

# DH SERIES

DIAMOND HONE HEADS

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- 2 K R SDO MIN: SPOTFICE

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# SUNNEN'S DH-SERIES DIAMOND HONING SYST MULTI-POINT CUTTING ACTION





Sunnen Products Company, the leader in engine honing equipment, has developed a competitively priced diamond honing system that can be used on Sunnen's SV-15 cylinder hone. It is ideal for many applications from low- to high-production.

With multiple points of cutting action, Sunnen's DH Diamond Hone Head offers truly round cylinder bores -- superior to any product on the market. Two designs of stones are offered, with eight points of contact for great performance or double that, 16 points, for extreme life and bore tolerance.

No matter what model you chose, Sunnen's DH Hone Head uses a central drive shaft assembly. This design gives you the flexibility to change diameter ranges by simply switching the body and stone assembly. You can purchase the complete system or only the diameter range you need.

Sunnen offers the largest range of diamond hone heads in the industry - from 2.75 in to 5.555 in (69.9

0.025 LG H 0.013/20° LG H

# ΤΕΜ



to 141.1 mm). It is versatile as well. You can use metal bond superabrasives and PHT plateau brushes. With Sunnen's DH tooling, stones and holders are made as one which reduces initial truing time. With Sunnen's precision abrasives, there is no need to flip stones ... another time saver.

With the Sunnen DH Diamond Hone Head you get the complete system. Sunnen manufactures the abrasives, hone head and coolant. Only Sunnen has a facility dedicated to the research, development and manufacture of honing abrasives and coolants.

All of Sunnen's DH Tools are manufactured in the U.S.A. to the highest standards in the industry with the quality that Sunnen customers have come to expect.



Your Sunnen Technical Specialist will work with you to determine the best solution for your needs – it's all part of the added value you get with Sunnen. Plus, our worldwide sales and service team provides comprehensive support for the installation and operation of every system we make.

Whatever your need, we have the expertise and product range to create the right solution for you and the dedication to support you for the long run.

To find the Sunnen representative nearest you, visit our website: www.sunnen.com

### Multi-Point Cutting Action for a Truly Round Bore Ideal on Sunnen's SV-15

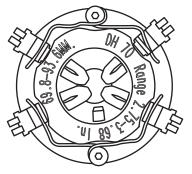
- Multi-point cutting action
- Even distribution of load for faster, rounder bores
- Greatly improved productivity
- Better Engine Performance



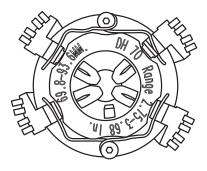
Sunnen's SV-15 vertical honing system and DH hone head allows for unattended operation and the decreased cycle time delivers time and money savings over the CK-3000/3500 hone heads which use fewer abrasives.



4 Stone - 8 Cutting Edges



4 Stone - 16 Cutting Edges



### Individual Components

| DH-DA   | Drive shaft assembly only. Common to all hone bodies. |
|---------|---|
| DHT-70  | Hone body only. Range 2.75 - 3.68 in                  |
| DHT-93  | Hone body only. Range 3.68 - 4.62 in                  |
| DHT-117 | Hone body only. Range 4.62 - 5.55 in                  |
| DH-224  | Stone retaining spring                                |
| DH-228A | Diamond dressing stick                                |

## DHTKIT - Complete System for 2.75 - 5.55 in includes:

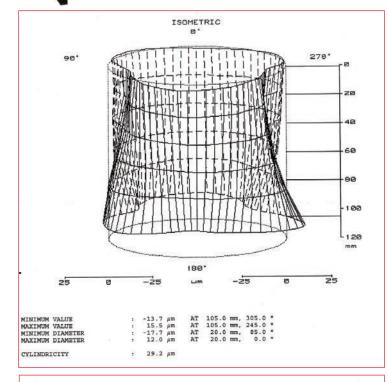


DH-DA Drive shaft assembly DH-70 Hone body DH-93 Hone body DH-117 Hone body

DH-206 (drive shaft tube) and DH-208 (feed hex rod) are available to lengthen the standard DH-DA drive assembly from 13.5 in to 24.5 in.



# DH-Series Diamond Hone Heads Actual Test Results



ISOMETRIC Ø. 270\* 90 10 20 30 40 50 60 70 80 90 100 110 180 25 25 -25 Lm Ø MINIMUM VALUE MAXIMUM VALUE MINIMUM DIAMETER MAXIMUM DIAMETER AT 40.0 AT 100.0 AT 40.0 AT 100.0 mm, 105.0 mm, 0.0 mm, 100.0 -6.1 μm 4.0 μm -10.2 μm 6.1 μm CYLINDRICITY 10.1 µm

Engine: Vortex G

Cylindricity measured using PAT Incometer Portable Form Measurement and Analysis Unit.

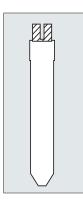
LEFT: Company X 4-Stone Diamond Hone Head

#### LEFT: Sunnen's DH-4S Multiple Point Diamond Hone Head

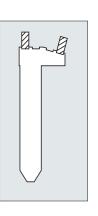
### DH DIAMOND HONE HEAD SIZE RANGES

|        |          |          |            |       | Minim  | num Maxir | num    | Available* |           |
|--------|----------|----------|------------|-------|--------|-----------|--------|------------|-----------|
| Body   | 2-Stone* | 4-Stone* | PHT Brush* | mm    | inches | mm        | inches | Stones     | Grit Size |
| DHT70  | DH2S-1   | N/A      | DH1B-1-534 | 69,9  | 2.750  | 77,7      | 3.062  |            |           |
| DHT70  | DH2S-2   | N/A      | DH1B-2-534 | 77,7  | 3.062  | 85,7      | 3.374  | NMH55      | 220       |
| DHT70  | DH2W-3   | DH4S-3   | DH1B-3-534 | 85,7  | 3.374  | 93,6      | 3.686  |            |           |
| DHT93  | DH2W-4   | DH4S-4   | DH1B-4-534 | 93,6  | 3.686  | 101,5     | 3.998  | GMH45      | 150       |
| DHT93  | DH2W-5   | DH4S-5   | DH1B-5-534 | 101,5 | 3.998  | 109,5     | 4.310  | GMH55      | 220       |
| DHT93  | DH2W-6   | DH4S-6   | DH1B-6-534 | 109,5 | 4.310  | 117,4     | 4.622  | GMH75      | 320       |
| DHT117 | DH2W-7   | DH4S-7   | DH1B-7-534 | 117,4 | 4.622  | 125,3     | 4.933  | GMH85      | 400       |
| DHT117 | DH2W-8   | DH4S-8   | DH1B-8-534 | 125,3 | 4.933  | 133,2     | 5.244  | RMH95      | 500       |
| DHT117 | DH2W-9   | DH4S-9   | DH1B-9-534 | 133,2 | 5.244  | 141       | 5.555  | RMH05      | 600       |

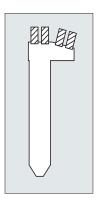
Order example: DHS-1xxx(stone #), DHS-1 N M H 65 Call Sunnen for additional stone availability



DH2S & DHH

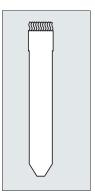


DH2W



DH4S

Superior or optimum roundness, more expensive, 4-stone will last longer, 16 cutting edges versus 8.





Plateau PHT Brushes



#### A LEGACY OF EXCELLENCE SINCE 1924.

#### WORLDWIDE

Our global manufacturing, distribution, and sales and service network allows us to deliver quality Sunnen solutions worldwide.

And our state-of-the-art Technical Services Centers allow our technical experts to develop innovative solutions to customer application challenges. The Centers also provide answers for customer questions and training for Sunnen representatives around the world.

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