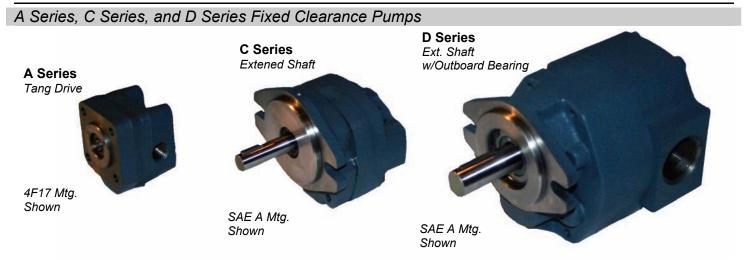


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Delta's fixed clearance gear pumps are offered in three series A, C, and D with flows ranging from 0.5 GPM to 35 GPM. Delta pumps are designed to provide greater torque efficiencies – especially at high speeds. Numerous shaft, bearing, mounting and seal options are available. Each model is designed to operate as either a single rotation or bi-rotational pump, depending on the application.

A Series, C Series, and D Series hydraulic pumps are designed with long term performance in mind, including: high-strength cast iron bodies, hardened alloy gears and shafts, bronze bearings, and Buna-N sealing members. Integral check valves permit bidirectional rotation to simplify plumbing. The D Series pumps incorporate drive shaft thrust ball bearings to facilitate thrust and radial shaft loads.

Because of their long proven construction, these pumps are found in every type of mobile and industrial applications. They can be expected to perform for the life expectancy of the equipment on which installed.

#### **Installation Notes**

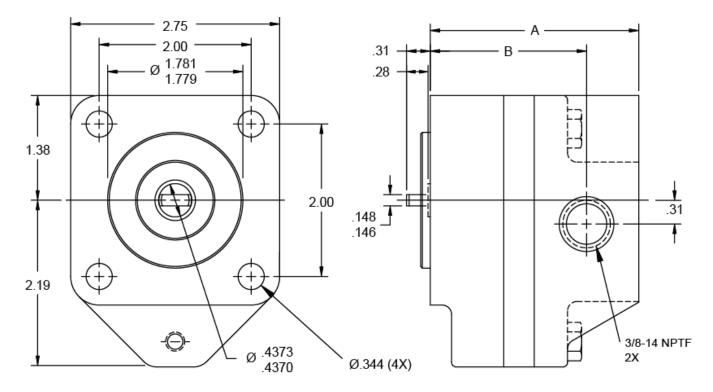
On models A1-A8, C1-C8, and D1-D8 be especially careful since these units require that the mounting bolts are installed to complete the assembly. The two shipping bolts are not sufficient to make the assembly intact and care should be exercised while handling in that condition. Bolt torque requirements are 13 to 17 ft-lbs.

y u	MODEL	application. EL GPM   DISPLACEMENT   SLIP   MAX. PSI   N						MAX.	Dogo
	NODEL		GAL./REV	IN <sup>3</sup> /REV	GPM			MAX. RPM	Page
		AT 1750	GAL./REV	IN REV	PER 100	INT. DUTY	CONT. DUTY	RPIN	
		RPM			PER 100 PSI	DUIT	DUIT		
	A 4		0.00000	0.005		2500	1500	5000	F
	A1 A2	0.49	0.00028	0.065	0.015	2500	1500	5000	5
	AZ A4	0.82	0.00047	0.108	0.017	2500 2250	1500 1500	5000 4000	ວ 5
ΛE	A4 A6	1.41	0.00081	0.187	0.020	1650	950	3600	5 5
TANG DRIVE	A0 A8	3.53	0.00137	0.468	0.025	1250	650	2500	5
Š	A21	3.10	0.00202	0.411	0.030	2000	1500	5000	7
TAI	A21 A23	5.30	0.00304	0.702	0.040	1600	1200	4000	7
	A25	7.42	0.00304	0.981	0.045	1000	850	3500	7
	A23	11.10	0.00633	1.460	0.035	750	550	2400	7
	C1	0.49	0.00033	0.065	0.075	2500	1500	5000	9
	C1 C2	0.49	0.00028	0.108	0.013	2500	1500	5000	9
	C4	1.41	0.00047	0.108	0.017	2500	1500	4000	9
	C4 C6	2.39	0.00137	0.316	0.020	1850	1100	3000	9
L.	C8	3.53	0.00202	0.468	0.020	1500	750	1800	9
AF	C21	3.10	0.00178	0.411	0.040	2500	1500	5000	11
SH	C23	5.30	0.00304	0.702	0.045	2350	1500	4000	11
B	C25	7.42	0.00425	0.981	0.055	1500	1500	3000	11
EXTENED SHAFT	C27	11.10	0.00633	1.460	0.075	1200	1100	1800	11
Ĕ	C41	11.90	0.0068	1.570	0.070	2500	1500	4000	13
	C43	17.80	0.0102	2.350	0.090	2450	1500	3000	13
	C45	23.10	0.0132	3.040	0.110	1850	1500	2300	13
	C47	29.50	0.0169	3.900	0.140	1500	1200	1800	13
	C49	33.60	0.0192	4.430	0.180	1000	700	1800	13
	D1	0.49	0.00028	0.065	0.015	2500	1500	5000	15
NG	D2	0.82	0.00047	0.108	0.017	2500	1500	5000	15
ARI	D4	1.41	0.00081	0.187	0.020	2500	1500	4000	15
BE	D6	2.39	0.00137	0.316	0.025	1850	1100	3000	15
B	D8	3.53	0.00202	0.468	0.030	1500	750	1800	15
EXT. SHAFT W/OUTBOARD BEARING	D21	3.10	0.00178	0.411	0.040	2500	1500	5000	17
8	D23	5.30	0.00304	0.702	0.045	2350	1500	4000	17
Ĩ	D25	7.42	0.00425	0.981	0.055	1500	1500	3000	17
N N	D27	11.10	0.00633	1.460	0.075	1200	1100	1800	17
IAF	D41	11.90	0.0068	1.570	0.070	2500	1500	4000	19
rs.	D43	17.80	0.0102	2.350	0.090	2450	1500	3000	19
Ĕ	D45	23.10	0.0132	3.040	0.110	1850	1500	2300	19
L m	D47	29.50	0.0169	3.900	0.140	1500	1200	1800	19
	D49	33.60	0.0192	4.430	0.180	1000	700	1800	19

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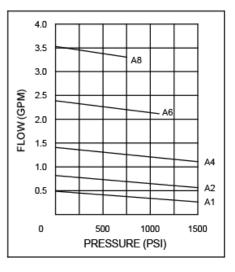
Delta Power Company 4484 Boeing Drive - Rockford, IL 61109

### A1-A8 Pump, Bi-Directional



For best performance: Inlet pressure should not exceed 10 PSI and vacuum should be limited to 8 inches of mercury at the pump. Inlet lines always must be large, straight, short and absolutely leak-proof, even more so as RPM increases. Suggested maximum inlet velocity is 6 feet per second.

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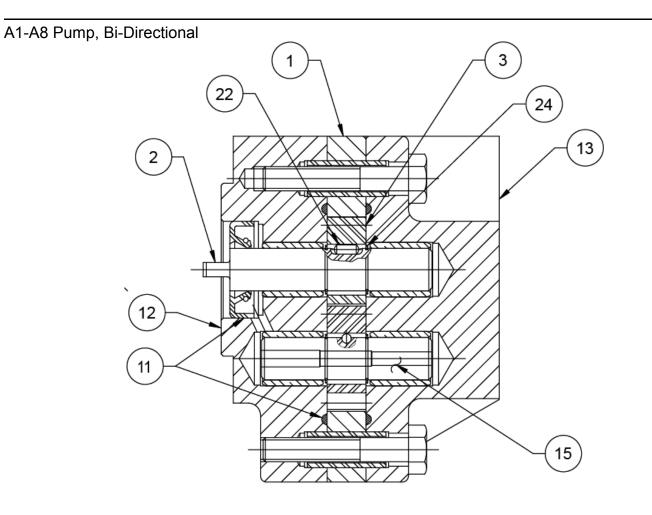


MODEL	GPM AT	0 PSI DISP.	DISP. CU.	SLIP GPM	MAX.	PRESS. MAX.	Α	В
	1750 RPM	GAL./REV,	IN./REV.	PER 100 PSI	RPM	CONTINOUS		
A1	0.49	0.00028	0.065	0.015	5000	1500	2.48	1.79
A2	0.82	0.00047	0.108	0.017	5000	1500	2.57	1.88
A4	1.41	0.00081	0.187	0.020	4000	1500	2.74	2.05
A6	2.39	0.00137	0.316	0.025	3600	1100	3.02	2.33
A8	3.53	0.00202	0.468	0.030	2500	750	3.34	2.65

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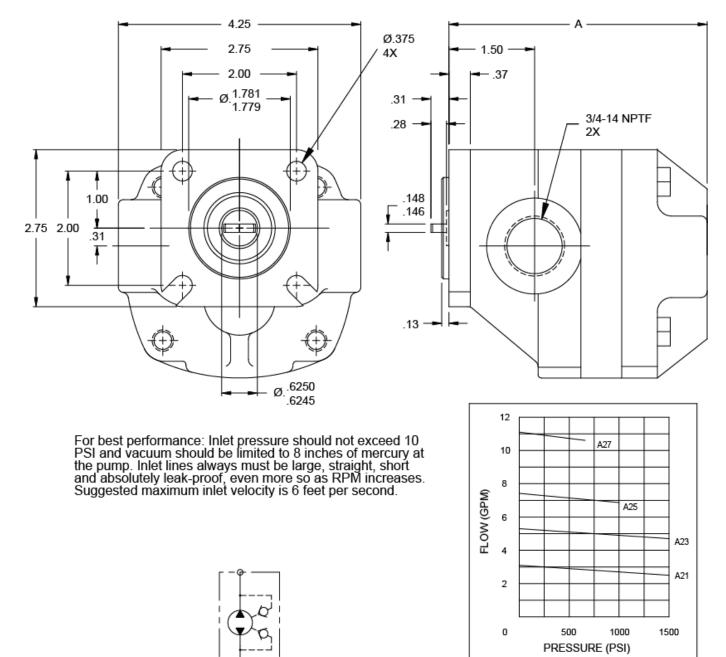


SECTION A-A

ITEM #	DESCRIPTION	QTY.
1	GEAR CASE	1
2	DRIVE SHAFT	1
3	GEAR	1
11	SEAL KIT	1
12	DRIVE PLATE ASS'Y	1
13	END PLATE ASS'Y	1
15	IDLER SHAFT ASS'Y	1
22	GEAR PIN	1
24	RETAINING RING	2



## A21-A27 Pump, Bi-Directional



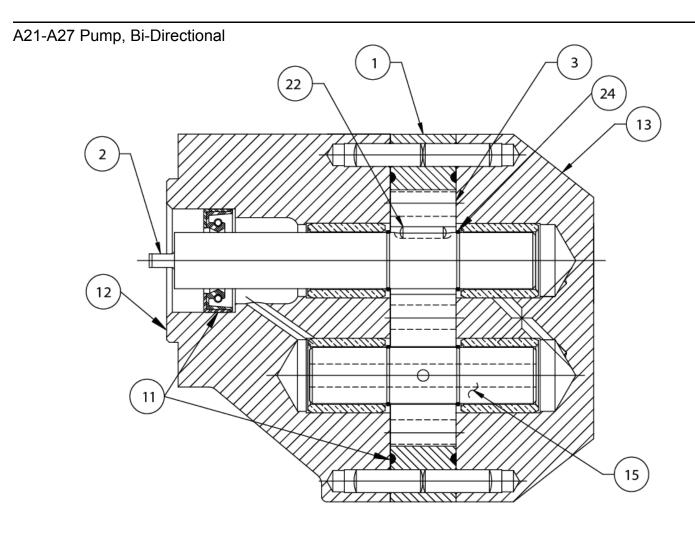
MODEL	GPM AT	0 PSI DISP.	DISP. CU.	SLIP GPM	MAX.	PRESS. MAX.	Α
	1750 RPM	GAL./REV,	IN./REV.	PER 100 PSI	RPM	CONTINOUS	
A21	3.10	0.00178	0.411	0.040	5000	1500	4.24
A23	5.30	0.00304	0.702	0.045	4000	1500	4.54
A25	7.42	0.00425	0.981	0.055	3500	1000	4.76
A27	11.10	0.00633	1.460	0.075	2400	700	5.32

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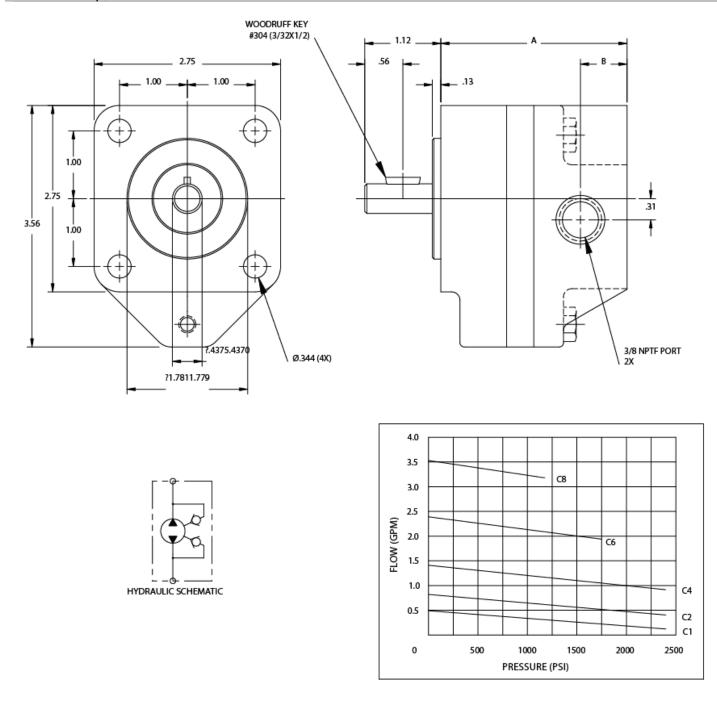


SECTION A-A

ITEM #	DESCRIPTION	QTY.
1	GEAR CASE	1
2	DRIVE SHAFT	1
3	GEAR	1
11	SEAL KIT	1
12	DRIVE PLATE ASS'Y	1
13	END PLATE ASS'Y	1
15	IDLER SHAFT ASS'Y	1
22	GEAR PIN	1
24	RETAINING RING	2



#### C1-C8 Pump, Bi-Directional



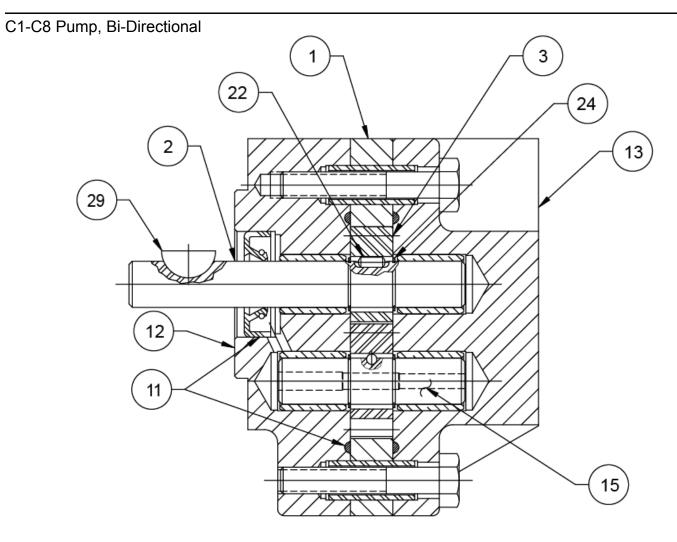
MODEL	GPM AT	0 PSI DISP.	DISP. CU.	SLIP GPM	MAX. PUMP PRESSURE	MAX. PUMP PRESSURE	SPEED	Α	В
	1750 RPM	GAL./REV,	IN./REV.	PER 100 PSI	INTERMITTENT DUTY	CONTINUOUS DUTY	MAX. RPM		
C1	0.49	0.00028	0.065	0.015	2400	1500	5000	2.48	0.69
C2	0.82	0.00047	0.108	0.017	2400	1500	5000	2.57	0.69
C4	1.41	0.00081	0.187	0.020	2400	1500	4000	2.74	0.69
C6	2.39	0.00137	0.316	0.025	1750	1100	3000	3.02	0.69
C8	3.53	0.00202	0.468	0.030	1200	750	1800	3.34	0.69

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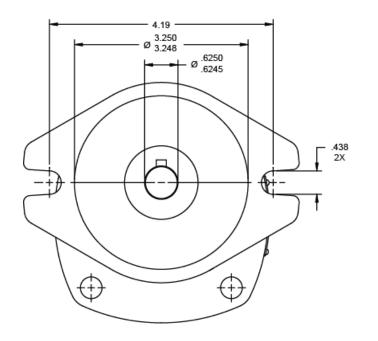




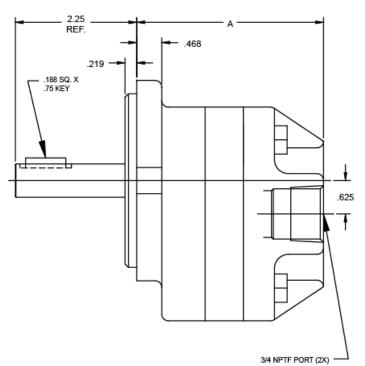
SECTION A-A

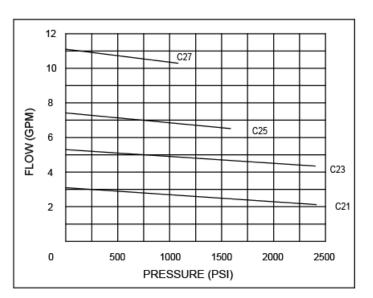
ITEM #	DESCRIPTION	QTY.
1	GEAR CASE	1
2	DRIVE SHAFT	1
3	GEAR	1
11	SEAL KIT	1
12	DRIVE PLATE ASS'Y	1
13	END PLATE ASS'Y	1
15	IDLER SHAFT ASS'Y	1
22	GEAR PIN	1
24	RETAINING RING	2
29	DRIVE KEY	1

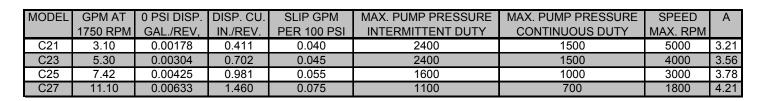
C21-C27 Pump, Bi-Directional



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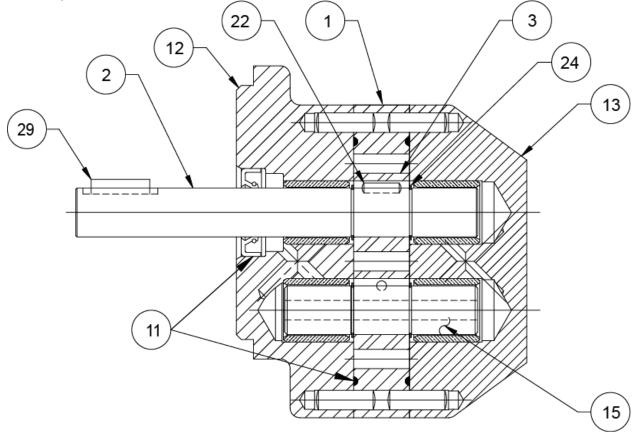








# C21-C27 Pump, Bi-Directional

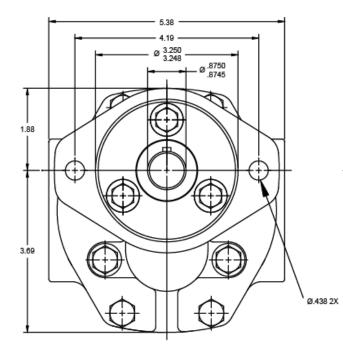


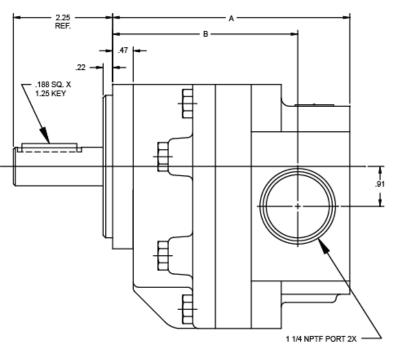
SECTION A-A

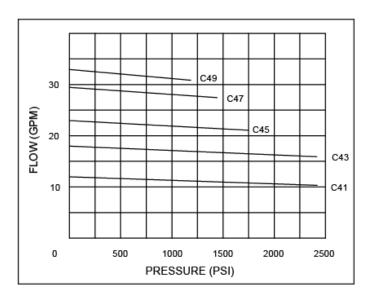
ITEM #	DESCRIPTION	QTY.
1	GEAR CASE	1
2	DRIVE SHAFT	1
3	GEAR	1
11	SEAL KIT	1
12	DRIVE PLATE ASS'Y	1
13	END PLATE ASS'Y	1
15	IDLER SHAFT ASS'Y	1
22	GEAR PIN	1
24	RETAINING RING	2
29	DRIVE KEY	1

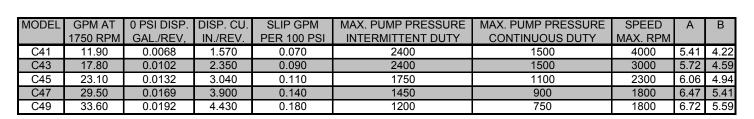


#### C41-C49 Pump, Bi-Directional









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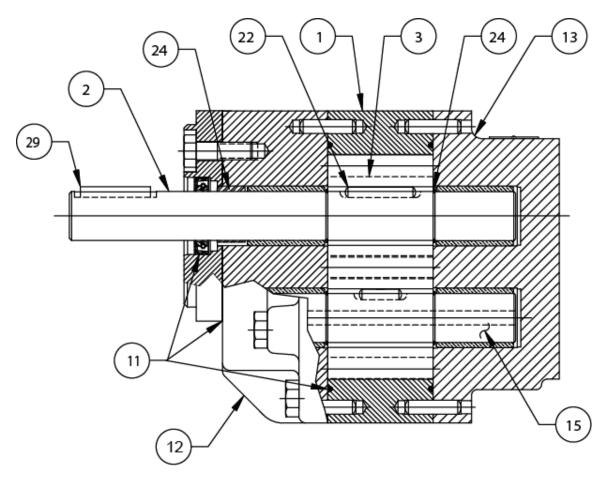
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# C41-C49 Pump, Bi-Directional

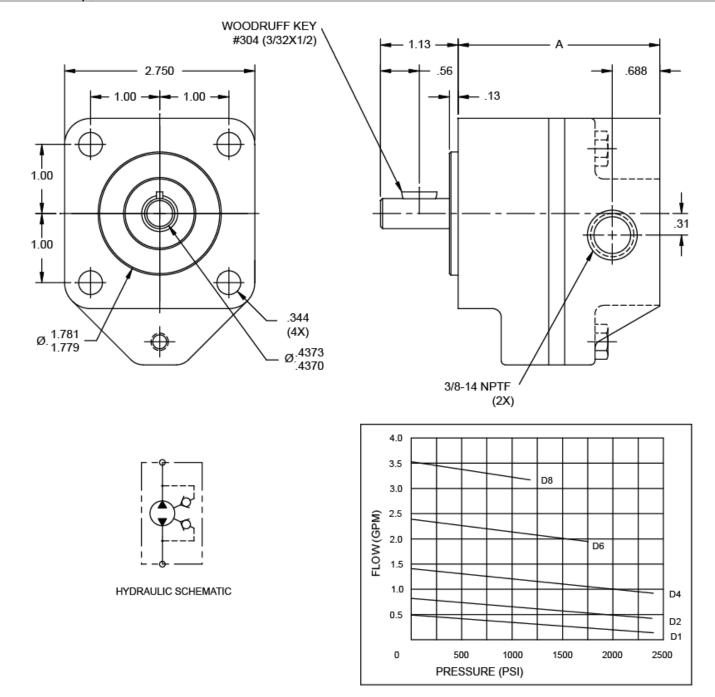


A-A SECTION

ITEM #	DESCRIPTION	QTY.
1	GEAR CASE	1
2	DRIVE SHAFT	1
3	GEAR	1
11	SEAL KIT	1
12	DRIVE PLATE ASS'Y	1
13	END PLATE ASS'Y	1
15	IDLER SHAFT ASS'Y	1
22	GEAR PIN	1
24	RETAINING RING	2
29	DRIVE KEY	1



### D1-D8 Pump, Bi-Directional

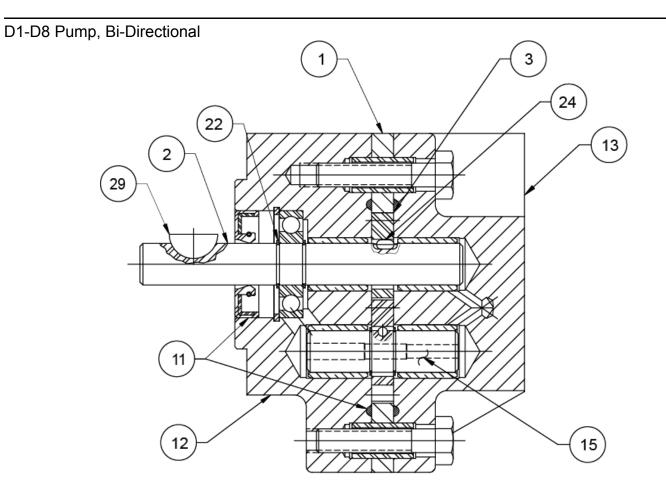


MODEL	GPM AT	0 PSI DISP.	DISP. CU.	SLIP GPM	MAX. PUMP PRESSURE	MAX. PUMP PRESSURE	SPEED	А
	1750 RPM	GAL./REV,	IN./REV.	PER 100 PSI	INTERMITTENT DUTY	CONTINUOUS DUTY	MAX. RPM	
D1	0.49	0.00028	0.065	0.015	2400	1500	5000	2.82
D2	0.82	0.00047	0.108	0.017	2400	1500	5000	2.91
D4	1.41	0.00081	0.187	0.020	2400	1500	4000	3.08
D6	2.39	0.00137	0.316	0.025	1750	1100	3000	3.36
D8	3.53	0.00202	0.468	0.030	1200	750	1800	3.68

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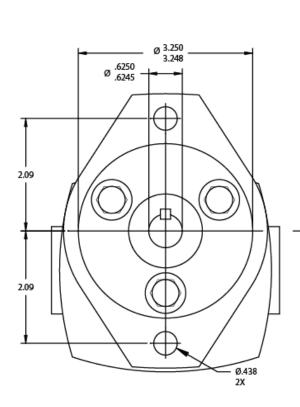


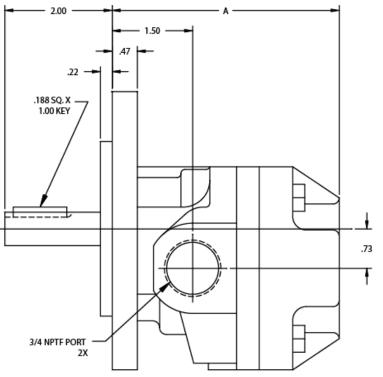
SECTION A-A

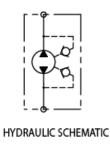
ITEM #	DESCRIPTION	QTY.
1	GEAR CASE	1
2	DRIVE SHAFT	1
3	GEAR	1
11	SEAL KIT	1
12	DRIVE PLATE ASS'Y	1
13	END PLATE ASS'Y	1
15	IDLER SHAFT ASS'Y	1
22	GEAR PIN	1
24	RETAINING RING	2
28	OUTBOARD BEARING	1
29	DRIVE KEY	1
31	SNAP RING	1



# D21-D27 Pump, Bi-Directional







12 D27 10 8 FLOW (GPM) D25 б D23 4 D21 2 500 1000 1500 2500 0 2000 PRESSURE (PSI)

MODEL	GPM AT	0 PSI DISP.	DISP. CU.	SLIP GPM	MAX. PUMP PRESSURE	MAX. PUMP PRESSURE	SPEED	Α
	1750 RPM	GAL./REV,	IN./REV.	PER 100 PSI	INTERMITTENT DUTY	CONTINUOUS DUTY	MAX. RPM	
D21	3.10	0.00178	0.411	0.040	2400	1500	5000	3.21
D23	5.30	0.00304	0.702	0.045	2400	1500	4000	3.56
D25	7.42	0.00425	0.981	0.055	1600	1000	3000	3.78
D27	11.10	0.00633	1.460	0.075	1100	700	1800	4.21

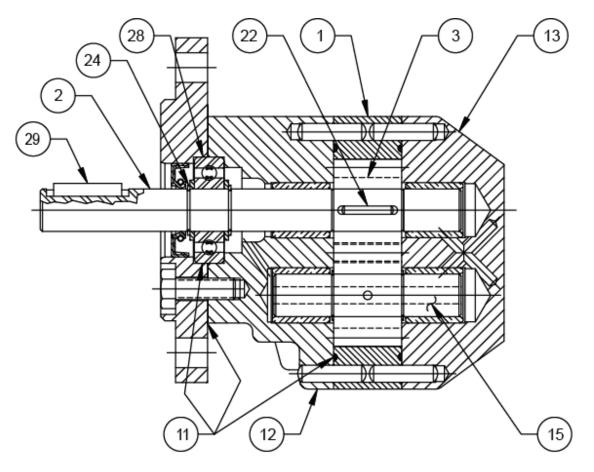
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# D21-D27 Pump, Bi-Directional

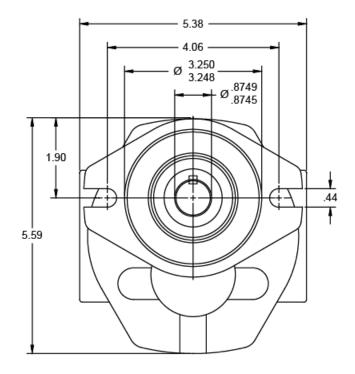


SECTION A-A

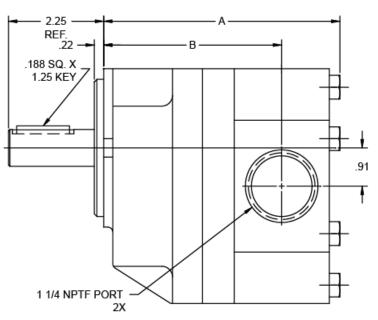
ITEM #	DESCRIPTION	QTY.
1	GEAR CASE	1
2	DRIVE SHAFT	1
3	GEAR	1
11	SEAL KIT	1
12	DRIVE PLATE ASS'Y	1
13	END PLATE ASS'Y	1
15	IDLER SHAFT ASS'Y	1
22	GEAR PIN	1
24	RETAINING RING	2
28	OUTBOARD BEARING	1
29	DRIVE KEY	1

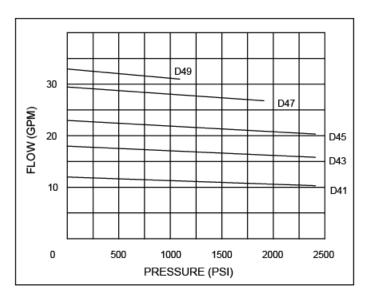


#### D41-D49 Pump, Bi-Directional



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MODEL	GPM AT	0 PSI DISP.	DISP. CU.	SLIP GPM	MAX. PUMP PRESSURE	MAX. PUMP PRESSURE	SPEED	Α	В
	1750 RPM	GAL./REV,	IN./REV.	PER 100 PSI	INTERMITTENT DUTY	CONTINUOUS DUTY	MAX. RPM		
D41	11.90	0.0068	1.570	0.070	2400	1500	4000	5.34	4.22
D43	17.80	0.0102	2.350	0.090	2400	1500	3000	5.72	4.59
D45	23.10	0.0132	3.040	0.110	2400	1500	2300	6.06	4.94
D47	29.50	0.0169	3.900	0.140	1900	1200	1800	6.47	5.34
D49	33.60	0.0192	4.430	0.180	1100	700	1800	6.72	5.59

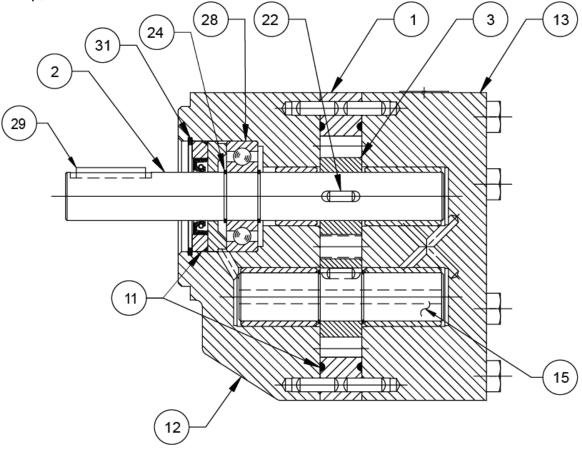
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#### SECTION A-A

ITEM #	DESCRIPTION	QTY.
1	GEAR CASE	1
2	DRIVE SHAFT	1
3	GEAR	1
11	SEAL KIT	1
12	DRIVE PLATE ASS'Y	1
13	END PLATE ASS'Y	1
15	IDLER SHAFT ASS'Y	1
22	GEAR PIN	1
24	RETAINING RING	2
28	OUTBOARD BEARING	1
29	DRIVE KEY	1
31	SNAP RING	1

L Series 2 Stage HI-LO Pumps



# While originally designed for log splitters, our enterprising distributors have found other unique applications.

Two pump sections with different size gear sets in a single housing that provides, high speed positioning capabilities with efficient working pressures.

With multi circuit integration through internal valving to provide low pressure, high volume flow in the first stage and high pressure, low volume flow in the second stage.

- Direct couple to gas engines or AC electric motors at approx (3600 RPM).
- Require only a fraction of the engine horsepower that would be necessary with single stage pumps while providing much higher overall efficiency.

To adapt to a variety of applications, all pumps have an SAE 4F17 mounting flange plus an optional K4 mounting bracket for foot mounting.

MODEL	0 PSI DISP.	MAX.	MAX.	~GPM AT	HP	INLET	OUTLET	PAGE
	IN <sup>3</sup> /REV	PSI	RPM	3450 RPM	REQUIRED			
L6-2	.316 +.108	3000	3600	6.0\1.0	4	3/4 NPTF	1/2 NPTF	23
L8-4	.468 + .187	3000	3600	9.0\2.0	6	3/4 NPTF	1/2 NPTF	23
L24-2	.880 + .222	3000	3600	16\2.5	10	1" TUBE	3/4 NPTF	25
L26-2	1.000 + .416	3000	3600	20\5.0	12	1.25 " TUBE	3/4 NPTF	25

Note: Displacement given as larger gear set + smaller gear set.

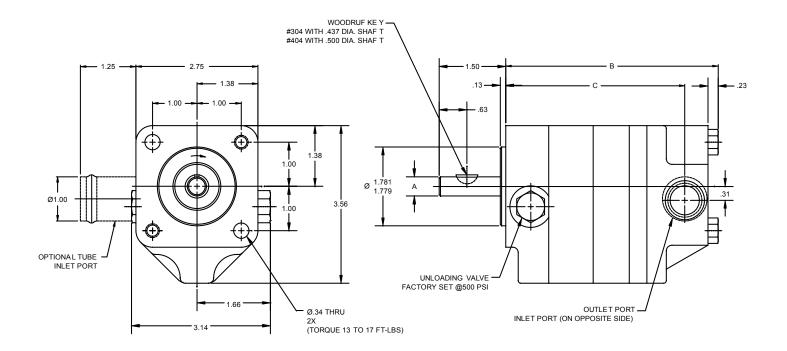
~ GPM given as combined flow\sequenced flow.

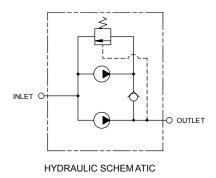
Operation @1725 RPM will give ~ 50% of combined flow and ~ 40% of sequenced flow.

Unloading Valve Settings: Factory set at 500 PSI for L6 and L8 models; 600 PSI for L24 and L26 models. Rotation: All models rotate clockwise facing pump shaft. Mounting: 4F17 four bolt all models.



#### L6 and L8 Series 2 Stage HI-LO Pumps





Unloading Valve is factory set at 500 PSI.

Rotation: All models rotate clockwise facing pump shaft or drive end (CWDE). Mounting: 4F17 four bolt all models.

MODEL	0 PSI DISP.	MAX.	MAX.	~GPM AT	HP	INLET	OUTLET	Α	В	С
	IN <sup>3</sup> /REV	PSI	RPM	3450 RPM	REQUIRED					
L6-2	.316 +.108	3000	3600	6.0\1.0	4	3/4 NPTF	1/2 NPTF	0.437	4.29	3.37
L8-4	.468 + .187	3000	3600	9.0\2.0	6	3/4 NPTF	1/2 NPTF	0.437	4.79	3.87

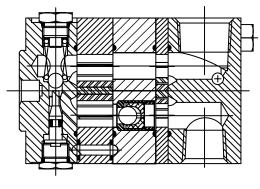
Note: Displacement given as larger gear set + smaller gear set.

~ GPM given as combined flow\sequenced flow.

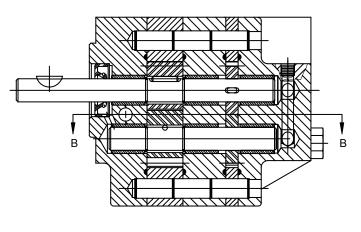
Operation @1725 RPM will give ~ 50% of combined flow and ~ 40% of sequenced flow.



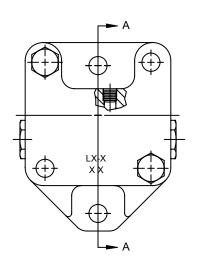
# L6 and L8 Series 2 Stage HI-LO Pumps



SECTION B-B

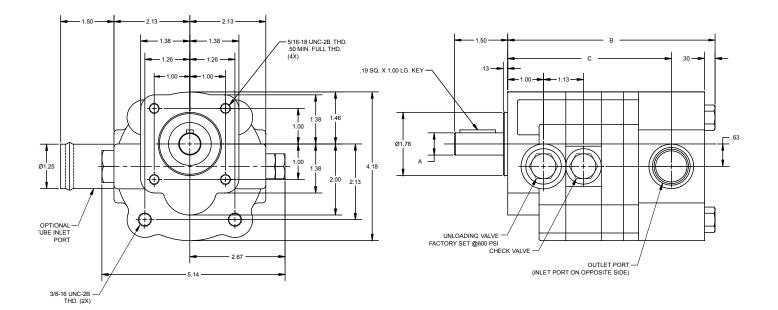


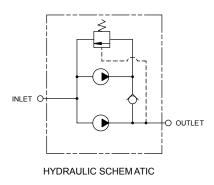
SECTION A-A





L24 and L26 Series 2 Stage HI-LO Pumps





Unloading Valve is factory set at 600 PSI. Rotation: All models rotate clockwise facing pump shaft or drive end (CWDE). Mounting: 4F17 four bolt all models.

ſ	MODEL	0 PSI DISP.	MAX.	MAX.	~GPM AT	HP	INLET	OUTLET	Α	В	С
I		IN³/REV	PSI	RPM	3450 RPM	REQUIRED					
ſ	L24-2	.880 + .222	3000	3600	16\2.5	10	1 NPTF	3/4 NPTF	0.625	5.52	4.30
ſ	L26-2	1.000 + .416	3000	3600	20\5.0	12	1.25 " TUBE	3/4 NPTF	0.625	5.82	4.59

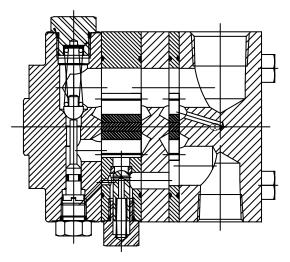
Note: Displacement given as larger gear set + smaller gear set.

~ GPM given as combined flow\sequenced flow.

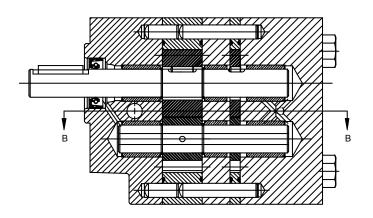
Operation @1725 RPM will give ~ 50% of combined flow and ~ 40% of sequenced flow.

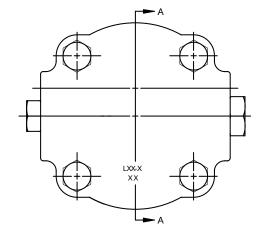


# L24 and L26 Series 2 Stage HI-LO Pumps



SECTION B-B





SECTION A-A