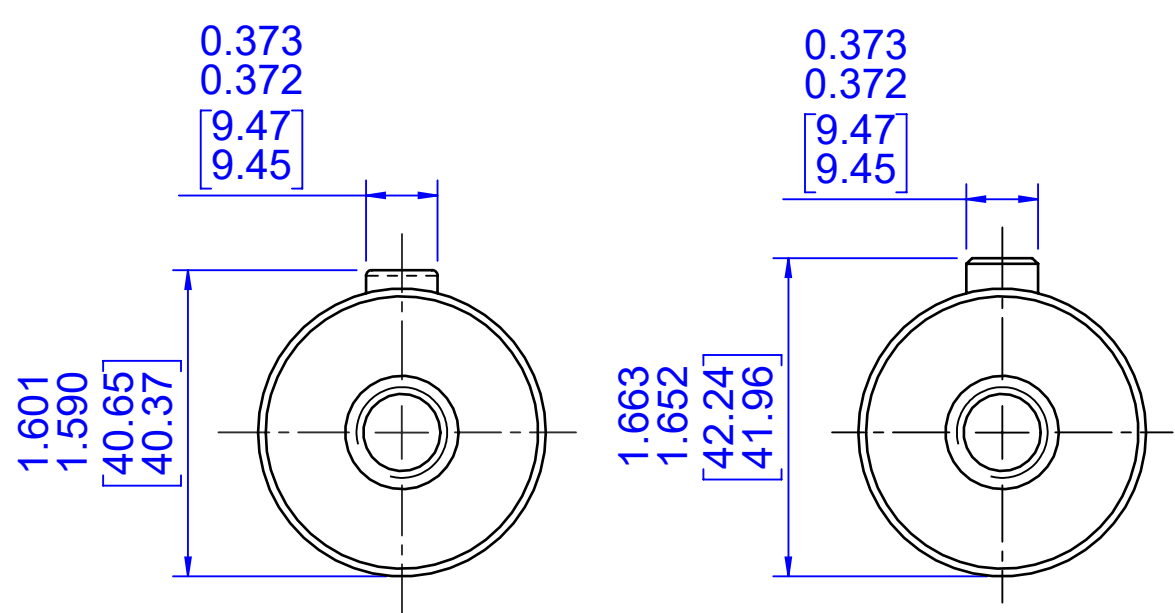
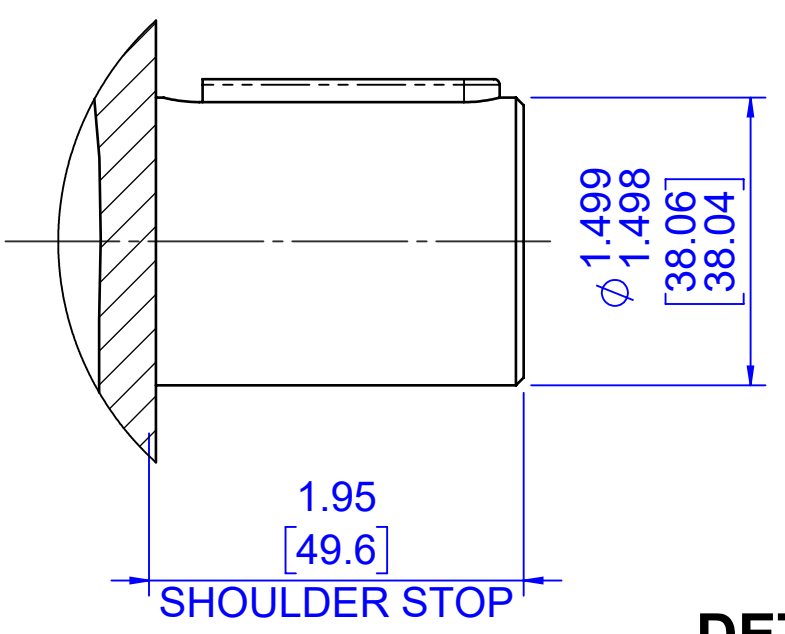
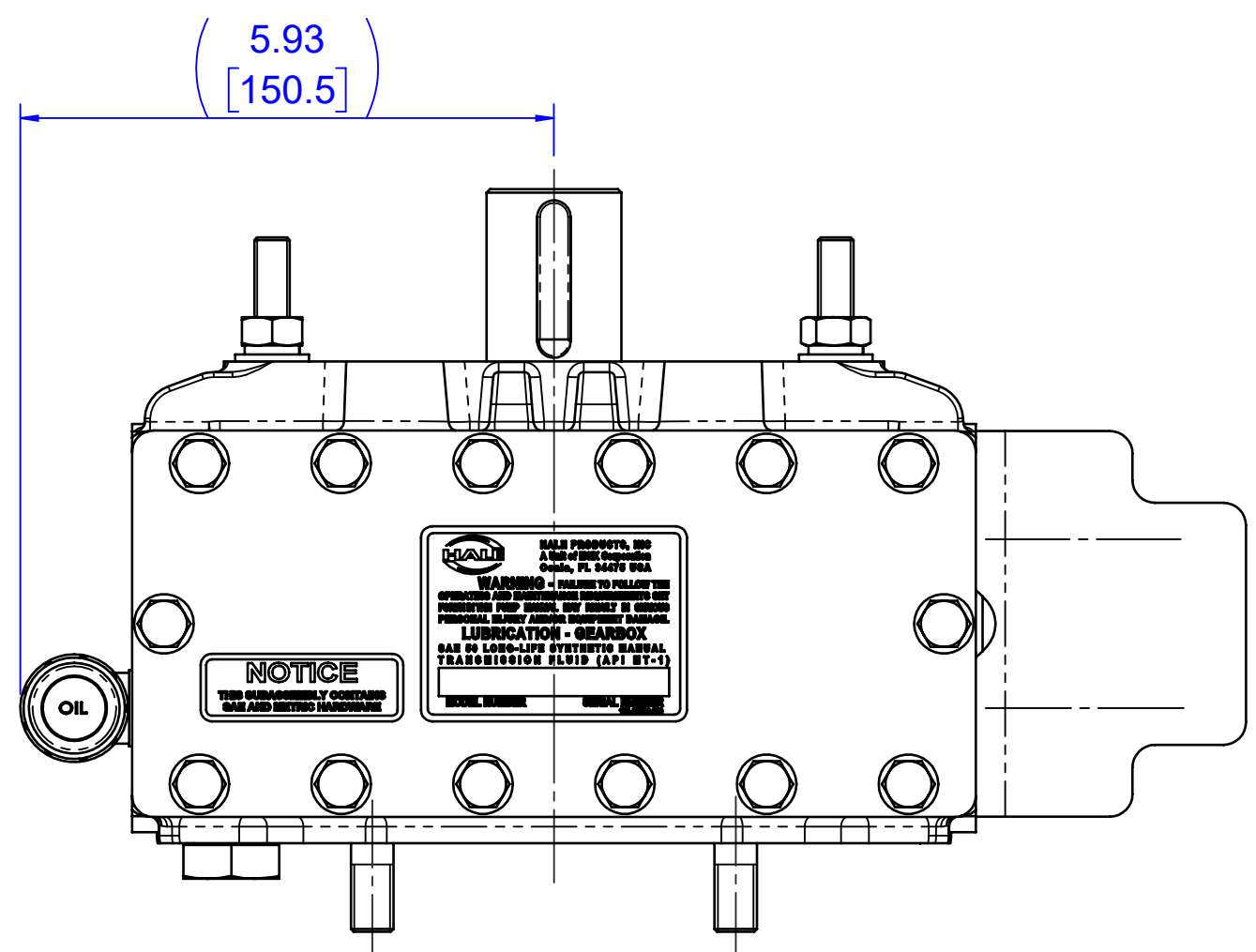


IF IN DOUBT ASK

PROJECTION: 

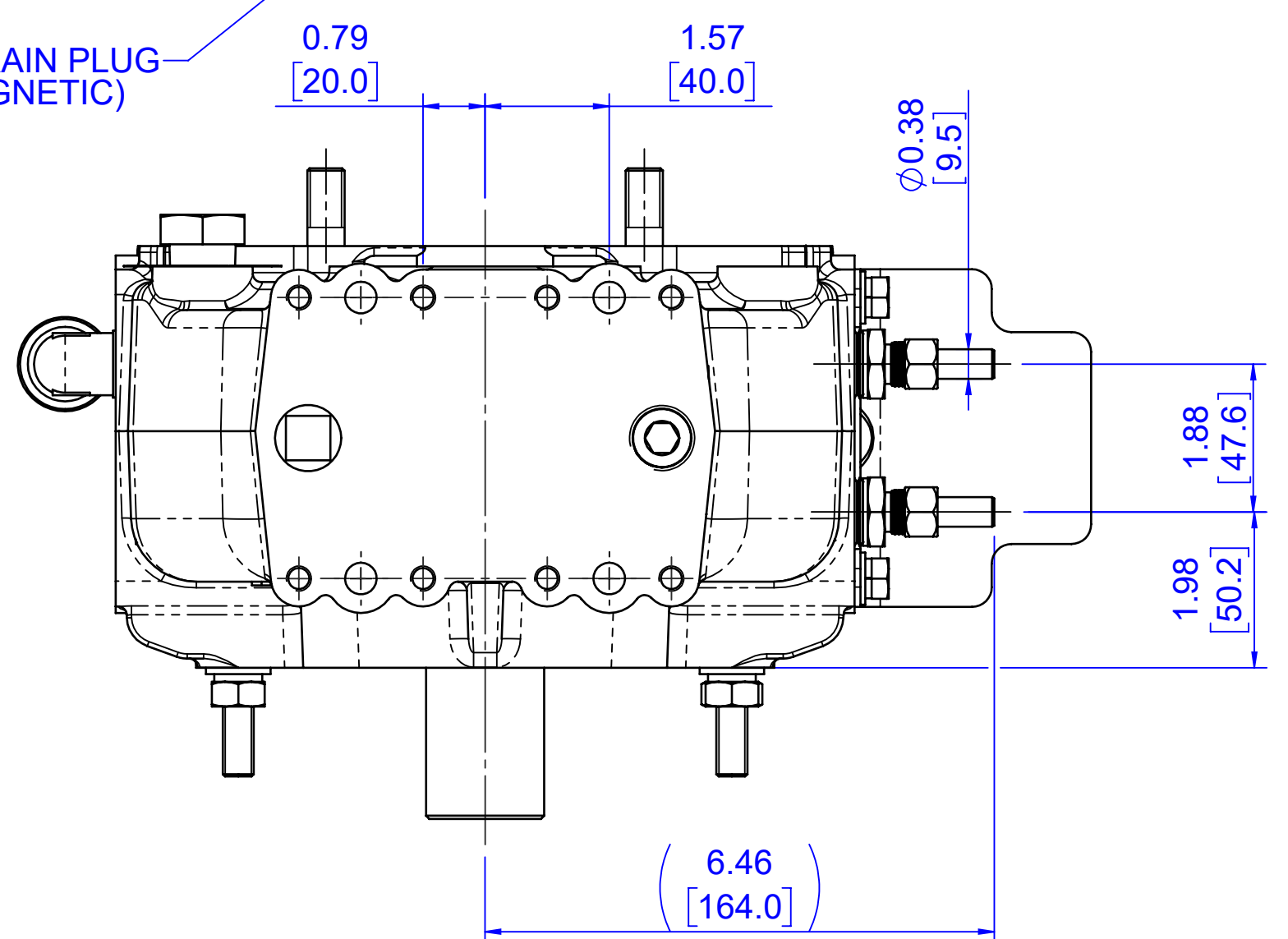
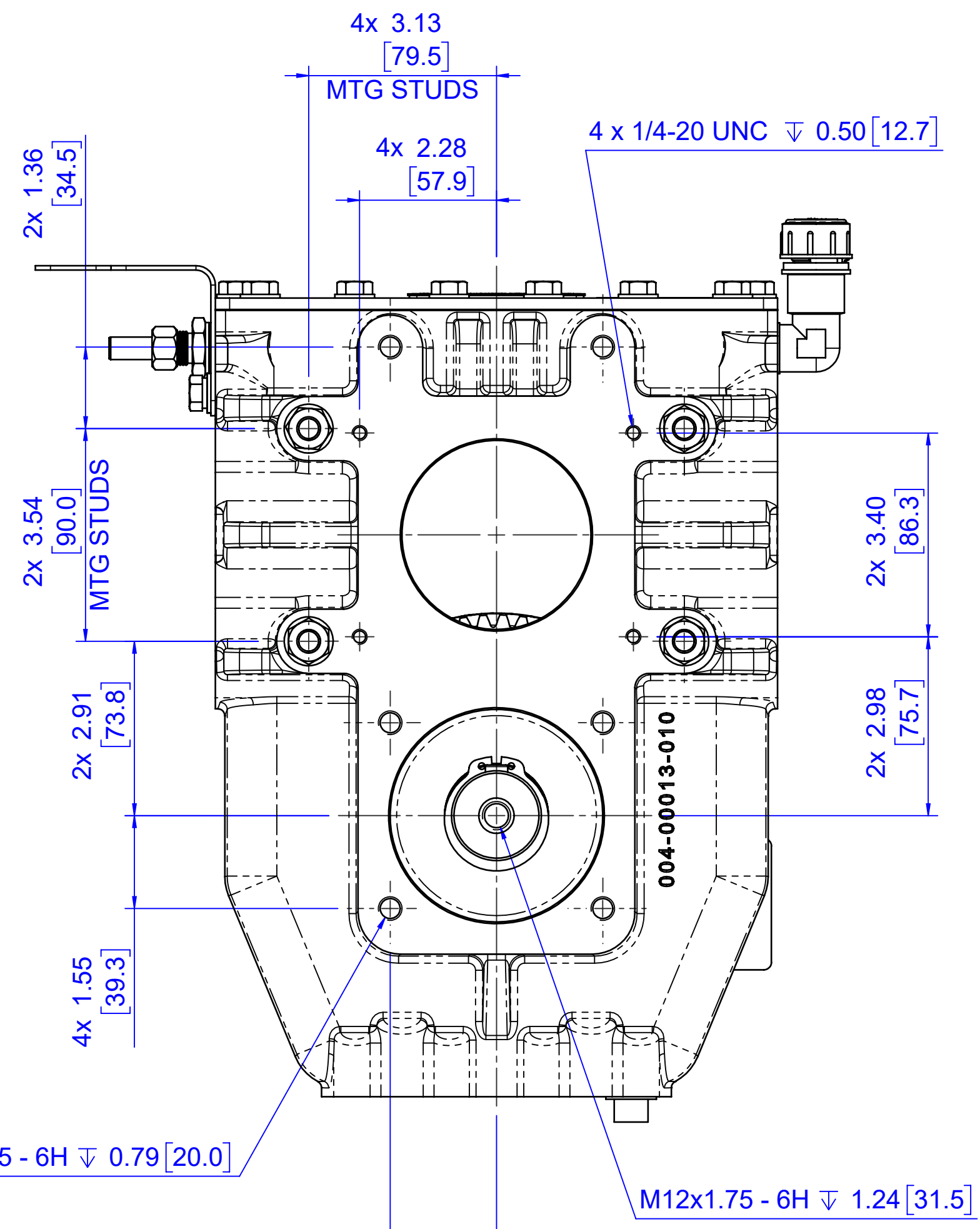
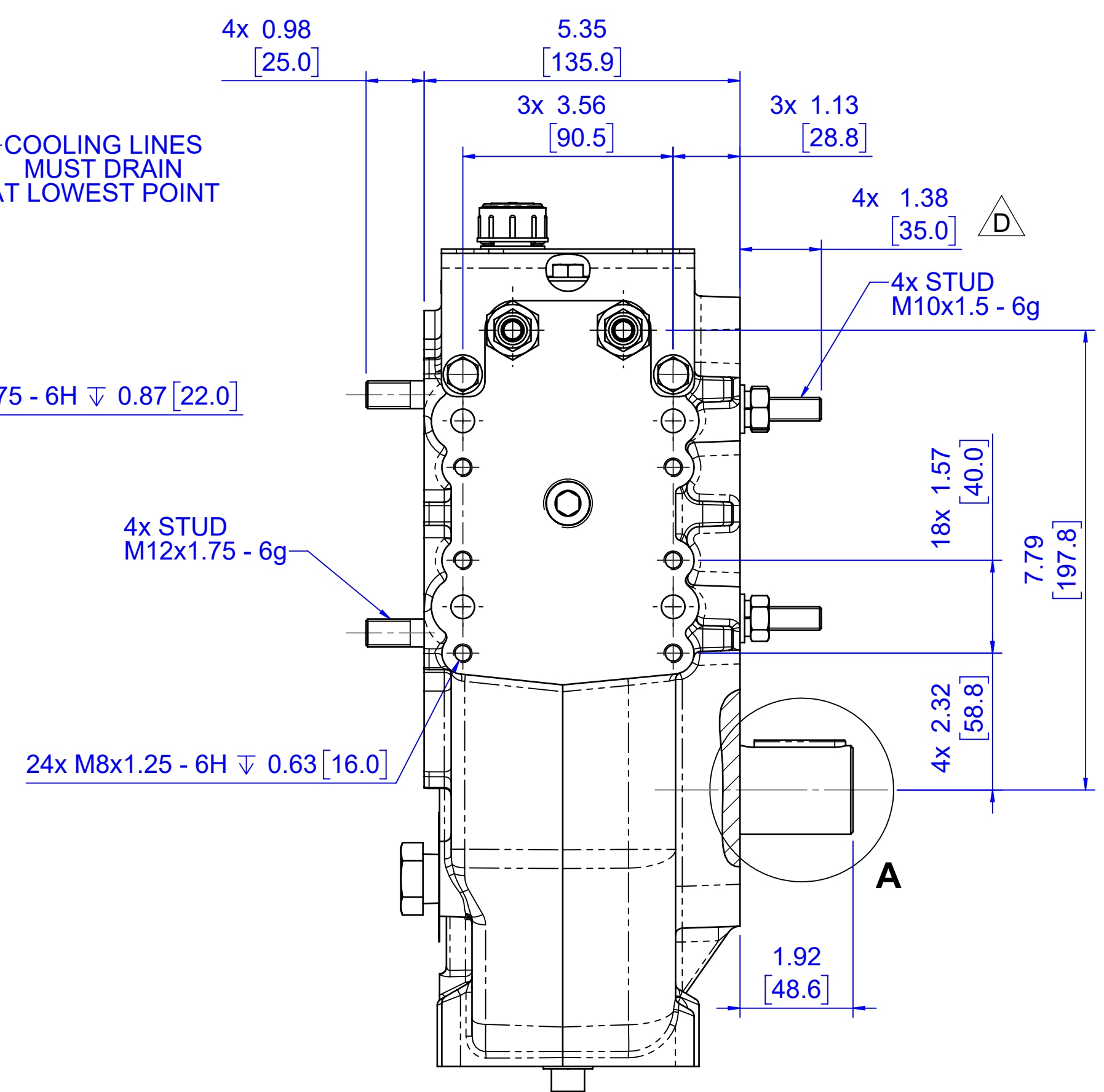
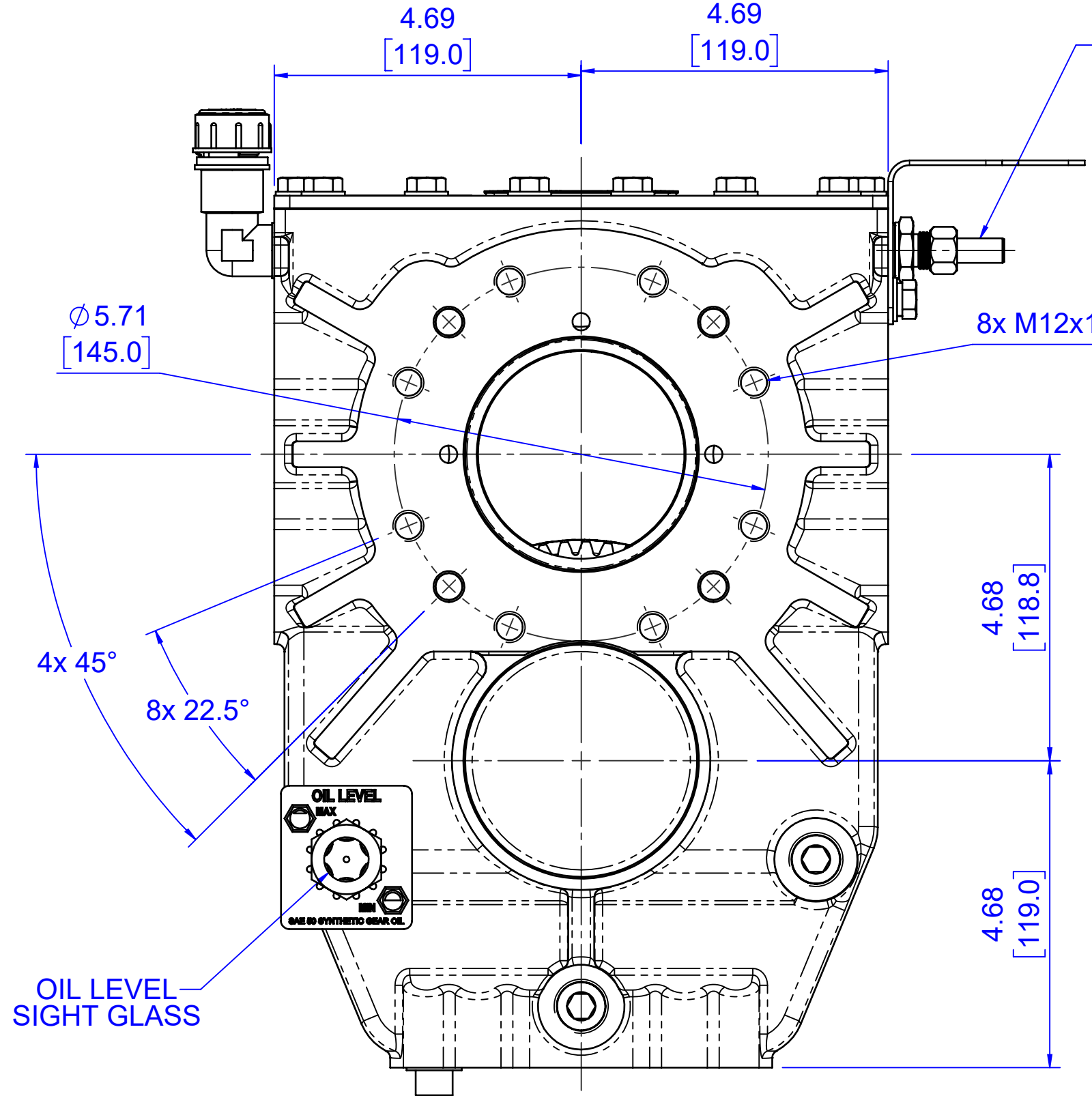
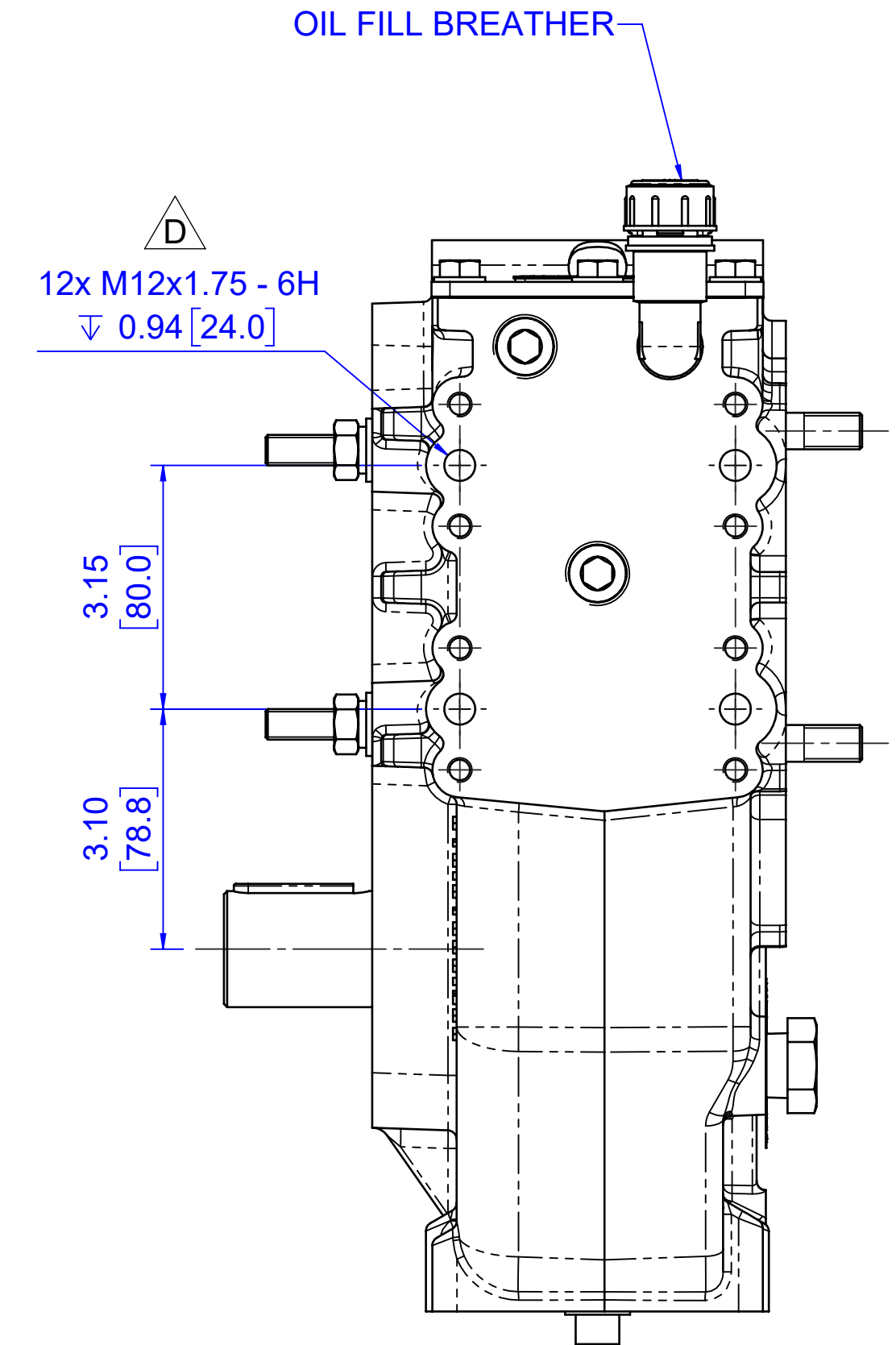
DISCLAIMER NOTE:  
 IDEX CORPORATION and its subsidiaries are not responsible for any errors or omissions in this drawing. This drawing is intended for use as a guide only and does not constitute a contract. The user of this drawing assumes all liability for any damage or injury resulting from the use of this drawing. IDEX CORPORATION and its subsidiaries are not responsible for any damage or injury resulting from the use of this drawing. IDEX CORPORATION and its subsidiaries are not responsible for any damage or injury resulting from the use of this drawing.



**017-0300-02-0  
 OPTIONAL KEY**  
 USE WITH COMPANION  
 FLANGE 115-1510-00-0  
 & HYDRAULIC DRIVE

**017-0300-03-0  
 STANDARD KEY**

**DETAIL A  
 SCALE 1:1**



# INSTALLATION

UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS ARE IN INCHES  
 TOLERANCE FOR INCHES DIMENSIONS:  
 X: ±0.04  
 X.X: ±0.02  
 X.XX: ±0.01  
 X.XXX: ±0.005  
 ANGLES: ±0.25°  
 SURFACE TEXTURE IN µm Ra  
 REMOVE ALL BURRS AND SHARP  
 EDGES, 0.01MAX

FSG OF  
**IDEX**  
 CORPORATION

**HALE GODIVA Class 1**

**HALE FLEX SERIES GEARBOX**

REVISIONS						
ECN	REV.	ZONE	CHANGED FROM	BY	DATE	APVD
4564	C		RELEASED TO PRODUCTION	DWS	27SEP2018	TAM
5177	D	H16, J5, K5, 24F14, 44F16	ADDED 4X M12 THREADS TO BOTH SIDES AND BOTTOM. INCREASED 4X M10 INPUT SIDE MOUNTING STUDS LENGTH TO 35MM; ADDED HYDRAULIC DRIVE OPTION AFTER SHEET 3	AJG	14JUL2020	KTN

DRAWN: TAM  
 APPROVED: MAL  
 DATE: 20APR2017

SIZE: **D**  
 SCALE: 1:2  
 DRAWING NUMBER: **FSG-PL-01481**  
 REV: **D**  
 SHEET: 1 OF 6

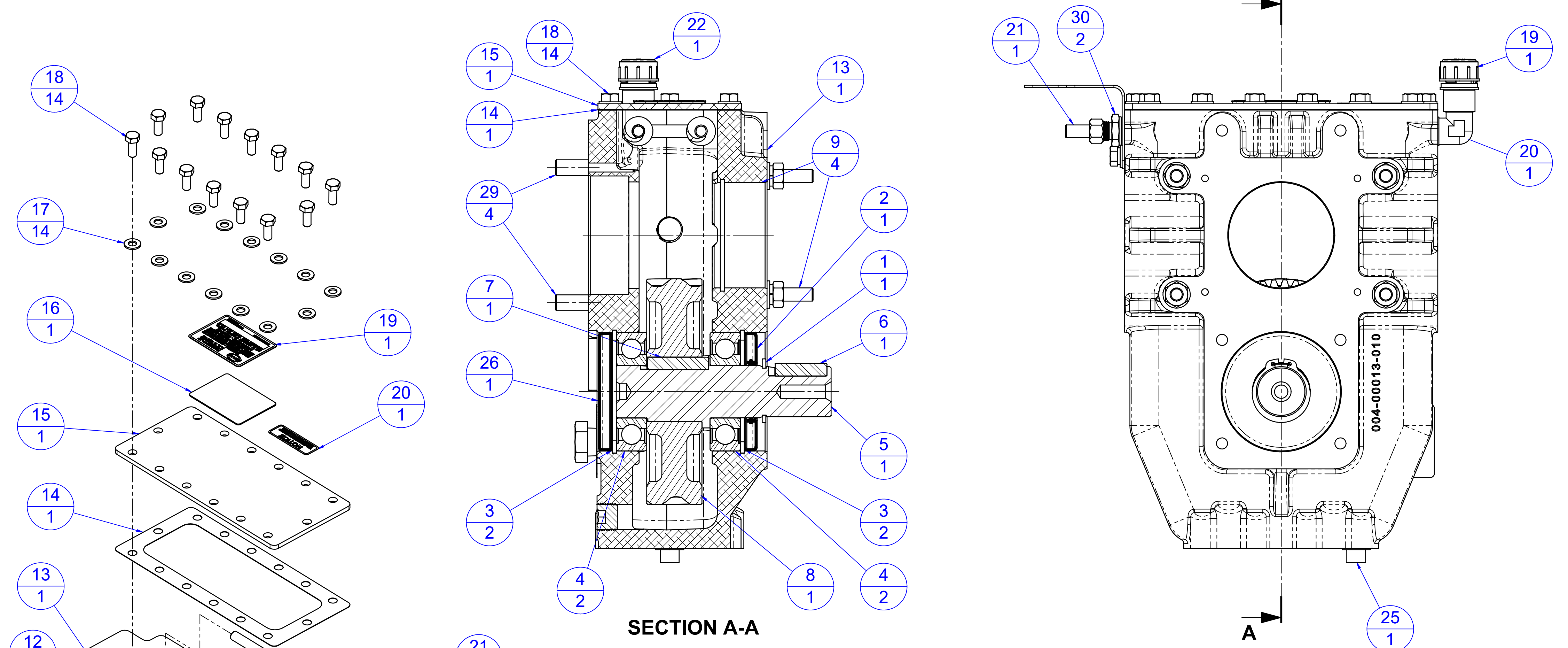
COPYRIGHT ©  
 NOT TO BE REPRODUCED OR USED TO  
 MAKE OTHER DRAWINGS OR MACHINERY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	077-1500-05-0	RETAINING RING	1
2	296-2920-00-0	SEAL, OIL 90MM O/D 40MM I/D	1
3	277-0090-00-0	RETAINING RING	2
4	250-0308-32-0	308J BEARING (1304-405)	2
5	037-00024-000	SHAFT, INPUT, F GEARBOX, PTO/ENG	1
6	017-0300-03-0	KEY	1
7	017-00016-000	KEY, 3/8" X 1-27/32", ROE	1
8	SEE TABLE	GEAR, DRIVE	1
9	MS49-35	STUD, M10x1.5x35 CLASS 8.8	4
10	MS35/9	NUT, HEX M10x1.5 CLASS 8.8	4
11	MS29/7	WASHER, SPRING SQ M10	4
12	MS25/10	WASHER, STD HVY M10	4
13	004-90011-01-0	HOUSING, GEARBOX, F-SERIES	1
14	046-1940-00-0	GASKET, DRIVE UNIT, BORG	1
15	044-00044-000	COVER, DRIVE UNIT, BORG	1
16	048-00089-000	PAD, MOUNTING, NAMEPLATE	1
17	MS25/9	WASHER, STD HVY M8	16
18	218-90005-999	SCREW, HH M8x1.25x20	16
19	101-00292-000	SERIAL NUMBER PLATE	1
20	101-2040-00-0	LABEL, METRIC SUBASSEMBLY	1
21	007-00124-000	TUBE, COOLING, F GEARBOX	1
22	044-0311-00-0	VENT 1/2" BSP	1
23	59185	ELBOW, 1/2 BSPT x 1/2 BSPP	1
24	217-0401-09-0	PLUG, 1/2NPT FLUSH HEX STEEL	6
25	217-0401-08-0	PLUG-1/2 NPT M.I. MAGNETIC	1
26	217-1300-01-0	ENDCAP 90MM	1
27	217-3370-00-0	INDICATOR, OIL LEVEL	1
28	101-00279-000	TAG, OIL LEVEL, F GEARBOX	1
29	MS50/25	STUD, M12x1.75x25 CLASS 8.8	4
30	082-0422-03-0	1/2 MALE NPT x 3/8 TUBE COMP	2
31	142-00035-000	GUARD, COOLER	1
32	MS29/6	WASHER, SPRING SQ M8	2

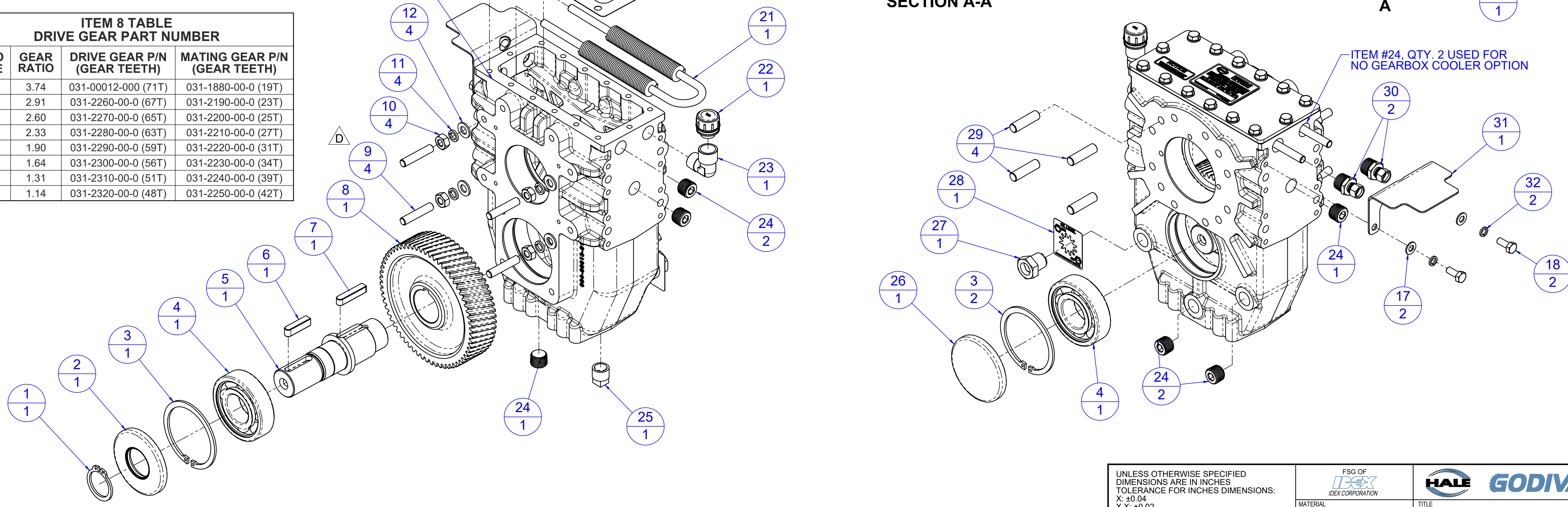
ITEM 8 TABLE DRIVE GEAR PART NUMBER			
RATIO NAME	GEAR RATIO	DRIVE GEAR P/N (GEAR TEETH)	MATING GEAR P/N (GEAR TEETH)
-37F	3.74	031-00012-000 (71T)	031-1880-00-0 (19T)
-29F	2.91	031-2260-00-0 (67T)	031-2190-00-0 (23T)
-26F	2.60	031-2270-00-0 (65T)	031-2200-00-0 (25T)
-23F	2.33	031-2280-00-0 (63T)	031-2210-00-0 (27T)
-19F	1.90	031-2290-00-0 (59T)	031-2220-00-0 (31T)
-16F	1.64	031-2300-00-0 (56T)	031-2230-00-0 (34T)
-13F	1.31	031-2310-00-0 (51T)	031-2240-00-0 (39T)
-11F	1.14	031-2320-00-0 (48T)	031-2250-00-0 (42T)

IF IN DOUBT ASK

PROJECTION:



SECTION A-A



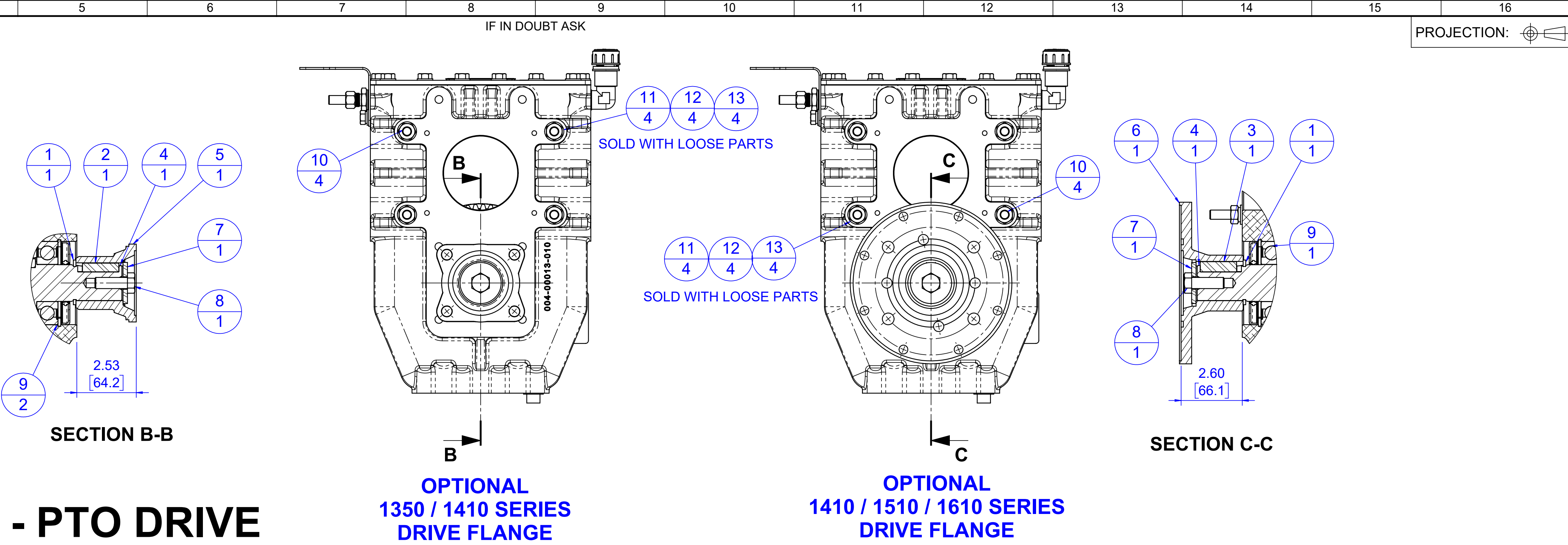
ITEM #24, QTY. 2 USED FOR NO GEARBOX COOLER OPTION

# PARTS IDENTIFICATION

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCE FOR INCHES DIMENSIONS:  
X: ±0.04  
X.X: ±0.02  
X.XX: ±0.01  
X.XXX: ±0.005  
ANGLES: ±0.25°  
SURFACE TEXTURE IN µm Ra  
REMOVE ALL BURRS AND SHARP  
EDGES, 0.01MAX

FSG OF <b>IDEX</b> CORPORATION		<b>HALE GODIVA</b> <i>Class 1</i>	
MATERIAL		TITLE <b>HALE FLEX SERIES GEARBOX</b>	
MADE FROM		DRAWN	TAM
FINISH		APPROVED	MAL
PROJECT		DATE	20APR2017
COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY		SIZE <b>D</b>	DRAWING NUMBER <b>FSG-PL-01481</b>
		SCALE 1:2	REV <b>D</b> SHEET 2 OF 6

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	077-1500-05-0	RETAINING RING	1
2	017-0300-02-0	KEY	1
3	017-0300-03-0	KEY	1
4	037-00024-000	SHAFT, INPUT, F GEARBOX, PTO/ENG	1
5	115-1510-00-0	1350/1410 COMPANION FLANGE	1
6	115-1710-00-0	1410/1510/1610 COMPANION FLANGE	1
7	097-0890-02-0	WASHER	1
8	MS07/35	SCREW, HEX HD M12x1.75x35 CLASS 8.8	1
9	250-0308-32-0	308J BEARING (1304-405)	2
10	MS49-35	STUD, M10x1.5x35 CLASS 8.8	4
11	MS25/10	WASHER, STD HVY M10	4
12	MS29/7	WASHER, SPRING SQ M10	4
13	MS35/9	NUT, HEX M10x1.5 CLASS 8.8	4
14	004-90011-01-0	HOUSING, GEARBOX, F-SERIES	1

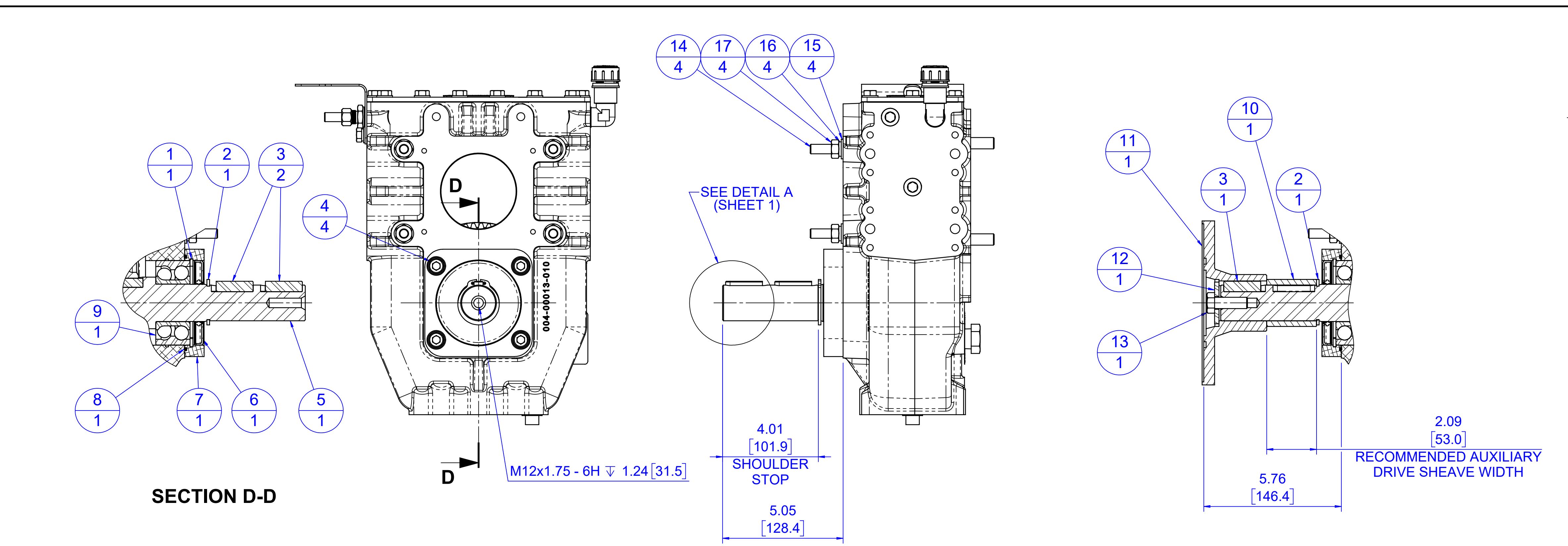


## COMPANION FLANGES - PTO DRIVE

**OPTIONAL  
1350 / 1410 SERIES  
DRIVE FLANGE**

**OPTIONAL  
1410 / 1510 / 1610 SERIES  
DRIVE FLANGE**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	277-0090-00-0	RETAINING RING	1
2	077-1500-05-0	RETAINING RING	1
3	017-0300-03-0	KEY	2
4	MS65H/25	SCREW, M10-1.5 x 25 mm, HEX SOC HD	4
5	037-00024-001	SHAFT, INPUT, F GEARBOX, AUX DR	1
6	296-2920-00-0	SEAL, OIL 90MM O/D 40MM I/D	1
7	008-00042-000	CAP, BEARING, AUX DRIVE	1
8	142-0520-00-0	SEAL RING	1
9	250-00010	BEARING, 5308CS, ANGULAR CONTACT, DBL ROW	1
10	159-00060-000	SPACER, AUX DR	1
11	115-1710-00-0	1410/1510/1610 COMPANION FLANGE	1
12	097-0890-02-0	WASHER	1
13	MS07/35	SCREW, HEX HD M12x1.75x35 CLASS 8.8	1
14	MS49-35	STUD, M10x1.5x35 CLASS 8.8	4
15	MS25/10	WASHER, STD HVY M10	4
16	MS29/7	WASHER, SPRING SQ M10	4
17	MS35/9	NUT, HEX M10x1.5 CLASS 8.8	4



**SECTION D-D**

**OPTIONAL AUXILIARY DRIVE  
COMPANION FLANGE & SPACER**

## PTO AUXILIARY DRIVE

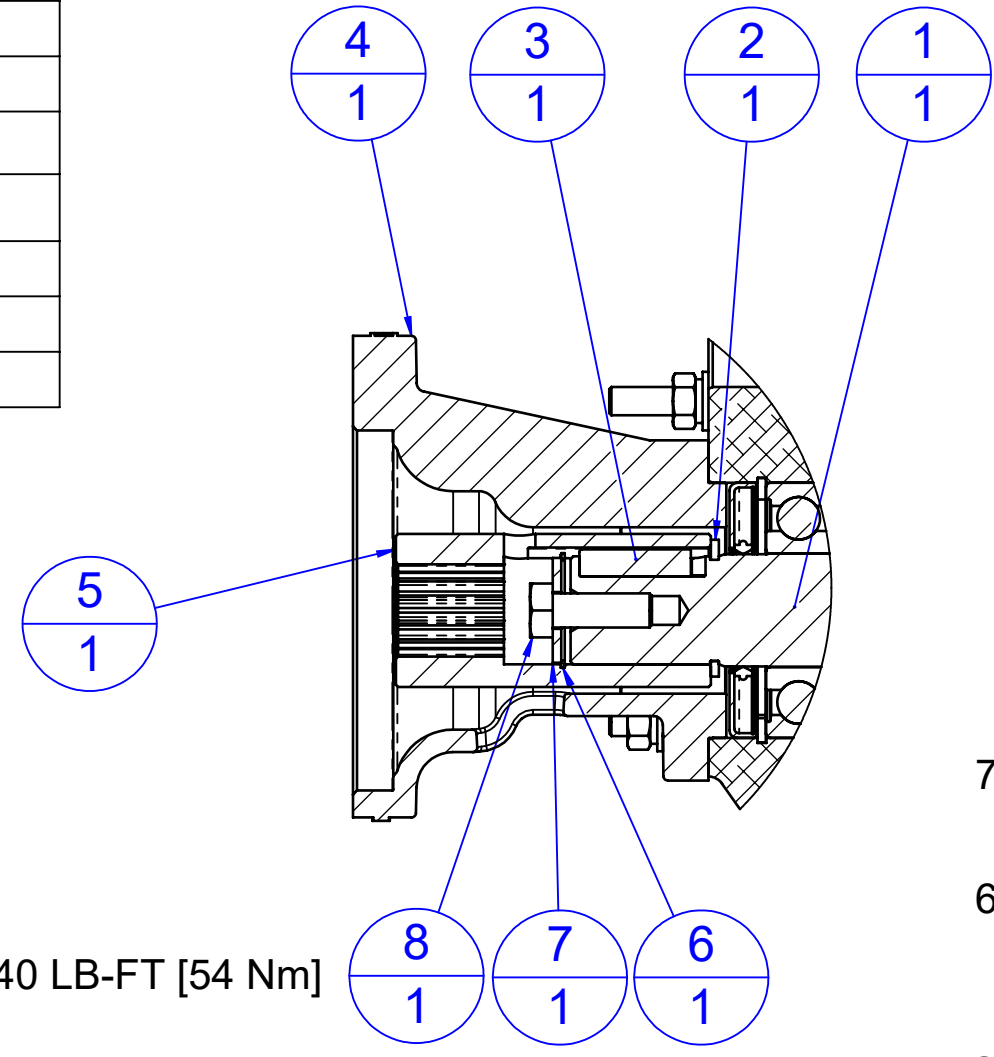
UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCE FOR INCHES DIMENSIONS:  
X: ±0.04  
X.X: ±0.02  
X.XX: ±0.01  
X.XXX: ±0.005  
ANGLES: ±0.25°  
SURFACE TEXTURE IN µm Ra  
REMOVE ALL BURRS AND SHARP  
EDGES, 0.01MAX

COPYRIGHT ©  
NOT TO BE REPRODUCED OR USED TO  
MAKE OTHER DRAWINGS OR MACHINERY

MATERIAL		TITLE	
MADE FROM		HALE FLEX SERIES GEARBOX	
FINISH	DRAWN	TAM	SIZE
PROJECT	APPROVED	MAL	D
DATE	20APR2017	SCALE	1:2
DRAWING NUMBER		REV	
FSG-PL-01481		D	
		SHEET 3 OF 6	

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	037-00024-000	SHAFT, INPUT, F GEARBOX, PTO/ENG	1
2	077-1500-05-0	RETAINING RING	1
3	017-0300-02-0	KEY	1
4	007-00135-001	ADAPTER, HYDRAULIC, FLEX MACHINED	1
5	088-0561-00-0	COUPLING	1
6	077-1500-00-0	RETAINING RING	1
7	097-2600-00-0	WASHER	1
8	MS07/35	SCREW, HEX HD M12x1.75x35 CLASS 8.8	1
9	MS49-35	STUD, M10x1.5x35 CLASS 8.8	8
10	MS25/10	WASHER, STD HVY M10	8
11	MS29/7	WASHER, SPRING SQ M10	8
12	MS35/9	NUT, HEX M10x1.5 CLASS 8.8	8

MAX TORQUE 40 LB-FT [54 Nm]



SECTION G-G

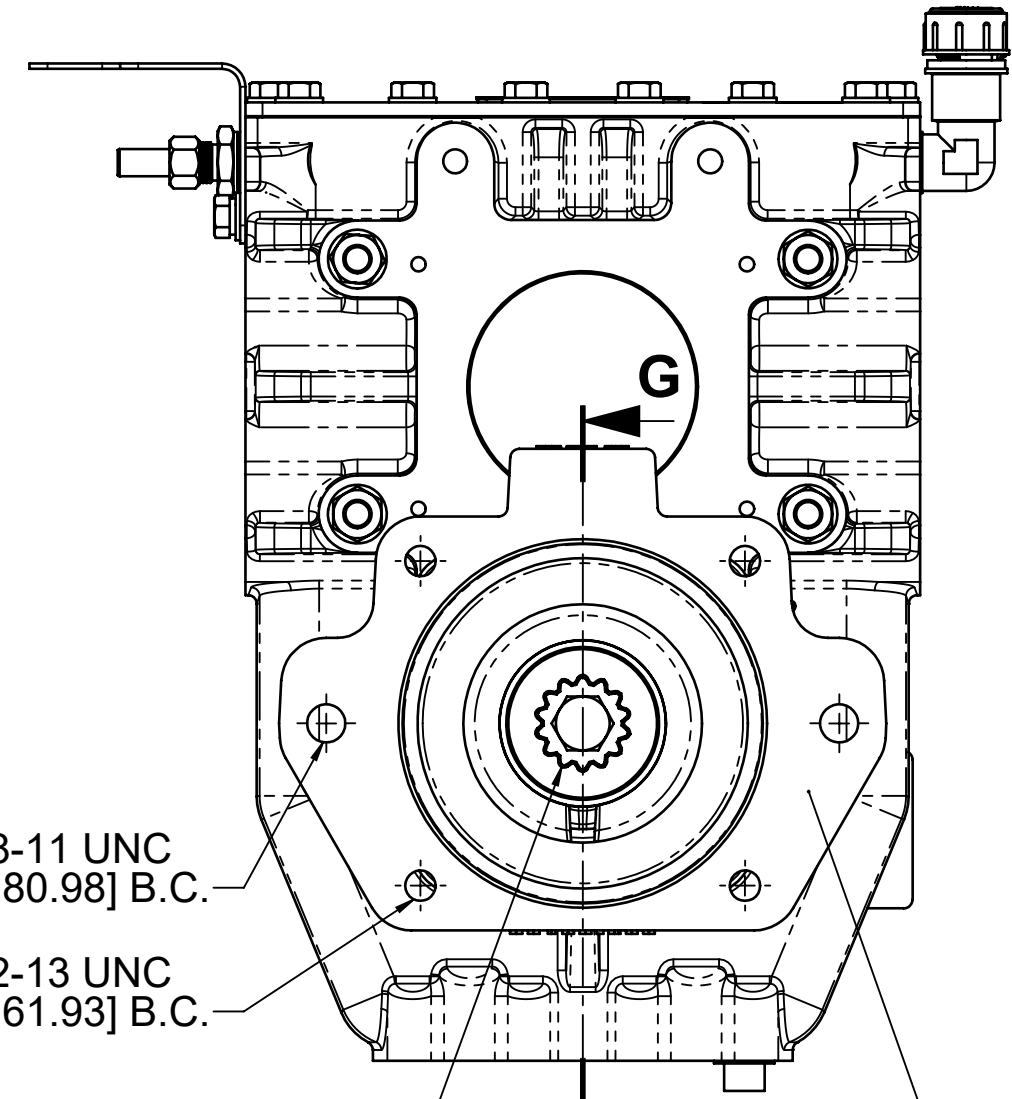
IF IN DOUBT ASK

2X 5/8-11 UNC  
7.125 [180.98] B.C.

4X 1/2-13 UNC  
6.375 [161.93] B.C.

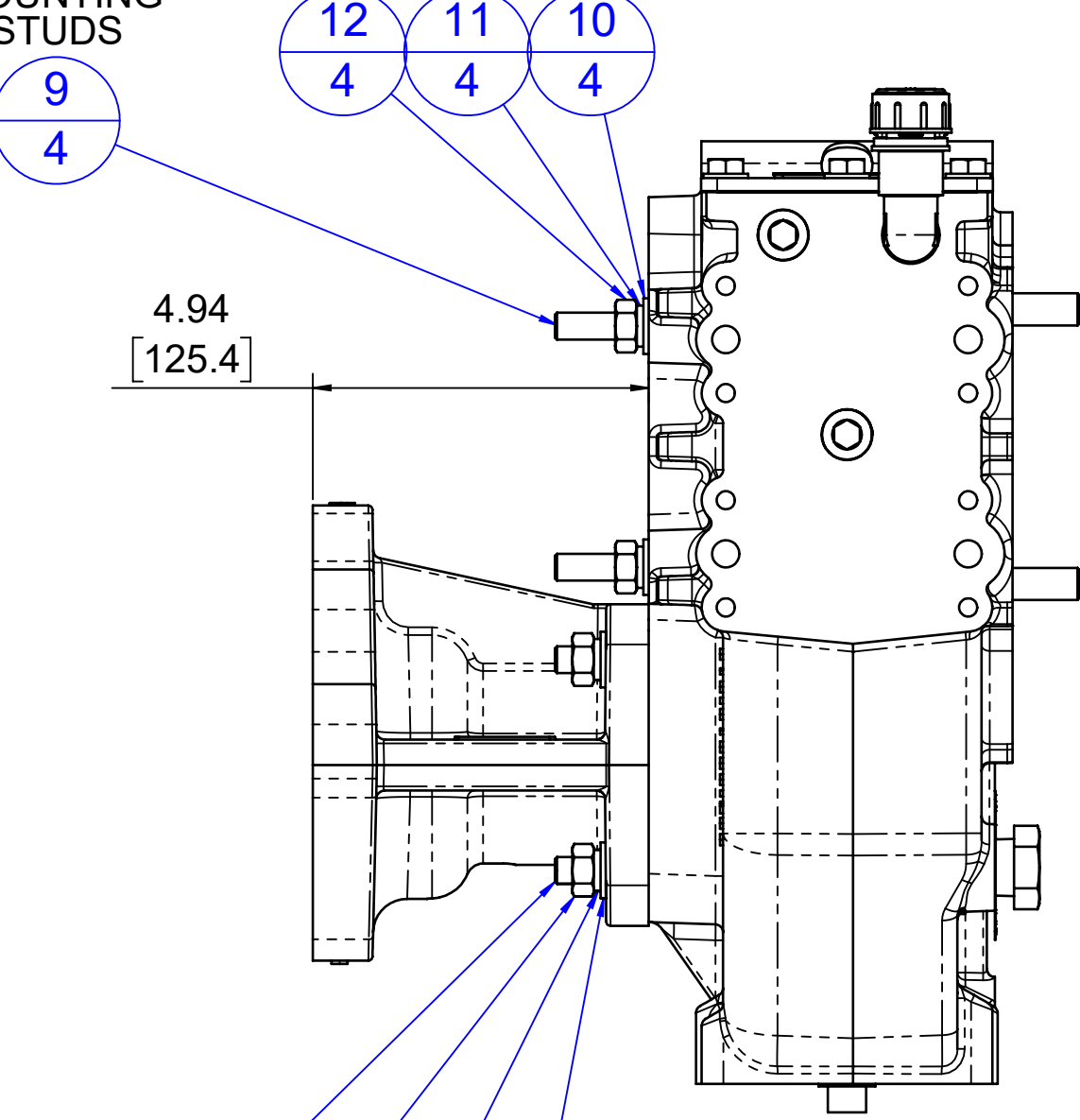
SPLINED DRIVE FOR  
SAE J744 "C" 14T (12/24 DP)  
ANSI 32-4  
MOTOR SHAFT

SAE J744 "C"  
ANSI 127-2 (TWO-BOLT) &  
ANSI 127-4 (FOUR-BOLT)  
MOTOR MOUNT



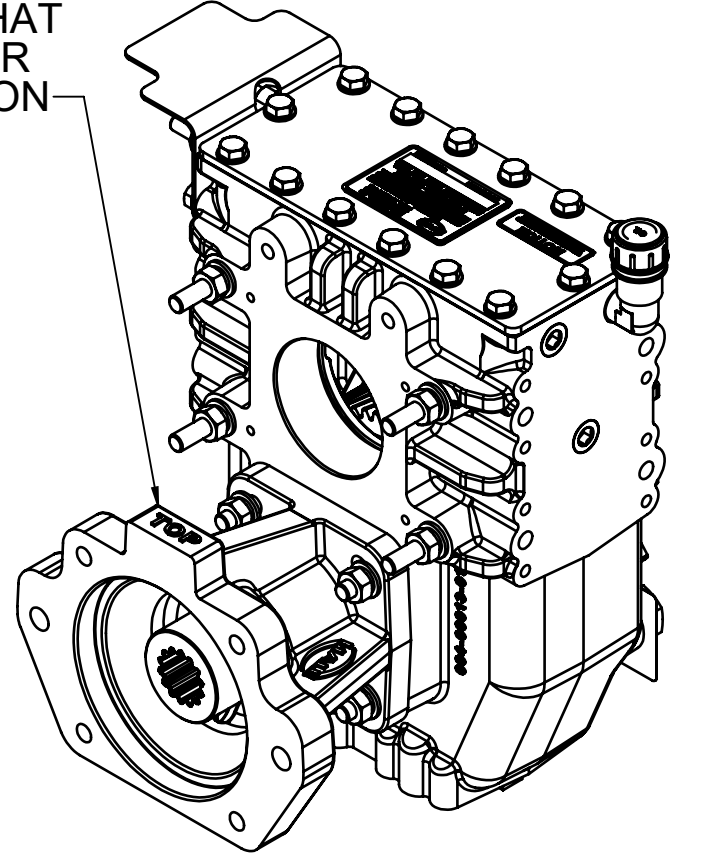
GEARBOX  
MOUNTING  
STUDS

SOLD WITH LOOSE PARTS



ADAPTER STUDS & FASTENERS

ROTATE ADAPTER SO THAT  
"TOP" IS FACING UP FOR  
EACH GEARBOX POSITION



EXTERNALLY SUPPORT  
HYDRAULIC MOTOR TO MINIMIZE  
CANTILEVER LOADING

PROJECTION:

**HYDRAULIC DRIVE (H)**

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCE FOR INCHES DIMENSIONS:  
X: ±0.04  
X.X: ±0.02  
X.XX: ±0.01  
X.XXX: ±0.005  
ANGLES: ±0.25°  
SURFACE TEXTURE IN µm Ra  
REMOVE ALL BURRS AND SHARP  
EDGES, 0.01MAX

COPYRIGHT ©  
NOT TO BE REPRODUCED OR USED TO  
MAKE OTHER DRAWINGS OR MACHINERY

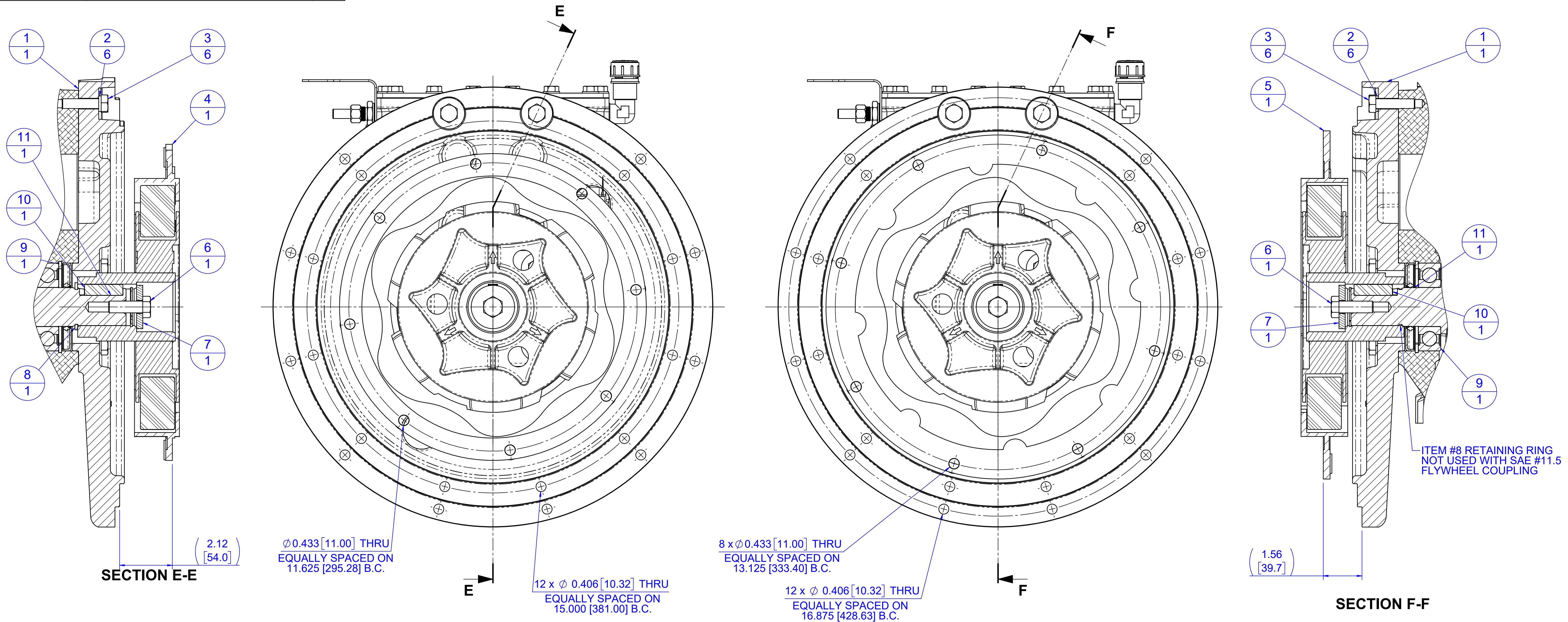
FSG OF <b>IDEX</b> IDEX CORPORATION		<b>HALE</b> <b>GODIVA</b> <b>Class 1</b>	
MATERIAL		TITLE <b>HALE FLEX SERIES GEARBOX</b>	
MADE FROM		FINISH	DATE
PROJECT	APPROVED	TAM	SCALE
DRAWN		DATE	20APR2017
SIZE <b>D</b>		DRAWING NUMBER <b>FSG-PL-01481</b>	
REVISION		REV <b>D</b>	
SHEET		4 OF 6	

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	007-00023-001	ADAPTER, #3&4 HSG, 4HPS/N-GBX	1
2	MS29/7	WASHER, SPRING SQ M10	6
3	MS06/40	SCREW, HEX HD M10x40	6
4	005-1280-00-0	COUPLING, ELASTOMERIC, SAE #10, 4-DISC	1
	005-1281-00-0	COUPLING, ELASTOMERIC, SAE #10, 6-DISC	
5	005-1290-00-0	COUPLING, ELASTOMERIC, SAE #11.5, 4-DISC	1
	005-1291-00-0	COUPLING, ELASTOMERIC, SAE #11.5, 6-DISC	
6	MS07/35	SCREW, HEX HD M12x1.75x35 CLASS 8.8	1
7	097-0890-01-0	WASHER	1
8	077-1500-05-0	RETAINING RING	1
9	250-0308-32-0	308J BEARING (1304-405)	1
10	017-0300-03-0	KEY	1
11	037-00024-000	SHAFT, INPUT, F GEARBOX, PTO/ENG	1
12	018-1607-25-0	SCREW, 3/8-16x7/8 (NOT SHOWN)	8

IF IN DOUBT ASK

PROJECTION:

# DRIVE COUPLING - ENGINE DRIVE (M)



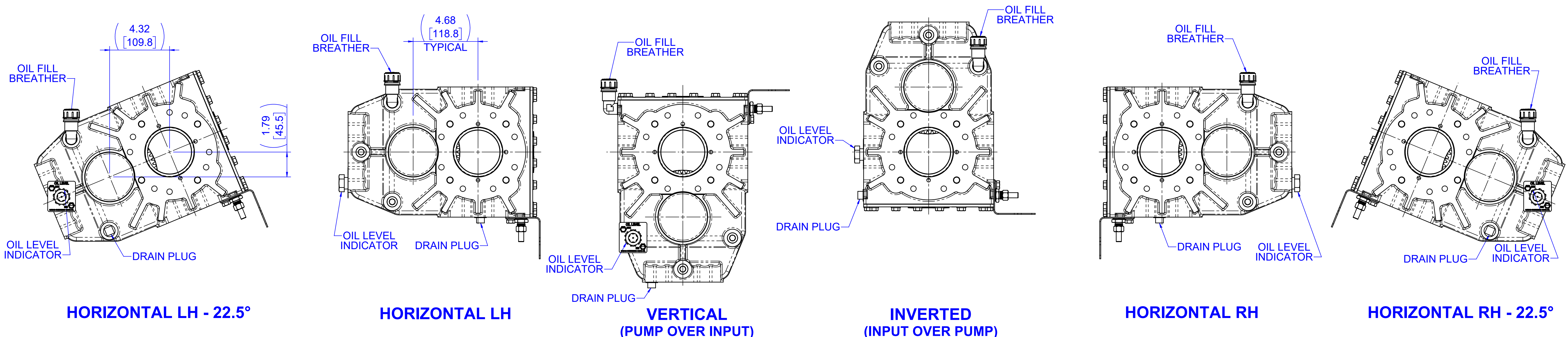
**OPTIONAL SAE #10 FLYWHEEL ELASTOMERIC DRIVE COUPLING**

**OPTIONAL SAE #11.5 FLYWHEEL ELASTOMERIC DRIVE COUPLING**

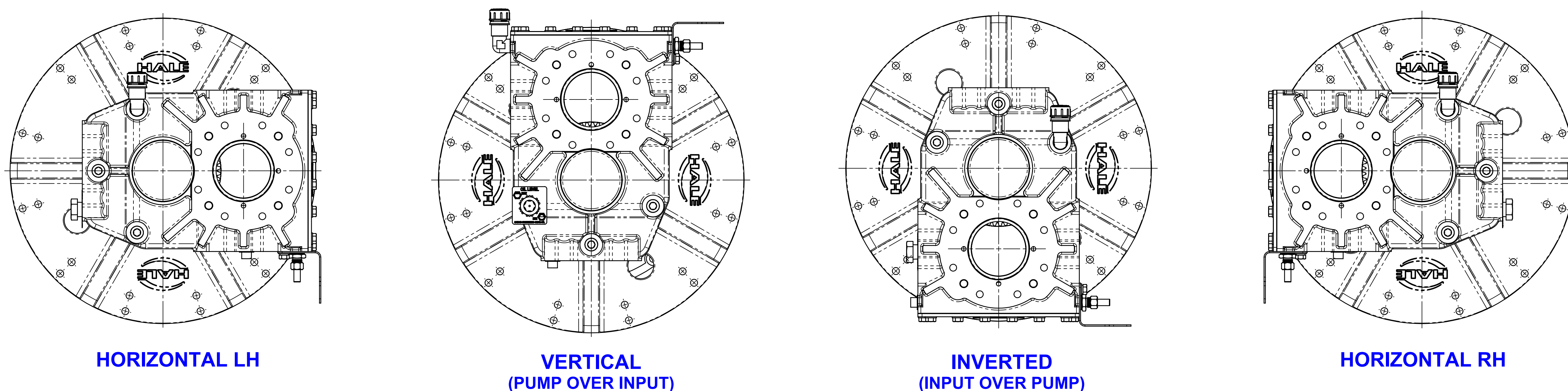
ITEM #8 RETAINING RING NOT USED WITH SAE #11.5 FLYWHEEL COUPLING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE FOR INCHES DIMENSIONS: X: ±0.04 X.X: ±0.02 X.XX: ±0.01 X.XXX: ±0.005 ANGLES: ±0.25° SURFACE TEXTURE IN µm Ra REMOVE ALL BURRS AND SHARP EDGES, 0.01MAX		FSG OF <b>IDEX</b> IDEX CORPORATION		<b>HALE</b> <b>GODIVA</b> <b>Class 1</b>	
MATERIAL		TITLE <b>HALE FLEX SERIES GEARBOX</b>			
MADE FROM		DRAWN TAM		SIZE <b>D</b>	
FINISH		APPROVED MAL		DRAWING NUMBER <b>FSG-PL-01481</b>	
PROJECT		DATE 20APR2017		SCALE 1:2	
COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY				REV <b>D</b> SHEET 5 OF 6	

# GEARBOX POSITIONS - PTO DRIVE



# GEARBOX POSITIONS - SAE #3 / #4 FLYWHEEL HOUSING



UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCE FOR INCHES DIMENSIONS:  
X: +0.04  
X.X: ±0.02  
X.XX: ±0.01  
X.XXX: ±0.005  
ANGLES: ±0.25°  
SURFACE TEXTURE IN µm Ra  
REMOVE ALL BURRS AND SHARP  
EDGES, 0.01MAX



COPYRIGHT ©  
NOT TO BE REPRODUCED OR USED TO  
MAKE OTHER DRAWINGS OR MACHINERY

MATERIAL	TITLE				REV
MADE FROM	HALE FLEX SERIES GEARBOX				D
FINISH	DRAWN	TAM	SIZE	DRAWING NUMBER	REV
PROJECT	APPROVED	MAL	D	FSG-PL-01481	D
	DATE	20APR2017	SCALE	1:2	SHEET
					6 OF 6