1 INPUT GROUP MOUNTING FACE
2 PTO GROUP MOUNTING FACE
3 LEFT MOUNTING BRACKET FACE
4 RIGHT MOUNTING BRACKET FACE
5 HEAT EXCHANGER MOUNTING FACE
6 PUMP MOUNTING FACE

A. PROPORTIONAL CONTROL VALVE OPERATION.
1. WARNING DO NOT CONNECT VALVE COIL DIRECTLY TO BATTERY/POWER SUPPLY VOLTAGE.
2. OPERATION TO BE PERFORMED WITH ONLY TWIN-DISC CONTROL SYSTEM MODULES.

B. MANUAL DIRECTIONAL CONTROL VALVE OPERATION.
1. WITH MANUAL DIRECTIONAL CONTROL VALVE IN CENTERED POSITION PULL TO ENGAGE SECONDARY CLUTCH.
2. WITH MANUAL DIRECTIONAL CONTROL VALVE IN CENTERED POSITION PUSH TO ENGAGE PRIMARY CLUTCH.

C. MANUAL DIRECTIONAL CONTROL VALVE MODE SWITCH.
1. SWITCH IS NORMALLY CLOSED WHEN MANUAL DIRECTIONAL CONTROL VALVE IS IN CENTERED POSITION AND OPEN WHEN LEVER IS ACTUATED FROM CENTERED POSITION.
2. CURRENT = 20 AMP MAX.
3. FOR WIRING SCHEMATIC REFER TO CONTROL DRAWING.

D. UNLESS OTHERWISE SPECIFIED FASTENER TORQUE VALUES PER S574 STANDARD.

E. REFERENCE S930 FOR TWIN DISC REQUIREMENTS FOR PRESSURE AND TEMPERATURE ALARM LEVELS.

F. ALL POINTS AVAILABLE FOR TESTING CODED. ⬡

Ø 11.00 THRU
12 HOLES EQUALLY SPACED
USE 8.8 PROPERTY CLASS QUALITY
CAP SCREW PER ISO-898-1 AND TORQUE TO S574
OR SERVICE MANUAL VALUES.
(SCREWS ARE CUSTOMER SUPPLIED)

∅10.5 THRU
8-HOLES EQUALLY SPACED
USE 8.8 PROPERTY CLASS QUALITY
SOCKET HEAD CAP SCREW PER ISO-898-1
AND TORQUE TO S-574
OR SERVICE MANUAL VALUES.
(SCREWS ARE CUSTOMER SUPPLIED)

39.6 — 116.0 — 6.0 — 13.0 — 42.0

∅ 489.0 H.C. (REF.) — ∅467 H.C. (REF.) — ∅447.611±0.0635 — ∅ 352.4±0.1 — ∅ 333.4±0.2 H.C. (REF.)

FLYWHEEL OUTLINE
MUST CONFORM
TO SAE J620 NO. 290

SAE#2 HOUSING
MOUNTING FACE
MUST BE CONFORM TO
SAE J617

**SECTION A-A**

TEMPERATURE PORT
M14X1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 20 ±2 Nm
$T_{AC}$

MAIN PRESSURE
M14X1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 20 ±2 Nm
X

**SECTION B-B**

INPUT SPEED SENSOR PORT
Ø 5/8-18UNF TH'D.
TARGET WHEEL 53 TEETH
$S_I$

ENGAGES PRIMARY
SHAFT CLUTCH
SEE NOTE 'A'

ENGAGES SECONDARY
SHAFT CLUTCH
SEE NOTE 'A'

PRIMARY CLUTCH
PRESSURE PORT
M12X1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 16+/-1.5 Nm
$Z_{PC}$

SECONDARY CLUTCH
PRESSURE PORT
M12X1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 16+/-1.5 Nm
$Z_{SC}$

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

OIL FILTER 29mm REQUIRED
TO REMOVE FILTER CANISTER
TIGHTEN FILTER CANISTER
TO 20 Nm

SECONDARY CLUTCH (SECOND)
PRESSURE PORT
M14x1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 20±2 Nm
$Z_{SC2}$

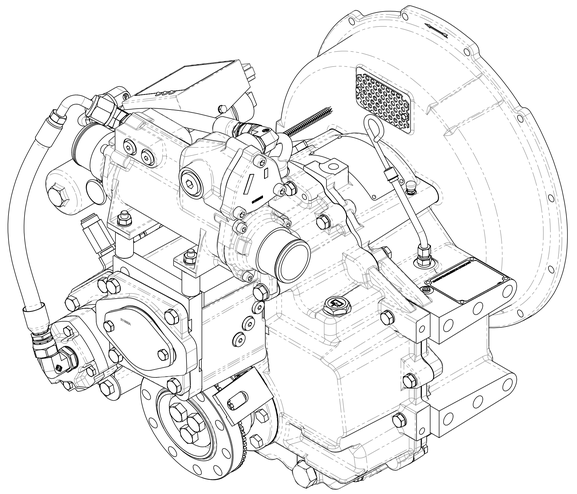
WATER OUTLET
(INNER DIAMETER ∅53.0)

∅40.0
(2 PLACES)

WATER INLET
(INNER DIAMETER ∅53.0)

∅63.5
(2 PLACES)

∅64.9
(2 PLACES)



PRIMARY CLUTCH (FIRST)
PRESSURE PORT
M14x1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 20±2 Nm
$Z_{PC1}$

PRIMARY CLUTCH (SECOND)
PRESSURE PORT
M14x1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 20±2 Nm
$Z_{PC2}$

TEMPERATURE AND
LUBE PRESSURE PORT
M14x1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 20±2 Nm
G $T_{AC}$

MAIN PRESSURE PORT
M27X2.0 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 75+/-7 Nm
X

PRIMARY CLUTCH
PRESSURE PORT
M12X1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 16+/-1.5 Nm
$Z_{PC}$

EYE BOLT FOR LIFTING
TRANSMISSION ONLY

OIL LEVEL GAUGE MUST BE
LOCATED AS SHOWN
(TO THE REAR OF UNIT)

542.5
474.2
453.0

PRESSURE PORT
M10X1.0 METRIC PORT
CONFORMS TO ISO 6149

SEE NOTE 'C'

MANUAL DIRECTIONAL
CONTROL VALVE 5mm
TRAVEL FROM CENTERED
POSITION (EACH DIRECTION).
SEE NOTE 'B'

15.2
158.5

SECONDARY CLUTCH (FIRST)
PRESSURE PORT
M14x1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 20 ± 2 Nm
$Z_{SC1}$

CENTER OF
GRAVITY

21.9 TYP. — 58.0 TYP. — 116.0 TYP. — 179.3

M16X2.0 -6H ↧ 32.00
12 HOLES, USE ALL 12 HOLES
6 PER SIDE FOR MOUNTING
USE GRADE 8.8 PROPERTY CLASS
CAPSCREWS PER ISO 895-1
AND TORQUE TO S574

∅ 155.5 B.C.

10X ∅ 16.25 THRU
EQUALLY SPACED USE 10.9 CLASS
FASTENERS NOMINAL TORQUE 342 Nm

**VIEW C-C**

DIRECTION OF ROTATION

320.8 — 47.9

342.8

211833A

PRIMARY CLUTCH SHAFT ℄

OIL FILLING PLUG M22x1.5
TIGHTENING TORQUE 12 Nm

OUTPUT SPEED
SENSOR BRACKET
TARGET WHEEL: 62 TEETH
$S_O$

41.6

329.4

TEMPERATURE AND
LUBE PRESSURE PORT
M14x1.5 METRIC PORT
CONFORMS TO ISO 6149
TIGHTENING TORQUE 20±2 Nm
G $T_{AC}$

CENTER OF
GRAVITY

265.0 — 265.0

OIL DRAIN PLUG (2 PL'S)
M27x2 THREAD CONFORM
TO ISO-6149
TIGHTENING TORQUE 75±7 Nm

FORWARD WITH R.H.
ENGINES DRIVING
THRU PRIMARY CLUTCH

180.9

∅ 109.982±0.175
PILOT

∅ 180.0 O.D.

7°

3.0
PILOT

26.0

OUTPUT
SHAFT ℄

385.8

501.8

## EQUIPMENT SHOWN:

- MGX-5096A PER PX12680A ASSEMBLY
- SAE #2 HSG. ADAPTER
- SAE 290 - CENTA CF-R-216-HR INPUT COUPLING
- GP VALVE W/ EC050 CONTROL MODULE
- PM13008 MOUNTED HEAT EXCHANGER GROUP
- LIVE PTO ADAPTER 82-2, 16-4

| | | | |
|---|---|---|---|
| FIRST USE ASSEMBLY: | WEIGHT: 220 lb / kg | MATERIAL: | DATE: 12/02/2016 |
| FIRST USE MODEL: | | | SCALE: 1:2 |
| SIMILAR TO: PX12820A | | HEAT TREAT: | DRAWN BY: ES |
| METRIC | UNLESS OTHERWISE SPECIFIED MACHINED DIMENSIONS ± .X 0.25 .XX 0.13 .XXX 0.05 ALL ANGULAR TOLERANCES ±1° GEOMETRIC TOLERANCING PER ASME Y14.5M 1994 | DESCRIPTION: INSTALLATION MGX-5096A | CHECKED BY: DV |
| | | | APPROVED BY: DV |
| | | | DWG SIZE: A0 |
| | | | SHEET: 1 OF 1 |
| | | | REV: - |

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TWIN DISC
RACINE, WI 53403 - USA

| REV | CHANGE NO. | DATE |
|---|---|---|
| - | NDWF-3000157 | 12/07/2016 |

PX12820B

1025420W Rev. A