

PROPRIETARY NOTICE: THIS DRAWING AND ALL INFORMATION THEREON IS THE PROPERTY OF COTTA TRANSMISSION COMPANY. THIS DRAWING IS NOT TO BE COPIED OR USED FOR THE PURPOSE OF MANUFACTURING EXCEPT BY WRITTEN CONSENT OF COTTA TRANSMISSION COMPANY. ORIGINAL VIBRATIONS EXIST IN ALL ROTATING SYSTEMS. IT IS THE SOLE RESPONSIBILITY OF THE EQUIPMENT MANUFACTURER OR ASSEMBLER TO INSURE THAT NO DAMAGING CRITICAL FAIL IN THE OPERATING RANGE OF THE SYSTEM.

FORK ADJUSTMENT:

1. PRIOR TO CYLINDER ASSEMBLY, SHIFT ROD TO PUSH CLUTCH AGAINST GEAR SHOULDER. BACK SHIFT ROD AWAY FROM GEAR 0.19"
2. ROTATE SHIFT ROD IN FORK UNTIL A 0.12 OFFSET BETWEEN THE CYLINDER SPACER #44 & THE SHIFT ROD IS ACHIEVED (SHIFT ROD FACE BELOW SPACER FACE)
3. ROTATE ROD EITHER DIRECTION UNTIL THE FLAT IN THE ROD LINES UP WITH THE SETSCREW IN THE FORK. MAXIMUM ROTATION IS 45°.
4. TIGHTEN SETSCREW IN FORK TO NOTED TORQUE USING LOCTITE THREADLOCKER

DIRECT DRIVE PORT
1/8-27 NPT
APPLY 60/120 PSI
OF CLEAN DRY AIR
AIR PRESSURE TO REMAIN ON
AFTER SHIFT IS COMPLETE

PTO DRIVE PORT
1/8-27 NPT
APPLY 60/120 PSI OF CLEAN DRY AIR
AIR PRESSURE TO REMAIN ON
AFTER SHIFT IS COMPLETE

(2) SWITCHES SUPPLIED
FOR POSITION SENSING
5 TO 30 VDC 300 mA MAX
PNP (CURRENT SOURCING)
VOLTAGE DROP 1.5 V MAX
24" PIGTAIL LEAD
RED & BLACK WIRE COMMON
WHITE WIRE - LOAD

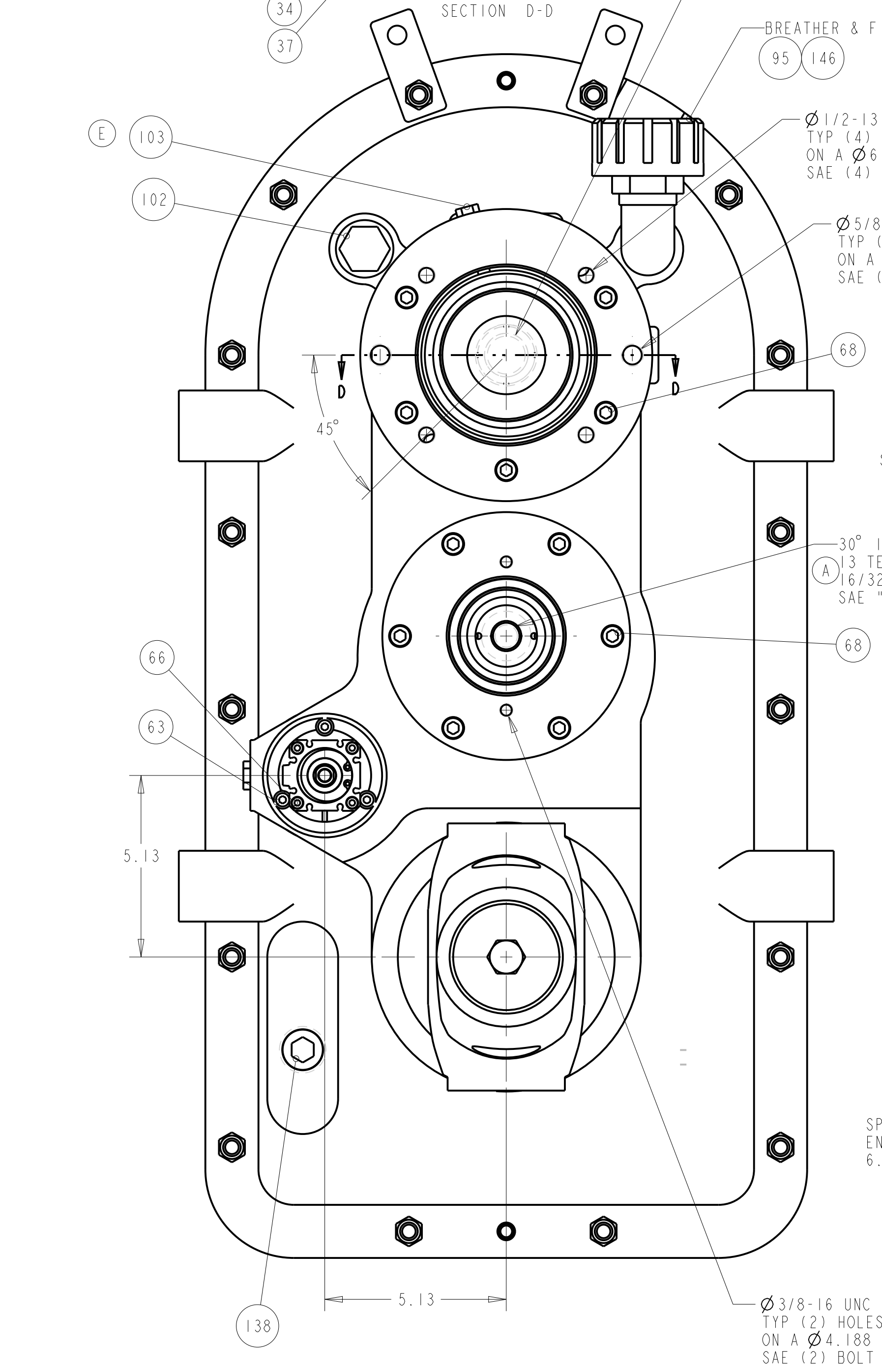
(2) SWITCHES SUPPLIED
FOR POSITION SENSING
5 TO 28 VDC 40 mA MAX
PNP (CURRENT SOURCING)
VOLTAGE DROP 0.8 V MAX
20" PIGTAIL LEAD
BROWN WIRE - POSITIVE
BLUE WIRE - COMMON
BLACK WIRE - LOAD

ENGINEERING CHANGE NOTICES				
LT#	DESCRIPTION	ECN	DATE	BY
A	WAS SAE "A" SPLINE CONFIGURATION	11573	21-Jun-07	AJS
B	CHANGE TO NO GROOVE SHAFT, ADD SWITCH	11769	01-Feb-08	TAP
C	ADDED NOTE AND PLUG	11842	21-May-08	SJO
D	CHANGE AIR CYLINDER + SWITCH NOTE	11911	05-Dec-08	TAP
E	ADD PLUG	12337	Sep-10-10	TAP

DISCONNECT ENGAGE PORT
1/8-27 NPT
APPLY 60/120 PSI
OF CLEAN, DRY AIR
AIR PRESSURE TO REMAIN ON
AFTER SHIFT IS COMPLETE

DISCONNECT DISENGAGE PORT
1/8-27 NPT
APPLY 60/120 PSI
OF CLEAN, DRY AIR
AIR PRESSURE TO REMAIN ON
AFTER SHIFT IS COMPLETE

ASSEMBLE USING
LOCTITE #271



30° INVOLUTE SPLINE
14 TEETH
12/24 PITCH
SAE "C"

BREATHER & FILLER
95 146

Ø 1/2-13 UNC THREAD, 1.25 DEEP
TYP (4) HOLES EQ SPACED
ON A Ø 6.375 BC
SAE (4) BOLT "C" PAD

Ø 5/8-11 UNC THREAD, 1.25 DEEP
TYP (2) HOLES EQ SPACED
ON A Ø 7.125 BC
SAE (2) BOLT "C" PAD

30° INVOLUTE SPLINE
13 TEETH
16/32 PITCH
SAE "B" SPLINE

SHIM FOR .003/.005 END PLAY
APPLY LOCTITE #17430
BETWEEN CASE AND SHIM

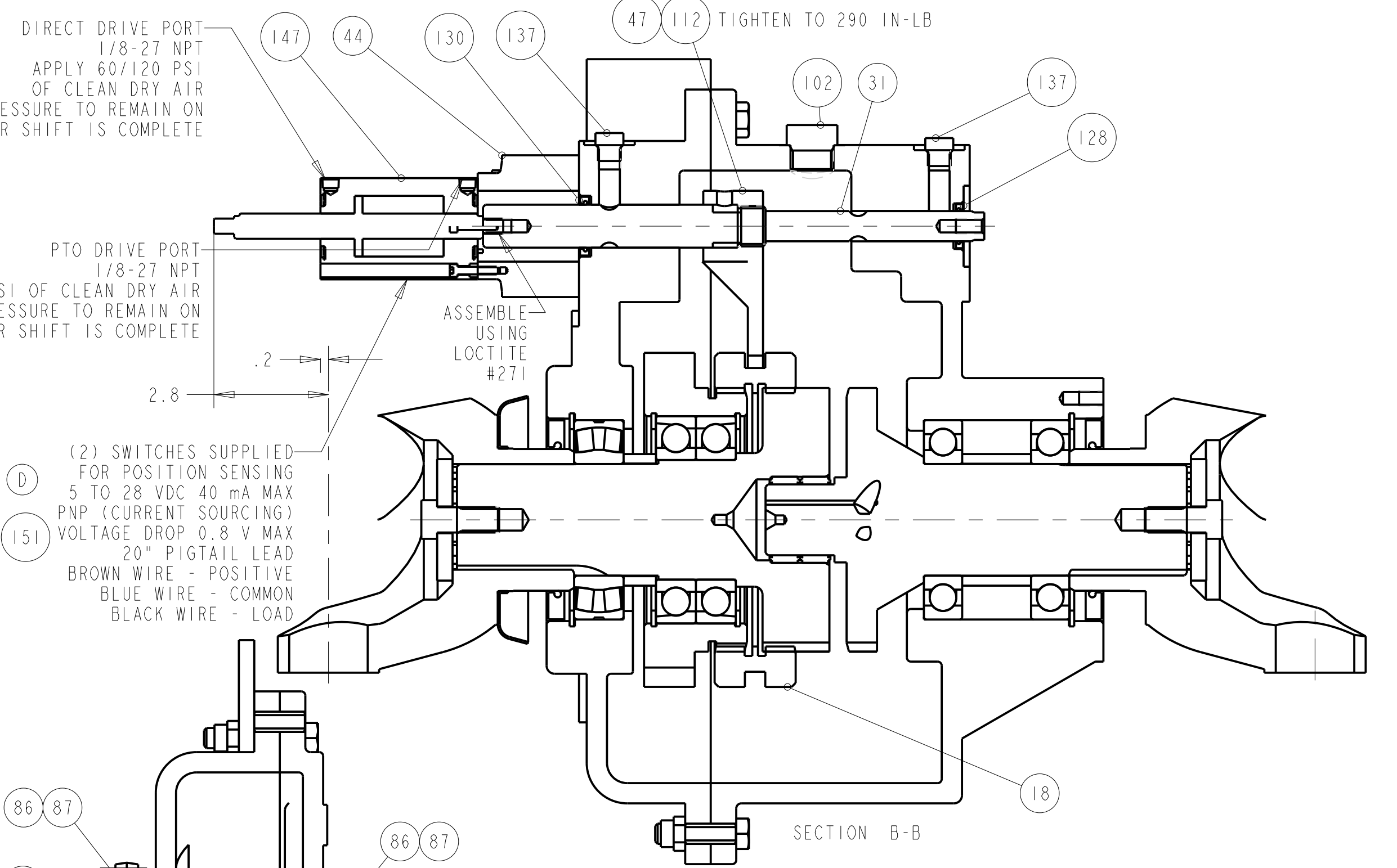
SHIM FOR .003/.005 END PLAY

SPICER 1810 SERIES
END YOKE (BP)
6.5-4-2931X

Ø 3/8-16 UNC THREAD
TYP (2) HOLES EQ SPACED
ON A Ø 4.188 BC
SAE (2) BOLT "A" PAD

NOTE: INSTALL LOCTITE #17430 OR EQUIVALENT
AT ALL MACHINED SPLITLINES UNLESS A
GASKET IS FURNISHED. SEAL ALL NON-MACHINED
INTERFACES WITH SILICONE SEALANT.

INSTALL LOCTITE THREAD LOCK ON
ALL FASTENERS USED TO INSTALL
ITEMS 10, 13, 33 & 35



SECTION B-B

5.000 ± .002
2.30
.49

Ø 3.250 ± .002
.60
2.28

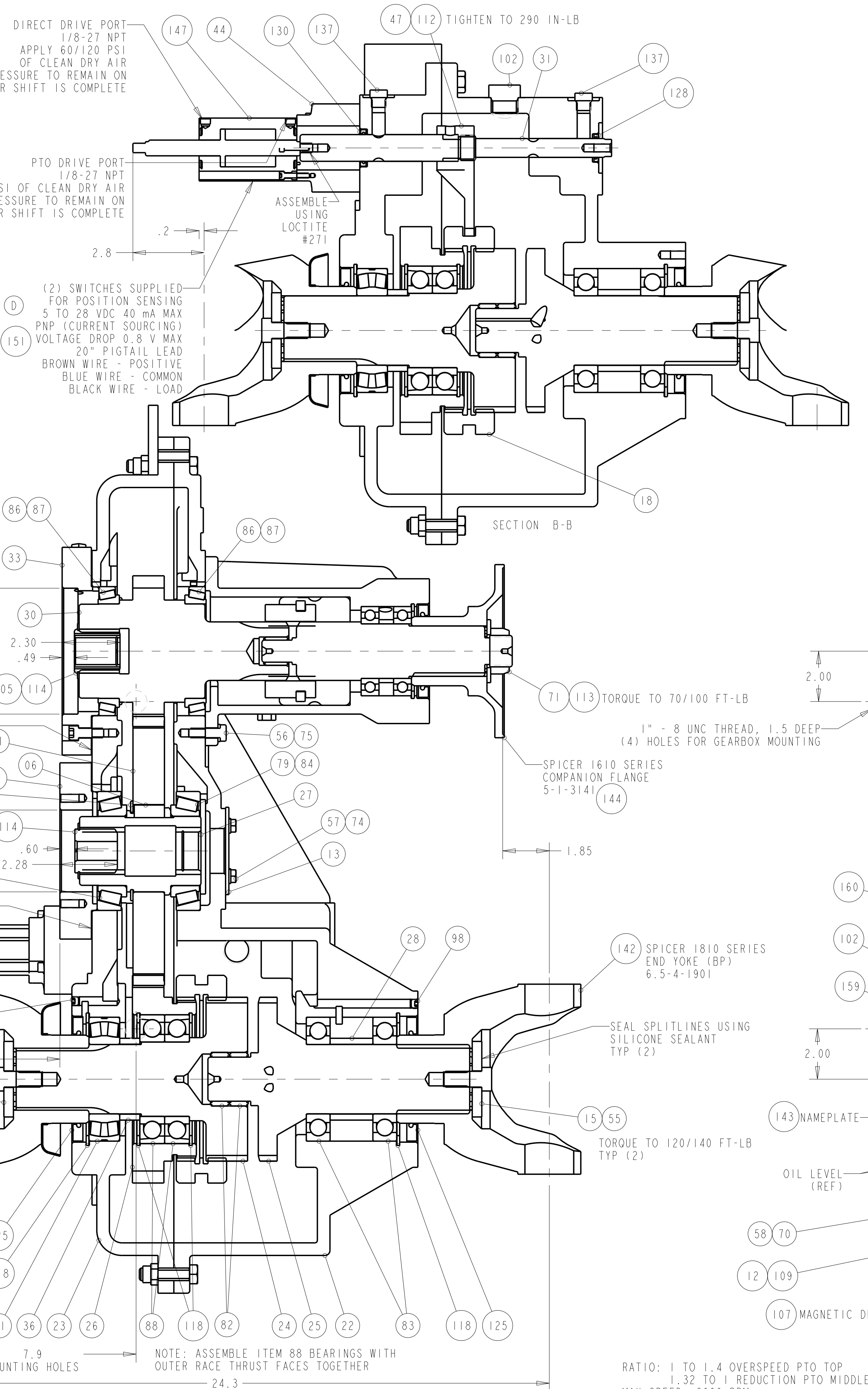
4.9

7.9
MOUNTING HOLES

24.3

NOTE: ASSEMBLE ITEM 88 BEARINGS WITH
OUTER RACE THRUST FACES TOGETHER

SECTION A-A



71 113 TORQUE TO 70/100 FT-LB

1" - 8 UNC THREAD, 1.5 DEEP
(4) HOLES FOR GEARBOX MOUNTING

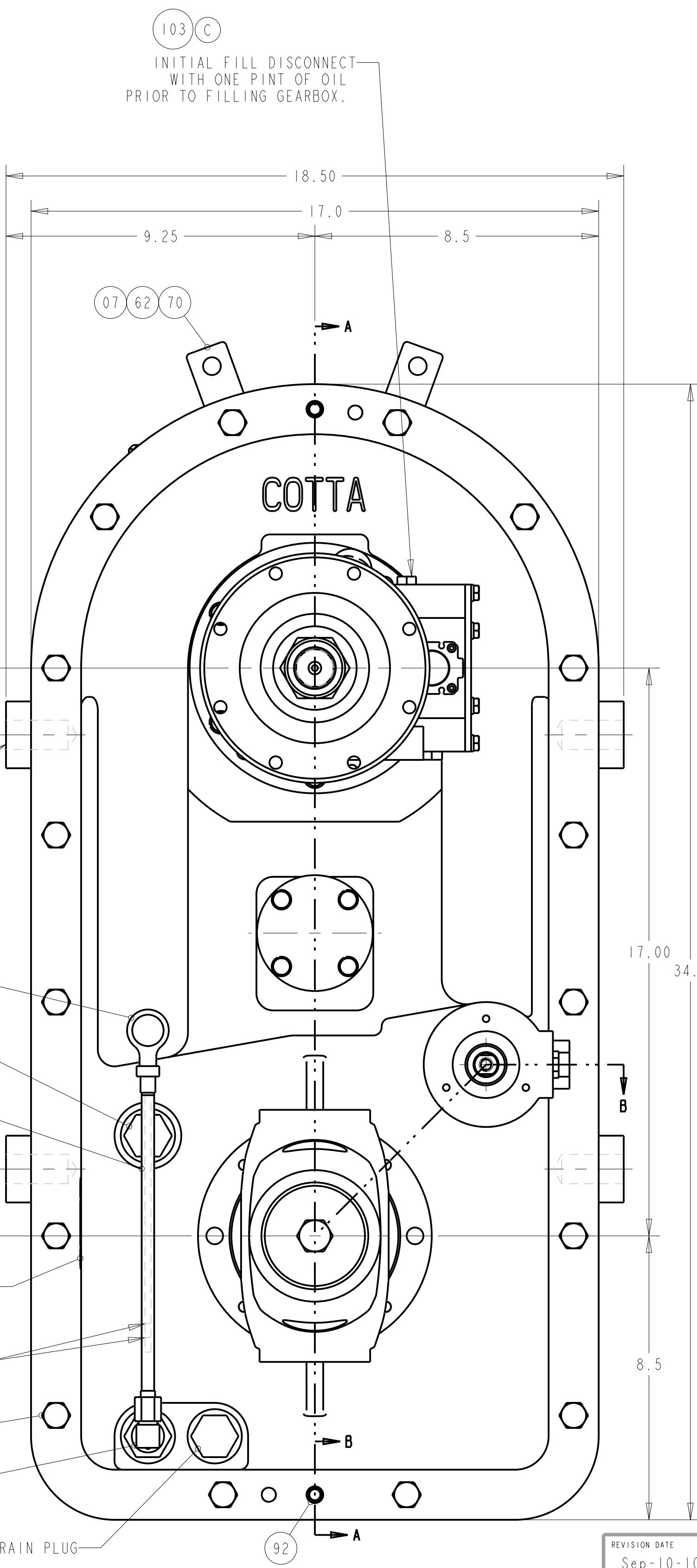
SPICER 1610 SERIES
COMPANION FLANGE
5-1-3141

142 SPICER 1810 SERIES
END YOKE (BP)
6.5-4-1901

SEAL SPLITLINES USING
SILICONE SEALANT
TYP (2)

15 55
TORQUE TO 120/140 FT-LB
TYP (2)

RATIO: 1 TO 1.4 OVERSPEED PTO TOP
1.32 TO 1 REDUCTION PTO MIDDLE
MAX SPEED: 3000 RPM
MAX TORQUE: 1200 FT-LB THRU GEARS
THRU-DRIVE TORQUE: 12500 FT-LB
APPX WEIGHT: 580 LB



MODEL		TR2238		COTTA TRANSMISSION COMPANY, LLC		1301 PRINCE HALL DRIVE, BELLOIT, WI 53511	
DRAWN	BPA	DATE	12-Jun-06	PART NAME	SPLIT SHAFT PTO		
CHECKED	TAP	DATE	15-Jun-06	PART NUMBER	TR2238-7		
APPROVED		DATE		SCALE 0.375 SHEET 1 OF 1			
DIMENSIONS ARE IN INCHES				REVISION DATE Sep-10-10			