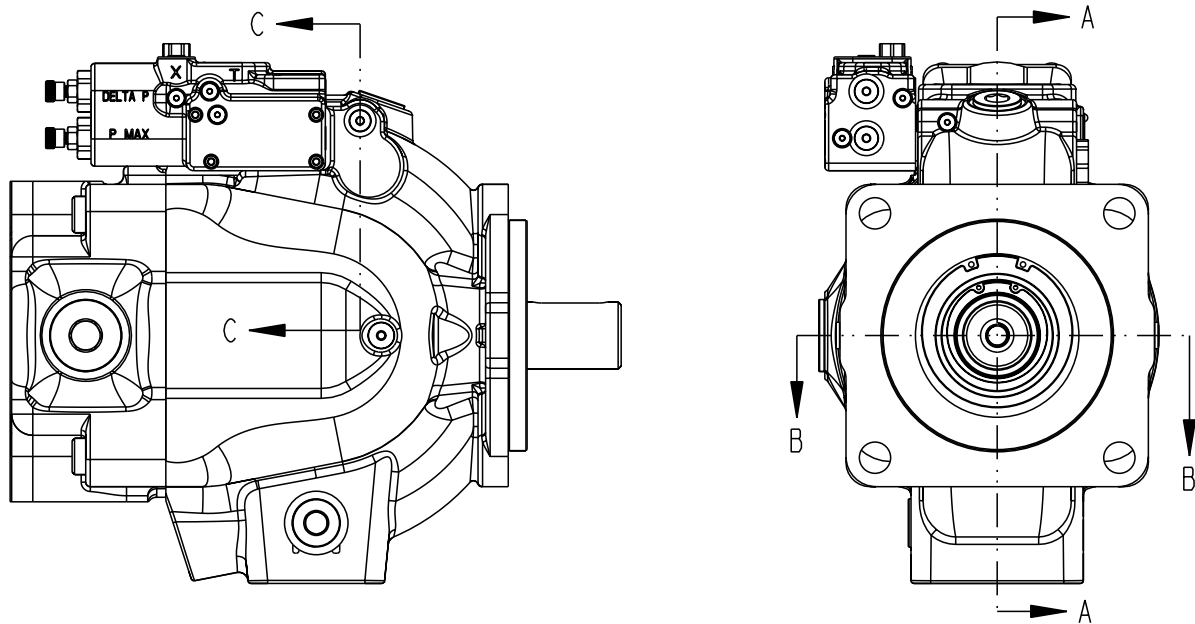
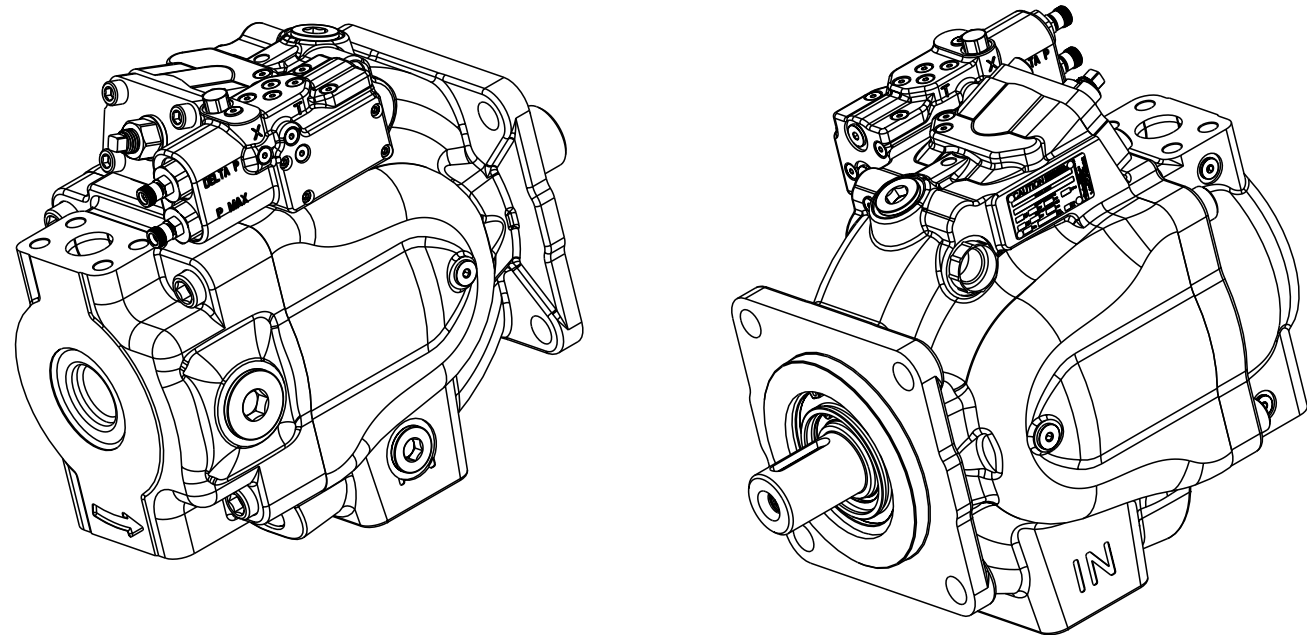
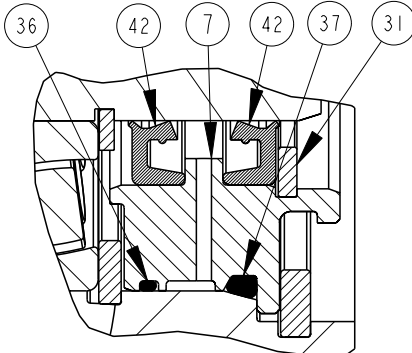
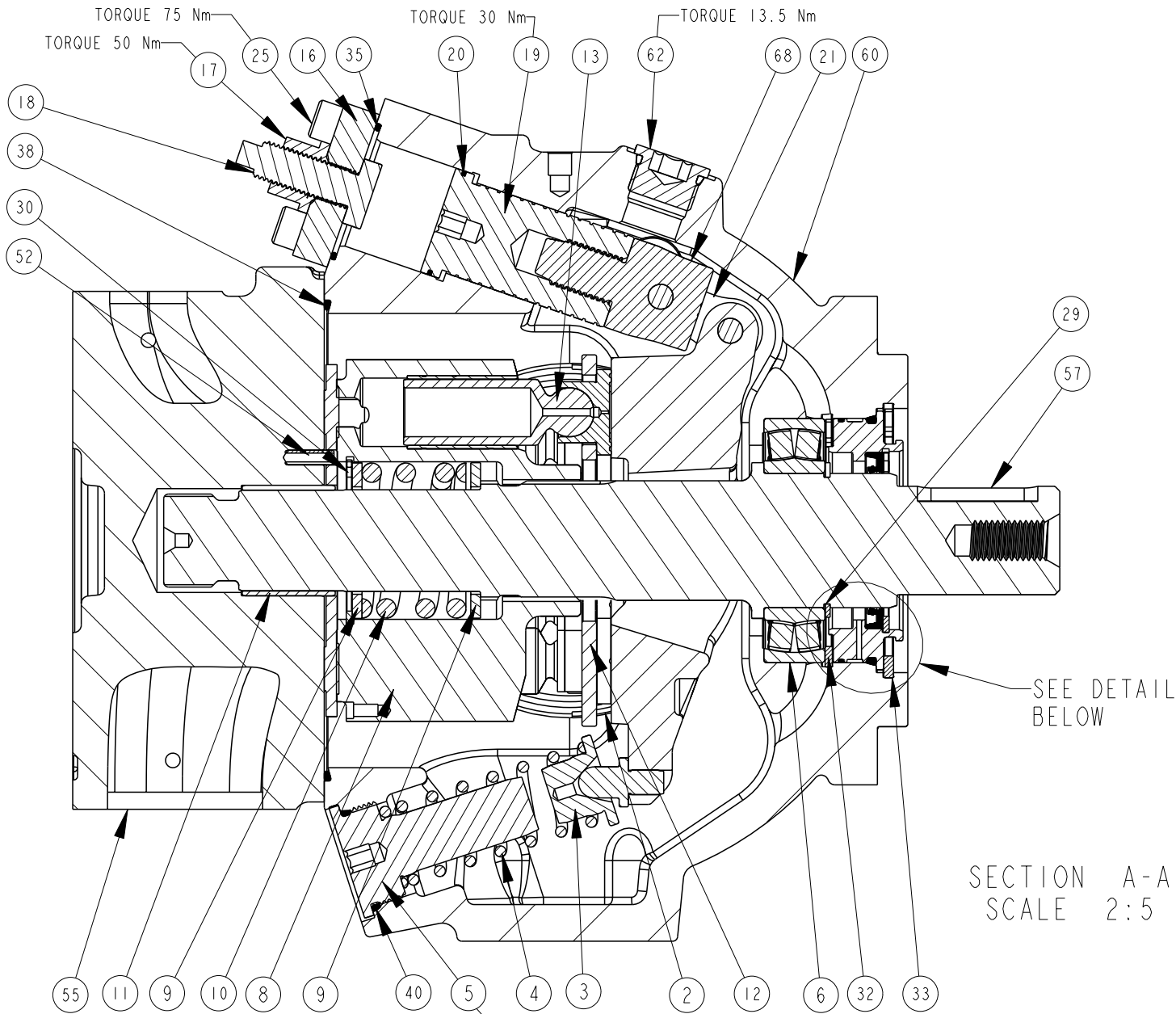


TITLE	SERVICE PARTS P2145 DESIGN SERIES 12	DRAWING NUMBER	P2-145-0405	REVISION	-	STATUS	PR	SHEET 1 OF 7
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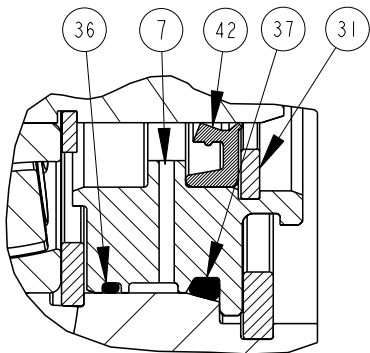
DRAWN BY	STREHLOW	DATE	31OCT02	CHANGED BY	B. LARKIN	DATE	08NOV02	ECN NUMBER	133698
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NOTES:
1. PUMP SHOWN IS A RIGHT HAND (CW) ROTATION PUMP. LEFT HAND (CCW) ROTATION PUMPS HAVE OUTLET GAUGE PORT REVERSED.

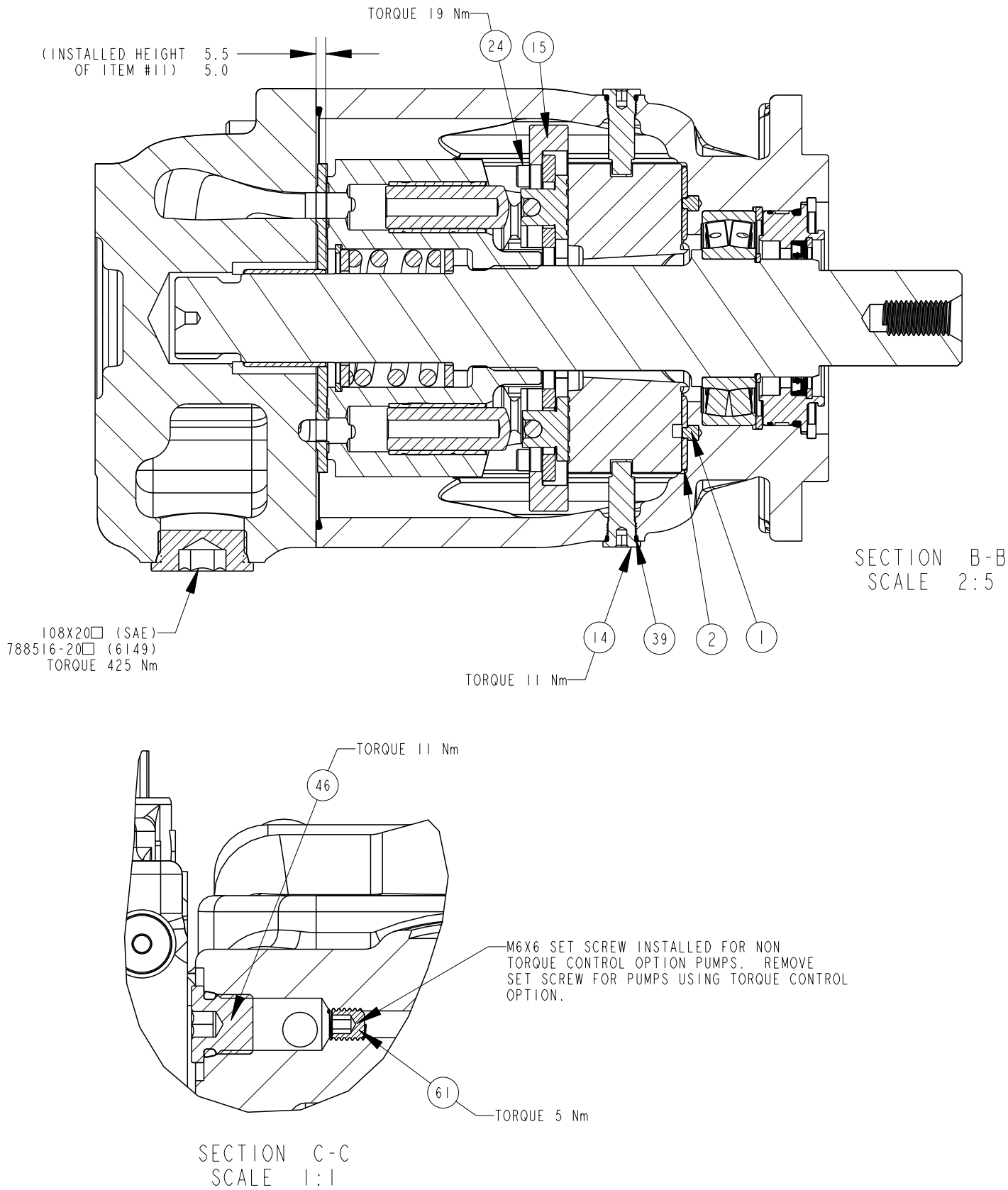


DUAL SHAFT SEAL ASSEMBLY
P2-145-0210-02□
SECTION A-A
SCALE 1:1

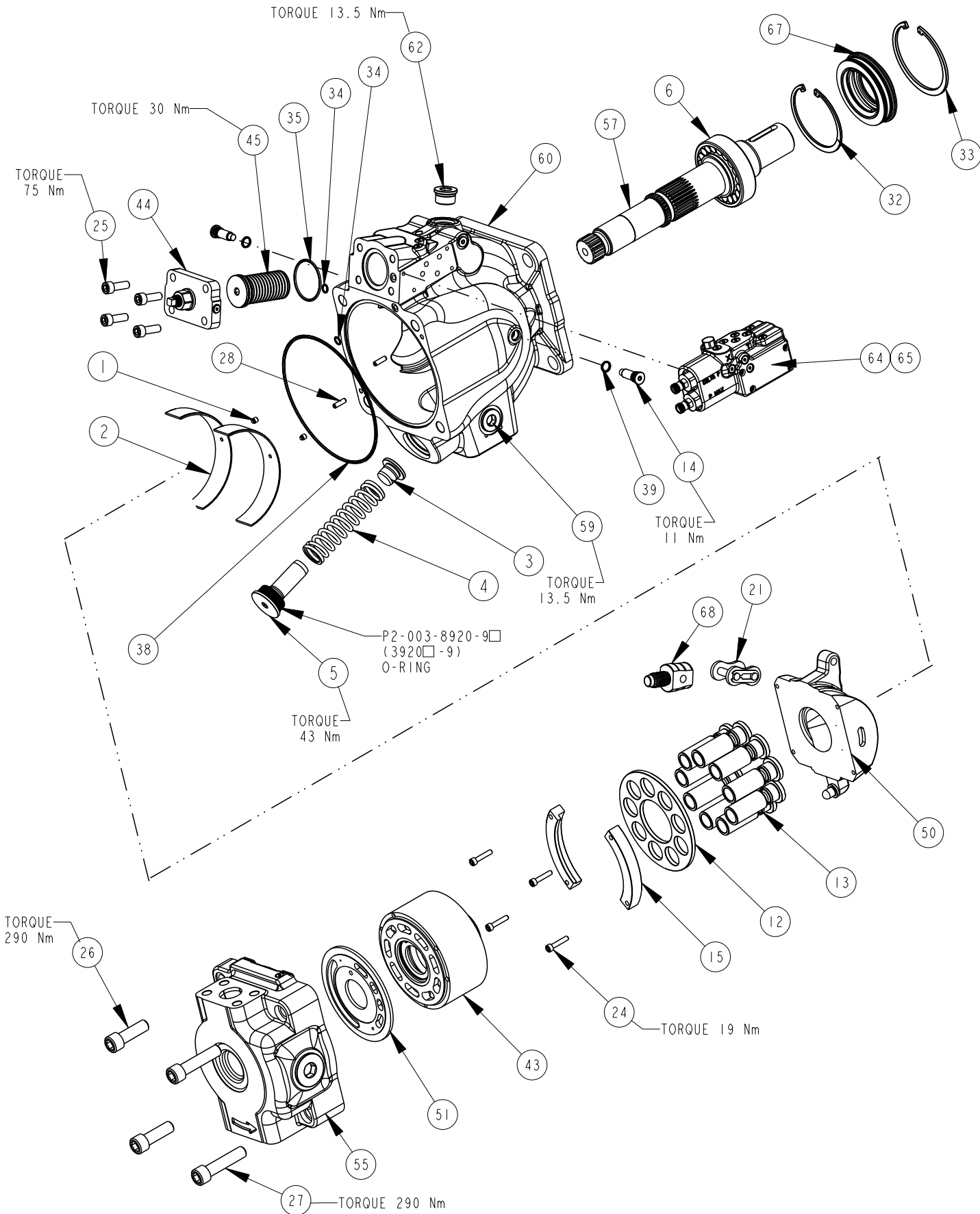


SINGLE SHAFT SEAL ASSEMBLY
P2-145-0210-01□
SECTION A-A
SCALE 1:1

TITLE	DRAWING NUMBER	REVISION	STATUS	SHEET
SERVICE PARTS P2145 DESING SERIES 12	P2-145-0405	-	PR	2 OF 7

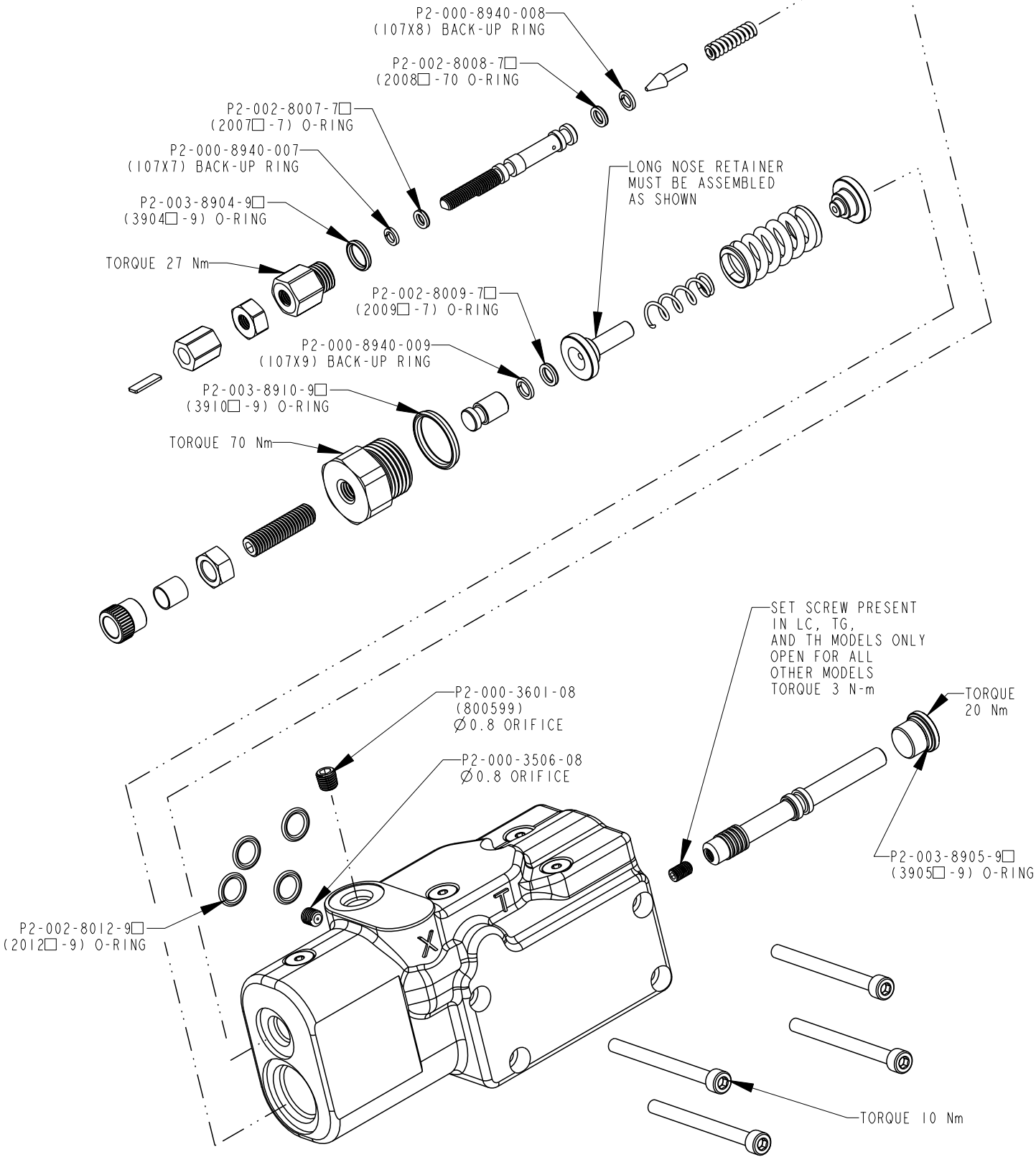


DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
STREHLOW	31OCT02	B. LARKIN	08NOV02	133698



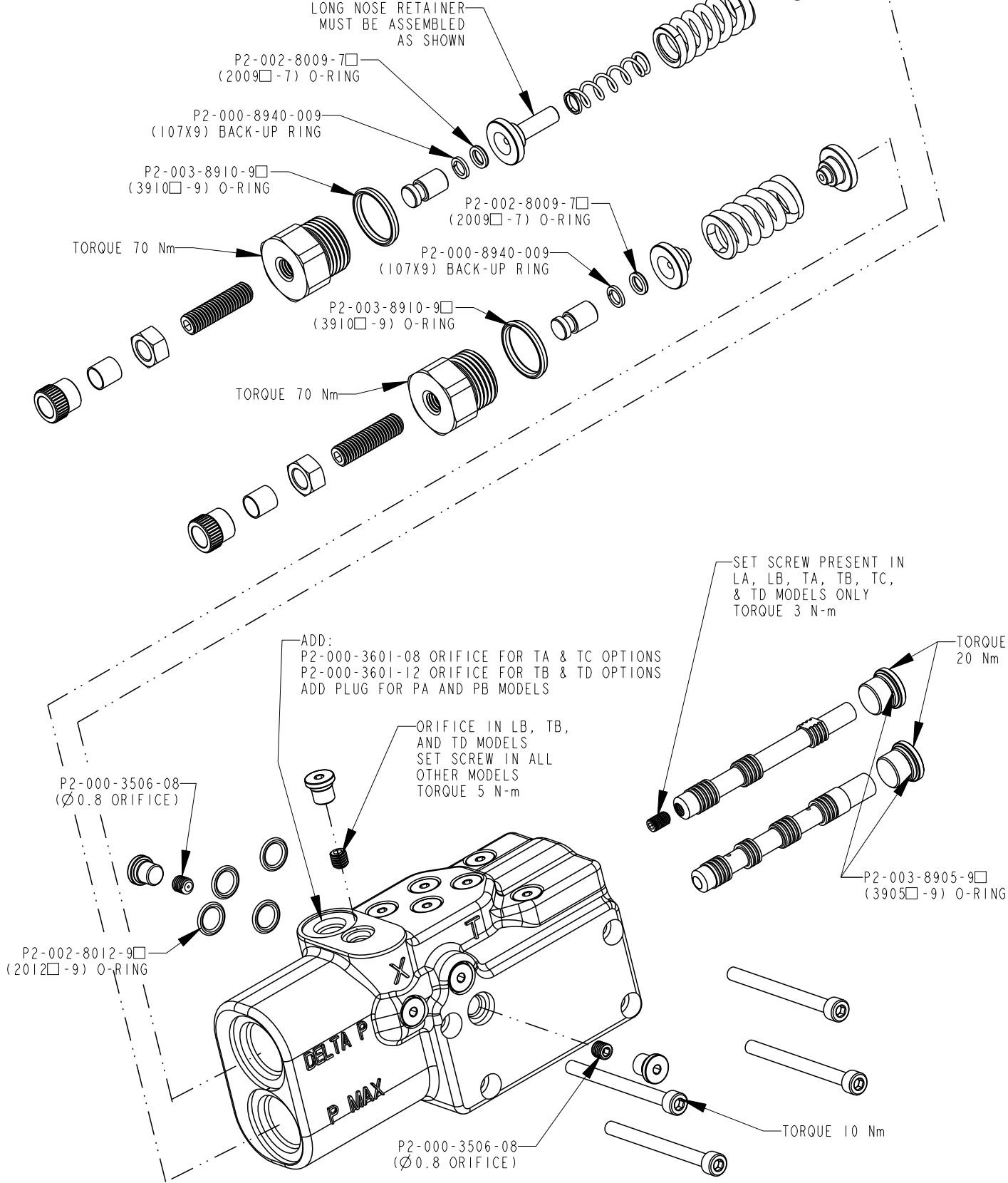
TITLE	SERVICE PARTS P2145 DESIGN SERIES 12	DRAWING NUMBER	P2-145-0405	REVISION	-	STATUS	PR	SHEET 3 OF 7
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COMPENSATOR KITS SINGLE SPOOL OPTIONS - ITEM 64

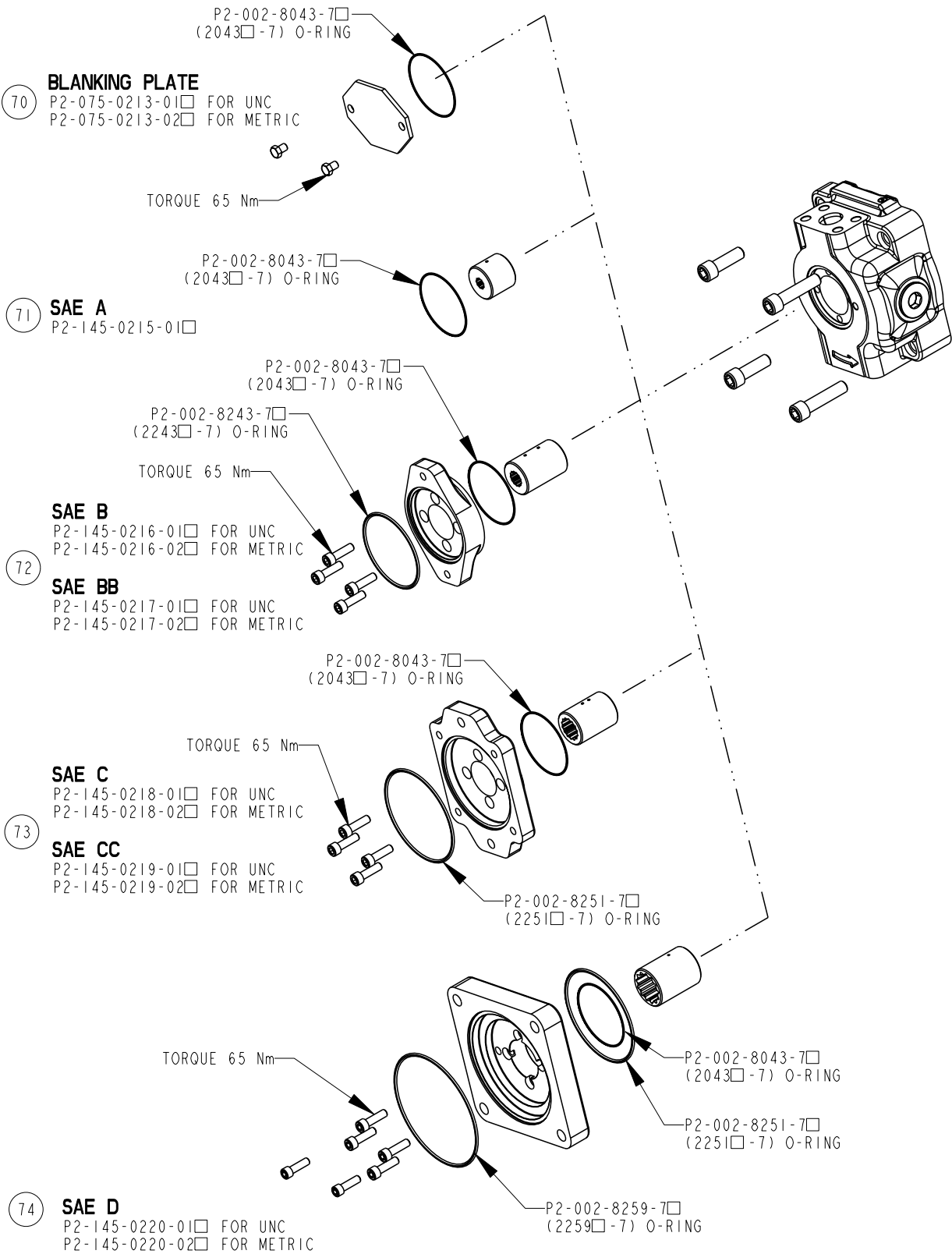


DRAWN BY	STREHLOW	DATE	31OCT02	CHANGED BY	B. LARKIN	DATE	08NOV02	ECN NUMBER	133698
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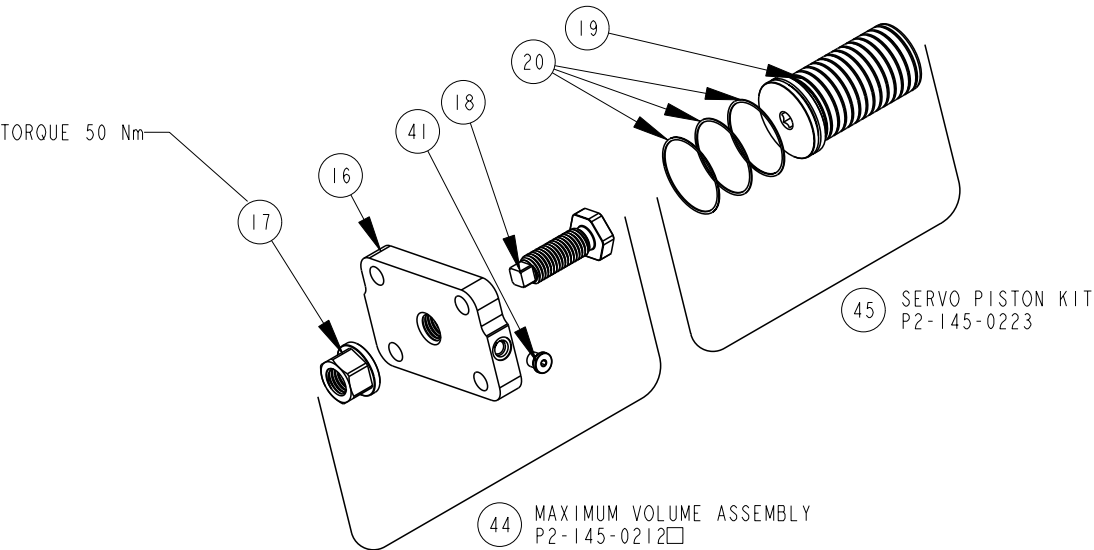
COMPENSATOR KITS DUAL SPOOL OPTIONS - ITEM 65



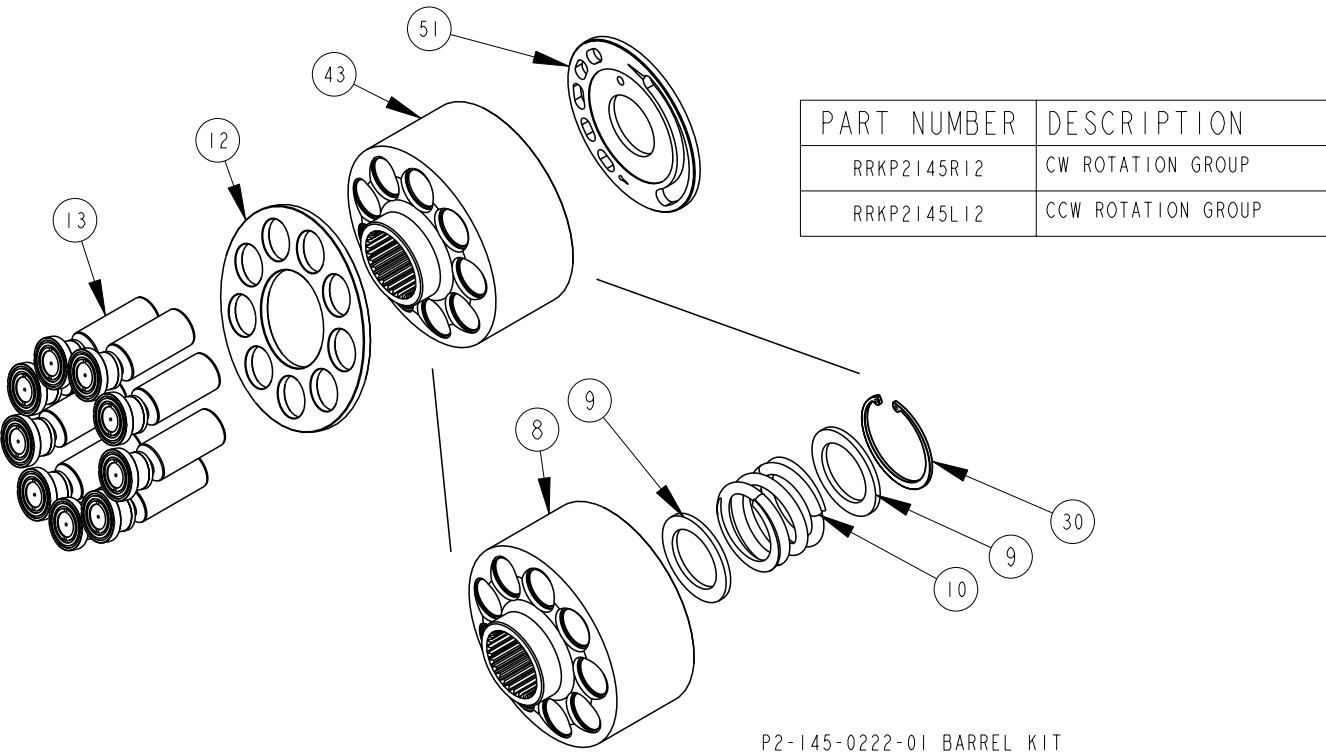
THRU DRIVE KITS



MAX VOLUME ASSEMBLY AND
SERVO PISTON KIT

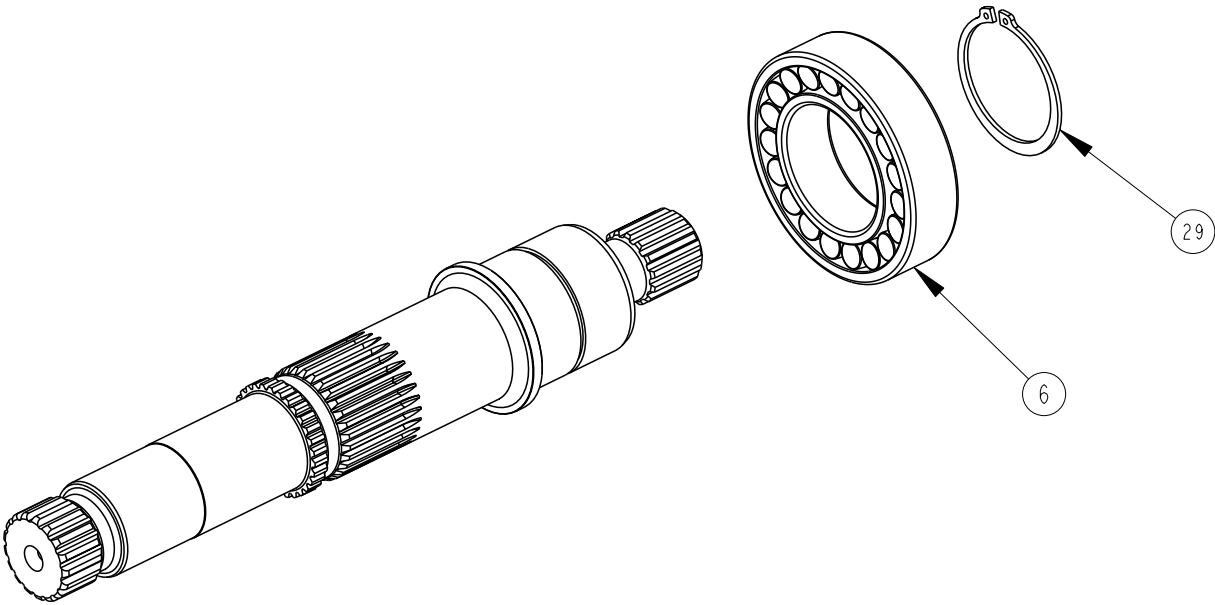


BARREL KIT AND
ROTATION GROUP KIT



TITLE	DRAWING NUMBER	REVISION	STATUS	
SERVICE PARTS P2145 DESIGN SERIES 12	P2-145-0405	-	PR	SHEET 5 OF 7

SHAFT ASSEMBLY KITS
ITEM 57

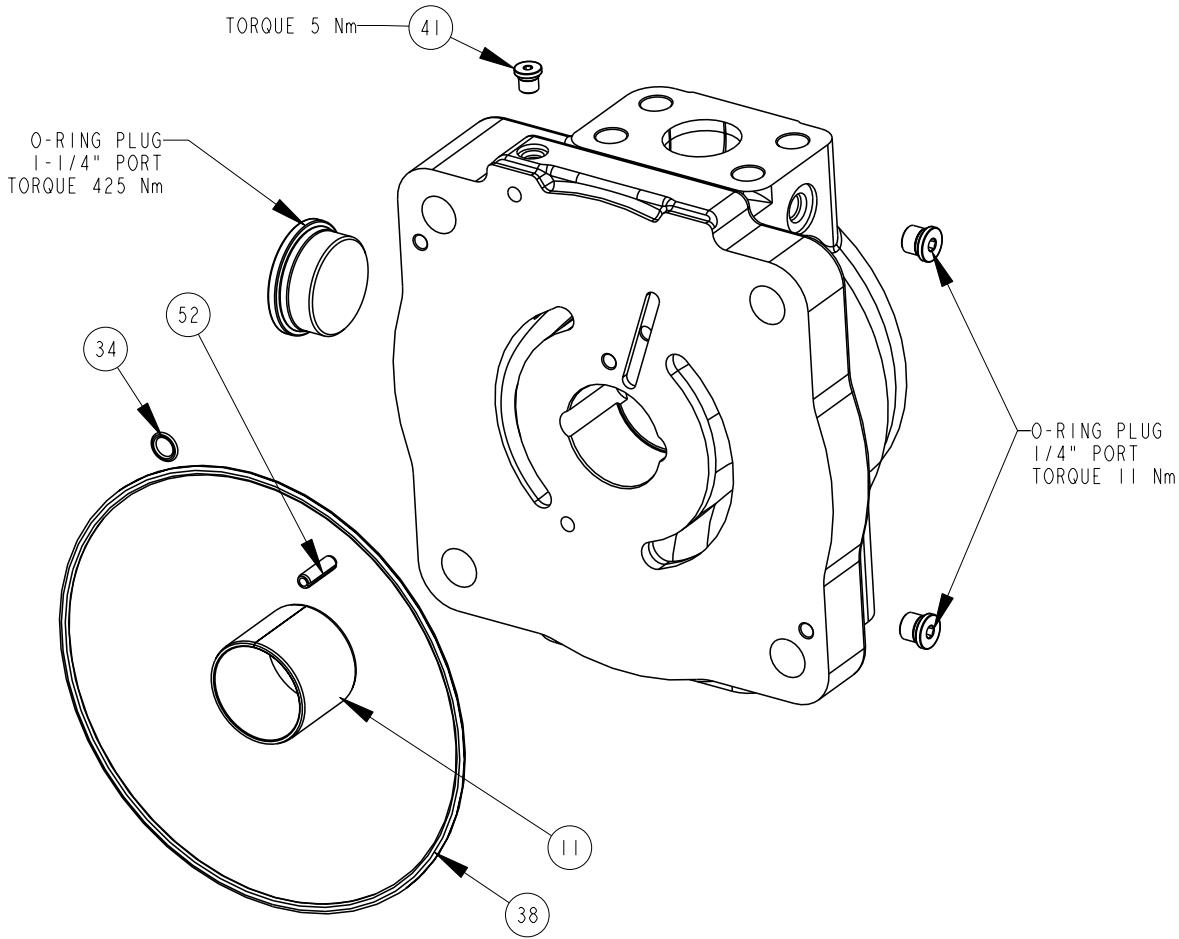


SHAFT ONLY	SHAFT ASSEMBLY	DESCRIPTION
P2-145-3725	P2-145-0238-36	C SPLINE THRU
P2-145-3719	P2-145-0238-40	D SPLINE THRU
P2-145-3733	P2-145-0238-46	C KEY THRU
P2-145-3735	P2-145-0238-48	CC KEY THRU
P2-145-3737	P2-145-0238-50	D KEY THRU
P2-145-3720	P2-145-0238-56	C SPLINE THRU NO UNDERCUT
P2-145-3746	P2-145-0238-60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



DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
STREHLOW	31OCT02	B. LARKIN	08NOV02	133698

COVER ASSEMBLY KITS
ITEM 55

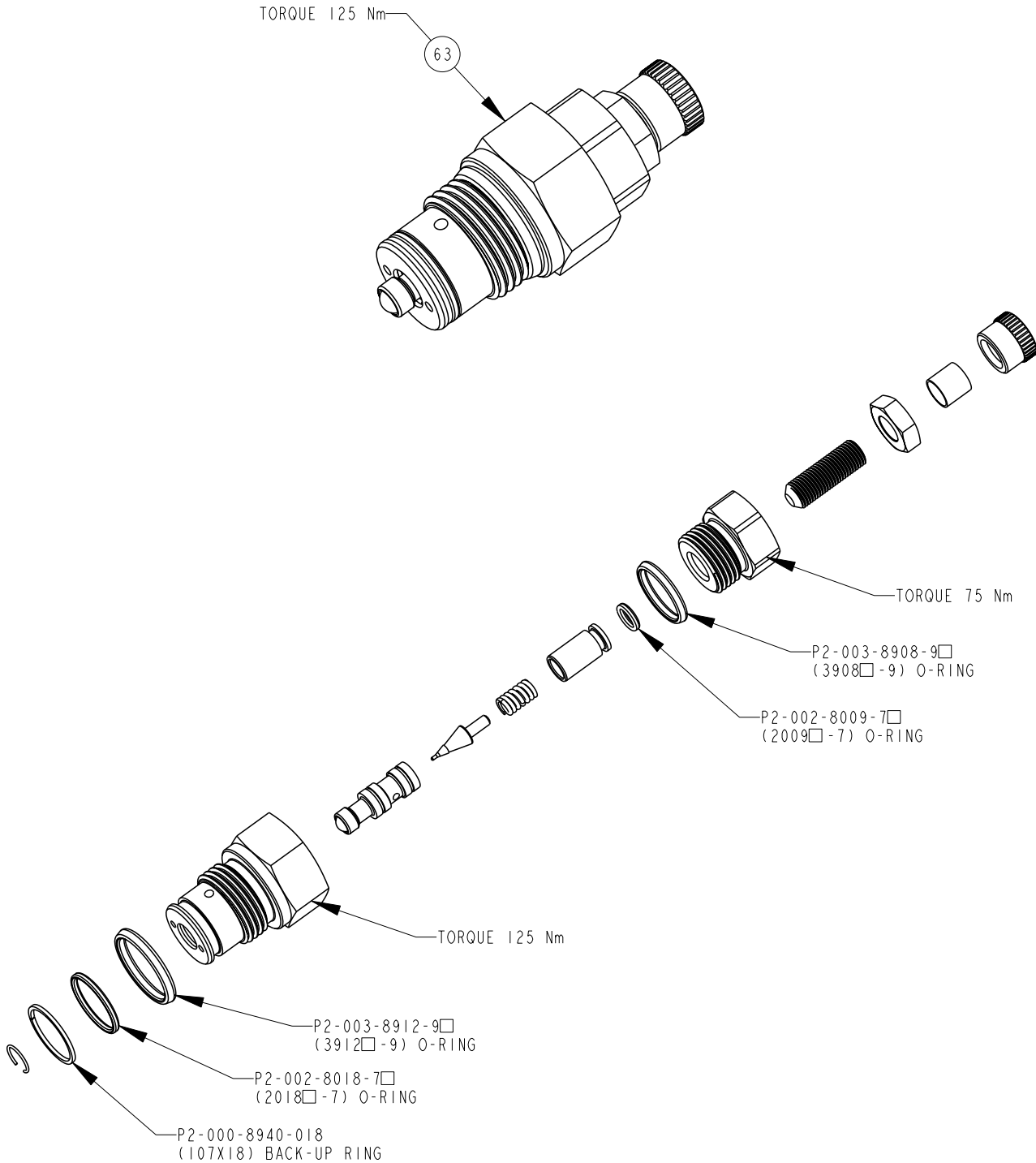


COVER ONLY	COVER ASSEMBLY	DESCRIPTION
P2-145-1013-01	P2-145-0226-01□	SIDE PORTS, CCW, UNC
P2-145-1013-02	P2-145-0226-02□	SIDE PORTS, CCW, UNC, THRU
P2-145-1013-03	P2-145-0226-03□	SIDE PORTS, CCW, METRIC
P2-145-1013-04	P2-145-0226-04□	SIDE PORTS, CCW, METRIC, THRU
P2-145-1014-01	P2-145-0226-05□	SIDE PORTS, CW, UNC
P2-145-1014-02	P2-145-0226-06□	SIDE PORTS, CW, UNC, THRU
P2-145-1014-03	P2-145-0226-07□	SIDE PORTS, CW, METRIC
P2-145-1014-04	P2-145-0226-08□	SIDE PORTS, CW, METRIC, THRU



TITLE	SERVICE PARTS P2145 DESIGN SERIES 12	DRAWING NUMBER	P2-145-0405	REVISION	-	STATUS	PR	SHEET 6 OF 7
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TORQUE CONTROL CARTRIDGE P2-000-0803 □ - ITEM 63



DRAWN BY	STREHLOW	DATE	31OCT02	CHANGED BY	B. LARKIN	DATE	08NOV02	ECN NUMBER	133698
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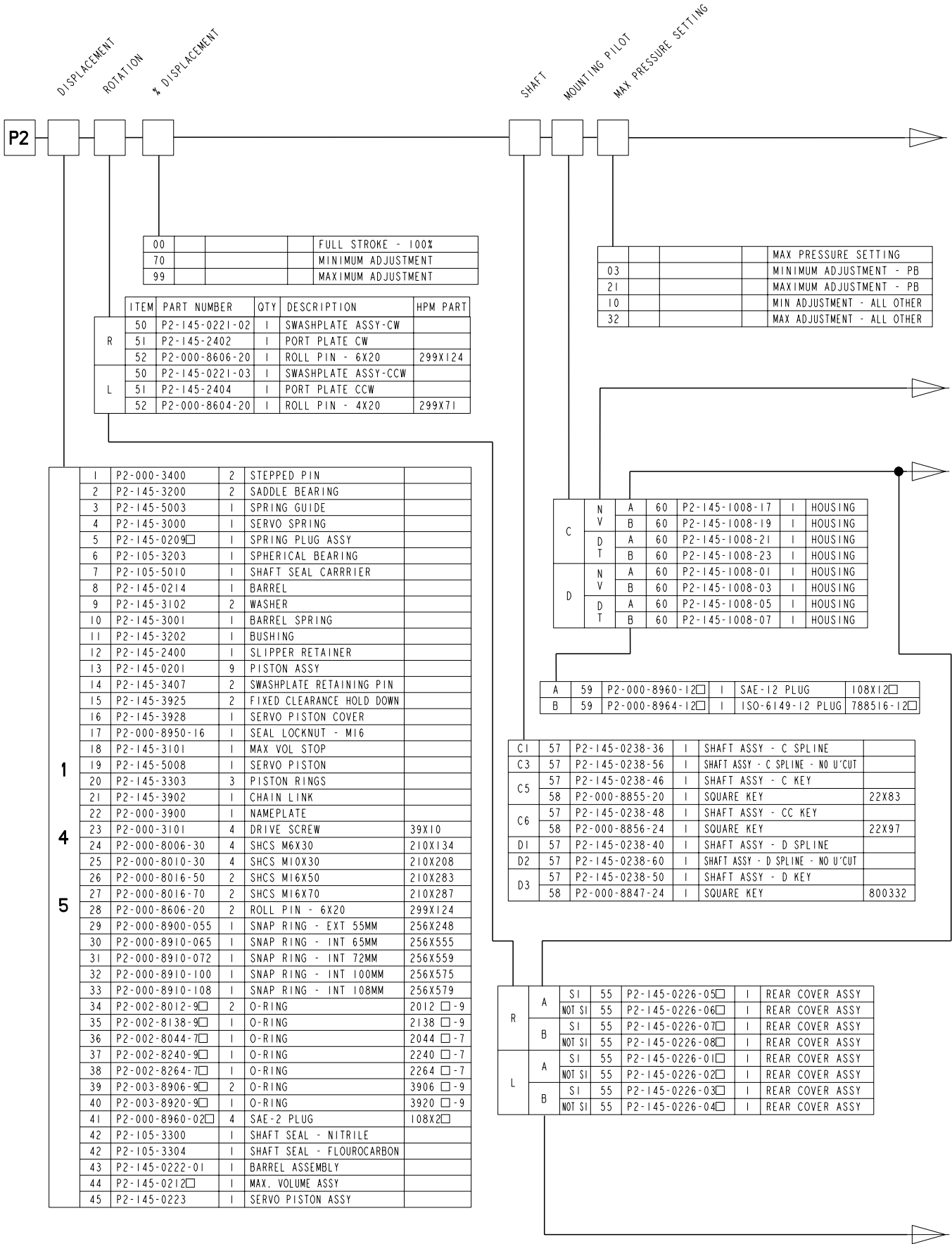
ASSEMBLY, DIS-ASSEMBLY AND REPAIR NOTES

- DISASSEMBLY STEPS FOR ENTIRE PUMP
1. REMOVE COVER SCREWS AND COVER
 2. DE-STROKE PUMP TO MINIMUM ANGLE WITH MAX VOLUME SCREW
 3. REMOVE FIXED CLEARANCE HOLD DOWN SCREWS AND HOLD DOWN PARTS
 4. REMOVE ROTATING GROUP (BARREL, SLIPPER RETAINER AND PISTONS)
 5. REMOVE SHAFT SEAL CARRIER
 6. REMOVE SHAFT
 7. REMOVE BIAS SPRING PLUG, SPRING AND RETAINER
 8. REMOVE MAX. VOLUME ASSY
 9. REMOVE SERVO PISTON ASSY.
 10. 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	DRAWING NUMBER	REVISION	STATUS	
SERVICE PARTS P2145 DESIGN SERIES 12	P2-145-0405	-	PR	SHEET 7 OF 7



DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
STREHLOW	31OCT02	B. LARKIN	08NOV02	133698

