECTING ROD		-❷	
OIL PUMP			
NEW OIL PUMP	OPSU15	OPSU11	OPSU11

❶ (For flange in #5 position)
❷ (For 52mm journal)
❸ (For 48mm journal)

MODEL	LEGACY GT TURBO	IMPREZA LEGACY (06-09) OUTBACK (06-09) FORESTER (06-10) OUTBACK SPORT	LEGACY GT (05-06) OUTBACK (05-06) FORESTER XT (04-07) BAJA (04-06) IMPREZA WRX (06-07) TURBO
ENGINE CODE	**EJ255**	**EJ253**	**EJ255**
DISPLACEMENT	**2457cc(150")**	**2457cc(150")**	**2457cc(150")**
YEARS	**2010-2012**	**2006-2011**	**2004-2007**
DESCRIPTION	16 vlv; DOHC H4; Turbo	16 VALVE; SOHC H4; F.INJ.	16 vlv; DOHC H4; Turbo
BORE	99.5mm(3.917")	99.5mm(3.917")	99.5mm(3.917")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
VALVE TRAIN			
INTAKE VALVE	IVSU15	IVSU11S	IVSU15
EXHAUST VALVE	EVSU15	EVSU11S	EVSU15
VALVE GUIDE	VGSU9	VGSU9	VGSU9
VALVE SEALS	VSSSU9	VSSSU9	VSSSU9
WATER PUMP & TIMING			
WATER PUMP		WPSU11L	
TIMING BELT	TBSU15	TBSU11L❶ TBSU11B❷	TBSU15

❶ (Impreza & Forrester)

❷ (Legacy & Outback)

SUBARU

MODEL	IMPREZA WRX STi	IMPREZA OUTBACK FORESTER (01-05) BAJA (03-06) LEGACY (00-05)	FORESTER
ENGINE CODE	**EJ257**	**EJ251/EJ252/EJ253**	**EJ25E**
DISPLACEMENT	**2457cc(150")**	**2457cc(150")**	**2457cc(150")**
YEARS	**2004-2007**	**1999-2006**	**1999-2000**
DESCRIPTION	16 vlv; DOHC H4; Turbo, STI	16 VALVE; SOHC H4; F.INJ.	16 VALVE; SOHC H4; F.INJ.
BORE	99.5mm(3.917")	99.5mm(3.917")	99.5mm(3.917")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.046"	1.8891/1.8898
ENGINE KITS			
MAJOR KIT	EKSU15M		
RE-RING KIT	EKSU15R		
BEARING SETS			
MAIN BEARING SET	MBSU11L	MBSU11L❶	MBSU11L❶
		MBSU9❷	MBSU9❷
ROD BEARING SET	RBSU15	RBSU9❸	RBSU9❸
		RBSU11L❹	RBSU11L❹
GASKETS			
FULL GASKET SET	CGSSU15ST	CGSSU11S	CGSSU11S
HEAD GASKET SET	HSSU15ST	HSSU11S	HSSU11S
CONVERSION SET	CBSSU11ST	CBSSU11	CBSSU11
HEAD BOLT SET	HBSU11D	HBSU11S	HBSU11S
PISTONS, RINGS, PLUGS			
PISTONS	PASU15	PASU11S	
RING SETS	RSSU15W	RSSU11S	RSSU11S
PIN BUSHINGS	PBSU9	PBSU9	PBSU9
CRANKSHAFT & RODS			
CONNECTING ROD		-❸	
OIL PUMP			
NEW OIL PUMP	OPSU11	OPSU11	OPSU11

❶ (For flange in #5 position)
❷ (For flange in #3 position)
❸ (For 52mm journal)
❹ (For 48mm journal)

MODEL	IMPREZA WRX STi	IMPREZA OUTBACK FORESTER (01-05) BAJA (03-06) LEGACY (00-05)	FORESTER
ENGINE CODE	**EJ257**	**EJ251/EJ252/EJ253**	**EJ25E**
DISPLACEMENT	**2457cc(150")**	**2457cc(150")**	**2457cc(150")**
YEARS	**2004-2007**	**1999-2006**	**1999-2000**
DESCRIPTION	16 vlv; DOHC H4; Turbo, STI	16 VALVE; SOHC H4; F.INJ.	16 VALVE; SOHC H4; F.INJ.
BORE	99.5mm(3.917")	99.5mm(3.917")	99.5mm(3.917")
STROKE	79mm(3.11")	79mm(3.11")	79mm(3.11")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.046"	1.8891/1.8898
VALVE TRAIN			
INTAKE VALVE	IVSU15	IVSU11S	IVSU11S
EXHAUST VALVE	EVSU15	EVSU11S	EVSU11S
VALVE GUIDE	VGSU9	VGSU9	VGSU9
VALVE SEALS	VSSSU9	VSSSU9	VSSSU9
WATER PUMP & TIMING			
WATER PUMP		WPSU11❶	WPSU11❶
TIMING BELT	TBSU15	TBSU11L❷ TBSU11B❸	TBSU11L

❶ (1 pressed fit tube)
❷ (VIN 4th Digit G)
❸ (VIN 4th Digit B)

SUBARU

MODEL	LEGACY IMPREZA (1998) FORESTER (1998)	LEGACY	OUTBACK LEGACY
ENGINE CODE	**EJ25D**	**EJ25D**	**FB25D**
DISPLACEMENT	**2457cc(150")**	**2457cc(150")**	**2498cc(152.4")**
YEARS	**1997-1999**	**1996**	**2020**
DESCRIPTION	16 VALVE; DOHC H4; F.INJ.	16 VALVE; DOHC H4; F.INJ.	16 VALVE DOHC H4; F.INJ
BORE	99.5mm(3.917")	99.5mm(3.917")	94mm(3.701")
STROKE	79mm(3.11")	79mm(3.11")	90mm(3.54")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8891/1.8898	1.8891/1.8898	1.8888/1.8898"
BEARING SETS			
MAIN BEARING SET	MBSU9❶	MBSU9❶	MBSU16
	MBSU11L❷	MBSU11L❷	
ROD BEARING SET	RBSU11L❸	RBSU11L❸	
	RBSU9❹	RBSU9❹	
GASKETS			
FULL GASKET SET	CGSSU11❺	CGSSU11E	
HEAD GASKET SET	HSSU11❺	HSSU11E	
CONVERSION SET	CBSSU11	CBSSU11	
HEAD BOLT SET	HBSU11D	HBSU11D	HBSU11D
PISTONS, RINGS, PLUGS			
PISTONS	PASU11	PASU11	
RING SETS	RSSU11	RSSU11	
PIN BUSHINGS	PBSU9	PBSU9	PBSU16F
OIL PUMP			
NEW OIL PUMP	OPSU11	OPSU11	

❶ (For flange in #3 position)
❷ (For flange in #5 position)
❸ (For 48mm journal)
❹ (For 52mm journal)
❺ (valve cover gaskets for 98-99 Legacy not included)

MODEL	LEGACY IMPREZA (1998) FORESTER (1998)	LEGACY	OUTBACK LEGACY
ENGINE CODE	**EJ25D**	**EJ25D**	**FB25D**
DISPLACEMENT	**2457cc(150")**	**2457cc(150")**	**2498cc(152.4")**
YEARS	**1997-1999**	**1996**	**2020**
DESCRIPTION	16 VALVE; DOHC H4; F.INJ.	16 VALVE; DOHC H4; F.INJ.	16 VALVE DOHC H4; F.INJ
BORE	99.5mm(3.917")	99.5mm(3.917")	94mm(3.701")
STROKE	79mm(3.11")	79mm(3.11")	90mm(3.54")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8891/1.8898	1.8891/1.8898	1.8888/1.8898"
VALVE TRAIN			
LIFTERS			LIFSU16
INTAKE VALVE	IVSU11L (97-99) IVSU11 (96 only)	IVSU11L (97-99) IVSU11 (96 only)	IVSU16OL
EXHAUST VALVE	EVSU11L (97-99) EVSU11 (96 only)	EVSU11L (97-99) EVSU11 (96 only)	
INTAKE GUIDE	IVGSU11	IVGSU11	IVGSU16F
EXHAUST GUIDE	EVGSU11	EVGSU11	EVGSU16F
VALVE SEALS	VSSSU9	VSSSU9	
WATER PUMP & TIMING			
WATER PUMP	WPSU11❶	WPSU11❶	WPSU16F
TIMING BELT	TBSU11	TBSU11	

❶ (1 pressed fit tube)

SUBARU

MODEL	FORESTER	LEGACY OUTBACK	FORESTER
ENGINE CODE	**FB25D**	**FB25**	**FB25**
DISPLACEMENT	**2498cc(152.4")**	**2498cc(152.4")**	**2498cc(152.4")**
YEARS	**2019-2020**	**2015-2019**	**2017-2018**
DESCRIPTION	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8898"	1.8888/1.8898"
BEARING SETS			
MAIN BEARING SET	MBSU16	MBSU16	MBSU16
ROD BEARING SET		RBSU16	RBSU16
GASKETS			
FULL GASKET SET		CGSSU16FL	CGSSU16FL
HEAD GASKET SET		HSSU16FL	HSSU16FL
CONVERSION SET		CBSSU16F	CBSSU16F
HEAD BOLT SET	HBSU11D	HBSU11D	HBSU11D
PISTONS, RINGS, PLUGS			
PISTONS		PASU16F	PASU16F
RING SETS		RSSU16F	RSSU16F
PIN BUSHINGS	PBSU16F	PBSU16F	PBSU16F

MODEL	FORESTER	LEGACY OUTBACK	FORESTER
ENGINE CODE	**FB25D**	**FB25**	**FB25**
DISPLACEMENT	**2498cc(152.4")**	**2498cc(152.4")**	**2498cc(152.4")**
YEARS	**2019-2020**	**2015-2019**	**2017-2018**
DESCRIPTION	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8898"	1.8888/1.8898"
VALVE TRAIN			
LIFTERS	LIFSU16	LIFSU16	LIFSU16
INTAKE VALVE	IVSU16OL	IVSU16OL	IVSU16OL
EXHAUST VALVE		EVSU16F	EVSU16F
INTAKE GUIDE	IVGSU16F	IVGSU16F	IVGSU16F
EXHAUST GUIDE	EVGSU16F	EVGSU16F	EVGSU16F
VALVE SEALS		VSSSU16	VSSSU16
WATER PUMP & TIMING			
WATER PUMP		WPSU16F	WPSU16F
GEARLESS TIMING KIT		PTKSU16F (thru 08/16)	

SUBARU

MODEL	FORESTER	FORESTER	FORESTER
ENGINE CODE	**FB25BA**	**FB25**	**FB25BA**
DISPLACEMENT	**2498cc(152.4")**	**2498cc(152.4")**	**2498cc(152.4")**
YEARS	**2017-2018**	**2014-2016**	**2011-2016**
DESCRIPTION	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8898"	1.8888/1.8898"
BEARING SETS			
MAIN BEARING SET	MBSU16	MBSU16	MBSU16
ROD BEARING SET	RBSU16	RBSU16	RBSU16
GASKETS			
FULL GASKET SET	CGSSU16FL	CGSSU16F	CGSSU16F
HEAD GASKET SET	HSSU16FL	HSSU16F	HSSU16F
CONVERSION SET	CBSSU16F	CBSSU16F	CBSSU16F
HEAD BOLT SET	HBSU11D	HBSU11D	HBSU11D
PISTONS, RINGS, PLUGS			
PISTONS	PASU16F	PASU16F	PASU16F
RING SETS	RSSU16F	RSSU16F	RSSU16F
PIN BUSHINGS	PBSU16F	PBSU16F	PBSU16F

MODEL	FORESTER	FORESTER	FORESTER
ENGINE CODE	FB25BA	FB25	FB25BA
DISPLACEMENT	2498cc(152.4")	2498cc(152.4")	2498cc(152.4")
YEARS	2017-2018	2014-2016	2011-2016
DESCRIPTION	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.6766/2.6775"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8898"	1.8888/1.8898"
VALVE TRAIN			
LIFTERS	LIFSU16	LIFSU16	LIFSU16
INTAKE VALVE	IVSU16OL	IVSU16❶	IVSU16❶
		IVSU16F❷	IVSU16F❷
EXHAUST VALVE	EVSU16F	EVSU16❸	EVSU16❸
		EVSU16F❹	EVSU16F❹
INTAKE GUIDE	IVGSU16F	IVGSU16F	IVGSU16F
EXHAUST GUIDE	EVGSU16F	EVGSU16F	EVGSU16F
VALVE SEALS	VSSSU16	VSSSU16	VSSSU16
WATER PUMP & TIMING			
WATER PUMP	WPSU16F	WPSU16F	WPSU16F
TIMING CHAIN KIT		CTKSU16F❺	CTKSU16F❺
GEARLESS TIMING KIT		PTKSU16F❻	PTKSU16F❻

❶ (103.4mm; thru 04/01/15)
❷ (105.2mm; after 04/02/15)
❸ (94.3mm; thru 04/01/15)
❹ (96.6mm; after 04/02/15)
❺ (Cam Phasers not included)
❻ (Gears not included)

SUBARU

MODEL	LEGACY OUTBACK	FORESTER	LEGACY (08-09) OUTBACK TRIBECA
ENGINE CODE	**FB25**	**FB25BC**	**EZ30D**
DISPLACEMENT	**2498cc(152.4")**	**2498cc(152.4")**	**2999cc(183.0")**
YEARS	**2013-2014**	**2011-2013**	**2005-2009**
DESCRIPTION	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ	24 VALVE; DOHC H6; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	89.2mm(3.512")
STROKE	90mm(3.54")	90mm(3.54")	80mm(3.15")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.5191/2.5200"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8898"	2.0466/2.0472"
BEARING SETS			
MAIN BEARING SET	MBSU16	MBSU16	MBSU12
ROD BEARING SET	RBSU16	RBSU16	RBSU12
GASKETS			
FULL GASKET SET	CGSSU16OL	CGSSU16F	
HEAD GASKET SET	HSSU16OL	HSSU16F	
CONVERSION SET	CBSSU16F	CBSSU16F	
HEAD BOLT SET	HBSU11D	HBSU11D	
PISTONS, RINGS, PLUGS			
PISTONS	PASU16F	PASU16F	PASU12L
RING SETS	RSSU16F	RSSU16F	RSSU12L
PIN BUSHINGS	PBSU16F	PBSU16F	PBD34

MODEL	LEGACY OUTBACK	FORESTER	LEGACY (08-09) OUTBACK TRIBECA
ENGINE CODE	**FB25**	**FB25BC**	**EZ30D**
DISPLACEMENT	**2498cc(152.4")**	**2498cc(152.4")**	**2999cc(183.0")**
YEARS	**2013-2014**	**2011-2013**	**2005-2009**
DESCRIPTION	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC H4; F.INJ	24 VALVE; DOHC H6; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	89.2mm(3.512")
STROKE	90mm(3.54")	90mm(3.54")	80mm(3.15")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.6766/2.6775"	2.5191/2.5200"
ROD JOURNAL DIA.	1.8888/1.8898"	1.8888/1.8898"	2.0466/2.0472"
VALVE TRAIN			
LIFTERS	LIFSU16	LIFSU16	
INTAKE VALVE	IVSU16L	IVSU16	IVSU12T
EXHAUST VALVE	EVSU16L	EVSU16	EVSU12T
INTAKE GUIDE	IVGSU16F	IVGSU16F	IVGSU12
EXHAUST GUIDE	EVGSU16F	EVGSU16F	EVGSU12
VALVE SEALS	VSSSU16	VSSSU16	
WATER PUMP & TIMING			
WATER PUMP	WPSU16F	WPSU16F	
TIMING CHAIN KIT		CTKSU16F❶	
GEARLESS TIMING KIT	PTKSU16F❷	PTKSU16F❷	

❶ (Cam Phasers not included)

❷ (Gears not included)

SUBARU

MODEL	OUTBACK	SVX	LEGACY OUTBACK TRIBECA (08-14)
ENGINE CODE	**EZ30D**	**EG33D**	**EZ36D**
DISPLACEMENT	**2999cc(183.0")**	**3317cc**	**3629cc**
YEARS	**2001-2004**	**1992-1997**	**2008-2019**
DESCRIPTION	24 VALVE; DOHC H6; F.INJ.	24 VALVE; DOHC H6; F.INJ.	24 VALVE DOHC H6; F.INJ.
BORE	89.2mm(3.512")	96.9mm(3.815")	92mm(3.622")
STROKE	80mm(3.15")	75mm(2.95")	91mm(3.58")
MAIN JOURNAL DIA.	2.5191/2.5200"	2.3619/2.3625"	2.5191/2.5200"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
BEARING SETS			
MAIN BEARING SET	MBSU12		MBSU12
ROD BEARING SET	RBSU12		RBSU17
GASKETS			
FULL GASKET SET			CGSSU17
HEAD GASKET SET			HSSU17
CONVERSION SET			CBSSU17
PISTONS, RINGS, PLUGS			
PISTONS	PASU12		PASU17
RING SETS	RSSU12		RSSU17
PIN BUSHINGS	PBD34		PBD34

MODEL	OUTBACK	SVX	LEGACY OUTBACK TRIBECA (08-14)
ENGINE CODE	**EZ30D**	**EG33D**	**EZ36D**
DISPLACEMENT	**2999cc(183.0")**	**3317cc**	**3629cc**
YEARS	**2001-2004**	**1992-1997**	**2008-2019**
DESCRIPTION	24 VALVE; DOHC H6; F.INJ.	24 VALVE; DOHC H6; F.INJ.	24 VALVE DOHC H6; F.INJ.
BORE	89.2mm(3.512")	96.9mm(3.815")	92mm(3.622")
STROKE	80mm(3.15")	75mm(2.95")	91mm(3.58")
MAIN JOURNAL DIA.	2.5191/2.5200"	2.3619/2.3625"	2.5191/2.5200"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
VALVE TRAIN			
INTAKE VALVE	IVSU12	IVSU13	IVSU12TL
EXHAUST VALVE	EVSU12	EVSU13	EVSU12TL
INTAKE GUIDE	IVGSU12	IVGSU13	IVGSU12
EXHAUST GUIDE	EVGSU12	EVGSU13	EVGSU12
VALVE SEALS		VSSSU9	
WATER PUMP & TIMING			
TIMING BELT		TBSU13	

SUZUKI

MODEL	SWIFT	SWIFT	SAMURAI
ENGINE CODE	**G13BB**	**G13BA**	**G13BA**
DISPLACEMENT	**1298cc(79.2")**	**1298cc(79.2")**	**1298cc(79.2")**
YEARS	**1998-2001**	**1995-1997**	**1990-1995**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	75.5mm(2.97")	75.5mm(2.97")	75.5mm(2.97")
MAIN JOURNAL DIA.	1.7710/1.7716"	1.7710/1.7716"	1.7710/1.7716"
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	1.6531/1.6535"
ENGINE KITS			
GOLD KIT	EKSZ6G	EKSZ2MG (no OP sensor) EKSZ2MLG (w/OP sensor)	EKSZ2LG (90-94) EKSZ2SG (1995)
BRONZE KITS	EKSZ6B	EKSZ2MB (no OP sensor) EKSZ2MLB (w/OP sensor)	EKSZ2SB (90-94) EKSZ2SLB (1995)
MAJOR KIT	EKSZ6M	EKSZ2MM	EKSZ2LM (90-94) EKSZ2SM (1995)
RE-RING KIT	EKSZ6R	EKSZ2MR	EKSZ2R
BEARING SETS			
MAIN BEARING SET	MBSZ2	MBSZ2	MBSZ2
ROD BEARING SET	RBSZ2	RBSZ2	RBSZ2
THRUST WASHER SET	TWSZ2	TWSZ2	TWSZ2
GASKETS			
FULL GASKET SET	CGSSZ6	CGSSZ2M	CGSSZ2
HEAD GASKET SET	HSSZ6	HSSZ2M	HSSZ2
HEAD GASKETS	HDGSZ2	HDGSZ2	HDGSZ2
CONVERSION SET	CBSSZ6	CBSSZ2	CBSSZ2
PISTONS, RINGS, PLUGS			
PISTONS	PASZ6	PASZ2M	PASZ2M
RING SETS	RSSZ6	RSSZ2	RSSZ2
CRANKSHAFT & RODS			
CONNECTING ROD		CRSZ2M	CRSZ2
OIL PUMP			
NEW OIL PUMP	OPSZ5	OPSZ2 (no sensor) OPSZ5 (with sensor)	OPSZ2

MODEL	SWIFT	SWIFT	SAMURAI
ENGINE CODE	**G13BB**	**G13BA**	**G13BA**
DISPLACEMENT	**1298cc(79.2")**	**1298cc(79.2")**	**1298cc(79.2")**
YEARS	**1998-2001**	**1995-1997**	**1990-1995**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	75.5mm(2.97")	75.5mm(2.97")	75.5mm(2.97")
MAIN JOURNAL DIA.	1.7710/1.7716"	1.7710/1.7716"	1.7710/1.7716"
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	1.6531/1.6535"
VALVE TRAIN			
CAMSHAFTS	CAMSZ6	CAMSZ2M	
LIFTERS		ALAMA12	
ROCKER ARMS	RASZ5I		RASZ2
ROCKER ARMS	RASZ5E1 (#1) RASZ5E2 (#2)		
ROCKER ARM SHAFTS		RASISZ2M	
ROCKER ARM SHAFTS		RASESZ2M	
INTAKE VALVE	IVSZ5	IVSZ2	IVSZ2
EXHAUST VALVE	EVSZ5	EVSZ2	EVSZ2
VALVE GUIDE	VGSZ2L	VGSZ2	VGSZ2
VALVE SEALS	VSSSZ2L	VSSSZ2	VSSSZ2
WATER PUMP & TIMING			
WATER PUMP	WPSZ2M	WPSZ2M	WPSZ2S
TIMING BELT	TBSZ2X	TBSZ2M	TBSZ2 (90-94) TBSZ2S (1995)
TENSIONERS	BTSZ5	BTSZ5	BTSZ2
ENGINES & HEADS			
HEAD W/VALVES		CHVSZ2M	

SUZUKI

MODEL	SWIFT	SWIFT Gti	SWIFT
ENGINE CODE	**G13BA**	**G13K**	**G13BA**
DISPLACEMENT	**1298cc(79.2")**	**1298cc(79.2")**	**1298cc(79.2")**
YEARS	**1994**	**1989-1994**	**1989-1993**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	75.5mm(2.97")	75.5mm(2.97")	75.5mm(2.97")
MAIN JOURNAL DIA.	1.7710/1.7716"	1.7710/1.7716"	1.7710/1.7716"
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	1.6531/1.6535"
ENGINE KITS			
GOLD KIT	EKSZ2SG	EKSZ3G	EKSZ2LG
BRONZE KITS	EKSZ2SLB	EKSZ3B	EKSZ2SB
MAJOR KIT	EKSZ2SM	EKSZ3M	EKSZ2LM
RE-RING KIT	EKSZ2R	EKSZ3R	EKSZ2R
BEARING SETS			
MAIN BEARING SET	MBSZ2	MBSZ2	MBSZ2
ROD BEARING SET	RBSZ2	RBSZ2	RBSZ2
THRUST WASHER SET	TWSZ2	TWSZ2	TWSZ2
GASKETS			
FULL GASKET SET	CGSSZ2	CGSSZ3	CGSSZ2
HEAD GASKET SET	HSSZ2	HSSZ3	HSSZ2
HEAD GASKETS	HDGSZ2	HDGSZ2	HDGSZ2
CONVERSION SET	CBSSZ2	CBSSZ2	CBSSZ2
PISTONS, RINGS, PLUGS			
PISTONS	PASZ2M	PASZ3	PASZ2M
RING SETS	RSSZ2	RSSZ2	RSSZ2
CRANKSHAFT & RODS			
CONNECTING ROD	CRSZ2		CRSZ2
OIL PUMP			
NEW OIL PUMP	OPSZ2	OPSZ3	OPSZ2

MODEL	SWIFT	SWIFT Gti	SWIFT
ENGINE CODE	**G13BA**	**G13K**	**G13BA**
DISPLACEMENT	**1298cc(79.2")**	**1298cc(79.2")**	**1298cc(79.2")**
YEARS	**1994**	**1989-1994**	**1989-1993**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	75.5mm(2.97")	75.5mm(2.97")	75.5mm(2.97")
MAIN JOURNAL DIA.	1.7710/1.7716"	1.7710/1.7716"	1.7710/1.7716"
ROD JOURNAL DIA.	1.6531/1.6535"	1.6531/1.6535"	1.6531/1.6535"
VALVE TRAIN			
LIFTERS		LIFSZ8	
ROCKER ARMS	RASZ2		RASZ2
ROCKER ARM SHAFTS	RASISZ2		RASISZ2
INTAKE VALVE	IVSZ2	IVSZ3	IVSZ2
EXHAUST VALVE	EVSZ2	EVSZ3	EVSZ2
VALVE GUIDE	VGSZ2	VGSZ3	VGSZ2
VALVE SEALS	VSSSZ2	VSSSZ2L	VSSSZ2
WATER PUMP & TIMING			
WATER PUMP	WPSZ2M	WPSZ2M	WPSZ2M
TIMING BELT	TBSZ2S	TBSZ3	TBSZ2
TENSIONERS	BTSZ2	BTSZ3	BTSZ2

SUZUKI

MODEL	SAMURAI SIDEKICK (89)	VITARA	ESTEEM
ENGINE CODE	**G13A**	**G16B**	**G16B**
DISPLACEMENT	**1324cc(80.8)**	**1590cc(97")**	**1590cc(97")**
YEARS	**1986-1989**	**1999-2001**	**1998-2000**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	75mm(2.953")	75mm(2.953")
STROKE	76mm(3.03")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	1.7710/1.7716"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.6531/1.6535"	1.7316/1.7323"	1.7316/1.7323"
ENGINE KITS			
GOLD KIT	EKSZ2G	EKSZ5KG	EKSZ5KG
BRONZE KITS	EKSZ2B	EKSZ5VB	EKSZ5VB
MAJOR KIT	EKSZ2M	EKSZ5M	EKSZ5M
RE-RING KIT	EKSZ2R	EKSZ5XR	EKSZ5XR
BEARING SETS			
MAIN BEARING SET	MBSZ2	MBSZ4	MBSZ4
ROD BEARING SET	RBSZ2	RBSZ4	RBSZ4
THRUST WASHER SET	TWSZ2	TWSZ4	TWSZ4
GASKETS			
FULL GASKET SET	CGSSZ2	CGSSZ5	CGSSZ5
HEAD GASKET SET	HSSZ2	HSSZ5	HSSZ5
HEAD GASKETS	HDGSZ2	HDGSZ5	HDGSZ5
CONVERSION SET	CBSSZ2	CBSSZ4	CBSSZ4
HEAD BOLT SET		HBSZ5	HBSZ5
PISTONS, RINGS, PLUGS			
PISTONS	PASZ2	PASZ5	PASZ5
RING SETS	RSSZ2	RSSZ5	RSSZ5
CRANKSHAFT & RODS			
CONNECTING ROD	CRSZ2	CRSZ5	CRSZ5
OIL PUMP			
NEW OIL PUMP	OPSZ2	OPSZ5	OPSZ5

MODEL	SAMURAI SIDEKICK (89)	VITARA	ESTEEM
ENGINE CODE	**G13A**	**G16B**	**G16B**
DISPLACEMENT	**1324cc(80.8)**	**1590cc(97")**	**1590cc(97")**
YEARS	**1986-1989**	**1999-2001**	**1998-2000**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	74mm(2.913")	75mm(2.953")	75mm(2.953")
STROKE	76mm(3.03")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	1.7710/1.7716"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.6531/1.6535"	1.7316/1.7323"	1.7316/1.7323"
VALVE TRAIN			
CAMSHAFTS		CAMSZ5V	CAMSZ6
ROCKER ARMS	RASZ2	RASZ5I	RASZ5I
ROCKER ARMS		RASZ5E1 (#1)	RASZ5E1 (#1)
		RASZ5E2 (#2)	RASZ5E2 (#2)
ROCKER ARM SHAFTS	RASISZ2 (int.)		
	RASESZ2 (ex.)		
INTAKE VALVE	IVSZ2	IVSZ5	IVSZ5
EXHAUST VALVE	EVSZ2	EVSZ5	EVSZ5
VALVE GUIDE	VGSZ2	VGSZ2L	VGSZ2L
VALVE SEALS	VSSSZ2	VSSSZ2L	VSSSZ2L
WATER PUMP & TIMING			
WATER PUMP	WPSZ2S	WPSZ5	WPSZ5
TIMING BELT	TBSZ2	TBSZ5	TBSZ5
TENSIONERS	BTSZ2	BTSZ5	BTSZ5

SUZUKI

MODEL	X90 SIDEKICK	ESTEEM	SIDEKICK
ENGINE CODE	**G16KV**	**G16B**	**G16KV**
DISPLACEMENT	**1590cc(97")**	**1590cc(97")**	**1590cc(97")**
YEARS	**1996-1998**	**1995-1997**	**1992-1995**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	75mm(2.953")	75mm(2.953")	75mm(2.953")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.7316/1.7323"	1.7316/1.7323"	1.7316/1.7323"
ENGINE KITS			
GOLD KIT	EKSZ5KG	EKSZ5G	EKSZ5G
BRONZE KITS	EKSZ5KB	EKSZ5B	EKSZ5B
MAJOR KIT	EKSZ5M	EKSZ5M	EKSZ5M
RE-RING KIT	EKSZ5XR	EKSZ5XR	EKSZ5R
BEARING SETS			
MAIN BEARING SET	MBSZ4	MBSZ4	MBSZ4
ROD BEARING SET	RBSZ4	RBSZ4	RBSZ4
THRUST WASHER SET	TWSZ4	TWSZ4	TWSZ4
GASKETS			
FULL GASKET SET	CGSSZ5	CGSSZ5	CGSSZ5
HEAD GASKET SET	HSSZ5	HSSZ5	HSSZ5
HEAD GASKETS	HDGSZ5	HDGSZ5	HDGSZ5
CONVERSION SET	CBSSZ4	CBSSZ4	CBSSZ4
HEAD BOLT SET	HBSZ5	HBSZ5	HBSZ5
PISTONS, RINGS, PLUGS			
PISTONS	PASZ5	PASZ5	PASZ5
RING SETS	RSSZ5	RSSZ5	RSSZ4
CRANKSHAFT & RODS			
CONNECTING ROD	CRSZ5	CRSZ5	CRSZ5
OIL PUMP			
NEW OIL PUMP	OPSZ5 (w/sensor)	OPSZ4 (no sensor)	OPSZ4 (no sensor)

MODEL	X90 SIDEKICK	ESTEEM	SIDEKICK
ENGINE CODE	**G16KV**	**G16B**	**G16KV**
DISPLACEMENT	**1590cc(97")**	**1590cc(97")**	**1590cc(97")**
YEARS	**1996-1998**	**1995-1997**	**1992-1995**
DESCRIPTION	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.	16 VALVE; SOHC 4; F.INJ.
BORE	75mm(2.953")	75mm(2.953")	75mm(2.953")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.0465/2.0472"	2.0465/2.0472"
ROD JOURNAL DIA.	1.7316/1.7323"	1.7316/1.7323"	1.7316/1.7323"
VALVE TRAIN			
ROCKER ARMS	RASZ5I	RASZ5I	
ROCKER ARMS	RASZ5E1 (#1)	RASZ5E1 (#1)	
	RASZ5E2 (#2)	RASZ5E2 (#2)	
INTAKE VALVE	IVSZ5	IVSZ5	IVSZ5
EXHAUST VALVE	EVSZ5	EVSZ5	EVSZ5
VALVE GUIDE	VGSZ2L	VGSZ2L	VGSZ2L
VALVE SEALS	VSSSZ2L	VSSSZ2L	VSSSZ2L
WATER PUMP & TIMING			
WATER PUMP	WPSZ4	WPSZ4	WPSZ4
TIMING BELT	TBSZ5	TBSZ5	TBSZ5
TENSIONERS	BTSZ5	BTSZ5	BTSZ5

SUZUKI

MODEL	SIDEKICK	ESTEEM	SIDEKICK
ENGINE CODE	**G16KC**	**G18K**	**G18K**
DISPLACEMENT	**1590cc(97")**	**1840cc(112.3")**	**1840cc(112.3")**
YEARS	**1989-1995**	**1999-2002**	**1996-1998**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	75mm(2.953")	84mm(3.307")	84mm(3.307")
STROKE	90mm(3.54")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.2828/2.2834"	2.2828/2.2834"
ROD JOURNAL DIA.	1.7316/1.7323"	1.9678/1.9685"	1.9678/1.9685"
ENGINE KITS			
PLATINUM KIT		EKSZ7P	EKSZ7P
GOLD KIT	EKSZ4G	EKSZ7G	EKSZ7G
SILVER KIT		EKSZ7S	EKSZ7S
BRONZE KITS	EKSZ4B	EKSZ7B	EKSZ7B
MAJOR KIT	EKSZ4M	EKSZ7M	EKSZ7M
RE-RING KIT	EKSZ4R	EKSZ7R	EKSZ7R
ULTRA KIT		EKSZ7U	EKSZ7U
BEARING SETS			
MAIN BEARING SET	MBSZ4	MBSZ7	MBSZ7
ROD BEARING SET	RBSZ4	RBSZ7	RBSZ7
THRUST WASHER SET	TWSZ4	TWSZ7	TWSZ7
GASKETS			
FULL GASKET SET	CGSSZ4	CGSSZ7	CGSSZ7
HEAD GASKET SET	HSSZ4	HSSZ7	HSSZ7
HEAD GASKETS	HDGSZ5	HDGSZ7	HDGSZ7
CONVERSION SET	CBSSZ4	CBSSZ7	CBSSZ7
HEAD BOLT SET	HBSZ4	HBSZ7	HBSZ7
PISTONS, RINGS, PLUGS			
PISTONS	PASZ4❶	PASZ7	PASZ7
RING SETS	RSSZ4	RSSZ7	RSSZ7
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSSZ7	CSSZ7
CONNECTING ROD	CRSZ4 (89-90) CRSZ5 (91-95)	CRSZ7	CRSZ7
OIL PUMP			
NEW OIL PUMP	OPSZ4	OPSZ7	OPSZ7

❶ (free float only)

MODEL	SIDEKICK	ESTEEM	SIDEKICK
ENGINE CODE	**G16KC**	**G18K**	**G18K**
DISPLACEMENT	**1590cc(97")**	**1840cc(112.3")**	**1840cc(112.3")**
YEARS	**1989-1995**	**1999-2002**	**1996-1998**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	75mm(2.953")	84mm(3.307")	84mm(3.307")
STROKE	90mm(3.54")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.0465/2.0472"	2.2828/2.2834"	2.2828/2.2834"
ROD JOURNAL DIA.	1.7316/1.7323"	1.9678/1.9685"	1.9678/1.9685"
VALVE TRAIN			
LIFTERS		LIFSZ8	LIFSZ8
ROCKER ARMS	RASZ2		
INTAKE VALVE	IVSZ4	IVSZ8	IVSZ8
EXHAUST VALVE	EVSZ4	EVSZ8	EVSZ8
VALVE GUIDE	VGSZ2	VGSZ8	VGSZ8
VALVE SEALS	VSSSZ2	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPSZ4	WPSZ7	WPSZ7
TIMING CHAIN KIT		CTKSZ7	CTKSZ7
GEARLESS TIMING KIT		PTKSZ7	PTKSZ7
TIMING BELT	TBSZ4		
TENSIONERS	BTSZ2		

SUZUKI

MODEL	VITARA AERIO	SX4	SX4
ENGINE CODE	J20A	J20B	J20A
DISPLACEMENT	1995cc(121.7")	1997cc(122")	1997cc(122")
YEARS	1999-2003	2010-2013	2007-2009
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	84mm(3.307")	84mm(3.307")	84mm(3.307")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.2828/2.2834"		2.2828/2.2834"
ROD JOURNAL DIA.	1.9678/1.9685"		1.9678/1.9685"
ENGINE KITS			
PLATINUM KIT	EKSZ7P		
GOLD KIT	EKSZ7G		EKSZ13G
SILVER KIT	EKSZ7S		
BRONZE KITS	EKSZ7B		
MAJOR KIT	EKSZ7M		EKSZ13M
RE-RING KIT	EKSZ7R		EKSZ13R
ULTRA KIT	EKSZ7U		
BEARING SETS			
MAIN BEARING SET	MBSZ7		MBSZ7
ROD BEARING SET	RBSZ7		RBSZ7
THRUST WASHER SET	TWSZ7		TWSZ7
GASKETS			
FULL GASKET SET	CGSSZ7		CGSSZ13
HEAD GASKET SET	HSSZ7		HSSZ13
HEAD GASKETS	HDGSZ7		HDGSZ7
CONVERSION SET	CBSSZ7		CBSSZ7
HEAD BOLT SET	HBSZ7		HBSZ7
PISTONS, RINGS, PLUGS			
PISTONS	PASZ7		
RING SETS	RSSZ7		RSSZ13
CRANKSHAFT & RODS			
CONNECTING ROD	CRSZ8		
OIL PUMP			
NEW OIL PUMP	OPSZ7		OPSZ7

MODEL	VITARA AERIO	SX4	SX4
ENGINE CODE	**J20A**	**J20B**	**J20A**
DISPLACEMENT	**1995cc(121.7")**	**1997cc(122")**	**1997cc(122")**
YEARS	**1999-2003**	**2010-2013**	**2007-2009**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.
BORE	84mm(3.307")	84mm(3.307")	84mm(3.307")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.2828/2.2834"		2.2828/2.2834"
ROD JOURNAL DIA.	1.9678/1.9685"		1.9678/1.9685"
VALVE TRAIN			
LIFTERS	LIFSZ8		LIFSZ13
INTAKE VALVE	IVSZ8	IVSZ17	IVSZ13
EXHAUST VALVE	EVSZ8	EVSZ17	EVSZ13
VALVE GUIDE	VGSZ8		VGSZ8
VALVE SEALS	VSSTO15	VSSSZ2L	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPSZ7		WPSZ7
TIMING CHAIN KIT	CTKSZ7		CTKSZ7
GEARLESS TIMING KIT	PTKSZ7		PTKSZ7

SUZUKI

MODEL	FORENZA RENO	AERIO	GRAND VITARA KIZASHI
ENGINE CODE	**L34 ETEC II**	**J23A**	**J24B**
DISPLACEMENT	**1998cc(121.9")**	**2290cc(139.7")**	**2393cc(146.0")**
YEARS	**2004-2008**	**2004-2007**	**2009-2013**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	86.0mm(3.386")	90mm(3.543")	92mm(3.622")
STROKE	86.0mm(3.39")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.2884/2.2833"	2.2828/2.2834"	2.0466/2.0472"
ROD JOURNAL DIA.	1.9279/1.9287"	1.9678/1.9685"	1.9678/1.9685"
ENGINE KITS			
GOLD KIT	EKSZ10G	EKSZ11G	
MAJOR KIT	EKSZ10M	EKSZ11M	
RE-RING KIT	EKSZ10R❶ EKSZ10LR❷	EKSZ11R	
BEARING SETS			
MAIN BEARING SET	MBSZ10	MBSZ7	
ROD BEARING SET	RBIS16	RBSZ7	
THRUST WASHER SET		TWSZ7	
GASKETS			
FULL GASKET SET	CGSSZ10	CGSSZ11	
HEAD GASKET SET	HSSZ10	HSSZ11	
HEAD GASKETS	HDGSZ10		
CONVERSION SET	CBSSZ10	CBSSZ11	
HEAD BOLT SET	HBIS16	HBSZ7	
PISTONS, RINGS, PLUGS			
PISTONS	PASZ10	PASZ11	
RING SETS	RSIS16❶ RSIS16R❷	RSSZ11	
OIL PUMP			
NEW OIL PUMP	OPDW2	OPSZ7	

❶ (1.5x1.5x3.0mm)
❷ (1.2x1.5x2.5mm)

MODEL	FORENZA RENO	AERIO	GRAND VITARA KIZASHI
ENGINE CODE	**L34 ETEC II**	**J23A**	**J24B**
DISPLACEMENT	**1998cc(121.9")**	**2290cc(139.7")**	**2393cc(146.0")**
YEARS	**2004-2008**	**2004-2007**	**2009-2013**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	86.0mm(3.386")	90mm(3.543")	92mm(3.622")
STROKE	86.0mm(3.39")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.2884/2.2833"	2.2828/2.2834"	2.0466/2.0472"
ROD JOURNAL DIA.	1.9279/1.9287"	1.9678/1.9685"	1.9678/1.9685"
VALVE TRAIN			
LIFTERS	LIFIS16	LIFSZ8	
INTAKE VALVE	IVIS16	IVSZ11	IVSZ15
EXHAUST VALVE	EVIS16	EVSZ11	EVSZ15
VALVE GUIDE	IVGIS16 EVGIS16		
VALVE SEALS	VSSIS16	VSSTO15	VSSSZ2L
WATER PUMP & TIMING			
TIMING CHAIN KIT		CTKSZ7	
GEARLESS TIMING KIT		PTKSZ7	
TIMING BELT	TBDW1		

SUZUKI

MODEL	Equator	VERONA	GRAND VITARA VITARA (2004)
ENGINE CODE	**QR25DE**	**XK6**	**H25A**
DISPLACEMENT	**2488cc(151.8")**	**2492cc(152.1")**	**2494cc(152.2")**
YEARS	**2009-2012**	**2004-2006**	**1999-2005**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	24 VALVE INLINE 6	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	77mm(3.031")	84mm(3.307")
STROKE	100mm(3.94")	89.2mm(3.51")	75m(2.95")
MAIN JOURNAL DIA.	2.1636/2.1645"		2.5585/2.5590"
ROD JOURNAL DIA.	1.7699/1.7706"		1.9678/1.9685"
ENGINE KITS			
PLATINUM KIT			EKSZ8P
GOLD KIT			EKSZ8G
SILVER KIT	EKD42FS		EKSZ8S
BRONZE KITS			EKSZ8B
MAJOR KIT	EKD42FM		EKSZ8M
RE-RING KIT	EKD42FR		EKSZ8R
ULTRA KIT			EKSZ8U
BEARING SETS			
MAIN BEARING SET	MBD42		MBSZ8
ROD BEARING SET	RBD42		RBSZ8
THRUST WASHER SET	TWD42		TWSZ7
GASKETS			
FULL GASKET SET	CGSD42F		CGSSZ8
HEAD GASKET SET	HSD42F		HSSZ8
HEAD GASKETS	HDGD42F		HDGSZ8 (set of 2)
CONVERSION SET	CBSD42		CBSSZ7
HEAD BOLT SET	HBD42		HBSZ8
PISTONS, RINGS, PLUGS			
PISTONS	PAD42F		PASZ8
RING SETS	RSD42		RSSZ8
PIN BUSHINGS	PBD42		
CRANKSHAFT & RODS			
CONNECTING ROD	CRD42		CRSZ8
OIL PUMP			
NEW OIL PUMP	TCD42F❶		OPSZ8

❶ (timing cover only)

MODEL	Equator	VERONA	GRAND VITARA VITARA (2004)
ENGINE CODE	**QR25DE**	**XK6**	**H25A**
DISPLACEMENT	**2488cc(151.8")**	**2492cc(152.1")**	**2494cc(152.2")**
YEARS	**2009-2012**	**2004-2006**	**1999-2005**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	24 VALVE INLINE 6	24 VALVE; DOHC V6; F.INJ.
BORE	89mm(3.504")	77mm(3.031")	84mm(3.307")
STROKE	100mm(3.94")	89.2mm(3.51")	75m(2.95")
MAIN JOURNAL DIA.	2.1636/2.1645"		2.5585/2.5590"
ROD JOURNAL DIA.	1.7699/1.7706"		1.9678/1.9685"
VALVE TRAIN			
LIFTERS			LIFSZ8
INTAKE VALVE	IVD42	IVSZ14	IVSZ8
EXHAUST VALVE	EVD42	EVSZ14	EVSZ8
VALVE GUIDE			VGSZ8
INTAKE GUIDE	IVGD30		
EXHAUST GUIDE	EVGD30		
VALVE SEALS	VSSD27		VSSTO15
WATER PUMP & TIMING			
WATER PUMP			WPSZ8
TIMING CHAIN KIT	CTKD42L		CTKSZ8
GEARLESS TIMING KIT	PTKD42L		PTKSZ8
OIL DRIVE KIT			ODKSZ8

SUZUKI

MODEL	GRAND VITARA	XL7 GRAND VITARA (2001)	GRAND VITARA
ENGINE CODE	**H27A**	**H27A**	**N32A**
DISPLACEMENT	**2737cc(167")**	**2737cc(167")**	**3195cc(195")**
YEARS	**2006-2008**	**2001-2006**	**2009-2010**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	88mm(3.46")	88mm(3.46")	89mm(3.504")
STROKE	75m(2.95")	75m(2.95")	85.6mm(3.37")
MAIN JOURNAL DIA.	2.5585/2.5590"	2.5585/2.5590"	2.6768/2.6775"
ROD JOURNAL DIA.	1.9678/1.9685"	1.9678/1.9685"	2.2044/2.2050"
ENGINE KITS			
PLATINUM KIT	EKSZ9LP	EKSZ9P	
GOLD KIT	EKSZ9LP	EKSZ9G	
SILVER KIT	EKSZ9LS	EKSZ9S	
BRONZE KITS		EKSZ9B	
MAJOR KIT		EKSZ9M	
RE-RING KIT		EKSZ9R	
ULTRA KIT	EKSZ9LU	EKSZ9U	
BEARING SETS			
MAIN BEARING SET	MBSZ8	MBSZ8	MBSZ12
ROD BEARING SET	RBSZ8	RBSZ8	RBSZ12
THRUST WASHER SET	TWSZ7	TWSZ7	
GASKETS			
FULL GASKET SET	CGSSZ9L	CGSSZ9	CGSSZ16
HEAD GASKET SET	HSSZ9L	HSSZ9	HSSZ16
CONVERSION SET	CBSSZ7	CBSSZ7	CBSSZ16
HEAD BOLT SET	HBSZ8	HBSZ8	HBSZ16
PISTONS, RINGS, PLUGS			
PISTONS	PASZ9	PASZ9	PASZ16
RING SETS	RSSZ9	RSSZ9	RSSZ16
CRANKSHAFT & RODS			
CONNECTING ROD	CRSZ8	CRSZ8	
OIL PUMP			
NEW OIL PUMP	OPSZ8	OPSZ8	OPSZ12

MODEL	GRAND VITARA	XL7 GRAND VITARA (2001)	GRAND VITARA
ENGINE CODE	**H27A**	**H27A**	**N32A**
DISPLACEMENT	**2737cc(167")**	**2737cc(167")**	**3195cc(195")**
YEARS	**2006-2008**	**2001-2006**	**2009-2010**
DESCRIPTION	24 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	88mm(3.46")	88mm(3.46")	89mm(3.504")
STROKE	75m(2.95")	75m(2.95")	85.6mm(3.37")
MAIN JOURNAL DIA.	2.5585/2.5590"	2.5585/2.5590"	2.6768/2.6775"
ROD JOURNAL DIA.	1.9678/1.9685"	1.9678/1.9685"	2.2044/2.2050"
VALVE TRAIN			
LIFTERS	LIFSZ13	LIFSZ8	A-2319
INTAKE VALVE	IVSZ13	IVSZ8	IVSZ16
EXHAUST VALVE	EVSZ13	EVSZ8	EVSZ12
VALVE GUIDE	VGSZ8	VGSZ8	
VALVE SEALS	VSSTO15	VSSTO15	
WATER PUMP & TIMING			
WATER PUMP	WPSZ8	WPSZ8	
TIMING CHAIN KIT	CTKSZ9	CTKSZ8	CTKSZ12
GEARLESS TIMING KIT	PTKSZ9	PTKSZ8	
OIL DRIVE KIT	ODKSZ8	ODKSZ8	

SUZUKI

MODEL	XL7	Equator	
ENGINE CODE	N36A	VQ40DE	
DISPLACEMENT	3564cc(217.5")	3954cc	
YEARS	2007-2009	2009-2012	
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.	
BORE	94.0mm(3.700")	95.5mm(3.759")	
STROKE	85.6mm(3.37")	92mm(3.62")	
MAIN JOURNAL DIA.	2.6768/2.6775"	2.7540/2.7549"	
ROD JOURNAL DIA.	2.2044/2.2050"	2.1242/2.1250"	
BEARING SETS			
MAIN BEARING SET	MBSZ12	MBD45	
ROD BEARING SET	RBSZ12	RBD45	
THRUST WASHER SET		TWD45	
GASKETS			
FULL GASKET SET	CGSSZ12	CGSD45	
HEAD GASKET SET	HSSZ12	HSD45	
HEAD GASKETS		HDGD45 (set of 2)	
CONVERSION SET	CBSSZ12	CBSD45	
HEAD BOLT SET	HBSZ12		
PISTONS, RINGS, PLUGS			
PISTONS	PASZ12	PAD45	
RING SETS	RSSZ12	RSD41	
OIL PUMP			
NEW OIL PUMP	OPSZ12	OPD45	

MODEL	XL7	Equator	
ENGINE CODE	**N36A**	**VQ40DE**	
DISPLACEMENT	**3564cc(217.5")**	**3954cc**	
YEARS	**2007-2009**	**2009-2012**	
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.	
BORE	94.0mm(3.700")	95.5mm(3.759")	
STROKE	85.6mm(3.37")	92mm(3.62")	
MAIN JOURNAL DIA.	2.6768/2.6775"	2.7540/2.7549"	
ROD JOURNAL DIA.	2.2044/2.2050"	2.1242/2.1250"	
VALVE TRAIN			
LIFTERS	A-2319		
INTAKE VALVE	IVSZ12	IVD41	
EXHAUST VALVE	EVSZ12	EVD41	
INTAKE GUIDE		VGD27 (in)	
EXHAUST GUIDE		EVGD30 (ex)	
VALVE SEALS		VSSD27	
WATER PUMP & TIMING			
WATER PUMP		WPD41	
TIMING CHAIN KIT	CTKSZ12 (2008-2009)	CTKD45	

TOYOTA

MODEL	TERCEL	TERCEL	TERCEL
ENGINE CODE	3AC	3AC	1AC
DISPLACEMENT	1452cc(88.6")	1452cc(88.6")	1452cc(88.6")
YEARS	1983-1988	1981-1982	1980
DESCRIPTION	8 VALVE; SOHC 4; CARB	8 VALVE; SOHC 4; CARB	8 VALVE; SOHC 4; CARB
BORE	77.5mm(3.051")	77.5mm(3.051")	77.5mm(3.051")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.5742/1.5748"	1.5742/1.5748"	1.5742/1.5748"
ENGINE KITS			
GOLD KIT	EKTO16LG		
MAJOR KIT	EKTO16LM		
RE-RING KIT	EKTO16LR	EKTO16R (81-82 only)	EKTO16R
BEARING SETS			
MAIN BEARING SET	MBTO18	MBTO16 (81-2/83) MBTO18 (2/83-on)	MBTO16
ROD BEARING SET	RBTO16L	RBTO16R	RBTO16R
THRUST WASHER SET	TWTO16	TWTO16	TWTO16
GASKETS			
FULL GASKET SET	CGSTO18	CGSTO18	CGSTO18
HEAD GASKET SET	HSTO18	HSTO18	HSTO18
HEAD GASKETS	HDGTO18	HDGTO18	HDGTO18
CONVERSION SET	CBSTO18	CBSTO18	CBSTO18
PISTONS, RINGS, PLUGS			
PISTONS	PATO16L	PATO16L	
RING SETS	RSTO16	RSTO16	RSTO16
FREEZE PLUG SET	EPSTO18	EPSTO18	EPSTO18
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSTO18R (2/83-on)	
CONNECTING ROD	-	CRTO16R	CRTO16R
OIL PUMP			
NEW OIL PUMP	OPTO18	OPTO18	OPTO18

TOYOTA

MODEL	TERCEL	TERCEL	TERCEL
ENGINE CODE	**3AC**	**3AC**	**1AC**
DISPLACEMENT	**1452cc(88.6")**	**1452cc(88.6")**	**1452cc(88.6")**
YEARS	**1983-1988**	**1981-1982**	**1980**
DESCRIPTION	8 VALVE; SOHC 4; CARB	8 VALVE; SOHC 4; CARB	8 VALVE; SOHC 4; CARB
BORE	77.5mm(3.051")	77.5mm(3.051")	77.5mm(3.051")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.5742/1.5748"	1.5742/1.5748"	1.5742/1.5748"
VALVE TRAIN			
ROCKER ARMS	RATO16I	RATO16I	RATO16I
ROCKER ARMS	RATO16E	RATO16E	RATO16E
ROCKER ARM SHAFTS	-		
INTAKE VALVE	IVTO18	IVTO18	IVTO18
EXHAUST VALVE	EVTO18	EVTO18	EVTO18
INTAKE GUIDE	IVGTO18	IVGTO18	IVGTO18
EXHAUST GUIDE	EVGTO18	EVGTO18	EVGTO18
VALVE SEALS	VSSTO18	VSSTO18	VSSTO18
WATER PUMP & TIMING			
TIMING BELT	TBTO18	TBTO18	TBTO18
TENSIONERS	BTTO18	BTTO18	BTTO18

TOYOTA

MODEL	TERCEL	TERCEL	YARIS YARIS iA
ENGINE CODE	**3EE**	**3E**	**P5**
DISPLACEMENT	**1456cc(89.0")**	**1456cc(89.0")**	**1496cc**
YEARS	**1990-1994**	**1987-1990**	**2017-2020**
DESCRIPTION	12 VALVE SOHC 4; F.INJ.	12 VALVE SOHC 4; CARB	16 VALVE DOHC 4; F.INJ.
BORE	73mm(2.874")	73mm(2.874")	74.5mm(2.93")
STROKE	87mm(3.43")	87mm(3.43")	85.8mm(3.38")
MAIN JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.6922/1.6929"
ROD JOURNAL DIA.	1.6929/1.6935"	1.6929/1.6935"	1.6922/1.6929"
ENGINE KITS			
GOLD KIT	EKTO26G	EKTO26G	
BRONZE KITS	EKTO26B	EKTO26B	
MAJOR KIT	EKTO26M	EKTO26M	
RE-RING KIT	EKTO26R	EKTO26R	
BEARING SETS			
MAIN BEARING SET	MBTO26	MBTO26	
ROD BEARING SET	RBTO26	RBTO26	
THRUST WASHER SET	TWTO26	TWTO26	
GASKETS			
FULL GASKET SET	CGSTO26	CGSTO26	
HEAD GASKET SET	HSTO26	HSTO26	
HEAD GASKETS	HDGTO26	HDGTO26	
CONVERSION SET	CBSTO26	CBSTO26	
HEAD BOLT SET	HBTO26	HBTO26	
PISTONS, RINGS, PLUGS			
PISTONS	PATO26	PATO26	
RING SETS	RSTO26	RSTO26	
FREEZE PLUG SET	EPSTO26	EPSTO26	
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO26	CRTO26	
OIL PUMP			
NEW OIL PUMP	OPTO26	OPTO26	

MODEL	TERCEL	TERCEL	YARIS YARIS iA
ENGINE CODE	**3EE**	**3E**	**P5**
DISPLACEMENT	**1456cc(89.0")**	**1456cc(89.0")**	**1496cc**
YEARS	**1990-1994**	**1987-1990**	**2017-2020**
DESCRIPTION	12 VALVE SOHC 4; F.INJ.	12 VALVE SOHC 4; CARB	16 VALVE DOHC 4; F.INJ.
BORE	73mm(2.874")	73mm(2.874")	74.5mm(2.93")
STROKE	87mm(3.43")	87mm(3.43")	85.8mm(3.38")
MAIN JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.6922/1.6929"
ROD JOURNAL DIA.	1.6929/1.6935"	1.6929/1.6935"	1.6922/1.6929"
VALVE TRAIN			
CAMSHAFTS	CAMTO26	CAMTO26	
ROCKER ARMS	RATO26	RATO26	
INTAKE VALVE	IVTO26	IVTO26	
EXHAUST VALVE	EVTO26	EVTO26	
VALVE GUIDE	VGTO28	VGTO28	
SUB VALVES	IVTO26S	IVTO26S	
VALVE SEALS	VSSTO15	VSSTO15	
WATER PUMP & TIMING			
WATER PUMP	WPTO26	WPTO26	
TIMING BELT	TBTO26	TBTO26	
TENSIONERS	BTTO26	BTTO26	
IDLERS AND PULLEYS	BTTO26R	BTTO26R	
ENGINES & HEADS			
HEAD W/VALVES		CHVTO26	

TOYOTA

MODEL	PRIUS C	YARIS	ECHO (03-05) YARIS (07-11)
ENGINE CODE	**1NZFXE**	**1NZFE**	**1NZFE**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2012-2019**	**2012-2018**	**2003-2011**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. Electric/G	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	75mm(2.952")	75mm(2.952")	75mm(2.952")
STROKE	85mm(3.34")	85mm(3.34")	85mm(3.34")
MAIN JOURNAL DIA.	1.8110/1.8115"	1.8110/1.8115"	1.8110/1.8115"
ROD JOURNAL DIA.	1.5745/1.5748"	1.5745/1.5748"	1.5745/1.5748"
ENGINE KITS			
MAJOR KIT		EKTO41NM	EKTO41NM
RE-RING KIT		EKTO41NR	EKTO41NR
BEARING SETS			
MAIN BEARING SET	MBTO41N (no tabs)	MBTO41N (no tabs)	MBTO41N (no tabs)
ROD BEARING SET	RBTO41	RBTO41	RBTO41
THRUST WASHER SET	TWTO39	TWTO39	TWTO39
GASKETS			
FULL GASKET SET		CGSTO41E	CGSTO41E
HEAD GASKET SET		HSTO41E	HSTO41E
CONVERSION SET		CBSTO41	CBSTO41
HEAD BOLT SET	HBTO41	HBTO41	HBTO41
PISTONS, RINGS, PLUGS			
PISTONS		PATO41P	PATO41P
RING SETS	RSTO41P	RSTO41E	RSTO41E
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO41	CRTO41	CRTO41
OIL PUMP			
NEW OIL PUMP			OPTO41E

MODEL	PRIUS C	YARIS	ECHO (03-05) YARIS (07-11)
ENGINE CODE	**1NZFXE**	**1NZFE**	**1NZFE**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2012-2019**	**2012-2018**	**2003-2011**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. Electric/G	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	75mm(2.952")	75mm(2.952")	75mm(2.952")
STROKE	85mm(3.34")	85mm(3.34")	85mm(3.34")
MAIN JOURNAL DIA.	1.8110/1.8115"	1.8110/1.8115"	1.8110/1.8115"
ROD JOURNAL DIA.	1.5745/1.5748"	1.5745/1.5748"	1.5745/1.5748"
VALVE TRAIN			
INTAKE VALVE	IVTO41	IVTO41	IVTO41
EXHAUST VALVE	EVTO41	EVTO41	EVTO41
VALVE GUIDE	VGTO41	VGTO41	VGTO41
VALVE SEALS	VSSTO41	VSSTO41	VSSTO41
WATER PUMP & TIMING			
WATER PUMP		WPTO41E	WPTO41E
GEARLESS TIMING KIT	PTKTO41	PTKTO41	PTKTO41

TOYOTA

MODEL	PRIUS	PRIUS	ECHO
ENGINE CODE	**1NZFXE**	**1NZFXE**	**1NZFE**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2004-2009**	**2001-2003**	**2000-2002**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. Electric/G	16 vlv, DOHC 4; F.INJ. Electric/G	16 VALVE DOHC 4; F.INJ.
BORE	75mm(2.952")	75mm(2.952")	75mm(2.952")
STROKE	85mm(3.34")	85mm(3.34")	85mm(3.34")
MAIN JOURNAL DIA.	1.8110/1.8115"	1.8110/1.8115"	1.8110/1.8115"
ROD JOURNAL DIA.	1.5745/1.5748"	1.5745/1.5748"	1.5745/1.5748"
ENGINE KITS			
MAJOR KIT			EKTO41EM
RE-RING KIT		EKTO41PR	EKTO41ER
BEARING SETS			
MAIN BEARING SET	MBTO41N (no tabs)	MBTO41❶	MBTO41❶
ROD BEARING SET	RBTO41	RBTO41	RBTO41
THRUST WASHER SET	TWTO39	TWTO39	TWTO39
GASKETS			
FULL GASKET SET	CGSTO41P	CGSTO41P	CGSTO41E
HEAD GASKET SET	HSTO41P	HSTO41P	HSTO41E
CONVERSION SET	CBSTO41	CBSTO41	CBSTO41
HEAD BOLT SET	HBTO41	HBTO41	HBTO41
PISTONS, RINGS, PLUGS			
PISTONS		PATO41P	PATO41E
RING SETS	RSTO41P	RSTO41E	RSTO41E
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSTO41E
CONNECTING ROD	CRTO41	CRTO41	CRTO41
OIL PUMP			
NEW OIL PUMP	OPTO41P	OPTO41P	OPTO41E

❶ (with locking tabs)

MODEL	PRIUS	PRIUS	ECHO
ENGINE CODE	**1NZFXE**	**1NZFXE**	**1NZFE**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**2004-2009**	**2001-2003**	**2000-2002**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. Electric/G	16 vlv, DOHC 4; F.INJ. Electric/G	16 VALVE DOHC 4; F.INJ.
BORE	75mm(2.952")	75mm(2.952")	75mm(2.952")
STROKE	85mm(3.34")	85mm(3.34")	85mm(3.34")
MAIN JOURNAL DIA.	1.8110/1.8115"	1.8110/1.8115"	1.8110/1.8115"
ROD JOURNAL DIA.	1.5745/1.5748"	1.5745/1.5748"	1.5745/1.5748"
VALVE TRAIN			
INTAKE VALVE	IVTO41	IVTO41	IVTO41
EXHAUST VALVE	EVTO41	EVTO41	EVTO41
VALVE GUIDE	VGTO41	VGTO41	VGTO41
VALVE SEALS	VSSTO41	VSSTO41	VSSTO41
WATER PUMP & TIMING			
WATER PUMP	WPTO41E	WPTO41E	WPTO41E
GEARLESS TIMING KIT	PTKTO41	PTKTO41	PTKTO41

TOYOTA

MODEL	TERCEL PASEO (96-98)	PASEO	PASEO
ENGINE CODE	**5EFE**	**5EFE**	**5EFE**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**1995-1998**	**1995**	**1992-1994**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
ROD JOURNAL DIA.	1.6929/1.6935"	1.6929/1.6935"	1.6929/1.6935"
ENGINE KITS			
GOLD KIT			EKTO32G
BRONZE KITS			EKTO32B
MAJOR KIT	EKTO32CM		EKTO32M
RE-RING KIT	EKTO32CR		EKTO32R
BEARING SETS			
MAIN BEARING SET	MBTO26	MBTO26	MBTO26
ROD BEARING SET	RBTO26	RBTO26	RBTO26
THRUST WASHER SET	TWTO26	TWTO26	TWTO26
GASKETS			
FULL GASKET SET	CGSTO32C	CGSTO32P❶ CGSTO32C	CGSTO32P
HEAD GASKET SET	HSTO32C	HSTO32P❶ HSTO32C	HSTO32P
HEAD GASKETS	HDGTO32C	HDGTO32P❶ HDGTO32C	HDGTO32P
CONVERSION SET	CBSTO26	CBSTO26	CBSTO26
HEAD BOLT SET	HBTO32	HBTO32	HBTO32
PISTONS, RINGS, PLUGS			
PISTONS	PATO32 (domed piston)	PATO32 (domed piston)	PATO32 (domed piston)
RING SETS	RSTO32	RSTO32	RSTO32
FREEZE PLUG SET	EPSTO26	EPSTO26	EPSTO26
OIL PUMP			
NEW OIL PUMP		OPTO32❶	OPTO32

❶ (without Calif. Emmissions)

MODEL	TERCEL PASEO (96-98)	PASEO	PASEO
ENGINE CODE	**5EFE**	**5EFE**	**5EFE**
DISPLACEMENT	**1497cc(91.3")**	**1497cc(91.3")**	**1497cc(91.3")**
YEARS	**1995-1998**	**1995**	**1992-1994**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	74mm(2.913")	74mm(2.913")	74mm(2.913")
STROKE	87mm(3.43")	87mm(3.43")	87mm(3.43")
MAIN JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
ROD JOURNAL DIA.	1.6929/1.6935"	1.6929/1.6935"	1.6929/1.6935"
VALVE TRAIN			
LIFTERS	LIFTO18	LIFTO18	LIFTO18
INTAKE VALVE	IVTO32	IVTO32	IVTO32
EXHAUST VALVE	EVTO32	EVTO32	EVTO32
VALVE GUIDE	VGTO28	VGTO28	VGTO28
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPTO32	WPTO26	WPTO26
TIMING BELT	TBTO32	TBTO32	TBTO32
TENSIONERS	BTTO32	BTTO32	BTTO32
IDLERS AND PULLEYS	BTTO32R	BTTO32R	BTTO32R

TOYOTA

MODEL	COROLLA	COROLLA	COROLLA (88-92) CELICA ST (90-93)
ENGINE CODE	**4AFE**	**4AFE**	**4AFE**
DISPLACEMENT	**1587cc(96.8")**	**1587cc(96.8")**	**1587cc(96.8")**
YEARS	**1996-1997**	**1993-1995**	**1988-1993**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.5742/1.5748	1.5742/1.5748	1.5742/1.5748"
ENGINE KITS			
GOLD KIT	EKTO28SG	EKTO28LG EKTO28LB	EKTO28G
BRONZE KITS	EKTO28SB		EKTO28B
MAJOR KIT	EKTO28LM	EKTO28LM	EKTO28M
RE-RING KIT	EKTO28LR	EKTO28LR	EKTO28R
BEARING SETS			
MAIN BEARING SET	MBTO18	MBTO18	MBTO18
ROD BEARING SET	RBTO16L	RBTO16L	RBTO16L
THRUST WASHER SET	TWTO16	TWTO16	TWTO16
GASKETS			
FULL GASKET SET	CGSTO28L	CGSTO28L	CGSTO28
HEAD GASKET SET	HSTO28L	HSTO28L	HSTO28
HEAD GASKETS	HDGTO28L	HDGTO28L	HDGTO28
CONVERSION SET	CBSTO28L	CBSTO28L	CBSTO28
HEAD BOLT SET	HBTO28	HBTO28	HBTO28
PISTONS, RINGS, PLUGS			
PISTONS	PATO28	PATO28	PATO18L
RING SETS	RSTO29	RSTO29	RSTO28
FREEZE PLUG SET	EPSTO18	EPSTO18	EPSTO18
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO28	CSTO28	
CONNECTING ROD	CRTO28	CRTO28	-
OIL PUMP			
NEW OIL PUMP	OPTO28S (with sensor)	OPTO28 (no sensor)	OPTO18

MODEL	COROLLA	COROLLA	COROLLA (88-92) CELICA ST (90-93)
ENGINE CODE	**4AFE**	**4AFE**	**4AFE**
DISPLACEMENT	**1587cc(96.8")**	**1587cc(96.8")**	**1587cc(96.8")**
YEARS	**1996-1997**	**1993-1995**	**1988-1993**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.5742/1.5748	1.5742/1.5748	1.5742/1.5748"
VALVE TRAIN			
INTAKE CAMSHAFT	CAMTO29I	CAMTO29I	CAMTO28I
EXHAUST CAMSHAFT			CAMTO28E
LIFTERS	LIFTO25	LIFTO25	LIFTO18
INTAKE VALVE	IVTO29	IVTO29	IVTO28
EXHAUST VALVE	EVTO29	EVTO29	EVTO28
VALVE GUIDE	VGTO28	VGTO28	VGTO28
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPTO28L	WPTO28L	WPTO28
TIMING BELT	TBTO28L	TBTO28L	TBTO28
TENSIONERS	BTTO29	BTTO29	BTTO18

TOYOTA

MODEL	COROLLA GTS	COROLLA GTS MR2	COROLLA SR5
ENGINE CODE	**4AGE**	**4AGEC/4AGELC**	**4AF**
DISPLACEMENT	**1587cc(96.8")**	**1587cc(96.8")**	**1587cc(96.8")**
YEARS	**1990-1991**	**1988-1989**	**1988-1989**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; CARB.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.6529/1.6535"	1.6529/1.6535"	1.5742/1.5748"
ENGINE KITS			
GOLD KIT	EKTO30LG	EKTO30G	EKTO28G
BRONZE KITS			EKTO28B
MAJOR KIT	EKTO30LM	EKTO30M	EKTO28M
RE-RING KIT	EKTO30LR	EKTO30R	EKTO28R
BEARING SETS			
MAIN BEARING SET	MBTO18	MBTO18	MBTO18
ROD BEARING SET	RBTO18	RBTO18	RBTO16L
THRUST WASHER SET	TWTO16	TWTO16	TWTO16
GASKETS			
FULL GASKET SET	CGSTO30	CGSTO18LB	CGSTO28
HEAD GASKET SET	HSTO30	HSTO18LB	HSTO28
HEAD GASKETS	HDGTO18LB	HDGTO18LB	HDGTO28
CONVERSION SET	CBSTO18	CBSTO18	CBSTO28
HEAD BOLT SET	HBTO28	HBTO28	HBTO28
PISTONS, RINGS, PLUGS			
PISTONS	PATO30	PATO18LB	PATO18L
RING SETS	RSTO30❶	RSTO18	RSTO28
PIN BUSHINGS	PBTO18	PBTO18	
FREEZE PLUG SET	EPSTO18	EPSTO18	EPSTO18
CRANKSHAFT & RODS			
CONNECTING ROD	-	-	-
OIL PUMP			
NEW OIL PUMP	OPTO18	OPTO18	OPTO18

❶ (1.2mm top ring)

MODEL	COROLLA GTS	COROLLA GTS MR2	COROLLA SR5
ENGINE CODE	**4AGE**	**4AGEC/4AGELC**	**4AF**
DISPLACEMENT	**1587cc(96.8")**	**1587cc(96.8")**	**1587cc(96.8")**
YEARS	**1990-1991**	**1988-1989**	**1988-1989**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; CARB.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.6529/1.6535"	1.6529/1.6535"	1.5742/1.5748"
VALVE TRAIN			
INTAKE CAMSHAFT			CAMTO28I
EXHAUST CAMSHAFT			CAMTO28E
LIFTERS	LIFTO18	LIFTO18	LIFTO18
INTAKE VALVE	IVTO18F	IVTO18F	IVTO28
EXHAUST VALVE	EVTO18F	EVTO18F	EVTO28
VALVE GUIDE	VGTO18L	VGTO18L	VGTO28
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP			WPTO28
TIMING BELT	TBTO18L	TBTO18L	TBTO28
TENSIONERS	BTTO18L	BTTO18L	BTTO18

TOYOTA

MODEL	MR2 SUPERCHARGED	COROLLA	COROLLA GTS MR2
ENGINE CODE	**4AGZE**	**4AC/4ALC**	**4AGEC/4AGELC**
DISPLACEMENT	**1587cc(96.8")**	**1587cc(96.8")**	**1587cc(96.8")**
YEARS	**1988-1989**	**1986-1988**	**1985-1987**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	8 VALVE SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.6529/1.6535"	1.5742/1.5748"	1.5742/1.5748"
ENGINE KITS			
GOLD KIT		EKTO18LCG	EKTO18LBG
BRONZE KITS		EKTO18LCB (FWD only)	
MAJOR KIT		EKTO18LCM	EKTO18LBM
RE-RING KIT		EKTO18LCR	EKTO18LBR
BEARING SETS			
MAIN BEARING SET	MBTO18	MBTO18	MBTO18
ROD BEARING SET	RBTO18	RBTO16L	RBTO16L
THRUST WASHER SET	TWTO16	TWTO16	TWTO16
GASKETS			
FULL GASKET SET		CGSTO18LC	CGSTO18LB
HEAD GASKET SET		HSTO18LC	HSTO18LB
HEAD GASKETS	HDGTO18LB	HDGTO18L	HDGTO18LB
CONVERSION SET	CBSTO18	CBSTO18	CBSTO18
HEAD BOLT SET	HBTO28		
PISTONS, RINGS, PLUGS			
PISTONS		PATO18	PATO18L
RING SETS		RSTO18	RSTO18
PIN BUSHINGS	PBTO18		
FREEZE PLUG SET	EPSTO18	EPSTO18	EPSTO18
CRANKSHAFT & RODS			
CONNECTING ROD	-	-	-
OIL PUMP			
NEW OIL PUMP	OPTO18	OPTO18	OPTO18

MODEL	MR2 SUPERCHARGED	COROLLA	COROLLA GTS MR2
ENGINE CODE	**4AGZE**	**4AC/4ALC**	**4AGEC/4AGELC**
DISPLACEMENT	**1587cc(96.8")**	**1587cc(96.8")**	**1587cc(96.8")**
YEARS	**1988-1989**	**1986-1988**	**1985-1987**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	8 VALVE SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	77mm(3.03")	77mm(3.03")	77mm(3.03")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.6529/1.6535"	1.5742/1.5748"	1.5742/1.5748"
VALVE TRAIN			
LIFTERS	LIFTO18		LIFTO18
ROCKER ARMS		RATO16I	
ROCKER ARMS		RATO16E	
INTAKE VALVE	IVTO18F	IVTO18	IVTO18F
EXHAUST VALVE	EVTO18F	EVTO18	EVTO18F
VALVE GUIDE	VGTO18L	IVGTO18 (intake) EVGTO18 (exhaust)	VGTO18L
VALVE SEALS	VSSTO15	VSSTO18	VSSTO15
WATER PUMP & TIMING			
WATER PUMP		WPTO28 (FWD only)	
TIMING BELT	TBTO18L	TBTO18	TBTO18L
TENSIONERS	BTTO18L	BTTO18	BTTO18L

TOYOTA

MODEL	COROLLA	COROLLA (93-97) CELICA (94-97)	COROLLA
ENGINE CODE	**4AC/4ALC**	**7AFE**	**3TC**
DISPLACEMENT	**1587cc(96.8")**	**1762cc(107.5")**	**1770cc(108.0")**
YEARS	**1983-1985**	**1993-1997**	**1980-1982**
DESCRIPTION	8 VALVE SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.	8 VALVE OHV 4; CARB.
BORE	81mm(3.189")	81mm(3.189")	85mm(3.346")
STROKE	77mm(3.03")	85.5mm(3.37")	78mm(3.07")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	2.2825/2.2835"
ROD JOURNAL DIA.	1.5742/1.5748"	1.8892/1.8898"	1.8888/1.8898"
ENGINE KITS			
GOLD KIT	EKTO18G (84-85 only)	EKTO29G (no OP sensor)	
BRONZE KITS	EKTO18B (84-85 only)	EKTO29B (no OP sensor)	
MAJOR KIT	EKTO18M (84-85 only)	EKTO29M	
RE-RING KIT	EKTO18R (84-85 only)	EKTO29R	EKTO17R
BEARING SETS			
MAIN BEARING SET	MBTO18	MBTO18	MBTO17
ROD BEARING SET	RBTO16R (83-10/83) RBTO16L (11/83-on)	RBTO29	RBTO17
THRUST WASHER SET	TWTO16	TWTO16	TWTO17
CAM BEARINGS			CBTO17
GASKETS			
FULL GASKET SET	CGSTO18L	CGSTO29	CGSTO17
HEAD GASKET SET	HSTO18L	HSTO29	HSTO17
HEAD GASKETS	HDGTO18L	HDGTO29	HDGTO17
CONVERSION SET	CBSTO18	CBSTO29	
HEAD BOLT SET		HBTO28	
PISTONS, RINGS, PLUGS			
PISTONS	PATO18	PATO29	
RING SETS	RSTO18	RSTO29	RSTO17
FREEZE PLUG SET	EPSTO18	EPSTO18	EPSTO17
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO16R (83-10/83) - (11/83-on)		CRTO17
OIL PUMP			
NEW OIL PUMP	OPTO18	OPTO29 (no sensor)	OPTO17

MODEL	COROLLA	COROLLA (93-97) CELICA (94-97)	COROLLA
ENGINE CODE	**4AC/4ALC**	**7AFE**	**3TC**
DISPLACEMENT	**1587cc(96.8")**	**1762cc(107.5")**	**1770cc(108.0")**
YEARS	**1983-1985**	**1993-1997**	**1980-1982**
DESCRIPTION	8 VALVE SOHC 4; CARB.	16 VALVE DOHC 4; F.INJ.	8 VALVE OHV 4; CARB.
BORE	81mm(3.189")	81mm(3.189")	85mm(3.346")
STROKE	77mm(3.03")	85.5mm(3.37")	78mm(3.07")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	2.2825/2.2835"
ROD JOURNAL DIA.	1.5742/1.5748"	1.8892/1.8898"	1.8888/1.8898"
VALVE TRAIN			
INTAKE CAMSHAFT		CAMTO29I	
LIFTERS		LIFTO25	
ROCKER ARMS	RATO16I		
ROCKER ARMS	RATO16E		
ROCKER ARM SHAFTS	-		
INTAKE VALVE	IVTO18	IVTO29	IVTO17
EXHAUST VALVE	EVTO18	EVTO29	EVTO17
VALVE GUIDE	IVGTO18 (intake) EVGTO18 (exhaust)	VGTO28	IVGTO17 (int) EVGTO17 (ex)
VALVE SEALS	VSSTO18	VSSTO15	VSSC17
WATER PUMP & TIMING			
WATER PUMP		WPTO29	
TIMING CHAIN KIT			CTKTO17
TIMING BELT	TBTO18	TBTO29	
TENSIONERS	BTTO18	BTTO29	

TOYOTA

MODEL	COROLLA MATRIX XR	CELICA GT MR2 Spyder Vin R	COROLLA
ENGINE CODE	**1ZZFE**	**1ZZFE**	**1ZZFE**
DISPLACEMENT	**1794cc(109.5")**	**1794cc(109.5")**	**1794cc(109.5")**
YEARS	**2000-2008**	**2000-2005**	**1998-1999**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	79mm(3.110")	79mm(3.110")	79mm(3.110")
STROKE	91.5mm(3.60")	91.5mm(3.60")	91.5mm(3.60")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.7321/1.7323"	1.7321/1.7323"	1.7321/1.7323"
ENGINE KITS			
PLATINUM KIT	EKTO39LP	EKTO39LP	EKTO39P
GOLD KIT	EKTO39LG	EKTO39LG	EKTO39G
SILVER KIT	EKTO39LS	EKTO39LS	EKTO39S
BRONZE KITS	EKTO39LB	EKTO39LB	EKTO39B
MAJOR KIT	EKTO39LM	EKTO39LM	EKTO39M
RE-RING KIT	EKTO39LR	EKTO39LR	EKTO39R
ULTRA KIT	EKTO39LU	EKTO39LU	EKTO39U
BEARING SETS			
MAIN BEARING SET	MBTO39	MBTO39	MBTO39
ROD BEARING SET	RBTO39	RBTO39	RBTO39
THRUST WASHER SET	TWTO39	TWTO39	TWTO39
GASKETS			
FULL GASKET SET	CGSTO39L	CGSTO39L	CGSTO39
HEAD GASKET SET	HSTO39L	HSTO39L	HSTO39
HEAD GASKETS	HDGTO39L	HDGTO39L	HDGTO39L
CONVERSION SET	CBSTO39	CBSTO39	CBSTO39
HEAD BOLT SET	HBTO39L	HBTO39L	HBTO39L
PISTONS, RINGS, PLUGS			
PISTONS	PATO39L	PATO39L	PATO39
RING SETS	RSTO39	RSTO39	RSTO39
PIN BUSHINGS	PBTO39	PBTO39	PBTO39
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO39	CRTO39	CRTO39
OIL PUMP			
NEW OIL PUMP	OPTO39L	OPTO39L	OPTO39L

MODEL	COROLLA MATRIX XR	CELICA GT MR2 Spyder Vin R	COROLLA
ENGINE CODE	**1ZZFE**	**1ZZFE**	**1ZZFE**
DISPLACEMENT	**1794cc(109.5")**	**1794cc(109.5")**	**1794cc(109.5")**
YEARS	**2000-2008**	**2000-2005**	**1998-1999**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	79mm(3.110")	79mm(3.110")	79mm(3.110")
STROKE	91.5mm(3.60")	91.5mm(3.60")	91.5mm(3.60")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ROD JOURNAL DIA.	1.7321/1.7323"	1.7321/1.7323"	1.7321/1.7323"
VALVE TRAIN			
INTAKE VALVE	IVTO39L	IVTO39	IVTO39
EXHAUST VALVE	EVTO39L	EVTO39	EVTO39
VALVE GUIDE	VGTO39	VGTO39	VGTO39
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO39	WPTO39	WPTO39
TIMING CHAIN KIT	CTKTO39L	CTKTO39L	CTKTO39

TOYOTA

MODEL	CELICA GTS (00-05) MATRIX XRS (03-06) CORROLLA XRS(05-06	PRIUS Prime	PRIUS PRIUS V (16-18) PRIUS AWD-e (19-22) COROLLA LE (20-22) HYBRID
ENGINE CODE	**2ZZGE**	**2ZR-FXE**	**2ZR-FXE**
DISPLACEMENT	**1796cc(109.6")**	**1798cc(109.7")**	**1798cc(109.7")**
YEARS	**2000-2006**	**2017-2022**	**2016-2022**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 vlv, DOHC 4; F.INJ. PHEV	16 vlv, DOHC 4; F.INJ. FHEV
BORE	82mm(3.228")	80.5mm(3.169")	80.5mm(3.169")
STROKE	85mm(3.35")	88.3mm(3.48")	88.3mm(3.48")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8893/1.8898"	1.8893/1.8898"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7320/1.7323"	1.7320/1.7323"
ENGINE KITS			
PLATINUM KIT	EKTO42P		
GOLD KIT	EKTO42G		
SILVER KIT	EKTO42S		
BRONZE KITS	EKTO42B		
MAJOR KIT	EKTO42M		
RE-RING KIT	EKTO42R		
ULTRA KIT	EKTO42U		
BEARING SETS			
MAIN BEARING SET	MBTO42	MBTO55	MBTO55
ROD BEARING SET	RBTO42	RBTO55	RBTO55
THRUST WASHER SET	TWTO39	TWTO39	TWTO39
GASKETS			
FULL GASKET SET	CGSTO42	CGSTO55	CGSTO55
HEAD GASKET SET	HSTO42	HSTO55	HSTO55
HEAD GASKETS	HDGTO42		
CONVERSION SET	CBSTO42	CBSTO55	CBSTO55
HEAD BOLT SET	HBTO42	HBTO55	HBTO55
PISTONS, RINGS, PLUGS			
PISTONS	PATO42		
RING SETS	RSTO42	-	-
PIN BUSHINGS	PBTO39	PBTO39	PBTO39
FREEZE PLUG SET	EPSTO42		
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO42		
OIL PUMP			
NEW OIL PUMP	OPTO42		

MODEL	CELICA GTS (00-05) MATRIX XRS (03-06) CORROLLA XRS(05-06	PRIUS Prime	PRIUS PRIUS V (16-18) PRIUS AWD-e (19-22) COROLLA LE (20-22) HYBRID
ENGINE CODE	**2ZZGE**	**2ZR-FXE**	**2ZR-FXE**
DISPLACEMENT	**1796cc(109.6")**	**1798cc(109.7")**	**1798cc(109.7")**
YEARS	**2000-2006**	**2017-2022**	**2016-2022**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 vlv, DOHC 4; F.INJ. PHEV	16 vlv, DOHC 4; F.INJ. FHEV
BORE	82mm(3.228")	80.5mm(3.169")	80.5mm(3.169")
STROKE	85mm(3.35")	88.3mm(3.48")	88.3mm(3.48")
MAIN JOURNAL DIA.	1.8892/1.8898"	1.8893/1.8898"	1.8893/1.8898"
ROD JOURNAL DIA.	1.7713/1.7717"	1.7320/1.7323"	1.7320/1.7323"
VALVE TRAIN			
LIFTERS		LIFTO55P	LIFTO55P
INTAKE VALVE	IVTO42	IVTO55	IVTO55
EXHAUST VALVE	EVTO42	EVTO55	EVTO55
VALVE GUIDE	VGTO42		
INTAKE GUIDE		IVGTO55	IVGTO55
EXHAUST GUIDE		EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO42		
TIMING CHAIN KIT	CTKTO42	CTKTO55P	CTKTO55P
GEARLESS TIMING KIT	PTKTO42		

TOYOTA

MODEL	COROLLA L COROLLA LE COROLLA XLE Dual VVT-i	COROLLA LE Eco Dual VVT-i	COROLLA
ENGINE CODE	**2ZR-FAE**	**2ZR-FAE**	**2ZR-FE**
DISPLACEMENT	**1798cc(109.7")**	**1798cc(109.7")**	**1798cc(109.7")**
YEARS	**2020-2021**	**2019**	**2018-2019**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16vlv; DOHC; 4; F.INJ	16vlv; DOHC; 4; F.INJ
BORE	80.5mm(3.169")	80.5mm(3.169")	80.5mm(3.169")
STROKE	88.3mm(3.48")	88.3mm(3.48")	88.3mm(3.48")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	1.8893/1.8898"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.7320/1.7323"
ENGINE KITS			
GOLD KIT			EKTO55G
MAJOR KIT			EKTO55M
BEARING SETS			
MAIN BEARING SET	MBTO55	MBTO55	MBTO55
ROD BEARING SET	RBTO55	RBTO55	RBTO55
THRUST WASHER SET	TWTO39	TWTO39	TWTO39
GASKETS			
FULL GASKET SET	CGSTO55	CGSTO55	CGSTO55
HEAD GASKET SET	HSTO55	HSTO55	HSTO55
CONVERSION SET	CBSTO55	CBSTO55	CBSTO55
HEAD BOLT SET	HBTO55	HBTO55	HBTO55
PISTONS, RINGS, PLUGS			
PISTONS			PATO55❶
RING SETS	-	-	-
PIN BUSHINGS	PBTO39	PBTO39	PBTO39
OIL PUMP			
NEW OIL PUMP	OPTO55A	OPTO55A	OPTO55

❶ (1.5mm oil ring groove)

MODEL	COROLLA L COROLLA LE COROLLA XLE Dual VVT-i	COROLLA LE Eco Dual VVT-i	COROLLA
ENGINE CODE	**2ZR-FAE**	**2ZR-FAE**	**2ZR-FE**
DISPLACEMENT	**1798cc(109.7")**	**1798cc(109.7")**	**1798cc(109.7")**
YEARS	**2020-2021**	**2019**	**2018-2019**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16vlv; DOHC; 4; F.INJ	16vlv; DOHC; 4; F.INJ
BORE	80.5mm(3.169")	80.5mm(3.169")	80.5mm(3.169")
STROKE	88.3mm(3.48")	88.3mm(3.48")	88.3mm(3.48")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	1.8893/1.8898"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.7320/1.7323"
VALVE TRAIN			
LIFTERS	LIFTO55P	LIFTO55P	LIFTO55P
INTAKE VALVE	IVTO55	IVTO55	IVTO55
EXHAUST VALVE	EVTO55	EVTO55	EVTO55
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKTO55L	CTKTO55L	CTKTO55❶

❶ (Cam Sprockets not included)

TOYOTA

MODEL	COROLLA iM	COROLLA LE Eco Dual VVT-i	COROLLA
ENGINE CODE	**2ZR-FAE**	**2ZR-FAE**	**2ZR-FE**
DISPLACEMENT	**1798cc(109.7")**	**1798cc(109.7")**	**1798cc(109.7")**
YEARS	**2017-2018**	**2014-2018**	**2014-2017**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16vlv; DOHC; 4; F.INJ; vin P	16vlv; DOHC; 4; F.INJ; vin U
BORE	80.5mm(3.169")	80.5mm(3.169")	80.5mm(3.169")
STROKE	88.3(3.48")	88.3mm(3.48")	88.3mm(3.48")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	1.8893/1.8898"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.7320/1.7323"
ENGINE KITS			
GOLD KIT			EKTO55G
MAJOR KIT			EKTO55M
BEARING SETS			
MAIN BEARING SET	MBTO55	MBTO55	MBTO55
ROD BEARING SET	RBTO55	RBTO55	RBTO55
THRUST WASHER SET	TWTO39	TWTO39	TWTO39
GASKETS			
FULL GASKET SET	CGSTO55	CGSTO55	CGSTO55
HEAD GASKET SET	HSTO55	HSTO55	HSTO55
CONVERSION SET	CBSTO55	CBSTO55	CBSTO55
HEAD BOLT SET	HBTO55	HBTO55	HBTO55
PISTONS, RINGS, PLUGS			
PISTONS			PATO55❶
RING SETS	-	-	-
PIN BUSHINGS	PBTO39	PBTO39	PBTO39
OIL PUMP			
NEW OIL PUMP	OPTO55A	OPTO55A	OPTO55

❶ (1.5mm oil ring groove)

MODEL	COROLLA iM	COROLLA LE Eco Dual VVT-i	COROLLA
ENGINE CODE	**2ZR-FAE**	**2ZR-FAE**	**2ZR-FE**
DISPLACEMENT	**1798cc(109.7")**	**1798cc(109.7")**	**1798cc(109.7")**
YEARS	**2017-2018**	**2014-2018**	**2014-2017**
DESCRIPTION	16vlv; DOHC; 4; F.INJ	16vlv; DOHC; 4; F.INJ; vin P	16vlv; DOHC; 4; F.INJ; vin U
BORE	80.5mm(3.169")	80.5mm(3.169")	80.5mm(3.169")
STROKE	88.3(3.48")	88.3mm(3.48")	88.3mm(3.48")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	1.8893/1.8898"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.7320/1.7323"
VALVE TRAIN			
LIFTERS	LIFTO55P	A-2319 (thru 07/2017) LIFTO55P (08/2017-on)	A-2319 (thru 07/2017) LIFTO55P (08/2017-on)
INTAKE VALVE	IVTO55	IVTO55	IVTO55
EXHAUST VALVE	EVTO55	EVTO55	EVTO55
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKTO55L	CTKTO55L	CTKTO55❶

❶ (Cam Sprockets not included)

TOYOTA

MODEL	PRIUS PRIUS V	COROLLA (09-13) MATRIX	PRIUS PRIUS V (12-13)
ENGINE CODE	**2ZR-FXE**	**2ZR-FE**	**2ZR-FXE**
DISPLACEMENT	**1798cc(109.7")**	**1798cc(109.7")**	**1798cc(109.7")**
YEARS	**2014-2015**	**2009-2014**	**2010-2013**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. Electric/G	16 VALVE DOHC 4; F.INJ.	16 vlv, DOHC 4; F.INJ. Electric/G
BORE	80.5mm(3.169")	80.5mm(3.169")	80.5mm(3.169")
STROKE	88.3mm(3.48")	88.3mm(3.48")	88.3mm(3.48")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	1.8893/1.8898"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.7320/1.7323"
ENGINE KITS			
GOLD KIT		EKTO55G	
MAJOR KIT		EKTO55M	
RE-RING KIT		EKTO55R	
BEARING SETS			
MAIN BEARING SET	MBTO55	MBTO55	MBTO55
ROD BEARING SET	RBTO55	RBTO55	RBTO55
THRUST WASHER SET	TWTO39	TWTO39	TWTO39
GASKETS			
FULL GASKET SET	CGSTO55	CGSTO55	CGSTO55
HEAD GASKET SET	HSTO55	HSTO55	HSTO55
CONVERSION SET	CBSTO55	CBSTO55	CBSTO55
HEAD BOLT SET	HBTO55	HBTO55	HBTO55
PISTONS, RINGS, PLUGS			
PISTONS		PATO55❶	
RING SETS	-	RSTO55	RSTO55
PIN BUSHINGS	PBTO39	PBTO39	PBTO39
OIL PUMP			
NEW OIL PUMP		OPTO55	

❶ (1.5mm oil ring groove)

TOYOTA

MODEL	PRIUS PRIUS V	COROLLA (09-13) MATRIX	PRIUS PRIUS V (12-13)
ENGINE CODE	**2ZR-FXE**	**2ZR-FE**	**2ZR-FXE**
DISPLACEMENT	**1798cc(109.7")**	**1798cc(109.7")**	**1798cc(109.7")**
YEARS	**2014-2015**	**2009-2014**	**2010-2013**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. Electric/G	16 VALVE DOHC 4; F.INJ.	16 vlv, DOHC 4; F.INJ. Electric/G
BORE	80.5mm(3.169")	80.5mm(3.169")	80.5mm(3.169")
STROKE	88.3mm(3.48")	88.3mm(3.48")	88.3mm(3.48")
MAIN JOURNAL DIA.	1.8893/1.8898"	1.8893/1.8898"	1.8893/1.8898"
ROD JOURNAL DIA.	1.7320/1.7323"	1.7320/1.7323"	1.7320/1.7323"
VALVE TRAIN			
LIFTERS	A-2319 (thru 08/2014) LIFTO55P (09/2014-on)	A-2319	A-2319
INTAKE VALVE	IVTO55	IVTO55	IVTO55
EXHAUST VALVE	EVTO55	EVTO55	EVTO55
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKTO55P❶	CTKTO55❷	CTKTO55P❶

❶ (Variable Cam Gear not included)

❷ (Cam Sprockets not included)

TOYOTA

MODEL	COROLLA SE COROLLA XSE COROLLA CROSS	C-HR	CAMRY (83-86) CELICA (86)
ENGINE CODE	**M20A-FKS**	**3ZR-FAE**	**2S-ELC**
DISPLACEMENT	**1987cc (121.3")**	**1987cc (121.3")**	**1997cc(122")**
YEARS	**2019-2022**	**2018-2022**	**1983-1986**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE;DOHC 4; F.INJ	8 VALVE SOHC 4; F. INJ.
BORE	80.5mm(3.169")	80.5mm(3.169")	84mm(3.307")
STROKE	97.6mm(3.84")	97.6mm(3.84")	90mm(3.54")
MAIN JOURNAL DIA.	2.0468"/2.0472"	1.8893/1.8898"	2.1648/2.1654"
ROD JOURNAL DIA.	1.8894"/1.8898"	1.8501/1.8504"	1.8892/1.8898"
ENGINE KITS			
GOLD KIT			EKTO14G
MAJOR KIT			EKTO14M
RE-RING KIT			EKTO14R
BEARING SETS			
MAIN BEARING SET	MBTO61	MBTO55	MBTO14
ROD BEARING SET	RBTO61		RBTO14
THRUST WASHER SET	TWTO61	TWTO39	TWTO17
GASKETS			
FULL GASKET SET	CGSTO61	CGSTO55	CGSTO14
HEAD GASKET SET	HSTO61	HSTO55	HSTO14
HEAD GASKETS			HDGTO14
CONVERSION SET	CBSTO61	CBSTO55	CBSTO14
HEAD BOLT SET	HBTO61	HBTO55	
PISTONS, RINGS, PLUGS			
PISTONS	PATO61		PATO14
RING SETS	RSTO61		RSTO14
PIN BUSHINGS		PBTO39	
FREEZE PLUG SET			EPSTO15
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSTO14 (6 bolt)
CONNECTING ROD			CRTO14
OIL PUMP			
NEW OIL PUMP	OPTO61	OPTO55A	OPTO14

MODEL	COROLLA SE COROLLA XSE COROLLA CROSS	C-HR	CAMRY (83-86) CELICA (86)
ENGINE CODE	**M20A-FKS**	**3ZR-FAE**	**2S-ELC**
DISPLACEMENT	**1987cc (121.3")**	**1987cc (121.3")**	**1997cc(122")**
YEARS	**2019-2022**	**2018-2022**	**1983-1986**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE;DOHC 4; F.INJ	8 VALVE SOHC 4; F. INJ.
BORE	80.5mm(3.169")	80.5mm(3.169")	84mm(3.307")
STROKE	97.6mm(3.84")	97.6mm(3.84")	90mm(3.54")
MAIN JOURNAL DIA.	2.0468"/2.0472"	1.8893/1.8898"	2.1648/2.1654"
ROD JOURNAL DIA.	1.8894"/1.8898"	1.8501/1.8504"	1.8892/1.8898"
VALVE TRAIN			
LIFTERS	LIFTO59	LIFTO55P	LIFTO19
ROCKER ARMS			RATO19
INTAKE VALVE	IVTO61	IVTO55	IVTO14
EXHAUST VALVE	EVTO61	EVTO55	EVTO14
VALVE GUIDE			IVGTO14 (int) EVGTO14 (ex)
INTAKE GUIDE	IVGTO55	IVGTO55	
EXHAUST GUIDE		EVGTO55	
VALVE SEALS	VSSTO34	VSSTO34	VSSC17
WATER PUMP & TIMING			
TIMING BELT			TBTO14
TENSIONERS			BTTO14A
IDLERS AND PULLEYS			BTTO14B

TOYOTA

MODEL	86	RAV 4	RAV 4
ENGINE CODE	FA20	1AZFE	3SFE
DISPLACEMENT	1998cc(121.9")	1998cc(121.9")	1998cc(121.9")
YEARS	2017-2020	2001-2003	1998-2000
DESCRIPTION	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.38")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.1648/2.1654"	2.1648/2.1654"
ROD JOURNAL DIA.	1.9676/1.9685"	1.8892/1.8898"	2.0466/2.0472"
ENGINE KITS			
PLATINUM KIT		EKTO45P	
GOLD KIT		EKTO45G	
SILVER KIT		EKTO45S	
BRONZE KITS		EKTO45B	
MAJOR KIT		EKTO45M	
RE-RING KIT		EKTO45R	EKTO40R
ULTRA KIT		EKTO45U	
BEARING SETS			
MAIN BEARING SET	MBSU16	MBTO44	MBTO14
ROD BEARING SET	RBSU16L	RBTO44	RBTO25
THRUST WASHER SET		TWTO44	TWTO17
CAM BEARINGS		CBTO45	
GASKETS			
FULL GASKET SET		CGSTO45	CGSTO14V
HEAD GASKET SET		HSTO45	HSTO14V
HEAD GASKETS		HDGTO45	HDGTO14V
CONVERSION SET		CBSTO44	CBSTO14V
HEAD BOLT SET	HBSU11D	HBTO44	HBTO25
PISTONS, RINGS, PLUGS			
PISTONS		PATO45	
RING SETS		RSTO45	RSTO40
PIN BUSHINGS	PBSU16F	PBD34	
FREEZE PLUG SET			EPSTO15
CRANKSHAFT & RODS			
CONNECTING ROD		CRTO44	
OIL PUMP			
NEW OIL PUMP		OPTO45	OPTO14V

MODEL	86	RAV 4	RAV 4
ENGINE CODE	FA20	1AZFE	3SFE
DISPLACEMENT	1998cc(121.9")	1998cc(121.9")	1998cc(121.9")
YEARS	2017-2020	2001-2003	1998-2000
DESCRIPTION	16 VALVE DOHC H4; F.INJ	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.38")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.6766/2.6775"	2.1648/2.1654"	2.1648/2.1654"
ROD JOURNAL DIA.	1.9676/1.9685"	1.8892/1.8898"	2.0466/2.0472"
VALVE TRAIN			
LIFTERS	LIFSU16		LIFTO25
INTAKE VALVE		IVTO44	IVTO25
EXHAUST VALVE		EVTO44	EVTO25
VALVE GUIDE		EVGTO34❶	VGTO18L
INTAKE GUIDE	IVGSU16F		
EXHAUST GUIDE	EVGSU16F		
VALVE SEALS	VSSSU16	VSSTO34	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPSU16F	WPTO44	WPTO14L
TIMING CHAIN KIT		CTKTO44	
GEARLESS TIMING KIT		PTKTO44	
TIMING BELT			TBTO14L
TENSIONERS			BTTO14L
IDLERS AND PULLEYS			BTTO14B

❶ (intake & exhaust)

TOYOTA

MODEL	RAV 4	MR TURBO CELICA TURBO (90-93)	CAMRY (87-91) CELICA (87-89)
ENGINE CODE	**3SFE**	**3SGTE**	**3SFE**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**1996-1997**	**1990-1995**	**1987-1991**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE DOHC 4; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.1648/2.1654"
ROD JOURNAL DIA.	2.0466/2.0472"	1.8892/1.8898"	1.8892/1.8898"
ENGINE KITS			
GOLD KIT			EKTO14LG
BRONZE KITS			EKTO14LB
MAJOR KIT	EKTO14VM		EKTO14LM
RE-RING KIT	EKTO14VR	EKTO23TR	EKTO14LR
BEARING SETS			
MAIN BEARING SET	MBTO14	MBTO14	MBTO14
ROD BEARING SET	RBTO25	RBTO14	RBTO14
THRUST WASHER SET	TWTO17	TWTO17	TWTO17
GASKETS			
FULL GASKET SET	CGSTO14V	CGSTO23T	CGSTO14L
HEAD GASKET SET	HSTO14V	HSTO23T	HSTO14L
HEAD GASKETS	HDGTO14V		HDGTO14L
CONVERSION SET	CBSTO14V	CBSTO23T	CBSTO14L
HEAD BOLT SET	HBTO25	HBTO23T	HBTO14L
PISTONS, RINGS, PLUGS			
PISTONS	PATO14V		PATO14L (press fit)
RING SETS	RSTO14L	RSTO15	RSTO14L
PIN BUSHINGS	PBTO15	PBTO15	
FREEZE PLUG SET	EPSTO15	EPSTO15	EPSTO15
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSTO14L (6 bolt/1987)
CONNECTING ROD	CRTO25	CRTO15	CRTO14
OIL PUMP			
NEW OIL PUMP	OPTO14V	-	OPTO14

MODEL	RAV 4	MR TURBO CELICA TURBO (90-93)	CAMRY (87-91) CELICA (87-89)
ENGINE CODE	**3SFE**	**3SGTE**	**3SFE**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**1996-1997**	**1990-1995**	**1987-1991**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo	16 VALVE DOHC 4; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.1648/2.1654"
ROD JOURNAL DIA.	2.0466/2.0472"	1.8892/1.8898"	1.8892/1.8898"
VALVE TRAIN			
LIFTERS	LIFTO25	LIFTO23T	LIFTO18
INTAKE VALVE	IVTO25	IVTO23T	IVTO14L
EXHAUST VALVE	EVTO25	EVTO23T	EVTO14L
VALVE GUIDE	VGTO18L	VGTO15	VGTO18L
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPTO14L		
TIMING BELT	TBTO14L	TBTO15	TBTO14L
TENSIONERS	BTTO14L	BTTO23T❶	BTTO14L
IDLERS AND PULLEYS	BTTO14B	BTTO14B	BTTO14B

❶ (roller bearing w/bracket)

TOYOTA

MODEL	CELICA TURBO	CELICA GTS	VAN
ENGINE CODE	**3SGTE**	**3SGELC**	**3YEC**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**1988-1989**	**1986-1989**	**1984-1985**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	8 VALVE OHV 4; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.2829/2.2835"
ROD JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
ENGINE KITS			
PLATINUM KIT			EKTO24P
GOLD KIT	EKTO15TG	EKTO15G	EKTO24G
SILVER KIT			EKTO24S
MAJOR KIT	EKTO15TM	EKTO15M	EKTO24M
RE-RING KIT	EKTO15TR	EKTO15R	EKTO24R
BEARING SETS			
MAIN BEARING SET	MBTO14	MBTO14	MBTO24
ROD BEARING SET	RBTO14	RBTO14	RBTO24
THRUST WASHER SET	TWTO17	TWTO17	TWTO17
CAM BEARINGS			-
GASKETS			
FULL GASKET SET	CGSTO15T	CGSTO15	CGSTO24
HEAD GASKET SET	HSTO15T	HSTO15	HSTO24
HEAD GASKETS	HDGTO23T	HDGTO15	HDGTO24
CONVERSION SET	CBSTO23T	CBSTO14L	CBSTO24
HEAD BOLT SET	HBTO23T		
PISTONS, RINGS, PLUGS			
PISTONS		PATO15 (free float)	PATO24
RING SETS	RSTO15	RSTO15	RSTO14L
PIN BUSHINGS	PBTO15	PBTO15	
FREEZE PLUG SET	EPSTO15	EPSTO15	EPSTO24
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO15	CRTO15	CRTO24
OIL PUMP			
NEW OIL PUMP	OPTO25C	OPTO14	OPTO24

MODEL	CELICA TURBO	CELICA GTS	VAN
ENGINE CODE	**3SGTE**	**3SGELC**	**3YEC**
DISPLACEMENT	**1998cc(121.9")**	**1998cc(121.9")**	**1998cc(121.9")**
YEARS	**1988-1989**	**1986-1989**	**1984-1985**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	8 VALVE OHV 4; F.INJ.
BORE	86mm(3.386")	86mm(3.386")	86mm(3.386")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.2829/2.2835"
ROD JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	1.8892/1.8898"
VALVE TRAIN			
CAMSHAFTS			CAMTO24
LIFTERS	LIFTO23T	LIFTO18	LIFTO24
ROCKER ARMS			RATO24I
ROCKER ARMS			RATO24E
INTAKE VALVE	IVTO23T	IVTO15	IVTO24
EXHAUST VALVE	EVTO23T	EVTO15	EVTO24
VALVE GUIDE	VGTO15	VGTO15	IVGTO24 (int) EVGTO24 (ex)
VALVE SEALS	VSSTO15	VSSTO15	VSSC17
WATER PUMP & TIMING			
TIMING CHAIN KIT			CTKTO24
TIMING BELT	TBTO15	TBTO15	
TENSIONERS	BTTO15	BTTO15	
IDLERS AND PULLEYS	BTTO14B	BTTO14B	

TOYOTA

MODEL	CAMRY SOLERA	CELICA	CAMRY
ENGINE CODE	**5SFE**	**5SFE**	**5SFE**
DISPLACEMENT	**2164cc(132")**	**2164cc(132")**	**2164cc(132")**
YEARS	**1998-2001**	**1996-1999**	**1992-1997**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	91mm(3.58")	91mm(3.58")	91mm(3.58")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.1648/2.1654"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
ENGINE KITS			
GOLD KIT	EKTO25SG❶ EKTO25NG❸	EKTO25VG	EKTO25CG❷ EKTO25YG❶
BRONZE KITS	EKTO25SB❶ EKTO25NB❸	EKTO25VB	EKTO25CB❷
MAJOR KIT	EKTO25SM	EKTO25M	EKTO25M
RE-RING KIT	EKTO25SR	EKTO25R (4mm oil ring) EKTO25CR (3mm oil ring)	EKTO25R (4mm oil ring) EKTO25CR (3mm oil ring)
BEARING SETS			
MAIN BEARING SET	MBTO14	MBTO14	MBTO14
ROD BEARING SET	RBTO25	RBTO25	RBTO25
THRUST WASHER SET	TWTO17	TWTO17	TWTO17
GASKETS			
FULL GASKET SET	CGSTO25C	CGSTO25	CGSTO25
HEAD GASKET SET	HSTO25C	HSTO25	HSTO25
HEAD GASKETS	HDGTO25C	HDGTO25	HDGTO25
CONVERSION SET	CBSTO25	CBSTO25	CBSTO25
HEAD BOLT SET	HBTO25	HBTO25	HBTO25
PISTONS, RINGS, PLUGS			
PISTONS	PATO25C	PATO25	PATO25 (set of 4)
RING SETS	RSTO25L	RSTO25 (4mm oil ring) RSTO25C (3mm oil ring)	RSTO25 (4mm oil ring) RSTO25C (3mm oil ring)
PIN BUSHINGS	PBTO15	PBTO15	PBTO15
FREEZE PLUG SET	EPSTO15	EPSTO15	EPSTO15
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO25 (without ring)	CSTO25 (without ring)	CSTO25 (without ring)
CONNECTING ROD	CRTO25	CRTO25	CRTO25
OIL PUMP			
NEW OIL PUMP	OPTO25S❶ OPTO25C❷	OPTO14V (with sensor)	OPTO25C (no sensor) OPTO25S❶

❶ (with crank sensor)
❷ (no crank sensor)
❸ (w/o crank sensor)

MODEL	CAMRY SOLERA	CELICA	CAMRY
ENGINE CODE	**5SFE**	**5SFE**	**5SFE**
DISPLACEMENT	**2164cc(132")**	**2164cc(132")**	**2164cc(132")**
YEARS	**1998-2001**	**1996-1999**	**1992-1997**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87mm(3.425")	87mm(3.425")	87mm(3.425")
STROKE	91mm(3.58")	91mm(3.58")	91mm(3.58")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.1648/2.1654"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
VALVE TRAIN			
LIFTERS	LIFTO25	LIFTO25	LIFTO25
INTAKE VALVE	IVTO25	IVTO25	IVTO25
EXHAUST VALVE	EVTO25	EVTO25	EVTO25
VALVE GUIDE	VGTO18L	VGTO18L	VGTO18L
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPTO14L	WPTO14L	WPTO14L
TIMING BELT	TBTO14L	TBTO14L	TBTO14L
TENSIONERS	BTTO14L	BTTO14L	BTTO14L
IDLERS AND PULLEYS	BTTO14B	BTTO14B	BTTO14B

TOYOTA

MODEL	CELICA MR2	CELICA MR2	CELICA PICKUP 4RUNNER
ENGINE CODE	**5SFE**	**5SFE**	**22R/22REC**
DISPLACEMENT	**2164cc(132")**	**2164cc(132")**	**2189cc(133.5")**
YEARS	**1992-1995**	**1990-1991**	**1982-1983**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	8 VALVE SOHC 4; C & FI
BORE	87mm(3.425")	87mm(3.425")	92mm(3.622")
STROKE	91mm(3.58")	91mm(3.58")	89mm(3.50")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.3613/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0857/2.0866"
ENGINE KITS			
PLATINUM KIT			EKTO80LP
GOLD KIT	EKTO25G	EKTO25G	EKTO80LG
SILVER KIT			EKTO80LS
BRONZE KITS	EKTO25B	EKTO25B	
MAJOR KIT	EKTO25M	EKTO25M	EKTO80LM
RE-RING KIT	EKTO25R (4mm oil ring)	EKTO25R (4mm oil ring)	EKTO80LR
	EKTO25CR (3mm oil ring)	EKTO25CR (3mm oil ring)	
BEARING SETS			
MAIN BEARING SET	MBTO14	MBTO14	MBTO8L
ROD BEARING SET	RBTO25	RBTO25	RBTO8
THRUST WASHER SET	TWTO17	TWTO17	TWTO8
GASKETS			
FULL GASKET SET	CGSTO25	CGSTO25	CGSTO80
HEAD GASKET SET	HSTO25	HSTO25	HSTO80
HEAD GASKETS	HDGTO25	HDGTO25	HDGTO80
CONVERSION SET	CBSTO25	CBSTO25	CBSTO80
HEAD BOLT SET	HBTO25	HBTO25	
PISTONS, RINGS, PLUGS			
PISTONS	PATO25 (set of 4)	PATO25 (set of 4)	PATO80
RING SETS	RSTO25 (4mm oil ring)	RSTO25 (4mm oil ring)	RSTO80
	RSTO25C (3mm oil ring)	RSTO25C (3mm oil ring)	
PIN BUSHINGS	PBTO15	PBTO15	PBTO8
FREEZE PLUG SET	EPSTO15	EPSTO15	EPSTO8
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO25 (without ring)	CSTO25 (without ring)	CSTO8L
CONNECTING ROD	CRTO25	CRTO25	CRTO8
OIL PUMP			
NEW OIL PUMP	OPTO14	OPTO14	OPTO8L

MODEL	CELICA MR2	CELICA MR2	CELICA PICKUP 4RUNNER
ENGINE CODE	**5SFE**	**5SFE**	**22R/22REC**
DISPLACEMENT	**2164cc(132")**	**2164cc(132")**	**2189cc(133.5")**
YEARS	**1992-1995**	**1990-1991**	**1982-1983**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	8 VALVE SOHC 4; C & FI
BORE	87mm(3.425")	87mm(3.425")	92mm(3.622")
STROKE	91mm(3.58")	91mm(3.58")	89mm(3.50")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.3613/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0857/2.0866"
VALVE TRAIN			
EXHAUST CAMSHAFT		CAMTO14E	
CAMSHAFTS			CAMTO8
LIFTERS	LIFTO25	LIFTO18	
ROCKER ARMS			RATO8
INTAKE VALVE	IVTO25	IVTO14L	IVTO80
EXHAUST VALVE	EVTO25	EVTO14L	EVTO80
VALVE GUIDE	VGTO18L	VGTO18L	VGTO8
VALVE SEALS	VSSTO15	VSSTO15	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPTO14L	WPTO14L	
TIMING CHAIN KIT			CTKTO80HD❶ CTKTO80
TIMING BELT	TBTO14L	TBTO14L	
TENSIONERS	BTTO14L	BTTO14L	
IDLERS AND PULLEYS	BTTO14B	BTTO14B	

❶ (with steel guide rail)

TOYOTA

MODEL	CELICA PICKUP CORONA	VAN	CAMRY (07-11) COROLLA XRS (09-10) MATRIX XRS (09-13) SOLARA (07-08) RAV4 (06-08)
ENGINE CODE	**20R**	**4YEC**	**2AZFE**
DISPLACEMENT	**2189cc(133.5")**	**2237cc(136.5")**	**2362cc(144.1")**
YEARS	**1975-1980**	**1986-1989**	**2006-2013**
DESCRIPTION	8 VALVE SOHC 4; CARB.	8 VALVE OHV 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	88.5mm(3.484")	91mm(3.583")	88.5mm(3.484")
STROKE	89mm(3.50")	86mm(3.39")	96mm(3.78")
MAIN JOURNAL DIA.	2.3613/2.3622"	2.2829/2.2835"	2.1648/2.1654"
ROD JOURNAL DIA.	2.0857/2.0866"	1.8892/1.8898"	1.8892/1.8898"
ENGINE KITS			
PLATINUM KIT		EKTO24LP	EKTO44LP
GOLD KIT		EKTO24LG	EKTO44LG
SILVER KIT		EKTO24LS	EKTO44LS
BRONZE KITS			EKTO44LB
MAJOR KIT		EKTO24LM	EKTO44LM
RE-RING KIT	EKTO8R❶	EKTO24LR	EKTO44LR
ULTRA KIT			EKTO44LU
BEARING SETS			
MAIN BEARING SET	MBTO8	MBTO24	MBTO44
ROD BEARING SET	RBTO8	RBTO24	RBTO44
THRUST WASHER SET	TWTO8	TWTO17	TWTO44
CAM BEARINGS		-	CBTO45
GASKETS			
FULL GASKET SET	CGSTO8	CGSTO24L	CGSTO44L
HEAD GASKET SET	HSTO8	HSTO24L	HSTO44L
HEAD GASKETS	HDGTO8	HDGTO24L	HDGTO44L
CONVERSION SET	CBSTO80	CBSTO24	CBSTO44
HEAD BOLT SET			HBTO44L
PISTONS, RINGS, PLUGS			
PISTONS		PATO24L	PATO44L
RING SETS	RSTO8❶	RSTO24L	RSTO44L❷
PIN BUSHINGS	PBTO8		PBD34
FREEZE PLUG SET	EPSTO8	EPSTO24	
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO8		CSTO44
CONNECTING ROD	CRTO8	CRTO24	CRTO44
OIL PUMP			
NEW OIL PUMP	OPTO8 (75-8/77) OPTO8L (9/77-80)	OPTO24	OPTO44

❶ (Not for shallow oil ring)

❷ (1 x 1 x 2.0mm)

MODEL	CELICA PICKUP CORONA	VAN	CAMRY (07-11) COROLLA XRS (09-10) MATRIX XRS (09-13) SOLARA (07-08) RAV4 (06-08)
ENGINE CODE	**20R**	**4YEC**	**2AZFE**
DISPLACEMENT	**2189cc(133.5")**	**2237cc(136.5")**	**2362cc(144.1")**
YEARS	**1975-1980**	**1986-1989**	**2006-2013**
DESCRIPTION	8 VALVE SOHC 4; CARB.	8 VALVE OHV 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	88.5mm(3.484")	91mm(3.583")	88.5mm(3.484")
STROKE	89mm(3.50")	86mm(3.39")	96mm(3.78")
MAIN JOURNAL DIA.	2.3613/2.3622"	2.2829/2.2835"	2.1648/2.1654"
ROD JOURNAL DIA.	2.0857/2.0866"	1.8892/1.8898"	1.8892/1.8898"
VALVE TRAIN			
CAMSHAFTS	CAMTO8	CAMTO24	
LIFTERS		LIFTO24	
ROCKER ARMS	RATO8	RATO24I (int) RATO24E (ex)	
INTAKE VALVE	IVTO8	IVTO24	IVTO44
EXHAUST VALVE	EVTO8	EVTO24	EVTO44
VALVE GUIDE	VGTO8	IVGTO24 (int) EVGTO24 (ex)	EVGTO34❶
VALVE SEALS	VSSC17	VSSC17	VSSTO34
WATER PUMP & TIMING			
WATER PUMP			WPTO44
TIMING CHAIN KIT	CTKTO8	CTKTO24	CTKTO44
GEARLESS TIMING KIT			PTKTO44

❶ (intake & exhaust)

TOYOTA

MODEL	CAMRY HYBRID	HIGHLANDER CAMRY (02-06) SOLARA (02-06) RAV4 (04-05)	CELICA (85) 4RUNNER PICKUP
ENGINE CODE	**2AZ-FXE**	**2AZFE**	**22RE/22R/22REC**
DISPLACEMENT	**2362cc(144.1")**	**2362cc(144.1")**	**2366cc(144")**
YEARS	**2007-2011**	**2001-2007**	**1985-1995**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Hybrid	16 VALVE DOHC 4; F.INJ.	8 VALVE SOHC 4; C & FI
BORE	88.5mm(3.484")	88.5mm(3.484")	92mm(3.622")
STROKE	96mm(3.78")	96mm(3.78")	89mm(3.50")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.3613/2.3622"
ROD JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	2.0857/2.0866"
ENGINE KITS			
PLATINUM KIT		EKTO44P	EKTO80LCP
GOLD KIT		EKTO44G	EKTO80LCG
SILVER KIT		EKTO44S	EKTO80LCS
BRONZE KITS		EKTO44B	EKTO80LCB
MAJOR KIT		EKTO44M	EKTO80LCM
RE-RING KIT	EKTO44LR	EKTO44R	EKTO80LCR
ULTRA KIT		EKTO44U	EKTO80LCU
BEARING SETS			
MAIN BEARING SET	MBTO44	MBTO44	MBTO8L
ROD BEARING SET	RBTO44	RBTO44	RBTO8
THRUST WASHER SET	TWTO44	TWTO44	TWTO8L
CAM BEARINGS	CBTO45	CBTO45	
GASKETS			
FULL GASKET SET	CGSTO44L	CGSTO44	CGSTO80L
HEAD GASKET SET	HSTO44L	HSTO44	HSTO80L
HEAD GASKETS	HDGTO44L	HDGTO44	HDGTO80
CONVERSION SET	CBSTO44	CBSTO44	CBSTO80
HEAD BOLT SET	HBTO44L	HBTO44	HBTO80L
PISTONS, RINGS, PLUGS			
PISTONS	PATO44H Hybrid Only	PATO44	PATO80L
RING SETS	RSTO44L❶	RSTO44	RSTO80L
PIN BUSHINGS	PBD34	PBD34	PBTO8
FREEZE PLUG SET			EPSTO8
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO44	CSTO44	CSTO8LB
CONNECTING ROD	CRTO44	CRTO44	CRTO8
OIL PUMP			
NEW OIL PUMP	OPTO44	OPTO44	OPTO8LB

❶ (1 x 1 x 2.0mm)

TOYOTA

MODEL	CAMRY HYBRID	HIGHLANDER CAMRY (02-06) SOLARA (02-06) RAV4 (04-05)	CELICA (85) 4RUNNER PICKUP
ENGINE CODE	**2AZ-FXE**	**2AZFE**	**22RE/22R/22REC**
DISPLACEMENT	**2362cc(144.1")**	**2362cc(144.1")**	**2366cc(144")**
YEARS	**2007-2011**	**2001-2007**	**1985-1995**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Hybrid	16 VALVE DOHC 4; F.INJ.	8 VALVE SOHC 4; C & FI
BORE	88.5mm(3.484")	88.5mm(3.484")	92mm(3.622")
STROKE	96mm(3.78")	96mm(3.78")	89mm(3.50")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.1648/2.1654"	2.3613/2.3622"
ROD JOURNAL DIA.	1.8892/1.8898"	1.8892/1.8898"	2.0857/2.0866"
VALVE TRAIN			
CAMSHAFTS			CAMTO8
ROCKER ARMS			RATO8
ROCKER ARM SHAFTS			RASITO8
ROCKER ARM SHAFTS			RASETO8
INTAKE VALVE	IVTO44	IVTO44	IVTO80
EXHAUST VALVE	EVTO44	EVTO44	EVTO80
VALVE GUIDE	EVGTO34❶	EVGTO34❶	VGTO8
VALVE SEALS	VSSTO34	VSSTO34	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPTO44	WPTO44	WPTO80L
TIMING CHAIN KIT	CTKTO44	CTKTO44	CTKTO80LHD❷ CTKTO80L
GEARLESS TIMING KIT	PTKTO44	PTKTO44	
TIMING COVER			TCTO80L
ENGINES & HEADS			
BARE HEADS			CHTO80LB

❶ (intake & exhaust)

❷ (with steel guide rail)

TOYOTA

MODEL	PICKUP TURBO 4RUNNER TURBO	CELICA 4RUNNER PICKUP	CELICA CORONA PICKUP
ENGINE CODE	**22RTEC**	**22R**	**22R**
DISPLACEMENT	**2366cc(144")**	**2366cc(144")**	**2366cc(144")**
YEARS	**1985-1988**	**1982-1984**	**1981-1982**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE SOHC 4; CARB.	8 VALVE SOHC 4; CARB.
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	89mm(3.50")	89mm(3.50")	89mm(3.50")
MAIN JOURNAL DIA.	2.3613/2.3622"	2.3613/2.3622"	2.3613/2.3622"
ROD JOURNAL DIA.	2.0857/2.0866"	2.0857/2.0866"	2.0857/2.0866"
ENGINE KITS			
PLATINUM KIT	EKTO80TP	EKTO80LP	EKTO80P
GOLD KIT	EKTO80TG	EKTO80LG	EKTO80G
SILVER KIT	EKTO80TS	EKTO80LS	EKTO80S
BRONZE KITS	EKTO80TB		
MAJOR KIT	EKTO80TM	EKTO80LM	EKTO80M
RE-RING KIT	EKTO80TR	EKTO80LR	EKTO80R
ULTRA KIT	EKTO80TU		
BEARING SETS			
MAIN BEARING SET	MBTO8L	MBTO8L❶	MBTO8❷
ROD BEARING SET	RBTO8	RBTO8	RBTO8
THRUST WASHER SET	TWTO8L	TWTO8	TWTO8
GASKETS			
FULL GASKET SET	CGSTO80T	CGSTO80	CGSTO80
HEAD GASKET SET	HSTO80T	HSTO80	HSTO80
HEAD GASKETS	HDGTO80	HDGTO80	HDGTO80
CONVERSION SET	CBSTO80	CBSTO80	CBSTO80
HEAD BOLT SET	HBTO80L		
PISTONS, RINGS, PLUGS			
PISTONS	PATO80T	PATO80	PATO80
RING SETS	RSTO80L	RSTO80	RSTO80
PIN BUSHINGS	PBTO8	PBTO8	PBTO8
FREEZE PLUG SET	EPSTO8	EPSTO8	EPSTO8
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO8LB	CSTO8	CSTO8
CONNECTING ROD	CRTO8	CRTO8	CRTO8
OIL PUMP			
NEW OIL PUMP	OPTO8LB	OPTO8L	OPTO8L

❶ (after 03/01/82)

❷ (up to 02/28/82)

MODEL	PICKUP TURBO 4RUNNER TURBO	CELICA 4RUNNER PICKUP	CELICA CORONA PICKUP
ENGINE CODE	**22RTEC**	**22R**	**22R**
DISPLACEMENT	**2366cc(144")**	**2366cc(144")**	**2366cc(144")**
YEARS	**1985-1988**	**1982-1984**	**1981-1982**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo	8 VALVE SOHC 4; CARB.	8 VALVE SOHC 4; CARB.
BORE	92mm(3.622")	92mm(3.622")	92mm(3.622")
STROKE	89mm(3.50")	89mm(3.50")	89mm(3.50")
MAIN JOURNAL DIA.	2.3613/2.3622"	2.3613/2.3622"	2.3613/2.3622"
ROD JOURNAL DIA.	2.0857/2.0866"	2.0857/2.0866"	2.0857/2.0866"
VALVE TRAIN			
CAMSHAFTS	CAMTO8	CAMTO8	CAMTO8
ROCKER ARMS	RATO8	RATO8	RATO8
ROCKER ARM SHAFTS	RASITO8	RASITO8 (int) RASETO8 (ex)	RASITO8 (int) RASETO8 (ex)
ROCKER ARM SHAFTS	RASETO8		
INTAKE VALVE		IVTO80	IVTO80
EXHAUST VALVE		EVTO80	EVTO80
VALVE GUIDE	VGTO8	VGTO8	VGTO8
VALVE SEALS	VSSC17	VSSC17	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPTO80L		
TIMING CHAIN KIT	CTKTO80LHD❶ CTKTO80L	CTKTO80HD❷ CTKTO80	CTKTO8
TIMING COVER	TCTO80L		

❶ (with steel guide rail)

❷ (heavy duty rail)

TOYOTA

MODEL	TACOMA	SUPERCHARGED PREVIA	PREVIA
ENGINE CODE	**2RZFE**	**2TZFZE**	**2TZFE**
DISPLACEMENT	**2438cc(146")**	**2438cc(146")**	**2438cc(146")**
YEARS	**1995-2004**	**1995-1997**	**1991-1995**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. Super	16 VALVE DOHC 4; F.INJ.
BORE	95mm(3.740")	95mm(3.740")	95mm(3.740")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.3617/2.3622"	2.3617/2.3622"	2.3617/2.3622"
ROD JOURNAL DIA.	2.0861/2.0866"	2.0861/2.0866"	2.0861/2.0866"
ENGINE KITS			
PLATINUM KIT	EKTO37P		
GOLD KIT	EKTO37G		
SILVER KIT	EKTO37S		EKTO27S
BRONZE KITS	EKTO37B		
MAJOR KIT	EKTO37M		EKTO27M
RE-RING KIT	EKTO37R	EKTO27R	EKTO27R
ULTRA KIT	EKTO37U		
BEARING SETS			
MAIN BEARING SET	MBTO38	MBTO38	MBTO38
ROD BEARING SET	RBTO38	RBTO38	RBTO38
THRUST WASHER SET	TWTO38	TWTO38	TWTO38
GASKETS			
FULL GASKET SET	CGSTO37	CGSTO27	CGSTO27
HEAD GASKET SET	HSTO38	HSTO27	HSTO27
HEAD GASKETS	HDGTO38	HDGTO27	HDGTO27
CONVERSION SET	CBSTO37	CBSTO27	CBSTO27
HEAD BOLT SET	HBTO38	HBTO38	HBTO38
PISTONS, RINGS, PLUGS			
PISTONS	PATO37		PATO27
RING SETS	RSTO38	RSTO27	RSTO27
PIN BUSHINGS	PBTO27	PBTO27	PBTO27
FREEZE PLUG SET	EPSTO37	EPSTO27	EPSTO27
CRANKSHAFT & RODS			
CONNECTING ROD	-	-	-
OIL PUMP			
NEW OIL PUMP	OPTO37		OPTO27

TOYOTA

MODEL	TACOMA	SUPERCHARGED PREVIA	PREVIA
ENGINE CODE	**2RZFE**	**2TZFZE**	**2TZFE**
DISPLACEMENT	**2438cc(146")**	**2438cc(146")**	**2438cc(146")**
YEARS	**1995-2004**	**1995-1997**	**1991-1995**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ. Super	16 VALVE DOHC 4; F.INJ.
BORE	95mm(3.740")	95mm(3.740")	95mm(3.740")
STROKE	86mm(3.39")	86mm(3.39")	86mm(3.39")
MAIN JOURNAL DIA.	2.3617/2.3622"	2.3617/2.3622"	2.3617/2.3622"
ROD JOURNAL DIA.	2.0861/2.0866"	2.0861/2.0866"	2.0861/2.0866"
VALVE TRAIN			
EXHAUST CAMSHAFT	CAMTO38E		
LIFTERS	LIFTO25	LIFTO25	LIFTO25
INTAKE VALVE	IVTO38	IVTO27	IVTO27
EXHAUST VALVE	EVTO27	EVTO27	EVTO27
INTAKE GUIDE	VGTO18L	VGTO18L	VGTO18L
EXHAUST GUIDE	EVGTO38	EVGTO38	EVGTO38
VALVE SEALS	VSSTO15	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPTO38	WPTO27	WPTO27
TIMING CHAIN KIT	CTKTO37		CTKTO27
CAM DRIVE TIMING KIT			CTKTO27C
GEARLESS TIMING KIT	PTKTO37	PTKTO27S	PTKTO27

TOYOTA

MODEL	RAV 4 PRIME HYBRID	HIGHLANDER Venza SIENNA HYBRID	CAMRY RAV4 (19-22)
ENGINE CODE	**A25A-FXS**	**A25A-FXS**	**A25A-FKS**
DISPLACEMENT	**2487cc(152")**	**2487cc(152")**	**2487cc(152")**
YEARS	**2021-2022**	**2020-2022**	**2018-2022**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. PHEV	16 vlv, DOHC 4; F.INJ. Hybrid	16 vlv, DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	103.4mm(4.07")	103.4mm(4.07")	103.4mm(4.07")
MAIN JOURNAL DIA.	2.2042"/2.2047"	2.2042"/2.2047"	2.2042"/2.2047"
ROD JOURNAL DIA.	1.8894"/1.8898"	1.8894"/1.8898"	1.8894"/1.8898"
BEARING SETS			
MAIN BEARING SET	MBTO59	MBTO59	MBTO59
ROD BEARING SET	RBTO59	RBTO59	RBTO59
THRUST WASHER SET	TWTO59	TWTO59	TWTO59
GASKETS			
FULL GASKET SET	CGSTO59	CGSTO59	CGSTO59
HEAD GASKET SET	HSTO59	HSTO59	HSTO59
CONVERSION SET	CBSTO59	CBSTO59	CBSTO59
HEAD BOLT SET	HBTO59	HBTO59	HBTO59
PISTONS, RINGS, PLUGS			
PISTONS			PATO59
RING SETS			RSTO59
OIL PUMP			
NEW OIL PUMP	OPTO59	OPTO59	OPTO59

TOYOTA

MODEL	RAV 4 PRIME HYBRID	HIGHLANDER Venza SIENNA HYBRID	CAMRY RAV4 (19-22)
ENGINE CODE	**A25A-FXS**	**A25A-FXS**	**A25A-FKS**
DISPLACEMENT	**2487cc(152")**	**2487cc(152")**	**2487cc(152")**
YEARS	**2021-2022**	**2020-2022**	**2018-2022**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. PHEV	16 vlv, DOHC 4; F.INJ. Hybrid	16 vlv, DOHC 4; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	103.4mm(4.07")	103.4mm(4.07")	103.4mm(4.07")
MAIN JOURNAL DIA.	2.2042"/2.2047"	2.2042"/2.2047"	2.2042"/2.2047"
ROD JOURNAL DIA.	1.8894"/1.8898"	1.8894"/1.8898"	1.8894"/1.8898"
VALVE TRAIN			
LIFTERS			LIFTO59
INTAKE VALVE	IVTO59	IVTO59	IVTO59
EXHAUST VALVE	EVTO59	EVTO59	EVTO59
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34

TOYOTA

MODEL	AVALON (19-22) CAMRY RAV4 (19-22) HYBRID	CAMRY (12-17) AVALON (13-18) RAV 4 (16-18) HYBRID	RAV 4 CAMRY (10-17)
ENGINE CODE	**A25A-FXS**	**2AR-FXE**	**2AR-FE**
DISPLACEMENT	**2487cc(152")**	**2494cc(152.2")**	**2494cc(152.2")**
YEARS	**2018-2022**	**2012-2018**	**2009-2018**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. Hybrid	16vlv; DOHC; 4; F.INJ; Hybrid	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	90mm(3.543")	90mm(3.543")
STROKE	103.4mm(4.07")	98mm(3.86")	98mm(3.86")
MAIN JOURNAL DIA.	2.2042"/2.2047"	2.1649/2.1654"	2.1649/2.1654"
ROD JOURNAL DIA.	1.8894"/1.8898"	2.0272/2.0280"	2.0272/2.0280"
ENGINE KITS			
MAJOR KIT			EKTO56M
RE-RING KIT			EKTO56R
BEARING SETS			
MAIN BEARING SET	MBTO59	MBTO56	MBTO56
ROD BEARING SET	RBTO59	RBTO56	RBTO56
THRUST WASHER SET	TWTO59	TWTO56	TWTO56
GASKETS			
FULL GASKET SET	CGSTO59	CGSTO56H	CGSTO56
HEAD GASKET SET	HSTO59	HSTO56H	HSTO56
CONVERSION SET	CBSTO59	CBSTO56	CBSTO56
HEAD BOLT SET	HBTO59	HBTO44L	HBTO44L
PISTONS, RINGS, PLUGS			
PISTONS		PATO56H	PATO56
RING SETS		RSTO56	RSTO56
PIN BUSHINGS		PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPTO59	OPTO56	OPTO56

MODEL	AVALON (19-22) CAMRY RAV4 (19-22) HYBRID	CAMRY (12-17) AVALON (13-18) RAV 4 (16-18) HYBRID	RAV 4 CAMRY (10-17)
ENGINE CODE	**A25A-FXS**	**2AR-FXE**	**2AR-FE**
DISPLACEMENT	**2487cc(152")**	**2494cc(152.2")**	**2494cc(152.2")**
YEARS	**2018-2022**	**2012-2018**	**2009-2018**
DESCRIPTION	16 vlv, DOHC 4; F.INJ. Hybrid	16vlv; DOHC; 4; F.INJ; Hybrid	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	90mm(3.543")	90mm(3.543")
STROKE	103.4mm(4.07")	98mm(3.86")	98mm(3.86")
MAIN JOURNAL DIA.	2.2042"/2.2047"	2.1649/2.1654"	2.1649/2.1654"
ROD JOURNAL DIA.	1.8894"/1.8898"	2.0272/2.0280"	2.0272/2.0280"
VALVE TRAIN			
LIFTERS		A-2319 (thru 05/2015) LIFTO55P (06/2015-on)	A-2319 (thru 05/2015) LIFTO55P (06/2015-on)
INTAKE VALVE	IVTO59	IVTO56	IVTO56
EXHAUST VALVE	EVTO59	EVTO56	EVTO56
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE		EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
GEARLESS TIMING KIT		PTKTO56	PTKTO56

TOYOTA

MODEL	CAMRY	HIGHLANDER Venza (09-16) SIENNA (11-13)	TACOMA 4RUNNER (96-00) T100
ENGINE CODE	**2VZFE**	**1AR-FE**	**3RZFE**
DISPLACEMENT	**2507cc(152.9")**	**2672cc(163.1")**	**2693cc(164.3")**
YEARS	**1988-1991**	**2009-2019**	**1994-2004**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	90mm(3.543")	95mm(3.740")
STROKE	69.6mm(2.74")	105mm(4.13")	95mm(3.74")
MAIN JOURNAL DIA.	2.5191/2.5197"	2.1649/2.1654"	2.3617/2.3622"
ROD JOURNAL DIA.	1.8892/1.8898"	2.0272/2.0280"	2.0861/2.0866"
ENGINE KITS			
PLATINUM KIT			EKTO38P
GOLD KIT	EKTO21G		EKTO38G
SILVER KIT			EKTO38S
BRONZE KITS	EKTO21B		EKTO38B
MAJOR KIT	EKTO21M	EKTO57M	EKTO38M
RE-RING KIT	EKTO21R	EKTO56R	EKTO38R
ULTRA KIT			EKTO38U
BEARING SETS			
MAIN BEARING SET	MBTO31	MBTO56	MBTO38
ROD BEARING SET	RBTO21	RBTO56	RBTO38
THRUST WASHER SET	TWTO21	TWTO56	TWTO38
INTERMEDIATE SET			ISBTO38
GASKETS			
FULL GASKET SET	CGSTO21	CGSTO56	CGSTO38
HEAD GASKET SET	HSTO21	HSTO56	HSTO38
HEAD GASKETS	HDGTO21 (set of 2)		HDGTO38
CONVERSION SET	CBSTO21	CBSTO56	CBSTO38
HEAD BOLT SET	HBTO33	HBTO44L	HBTO38
PISTONS, RINGS, PLUGS			
PISTONS	PATO21	PATO57	PATO38
RING SETS	RSTO21	RSTO56	RSTO38
PIN BUSHINGS		PBD34	PBTO27
FREEZE PLUG SET	EPSTO31		EPSTO38
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO21		CSTO38
CONNECTING ROD	CRTO21		CRTO38
OIL PUMP			
NEW OIL PUMP	OPTO33	OPTO56	OPTO38

TOYOTA

MODEL	CAMRY	HIGHLANDER Venza (09-16) SIENNA (11-13)	TACOMA 4RUNNER (96-00) T100
ENGINE CODE	**2VZFE**	**1AR-FE**	**3RZFE**
DISPLACEMENT	**2507cc(152.9")**	**2672cc(163.1")**	**2693cc(164.3")**
YEARS	**1988-1991**	**2009-2019**	**1994-2004**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.
BORE	87.5mm(3.445")	90mm(3.543")	95mm(3.740")
STROKE	69.6mm(2.74")	105mm(4.13")	95mm(3.74")
MAIN JOURNAL DIA.	2.5191/2.5197"	2.1649/2.1654"	2.3617/2.3622"
ROD JOURNAL DIA.	1.8892/1.8898"	2.0272/2.0280"	2.0861/2.0866"
VALVE TRAIN			
LIFTERS	LIFTO25	A-2319 (thru 2018) LIFTO55P (2019-on)	LIFTO25
INTAKE VALVE	IVTO21	IVTO56	IVTO38
EXHAUST VALVE	EVTO21	EVTO56	EVTO27
VALVE GUIDE	VGTO18L		
INTAKE GUIDE			VGTO18L
EXHAUST GUIDE			EVGTO38
VALVE SEALS	VSSTO15	VSSTO34	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPTO33		WPTO38
TIMING CHAIN KIT			CTKTO38
CAM DRIVE TIMING KIT			CTKTO38C
GEARLESS TIMING KIT		PTKTO56	PTKTO38
TIMING BELT	TBTO21		
TENSIONERS	BTTO31H (hydraulic)		
IDLERS AND PULLEYS	BTTO34LR BTTO34UR		

TOYOTA

MODEL	TACOMA	TACOMA 4RUNNER (2010)	CRESSIDA
ENGINE CODE	**2TR-FE**	**2TR-FE**	**5MGE**
DISPLACEMENT	**2694cc(164.4")**	**2694cc(164.4")**	**2759cc(168")**
YEARS	**2016-2022**	**2005-2015**	**1984-1988**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	12 VALVE DOHC 6; F.INJ.
BORE	95mm(3.740")	95mm(3.740")	83mm(3.268")
STROKE	95mm(3.74")	95mm(3.74")	85mm(3.35")
MAIN JOURNAL DIA.	2.3617/2.3622"	2.3617/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0861/2.0866"	2.0861/2.0866"	2.0466/2.0472"
ENGINE KITS			
GOLD KIT			EKTO19LG
MAJOR KIT		EKTO48M	EKTO19LM
RE-RING KIT		EKTO48R	EKTO19LR
BEARING SETS			
MAIN BEARING SET	MBTO48	MBTO48	MBTO19
ROD BEARING SET	RBTO48	RBTO48	RBTO19
THRUST WASHER SET	TWTO48	TWTO48	TWTO6
INTERMEDIATE SET			ISBTO11
GASKETS			
FULL GASKET SET	CGSTO48❶	CGSTO48	CGSTO19
HEAD GASKET SET	HSTO48❶	HSTO48	HSTO19
HEAD GASKETS	HDGTO48	HDGTO48	HDGTO19
CONVERSION SET	CBSTO48	CBSTO48	CBSTO19
HEAD BOLT SET	HBTO38	HBTO38	
PISTONS, RINGS, PLUGS			
PISTONS	PATO48L	PATO48	PATO19
RING SETS	RSTO48	RSTO48	RSTO19
PIN BUSHINGS	PBD34	PBD34	PBTO11
FREEZE PLUG SET			EPSTO19
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSTO48	CSTO48	
CONNECTING ROD	CRTO48	CRTO48	CRTO19
OIL PUMP			
NEW OIL PUMP		OPTO48❷	

❶ (late valve cover gasket not included)

❷ (rear cover and rotor set only)

MODEL	TACOMA	TACOMA 4RUNNER (2010)	CRESSIDA
ENGINE CODE	**2TR-FE**	**2TR-FE**	**5MGE**
DISPLACEMENT	**2694cc(164.4")**	**2694cc(164.4")**	**2759cc(168")**
YEARS	**2016-2022**	**2005-2015**	**1984-1988**
DESCRIPTION	16 VALVE DOHC 4; F.INJ.	16 VALVE DOHC 4; F.INJ.	12 VALVE DOHC 6; F.INJ.
BORE	95mm(3.740")	95mm(3.740")	83mm(3.268")
STROKE	95mm(3.74")	95mm(3.74")	85mm(3.35")
MAIN JOURNAL DIA.	2.3617/2.3622"	2.3617/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0861/2.0866"	2.0861/2.0866"	2.0466/2.0472"
VALVE TRAIN			
LIFTERS	LIFTO55P	A-2319	LIFTO19
ROCKER ARMS			RATO19
INTAKE VALVE	IVTO48	IVTO48	IVTO19
EXHAUST VALVE	EVTO48	EVTO48	EVTO19
VALVE GUIDE		VGTO48	VGTO19
VALVE SEALS	VSSTO34	VSSTO34	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPTO38	WPTO38	
GEARLESS TIMING KIT	PTKTO48	PTKTO48	
TIMING BELT			TBTO19L
TENSIONERS			BTTO19
BALANCE SHAFTS			JSTO11L
TIMING COVER	TCTO48L		

TOYOTA

MODEL	CRESSIDA	SUPRA TURBO	SUPRA (86-92) CRESSIDA (89-92)
ENGINE CODE	**5MGE**	**7MGTE**	**7MGE**
DISPLACEMENT	**2759cc(168")**	**2954cc(180.2")**	**2954cc(180.2")**
YEARS	**1983**	**1987-1992**	**1986-1992**
DESCRIPTION	12 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	85mm(3.35")	85mm(3.35")	85mm(3.35")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
ENGINE KITS			
GOLD KIT	EKTO19G		EKTO20CG (Cressida)
MAJOR KIT	EKTO19M	EKTO20TM	EKTO20M
RE-RING KIT	EKTO19R	EKTO20R	EKTO20R
BEARING SETS			
MAIN BEARING SET	MBTO11L	MBTO19	MBTO19
ROD BEARING SET	RBTO11L	RBTO19	RBTO19
THRUST WASHER SET	TWTO6	TWTO6	TWTO6
INTERMEDIATE SET	ISBTO11	ISBTO11	ISBTO11
GASKETS			
FULL GASKET SET	CGSTO19	CGSTO20	CGSTO20
HEAD GASKET SET	HSTO19	HSTO20	HSTO20
HEAD GASKETS	HDGTO19	HDGTO20	HDGTO20
CONVERSION SET	CBSTO19	CBSTO20	CBSTO20
PISTONS, RINGS, PLUGS			
PISTONS	PATO19	PATO20T	PATO20
RING SETS	RSTO19	RSTO19	RSTO19
PIN BUSHINGS	PBTO11	PBTO11	PBTO11
FREEZE PLUG SET	EPSTO19	EPSTO19	EPSTO19
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO10	-	-
OIL PUMP			
NEW OIL PUMP			OPTO20C (Cressida)

MODEL	CRESSIDA	SUPRA TURBO	SUPRA (86-92) CRESSIDA (89-92)
ENGINE CODE	**5MGE**	**7MGTE**	**7MGE**
DISPLACEMENT	**2759cc(168")**	**2954cc(180.2")**	**2954cc(180.2")**
YEARS	**1983**	**1987-1992**	**1986-1992**
DESCRIPTION	12 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	85mm(3.35")	85mm(3.35")	85mm(3.35")
MAIN JOURNAL DIA.	2.3616/2.3622"	2.3616/2.3622"	2.3616/2.3622"
ROD JOURNAL DIA.	2.0466/2.0472"	2.0466/2.0472"	2.0466/2.0472"
VALVE TRAIN			
LIFTERS	LIFTO19	LIFTO18	LIFTO18
ROCKER ARMS	RATO19		
INTAKE VALVE	IVTO19	IVTO20	IVTO20
EXHAUST VALVE	EVTO19	EVTO20	EVTO20
VALVE GUIDE	VGTO19	VGTO28	VGTO28
VALVE SEALS	VSSC17	VSSTO15	VSSTO15
WATER PUMP & TIMING			
TIMING BELT	TBTO19	TBTO20	TBTO20
TENSIONERS	BTTO19	BTTO20	BTTO20
BALANCE SHAFTS	JSTO11L	JSTO20	JSTO20

TOYOTA

MODEL	4RUNNER PICKUP T100	CAMRY	4RUNNER PICKUP T100
ENGINE CODE	**3VZE**	**3VZFE**	**3VZE**
DISPLACEMENT	**2958cc(180.5")**	**2958cc(180.5")**	**2958cc(180.5")**
YEARS	**1993-1995**	**1992-1993**	**1988-1992**
DESCRIPTION	12 VALVE SOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	12 VALVE SOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	82mm(3.23")	82mm(3.23")	82mm(3.23")
MAIN JOURNAL DIA.	2.5191/2.5197	2.5191/2.5197	2.5191/2.5197
ROD JOURNAL DIA.	2.1649/2.1654	2.1649/2.1654	2.1649/2.1654
ENGINE KITS			
GOLD KIT	EKTO31LG	EKTO33G	EKTO31G
	EKTO31LMG (w/ex.man gkt)		EKTO31MG (w/ex.man gkt)
BRONZE KITS	EKTO31LB	EKTO33B	EKTO31B
	EKTO31LMB (w/ex.man gkt)		EKTO31MB (w/ex.man gkt)
MAJOR KIT	EKTO31LM	EKTO33M	EKTO31M
	EKTO31LMM (w/ex.man gkt)		EKTO31MM (w/ex.man gkt)
RE-RING KIT	EKTO31R	EKTO33R	EKTO31R
	EKTO31MR (w/ex.man gkt)		EKTO31MR (w/ex.man gkt)
BEARING SETS			
MAIN BEARING SET	MBTO31	MBTO31	MBTO31
ROD BEARING SET	RBTO31	RBTO33	RBTO31
THRUST WASHER SET	TWTO21	TWTO21	TWTO21
GASKETS			
FULL GASKET SET	CGSTO31	CGSTO33	CGSTO31
	CGSTO31M (w/ex.man.gkt)		CGSTO31M (w/ex.man.gkt)
HEAD GASKET SET	HSTO31	HSTO33	HSTO31
	HSTO31M (w/ex.man.gkt)		HSTO31M (w/ex.man.gkt)
HEAD GASKETS	HDGTO31 (set of 2)	HDGTO33 (set of 2)	HDGTO31 (set of 2)
CONVERSION SET	CBSTO31	CBSTO33	CBSTO31
HEAD BOLT SET	HBTO31	HBTO33	HBTO31
PISTONS, RINGS, PLUGS			
PISTONS	PATO31	PATO33	PATO31
RING SETS	RSTO31	RSTO31	RSTO31
PIN BUSHINGS		PBTO33	
FREEZE PLUG SET	EPSTO31	EPSTO31	EPSTO31
CRANKSHAFT & RODS			
CRANKSHAFT KIT		CSTO33	
CONNECTING ROD	CRTO31	CRTO33	CRTO31
OIL PUMP			
NEW OIL PUMP	OPTO31	OPTO33	OPTO31

TOYOTA

MODEL	4RUNNER PICKUP T100	CAMRY	4RUNNER PICKUP T100
ENGINE CODE	**3VZE**	**3VZFE**	**3VZE**
DISPLACEMENT	**2958cc(180.5")**	**2958cc(180.5")**	**2958cc(180.5")**
YEARS	**1993-1995**	**1992-1993**	**1988-1992**
DESCRIPTION	12 VALVE SOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	12 VALVE SOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	82mm(3.23")	82mm(3.23")	82mm(3.23")
MAIN JOURNAL DIA.	2.5191/2.5197	2.5191/2.5197	2.5191/2.5197
ROD JOURNAL DIA.	2.1649/2.1654	2.1649/2.1654	2.1649/2.1654
VALVE TRAIN			
RIGHT CAMSHAFT	CAMTO31R		CAMTO31R
LEFT CAMSHAFT	CAMTO31L		CAMTO31L
LIFTERS	LIFTO31	LIFTO25	LIFTO31
INTAKE VALVE	IVTO31	IVTO33	IVTO31
EXHAUST VALVE	EVTO31	EVTO33	EVTO31
VALVE GUIDE	VGTO31	VGTO18L	VGTO31
VALVE SEALS	VSSC17	VSSTO15	VSSC17
WATER PUMP & TIMING			
WATER PUMP	WPTO31	WPTO33	WPTO31
TIMING BELT	TBTO31L	TBTO33	TBTO31
TENSIONERS	BTTO31H (hydraulic)	BTTO31H (hydraulic)	
IDLERS AND PULLEYS	BTTO31L	BTTO34LR	BTTO31
	BTTO31R (roller)	BTTO34UR	BTTO31R (roller)
ENGINES & HEADS			
BARE HEADS	CHTO31R		
	CHTO31L		

TOYOTA

MODEL	HIGHLANDER (01-03) CAMRY (04-06)	AVALON SIENNA (01-03)	CAMRY
ENGINE CODE	**1MZFE**	**1MZFE**	**1MZFE**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2001-2006**	**2000-2004**	**2002-2003**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
ENGINE KITS			
GOLD KIT		EKTO34HG	
BRONZE KITS		EKTO34HB	
MAJOR KIT	EKTO34HM	EKTO34HM	EKTO34CM
RE-RING KIT	EKTO34HR	EKTO34HR	EKTO34CR
BEARING SETS			
MAIN BEARING SET	MBTO34	MBTO34	MBTO34
ROD BEARING SET	RBTO34	RBTO34	RBTO34
THRUST WASHER SET	TWTO34	TWTO34	TWTO34
GASKETS			
FULL GASKET SET	CGSTO34H	CGSTO34H	CGSTO34C
HEAD GASKET SET	HSTO34H	HSTO34H	HSTO34C
HEAD GASKETS	HDGTO34H (set of 2)	HDGTO34H (set of 2)	HDGTO34C (set of 2)
CONVERSION SET	CBSTO34	CBSTO34	CBSTO34
HEAD BOLT SET	HBTO34	HBTO34	HBTO34
PISTONS, RINGS, PLUGS			
PISTONS	PATO34	PATO34	PATO34
RING SETS	RSTO34	RSTO34	RSTO34
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPTO34S	OPTO34H	OPTO34C

MODEL	HIGHLANDER (01-03) CAMRY (04-06)	AVALON SIENNA (01-03)	CAMRY
ENGINE CODE	**1MZFE**	**1MZFE**	**1MZFE**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2001-2006**	**2000-2004**	**2002-2003**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
VALVE TRAIN			
LIFTERS	LIFTO25	LIFTO25	LIFTO25
INTAKE VALVE	IVTO34	IVTO34	IVTO34
EXHAUST VALVE	EVTO34	EVTO34	EVTO34
INTAKE GUIDE	IVGTO34	IVGTO34	IVGTO34
EXHAUST GUIDE	EVGTO34	EVGTO34	EVGTO34
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO34	WPTO34	WPTO34
TIMING BELT	TBTO34	TBTO34	TBTO34
HYDRAULIC TENSIONER	BTTO46H	BTTO34H	BTTO46H
IDLERS AND PULLEYS	BTTO46LR BTTO34UR	BTTO34LR BTTO34UR	BTTO46LR BTTO34UR

TOYOTA

MODEL	SOLARA	CAMRY	SIENNA
ENGINE CODE	**1MZFE**	**1MZFE**	**1MZFE**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2001-2003**	**2001**	**2000**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
ENGINE KITS			
GOLD KIT	EKTO34CG		EKTO34CG
BRONZE KITS	EKTO34CB		EKTO34CB
MAJOR KIT	EKTO34CM	EKTO34CM	EKTO34CM
RE-RING KIT	EKTO34CR	EKTO34CR	EKTO34CR
BEARING SETS			
MAIN BEARING SET	MBTO34	MBTO34	MBTO34
ROD BEARING SET	RBTO34	RBTO34	RBTO34
THRUST WASHER SET	TWTO34	TWTO34	TWTO34
GASKETS			
FULL GASKET SET	CGSTO34C	CGSTO34C	CGSTO34C
HEAD GASKET SET	HSTO34C	HSTO34C	HSTO34C
HEAD GASKETS	HDGTO34C (set of 2)	HDGTO34C (set of 2)	HDGTO34C (set of 2)
CONVERSION SET	CBSTO34	CBSTO34	CBSTO34
HEAD BOLT SET	HBTO34	HBTO34	HBTO34
PISTONS, RINGS, PLUGS			
PISTONS	PATO34	PATO34	PATO34
RING SETS	RSTO34	RSTO34	RSTO34
PIN BUSHINGS	PBD34	PBD34	PBD34
OIL PUMP			
NEW OIL PUMP	OPTO34	OPTO34H	OPTO34

MODEL	SOLARA	CAMRY	SIENNA
ENGINE CODE	**1MZFE**	**1MZFE**	**1MZFE**
DISPLACEMENT	**2995cc(183.0")**	**2995cc(183.0")**	**2995cc(183.0")**
YEARS	**2001-2003**	**2001**	**2000**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	87.5mm(3.445")	87.5mm(3.445")	87.5mm(3.445")
STROKE	83mm(3.27")	83mm(3.27")	83mm(3.27")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
VALVE TRAIN			
LIFTERS	LIFTO25	LIFTO25	LIFTO25
INTAKE VALVE	IVTO34	IVTO34	IVTO34
EXHAUST VALVE	EVTO34	EVTO34	EVTO34
INTAKE GUIDE	IVGTO34	IVGTO34	IVGTO34
EXHAUST GUIDE	EVGTO34	EVGTO34	EVGTO34
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO34	WPTO34	WPTO34
TIMING BELT	TBTO34	TBTO34	TBTO34
HYDRAULIC TENSIONER	BTTO34H	BTTO34H	BTTO34H
IDLERS AND PULLEYS	BTTO34LR BTTO34UR	BTTO34LR BTTO34UR	BTTO34LR BTTO34UR

TOYOTA

MODEL	CAMRY (94-99) SOLARA (99-00) SIENNA (98-99) AVALON (95-99)	SUPRA	SUPRA TWIN TURBO
ENGINE CODE	**1MZFE**	**2JZGE**	**2JZGTE**
DISPLACEMENT	**2995cc(183.0")**	**2997cc(183")**	**2997cc(183")**
YEARS	**1994-2000**	**1998**	**1993-1998**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24vlv; DOHC; V6; F.INJ. Turbo
BORE	87.5mm(3.445")	86.0mm(3.386")	86.0mm(3.386")
STROKE	83mm(3.27")	86.0mm(3.39")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4403/2.4409"	2.4403/2.4409"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0465/2.0472"	2.0465/2.0472"
ENGINE KITS			
GOLD KIT	EKTO34G		
BRONZE KITS	EKTO34B		
MAJOR KIT	EKTO34M		
RE-RING KIT	EKTO34R		
BEARING SETS			
MAIN BEARING SET	MBTO34	MBTO36	MBTO36
ROD BEARING SET	RBTO34	RBTO36	RBTO36
THRUST WASHER SET	TWTO34	TWTO36	TWTO36
GASKETS			
FULL GASKET SET	CGSTO34		
HEAD GASKET SET	HSTO34	HSTO36	
HEAD GASKETS	HDGTO34 (set of 2)	HDGTO36	
CONVERSION SET	CBSTO34		
HEAD BOLT SET	HBTO34	HBTO36	HBTO36
PISTONS, RINGS, PLUGS			
PISTONS	PATO34		
RING SETS	RSTO34	RSTO36T	RSTO36T
PIN BUSHINGS	PBD34	PBTO15	PBTO15
FREEZE PLUG SET		EPSTO36	EPSTO36
CRANKSHAFT & RODS			
CONNECTING ROD		CRTO36	CRTO36
OIL PUMP			
NEW OIL PUMP	OPTO34		

TOYOTA

MODEL	CAMRY (94-99) SOLARA (99-00) SIENNA (98-99) AVALON (95-99)	SUPRA	SUPRA TWIN TURBO
ENGINE CODE	**1MZFE**	**2JZGE**	**2JZGTE**
DISPLACEMENT	**2995cc(183.0")**	**2997cc(183")**	**2997cc(183")**
YEARS	**1994-2000**	**1998**	**1993-1998**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24vlv; DOHC; V6; F.INJ. Turbo
BORE	87.5mm(3.445")	86.0mm(3.386")	86.0mm(3.386")
STROKE	83mm(3.27")	86.0mm(3.39")	86.0mm(3.39")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4403/2.4409"	2.4403/2.4409"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0465/2.0472"	2.0465/2.0472"
VALVE TRAIN			
LIFTERS	LIFTO25	LIFTO25	LIFTO25
INTAKE VALVE	IVTO34	IVTO36	IVTO36
EXHAUST VALVE	EVTO34	EVTO36	EVTO36
INTAKE GUIDE	IVGTO34	VGTO28	VGTO28
EXHAUST GUIDE	EVGTO34	VGTO18L	VGTO18L
VALVE SEALS	VSSTO34	VSSTO15	VSSTO15
WATER PUMP & TIMING			
WATER PUMP	WPTO34		
TIMING BELT	TBTO34	TBTO36	TBTO36
TENSIONERS		BTTO36H	BTTO36H
HYDRAULIC TENSIONER	BTTO34H		
IDLERS AND PULLEYS	BTTO34LR BTTO34UR	BTTO36R	BTTO36R

TOYOTA

MODEL	SUPRA	CAMRY (04-06) SOLARA (04-08) HIGHLANDER SIENNA (04-06)	4RUNNER (96-02) TACOMA TUNDRA (00-04)
ENGINE CODE	**2JZGE**	**3MZFE**	**5VZFE**
DISPLACEMENT	**2997cc(183")**	**3310cc**	**3378cc(206.1")**
YEARS	**1993-1997**	**2004-2010**	**1995-2004**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	86.0mm(3.386")	92mm(3.622")	93.5mm(3.681")
STROKE	86.0mm(3.39")	83mm(3.27")	82.0mm(3.23")
MAIN JOURNAL DIA.	2.4403/2.4409"	2.4011/2.4016"	2.5191/2.5197"
ROD JOURNAL DIA.	2.0465/2.0472"	2.0864/2.0866"	2.1649/2.1654"
ENGINE KITS			
GOLD KIT		EKTO46G	EKTO35G
BRONZE KITS			EKTO35B (w/WPTO35) EKTO35WB (w/WPTO35W)
MAJOR KIT		EKTO46M	EKTO35M
RE-RING KIT		EKTO46R	EKTO35R
BEARING SETS			
MAIN BEARING SET	MBTO36	MBTO34	MBTO31
ROD BEARING SET	RBTO36	RBTO34	RBTO33
THRUST WASHER SET	TWTO36	TWTO34	TWTO21
GASKETS			
FULL GASKET SET		CGSTO46	CGSTO35
HEAD GASKET SET	HSTO36	HSTO46	HSTO35
HEAD GASKETS	HDGTO36	HDGTO46 (set of 2)	HDGTO35 (set of 2)
CONVERSION SET		CBSTO34	CBSTO35
HEAD BOLT SET	HBTO36	HBTO34	HBTO33
PISTONS, RINGS, PLUGS			
PISTONS		PATO46	PATO35
RING SETS	RSTO36T	RSTO46	RSTO35
PIN BUSHINGS	PBTO15	PBD33	PBTO33
FREEZE PLUG SET	EPSTO36		EPSTO31
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO36		
OIL PUMP			
NEW OIL PUMP	OPTO36 (93-95)	OPTO34S	OPTO35

MODEL	SUPRA	CAMRY (04-06) SOLARA (04-08) HIGHLANDER SIENNA (04-06)	4RUNNER (96-02) TACOMA TUNDRA (00-04)
ENGINE CODE	**2JZGE**	**3MZFE**	**5VZFE**
DISPLACEMENT	**2997cc(183")**	**3310cc**	**3378cc(206.1")**
YEARS	**1993-1997**	**2004-2010**	**1995-2004**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC V6; F.INJ.	24 VALVE DOHC V6; F.INJ.
BORE	86.0mm(3.386")	92mm(3.622")	93.5mm(3.681")
STROKE	86.0mm(3.39")	83mm(3.27")	82.0mm(3.23")
MAIN JOURNAL DIA.	2.4403/2.4409"	2.4011/2.4016"	2.5191/2.5197"
ROD JOURNAL DIA.	2.0465/2.0472"	2.0864/2.0866"	2.1649/2.1654"
VALVE TRAIN			
LIFTERS	LIFTO25	LIFTO25	LIFTO25 (95-02)
INTAKE VALVE	IVTO36	IVTO34	IVTO33
EXHAUST VALVE	EVTO36	EVTO34	EVTO33
VALVE GUIDE			VGTO18L
INTAKE GUIDE	VGTO28	IVGTO34	
EXHAUST GUIDE	VGTO18L	EVGTO34	
VALVE SEALS	VSSTO15	VSSTO34	VSSTO15
WATER PUMP & TIMING			
WATER PUMP		WPTO34	WPTO35❶ WPTO35W❷
TIMING BELT	TBTO36	TBTO34	TBTO35
TENSIONERS		BTTO46LR	BTTO31H BTTO35LR (lower)
HYDRAULIC TENSIONER	BTTO36H	BTTO46H	
IDLERS AND PULLEYS	BTTO36R	BTTO34UR	BTTO35UR (upper)

❶ (w/o water outlet)
❷ (w/water outlet)

TOYOTA

MODEL	T100	TUNDRA	AVALON CAMRY (07-17) RAV 4 (06-12) SIENNA (07-16) HIGHLANDER (08-16) Venza (09-16)
ENGINE CODE	**5VZFE**	**V35A-FTS**	**2GRFE**
DISPLACEMENT	**3378cc(206.1")**	**3445cc**	**3456cc**
YEARS	**1995-1998**	**2022**	**2005-2018**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24vlv; DOHC; V6; F.INJ. Turbo	24 VALVE DOHC 6; F.INJ.
BORE	93.5mm(3.681")	85.5mm(3.33")	94mm(3.701")
STROKE	82.0mm(3.23")	100mm(3.94")	83mm(3.27")
MAIN JOURNAL DIA.	2.5191/2.5197"	2.91290/2.91338"	2.4011/2.4016"
ROD JOURNAL DIA.	2.1649/2.1654"	2.22803/2.22834"	2.0864/2.0866"
ENGINE KITS			
GOLD KIT	EKTO35LG		EKTO49G
BRONZE KITS	EKTO35LB (w/WPTO35) EKTO35WLB (w/WPTO35W)		
MAJOR KIT	EKTO35M		EKTO49M
RE-RING KIT	EKTO35R		EKTO49R
BEARING SETS			
MAIN BEARING SET	MBTO31		MBTO49
ROD BEARING SET	RBTO33		RBTO49
THRUST WASHER SET	TWTO21		TWTO49
GASKETS			
FULL GASKET SET	CGSTO35		CGSTO49
HEAD GASKET SET	HSTO35		HSTO49
HEAD GASKETS	HDGTO35 (set of 2)		HDGTO49 (set of 2)
CONVERSION SET	CBSTO35		CBSTO49
HEAD BOLT SET	HBTO33		HBTO47
PISTONS, RINGS, PLUGS			
PISTONS	PATO35		PATO49
RING SETS	RSTO35		RSTO49
PIN BUSHINGS	PBTO33		PBD34
FREEZE PLUG SET	EPSTO31		
CRANKSHAFT & RODS			
CONNECTING ROD			CRTO49
OIL PUMP			
NEW OIL PUMP	OPTO35L		OPTO49❶

❶ (rear cover and rotor set only)

TOYOTA

MODEL	T100	TUNDRA	AVALON CAMRY (07-17) RAV 4 (06-12) SIENNA (07-16) HIGHLANDER (08-16) Venza (09-16)
ENGINE CODE	**5VZFE**	**V35A-FTS**	**2GRFE**
DISPLACEMENT	**3378cc(206.1")**	**3445cc**	**3456cc**
YEARS	**1995-1998**	**2022**	**2005-2018**
DESCRIPTION	24 VALVE DOHC V6; F.INJ.	24vlv; DOHC; V6; F.INJ. Turbo	24 VALVE DOHC 6; F.INJ.
BORE	93.5mm(3.681")	85.5mm(3.33")	94mm(3.701")
STROKE	82.0mm(3.23")	100mm(3.94")	83mm(3.27")
MAIN JOURNAL DIA.	2.5191/2.5197"	2.91290/2.91338"	2.4011/2.4016"
ROD JOURNAL DIA.	2.1649/2.1654"	2.22803/2.22834"	2.0864/2.0866"
VALVE TRAIN			
LIFTERS	LIFTO25		A-2319
INTAKE VALVE	IVTO33		IVTO49
EXHAUST VALVE	EVTO33		EVTO49
VALVE GUIDE	VGTO18L		
INTAKE GUIDE			IVGTO55
EXHAUST GUIDE			EVGTO55
VALVE SEALS	VSSTO15		VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO35❶ WPTO35W❷		
TIMING CHAIN KIT			CTKTO49❸
TIMING BELT	TBTO35		
TENSIONERS	BTTO31H BTTO35LR (lower)		
IDLERS AND PULLEYS	BTTO35UR (upper)		

❶ (w/o water outlet)
❷ (w/water outlet)
❸ (Cam Phasers not included)

TOYOTA

MODEL	HIGHLANDER HYBRID	CAMRY (18-22) HIGHLANDER (17-22) SIENNA (17-20) TACOMA AVALON (19-22)	HIGHLANDER HYBRID
ENGINE CODE	**2GR-FXE**	**2GR-FKS**	**2GR-FXS**
DISPLACEMENT	**3456cc**	**3456cc(210.9")**	**3456cc(210.9")**
YEARS	**2011-2016**	**2016-2022**	**2017-2019**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. Electric/	24 VALVE; DOHC V6; F.INJ.	24 vlv; DOHC V6; F.INJ. Electric/
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.26")	83mm(3.26")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
BEARING SETS			
MAIN BEARING SET	MBTO49	MBTO49	MBTO49
ROD BEARING SET	RBTO49	RBTO49	RBTO49
THRUST WASHER SET	TWTO49	TWTO49	TWTO49
GASKETS			
FULL GASKET SET	CGSTO49		
HEAD GASKET SET	HSTO49		
HEAD GASKETS	HDGTO49 (set of 2)		
CONVERSION SET	CBSTO49		
HEAD BOLT SET	HBTO47	HBTO47	HBTO47
PISTONS, RINGS, PLUGS			
RING SETS	RSTO49	RSTO49	
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO49		
OIL PUMP			
NEW OIL PUMP	OPTO49❶		

❶ (rear cover and rotor set only)

MODEL	HIGHLANDER HYBRID	CAMRY (18-22) HIGHLANDER (17-22) SIENNA (17-20) TACOMA AVALON (19-22)	HIGHLANDER HYBRID
ENGINE CODE	**2GR-FXE**	**2GR-FKS**	**2GR-FXS**
DISPLACEMENT	**3456cc**	**3456cc(210.9")**	**3456cc(210.9")**
YEARS	**2011-2016**	**2016-2022**	**2017-2019**
DESCRIPTION	24 vlv; DOHC V6; F.INJ. Electric/	24 VALVE; DOHC V6; F.INJ.	24 vlv; DOHC V6; F.INJ. Electric/
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.26")	83mm(3.26")
MAIN JOURNAL DIA.	2.4011/2.4016"	2.4011/2.4016"	2.4011/2.4016"
ROD JOURNAL DIA.	2.0864/2.0866"	2.0864/2.0866"	2.0864/2.0866"
VALVE TRAIN			
LIFTERS	A-2319	A-2319	A-2319
INTAKE VALVE	IVTO49	IVTO49	IVTO49
EXHAUST VALVE	EVTO49	EVTO49	EVTO49
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKTO49❶		

❶ (Cam Phasers not included)

TOYOTA

MODEL	4RUNNER TUNDRA (11-14) FJ CRUISER (10-14)	TACOMA TUNDRA (2010)	4RUNNER TACOMA (05-09) TUNDRA (05-09) FJ CRUISER (07-09)
ENGINE CODE	**1GR-FE**	**1GR-FE**	**1GR-FE**
DISPLACEMENT	**3956cc**	**3956cc**	**3956cc**
YEARS	**2010-2022**	**2010-2015**	**2003-2009**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	95mm(3.74")	95mm(3.74")	95mm(3.74")
MAIN JOURNAL DIA.	2.8342/2.8346"	2.8342/2.8346"	2.8342/2.8346"
ROD JOURNAL DIA.	2.2044/2.2047"	2.2044/2.2047"	2.2044/2.2047"
ENGINE KITS			
GOLD KIT			EKTO47G
MAJOR KIT		EKTO47LM	EKTO47M
RE-RING KIT			EKTO47R
BEARING SETS			
MAIN BEARING SET	MBTO47	MBTO47	MBTO47
ROD BEARING SET	RBTO47	RBTO47	RBTO47
THRUST WASHER SET	TWTO47L	TWTO47L❶	TWTO47
GASKETS			
FULL GASKET SET	CGSTO47B	CGSTO47L	CGSTO47L
HEAD GASKET SET	HSTO47B	HSTO47L	HSTO47L
HEAD GASKETS		HDGTO47 (set of 2)	HDGTO47 (set of 2)
CONVERSION SET	CBSTO47B	CBSTO47	CBSTO47
HEAD BOLT SET	HBTO47	HBTO47	HBTO47
PISTONS, RINGS, PLUGS			
PISTONS	PATO47B	PATO47	PATO47
RING SETS	RSTO49	RSTO47	RSTO47
PIN BUSHINGS	PBD34	PBD34	PBD34
CRANKSHAFT & RODS			
CONNECTING ROD	CRTO47	CRTO47	CRTO47
OIL PUMP			
NEW OIL PUMP	OPTO47L❷	OPTO47❷	OPTO47❷

❶ (Center tab offset)

❷ (rear cover and rotor set only)

TOYOTA

MODEL	4RUNNER TUNDRA (11-14) FJ CRUISER (10-14)	TACOMA TUNDRA (2010)	4RUNNER TACOMA (05-09) TUNDRA (05-09) FJ CRUISER (07-09)
ENGINE CODE	**1GR-FE**	**1GR-FE**	**1GR-FE**
DISPLACEMENT	**3956cc**	**3956cc**	**3956cc**
YEARS	**2010-2022**	**2010-2015**	**2003-2009**
DESCRIPTION	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.	24 VALVE DOHC 6; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	95mm(3.74")	95mm(3.74")	95mm(3.74")
MAIN JOURNAL DIA.	2.8342/2.8346"	2.8342/2.8346"	2.8342/2.8346"
ROD JOURNAL DIA.	2.2044/2.2047"	2.2044/2.2047"	2.2044/2.2047"
VALVE TRAIN			
LIFTERS	A-2319		
INTAKE VALVE	IVTO49	IVTO47	IVTO47
EXHAUST VALVE	EVTO50	EVTO47	EVTO47
INTAKE GUIDE	IVGTO55	IVGTO34	IVGTO34
EXHAUST GUIDE	EVGTO55	EVGTO34	EVGTO34
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO47L	WPTO47	WPTO47
TIMING CHAIN KIT	CTKTO47L	CTKTO47	CTKTO47

TOYOTA

MODEL	TUNDRA	SEQUOIA	4RUNNER SEQUOIA TUNDRA LANDCRUISER
ENGINE CODE	**1UR-FE**	**1UR-FE**	**2UZ-FE**
DISPLACEMENT	**4608cc**	**4608cc**	**4663cc(284.5")**
YEARS	**2010-2019**	**2010-2012**	**2005-2009**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.27")	84.7mm(3.33")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	2.6373/2.6378"
ROD JOURNAL DIA.	2.0859"/2.0866"	2.0859"/2.0866"	2.0465/2.0472"
BEARING SETS			
MAIN BEARING SET	MBTO50	MBTO50	MBTO43
ROD BEARING SET	-	-	RBTO43
THRUST WASHER SET	TWTO50	TWTO50	TWTO43
GASKETS			
FULL GASKET SET			CGSTO43L
HEAD GASKET SET			HSTO43L
HEAD GASKETS			HDGTO43 (set of 2)
CONVERSION SET	CBSTO50	CBSTO50	CBSTO43
HEAD BOLT SET	HBTO50	HBTO50	HBTO43
PISTONS, RINGS, PLUGS			
PISTONS			PATO43L
RING SETS	RSTO50	RSTO50	RSTO43L
PIN BUSHINGS	PBD34	PBD34	PBD34
FREEZE PLUG SET			EPSTO43
OIL PUMP			
NEW OIL PUMP			OPTO43L

MODEL	TUNDRA	SEQUOIA	4RUNNER SEQUOIA TUNDRA LANDCRUISER
ENGINE CODE	**1UR-FE**	**1UR-FE**	**2UZ-FE**
DISPLACEMENT	**4608cc**	**4608cc**	**4663cc(284.5")**
YEARS	**2010-2019**	**2010-2012**	**2005-2009**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	83mm(3.27")	83mm(3.27")	84.7mm(3.33")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	2.6373/2.6378"
ROD JOURNAL DIA.	2.0859"/2.0866"	2.0859"/2.0866"	2.0465/2.0472"
VALVE TRAIN			
LIFTERS	A-2319	A-2319	LIFTO43
INTAKE VALVE	IVTO49	IVTO49	IVTO43
EXHAUST VALVE	EVTO50	EVTO50	EVTO43
INTAKE GUIDE	IVGTO55	IVGTO55	IVGTO34
EXHAUST GUIDE	EVGTO55	EVGTO55	EVGTO34
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP			WPTO43
TIMING CHAIN KIT	CTKTO501U (2010-13 only	CTKTO501U❶	
TIMING BELT			TBTO43
TENSIONERS			BTTO43
HYDRAULIC TENSIONER			BTTO43H
IDLERS AND PULLEYS			BTTO43I

❶ (Cam Phasers not included)

TOYOTA

MODEL	LANDCRUISER SEQUOIA TUNDRA 4RUNNER	TUNDRA LANDCRUISER SEQUOIA	TUNDRA SEQUOIA (14-18)
ENGINE CODE	**2UZ-FE**	**3UR-FE**	**3UR-FBE**
DISPLACEMENT	**4663cc(284.5")**	**5663cc**	**5663cc**
YEARS	**1998-2004**	**2014-2022**	**2014-2019**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 vlv; DOHC; V8; F.INJ; FLEX
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	84.7mm(3.33")	102mm(4.02")	102mm(4.02")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	2.6373/2.6378"
ROD JOURNAL DIA.	2.0465/2.0472"	2.2040/2.2047"	2.2040/2.2047"
ENGINE KITS			
GOLD KIT	EKTO43G		
BRONZE KITS	EKTO43B		
MAJOR KIT	EKTO43M		
RE-RING KIT	EKTO43R		
BEARING SETS			
MAIN BEARING SET	MBTO43	MBTO50	MBTO50
ROD BEARING SET	RBTO43	RBTO50	RBTO50
THRUST WASHER SET	TWTO43	TWTO50	TWTO50
GASKETS			
FULL GASKET SET	CGSTO43	CGSTO50	CGSTO50
HEAD GASKET SET	HSTO43	HSTO50	HSTO50
HEAD GASKETS	HDGTO43 (set of 2)		
CONVERSION SET	CBSTO43	CBSTO50	CBSTO50
HEAD BOLT SET	HBTO43	HBTO50	HBTO50
PISTONS, RINGS, PLUGS			
PISTONS	PATO43 (set of 8)	PATO50L	PATO50L
RING SETS	RSTO43	RSTO50	RSTO50
PIN BUSHINGS	PBD34	PBH36	PBH36
FREEZE PLUG SET	EPSTO43		
OIL PUMP			
NEW OIL PUMP	OPTO43	OPTO50K❶	OPTO50K❶

❶ (rear cover and rotor set only)

MODEL	LANDCRUISER SEQUOIA TUNDRA 4RUNNER	TUNDRA LANDCRUISER SEQUOIA	TUNDRA SEQUOIA (14-18)
ENGINE CODE	**2UZ-FE**	**3UR-FE**	**3UR-FBE**
DISPLACEMENT	**4663cc(284.5")**	**5663cc**	**5663cc**
YEARS	**1998-2004**	**2014-2022**	**2014-2019**
DESCRIPTION	32 VALVE DOHC V8; F.INJ.	32 VALVE DOHC V8; F.INJ.	32 vlv; DOHC; V8; F.INJ; FLEX
BORE	94mm(3.701")	94mm(3.701")	94mm(3.701")
STROKE	84.7mm(3.33")	102mm(4.02")	102mm(4.02")
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	2.6373/2.6378"
ROD JOURNAL DIA.	2.0465/2.0472"	2.2040/2.2047"	2.2040/2.2047"
VALVE TRAIN			
LIFTERS	LIFTO43	A-2319	A-2319
INTAKE VALVE	IVTO43	IVTO49	IVTO49
EXHAUST VALVE	EVTO43	EVTO50	EVTO50
INTAKE GUIDE	IVGTO34	IVGTO55	IVGTO55
EXHAUST GUIDE	EVGTO34	EVGTO55	EVGTO55
VALVE SEALS	VSSTO34	VSSTO34	VSSTO34
WATER PUMP & TIMING			
WATER PUMP	WPTO43		
TIMING CHAIN KIT		CTKTO50	CTKTO50
TIMING BELT	TBTO43		
TENSIONERS	BTTO43		
HYDRAULIC TENSIONER	BTTO43H		
IDLERS AND PULLEYS	BTTO43I		
TIMING COVER		TCTO50❶	TCTO50❶

❶ (with water & oil pump)

TOYOTA

MODEL	SEQUOIA TUNDRA	LANDCRUISER (08-13) SEQUOIA (08-13) TUNDRA (07-13)	
ENGINE CODE	**3UR-FBE**	**3UR-FE**	
DISPLACEMENT	**5663cc**	**5663cc**	
YEARS	**2009-2013**	**2007-2013**	
DESCRIPTION	32 vlv; DOHC; V8; F.INJ; FLEX	32 VALVE DOHC V8; F.INJ.	
BORE	94mm(3.701")	94mm(3.701")	
STROKE	102mm(4.02")	102mm(4.02")	
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	
ROD JOURNAL DIA.	2.2040/2.2047"	2.2040/2.2047"	
BEARING SETS			
MAIN BEARING SET	MBTO50	MBTO50	
ROD BEARING SET	RBTO50	RBTO50	
THRUST WASHER SET	TWTO50	TWTO50	
GASKETS			
FULL GASKET SET	CGSTO50	CGSTO50	
HEAD GASKET SET	HSTO50	HSTO50	
CONVERSION SET	CBSTO50	CBSTO50	
HEAD BOLT SET	HBTO50	HBTO50	
PISTONS, RINGS, PLUGS			
PISTONS	PATO50L	PATO50L	
RING SETS	RSTO50	RSTO50	
PIN BUSHINGS	PBH36	PBH36	
OIL PUMP			
NEW OIL PUMP	OPTO50K❶	OPTO50K❶	

❶ (rear cover and rotor set only)

MODEL	SEQUOIA TUNDRA	LANDCRUISER (08-13) SEQUOIA (08-13) TUNDRA (07-13)	
ENGINE CODE	**3UR-FBE**	**3UR-FE**	
DISPLACEMENT	**5663cc**	**5663cc**	
YEARS	**2009-2013**	**2007-2013**	
DESCRIPTION	32 vlv; DOHC; V8; F.INJ; FLEX	32 VALVE DOHC V8; F.INJ.	
BORE	94mm(3.701")	94mm(3.701")	
STROKE	102mm(4.02")	102mm(4.02")	
MAIN JOURNAL DIA.	2.6373/2.6378"	2.6373/2.6378"	
ROD JOURNAL DIA.	2.2040/2.2047"	2.2040/2.2047"	
VALVE TRAIN			
LIFTERS	A-2319	A-2319	
INTAKE VALVE	IVTO49	IVTO49	
EXHAUST VALVE	EVTO50	EVTO50	
INTAKE GUIDE	IVGTO55	IVGTO55	
EXHAUST GUIDE	EVGTO55	EVGTO55	
VALVE SEALS	VSSTO34	VSSTO34	
WATER PUMP & TIMING			
TIMING CHAIN KIT	CTKTO50	CTKTO50	
TIMING COVER	TCTO50❶	TCTO50❶	

❶ (with water & oil pump)

VOLKSWAGEN

MODEL	GOLF JETTA SPORTWAGEN TURBO	JETTA TURBO	JETTA Hybrid TURBO
ENGINE CODE	**DGXA**	**CZTA**	**CNLA**
DISPLACEMENT	**1395cc(85.0")**	**1395cc(85.0")**	**1395cc(85.0")**
YEARS	**2019-2021**	**2016-2018**	**2013-2016**
DESCRIPTION	16 vlv DOHC 4; TSI; Turbo	16 vlv DOHC 4; TSI; Turbo	16 vlv DOHC 4; TSI; Hybrid
BORE	74.5mm(2.93")	74.5mm(2.93")	74.5mm(2.93")
STROKE	80.0mm(3.15")	80.0mm(3.15")	80.0mm(3.15")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-	-	-

MODEL	GOLF JETTA SPORTWAGEN TURBO	JETTA TURBO	JETTA Hybrid TURBO
ENGINE CODE	**DGXA**	**CZTA**	**CNLA**
DISPLACEMENT	**1395cc(85.0")**	**1395cc(85.0")**	**1395cc(85.0")**
YEARS	**2019-2021**	**2016-2018**	**2013-2016**
DESCRIPTION	16 vlv DOHC 4; TSI; Turbo	16 vlv DOHC 4; TSI; Turbo	16 vlv DOHC 4; TSI; Hybrid
BORE	74.5mm(2.93")	74.5mm(2.93")	74.5mm(2.93")
STROKE	80.0mm(3.15")	80.0mm(3.15")	80.0mm(3.15")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS			LIFVW22
INTAKE VALVE	IVVW27	IVVW27	IVVW27
EXHAUST VALVE	EVVW27	EVVW27	EVVW27

VOLKSWAGEN

MODEL	RABBIT	DIESEL RABBIT DASHER	JETTA
ENGINE CODE	**EH/FX**	**CK**	**MF**
DISPLACEMENT	**1457cc(88.9")**	**1471cc(89.8")**	**1588cc(96.9")**
YEARS	**1978-1980**	**1977-1980**	**1985-1986**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	DIESEL SOHC 4	8 vlv, SOHC 4; F.INJ. turbo, Dies
BORE	79.5mm(3.130")	76.5mm(3.012")	76.5mm(3.012")
STROKE	73.4mm(2.86")	80mm(3.15")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8086/1.8094"	1.8802/1.8810"
ENGINE KITS			
GOLD KIT			EK069TG
BRONZE KITS			EK069TB
MAJOR KIT			EK069TM
RE-RING KIT		EK068R	EK069R
BEARING SETS			
MAIN BEARING SET	MB056	MB056	MB056
ROD BEARING SET	RB056	RB056	RB068
INTERMEDIATE SET	ISB056	ISB056	ISB056
	JS056	JS068	JS069
GASKETS			
FULL GASKET SET	CGS0495	CGS068 (no HDG)	CGS068 (no HDG)
HEAD GASKET SET	HS049	HS068 (no HDG)	HS068 (no HDG)
CONVERSION SET	CBS0495	CBS0495	CBS0495
HEAD BOLT SET	HB037		HB068
PISTONS, RINGS, PLUGS			
PISTONS			PA0686T
RING SETS		RS068	RS068
PIN BUSHINGS			PB069
FREEZE PLUG SET	EPS049	EPS049	EPS049
CRANKSHAFT & RODS			
CONNECTING ROD	CR521N (nut type)	CR521N (nut type)	CR621
OIL PUMP			
NEW OIL PUMP	OP049	OP068W/O (bladed shaft)	OP068W/O

VOLKSWAGEN

MODEL	RABBIT	DIESEL RABBIT DASHER	JETTA
ENGINE CODE	**EH/FX**	**CK**	**MF**
DISPLACEMENT	**1457cc(88.9")**	**1471cc(89.8")**	**1588cc(96.9")**
YEARS	**1978-1980**	**1977-1980**	**1985-1986**
DESCRIPTION	8 VALVE; SOHC 4; CARB.	DIESEL SOHC 4	8 vlv, SOHC 4; F.INJ. turbo, Dies
BORE	79.5mm(3.130")	76.5mm(3.012")	76.5mm(3.012")
STROKE	73.4mm(2.86")	80mm(3.15")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8086/1.8094"	1.8802/1.8810"
VALVE TRAIN			
CAMSHAFTS	CAM049	CAM068	CAM068
LIFTERS	LIF056	LIF056	LIF049
INTAKE VALVE			IV069H
EXHAUST VALVE			EV069H
VALVE GUIDE	VG056	VG056	VG056
VALVE SEALS	VSS056	VSS056	VSS056
WATER PUMP & TIMING			
WATER PUMP			WP026 (30mm hub)
TIMING BELT	TB056	TB068	TB068

VOLKSWAGEN

MODEL	JETTA (83-84) RABBIT (1983) QUANTUM	DIESEL GOLF JETTA	DIESEL VANAGON
ENGINE CODE	**CY/MD**	**ME**	**CS**
DISPLACEMENT	**1588cc(96.9")**	**1588cc(96.9")**	**1588cc(96.9")**
YEARS	**1983-1985**	**1983-1985**	**1982-1984**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo, Dies	DIESEL SOHC 4	DIESEL SOHC 4
BORE	76.5mm(3.012")	76.5mm(3.012")	76.5mm(3.012")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
ENGINE KITS			
GOLD KIT	EK069TG (exc. Quantum)	EK069G	
BRONZE KITS	EK069TB (exc. Quantum)	EK069B	
MAJOR KIT	EK069TM	EK069M	EK069M
RE-RING KIT	EK069R	EK069R	EK069R
BEARING SETS			
MAIN BEARING SET	MB056	MB056	MB056
ROD BEARING SET	RB068	RB068	RB068
INTERMEDIATE SET	ISB056	ISB056	ISB056
	JS069	JS069	JS069
GASKETS			
FULL GASKET SET	CGS068 (no HDG)	CGS068 (no HDG)	CGS068 (no HDG)
HEAD GASKET SET	HS068 (no HDG)	HS068 (no HDG)	HS068 (no HDG)
CONVERSION SET	CBS0495	CBS0495	CBS0495
HEAD BOLT SET	HB068	HB068	
PISTONS, RINGS, PLUGS			
PISTONS	PA0686T	PA0686	PA0686
RING SETS	RS068	RS068	RS068
PIN BUSHINGS	PB069	PB069	PB069
FREEZE PLUG SET	EPS049	EPS049	EPS049
CRANKSHAFT & RODS			
CONNECTING ROD	CR621	CR621	CR621
OIL PUMP			
NEW OIL PUMP	OP068W/O (exc. Quantum	OP068W/O	

MODEL	JETTA (83-84) RABBIT (1983) QUANTUM	DIESEL GOLF JETTA	DIESEL VANAGON
ENGINE CODE	**CY/MD**	**ME**	**CS**
DISPLACEMENT	**1588cc(96.9")**	**1588cc(96.9")**	**1588cc(96.9")**
YEARS	**1983-1985**	**1983-1985**	**1982-1984**
DESCRIPTION	8 vlv, SOHC 4; F.INJ. turbo, Dies	DIESEL SOHC 4	DIESEL SOHC 4
BORE	76.5mm(3.012")	76.5mm(3.012")	76.5mm(3.012")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
CAMSHAFTS	CAM068	CAM068	CAM068
LIFTERS	LIF056	LIF049	LIF056
INTAKE VALVE	IV069	IV069H	IV069 (3 keeper)
EXHAUST VALVE	EV069	EV069H	EV069 (3 keeper)
VALVE GUIDE	VG056	VG056	VG056
VALVE SEALS	VSS056	VSS056	VSS056
WATER PUMP & TIMING			
WATER PUMP	WP026 (30mm hub)	WP026 (30mm hub)	WP026 (30mm hub)
TIMING BELT	TB068	TB068	TB068

VOLKSWAGEN

MODEL	DIESEL RABBIT DASHER JETTA PICKUP	RABBIT (79-80) SCIRROCO (79-80) JETTA (1980) DASHER	RABBIT
ENGINE CODE	**CR/JK**	**E & Y Series**	**JF**
DISPLACEMENT	**1588cc(96.9")**	**1588cc(96.9")**	**1715cc(104.6")**
YEARS	**1981-1984**	**1976-1980**	**1982-1984**
DESCRIPTION	DIESEL SOHC 4	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	76.5mm(3.012")	79.5mm(3.130")	79.5mm(3.130")
STROKE	86.4mm(3.40")	80mm(3.15")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8086/1.8094"	1.8086/1.8094"
ENGINE KITS			
GOLD KIT	EK069G (exc. Dasher)		
BRONZE KITS	EK069B (exc. Dasher)		
MAJOR KIT	EK069M		
RE-RING KIT	EK069R		
BEARING SETS			
MAIN BEARING SET	MB056	MB056	MB056
ROD BEARING SET	RB068	RB056	RB056
INTERMEDIATE SET	ISB056	ISB056	ISB056
GASKETS			
FULL GASKET SET	CGS068 (no HDG)	CGS068 (no HDG)	CGS0495
HEAD GASKET SET	HS068 (no HDG)	HS068 (no HDG)	HS049
CONVERSION SET	CBS0495	CBS0495	CBS0495
HEAD BOLT SET		HB037	HB037
PISTONS, RINGS, PLUGS			
PISTONS	PA0686		
RING SETS	RS068		
PIN BUSHINGS	PB069		
FREEZE PLUG SET	EPS049	EPS049	EPS049
CRANKSHAFT & RODS			
CONNECTING ROD	CR621	CR521N (nut type)	CR521N (nut type)
OIL PUMP			
NEW OIL PUMP	OP068W/O (exc. Dasher)	OP049 (exc. Dasher)	OP049

MODEL	DIESEL RABBIT DASHER JETTA PICKUP	RABBIT (79-80) SCIRROCO (79-80) JETTA (1980) DASHER	RABBIT
ENGINE CODE	**CR/JK**	**E & Y Series**	**JF**
DISPLACEMENT	**1588cc(96.9")**	**1588cc(96.9")**	**1715cc(104.6")**
YEARS	**1981-1984**	**1976-1980**	**1982-1984**
DESCRIPTION	DIESEL SOHC 4	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; CARB.
BORE	76.5mm(3.012")	79.5mm(3.130")	79.5mm(3.130")
STROKE	86.4mm(3.40")	80mm(3.15")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8086/1.8094"	1.8086/1.8094"
VALVE TRAIN			
CAMSHAFTS	CAM068	CAM049	CAM049
LIFTERS	LIF056	LIF056	LIF056
INTAKE VALVE	IV069 (3 keeper)		IV049 (3 keeper)
EXHAUST VALVE	EV069 (3 keeper)		EV049 (3 keeper)
VALVE GUIDE	VG056	VG056	VG056
VALVE SEALS	VSS056	VSS056	VSS056
WATER PUMP & TIMING			
WATER PUMP	WP026 (30mm hub)		WP026 (30mm hub)
TIMING BELT	TB068	TB056	TB056
BALANCE SHAFTS	JS069	JS056	JS056

VOLKSWAGEN

MODEL	RABBIT JETTA SCIRROCO QUANTUM	GOLF (87-92) FOX CABRIOLET JETTA (87-92)	CORRADO
ENGINE CODE	**EN/WT**	**PF;RV;2H;ABG**	**PG**
DISPLACEMENT	**1715cc(104.6")**	**1781cc(108.6")**	**1781cc(108.6")**
YEARS	**1981-1984**	**1987-1993**	**1990-1992**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	79.5mm(3.130")	81mm(3.189")	81mm(3.189")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8802/1.8810"	1.8802/1.8810"
ENGINE KITS			
GOLD KIT		EK054G	
BRONZE KITS		EK054B	
MAJOR KIT		EK054M	
RE-RING KIT		EK054R	
BEARING SETS			
MAIN BEARING SET	MB056	MB056	MB056
ROD BEARING SET	RB056	RB068	RB053
INTERMEDIATE SET	ISB056	ISB056	ISB056
GASKETS			
FULL GASKET SET	CGS0495	CGS051	CGS037C
HEAD GASKET SET	HS049	HS051	HS037C
HEAD GASKETS		HDG051	
CONVERSION SET	CBS0495	CBS0495	CBS0495
HEAD BOLT SET	HB037	HB037	HB037
PISTONS, RINGS, PLUGS			
PISTONS		PA051	
RING SETS		-	-
PIN BUSHINGS		PB026	PB026
FREEZE PLUG SET	EPS049	EPS049	EPS049
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CS053
CONNECTING ROD	CR521N (nut type)	CR526	
OIL PUMP			
NEW OIL PUMP	OP049 (exc. Quantum)	OP027	

MODEL	RABBIT JETTA SCIRROCO QUANTUM	GOLF (87-92) FOX CABRIOLET JETTA (87-92)	CORRADO
ENGINE CODE	**EN/WT**	**PF;RV;2H;ABG**	**PG**
DISPLACEMENT	**1715cc(104.6")**	**1781cc(108.6")**	**1781cc(108.6")**
YEARS	**1981-1984**	**1987-1993**	**1990-1992**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	79.5mm(3.130")	81mm(3.189")	81mm(3.189")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8086/1.8094"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
CAMSHAFTS	CAM049		
LIFTERS	LIF056	LIF049	LIF049
INTAKE VALVE	IV049 (3 keeper)	IV051H (38mm)	IV051H (38mm)
		IVA5H (40mm)	IVA5H (40mm)
EXHAUST VALVE	EV049 (3 keeper)	EV051H	EV051H
VALVE GUIDE	VG056	VG056	VG056
VALVE SEALS	VSS056	VSS056	VSS056
WATER PUMP & TIMING			
WATER PUMP	WP026 (30mm hub)	WP026 (30mm hub)	WP026 (30mm hub)
TIMING BELT	TB056	TB056	TB056
BALANCE SHAFTS	JS056	JS056	JS056

VOLKSWAGEN

MODEL	GOLF FOX (87-89) JETTA	GOLF GTi (87-89) JETTA (87-89) SCIRROCO (86-88)	RABBIT (83-84) SCIRROCO (84-87) CABRIOLET (85-88) JETTA (84-88)
ENGINE CODE	**RD;HT;UM;JN;GX**	**PL**	**JH**
DISPLACEMENT	**1781cc(108.6")**	**1781cc(108.6")**	**1781cc(108.6")**
YEARS	**1986-1989**	**1986-1989**	**1983-1988**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
ENGINE KITS			
GOLD KIT	EK054G		EK054G
BRONZE KITS	EK054B		EK054B
MAJOR KIT	EK054M		EK054M
RE-RING KIT	EK054R	EK027R	EK054R
BEARING SETS			
MAIN BEARING SET	MB056	MB056	MB056
ROD BEARING SET	RB068	RB068	RB068
INTERMEDIATE SET	ISB056	ISB056	ISB056
GASKETS			
FULL GASKET SET	CGS051	CGS027	CGS051
HEAD GASKET SET	HS051	HS027	HS051
HEAD GASKETS	HDG051	HDG051	HDG051
CONVERSION SET	CBS0495	CBS0495	CBS0495
HEAD BOLT SET	HB037	HB027	
PISTONS, RINGS, PLUGS			
PISTONS	PA051		PA051
RING SETS	-	-	-
PIN BUSHINGS	PB026	PB026	PB026
FREEZE PLUG SET	EPS049	EPS049	EPS049
CRANKSHAFT & RODS			
CONNECTING ROD	CR526	CR526	CR526
OIL PUMP			
NEW OIL PUMP	OP027		OP027

MODEL	GOLF FOX (87-89) JETTA	GOLF GTi (87-89) JETTA (87-89) SCIRROCO (86-88)	RABBIT (83-84) SCIRROCO (84-87) CABRIOLET (85-88) JETTA (84-88)
ENGINE CODE	**RD;HT;UM;JN;GX**	**PL**	**JH**
DISPLACEMENT	**1781cc(108.6")**	**1781cc(108.6")**	**1781cc(108.6")**
YEARS	**1986-1989**	**1986-1989**	**1983-1988**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	81mm(3.189")	81mm(3.189")	81mm(3.189")
STROKE	86.4mm(3.40")	86.4mm(3.40")	86.4mm(3.40")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
INTAKE CAMSHAFT		CAM027I	
CAMSHAFTS			CAM049
LIFTERS	LIF049	LIF049	LIF056
INTAKE VALVE	IV051H (38mm) IVA5H (40mm)	IV027	IV051 (40 x 98.7)
EXHAUST VALVE	EV051H	EV027	EV051 (33.1 x 98.5)
VALVE GUIDE	VG056	VG027	VG056
VALVE SEALS	VSS056	VSS027	VSS056
WATER PUMP & TIMING			
WATER PUMP	WP026 (30mm hub)	WP026 (30mm hub)	WP026 (30mm hub)
TIMING BELT	TB056	TB027	TB056
BALANCE SHAFTS	JS056	JS027	JS056

VOLKSWAGEN

MODEL	Beetle (01-05) GOLF GTi (02-06) JETTA (02-05) PASSAT (01-05) TURBO	Beetle (99-00) GOLF (00-01) GOLF GTi (00-01) JETTA (00-01) PASSAT (98-00) TURBO	JETTA BEETLE (14-17) PASSAT (14-16) TURBO
ENGINE CODE	**AWV,BKF,AWP,AWM**	**APH/AEB/ATW/AUG/A**	**CPKA**
DISPLACEMENT	**1781cc(108.7")**	**1781cc(108.7")**	**1798cc(109.7")**
YEARS	**2001-2006**	**1998-2001**	**2014-2018**
DESCRIPTION	20vlv; DOHC 4; F.INJ; Turbo	20vlv; DOHC 4; F.INJ; Turbo	16vlv; DOHC; 4; F.INJ; Turbo
BORE	81mm(3.189")	81mm(3.189")	82.5mm(3.248")
STROKE	86.4mm(3.40")	86.4mm(3.40")	84.1mm(3.31")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW12	MBVW12	MBVW17N
ROD BEARING SET	RBVW12 (.002 O.D.) RBVW12S (Standard OD)	RB053 (w/tab right)	RBVW17L
THRUST WASHER SET	TWVW12	TWVW12	TWVW17L❶ TWVW17LX❷
GASKETS			
FULL GASKET SET	CGSVW12	CGSVW12	
HEAD GASKET SET	HSVW12	HSVW12	HSVW26
HEAD GASKETS	HDGVW12	HDGVW12	
CONVERSION SET	CBSVW12❸	CBSVW12❸	
HEAD BOLT SET	HBVW12DT16 (136mm)	HBVW12❹ HBVW12DT16 (136mm)	HBVW26
PISTONS, RINGS, PLUGS			
PISTONS	PAVW12NB (19 mm pin)	PAVW12 (20mm pin)	
RING SETS	RSVW12	RSVW12E	RSVW26
PIN BUSHINGS	PBVW12	PB026	
FREEZE PLUG SET	EPS049	EPS049	
CRANKSHAFT & RODS			
CONNECTING ROD	CRVW12 (cracked rod)	CR053	
OIL PUMP			
NEW OIL PUMP	OPVW13	OPVW13 OPVW12 (rear mount)	

❶ (w/o locating tabs)
❷ (with 2 notch hook)
❸ (Rear Main Seal/Cover not included)
❹ (112 mm length)

MODEL	Beetle (01-05) GOLF GTi (02-06) JETTA (02-05) PASSAT (01-05) TURBO	Beetle (99-00) GOLF (00-01) GOLF GTi (00-01) JETTA (00-01) PASSAT (98-00) TURBO	JETTA BEETLE (14-17) PASSAT (14-16) TURBO
ENGINE CODE	**AWV,BKF,AWP,AWM**	**APH/AEB/ATW/AUG/A**	**CPKA**
DISPLACEMENT	**1781cc(108.7")**	**1781cc(108.7")**	**1798cc(109.7")**
YEARS	**2001-2006**	**1998-2001**	**2014-2018**
DESCRIPTION	20vlv; DOHC 4; F.INJ; Turbo	20vlv; DOHC 4; F.INJ; Turbo	16vlv; DOHC; 4; F.INJ; Turbo
BORE	81mm(3.189")	81mm(3.189")	82.5mm(3.248")
STROKE	86.4mm(3.40")	86.4mm(3.40")	84.1mm(3.31")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW12E (x8) LIFVW12I (x12)	LIFVW12E (x8) LIFVW12I (x12)	LIFVW22
INTAKE VALVE	IVVW12	IVVW12	IVVW17❶
EXHAUST VALVE	EVVW12❷	EVVW12❷	EVVW17❶
VALVE GUIDE	VGVW12	VGVW12	VGVW21
VALVE SEALS	VSSVW12	VSSVW12	VSSVW21
WATER PUMP & TIMING			
TIMING BELT	TBVW12A (150 teeth)	TBVW12E (153 teeth) TBVW12A (150 teeth)	

❶ Not Sodium Filled

❷ Evv01

VOLKSWAGEN

MODEL	JETTA BEETLE (14-17) PASSAT (14-17) TURBO	GOLF (15-18) GOLF ALLTRACK (15-1 SPORTSWAGEN TURBO	GOLF (15-18) GOLF ALLTRACK SPORTSWAGEN TURBO
ENGINE CODE	**CPRA**	**CXBA**	**CXBB**
DISPLACEMENT	**1798cc(109.7")**	**1798cc(110")**	**1798cc(110")**
YEARS	**2014-2018**	**2015-2019**	**2015-2019**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. TURB
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	84.1mm(3.31")	84.1mm(3.31")	84.1mm(3.31")
MAIN JOURNAL DIA.	2.0456"/2.0464"	1.8883/1.8889"	1.8883/1.8889"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17N	MBVW26	MBVW26
ROD BEARING SET	RBVW17L	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17LX❶ TWVW17L❷	TWVW17N	TWVW17N
GASKETS			
HEAD GASKET SET	HSVW26	HSVW26	HSVW26
HEAD BOLT SET	HBVW26	HBVW26	HBVW26
PISTONS, RINGS, PLUGS			
RING SETS	RSVW26	RSVW26	RSVW26

❶ (with 2 notch hook)

❷ (w/o locating tabs)

MODEL	JETTA BEETLE (14-17) PASSAT (14-17) TURBO	GOLF (15-18) GOLF ALLTRACK (15-1 SPORTSWAGEN TURBO	GOLF (15-18) GOLF ALLTRACK SPORTSWAGEN TURBO
ENGINE CODE	**CPRA**	**CXBA**	**CXBB**
DISPLACEMENT	**1798cc(109.7")**	**1798cc(110")**	**1798cc(110")**
YEARS	**2014-2018**	**2015-2019**	**2015-2019**
DESCRIPTION	16vlv; DOHC; 4; F.INJ; Turbo	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. TURB
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	84.1mm(3.31")	84.1mm(3.31")	84.1mm(3.31")
MAIN JOURNAL DIA.	2.0456"/2.0464"	1.8883/1.8889"	1.8883/1.8889"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	GOLF TURBO	GOLF TURBO	JETTA
ENGINE CODE	**CNSB**	**CNSA**	**BRM**
DISPLACEMENT	**1798cc(110")**	**1798cc(110")**	**1896cc(115.7")**
YEARS	**2015-2016**	**2015-2016**	**2005-2006**
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. TURB	8vlv; SOHC; 4; F.INJ; TDI
BORE	82.5mm(3.248")	82.5mm(3.248")	79.5mm(3.130")
STROKE	84.1mm(3.31")	84.1mm(3.31")	95.5mm(3.76")
MAIN JOURNAL DIA.			2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW26	MBVW26	MBVW12
ROD BEARING SET	RBVW17L	RBVW17L	RBVW23DL
THRUST WASHER SET	TWVW17N	TWVW17N	TWVW12
GASKETS			
HEAD GASKET SET	HSVW26	HSVW26	HSVW23J❶
HEAD BOLT SET	HBVW26	HBVW26	
PISTONS, RINGS, PLUGS			
PISTONS			PAVW23J
RING SETS	RSVW26	RSVW26	RS069
PIN BUSHINGS			PBVW23

❶ (w/o Head Gasket)

MODEL	GOLF TURBO	GOLF TURBO	JETTA
ENGINE CODE	CNSB	CNSA	BRM
DISPLACEMENT	1798cc(110")	1798cc(110")	1896cc(115.7")
YEARS	2015-2016	2015-2016	2005-2006
DESCRIPTION	16 VALVE DOHC 4; F.INJ. TURB	16 VALVE DOHC 4; F.INJ. TURB	8vlv; SOHC; 4; F.INJ; TDI
BORE	82.5mm(3.248")	82.5mm(3.248")	79.5mm(3.130")
STROKE	84.1mm(3.31")	84.1mm(3.31")	95.5mm(3.76")
MAIN JOURNAL DIA.			2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIF037
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW23G (89mm length)
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW23G (89mm length)
VALVE GUIDE	VGVW21	VGVW21	
VALVE SEALS	VSSVW21	VSSVW21	VSS027

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	GOLF JETTA (04-05) BEETLE	GOLF JETTA BETTLE (98-03)	GOLF(1998) JETTA
ENGINE CODE	**BEW**	**ALH**	**AHU**
DISPLACEMENT	**1896cc(115.7")**	**1896cc(115.7")**	**1896cc(115.7")**
YEARS	**2004-2006**	**1998-2004**	**1998-1999**
DESCRIPTION	8vlv; SOHC; 4; F.INJ; TDI	8vlv; SOHC; 4; F.INJ; TDI	8vlv; SOHC; 4; F.INJ; TDI
BORE	79.5mm(3.130")	79.5mm(3.130")	79.5mm(3.130")
STROKE	95.5mm(3.76")	95.5mm(3.76")	95.5mm(3.76")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW12	MBVW12	MBVW12
ROD BEARING SET	RBVW23DL	RBVW23D	RBVW23D
THRUST WASHER SET	TWVW12	TWVW12	TWVW12
GASKETS			
FULL GASKET SET			CGSVW23G (no HDG)
HEAD GASKET SET	HSVW23J❶	HSVW23G❶	HSVW23G (no HDG)
CONVERSION SET			CBSVW23
REAR SEAL/COVER			-
HEAD BOLT SET		HB068	HB068
PISTONS, RINGS, PLUGS			
PISTONS	PAVW23B	PAVW069	PAVW069
RING SETS	RS069	RS069	RS069
PIN BUSHINGS	PBVW23	PBVW23	PBVW23
OIL PUMP			
NEW OIL PUMP	OPVW13	OPVW13	OPVW13

❶ (w/o Head Gasket)

MODEL	GOLF JETTA (04-05) BEETLE	GOLF JETTA BETTLE (98-03)	GOLF(1998) JETTA
ENGINE CODE	**BEW**	**ALH**	**AHU**
DISPLACEMENT	**1896cc(115.7")**	**1896cc(115.7")**	**1896cc(115.7")**
YEARS	**2004-2006**	**1998-2004**	**1998-1999**
DESCRIPTION	8vlv; SOHC; 4; F.INJ; TDI	8vlv; SOHC; 4; F.INJ; TDI	8vlv; SOHC; 4; F.INJ; TDI
BORE	79.5mm(3.130")	79.5mm(3.130")	79.5mm(3.130")
STROKE	95.5mm(3.76")	95.5mm(3.76")	95.5mm(3.76")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIF037	LIF037	LIF037
INTAKE VALVE	IVVW23E❶	IV069D7 (7mm dia.)	IV069D7 (7mm dia.)
EXHAUST VALVE	EVVW23E❶	EV069D7 (7mm dia.)	EV069D7 (7mm dia.)
VALVE SEALS	VSS027	VSS027	VSS027
WATER PUMP & TIMING			
TIMING BELT		TB069D	TB069D

❶ (88.4mm length)

VOLKSWAGEN

MODEL	PASSAT	PASSAT	BEETLE JETTA PASSAT
ENGINE CODE	**1Z**	**BHW**	**CVCA**
DISPLACEMENT	**1896cc(115.7")**	**1967cc(120")**	**1968cc(120.1")**
YEARS	**1996-1997**	**2004-2005**	**2015**
DESCRIPTION	8vlv; SOHC; 4; F.INJ; TDI	8vlv; SOHC; 4; F.INJ; TDI	16vlv; DOHC; 4; Turbo Diesel
BORE	79.5mm(3.130")	81.0mm(3.189")	81.0mm(3.189")
STROKE	95.5mm(3.76")	95.5mm(3.76")	95.5mm(3.76")
MAIN JOURNAL DIA.	2.1243/2.1251"		2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"		2.0022/2.0030"
BEARING SETS			
MAIN BEARING SET	MBVW12		MBVW12
ROD BEARING SET	RBVW23D		RBVW25
THRUST WASHER SET	TWVW12		TWVW12
GASKETS			
FULL GASKET SET	CGSVW23G (no HDG)		
HEAD GASKET SET	HSVW23G (no HDG)		
CONVERSION SET	CBSVW23		
HEAD BOLT SET	HB068		
PISTONS, RINGS, PLUGS			
PISTONS	PAVW069		
RING SETS	RS069		RSVW25
PIN BUSHINGS	PBVW23		
OIL PUMP			
NEW OIL PUMP	OP069		

MODEL	PASSAT	PASSAT	BEETLE JETTA PASSAT
ENGINE CODE	**1Z**	**BHW**	**CVCA**
DISPLACEMENT	**1896cc(115.7")**	**1967cc(120")**	**1968cc(120.1")**
YEARS	**1996-1997**	**2004-2005**	**2015**
DESCRIPTION	8vlv; SOHC; 4; F.INJ; TDI	8vlv; SOHC; 4; F.INJ; TDI	16vlv; DOHC; 4; Turbo Diesel
BORE	79.5mm(3.130")	81.0mm(3.189")	81.0mm(3.189")
STROKE	95.5mm(3.76")	95.5mm(3.76")	95.5mm(3.76")
MAIN JOURNAL DIA.	2.1243/2.1251"		2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"		2.0022/2.0030"
VALVE TRAIN			
LIFTERS	LIF037		LIFVW25
INTAKE VALVE	IV069D7 (7mm dia.)	IVVW23G	IVVW25
EXHAUST VALVE	EV069D7 (7mm dia.)	EVVW23G	EVVW25
VALVE SEALS	VSS027		VSSVW21
WATER PUMP & TIMING			
TIMING BELT	TB069		TBVW25

VOLKSWAGEN

MODEL	GOLF	PASSAT	GOLF JETTA BETTLE (13-14)
ENGINE CODE	**CRUA**	**CKRA**	**CJAA**
DISPLACEMENT	**1968cc(120.1")**	**1968cc(120.1")**	**1968cc(120.1")**
YEARS	**2015**	**2012-2014**	**2010-2014**
DESCRIPTION	16vlv; DOHC; 4; Turbo Diesel	16vlv; DOHC; 4; Turbo Diesel	16vlv; DOHC; 4; Turbo Diesel
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	95.5mm(3.76")	95.5mm(3.76")	95.5mm(3.76")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	2.0022/2.0030"	2.0022/2.0030"	2.0022/2.0030"
BEARING SETS			
MAIN BEARING SET		MBVW12	MBVW12
ROD BEARING SET		RBVW25	RBVW25
THRUST WASHER SET		TWVW12	TWVW12

MODEL	GOLF	PASSAT	GOLF JETTA BETTLE (13-14)
ENGINE CODE	**CRUA**	**CKRA**	**CJAA**
DISPLACEMENT	**1968cc(120.1")**	**1968cc(120.1")**	**1968cc(120.1")**
YEARS	**2015**	**2012-2014**	**2010-2014**
DESCRIPTION	16vlv; DOHC; 4; Turbo Diesel	16vlv; DOHC; 4; Turbo Diesel	16vlv; DOHC; 4; Turbo Diesel
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	95.5mm(3.76")	95.5mm(3.76")	95.5mm(3.76")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	2.0022/2.0030"	2.0022/2.0030"	2.0022/2.0030"
VALVE TRAIN			
LIFTERS	LIFVW25	LIFVW25	LIFVW25
INTAKE VALVE		IVVW25	IVVW25
EXHAUST VALVE		EVVW25	EVVW25
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21
WATER PUMP & TIMING			
TIMING BELT	TBVW26		TBVW25

VOLKSWAGEN

MODEL	JETTA	ARTEON TURBO	GTi JETTA TURBO
ENGINE CODE	**CBEA**	**DLRB**	**DKFA**
DISPLACEMENT	**1968cc(120.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2009**	**2019-2021**	**2019-2021**
DESCRIPTION	16vlv; DOHC; 4; Turbo Diesel	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	81.0mm(3.189")	82.5mm(3.248")	82.5mm(3.248")
STROKE	95.5mm(3.76")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.	2.0022/2.0030"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW12	MBVW17N	MBVW17N
ROD BEARING SET	RBVW25	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW12	TWVW17LX❶ TWVW17L❷	TWVW17LX❶ TWVW17L❷
GASKETS			
HEAD GASKET SET		HSVW26	HSVW26
HEAD BOLT SET		HBVW26	HBVW26

❶ (with 2 notch hook)
❷ (w/o locating tabs)

MODEL	JETTA	ARTEON TURBO	GTi JETTA TURBO
ENGINE CODE	CBEA	DLRB	DKFA
DISPLACEMENT	1968cc(120.1")	1984cc(121.1")	1984cc(121.1")
YEARS	2009	2019-2021	2019-2021
DESCRIPTION	16vlv; DOHC; 4; Turbo Diesel	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	81.0mm(3.189")	82.5mm(3.248")	82.5mm(3.248")
STROKE	95.5mm(3.76")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.	2.0022/2.0030"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW25	LIFVW22	LIFVW22
INTAKE VALVE	IVVW25	IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW25	EVVW17❶	EVVW17❶
VALVE GUIDE		VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21
WATER PUMP & TIMING			
TIMING BELT	TBVW25		

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	ATLAS ATLAS CROSSSPORT TURBO	BEETLE PASSAT	TIGUAN TURBO
ENGINE CODE	**DCGA**	**DDSB**	**DGUA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2018-2021**	**2019-2020**	**2018-2020**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.0456"/2.0464"	1.8883/1.8889"	1.8883/1.8889"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17N	MBVW26	MBVW26
ROD BEARING SET	RBVW17L	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17LX❶ TWVW17L❷	TWVW17N	TWVW17N
GASKETS			
HEAD GASKET SET	HSVW26		
HEAD BOLT SET		HBVW26	HBVW26

❶ (with 2 notch hook)
❷ (w/o locating tabs)

MODEL	ATLAS ATLAS CROSSSPORT TURBO	BEETLE PASSAT	TIGUAN TURBO
ENGINE CODE	**DCGA**	**DDSB**	**DGUA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2018-2021**	**2019-2020**	**2018-2020**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.0456"/2.0464"	1.8883/1.8889"	1.8883/1.8889"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶		
VALVE GUIDE	VGVW21		
VALVE SEALS	VSSVW21		

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	GOLF R TURBO	BEETLE PASSAT	GOLF R
ENGINE CODE	DLRA	DDSA	DJJA
DISPLACEMENT	1984cc(121.1")	1984cc(121.1")	1984cc(121.1")
YEARS	2019	2018-2019	2018
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.0456"/2.0464"	1.8883/1.8889"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17N	MBVW26	MBVW17N
ROD BEARING SET	RBVW17L	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17LX❶	TWVW17N	TWVW17LX❶
	TWVW17L❷		TWVW17L❷
GASKETS			
HEAD GASKET SET	HSVW26		HSVW26
HEAD BOLT SET	HBVW26	HBVW26	HBVW26

❶ (with 2 notch hook)

❷ (w/o locating tabs)

MODEL	GOLF R TURBO	BEETLE PASSAT	GOLF R
ENGINE CODE	DLRA	DDSA	DJJA
DISPLACEMENT	1984cc(121.1")	1984cc(121.1")	1984cc(121.1")
YEARS	2019	2018-2019	2018
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.0456"/2.0464"	1.8883/1.8889"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶		
EXHAUST VALVE	EVVW17❶		
VALVE GUIDE	VGVW21		VGVW21
VALVE SEALS	VSSVW21		VSSVW21

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	GTi	BEETLE JETTA GLi	BEETLE (13-17) JETTA GLi
ENGINE CODE	**CXCB**	**CPPA**	**CPLA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2016-2018**	**2014-2018**	**2013-2018**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.0456"/2.0464"	2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17N	MBVW17N	MBVW17N
ROD BEARING SET	RBVW17L	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17LX❶ TWVW17L❷	TWVW17LX❶ TWVW17L❷	TWVW17L❷ TWVW17LX❶
GASKETS			
HEAD GASKET SET	HSVW26	HSVW26	HSVW26
HEAD BOLT SET	HBVW26	HBVW26	HBVW26

❶ (with 2 notch hook)

❷ (w/o locating tabs)

MODEL	GTi	BEETLE JETTA GLi	BEETLE (13-17) JETTA GLi
ENGINE CODE	**CXCB**	**CPPA**	**CPLA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2016-2018**	**2014-2018**	**2013-2018**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.0456"/2.0464"	2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	EOS (11-16) GTi (11-14) TIGUAN (11-17) CC (11-17) TIGUAN Limited (17-18)	GTi	GOLF R
ENGINE CODE	**CCTA**	**CXCA**	**CYFB**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2011-2018**	**2015-2017**	**2015-2017**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17L	MBVW17N	MBVW17N
ROD BEARING SET	RBVW17L	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17L❶	TWVW17LX❷	TWVW17LX❷
	TWVW17LX❷	TWVW17L❶	TWVW17L❶
GASKETS			
FULL GASKET SET	CGSVW17L❸		
HEAD GASKET SET	HSVW17L	HSVW26	HSVW26
HEAD GASKETS	HDGVW17L		
CONVERSION SET	CBSVW17L❸		
HEAD BOLT SET	HBVW17L❹	HBVW26	HBVW26
PISTONS, RINGS, PLUGS			
PISTONS	PAVW17DD (23mm pin)		
RING SETS	RSVW17LA4 (1.2*1.2*2.0)		
OIL PUMP			
NEW OIL PUMP	OPVW17L		

❶ (w/o locating tabs)
❷ (with 2 notch hook)
❸ (Rear Main Seal/Cover not included)
❹ (w/o Washers)

MODEL	EOS (11-16) GTi (11-14) TIGUAN (11-17) CC (11-17) TIGUAN Limited (17-18)	GTi	GOLF R
ENGINE CODE	**CCTA**	**CXCA**	**CYFB**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2011-2018**	**2015-2017**	**2015-2017**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	2.0456"/2.0464"	2.0456"/2.0464"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW21
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	EOS (11-16) GTi (11-14) CC (11-17)	GTi TURBO	JETTA S
ENGINE CODE	**CBFA**	**CNTA**	**CBPA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2011-2017**	**2015**	**2011-2015**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	8 VALVE SOHC 4; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	1.8883/1.8889"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW17L	MBVW26	MBVW12
ROD BEARING SET	RBVW17L	RBVW17L	RBVW12❶ RBVW12S (Standard OD)
THRUST WASHER SET	TWVW17L❷ TWVW17LX❸	TWVW17N	TWVW12
GASKETS			
FULL GASKET SET	CGSVW17L❹		
HEAD GASKET SET	HSVW17L	HSVW26	
HEAD GASKETS	HDGVW17L		
CONVERSION SET	CBSVW17L❹		
HEAD BOLT SET	HBVW17L❺	HBVW26	HBVW13❻
PISTONS, RINGS, PLUGS			
PISTONS	PAVW17DD (23mm pin)		
RING SETS	RSVW17LA4 (1.2*1.2*2.0)		RS053
CRANKSHAFT & RODS			
CONNECTING ROD			CRVW12
OIL PUMP			
NEW OIL PUMP	OPVW17L		OPVW13

❶ (.002" housing)
❷ (w/o locating tabs)
❸ (with 2 notch hook)
❹ (Rear Main Seal/Cover not included)
❺ (w/o Washers)
❻ (with Washers)

MODEL	EOS (11-16) GTi (11-14) CC (11-17)	GTi TURBO	JETTA S
ENGINE CODE	**CBFA**	**CNTA**	**CBPA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2011-2017**	**2015**	**2011-2015**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	8 VALVE SOHC 4; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.2818/2.2826"	1.8883/1.8889"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIF037
INTAKE VALVE	IVVW17❶	IVVW17❶	IV037
EXHAUST VALVE	EVVW17❶	EVVW17❶	EV037
VALVE GUIDE	VGVW21	VGVW21	VG027
VALVE SEALS	VSSVW21	VSSVW21	VSS027
WATER PUMP & TIMING			
TIMING BELT			TBVW13

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	GOLF R	GTi(08-10) EOS(09-10) JETTA (08-10) TIGUAN (09-10) PASSAT (08-10) BEETLE (12-13) CC (09-10)	JETTA (08-10) EOS (09-10) GTi (08-10) PASSAT (2010) CC (2010) BEETLE (12-13)
ENGINE CODE	**CRZA**	**CCTA**	**CBFA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2012-2013**	**2008-2013**	**2008-2013**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
BEARING SETS			
MAIN BEARING SET	MBVW12	MBVW17L	MBVW17L
ROD BEARING SET	RBVW12 (.002 O.D.) RBVW12S (Standard OD)	RBVW17L	RBVW17L
THRUST WASHER SET	TWVW17	TWVW17L❶ TWVW17LX❷	TWVW17L❶ TWVW17LX❷
GASKETS			
FULL GASKET SET		CGSVW17L❸	CGSVW17L❸
HEAD GASKET SET		HSVW17L	HSVW17L
HEAD GASKETS		HDGVW17L	HDGVW17L
CONVERSION SET		CBSVW17L❸	CBSVW17L❸
HEAD BOLT SET	HBVW13❹	HBVW13❹	HBVW13❹
PISTONS, RINGS, PLUGS			
PISTONS		PAVW17L (21mm pin)	PAVW17L (21mm pin)
RING SETS	RSVW17L	RSVW17L	RSVW17L (1.2*1.5*2.0)
OIL PUMP			
NEW OIL PUMP		OPVW17L	OPVW17L

❶ (w/o locating tabs)
❷ (with 2 notch hook)
❸ (Rear Main Seal/Cover not included)
❹ (with Washers)

MODEL	GOLF R	GTi(08-10) EOS(09-10) JETTA (08-10) TIGUAN (09-10) PASSAT (08-10) BEETLE (12-13) CC (09-10)	JETTA (08-10) EOS (09-10) GTi (08-10) PASSAT (2010) CC (2010) BEETLE (12-13)
ENGINE CODE	**CRZA**	**CCTA**	**CBFA**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2012-2013**	**2008-2013**	**2008-2013**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW17❶	IVVW17❶	IVVW17❶
EXHAUST VALVE	EVVW17❶	EVVW17❶	EVVW17❶
VALVE GUIDE	VGVW21	VGVW21	VGVW21
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	GOLF (04-06) GOLF CITY (07-10)	EOS (Belt Driven)	JETTA GTi PASSAT (Belt Driven)
ENGINE CODE	**BEV**	**BPY**	**BPY**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2004-2010**	**2007-2009**	**2006-2008**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
ENGINE KITS			
GOLD KIT	EKVW13LG (with RBVW12)		
BRONZE KITS	EKVW13LB (with RBVW12)		
MAJOR KIT	EKVW13LM (with RBVW12)		
RE-RING KIT	EKVW13LR (with RBVW12)		
BEARING SETS			
MAIN BEARING SET	MBVW12	MBVW12	MBVW12
ROD BEARING SET	RB053 (Std housing) RBVW12❶ RBVW12S❷	RBVW12 (.002 O.D.) RBVW12S (Standard OD)	RBVW12 (.002 O.D.) RBVW12S (Standard OD)
THRUST WASHER SET	TWVW12	TWVW17	TWVW17
INTERMEDIATE SET	ISB056		
GASKETS			
FULL GASKET SET	CGSVW13L	CGSVW17❸	CGSVW17❸
HEAD GASKET SET	HSVW13L	HSVW17	HSVW17
HEAD GASKETS	HDGVW13	HDGVW17	HDGVW17
CONVERSION SET	CBSVW12❸	CBSVW17❸	CBSVW17❸
REAR SEAL/COVER	-	-	-
HEAD BOLT SET	HBVW13❹	HBVW17L❺	HBVW17L❺
PISTONS, RINGS, PLUGS			
PISTONS	PAVW13L (19 mm pin)	PAVW17 (20 mm pin)	PAVW17 (20mm pin)
RING SETS	RS053	RSVW17	RSVW17
PIN BUSHINGS	PBVW12❻		
FREEZE PLUG SET	EPS049		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSVW13 (06AF casting)		
CONNECTING ROD	CRVW12 (cracked rod)		
OIL PUMP			
NEW OIL PUMP	OPVW13		

❶ (+.002 o.d. housing, no tang)
❷ (std O.D. housing, no tang)
❸ (Rear Main Seal/Cover not included)
❹ (with Washers)
❺ (w/o Washers)
❻ (for cracked rod)

MODEL	GOLF (04-06) GOLF CITY (07-10)	EOS (Belt Driven)	JETTA GTi PASSAT (Belt Driven)
ENGINE CODE	**BEV**	**BPY**	**BPY**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2004-2010**	**2007-2009**	**2006-2008**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIF037	LIFVW22	LIFVW22
INTAKE VALVE	IV037	IVVW17❶	IVVW17❶
EXHAUST VALVE	EV037	EVVW17❶	EVVW17❶
VALVE GUIDE	VG027	VGVW21	VGVW21
VALVE SEALS	VSS027	VSSVW21	VSSVW21
WATER PUMP & TIMING			
TIMING BELT	TBVW13	TBVW17	TBVW17

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	GOLF (01-03) JETTA (01-05) Beetle (01-05)	GOLF (93-98) PASSAT (95-96) CABRIO JETTA (93-99)	GOLF JETTA BEETLE
ENGINE CODE	**AVH/AZG/BDC/BGD**	**ABA**	**AEG**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2001-2005**	**1993-2002**	**1998-2001**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
ENGINE KITS			
GOLD KIT	EKVW13LG (with RBVW12)		EKVW13G (with RB053)
BRONZE KITS	EKVW13LB (with RBVW12)		EKVW13B (with RB053)
MAJOR KIT	EKVW13LM (with RBVW12)		EKVW13M (with RB053)
RE-RING KIT	EKVW13LR (with RBVW12)	EK037R	EKVW13R (with RB053)
BEARING SETS			
MAIN BEARING SET	MBVW12	MB056	MBVW12
ROD BEARING SET	RB053 (Std housing)	RB053	RB053
	RBVW12❶		RBVW12S❷
	RBVW12S❷		RBVW12❶
THRUST WASHER SET	TWVW12		TWVW12
INTERMEDIATE SET	ISB056	ISB056	ISB056
GASKETS			
FULL GASKET SET	CGSVW13L	CGS037	CGSVW13
HEAD GASKET SET	HSVW13L	HS037	HSVW13
HEAD GASKETS	HDGVW13	HDG037	HDGVW13
CONVERSION SET	CBSVW12❸	CBS053	CBSVW12❸
REAR SEAL/COVER	-		-
HEAD BOLT SET	HBVW13❹	HB037	HBVW13❹
PISTONS, RINGS, PLUGS			
PISTONS	PAVW13L (19 mm pin)	PA037L❺	PAVW13 (20 mm pin)
		PA037 (no step)	
RING SETS	RS053	RS053	RS053
PIN BUSHINGS	PBVW12❻	PB037	PB037
FREEZE PLUG SET	EPS049	EPS049	EPS049
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSVW13 (06AF casting)	CS037 (053H casting)	CSVW13 (06AF casting)
		CS037G (053K casting)	
CONNECTING ROD	CRVW12 (cracked rod)	CR037 (04B casting)	CR037N (027B casting)
OIL PUMP			
NEW OIL PUMP	OPVW13	OP037	OPVW13

❶ (+.002 o.d. housing, no tang)
❷ (std O.D. housing, no tang)
❸ (Rear Main Seal/Cover not included)
❹ (with Washers)
❺ (2 step piston)
❻ (for cracked rod)

MODEL	GOLF (01-03) JETTA (01-05) Beetle (01-05)	GOLF (93-98) PASSAT (95-96) CABRIO JETTA (93-99)	GOLF JETTA BEETLE
ENGINE CODE	**AVH/AZG/BDC/BGD**	**ABA**	**AEG**
DISPLACEMENT	**1984cc(121.1")**	**1984cc(121.1")**	**1984cc(121.1")**
YEARS	**2001-2005**	**1993-2002**	**1998-2001**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.1243/2.1251"	2.1243/2.1251"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIF037	LIF037	LIF037
INTAKE VALVE	IV037	IV037	IV037
EXHAUST VALVE	EV037	EV037	EV037
VALVE GUIDE	VG027	VG027	VG027
VALVE SEALS	VSS027	VSS027	VSS027
WATER PUMP & TIMING			
WATER PUMP		WP026	
TIMING BELT	TBVW13	TB037	TBVW13

VOLKSWAGEN

MODEL	GOLF (90-92) JETTA (90-92) PASSAT	JETTA (08-14) BETTLE (12-14) RABBIT (08-09) GOLF (10-14) PASSAT (12-14)	JETTA (05-08) BETTLE (06-07) RABBIT (06-07)
ENGINE CODE	**9A**	**CBTA, CBUA**	**BGP, BGQ, BPR, BPS**
DISPLACEMENT	**1984cc(121.1")**	**2480cc(151.3")**	**2480cc(151.3")**
YEARS	**1990-1993**	**2008-2014**	**2005-2008**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	20 VALVE; DOHC L5; F.INJ.	20 VALVE; DOHC L5; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
ENGINE KITS			
GOLD KIT	EK053G❶		
BRONZE KITS	EK053B❶		
MAJOR KIT	EK053M❶		
RE-RING KIT	EK053R		
BEARING SETS			
MAIN BEARING SET	MB056	MBVW21	MBVW21
ROD BEARING SET	RB053	RBVW21	RBVW21
THRUST WASHER SET		TWVW21	TWVW21
INTERMEDIATE SET	ISB056		
GASKETS			
FULL GASKET SET	CGS053	CGSVW21	CGSVW21
HEAD GASKET SET	HS053	HSVW21	HSVW21
HEAD GASKETS	HDG051		
CONVERSION SET	CBS053	CBSVW21	CBSVW21
HEAD BOLT SET		HBVW21	HBVW21
PISTONS, RINGS, PLUGS			
PISTONS	PA053❶		PAVW21
RING SETS	RS053	RSVW21	RSVW21
PIN BUSHINGS	PB026		
FREEZE PLUG SET	EPS049		
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CS053❷		
CONNECTING ROD	CR053		
OIL PUMP			
NEW OIL PUMP	OP053	OPVW21L	OPVW21

❶ (exc. 1993 Passat)

❷ (casting# 053C)

MODEL	GOLF (90-92) JETTA (90-92) PASSAT	JETTA (08-14) BETTLE (12-14) RABBIT (08-09) GOLF (10-14) PASSAT (12-14)	JETTA (05-08) BETTLE (06-07) RABBIT (06-07)
ENGINE CODE	**9A**	**CBTA, CBUA**	**BGP, BGQ, BPR, BPS**
DISPLACEMENT	**1984cc(121.1")**	**2480cc(151.3")**	**2480cc(151.3")**
YEARS	**1990-1993**	**2008-2014**	**2005-2008**
DESCRIPTION	16 VALVE; DOHC 4; F.INJ.	20 VALVE; DOHC L5; F.INJ.	20 VALVE; DOHC L5; F.INJ.
BORE	82.5mm(3.248")	82.5mm(3.248")	82.5mm(3.248")
STROKE	92.8mm(3.65")	92.8mm(3.65")	92.8mm(3.65")
MAIN JOURNAL DIA.	2.1243/2.1251"	2.2818/2.2826"	2.2818/2.2826"
ROD JOURNAL DIA.	1.8802/1.8810"	1.8802/1.8810"	1.8802/1.8810"
VALVE TRAIN			
LIFTERS	LIF049	LIFVW22	LIFVW22
INTAKE VALVE	IV027	IVVW21	IVVW21
EXHAUST VALVE	EV027	EVVW21	EVVW21
VALVE GUIDE	VG027	VGVW21	VGVW21
VALVE SEALS	VSS027	VSSVW21	VSSVW21
WATER PUMP & TIMING			
WATER PUMP	WP026		
TIMING BELT	TB027		
BALANCE SHAFTS	JS053		

VOLKSWAGEN

MODEL	JETTA GLI (02-04) GOLF GTi	PASSAT	EUROVAN
ENGINE CODE	**BDF**	**AHA, ATQ**	**AXK**
DISPLACEMENT	**2771cc(169.1")**	**2771cc(169.1")**	**2771cc(169.1")**
YEARS	**2002-2005**	**1998-2005**	**2001-2003**
DESCRIPTION	24 vlv; DOHC; V6; F.INJ. VR6	30 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC VR6
BORE	81.0mm(3.189")	82.5mm(3.248")	81.0mm(3.189")
STROKE	90.3m(3.56")	86.4mm(3.40")	90.3m(3.56")
MAIN JOURNAL DIA.	2.361/2.362"	2.5574/2.558"	2.361/2.362"
ROD JOURNAL DIA.	2.124/2.125"	2.1243/2.1251	2.124/2.125"
BEARING SETS			
MAIN BEARING SET	MBVW11	MBVW14	MBVW11
ROD BEARING SET	RBVW11	RBVW14	RBVW11
THRUST WASHER SET	TWVW11❶	TWVW14	TWVW11❶
INTERMEDIATE SET	ISBVW11		ISBVW11
GASKETS			
FULL GASKET SET			CGSVW11L
HEAD GASKET SET			HSVW11L
HEAD GASKETS			HDGVW11L
CONVERSION SET			CBSVW11
HEAD BOLT SET		HBVW15	
PISTONS, RINGS, PLUGS			
RING SETS	RSVW11	RSVW14	RSVW11
PIN BUSHINGS	PBVW11		PBVW11
OIL PUMP			
NEW OIL PUMP	OPVW11	OPVW15	

❶ (available in STD. and .020" oversized)

MODEL	JETTA GLI (02-04) GOLF GTi	PASSAT	EUROVAN
ENGINE CODE	**BDF**	**AHA, ATQ**	**AXK**
DISPLACEMENT	**2771cc(169.1")**	**2771cc(169.1")**	**2771cc(169.1")**
YEARS	**2002-2005**	**1998-2005**	**2001-2003**
DESCRIPTION	24 vlv; DOHC; V6; F.INJ. VR6	30 VALVE; DOHC V6; F.INJ.	24 VALVE; DOHC VR6
BORE	81.0mm(3.189")	82.5mm(3.248")	81.0mm(3.189")
STROKE	90.3m(3.56")	86.4mm(3.40")	90.3m(3.56")
MAIN JOURNAL DIA.	2.361/2.362"	2.5574/2.558"	2.361/2.362"
ROD JOURNAL DIA.	2.124/2.125"	2.1243/2.1251	2.124/2.125"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW12E (x12) LIFVW12I (x18)	LIFVW22
INTAKE VALVE	IVVW11S (102.21mm) IVVW11L (136.11mm)	IVVW12	IVVW11S (102.21mm) IVVW11L (136.11mm)
EXHAUST VALVE	EVVW11S (102.55mm) EVVW11L (136.32mm)	EVVW15	EVVW11S (102.55mm) EVVW11L (136.32mm)
VALVE GUIDE	VGVW22S (44mm long) VGVW22L (65mm long)	VGVW12	VGVW22L (65mm long) VGVW22S (44mm long)
VALVE SEALS	VSSVW21	VSSVW12	VSSVW21
WATER PUMP & TIMING			
TIMING BELT		TBVW14L	

VOLKSWAGEN

MODEL	JETTA GOLF GTi	EUROVAN	JETTA (94-99) PASSAT (93-97) CORRADO (92-94) GOLF GTi (95-98)
ENGINE CODE	**AFP**	**AES**	**AAA**
DISPLACEMENT	**2771cc(169.1")**	**2771cc(169.1")**	**2771cc(169.1")**
YEARS	**1999-2002**	**1999-2000**	**1992-1999**
DESCRIPTION	12 vlv; SOHC; V6; F.INJ. VR6	12 vlv; SOHC; V6; F.INJ. VR6	12 vlv; SOHC; V6; F.INJ. VR6
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	90.3m(3.56")	90.3m(3.56")	90.3m(3.56")
MAIN JOURNAL DIA.	2.361/2.362"	2.361/2.362"	2.361/2.362"
ROD JOURNAL DIA.	2.124/2.125"	2.124/2.125"	2.124/2.125"
ENGINE KITS			
GOLD KIT			EKVW11G
MAJOR KIT			EKVW11M
RE-RING KIT			EKVW11R
BEARING SETS			
MAIN BEARING SET	MBVW11	MBVW11	MBVW11
ROD BEARING SET	RBVW11	RBVW11	RBVW11
THRUST WASHER SET	TWVW11❶	TWVW11❶	TWVW11❶
INTERMEDIATE SET	ISBVW11	ISBVW11	ISBVW11
GASKETS			
FULL GASKET SET			CGSVW11
HEAD GASKET SET			HSVW11
HEAD GASKETS			HDGVW11
CONVERSION SET	CBSVW11		CBSVW11
HEAD BOLT SET	HBVW11	HBVW11	HBVW11
PISTONS, RINGS, PLUGS			
PISTONS	PAVW11	PAVW11	PAVW11
RING SETS	RSVW11	RSVW11	RSVW11
PIN BUSHINGS	PBVW11	PBVW11	PBVW11
OIL PUMP			
NEW OIL PUMP	OPVW11		OPVW11

❶ (available in STD. and .020" oversized)

MODEL	JETTA GOLF GTi	EUROVAN	JETTA (94-99) PASSAT (93-97) CORRADO (92-94) GOLF GTi (95-98)
ENGINE CODE	**AFP**	**AES**	**AAA**
DISPLACEMENT	**2771cc(169.1")**	**2771cc(169.1")**	**2771cc(169.1")**
YEARS	**1999-2002**	**1999-2000**	**1992-1999**
DESCRIPTION	12 vlv; SOHC; V6; F.INJ. VR6	12 vlv; SOHC; V6; F.INJ. VR6	12 vlv; SOHC; V6; F.INJ. VR6
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	90.3m(3.56")	90.3m(3.56")	90.3m(3.56")
MAIN JOURNAL DIA.	2.361/2.362"	2.361/2.362"	2.361/2.362"
ROD JOURNAL DIA.	2.124/2.125"	2.124/2.125"	2.124/2.125"
VALVE TRAIN			
LIFTERS	LIF049	LIF049	LIF049
INTAKE VALVE	IVVW11	IVVW11	IVVW11
EXHAUST VALVE	EVVW11	EVVW11	EVVW11
VALVE GUIDE	VGVW11	VGVW11	VGVW11
VALVE SEALS	VSS027	VSS027	VSS027

VOLKSWAGEN

MODEL	TOUAREG DIESEL	TOUAREG DIESEL	TOUAREG HYBRID SUPERCHARGED
ENGINE CODE	**CNRB**	**CATA**	**CGFA**
DISPLACEMENT	**2967cc(181.1")**	**2967cc(181.1")**	**2995cc(183.0")**
YEARS	**2013-2015**	**2010-2012**	**2011-2013**
DESCRIPTION	24 vlv; DOHC; V6; F.INJ. Turbo	24 vlv; DOHC; V6; F.INJ. Turbo	24vlv; DOHC; V6; Hybrid; Super
BORE	83.0mm(3.267")	83.0mm(3.267")	83.0mm(3.267")
STROKE	91.4mm(3.60")	91.4mm(3.60")	91.4mm(3.60")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
THRUST WASHER SET			TWVW14

MODEL	TOUAREG DIESEL	TOUAREG DIESEL	TOUAREG HYBRID SUPERCHARGED
ENGINE CODE	**CNRB**	**CATA**	**CGFA**
DISPLACEMENT	**2967cc(181.1")**	**2967cc(181.1")**	**2995cc(183.0")**
YEARS	**2013-2015**	**2010-2012**	**2011-2013**
DESCRIPTION	24 vlv; DOHC; V6; F.INJ. Turbo	24 vlv; DOHC; V6; F.INJ. Turbo	24vlv; DOHC; V6; Hybrid; Super
BORE	83.0mm(3.267")	83.0mm(3.267")	83.0mm(3.267")
STROKE	91.4mm(3.60")	91.4mm(3.60")	91.4mm(3.60")
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS			LIFVW22
INTAKE VALVE	IVVW25	IVVW25	IVVW16
EXHAUST VALVE			EVVW17 (2011-12 only)
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

VOLKSWAGEN

MODEL	R32	EOS	TOUAREG
ENGINE CODE	CBRA	BUB	BMX
DISPLACEMENT	3189cc(194.6")	3189cc(194.6")	3189cc(194.6")
YEARS	2008	2007-2008	2005-2006
DESCRIPTION	24vlv; DOHC; V6; F.INJ. VR6	24vlv; DOHC; V6; F.INJ. VR6	24 VALVE DOHC V6; F.INJ.
BORE	84mm(3.307")	84mm(3.307")	84mm(3.307")
STROKE	95.9mm(3.78")	95.9mm(3.78")	95.9mm(3.78")
MAIN JOURNAL DIA.	2.361/2.362"	2.361/2.362"	2.361/2.362"
ROD JOURNAL DIA.	2.124/2.125"	2.124/2.125"	2.124/2.125"
BEARING SETS			
MAIN BEARING SET	MBVW11	MBVW11	MBVW11
ROD BEARING SET	RBVW11	RBVW11	RBVW11
THRUST WASHER SET	TWVW11❶	TWVW11❶	TWVW11❶
INTERMEDIATE SET	ISBVW11	ISBVW11	ISBVW11
GASKETS			
FULL GASKET SET	CGSVW22	CGSVW22	CGSVW22
HEAD GASKET SET	HSVW22	HSVW22	HSVW22
CONVERSION SET	CBSVW22	CBSVW22	CBSVW22
HEAD BOLT SET	HBVW22	HBVW22	HBVW22
PISTONS, RINGS, PLUGS			
RING SETS	RSVW22	RSVW22	RSVW22
PIN BUSHINGS	PBVW11	PBVW11	PBVW11

❶ (available in STD. and .020" oversized)

MODEL	R32	EOS	TOUAREG
ENGINE CODE	CBRA	BUB	BMX
DISPLACEMENT	3189cc(194.6")	3189cc(194.6")	3189cc(194.6")
YEARS	2008	2007-2008	2005-2006
DESCRIPTION	24vlv; DOHC; V6; F.INJ. VR6	24vlv; DOHC; V6; F.INJ. VR6	24 VALVE DOHC V6; F.INJ.
BORE	84mm(3.307")	84mm(3.307")	84mm(3.307")
STROKE	95.9mm(3.78")	95.9mm(3.78")	95.9mm(3.78")
MAIN JOURNAL DIA.	2.361/2.362"	2.361/2.362"	2.361/2.362"
ROD JOURNAL DIA.	2.124/2.125"	2.124/2.125"	2.124/2.125"
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW22 (102mm)	IVVW22 (102mm)	IVVW22 (102mm)
	IVVW22L (136mm)	IVVW22L (136mm)	IVVW22L (136mm)
EXHAUST VALVE	EVVW22 (103mm)	EVVW22 (103mm)	EVVW22 (103mm)
	EVVW22L (136mm)	EVVW22L (136mm)	EVVW22L (136mm)
VALVE GUIDE	VGVW22L (65mm long)	VGVW22L (65mm long)	VGVW22L (65mm long)
	VGVW22S (44mm long)	VGVW22S (44mm long)	VGVW22S (44mm long)
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

VOLKSWAGEN

MODEL	R32	TOUAREG	PASSAT (12-15) TOUAREG CC (12-15)
ENGINE CODE	**BJS**	**BAA**	**CGRA, CNNA, CDVB**
DISPLACEMENT	**3189cc(194.6")**	**3200cc(195.0")**	**3597cc(219.6")**
YEARS	**2004**	**2004**	**2011-2015**
DESCRIPTION	24vlv; DOHC; V6; F.INJ. VR6	24 VALVE DOHC V6; F.INJ.	24 VALVE; DOHC VR6
BORE	84mm(3.307")	84mm(3.307")	89mm(3.50")
STROKE	95.9mm(3.78")	95.9mm(3.78")	96.4mm(3.80")
MAIN JOURNAL DIA.	2.361/2.362"	2.361/2.362"	2.361/2.362"
ROD JOURNAL DIA.	2.124/2.125"	2.124/2.125"	
BEARING SETS			
MAIN BEARING SET	MBVW11	MBVW11	MBVW11
ROD BEARING SET	RBVW11	RBVW11	
THRUST WASHER SET	TWVW11❶	TWVW11❶	TWVW11❶
INTERMEDIATE SET	ISBVW11	ISBVW11	
GASKETS			
FULL GASKET SET	CGSVW22	CGSVW22	
HEAD GASKET SET	HSVW22	HSVW22	
CONVERSION SET	CBSVW22	CBSVW22	
HEAD BOLT SET	HBVW22	HBVW22	HBVW24
PISTONS, RINGS, PLUGS			
RING SETS	RSVW22	RSVW22	
PIN BUSHINGS	PBVW11	PBVW11	PBVW11
OIL PUMP			
NEW OIL PUMP	OPVW11		

❶ (available in STD. and .020" oversized)

MODEL	R32	TOUAREG	PASSAT (12-15) TOUAREG CC (12-15)
ENGINE CODE	**BJS**	**BAA**	**CGRA, CNNA, CDVB**
DISPLACEMENT	**3189cc(194.6")**	**3200cc(195.0")**	**3597cc(219.6")**
YEARS	**2004**	**2004**	**2011-2015**
DESCRIPTION	24vlv; DOHC; V6; F.INJ. VR6	24 VALVE DOHC V6; F.INJ.	24 VALVE; DOHC VR6
BORE	84mm(3.307")	84mm(3.307")	89mm(3.50")
STROKE	95.9mm(3.78")	95.9mm(3.78")	96.4mm(3.80")
MAIN JOURNAL DIA.	2.361/2.362"	2.361/2.362"	2.361/2.362"
ROD JOURNAL DIA.	2.124/2.125"	2.124/2.125"	
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	LIFVW22
INTAKE VALVE	IVVW22 (102mm)	IVVW22 (102mm)	IVVW22 (102mm)
	IVVW22L (136mm)	IVVW22L (136mm)	IVVW22L (136mm)
EXHAUST VALVE	EVVW22 (103mm)	EVVW22 (103mm)	EVVW22 (103mm)
	EVVW22L (136mm)	EVVW22L (136mm)	EVVW22L (136mm)
VALVE GUIDE	VGVW22L (65mm long)	VGVW22L (65mm long)	VGVW22L (65mm long)
	VGVW22S (44mm long)	VGVW22S (44mm long)	VGVW22S (44mm long)
VALVE SEALS	VSSVW21	VSSVW21	VSSVW21

VOLKSWAGEN

MODEL	PASSAT (06-10) CC (10-11)	TOUAREG	TOUAREG
ENGINE CODE	**BLV**	**BHK**	**BAR**
DISPLACEMENT	**3597cc(219.6")**	**3597cc(219.6")**	**4163cc(254")**
YEARS	**2006-2011**	**2007-2010**	**2007-2009**
DESCRIPTION	24 VALVE; DOHC V6;F.INJ.	24 VALVE; DOHC V6;F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	89mm(3.50")	89mm(3.50")	84.5mm(3.327")
STROKE	96.4mm(3.80")	96.4mm(3.80")	93.0mm(3.65")
MAIN JOURNAL DIA.	2.361/2.362"	2.361/2.362"	
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	MBVW11	MBVW11	-
THRUST WASHER SET	TWVW11❶	TWVW11❶	
GASKETS			
FULL GASKET SET	CGSVW24	CGSVW24	
HEAD GASKET SET	HSVW24	HSVW24	
CONVERSION SET	CBSVW24	CBSVW24	
HEAD BOLT SET	HBVW24	HBVW24	
PISTONS, RINGS, PLUGS			
RING SETS	RSVW24	RSVW24	
PIN BUSHINGS	PBVW11	PBVW11	

❶ (available in STD. and .020" oversized)

MODEL	PASSAT (06-10) CC (10-11)	TOUAREG	TOUAREG
ENGINE CODE	**BLV**	**BHK**	**BAR**
DISPLACEMENT	**3597cc(219.6")**	**3597cc(219.6")**	**4163cc(254")**
YEARS	**2006-2011**	**2007-2010**	**2007-2009**
DESCRIPTION	24 VALVE; DOHC V6;F.INJ.	24 VALVE; DOHC V6;F.INJ.	32 VALVE DOHC V8; F.INJ.
BORE	89mm(3.50")	89mm(3.50")	84.5mm(3.327")
STROKE	96.4mm(3.80")	96.4mm(3.80")	93.0mm(3.65")
MAIN JOURNAL DIA.	2.361/2.362"	2.361/2.362"	
ROD JOURNAL DIA.			
VALVE TRAIN			
LIFTERS	LIFVW22	LIFVW22	
INTAKE VALVE	IVVW22 (102mm) IVVW22L (136mm)	IVVW22 (102mm) IVVW22L (136mm)	IVVW16
EXHAUST VALVE	EVVW22 (103mm) EVVW22L (136mm)	EVVW22 (103mm) EVVW22L (136mm)	EVVW17❶
VALVE GUIDE	VGVW22S (44mm long) VGVW22L (65mm long)	VGVW22S (44mm long) VGVW22L (65mm long)	
VALVE SEALS	VSSVW21	VSSVW21	

❶ Not Sodium Filled

VOLKSWAGEN

MODEL	TOUAREG		
ENGINE CODE	**BWF**		
DISPLACEMENT	**4921cc(300.0")**		
YEARS	**2006-2008**		
DESCRIPTION	20 vlv; SOHC; V10; F.INJ. Turbo		
BORE	81.0mm(3.189")		
STROKE	95.5mm(3.76")		
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
BEARING SETS			
MAIN BEARING SET	-		

MODEL	TOUAREG		
ENGINE CODE	**BWF**		
DISPLACEMENT	**4921cc(300.0")**		
YEARS	**2006-2008**		
DESCRIPTION	20 vlv; SOHC; V10; F.INJ. Turbo		
BORE	81.0mm(3.189")		
STROKE	95.5mm(3.76")		
MAIN JOURNAL DIA.			
ROD JOURNAL DIA.			
VALVE TRAIN			
INTAKE VALVE	IVVW23G (89.4mm)		
EXHAUST VALVE	EVVW23G (89mm length)		
VALVE SEALS	VSS027		

VOLVO

MODEL	S40 V40	S40 V40	S40 V40
ENGINE CODE	**B4204T4**	**B4204T3**	**B4204T; B4204T2**
DISPLACEMENT	**1948cc(91.7")**	**1948cc(91.7")**	**1948cc(91.7")**
YEARS	**2003-2004**	**2001-2003**	**2000**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO16	MBVO16	MBVO16
ROD BEARING SET	RBVO16	RBVO16	RBVO16
GASKETS			
FULL GASKET SET	CGSVO16	CGSVO16	
HEAD GASKET SET	HSVO16	HSVO16	
CONVERSION SET	CBSVO16	CBSVO16	
HEAD BOLT SET	HBVO16	HBVO16	HBVO16
PISTONS, RINGS, PLUGS			
PISTONS	PAVO16 (21mm pin) PAVO14TL (23mm pin)	PAVO14TL (23mm pin) PAVO16 (21mm pin)	PAVO14TL (23mm pin) PAVO16 (21mm pin)
RING SETS	RSVO16❶	RSVO16❶	RSVO16❶

❶ (2.5mm oil ring)

MODEL	S40 V40	S40 V40	S40 V40
ENGINE CODE	**B4204T4**	**B4204T3**	**B4204T; B4204T2**
DISPLACEMENT	**1948cc(91.7")**	**1948cc(91.7")**	**1948cc(91.7")**
YEARS	**2003-2004**	**2001-2003**	**2000**
DESCRIPTION	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo	16 vlv; DOHC 4; F.INJ. Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
INTAKE VALVE	IVVO16 (6mm dia.)	IVVO16 (6mm dia.)	IVVO14 (7mm dia.)
EXHAUST VALVE	EVVO16 (6mm dia.)	EVVO16 (6mm dia.)	EVVO14 (7mm dia.)
VALVE SEALS	VSSVO17T (6mm dia.)	VSSVO17T (6mm dia.)	VSS027 (7mm dia.)
WATER PUMP & TIMING			
TIMING BELT	TBVO16	TBVO16	TBVO16

VOLVO

MODEL	240 TURBO	240 SERIES	740 760 780 940 TURBO
ENGINE CODE	**B21FT**	**B21F**	**B230FT**
DISPLACEMENT	**2127cc(130")**	**2127cc(130")**	**2316cc(141")**
YEARS	**1981-1985**	**1976-1982**	**1988-1995**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	96mm(3.780")
STROKE	80mm(3.15")	80mm(3.15")	80mm(3.15")
MAIN JOURNAL DIA.	2.4977/2.4982"	2.4977/2.4982"	2.4798/2.4803"
ROD JOURNAL DIA.	2.1255/2.1260"	2.1255/2.1260"	1.9285/1.9293"
ENGINE KITS			
RE-RING KIT			EKVO9LR
BEARING SETS			
MAIN BEARING SET	MBVO4	MBVO4	MBVO9L
ROD BEARING SET	RBVO4	RBVO4	RBVO9
GASKETS			
FULL GASKET SET			CGSVO9L
HEAD GASKET SET			HSVO9L
CONVERSION SET			CBSVO9L
HEAD BOLT SET			HBVO9L
PISTONS, RINGS, PLUGS			
PISTONS			-
RING SETS			RSVO9L
CRANKSHAFT & RODS			
CRANKSHAFT KIT			CSVO9L
CONNECTING ROD			CRVO9

VOLVO

MODEL	240 TURBO	240 SERIES	740 760 780 940 TURBO
ENGINE CODE	**B21FT**	**B21F**	**B230FT**
DISPLACEMENT	**2127cc(130")**	**2127cc(130")**	**2316cc(141")**
YEARS	**1981-1985**	**1976-1982**	**1988-1995**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	92mm(3.622")	92mm(3.622")	96mm(3.780")
STROKE	80mm(3.15")	80mm(3.15")	80mm(3.15")
MAIN JOURNAL DIA.	2.4977/2.4982"	2.4977/2.4982"	2.4798/2.4803"
ROD JOURNAL DIA.	2.1255/2.1260"	2.1255/2.1260"	1.9285/1.9293"
VALVE TRAIN			
INTAKE VALVE	IVVO4	IVVO4	IVVO4
EXHAUST VALVE	EVVO4	EVVO4	EVVO4
INTAKE GUIDE	IVGVO3	IVGVO3	IVGVO3
EXHAUST GUIDE	EVGVO3	EVGVO3	EVGVO3
WATER PUMP & TIMING			
TIMING BELT	TBVO4	TBVO4	TBVO4 (88-92) TBVO9L (93-95)

VOLVO

MODEL	240 740 940	740 (89-90) 940 (1991)	740 760 TURBO
ENGINE CODE	**B230F**	**B234F**	**B230FT**
DISPLACEMENT	**2316cc(141")**	**2316cc(141")**	**2316cc(141")**
YEARS	**1988-1995**	**1989-1991**	**1985-1987**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	80mm(3.15")	80mm(3.15")	80mm(3.15")
MAIN JOURNAL DIA.	2.4798/2.4803"	2.4798/2.4803"	2.1648/2.1654"
ROD JOURNAL DIA.	1.9285/1.9293"	1.9285/1.9293"	1.9285/1.9293"
ENGINE KITS			
RE-RING KIT	EKVO9LR		
BEARING SETS			
MAIN BEARING SET	MBVO9L	MBVO9L	
ROD BEARING SET	RBVO9	RBVO9	RBVO9
GASKETS			
FULL GASKET SET	CGSVO9L	CGSVO12	CGSVO9L
HEAD GASKET SET	HSVO9L	HSVO12	HSVO9L
CONVERSION SET	CBSVO9L	CBSVO9L	CBSVO9L
HEAD BOLT SET	HBVO9L		HBVO9L
PISTONS, RINGS, PLUGS			
PISTONS			-
RING SETS	RSVO9L		RSVO9L
CRANKSHAFT & RODS			
CRANKSHAFT KIT	CSVO9L		
CONNECTING ROD	CRVO9	CRVO9	CRVO9

MODEL	240 740 940	740 (89-90) 940 (1991)	740 760 TURBO
ENGINE CODE	**B230F**	**B234F**	**B230FT**
DISPLACEMENT	**2316cc(141")**	**2316cc(141")**	**2316cc(141")**
YEARS	**1988-1995**	**1989-1991**	**1985-1987**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	16 VALVE; DOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	80mm(3.15")	80mm(3.15")	80mm(3.15")
MAIN JOURNAL DIA.	2.4798/2.4803"	2.4798/2.4803"	2.1648/2.1654"
ROD JOURNAL DIA.	1.9285/1.9293"	1.9285/1.9293"	1.9285/1.9293"
VALVE TRAIN			
CAMSHAFTS	CAMVO9L		
INTAKE VALVE	IVVO4	IVVO12	IVVO4
EXHAUST VALVE	EVVO4	EVVO12	EVVO4
INTAKE GUIDE	IVGVO3		IVGVO3
EXHAUST GUIDE	EVGVO3		EVGVO3
WATER PUMP & TIMING			
TIMING BELT	TBVO4 (88-92) TBVO9L (93-95)	TBVO12	TBVO4

VOLVO

MODEL	240 740	760 TURBO	240 SERIES
ENGINE CODE	**B230F**	**B23FT**	**B23**
DISPLACEMENT	**2316cc(141")**	**2316cc(141")**	**2316cc(141")**
YEARS	**1985-1987**	**1984**	**1983-1984**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	80mm(3.15")	80mm(3.15")	80mm(3.15")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.4977/2.4982"	2.4977/2.4982"
ROD JOURNAL DIA.	1.9285/1.9293"	2.1255/2.1260"	2.1255/2.1260"
BEARING SETS			
MAIN BEARING SET		MBVO4	MBVO4
ROD BEARING SET	RBVO9	RBVO4	RBVO4
GASKETS			
FULL GASKET SET	CGSVO9L		
HEAD GASKET SET	HSVO9L		
CONVERSION SET	CBSVO9L		
HEAD BOLT SET	HBVO9L		
PISTONS, RINGS, PLUGS			
RING SETS	RSVO9L		
CRANKSHAFT & RODS			
CONNECTING ROD	CRVO9		

MODEL	240 740	760 TURBO	240 SERIES
ENGINE CODE	**B230F**	**B23FT**	**B23**
DISPLACEMENT	**2316cc(141")**	**2316cc(141")**	**2316cc(141")**
YEARS	**1985-1987**	**1984**	**1983-1984**
DESCRIPTION	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.	8 VALVE; SOHC 4; F.INJ.
BORE	96mm(3.780")	96mm(3.780")	96mm(3.780")
STROKE	80mm(3.15")	80mm(3.15")	80mm(3.15")
MAIN JOURNAL DIA.	2.1648/2.1654"	2.4977/2.4982"	2.4977/2.4982"
ROD JOURNAL DIA.	1.9285/1.9293"	2.1255/2.1260"	2.1255/2.1260"
VALVE TRAIN			
CAMSHAFTS	CAMVO9L		
INTAKE VALVE	IVVO4	IVVO4	IVVO4
EXHAUST VALVE	EVVO4	EVVO4	EVVO4
INTAKE GUIDE	IVGVO3	IVGVO3	IVGVO3
EXHAUST GUIDE	EVGVO3	EVGVO3	EVGVO3
WATER PUMP & TIMING			
TIMING BELT	TBVO4	TBVO4	TBVO4

VOLVO

MODEL	C70	V70 S60 S70 C70	V70
ENGINE CODE	**B5234T9**	**B5234T3**	**B5234T8**
DISPLACEMENT	**2319cc(141.5")**	**2319cc(141.5")**	**2319cc(141.5")**
YEARS	**2003-2004**	**2000-2004**	**1999**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO14	MBVO14	MBVO14
ROD BEARING SET	RBVO14	RBVO14	RBVO14
GASKETS			
FULL GASKET SET	CGSVO17T (6mm seals)	CGSVO17T (6mm seals)	CGSVO13T
HEAD GASKET SET	HSVO17T (6mm seals)	HSVO17T (6mm seals)	HSVO13T
CONVERSION SET	CBSVO14L	CBSVO14L	CBSVO14L
HEAD BOLT SET	HBVO14	HBVO14	HBVO14
PISTONS, RINGS, PLUGS			
PISTONS	PAVO17T	PAVO17T	PAVO17T
RING SETS	RSVO17T	RSVO17T	RSVO17T
OIL PUMP			
NEW OIL PUMP	OPVO17L	OPVO17L	OPVO17

MODEL	C70	V70 S60 S70 C70	V70
ENGINE CODE	**B5234T9**	**B5234T3**	**B5234T8**
DISPLACEMENT	**2319cc(141.5")**	**2319cc(141.5")**	**2319cc(141.5")**
YEARS	**2003-2004**	**2000-2004**	**1999**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo
BORE	81.0mm(3.189")	81.0mm(3.189")	81.0mm(3.189")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
LIFTERS			LIFIS16
INTAKE VALVE	IVVO16 (6mm stem)	IVVO16 (6mm stem)	IVVO14 (7mm stem)
EXHAUST VALVE	EVVO16 (6mm stem)	EVVO16 (6mm stem)	EVVO14 (7mm stem)
VALVE SEALS	VSSVO17T (6mm I/D)	VSSVO17T (6mm I/D)	VSS027 (7mm I/D)
WATER PUMP & TIMING			
TIMING BELT	TBVO16	TBVO16	

VOLVO

MODEL	C70 S70 V70	V70	850
ENGINE CODE	**B5234T3**	**B5234T6**	**B5234T1**
DISPLACEMENT	**2319cc(141.5")**	**2319cc(141.5")**	**2319cc(141.5")**
YEARS	**1998-1999**	**1998**	**1997**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo
BORE	81.0mm(3.189")	81.0mm(3.189")	81mm(3.188")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO14	MBVO14	MBVO14
ROD BEARING SET	RBVO14	RBVO14	RBVO14
GASKETS			
FULL GASKET SET	CGSVO13T	CGSVO13T	CGSVO13T
HEAD GASKET SET	HSVO13T	HSVO13T	HSVO13T
CONVERSION SET	CBSVO14L	CBSVO14L	CBSVO14L
HEAD BOLT SET	HBVO14	HBVO14	HBVO14
PISTONS, RINGS, PLUGS			
PISTONS	PAVO17T		
RING SETS	RSVO17T	RSVO13T	RSVO13T
OIL PUMP			
NEW OIL PUMP	OPVO17	OPVO17	OPVO17

MODEL	C70 S70 V70	V70	850
ENGINE CODE	**B5234T3**	**B5234T6**	**B5234T1**
DISPLACEMENT	**2319cc(141.5")**	**2319cc(141.5")**	**2319cc(141.5")**
YEARS	**1998-1999**	**1998**	**1997**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo
BORE	81.0mm(3.189")	81.0mm(3.189")	81mm(3.188")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
LIFTERS	LIFIS16	LIFIS16	LIFIS16
INTAKE VALVE	IVVO14 (7mm stem)	IVVO14 (7mm stem)	IVVO14 (7mm stem)
EXHAUST VALVE	EVVO14 (7mm stem)	EVVO14 (7mm stem)	EVVO14 (7mm stem)
VALVE SEALS	VSS027 (7mm I/D)	VSS027 (7mm I/D)	VSS027 (7mm I/D)
WATER PUMP & TIMING			
TIMING BELT	TBVO14 (148 teeth)	TBVO14 (148 teeth)	TBVO14 (148 teeth)

VOLVO

MODEL	850	850	850
ENGINE CODE	**B5234T5**	**B5234T**	**B5234FT**
DISPLACEMENT	**2319cc(141.5")**	**2319cc(141.5")**	**2319cc(141.5")**
YEARS	**1995-1997**	**1996**	**1994-1995**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo
BORE	81mm(3.188")	81mm(3.188")	81mm(3.188")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO14	MBVO14	MBVO14
ROD BEARING SET	RBVO14	RBVO14	RBVO14
GASKETS			
FULL GASKET SET	CGSVO13T	CGSVO13T	CGSVO13T
HEAD GASKET SET	HSVO13T	HSVO13T	HSVO13T
CONVERSION SET	CBSVO14L	CBSVO14L	CBSVO14L
HEAD BOLT SET	HBVO14	HBVO14	HBVO14
PISTONS, RINGS, PLUGS			
RING SETS	RSVO13T	RSVO13T	RSVO13T
OIL PUMP			
NEW OIL PUMP	OPVO17	OPVO17	OPVO17

MODEL	850	850	850
ENGINE CODE	**B5234T5**	**B5234T**	**B5234FT**
DISPLACEMENT	**2319cc(141.5")**	**2319cc(141.5")**	**2319cc(141.5")**
YEARS	**1995-1997**	**1996**	**1994-1995**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo
BORE	81mm(3.188")	81mm(3.188")	81mm(3.188")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
LIFTERS	LIFIS16	LIFIS16	LIFIS16
INTAKE VALVE	IVVO14 (7mm stem)	IVVO14 (7mm stem)	IVVO14 (7mm stem)
EXHAUST VALVE	EVVO14 (7mm stem)	EVVO14 (7mm stem)	EVVO14 (7mm stem)
VALVE SEALS	VSS027 (7mm I/D)	VSS027 (7mm I/D)	VSS027 (7mm I/D)
WATER PUMP & TIMING			
TIMING BELT		TBVO14 (148 teeth)	TBVO14 (148 teeth)

VOLVO

MODEL	S40 V50	S40 (04-10) V50 (05-10) C30 (07-10)	S60 V70 (2005)
ENGINE CODE	**B5244S7**	**B5244S4**	**B5244T5**
DISPLACEMENT	**2435cc(148.6")**	**2435cc(148.6")**	**2435cc(148.6")**
YEARS	**2005-2010**	**2004-2010**	**2005-2009**
DESCRIPTION	20 VALVE; DOHC L5; F.INJ.	20 VALVE; DOHC L5; F.INJ.	20 vlv; DOHC L5; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO14	MBVO14	MBVO14
ROD BEARING SET	RBVO14	RBVO14	RBVO14
GASKETS			
FULL GASKET SET	CGSVO14L (6mm seals)	CGSVO14L (6mm seals)	
HEAD GASKET SET	HSVO14L (6mm seals)	HSVO14L (6mm seals)	
CONVERSION SET	CBSVO14L	CBSVO14L	
HEAD BOLT SET	HBVO14	HBVO14	HBVO14
PISTONS, RINGS, PLUGS			
PISTONS	PAVO14	PAVO14	PAVO24 (05-06 only)
RING SETS	RSVO14	RSVO14	RSVO14T (1.2*1.5*2.5)
CRANKSHAFT & RODS			
CONNECTING ROD	CRVO14	CRVO14	
OIL PUMP			
NEW OIL PUMP	OPVO17L	OPVO17L	OPVO17L

MODEL	S40 V50	S40 (04-10) V50 (05-10) C30 (07-10)	S60 V70 (2005)
ENGINE CODE	**B5244S7**	**B5244S4**	**B5244T5**
DISPLACEMENT	**2435cc(148.6")**	**2435cc(148.6")**	**2435cc(148.6")**
YEARS	**2005-2010**	**2004-2010**	**2005-2009**
DESCRIPTION	20 VALVE; DOHC L5; F.INJ.	20 VALVE; DOHC L5; F.INJ.	20 vlv; DOHC L5; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
INTAKE VALVE	IVVO16	IVVO16	IVVO16
EXHAUST VALVE	EVVO16	EVVO16	EVVO16
VALVE SEALS	VSSVO17T (6mm I/D)	VSSVO17T (6mm I/D)	VSSVO17T (6mm I/D)
WATER PUMP & TIMING			
TIMING BELT	TBVO16 (142 teeth)	TBVO16 (142 teeth)	TBVO16 (142 teeth)

VOLVO

MODEL	S70 (2000) S60 (01-05) V70 (00-07)	V70	C70
ENGINE CODE	**B5244S**	**B5244S6**	**B5244T7**
DISPLACEMENT	**2435cc(148.6")**	**2435cc(148.6")**	**2435cc(148.6")**
YEARS	**2000-2007**	**2003-2006**	**2003-2004**
DESCRIPTION	20 VALVE; DOHC L5; F.INJ.	20 VALVE; DOHC L5; F.INJ.	20 vlv; DOHC L5; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO14	MBVO14	MBVO14
ROD BEARING SET	RBVO14	RBVO14	RBVO14
GASKETS			
FULL GASKET SET	CGSVO14L (6mm seals)	CGSVO14L (6mm seals)	CGSVO17T
HEAD GASKET SET	HSVO14L (6mm seals)	HSVO14L (6mm seals)	HSVO17T
CONVERSION SET	CBSVO14L	CBSVO14L	CBSVO14L
HEAD BOLT SET	HBVO14	HBVO14	HBVO14
PISTONS, RINGS, PLUGS			
PISTONS	PAVO14	PAVO14	PAVO14
RING SETS	RSVO14	RSVO14	RSVO14
CRANKSHAFT & RODS			
CONNECTING ROD	CRVO14	CRVO14	
OIL PUMP			
NEW OIL PUMP	OPVO17L	OPVO17L	OPVO17L

VOLVO

MODEL	S70 (2000) S60 (01-05) V70 (00-07)	V70	C70
ENGINE CODE	**B5244S**	**B5244S6**	**B5244T7**
DISPLACEMENT	**2435cc(148.6")**	**2435cc(148.6")**	**2435cc(148.6")**
YEARS	**2000-2007**	**2003-2006**	**2003-2004**
DESCRIPTION	20 VALVE; DOHC L5; F.INJ.	20 VALVE; DOHC L5; F.INJ.	20 vlv; DOHC L5; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
INTAKE VALVE	IVVO16	IVVO16	IVVO16
EXHAUST VALVE	EVVO16	EVVO16	EVVO16
VALVE SEALS	VSSVO17T (6mm I/D)	VSSVO17T (6mm I/D)	VSSVO17T (6mm I/D)
WATER PUMP & TIMING			
TIMING BELT	TBVO16 (142 teeth)	TBVO16 (142 teeth)	TBVO16 (142 teeth)

VOLVO

MODEL	S60 V70	C70 S70 (2000) V70 (2000)	S70 V70
ENGINE CODE	**B5244T3**	**B5244T**	**B5254S**
DISPLACEMENT	**2435cc(148.6")**	**2435cc(148.6")**	**2435cc(148.6")**
YEARS	**2001-2003**	**2000-2002**	**1998-1999**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 VALVE; DOHC L5; F.INJ.
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO14	MBVO14	MBVO14
ROD BEARING SET	RBVO14	RBVO14	RBVO14
GASKETS			
FULL GASKET SET	CGSVO17T	CGSVO17T (2001-02)	CGSVO14 (7mm seals)
HEAD GASKET SET	HSVO17T	HSVO17T (2001-02)	HSVO14 (7mm seals)
CONVERSION SET	CBSVO14L	CBSVO14L	CBSVO14L
HEAD BOLT SET	HBVO14	HBVO14	HBVO14
PISTONS, RINGS, PLUGS			
PISTONS	PAVO14T (21mm pin)	PAVO14T (21mm pin)	
RING SETS	RSVO14T (1.2*1.5*2.5)	RSVO14T (1.2*1.5*2.5)	RSVO14T
OIL PUMP			
NEW OIL PUMP	OPVO17L	OPVO17L	OPVO17

MODEL	S60 V70	C70 S70 (2000) V70 (2000)	S70 V70
ENGINE CODE	**B5244T3**	**B5244T**	**B5254S**
DISPLACEMENT	**2435cc(148.6")**	**2435cc(148.6")**	**2435cc(148.6")**
YEARS	**2001-2003**	**2000-2002**	**1998-1999**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 VALVE; DOHC L5; F.INJ.
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
LIFTERS			LIFIS16
INTAKE VALVE	IVVO16	IVVO16	IVVO14
EXHAUST VALVE	EVVO16	EVVO16	EVVO14
VALVE SEALS	VSSVO17T (6mm I/D)	VSSVO17T (6mm I/D)	VSS027 (7mm I/D)
WATER PUMP & TIMING			
TIMING BELT	TBVO16 (142 teeth)	TBVO16 (142 teeth)	TBVO14 (148 teeth)

VOLVO

MODEL	C70 S70 V70	850	S60 T5
ENGINE CODE	**B5254T**	**B5254FS**	**B5254T12**
DISPLACEMENT	**2435cc(148.6")**	**2435cc(148.6")**	**2521cc(148.6")**
YEARS	**1997-1999**	**1993-1997**	**2013-2015**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 VALVE; DOHC L5; F.INJ.	20 vlv; DOHC L5; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	93.2mm(3.67")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO14	MBVO14	MBVO14
ROD BEARING SET	RBVO14	RBVO14	RBVO14
GASKETS			
FULL GASKET SET	CGSVO14 (7mm seals)	CGSVO14 (7mm seals)	
HEAD GASKET SET	HSVO14 (7mm seals)	HSVO14 (7mm seals)	
CONVERSION SET	CBSVO14L	CBSVO14L	
HEAD BOLT SET	HBVO14	HBVO14	HBVO14
PISTONS, RINGS, PLUGS			
PISTONS	PAVO14TL (1998-99)		
RING SETS	RSVO14TL	RSVO14T	
OIL PUMP			
NEW OIL PUMP	OPVO17	OPVO17	OPVO17L

MODEL	C70 S70 V70	850	S60 T5
ENGINE CODE	**B5254T**	**B5254FS**	**B5254T12**
DISPLACEMENT	**2435cc(148.6")**	**2435cc(148.6")**	**2521cc(148.6")**
YEARS	**1997-1999**	**1993-1997**	**2013-2015**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 VALVE; DOHC L5; F.INJ.	20 vlv; DOHC L5; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	93.2mm(3.67")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
LIFTERS	LIFIS16	LIFIS16	
INTAKE VALVE	IVVO14	IVVO14	IVVO16
EXHAUST VALVE	EVVO14	EVVO14	EVVO16
VALVE SEALS	VSS027 (7mm I/D)	VSS027 (7mm I/D)	VSSVO17T
WATER PUMP & TIMING			
TIMING BELT		TBVO14 (148 teeth)	TBVO16

VOLVO

MODEL	C30 T5 (08-13) C70 T5 (08-13) S40 T5 (08-11) V50 T5 (08-11)	S60 T5	S60 (03-09) V70 (03-07) XC70 (03-07) XC90 (03-06) S80 (04-06)
ENGINE CODE	**B5254T7**	**B5254T5**	**B5254T2**
DISPLACEMENT	**2521cc(148.6")**	**2521cc(148.6")**	**2521cc(148.6")**
YEARS	**2008-2013**	**2012**	**2003-2009**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	93.2mm(3.67")	93.2mm(3.67")	93.2mm(3.67")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO14	MBVO14	MBVO14
ROD BEARING SET	RBVO14	RBVO14	RBVO14
GASKETS			
HEAD BOLT SET	HBVO14	HBVO14	HBVO14
PISTONS, RINGS, PLUGS			
PISTONS	PAVO24		PAVO24
RING SETS	RSVO14T	RSVO14	RSVO14T
OIL PUMP			
NEW OIL PUMP	OPVO17L	OPVO17L	OPVO17L

MODEL	C30 T5 (08-13) C70 T5 (08-13) S40 T5 (08-11) V50 T5 (08-11)	S60 T5	S60 (03-09) V70 (03-07) XC70 (03-07) XC90 (03-06) S80 (04-06)
ENGINE CODE	**B5254T7**	**B5254T5**	**B5254T2**
DISPLACEMENT	**2521cc(148.6")**	**2521cc(148.6")**	**2521cc(148.6")**
YEARS	**2008-2013**	**2012**	**2003-2009**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	83mm(3.268")
STROKE	93.2mm(3.67")	93.2mm(3.67")	93.2mm(3.67")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
INTAKE VALVE	IVVO16	IVVO16	IVVO16
EXHAUST VALVE	EVVO16	EVVO16	EVVO16
VALVE SEALS	VSSVO17T	VSSVO17T	VSSVO17T
WATER PUMP & TIMING			
TIMING BELT	TBVO16	TBVO16	TBVO16

VOLVO

MODEL	C70 T5 (06-07) S40 T5 (04-07) V50 T5 (05-07)	S60-R V70-R	S80
ENGINE CODE	**B5254T3**	**B5254T4**	**B6284T**
DISPLACEMENT	**2521cc(148.6")**	**2521cc(148.6")**	**2798cc(170.7")**
YEARS	**2004-2007**	**2004-2007**	**2000-2001**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	24 vlv; DOHC L6; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	81mm(3.189")
STROKE	93.2mm(3.67")	93.2mm(3.67")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO14	MBVO14	MBVO15
ROD BEARING SET	RBVO14	RBVO14	RBVO15
GASKETS			
CONVERSION SET			CBSVO20
HEAD BOLT SET	HBVO14	HBVO14	HBVO15
PISTONS, RINGS, PLUGS			
PISTONS	PAVO24		PAVO17T
RING SETS	RSVO14T	RSVO14T	RSVO17TX6
OIL PUMP			
NEW OIL PUMP	OPVO17L	OPVO17L	

MODEL	C70 T5 (06-07) S40 T5 (04-07) V50 T5 (05-07)	S60-R V70-R	S80
ENGINE CODE	**B5254T3**	**B5254T4**	**B6284T**
DISPLACEMENT	**2521cc(148.6")**	**2521cc(148.6")**	**2798cc(170.7")**
YEARS	**2004-2007**	**2004-2007**	**2000-2001**
DESCRIPTION	20 vlv; DOHC L5; F.INJ; Turbo	20 vlv; DOHC L5; F.INJ; Turbo	24 vlv; DOHC L6; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	81mm(3.189")
STROKE	93.2mm(3.67")	93.2mm(3.67")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
LIFTERS			LIFIS16
INTAKE VALVE	IVVO16	IVVO16	IVVO16 (6mm stem)
EXHAUST VALVE	EVVO16	EVVO16	EVVO16 (6mm stem)
VALVE SEALS	VSSVO17T	VSSVO17T	VSSVO17T (6mm I/D)
WATER PUMP & TIMING			
TIMING BELT	TBVO16	TBVO16	TBVO19 (146 teeth)

VOLVO

MODEL	S80	S80 XC90	S80
ENGINE CODE	**B6284T**	**B6294T**	**B6294S2**
DISPLACEMENT	**2798cc(170.7")**	**2917cc(178.3")**	**2917cc(178.3")**
YEARS	**1999**	**2002-2005**	**2003-2004**
DESCRIPTION	24 vlv; DOHC L6; F.INJ; Turbo	24 vlv; DOHC L6; F.INJ; Turbo	24 VALVE; DOHC L6; F.INJ.
BORE	81mm(3.189")	83mm(3.268"	83mm(3.268"
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO15	MBVO15	MBVO15
ROD BEARING SET	RBVO15	RBVO15	RBVO15
GASKETS			
FULL GASKET SET		CGSVO20 (6mm seals)	CGSVO196 (6mm seals)
HEAD GASKET SET		HSVO20 (6mm seals)	HSVO196 (6mm seals)
CONVERSION SET	CBSVO20	CBSVO20	
HEAD BOLT SET	HBVO15	HBVO15	HBVO15
PISTONS, RINGS, PLUGS			
PISTONS	PAVO17T		PAVO14 (2002-03)
RING SETS	RSVO17TX6	RSVO14X6	RSVO14X6

MODEL	S80	S80 XC90	S80
ENGINE CODE	**B6284T**	**B6294T**	**B6294S2**
DISPLACEMENT	**2798cc(170.7")**	**2917cc(178.3")**	**2917cc(178.3")**
YEARS	**1999**	**2002-2005**	**2003-2004**
DESCRIPTION	24 vlv; DOHC L6; F.INJ; Turbo	24 vlv; DOHC L6; F.INJ; Turbo	24 VALVE; DOHC L6; F.INJ.
BORE	81mm(3.189")	83mm(3.268"	83mm(3.268"
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
LIFTERS	LIFIS16		
INTAKE VALVE	IVVO14 (7mm stem)	IVVO16 (6mm stem)	IVVO16 (6mm dia.)
EXHAUST VALVE	EVVO14 (7mm stem)	EVVO16 (6mm stem)	EVVO16 (6mm dia.)
VALVE SEALS	VSS027 (7mm I/D)	VSSVO17T (6mm id.)	VSSVO17T (6mm id.)
WATER PUMP & TIMING			
TIMING BELT	TBVO15L (152 teeth)	TBVO19 (146 teeth)	TBVO19 (146 teeth)

VOLVO

MODEL	S80	960	V90 S90
ENGINE CODE	**B6294S**	**B6304S**	**B6304S2**
DISPLACEMENT	**2917cc(178.3")**	**2917cc(178.3")**	**2917cc(178.3")**
YEARS	**2000-2003**	**1999**	**1997-1998**
DESCRIPTION	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.
BORE	83mm(3.268"	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO15	MBVO15	MBVO15
ROD BEARING SET	RBVO15	RBVO15	RBVO15
GASKETS			
FULL GASKET SET	CGSVO196 (6mm seals)		
HEAD GASKET SET	HSVO196 (6mm seals)	HSVO15 (7mm seals)	HSVO15 (7mm seals)
HEAD BOLT SET	HBVO15	HBVO15	HBVO15 (1994 only)
PISTONS, RINGS, PLUGS			
PISTONS	PAVO14 (2002 only)		
RING SETS	RSVO14X6	RSVO14X6	

MODEL	S80	960	V90 S90
ENGINE CODE	**B6294S**	**B6304S**	**B6304S2**
DISPLACEMENT	**2917cc(178.3")**	**2917cc(178.3")**	**2917cc(178.3")**
YEARS	**2000-2003**	**1999**	**1997-1998**
DESCRIPTION	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.
BORE	83mm(3.268"	83mm(3.268")	83mm(3.268")
STROKE	90mm(3.54")	90mm(3.54")	90mm(3.54")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
LIFTERS		LIFIS16	LIFIS16
INTAKE VALVE	IVVO17❶	IVVO15❷	IVVO15❷
EXHAUST VALVE	EVVO16 (6mm dia.)	EVVO14 (7mm stem)	EVVO14 (7mm stem)
VALVE SEALS	VSSVO17T (6mm id.)	VSS027 (7mm I/D)	VSS027 (7mm I/D)
WATER PUMP & TIMING			
TIMING BELT	TBVO19 (146 teeth)		TBVO15 (143 teeth)

❶ (32mm head, 6mm stem)

❷ (32mm head, 7mm stem)

VOLVO

MODEL	960	960	S80 T6 XC70 T6 XC60 T6 S60 T6
ENGINE CODE	**B6304S2**	**B6304F**	**B6304T4**
DISPLACEMENT	**2922cc(178.3")**	**2922cc(178.3")**	**2953cc(180.2")**
YEARS	**1995-1997**	**1992-1994**	**2011-2015**
DESCRIPTION	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.	24 vlv; DOHC L6; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	80mm(3.150")
STROKE	90mm(3.54")	90mm(3.54")	93.2mm(3.67")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
MAIN BEARING SET	MBVO15	MBVO15	
ROD BEARING SET	RBVO15	RBVO15	RBVO15
GASKETS			
HEAD GASKET SET	HSVO15 (7mm seals)	HSVO15 (7mm seals)	
HEAD BOLT SET	HBVO15 (1994 only)	HBVO15 (1994 only)	
PISTONS, RINGS, PLUGS			
PISTONS			PAVO26
RING SETS			RSVO26

MODEL	960	960	S80 T6 XC70 T6 XC60 T6 S60 T6
ENGINE CODE	**B6304S2**	**B6304F**	**B6304T4**
DISPLACEMENT	**2922cc(178.3")**	**2922cc(178.3")**	**2953cc(180.2")**
YEARS	**1995-1997**	**1992-1994**	**2011-2015**
DESCRIPTION	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.	24 vlv; DOHC L6; F.INJ; Turbo
BORE	83mm(3.268")	83mm(3.268")	80mm(3.150")
STROKE	90mm(3.54")	90mm(3.54")	93.2mm(3.67")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
LIFTERS	LIFIS16	LIFIS16	
INTAKE VALVE	IVVO15❶	IVVO15❶	IVVO21
EXHAUST VALVE	EVVO14 (7mm stem)	EVVO14 (7mm stem)	EVVO21
VALVE SEALS	VSS027 (7mm I/D)	VSS027 (7mm I/D)	
WATER PUMP & TIMING			
TIMING BELT	TBVO15 (143 teeth)	TBVO15 (143 teeth)	

❶ (32mm head, 7mm stem)

VOLVO

MODEL	S80 T6 XC70 T6 XC60 T6	S80 (11-14) XC60 XC70	S80 (11-14) XC60 XC70 XC90 (11-14)
ENGINE CODE	**B6304T2**	**B6324S4**	**B6324S5**
DISPLACEMENT	**2953cc(180.2")**	**3192cc(194.8")**	**3192cc(194.8")**
YEARS	**2008-2010**	**2011-2015**	**2011-2015**
DESCRIPTION	24 vlv; DOHC L6; F.INJ; Turbo	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.
BORE	80mm(3.150")	84mm(3.307")	84mm(3.307")
STROKE	93.2mm(3.67")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
BEARING SETS			
ROD BEARING SET	RBVO15	RBVO15	RBVO15
PISTONS, RINGS, PLUGS			
PISTONS	PAVO26	PAVO22L	PAVO22
RING SETS	RSVO26	RSVO22	RSVO22

MODEL	S80 T6 XC70 T6 XC60 T6	S80 (11-14) XC60 XC70	S80 (11-14) XC60 XC70 XC90 (11-14)
ENGINE CODE	**B6304T2**	**B6324S4**	**B6324S5**
DISPLACEMENT	**2953cc(180.2")**	**3192cc(194.8")**	**3192cc(194.8")**
YEARS	**2008-2010**	**2011-2015**	**2011-2015**
DESCRIPTION	24 vlv; DOHC L6; F.INJ; Turbo	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.
BORE	80mm(3.150")	84mm(3.307")	84mm(3.307")
STROKE	93.2mm(3.67")	96mm(3.78")	96mm(3.78")
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	2.5585/2.5591"
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	1.9679/1.9685"
VALVE TRAIN			
INTAKE VALVE	IVVO21	IVVO22S4	IVVO22
EXHAUST VALVE	EVVO21	EVVO22	EVVO22

VOLVO

MODEL	S80 V70 XC70 XC60	S80 V70 XC70 XC60 XC90	
ENGINE CODE	**B6324S2**	**B6324S**	
DISPLACEMENT	**3192cc(194.8")**	**3192cc(194.8")**	
YEARS	**2010**	**2007-2010**	
DESCRIPTION	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.	
BORE	84mm(3.307")	84mm(3.307")	
STROKE	96mm(3.78")	96mm(3.78")	
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	
BEARING SETS			
ROD BEARING SET	RBVO15	RBVO15	
GASKETS			
FULL GASKET SET		CGSVO22	
HEAD GASKET SET		HSVO22	
CONVERSION SET		CBSVO22	
PISTONS, RINGS, PLUGS			
PISTONS	PAVO22L	PAVO22	
RING SETS	RSVO22	RSVO22	

MODEL	S80 V70 XC70 XC60	S80 V70 XC70 XC60 XC90	
ENGINE CODE	**B6324S2**	**B6324S**	
DISPLACEMENT	**3192cc(194.8")**	**3192cc(194.8")**	
YEARS	**2010**	**2007-2010**	
DESCRIPTION	24 VALVE; DOHC L6; F.INJ.	24 VALVE; DOHC L6; F.INJ.	
BORE	84mm(3.307")	84mm(3.307")	
STROKE	96mm(3.78")	96mm(3.78")	
MAIN JOURNAL DIA.	2.5585/2.5591"	2.5585/2.5591"	
ROD JOURNAL DIA.	1.9679/1.9685"	1.9679/1.9685"	
VALVE TRAIN			
INTAKE VALVE	IVVO22S4	IVVO22	
EXHAUST VALVE	EVVO22	EVVO22	