AuburnGear

Model 6
Power Wheel®
Planetary Gear Drive

AuburnGear

CONTENTS

AuburnGear Power Wheel® Final Drives

INTRODUCTION

Auburn Gear is your reliable source for a variety of power transfer products. This catalog features the Model 6 family of **Power Wheel®** Planetary Gear Drives. Other models of **Power Wheels** are also available; for a complete offering, contact Auburn Gear.

We also offer planetary gear kits and spin resistant differentials. We offer you services for design, engineering, prototype support and full testing and production capabilities. Product applications include aerial lift, agricultural, automotive, construction, forestry, industrial and marine. Auburn Gear offers you quality and reliability backed by more than 50 years of experience.

Greater Design Flexibility

Power Wheel® planetary drives allow greater flexibility than conventional power train systems and often eliminate the need for components such as drive shafts, axles and chain drives. The many models and styles offered meet a wide range of mobile and industrial application requirements. Single and double reduction ratios can be furnished. In addition, they can be supplied with a variety of motor mounts and inputs which allow them to be used with most makes of hydraulic motors.

High Efficiency and Compact Design

Providing 96 to 98% power transfer efficiency, Power Wheel® planetary drives are significantly more efficient than many other types of drives, including differential design planetaries. The rugged, compact design of these drives saves space and provides for long service life.

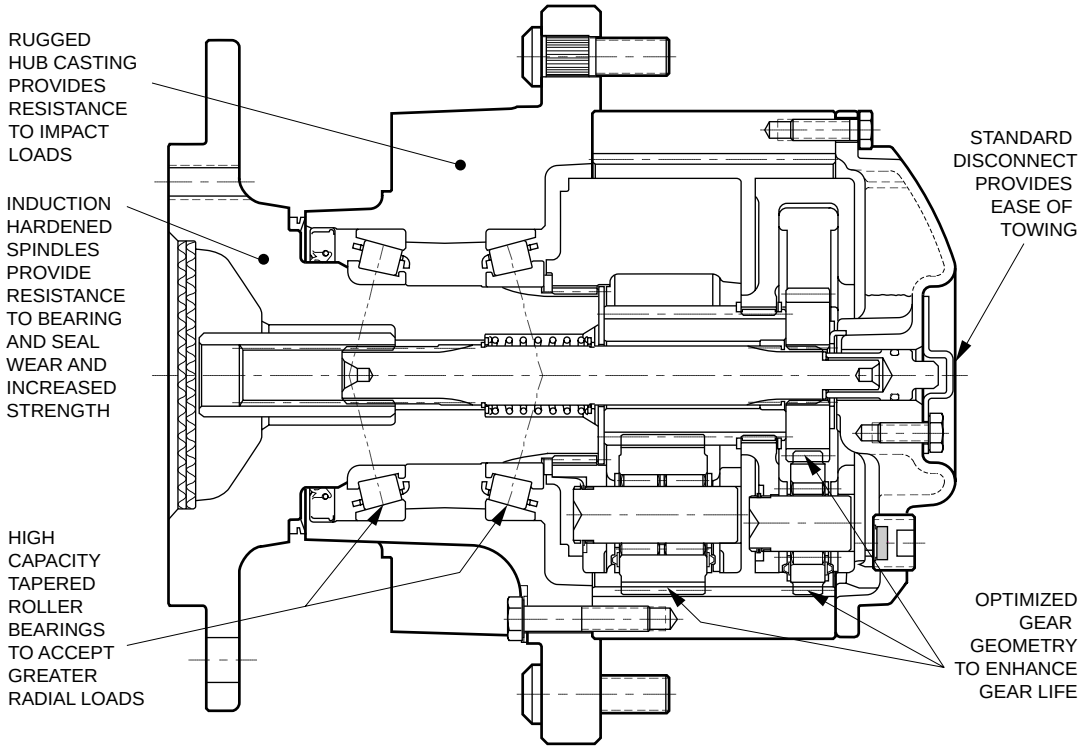
All models can be furnished with parking brakes. Auburn Gear has designed integral A2 Series parking brakes in Models 5, 6, 6B, 7, 8 , 8B and 9. These units provide a very compact planetary drive/parking brake package which is particularly useful in applications where space is limited.

Responsive Performance

Power Wheel® drives deliver the power you require for smooth operation and precise control. These units are also fully reversible. Reverse power is easily obtained by reversing rotation of the input. For vehicle applications, the positive traction provided by individually powered wheels results in superior maneuverability and improved ground clearance than conventional drive systems.

Auburn Gear Power Wheel drives can be an efficient solution for any application where you need to increase torque or reduce speed to achieve usable power. Let Power Wheel® planetary drives help you put power in its place.

MODEL 6 FEATURES



Model 6 Wheel Drives
Single and Double Reductions

GENERAL SPECIFICATIONS

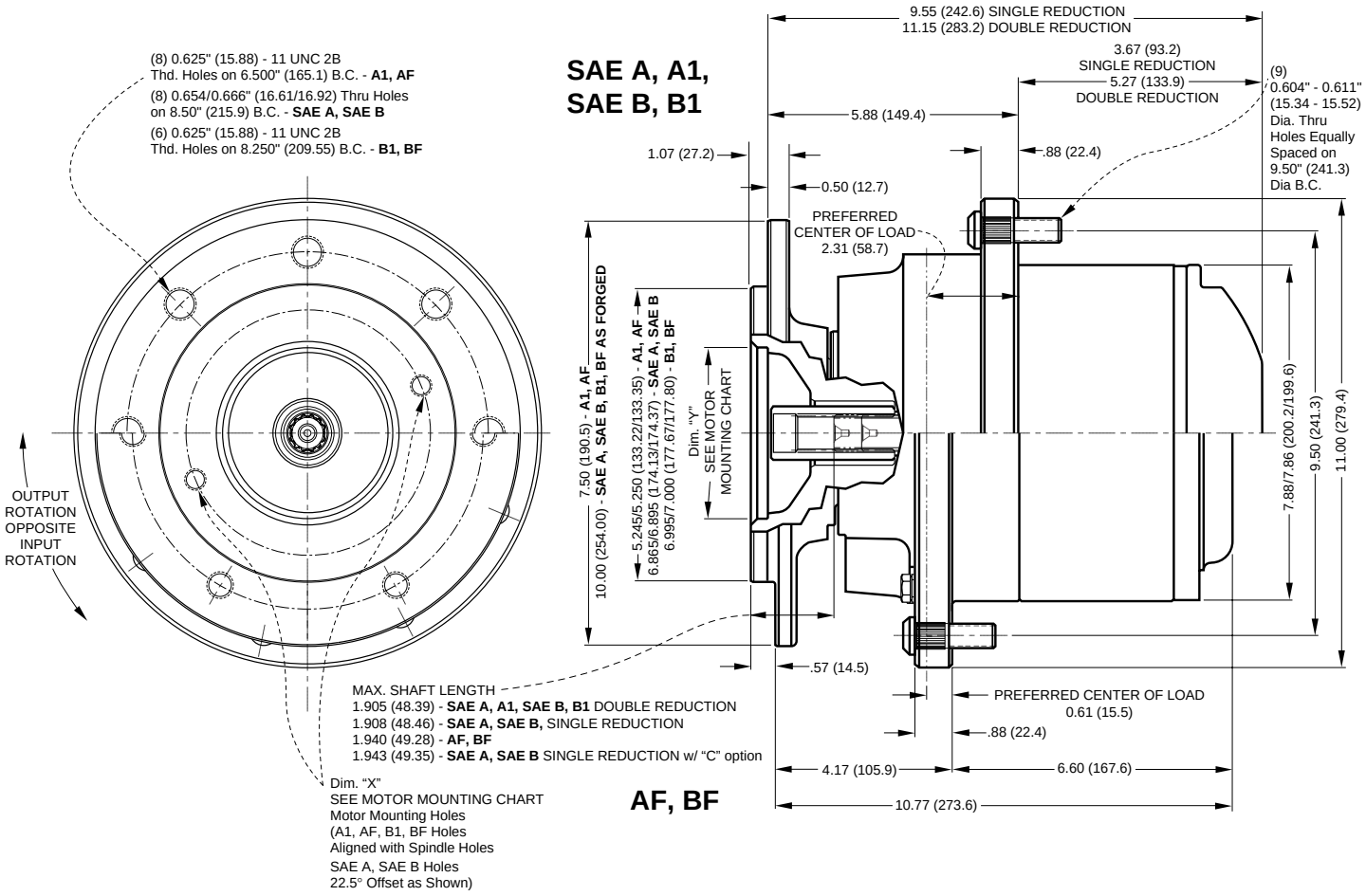
SINGLE REDUCTION DRIVES		DOUBLE REDUCTION DRIVES	
Max. intermittent output torque[1,2]	22,000 lb-in (2,485 Nm)	Max. intermittent output torque[1,2]	50,000 lb-in (5,650 Nm)
Max. input speed[2]	3,500 RPM	Max. input speed[2]	5,000 RPM
Approximate Weight	70 lbs (31.7 kg)	Approximate Weight	95 lbs (43.1 kg)
Oil capacity	25 oz (738 cc)	Oil capacity	30 oz (885 cc)

For Lubrication Data, see Page 35

[1] 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.

[2] If application exceeds published limit, contact Auburn Gear.

Dimensions given in: INCHES (mm)



Note: Use of "C" option reduces overall package by 0.38" (9.7) in length. "C" is specified automatically with the 6WAF and 6WBF motor pilot/hub option.

NON-POWERED UNITS ARE ALSO AVAILABLE
Contact Auburn Gear for Information

FEATURE CHART: MODEL 6 WHEEL DRIVES SINGLE REDUCTION

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN			ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB	**SAE A**	•			**6WA**					
	SAE B		•	•	**6WB**	**6WB**				
INPUT SPLINE	**13T. 16/32**	•	•		**13**		**13**			
	15T. 16/32¤			•	**15¤**					
	1" - 6B*	•			6B					
RATIO OPTIONS	3.50:1	•	•	•	03			**03**		
	4.05:1	•	•	•	**04**					
	4.81:1	•	•	•	**05**					
WHEEL STUDS	**1/2 x 2.50**	•	•	•	**5**					
	9/16 x 2.75	•	•	•	**7**					
	5/8 x 2.37	•	•	•	**8**					
	NONE	•	•	•	**0**				**0**	
SPECIAL FEATURES	Brake Disc Holes	•	•	•	DH					
	Brake Disc**	•	•	•	D					
	Boot Seal	•	•	•	**Z**					
	Cast Iron Cover¤	•	•	•	**C¤**					**C**
	Quick Disconnect	•	•	•	**Q**					
	Oil Plugs/Spindle Side	•	•	•	**P**					
	High Strength Carrier	•	•	•	Y					
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:						**6WB**	**13**	**03**	**0**	**C**

¤ Single reduction units with **15T** input must use the cast iron cover option, **C**.

FEATURE CHART: MODEL 6 WHEEL DRIVES DOUBLE REDUCTION

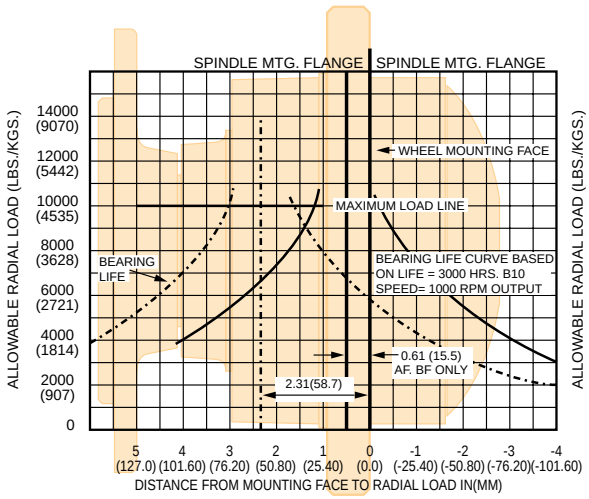
OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB	**SAE A**	•		**6WA**	**6WA**				
	A1	•		6WA1					
	AF	•		**6WAF**					
	SAE B		•	**6WB**					
	B1		•	6WB1					
	BF		•	**6WBF**					
INPUT SPLINE	**13T. 16/32**	•	•	**13**		**13**			
	15T. 16/32		•	**15**					
	1" - 6B*	•		6B					
RATIO OPTIONS	13.06:1	•	•	13					
	15.88:1	•	•	**15**					
	19.62:1	•	•	**19**					
	21.74:1	•	•	**21**					
	24.53:1	•	•	**24**					
	28.37:1	•	•	**28**			**28**		
	32.79:1	•	•	**32**					
WHEEL STUDS	**1/2 x 2.50**	•	•	**5**					
	9/16 x 2.75	•	•	**7**				**7**	
	5/8 x 2.37	•	•	**8**					
	NONE	•	•	**0**					
SPECIAL FEATURES	Brake Disc Holes	•	•	DH					
	Brake Disc**	•	•	D					
	Boot Seal	•	•	**Z**					**Z**
	Cast Iron Cover	•	•	**C**					
	Quick Disconnect	•	•	**Q**					
	Oil Plugs/Spindle Side	•	•	**P**					
	High Strength Carrier	•	•	Y					
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					**6WA**	**13**	**28**	**7**	**Z**

* Units equipped with 1" - 6B Input Spline cannot be disengaged
** Customer supplied, Auburn Gear assembled
BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.

MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A, A1, AF (2) – .375 (9.53) -16 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	Ø 3.251 - 3.256 (82.58 - 82.70)
SAE B, B1, BF (2) – .50 (12.7) -13 UNC,- 2B Thd Holes on 5.75 (146.1) B. C. diameter+	Ø 4.001 - 4.006 (101.62 - 101.75)

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



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 re-viewed by Auburn Gear Engineering using data supplied on Application Data Form.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

NOTE:

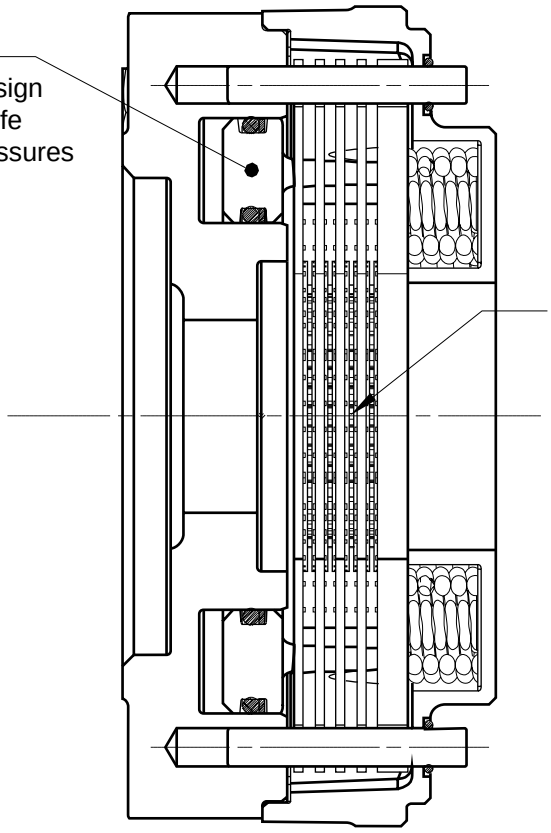
The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

Power Wheel®

Model 6 Wheel Drives Single and Double Reductions

with A2 Series Integral Parking Brake

PISTON:
Improved design
for superior life
at higher pressures



FRICTION DISCS:
"Heavy Duty Graphitic Paper"
for wet sump applications.
Characteristics:
Superior energy capability,
high and stable coefficient
of friction and smooth engagement.

GENERAL A2 SERIES DATA:

1. Maximum operating pressure is 3,000 psi (206.4 Bar). Pressure spikes or surges not to exceed 3,500 psi (240.8 Bar). Surge pressure in excess of 3,500 psi (240.8 Bar) caused by spikes in the hydraulic system could shorten brake life and must be avoided.
2. Use only SAE grade 8 mounting bolts and torque to 80-90 lb. ft. (108-122 N-m) for motor mounting.
3. PRECAUTION: Bench testing may cause distortion of components or bolt failure. Mounting bolts must be used for supplemental clamping.
4. Minimum Release Pressure is defined as the hydraulic pressure required to obtain full running clearance.
5. Cubic Inch Displacement is the volume of oil required to release the brake piston 1.0 in^3 (16.4cc) for a new brake and 2.0 in^3 (32.8cc) for a worn brake pack.

Model 6 Wheel Drives Single and Double Reductions

with A2 Series Integral Parking Brake

GENERAL SPECIFICATIONS

SINGLE REDUCTION DRIVES	DOUBLE REDUCTION DRIVES
Max. intermittent output torque[1,2] 22,000 lb-in (2,485 Nm)	Max. intermittent output torque[1,2] 50,000 lb-in (5,650 Nm)
Max. input speed[3] ..... 2,000 RPM	Max. input speed[3] ..... 2,000 RPM
Approximate Weight ..... 87 lbs (39.5 kg)	Approximate Weight ..... 112 lbs (50.8 kg)
Oil capacity ..... 30 oz (887 cc)	Oil capacity ..... 35 oz (1,035 cc)

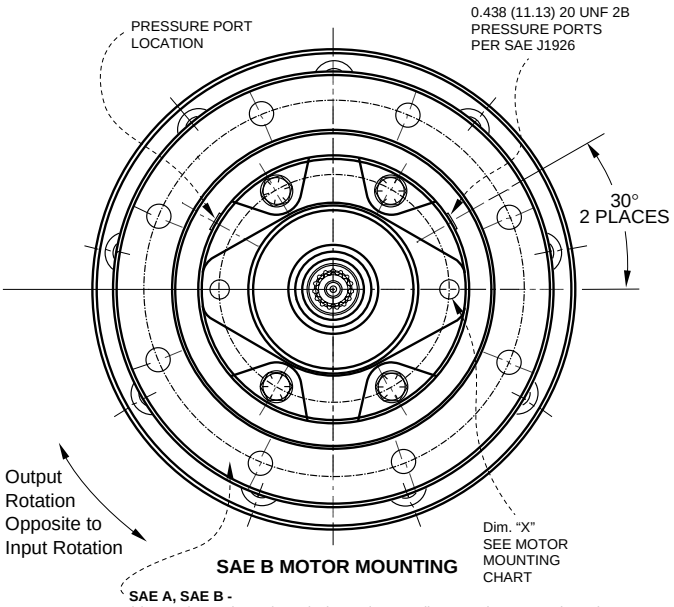
For Lubrication Data, see Page 35

[1] 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.

[2] If application exceeds published limit, contact Auburn Gear.

[3] For input speeds between 2,000 and 3,600 rpm, contact Auburn Gear for duty cycle analysis.

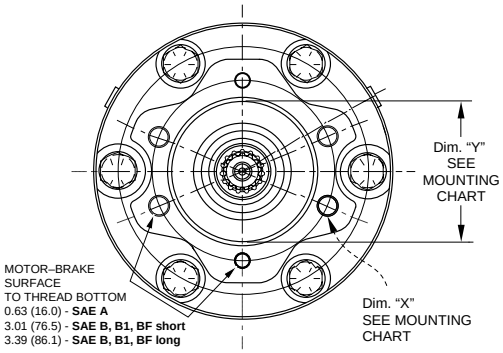
Dimensions given in: INCHES (mm)



SAE B MOTOR MOUNTING

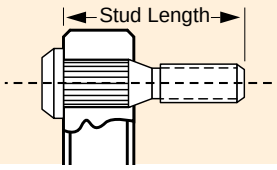
SAE A, SAE B -
(8) 0.654/0.666 (16.61/16.92) Thru Holes Equally Spaced on 8.500" (215.9) B.C.
Spindle Holes and Motor Mounting Holes are Offset by 22.5°

B1, BF -
(6) 0.625" (15.88) 11 UNC 2B Thd. Thru Holes Equally Spaced on 8.250" (209.55) B.C.
Spindle Holes and Motor Mounting Holes are In-line



SAE A MOTOR MOUNTING

INLET PORT LOCATIONS SAME AS SAE B

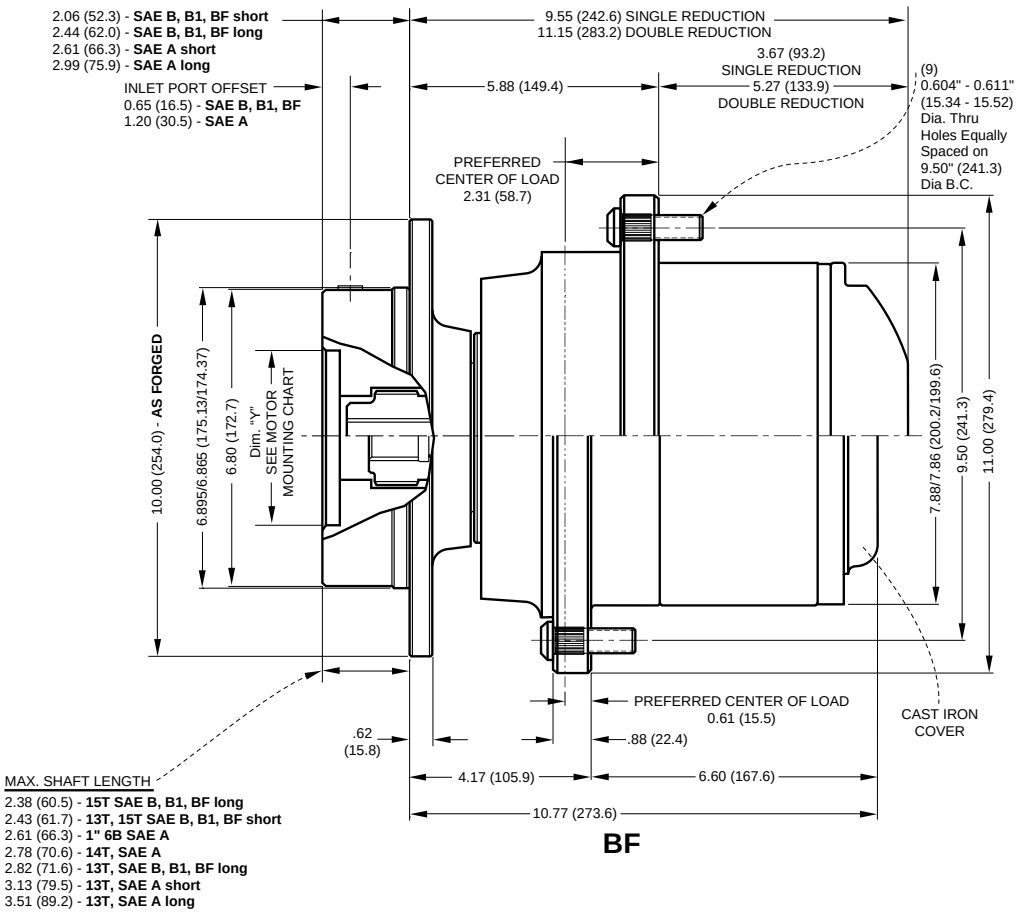


Wheel Stud – Detail

Note that the stud lengths shown in the feature chart represent the total length of the stud under the head.

NON-POWERED UNITS ARE ALSO AVAILABLE
Contact Auburn Gear for Information

SAE A, SAE B, B1



BF

BRAKE RATINGS

MODEL	TORQUE	MINIMUM RELEASE PRESSURE		STYLE
B1	1,540 lb-in (174 N-m)	190 PSI	(13.1 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)

MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A (2) – .375 (9.53) -16 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+ **AND** (4) – .50 (12.7) -13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	Ø 3.251 - 3.256 (82.58 - 82.70)
SAE B, B1, BF (2) – .50 (12.7) -13 UNC,- 2B Thd Holes on 5.75 (146.1) B. C. diameter+	Ø 4.001 - 4.006 (101.62 - 101.75)

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

FEATURE CHART: MODEL 6 WHEEL DRIVES SINGLE REDUCTION with BRAKE

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN			ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER					
MOTOR PILOT/HUB	SAE A¤	•			6WA¤						
	SAE B		•	•	**6WB**	**6WB**					
INPUT SPLINE	**13T. 16/32**	•	•		**13**		**13**				
	14T. 12/24¤	•			14¤						
	15T. 16/32			•	**15**						
	1" - 6B	•			6B						
RATIO OPTIONS	3.50:1	•	•	•	03						
	4.05:1	•	•	•	**04**						
	4.81:1¤	•	•	•	**05¤**			**05**			
WHEEL STUDS	**1/2 x 2.50**	•	•	•	**5**						
	9/16 x 2.75	•	•	•	**7**				**7**		
	5/8 x 2.37	•	•	•	**8**						
	NONE	•	•	•	**0**						
PARKING BRAKE SHORT VERSION	**1,540 lb-in**	•	•	•	**B1**						
	1,800 lb-in	•	•	•	**B2**					**B2**	
	2,400 lb-in	•	•	•	B3						
	2,400 lb-in	•	•	•	**B4**						
	3,200 lb-in	•	•	•	B5						
PARKING BRAKE LONG VERSION	3,600 lb-in	•	•	•	B6						
	4,200 lb-in	•	•	•	**B7**						
SPECIAL FEATURES	Brake Disc Holes	•	•	•	DH						
	Brake Disc*	•	•	•	D						
	Quick Disconnect	•	•	•	**Q**						**Q**
	Oil Plugs/Spindle Side	•	•	•	**P**						
	Boot Seal	•	•	•	**Z**						
	High Strength Carrier	•	•	•	Y						
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:						**6WB**	**13**	**05**	**7**	**B2**	**Q**

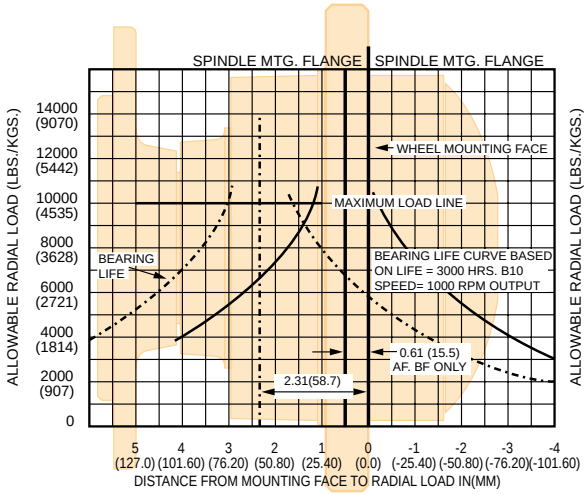
¤ 6WA14**05** will not disengage.

FEATURE CHART: MODEL 6 WHEEL DRIVES DOUBLE REDUCTION with BRAKE

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER					
MOTOR PILOT/HUB	SAE A	•		6WA						
	SAE B		•	**6WB**	**6WB**					
	B1		•	6WB1						
	BF		•	**6WBF**						
INPUT SPLINE	**13T. 16/32**	•	•	**13**		**13**				
	14T. 12/24	•		14						
	15T. 16/32		•	**15**						
	1" - 6B	•		6B						
RATIO OPTIONS	13.06:1	•	•	13						
	15.88:1	•	•	**15**						
	19.62:1	•	•	**19**						
	21.74:1	•	•	**21**						
	24.53:1	•	•	**24**			**24**			
	28.37:1	•	•	**28**						
	32.79:1	•	•	**32**						
WHEEL STUDS	**1/2 x 2.50**	•	•	**5**					**5**	
	9/16 x 2.75	•	•	**7**						
	5/8 x 2.37	•	•	**8**						
	NONE	•	•	**0**						
PARKING BRAKE SHORT VERSION	**1,540 lb-in**	•	•	**B1**						
	1,800 lb-in	•	•	**B2**						**B2**
	2,400 lb-in	•	•	B3						
	2,400 lb-in	•	•	**B4**						
	3,200 lb-in	•	•	B5						
PARKING BRAKE LONG VERSION	3,600 lb-in	•	•	B6						
	4,200 lb-in	•	•	**B7**						
SPECIAL FEATURES	Brake Disc Holes	•	•	DH						
	Brake Disc*	•	•	D						
	Cast Iron Cover	•	•	**C**						
	Quick Disconnect	•	•	**Q**						
	Oil Plugs/Spindle Side	•	•	**P**						
	Boot Seal	•	•	**Z**						**Z**
	High Strength Carrier	•	•	Y						
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					**6WB**	**13**	**24**	**5**	**B2**	**Z**

* Customer supplied, Auburn Gear assembled

BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.



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.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

NOTE:

The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

Model 6 Wheel Drives
Single and Double Reductions
Bearingless Motor Units[3]

GENERAL SPECIFICATIONS

SINGLE REDUCTION DRIVES		DOUBLE REDUCTION DRIVES	
Max. intermittent output torque[1,2]	22,000 lb-in (2,485 Nm)	Max. intermittent output torque[1,2]	50,000 lb-in (5,650 Nm)
Max. input speed[2]	3,500 RPM	Max. input speed[2]	5,000 RPM
Approximate Weight	73 lbs (33.1 kg)	Approximate Weight	98 lbs (44.5 kg)
Oil capacity	25 oz (740 cc)	Oil capacity	30 oz (890 cc)
Max. case drain pressure	1,500 PSI (103.2 bar)	Max. case drain pressure	1,500 PSI (103.2 bar)

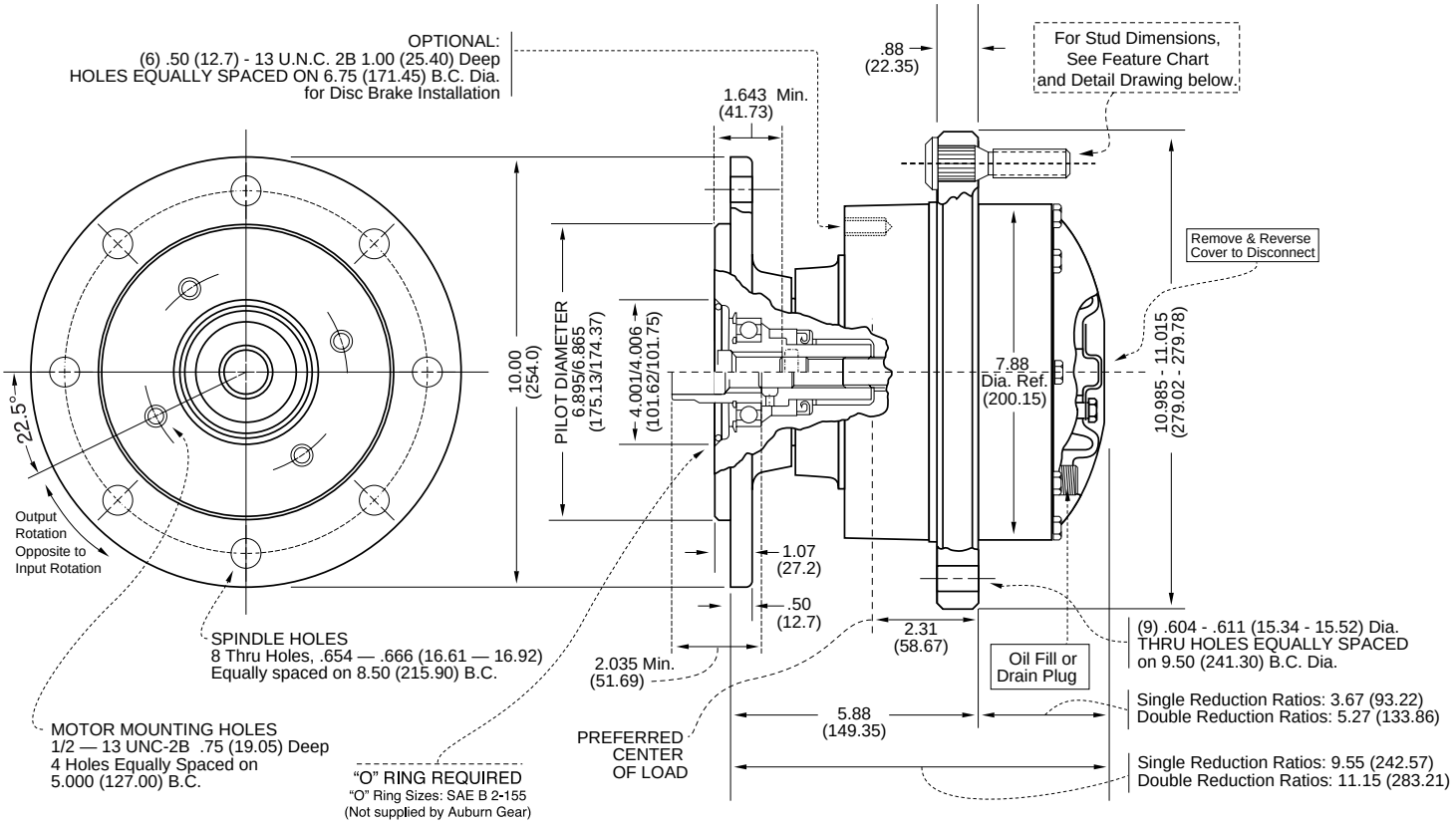
For Lubrication Data, see Page 35

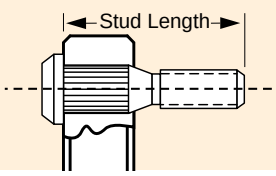
[1] Depending on the duty cycle and the nature of the application, a normal continuous output torque of 1/3 to 1/2 of the maximum Intermittent should yield satisfactory *Power Wheel* life. Customer testing and application analysis is strongly recommended.

[2] If application exceeds published limit, contact Auburn Gear.

[3] Case drain must be contained in motor.

Dimensions given in: INCHES (mm)



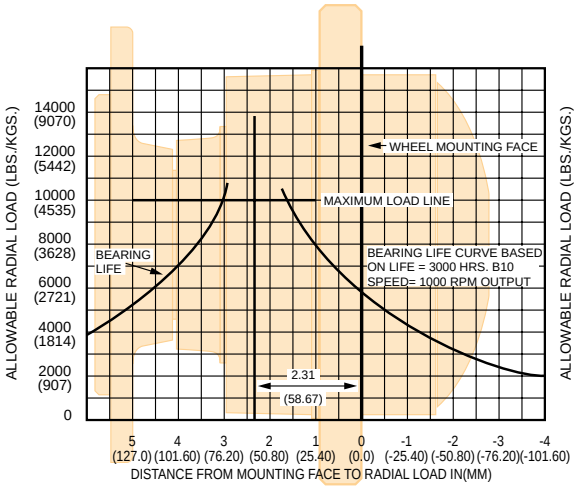


Wheel Stud – Detail

Note that the stud lengths shown in the feature chart represent the total length of the stud under the head.

FEATURE CHART: MODEL 6 WHEEL DRIVE
BEARINGLESS MOTOR UNITS - SINGLE REDUCTION

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB	**2000Series**	•		**6WBC**	**6WBD**				
	OMSS		•	**6WBD**					
INPUT SPLINE	**12T. 12/24**	•	•	**12**		**12**			
RATIO OPTIONS	3.50:1	•	•	03					
	4.05:1	•	•	**04**			**04**		
	4.81:1	•	•	**05**					
WHEEL STUDS	**1/2 x 2.50**	•	•	**5**					
	9/16 x 2.75	•	•	**7**					
	5/8 x 2.37	•	•	**8**				**8**	
	NONE	•	•	**0**					
SPECIAL FEATURES	Brake Disc Holes	•	•	DH					
	Brake Disc*	•	•	D					
	Boot Seal	•	•	**Z**					
	Cast Iron Cover			**C**					**C**
	Quick Disconnect	•	•	**Q**					
	Oil Plugs/Spindle Side	•	•	**P**					
	High Strength Secondary Carrier	•	•	Y					
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					**6WBD**	**12**	**04**	**8**	**C**



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 re-viewed by Auburn Gear Engineering using data supplied on Application Data Form.

FEATURE CHART: MODEL 6 WHEEL DRIVE
BEARINGLESS MOTOR UNITS - DOUBLE REDUCTION

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB	2000Series	•		6WBC	6WBD				
	OMSS		•	6WBD					
INPUT SPLINE	12T. 12/24	•	•	12		12			
RATIO OPTIONS	13.06:1	•	•	13					
	15.88:1	•	•	15			15		
	19.62:1	•	•	19					
	21.74:1	•	•	21					
	24.53:1	•	•	24					
	28.37:1	•	•	28					
WHEEL STUDS	1/2 x 2.50	•	•	5					
	9/16 x 2.75	•	•	7					
	5/8 x 2.37	•	•	8				8	
	NONE	•	•	0					
SPECIAL FEATURES	Brake Disc Holes	•	•	DH					
	Brake Disc*	•	•	D					
	Boot Seal	•	•	Z					
	Cast Iron Cover			C					C
	Quick Disconnect	•	•	Q					
	Oil Plugs/Spindle Side	•	•	P					
	High Strength Secondary Carrier	•	•	Y					
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					6WBD	12	15	8	C

* Customer supplied, Auburn Gear assembled

BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

NOTE:

The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

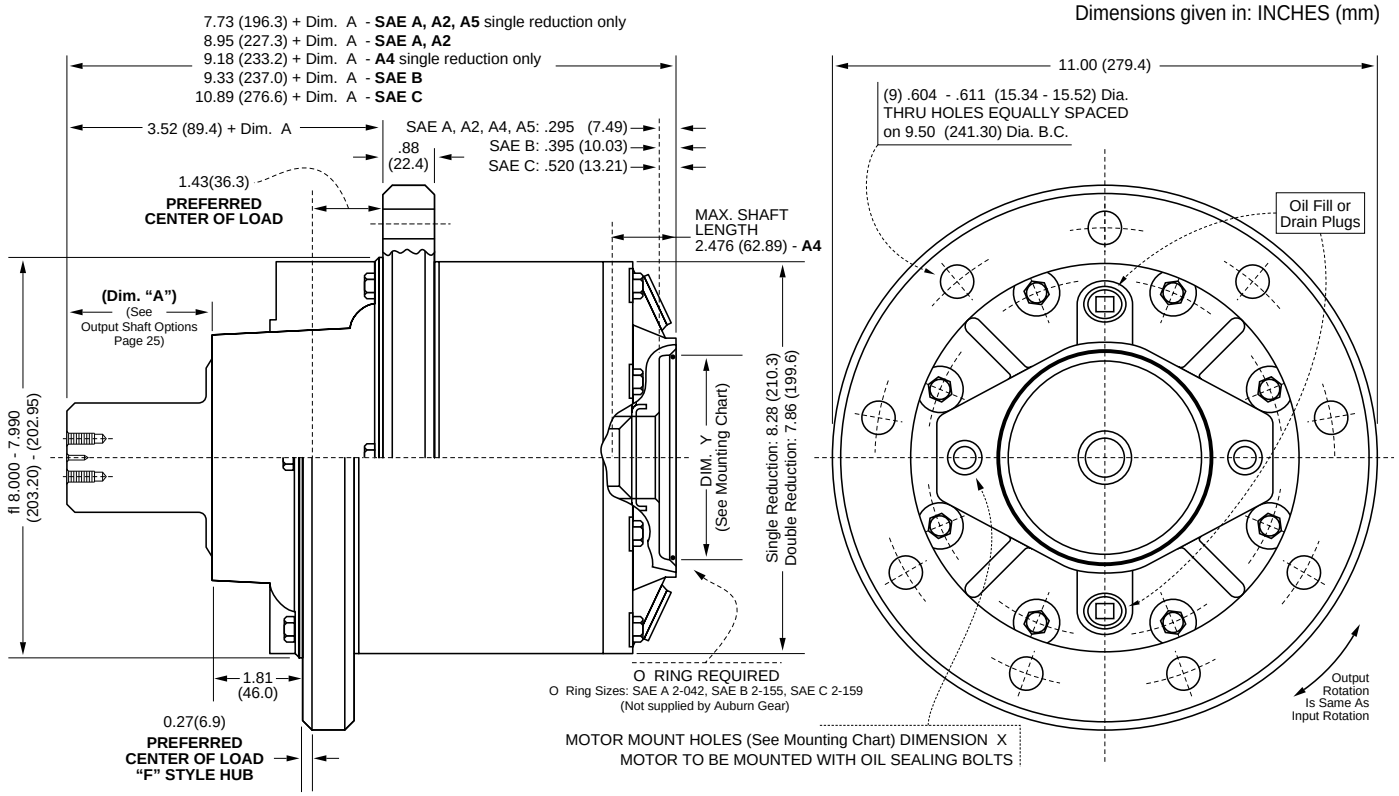
Model 6 Shaft Output Drives Single and Double Reductions

GENERAL SPECIFICATIONS

SINGLE REDUCTION DRIVES	DOUBLE REDUCTION DRIVES
Max. intermittent output torque[1,2] 30,000 lb-in (3,390 Nm)	Max. intermittent output torque[1,2] 50,000 lb-in (5,650 Nm)
Max. input speed[2] ..... 3,500 RPM	Max. input speed[2] ..... 5,000 RPM
Approximate Weight ..... 57 lbs (26.3 kg)	Approximate Weight ..... 83 lbs (37.6 kg)
Oil capacity ..... 17 oz (500 cc)	Oil capacity ..... 24 oz (700 cc)

For Lubrication Data, see Page 35

Dimensions given in: INCHES (mm)



MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A (2) – .375 (9.53) -16 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter✚	Ø 3.251 - 3.256 (82.58 - 82.70)
A2 (2) – .500 (12.70) -13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter✚	
A4, A5 (4) – .500 (12.70) -13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter✚	
SAE B (2) – .500 (12.70) -13 UNC,- 2B Thd Holes on 5.75 (146.1) B. C. diameter✚	Ø 4.001 - 4.006 (101.62 - 101.75)
SAE C (4) – .500 (12.70) -13 UNC,- 2B Thd Holes on 6.375 (161.93) B. C. diameter✚ **OR** (2) – .625 (15.88) -13 UNC,- 2B Thd Holes on 7.125 (180.97) B. C. diameter✚	5.001 - 5.008 (127.02 - 127.15)

✚"O" RING OR GASKET REQUIRED (Not Supplied by Auburn Gear)
"O" RING SIZES: SAE "A "2–042, SAE "B" 2–155, SAE "C" 2–159

[1] 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.

[2] If application exceeds published limit, contact Auburn Gear.

Note: For single reductions, SAE B and SAE C, subtract 1.60" (40.6) from overall length.

FEATURE CHART: MODEL 6 SHAFT OUTPUT DRIVES - SINGLE REDUCTION • STYLE T

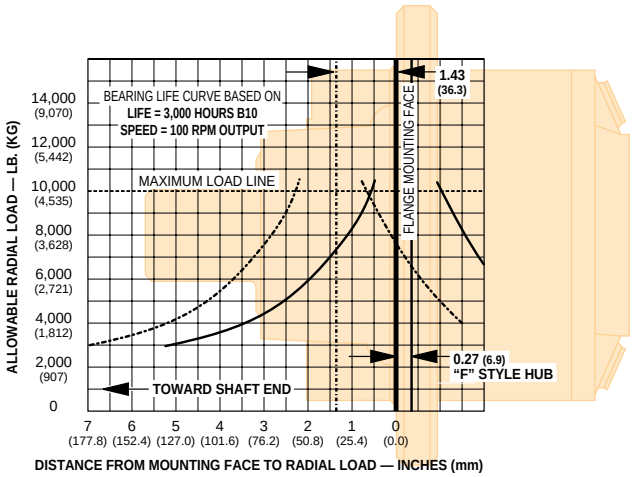
OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN					ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER			
MOTOR PILOT/HUB[1]	**SAE A**	•	•				**6TA**	**6TA**			
	A2	•	•				**6TA2**				
	A4			•			**6TA4**				
	A5					•	6TA5				
	SAE B						**6TB**				
	SAE C				•		6TC				
INPUT SPLINE	**13T - 16/32**	•					**13**		**13**		
	1" - 6B*		•			•	**6B**				
	14T - 12/24**		•	•	•		**14**				
RATIO OPTIONS	**3.75:1**	•	•	•			**03**				
	4.50:1	•	•		•	•	**04**				
	5.05:1	•	•		•		**05**			**05**	
	5.81.1	•		•			06				
OUTPUT OPTIONS	1 3/4 J501 Taper	•	•	•	•	•	T1				
	17T. 12/24 Spline	•	•	•	•	•	17				
	23T. 12/24 Spline	•	•	•	•	•	**23**				
	23T. 12/24 Short	•	•	•	•	•	**23S**				
	1.75 Keyed	•	•	•	•	•	K1				
	2.00 Keyed	•	•	•	•	•	**K2**				**K2**
	2.00 Hollow	•	•	•	•	•	K3				
	1.75 Hollow	•	•	•	•	•	K4				
	2.00 Keyed	•	•	•	•	•	K5				
	2.00 Round	•	•	•	•	•	**A1**				
	2.56 Round	•	•	•	•	•	**A2**				
	2.00 Hex	•	•	•	•	•	**H1**				
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:								**6TA**	**13**	**05**	**K2**

* 1" - 6B input spline not available with SAE or A2 motor pilot/hub and 3.75:1 ratio.
** 14T - 12/24 input spline not available with SAE A or A2 motor pilot/hub and 5.05:1 ratio.
[1] If "F" style hub required, place letter "F" between motor pilot/hub and input spline (i.e. **6TAF6B04K2**)

FEATURE CHART: MODEL 6 SHAFT OUTPUT DRIVES - DOUBLE REDUCTION

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN				ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER			
MOTOR PILOT/HUB[2]	**SAE A**	•	•			**6SA**	**6SA**			
	A2	•	•			**6SA2**				
	SAE B	•		•		**6SB**				
	SAE C				•	6SC				
INPUT SPLINE	**13T - 16/32**	•				**13**				
	1" - 6B		•			**6B**		**6B**		
	14T - 12/24				•	14				
	15T - 16/32			•		**15**				
RATIO OPTIONS	14.06:1	•	•	•	•	14				
	16.88:1	•	•	•		**16**				
	20.62:1	•	•	•		**20**				
	22.74:1	•	•	•	•	**22**			**22**	
	25.53:1	•	•			**25**				
	29.37:1	•			•	**29**				
	33.79.1	•				**33**				
OUTPUT OPTIONS	1 3/4 J501 Taper	•	•	•	•	T1				
	17T. 12/24 Spline	•	•	•	•	17				
	23T. 12/24 Spline	•	•	•	•	**23**				**23**
	23T. 12/24 Short	•	•	•	•	**23S**				
	1.75 Keyed	•	•	•	•	K1				
	2.00 Keyed	•	•	•	•	**K2**				
	2.00 Hollow	•	•	•	•	K3				
	1.75 Hollow	•	•	•	•	K4				
	2.00 Keyed	•	•	•	•	K5				
	2.00 Round	•	•	•	•	**A1**				
	2.56 Round	•	•	•	•	**A2**				
	2.00 Hex	•	•	•	•	**H1**				
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:							**6SA**	**6B**	**22**	**23**

BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.
[2] If "F" style hub required, place letter "F" between motor pilot/hub and input spline (i.e. **6SBF1329K2**)



NOTE:

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

For actual analysis, applications should be reviewed by Auburn Gear Engineering using data supplied on Application Data Form.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

NOTE:

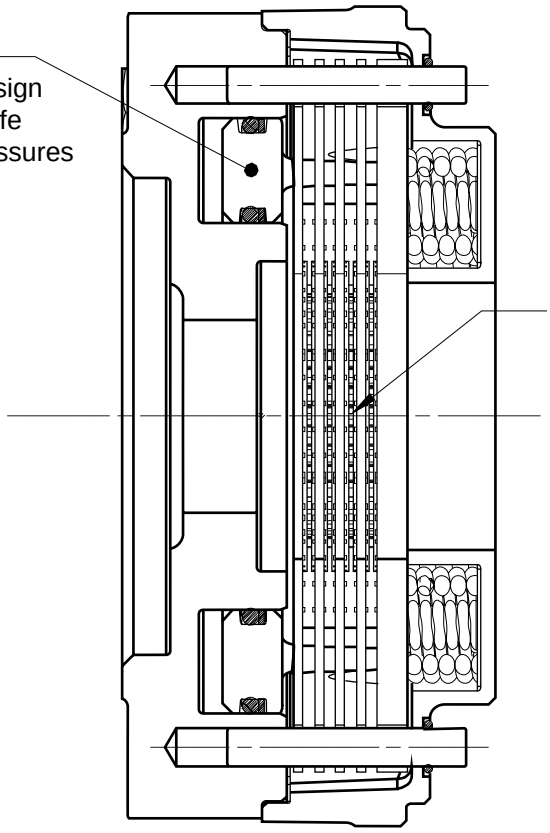
The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

Power Wheel®

Model 6 Shaft Output Drives Single and Double Reductions

with A2 Series Integral Parking Brake

PISTON:
Improved design
for superior life
at higher pressures



FRICTION DISCS:
"Heavy Duty Graphitic Paper"
for wet sump applications.
Characteristics:
Superior energy capability,
high and stable coefficient
of friction and smooth engagement.

GENERAL A2 SERIES DATA:

1. Maximum operating pressure is 3,000 psi (206.4 Bar). Pressure spikes or surges not to exceed 3,500 psi (240.8 Bar). Surge pressure in excess of 3,500 psi (240.8 Bar) caused by spikes in the hydraulic system could shorten brake life and must be avoided.
2. Use only SAE grade 8 mounting bolts and torque to 80-90 lb. ft. (108-122 N-m) for motor mounting.
3. PRECAUTION: Bench testing may cause distortion of components or bolt failure. Mounting bolts must be used for supplemental clamping.
4. Minimum Release Pressure is defined as the hydraulic pressure required to obtain full running clearance.
5. Cubic Inch Displacement is the volume of oil required to release the brake piston 1.0 in^3 (16.4cc) for a new brake and 2.0 in^3 (32.8cc) for a worn brake pack.
6. For vertical shaft output applications, shaft up or shaft down, please contact Auburn Gear to insure proper brake configuration is specified.

Model 6 Shaft Output Drives Single and Double Reductions

with A2 Series Integral Parking Brake[1]

GENERAL SPECIFICATIONS

SINGLE REDUCTION DRIVES	DOUBLE REDUCTION DRIVES
Max. intermittent output torque[2,3] 30,000 lb-in (3,390 Nm)	Max. intermittent output torque[2,3] 50,000 lb-in (5,650 Nm)
Max. input speed[4] ..... 2,000 RPM	Max. input speed[4] ..... 2,000 RPM
Approximate Weight ..... 87 lbs (39.5 kg)	Approximate Weight ..... 112 lbs (50.8 kg)
Oil capacity ..... 30 oz (887 cc)	Oil capacity ..... 35 oz (1035 cc)

For Lubrication Data, see Page 35

[1] For vertical applications, shaft up or shaft down, contact Auburn Gear.

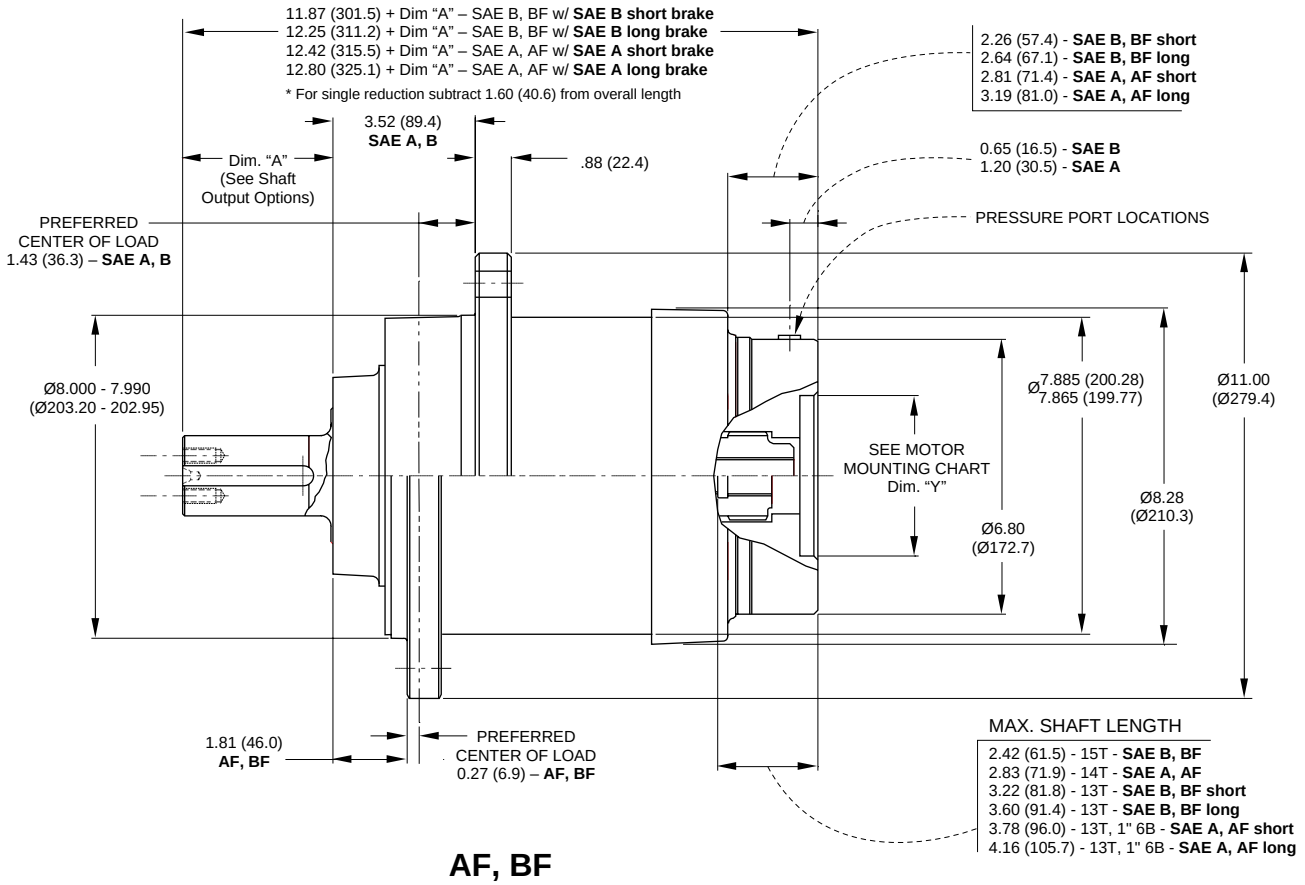
[2] Depending on the duty cycle and the nature of the application, a normal continuous output torque of 1/3 to 1/2 of the maximum Intermittent should yield satisfactory *Power Wheel* life. Customer testing and application analysis is strongly recommended.

[3] If application exceeds published limit, contact Auburn Gear.

[4] For input speeds between 2,000 and 3,600 rpm, contact Auburn Gear for duty cycle analysis.

Dimensions given in: INCHES (mm)

SAE A, SAE B

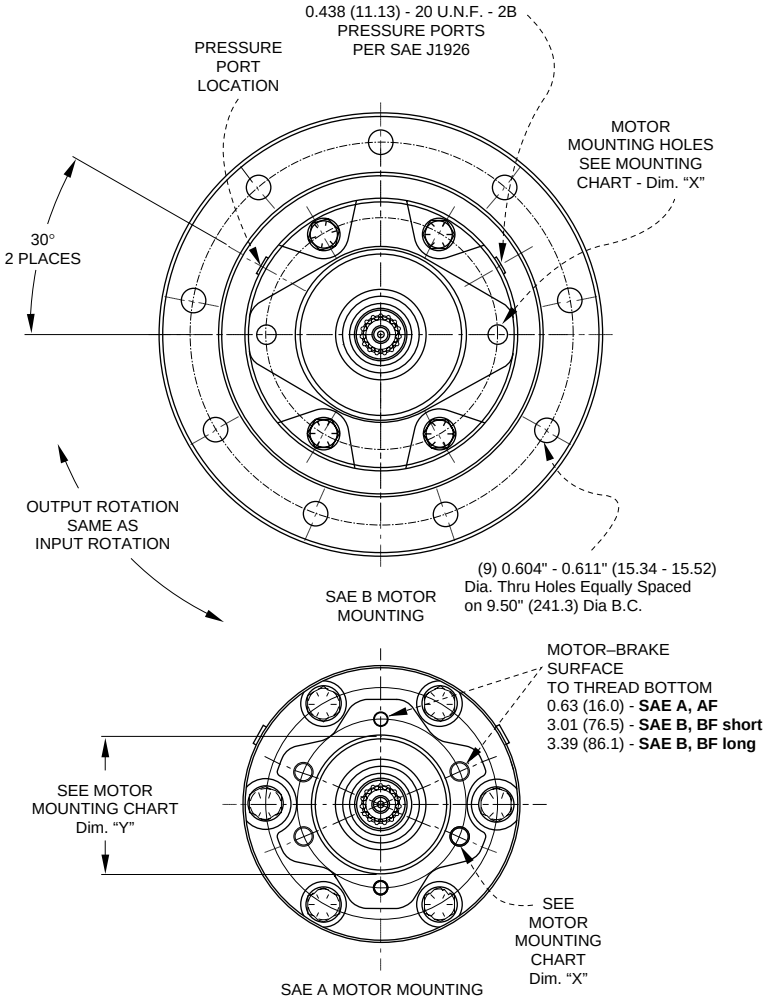


AF, BF

BRAKE RATINGS

MODEL	TORQUE	MINIMUM RELEASE PRESSURE	STYLE
B1	1,540 lb-in (174 N-m)	190 PSI (13.1 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)



INLET PORT LOCATIONS SAME AS SAE B

MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A, AF (2) – .375 (9.53) -16 UNC,- 2B Thd Holes Equally Spaced on 4.188 (106.38) B. C.+ AND (4) – .500 (12.70) -13 UNC,- 2B Thd Holes on 4.188 (106.38) B. C.+	Ø 3.251 - 3.256 (82.58 - 82.70)
SAE B, BF (2) – .500 (12.70) -13 UNC. 2B Thd Holes Equally Spaced on 5.750 (146.05) B. C.+	Ø 4.001 - 4.006 (101.62 - 101.75)

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

FEATURE CHART: MODEL 6 SHAFT OUTPUT SINGLE REDUCTION STYLE T with BRAKE

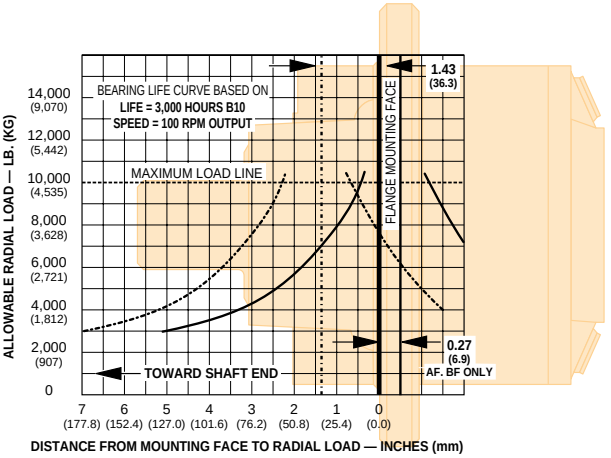
OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB	**SAE A**	•		**6TA**					
	AF	•		6TAF					
	SAE B		•	**6TB**	**6TB**				
	BF		•	6TBF					
INPUT SPLINE	**13T. 16/32**	•	•	**13**		**13**			
	1" - 6B	•		**6B**					
	14T. 12/24	•		**14**					
	15T. 16/32		•	15					
RATIO OPTIONS	3.75:1			03					
	4.50:1	•	•	**04**			**04**		
	5.05:1	•	•	**05**					
	5.81:1	•	•	06					
OUTPUT SHAFT OPTIONS	1 3/4 J501 Taper	•	•	T1					
	17T. 12/24 Spline	•	•	17					
	23T. 12/24 Spline	•	•	**23**				**23**	
	23T. 12/24 Short	•	•	**23S**					
	1.75 Keyed	•	•	K1					
	2.00 Keyed	•	•	**K2**					
	2.00 Hollow	•	•	K3					
	1.75 Hollow	•	•	K4					
	2.00 Keyed	•	•	K5					
	2.00 Round	•	•	**A1**					
	2.56 Round	•	•	**A2**					
	2.00 Hex	•	•	**H1**					
PARKING BRAKE* SHORT VERSION	1,540 lb-in	•	•	B1					
	1,800 lb-in	•	•	**B2**					**B2**
	2,400 lb-in	•	•	B3					
PARKING BRAKE* LONG VERSION	**2,400 lb-in**	•	•	**B4**					
	3,200 lb-in	•	•	**B5**					
	3,600 lb-in	•	•	B6					
	4,200 lb-in	•	•	**B7**					
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					**6TB**	**13**	**04**	**23**	**B2**

FEATURE CHART: MODEL 6 SHAFT OUTPUT DOUBLE REDUCTION with BRAKE

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB	**SAE A**	•		**6SA**					
	AF	•		6SAF					
	SAE B		•	**6SB**	**6SB**				
	BF		•	6SBF					
INPUT SPLINE	**13T. 16/32**	•	•	**13**		**13**			
	1" - 6B	•		**6B**					
	14T. 12/24	•		**14**					
	15T. 16/32		•	15					
RATIO OPTIONS	14.06:1	•	•	14					
	16.88:1	•	•	**16**			**16**		
	20.62:1	•	•	**20**					
	22.74:1	•	•	**22**					
	25.53:1	•	•	**25**					
	29.37:1	•	•	**29**					
	33.79:1	•	•	**33**					
OUTPUT SHAFT OPTIONS	1 3/4 J501 Taper	•	•	T1					
	17T. 12/24 Spline	•	•	17					
	23T. 12/24 Spline	•	•	**23**				**23**	
	23T. 12/24 Short	•	•	**23S**					
	1.75 Keyed	•	•	K1					
	2.00 Keyed	•	•	**K2**					
	2.00 Hollow	•	•	K3					
	1.75 Hollow	•	•	K4					
	2.00 Keyed	•	•	K5					
	2.00 Round	•	•	**A1**					
	2.56 Round	•	•	**A2**					
	2.00 Hex	•	•	**H1**					
PARKING BRAKE* SHORT VERSION	1,540 lb-in	•	•	B1					
	1,800 lb-in	•	•	**B2**					**B2**
	2,400 lb-in	•	•	B3					
PARKING BRAKE* LONG VERSION	**2,400 lb-in**	•	•	**B4**					
	3,200 lb-in	•	•	**B5**					
	3,600 lb-in	•	•	B6					
	4,200 lb-in	•	•	**B7**					
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					**6SB**	**13**	**16**	**23**	**B2**

* *FOR HORIZONTAL OPERATION ONLY. Where vertical operation is required, contact Auburn Gear.*

BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.



NOTE:

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

For actual analysis, applications should be re-viewed by Auburn Gear Engineering using data supplied on Application Data Form.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

NOTE:

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Model 6 Shaft Input/Shaft Output Drives - Single and Double Reductions

GENERAL SPECIFICATIONS

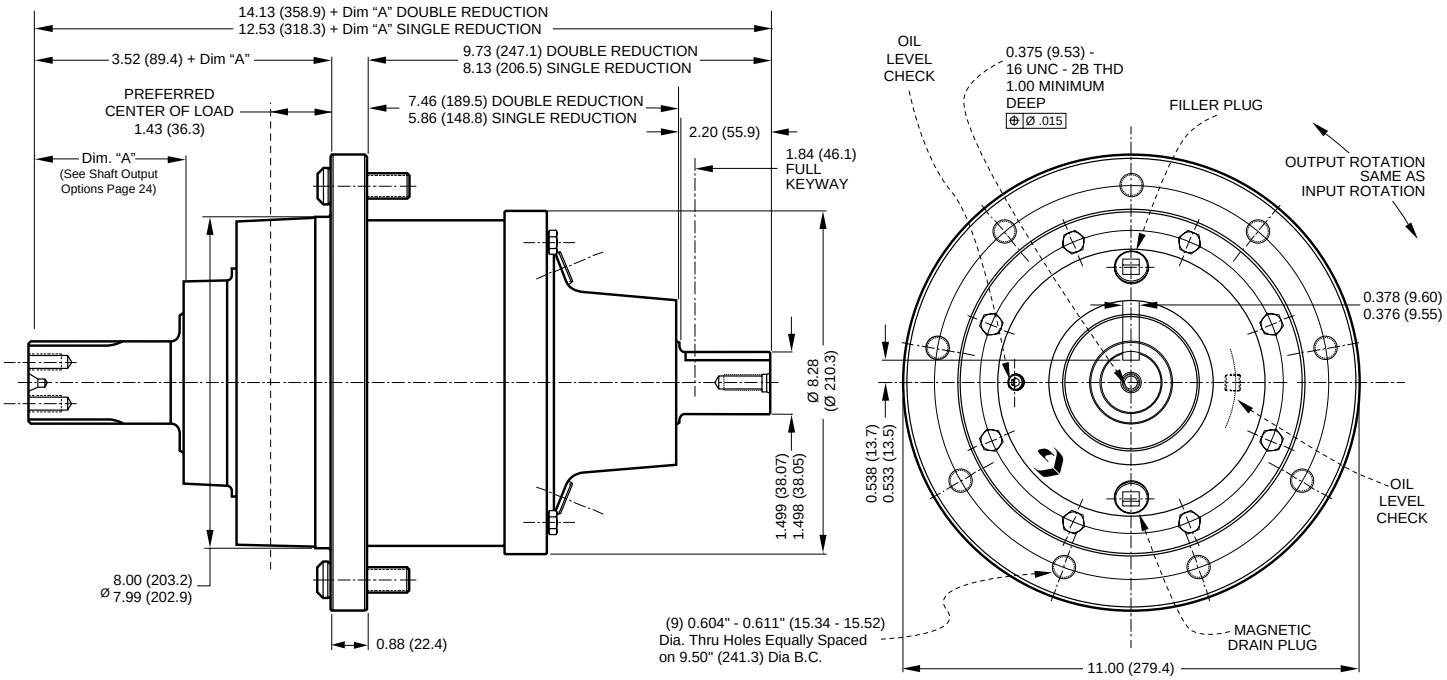
SINGLE REDUCTION DRIVES		DOUBLE REDUCTION DRIVES	
Max. intermittent output torque[1,2]	30,000 lb-in (3,390 Nm)	Max. intermittent output torque[1,2]	50,000 lb-in (5,650 Nm)
Max. input speed[2]	3,500 RPM	Max. input speed[2]	5,000 RPM
Approximate Weight	87 lbs (39.5 kg)	Approximate Weight	122 lbs (55 kg)
Oil capacity	37 oz (1200 cc)	Oil capacity	42 oz (1250 cc)

For Lubrication Data, see Page 35

[1] 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.

[2] If application exceeds published limit contact Auburn Gear.

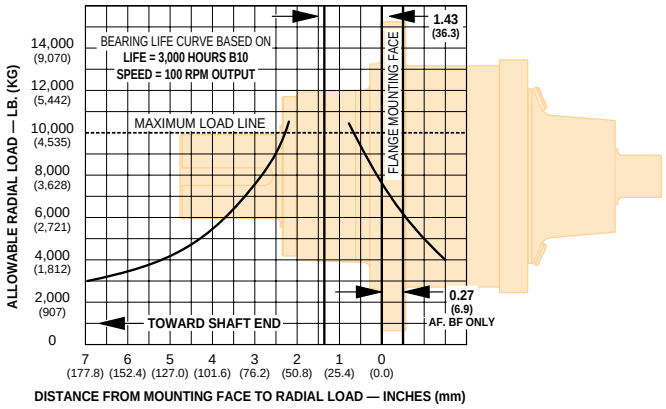
Dimensions given in: INCHES (mm)



FEATURE CHART: MODEL 6 SHAFT INPUT/SHAFT OUTPUT DRIVES - SINGLE REDUCTION

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN	ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER			
HUB	**STD Model 6 Shaft Output Single Red.**	•	**6T**	**6T**			
INPUT SHAFT OPTIONS	**1 1/2" Keyed**	•	**KOO**		**KOO**		
RATIO OPTIONS	**4.50:1**	•	**04**				
	5.05:1	•	**05**			**05**	
	5.81:1	•	06				
OUTPUT SHAFTS	17T. 12/24 Spline	•	17				
	23T. 12/24 Spline	•	**23**				
	23T. 12/24 Short	•	**23S**				
	1.75 Keyed	•	K1				
	2.00 Keyed	•	**K2**				**K2**
	2.00 Hollow	•	K3				
	1.75 Hollow	•	K4				
	2.00 Keyed	•	K5				
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:				**6T**	**KOO**	**05**	**K2**

BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.



NOTE:

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

For actual analysis, applications should be reviewed by Auburn Gear Engineering using data supplied on Application Data Form.

FEATURE CHART: MODEL 6 SHAFT INPUT/SHAFT OUTPUT DRIVES - DOUBLE REDUCTION

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN	ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER			
HUB	**STD Model 6 Shaft Output Double Red.**	•	**6S**	**6S**			
INPUT SHAFT OPTIONS	**1 1/2" Keyed**	•	**KOO**		**KOO**		
RATIO OPTIONS	14.06:1	•	14				
	16.88:1	•	**16**				
	20.62:1	•	**20**				
	22.74:1	•	**22**			**22**	
	25.53:1	•	**25**				
	29.73:1	•	**29**				
	33.79:1	•	**33**				
OUTPUT SHAFTS	17T. 12/24 Spline	•	17				
	23T. 12/24 Spline	•	**23**				**23**
	23T. 12/24 Short	•	**23S**				
	1.75 Keyed	•	K1				
	2.00 Keyed	•	**K2**				
	2.00 Hollow	•	K3				
	1.75 Hollow	•	K4				
	2.00 Keyed	•	K5				
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:				**6S**	**KOO**	**22**	**23**

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

NOTE:

The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

Model 6 Shaft Output Drives Single Reduction – Style "R"

GENERAL SPECIFICATIONS

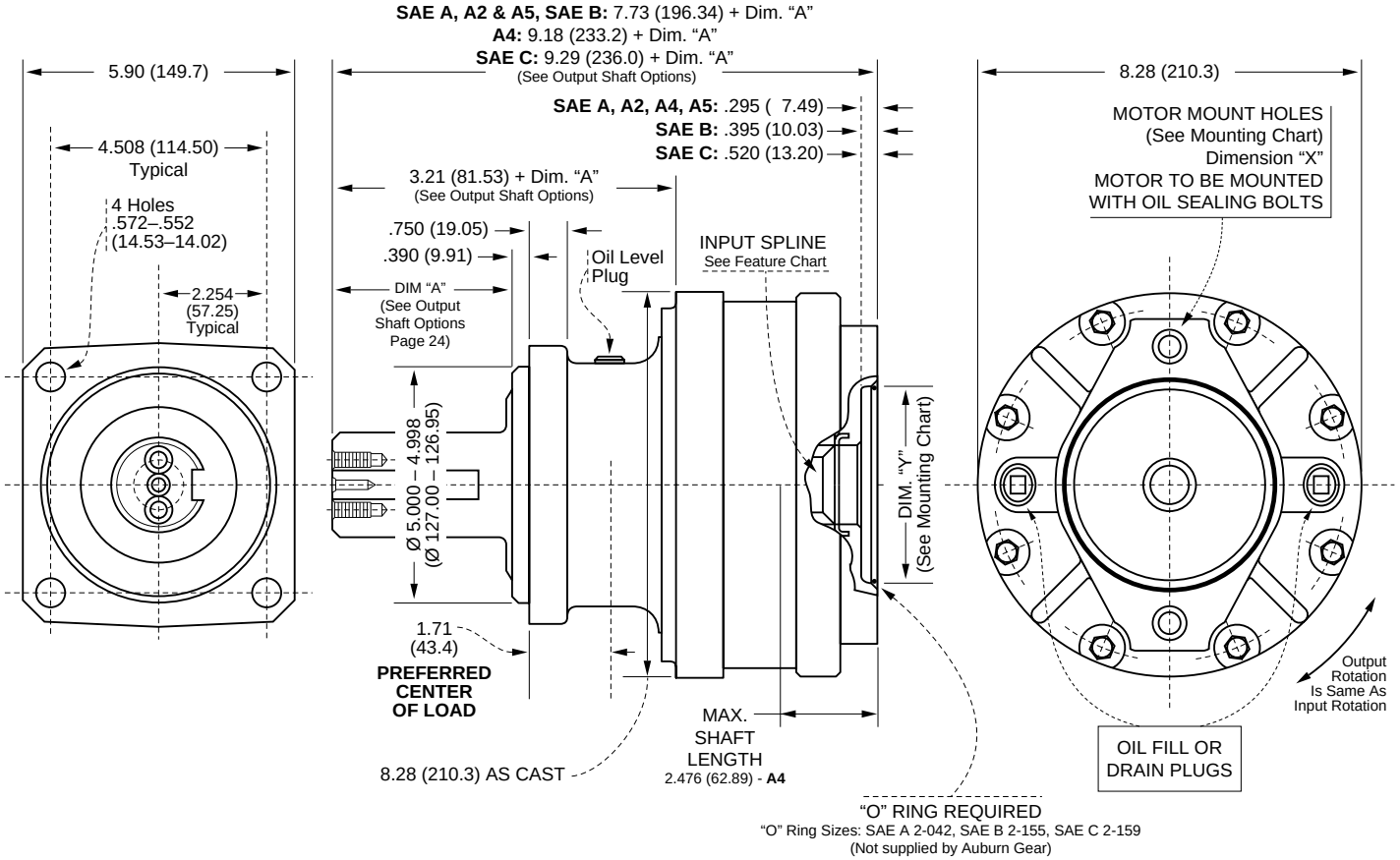
Max. intermittent output torque[1,2]	30,000 lb-in (3,390 Nm)	Approximate Weight	58 lbs (26.3 kg)
Max. input speed[2]	3,500 RPM	Oil capacity	17 oz (500 cc)

For Lubrication Data, see Page 35

[1] 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.

[2] If application exceeds published limit, contact Auburn Gear.

Dimensions given in: INCHES (mm)

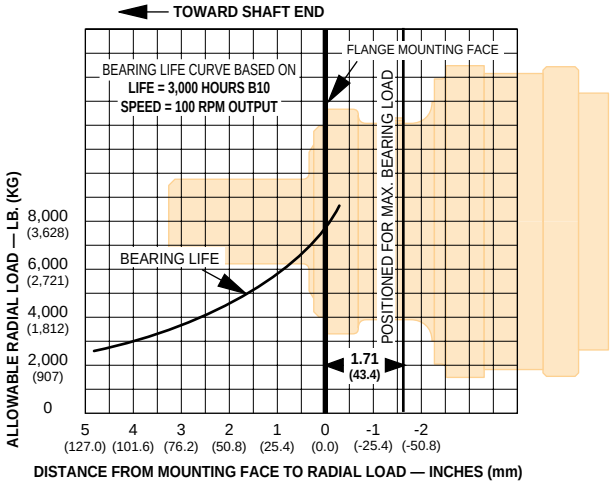


INTEGRAL PARKING BRAKE UNITS ARE ALSO AVAILABLE
Contact Auburn Gear for Information

FEATURE CHART: MODEL 6 SHAFT OUTPUT DRIVES - SINGLE REDUCTION • STYLE R

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN					ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER			
MOTOR PILOT/HUB	**SAE A**	•	•				**6RA**				
	A2	•	•				**6RA2**				
	A4			•			**6RA4**				
	A5					•	6RA5				
	SAE B	•					**6RB**	**6RB**			
	SAE C				•		6RC				
INPUT SPLINE	**13T - 16/32 1" - 6B***	•					**13**		**13**		
	14T - 12/24**		•			•	**6B**				
			•	•	•		**14**				
RATIO OPTIONS	3.75:1	•	•	•			03				
	4.50:1	•	•		•	•	**04**				
	5.05:1	•	•	•			**05**			**05**	
	5.81.1	•		•			06				
OUTPUT SHAFTS	1 3/4 J501 Taper	•	•	•	•	•	T1				
	17T. 12/24 Spline	•	•	•	•	•	**17**				**17**
	23T. 12/24 Spline	•	•	•	•	•	**23**				
	23T. 12/24 Short	•	•	•	•	•	**23S**				
	1.75 Keyed	•	•	•	•	•	K1				
	2.00 Keyed	•	•	•	•	•	**K2**				
	2.00 Hollow	•	•	•	•	•	K3				
	1.75 Hollow	•	•	•	•	•	K4				
	2.00 Keyed	•	•	•	•	•	K5				
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:								**6RB**	**13**	**05**	**17**

*1" 6B input spline not available with SAE A or A2 motor pilot/hub and 3.75:1 ratio.
** 14T - 12/24 input spline not available with SAE A or A2 motor pilot/hub and 5.05:1 ratio.
BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.



NOTE:

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

For actual analysis, applications should be reviewed by Auburn Gear Engineering using data supplied on Application Data Form.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A (2) – .375 (9.53) -16 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	Ø 3.251 - 3.256 (82.58 - 82.70)
A2 (2) – .50 (12.7) -13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	
A4, A5 (4) – .50 (12.7) -13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	
SAE B (2) – .50 (12.7)-13 UNC,- 2B Thd Holes on 5.75 (146.1) B. C. diameter+	Ø 4.001 - 4.006 (101.62 - 101.75)
SAE C (4) – .50 (12.7) -13 UNC,- 2B Thd Holes on 6.375 (161.93) B. C. diameter+ **OR** (2) – .625 (15.88) -13 UNC,- 2B Thd Holes on 7.125 (180.97) B. C. diameter+	Ø 5.001 - 5.008 (127.02 - 127.15)

+"O" RING OR GASKET REQUIRED (Not Supplied by Auburn Gear)
"O" RING SIZES: SAE "A "2–042, SAE "B" 2–155, SAE "C" 2–159

NOTE:

The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

Model 6 Shaft Output Drives
Single Reduction – Style “F”

GENERAL SPECIFICATIONS

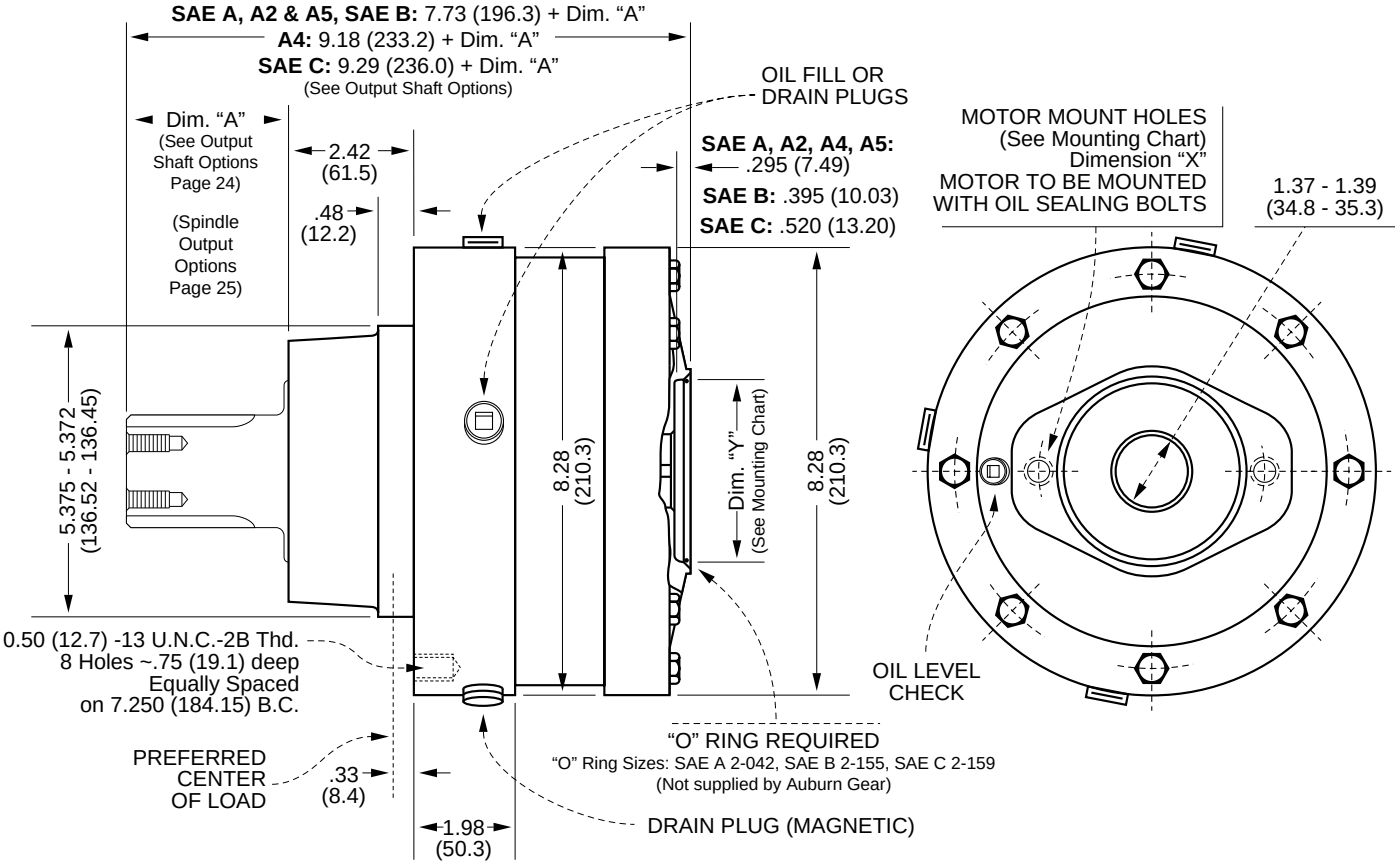
Max. intermittent output torque[1,2]	30,000 lb-in (3,390 Nm)	Approximate Weight	65 lbs (29.5 kg)
Max. input speed[2]	3,500 RPM	Oil capacity	17 oz (500 cc)

For Lubrication Data, see Page 35

[1] 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.

[2] If application exceeds published limit, contact Auburn Gear.

Dimensions given in: INCHES (mm)



INTEGRAL PARKING BRAKE UNITS ARE ALSO AVAILABLE
Contact Auburn Gear for Information

FEATURE CHART: MODEL 6 SHAFT OUTPUT DRIVES - SINGLE REDUCTION • STYLE F

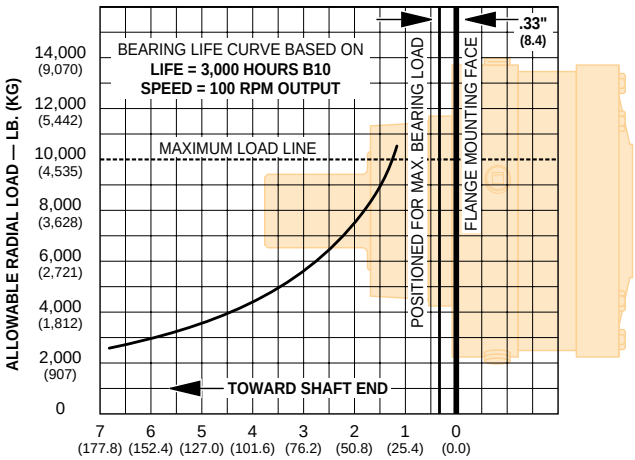
OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN					ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER					
MOTOR PILOT/HUB	**SAE A**	•	•				**6FA**						
	A2	•	•				6FA2						
	A4			•			**6FA4**						
	A5					•	**6FA5**						
	SAE B	•					**6FB**	6FB					
	SAE C				•		6FC						
INPUT SPLINE	**13T - 16/32 1" - 6B***	•					**13**		13				
	14T - 12/24**		•			•	**6B**						
			•	•	•		**14**						
RATIO OPTIONS	**3.75:1**	•	•	•			**03**						
	4.50:1	•	•		•	•	**04**						
	5.05:1	•	•	•			**05**			05			
	5.81.1	•		•			06						
OUTPUT SHAFTS	1 3/4 J501 Taper	•	•	•	•	•	T1						
	17T. 12/24 Spline	•	•	•	•	•	17						
	23T. 12/24 Spline	•	•	•	•	•	**23**				23		
	23T. 12/24 Short	•	•	•	•	•	**23S**						
	1.75 Keyed	•	•	•	•	•	K1						
	2.00 Keyed	•	•	•	•	•	**K2**						
	2.00 Hollow	•	•	•	•	•	K3						
	1.75 Hollow	•	•	•	•	•	K4						
	2.00 Keyed	•	•	•	•	•	K5						
	2.00 Round	•	•	•	•	•	**A1**						
	2.56 Round	•	•	•	•	•	**A2**						
	2.00 Hex	•	•	•	•	•	**H1**						
OUTPUT SPINDLE (see page 25 for detail)	**F1**	•	•	•	•	•	**F1**					F1	
	F2	•	•	•	•	•	**F2**						
	F3	•	•	•	•	•	**F3**						
	F4	•	•	•	•	•	**F4**						
	F5	•	•	•	•	•	F5						
WHEEL STUDS	1/2"	•	•	•	•	•	4						
	9/16"	•	•	•	•	•	7						
	NONE	•	•	•	•	•	**0**						0
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:								6FB	13	05	23	F1	0

*1" 6B input spline not available with SAE A or A2 motor pilot/hub and 3.75:1 ratio.
** 14T - 12/24 input spline not available with SAE A or A2 motor pilot/hub and 5.05:1 ratio.
BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.

MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A (2) – .375 (9.53) -16 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	Ø 3.251 - 3.256 (82.58 - 82.70)
A2 (2) – .50 (12.7) -13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	
A4, A5 (4) – .50 (12.7) -13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	
SAE B (2) – .50 (12.7)-13 UNC,- 2B Thd Holes on 5.75 (146.05) B. C. diameter+	Ø 4.001 - 4.006 (101.62 - 101.75)
SAE C (4) – .50 (12.7) -13 UNC,- 2B Thd Holes on 6.375 (161.93) B. C. diameter+ **OR** (2) – .625 (15.88) -13 UNC,- 2B Thd Holes on 7.125 (180.97) B. C. diameter+	5.001 - 5.008 (127.02 - 127.15)

+"O" RING OR GASKET REQUIRED (Not Supplied by Auburn Gear)
"O" RING SIZES: SAE "A "2–042, SAE "B" 2–155, SAE "C" 2–159



NOTE:

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

For actual analysis, applications should be reviewed by Auburn Gear Engineering using data supplied on Application Data Form.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

NOTE:

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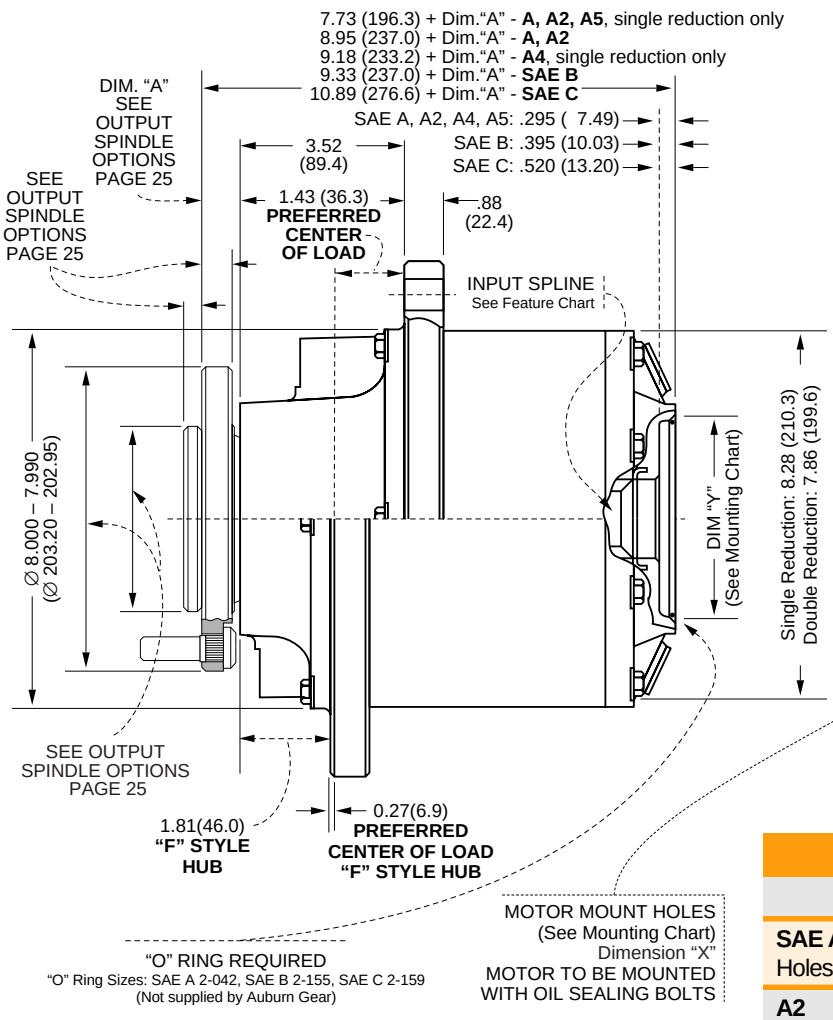
Model 6 Spindle Output Drives Single and Double Reductions

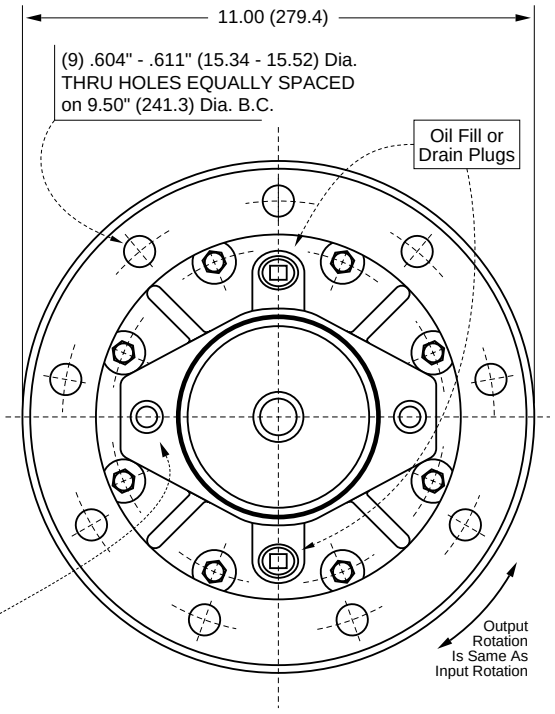
GENERAL SPECIFICATIONS

SINGLE REDUCTION DRIVES	DOUBLE REDUCTION DRIVES
Max. intermittent output torque[1,2] 30,000 lb-in (3,390 Nm)	Max. intermittent output torque[1,2] 50,000 lb-in (5,650 Nm)
Max. input speed[2] ..... 3,500 RPM	Max. input speed[2] ..... 5,000 RPM
Approximate Weight ..... 56 lbs (26.3 kg)	Approximate Weight ..... 83 lbs (37.6 kg)
Oil capacity ..... 17 oz (500 cc)	Oil capacity ..... 24 oz (700 cc)

For Lubrication Data, see Page 35

Dimensions given in: INCHES (mm)





MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A (2) – .375 (9.53) -16 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	Ø 3.251 - 3.256 (82.58 - 82.70)
A2 (2) – .50 (12.7) -13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	
A4, A5 (4) – .50 (12.7) -13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	
SAE B (2) – .50 (12.7) -13 UNC,- 2B Thd Holes on 5.750 (146.05) B. C. diameter+	Ø 4.001 - 4.006 (101.62 - 101.75)
SAE C (4) – .50 (12.7) -13 UNC,- 2B Thd Holes on 6.375 (161.93) B. C. diameter+ **OR** (2) – .625 (15.88) -13 UNC,- 2B Thd Holes on 7.125 (180.97) B. C. diameter+	Ø 5.001 - 5.008 (127.02 - 127.15)

+"O" RING OR GASKET REQUIRED (Not Supplied by Auburn Gear)
"O" RING SIZES: SAE "A "2–042, SAE "B" 2–155, SAE "C" 2–159

[1] 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.

[2] If application exceeds published limit, contact Auburn Gear.

Note: For single reductions, SAE B and SAE C, subtract 1.60" (40.6) from overall length.

FEATURE CHART: MODEL 6 SPINDLE OUTPUT DRIVES - SINGLE REDUCTION

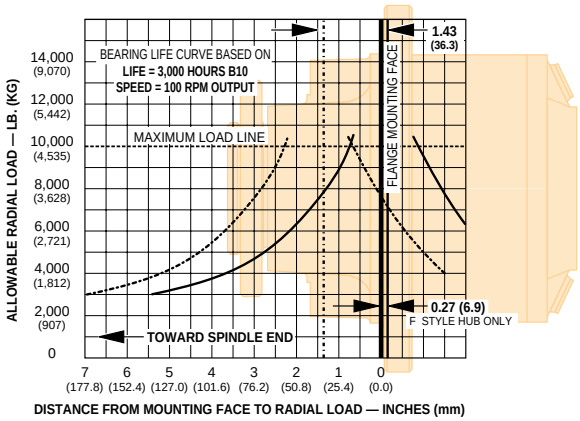
OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN					ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB[1]	**SAE A**	•	•				**6TA**	**6TA**				
	A2	•	•				6TA2					
	A4			•			**6TA4**					
	A5					•	6TA5					
	SAE B	•					**6TB**					
	SAE C				•		6TC					
INPUT SPLINE	**13T - 16/32**	•					**13**		**13**			
	1" - 6B*		•			•	**6B**					
	14T - 12/24**		•	•	•		**14**					
RATIO OPTIONS	**3.75:1**	•	•	•			**03**					
	4.50:1	•	•		•	•	**04**					
	5.05:1	•	•	•			**05**			**05**		
	5.81.1	•		•			06					
OUTPUT SPINDLE (see page 25 for detail)	**F1**	•	•	•	•	•	**F1**				**F1**	
	F2	•	•	•	•	•	**F2**					
	F3	•	•	•	•	•	**F3**					
	F4	•	•	•	•	•	**F4**					
	F5	•	•	•	•	•	F5					
WHEEL STUDS	1/2"	•	•	•	•	•	4					
	9/16"	•	•	•	•	•	7					
	NONE	•	•	•	•	•	**0**					**0**
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:								**6TA**	**13**	**05**	**F1**	**0**

* 14T - 12/24 input spline not available with SAE A or A2 motor pilot/hub and 5.05:1 ratio.
**1" - 6B spline not available with SAE A or A2 motor pilot/hub and 3.75:1 ratio.
[1] If "F" style hub required, place letter "F" between motor pilot/hub and input spline (i.e. **6TA2F6B04F30)**

FEATURE CHART: MODEL 6 SPINDLE OUTPUT DRIVES - DOUBLE REDUCTION

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN				ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB[2]	**SAE A**	•	•			**6SA**	**6SA**				
	A2	•	•			6SA2					
	SAE B	•		•		**6SB**					
	SAE C				•	6SC					
INPUT SPLINE	**13T - 16/32**	•				**13**					
	1" - 6B		•			**6B**		**6B**			
	14T - 12/24				•	14					
	15T - 16/32			•		15					
RATIO OPTIONS	14.06:1	•	•	•	•	14					
	16.88:1	•	•	•		**16**					
	20.62:1	•	•	•		**20**					
	22.74:1	•	•	•	•	**22**			**22**		
	25.53:1	•	•			**25**					
	29.37:1	•			•	**29**					
	33.79.1	•				**33**					
OUTPUT SPINDLE (see page 25 for detail)	**F1**	•	•	•	•	**F1**					
	F2	•	•	•	•	**F2**				**F2**	
	F3	•	•	•	•	**F3**					
	F4	•	•	•	•	**F4**					**0**
	F5	•	•	•	•	F5					
WHEEL STUDS	1/2"	•	•	•	•	4					
	9/16"	•	•	•	•	7					
	NONE	•	•	•	•	**0**					
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:							**6SA**	**6B**	**22**	**F2**	**0**

[2] If "F" style hub required, place letter "F" between motor pilot/hub and input spline (i.e. **6SBF1329F10)**
BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.



NOTE:

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

For actual analysis, applications should be reviewed by Auburn Gear Engineering using data supplied on Application Data Form.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

NOTE:

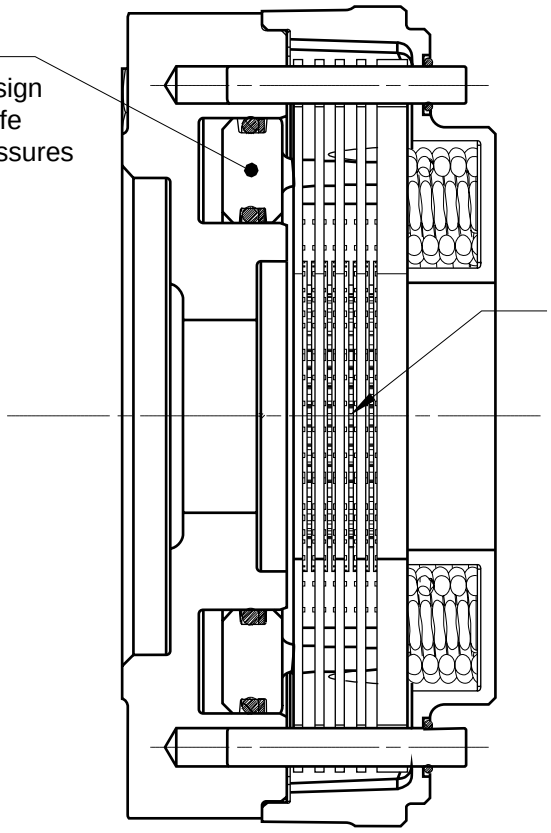
The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

Power Wheel®

Model 6 Spindle Output Drives Single and Double Reductions

with A2 Series Integral Parking Brake

PISTON:
Improved design
for superior life
at higher pressures



FRICTION DISCS:
"Heavy Duty Graphitic Paper"
for wet sump applications.
Characteristics:
Superior energy capability,
high and stable coefficient
of friction and smooth engagement.

GENERAL A2 SERIES DATA:

1. Maximum operating pressure is 3,000 psi (206.4 Bar). Pressure spikes or surges not to exceed 3,500 psi (240.8 Bar). Surge pressure in excess of 3,500 psi (240.8 Bar) caused by spikes in the hydraulic system could shorten brake life and must be avoided.
2. Use only SAE grade 8 mounting bolts and torque to 80-90 lb. ft. (108-122 N-m) for motor mounting.
3. PRECAUTION: Bench testing may cause distortion of components or bolt failure. Mounting bolts must be used for supplemental clamping.
4. Minimum Release Pressure is defined as the hydraulic pressure required to obtain full running clearance.
5. Cubic Inch Displacement is the volume of oil required to release the brake piston 1.0 in^3 (16.4cc) for a new brake and 2.0 in^3 (32.8cc) for a worn brake pack.
6. For vertical spindle output applications, spindle up or spindle down, please contact Auburn Gear to insure proper brake configuration is specified.

Model 6 Spindle Output Drives Single and Double Reductions

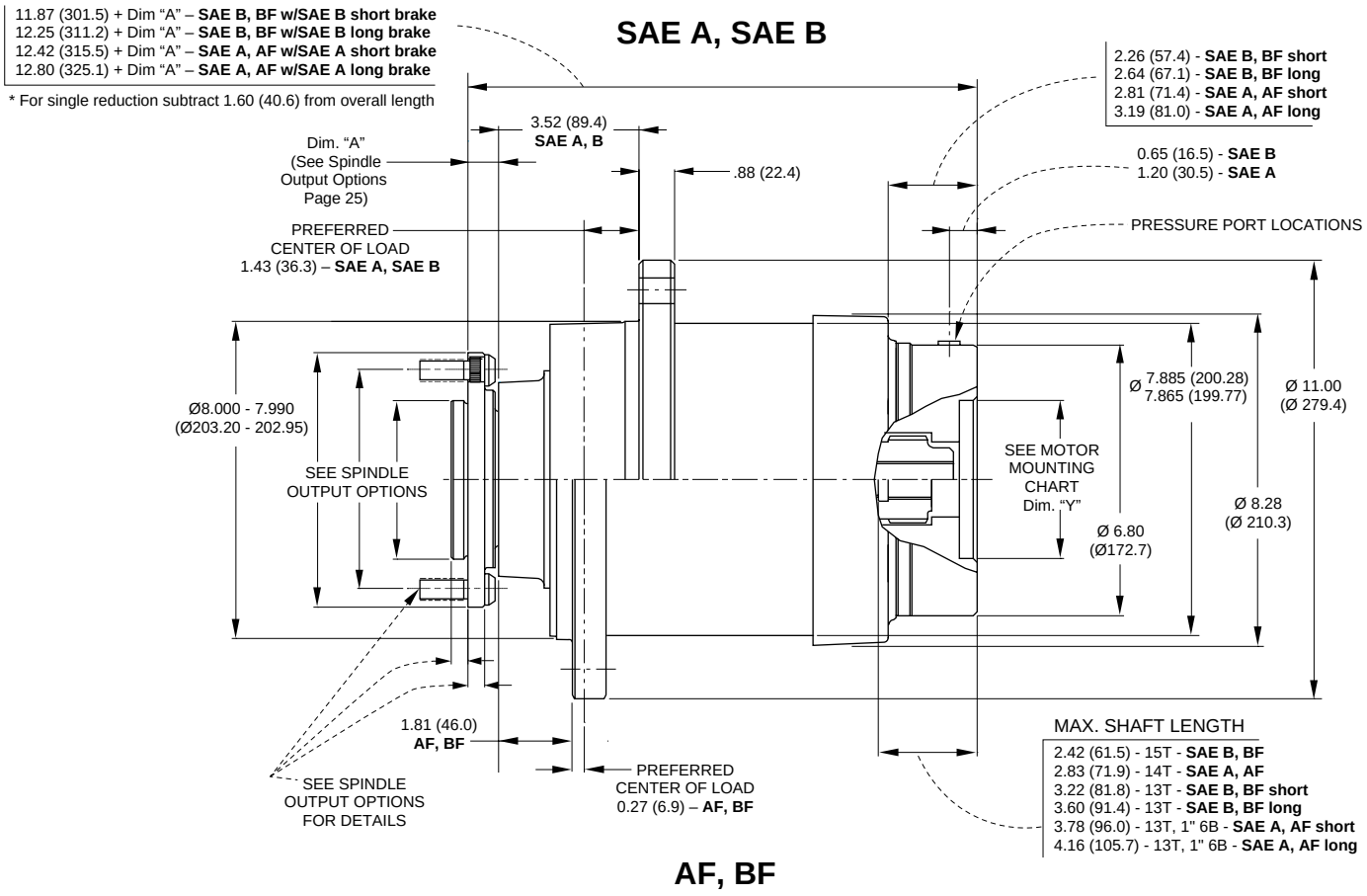
with A2 Series Integral Parking Brake[1]

GENERAL SPECIFICATIONS

SINGLE REDUCTION DRIVES		DOUBLE REDUCTION DRIVES	
Max. intermittent output torque[2,3]	30,000 lb-in (3,390 Nm)	Max. intermittent output torque[2,3]	50,000 lb-in (5,650 Nm)
Max. input speed[4]	2,000 RPM	Max. input speed[4]	2,000 RPM
Approximate Weight	87 lbs (39.5 kg)	Approximate Weight	112 lbs (50.8 kg)
Oil capacity	30 oz (887 cc)	Oil capacity	35 oz (1,035 cc)

For Lubrication Data, see Page 35

Dimensions given in: INCHES (mm)



[1] For vertical application, spindle up or spindle down, contact Auburn Gear.

[2] 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.

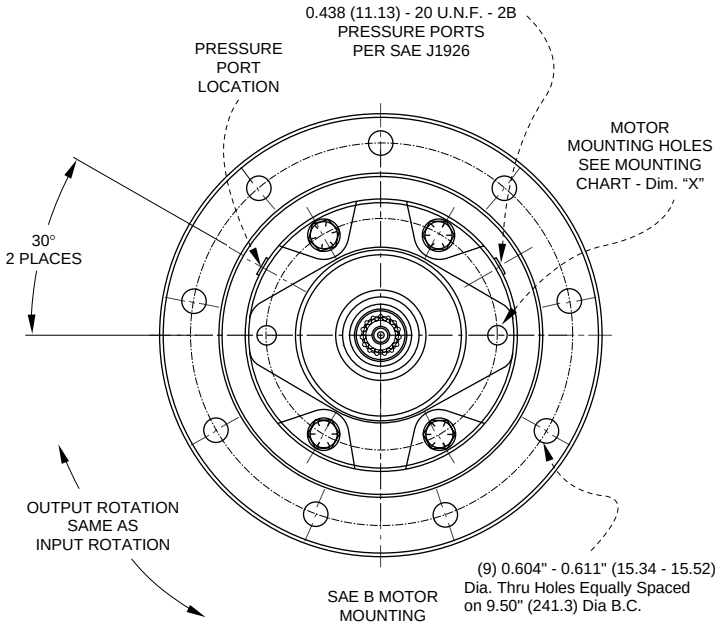
[3] If application exceeds published limit, contact Auburn Gear.

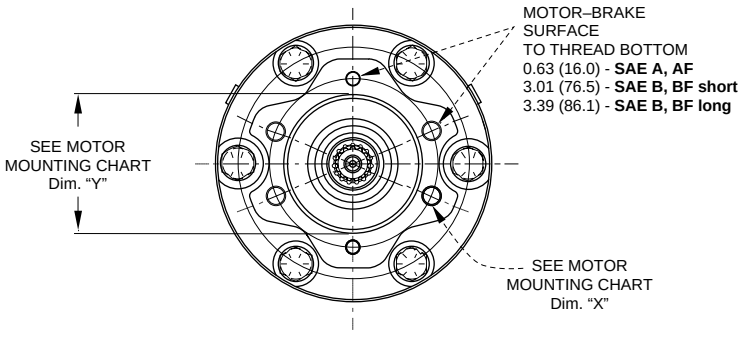
[4] For input speeds between 2,000 and 3,600 rpm, please contact Auburn Gear for duty cycle analysis.

BRAKE RATINGS

MODEL	TORQUE	MINIMUM RELEASE PRESSURE	STYLE
B1	1,540 lb-in (174 N-m)	190 PSI (13.1 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)





SAE A MOTOR MOUNTING

INLET PORT LOCATIONS SAME AS SAE B

MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A, AF (2) – .375 (9.53) -16 UNC,- 2B Thd Holes Equally Spaced on 4.188 (106.38) B. C.+ AND (4) – .500 (12.70) -13 UNC,- 2B Thd Holes on 4.188 (106.38) B. C.+	Ø 3.251 - 3.256 (82.58 - 82.70)
SAE B, BF (2) – .500 (12.70) -13 UNC. 2B Thd Holes Equally Spaced on 5.750 (146.05) B. C.+	Ø 4.001 - 4.006 (101.62 - 101.75)

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

FEATURE CHART: MODEL 6 SPINDLE OUTPUT SINGLE REDUCTION with BRAKE

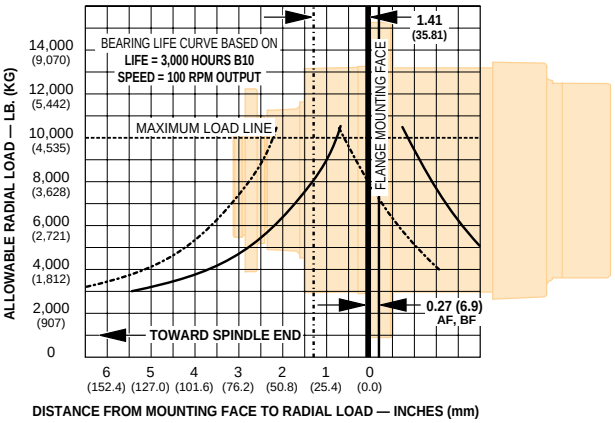
OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER					
MOTOR PILOT/HUB	**SAE A**	•		**6TA**						
	AF	•		6TAF						
	SAE B		•	**6TB**	**6TB**					
	BF		•	6TBF						
INPUT SPLINE	**13T. 16/32**	•	•	**13**		**13**				
	1" - 6B	•		**6B**						
	14T. 12/24	•		**14**						
	15T. 16/32		•	15						
RATIO OPTIONS	3.75:1			03						
	4.50:1	•	•	**04**			**04**			
	5.05:1	•	•	**05**						
	5.81:1	•	•	06						
OUTPUT SPINDLE (See Page 25 for Detail)	**F1**	•	•	**F1**						
	F2	•	•	**F2**				**F2**		
	F3	•	•	**F3**						
	F4	•	•	**F4**						
	F5	•	•	F5						
WHEEL STUDS	1/2"	•	•	4						
	9/16"	•	•	7						
	NONE	•	•	**0**					**0**	
PARKING BRAKE* SHORT VERSION	1,540 lb-in	•	•	B1						
	1,800 lb-in	•	•	**B2**						
	2,400 lb-in	•	•	B3						
	2,400 lb-in	•	•	**B4**						**B4**
	3,200 lb-in	•	•	**B5**						
PARKING BRAKE* LONG VERSION	3,600 lb-in	•	•	B6						
	4,200 lb-in	•	•	**B7**						
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					**6TB**	**13**	**04**	**F2**	**0**	**B4**

FEATURE CHART: MODEL 6 SPINDLE OUTPUT DOUBLE REDUCTION with BRAKE

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER					
MOTOR PILOT/HUB	**SAE A**	•		**6SA**						
	AF2	•		6SAF						
	SAE B		•	**6SB**	**6SB**					
	BF		•	6SBF						
INPUT SPLINE	**13T. 16/32**	•	•	**13**		**13**				
	1" - 6B	•		**6B**						
	14T. 12/24	•		**14**						
	15T. 16/32		•	15						
RATIO OPTIONS	14.06:1			14						
	16.88:1	•	•	**16**			**16**			
	20.62:1	•	•	**20**						
	22.74:1	•	•	**22**						
	25.53:1	•	•	**25**						
	29.37:1	•	•	**29**						
	33.79:1	•	•	**33**						
OUTPUT SPINDLE (See Page 25 for Detail)	**F1**	•	•	**F1**				**F1**		
	F2	•	•	**F2**						
	F3	•	•	**F3**						
	F4	•	•	**F4**						
	F5	•	•	F5						
WHEEL STUDS	1/2"	•	•	4						
	9/16"	•	•	7						
	NONE	•	•	**0**					**0**	
PARKING BRAKE* SHORT VERSION	1,540 lb-in	•	•	B1						
	1,800 lb-in	•	•	**B2**						
	2,400 lb-in	•	•	B3						
	2,400 lb-in	•	•	**B4**						
	3,200 lb-in	•	•	**B5**						**B5**
PARKING BRAKE* LONG VERSION	3,600 lb-in	•	•	B6						
	4,200 lb-in	•	•	**B7**						
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					**6SB**	**13**	**16**	**F1**	**0**	**B5**

* FOR HORIZONTAL OPERATION ONLY. Where vertical operation is required, contact Auburn Gear.

BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.



NOTE:

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BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

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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
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200	.812	1.289	7000
300	.719	1.342	8000
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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** drive gear set.

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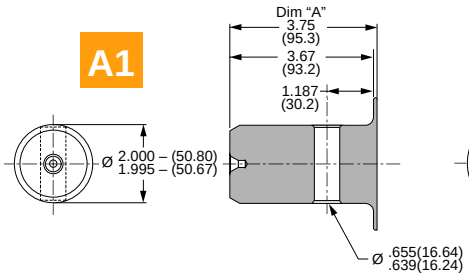
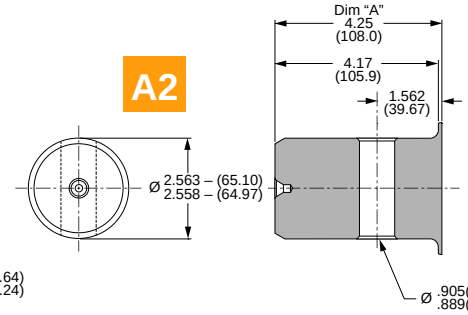
MODEL 6 OUTPUT SHAFT OPTIONS

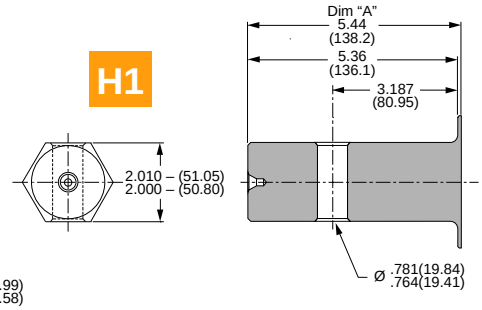
A1



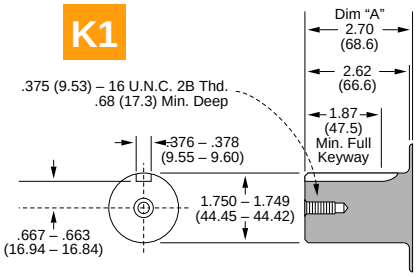
A2



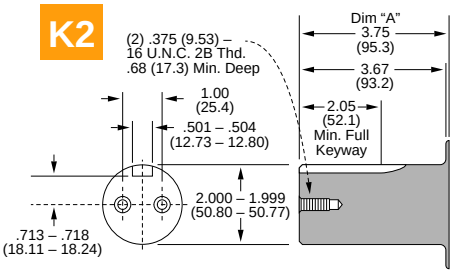
H1



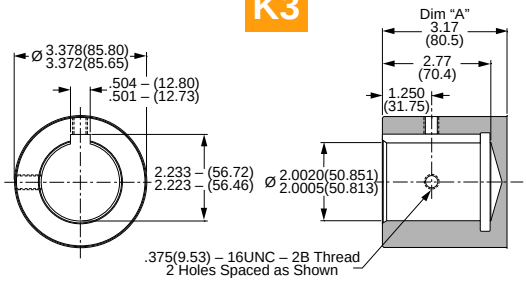
K1



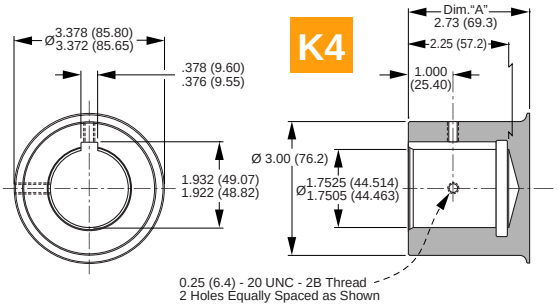
K2



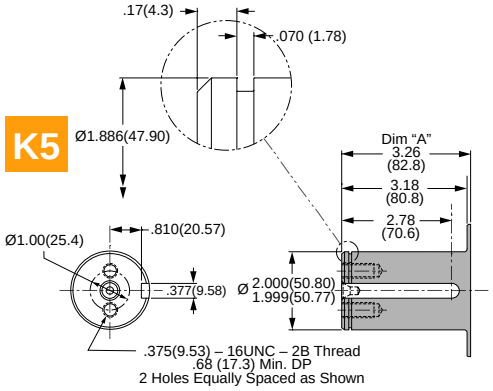
K3



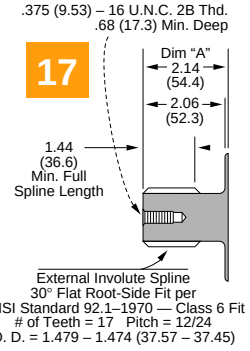
K4



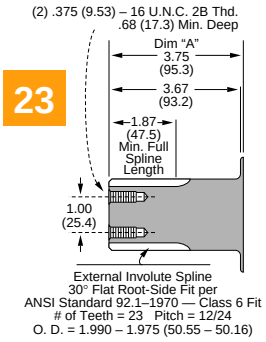
K5



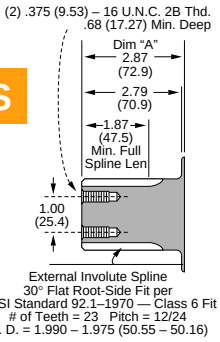
17



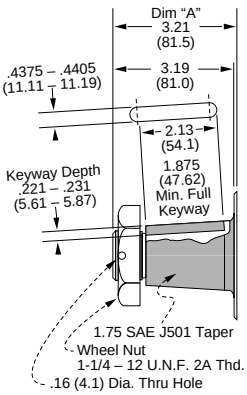
23



23S



T1



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.

MODEL 6 SPINDLE OUTPUT OPTIONS

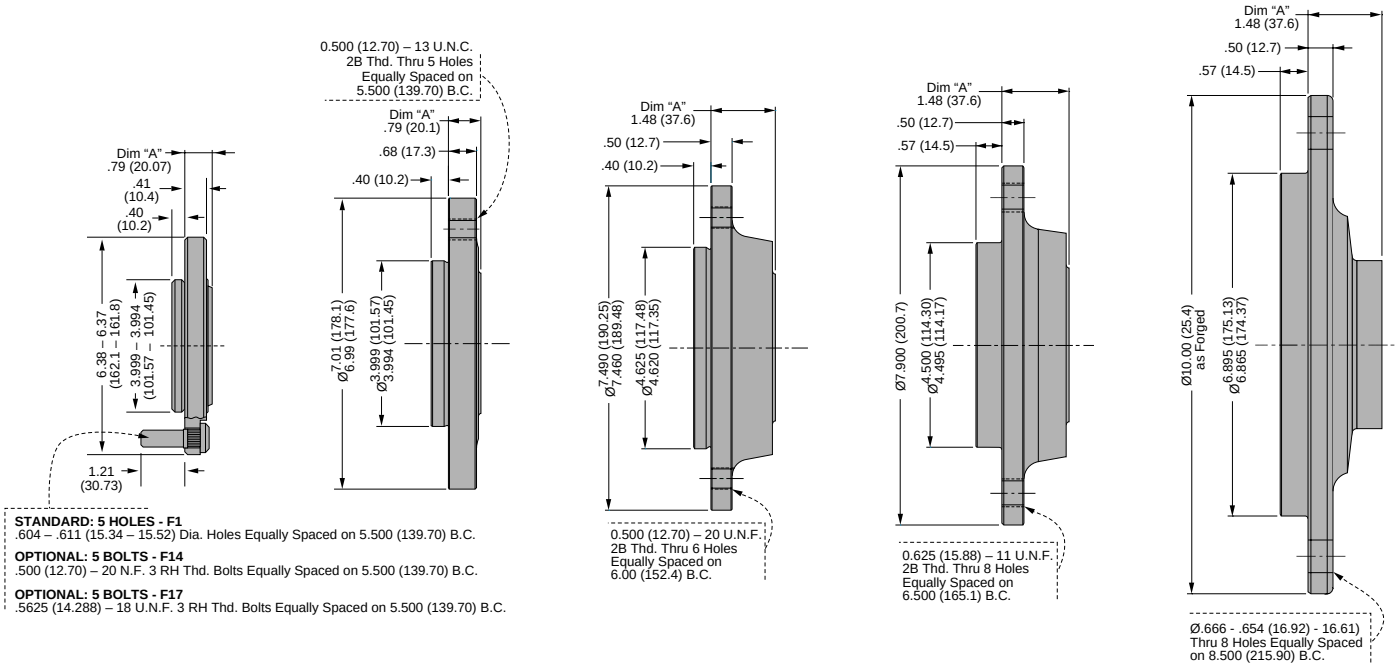
F1 **F14** **F17**

F2 See Model 6 Other Options Below

F3

F4

F5



STANDARD: 5 HOLES - F1
.604 – .611 (15.34 – 15.52) Dia. Holes Equally Spaced on 5.500 (139.70) B.C.

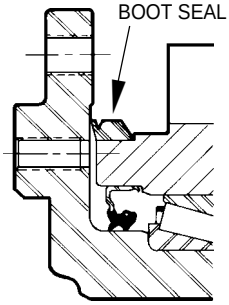
OPTIONAL: 5 BOLTS - F14
.500 (12.70) – 20 N.F. 3 RH Thd. Bolts Equally Spaced on 5.500 (139.70) B.C.

OPTIONAL: 5 BOLTS - F17
.5625 (14.288) – 18 U.N.F. 3 RH Thd. Bolts Equally Spaced on 5.500 (139.70) B.C.

MODEL 6 OTHER OPTIONS

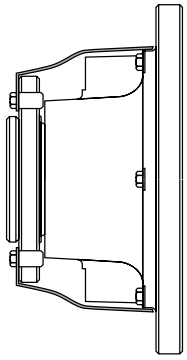
Boot Seal

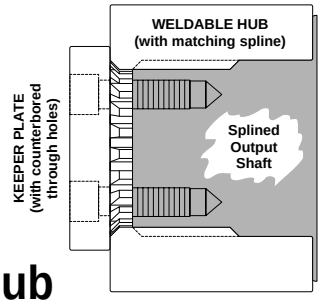
An optional seal that protects the main oil seal from dirt and other debris. The boot seal will give extended life on applications operating in extremely muddy or dirty conditions. Boot seals are available on a selective model basis.



Guard and Boot Seal System

A boot seal and metal guard are available with F2 spindle output units only . These can be ordered separately or together. They function best together. The guard and boot seal system are utilized in extremely high grit applications. The guard protects the boot seal from contaminants which will ultimately wear the boot seal lip.

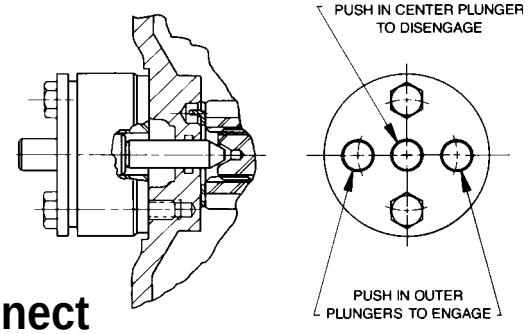




Weldable Hub

The hubs are 4140H steel and can be turned down and/or welded for mounting sprockets, pulleys, or other devices. A circular keeper plate secures the hub to the splined output shaft with two bolts (keeper plate and bolts included).

KIT NUMBER	SPLINE	FITS MODELS
6420105	23T–12/24	5, 6, & 8
6420106	23T–8/16	6B, 7, 8, 9, & 10
6420107	20T–8/16	8, & 9



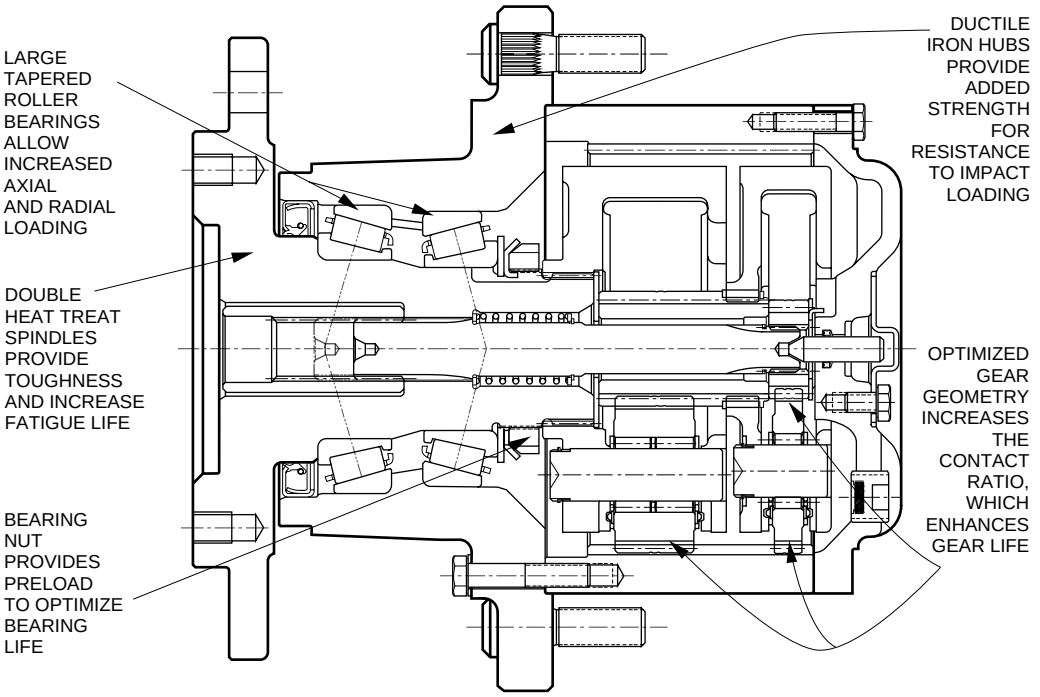
Quick Disconnect

This optional disconnect is available on all wheel drives. No tools are needed to disengage or re-engage the drive. The planetary drive is disengaged with the push of a button. The quick disconnect eliminates removal of the disconnect cover and external contaminates are sealed from the units by internal o-rings and a gasket that is sandwiched between the disconnect and planetary cover. The rugged, compact design ensures dependable service.

Model 6 Series B

Power Wheel®

MODEL 6 SERIES B FEATURES



PERFORMANCE FEATURES - MODEL 6 SERIES B VERSUS STANDARD MODEL 6

SIMILARITIES:

▶ Torque Rating: Both use the same optimized gear geometry and gear material, therefore they both are rated at 50,000 lb-in (5,650 Nm) of intermittent output torque.

DIFFERENCES:

▶ Bearing Retention: Standard Model 6 uses a snap ring which provides end play/clearance. The Model 6 Series B uses a bearing nut which provides preload/no clearance. Therefore, the Model 6 Series B will provide reduced deflections in the gear box, which will enhance the life of a unit in certain applications.

▶ Hub Material: The strength properties of Model 6 Series B hub are slightly greater than the standard Model 6. This provides a greater resistance to impact loads, which are common in certain applications.

▶ Spindle Material and Heat Treatment: Again, the Model 6 Series B spindle properties differ and are enhanced over the Model 6. These differences allow for increased fatigue life under high impact and side loading.

▶ Bearing Capacity: The Model 6 Series B has greater radial and axial bearing capacity which may be required in certain applications.

Model 6 Series B Wheel Drives Double Reduction

GENERAL SPECIFICATIONS

Max. intermittent output torque[1,2]	50,000 lb-in (5,650 Nm)	Approximate Weight	105 lbs (48 kg)
Max. input speed[2]	5,000 RPM	Oil capacity	31 oz (920 cc)

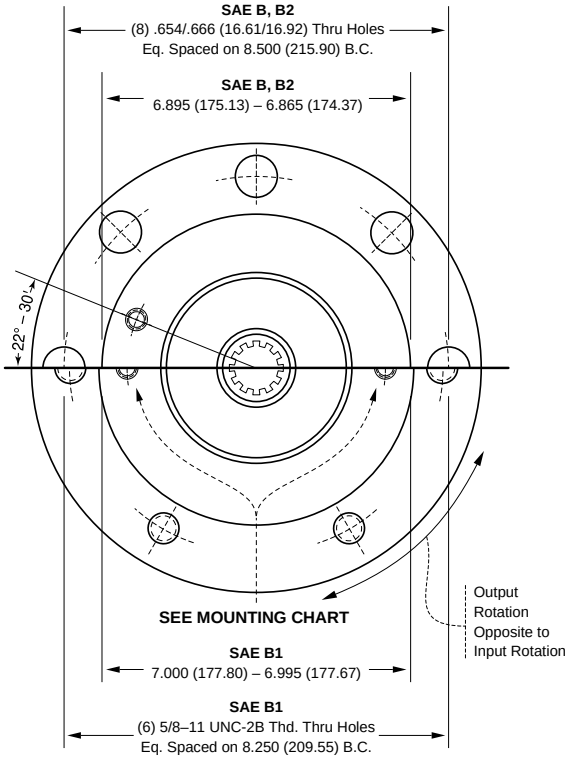
For Lubrication Data, see Page 35

[1] 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.

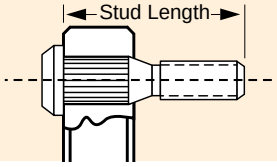
[2] If application exceeds limit, contact Auburn Gear.

Dimensions given in: INCHES (mm)

SAE B, B2



B1

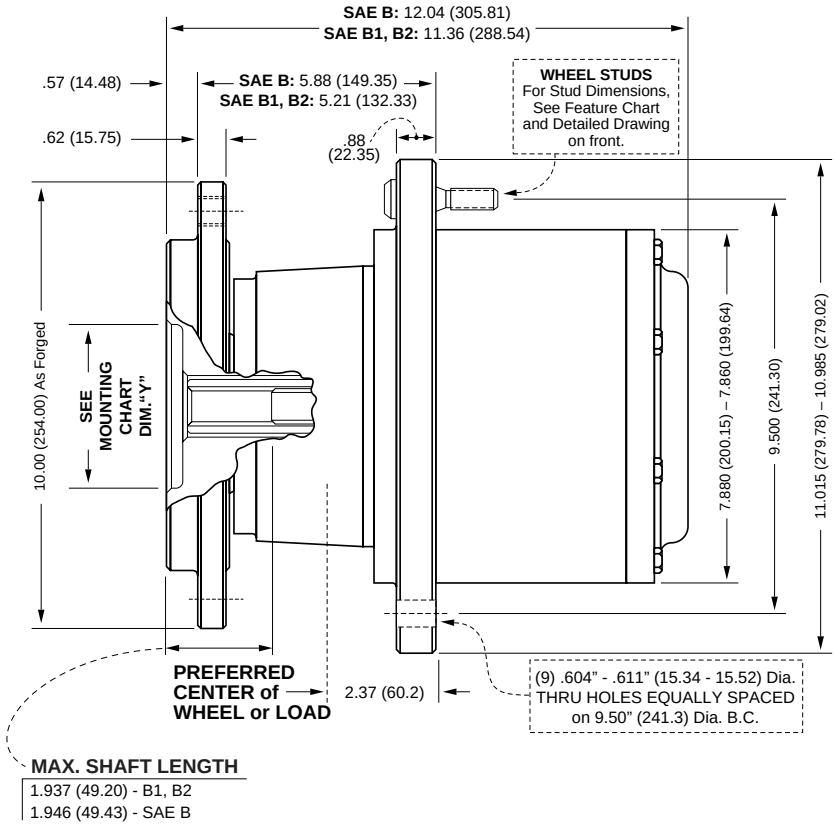


Wheel Stud – Detail

Note that the stud lengths shown in the feature chart represent the total length of the stud under the head.

NON-POWERED UNITS ARE ALSO AVAILABLE

Contact Auburn Gear for Information



FEATURE CHART: MODEL 6 SERIES B WHEEL DRIVES - DOUBLE REDUCTION

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB	**SAE B**	•		**6W2B**	**6W2B**				
	B1		•	6W2B1					
	B2		•	6W2B2					
INPUT SPLINE	**13T. 16/32**	•	•	**13**		**13**			
	15T. 16/32	•	•	**15**					
RATIO OPTIONS	13.06:1	•	•	13					
	15.88:1	•	•	15					
	19.62:1	•	•	19					
	21.74:1	•	•	**21**					
	24.53:1	•	•	**24**					
	28.37:1	•	•	**28**			**28**		
	32.79:1	•	•	32					
WHEEL STUDS	1/2" x 2.50	•	•	5					
	9/16" x 2.75	•	•	**7**				**7**	
	5/8" x 2.37	•	•	**8**					
	NONE	•	•	**0**					
SPECIAL FEATURES	**Boot Seal**	•	•	**Z**					**Z**
	Quick Disconnect	•	•	Q					
	Oil Plugs/Spindle Side	•	•	P					
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					**6W2B**	**13**	**28**	**7**	**Z**

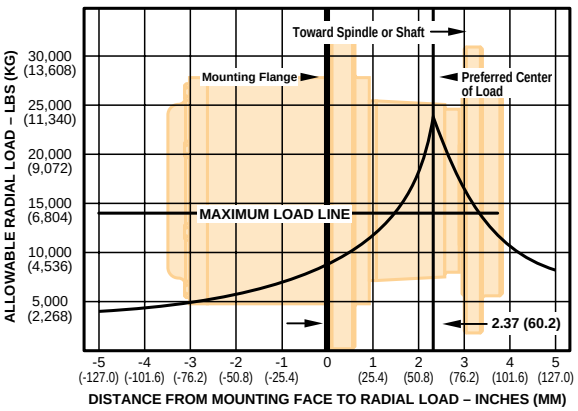
BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.

MOTOR MOUNTING CHART

DIMENSION "X"	DIA. "Y"
SAE B, B1, B2 (2) – .500 (12.70) - 13 UNC,- 2B Thd Holes on 4.187 (106.35) B. C. diameter+	Ø 4.001 - 4.006 (101.62 - 101.75)

+"O" RING OR GASKET REQUIRED (Not Supplied by Auburn Gear)
"O" RING SIZES: SAE "B" 2–155

MODEL 6 – SERIES B WHEEL DRIVE BEARING LIFE CURVE
Based On: **LIFE = 3,000 Hours B10 SPEED = 100 RPM Output**



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 re-viewed by Auburn Gear Engineering using data supplied on Application Data Form.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

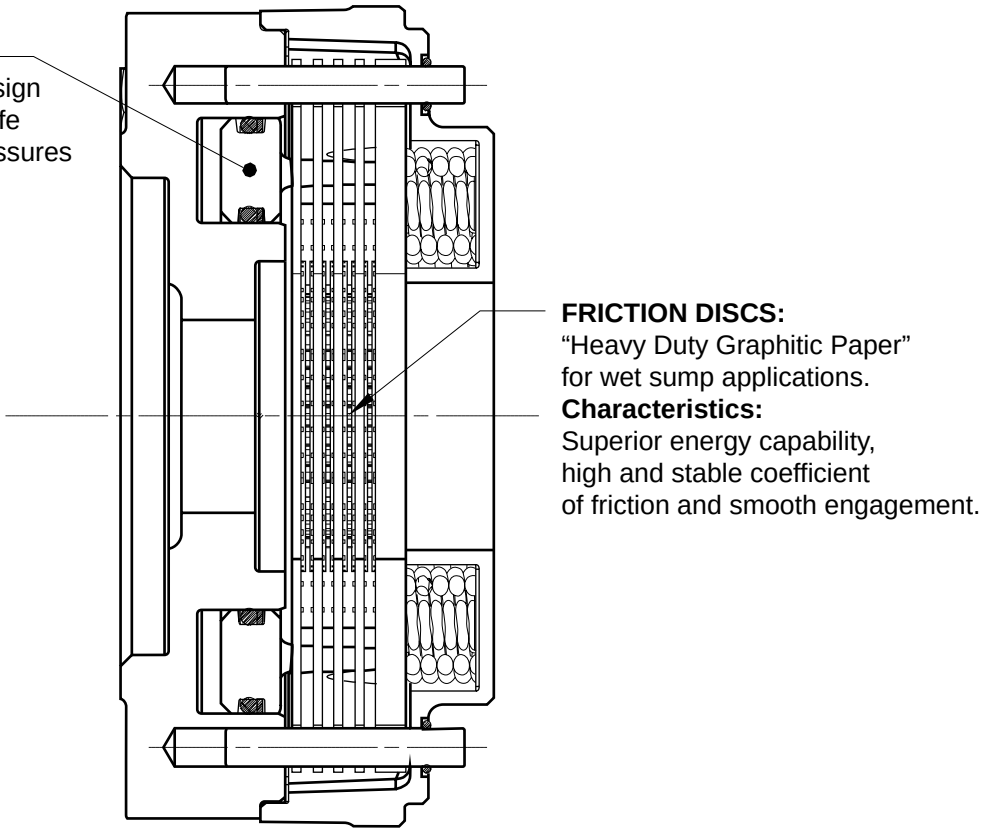
NOTE:

The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

Power Wheel®

Model 6 Series B Wheel Drives Double Reduction

with A2 Series Integral Parking Brake



GENERAL A2 SERIES DATA:

1. Maximum operating pressure is 3,000 psi (206.4 Bar). Pressure spikes or surges not to exceed 3,500 psi (240.8 Bar). Surge pressure in excess of 3,500 psi (240.8 Bar) caused by spikes in the hydraulic system could shorten brake life and must be avoided.
2. Use only SAE grade 8 mounting bolts and torque to 80-90 lb. ft. (108-122 N-m) for motor mounting.
3. PRECAUTION: Bench testing may cause distortion of components or bolt failure. Mounting bolts must be used for supplemental clamping.
4. Minimum Release Pressure is defined as the hydraulic pressure required to obtain full running clearance.
5. Cubic Inch Displacement is the volume of oil required to release the brake piston 1.0 in^3 (16.4cc) for a new brake and 2.0 in^3 (32.8cc) for a worn brake pack.

Model 6 Series B Wheel Drives Double Reduction

with A2 Series Integral Parking Brake

GENERAL SPECIFICATIONS

Max. intermittent output torque[1,2]	50,000 lb-in (5,650 Nm)	Approximate Weight	125 lbs (57 kg)
Max. input speed[3]	2,000 RPM	Oil capacity	36 oz (1070 cc)

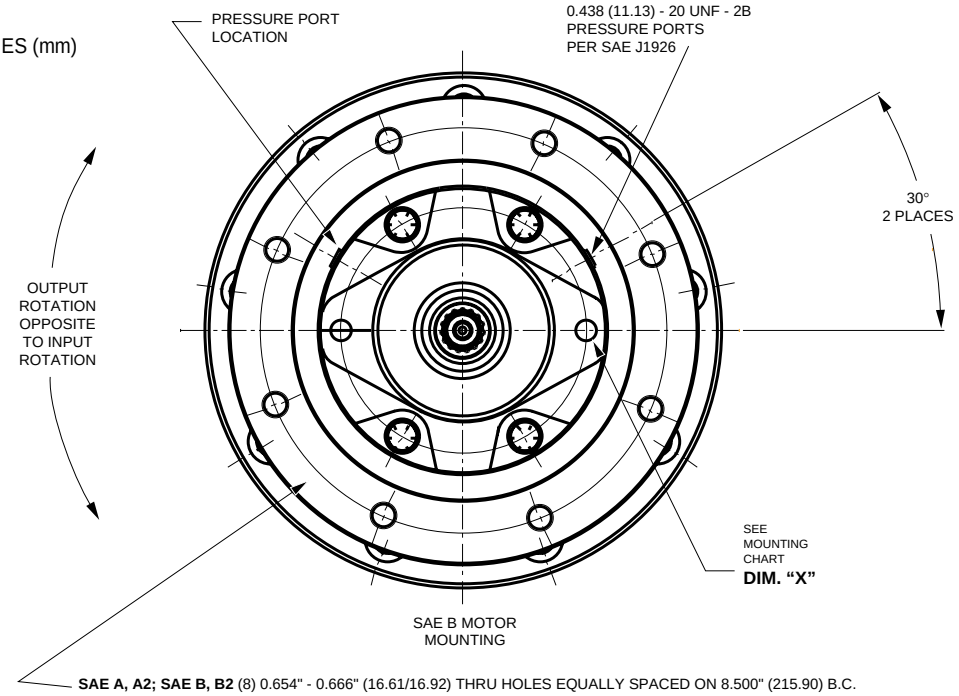
For Lubrication Data, see Page 35

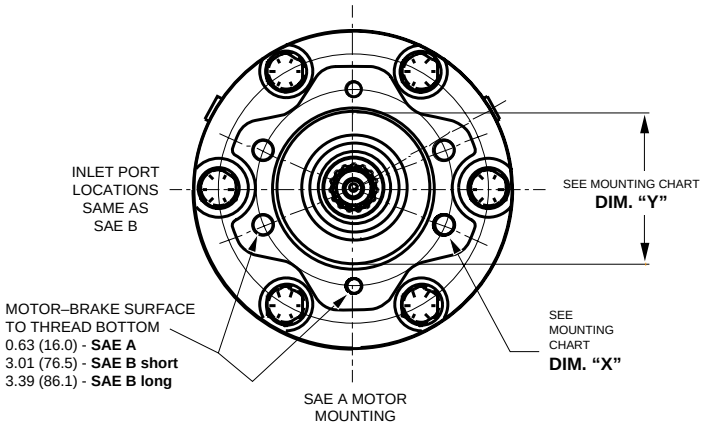
[1] Depending on the duty cycle and the nature of the application, a normal continuous output 1/3 to 1/2 of the Maximum Intermittent should yield satisfactory Power Wheel life.

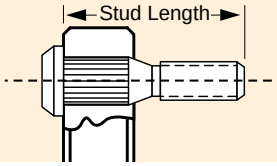
[2] If application exceeds published limit, contact Auburn Gear.

[3] For input speed between 2,000 and 3,600 rpm please contact Auburn Gear for duty cycle analysis.

Dimensions given in: INCHES (mm)



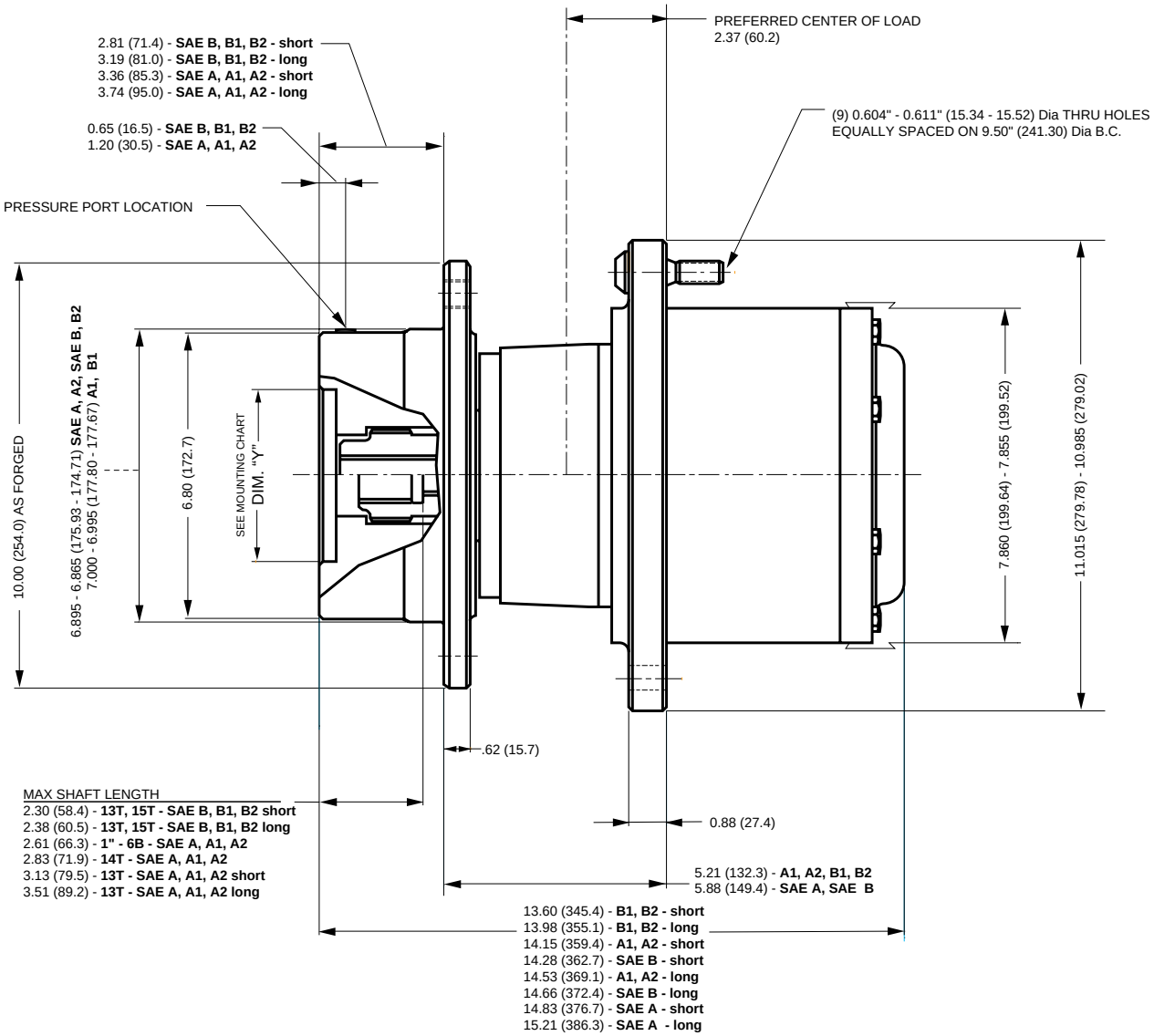




Wheel Stud – Detail

Note that the stud lengths shown in the feature chart represent the total length of the stud under the head.

NON-POWERED UNITS ARE ALSO AVAILABLE
Contact Auburn Gear for Information



BRAKE RATINGS

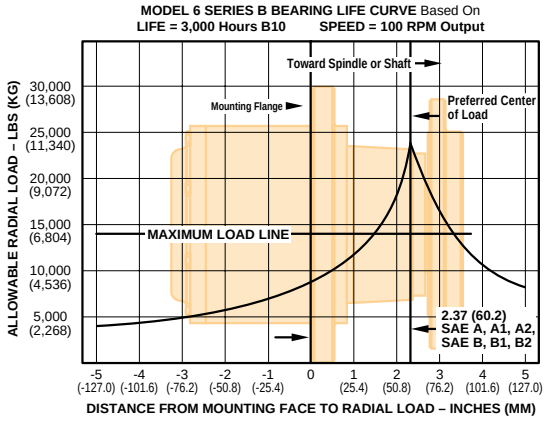
MODEL	TORQUE	MINIMUM RELEASE PRESSURE		STYLE
B1	1,540 lb-in (174 N-m)	190 PSI	(13.1 Bar)	Short
B2	1,800 lb-in (203 N-m)	220 PSI	(15.1 Bar)	Short
B3	2,400 lb-in (271 N-m)	290 PSI	(20.0 Bar)	Short
B4	2,400 lb-in (271 N-m)	160 PSI	(11.0 Bar)	Long
B5	3,200 lb-in (362 N-m)	220 PSI	(15.1 Bar)	Long
B6	3,600 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)

FEATURE CHART: MODEL 6 SERIES B WHEEL DRIVES DOUBLE REDUCTION with BRAKE

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN			ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER					
MOTOR PILOT/HUB	SAEA	•	•		6W2A						
	A1	•	•		6W2A1						
	A2	•	•		6W2A2						
	SAE B	•		•	**6W2B**	**6W2B**					
	B1	•		•	6W2B1						
	B2	•		•	**6W2B2**						
INPUT SPLINE	**13T. - 16/32"**	•			**13**						
	14T. - 12/24"		•		14						
	15T. - 16/32"			•	**15**		**15**				
	1" - 6B		•		6B						
RATIO OPTIONS	13.06:1	•	•	•	13						
	15.88:1	•	•	•	15						
	19.62:1	•	•	•	19						
	21.74:1	•	•	•	**21**						
	24.53:1	•	•	•	**24**						
	28.37:1	•	•	•	**28**			**24**			
	32.79:1	•	•	•	32						
WHEEL STUDS	1/2" by 2.50	•	•	•	5						
	9/16" by 2.75	•	•	•	**7**						
	5/8" by 2.37	•	•	•	**8**				**7**		
	NONE	•	•	•	**0**						
PARKING BRAKE SHORT VERSION	1,540 lb-in	•	•	•	B1						
	1,800 lb-in	•	•	•	B2						
	2,400 lb-in	•	•	•	B3						
PARKING BRAKE LONG VERSION	**2,400 lb-in**	•	•	•	**B4**						
	3,200 lb-in	•	•	•	**B5**					**B4**	
	3,600 lb-in	•	•	•	**B6**						
	4,200 lb-in	•	•	•	**B7**						
SPECIAL FEATURES	**Boot Seal**	•	•	•	**Z**						
	Quick Disconnect	•	•	•	Q						**Z**
	Oil Plugs/Spindle Side	•	•	•	P						
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:						**6W2B**	**15**	**24**	**7**	**B4**	**Z**

BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.



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.

MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A, A1, A2 (2) – .375 (9.53) - 16 UNC,- 2B Thd Holes Equally Spaced on 4.188 (106.38) B. C.+ AND (4) – .500 (12.70) -13 UNC,- 2B Thd Holes on 4.188 (106.38) B. C.+	Ø 3.251 - 3.256 (82.58 - 82.70)
SAE B, B1, B2 (2) – .500 (12.70) - 13 UNC. - 2B Thd Holes Equally Spaced on 5.750 (146.05) B. C.+	Ø 4.001 - 4.006 (101.62 - 101.75)

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

NOTE:

The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

Model 6 Series B Shaft Output Double Reduction

GENERAL SPECIFICATIONS

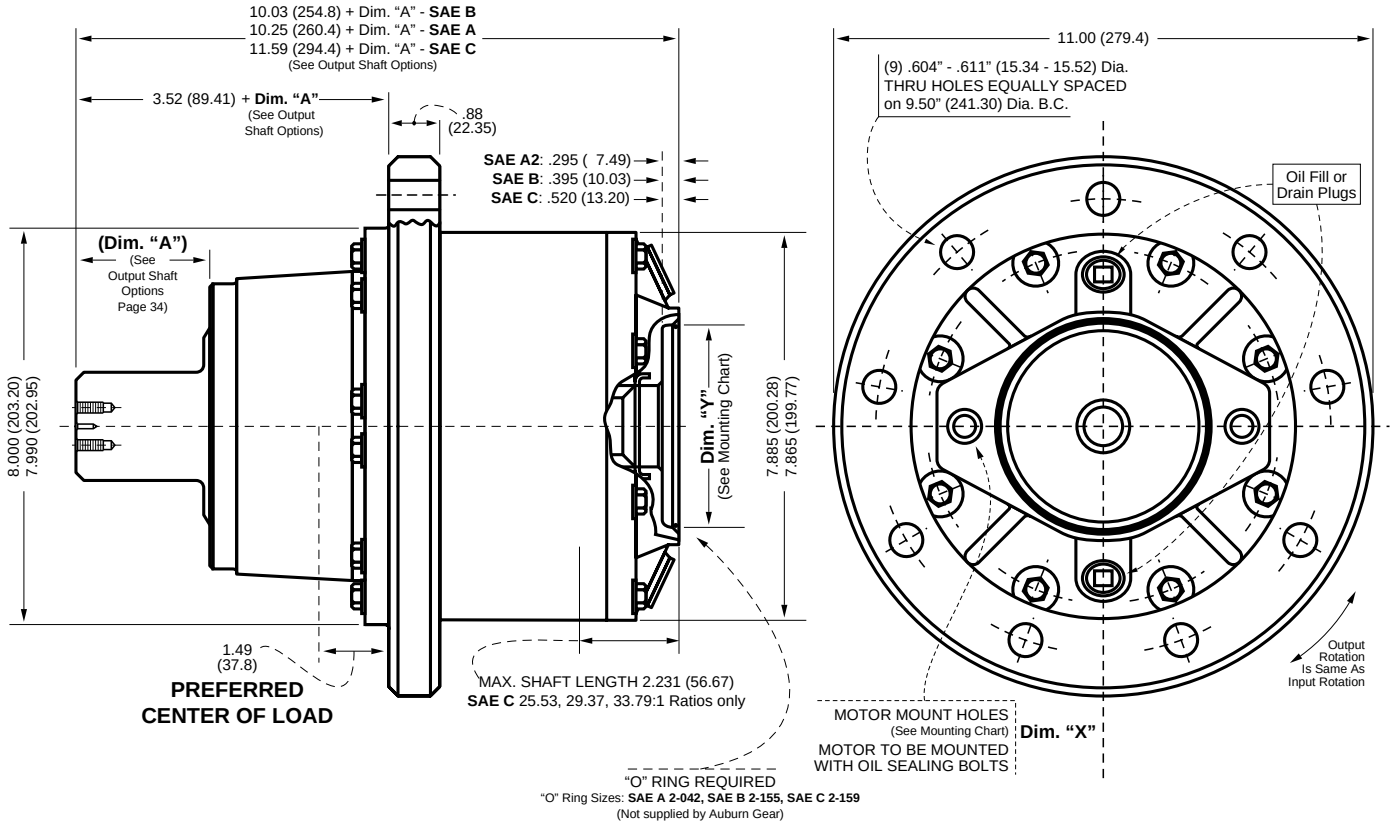
Max. intermittent output torque[1,2]	50,000 lb-in (5,650 Nm)	Approximate Weight	92 lbs (42 kg)
Max. input speed[2]	5,000 RPM	Oil capacity	31 oz (920 cc)

For Lubrication Data, see Page 35

[1] 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.

[2] If application exceeds limit, contact Auburn Gear.

Dimensions given in: INCHES (mm)



FEATURE CHART: MODEL 6 SERIES B SHAFT OUTPUT DRIVES DOUBLE REDUCTION

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN			ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER			
MOTOR PILOT/HUB	**SAE A2**	•		•	**6S2A2**				
	SAE B		•		**6S2B**	**6S2B**			
	SAE C	•			6S2C				
INPUT SPLINE	**13T. 16/32**		•		**13**		**13**		
	14T. 12/24	•			**14**				
	1" - 6B			•	6B				
RATIO OPTIONS	14.06:1	•	•	•	14				
	16.88:1	•	•	•	16				
	20.62:1	•	•	•	20				
	22.74:1	•	•	•	**22**			**22**	
	25.53:1	•	•		**25**				
	29.37:1	•	•		**29**				
	33.79:1	•	•		33				
OUTPUT SHAFTS	**3.0" KEYED**	•	•	•	**K2**				**K2**
	23T - 8/16	•	•	•	**23L**				
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:						**6S2B 13 22 K2**			

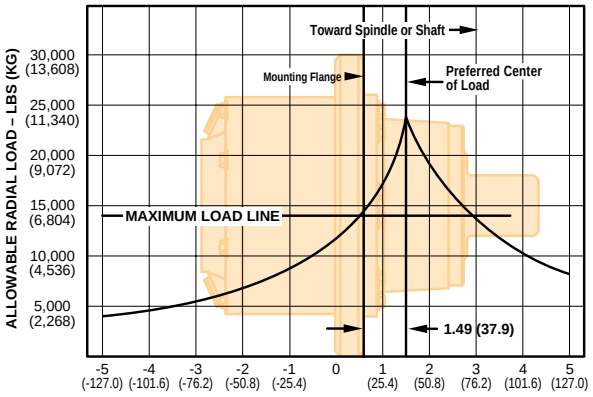
BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.

MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A2 (2) – .500 (12.70) -13 UNC,-2B Thd Holes Equally Spaced on 4.188 (106.38) B. C.+	Ø 3.251 - 3.256 (82.58 - 82.70)
SAE B (2) – .500 (12.70) -13 UNC,-2B Thd Holes Equally Spaced on 5.750 (146.05) B. C.+	Ø 4.001 - 4.006 (101.62 - 101.75)
SAE C (2) – .625 (15.87) -11 UNC,-2B Thd Holes Equally Spaced on 7.125 (180.97) B. C.+ *OR* (4) – .500 (12.70) -13 UNC,-2B Thd Holes Equally Spaced on 6.375 (161.93) B. C.+	Ø 5.001 - 5.006 (127.02 - 127.15)

+"O" RING OR GASKET REQUIRED (Not Supplied by Auburn Gear)
"O" RING SIZES: SAE "A "2–042, SAE "B" 2–155, SAE "C" 2–159

MODEL 6 SERIES B BEARING LIFE CURVE Based On
LIFE = 3,000 Hours B10 SPEED = 100 RPM Output



NOTE:

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

For actual analysis, applications should be reviewed by Auburn Gear Engineering using data supplied on Application Data Form.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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** drive gear set.

NOTE:

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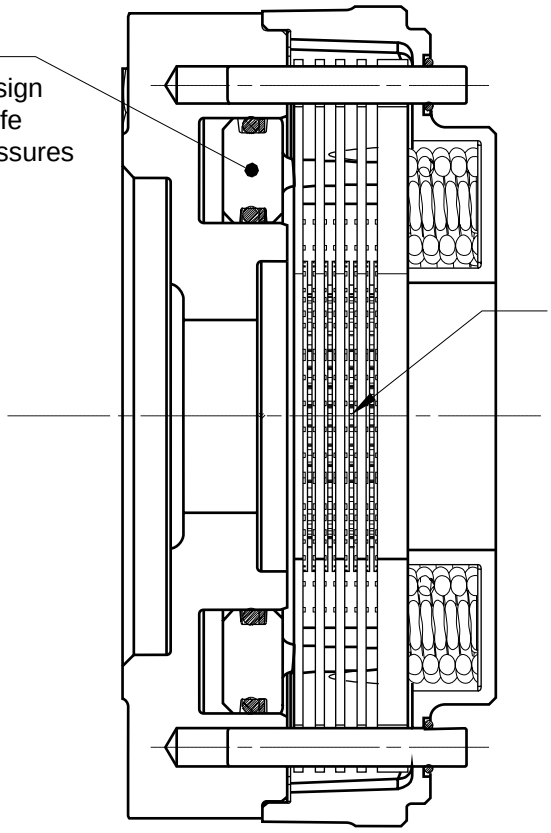
Power Wheel®

Model 6 Series B Shaft Output Drives Double Reduction

with A2 Series Integral Parking Brake

PISTON:
Improved design
for superior life
at higher pressures



FRICTION DISCS:
"Heavy Duty Graphitic Paper"
for wet sump applications.
Characteristics:
Superior energy capability,
high and stable coefficient
of friction and smooth engagement.

GENERAL A2 SERIES DATA:

1. Maximum operating pressure is 3,000 psi (206.4 Bar). Pressure spikes or surges not to exceed 3,500 psi (240.8 Bar). Surge pressure in excess of 3,500 psi (240.8 Bar) caused by spikes in the hydraulic system could shorten brake life and must be avoided.
2. Use only SAE grade 8 mounting bolts and torque to 80-90 lb. ft. (108-122 N-m) for motor mounting.
3. PRECAUTION: Bench testing may cause distortion of components or bolt failure. Mounting bolts must be used for supplemental clamping.
4. Minimum Release Pressure is defined as the hydraulic pressure required to obtain full running clearance.
5. Cubic Inch Displacement is the volume of oil required to release the brake piston 1.0 in^3 (16.4cc) for a new brake and 2.0 in^3 (32.8cc) for a worn brake pack.
6. For vertical shaft output applications, shaft up or shaft down, please contact Auburn Gear to insure proper brake configuration is specified.

Power Wheel®

Model 6 Series B Shaft Output Drives Double Reduction

with A2 Series Integral Parking Brake[1]

GENERAL SPECIFICATIONS

Max. intermittent output torque[2,3]	50,000 lb-in (5,650 Nm)	Approximate Weight	122 lbs (55 kg)
Max. input speed[4]	2,000 RPM	Oil capacity	42 oz (1250 cc)

For Lubrication Data, see Page 35

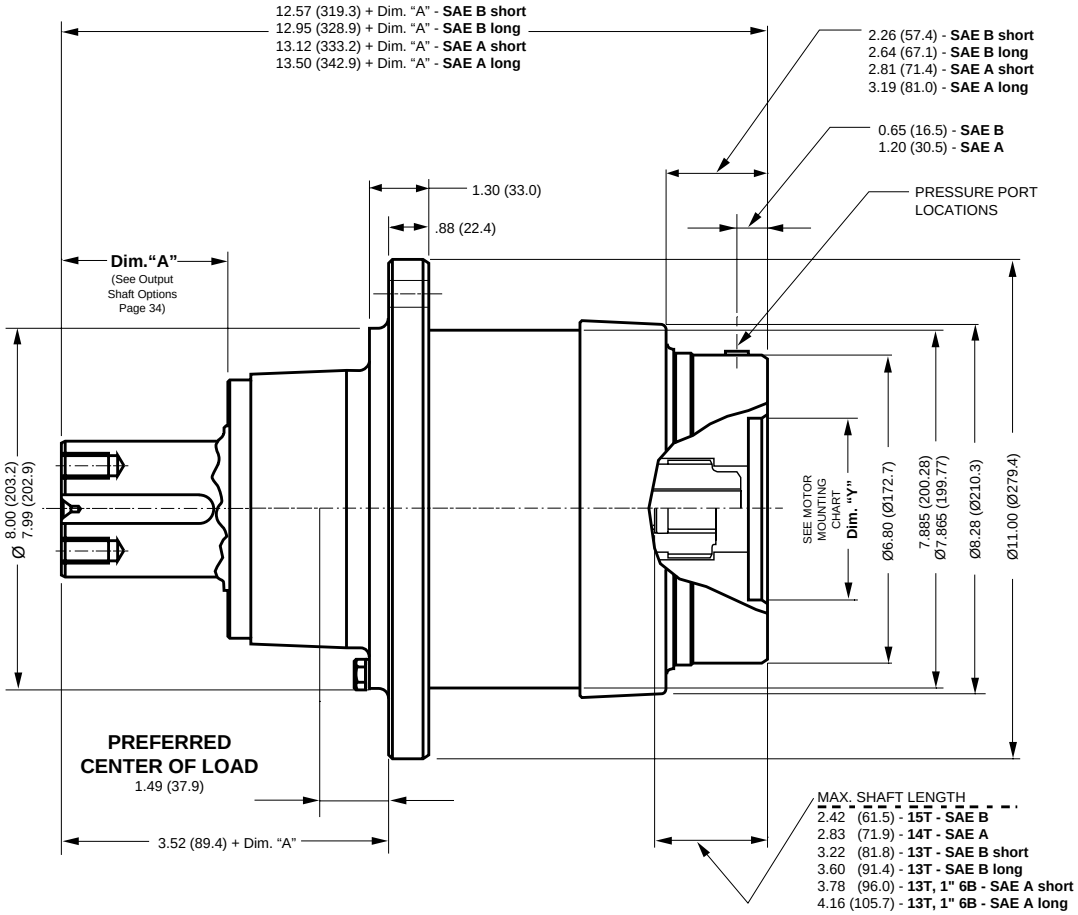
[1] For vertical applications, shaft up or shaft down, contact Auburn Gear.

[2] Depending on the duty cycle and the nature of the application, a normal continuous output 1/3 to 1/2 of the Maximum Intermittent should yield satisfactory Power Wheel life.

[3] If application exceeds published limit, contact Auburn Gear.

[4] For input speed between 2,000 and 3,600 rpm please contact Auburn Gear for duty cycle analysis. Customer testing and application analysis is strongly recommended.

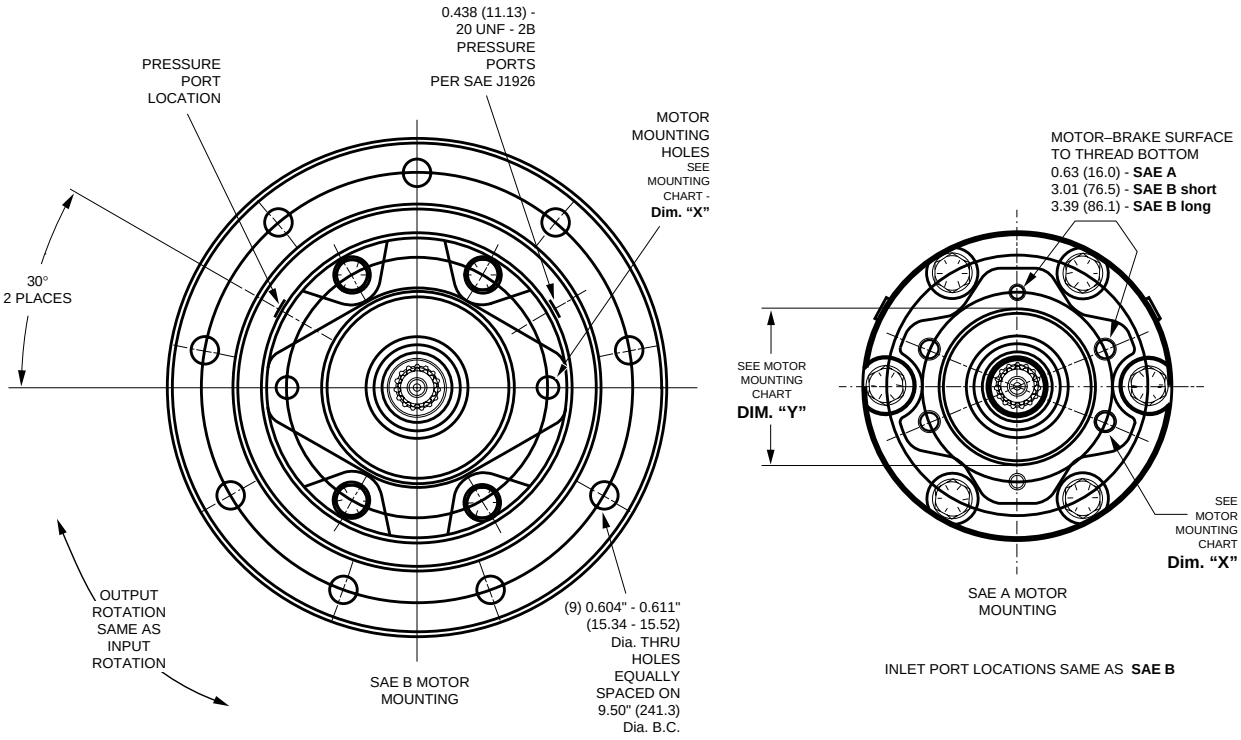
Dimensions given in: INCHES (mm)



BRAKE RATINGS

MODEL	TORQUE	MINIMUM RELEASE PRESSURE	STYLE
B1	1,540 lb-in (174 N-m)	190 PSI (13.1 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)



FEATURE CHART: MODEL 6 SERIES B SHAFT OUTPUT DRIVES DOUBLE REDUCTION with BRAKE

OPTIONS	DESCRIPTION	MAKE ALL SELECTIONS WITHIN ONE COLUMN		ORDER CODES	USE OPTION ORDER CODES TO BUILD ORDER NUMBER				
MOTOR PILOT/HUB	SAE A	•		6S2A					
	SAE B		•	**6S2B**	**6S2B**				
INPUT SPLINE	**13T. - 16/32**	•	•	**13**		**13**			
	14T. - 12/24	•		14					
	15T. - 16/32		•	15					
	1" - 6B	•		6B					
RATIO OPTIONS	14.06:1	•	•	14					
	16.88:1	•	•	16					
	20.62:1	•	•	20					
	22.74:1	•	•	**22**					
	25.53:1	•	•	**25**			**25**		
	29.37:1	•	•	**29**					
	33.79:1	•	•	33					
OUTPUT SHAFTS	**3.0" KEYED**	•	•	**K2**				**K2**	
	23T-8/16	•	•	**23L**					
PARKING BRAKE▲ SHORT VERSION	1,540 lb-in	•	•	B1					
	1,800 lb-in	•	•	B2					
	2,400 lb-in	•	•	B3					
PARKING BRAKE▲ LONG VERSION	**2,400 lb-in**	•	•	**B4**					**B4**
	3,200 lb-in	•	•	**B5**					
	3,600 lb-in	•	•	**B6**					
	4,200 lb-in	•	•	**B7**					
Select desired characteristics from chart, note correct order codes, and order using sample format shown at right:					**6S2B**	**13**	**25**	**K2**	**B4**

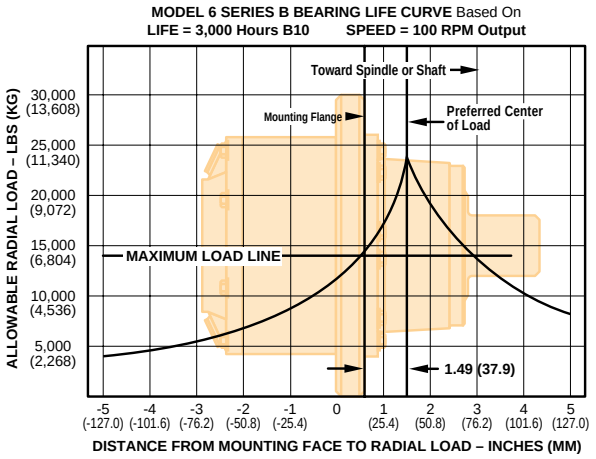
BOLDFACE INDICATES REGULAR VOLUME PRODUCED ITEMS WITH BEST AVAILABILITY.

▲For vertical applications, shaft up or shaft down, contact Auburn Gear.

MOTOR MOUNTING CHART

DIMENSION "X"	DIM. "Y"
SAE A (2) – .375 (9.53) -16 UNC,- 2B Thd Holes Equally Spaced on 4.188 (106.38) B. C.✚ AND (4) – .500 (12.70) -13 UNC,- 2B Thd Holes on 4.188 (106.38) B. C.✚	Ø 3.251 - 3.256 (82.58 - 82.70)
SAE B (2) – .500 (12.70) -13 UNC. 2B Thd Holes Equally Spaced on 5.750 (146.05) B. C.✚	Ø 4.001 - 4.006 (101.62 - 101.75)

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



NOTE:

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

For actual analysis, applications should be reviewed by Auburn Gear Engineering using data supplied on Application Data Form.

BEARING LOAD, LIFE AND SPEED RELATIONSHIPS

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

R = Allowable resultant load for 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)*

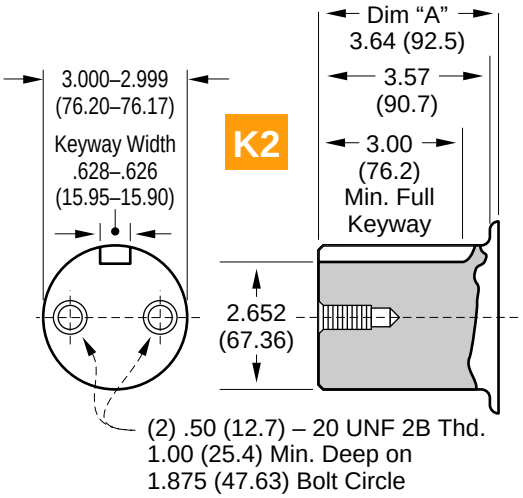
OUTPUT SPEED (RPM)	SF	LF	BEARING HOURS B-10 LIFE
5	2.456	.584	500
10	1.994	.719	1000
20	1.620	.812	1500
30	1.435	.886	2000
40	1.316	.947	2500
50	1.231	1.000	3000
60	1.165	1.047	3500
70	1.113	1.090	4000
80	1.069	1.130	4500
90	1.032	1.166	5000
100	1.000	1.231	6000
200	.812	1.289	7000
300	.719	1.342	8000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

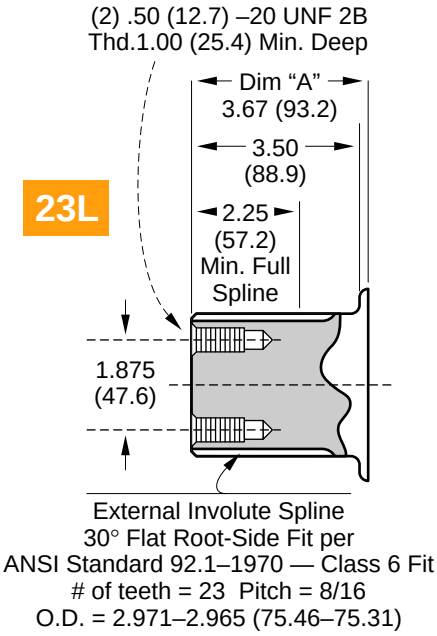
CAUTION: The same torsional loading constraints used in the driving mode must be used in the braking mode when braking through the **Power Wheel** drive gear set.

NOTE:

The data presented in this catalog is for general information and preliminary layout purposes only. Auburn Gear, through its policy of continual improvement, reserves the right to update its products; therefore, the information presented is subject to change. For specific application and/or dimensional information, contact Auburn Gear.

Model 6 Series B Output Shaft Options



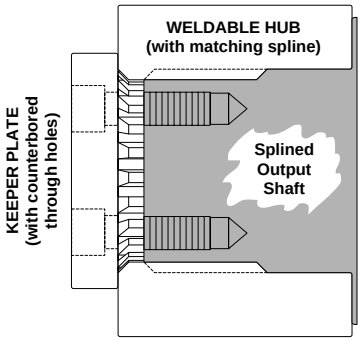


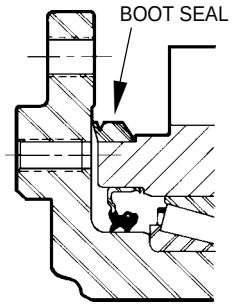
Model 6 Series B Other Options

Weldable Hub

The hubs are 4140H steel and can be turned down and/or welded for mounting sprockets, pulleys, or other devices. A circular keeper plate secures the hub to the splined output shaft with two bolts (keeper plate and bolts included).

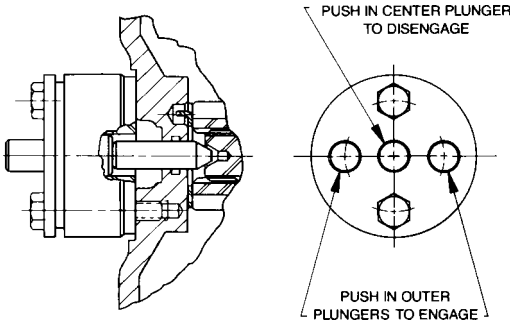
KIT NUMBER	SPLINE	FITS MODELS
6420105	23T–12/24	5, 6, & 8
6420106	23T–8/16	6B, 7, 8, 9, & 10
6420107	20T–8/16	8, & 9





Boot Seal

An optional seal that protects the main oil seal from dirt and other debris. The boot seal will give extended life on applications operating in extremely muddy or dirty conditions. Boot seals are available on a selective model basis.



Quick Disconnect

This optional disconnect is available on all wheel drives. No tools are needed to disengage or re-engage the drive. The planetary drive is disengaged with the push of a button. The quick disconnect eliminates removal of the disconnect cover and external contaminates are sealed from the units by internal o-rings and a gasket that is sandwiched between the disconnect and planetary cover. The rugged, compact design ensures dependable service.

Lubrication Data

Power Wheel Planetary Drives are shipped without lubricant and must be filled to the proper level prior to start-up.

1. **Type**
   In normal applications use an extreme pressure lubricant API-GL-5 approved. AGI recommends SAE 80W, 90, 80W-90 and 85W-90 grades of lube under normal climate and operating conditions. See chart below. For severe or abnormal applications with special requirements consult either Auburn Gear or a lubricant manufacturer for further assistance.
2. **Change Interval**
   Initial lubrication change after 50 hours of operation. Subsequent changes every 1000 hours or yearly whichever comes first.
3. **Lube Temperature**
   Continuous operating temperatures of 160°F are allowable. Maximum intermittent temperature recommended is 200°F.
4. **Amount of Lube**
   The unit should be half full when mounted horizontal. Lube levels for other mounts will vary. Consult Auburn Gear for details.
5. **Shaft or Spindle Up Mounting**
   If mounting unit vertically with shaft or spindle up, special provisions apply to ensure adequate lubrication of output bearings. Consult Auburn Gear.

Auburn Gear Power Wheel Low Temperature Gear Lube Requirement

SAE Viscosity Grade	Auburn Gear Recommended Minimum Temperature
75W-90	-40°F (-40°C)*
80W, 80W-90	-15°F (-26°C)*
85W, 85W-90	10°F (-12°C)*
90	35°F (2°C)

* Maximum temperature for Brookfield Viscosity[1] of 150,000 centipoise (cP)[2] per SAE J306 MAR85

[1] Brookfield Viscosity - *apparent viscosity* as determined under ASTM D 2983

[2] 150,000 cP determined to provide sufficient low temperature lube properties for Auburn Gear Power Wheels

All Power Wheels® are compatible with synthetic lubricants as long as they meet the above specified parameters.

Warranty Information

Power Wheel® Warranty

Seller warrants to Purchaser that its Power Wheel® planetary gear products are free from defects in material and workmanship under normal use and service for a period of one year from the date the product is shown to have been placed into operation by original user or for two years from date of shipment from seller's plant, whichever shall first occur.

Seller's obligation under this warranty is expressly limited to the repair or replacement at its option, of the Power Wheel which is returned with a written claim of defect f.o.b. seller's factory, Auburn, Indiana, U.S.A., and which is determined by Seller to be defective in fact.

THIS IS THE SOLE AND ONLY WARRANTY OF SELLER AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESSED OR IMPLIED, IN FACT OR BY LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE.

The sole and only remedy in regard to any defective Power Wheel shall be the repair or replacement thereof herein provided, and seller shall not be liable for any consequential, special, incidental, or punitive damages, losses or expenses resulting from or caused by any defects.

AUBURN GEAR, INC.
AUBURN, INDIANA, U.S.A

AuburnGear

AuburnGear

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Quality Standards for the World
ISO-9001
CERTIFIED

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