





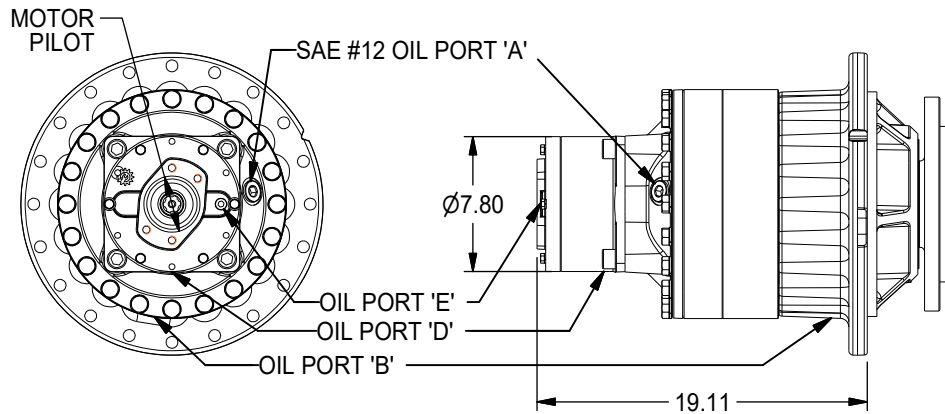
# 312 GEAR DRIVE - SPINDLE OUTPUT

310,000 in-lb (35,000 N-m) Intermittent Rating 160,000 in-lb (18,100 N-m) Continuous Rating  
 Typical Applications: Industrial, Marine or Mobile Equipment

(913) 782-1238 (Tel)  
 (913) 782-4206 (Fax)  
[Sales@Eskridgeinc.com](mailto:Sales@Eskridgeinc.com)  
[www.Eskridgeinc.com](http://www.Eskridgeinc.com)  
 FORM: PS312SL-AC

SHEET 2 OF 4

## 3-stage Option M-28 First Stage (Base Dimensions Identical to 2-Stage Option)



### Available Ratios:

|      |            |
|------|------------|
| 76   | (75.94:1)  |
| 83   | (82.62:1)  |
| 99   | (98.76:1)  |
| *102 | (102.32:1) |
| 111  | (110.93:1) |
| 121  | (120.70:1) |
| *149 | (149.47:1) |
| 151  | (150.93:1) |
| 164  | (164.21:1) |
| *203 | (203.36:1) |

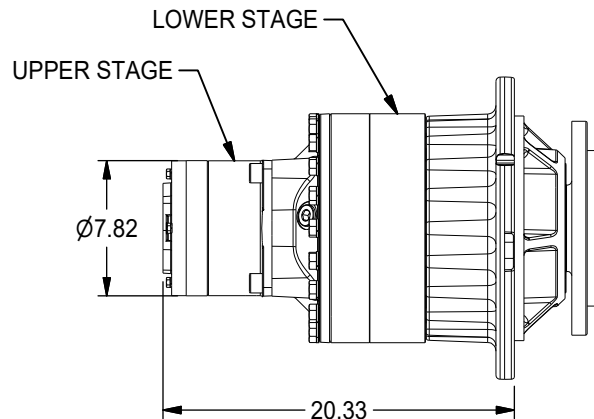
### Input Mounting:

SAE "A" (2 & Modified 4 Bolt)  
 SAE "B" (2 & 4 Bolt)  
 SAE "C" (2 & 4 Bolt)

### Input Spline:

2 (13T 16/32 DP Spline)  
 3 (1"-6B SAE Parallel Sided Spline)  
 4 (14T 12/24 DP Spline)  
 5 (15T 16/32 DP Spline)

## \*3-stage Option M-28 First Stage Code 4 Input for 102:1; 149:1; & 203:1



### Oil Volume (3 Stage With M28) Upper Stage

| LUBRICATION                                | ORIENTATION | HORIZONTAL:          | VERTICAL:<br>PINION DOWN             | VERTICAL:<br>PINION UP |
|--|-------------|----------------------|--------------------------------------|------------------------|
| QUANTITY                                   |             | 1.0 Pt/1.25 (Code 4) | 1.8 Pt/2.25 (Code 4)                 | 1.8 Pt/2.25 (Code 4)   |
| OIL FILL LEVEL<br>(GRADE GL-5<br>EP 80/90) |             | FILL TO: PORT 'C'    | FILL TO: 1.5" FROM<br>COVER PORT 'E' | FILL TO: PORT 'D'      |

### Oil Volume Lower Stage

| LUBRICATION                                | ORIENTATION | HORIZONTAL:       | VERTICAL:<br>PINION DOWN             | VERTICAL:<br>PINION UP |
|--|-------------|-------------------|--------------------------------------|------------------------|
| QUANTITY                                   |             | 6.75 Pt           | 12.75 Pt                             | 12.75 Pt               |
| OIL FILL LEVEL<br>(GRADE GL-5<br>EP 80/90) |             | FILL TO: PORT 'A' | FILL TO: 1.5" FROM<br>COVER PORT 'A' | FILL TO: PORT 'B'      |

All Units Shipped Without Oil



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SHEET 3 OF 4

## Performance Ratings

Maximum Intermittent Output Torque: 310,000 in-lb (35,000 N-m)  
 Continuous Output Torque: 160,000 in-lb (18,100 N-m)  
 Maximum Input Speed: 3,000 RPM  
 Maximum Operating Ambient Temperature: 110° F (43° C)  
 Minimum Operating Ambient Temperature: -20° F (-28° C)

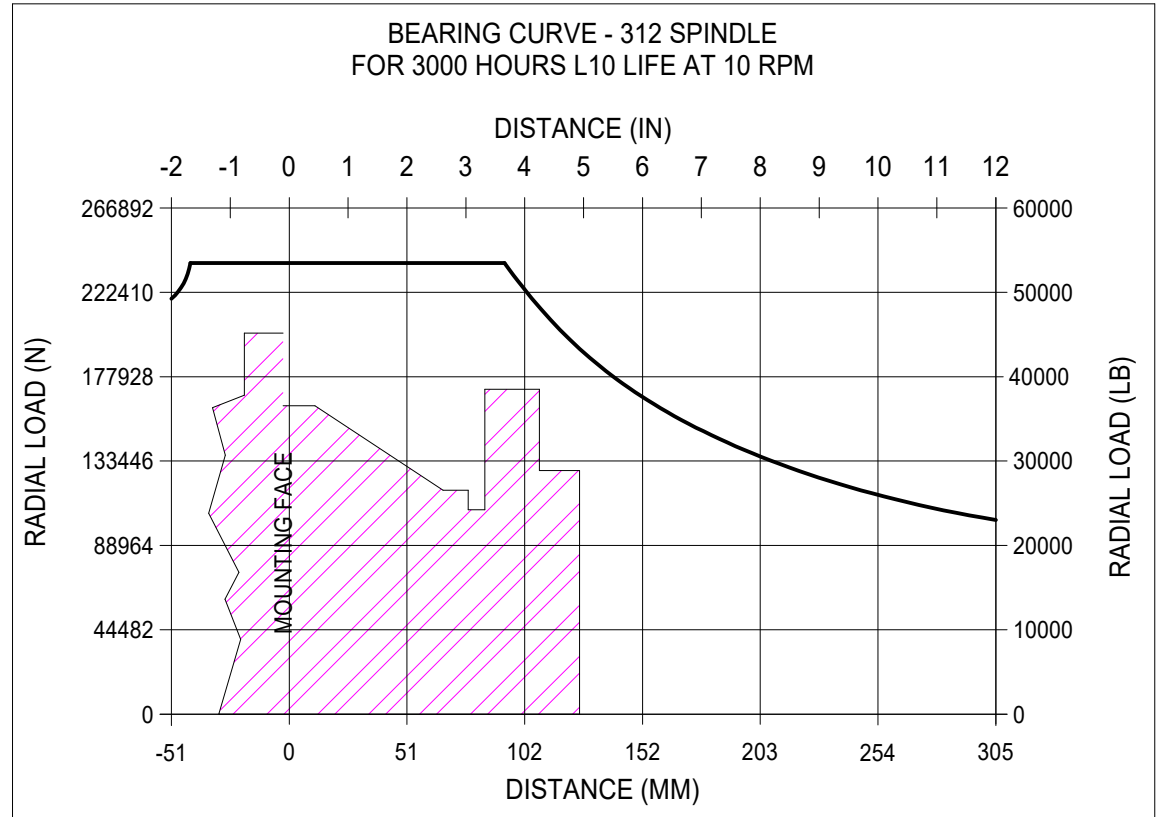
*Above ratings are general, mechanical ratings, not thermal ratings. Continuous duty may require additional cooling. Consult your Eskridge representative to determine ratings for your specific application or configuration*

## Motor Mount Dimensions

| PILOT DIMENSIONS      | BOLT CIRCLE  |
|-----------------------|--|
| *SAE 'A' Ø3.251/3.255 | 4X 1/2-13 UNC-2B ∇.50 ON Ø4.1875 B.C.                                    |
| *SAE 'B' Ø4.001/4.005 | 2X 1/2-13 UNC-2B ∇.50 ON Ø5.750 B.C.                                     |
| SAE 'C' Ø5.001/5.004  | 4X 1/2-13 UNC-2B ∇1 ON Ø6.375 B.C.<br>2X 5/8-11 UNC-2B ∇1 ON Ø7.125 B.C. |
| SAE 'D' Ø6.000/6.004  | 4X 3/4-10 UNC-2B ∇1 ON Ø9.000 B.C.                                       |

## Approximate Unit Weight

Single Stage: -  
 Two Stage: 415 lb  
 Three Stage: 475 lb



To adjust for loads and speeds other than those shown on above curve, use this formula:

$$\text{Adjusted Life (hours)} = 3000 \left( \frac{10 \text{ rpm}}{\text{Speed (Adjusted)}} \right) \times \left( \frac{\text{Load (Curve)}}{\text{Load (Adjusted)}} \right)^{10/3}$$



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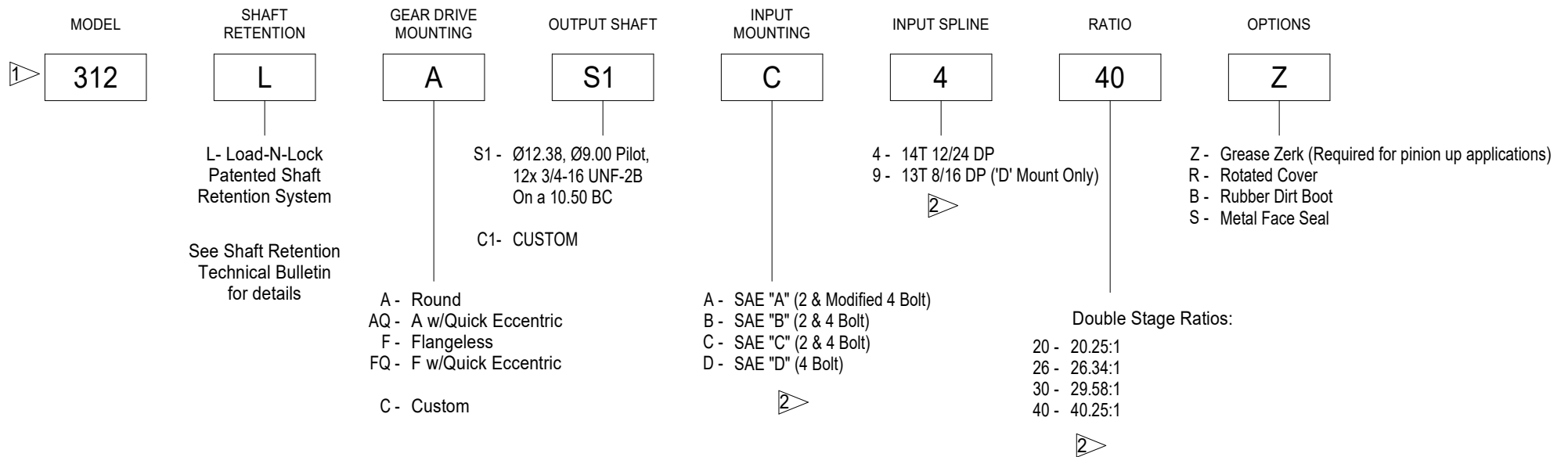
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SHEET 4 OF 4

## Ordering Information

Example Part Number: 312LAS1C4-40-Z



## NOTES: ▷

1. TWO STAGE RATIO GEARBOX SHOWN IN EXAMPLE.
2. THREE STAGE INPUT MOUNTING, INPUT SPLINE AND RATIOS ARE SHOWN ON PAGE 2.