

# 9.62 in (244mm) Bottom w/ 8 in (203mm) 7-8 Lobe 5.9 Stage HR MUD LUBE

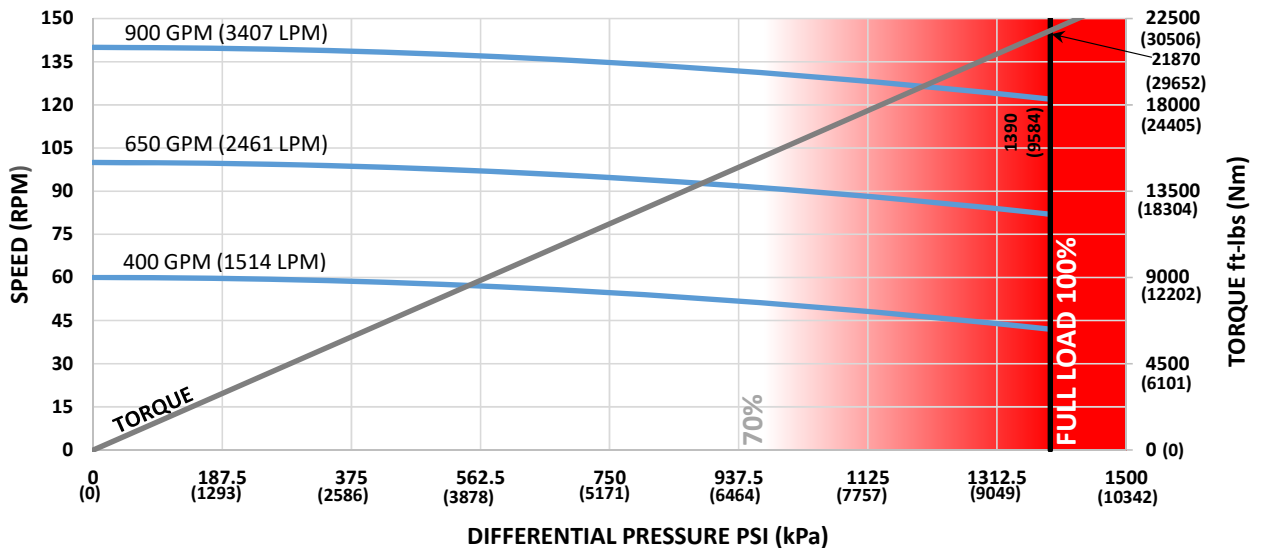


|  |   |                  |
|--|---|------------------|
| <b>Bit Size Range</b>                      | 12-1/4 - 17-1/2 in                                | 311 - 445 mm     |
| <b>Bit Box Connection</b>                  | 6-5/8 or 7-5/8 REGULAR                            |                  |
| <b>Dynamic Bearing Load On/Off Bottom</b>  | 188513 lbf  | 83900 daN        |
| <b>Static Bearing Load On/Off Bottom</b>   | 1092750 lbf                                       | 486100 daN       |
| <b>Max. Overpull (For Re-run)</b>          | 721400 lbf  | 320900 daN       |
| <b>Absolute Overpull</b>                   | 1202300 lbf                                       | 534800 daN       |
| <b>Adjustable Makeup Torque</b>            | 60000 ft-lbs                                      | 81300 Nm         |
| <b>Stab/Thread Protector Makeup Torque</b> | 38000 ft-lbs                                      | 51500 Nm         |
| <b>A = Bit to Stabilizer (Centre)</b>      | 24.58 in  | 0.62 m           |
| <b>B = Bit to Bend</b>                     | <b>Adjustable</b> 88.3 in<br><b>Fixed</b> 72.8 in | 2.24 m<br>1.85 m |
| <b>C = Overall (With Dump Sub)</b>         | 457.2 in  | 11.61 m          |
| <b>Weight</b>                              | 5549 lb   | 2517 kg          |

|                                      |                       |            |
|--------------------------------------|-----------------------|------------|
| <b>Lobe Configuration</b>            | 7-8 Lobe 5.9 Stage HR |            |
| <b>Displacement (No Load)</b>        | 0.16 rev/gal          | 0.04 rev/l |
| <b>Max. Differential (Full Load)</b> | 1390 psi              | 9584 kPa   |
| <b>Max. Torque</b>                   | 21870 ft-lbs          | 29652 Nm   |
| <b>Max. Power</b>                    | 508 HP                | 379 kW     |

| Flow Rate |      | Speed     |
|-----------|------|-----------|
| GPM       | LPM  | RPM       |
| 400       | 1514 | 42 - 60   |
| 650       | 2461 | 82 - 100  |
| 900       | 3407 | 122 - 140 |

8 in (203mm) 7-8 Lobe 5.9 Stage HR



Possible damage may occur when motor is run higher than 70% of Maximum Differential Pressure.

ADJUSTABLE BUILD RATE

| Hole Size         | SLICK                      |            |            |                | STABILIZED                 |            |            |                |
|-------------------|----------------------------|------------|------------|----------------|----------------------------|------------|------------|----------------|
|                   | 12-1/4 (311mm)             | 14 (356mm) | 16 (406mm) | 17-1/2 (445mm) | 12-1/4 (311mm)             | 14 (356mm) | 16 (406mm) | 17-1/2 (445mm) |
| <b>BEND ANGLE</b> | Degrees per 100 Feet (30m) |            |            |                | Degrees per 100 Feet (30m) |            |            |                |
| 0.39              | -                          | -          | -          | -              | 2.8                        | 3.5        | -          | -              |
| 0.78              | 1.9                        | -          | -          | -              | 4.6                        | 5.3        | 6.1        | 6.7            |
| 1.15              | 4.0                        | 1.3        | -          | -              | 6.3                        | 7.0        | 7.8        | 8.4            |
| 1.50              | 5.9                        | 3.2        | 0.2        | -              | 7.9                        | 8.6        | 9.4        | 10.0           |
| 1.83              | 7.7                        | 5.0        | 2.0        | -              | 9.4                        | 10.1       | 10.9       | 11.5           |
| 2.12              | 9.3                        | 6.6        | 3.6        | 1.3            | 10.8                       | 11.5       | 12.2       | 12.8           |
| 2.38              | 10.7                       | 8.0        | 5.0        | 2.7            | 12.0                       | 12.7       | 13.4       | 14.0           |
| 2.60              | 11.9                       | 9.2        | 6.2        | 3.9            | 13.0                       | 13.7       | 14.5       | 15.0           |
| 2.77              | 12.8                       | 10.2       | 7.1        | 4.9            | 13.8                       | 14.4       | 15.2       | 15.8           |
| 2.90              | 13.5                       | 10.9       | 7.8        | 5.6            | 14.4                       | 15.0       | 15.8       | 16.4           |
| 2.97              | 13.9                       | 11.3       | 8.2        | 6.0            | 14.7                       | 15.4       | 16.2       | 16.7           |
| 3.00              | 14.1                       | 11.4       | 8.4        | 6.1            | 14.8                       | 15.5       | 16.3       | 16.9           |

Note: Stabilizers are 1/8" undergauge

FBH BUILD RATE

| Hole Size         | SLICK                      |            |            |                | STABILIZED                 |            |            |                |
|-------------------|----------------------------|------------|------------|----------------|----------------------------|------------|------------|----------------|
|                   | 12-1/4 (311mm)             | 14 (356mm) | 16 (406mm) | 17-1/2 (445mm) | 12-1/4 (311mm)             | 14 (356mm) | 16 (406mm) | 17-1/2 (445mm) |
| <b>BEND ANGLE</b> | Degrees per 100 Feet (30m) |            |            |                | Degrees per 100 Feet (30m) |            |            |                |
| 1.25              | 4.3                        | 1.2        | -          | -              | 7.0                        | 7.7        | 8.5        | 9.1            |
| 1.50              | 5.7                        | 2.5        | -          | -              | 8.2                        | 8.9        | 9.7        | 10.3           |
| 1.75              | 7.0                        | 3.9        | 0.3        | -              | 9.4                        | 10.1       | 10.9       | 11.5           |
| 2.00              | 8.4                        | 5.3        | 1.7        | -              | 10.6                       | 11.3       | 12.1       | 12.7           |
| 2.25              | 9.8                        | 6.6        | 3.1        | 0.4            | 11.8                       | 12.5       | 13.3       | 13.9           |
| 2.50              | 11.1                       | 8.0        | 4.4        | 1.8            | 13.1                       | 13.7       | 14.5       | 15.1           |

This information is for reference only. Build rates are theoretical calculations using three-point geometry and new motor builds. Actual rate predictions will depend on formation characteristics, bit profiles, and WOB.

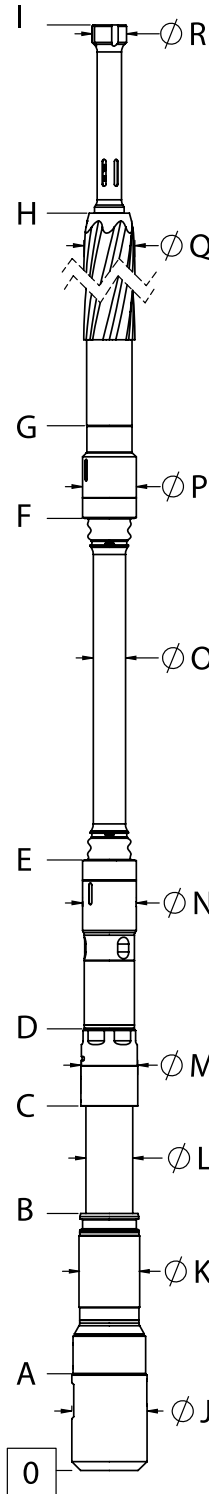
For custom motor configurations and build rates, please contact your DYNOMAX office.

**FISHING DIMENSIONS**

USC - IMPERIAL (Lengths, Diameters = in)  
SI - METRIC (Lengths = m, Diameters = mm)



| EXTERNALS                       |    | USC   | SI    |
|---------------------------------|----|-------|-------|
| LOWER HSG FLOW REST.            | A  | 16.0  | 0.41  |
| BEARING HOUSING START           | B  | 23.1  | 0.59  |
| STABILIZER SHOULDER             | C  | 49.1  | 1.25  |
| BEARING HOUSING END             | D  | 59.5  | 1.51  |
| BIT TO BEND (ADJUSTABLE)        | E1 | 88.3  | 2.24  |
| ADAPTOR HOUSING (ADJUSTABLE)    | F1 | 95.6  | 2.43  |
| BIT TO BEND (FIXED)             | E2 | 72.8  | 1.85  |
| ADAPTOR HSG (FIXED)             | F2 | 85.0  | 2.16  |
| STATOR START                    | G  | 119.7 | 3.04  |
| STATOR END                      | H  | 419.7 | 10.66 |
| OVERALL LENGTH                  | I  | 457.2 | 11.61 |
| BIT BOX Ø                       | J  | 6.00  | 152.4 |
| LOWER HOUSING FLOW RESTRICTOR Ø | K  | 6.62  | 168.1 |
| THREAD PROTECTOR Ø              | L  | 10.75 | 273.1 |
| BEARING HOUSING Ø               | M  | 9.62  | 244.3 |
| KICK OR FIXED HSG Ø             | N  | 9.62  | 244.3 |
| KICK PAD Ø (ADJUSTABLE)         | O1 | 10.13 | 257.3 |
| KICK PAD Ø (FIXED)              | O2 | 10.13 | 257.3 |
| ADJ MANDREL PIN Ø               | P  | 5.60  | 142.2 |
| ADAPTOR HOUSING Ø               | Q  | 9.62  | 244.3 |
| ADAPTOR HOUSING PIN Ø           | R  | 5.65  | 143.5 |
| STATOR TUBE OUTER Ø             | S  | 8.00  | 203.2 |
| STATOR TUBE INNER Ø             | T  | 6.25  | 158.8 |
| ROTOR CATCH SUB BLADE Ø         | U  | 8.25  | 209.6 |
| ROTOR CATCH Ø                   | V  | 8.00  | 203.2 |



| INTERNALS                            |   | USC   | SI    |
|--------------------------------------|---|-------|-------|
| BIT BOX                              | A | 11.0  | 0.28  |
| LOWER SHAFT FLOW RESTRICTOR DIAMETER | B | 29.1  | 0.74  |
| COMPRESSION NUT                      | C | 45.1  | 1.15  |
| BEARING ASSEMBLY ADAPTOR             | D | 53.7  | 1.36  |
| BAA ADAPTOR CAP                      | E | 75.8  | 1.93  |
| ROTOR ADAPTOR CAP                    | F | 109.2 | 2.77  |
| ROTOR START                          | G | 119.0 | 3.02  |
| ROTOR                                | H | 403.5 | 10.25 |
| CATCH STEM                           | I | 419.5 | 10.66 |
| BIT BOX Ø                            | J | 9.00  | 228.6 |
| FLOW RESTRICTOR Ø                    | K | 7.06  | 179.3 |
| MANDREL Ø                            | L | 5.71  | 145.0 |
| COMPRESSION NUT Ø                    | M | 6.79  | 172.5 |
| BEARING ASSEMBLY ADAPTOR Ø           | N | 7.10  | 180.3 |
| DRIVESHAFT Ø                         | O | 3.89  | 98.8  |
| ROTOR ADAPTOR Ø                      | P | 7.10  | 180.3 |
| ROTOR MAJOR Ø                        | Q | 5.19  | 131.7 |
| ROTOR CATCH HEAD Ø                   | R | 4.38  | 111.3 |

This information is for reference only. Assemblies are displayed in an "Adjustable Configuration"

Rotor Catch and Rotor Catch Float Sub Lengths may vary based on configuration, and use of Dump Subs or combination Rotor Catch and Float Housings.

If any additional information is required, please contact your local DYNOMAX office.