

# 5" QL5&350 MD HAMMER-HMDHQ50&HMDHD350

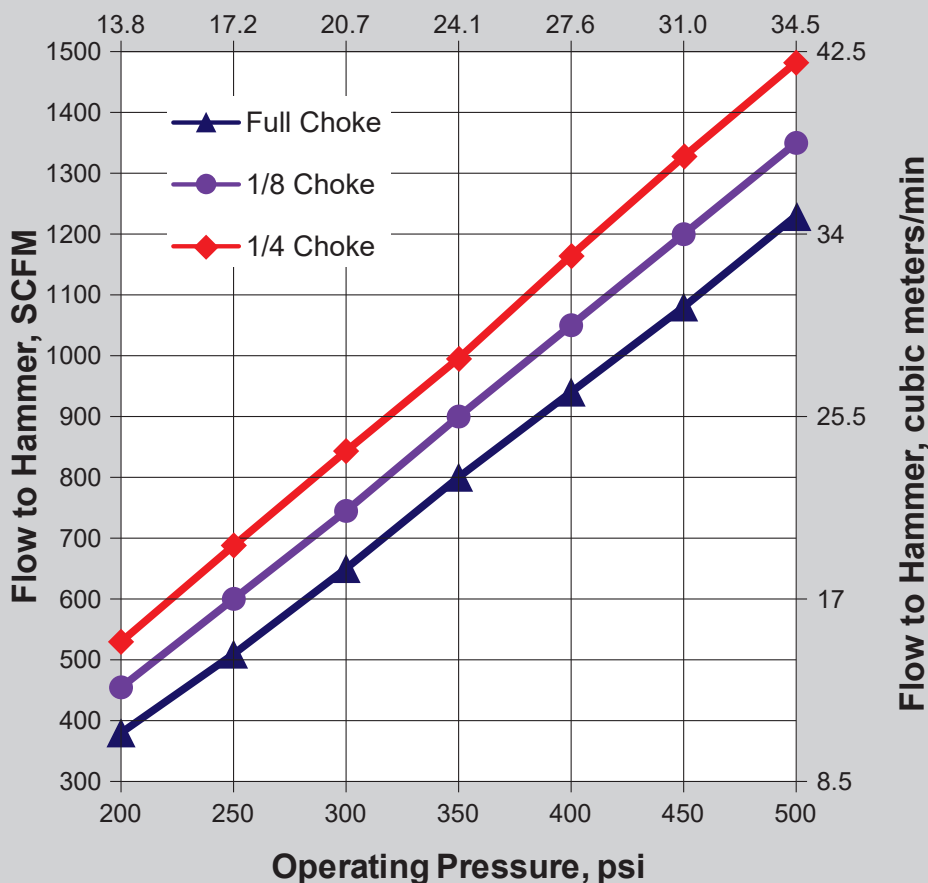
## HMDHQ50&HMDHD350:

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 **HMDHQ50&HMDHD350'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.



**HMDHQ50&HMDHD350 Hammer Table Air**  
Operating Pressure, Bar



# Hammer Specification

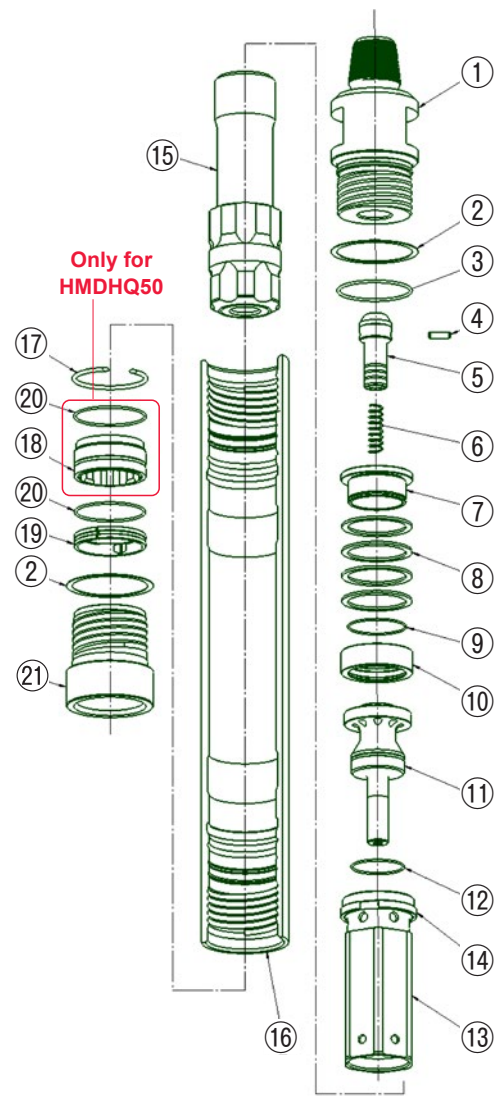
|                                                  | English                                               | Metric           |
|--------------------------------------------------|-------------------------------------------------------|------------------|
| <b>Outside Dia</b>                               | 4.53 in                                               | 115 mm           |
| <b>Overall Length Without Bit</b>                |                                                       |                  |
| HMDHQ50                                          | 47.2 in                                               | 1199 mm          |
| HMDHD350                                         | 48.2 in                                               | 1222 mm          |
| <b>Operating Length API shoulder to Bit Face</b> |                                                       |                  |
| HMDHQ50                                          | 47.1 in                                               | 1196 mm          |
| HMDHD350                                         | 48.1 in                                               | 1222 mm          |
| <b>Total Weight</b>                              | 139 lbs                                               | 63 kg            |
| <b>Bore Size</b>                                 | 3.71 in                                               | 94.2 mm          |
| <b>Piston Weight</b>                             | 30 lbs                                                | 13.6 kg          |
| <b>Drillpipe Connect</b>                         | 3-1/2 Reg API Pin Up<br>others available upon request |                  |
| <b>Wrench Flats</b>                              | 3.5 in                                                | 88.9 mm          |
| <b>Hole Size Range</b>                           | 5 in to 6 in                                          | 127 mm to 152 mm |
| <b>Bit Shank Required</b>                        | HMDHQ50 QL50<br>HMDHD350 350R                         |                  |
| <b>Minimum Air Volume Required</b>               | 250 cfm                                               | 7 cmm            |
| <b>Maximum Operating Pressure</b>                | 500 psi                                               | 34 bar           |

## 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.

HMDHQ50 & HMDHD350

| ITEM No                               | PART No                   | QTY REQD | PART NAME                                                    | WEIGHT |       | SPARE PARTS ON HAND |         |         |
|---------------------------------------|---------------------------|----------|--------------------------------------------------------------|--------|-------|---------------------|---------|---------|
|                                       |                           |          |                                                              | LBS    | KGS   | LEVEL 1             | LEVEL 2 | LEVEL 3 |
| 1                                     | HP-BKH-MD5Q1-0014         | 1        | Back Head, 3 1/2" API Reg. Pin-Up                            | 30.5   | 13.9  | —                   | —       | 1       |
| 2                                     | HP-BOW-0039               | 2        | Breakout Washers                                             | 0.03   | 0     | —                   | 2       | 4       |
| 3                                     | HP-ORG/BKH-0101           | 1        | O-Ring, Back Head                                            | 0.01   |       | 1                   | 2       | 4       |
| 4                                     | HP-CST-0054               | 1        | Choke Set                                                    | 0.01   |       | —                   | —       | —       |
| 5                                     | HP-CKV-RH6-0048           | 1        | Check Valve Assy.                                            | 0.58   | 0.26  | —                   | —       | 1       |
| 6                                     | HP-CVS-0050               | 1        | Spring Check Valve                                           | 0.3    | 0.14  | —                   | 1       | 2       |
| 7                                     | HP-GUR-0085               | 1        | Guide Ring                                                   | 0.9    | 0.41  | —                   | —       | —       |
| 8                                     | HP-DSC-0080               | 4        | Disc Spring                                                  | 0.25   | 0.11  | —                   | —       | 4       |
| 9                                     | HP-ORG/GUR-0116           | 1        | O-Ring, Guide Ring                                           | 0.01   |       | —                   | 1       | 2       |
| 10                                    | HP-SPT-0147               | 1        | Spacer Ring                                                  | 1.4    | 0.64  | —                   | —       | —       |
| 11                                    | HP-ADB-MD50-0004          | 1        | Air Distributor                                              | 4.5    | 2.05  | —                   | —       | 1       |
| 12                                    | HP-ORG/ADB-0094           | 1        | O-Ring, Air Distributor & Bearing                            | 0.01   |       | 1                   | 2       | 4       |
| 13                                    | HP-CLD-MD50-0072          | 1        | Cylinder Assy. (Includes Cyl Ret Ring)                       | 7      | 3.2   | —                   | 1       | 2       |
| 14                                    |                           | 1        | RETAINING RING, COMES ON CYLINDER 13                         | 0.45   | 0.2   | —                   | —       | —       |
| 15                                    | HP-PST-MD50-0123          | 1        | Piston for HMDHQ50                                           | 30     | 13.6  | —                   | 1       | 1       |
| 15                                    | HP-PST-MD50R-0124         | 1        | Piston for HMDHD350                                          | 30     | 13.6  | —                   | 1       | 1       |
| 16                                    | HP-WSV-MD50-0159          | 1        | Wear Sleeve                                                  | 50     | 22.7  | 1                   | 2       | 3       |
| 17                                    | HP-RRG/PST-0145           | 1        | Bearing, Piston Retaining Ring                               | 0.14   | 0.064 | —                   | —       | —       |
| 18                                    | HP-BRG-MD50-0026          | 1        | Bearing for HMDHQ50                                          | 1      | 0.455 | —                   | 1       | 1       |
| 18                                    | part not used in HMDHD350 |          |                                                              |        |       |                     |         |         |
| 19                                    | HP-BRR-0032               | 1        | Bit Retaining Ring                                           | 0.65   | 0.295 | —                   | 1       | 1       |
| 20                                    | HP-BRG-0025               | 1 or 2   | "O-Ring, Bit Retaining Ring<br>2 for HMDHQ50, 1 for HMDH350" | 0.01   |       | 1 or 2              | 2 or 4  | 3 or 6  |
| 21                                    | HP-CHK-MD5Q-0060          | 1        | Chuck for HMDHQ50                                            | 7.9    | 3.6   | 2                   | 4       | 6       |
| 21                                    | HP-CHK-MD50R-0212         | 1        | Chuck for HMDHD350                                           | 11     | 5     | 2                   | 4       | 6       |
| THE FOLLOWING PARTS ARE SOLD SEPARATE |                           |          |                                                              |        |       |                     |         |         |
| —                                     | HP-MUW-0178               |          | Make-Up Washer                                               |        |       |                     |         | 1       |
| —                                     | HP-RBDKIT-MD50Q-0187      |          | Rebuild Kit for HMDHQ50                                      |        |       |                     |         | 1       |
| —                                     | HP-RBDKIT-MD50-0188       |          | Rebuild Kit for HMDHD350                                     |        |       |                     |         | 1       |



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