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

OPTIONAL DISCHARGE FLANGES			
STANDARD		OPTIONAL	STO. CAST HOLE
A	BLANK	2-1/2, 3 & 4 NPT	4
B	BLANK	1-1/4, 2, 2-1/2 & 3 NPT	3
C	BLANK	2-1/2, 3 & 4 NPT	3
D	———	2-1/2 & 3 NPT	CAST SOLID
E	———	2-1/2 & 3 NPT	CAST SOLID
F	———	2-1/2 & 3 NPT	CAST SOLID
G	———	2-1/2 & 3 NPT	CAST SOLID
H	BLANK	2-1/2, 3 & 4 NPT	4

DIMENSIONS	
G	YOKES
(538.5) 21.2	17T 115-1450-03-0
	17N 115-1450-04-0
(555.5) 21.9	18T 115-1450-01-0
	18N 115-1450-06-0
(550.7) 20.7	176T 115-1450-02-0
	176N 115-1450-05-0
(525.3) 21.7	RPL25 115-1450-00-0

PUMP MODEL	GEAR RATIO	GEARBOX TYPE **	DIMENSIONS A	DIMENSIONS B
QTWO*-23	2.30	LONG (LK)	11.28	19.84
		EXTRA LONG (XK)	13.58	22.14
QTWO*-21	2.04	LONG (LK)	11.59	19.84
		EXTRA LONG (XK)	13.89	22.14
QTWO*-19	1.89	LONG (LK)	11.78	19.84
		EXTRA LONG (XK)	14.08	22.14
QTWO*-17	1.71	LONG (LK)	13.96	19.84
		EXTRA LONG (XK)	14.26	22.14
QTWO*-16	1.60	LONG (LK)	12.15	19.84
		EXTRA LONG (XK)	14.45	22.14

* RATED CAPACITY 1000, 1250, 1500, 1750, 2000 GPM ** THE (LK) GEARBOX IS STANDARD AND WILL BE SUPPLIED UNLESS OTHERWISE SPECIFIED.

EXAMPLE: THE MODEL NUMBER FOR A 1500 GPM RATED PUMP WITH A 2.30 GEAR RATIO AND A SHORT GEARBOX WOULD BE QTWO150-23LK.

DRIVE LINE RECOMMENDATIONS

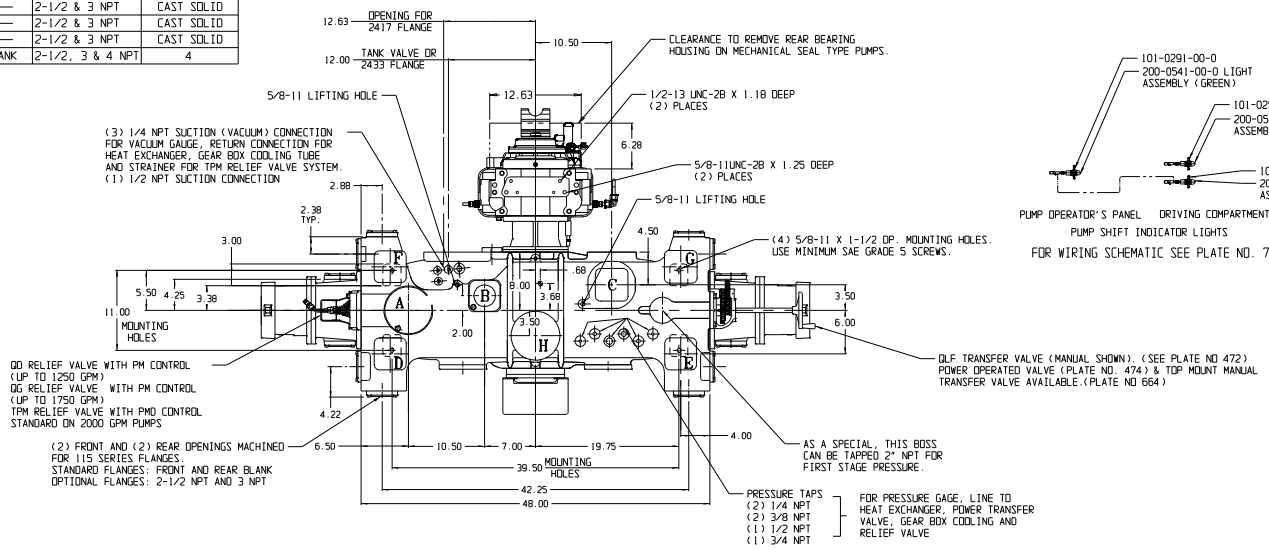
APPARATUS BUILDER SUPPLIED DRIVELINES SHALL BE OF APPROPRIATE SIZE TO MATCH THE CHASSIS AND PUMP REQUIREMENTS WITH INDIVIDUAL JOINT CANCELLATION AND PHASING BEFORE AND AFTER THE PUMP. DRIVE SHAFT BALANCE (INCLUDING YOKES) SHALL NOT EXCEED THE RECOMMENDED LIMIT OF EITHER THE DRIVE SHAFT OR CHASSIS TRANSMISSION MANUFACTURER'S SPECIFICATIONS. DRIVE SHAFT FULL RANGE OPERATING SPEEDS SHALL NOT EXCEED 42% OF ITS CRITICAL SPEED.

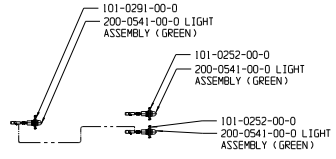
WARNING

EXCEEDING THESE LIMITS OR FAILURE TO FOLLOW THE RECOMMENDATIONS OUTLINED ON THIS DRAWING COULD DAMAGE THE GEARBOX AND RESULT IN PERSONAL INJURY.
QMAX MIDSHIP MAXIMUM PUMP PRESSURE (HYDROSTATIC & HYDRODYNAMIC) = 600 PSI
MAXIMUN POWER INPUT FOR PUMPING = 525 HP. MAXIMUM TORQUE ON PUMP SHAFT = 2300 LBS-FT
MAXIMUM GEARBOX SHAFT TORQUE (ROAD) = 18,500 LBS-FT

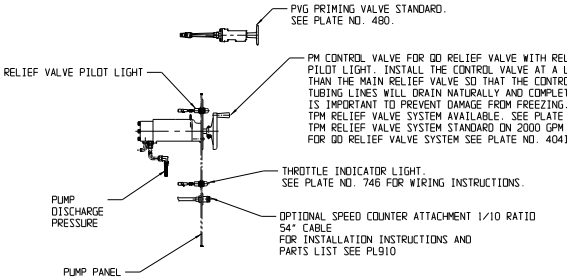
PUMP MODEL	QTWO*-23 LK QTWO*-23 XK	QTWO*-21 LK QTWO*-21 XK	QTWO*-19 LK QTWO*-19 XK	QTWO*-17 LK QTWO*-17 XK	QTWO*-16 LK QTWO*-16 XK
MAX GEARBOX INPUT RPM	2530	2780	3030	3280	3480

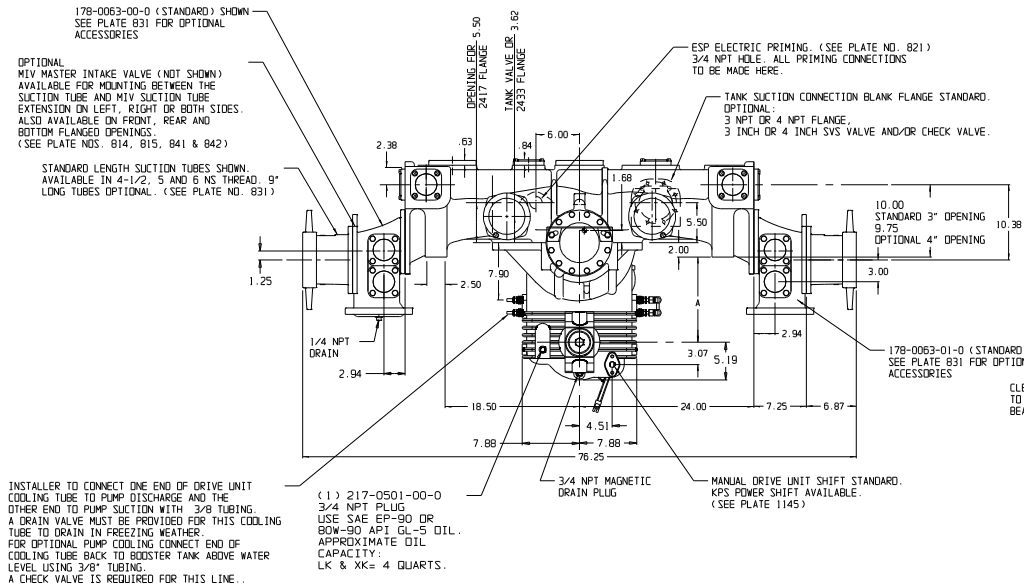
SEE HALE TORQUE LIMIT CHART F-72 FOR ADDITIONAL DATA.
THIS PRODUCT AND ITS COMPONENTS ARE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS AND OTHER PATENTS PENDING:
950,756 3,159,559 3,726,308 3,859,703 4,089,345 4,311,440 4,587,862
3,116,694 3,500,961 3,801,224 3,918,681 4,209,282 4,337,830 4,653,978

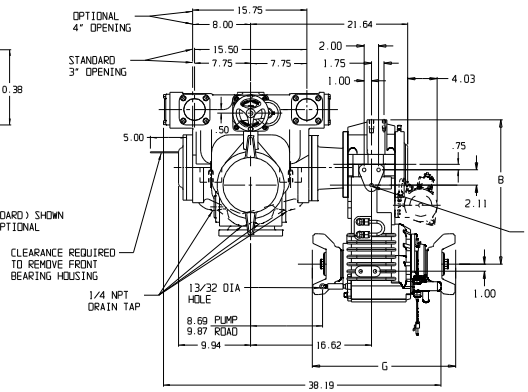




FOR WIRING SCHEMATIC SEE PLATE NO. 746







NOTE:
1. REFER TO HALE PUMP/ENGINE COMBINATION LIST TO SELECT PROPER RATIO TO MATCH PUMP WITH ENGINE.
2. WEIGHT OF STANDARD QTWO 1500 G.P.M. PUMP AS SHOWN LESS PRIMING PUMP. = 1450 LBS.
3. ◔ = CENTER OF GRAVITY.
4. IMPELLER SHAFT SEAL - MECHANICAL SEAL AVAILABLE.
5. SEE LIMIT CHART, HALE DOCUMENT F-72 FOR MAXIMUM ALLOWABLE PUMP PRESSURE, ENGINE HORSEPOWER AND TORQUE LIMITS' FOR HALE CENTRIFUGAL PUMPS.
6. APPLY LOCTITE # 246 HIGH TEMPERATURE THREAD LOCKER OR EQUIVALENT TO SCREW THREADS AND TORQUE SCREWS PER HALE ENGINEERING STANDARD ES018-002
7. UNLESS OTHERWISE INDICATED FASTENERS ARE MINIMUM GRADE 5 ZINC PLATED STEEL

PLATE NO. 1174AB

ECO NO	REV	CHANGED FROM	BY	DATE	APVD
5102	B	REMOVED 2.5 RATIO OPTION	DMB	06-05-20	JS2
949	A	RELEASE FOR PRODUCTION	DJK	1-26-10	PRW

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

COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY

DRAWN DJK | CHECKED PRW | DATE 1-26-10 | SIZE E | SCALE: NONE