



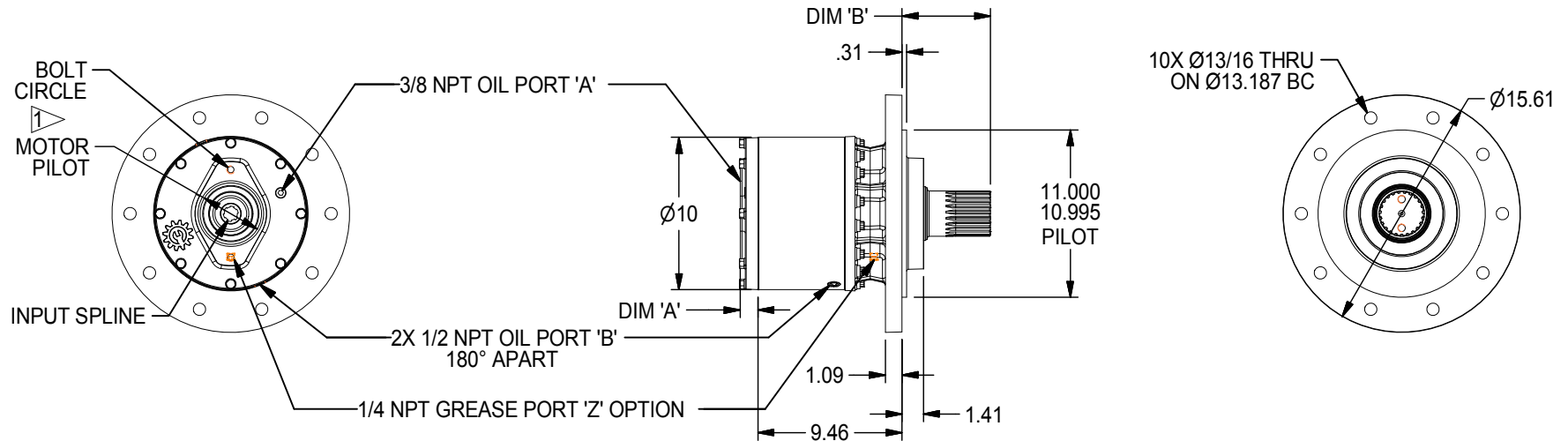
# 160 GEAR DRIVE - SHAFT OUTPUT

160,000 in-lb (18,078 N-m) Intermittent Rating 80,000 in-lb (9,039 N-m) Continuous Rating  
Typical Applications: Industrial, Marine or Mobile Equipment

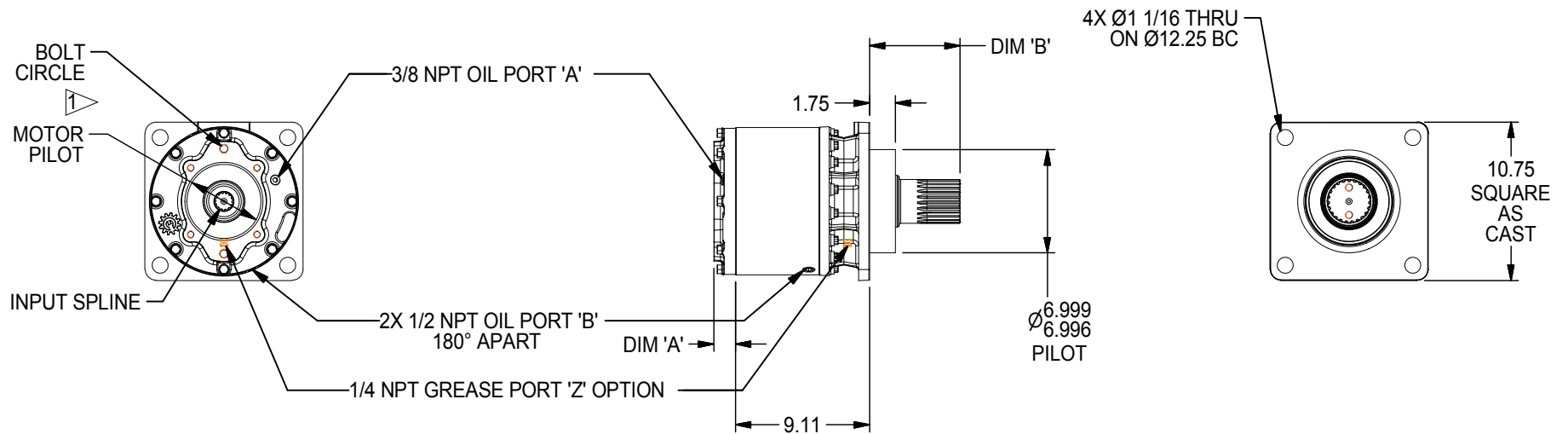
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SHEET 1 OF 9

## 160 1&2-Stage General Dimensions Flanged 'A' Option



## 160 1&2-Stage General Dimensions Square 'B' Option





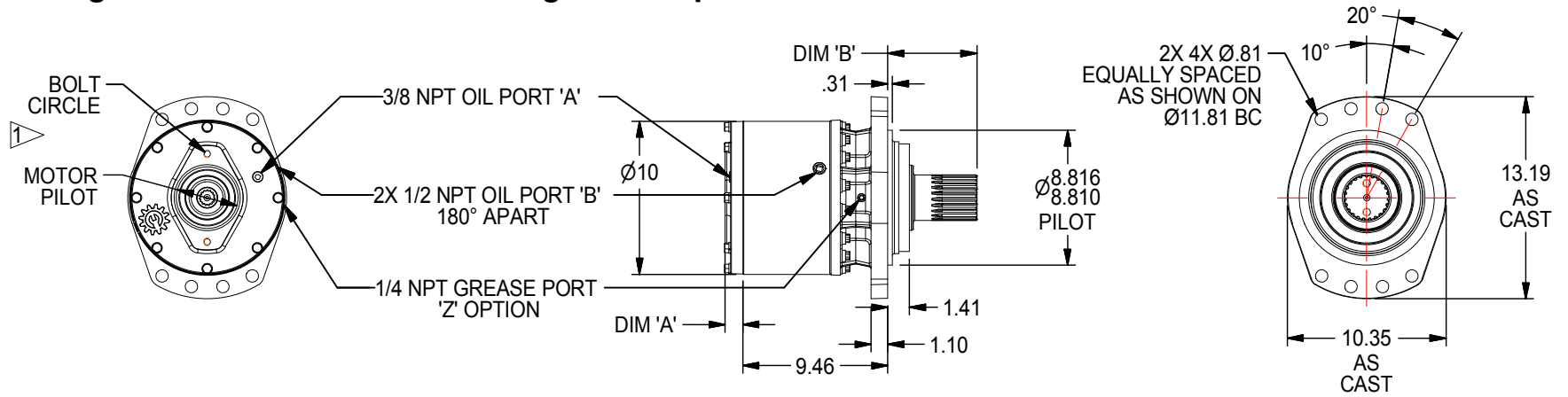
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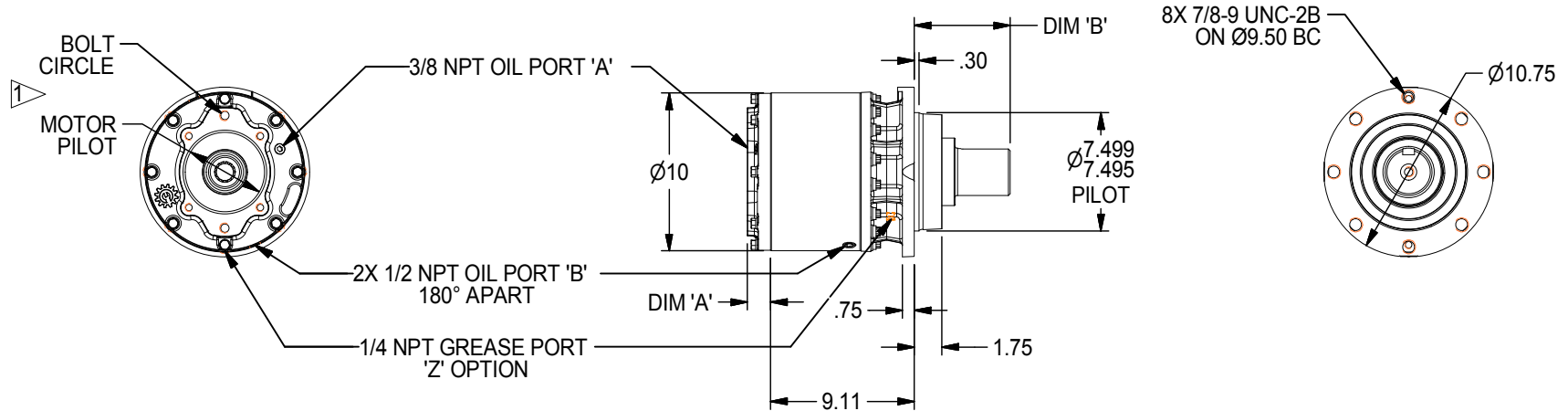
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## 160 1&2-Stage General Dimensions Rectangular 'E' Option



## 160 1&2-Stage General Dimensions Flangeless 'F' Option





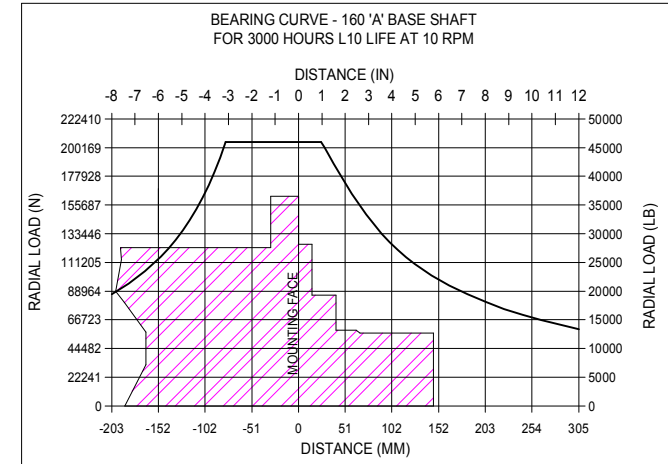
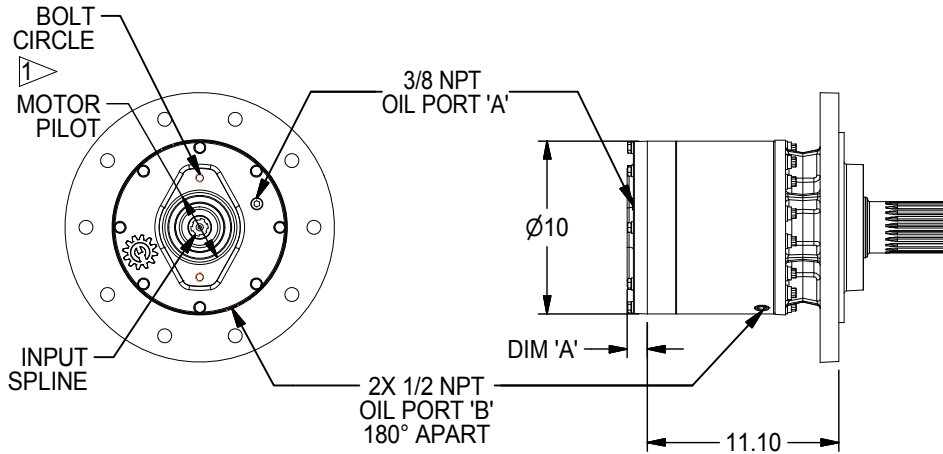
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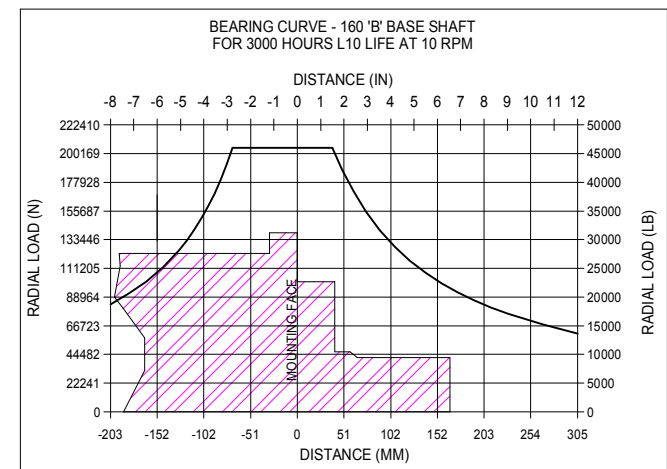
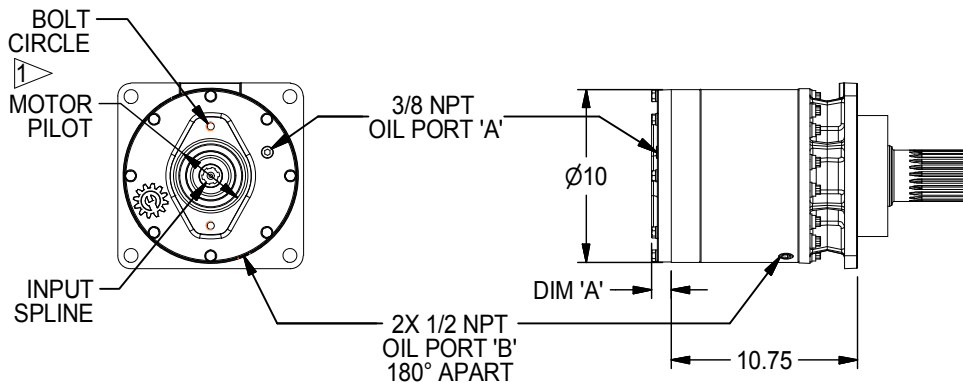
## 3-stage 'A' Option (Base Dimensions Identical to 1&2-Stage Options)



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

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

## 3-stage 'B' Option (Base Dimensions Identical to 1&2-Stage Options)



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

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



# 160 GEAR DRIVE - SHAFT OUTPUT

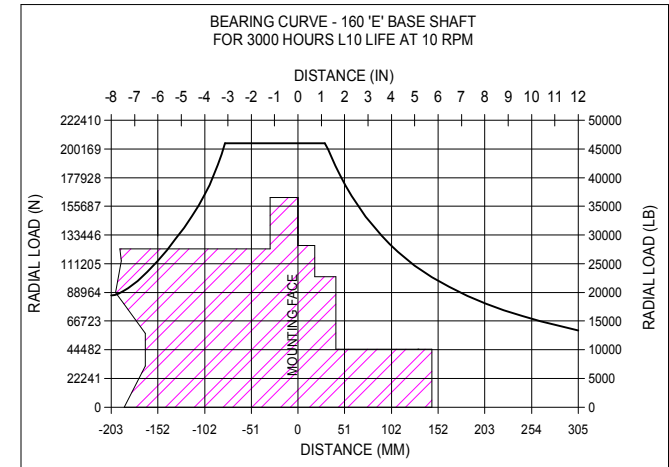
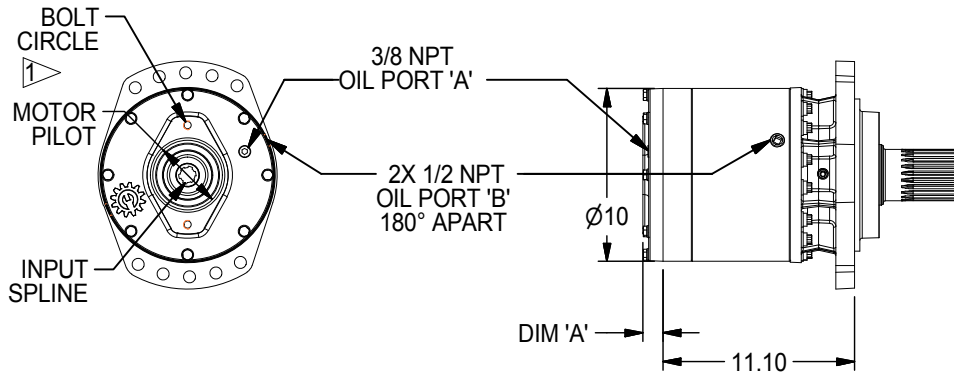
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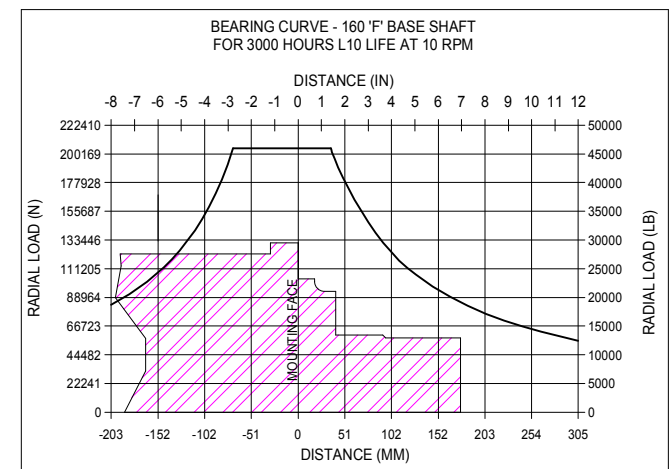
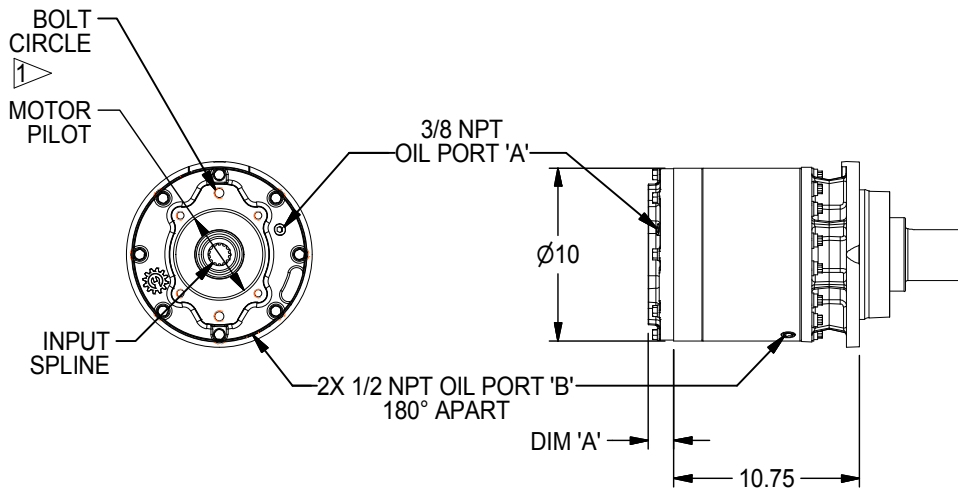
## 3-stage 'E' Option (Base Dimensions Identical to 1&2-Stage Options)



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

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

## 3-stage 'F' Option (Base Dimensions Identical to 1&2-Stage Options)



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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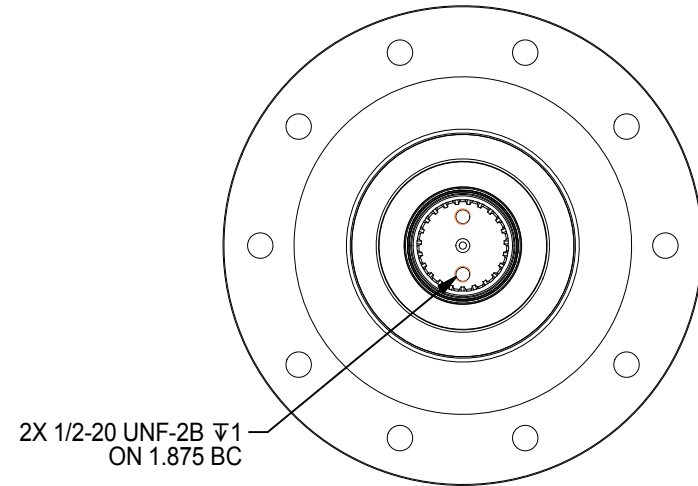
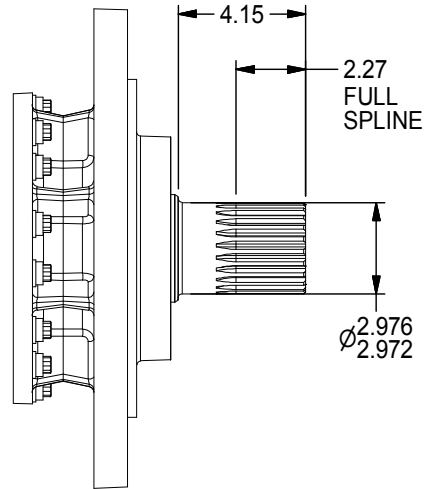
SHEET 5 OF 9

## Output Shaft Options *Values are shown as inches.*

### D1 Output Shaft 23T 8/16 DP Spline

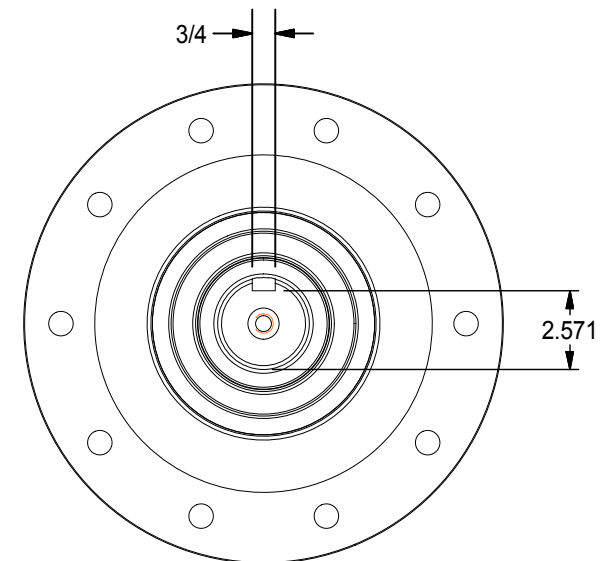
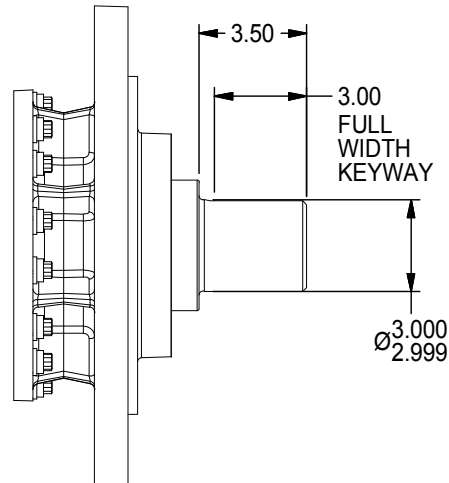
AVAILABLE OPTIONS:  
Splined Hub: P/N 81-004-2172  
Retainer Kit: P/N 81-018-0741

See Hubs & Pinions technical  
data sheet for details



### D2 Output Shaft Ø3.00 With 3/4" Keyway

Requires full-length  
1045 or 4140 cold-finished  
steel key to meet  
torque requirement





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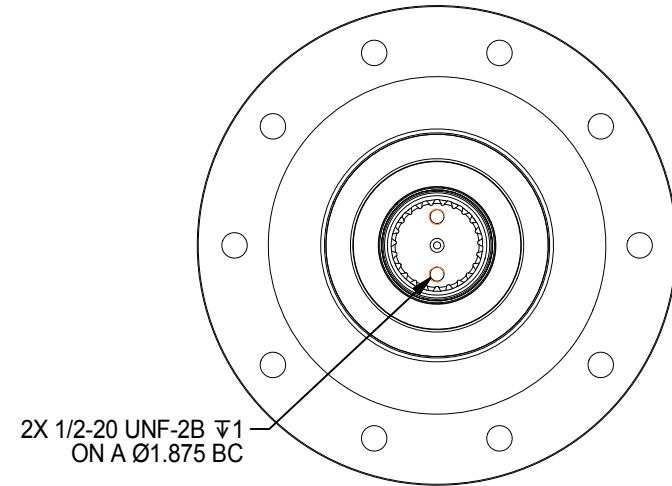
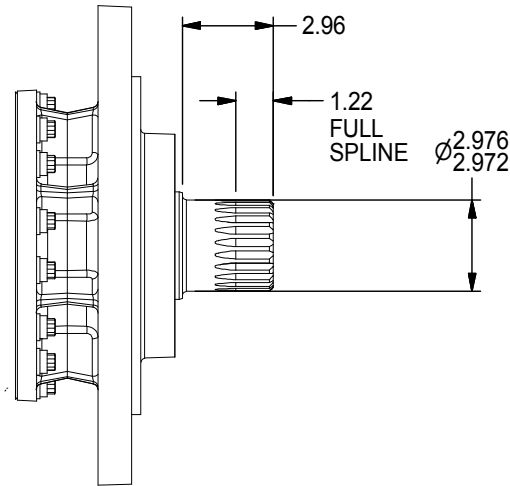
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## D3 Output Shaft 23T 8/16 DP Spline

AVAILABLE OPTIONS:  
Retainer Kit: P/N 81-018-0741

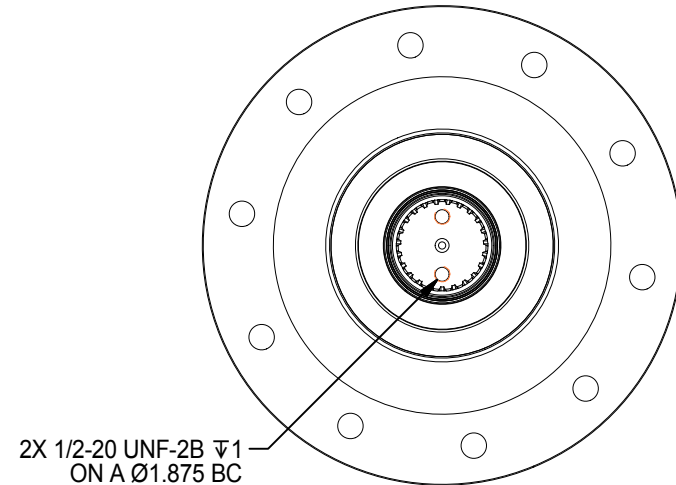
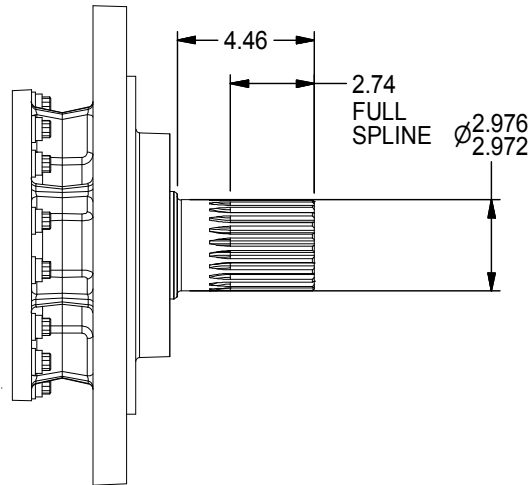
See Hubs & Pinions technical  
data sheet for details



## D4 Output Shaft 23T 8/16 DP Spline

AVAILABLE OPTIONS:  
Retainer Kit: P/N 81-018-0741

See Hubs & Pinions technical  
data sheet for details





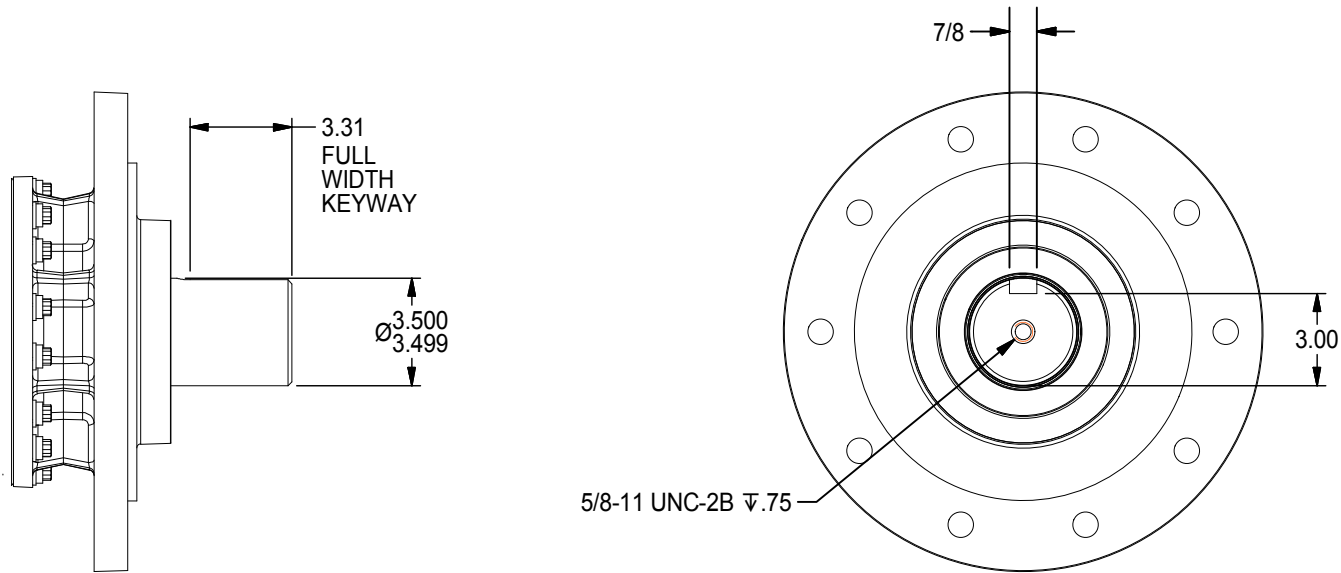
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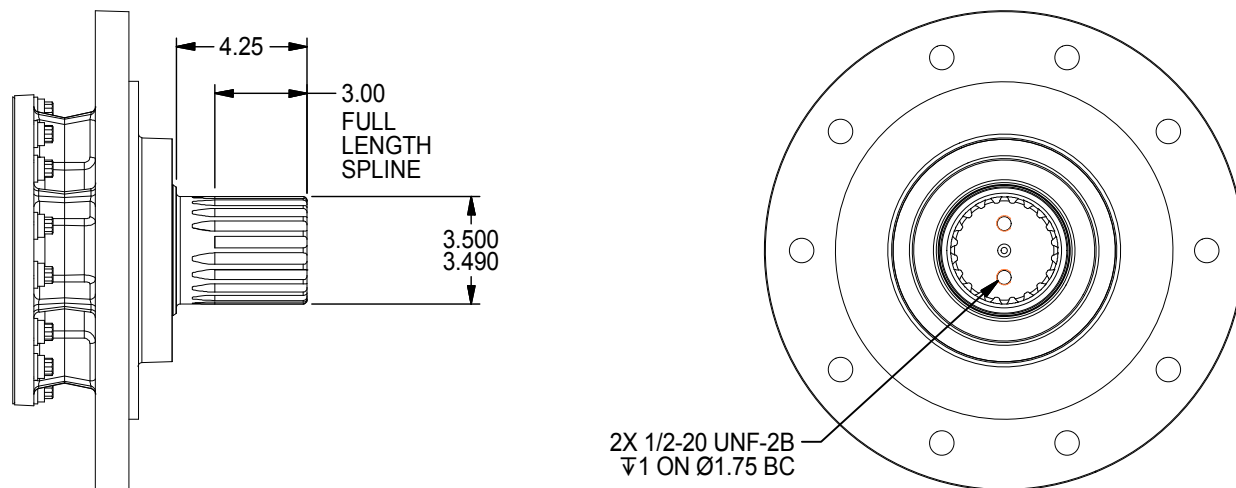
SHEET 7 OF 9

## D5 Output Shaft Ø3.50 With 7/8" Keyway



## D6 Output Shaft 20T 6/12 DP SPLINE

AVAILABLE OPTIONS:  
RETAINER KIT: PN  
80-018-0851





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## Performance Ratings

Maximum Intermittent Output Torque:	160,000 in-lb (18,078 N-m)
Continuous Output Torque:	80,000 in-lb (9,039 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' Ø3.251/3.253	4X 1/2-13 UNC-2B ∇5/8 ON Ø4.188 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. 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 BC

## Approximate Unit Weights (lbs)

Gear Drive Mounting	Stages		
	Single Planetary	Double Planetary	Triple Planetary
A	191	202	219
B	159	170	188
E	166	177	195
F	142	152	170
C	Consult Eskridge		

## NOTES: ▷

- SPECIFICATIONS CALLED OUT IN MOTOR MOUNT DIMENSIONS SECTION.
- VALUES ARE SHOWN IN INCHES
- OUTPUT SHAFT ROTATION SAME AS INPUT ROTATION.
- ONLY AVAILABLE WITH SINGLE STAGE GEAR BOXES

## Oil Capacities

Position	Quantity		
	Single Planetary	Double Planetary	Triple Planetary
Vertical Shaft Down	5.0 pts Fill to: 1.5" From Port 'A'	5.0 pts Fill to: 1.5" From Port 'A'	6.9 pts Fill to: 1.5" From Port 'A'
Vertical Shaft Up	5.0 pts Fill to: Port 'B'	5.0 pts Fill to: Port 'B'	6.9 pts Fill to: Port 'B'
Horizontal	3.0 pts Fill to: Port 'A'	3.0 pts Fill to: Port 'A'	4.1 pts Fill to: Port 'A'

Units shipped without oil  
 Use EP or API GL5 Designated Lubricants

## Dimension 'A' Specifications

Input Spline Code	Ratio	Standard Input Mounting			
		SAE 'A'	SAE 'B'	SAE 'C'	SAE 'D'
2,3,5	4, 5, 19, 24, 26, 32	1.22	1.17	1.47	-
4	4, 5, 19, 24	1.47	1.47	1.47	-
4	26, 32	2.72	2.27	2.72	-
7, 9	4, 5	-	-	-	1.69

## Dimension 'B' Specifications

Gear Drive Mount	Output Shaft Code				
	D1	D2	D3	D4	D5
A	5.80	5.80	4.62	6.12	5.34
B	6.15	6.15	4.96	6.46	5.68
E	5.80	5.80	4.62	6.12	5.34
F	6.15	6.15	4.96	6.46	5.68
C	Custom Shaft: Consult Eskridge				





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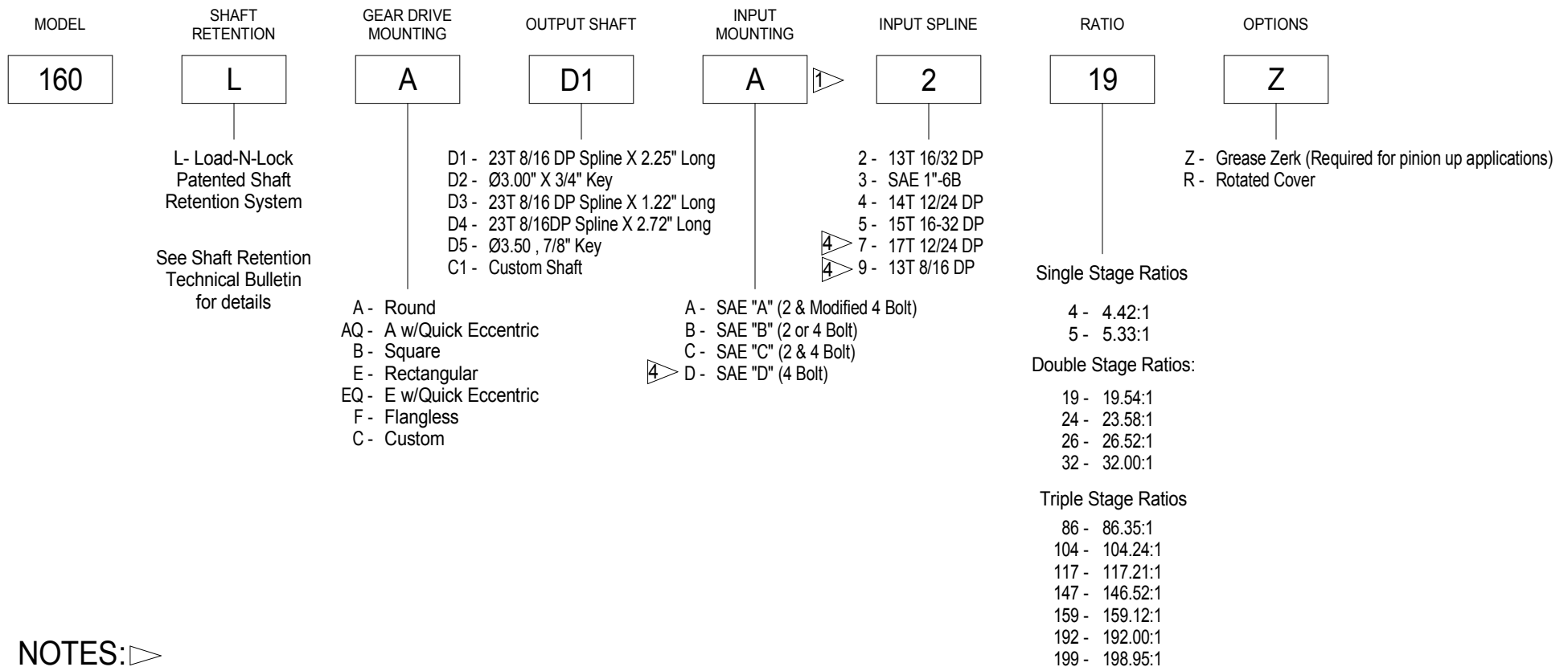
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## Ordering Information

Example Part Number: 160LAD1A2-19-Z



### NOTES: ▷

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