

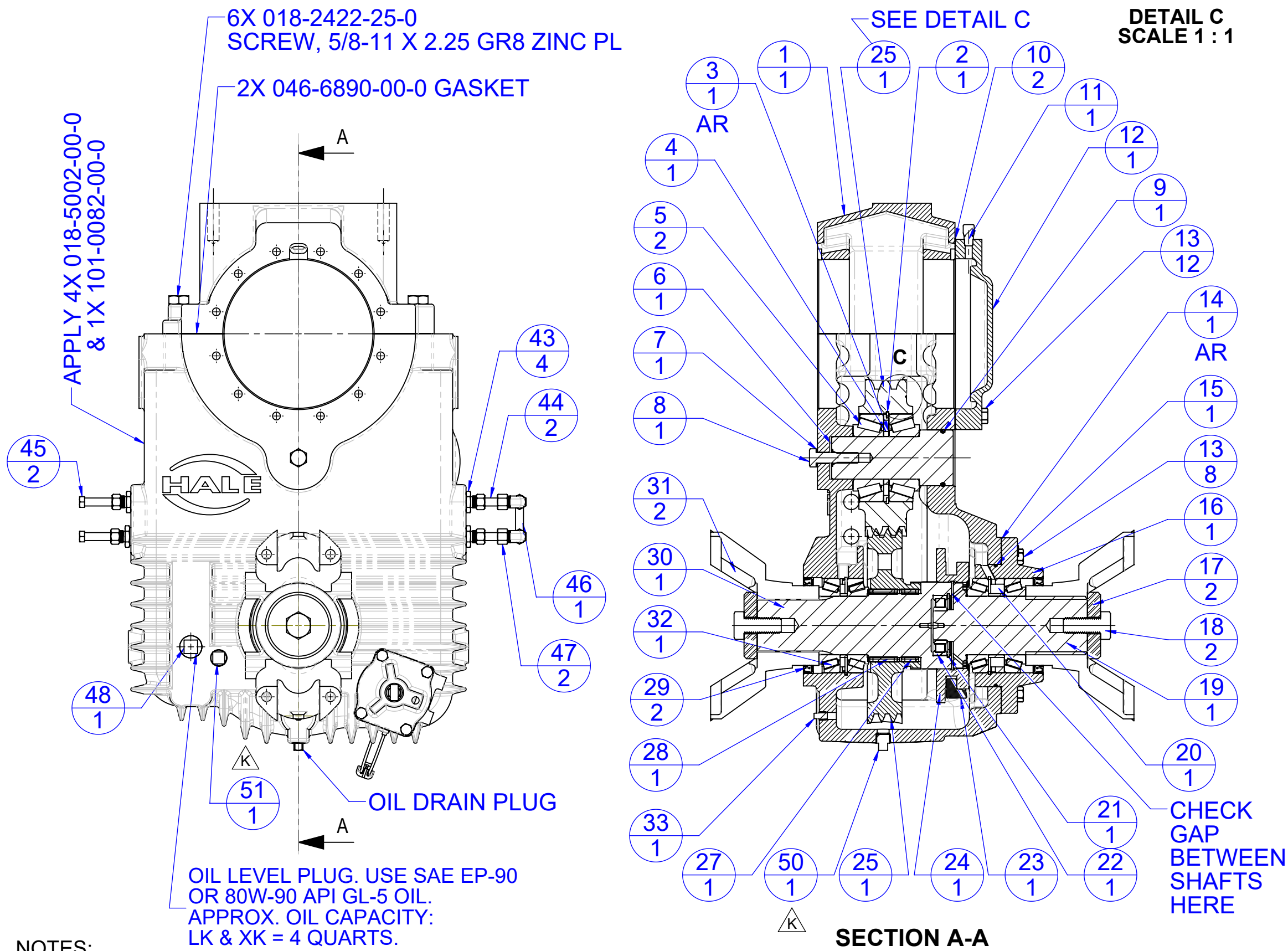
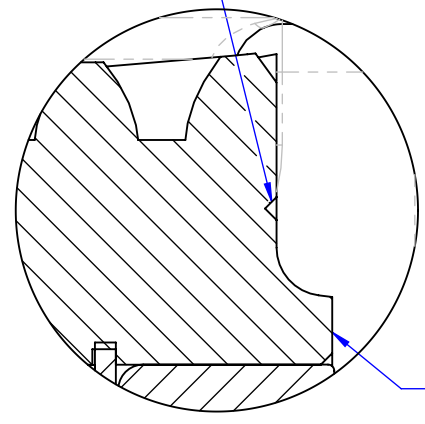
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	GEARBOX	SEE GEARBOX TABLE	1
2	077-9133-01-0	RING, RETAINING	1
3	SHIM	SEE 048-1550-XX-0 SHIM TABLE	1
4	159-1710-10-0	SPACER, SHAFT, IDLER	1
5	250-8310-00-0	LK IDLER GEAR BEARING	2
6	037-2290-00-0	SHAFT, INTERMEDIATE	1
7	097-0100-00-0	WASHER	1
8	018-2020-25-0	SCREW, HHCS, 1/2-13 X 2, GRADE 8	1
9	040-2280-00-0	SHAFT SEAL RING	1
10	046-6800-00-0	GASKET, LK REAR BRG HSG	2
11	044-0260-00-0	VENT, AIR 1/8 MPT	1
12	044-1820-00-0	BEARING COVER	1
13	018-1814-25-0	SCRW, 7/16-14x1.5, GR8, ZINC PL	20
14	SHIM	SEE 048-1470-XX-0 SHIM TABLE	1
15	040-1610-00-0	SEAL RING	1
16	008-0840-00-0	BEARING CARRIER	1
17	097-2050-00-0	WASHER (SEE NOTE 6)	2
18	018-2616-25-0	3/4-10 x 1-3/4 BOLT GR8	2
19	037-2280-00-0	OUTPUT SHAFT	1
20	250-8140-53-0	4DK TAILSHAFT BEARING ASSEMBLY	1
21	077-2810-00-0	RETAINING RING	1
22	250-8300-00-0	NU207ECJ BEARING	1
23	028-0420-00-0	SHIFT FORK	1
24	048-1430-00-0	SHIFT COLLAR	1
25	031-1720-00-0	K DRIVE GEAR (53T LH)	1
26	031-1740-00-0 031-1750-00-0	LK IDLER GEAR (43T RH) XK IDLER GEAR (57T RH)	1
27	250-8110-00-0	NEEDLE BEARING	1
28	250-8120-00-0	NEEDLE BEARING	1
29	296-2680-00-0	OIL SEAL	2
30	037-2270-00-0	INPUT SHAFT	1
31	YOKE	SEE YOKE TABLE	2
32	250-8140-52-0	4DK INPUT BEARING ASSEMBLY	1
33	217-0101-00-0	PLUG - 1/8 NPT M.I. SQ	1
34	018-1810-08-0	SCREW 7/16-14 X 1.00 SOC HD CAP	4
35	250-9550-00-0	GEARBOX BEARING	2
36	018-8350-00-0	4DK SHIFTING FORK SCREW	1
37	046-5060-00-0	GASKET QL-W429	2
38	018-2104-61-0	SCREW-1/2-20 X 1/2 PLATED SET	1
39	042-0060-00-0	SHAFT LOCK SPRING	1
40	039-0050-00-0	GEARSHIFT SHAFT LOCK BALL	1
41	008-0990-00-0	CAP, DUST, K	1
42	200-2450-00-0	SWITCH GEARSHIFT	2
43	082-0422-03-0	1/2 MALE NPT x 3/8 TUBE COMP	4
44	007-3610-00-0	LK COOLING TUBE (SEE NOTE 3)	2
45	018-1422-25-0	5/16-18 X 2 1/4	2
46	604-0033-00-0	TUBE, COPPER	1
47	082-0318-02-0	ELBOW, 3/8 COMP X 3/8 COMP, 90 DEG	2
48	217-0501-00-0	PLUG-3/4 NPT M.I.	1
49	040-8210-00-0	SEAL RING	2
50	217-0301-08-0	3/8 NPT MAGNETIC DRAIN PLUG	1
51	217-0401-00-0	PLUG-1/2" NPT BLACK IRON	1

	048-1470-XX-0 BEARING CARRIER SHIM TABLE (SEE NOTE 4)										
	ITEM NO.		PART NO.		DESCRIPTION		QTY.				
	14		048-1470-05-0		SHIM, BRG CARRIER, .005 THICK		AS REQUIRED				
	14		048-1470-07-0		SHIM, BRG CARRIER, .007 THICK		AS REQUIRED				
L	14		048-1470-20-0		SHIM, BRG CARRIER, .020 THICK		AS REQUIRED				
	048-1550-XX-0 IDLER GEAR BEARING SHIM TABLE (SEE NOTE 5)										
	ITEM NO.		PART NO.		DESCRIPTION		QTY.				
	3		048-1550-03-0		SHIM, BEARING, .003 THICK		AS REQUIRED				
	3		048-1550-05-0		SHIM, BEARING, .005 THICK		AS REQUIRED				
	3		048-1550-07-0		SHIM, BEARING, .007 THICK		AS REQUIRED				
M											
	REVISIONS										
	ECN		REV.		ZONE		CHANGED FROM		BY	DATE	APVD
	5102		J				REMOVED 2.5 RATIO OPTION		DMB	07APR2020	JS2
	5625		K				SEE ECN 5625 FULL FORM		KTN	02DEC2021	JS2
	5722		L				ADDED RLK/RXK OPTION, UPDATED DWG FORMAT		KTN	17MAR2022	TAM

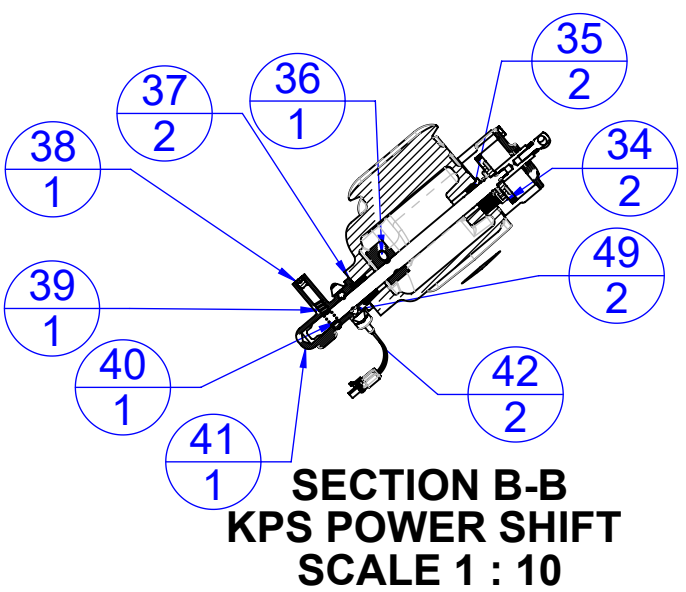
GEARBOX MODEL	GEAR RATIO	GEARBOX PART NO.	A	B	C	D	E	F
LK RLK	2.30	504-0670-00-0	19.84 [503.9]	13.28 [337.3]	0.25 [6.4]	-	6.22 [158.0]	14.72 [373.9]
	2.04			13.59 [345.2]	-	-		
	1.89			13.78 [350.0]	-	0.11 [2.8]		
	1.71			13.97 [354.8]	-	0.43 [10.9]		
	1.60			14.15 [359.4]	-	0.25 [6.4]		
XK RXK	2.30	504-0680-00-0	22.14 [562.4]	15.58 [395.7]	0.25 [6.4]	-	7.36 [186.9]	17.01 [432.1]
	2.04			15.89 [403.6]	-	-		
	1.89			16.08 [408.4]	-	0.11 [2.8]		
	1.71			16.27 [413.3]	-	0.43 [10.9]		
	1.60			16.45 [418.1]	-	0.25 [6.4]		

YOKE DIMENSIONS	
G	YOKES
21.2 [538.5]	115-1450-03-0 17T HALF ROUND
	115-1450-04-0 17N FULL ROUND
21.9 [555.5]	115-1450-01-0 18T HALF ROUND
	115-1450-06-0 18N FULL ROUND
21.7 [550.7]	115-1450-02-0 176T HALF ROUND
	115-1450-05-0 176N FULL ROUND
20.7 [525.3]	115-1450-00-0 RPL25 HALF ROUND

ASSURE GEAR ORIENTATION IS CORRECT AS SHOWN BELOW WITH GROOVE TO THE PROPER SIDE.



SECTION A-A



SECTION B-B  
KPS POWER SHIFT  
SCALE 1 : 10

# HALE TYPE "K" SERIES GEARBOX

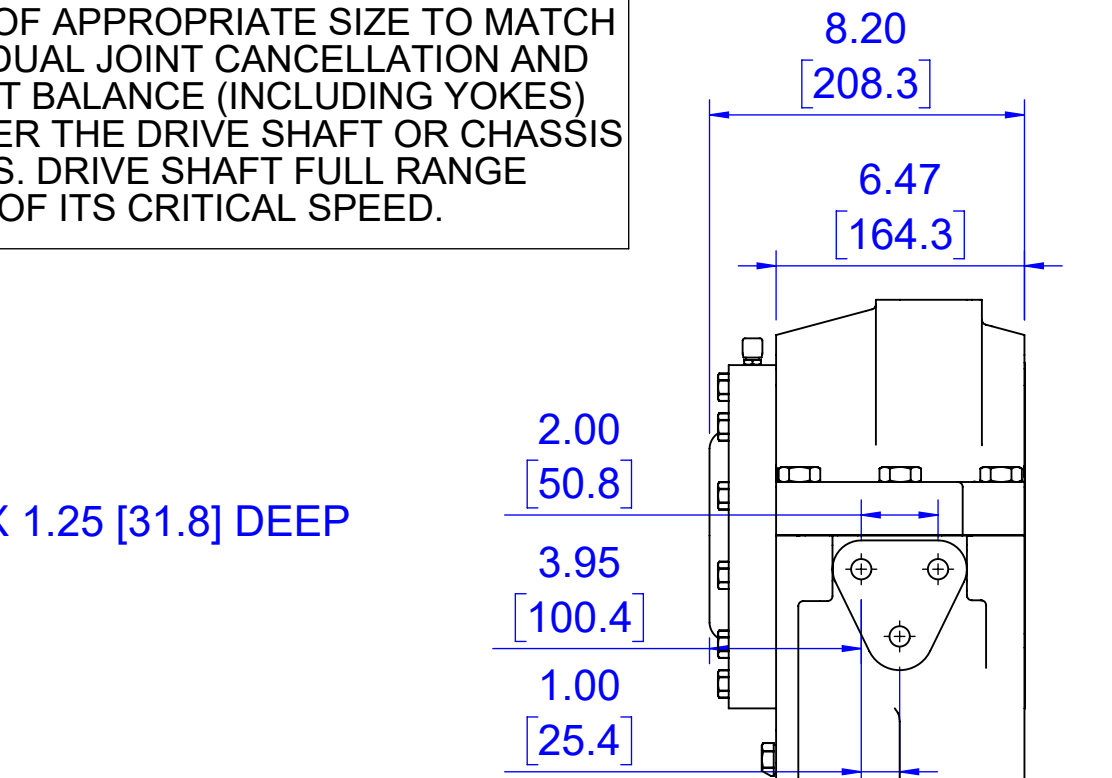
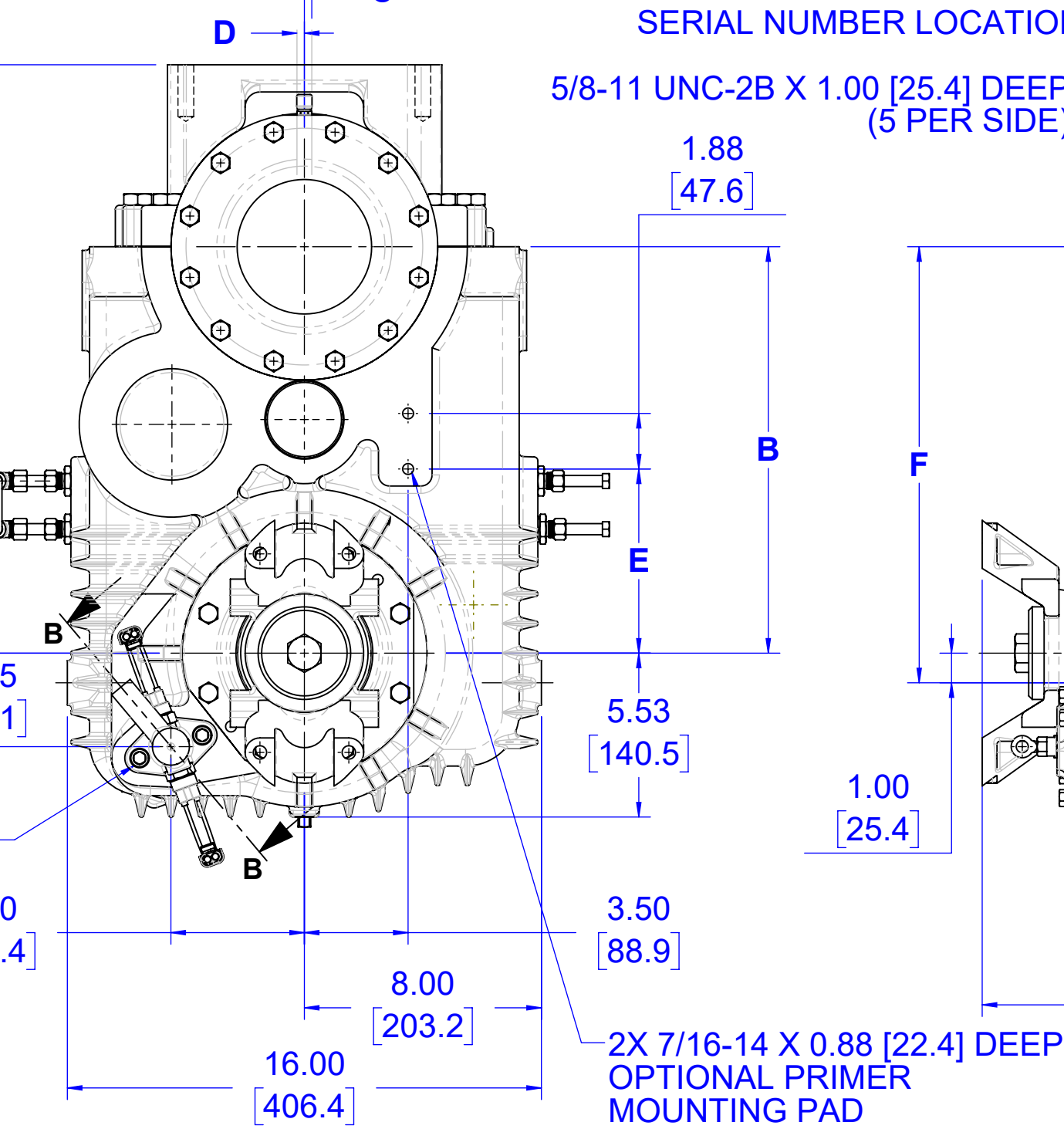
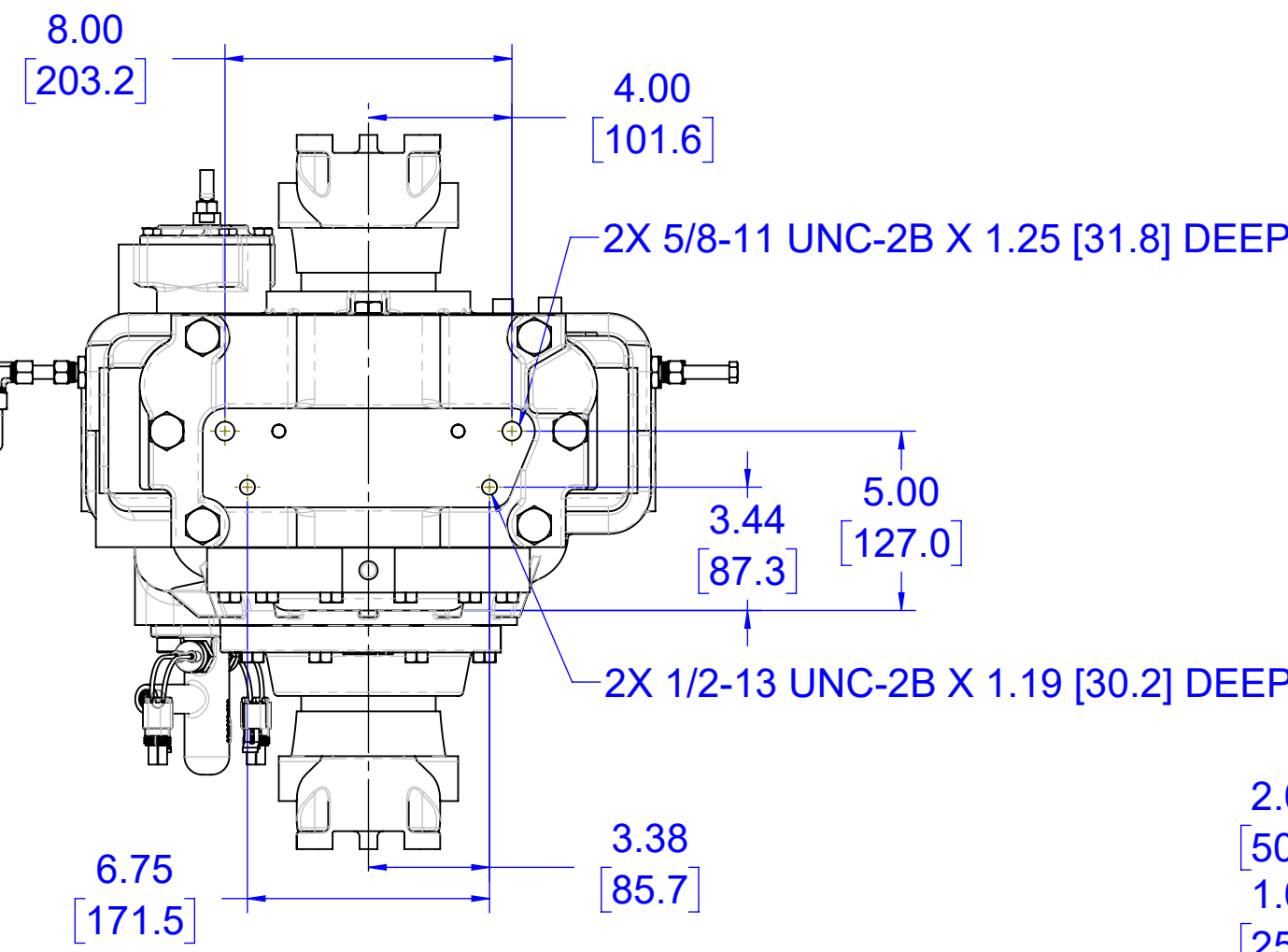
**⚠ WARNING ⚠**

EXCEEDING THESE LIMITS OR FAILURE TO FOLLOW THE RECOMMENDATIONS OUTLINED ON THIS DRAWING COULD DAMAGE THE GEARBOX AND RESULT IN PERSONAL INJURY.

MAXIMUM GEARBOX SHAFT TORQUE = 18,500 LB-FT (20,083 N-m).  
SEE HALE TORQUE LIMIT CHART F-72 FOR ADDITIONAL INFORMATION.

## DRIVE LINE RECOMMENDATIONS

APPARATUS BUILDER SUPPLIED DRIVELINES SHALL BE OF APPROPRIATE SIZE TO MATCH THE CHASSIS AND PUMP REQUIREMENTS WITH INDIVIDUAL JOINT CANCELLATION AND PHASING BEFORE AND AFTER THE PUMP. DRIVE SHAFT BALANCE (INCLUDING YOKES) SHALL NOT EXCEED THE RECOMMENDED LIMIT OF EITHER THE DRIVE SHAFT OR CHASSIS TRANSMISSION MANUFACTURER'S SPECIFICATIONS. DRIVE SHAFT FULL RANGE OPERATING SPEEDS SHALL NOT EXCEED 42% OF ITS CRITICAL SPEED.



RLK / RXK ASSEMBLY  
SEE NOTE 9

⚠

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 µin Ra REMOVE ALL BURRS AND SHARP EDGES, 0.01MAX			FSG OF <b>IDEX</b> CORPORATION		TITLE <b>HALE TYPE "K" SERIES GEARBOX</b>	
MATERIAL			MADE FROM		DRAWN	
FINISH			PROJECT		ZML	
DATE			23AUG2007		MAL	
COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY			SCALE 1:5		DRAWING NUMBER <b>PL978</b>	
					REV <b>L</b>	
					SHEET 1 OF 1	