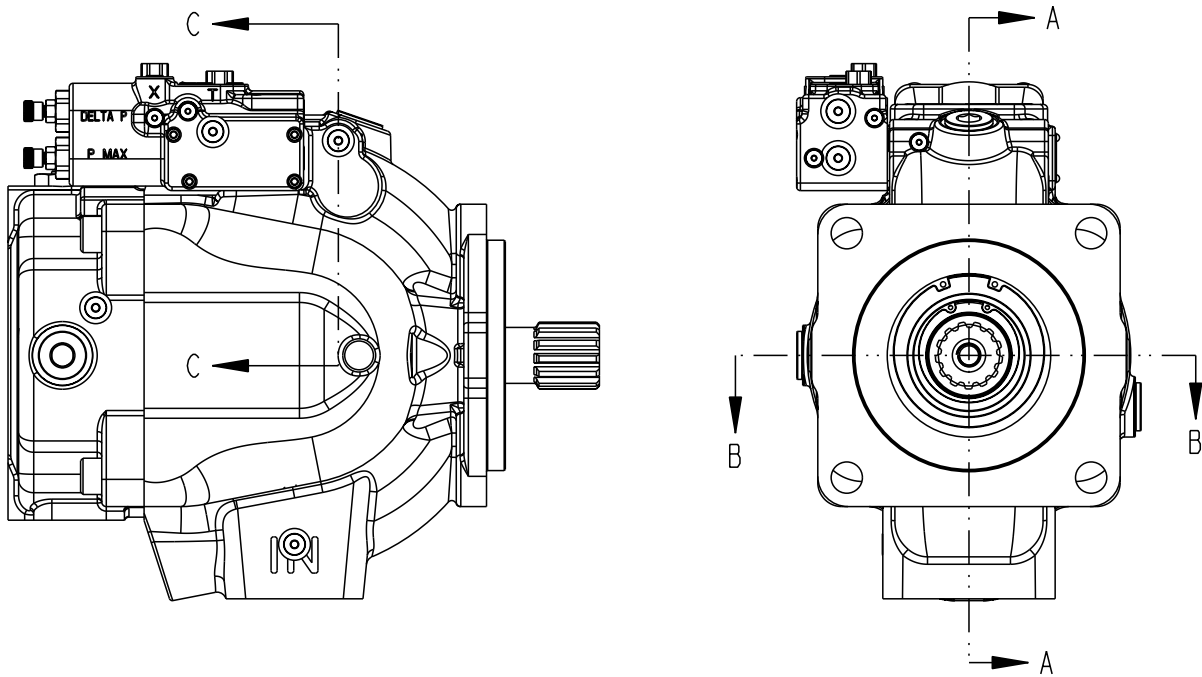
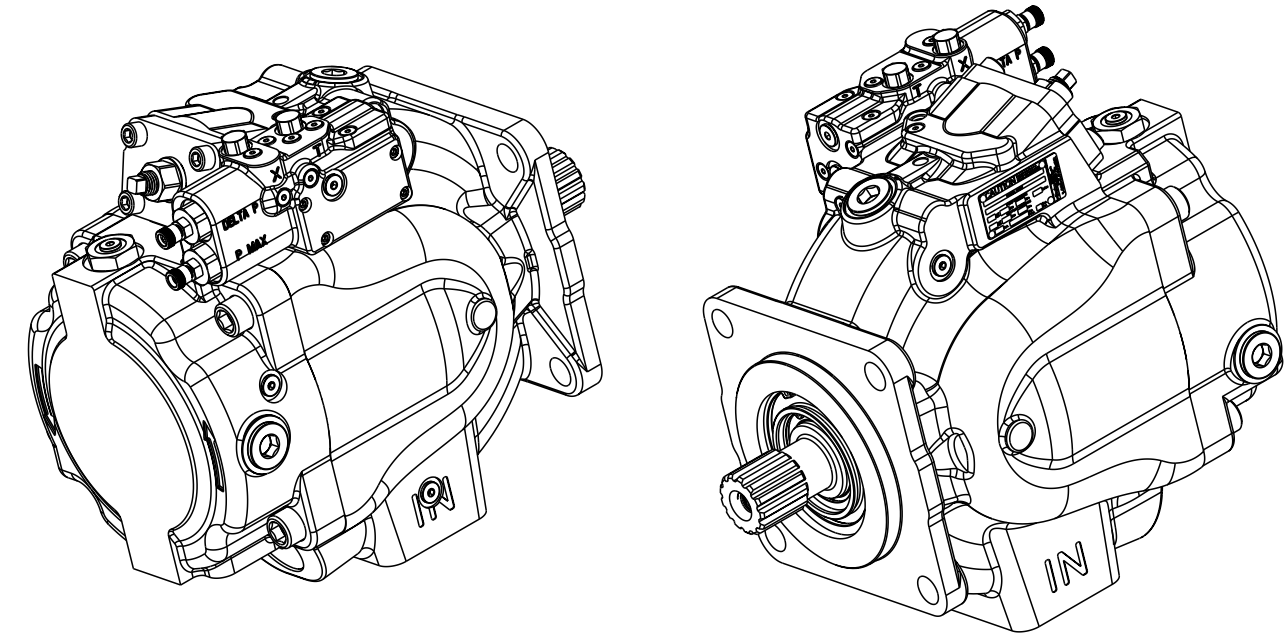


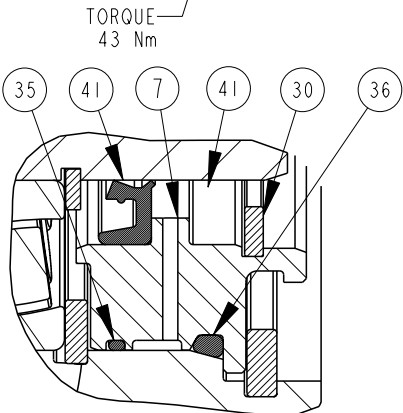
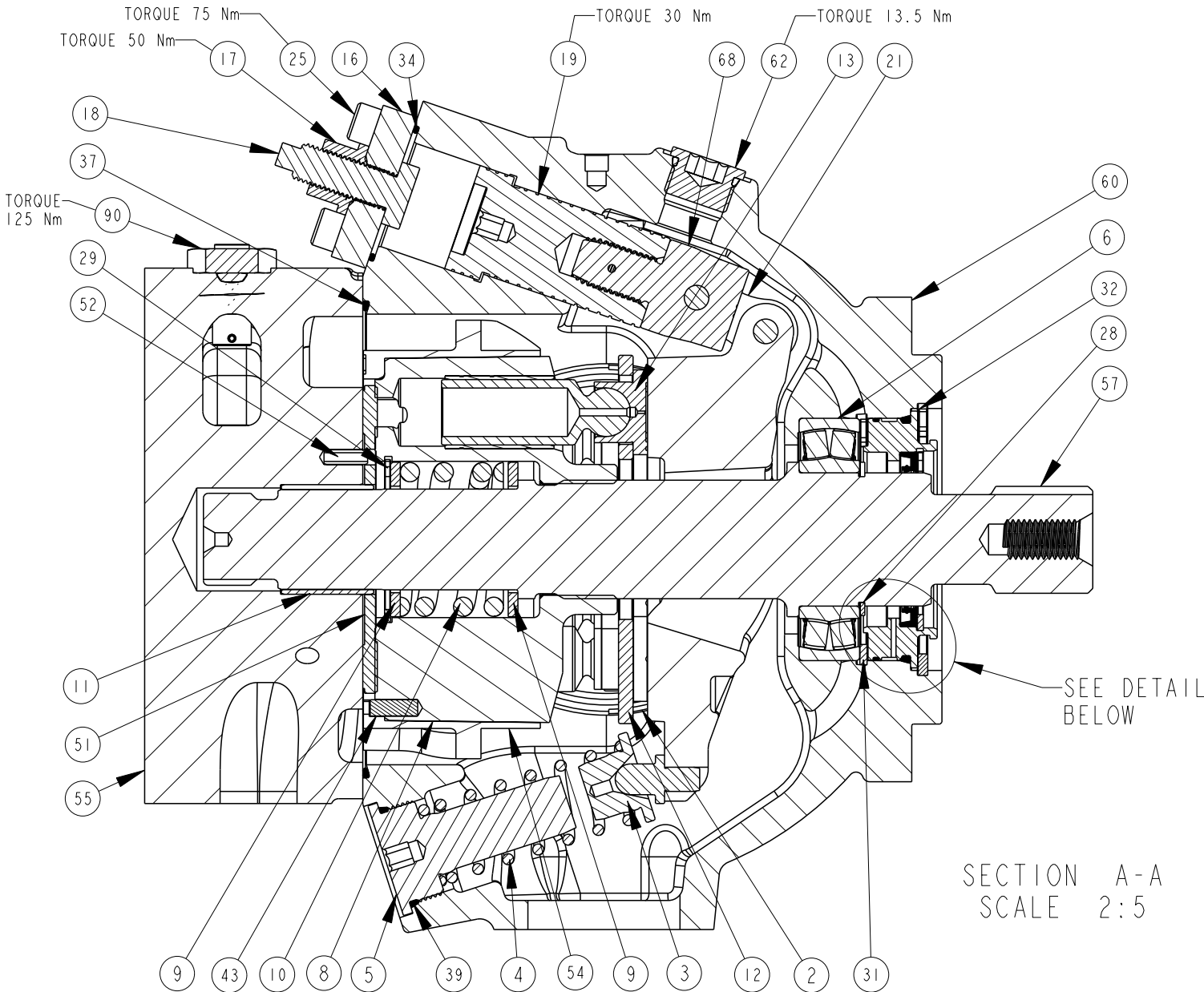
TITLE	DRAWING NUMBER	REVISION	STATUS	SHEET
SERVICE PARTS P3145 DESIGN SERIES 13	P2-145-0408	B	PR	1 OF 7



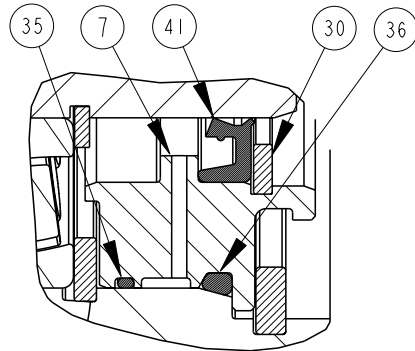
NOTES:
1 PUMP SHOWN IS A RIGHT HAND (CW) ROTATION PUMP. LEFT HAND (CCW) ROTATION PUMPS HAVE OUTLET GAUGE PORT REVERSED.



DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
HOEY	22NOV04	J. LAMBERS	17FEB06	134572



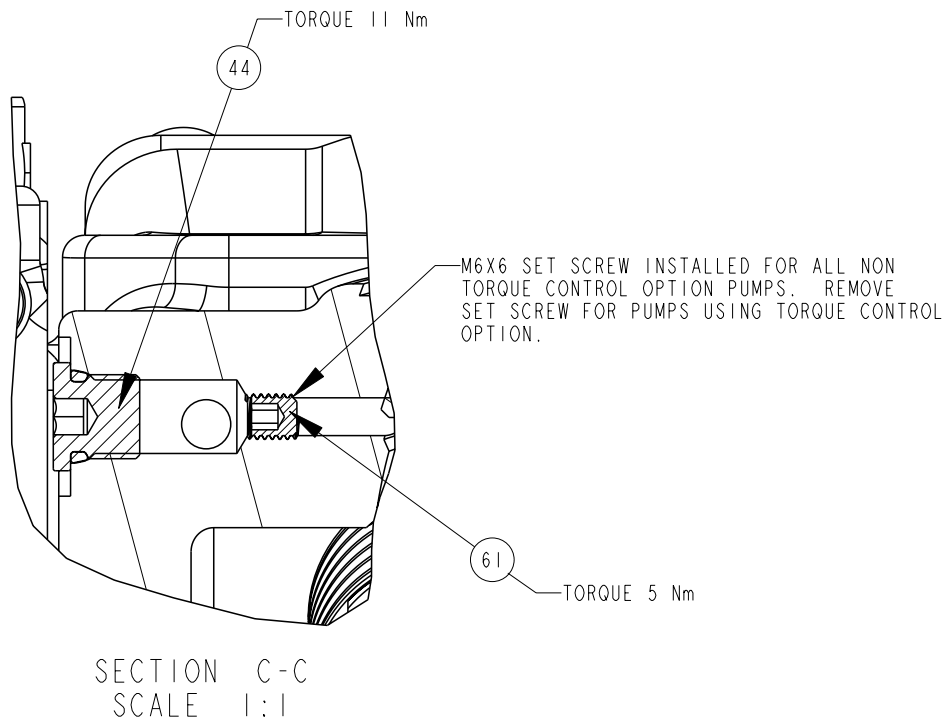
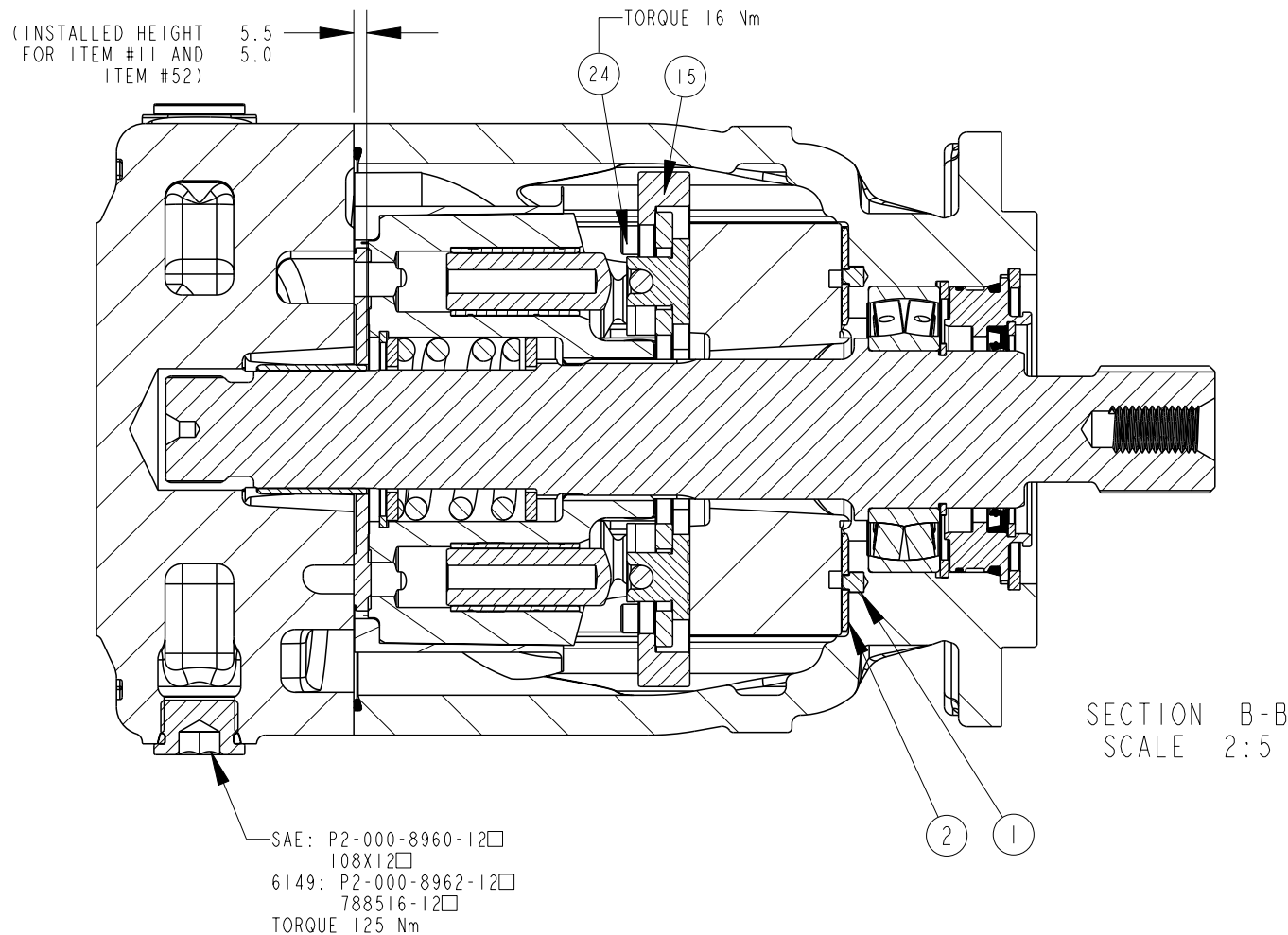
DUAL SHAFT SEAL ASSEMBLY
P2-105-0210-02
SECTION A-A
SCALE 1:1



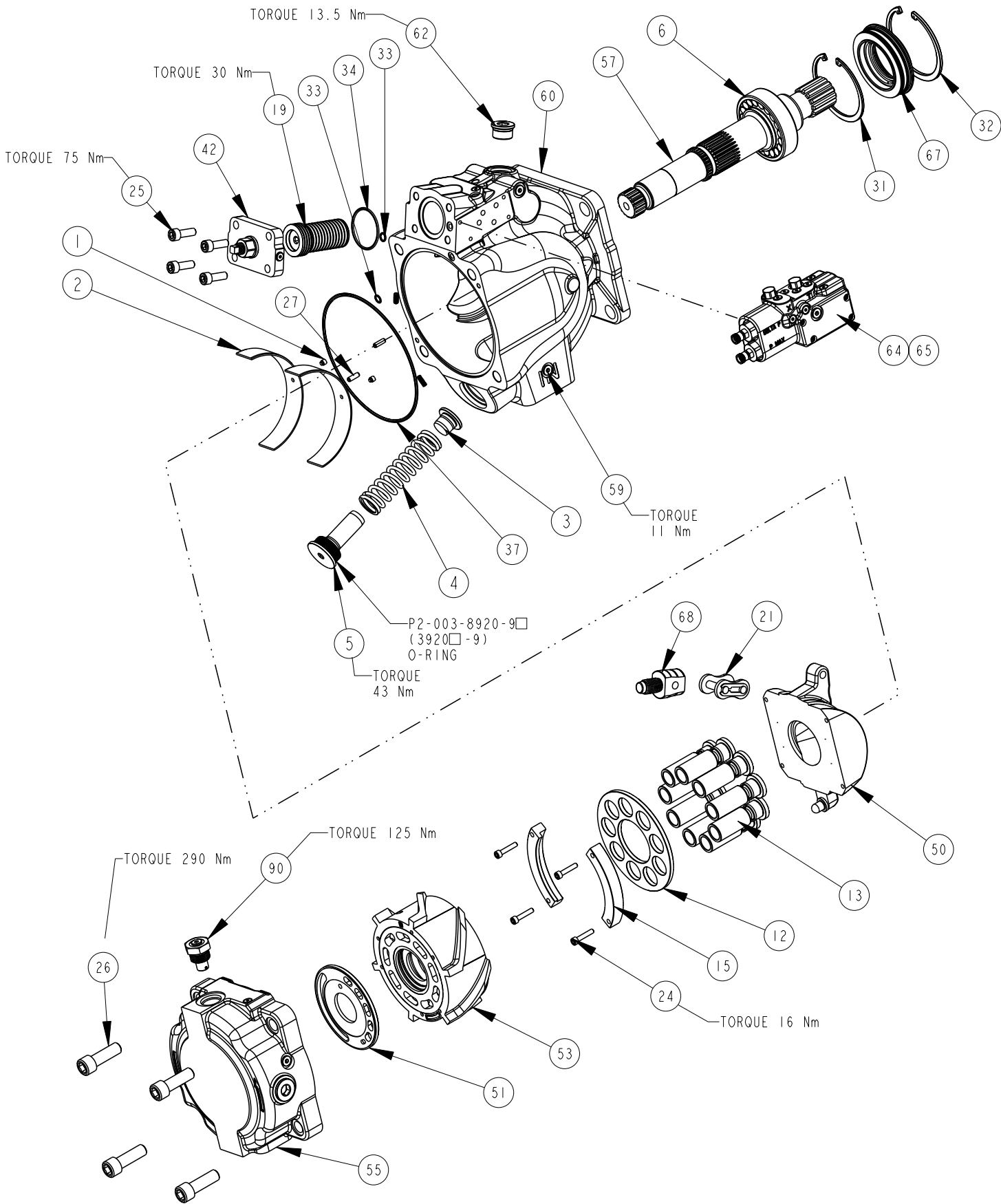
SINGLE SHAFT SEAL ASSEMBLY
P2-105-0210-01
SECTION A-A
SCALE 1:1



TITLE	DRAWING NUMBER	REVISION	STATUS	SHEET 2 OF 7
SERVICE PARTS P3145 DESIGN SERIES 13	P2-145-0408	B	PR	



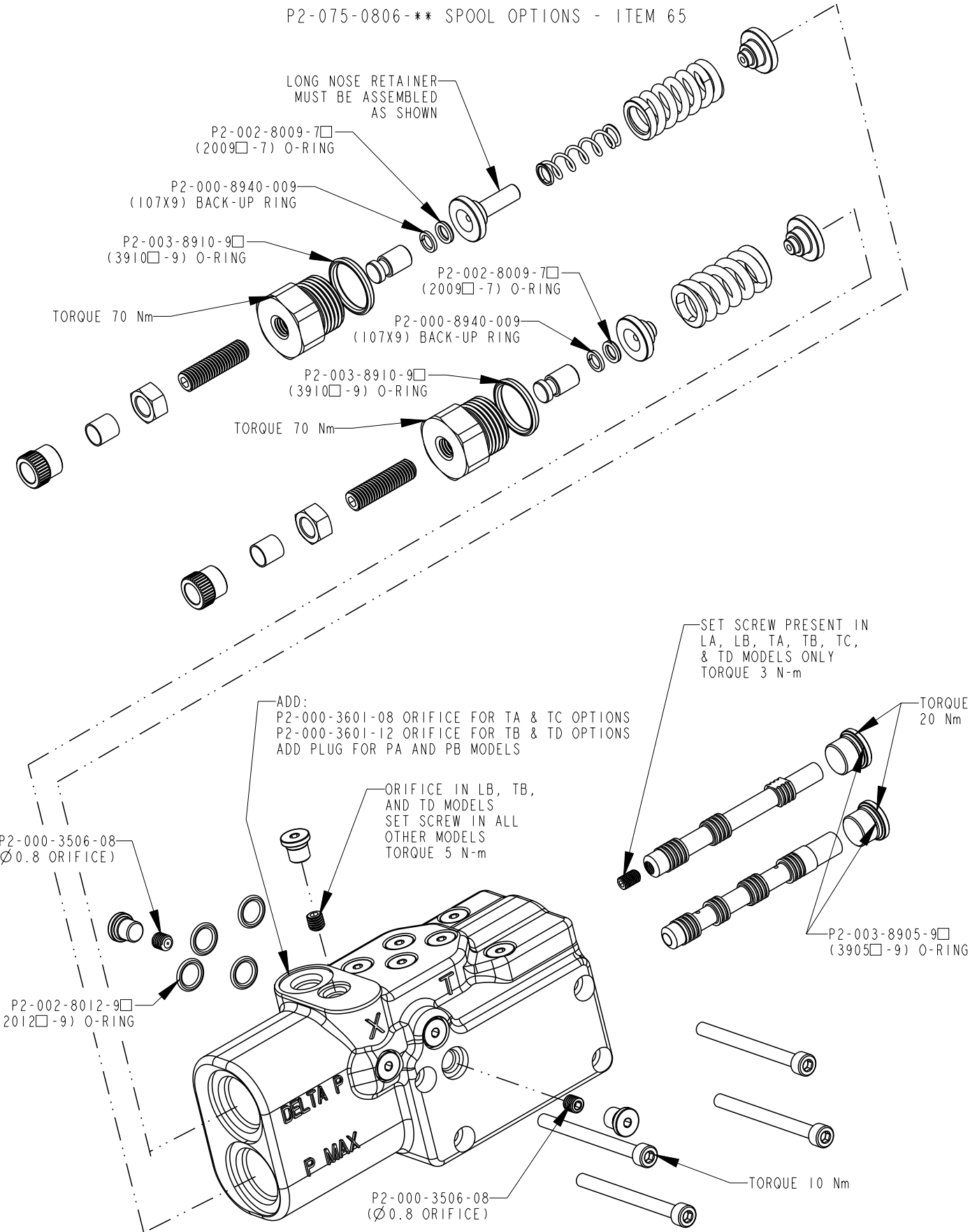
DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
HOEY	22NOV04	J. LAMBERS	17FEB06	134572



TITLE	DRAWING NUMBER	REVISION	STATUS	SHEET
SERVICE PARTS P3145 DESIGN SERIES 13	P2-145-0408	B	PR	3 OF 7

COMPENSATOR KITS

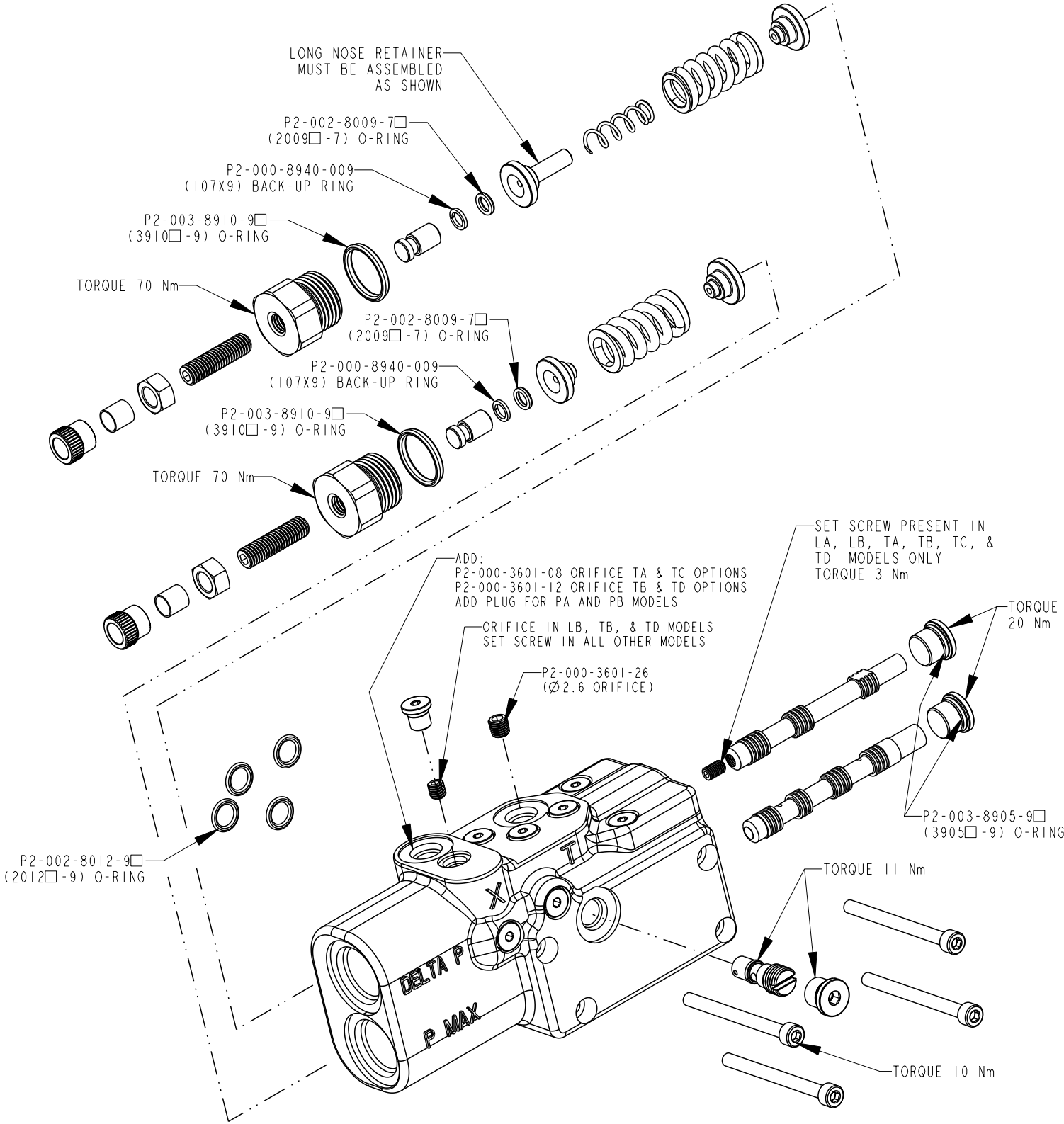
P2-075-0806-** SPOOL OPTIONS - ITEM 65



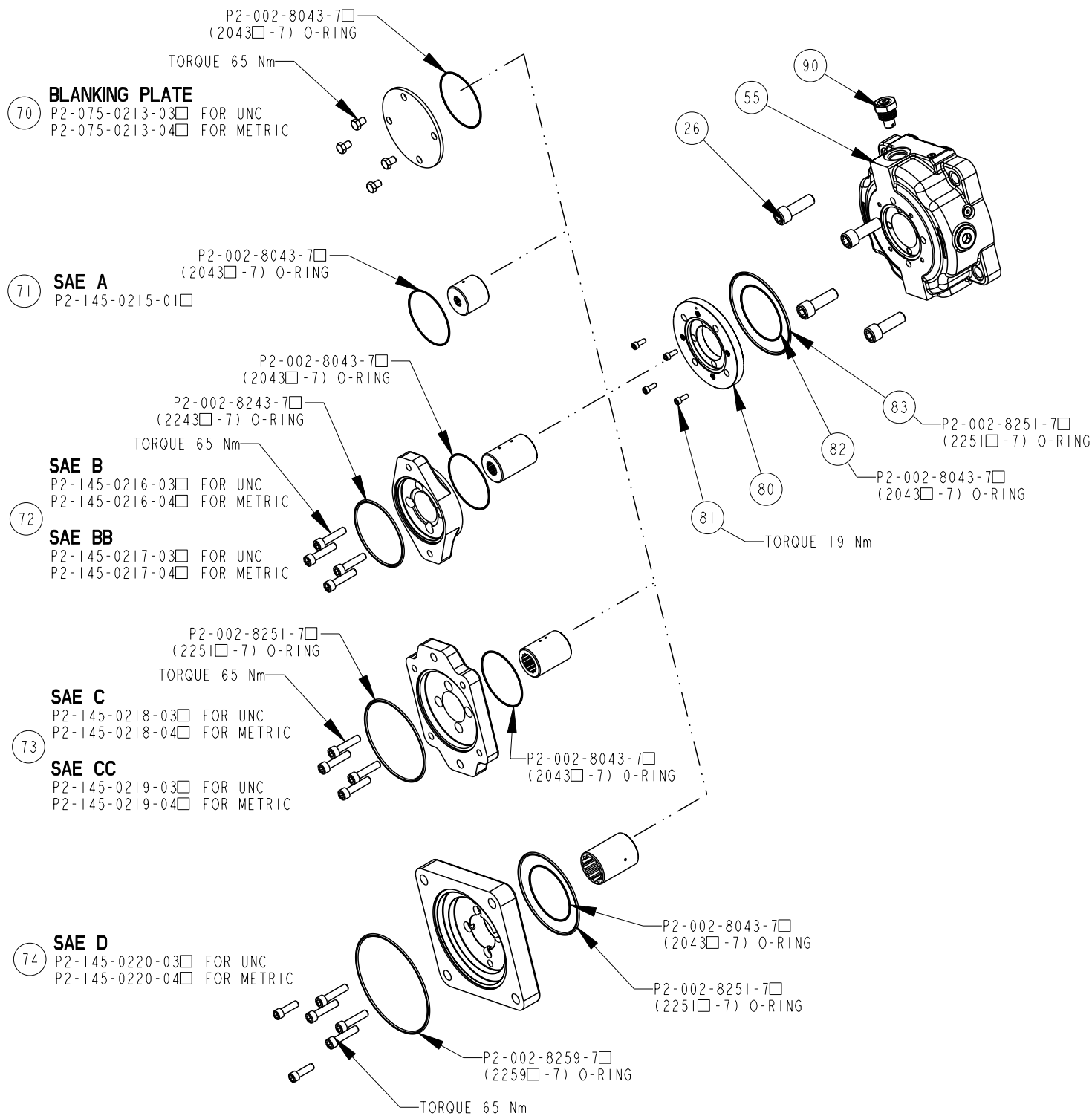
DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
HOEY	22NOV04	J. LAMBERS	17FEB06	134572

COMPENSATOR KITS

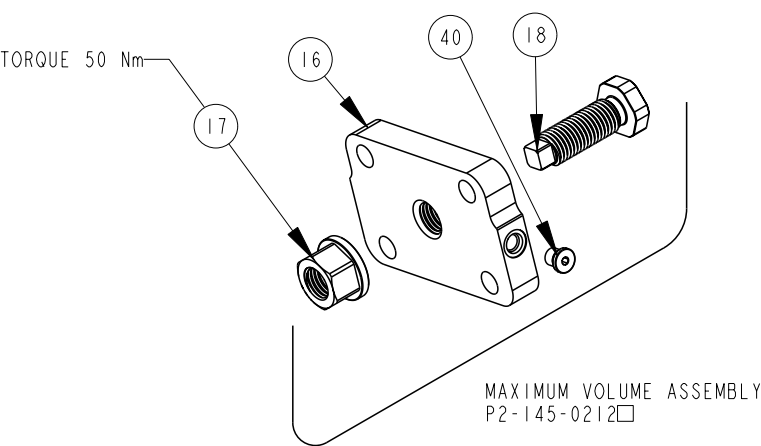
P2-145-0807-** SPOOL OPTIONS - ITEM 65



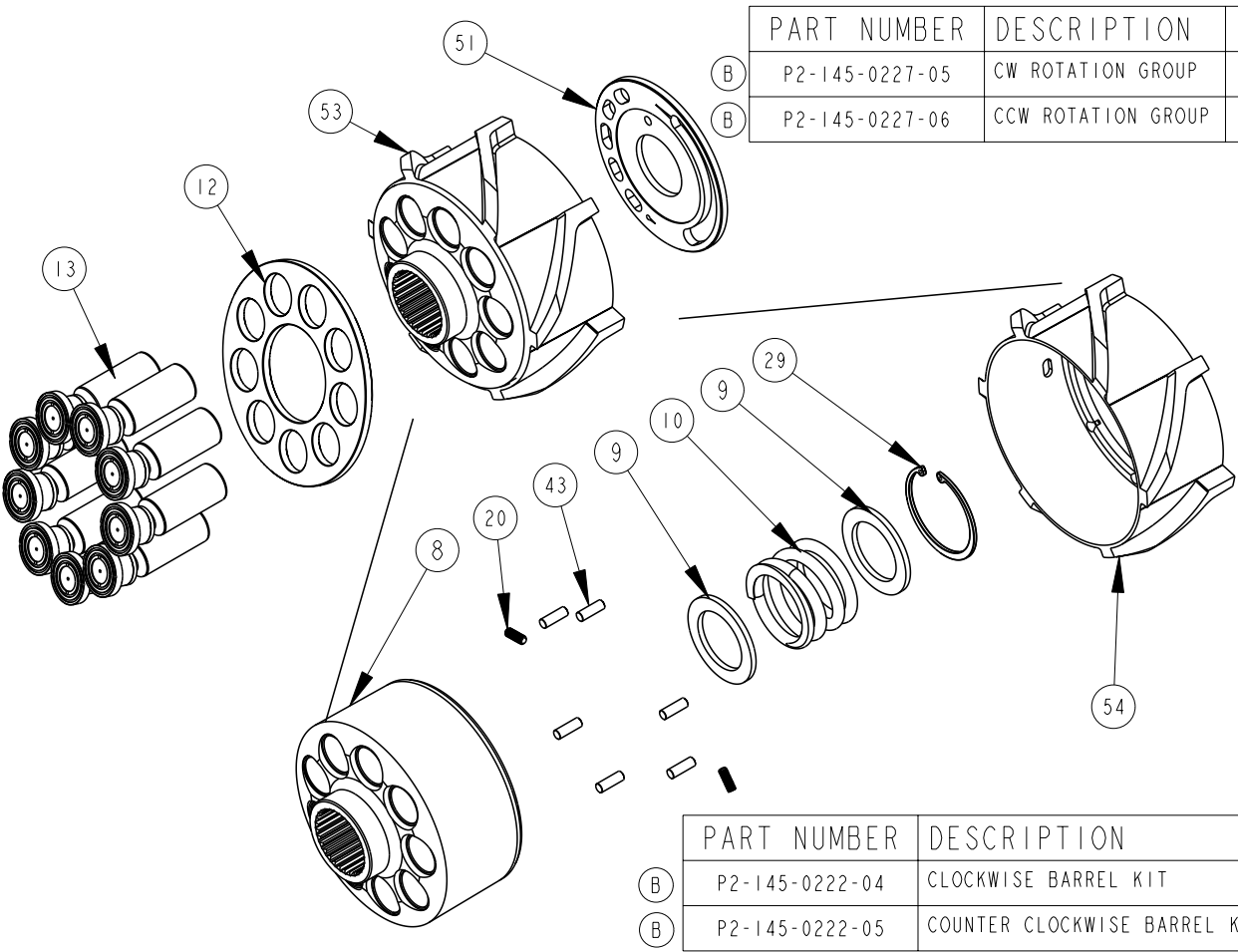
THRU DRIVE KITS



MAX VOLUME ASSEMBLY



BARREL KIT AND
ROTATION GROUP KIT

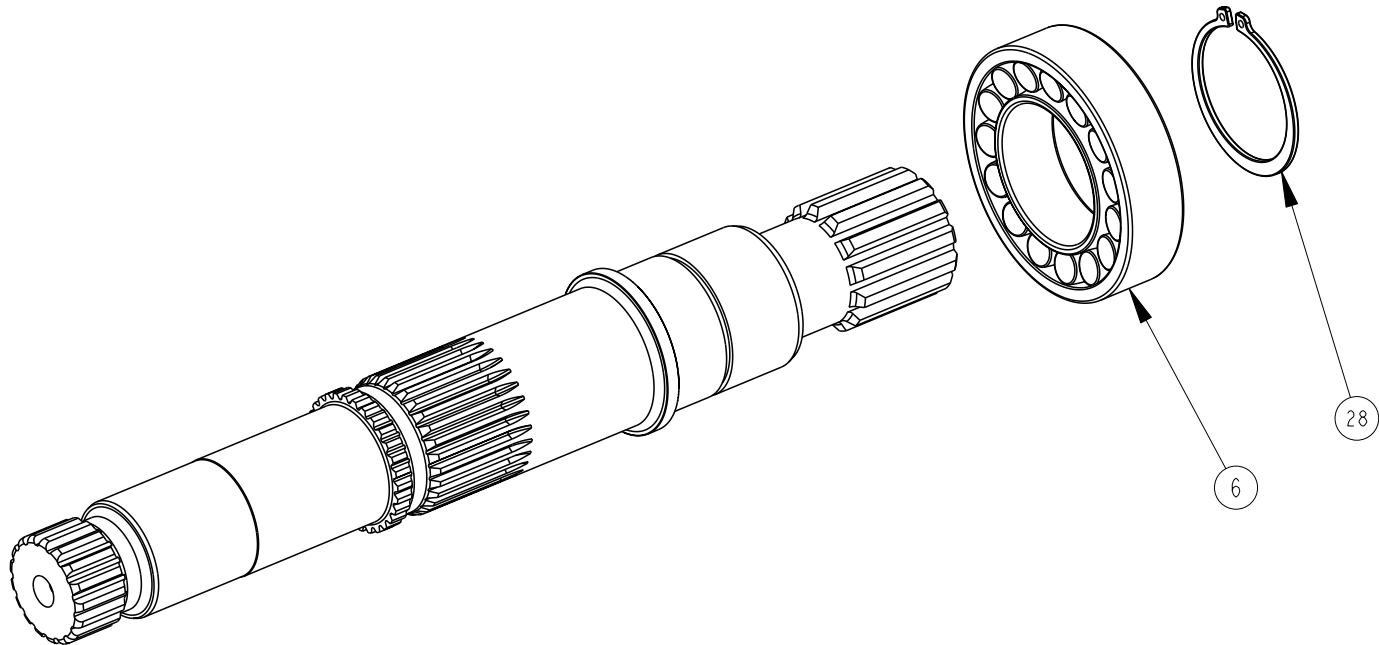


PART NUMBER	DESCRIPTION	HPD PART
P2-145-0227-05	CW ROTATION GROUP	RRKP3145R13
P2-145-0227-06	CCW ROTATION GROUP	RRKP3145L13

PART NUMBER	DESCRIPTION
P2-145-0222-04	CLOCKWISE BARREL KIT
P2-145-0222-05	COUNTER CLOCKWISE BARREL KIT

TITLE	DRAWING NUMBER	REVISION	STATUS	
SERVICE PARTS P3145 DESIGN SERIES 13	P2-145-0408	B	PR	SHEET 5 OF 7

SHAFT ASSEMBLY KITS ITEM 57

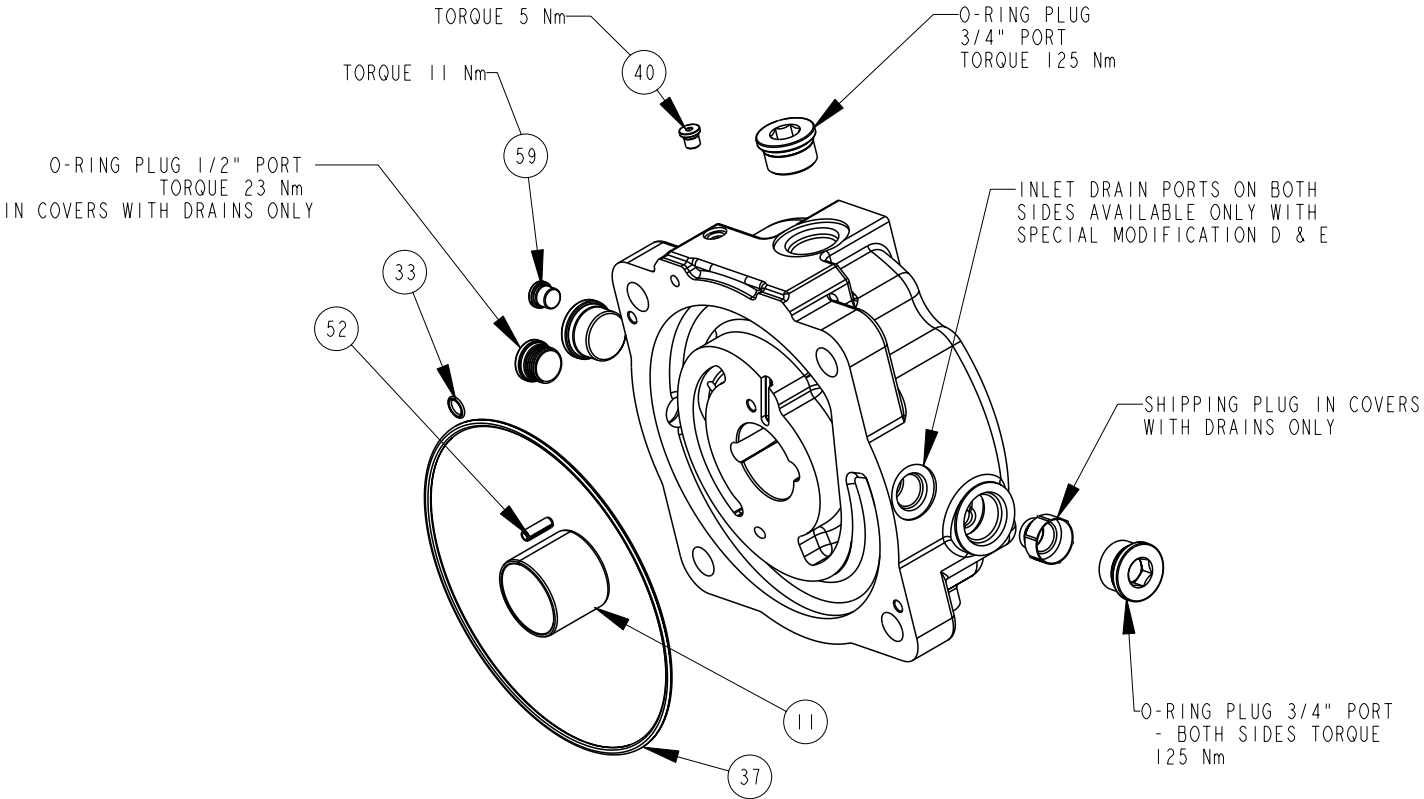


SHAFT ONLY	SHAFT ASSEMBLY	DESCRIPTION
P2-145-3725	P2-145-0238-36	C SPLINE THRU
P2-145-3719	P2-145-0238-40	D SPLINE THRU
P2-145-3733	P2-145-0238-46	C KEY THRU
P2-145-3735	P2-145-0238-48	CC KEY THRU
P2-145-3737	P2-145-0238-50	D KEY THRU
P2-145-3720	P2-145-0238-56	C SPLINE THRU NO UNDERCUT
P2-145-3746	P2-145-0238-60	D SPLINE THRU NO UNDERCUT



DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
HOEY	22NOV04	J. LAMBERS	17FEB06	134572

COVER ASSEMBLY KITS ITEM 55

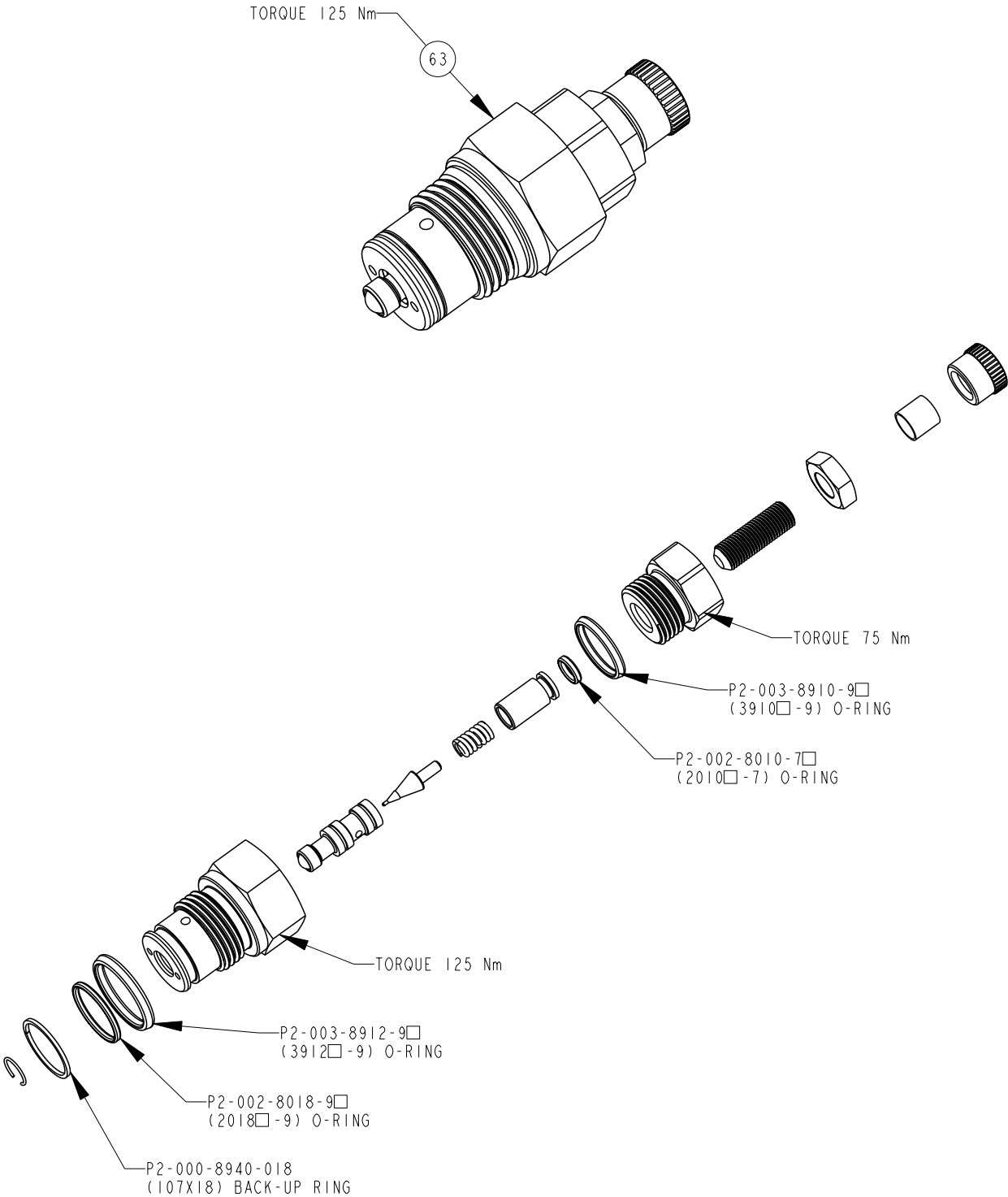


COVER ONLY	COVER ASSEMBLY	DESCRIPTION
P2-145-1015-01	P2-145-0226-09□	SIDE PORT, CCW, UNC
P2-145-1015-02	P2-145-0226-10□	SIDE PORT, CCW, UNC, THRU
P2-145-1015-03	P2-145-0226-11□	SIDE PORT, CCW, METRIC
P2-145-1015-04	P2-145-0226-12□	SIDE PORT, CCW, METRIC, THRU
P2-145-1015-05	P2-145-0226-37□	SIDE PORT, CCW, UNC, DRAINS
P2-145-1015-06	P2-145-0226-38□	SIDE PORT, CCW, UNC, THRU, DRAINS
P2-145-1015-07	P2-145-0226-39□	SIDE PORT, CCW, METRIC, DRAINS
P2-145-1015-08	P2-145-0226-40□	SIDE PORT, CCW, METRIC, THRU, DRAINS
P2-145-1016-01	P2-145-0226-13□	SIDE PORT, CW, UNC
P2-145-1016-02	P2-145-0226-14□	SIDE PORT, CW, UNC, THRU
P2-145-1016-03	P2-145-0226-15□	SIDE PORT, CW, METRIC
P2-145-1016-04	P2-145-0226-16□	SIDE PORT, CW, METRIC, THRU
P2-145-1016-05	P2-145-0226-41□	SIDE PORT, CCW, METRIC, THRU, DRAINS
P2-145-1016-06	P2-145-0226-42□	SIDE PORT, CW, UNC, THRU, DRAINS
P2-145-1016-07	P2-145-0226-43□	SIDE PORT, CW, METRIC, THRU, DRAINS
P2-145-1016-08	P2-145-0226-44□	SIDE PORT, CCW, METRIC, THRU, DRAINS



TITLE	DRAWING NUMBER	REVISION	STATUS	
SERVICE PARTS P3145 DESIGN SERIES 13	P2-145-0408	B	PR	SHEET 6 OF 7

TORQUE CONTROL CARTRIDGE P2-000-0803 □ - ITEM 63



DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
HOEY	22NOV04	J. LAMBERS	17FEB06	134572

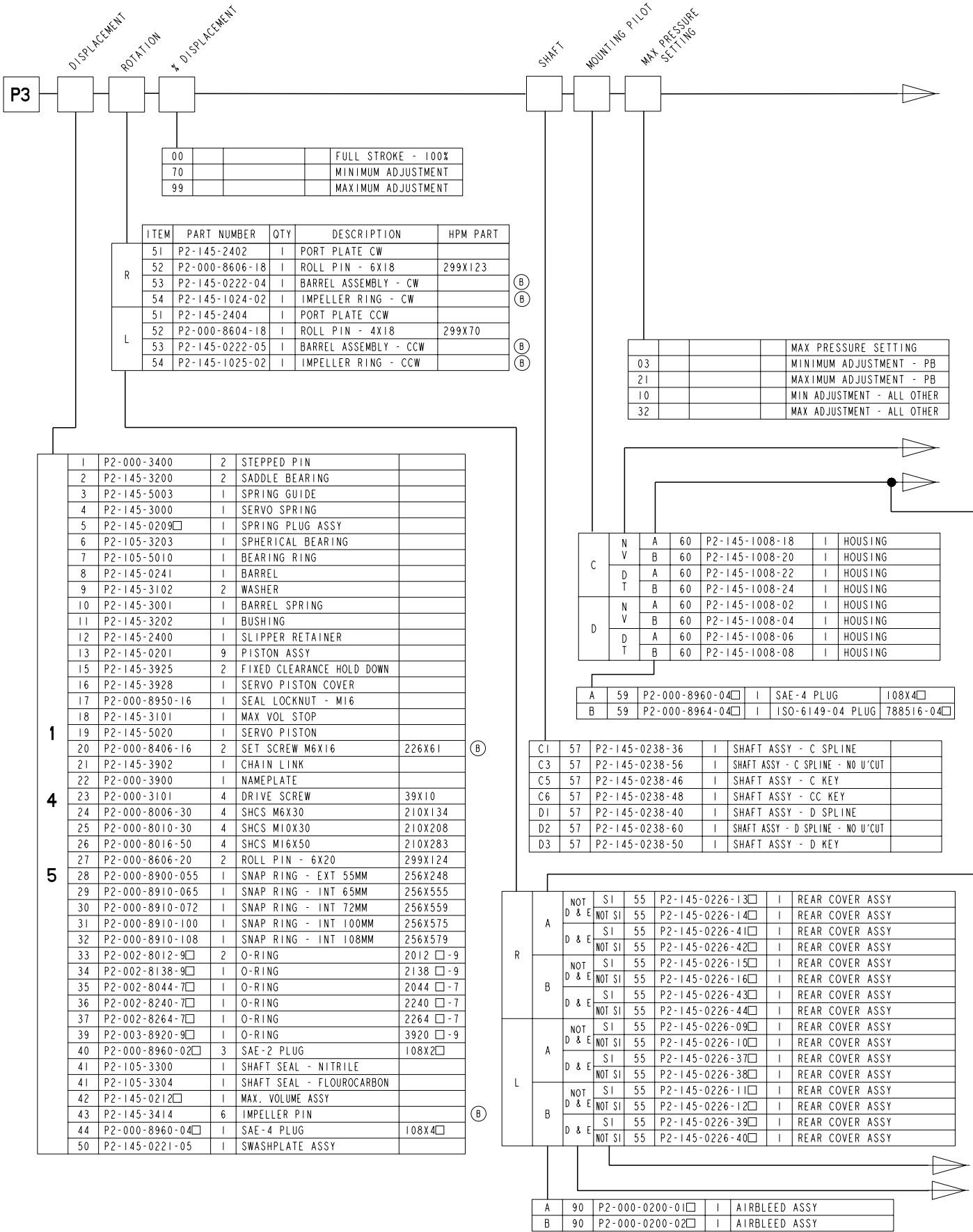
ASSEMBLY, DIS-ASSEMBLY AND REPAIR NOTES

- DISASSEMBLY STEPS FOR ENTIRE PUMP
1. REMOVE COVER SCREWS AND COVER
 2. REMOVE IMPELLER SCREWS AND IMPELLER
 3. DE-STROKE PUMP TO MINIMUM ANGLE WITH MAX VOLUME SCREW
 4. REMOVE FIXED CLEARANCE HOLD DOWN SCREWS AND HOLD DOWN PARTS
 5. REMOVE ROTATING GROUP (BARREL, SLIPPER RETAINER AND PISTONS)
 6. REMOVE SHAFT SEAL CARRIER
 7. REMOVE SHAFT
 8. REMOVE BIAS SPRING PLUG, SPRING AND RETAINER
 9. REMOVE MAX. VOLUME ASSY
 10. REMOVE SERVO PISTON
 11. REMOVE SWASHPLATE ASSEMBLY

- SHAFT SEAL REPLACEMENT
1. REMOVE SEAL CARRIER ONLY
 2. REMOVE OLD SEAL
 3. INSPECT SHAFT
 4. IF SHAFT IS WORN INSTALL NEW SEAL IN INNER LOCATION FOR SINGLE SEAL APPLICATIONS (SEE SHEET 1). REPLACE SHAFT FOR DUAL SEAL APPLICATIONS



TITLE	SERVICE PARTS P3I45 DESIGN SERIES 13	DRAWING NUMBER	P2-145-0408	REVISION	B	STATUS	PR	SHEET	7 OF 7
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DRAWN BY	HOEY	DATE	22NOV04	CHANGED BY	J. LAMBERS	DATE	17FEB06	ECN NUMBER	134572
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