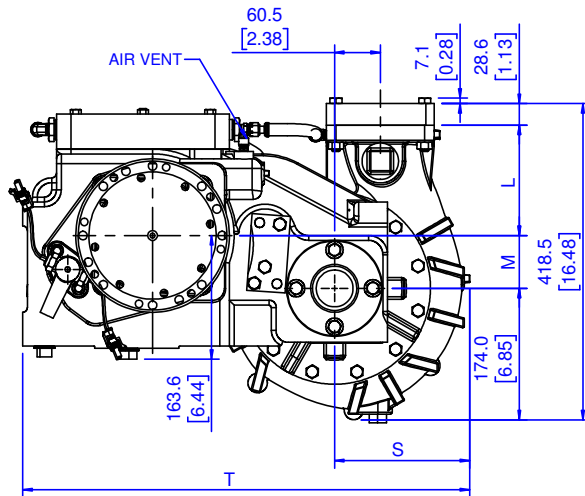
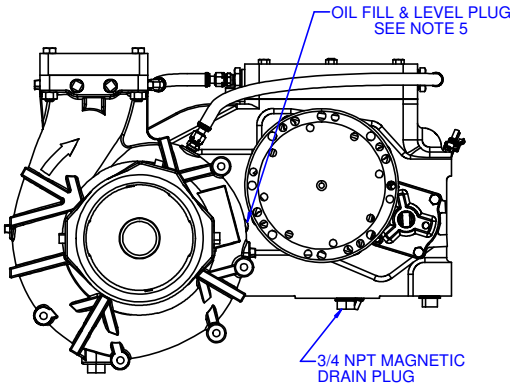
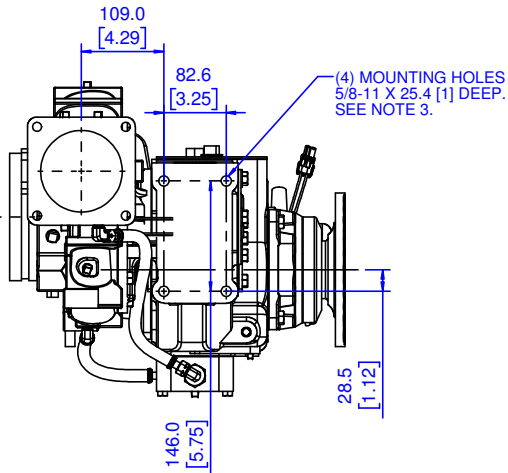
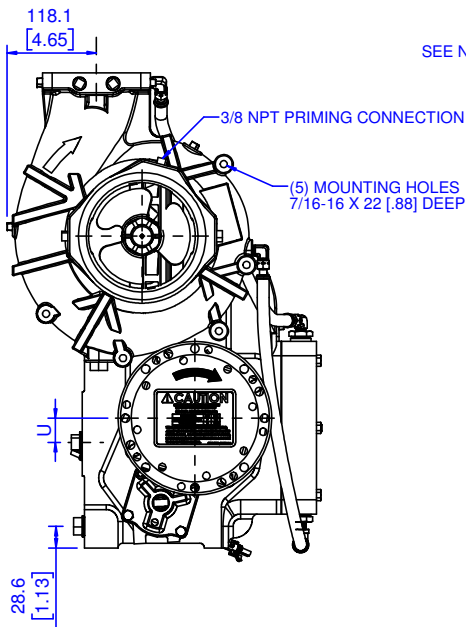


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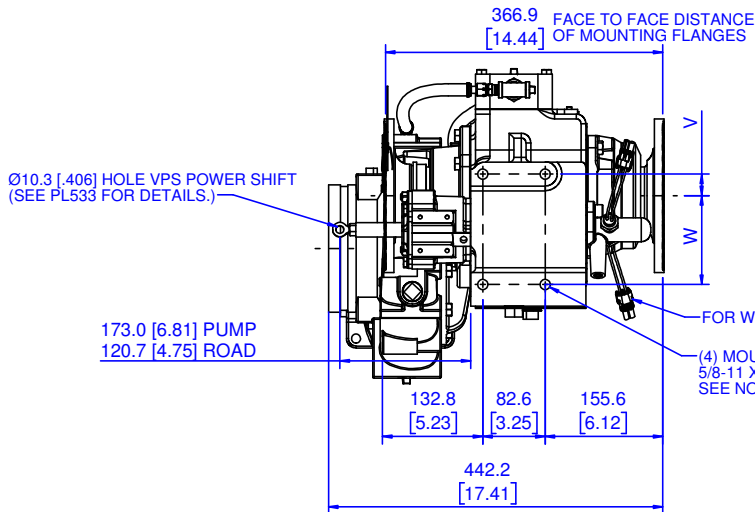
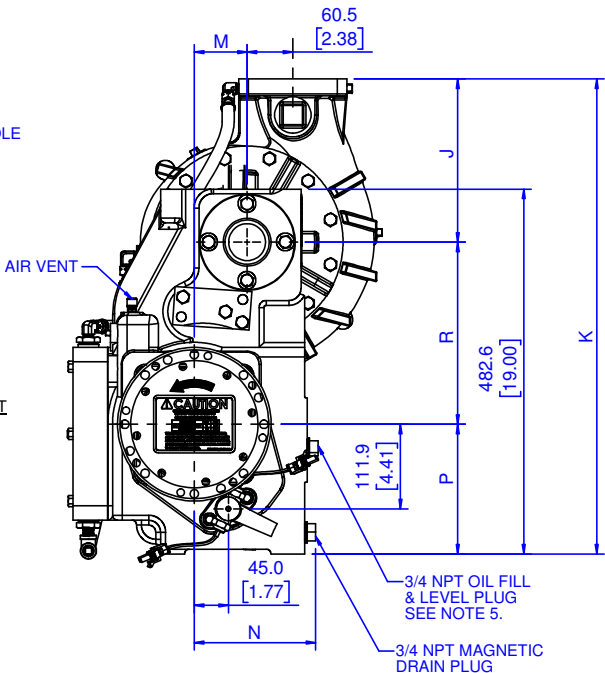
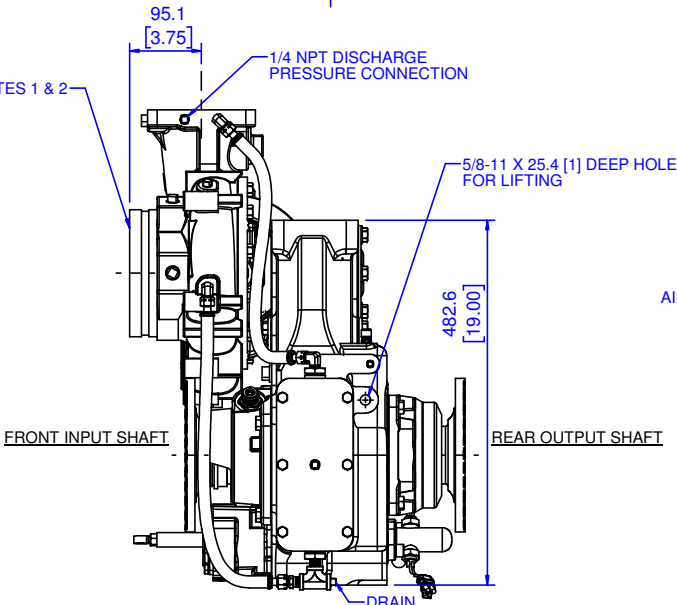
- 6" VICTAULIC CONNECTION. IT IS RECOMMENDED THAT THE APPARATUS BUILDER USE 6" MANIFOLDING FROM THE PUMP SUCTION TO THE HOSE ADAPTER AT THE OPERATOR'S PANEL. (FOR USE WITH VICTAULIC STYLE 77 CLAMP - HALE P/N 088-5050-00-0).
- TO REDUCE PRE-ROTATION AT LOW FLOW, IT IS RECOMMENDED THAT A STRAIGHT SUCTION VANE BE ADDED TO THE PUMP SUCTION MANIFOLD LEADING UP TO THE VICTAULIC PUMP SUCTION CONNECTION.
- GEARBOXES MUST BE PROPERLY SUPPORTED USING THE 5/8-11 x 1 DEEP MOUNTING HOLES. RECOMMEND USING BOTH MOUNTING SURFACES. USE MINIMUM SAE GRADE 5 SCREWS. DO NOT USE THE PIPING TO SECURE THE PUMP.
- FOR PTO APPLICATIONS: TO CONFORM TO NFPA 1901, APPARATUS MANUFACTURER MUST FURNISH A VISUAL INDICATOR AT THE DRIVERS POSITION WHEN THE PUMP POWER TAKE-OFF IS ENGAGED FOR PUMP AND ROLL OPERATION.
- USE SAE EP-90 OR 80W-90 API GL-5 OIL. CAPACITY: 3 QTS [2.84L] APPROX.
- WEIGHTS:
STD. SPLIT SHAFT TYPE = 245 LBS [111 KG]
POWER TAKE-OFF TYPE = 205 LBS [93 KG]
- USE PROPER DRIVELINE HARDWARE AS SPECIFIED BY DRIVELINE MANUFACTURER. DO NOT PLACE THREADED PORTION OF FASTENER IN SHEAR.
- GEAR BOX COOLER STANDARD ON 1000 GPM RATED PUMPS, OPTIONAL ON 500 & 750 GPM PUMPS.



HORIZONTAL GEARBOX, VERTICAL DISCHARGE (WITH FLANGE), SPLIT SHAFT CONFIGURATION SHOWN



SEE NOTES 1 & 2



VERTICAL GEARBOX, VERTICAL DISCHARGE, SPLIT SHAFT, CONFIGURATION SHOWN

FIGURE -A: 1550 SERIES FLANGE

NOTE:
BOLT PATTERN IS NOT A SQUARE

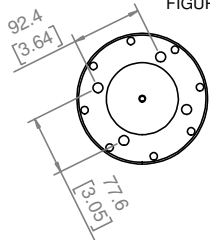


TABLE "B" - OPTIONS AND ACCESSORIES

OPTION	DRAWING NUMBER
ESP PRIMING PUMP	PL821
PVG PRIMING VALVE	PL480
SPV PRIMING VALVE	PL828
SPEED COUNTER ADAPTER	PL910
PUMP SHIFT INDICATOR LIGHTS	PL746
MANUAL PUMP SHIFT OVERRIDE	101-0850-73-0

* SEE FIGURE-A

TABLE "C" - FRONT & REAR COMBINATION FLANGES

	SPICER SERIES			
	1550 (PTO ONLY)*	1600	1700	1800
FEMALE PILOT DIA.	95.25 [3.75]	168.28 [6.625]	196.9 [7.75]	196.9 [7.75]
QUANTITY	4	8	8	12
BOLT CIRCLE DIA.	120.65 [4.75]	155.70 [6.13]	184.2 [7.25]	184.2 [7.25]

TABLE "D" - DIMENSIONS

	PUMP RATIO	J	K	L	M	N	P	R	S	T	U	V	W
ECN	3.00 2.18	216 [8.50]	629 [24.75]	146 [5.75]	70 [2.75]	162 [6.38]	171 [6.75]	241 [9.50]	178 [7.00]	591 [23.25]	32 [1.25]	29 [1.12]	117 [4.625]
REV	2.67 1.92	216 [8.50]	629 [24.75]	138 [5.44]	78 [3.06]	162 [6.38]	171 [6.75]	241 [9.50]	178 [7.00]	591 [23.25]	32 [1.25]	29 [1.12]	117 [4.625]
ZONE	1.27 1.00	210 [8.25]	622 [24.50]	140 [5.50]	76 [3.00]	168 [6.62]	178 [7.00]	235 [9.25]	171 [6.75]	584 [23.00]	0 = ON ☑	22 [.875]	124 [4.875]
	1.71	216 [8.50]	629 [24.75]	140 [5.50]	76 [3.00]	162 [6.38]	171 [6.75]	241 [9.50]	178 [7.00]	591 [23.25]	32 [1.25]	29 [1.12]	117 [4.625]

PROJECTION:

TABLE "A" - PUMP RATIOS

PUMP TYPE	RATIO	MAX INPUT RPM
MG*-30	3.00	2090
MG*-26	2.67	2350
MG*-21	2.18	2880
MG*-19	1.92	3270
MG*-17	1.71	3670
MG*-12	1.27	4940
MG*-10	1.00	6270

* RATED CAPACITY 500, 750, 1000 GPM; 2000, 3000 LPM

EXAMPLE: THE MODEL NUMBER FOR A 1000 GPM RATED PUMP WITH A 2.18 GEAR RATIO WOULD BE MG100-21.

EXCEEDING THESE LIMITS OR FAILURE TO FOLLOW THE RECOMMENDATIONS OUTLINED ON THIS DRAWING COULD DAMAGE THE PUMP AND RESULT IN PERSONAL INJURY.

-MAX HYDRODYNAMIC PRESSURE = 400 PSIG (2.76 MPA)
-MAX HYDROSTATIC PRESSURE (IRON) = 600 PSIG (4.14 MPA)
-MAX HYDROSTATIC PRESSURE (BRONZE) = 500 PSIG (3.45 MPA)

-MAX POWER INPUT FOR PUMPING = 325 HP (242 KW)
-MAX DRIVE SHAFT TORQUE ROAD OPERATION = 16,000 LB-FT (21,690 N-M)
READ LIMIT CHART F-72 FOR ADDITIONAL DATA.

VARIOUS GEARBOX ARRANGEMENTS SHOWN BELOW. VIEWS FACING REAR TO FRONT OF VEHICLE.

ORIENTATION OPTIONS:

A) DRIVE OPTIONS:

- SPLIT SHAFT (REAR DRIVE SHAFT NOT SHOWN)

- PTO WITH REAR DRIVE SHAFT BLANKED OFF

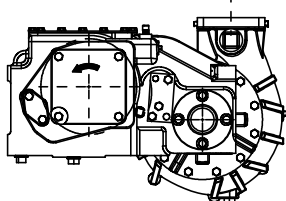
B) GEARBOX ORIENTATION:

- VERTICAL

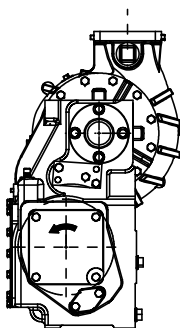
- HORIZONTAL

C) DISCHARGE POSITIONS: VERTICAL ONLY

D) AVAILABLE IN ENGINE ROTATION ONLY



HORIZONTAL GEARBOX, VERTICAL DISCHARGE



VERTICAL GEARBOX, VERTICAL DISCHARGE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS [INCHES ARE FOR REFERENCE, ONLY] TOLERANCE FOR MILLIMETER DIMENSIONS:
X: ±1
X.X: ±0.5
X.XX: ±0.25
X.XXX: ±0.125
ANGLES: ±0.25°
SURFACE TEXTURE IN µm Ra REMOVE ALL SHARP EDGES, 0.25MAX

FSG OF
IDEX
CORPORATION

HALE

GODIVA

Class1

HALE TYPE MG SERIES PUMP

MATERIAL

MADE FROM

FINISH

PROJECT

TITLE

DRAWN

APPROVED

DATE

DPL

RET

13JUL1999

SIZE

D

SCALE

1:5

DRAWING NUMBER

PL865

REV

H

SHEET

1 OF 1

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