

THIS PRODUCT AND ITS COMPONENTS ARE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS AND OTHER PATENTS PENDING:
4,209,282 4,311,440 4,337,830 4,587,862 4,653,978

TORQUE AND RPM LIMITS

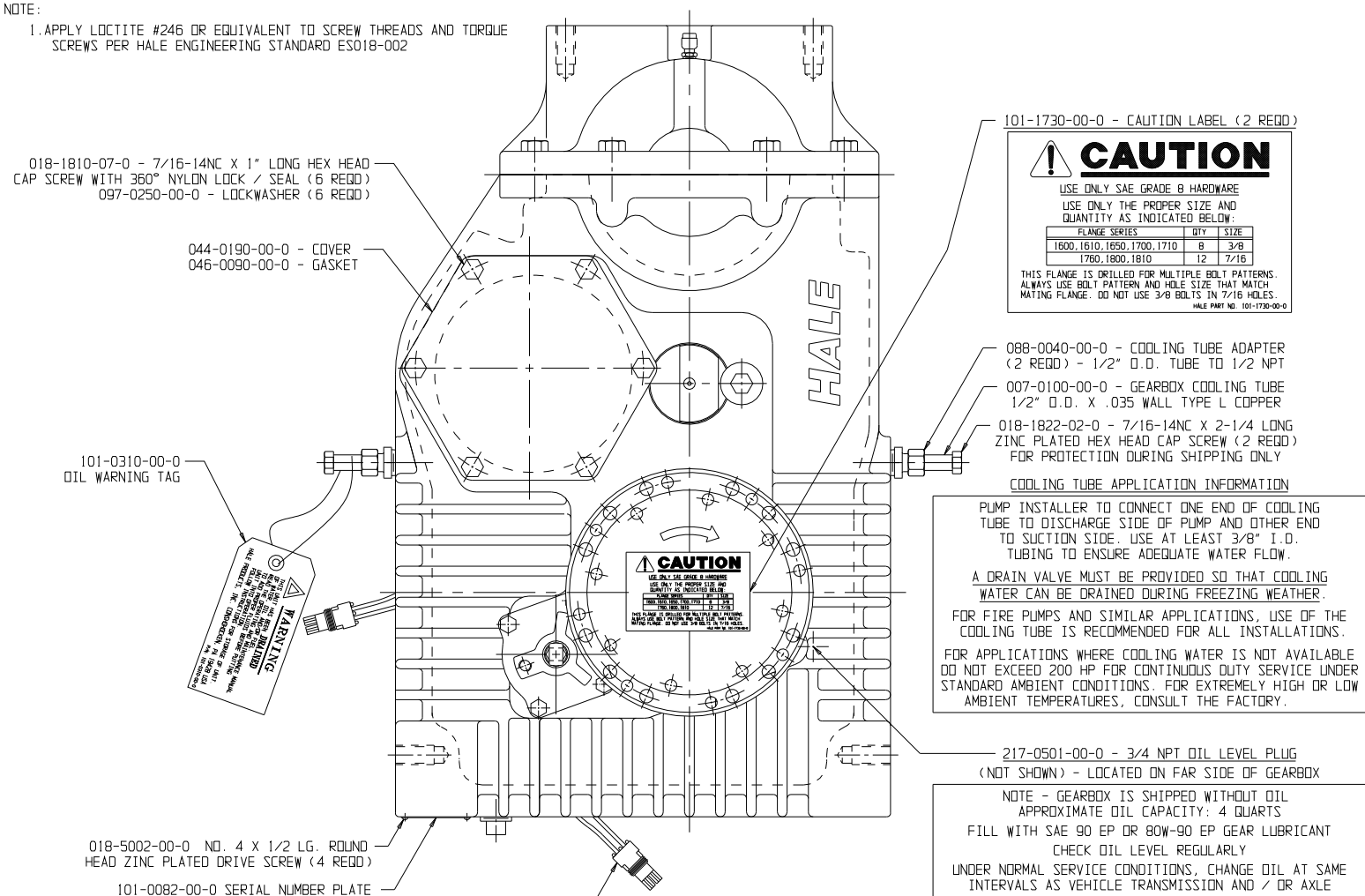
WARNING EXCEEDING THESE LIMITS OR FAILURE TO FOLLOW THE RECOMMENDATIONS OUTLINED IN THIS DRAWING COULD DAMAGE THE UNIT AND RESULT IN PERSONAL INJURY.

HALE TYPE RGAE-10 ONLY
 MAXIMUM GEARBOX INPUT TORQUE (ROAD POSITION): 16000 LB-FT
 MAXIMUM STATIC TORQUE ON AUXILIARY OUTPUT SHAFT: 2300 LB-FT
 MAXIMUM RATED HORSEPOWER: 450
 MAXIMUM ALLOWABLE RPM: 4000
 SEE HALE FORM F-72 "MAXIMUM ALLOWABLE PUMP PRESSURE, ENGINE HP AND TORQUE LIMITS FOR HALE CENTRIFUGAL PUMPS" FOR ADDITIONAL INFORMATION.
 SEE HALE PLATE NO. 766 FOR THE STANDARD HALE TYPE RGA MIDSHIP SPLIT SHAFT POWER TAKE-OFF WITH RATIOS FROM 1:1.58 TO 1:2.28.

HALE TYPE RGAE-10 MIDSHIP POWER TAKE OFF

NOTE:

1. APPLY LOCTITE #246 OR EQUIVALENT TO SCREW THREADS AND TORQUE SCREWS PER HALE ENGINEERING STANDARD ES018-002



CAUTION
 USE ONLY SAE GRADE 8 HARDWARE
 USE ONLY THE PROPER SIZE AND QUANTITY AS INDICATED BELOW:

FLANGE SERIES	QTY	SIZE
1600, 1610, 1650, 1700, 1710	8	3/8"
1760, 1800, 1810	12	7/16"

THIS FLANGE IS DRILLED FOR MULTIPLE BOLT PATTERNS. ALWAYS USE BOLT PATTERN AND HOLE SIZE THAT MATCH MATING FLANGE. DO NOT USE 3/8" BOLTS IN 7/16" HOLES.
 HALE PART NO. 101-1730-00-0

088-0040-00-0 - COOLING TUBE ADAPTER (2 REQD) - 1/2" O.D. TUBE TO 1/2 NPT
 007-0100-00-0 - GEARBOX COOLING TUBE 1/2" O.D. X .035 WALL TYPE L COPPER
 018-1822-02-0 - 7/16-14NC X 2-1/4 LONG ZINC PLATED HEX HEAD CAP SCREW (2 REQD) FOR PROTECTION DURING SHIPPING ONLY

COOLING TUBE APPLICATION INFORMATION
 PUMP INSTALLER TO CONNECT ONE END OF COOLING TUBE TO DISCHARGE SIDE OF PUMP AND OTHER END TO SUCTION SIDE. USE AT LEAST 3/8" I.D. TUBING TO ENSURE ADEQUATE WATER FLOW.
 A DRAIN VALVE MUST BE PROVIDED SO THAT COOLING WATER CAN BE DRAINED DURING FREEZING WEATHER.
 FOR FIRE PUMPS AND SIMILAR APPLICATIONS, USE OF THE COOLING TUBE IS RECOMMENDED FOR ALL INSTALLATIONS.
 FOR APPLICATIONS WHERE COOLING WATER IS NOT AVAILABLE DO NOT EXCEED 200 HP FOR CONTINUOUS DUTY SERVICE UNDER STANDARD AMBIENT CONDITIONS. FOR EXTREMELY HIGH OR LOW AMBIENT TEMPERATURES, CONSULT THE FACTORY.

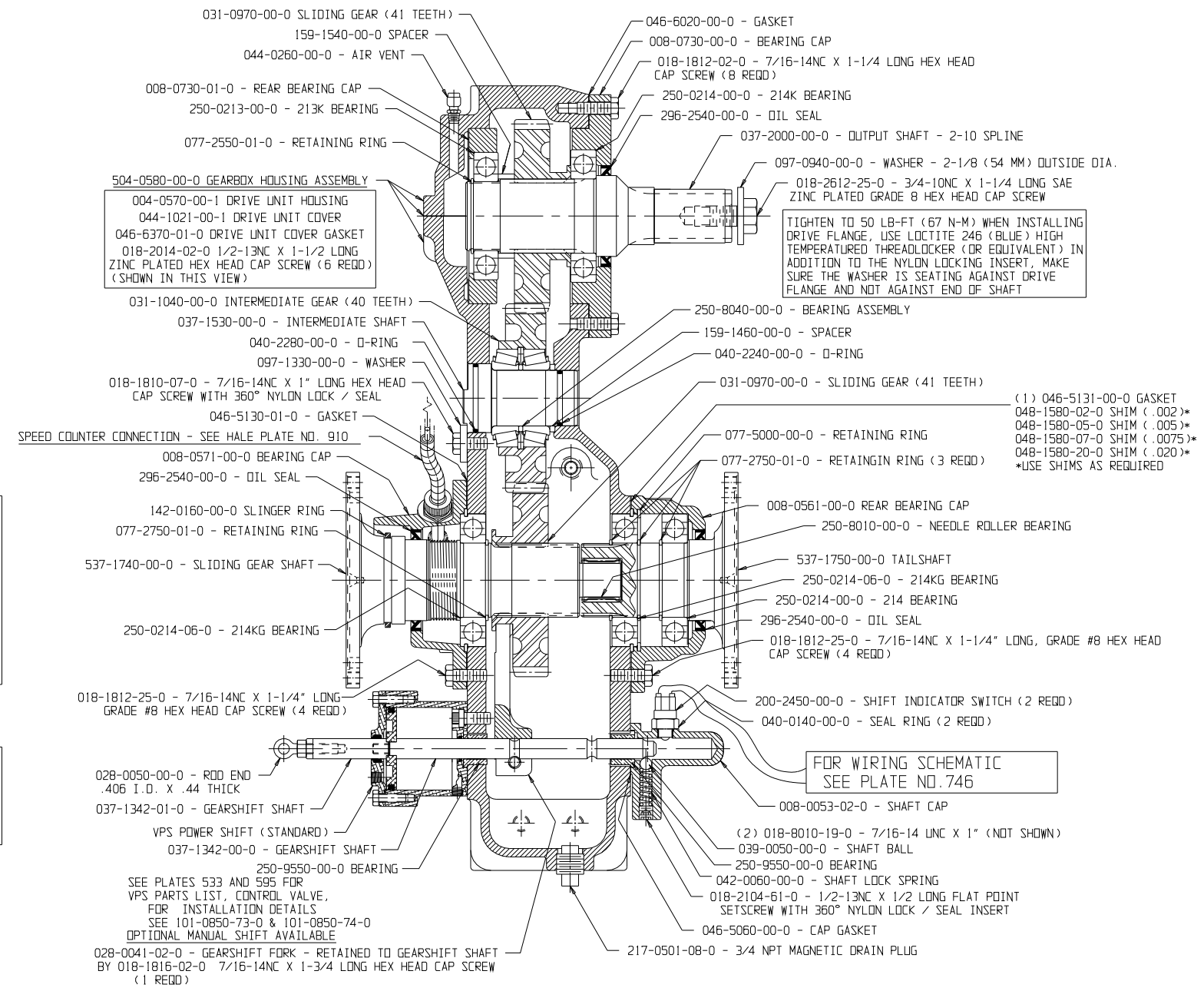
217-0501-00-0 - 3/4 NPT OIL LEVEL PLUG (NOT SHOWN) - LOCATED ON FAR SIDE OF GEARBOX
 NOTE - GEARBOX IS SHIPPED WITHOUT OIL
 APPROXIMATE OIL CAPACITY: 4 QUARTS
 FILL WITH SAE 90 EP OR 80W-90 EP GEAR LUBRICANT
 CHECK OIL LEVEL REGULARLY
 UNDER NORMAL SERVICE CONDITIONS, CHANGE OIL AT SAME INTERVALS AS VEHICLE TRANSMISSION AND / OR AXLE

WIRING CONNECTOR FOR SHIFT INDICATOR SWITCH (TYP. 2 PLACES)

HALE PART NO.	QTY	DESCRIPTION
200-0540-00-0	3	GREEN INDICATOR LIGHT
101-0291-00-0	1	SHIFT INDICATOR INSTRUCTION PLATE
101-0252-00-0	1*	SHIFT INDICATOR INSTRUCTION PLATE - STD.
101-0072-00-0	1*	SHIFT INDICATOR INSTRUCTION PLATE - VPS

* VPS INSTRUCTION PLATE IS REPLACED BY (1) ADDITIONAL 101-0252-00-0 INSTRUCTION PLATE FOR MANUAL SHIFT UNITS

WARNING ALL WIRING AND INSTALLATION DETAILS MUST CONFORM TO ALL APPLICABLE NFPA AND SAE STANDARDS.
 VERIFY OPERATION OF ALL SHIFT INDICATOR LIGHTS AND INTERLOCKS BEFORE PLACING APPARATUS IN SERVICE



SPEED COUNTER CONNECTION - SEE HALE PLATE NO. 910

TIGHTEN TO 50 LB-FT (67 N-M) WHEN INSTALLING DRIVE FLANGE, USE LOCTITE 246 (BLUE) HIGH TEMPERATURE THREADLOCKER (OR EQUIVALENT) IN ADDITION TO THE NYLON LOCKING INSERT, MAKE SURE THE WASHER IS SEATING AGAINST DRIVE FLANGE AND NOT AGAINST END OF SHAFT

FOR WIRING SCHEMATIC SEE PLATE NO. 746

SOME COMPONENTS IN SECTION VIEW ARE SHOWN OUT-OF-POSITION FOR CLARITY

101-0310-00-0 OIL WARNING TAG

018-1810-07-0 - 7/16-14NC X 1" LONG HEX HEAD CAP SCREW WITH 360° NYLON LOCK / SEAL (6 REQD)
 097-0250-00-0 - LOCKWASHER (6 REQD)

044-0190-00-0 - COVER
 046-0090-00-0 - GASKET

101-0082-00-0 SERIAL NUMBER PLATE

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

WARNING-FAILURE TO FOLLOW THE OPERATING AND MAINTENANCE REQUIREMENTS SET FORTH IN THE PUMP MANUAL MAY RESULT IN SERIOUS PERSONAL INJURY AND/OR EQUIPMENT DAMAGE.

LUBRICATION-GEARBOX
 FRONT MOUNT PUMPS- 30W NON-DETERGENT (ISO 100A)
 MIDSHIP AND BOOSTER PUMPS- SAE EP-90 OR 80W-90
 PRIMING TANK- HALE APPROVED LUBRICANT

RGAE-10

MODEL NUMBER SERIAL NUMBER

INCLUDE THE MODEL NUMBER AND SERIAL NUMBER WHEN ORDERING PARTS OR REQUESTING INFORMATION

ASSEMBLY DRAWING AND PARTS LIST
 HALE TYPE RGAE-10 MIDSHIP POWER TAKE OFF
 SEE HALE PLATE NO. 909 FOR DIMENSIONS AND INSTALLATION DETAILS

PLATE NO. 894AB

ECD NO	REV	CHANGED FROM	BY	DATE	APVD
99-131	A	RELEASED FOR PRODUCTION	AJD	5-18-99	RET
0433	B	ADD OUTPUT SHAFT SHIMS AND GASKET, AND GENERAL DRAWING UPDATES	KSM	9-18-06	MAL

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 DRAWN: AJD
 CHECKED: RET
 DATE: 5-18-99
 SIZE: 90 X 59
 SCALE: 17.5%