



# 20 Gear Drive - Shaft Output

Typical Applications: Industrial, Marine or Mobile Equipment

(913) 782-1238 (Tel)  
 (913) 782-4206 (Fax)  
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## Performance Ratings

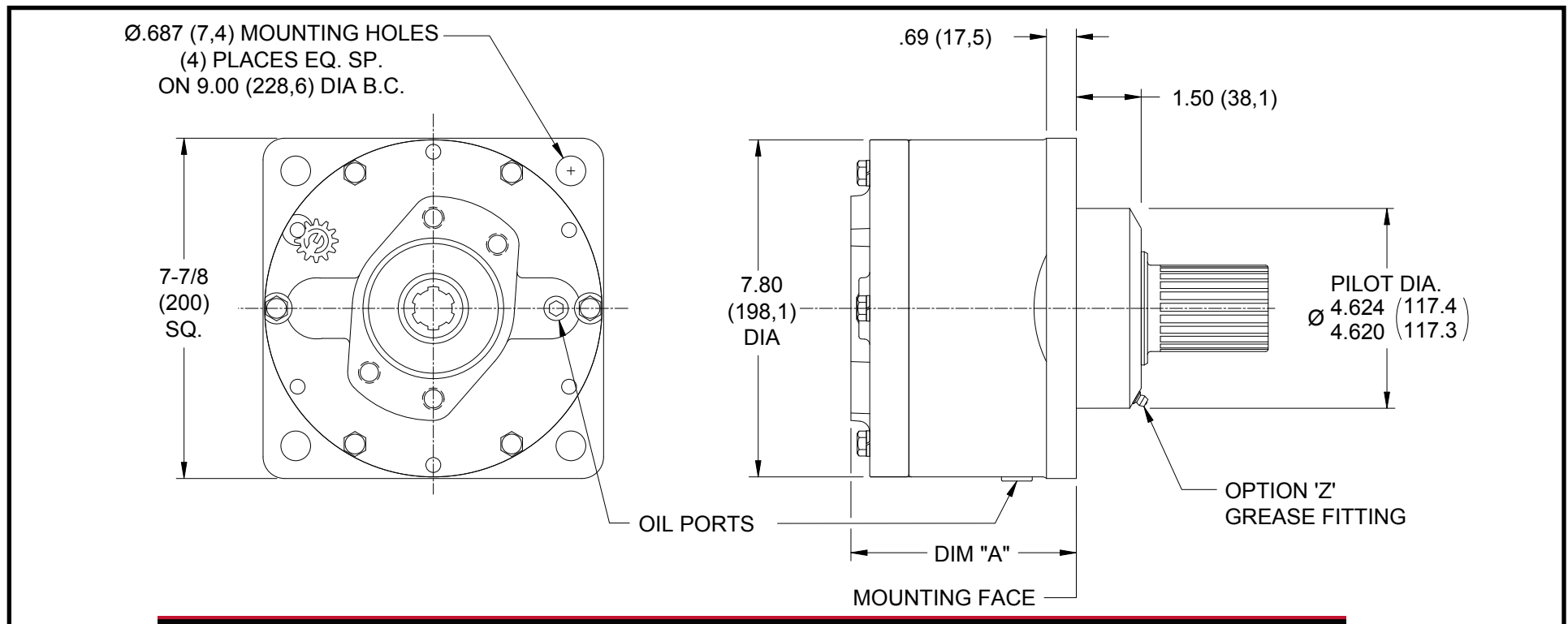
Maximum Intermittent Output Torque .....	25,000 in-lb (2,260 N-m)
Continuous Output Torque .....	Consult Eskridge
Peak Torque Rating.....	Consult Eskridge
Maximum Input Speed (No Load).....	3,000 RPM

Consult your Eskridge representative to determine ratings for your specific application or configuration.

## General Dimensions for Square Gear Drive Mounting (ordering option 'B')

Other options may be available. See ordering information on last page or contact your Eskridge representative for more details.

Values are shown as "inches (millimeters)." Please see page 3 for full Dimension A specifications.





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## Performance Ratings

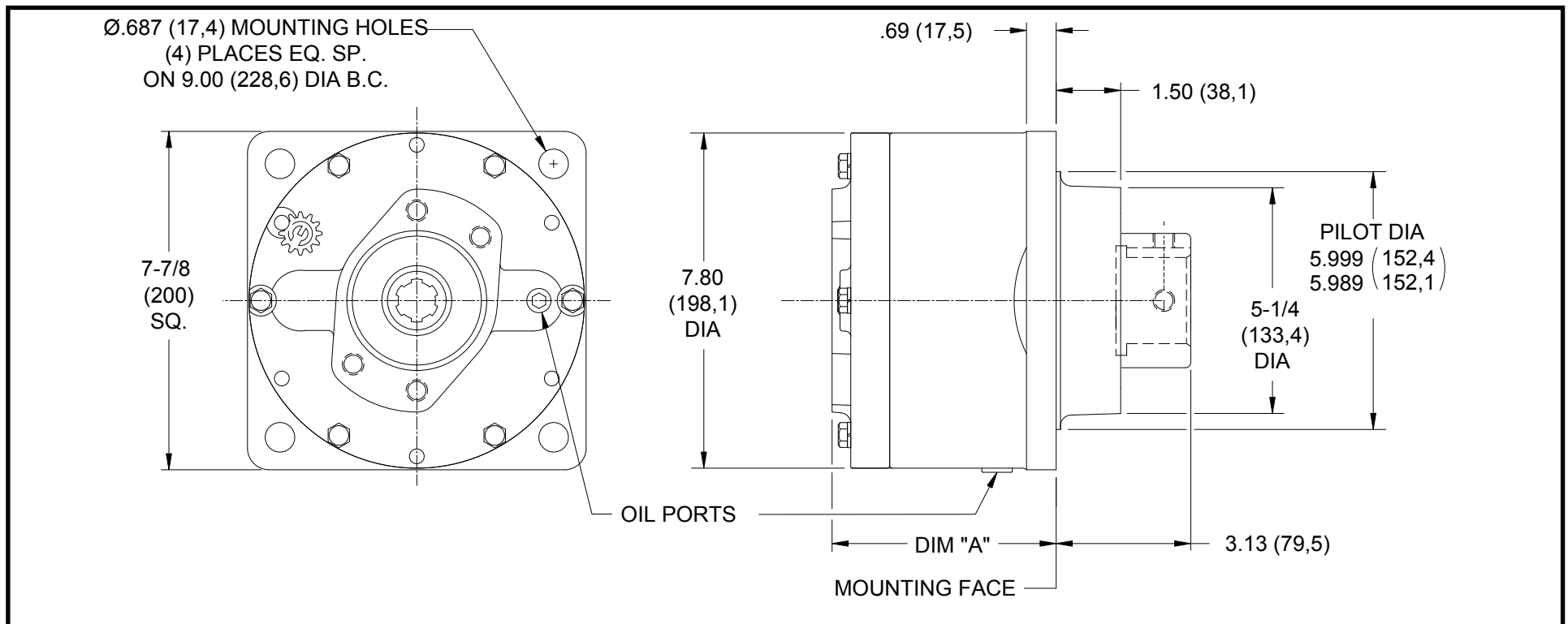
Maximum Intermittent Output Torque .....	25,000 in-lb (5,650 N-m)
Continuous Output Torque .....	Consult Eskridge
Peak Torque Rating.....	Consult Eskridge
Maximum Input Speed (No Load).....	3,000 RPM

Consult your Eskridge representative to determine ratings for your specific application or configuration.

## General Dimensions for Square Gear Drive Mounting with Internal Keyed Output Shaft (ordering option 'P')

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## Dimension "A" Specifications (For SAE A or B input mounting)

Input Mounting	Stages		
	Single Planetary	Double Planetary	Triple Planetary
B	4.26 (108.2)	5.48 (139.2)	6.77 (172.0)
P	4.26 (107.4)	5.48 (138.4)	6.77 (169.4)
C	Consult Eskridge on all options		

\* For C or K input mounting, add .35" to dim "A"

## Approximate Unit Weights

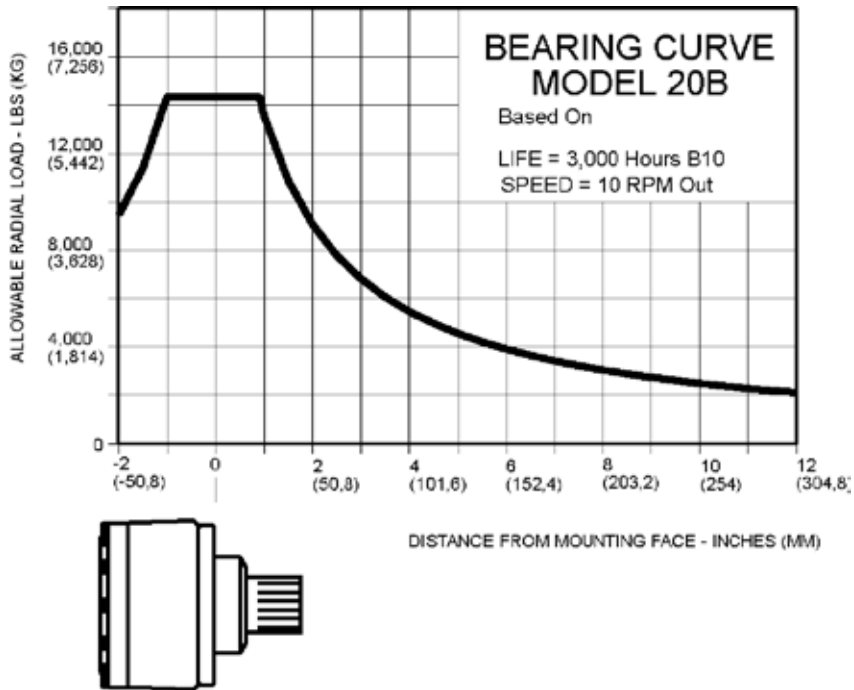
Input Mounting	Stages		
	Single Planetary	Double Planetary	Triple Planetary
B	51 (23)	61 (28)	72 (33)
P	48 (22)	58 (26)	69 (31)
C	Consult Eskridge on all options		

## Oil Capacities

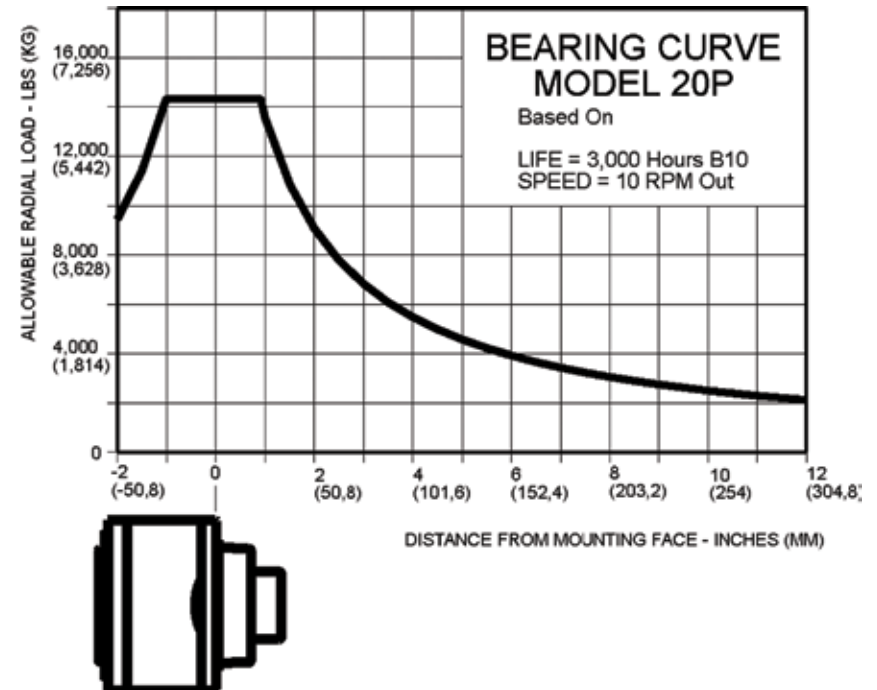
Position	Quantity		
	Single Stage	Double Stage	Triple Stage
Vertical	1.75 pts (0.9 L)	2.25 pts (1.1 L)	2.75 pts (1.4 L)
Horizontal	1.00 pts (0.5 L)	1.25 pts (0.6 L)	1.50 pts (0.7 L)

All units are shipped dry (without oil).

## Bearing Curve Option B



## Bearing Curve Option P



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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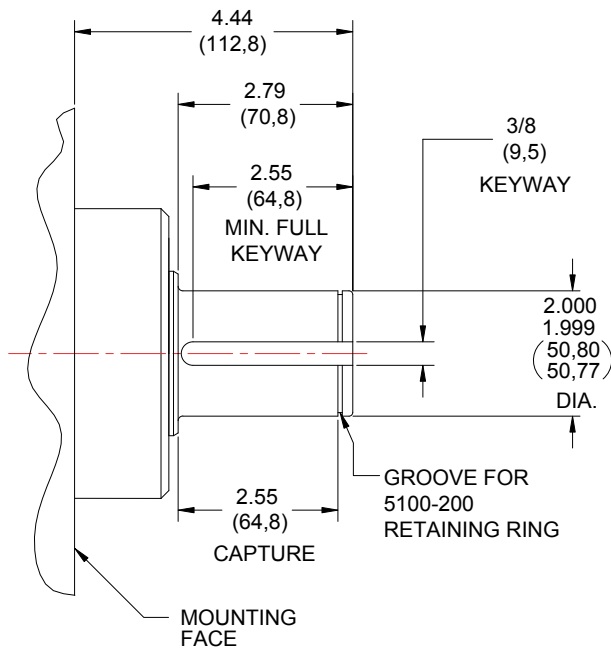
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## Output Shaft Options Values are shown as "inches (millimeters)"

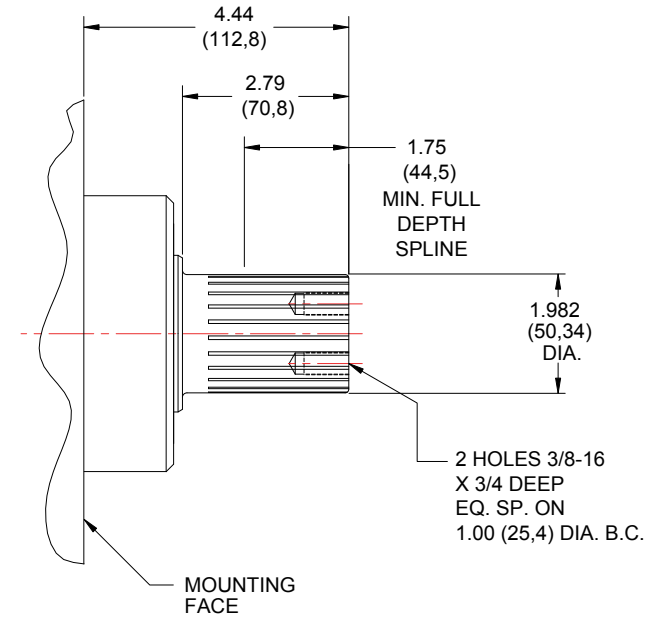
Output Shaft Availability		
B Mount Only	D1	2.00" Dia. x 0.38" Key
	D2	23T 12/24 DP Spline
	D3	2.00" Dia. x 0.50" Key
	D4	2.25" Dia. x 0.50" Key
	C1	Custom Shaft, Consult Eskridge
P Mount Only	F1	1.50" Dia. x 0.38" Key (Internal)
	F2	2.00" Dia. x 0.50 Key (Internal) <i>(Only for use with K shaft retention option; contact Eskridge for details)</i>
	C1	Custom Shaft, Consult Eskridge

See Hubs & Pinions technical data sheet for details.

### D1 - 2.00" Dia. x 0.38" Key



### D2 - 23T 12/24 DP Spline





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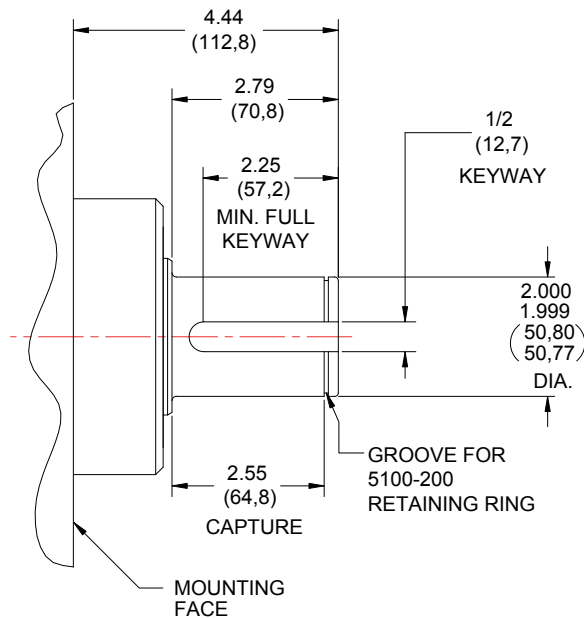
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## Output Shaft Options Values are shown as "inches (millimeters)"

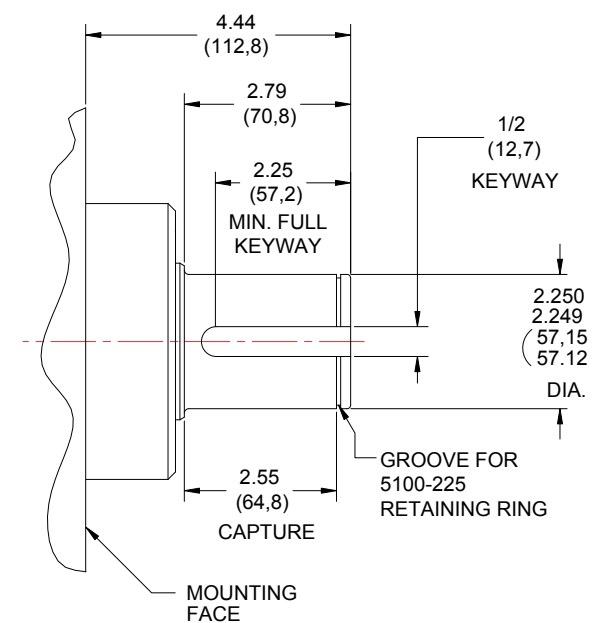
Output Shaft Availability		
B Mount Only	D1	2.00" Dia. x 0.38" Key
	D2	23T 12/24 DP Spline
	D3	2.00" Dia. x 0.50" Key
	D4	2.25" Dia. x 0.50" Key
	C1	Custom Shaft, Consult Eskridge
P Mount Only	F1	1.50" Dia. x 0.38" Key (Internal)
	F2	2.00" Dia. x 0.50" Key (Internal) <i>(Only for use with K shaft retention option; contact Eskridge for details)</i>
	C1	Custom Shaft, Consult Eskridge

See Hubs & Pinions technical data sheet for details.

### D3 - 2.00" Dia. x 0.50" Key



### D4 - 2.25" Dia. x 0.50" Key





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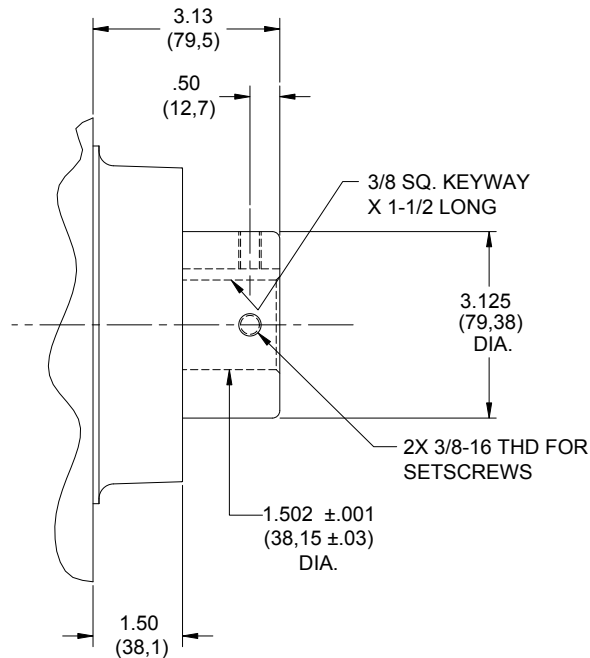
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## Output Shaft Options Values are shown as "inches (millimeters)"

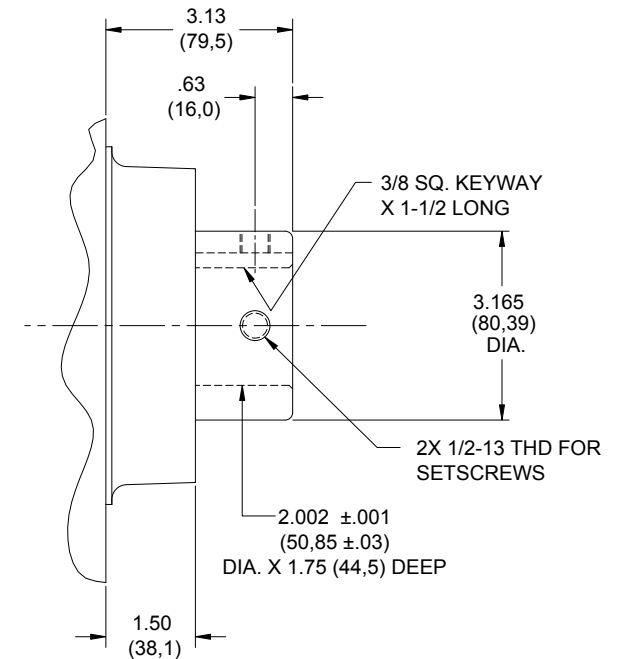
Output Shaft Availability		
B Mount Only	D1	2.00" Dia. x 0.38" Key
	D2	23T 12/24 DP Spline
	D3	2.00" Dia. x 0.50" Key
	D4	2.25" Dia. x 0.50" Key
	C1	Custom Shaft, Consult Eskridge
P Mount Only	F1	1.50" Dia. x 0.38" Key (Internal)
	F2	2.00" Dia. x 0.50" Key (Internal) <i>(Only for use with K shaft retention option; contact Eskridge for details)</i>
	C1	Custom Shaft, Consult Eskridge

See Hubs & Pinions technical data sheet for details.

### F1 - 1.50" Dia. x 0.38" Key (Internal)



### F2 - 2.00" Dia. x 0.50" Key (Internal)





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## Ordering Information

Example Part Number: 20LBD1A2-4-Z

Model	Shaft Retention	Gear Drive Mounting	Output Shaft	Input Mounting	Input Spline	Ratio	Options
20	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]
	(Blank) - Retaining Ring	<p><b>B</b> - Square <i>D1-D4 Output Shafts Only</i></p> <p><b>p</b> - Square Flange with Internal Keyed Output Shaft <i>F1, F2 Output Shafts Only</i></p> <p><b>C</b> - Custom Mounting</p>	<p><b>D1</b> - 2.00" Dia. x 3/8" Key</p> <p><b>D2</b> - 23T 12/24 DP</p> <p><b>D3</b> - 2.00" Dia. x 1/2" Key</p> <p><b>D4</b> - 2.25" Dia. x 1/2" Key</p> <p><b>F1</b> - 1.50" Dia. x 1/2" Key (Internal)</p> <p><b>F2</b> - 2.00" Dia. x 1/2" Key (Internal)</p> <p><b>C1</b> - Custom</p> <p><i>Shafts not available for all units; refer to pages 5-6 for detailed ordering information.</i></p>	<p><b>A</b> - SAE "A" (2 &amp; Modified 4 Bolt)</p> <p><b>B</b> - SAE "B" (2 Bolt)</p> <p><b>C</b> - SAE "C" (4 Bolt)</p> <p><b>K</b> - SAE "C" (2 Bolt)</p> <p><i>See input mounting technical bulletin for details.</i></p>	<p><b>2</b> - 13T 16/32 DP Spline</p> <p><b>3</b> - SAE 1"-6B Spline</p> <p><b>4</b> - 14T 12/24 DP Spline*</p> <p><b>5</b> - 15T 16/32 DP Spline</p> <p><b>6</b> - 1.00" Dia. x 1/2" Key*</p> <p><i>*Unavailable in 5:1, 25:1 &amp; 129:1</i></p> <p><i>+Unavailable in Triple Planetary</i></p> <p><i>Verify motor shaft compatibility with factory</i></p>	<p><b>Single Planetary</b></p> <p><b>4</b> - 4.08:1</p> <p><b>5</b> - 5.05:1</p> <p><b>Double Planetary</b></p> <p><b>16</b> - 16.65:1</p> <p><b>20</b> - 20.62:1</p> <p><b>25</b> - 25.53:1</p> <p><b>Triple Planetary</b></p> <p><b>68</b> - 67.91:1</p> <p><b>84</b> - 84.10:1</p> <p><b>104</b> - 104.51:1</p> <p><b>129</b> - 128.98:1</p>	<p><b>Z</b> - Grease Zerk <i>Required for pinion-up applications</i></p> <p><b>R</b> - Rotated Cover <i>*Consult Factory</i></p>