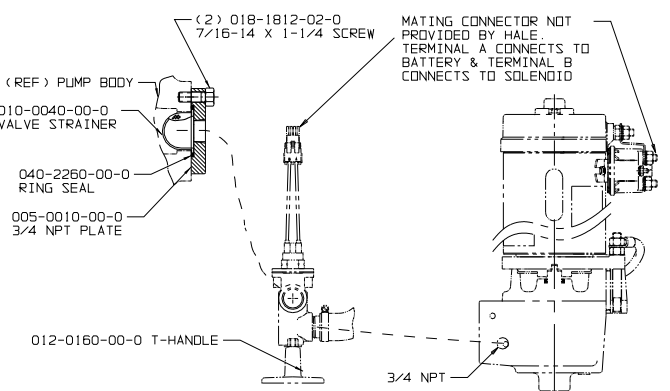


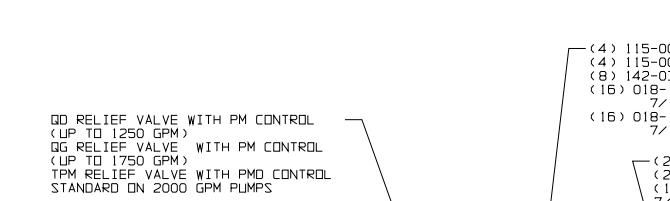
THIS PRODUCT AND ITS COMPONENTS MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS AND OTHER PATENTS PENDING:
 4,089,345, 4,209,282, 4,311,440, 4,337,830, 4,587,862, 4,653,978, 5,018,665, 5,139,393

SN SERIAL NUMBER LOCATION

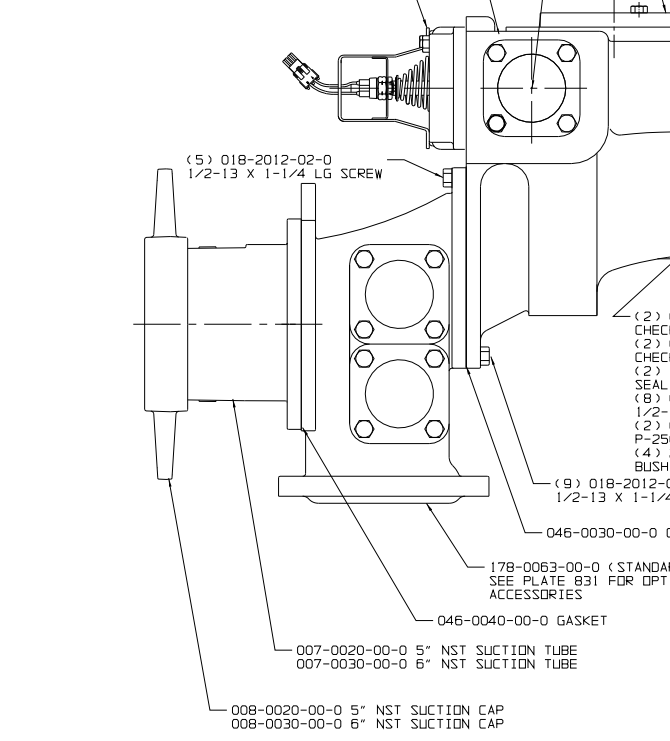


PVG PRIMING VALVE
SEE PLATE NO. 480 FOR INSTALLATION DETAILS

ESP PRIMING PUMP
SEE PLATE NO. 821 FOR INSTALLATION DETAILS



DD RELIEF VALVE WITH PM CONTROL (UP TO 1250 GPM)
 GG RELIEF VALVE WITH PM CONTROL (UP TO 1750 GPM)
 TPM RELIEF VALVE WITH PM CONTROL STANDARD ON 2000 GPM PUMPS



(5) 018-2012-02-0 1/2-13 X 1-1/4 LG SCREW

(2) 038-0082-00-0 CHECK VALVE
 (2) 044-0101-00-0 CHECK VALVE COVER
 (2) 142-0530-00-0 SEAL RING
 (8) 018-2012-02-0 1/2-13 X 1-1/4 LG
 (2) 029-0110-00-0 P-250 ANODE
 (4) 250-9632-00-0 BUSHINGS

(9) 018-2012-02-0 1/2-13 X 1-1/4 LG SCREW

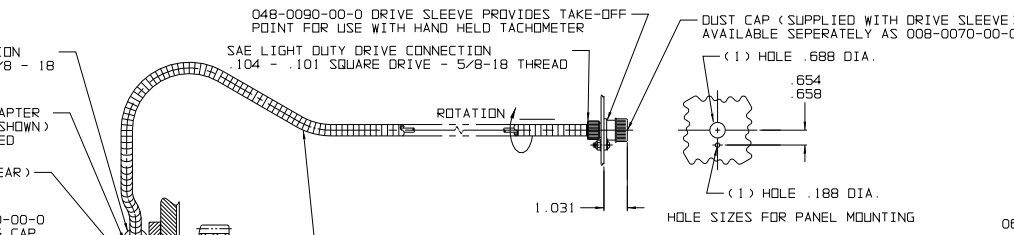
046-0030-00-0 GASKET

178-0063-00-0 (STANDARD) SHOWN SEE PLATE 831 FOR OPTIONAL ACCESSORIES

046-0040-00-0 GASKET

007-0020-00-0 5" NST SUCTION TUBE
 007-0030-00-0 6" NST SUCTION TUBE

008-0020-00-0 5" NST SUCTION CAP
 008-0030-00-0 6" NST SUCTION CAP



048-0090-00-0 DRIVE SLEEVE PROVIDES TAKE-OFF POINT FOR USE WITH HAND HELD TACHOMETER

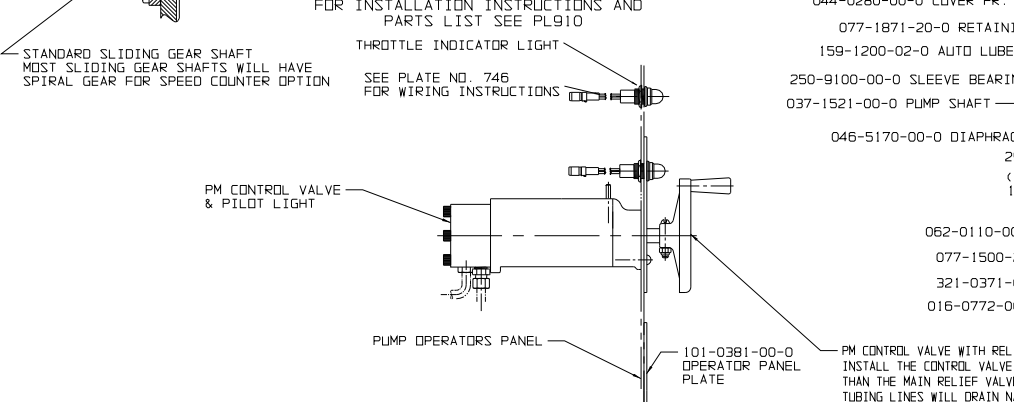
SAE REGULAR DRIVE CONNECTION
 205 - .210 ROUND DRIVE 7/8 - 18 THREAD

SAE LIGHT DUTY DRIVE CONNECTION
 104 - .101 SQUARE DRIVE - 5/8-18 THREAD

013-0010-00-0 FLEXIBLE SHAFT ASSEMBLY
 54.00 (FLEXIBLE SHAFT CASE LENGTH)
 55.56 (FLEXIBLE SHAFT CORE LENGTH)
 WITH NO END CONNECTIONS AS NOTED

MULTIPLY MEASURED SPEED AT TAKE-OFF POINT BY 10 FOR ACTUAL GEARBOX INPUT SPEED.

OPTIONAL SPEED COUNTER DETAILS
 FOR INSTALLATION INSTRUCTIONS AND PARTS LIST SEE PL910



THROTTLE INDICATOR LIGHT
 SEE PLATE NO. 746 FOR WIRING INSTRUCTIONS

PM CONTROL VALVE & PILOT LIGHT

PUMP OPERATOR'S PANEL

101-0381-00-0 OPERATOR PANEL PLATE

PM CONTROL VALVE WITH RELIEF VALVE PILOT LIGHT. INSTALL THE CONTROL VALVE AT A LEVEL HIGHER THAN THE MAIN RELIEF VALVE SO THAT THE CONTROL VALVE AND TUBING LINES WILL DRAIN NATURALLY AND COMPLETELY. THIS IS IMPORTANT TO PREVENT DAMAGE FROM FREEZING. TPM RELIEF VALVE SYSTEM AVAILABLE. SEE PLATE NO. 742. FOR DD RELIEF VALVE SYSTEM SEE PLATE NO. 404. FOR GG RELIEF VALVE SYSTEM SEE PLATE NO. 404.

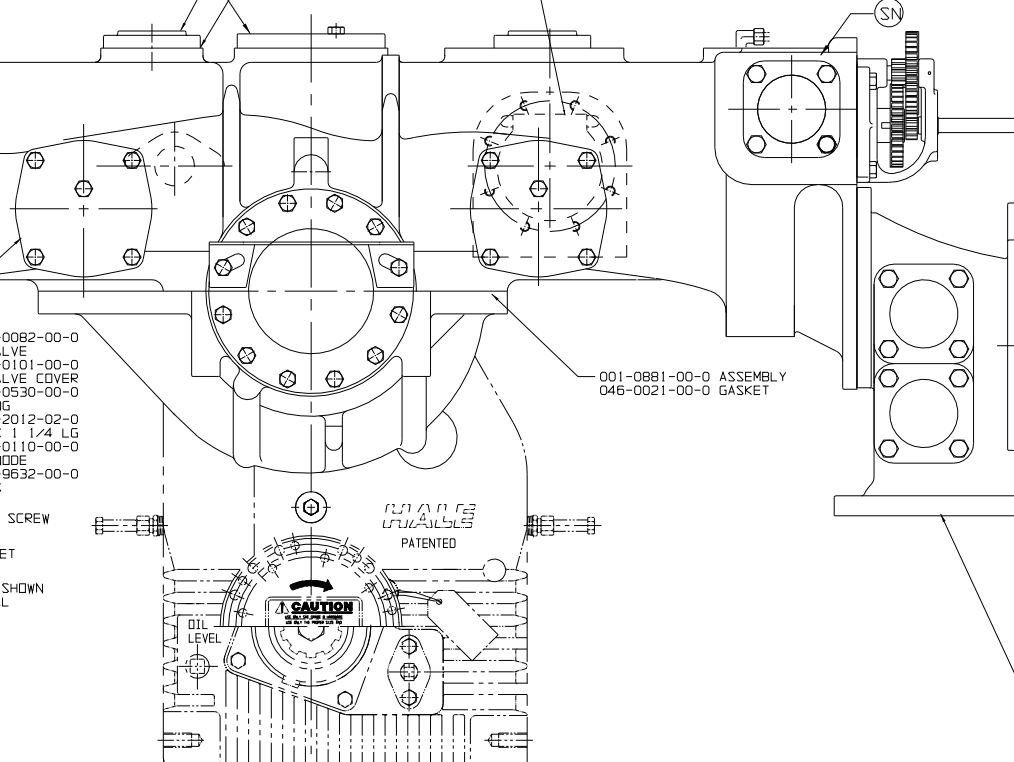
(2) 115-0010-00-0 FLANGE
 (2) 046-0060-00-0 GASKET
 (16) 018-1812-02-0 7/16 - 14 X 1 1/4 LG CAP SCREW

OPTIONAL
 115-0030-00-0 3NPT FLANGE
 115-0040-00-0 4NPT FLANGE
 3 INCH DR 4 INCH SVS VALVE AND/OR CHECK VALVE

(2) 115-0010-00-0 FLANGE
 (8) 018-1812-02-0 7/16-14 X 1-1/4 LG SCREW

(2) 046-0060-00-0 GASKET
 (16) 018-1812-02-0 7/16-14 X 1-1/4 LG SCREW

142-0390-00-0 SEAL RING



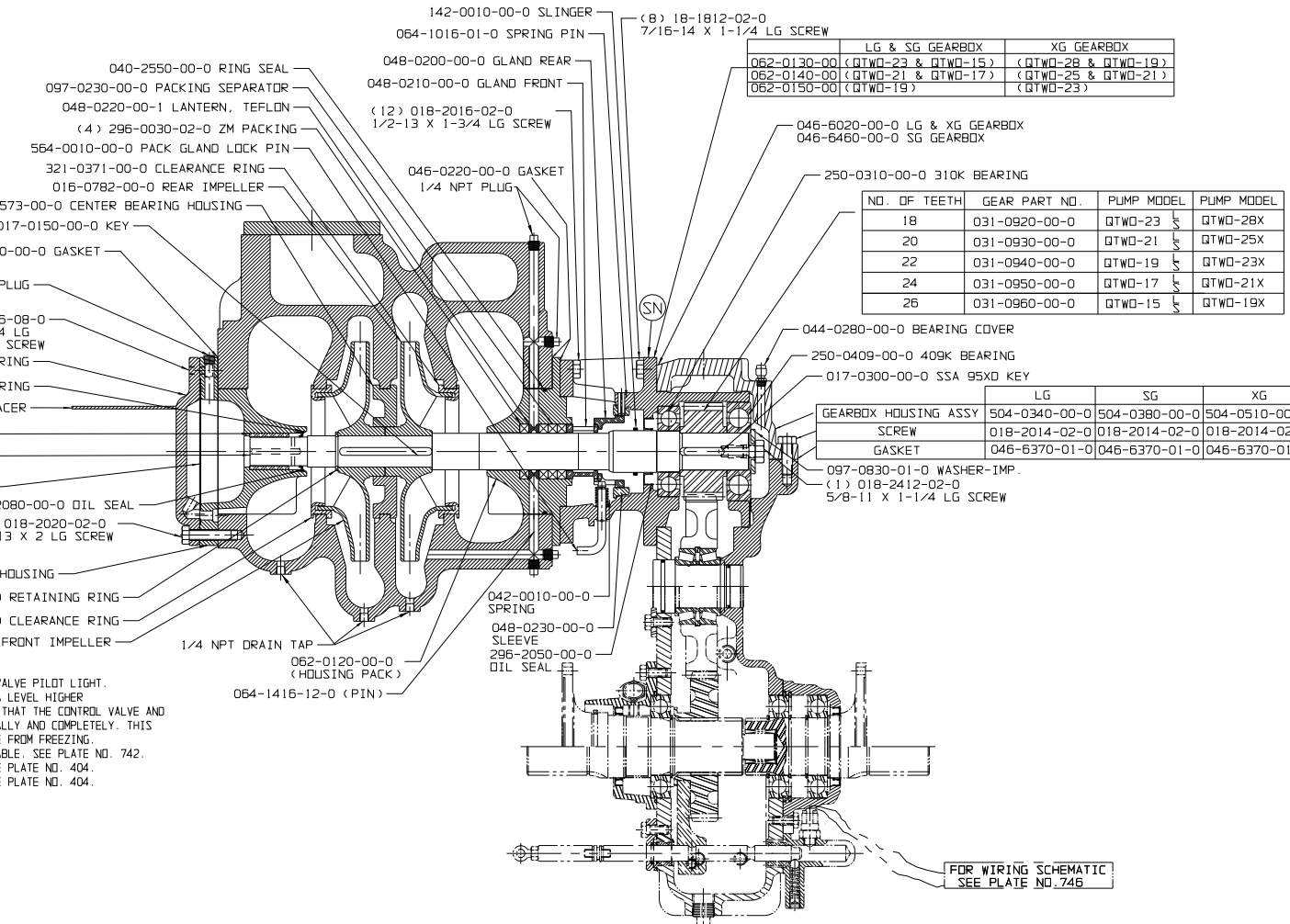
001-0881-00-0 ASSEMBLY
 046-0021-00-0 GASKET

010-0020-00-0 5" SUCTION TUBE STRAINER
 010-0030-00-0 6" SUCTION TUBE STRAINER

097-0040-00-0 5" WASHER
 097-0050-00-0 6" WASHER

(12) 018-1812-02-0 7/16-14 X 1-1/4 LG SCREW

178-0063-01-0 (OPTIONAL) SHOWN SEE PLATE 831 FOR OPTIONAL ACCESSORIES



040-2550-00-0 RING SEAL
 097-0230-00-0 PACKING SEPARATOR
 048-0220-00-1 LANTERN, TEFLON
 (4) 296-0030-02-0 ZM PACKING
 564-0010-00-0 PACK GLAND LOCK PIN
 321-0371-00-0 CLEARANCE RING
 016-0782-00-0 REAR IMPELLER
 062-0573-00-0 CENTER BEARING HOUSING
 017-0150-00-0 KEY
 046-0220-00-0 GASKET

(2) 217-0201-04-0 1/4-NPT PLUG

(2) 018-1606-08-0 3/8-16 X 3/4 LG SOCKET HEAD SCREW

044-0280-00-0 COVER FR. BEARING
 077-1871-20-0 RETAINING RING
 159-1200-02-0 AUTO LUBE SPACER
 250-9100-00-0 SLEEVE BEARING
 037-1521-00-0 PUMP SHAFT
 046-5170-00-0 DIAPHRAGM
 296-2080-00-0 OIL SEAL
 (12) 018-2020-02-0 1/2-13 X 2 LG SCREW

062-0110-00-0 HOUSING
 077-1500-25-0 RETAINING RING
 321-0371-00-0 CLEARANCE RING
 016-0772-00-0 FRONT IMPELLER

1/4 NPT DRAIN TAP
 062-0120-00-0 (HOUSING PACK)
 064-1416-12-0 (PIN)

142-0010-00-0 SLINGER
 064-1016-01-0 SPRING PIN
 048-0200-00-0 GLAND REAR
 048-0210-00-0 GLAND FRONT
 (12) 018-2016-02-0 1/2-13 X 1-3/4 LG SCREW

046-6020-00-0 LG & XG GEARBOX
 046-6460-00-0 SG GEARBOX

(8) 018-1812-02-0 7/16-14 X 1-1/4 LG SCREW

062-0130-00 (QTWO-23 & QTWO-15) (QTWO-28 & QTWO-19)
 062-0140-00 (QTWO-21 & QTWO-17) (QTWO-25 & QTWO-21)
 062-0150-00 (QTWO-19) (QTWO-23)

250-0310-00 310K BEARING

NO. OF TEETH GEAR PART NO. PUMP MODEL PUMP MODEL
 18 031-0920-00-0 QTWO-23 QTWO-28X
 20 031-0930-00-0 QTWO-21 QTWO-25X
 22 031-0940-00-0 QTWO-19 QTWO-23X
 24 031-0950-00-0 QTWO-17 QTWO-21X
 26 031-0960-00-0 QTWO-15 QTWO-19X

044-0280-00-0 BEARING COVER
 250-0409-00-0 409K BEARING
 017-0300-00-0 SSA 95XD KEY

GEARBOX HOUSING ASSY LG SG XG
 SCREW 504-0340-00-0 504-0380-00-0 504-0510-00-0
 GASKET 018-2014-02-0 018-2014-02-0 018-2014-02-0
 046-6370-01-0 046-6370-01-0 046-6370-01-0

097-0830-01-0 WASHER-IMP.
 (1) 018-2412-02-0 5/8-11 X 1-1/4 LG SCREW

FOR WIRING SCHEMATIC SEE PLATE NO. 746

SEE PLATE NO. 914 FOR "G" SERIES GEARBOX



PUMP OPERATOR'S PANEL

DRIVING COMPARTMENT PANEL

PUMP SHIFT INDICATOR LIGHTS
 FOR WIRING SCHEMATIC SEE PLATE NO. 746

101-0291-00-0 INSTRUCTION PLATE

200-0541-00-0 LIGHT ASSEMBLY (GREEN)

101-0252-00-0 INDICATOR LIGHT PLATE

200-0541-00-0 LIGHT ASSEMBLY (GREEN)

101-0252-00-0 INDICATOR LIGHT PLATE

200-0541-00-0 LIGHT ASSEMBLY (GREEN)

NOTES:

- SEE LIMIT CHART, HALE DOCUMENT F-72 FOR MAXIMUM ALLOWABLE PUMP PRESSURE, ENGINE HORSEPOWER AND TORQUE LIMITS FOR HALE CENTRIFUGAL PUMPS.
- APPLY LOCTITE # 246 HIGH TEMPERATURE THREAD LOCKER OR EQUIVALENT TO SCREW THREADS AND TORQUE SCREWS PER HALE ENGINEERING STANDARD ES018-002
- UNLESS OTHERWISE INDICATED FASTENERS ARE GRADE 5 ZINC PLATED STEEL

HALE QTWO SERIES PUMP WITH "G" SERIES GEARBOX

0698	E	UPDATED DRAWING	SJM	03-03-08	MAL
0307	D	ADD SPLINED SHAFT OPTION UPDATE SUCTION EXTENSION	DBH	01-31-06	MAL
00-665	C	UPDATED DRAWING	TKC	10-31-00	MAL
00-441	B	UPDATED DRAWING	DJK	4-10-00	MAL
99-121	A	RELEASE FOR PRODUCTION	DPL	6/15/99	RET
ECD NO	REV	CHANGED FROM	BY	DATE	APVD



HALE PRODUCTS, INC.
 A Unit of IDEX Corporation
 Conshohocken, PA 19428 USA

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DRAWN WFM
 CHECKED RET

DATE 5-15-98
 SCALE : .25

PLATE NO. 888AE