

NOTES:

- A. PROPORTIONAL CONTROL VALVE OPERATION
 1. WARNING DO NOT CONNECT VALVE COIL DIRECTLY TO BATTERY / POWER SUPPLY VOLTAGAGE
 2. OPERATION TO BE PERFORMED WITH ONLY TWIN DISC CONTROL SYSTEMS OR MODULES.
- B. MANUAL DIRECTIONAL CONTROL VALVE OPERATION
 1. WITH MANUAL DIRECTIONAL CONTROL VALVE IN CENTERED POSITION, PUSH TO ENGAGE PRIMARY CLUTCH
 2. WITH MANUAL DIRECTIONAL CONTROL VALVE IN CENTERED POSITION, PULL TO ENGAGE SECONDARY CLUTCH.
- C. MANUAL DIRECTIONAL CONTROL VALVE MODE SWITCH
 1. SWITCH IS NORMALLY CLOSED WHEN MANUAL DIRECTIONAL CONTROL VALVE IS IN THE CENTERED POSITION AND OPEN WHEN LEVER IS ACTUATED FROM CENTERED POSITION.
 2. CURRENT = 20 AMPS MAX.
 3. FOR WIRING SCHEMATIC, REFER TO EC050 CONTROL MODULE DRAWING.
- D. REFERENCE S830 FOR TWIN DISC REQUIREMENTS FOR PRESSURE AND TEMPERATURE ALARM LEVELS.

- 1 INPUT GROUP REFERENCE PLANE
 2 PTO ADAPTER MOUNTING FACE
 3 LEFT MOUNTING BRACKET FACE
 4 RIGHT MOUNTING BRACKET FACE

EYEBOLTS (2)
 FOR LIFTING MARINE TRANSMISSION ONLY.
 EQUALIZE LOAD ON BOTH EYEBOLTS
 TO LIFT MARINE TRANSMISSION

OIL OUT TO HEAT EXCHANGER
 M33 X 2.0 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 88:8 Nm

OIL IN FROM HEAT EXCHANGER
 M33 X 2.0 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 88:8 Nm

SECONDARY CLUTCH (FIRST)
 PRESSURE PORT
 M14 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 20:2 Nm

SECONDARY CLUTCH (SECOND)
 PRESSURE PORT
 M12 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 16:1.5 Nm

TEMPERATURE AND
 LUBE PRESSURE PORT
 M18 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 34:3 Nm

BREATHER / OIL FILLER

MAIN PRESSURE PORT
 M12x1.5 METRIC PORT
 CONFORMS TO ISO 6149
 CONNECT OIL PRESSURE GAUGE LINE HERE.
 TIGHTENING TORQUE 16:1.5 Nm

PRIMARY CLUTCH (SECOND)
 PRESSURE PORT
 M12 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 16:1.5 Nm

TEMPERATURE AND
 LUBE PRESSURE PORT
 M18 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 34:3 Nm

MAIN PRESSURE PORT
 M14x1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 20:2 Nm

LUBE PORT (AUXILIARY)
 M27 X 2.0 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 75:7 Nm

SECONDARY CLUTCH (FIRST)
 PRESSURE PORT
 M12 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 16:1.5 Nm

PRIMARY CLUTCH (FIRST)
 PRESSURE PORT
 M14 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 20:2 Nm

TEMPERATURE PORT
 M14 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 BEFORE HEAT EXCHANGER
 TIGHTENING TORQUE 20:2 Nm

MAIN PRESSURE PORT
 M14x1.5 METRIC PORT
 CONFORMS TO ISO 6149
 FOR USE WITH OPTIONAL
 HYDRAULIC PTO
 TIGHTENING TORQUE 20:2 Nm

INPUT SPEED SENSOR PORT
 S8-18 UNF THREAD
 TARGET WHEEL: 61 TEETH

PRIMARY CLUTCH SHAFT ϕ

OIL LEVEL GAUGE

R.H. ENGINE ROTATION
 DRIVEN THRU PRIMARY

OIL FILTER
 24 mm CLEARANCE REQUIRED
 TO REMOVE FILTER CANISTER.
 TIGHTEN FILTER AN ADDITIONAL
 1/2 OF TURN AFTER FILTER
 GASKET MAKES CONTACT

SAE HOUSING #0

CENTER OF GRAVITY

SECONDARY CLUTCH SHAFT ϕ

CENTER OF GRAVITY

OIL STRAINER
 123 mm CLEARANCE REQUIRED
 TO REMOVE STRAINER

ϕ 24.5 THRU ALL
 14 HOLES
 EQUALLY SPACED

OUTPUT SHAFT ϕ

OIL STRAINER
 54 mm CLEARANCE REQUIRED
 TO REMOVE STRAINER

R.H. ENGINE ROTATION
 DRIVEN THRU SECONDARY

M12 X 1.75 TAP, 33.0 DEEP
 8 HOLES, 4 EACH SIDE

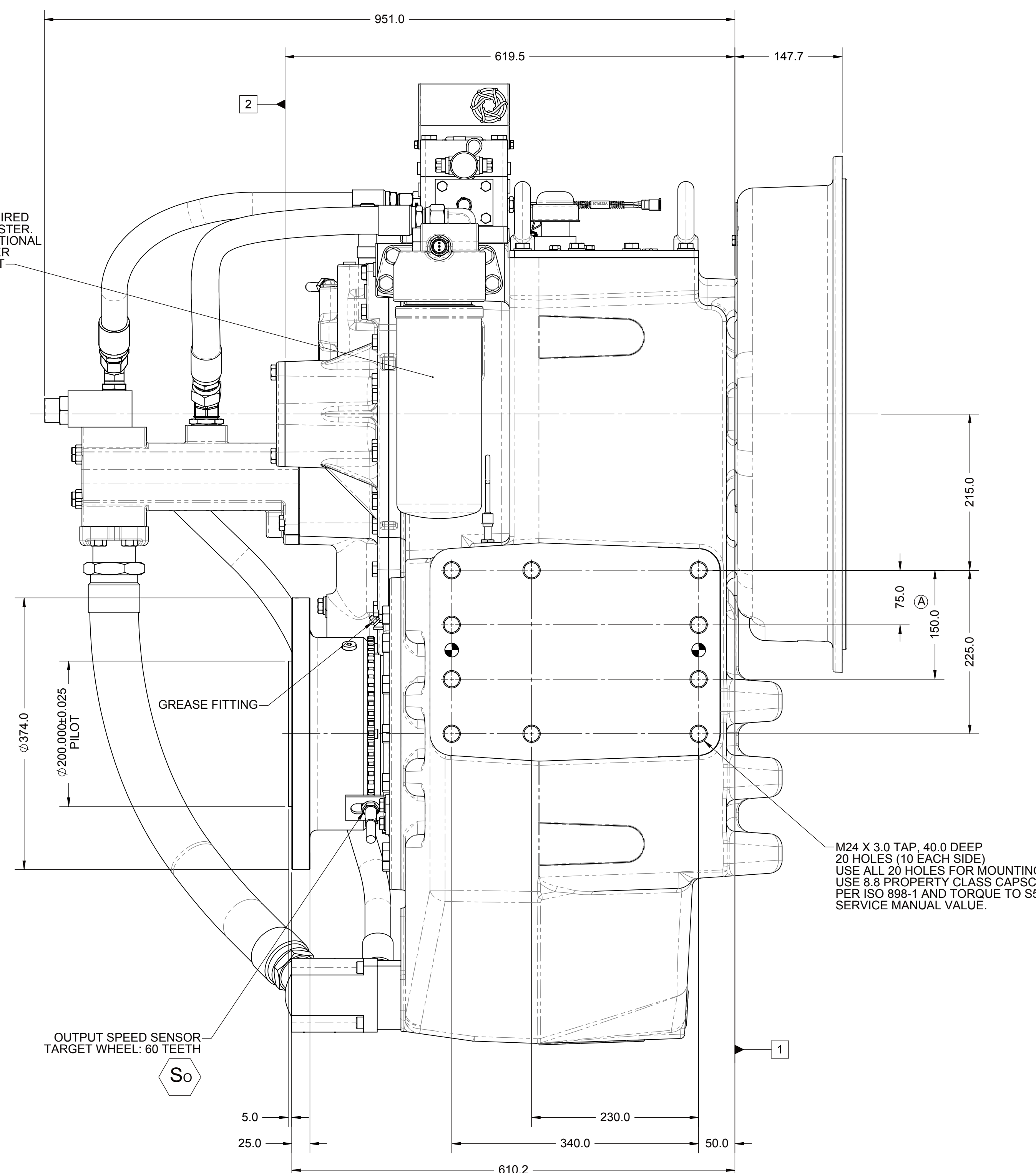
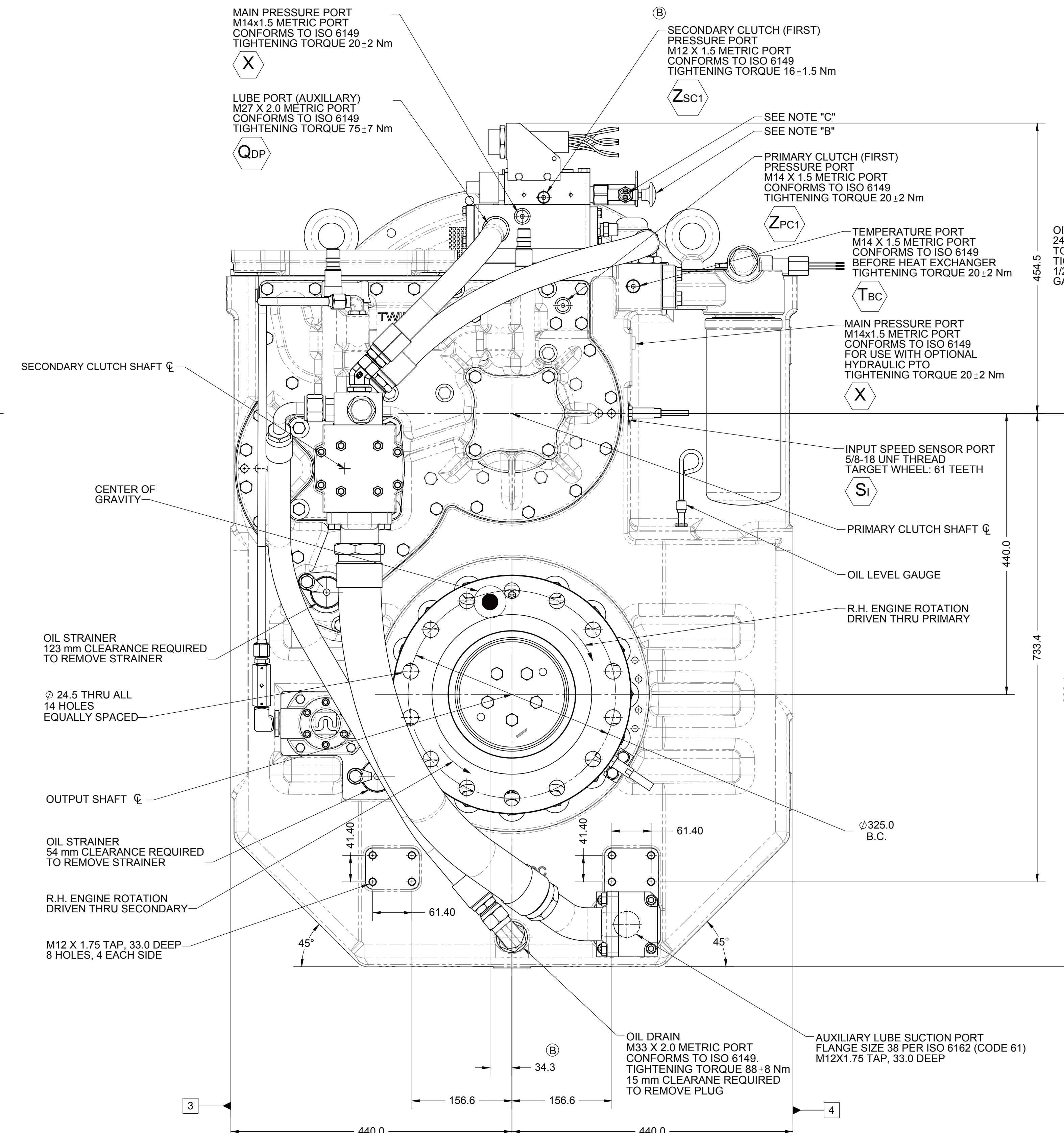
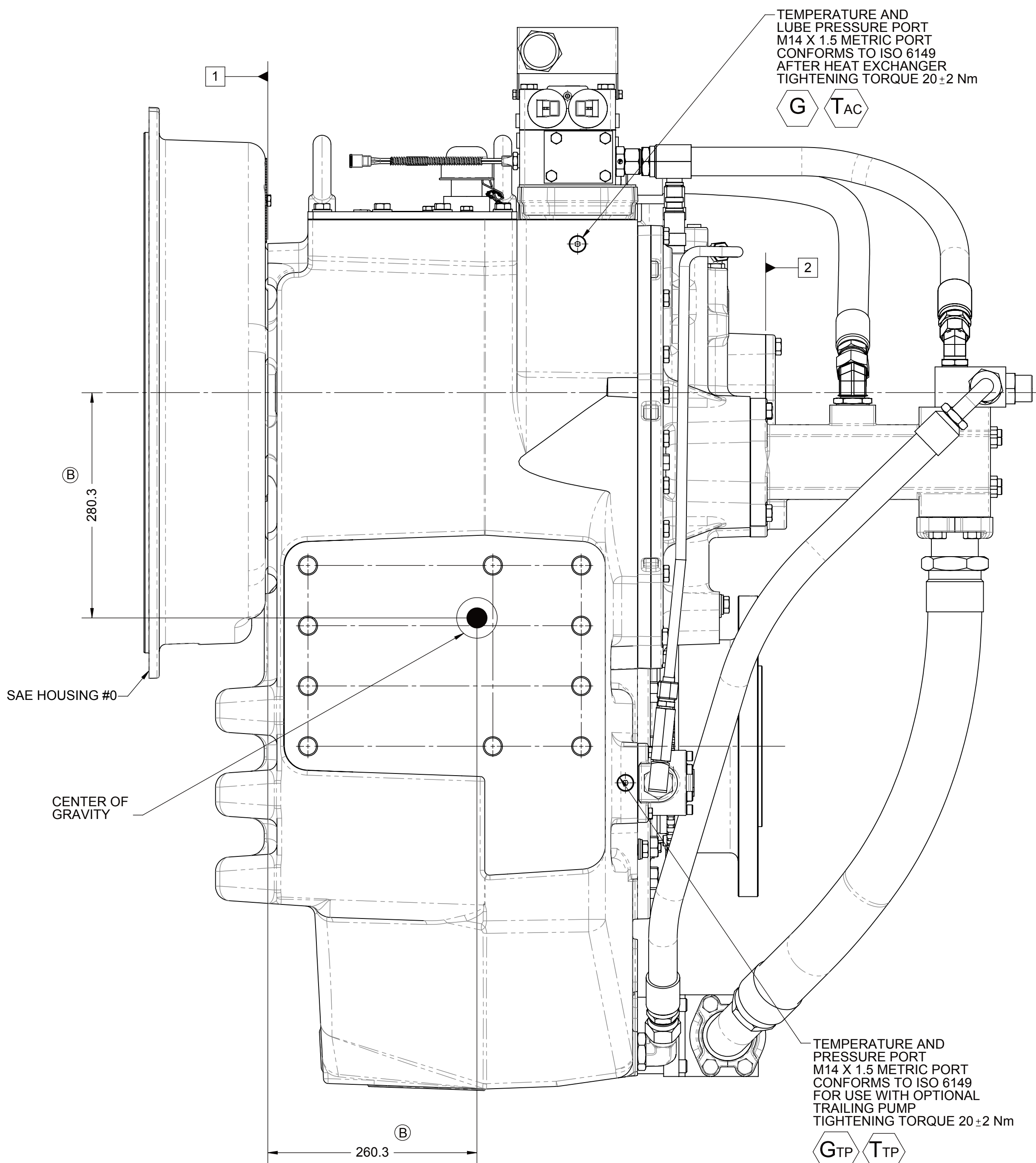
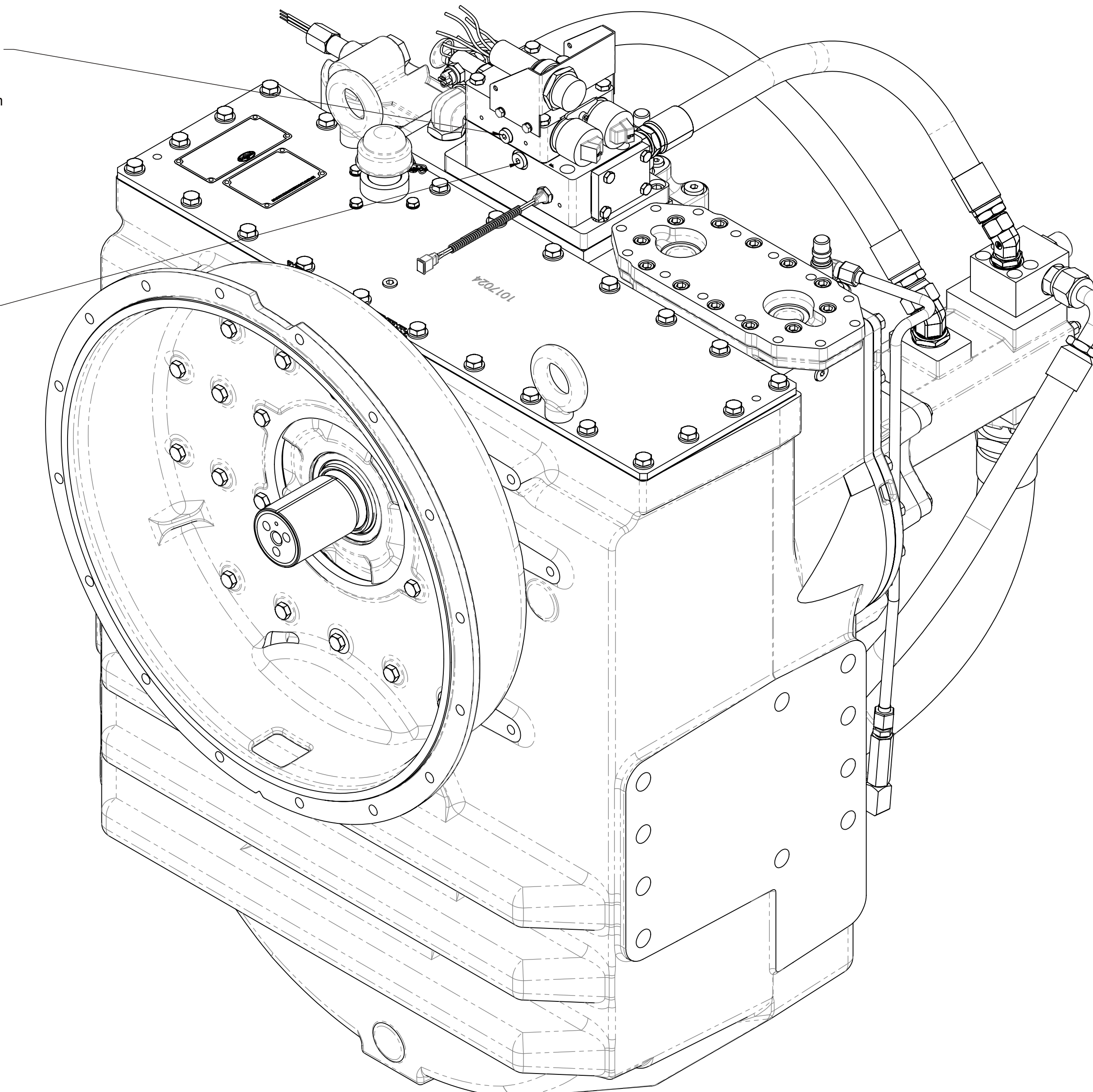
TEMPERATURE AND
 PRESSURE PORT
 M14 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 FOR USE WITH OPTIONAL
 TRAILING PUMP
 TIGHTENING TORQUE 20:2 Nm

OIL DRAIN
 M33 X 2.0 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 88:8 Nm
 15 mm CLEARANCE REQUIRED
 TO REMOVE PLUG

AUXILIARY LUBE SUCTION PORT
 FLANGE SIZE 38 PER ISO 6162 (CODE 61)
 M12X1.75 TAP, 33.0 DEEP

NOTE:

- ALL POINTS AVAILABLE FOR TESTING ARE CODED
- EQUIPMENT SHOWN:
 -MGX-5321DC PER 1022203B ASSEMBLY
 -SAE#0 FRONT HOUSING
 -GP VALVE WITH EC300 HARNESS
 -DITCH PLATE FOR CUSTOMER SUPPLIED HEAT EXCHANGER
 -MOUNTED TRAILING PUMP
 -1023665 PUMP GROUP FOR DP APPLICATIONS



REV	CHANGE NO.	DATE	TWIN DISC	
B	ECNWF-23625	07/02/2013	RACINE, WI 53403, USA	
FIRST USE ASSEMBLY			1638.78	THIRD ANGLE PROJECTION
FIRST USE MODEL			1022203B	SCALE
SIMILAR TO:			1022203B	1:4
DRAWN BY:			ALC	DATE
CHECKED BY:			ALC	1026064B
APPROVED BY:			ALC	1 OF 1
MATERIAL			HEAT TREAT	DESCRIPTION
UNLESS OTHERWISE SPECIFIED			AS SHOWN	INSTALLATION
DIMENSIONS ARE IN MILLIMETERS			UNLESS OTHERWISE SPECIFIED	MGX-5321DC
ALL ANGLES UNLESS OTHERWISE SPECIFIED			AS SHOWN	
GEOMETRIC TOLERANCES ARE AS SHOWN			UNLESS OTHERWISE SPECIFIED	
FINISHES ARE AS SHOWN			UNLESS OTHERWISE SPECIFIED	
DIMENSIONS ARE TO UNLESS OTHERWISE SPECIFIED			UNLESS OTHERWISE SPECIFIED	
DIMENSIONS ARE TO UNLESS OTHERWISE SPECIFIED			UNLESS OTHERWISE SPECIFIED	