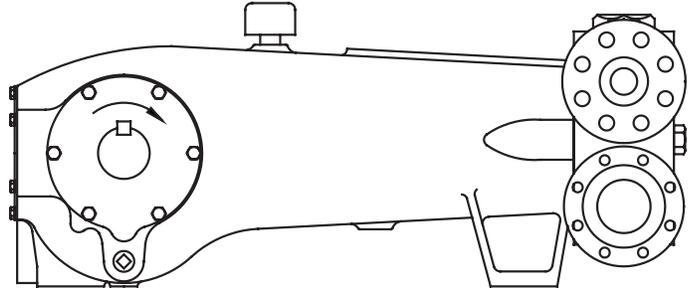




# MYERS® APLEX SERIES

## MA-240H-HD QUINTUPLEX PLUNGER PUMP



No. of plungers.....	5
Maximum rated speed.....	450 rpm
Stroke length.....	4.25 in.      108 mm
Maximum rated power.....	275.0 HP      205.0 KW
Maximum rod load .....	10,300 lb.      45.7 kN
Weight.....	3640 lbs.

ENGLISH UNITS								
PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI	*GALLON PER./REV	200 RPM USGPM	300 RPM USGPM	400 RPM USGPM	500 RPM USGPM	600 RPM USGPM
1.875	2.875	4300	0.2540	63.5	76.2	88.9	101.6	114.3
1.750	2.875	5000	0.2213	55.3	66.4	77.5	88.5	99.6
1.625	2.500	5700	0.1908	47.7	57.2	66.8	76.3	85.9
1.500	2.500	6700	0.1626	40.7	48.8	56.9	65.0	73.2
<i>HP REQUIRED @ RPM**</i>				153.2	184.1	214.5	245.5	275.0

METRIC UNITS								
PLUNGER SIZE M.M	STUFFING BOX BORE MM.	MAX PRESS. BAR	*LITER PER./REV	200 RPM LPM	300 RPM LPM	400 RPM LPM	500 RPM LPM	600 RPM LPM
47.6	73.0	295.0	0.9616	240.4	288.5	336.6	384.6	432.7
44.5	73.0	339.1	0.8378	209.5	251.3	293.2	335.1	377.0
41.3	63.5	393.2	0.7224	180.6	216.7	252.8	289.0	325.1
38.1	63.5	461.1	0.6156	153.9	184.7	215.5	246.2	277.0
<i>KW REQUIRED @ RPM**</i>				114.0	137.1	159.8	182.8	205.0

\*Displacement based on 100% Volumetric Efficiency

\*\*Power based on 90% Mechanical Efficiency

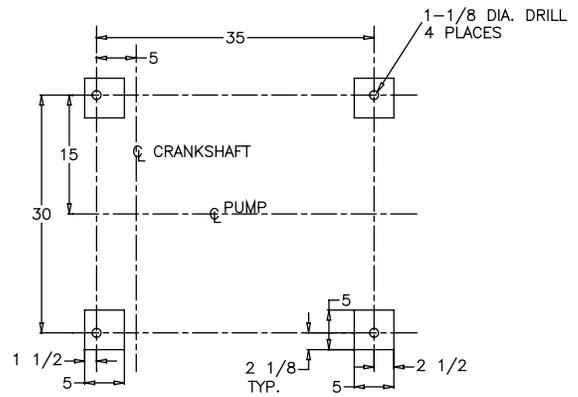
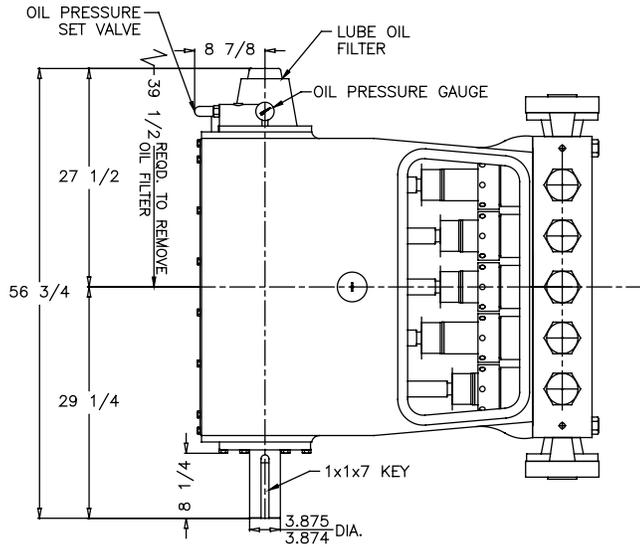
$$IHP = \frac{USGPM \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

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

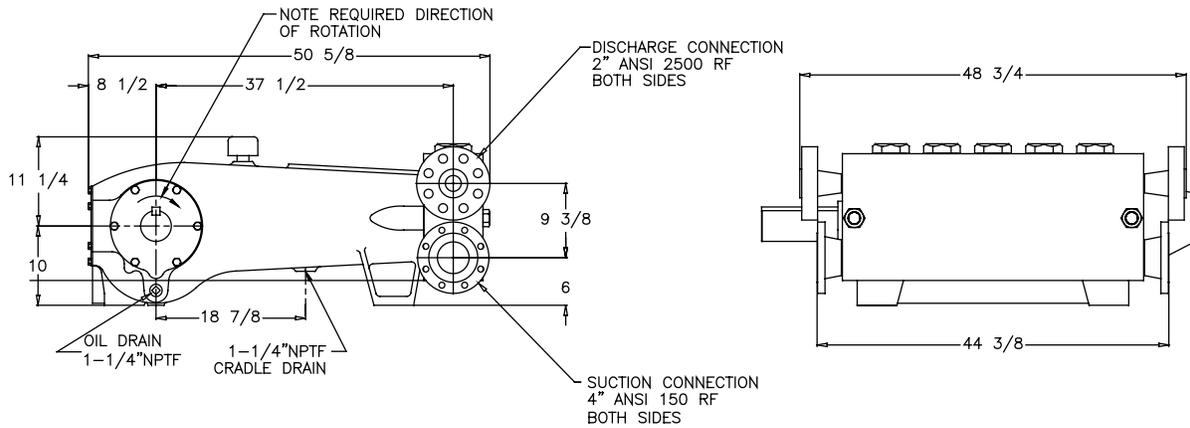
$$PUMP \text{ RPM} = \frac{USGPM \text{ Desired}}{USGPM \text{ per Revolution of Selected Plunger}}$$

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

# MA-240H-HD Quintuplex Pump



FOUNDATION PLAN



# ENGINEERING DATA

## MA-240H-HD Quintuplex Pump

### POWER END ENGINEERING DATA

Max. Input HP @ Speed .....	275 @ 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 , Heat Treated and Nitrided 4145
Crankshaft Diameters:	
At Drive Extension.....	3.875/3.874 inches
At Tapered Roller Bearings .....	4 in.
At Center Bearings.....	9 3/8 inches
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 .....	5,000 psi
Hydrostatic Test	
Discharge .....	7,500 psi
Suction .....	425 psi
Available Liquid End Materials, A.S.T.M.	
Stainless Steel Block .....	2205 Duplex S.S.T.
Forged Steel .....	A105
Plunger Type "Rokide" (Chromium Oxide-Coated) .....	410 S.S.
Stuffing Boxes, Field-Removable and Replaceable	
Stainless Steel .....	17-4 PH SST
Carbon Steel.....	1020
Packing Types Available	
Spring-loaded, Braided Teflon & Kevlar .....	Style 140
Spring-loaded, cup-type .....	Style 120X
Valve Cover and Cyl. Head Plugs .....	316 S.S.
Retainer Plates, Ductile Iron, A.S.T.M. ....	A536 80-55-06
Seals, Stuffing Boxes, Valve Covers, Cyl. Heads .....	Buna-N
Disc Valve Types.....	17-4PH S.S.T.
Valve Spring material .....	Inconel®
Valve Seat, Liquid Passage Areas .....	2.3 sq.in.
Avg. Liquid Velocity with 1 7/8" plungers @ 450 rpm	
thru Valves.....	6.4 fps
thru Suction Manifold .....	2.9 fps
thru Discharge Manifold .....	11.9 fps

All drawings and specifications subject to change without notice.



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