



**Model 5  
Power Wheel  
Planetary Gear Drive**

# Model 5 Shaft and Spindle Output Single Reduction Drives

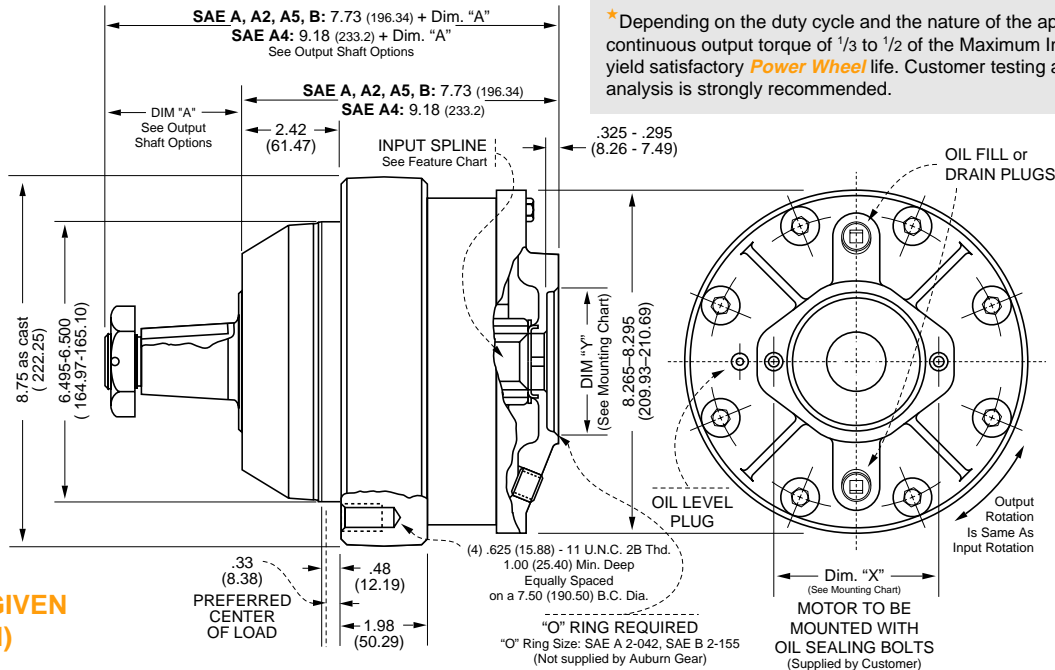
with and without A2 Series Integral Parking Brake

## GENERAL SPECIFICATIONS

**Without Brake**

Max. Intermittent Output Torque\* ..... 22,000 lb-in (2,485 N-m)  
 Max. Input Speed ..... 3,500 RPM

Efficiency ..... 98%  
 Weight ..... 65 lb (29 kg)  
 Approx. Oil Capacity ..... 17 oz (503 cc)



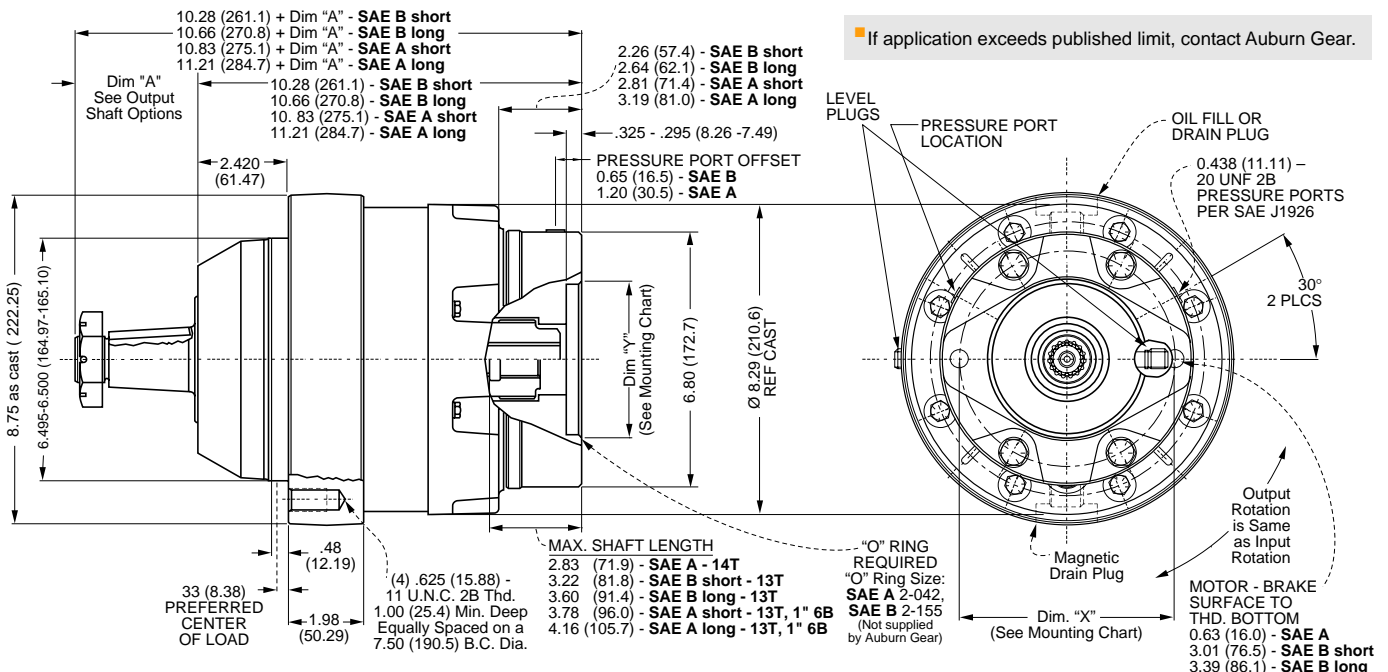
\* Depending on the duty cycle and the nature of the application, a normal continuous output torque of 1/3 to 1/2 of the Maximum Intermittent should yield satisfactory **Power Wheel** life. Customer testing and application analysis is strongly recommended.

**DIMENSIONS GIVEN IN INCHES (MM)**

**With A2 Series Brake**

Max. Intermittent Output Torque\* ..... 22,000 lb-in (2,485 N-m)  
 Max. Input Speed ..... 2,000 RPM  
 Max. Release Pressure ..... 3,000 PSI (206.4 Bar)

Efficiency ..... 98%  
 Weight ..... 82 lb (37 kg)  
 Approx. Oil Capacity ..... 23 oz (680 cc)



■ If application exceeds published limit, contact Auburn Gear.

# FEATURE CHART: MODEL 5 SHAFT AND SPINDLE OUTPUT SINGLE REDUCTION DRIVES with & without A2 Series BRAKE

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN				ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER			
		NON-BRAKE		BRAKE						
MOTOR PILOT	<b>SAE A</b>	•	•	•	•	<b>5TA</b>				
	<b>A2</b>	•	•	•	•	<b>5TA2</b>				
	A4			•	•	5TA4				
	A5			•	•	5TA5				
	<b>SAE B</b>	•			•	<b>5TB</b>	<b>5TB</b>			
INPUT SPLINE	<b>13T. 16/32</b>	•			•	<b>13</b>		<b>13</b>		
	1"–6B		•		•	6B				
	<b>14T. 12/24</b>		•		•	<b>14</b>				
RATIO OPTIONS	3.75:1	•	•	•	•	03				
	<b>4.50:1</b>	•	•	•	•	<b>04</b>				
	<b>5.05:1</b>	•	•	•	•	<b>05</b>		<b>05</b>		
	5.81:1	•	•	•	•	06				
OUTPUT OPTIONS	1 3/4 J501 Taper	•	•	•	•	T1				
	<b>17T. 12/24 Spline</b>	•	•	•	•	<b>17</b>				
	<b>23T. 12/24 Spline</b>	•	•	•	•	<b>23</b>				
	<b>23T. 12/24 Short</b>	•	•	•	•	<b>23S</b>				
	<b>2.00 Keyed</b>	•	•	•	•	<b>K1</b>				
	<b>1.75 Keyed</b>	•	•	•	•	<b>K2</b>				
	<b>2.00 Hollow</b>	•	•	•	•	<b>K3</b>				
	2.00 Keyed	•	•	•	•	K5				
	<b>2.00 Round</b>	•	•	•	•	<b>A1</b>				
	<b>2.56 Round</b>	•	•	•	•	<b>A2</b>				
<b>2.00 Hex Spindle</b>	•	•	•	•	<b>H1</b>					
		•	•	•	•	<b>F1</b>			<b>F1</b>	
WHEEL STUDS (SPINDLE OUTPUT)	1/2	•	•	•	•	4				<b>4</b>
	NONE	•	•	•	•	0				
PARKING BRAKE	SHORT VERSION	1,540 lb-in			•	B1				
		1,800 lb-in			•	B2				
	<b>2,400 lb-in</b>			•	<b>B3</b>					
	LONG VERSION	<b>2,400 lb-in</b>			•	<b>B4</b>				<b>B4</b>
<b>3,200 lb-in</b>				•	<b>B5</b>					
<b>3,600 lb-in</b>				•	<b>B6</b>					
	<b>4,200 lb-in</b>			•	<b>B7</b>					

Select desired characteristics from chart, note correct order codes, and order using sample format shown at right: **5TB 13 05 F1 4 B4**

Can be furnished in double reduction ratios; contact Auburn Gear.  
 FOR HORIZONTAL OPERATION ONLY. Where vertical operation is required, contact Auburn Gear.  
**BOLDFACE** INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.

## MOTOR MOUNTING CHART

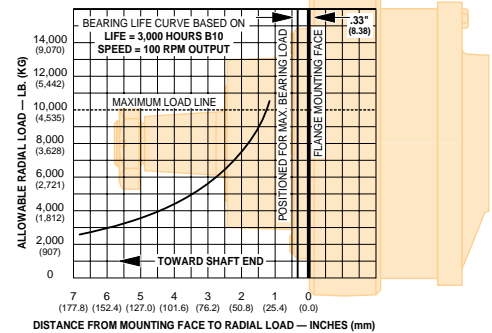
DIMENSION "X"		DIM. "Y"
<b>SAE A</b> (2) – .375-16 UNC. 2B Thd Holes on 4.187 (106.35) B. C. diameter*	Non-Brake	Ø 3.251 - 3.256 (82.58 - 82.70)
<b>SAE A</b> (2) – .375-16 UNC. 2B Thd Holes on 4.187 (106.35) B. C. diameter*	Brake	
<b>A2</b> (2) – .500-13 UNC. 2B Thd Holes on 4.187 (106.35) B. C. diameter*		
<b>A4, A5</b> (4) – .500-13 UNC. 2B Thd Holes on 4.187 (106.35) B. C. diameter*		
<b>SAE B</b> (2) – .50-13 UNC. 2B Thd Holes on 5.75 (146.05) B. C. diameter*		Ø 4.001 - 4.006 (101.62 - 101.75)

\*"O" RING REQUIRED (Not Supplied by Auburn Gear)  
 "O" RING SIZES: SAE A 2–042, SAE B 2–155

## BRAKE RATINGS

MODEL	TORQUE	MIN. RELEASE PRESSURE	STYLE
B1	1,540 lb-in (174 N-m)	190 PSI (13.6 Bar)	Short
B2	1,800 lb-in (203 N-m)	220 PSI (15.1 Bar)	Short
B3	2,400 lb-in (271 N-m)	290 PSI (20.0 Bar)	Short
B4	2,400 lb-in (271 N-m)	160 PSI (11.0 Bar)	Long
B5	3,200 lb-in (362 N-m)	220 PSI (15.1 Bar)	Long
B6	3,600 lb-in (407 N-m)	230 PSI (15.8 Bar)	Long
B7	4,200 lb-in (475 N-m)	260 PSI (17.9 Bar)	Long

Maximum Release Pressure = 3,000 PSI (206.4 Bar)



**NOTE:** These curves are supplied as a design guide and apply to resultant radial load only. They indicate the importance of maintaining wheel position over the bearing center.

For actual analysis, applications should be reviewed by Auburn Gear Engineering using data supplied on Application Data Form in the Auburn Gear Power Wheel Model 6, 8, 9 and 10 catalogs.

## BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

$$LF = \frac{SF \times R}{R'}$$

R = Allowable resultant load for any given location from mounting flange

R' = Anticipated load at location from mounting flange

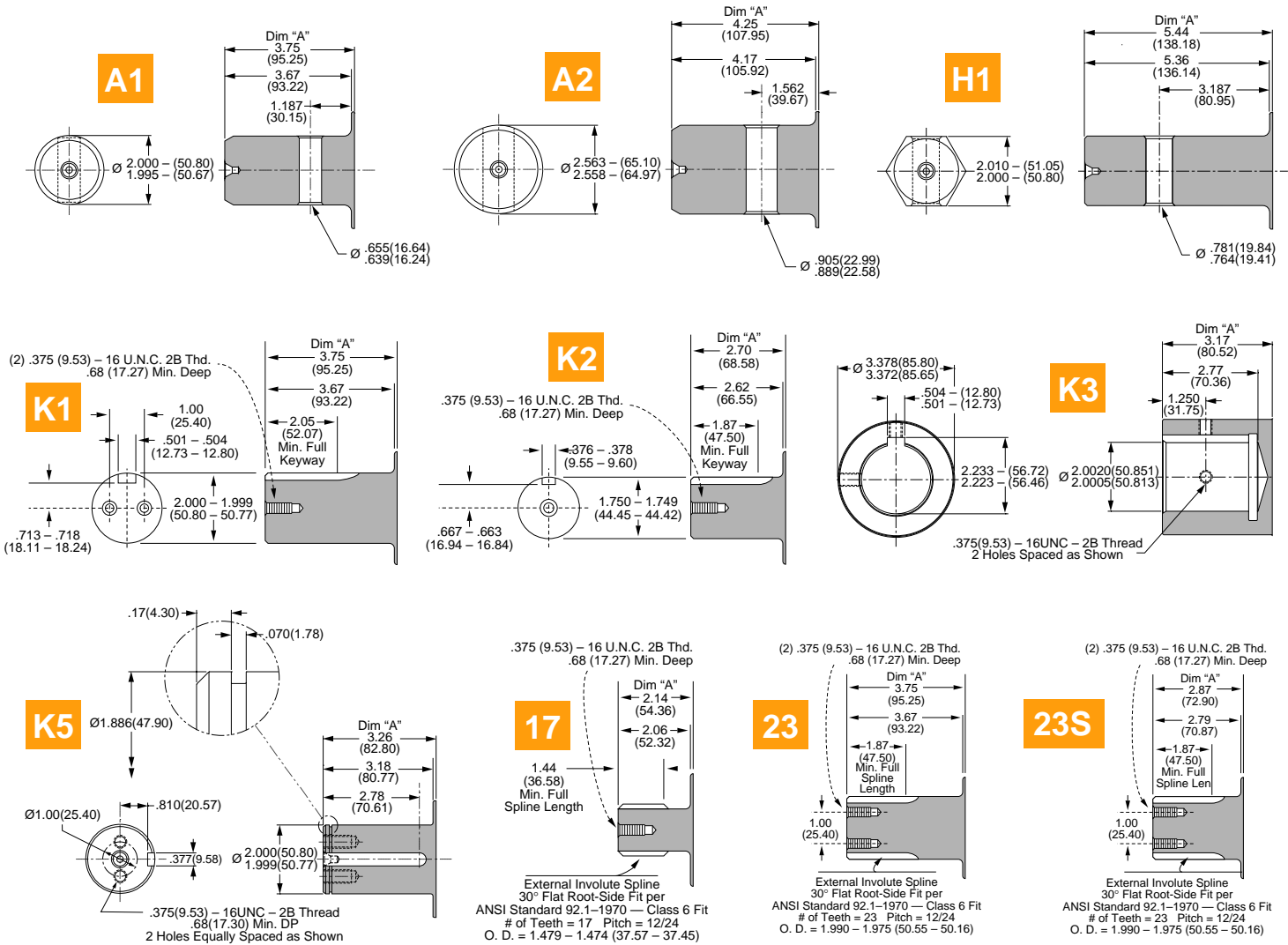
LF = Life Factor from table (see below)

SF = Speed Factor from table (see below)

OUTPUT SPEED (RPM)	SF	LF	BEARING HOURS B-10 LIFE
5	2.456	.584	500
10	1.994	.719	1000
20	1.620	.812	1500
30	1.435	.886	2000
40	1.316	.947	2500
50	1.231	1.000	3000
60	1.165	1.047	3500
70	1.113	1.090	4000
80	1.069	1.130	4500
90	1.032	1.166	5000
100	1.000	1.231	6000
200	.812	1.289	7000
300	.719	1.342	8000
400	.659	1.390	9000
500	.617	1.435	10000

**CAUTION:** The same torsional loading constraints used in the driving mode must be used in the braking mode when braking through the **Power Wheel** gear drive set.

# OUTPUT SHAFT OPTIONS

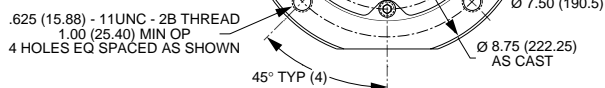


## F HUB

### OPTIONAL HUB

**NOTE:** If optional hub as shown is required for your application, place an "F" between the motor pilot and input spline designation in the order code, i.e. 5TA2F1404A1.

Motor Pilot    Input Spline



**NOTE:** All specifications and descriptive data contained herein are nominal and subject to change without notice. Specific applications should be referred to Auburn Gear for current applicable data.

**F1**

**F14**

**STANDARD: 5 HOLES**  
 .604 - .611 (15.34 - 15.52) Dia. Holes Equally Spaced on 5.500 (139.70) B.C.  
**OPTIONAL: 5 BOLTS**  
 .500 (12.70) - 20 N.F. 3 RH Thd. Bolts Equally Spaced on 5.500 (139.70) B.C.

**T1**

1.75 SAE J501 Taper Wheel Nut  
 1-1/4 - 12 U.N.F. 2A Thd.  
 .4375 - .4405 (11.11 - 11.19)  
 3.19 (81.03)  
 2.13 (54.10)  
 1.875 (47.62) Min. Full Keyway  
 .221 - .231 (5.61 - 5.87) Keyway Depth  
 16 (4.06) Dia. Thru Hole



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