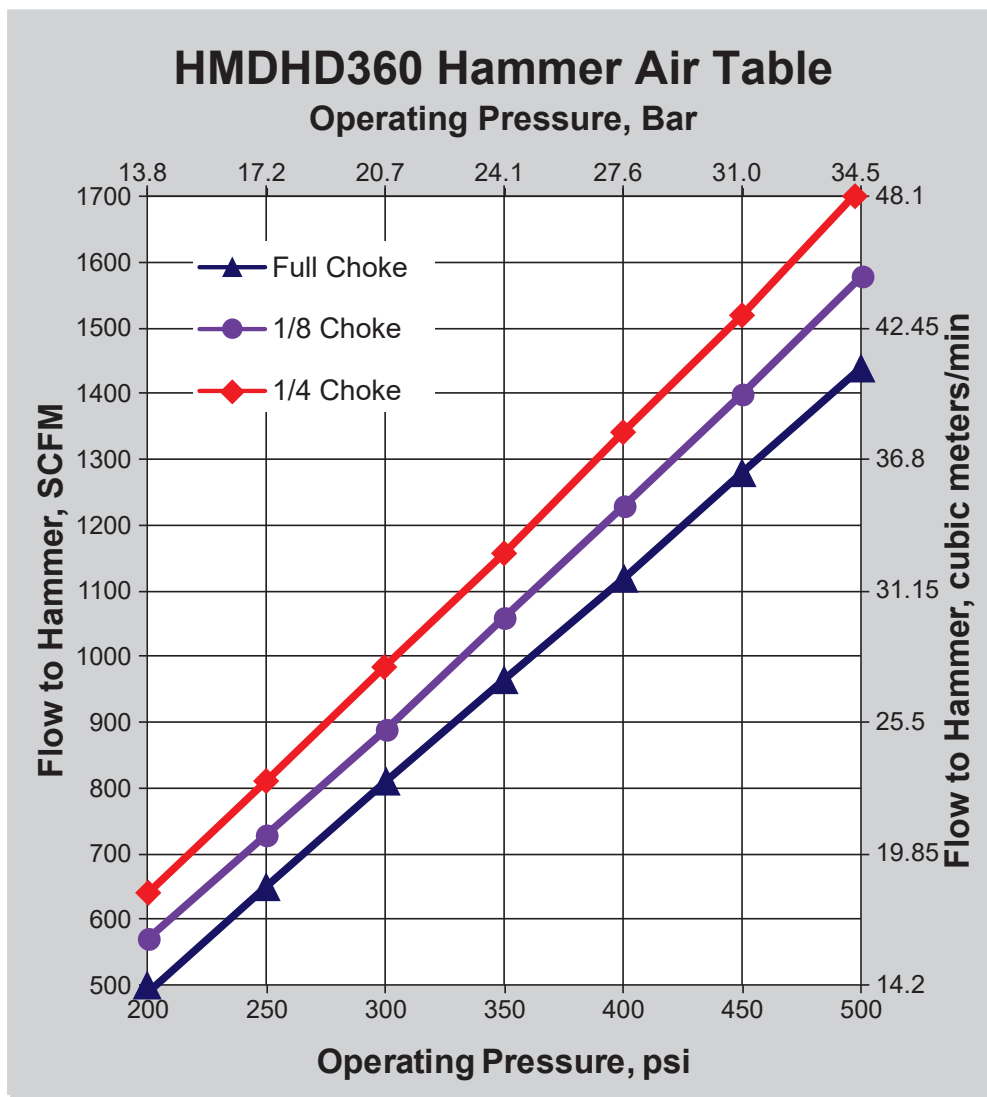


# 6" 360 MD HAMMER-HMDHD360&HMDHD360H

## HMDHD360&HMDHD360H:

This High Performance Hammer was designed with production drilling in mind. It is designed best for Water Well and Geothermal drilling, but can be used in blast hole drilling applications. The HMDHD360&HMDHD360H's non-ported, air craft quality steel piston is the only moving part in the hammer which limits internal wear and yields maximum penetration rates. Its wearsleeve is reversible and double heat treated for maximum life.



**MMC RYOTEC Corporation**

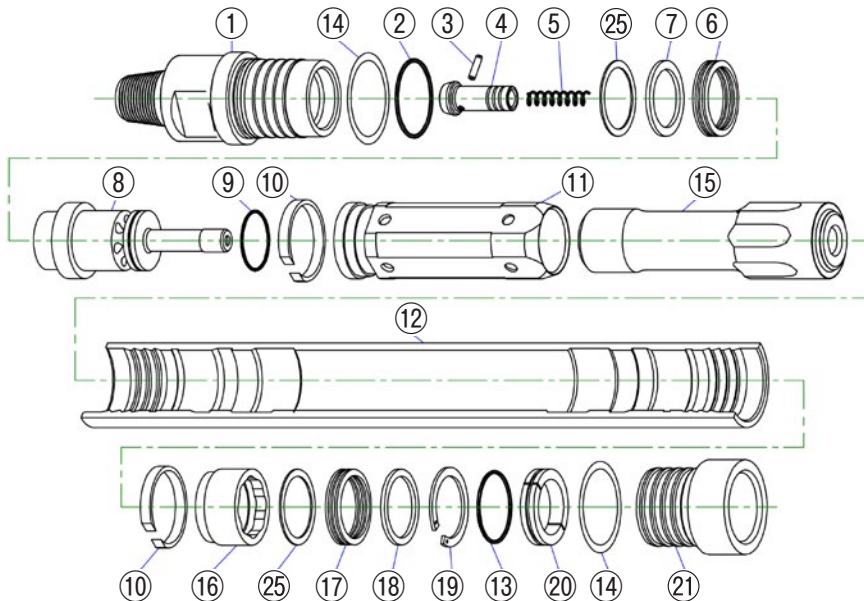
A Group Company of MITSUBISHI MATERIALS

# Parts List

Shown at the right side of the chart is the quantity of spare parts that should be kept on hand. Level 1 is for water well drilling, Level 3 is for high production drilling.

HMDHD360&HMDHD360H

| ITEM No                               | PART No               | QTY REQD | PART NAME                              | WEIGHT |       | SPARE PARTS ON HAND |         |         |
|---------------------------------------|-----------------------|----------|--|--------|-------|---------------------|---------|---------|
|                                       |                       |          |  | LBS    | KGS   | LEVEL 1             | LEVEL 2 | LEVEL 3 |
| 1                                     | HP-BKH-MD61-0223      | 1        | Back Head, 3 1/2" API Reg. Pin Up      | 41.5   | 18.8  | —                   | —       | 1       |
| 1                                     | HP-BKH-MD61HD-0218    | 1        | H.D. Back Head, 3 1/2" API Reg. Pin Up | 43.5   | 19.7  | —                   | —       | 1       |
| 2                                     | HP-ORG/BKH-0102       | 1        | O-Ring for Backhead                    |        |       | 1                   | 2       | 4       |
| 3                                     | HP-CST-0054           | 1        | Choke Set                              |        |       | —                   | —       | 1       |
| 4                                     | HP-CKV-RH6-0048       | 1        | Check Valve Assembly                   | 0.8    | 0.36  | —                   | —       | 1       |
| 5                                     | HP-CVS-0050           | 1        | Check Valve Spring                     | 0.05   | 0.02  | —                   | 1       | 2       |
| 6                                     | HP-WSR-0155           | 1        | Washer                                 | 0.36   |       | —                   | —       | 1       |
| 7                                     | HP-DSC-0078           | 4        | Disc Spring                            | 0.68   | 0.31  | —                   | 4       | 8       |
| 8                                     | HP-ADB-MD60-0006      | 1        | Air Distributor                        | 15     | 6.8   | —                   | —       | 1       |
| 9                                     | HP-ORG/ADB-0090       | 1        | O-Ring for Air Distributor             | 0.01   | 0     | —                   | 1       | 2       |
| 10                                    | HP-PRR-0133           | 1        | Retaining Ring for Cylinder & Piston   | 0.56   | 0.25  | —                   | —       | 2       |
| 11                                    | HP-CLD-MD6S-0076      | 1        | Cylinder                               | 12.3   | 5.58  | —                   | —       | 1       |
| 12                                    | HP-WSV-MD6S-0225      | 2        | Wear Sleeve                            | 90     | 40.8  | 1                   | 2       | 3       |
| 12                                    | HP-WSV-MD6SHD-0215    | 2        | Heavy Duty Wear Sleeve                 | 121    | 54.9  | 1                   | 2       | 3       |
| 13                                    | HP-ORG/BRR-0108       | 1        | O-Ring for Bit Retaining Ring          | 0.01   |       | —                   | 1       | 2       |
| 14                                    | HP-BOW-0040           | 1        | Breakout Washer                        | 0.03   | 0.014 | 1                   | 2       | 4       |
| 15                                    | HP-PST-MD6S-0128      | 1        | Piston                                 | 45     | 20.4  | —                   | —       | 1       |
| 16                                    | HP-BRG-MD6S-0024      | 1        | Bearing                                | 4.5    | 2.04  | —                   | —       | 1       |
| 17                                    | HP-DSC-0078           | 4        | Disc Spring                            | 0.68   | 0.31  | —                   | 4       | 8       |
| 18                                    | HP-WSR-0155           | 1        | Washer                                 | 0.36   |       | —                   | —       | 1       |
| 19                                    | HP-SNR-0146           | 1        | Snap Ring                              | 0.32   |       | —                   | —       | 1       |
| 20                                    | HP-BRR-0029           | 1        | Bit Retaining Ring                     | 1.65   | 0.75  | —                   | —       | 1       |
| 21                                    | HP-CHK-MD6-0224       | 1        | Chuck                                  | 14     | 6.3   | 2                   | 4       | 6       |
| 21                                    | HP-CHK-MD6HD-0214     | 1        | Heavy Duty Chuck                       | 15.4   | 7     | 2                   | 4       | 6       |
| THE FOLLOWING PARTS ARE SOLD SEPARATE |                       |          |  |        |       |                     |         |         |
| 25                                    | HP-MUW-0181           |          | Make Up Washer                         |        |       |                     |         | 1       |
| —                                     | HP-RBDKIT-MD6S-0226   |          | Rebuild Kit                            |        |       |                     |         | 1       |
| —                                     | HP-RBDKIT-MD6SHD-0193 |          | Heavy Duty Rebuild Kit                 |        |       |                     |         | 1       |



# Hammer Specification

|   | English   | Metric   |
|---|---|----------|
| <b>Outside Dia</b>                              |   |          |
| Standard Model                                  | 5.46 in   | 139 mm   |
| Heavy Duty Model                                | 5.75 in   | 146 mm   |
| <b>Overall Length Without Bit</b>               |   |          |
|   | 53.0 in   | 1346 mm  |
| <b>Total Weight</b>                             |   |          |
| Standard Model                                  | 215 lbs   | 97.5 kg  |
| Heavy Duty Model                                | 248 lbs   | 112.5 kg |
| <b>Bore Size</b>                                |   |          |
|   | 4.44 in   | 113 mm   |
| <b>Piston Weight</b>                            |   |          |
|   | 45 lbs  | 20.4 kg  |
| <b>Drillpipe Connect</b>                        |   |          |
|   | 3-1/2 Reg API Pin Up<br>others available upon request |          |
| <b>Wrench Flats</b>                             |   |          |
|   | 4 in  | 102 mm   |
| <b>Hole Size Range</b>                          |   |          |
| Standard Model                                  | 6 in to 8-1/2 in                                      |          |
| Heavy Duty Model                                | 6-1/4 in to 8-1/2 in                                  |          |
| <b>Bit Shank Required</b><br>RH6Si Models       |   |          |
|   | 360   |          |
| <b>Minimum Air Volume Required</b>              |   |          |
|   | 750 cfm   | 21 cmm   |
| <b>Maximum Operating Pressure</b><br>All Models |   |          |
|   | 350 psi   | 23.8 bar |

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