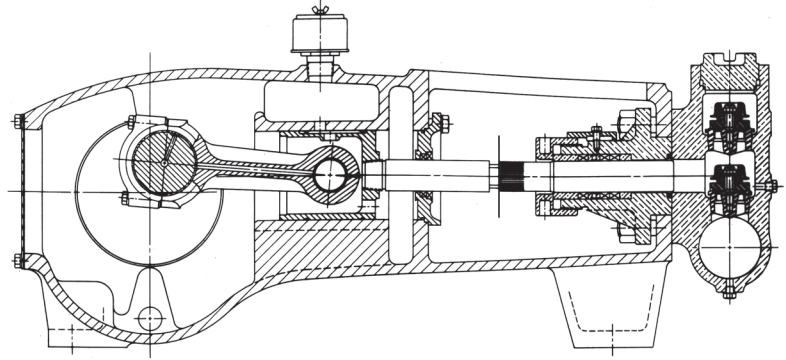


**MYERS® APLEX SERIES**
**MA-240M-HD**  
**QUINTUPLEX PLUNGER PUMP**


No. of plungers.....	5
Maximum rated speed.....	450 rpm
Stroke length.....	4.25 in.      108 mm
Maximum rated power.....	270.0 HP      201.1 KW
Maximum rod load .....	10,300 lb.      102.9 kN
Weight .....	3580 lbs.

**ENGLISH UNITS**

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI.	*GALLON PER./REV.	250 RPM USGPM	300 RPM USGPM	350 RPM USGPM	400 RPM USGPM	450 RPM USGPM
2.250	3.250	2585	0.3568	91.4	109.7	128.0	146.3	164.6
2.125	3.250	2900	0.3263	81.6	97.9	114.2	130.5	146.8
2.000	2.875	3271	0.2890	72.2	86.7	101.2	115.6	130.1
1.875	2.875	3500	0.2540	63.5	76.2	88.9	101.6	114.3
<i>HP REQUIRED @ RPM**</i>				152	180	214	244	270

**METRIC UNITS**

PLUNGER SIZE M.M	STUFFING BOX BORE MM.	MAX PRESS. BAR	* LITER PER./REV	250 RPM LPM	300 RPM LPM	350 RPM LPM	400 RPM LPM	450 RPM LPM
57.2	82.6	178.2	1.3508	337	405	472	540	607
54.0	82.6	200.0	1.2354	308	370	432	494	555
50.8	73.0	225.5	1.0942	273	328	383	437	492
47.6	73.0	241.4	0.9617	240	288	336	384	432
<i>KW REQUIRED @ RPM**</i>				114	134	158	182	204

*\*Displacement based on 100% Volumetric Efficiency      \*\*Power based on 90% Mechanical Efficiency*

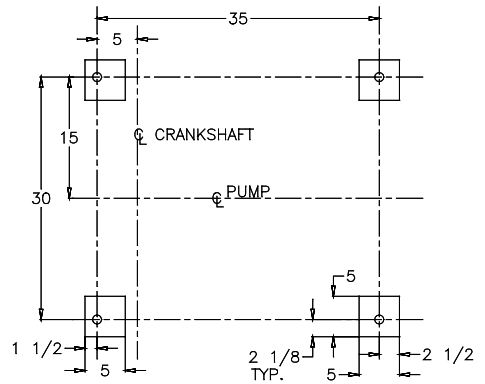
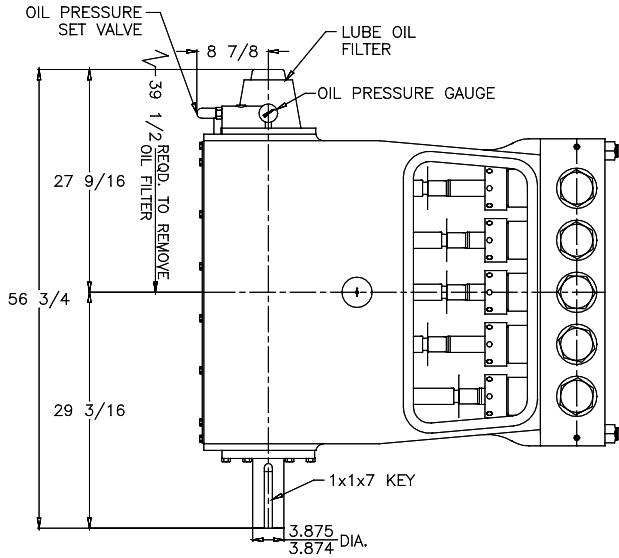
$$\text{IHP} = \frac{\text{USGPM} \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

$$\text{IKW} = \frac{\text{M}^3/\text{HR} \times (\text{Discharge Bar} - 1/2 \text{ Suction Bar})}{17.99}$$

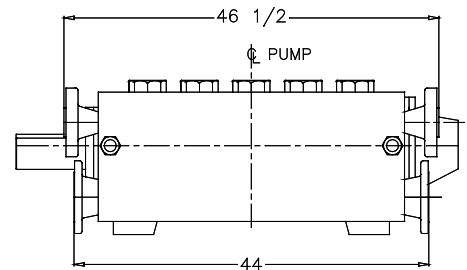
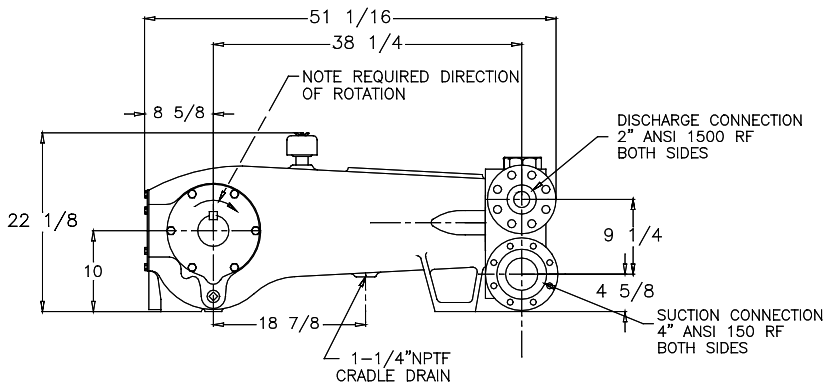
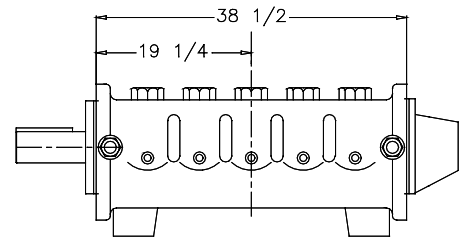
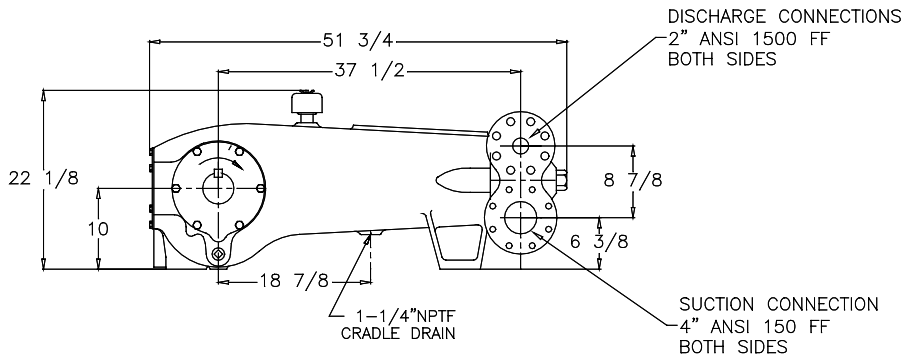
$$\text{PUMP RPM} = \frac{\text{USGPM Desired}}{\text{USGPM per Revolution of Selected Plunger}}$$

$$\text{PUMP RPM} = \frac{\text{M}^3/\text{HR Desired}}{\text{M}^3 \text{ per Revolution of Selected Plunger}}$$

# MA-240M-HD Quintuplex Pump



FOUNDATION PLAN



# ENGINEERING DATA

## MA-240M-HD Quintuplex Pump

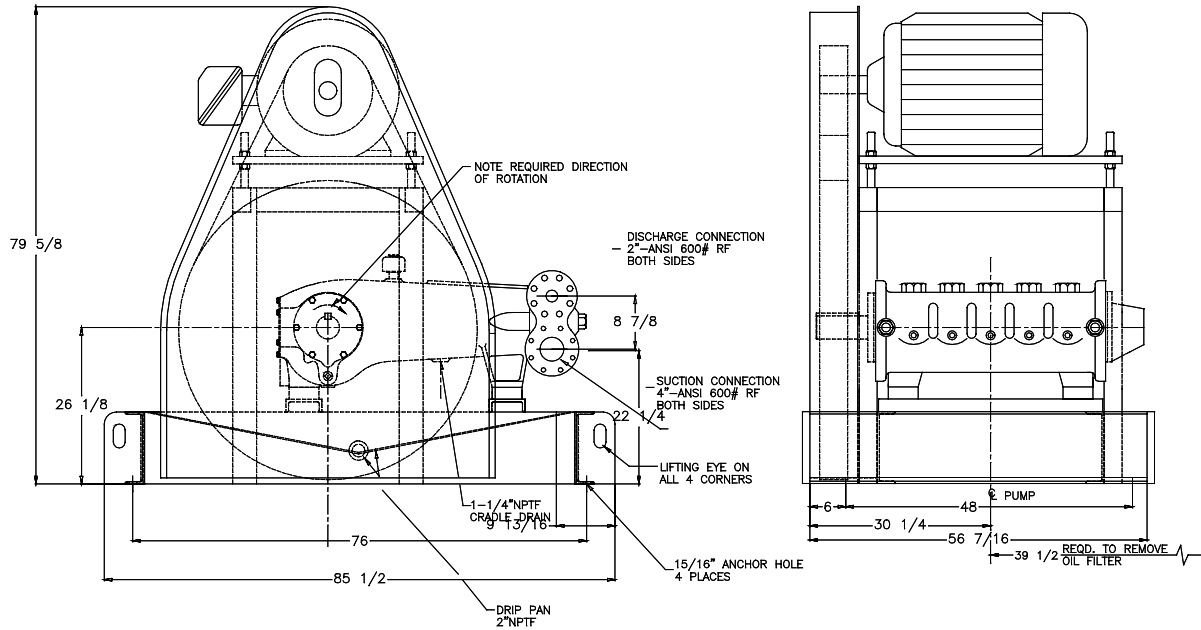
### POWER END ENGINEERING DATA

Max. Input HP @ Speed .....	270 @ 450 RPM
Rated Continuous Plunger Load .....	10,300 lb.
Max. Rated Continuous Speed .....	450 RPM
Normal Continuous Speed Range .....	150 to 420 RPM
Minimum Speed .....	100 RPM
Oil Capacity .....	64 U.S. Qrts
Power End Oiling System .....	Pressure Lubrication System
Power Frame, One-Piece .....	Cast Iron
Crosshead, Full Cylindrical .....	Cast Iron
Crosshead, Dia. x Length .....	5 3/4 x 6 3/16 inches
Crankshaft .....	Forged and Nitrided Chrome Moly Steel
Crankshaft Diameters:	
At Tapered Roller Bearings .....	4 in.
At Crankpin Bearings, Dia. x Length .....	4 x 3 inches
Crosshead (Wrist) Pin, Case-Hardened and Ground .....	AISI 8620
Main Bearings, Tapered Roller .....	Timken®
Crankpin Bearings, Precision Automotive .....	Steel Backed, Babbitt-Lined
Extension (Pony) Rod, Integral w/ Plungers .....	316 S.S.
Connecting Rod, Automotive Type .....	Ductile Iron
Average Crosshead Speed @ 450 rpm .....	300 fpm
Minimum Life Expectancy, Main Bearings, L <sub>10</sub> .....	65,000+ hr.

### LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure .....	3,237 psi
Hydrostatic Test .....	4,855 psi
Available Liquid End Materials, A.S.T.M.	
Stainless Steel Block .....	Various Grades
Nickel Aluminum Bronze Casting .....	B148-C955
Forged Steel Block .....	A105
Plunger Type "Rokide" (Chromium Oxide-Coated) .....	316 S.S.
Stuffing Boxes, Field-Removable and Replaceable	
Nickel Aluminum Bronze .....	B148-C954
Carbon Steel .....	1020
Packing Types Available	
Gland-loaded, Non-Adjustable .....	Style 838
Spring-loaded, Braided Teflon & Kevlar .....	Style 140
Spring-loaded, cup-type .....	Style 120X
Spring-loaded, Garlock .....	Style 892IK
Seals, Stuffing Boxes, Valve Covers, Cyl. Heads .....	Buna-N
Disc Valve Types	
Regularly Frulnished, acetal resin .....	Delrin®
Optional, Hardened and Lapped, .....	17-4 PH S.S.
Valve Spring material .....	Inconel®
Valve Seat, Liquid Passage Areas .....	2.35 sq.in.
Avg. Liquid Velocity with 2 1/4" plungers @ 450 rpm	
thru Valves .....	9.0 fps
thru Suction Manifold .....	4.19 fps
thru Discharge Manifold .....	16.7 fps

# MA-240M-HD Quintuplex Pump



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