At the heart of the world's most powerful engines





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Arrow Precision's range of high quality products span all areas of the automotive industry. We are proud to supply our products into the harshest motorsport environments where failure is not an option. From clinical engine test facilities where precision is key, right through to the world's most prestigious vintage and classic restorers that demand originality combined with modern day reliability.

We also manufacture fully machined OE connecting rods and crankshafts for some of the world's leading brands of high performance road cars, for whom only the best components are good enough! Whether you require a set of cam followers for a performance cylinder head build, or high volume bespoke designed connecting rods, we have a solution that meets your needs.

This stocklist provides information on our stock items and gives limited application and dimensional information, please **contact us** direct if you require more details.

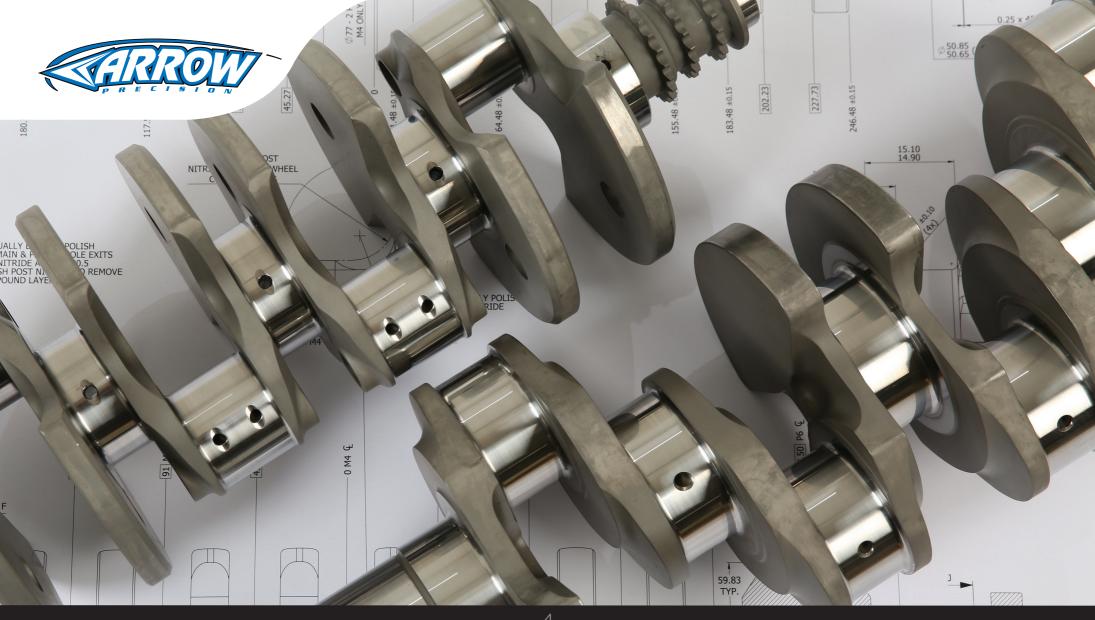
Arrow offer the entire range of ARP products via our website and hold

hundreds of popular part numbers in stock for next day delivery.

ARP are universally recognised as the world leader in motorsport fasteners. Their products have been used in just about every level of competition. Today, ARP's product line contains thousands of stock items, and has expanded to include virtually every fastener found in an engine and drivetrain. These range from quality high performance OEM replacement parts to exotic speciality hardware used in Formula 1, IndyCar, NASCAR and NHRA drag racing.

Arrow Precision have been a distributor and end user of ARP products for many years and have forged a close relationship with the company to gain an intimate knowledge of the product, primarily through the use of their fasteners in Arrow rods. Further information on ARP products is available via Arrow's **online-store**.





Engine Description	Part Number	Stroke	Pin Dia	Pin Width	Main Dia	Main Width	C/Weight	Bolt
Cosworth YB	ARROW C111	77.00	51.99	26.00	56.97	32.03	8	9
Cosworth YB	ARROW C113	84.00	51.99	26.00	56.97	32.03	8	9
Cosworth YB	ARROW C115	88.00	51.99	26.00	56.97	32.03	8	9
Cosworth YB Narrow	ARROW C112	77.00	49.21	23.96	56.97	32.03	8	9
Cosworth YB Narrow	ARROW C114	84.00	49.21	23.96	56.97	32.03	8	9
Cosworth YB Narrow	ARROW C116	88.00	49.21	23.96	56.97	32.03	8	9
Cosworth YB Narrow	ARROW C142	82.00	49.21	23.96	56.97	32.03	8	9
Coventry Climax FWA/E	ARROW C137	66.68	47.65	25.48	53.94	32.41	4	6
Coventry Climax FWB	ARROW C136	80.00	47.63	25.47	53.94	32.40	4	6
Ford 77.62mm Crossflow / T'cam	ARROW C139	77.62	49.21	23.95	53.99	31.70	12	12
Ford 77.62mm FV	ARROW C138	77.62	49.21	23.95	53.94	31.70	12	12
Ford BD Narrow Pin	ARROW C102	69.10	49.21	23.96	53.99	31.70	8	12
Ford BD Narrow Pin	ARROW C106	77.62	49.21	23.96	53.99	31.70	8	12
Ford Duratec 2.0L	ARROW C117	83.10	46.99	22.05	51.99	26.00	4	6
Ford Duratec 2.3L	ARROW C118	94.00	49.99	22.05	51.99	26.00	4	6
Ford 2.0L Ecoboost	ARROW C145	83.10	52.00	22.00	52.00	26.00	4	6
Ford 2.3L Ecoboost Forging - Track	ARROW C146	94.00	52.00	22.00	52.00	26.00	4	6
Ford 2.3L Ecoboost Forging - Motorsport	ARROW C147	94.00	52.00	22.00	52.00	26.00	4	6
Ford MAE Formula Junior Narrow	ARROW C101	48.35	49.21	23.96	53.99	31.70	4	6
Ford MAE Formula Junior Wide	ARROW C100	48.35	49.21	27.03	53.99	31.70	4	6
Ford Zetec 2005	ARROW C110	88.00	46.90	24.55	57.99	24.9, 25.55 & 28.0	4 + 4	6
Honda Civic K20A	ARROW C126	86.00	46.90	20.05	55.00	27.15	4	8
Jaguar 3.4/3.8L	ARROW C134	86.00	52.98	30.17	69.84	44.47	12	10



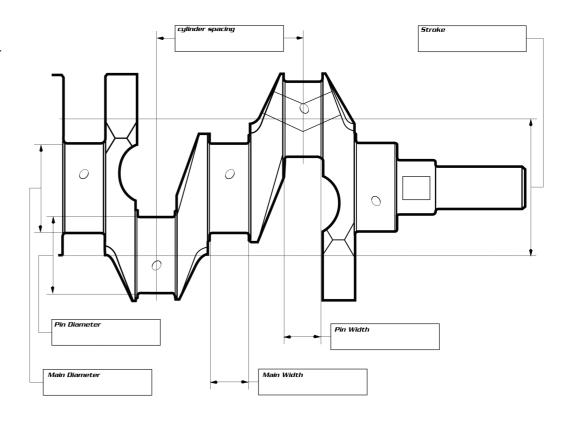
Engine Description	Part Number	Stroke	Pin Dia	Pin Width	Main Dia	Main Width	C/Weight	Bolt
Lotus Twin Cam FIA Rope Seal	ARROW C143	72.75	49.21	27.03	53.99	31.70	4	4+4
Lotus Twin Cam Narrow	ARROW C104	72.75	49.21	23.96	53.99	31.70	8	12
Lotus Twin Cam Wide	ARROW C105	72.75	49.21	27.03	53.99	31.70	8	12
Metro 6R4	ARROW C133	93.00	50.81	43.18	54.41	27.00	6	6
MGB	ARROW C140	88.90	47.66	25.70	54.02	34.25	8	6
Mitsubishi Evo	ARROW C127	88.00	44.99	26.53	57.00	25.50	8	7
Mitsubishi Evo	ARROW C128	88.00	44.99	26.53	57.00	25.50	4	7
Mitsubishi Evo	ARROW C129	97.00	44.99	26.53	57.00	25.50	8	7
Mitsubishi Evo X	ARROW C141	86.00	51.98	23.55	51.99	24.05	8	7
Porsche 6 cyl	ARROW C121	72.10	52.98	22.05	59.98	20.00 & 28.00	12	9
Porsche 6 cyl	ARROW C122	80.40	52.98	22.05	59.98	20.00 & 28.00	12	9
Rover K Series	ARROW C125	89.30	48.00	22.75	47.98	24.58	8	6
Subaru Impreza	ARROW C130	81.00	51.99	21.50	59.99	18.5. 22.00 & 23.00	4	8
Subaru Impreza	ARROW C131	79.00	51.99	21.50	59.99	18.5. 22.00 & 23.00	4	8
Subaru Impreza	ARROW C132	75.00	51.99	21.50	59.99	18.5. 22.00 & 23.00	4	8
Subaru FA20/Toyota GT86	ARROW C148	86.00	49.94	21.60	68.00	17.5/21.5	4	8
Suzuki Hayabusa (GSX1300R)	ARROW C144	72.00	38.00	21.17	39.94	24.05	7	N/A
Toyota 4AG	ARROW C120	77.00	41.99	22.02	47.99	26.00	8	8
Toyota 5K	ARROW C119	73.00	41.99	22.03	49.99	28.00 & 29.00	8	6
Vauxhall 1.6L 16v	ARROW C124	81.50	42.98	22.00	54.98	26.00 & 27.00	4	6
Vauxhall 2.0L XE 16v	ARROW C123	86.00	48.98	24.00	57.99	26.00	4	8

Engineering a precision detailed crankshaft begins with only the highest quality materials and a flexible batch manufacturing process. Arrow Precision work to your exacting standards whether you need a custom single piece reverse engineered to stunning perfection, a pre-production concept, or a full production run. Choosing an Arrow Precision crankshaft means you have full control throughout the design and manufacturing process.

For custom crankshaft enquiries please complete Arrow's online **Crankshaft Request Form** 

You will need to supply the following information:

- Engine description
- Number of cylinders
- Maximum rpm
- Weight of Piston (Inc. pin & rings)
- Original stroke
- Expected BHP
- Expected torque
- Application (circuit, rally etc.)
- Special instructions (spline or gear requirements etc.)



Or contact our sales department direct via email. enquiries@arrowprecision.com









### C143 Lotus Twin Cam (FIA specification)

The C143 Lotus Twin cam has been designed to meet the Historic FIA specification, it incorporates a 4 bolt/4 dowel flywheel flange along with a rope seal scroll, at 11 kg this crank is lighter than any other crank on the market and unrivalled in quality, finish and performance, the fully balanced 4 counterweight design allows the engine to be revved higher and harder for longer. Arrow's decades of experience in crank manufacture have been focused in to this design ensuring full customer confidence where originality combined with modern day performance and reliability is key.

Lotus Twin Cam 72.75mm Crankshaft	Arrow C143
Stroke (mm)	72.75
Engine Capacity (cc)	1558
Pin Size (mm)	Ø 49.21 (1.9375/1.9370")
Main Size (mm)	Ø 53.99 (2.1260/2.1255")





#### C144 Hayabusa 72mm

In countless forms of Motorsport the Suzuki GSX1300R Hayabusa is a legendary engine, respected for its versatility and reliability; the tuning options for this engine seem endless. Arrow have manufactured thousands of Hayabusa crankshafts over the past 15 years' for the most respected Hayabusa engine specialists in the world. Now, for the first time this product is available to our distributors and customers direct from Arrow.

Suzuki Hayabusa Long Stroke Crankshaft	Arrow C144
Stroke (mm)	72.00
Engine Capacity - 81.00mm Bore (cc)	1484
Engine Capacity - 84.00mm Bore (cc)	1596
Pin Size (mm)	Ø 37.992/38.000
Main Size (mm)	Ø 39.988/40.000

A host of improvements have been incorporated in to the design which include a stroke increase to 72.00mm giving a capacity of 1484cc when using the standard 81.00mm bore and 1596cc utilising the popular 84.00mm over-bored option.

Big end pins have been altered to 38mm to suit the Suzuki range of bearing shells allowing access to a greater range of connecting rod, piston and shell bearing combinations.



**C144** 

CRANKSHAFTS FEATURED PRODUCTS





#### Ford EcoBoost 2.3 Litre forged crankshaft

We have utilised over two decades of race engine crankshaft design and weight reduction strategies to optimise the performance of a stock Ford EcoBoost 2.3 Litre forged crankshaft.

Each stock crankshaft is optimised for superior performance and engine response, carefully machined by Arrow to include the removal of the balance shaft drive gear and hub. Material removal on counterweights and big end pins provide additional weight savings. After machining, components are blasted for stress relieving and uniform finish.

Arrow are pleased to offer 2 stages of modification enveloping track day enthusiasts through to competition race engine builds for Focus ST/RS and Mustang 2.3 Litre EcoBoost applications.

Detailed specifications are as follows:

C146

#### C146 Stage 1 - Track

- Careful removal of balancer gear and hub diameter
- Counterweights removed for weight saving
- Finished for complete removal of stress risers
- Main and pin oil exit holes polished
- Lap all ground surfaces
- Dynamic balance Laser mark
- 4kg weight reduction from original part





#### C147 Stage 2 - Motorsport

- Oareful removal of balancer gear and hub diameter
- Counterweights removed for weight saving
- Pin lightening holes added for improved balance and weight reduction
- Finished for complete removal of stress risers
- Nose end drilled for greater front pulley clamp load
- Key way added for improved location
- Main and pin oil exit holes polished
- Lap all ground surfaces
- Dynamic balance Laser mark
- 4.5kg weight reduction from original part



CRANKSHAFTS FEATURED PRODUCTS





Engine Description	Part Number	B/E Dia	G/Pin Dia	Centres	B/E Width	S/E Width	Bolt Size	Qty in Set
Audi S4 2.7T	ARROW 199	57.610	21.000	154.000	20.125	21.900	5/16 UNF	4
Audi TTRS	ARROW 225	50.600	22.020	144.000	21.900	21.900	3/8 UNF	5
Austin Metro	ARROW 108	48.152	13/16	146.050	26.200	22.600	5/16 WAVELOC	4
Austin Metro 6R4	ARROW 137	53.973	0.875	143.764	21.437	24.200	3/8 UNF	4
Austin Mini Cooper 1275	ARROW 107	44.977	13/16	146.050	26.950	22.300	5/16 WAVELOC	4
Austin Mini Cooper S Bushed	ARROW 168	44.978	13/16	146.050	26.950	22.300	5/16 UNF	4
BMW M10	ARROW 233	52.007	22.000	135.000	23.965	23.965	3/8 UNF	4
BMW M30B35/M30B34	ARROW 233S6	52.007	22.000	135.000	23.965	23.965	3/8 UNF	6
BMW M3 E36 3.0L	ARROW 229	53.006	21.000	142.275	21.900	21.900	3/8 UNF	6
BMW M3 E36/S50	ARROW 183	53.008	21.000	139.000	21.825	21.825	7/16 UNF	6
BMW M3 E46/S54	ARROW 178	53.007	21.000	139.000	19.825	19.825	7/16 UNF	6
BMW M5 E39 S62 V8 (S040)	ARROW 208	53.005	22.000	141.550	20.900	20.900	3/8 UNF	8
BMW M52 3.2L	ARROW 187	48.006	22.000	135.000	21.865	21.865	3/8 UNF	6
BMW M52/M54	ARROW 175	48.006	22.000	145.000	21.865	21.865	3/8 UNF	6
BMW M52TU 24V	ARROW 171	48.006	22.000	140.000	21.865	21.865	3/8 UNF	6
BMW M60/M62	ARROW 186	52.006	22.000	143.000	20.825	20.825	3/8 UNF	8
BMW Mini Cooper	ARROW 192	49.008	21.000	131.500	23.250	18.500	3/8 UNF	4
BMW N54 B30	ARROW 210	53.010	22.000	145.050	20.900	20.900	3/8 UNF	6
BMW N55	ARROW 215	53.607	22.000	144.350	20.900	20.900	3/8 UNF	6
BMW S14	ARROW 170	52.007	22.000	144.000	23.925	23.925	3/8 UNF	4
BMW S38 B35/B36 (6 Cylinder)	ARROW 170 S6	52.007	22.000	144.000	23.925	23.925	3/8 UNF	6
BMW S65 M5 V8	ARROW 209	56.005	21.000	140.700	18.500	19.900	3/8 UNF	8
BMW S85 M5 V10	ARROW 209 S10	56.005	21.000	140.700	18.500	19.900	3/8 UNF	10
Cosworth YB 4x4	ARROW 216	55.015	24.000	136.000	25.790	25.790	3/8 UNF	4



Engine Description	Part Number	B/E Dia	G/Pin Dia	Centres	B/E Width	S/E Width	Bolt Size	Qty in Set
Cosworth YB 5.35 22MM S/E	ARROW 219	55.015	22.000	136.000	25.790	25.790	3/8 UNF	4
Cosworth YB 5.35 Narrow Pin	ARROW 230	52.900	22.000	136.000	23.650	23.650	3/8 UNF	4
Cosworth YB Narrow	ARROW 198	52.900	24.000	128.500	23.675	23.675	3/8 UNF	4
Coventry Climax 45 Degree	ARROW 176	51.340	0.750	120.650	25.300	22.202	5/16 UNF	4
Ferrari 308	ARROW 217	47.136	18.500	136.975	20.875	20.500	3/8 UNF	8
Ferrari 365	ARROW 228	47.136	18.500	136.957	20.875	20.500	3/8 UNF	12
Ferrari Dino 246	ARROW 218	47.135	20.000	118.000	23.600	23.600	3/8 UNF	6
Fiat 500 (2 Cylinder)	ARROW 179	47.137	18.000	132.000	20.825	16.000	5/16 UNF	2
Fiat Punto	ARROW 166	48.638	22.000	128.500	25.425	25.425	3/8 UNF	4
Ford 1600 CVH	ARROW 147	50.910	13/16	132.000	24.300	24.300	3/8 UNF	4
Ford 4.826 Narrow Pin	ARROW 100	52.902	13/16	122.580	23.673	23.673	3/8 UNF	4
Ford 4.826 Wide Pin	ARROW 101	52.902	13/16	122.580	26.800	26.800	3/8 UNF	4
Ford 4.826 Wide Pin (I-Section)	ARROW 222	52.902	13/16	122.580	26.800	26.800	3/8 UNF	4
Ford 4.926 Narrow Pin	ARROW 102	52.902	13/16	125.120	23.673	23.673	3/8 UNF	4
Ford 4.926 Wide Pin	ARROW 103	52.902	13/16	125.120	26.800	26.800	3/8 UNF	4
Ford 5.1 Narrow Pin	ARROW 124	52.900	13/16	129.500	23.650	23.650	3/8 UNF	4
Ford 5.23 Narrow I Section	ARROW 206	52.902	13/16	132.842	23.673	23.673	3/8 UNF	4
Ford 5.23 Narrow Pin	ARROW 104	52.902	13/16	132.842	23.673	23.673	3/8 UNF	4
Ford 5.23 Wide Pin	ARROW 105	52.902	13/16	132.842	26.800	26.800	3/8 UNF	4
Ford 5.4 Narrow Pin	ARROW 231	52.902	13/16	137.160	23.673	23.673	3/8 UNF	4
Ford Duratec 2.0L	ARROW 174	50.035	21.000	146.250	21.825	18.000	3/8 UNF	4
Ford Duratec 2.3L	ARROW 184	53.040	21.025	154.815	21.825	20.500	3/8 UNF	4
Ford Duratec/Jaguar 3.0L	ARROW 185	53.025	21.024	138.125	21.300	21.300	3/8 UNF	6
Ford Ecoboost 2.3L	ARROW 224	55.028	22.500	149.300	21.825	21.825	3/8 UNF	4
Ford Ecoboost 2.0L	ARROW 226	55.028	22.500	155.869	21.825	21.825	3/8 UNF	4
Ford Focus 1.6L	ARROW 190	47.035	18.000	137.000	20.825	15.000	3/8 UNF	4
Ford Pinto 5	ARROW 118	55.010	24.000	127.000	25.875	25.875	3/8 UNF	4

Engine Description	Part Number	B/E Dia	G/Pin Dia	Centres	B/E Width	S/E Width	Bolt Size	Qty in Set
Ford Pinto 5.06	ARROW 119	55.010	24.000	128.525	25.875	25.875	3/8 UNF	4
Ford RS 2000	ARROW 145	53.900	13/16	149.250	25.660	21.040	3/8 UNF	4
Ford Zetec	ARROW 132	49.895	13/16	136.180	24.330	24.330	3/8 UNF	4
Ford Zetec Bushed	ARROW 157	49.895	13/16	136.180	24.330	24.330	3/8 UNF	4
Hillman Imp 45 Degree Rod	ARROW 156	44.977	0.688	104.725	25.180	24.000	5/16 UNF	4
Honda B16A	ARROW 214	48.005	21.000	134.300	23.800	20.000	5/16 UNF	4
Honda K20 A	ARROW 200	51.010	22.000	139.000	19.825	19.825	3/8 UNF	4
Jaguar 3.8/4.2L	ARROW 138	56.719	0.875 4	196.850	29.975	27.380	3/8 UNF	6
Lancia Integrale 4x4 Turbo	ARROW 177	53.906	22.000	145.000	25.705	25.705	3/8 UNF	4
Metro	ARROW 212	48.152	20.600	146.050	26.200	22.600	5/16 UNF	4
MGB 1800	ARROW 146	51.340	13/16	165.100	25.325	25.325	3/8 UNF	4
Mitsubishi 4G63T	ARROW 162	48.005	22.000	149.950	26.370	26.370	5/16 UNF	4
Mitsubishi EVO X	ARROW 203	55.006	23.000	143.725	21.880	19.875	3/8 UNF	4
Mitsubishi EVO X (to suit Arrow C141)	ARROW 204	55.006	23.000	143.725	23.350	19.875	3/8 UNF	4
Nissan C18 DET	ARROW 191	48.070	20.000	133.000	24.300	21.000	3/8 UNF	4
Peugeot 1.6L 16V	ARROW 169	48.663	18.000	133.500	23.925	23.925	3/8 UNF	4
Peugeot 1.9L 16v XU9	ARROW 155	53.700	21.000	143.000	24.200	22.400	3/8 UNF	4
Peugeot 306	ARROW 136	53.701	23.000	152.000	24.210	19.140	3/8 UNF	4
Porsche 356	ARROW 188	56.990	22.000	136.000	19.750	21.000	5/16 WAVELOC	4
Porsche 944	ARROW 232	55.000	24.000	150.000	28.750	26.000	3/8 UNF	4
Porsche 993	ARROW 189	58.010	23.000	127.000	18.875	19.700	3/8 UNF	6
Renault Clio 16V	ARROW 122	51.593	21.000	144.000	24.950	24.950	3/8 UNF	4
Rover K Series	ARROW 164	51.680	18.000	133.100	22.500	15.050	5/16 UNF	4
Rover V8	ARROW 137	53.970	0.875	143.764	21.437	24.200	3/8 UNF	8





Engine Description	Part Number	B/E Dia	G/Pin Dia	Centres	B/E Width	S/E Width	Bolt Size	Qty in Set
Subaru	ARROW 161	55.008	23.000	130.450	21.400	21.400	3/8 UNF	4
Subaru BRZ	ARROW 213	53.007	22.000	129.300	21.355	21.355	3/8 UNF	4
Suzuki Hayabusa (GSX1300R)	ARROW 220	41.006	18.000	116.000	20.980	20.980	3/8 UNF	4
Suzuki Hayabusa (GSX1300R)	ARROW 223	41.006	18.000	119.500	20.980	20.980	3/8 UNF	4
Suzuki Hayabusa (GSX1300R)	ARROW 205	41.006	20.000	119.500	20.975	19.000	3/8 UNF	4
Suzuki Hayabusa (GSX1300R)	ARROW 221	41.006	20.000	116.000	20.980	20.980	3/8 UNF	4
Toyota 4AGE 1.6L 16V	ARROW142	45.012	20.000	122.000	21.825	21.825	5/16 UNF	4
Toyota GT86	ARROW 213	53.007	22.000	129.300	21.355	21.355	3/8 UNF	4
Triumph TR6	ARROW 160	51.340	13/16	146.050	22.760	22.760	5/16 UNF	6
Vauxhall 1.6L 16v (to suit Arrow C124)	ARROW 134	46.006	18.000	129.750	21.875	18.000	5/16 UNF	4
Vauxhall 2.0L	ARROW 106	52.006	21.000	143.100	26.365	22.000	3/8 UNF	4
Vauxhall 2.0L XE 16v (to suit Arrow C123)	ARROW 196S	52.006	21.000	143.100	23.800	22.000	3/8 UNF	4
Vauxhall C20XE Narrow 148mm Lightweight	ARROW 227	52.006	20.000	148.000	23.850	19.000	3/8 UNF	4
VW Golf 1.8L	ARROW 129	50.610	20.000	144.000	24.940	24.940	3/8 UNF	4
VW Golf 2.0L	ARROW 165	50.610	21.000	159.000	24.940	24.940	3/8 UNF	4
VW Golf GTI 2.0L TFSi	ARROW 207	50.610	20.000	144.000	24.885	21.900	3/8 UNF	4
VW Golf GTI 2.0L TFSi	ARROW 202	50.610	21.000	144.000	24.885	21.900	3/8 UNF	4
VW VR6	ARROW 173	56.810	20.000	164.000	19.925	19.925	3/8 UNF	6
VW/Audi (5 Cylinder)	ARROW 129S5	50.610	20.000	144.000	24.940	24.940	3/8 UNF	5

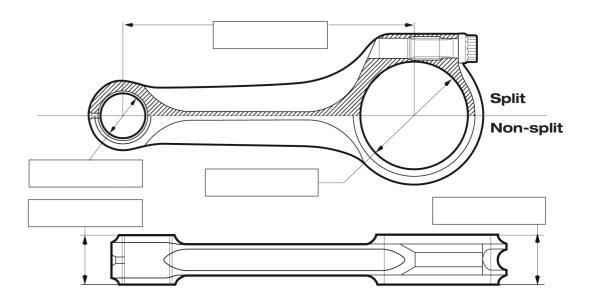
A flexible manufacturing process allows Arrow Precision to produce varying quantities of connecting rods for a spectrum of applications. Arrow's experienced engineers and designers will develop an enhanced product based on your tried and tested designs, or create a new design that improves performance and delivers your team the winning edge.

Every connecting rod we produce is created with the same care and attention to detail, whether you need a single rod, or several thousand.

For custom connecting rod enquiries please complete Arrow's online **Connecting Rod Request Form** 

You will need to supply the following information:

- Engine description
- Number of cylinders
- Expected BHP
- Stroke
- Expected torque
- Maximum RPM
- Application (circuit/rally etc.)
- Weight of Piston (inc. pin & rings)



Or contact our sales department direct via email enquiries@arrowprecision.com













### Arrow Forged Connecting Rod: Ford EcoBoost 2.0L & 2.3L

Installing world renowned connecting rods in to your high powered EcoBoost engine is essential to achieving the performance and reliability you desire, decades of experience manufacturing connecting rods for the global

Part No	B/E Dia	G/Pin Dia	Centres	B/E Width	S/E Width	<b>Bolt Size</b>	Qty in Set
ARROW 224	55.028	22.500	149.300	21.825	21.825	3/8 UNF	4
ARROW 226	55.028	22.500	155.869	21.825	21.825	3/8 UNF	4

motorsport stage allows Arrow to supply what can only be described as the ultimate 2.0 & 2.3L EcoBoost connecting rod.

Designed and manufactured in the UK from our own EN24 X condition forgings for unsurpassed quality, our H-Beam connecting rods are heat treated to HRC 38-41 and then shot peened for higher fatigue strength. Small ends are bushed with beryllium copper to provide a durable platform to withstand high pressure high rpm applications, big ends are located and secured with ARP 2000 3/8 UNE bolts.

- Lightweight
- ARP Bolt upgrade available
- Beryllium Copper S/E bush
- Tapered small end design to suit stock and custom piston
- Complimentary ARP products available
- In stock for next day delivery







### Arrow Forged Connecting Rod: Suzuki GSX1300R Hayabusa

Designed and manufactured to function faultlessly in the most punishing environments, our market leading range of Suzuki Hayabusa connecting rods cover most applications from turbocharged drag bikes through to endurance racing sports prototypes.

Part No	B/E Dia	G/Pin Dia	Centres	B/E Width	S/E Width	<b>Bolt Size</b>	Qty in Set
ARROW 220	41.006	18.000	116.000	20.980	20.980	3/8 UNF	4
ARROW 223	41.006	18.000	119.500	20.980	20.980	3/8 UNF	4
ARROW 205	41.006	20.000	119.500	20.980	19.000	3/8 UNF	4
ARROW 221	41.006	20.000	116.000	20.980	20.980	3/8 UNF	4

Designed and manufactured in the UK from our own EN24 X condition forgings for unsurpassed quality, our H-Beam connecting rods are heat treated to HRC 38-41 and then shot peened for higher fatigue strength. Small ends are bushed with beryllium copper to provide a durable platform to withstand high pressure high rpm applications, big ends are located and secured with 3/8 UNF Custom Age ARP bolts for optimum clamping load.

- Lightweight
- Designed and manufactured for the most gruelling circuit racing environments
- Fit and forget reliability
- Complimentary cam followers and ARP products available
- In stock for next day delivery





### **Arrow Forged Connecting Rod: 4.826 I section rod (FIA specification)**

When it comes to manufacturing historically accurate replacement parts our experience is unparalleled, with 40 years of heritage and knowledge gathered in the

Part No	B/E Dia	G/Pin Dia	Centres	B/E Width	S/E Width	<b>Bolt Size</b>	Qty in Set
ARROW 222	52.902	13/16	122.580	26.800	26.800	3/8 UNF	4

motorsport industry we have produced regulation parts for the very best engine manufactures, builders and tuners throughout the globe. The Arrow 222 meets historic FIA regulations and combined with our C143 77.25mm Lotus Twin Cam crankshaft offers a complete FIA compliant engine package for your historic racing needs.

- Historically accurate I Section design
- ARP 2000 Bolts fitted as standard
- Designed and manufactured for the most gruelling circuit racing environments
- Fit and forget reliability
- Complimentary cam followers and ARP products available
- In stock for next day delivery



CONNECTING RODS FEATURED PRODUCTS







<b>Engine Description</b>	Part No.	Outside Dia	Length	Stem Yes/No	Stem Length	Pad Thickness	To Suit Bore	DLC Available
Audi A4 20v	CFS 179	23.97	24.20	Yes	19.00	х	24	Yes
Audi A6 2.8L V6	CFS 203	33.47	25.80	Yes	19.00	×	33.5	Yes
BDA Pad	CFS 325	30.47	22.83	No	х	4.39	30.5	Yes
BDA Stem	CFS 324	30.47	22.83	Yes	19.66	×	30.5	Yes
BDA Stem DLC	CFS 324 DLC	30.47	22.83	Yes	19.66	х	30.5	N/A
BDG Pad	CFS 326	31.74	22.84	No	х	4.27	1 1/4"	Yes
BDG Pad DLC	CFS 326 DLC	31.74	22.84	No	х	4.27	11/4"	N/A
BDG Stem	CFS 327	31.74	22.85	Yes	19.65	×	1 1/4"	Yes
BMW M12	CFS 212	36.995	25.00	No	х	3.30	37	Yes
BMW M3	CFS 120	37.47	25.00	No	х	3.30	37.5	Yes
BMW M3 16v	CFS 135	37.47	27.94	No	х	4.50	37.5	Yes
BMW M3 16v	CFS 223	37.47	27.94	No	×	6.00	37.5	Yes
Bristol	CFS 124	19.97	45.00	No	х	5.30	20	Yes
Bristol DLC	CFS 124 DLC	19.97	45.00	No	x	5.30	20	N/A
Citroen Saxo, Group A Clubman	CFS 182	28.365	34.50	Yes	15.00	x	28.4	Yes
Coventry Climax	CFS 102	38.08	26.67	No	x	5.59	1.5"	Yes
Ferrari	CFS 125	32.97	28.00	No	×	4.70	33	Yes
Ford RS 2000	CFS 117	31.98	27.00	Yes	14.50	×	32	Yes
Ford Sierra Cosworth	CFS 107	34.97	28.76	Yes	17.16	x	35	Yes
Ford Sierra Cosworth	CFS 162	34.97	26.27	No	×	3.40	35	Yes
Ford Zetec	CFS 138	28.37	26.10	Yes	14.90	×	28.4	Yes
Ford Zetec Post 98	CFS 252	29.97	24.60	Yes	14.90	х	30	Yes
Jaguar 3.8/4.2L	CFS 372	34.92	24.89	No	х	5.64	1 3/8"	Yes
Kawasaki	CFS 155	32.97	24.54	No	×	2.50	33	Yes

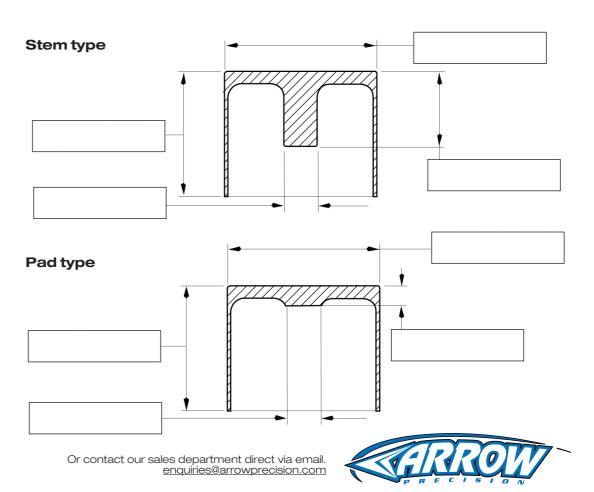


Engine Description	Part No.	Outside Dia	Length	Stem Yes/No	Stem Length	Pad Thickness	To Suit Bore	DLC Available
Lotus Twin Cam	CFS 229	34.92	22.23	No	×	4.04	35	Yes
Lotus Twin Cam	CFS 191	34.92	22.23	No	×	5.72	13/8"	Yes
Lotus Twin Cam (Special)	CFS 229	34.92	22.23	No	x	4.04	35	Yes
Lotus Twin Cam O/S	CFS 233	34.97	22.23	No	X	5.72	35	Yes
Mazda 16V	CFS 151	29.97	25.00	Yes	16.00	X	30	Yes
P.S.A 1.6L 16V Kit Car	CFS 219	28.36	32.50	Yes	16.40	×	28.4	Yes
Peugeot 106	CFS 209	30.97	24.60	Yes	16.76	х	31	Yes
Peugeot 16V	CFS 136	34.97	28.76	Yes	12.80	×	35	Yes
Peugeot Ml16	CFS 147	31.97	26.10	Yes	12.80	×	32	Yes
Renault 2 V6 F2	CFS 165	29.97	22.50	No	×	4.00	30	Yes
Renault Clio 16V	CFS 137	32.97	26.10	Yes	14.00	×	33	Yes
Rover 6R4 Metro	CFS 201	36.48	23.00	No	×	4.27	36.5	Yes
Rover K Series	CFS 433	32.97	26.00	Yes	14.30	×	33	Yes
Suzuki Hayabusa (GSX1300R)	CFS 605	27.97	19.50	No	x	2.50	28	Yes
Suzuki Hayabusa (GSX1300R) DLC	CFS 605 DLC	27.97	19.50	No	x	2.50	28	N/A
Suzuki Swift 16V	CFS 148	30.97	24.50	Yes	14.50	×	31	Yes
Toyota	CFS 101	27.97	21.62	No	×	3.56	28	Yes
Toyota MR2 Corolla	CFS 181	30.97	26.50	No	×	5.00	31	Yes
Triumph Dolomite Sprint	CFS 221	33.38	27.00	No	×	5.60	33.4	Yes
Vauxhall Astra 16V	CFS 134	31.97	26.10	Yes	14.90	×	32	Yes
VW Audi 4 Cyl, 20V (Exhaust)	CFS 457	33.47	25.80	Yes	15.00	×	33.5	Yes
VW Audi 4 Cyl, 20V (Inlet)	CFS 456	23.97	24.20	Yes	15.00	×	24	Yes
VW Audi 8V/16V	CFS 133	34.97	26.30	Yes	14.70	×	35	Yes
VW Audi 8V/16V	CFS 177	34.97	26.30	No	×	3.90	35	Yes
VW Golf 8V/16V	CFS 164	36.97	26.30	No	×	3.90	37	Yes
VW Polo 16V	CFS 163	30.97	24.50	Yes	16.00	x	31	Yes

Machined from solid steel, Arrow followers feature a thin wall section and strengthening rib to minimise weight without compromising durability.

Reliability is further enhanced through careful material selection and controlling the surface finish on the working face to within 0.2 Ra. For customers seeking the ultimate in performance and low friction, Arrow followers can be Superfinished to 0.05 Ra and DLC coated. For custom cam-follower enquiries please complete Arrow's online **Cam Follower Request Form** to fill out your request using our online request form. You will need to supply the following information:

- Engine description
- Number of valves
- Expected BHP
- Type of cam Follower
  - Pad type
  - Stem type









#### **Arrow Precision Billet Steel Cam followers**

<b>Engine Description</b>	Part No	Outside Dia	Length	Stem	Stem Length	Pad Thickness	To Suit Bore
BDA Stem DLC	CFS 324 DLC	30.47	22.83	Yes	19.66	X	30.5
BDG Pad DLC	CFS 326 DLC	31.74	22.84	No	X	4.27	11/4"
Bristol DLC	CFS 124 DLC	19.97	45.00	No	X	5.30	20
Suzuki Hayabusa	CFS 605 DLC	27.97	19.50	No	X	2.50	28

Arrow cam followers are sold globally through our network of motorsport distributors and competitors who require a product that is at the forefront of design and performance,

Lightweight designs that incorporate strengthening ribs ensure that ultimate reliability is retained whilst improving valve train performance with the reduction of weight. Manufactured from our own blend of EN40B and gas nitrided, we follow the same manufacturing route as on our world renowned crankshaft designs.

Diamond-Like Carbon (DLC) coatings can come in various qualities, Arrow work with only the very best suppliers of DLC whom proudly provide coatings at the pinnacle of the motorsport industry where failure is not an option.



Arrow Precision are now stocking popular cam followers DLC coated for next day delivery-see our latest stock list for more details.

### **Arrow Complimentary Engine Packages**

For many competitors installing an Arrow rotating assembly is the chequered flag of any engine build, what better way to have the confidence you have built the definitive engine.

By combining the very best components Arrow have to offer in an Engine package, you are installing "fit and forget" quality parts for ultimate peace of mind whilst benefiting from a significant discount and awards a greater saving with the more parts purchased.

Engine packages assembled with complimenting Arrow components (crankshafts, connecting rods and cam followers) are designed and hand crafted with the utmost pride at our UK manufacturing facility. Arrow have partnered with ARP to supply the very finest drivetrain fasteners along with ACL and King bearings to offer the ultimate in performance competition bearing shells.

When strength, performance and longevity are the vital performance indicators install an Arrow Engine Package.

With over 40 years' experience in the Automotive industry we have worked with a majority of the premier engine component manufacturers, our team of sales staff can offer their wealth of knowledge when it comes to selecting the very best pistons, cam shafts, valves and other major components.







#### Arrow Hayabusa 72mm Stroker Package

Description	Part No
Suzuki Hayabusa (GSX1300R) 72.00mm Crankshaft	ARROW C144
Suzuki Hayabusa (GSX1300R) Connecting Rod	ARROW 205
Suzuki Hayabusa (GSX1300R) Connecting Rod	ARROW 220
Suzuki Hayabusa (GSX1300R) Connecting Rod	ARROW 221
Suzuki Hayabusa (GSX1300R) Connecting Rod	ARROW 223
Suzuki Hayabusa (GSX1300R) Cam-Follower	CFS 605
Suzuki Hayabusa (GSX1300R) Cam-Follower DLC	CFS 605 DLC





### Arrow EcoBoost 2.3 Litre Package

Description	Part No
Ford 2.3L EcoBoost Forging - Track Crankshaft	ARROW C146
Ford 2.3L EcoBoost Forging - Motorsport Crankshaft	ARROW C147
Ford Ecoboost 2.3L Connecting Rod	ARROW 224
Upgraded Nose End Bolt	N/E Bolt
Modified Pulley	Pulley

# Arrow EcoBoost 2.0 Litre Package

Description	Part No
Ford 2.0L EcoBoost Crankshaft	ARROW C145
Ford Ecoboost 2.0L Connecting Rod	ARROW 226
Upgraded Nose End Bolt	N/E Bolt
Modified Pulley	Pulley



#### Arrow Lotus Twin Cam FIA Package

Description	Part No
Lotus Twin Cam FIA Rope Seal Crankshaft	ARROW C143
Ford 4.826 Wide Pin (I-Section) Connecting Rod	ARROW 222
Lotus Twin Cam Standard Cam-Follower	CFS 191
Lotus Twin Cam Short Pad Cam-Follower	CFS 229

#### Arrow Subaru BRZ/Toyota GT86 Package

Description	Part No
Subaru FA20/ Toyota GT86 Crankshaft	ARROW C148
Subaru BRZ / Toyota GT86 Connecting Rod	ARROW 213

#### Arrow Vauxhall C20XE Rally Special Long-Rod Conversion

Description	Part No
Vauxhall 2.0L XE 16v Crankshaft	ARROW C123
Vauxhall C20XE Narrow 148mm Lightweight Connecting Rod	ARROW 227
Vauxhall Astra 16V Cam-Follower	CFS 134

# New products in development for 2019

- BMW S65 4.0 V8 Motorsport crankshaft and connecting rod
- BMW S85 V10 Motorsport crankshaft and connecting rod

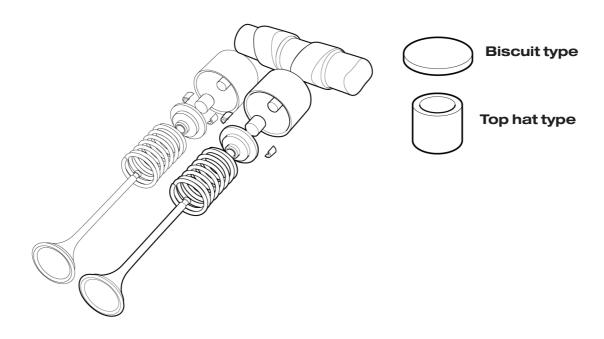


FEATURED PRODUCTS



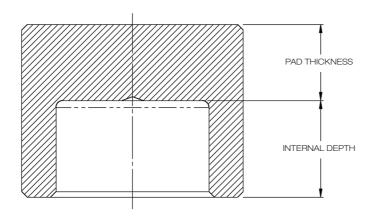
# FINISHED

Part Number	Description	Internal Diameter	External Diameter	Internal Depth	Finished Pad Thickness
TS 102	top-hat type tappet shim	7mm	10mm	2.4mm	1.5mm-5mm
TS 104	top-hat type tappet shim	8mm	11mm	2.5mm	1.5mm-5mm
TS 105	top-hat type tappet shim	5.5mm	8.5mm	2.0mm	1.5mm-5mm
TS 108	top-hat type tappet shim	9mm	13mm	3.0mm	1.5mm-5mm
TS 109	top-hat type tappet shim	7.15mm (9/32)	10mm	2.4mm	1.5mm-5mm
TS 112	top-hat type tappet shim	6mm	7.8mm	3.0mm	1.5mm-5mm
TS 126	top-hat type tappet shim	7.95mm (5/16)	12mm	3.0mm	1.5mm-5mm
TS 127	top-hat type tappet shim	8.74mm (11/32)	12.75mm	3.0mm	1.5mm-5mm



#### SEMI-FINISHED

Part Number	Description	Internal Diameter	External Diameter	Internal Depth	Pad Thickness Available
TS 102 SF	top-hat type tappet shim	7mm	10mm	2.4mm	3.2/4.2/5.2mm
TS 104 SF	top-hat type tappet shim	8mm	11mm	2.5mm	3.2/4.2/5.2mm
TS 105 SF	top-hat type tappet shim	5.5mm	8.5mm	2.0mm	3.2/4.2/5.2mm
TS 108 SF	top-hat type tappet shim	9mm	13mm	3.0mm	3.2/4.2/5.2mm
TS 109 SF	top-hat type tappet shim	7.15mm (9/32)	10mm	2.4mm	3.2/4.2/5.2mm
TS 112 SF	top-hat type tappet shim	6mm	7.8mm	3.0mm	3.2/4.2/5.2mm
TS 126 SF	top-hat type tappet shim	7.95mm (5/16)	12mm	3.0mm	3.2/4.2/5.2mm
TS 127 SF	top-hat type tappet shim	8.74mm (11/32)	12.75mm	3.0mm	5.2mm



Note: Pad thickness to be finished by the custoimer to no less than 1.5mm

For custom Tappet Shim enquiries please complete Arrow's online **Tappet Shim Request Form** 

Or contact our sales department direct via email. enquiries@arrowprecision.com









www.arrowprecision.com

Our Sales Department can be contacted during normal office opening hours between 9am - 5pm GMT. Alternatively you can <u>email</u> or fax us at the details below.

You can purchase many of our stock items and the complete range of ARP products via Arrow's **online-store**. On the **website** you will also find online request forms to enquire about custom crankshafts, connecting rods and cam-followers plus regularly updated stock lists and news covering all aspects of our business. Information on all of our products including technical information on component care can also be found.

Arrow Precision Engineering Limited are an ISO 9001:2015 Accredited Company.

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#### Disclaime

Arrow Precision Engineering Ltd reserve the right to change the specifications or availability of any product at any time.

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