



### Contact Information

Company Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City, State, Zip: \_\_\_\_\_  
Company Contact: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email: \_\_\_\_\_

### Input Details (view instructional video for these measurements here.)

#### If driven off engine flywheel-

Clutched or Direct Drive: \_\_\_\_\_  
Engine Bell Housing Size: \_\_\_\_\_  
Engine Flywheel Size: \_\_\_\_\_  
Flywheel Offset: \_\_\_\_\_  
Pilot Bearing Diameter: \_\_\_\_\_  
Pilot Bore Depth Offset: \_\_\_\_\_

If you selected "other" please provide details in comment box.

#### If driven remotely-

Remote Input Type: \_\_\_\_\_  
Dimensions: \_\_\_\_\_

(Diameter/Key, Diameter/Tooth Count, Flange Type)

### Application Details

Driven Equipment: \_\_\_\_\_  
(Dredge, Crusher, etc.)

Hours of Use Per Day: \_\_\_\_\_  
(Up to 3 Hours, 3-10 Hours, 10+ Hours)

Desired Gear Ratio: \_\_\_\_\_  
(Input Speed/Output Speed)

### Prime Mover Information

Prime Mover Type: \_\_\_\_\_  
(Engine, Electric Motor, Other)

Prime Mover Make & Model: \_\_\_\_\_

Engine Rating: \_\_\_\_\_  
(HP @ RPM)

Net HP @ Flywheel: \_\_\_\_\_  
(HP)

Engine Max Torque: \_\_\_\_\_  
(Ft-Lbs @RPM)

Prime Mover Rotation viewed from Rear

### Pump Drive Output Details

Number of Pump Pads: \_\_\_\_\_

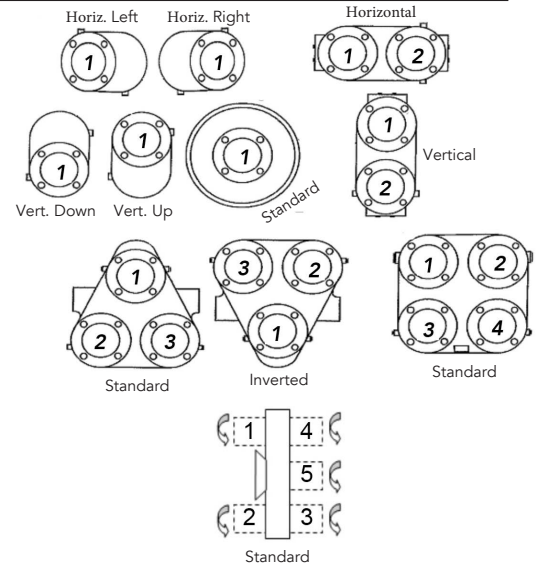
Unit Arrangement: \_\_\_\_\_

Dipstick:

#### Required Output Rotation

Pad Location -----	1	2	3	4	5
SAE Pad Size -----					
Pad Mount Holes ----					
SAE Spline Size -----					
Spline Tooth Count -					
Spline Diameter -----					

Note- if other is selected, please provide details below.



Please briefly describe how the pump drive will be used:

**Important** - Rotation of output on most gearing pump drives is opposite of input. Please specify if pump rotation is critical to the design.

# SAE Housing & Flywheel Specifications



Palmer Johnson  
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PJPOWER.COM



SALES@PJPOWER.COM



800.341.4334

**Flywheel dimensions mm (in)**

Clutch No.	K	C	Y	O	No. Holes
6.5	215.90 (8.500)	71.4 (2.81)	30.2 (1.19)	52.000 (2.0472)	6
7.5	241.30 (9.500)	100.0 (3.94)	30.2 (1.19)	52.000 (2.0472)	8
8	263.52 (10.375)	100.0 (3.94)	62.0 (2.44)	62.000 (2.4409)	6
10	314.31 (12.375)	100.0 (3.94)	53.8 (2.12)	72.000 (2.8346)	8
11.5	352.42 (13.875)	100.0 (3.94)	39.6 (1.56)	72.000 (2.8346)	8
14	466.72 (18.375)	100.0 (3.94)	25.4 (1.00)	80.000 (3.1496)	8
16	517.52 (20.375)	100.0 (3.94)	15.7 (0.62)	100.000 (3.9370)	8
18	571.51 (22.500)	100.0 (3.94)	15.7 (0.62)	100.000 (3.9370)	6
21	673.10 (26.500)	100.0 (3.94)	0.0 (0.00)	130.000 (5.1181)	12
24	733.42 (28.875)	100.0 (3.94)	0.0 (0.00)	130.000 (5.1181)	12

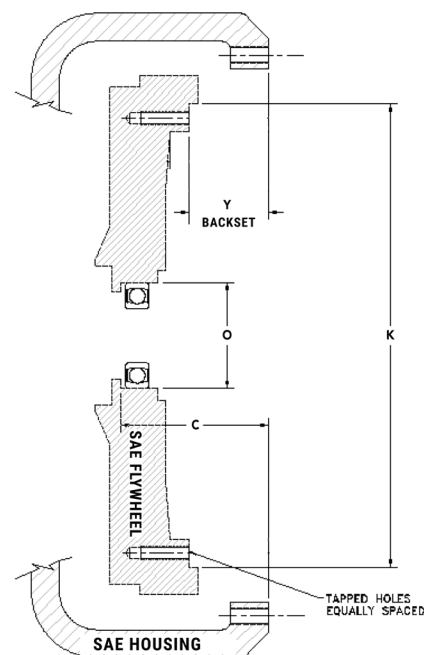
Note: Suggested tolerances are to be measured on an assembled engine; for measuring procedure, see SAE J1033

A.) Diameter tolerance of the driving-ring pilot bore 'K' is +0.13 (0.005), -0.000; maximum eccentricity is 0.13 (0.005) total indicator reading (see footnote b); face runout maximum total indicator reading is 0.0005 times the measured diameter. Diameter tolerance for the mating driving-ring, etc. pilot diameter is +0.000, -0.13 (0.005).

B.) Eccentricity between the driving-ring pilot bore 'K' and the pilot bearing bore 'O' is not to exceed 0.20 (0.008) total indicator reading.

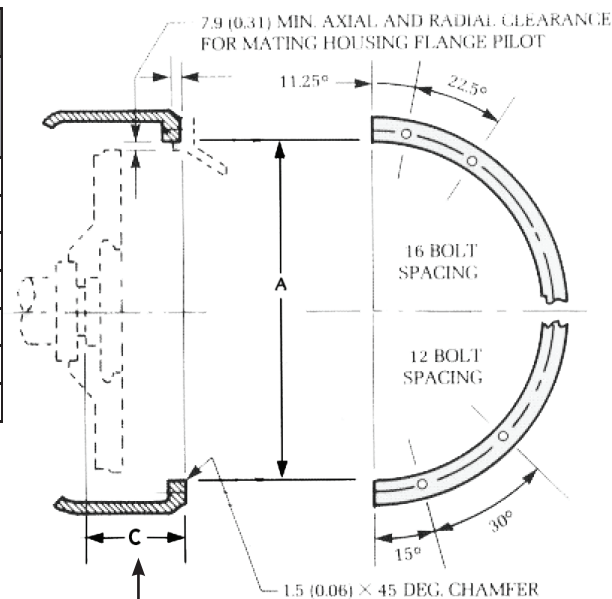
C.) 'O' is the nominal diameter of the bearing. Diameter and fit are to suit installation. Maximum eccentricity is 0.13 (0.005) total indicator reading (see footnote b).

D.) Tapped holes shall be threaded in accordance with UNC Class 2B tolerances of ANSI B1.1 screw threads, and the minimum length of thread engagement shall be 1.5 times the nominal diameter.



**Flywheel housing dimensions mm (in)**

SAE No.	A	Tolerance		C	# of Holes
		Bore Diameter	Bore Eccentricity/ Face Deviation		
0	647.70 (25.500)	+0.25 (0.010)	0.25 (0.010)	100.0 (3.94)	16
1/2	584.20 (23.000)	+0.20 (0.008)	0.25 (0.010)	100.0 (3.94)	12
1	511.18 (20.125)	+0.13 (0.005)	0.20 (0.008)	100.0 (3.94)	12
2	447.69 (17.625)	+0.13 (0.005)	0.20 (0.008)	100.0 (3.94)	12
3	409.58 (16.125)	+0.13 (0.005)	0.20 (0.008)	100.0 (3.94)	12
4	361.95 (14.250)	+0.13 (0.005)	0.15 (0.006)	100.0 (3.94)	12
5	314.32 (12.375)	+0.13 (0.005)	0.15 (0.006)	71.4 (2.81)	8



Depth of pilot bore from flywheel housing face to shoulder on flywheel or to crankshaft flange face.

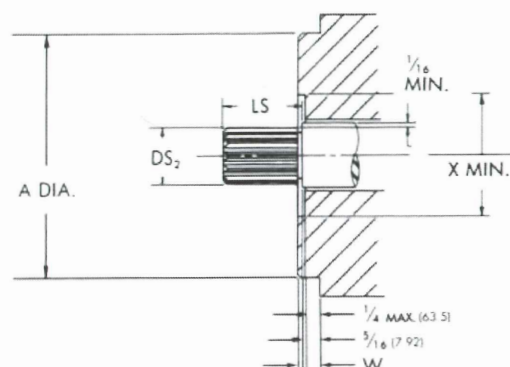
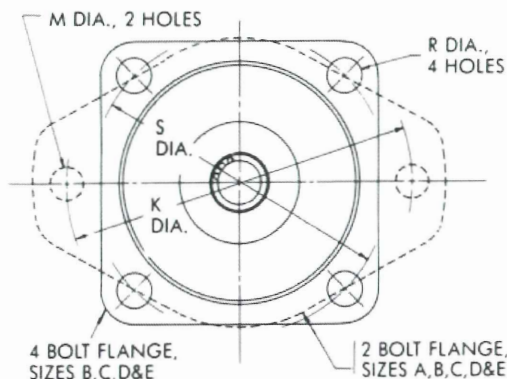
# SAE Hydraulic Pump & Motor Drive Standards



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SAE STANDARDS in (mm)										
SAE Size	A	W	X	K	S	M	R	DS <sub>2</sub>	LS	Spline 30° Involute
A	3.250 (82.55) 3.248 (82.49)	0.250 (6.35) 0.230 (5.84)	—	4.188 (106.38)	—	0.438 (11.13)	—	.625 (15.88)	0.938 (23.82)	9 Teeth 16/32 D. P.
B	4.000 (101.60) 3.998 (101.55)	0.380 (9.65) 0.360 (9.14)	2.000 (50.80)	5.750 (146.05)	5.00 (127.00)	0.562 (14.27)	0.562 (14.27)	.875 (22.23)	1.312 (33.32)	13 Teeth 16/32 D. P.
BB	4.000 (101.60) 3.998 (101.55)	0.360 (9.14) 0.340 (8.63)	2.000 (50.80)	5.750 (146.05)	5.000 (127.00)	0.562 (14.27)	0.562 (14.27)	1.000 (25.40)	1.500 (38.10)	15 Teeth 16/32 D. P.
C	5.000 (127.00) 4.998 (126.95)	0.500 (12.70) 0.480 (12.19)	2.500 (63.5)	7.125 (180.98)	6.375 (161.93)	0.68 (17.27)	0.562 (14.27)	1.25 (31.75)	1.875 (46.63)	14 Teeth 12/24 D. P.
CC	5.000 (127.00) 4.998 (126.95)	0.500 (12.70) 0.480 (12.19)	2.500 (63.5)	7.125 (180.98)	6.375 (161.93)	0.688 (17.48)	0.562 (14.27)	1.500 (38.10)	2.125 (53.98)	17 Teeth 12/24 D. P.
D	6.00 (152.40) 5.998 (152.35)	0.500 (12.70) 0.480 (12.19)	2.750 (69.85)	9.000 (228.60)	9.000 (228.60)	0.812 (20.62)	0.812 (20.62)	1.75 (44.45)	2.265 (66.68)	13 Teeth 8/16 D. P.
E	6.500 (165.10) 6.498 (165.05)	0.625 (15.88) 0.605 (15.37)	2.750 (69.85)	12.500 (317.50)	12.500 (317.50)	1.062 (26.97)	0.812 (20.62)	1.75 (44.45)	2.265 (66.68)	13 Teeth 8/16 D. P.
F	7.000 (177.80) 6.988 (177.75)	0.625 (15.88) 0.605 (15.37)	2.750 (69.85)	13.781 (350.04)	13.781 (350.04)	1.062 (26.97)	1.062 (26.97)	1.998 (50.75)	3.125 (79.38)	15 Teeth 8/16 D. P.

PUMP PAD BOLT SPECS (SAE J1116)					
SAE Size	# of bolts	Bolt Dia. (in)	Thread (imperial)	Bolt Dia (mm)	Thread (metric)
A	2	3/8	16	M10	1.5
B	2	1/2	13	M12	1.75
B	4	1/2	13	M12	1.75
C	2	5/8	11	M16	2
C	4	1/2	13	M12	1.75
D	4	3/4	10	M20	2.5
E	4	3/4	10	M20	2.5
F	4	1	18	M24	3

**Note:** Metric bolts may be more commonly seen in European units/applications.

Metric SAE standards will normally be followed by an "M". E.g. SAE #2M