

NOTES:

- A. PROPORTIONAL CONTROL VALVE OPERATION
 1. WARNING DO NOT CONNECT VALVE COIL DIRECTLY TO BATTERY / POWER SUPPLY VOLATAGE.
 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 S930 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
 5 LIVE PTO PUMP MOUNT FACE

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

WATER OUT FROM HEAT EXCHANGER
 M42 X 2.0 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 108 ± 10 Nm

WATER IN TO HEAT EXCHANGER
 M42 X 2.0 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 108 ± 10 Nm

SECONDARY CLUTCH (FIRST)
 PRESSURE PORT
 M12 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

G TAc QTP

SEE NOTE "A" 1017024

BREATHER / OIL FILLER

MAIN PRESSURE PORT
 M12 X 1.5 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

G TAc

MAIN PRESSURE PORT
 M14 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 20 ± 2 Nm

LUBE PORT (AUXILIARY)
 M27 X 2.0 METRIC PORT
 AFTER HEAT EXCHANGER
 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

Zsc1

SEE NOTE "C"
 SEE NOTE "B"

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

Zpc1

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

Tbc

MAIN PRESSURE PORT
 M14 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 FOR USE WITH OPTIONAL
 HYDRAULIC PTO
 TIGHTENING TORQUE 20 ± 2 Nm

X

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

S1

PRIMARY CLUTCH SHAFT ϕ

OIL LEVEL GAUGE

SAE 127-2/4, 32-4 OR 127-2/4, 38-4
 PUMP MOUNT FACE, CONFORMS
 TO SAE J744. REFER TO DRAWING
 1017171 FOR DIMENSIONS AND
 NOTES

R.H. ENGINE ROTATION
 DRIVEN THRU PRIMARY

ϕ 325.0
 B.C.

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

TRAILING PUMPOIL 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

TWIN DISC
 1015341A

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

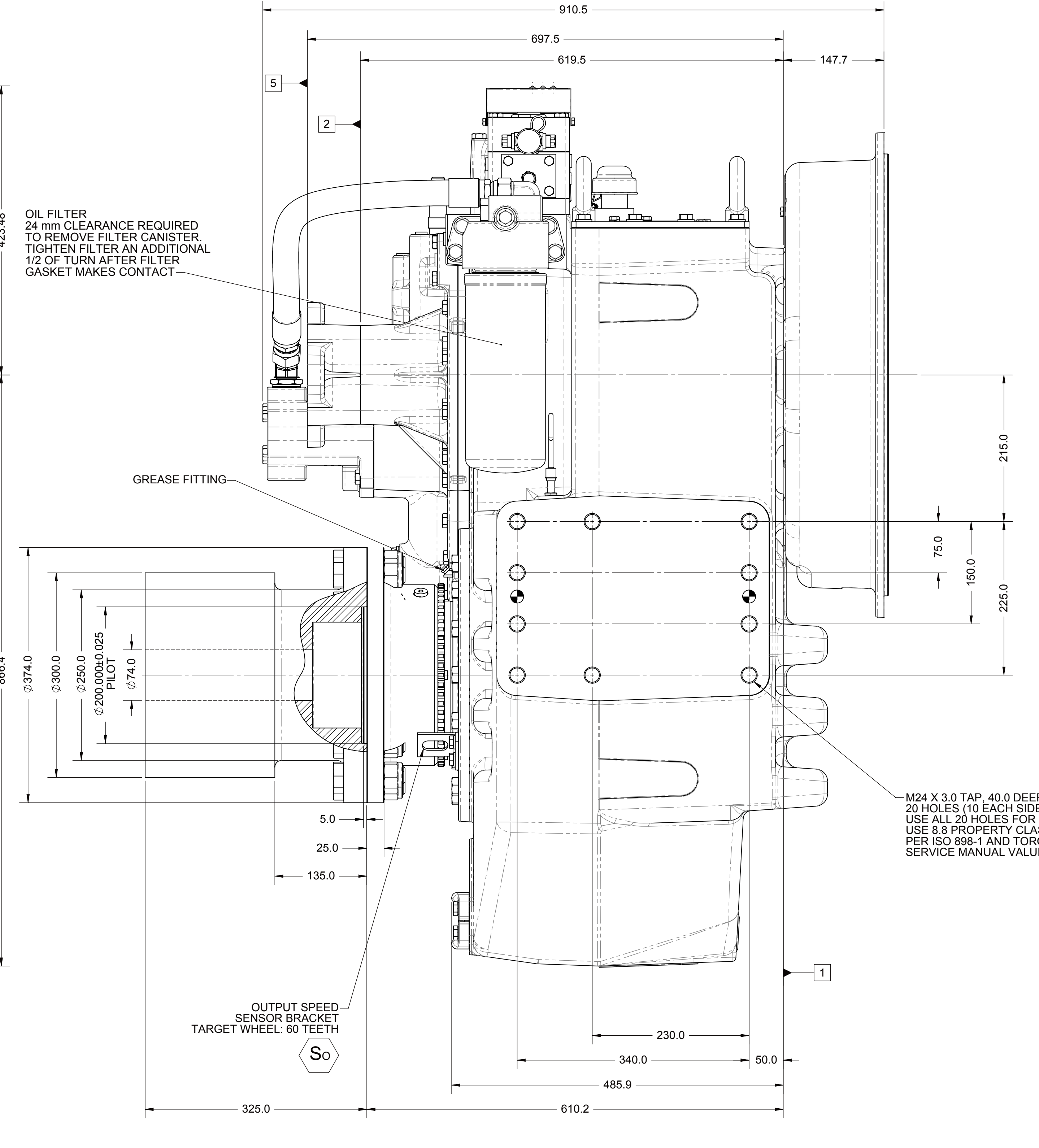
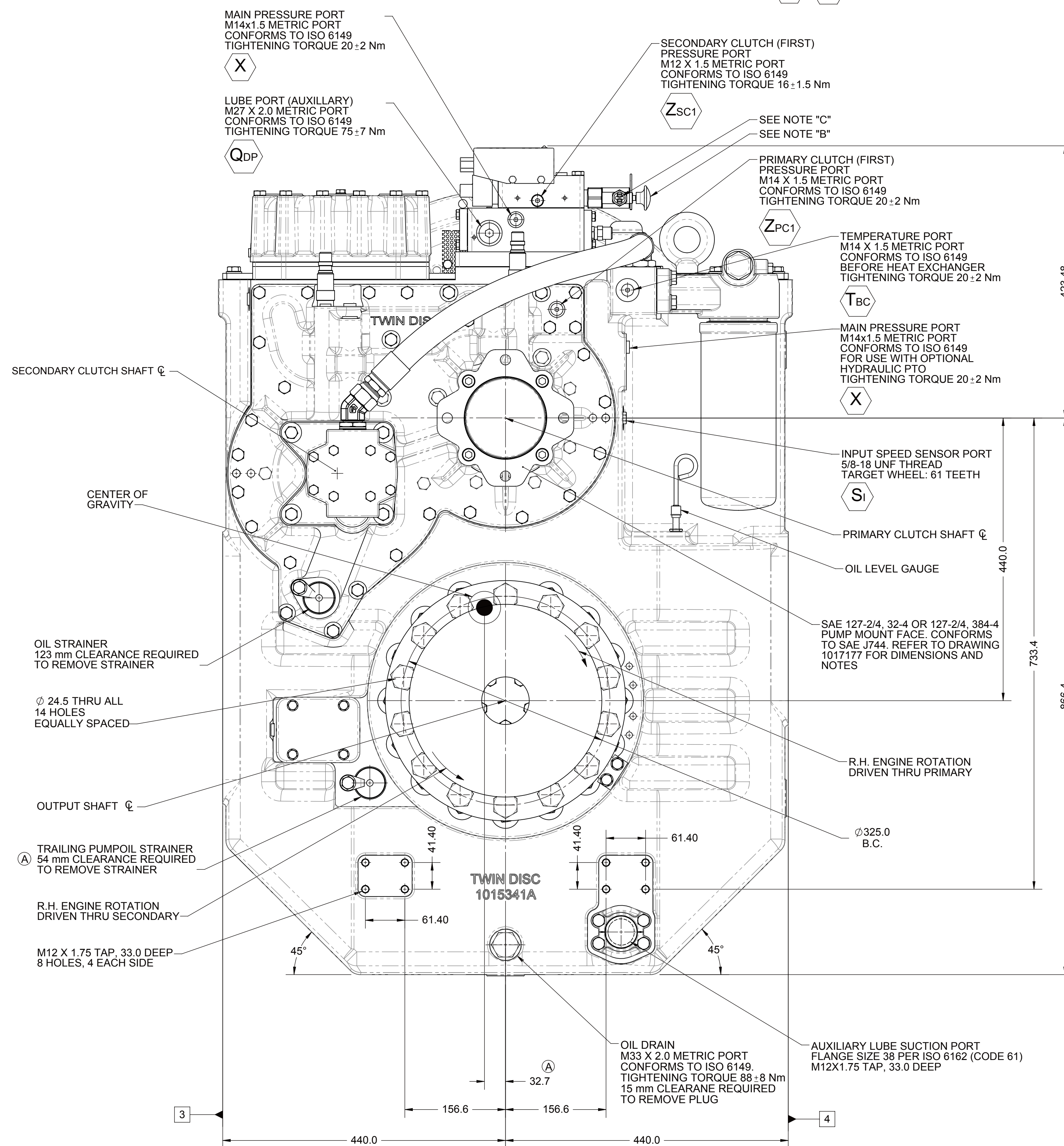
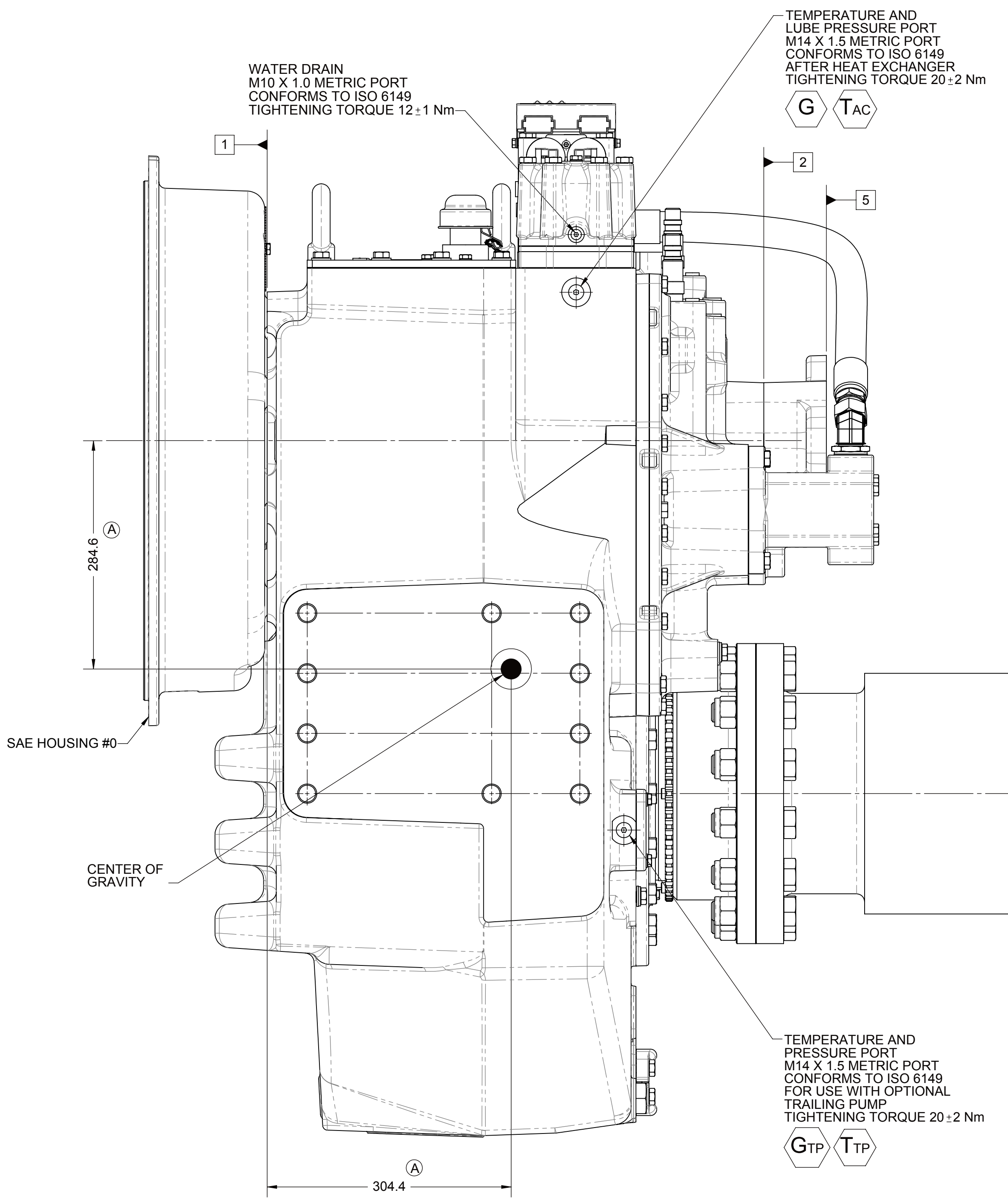
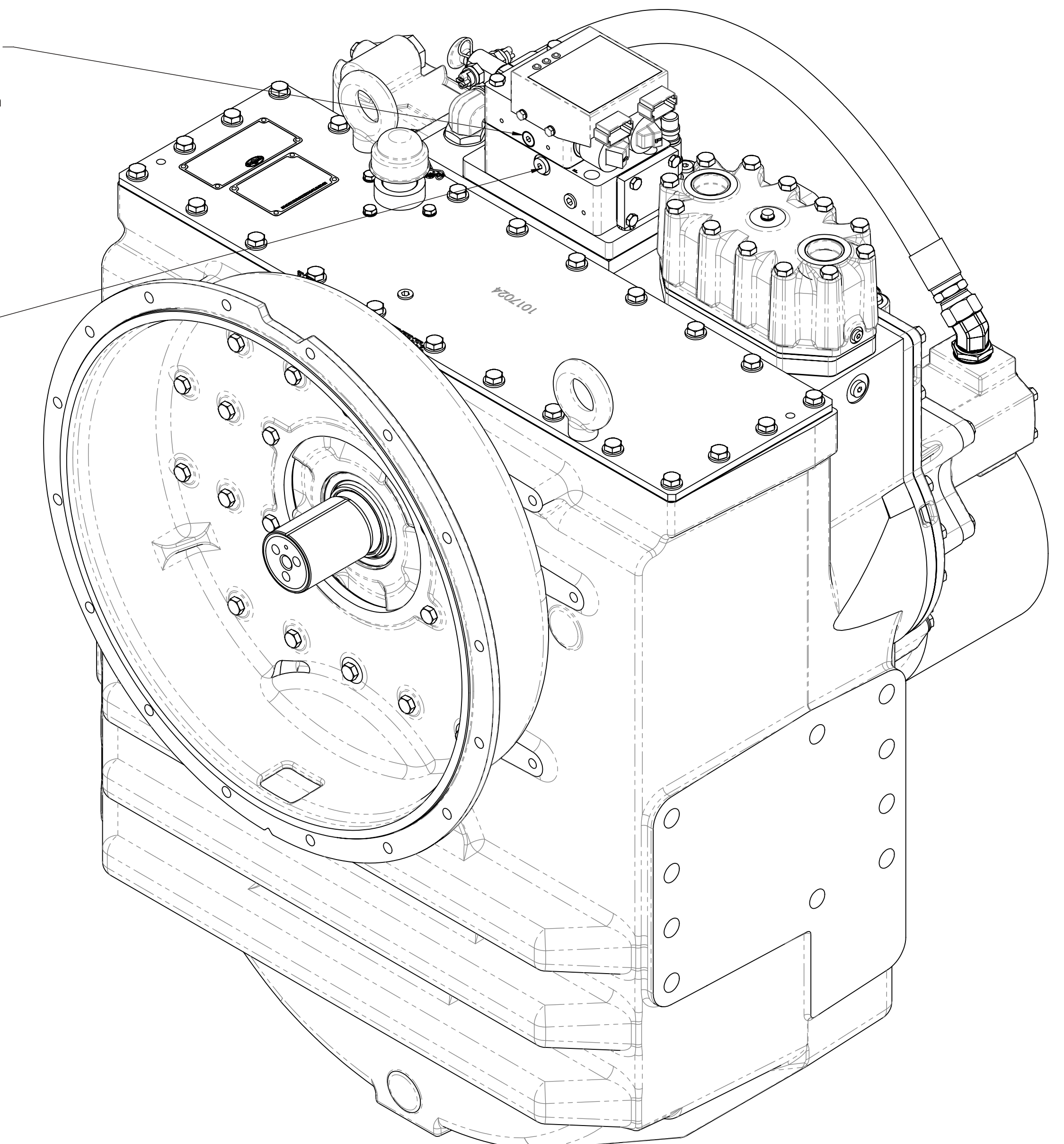
AUXILIARY LUBE SUCTION PORT
 FLANGE SIZE 38 PER ISO 6162 (CODE 61)
 M12X1.75 TAP, 33.0 DEEP

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

Zpc1

MAIN PRESSURE PORT
 M14 X 1.5 METRIC PORT
 CONFORMS TO ISO 6149
 TIGHTENING TORQUE 20 ± 2 Nm

X



NOTE:
 ALL POINTS AVAILABLE FOR TESTING ARE CODED

- EQUIPMENT SHOWN:
 - MGX-5321DC PER 1022203B ASSEMBLY
 - SAE80 FRONT HOUSING
 - GP VALVE WITH EC050 MODULE
 - RAW WATER HEAT EXCHANGER
 - 1017084 COMPANION FLANGE ASSEMBLY
 - LIVE SAE J744 127-2/4, 32-4 OR 127-2/4, 38-4 PTO

<p>FIRST USE ASSEMBLY: SIMILAR TO:</p>	<p>REV: 1805.20 DATE: 04/01/2013</p>	<p>SCALE: 1:4 DRAWN BY: MG CHECKED BY: ALC APPROVED BY: ALC</p>	<p>MATERIAL: HEAT TREAT: FINISH:</p>	<p>DATE: 04/01/2013 SCALE: 1:4 DRAWN BY: MG CHECKED BY: ALC APPROVED BY: ALC</p>	<p>DESCRIPTION: INSTALLATION MGX-5321DC</p>	<p>REV: 1805.20 DATE: 04/01/2013 SCALE: 1:4 DRAWN BY: MG CHECKED BY: ALC APPROVED BY: ALC</p>	<p>DATE: 04/01/2013 SCALE: 1:4 DRAWN BY: MG CHECKED BY: ALC APPROVED BY: ALC</p>	<p>DATE: 04/01/2013 SCALE: 1:4 DRAWN BY: MG CHECKED BY: ALC APPROVED BY: ALC</p>
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ECNWF-23625 07/02/2013
 RACINE, WI 53403, USA
TWIN DISC
 1026064E
 SHEET 1 OF 1