

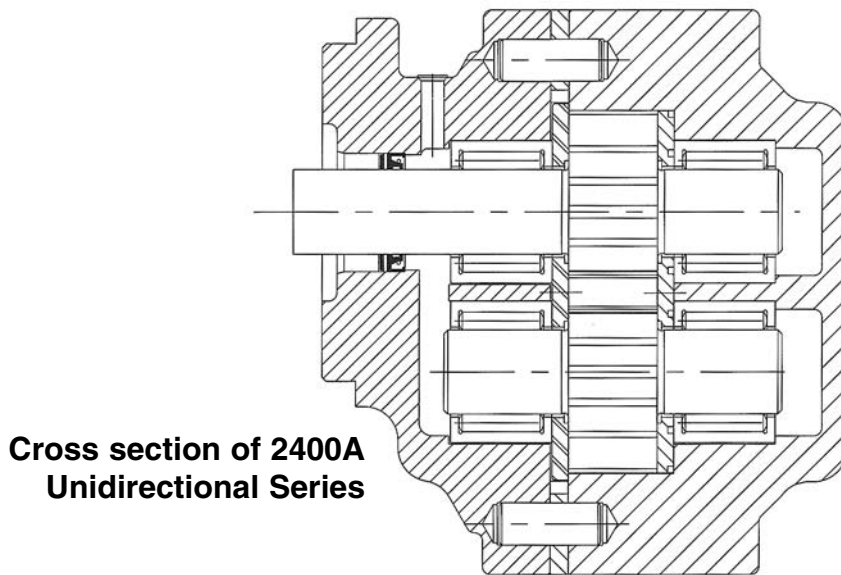
Single and Multiple Gear Pump Features

Operating as pumps, the smaller units can be applied at speeds up to 2750 RPM and pressures up to 3000 PSI. Operating as motors, the same pressure can be used, but the speed ratings are further increased.

The 2400 configuration uses heavy duty cast iron construction and it maintains the unique four-bolt design which places all four assembly bolts within the area of greatest internal pressure. This greatly reduces internal distortion and the resulting wear of internal parts.

The roller bearing design, which uses fully pressure lubricated, long life roller bearings makes these units relatively insensitive to contamination. This feature also makes the units fully repairable and rebuildable.

- Rugged high density cast iron construction further maintains high volumetric efficiency even at high operating temperatures.
- Pumps exhibit high horsepower-to-weight ratios. May be used as a uni-rotation motor.
- Mounting flanges are of the versatile HYDRECO combination SAE two- or four-bolt design. Multiple units are of a modular design. This allows assembly of modules from stock to meet any multiple pump requirement.
- Modular design allows field replacement of any one section.
- Units are repairable due to roller bearing design. Roller bearing construction is relatively insensitive to moderate amounts of contamination.
- Professional applications and engineering assistance available upon request. Modifications such as port size shafts are available. Contact your Hydreco sales representative.



**Cross Section of 2400A
Unidirectional Series**

Single and Multiple Gear Pump Model Number System and Shafts

Model Number System

24
Model

00
Pump Size
(GPM / 1000 RPM)

A
Design

2
Shaft

C
Adapter

1
Cover

B
Rotation

Model

24
GPM / 1000 RPM
28-6.50 cu in/Rev.
33-7.52 cu in/Rev.
36-8.33 cu in/Rev.
42-9.76 cu in/Rev.

Design

A-Standard Roller Bearing
E-Telltale Drain (Roller Bearing)

Shafts

1- SAE "C" Splined Shaft
2- SAE "C" Keyed Shaft
6- Splined Shaft for Rear Pumps
7- Splined Shaft for Center Pumps

Adapter

C-SAE "C" 2 & 4 Bolt
B-Center & Rear

Rotation (viewed from shaft end)

R - Clockwise (Design A & E)
L - Counter Clockwise (Design A & E only)

Covers

Cover No.	Inlet Size	Outlet Size	Port Location	Pump Size				Single	Front	Center	Rear	Bi-rotation	Uni-rotation
				28	33	36	42						
1	1 1/2" S.F	1 1/4" S.F	Side	X				X			X		X
	2" S.F	1 1/4" S.F	Side		X	X	X	X			X		X
2	2 1/2" S.F	1 1/4" S.F	Side	X	X				X	X			X
	3" S.F	1 1/4" S.F	Side			X	X		X	X			X

Shafts

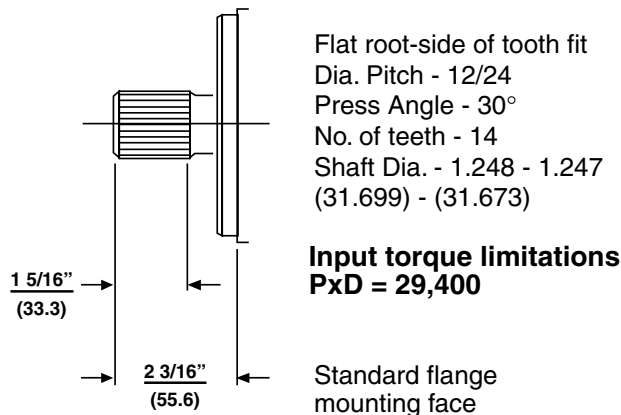
- Rotation is determined by viewing from shaft end.

2400 Max. Input Torque Limitations

The drive shaft can withstand the input torque, if the product of pressure (PSIG) times displacement (cubic inches/rev.) does not exceed the P x D constant indicated. Pump sections must be added together and cannot exceed P x D constant listed below.

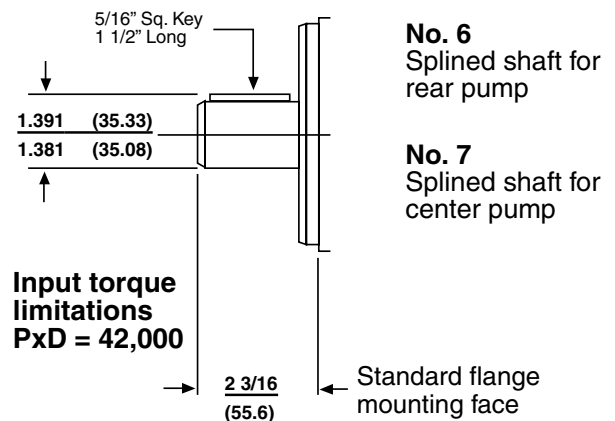
No. 1 SAE "C" Splined Shaft

1 1/4" Dia. - SAE 14 Tooth Involute Spline



No. 2 SAE "C" Keyed Shaft

1 1/4" Dia. - SAE Straight Shaft with Key



No. 6
Splined shaft for rear pump

No. 7
Splined shaft for center pump

Single Gear Pump Performance Data

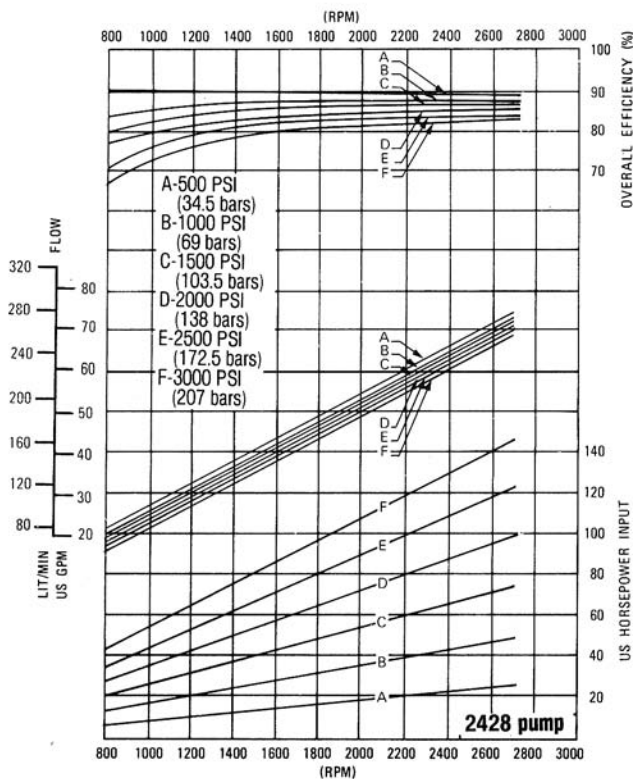
■ Shown are the average results based on a series of laboratory tests of production units and are not necessarily representative of any one unit. Tests were run with the oil reservoir temperature at 120°F and viscosity 150 SSU at 100°F. Requests for more specific data should be directed to our Technical Service Department through our Sales Representatives.

■ Consult your Hydreco sales representative for operation of pumps at (1) pressures and speeds above those shown on charts, (2) temperatures above 180°F, (3) speeds under 400 rpm when under load.

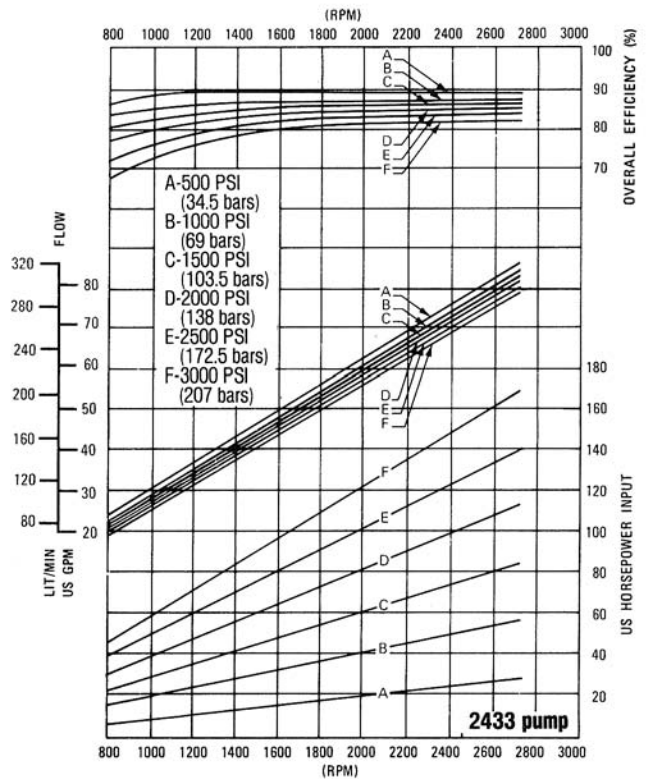
■ Inlet Conditions: Max. 5" HG. at rated speed.

Pressure rating may be higher depending on duty cycle. Contact factory.

2428 Pump

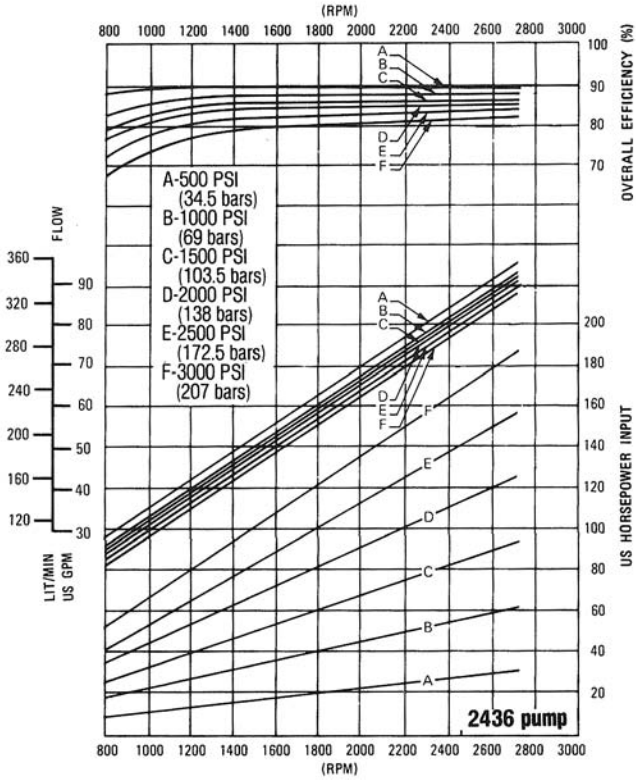


2433 Pump

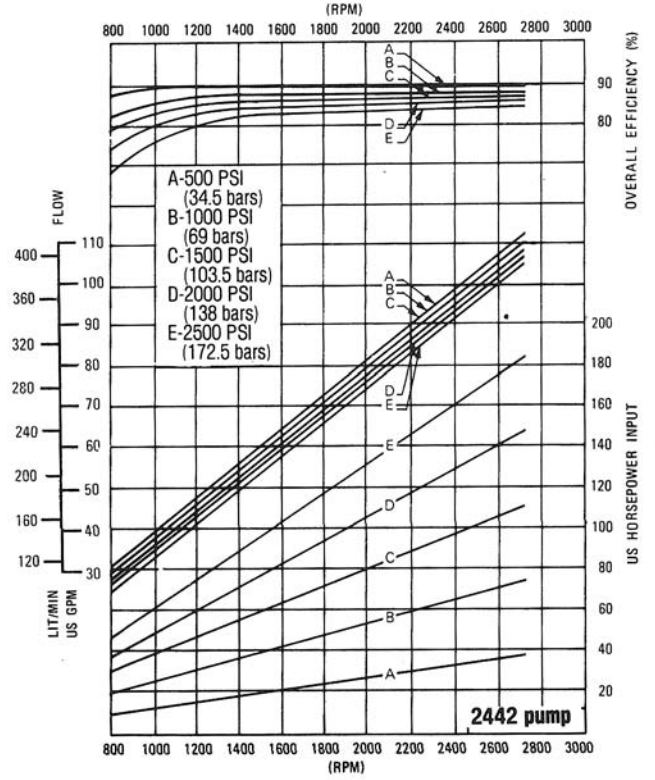


Single Gear Pump Performance Data

2436 Pump

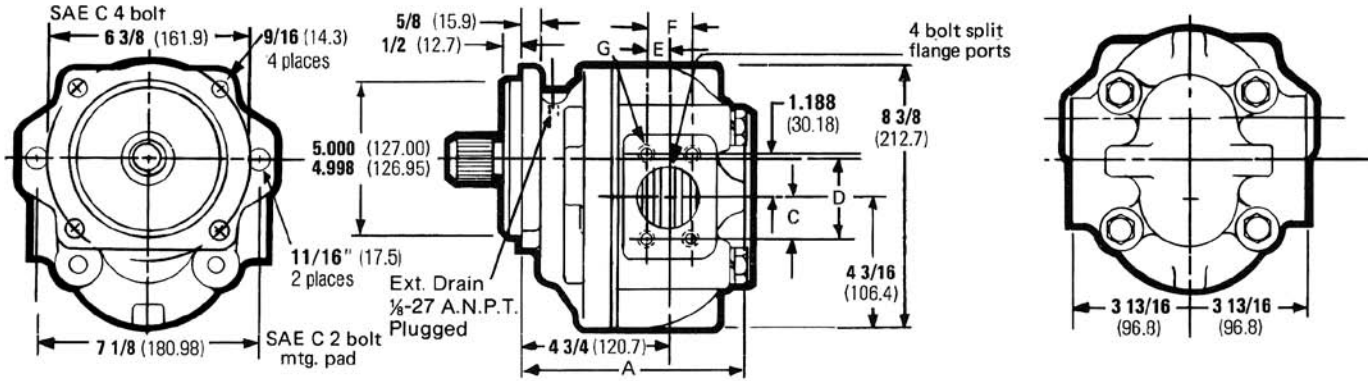


2442 Pump



Single and Front Gear Pump Installation Dimensions

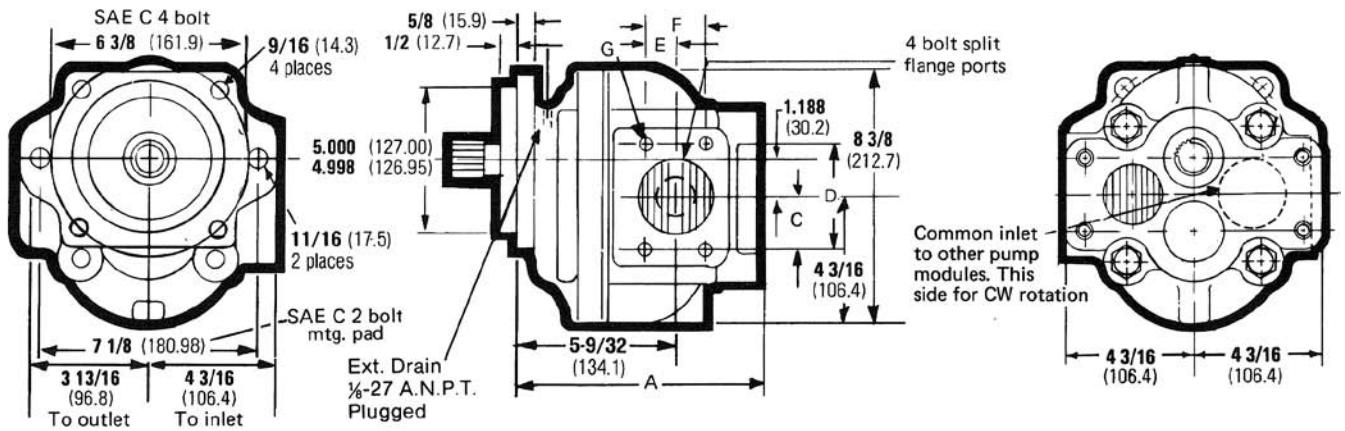
2400 Series



All 2400 Series Single Pumps are Available in R or L Rotation (see model no. page)

Model No. & Displacement	Max. Operating PSI (bars)	Max. Operating R.P.M.	Shaft Type	Dim "A"
2428A1 C1 6.50 cir	3000 (207.0)	2750	SAE "C" splined	7-3/16" (182.6)
2433A1 C1 7.52 cir	3000 (207.0)	2750	SAE "C" splined	7-3/16" (182.6)
2436A1 C1 8.33 cir	3000 (207.0)	2750	SAE "C" splined	7 1/2" (190.5)
2442A1 C1 9.76 cir	2500 (172.5)	2750	SAE "C" splined	7 1/2" (190.5)

Approx. weight of the 2400 series front pumps is 66 lbs. or (29.94 Kg.) Mounting flanges conform to SAE J744C except two bolt and four bolt mounts are combined.

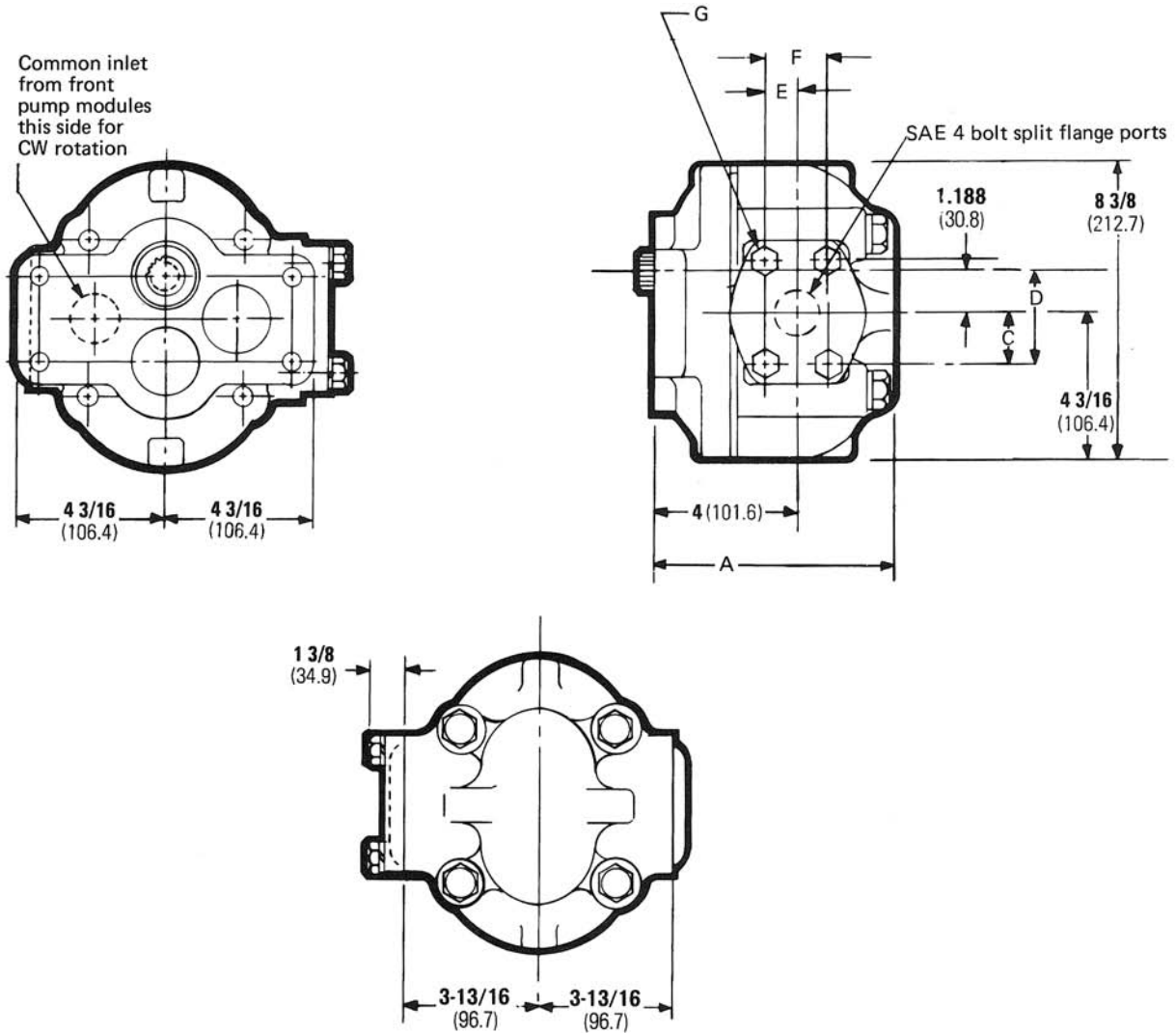


All 2400 Series Single Pumps are Available in R or L Rotation (see model no. page)

Model No. & Displacement	Max. Operating PSI (bars)	Max. Operating R.P.M.	Shaft Type	Dim "A"
2428A1 C2 6.50 cir	3000 (207.0)	2750	SAE "C" splined	8_ (209.5)
2433A1 C2 7.52 cir	3000 (207.0)	2750	SAE "C" splined	8_ (209.6)
2436A1 C2 8.33 cir	3000 (207.0)	2750	SAE "C" splined	8-7/16" (214.3)
2442A1 C2 9.76 cir	2500 (172.5)	2750	SAE "C" splined	8-7/16" (214.3)

Approx. weight of the 2400 series front pumps is 66 lbs. or (29.94 kg.) Mounting flanges conform to SAE J744C except two bolt and four bolt mounts are combined.

Rear Gear Pump Installation Dimensions



All 2400 Series Single Pumps are Available in R or L Rotation (see model no. page)

Model No. & Displacement	Max. Operating PSI (bars)	Max. Operating R.P.M.	Shaft Type	Dim "A"
2428A6B1 6.50 cir	3000 (207.0)	2750	None	6-7/16" (163.5)
2433A6B1 7.52 cir	3000 (207.0)	2750	None	6-7/16" (163.5)
2436A6B1 8.33 cir	3000 (207.0)	2750	None	6 3/4" (171.5)
2442A6B1 9.76 cir	2500 (172.5)	2750	None	6 3/4" (171.5)

Approx. weight of the 2400 series rear pumps is 65 lbs. (29.48 kg.)