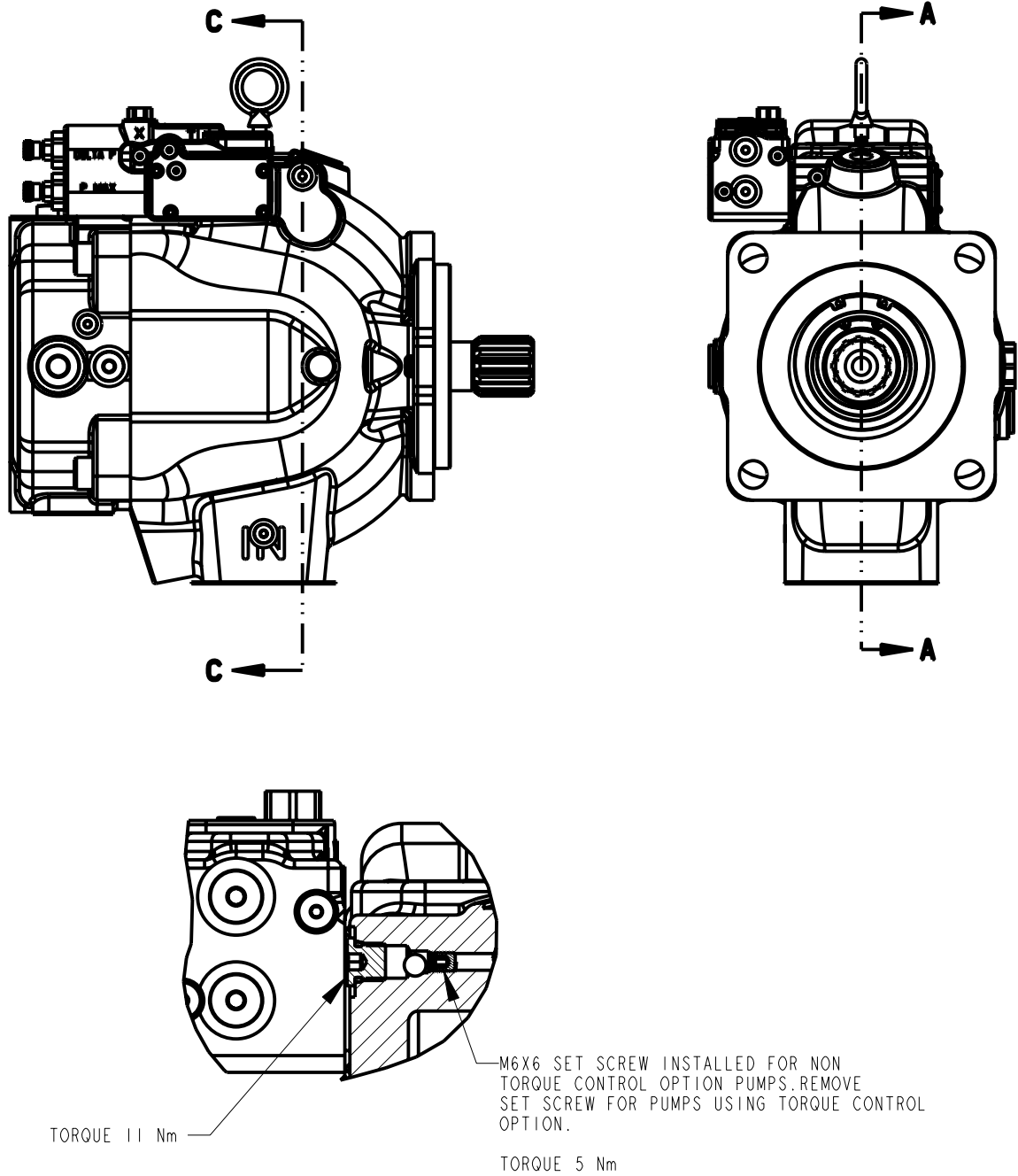


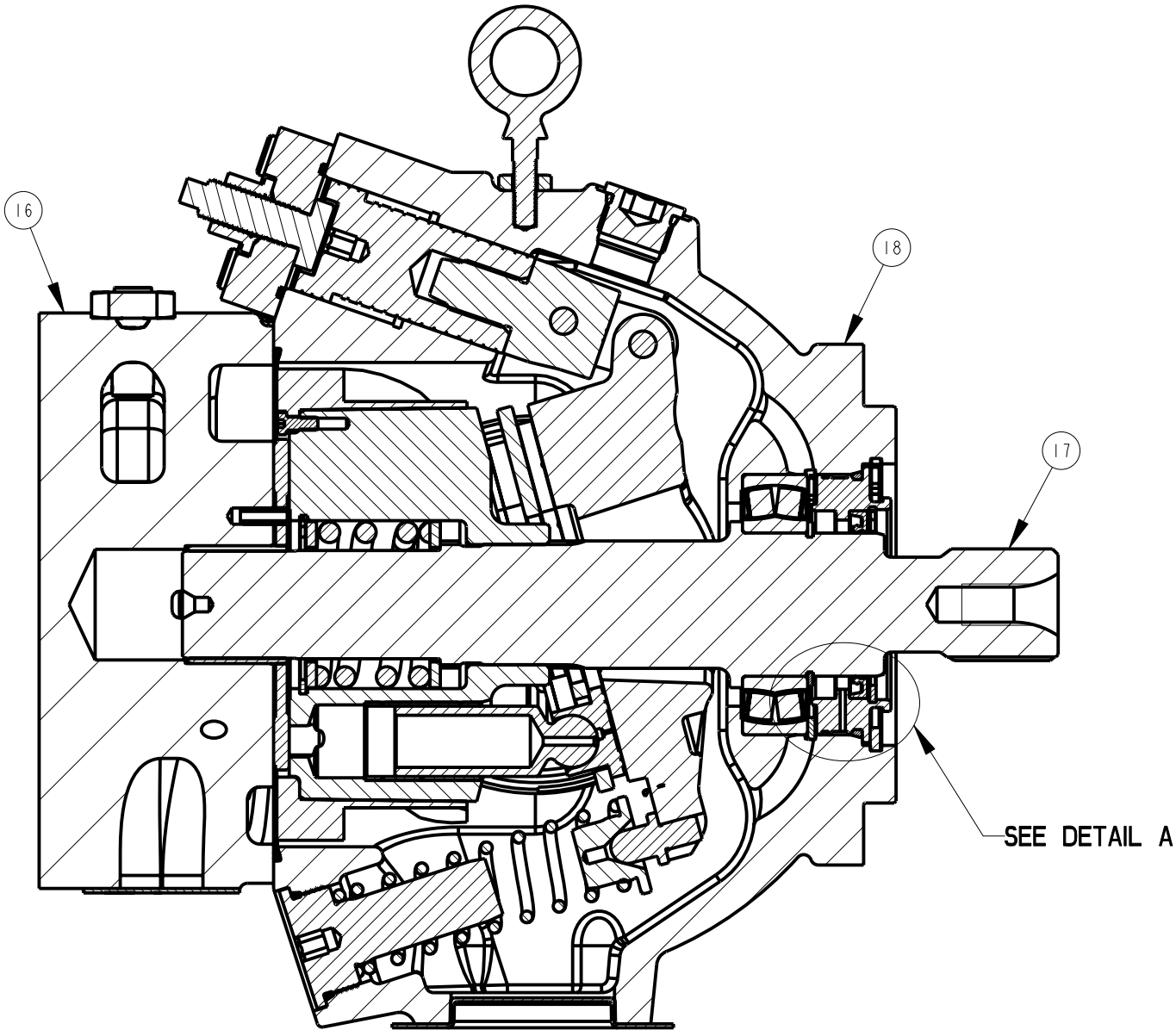
TITLE	SERVICE PARTS P3145 DESIGN SERIES 15	DRAWING NUMBER	P2-145-0412	REVISION	A	STATUS	PR	SHEET 1 OF 8
-------	---	----------------	-------------	----------	---	--------	----	--------------



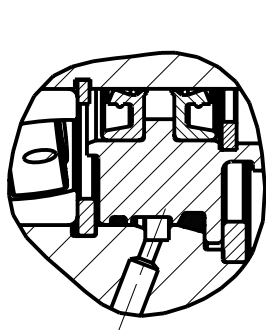
NOTES:
1 PUMP SHOWN IS A RIGHT HAND (CW) ROTATION PUMP. LEFT HAND (CCW) ROTATION PUMPS HAVE OUTLET GAUGE PORT REVERSED.



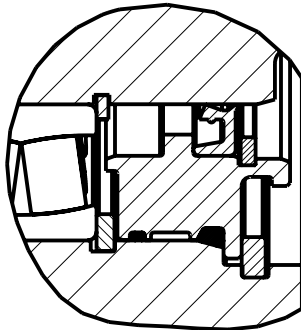
DRAWN BY	L. NAGEL	DATE	10FEB10	CHANGED BY	L. NAGEL	DATE	16DEC11	ECN NUMBER	715311
----------	----------	------	---------	------------	----------	------	---------	------------	--------



SECTION A-A

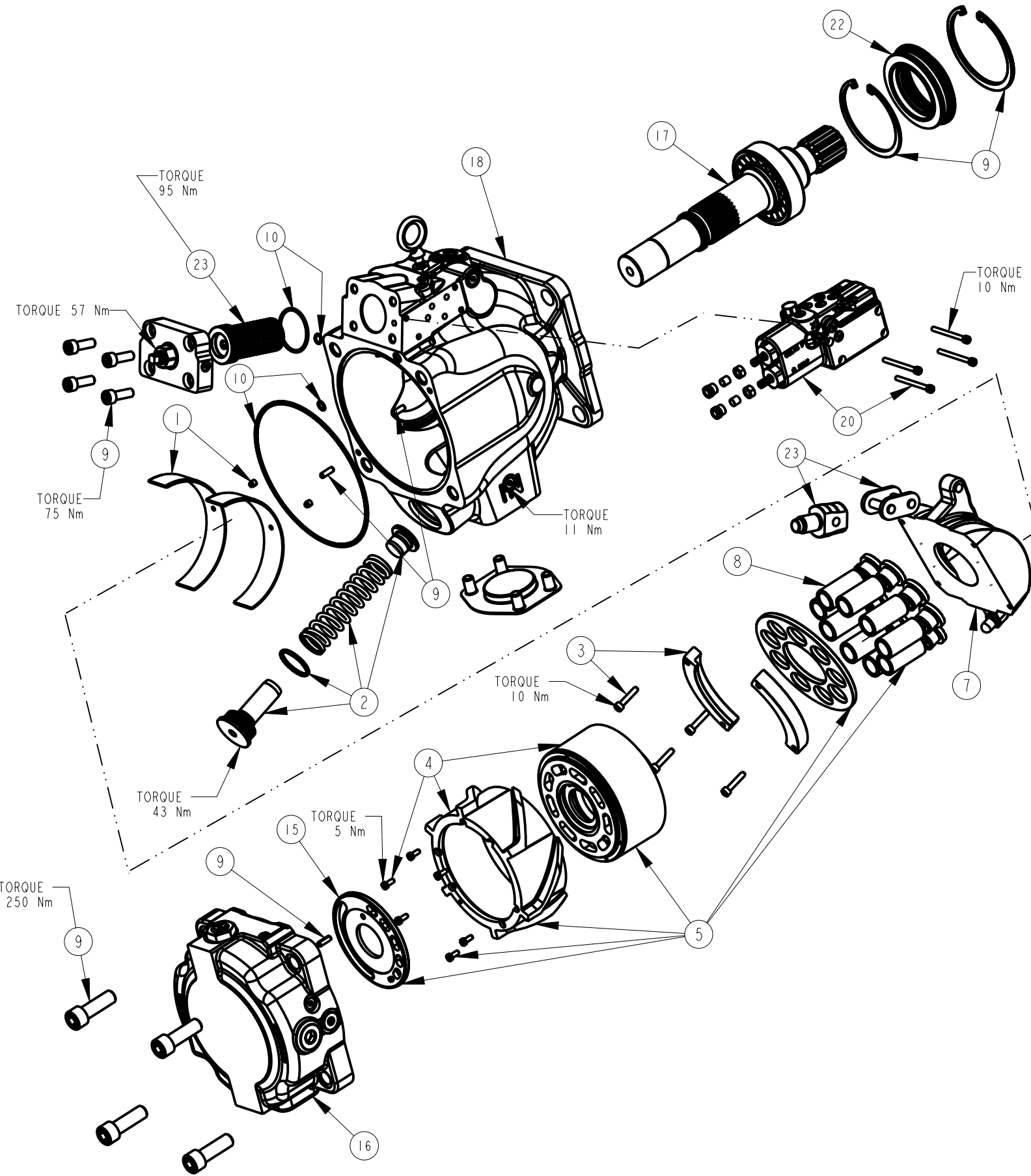


DETAIL A
DUAL SHAFT SEAL ASSEMBLY (D/T OPTION)
P2-105-0210-02□



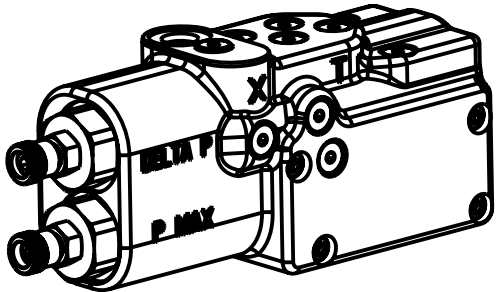
DETAIL A
SINGLE SHAFT SEAL ASSEMBLY (N/V OPTION)
P2-105-0210-01□





COMPENSATOR KITS

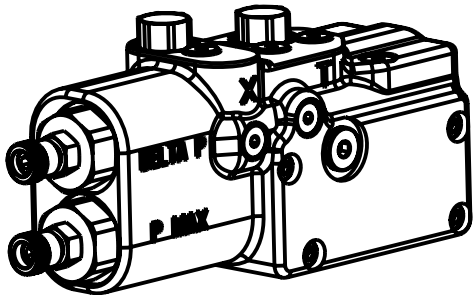
P2-075-0806-XX SPOOL OPTIONS - ITEM 20
(MODIFICATION D&E)



D&E	PA	A	20	P2-075-0806-07□	I	COMPENSATOR ASSY
		B	20	P2-075-0806-08□	I	COMPENSATOR ASSY
	RA	A	20	P2-075-0806-05□	I	COMPENSATOR ASSY
		B	20	P2-075-0806-06□	I	COMPENSATOR ASSY
	LA	A	20	P2-075-0806-01□	I	COMPENSATOR ASSY
		B	20	P2-075-0806-02□	I	COMPENSATOR ASSY
	LB	A	20	P2-075-0806-03□	I	COMPENSATOR ASSY
		B	20	P2-075-0806-04□	I	COMPENSATOR ASSY
	TA	A	20	P2-075-0806-11□	I	COMPENSATOR ASSY
		B	20	P2-075-0806-12□	I	COMPENSATOR ASSY
	TB	A	20	P2-075-0806-13□	I	COMPENSATOR ASSY
		B	20	P2-075-0806-14□	I	COMPENSATOR ASSY

WHEN ORDERING SPARE PART COMPENSATOR
PLEASE SPECIFY MAX. PRESSURE AS WELL AS
DELTA P PRESSURE IN YOUR ORDER

P2-145-0807-XX SPOOL OPTIONS - ITEM 20
(MODIFICATION U&P)



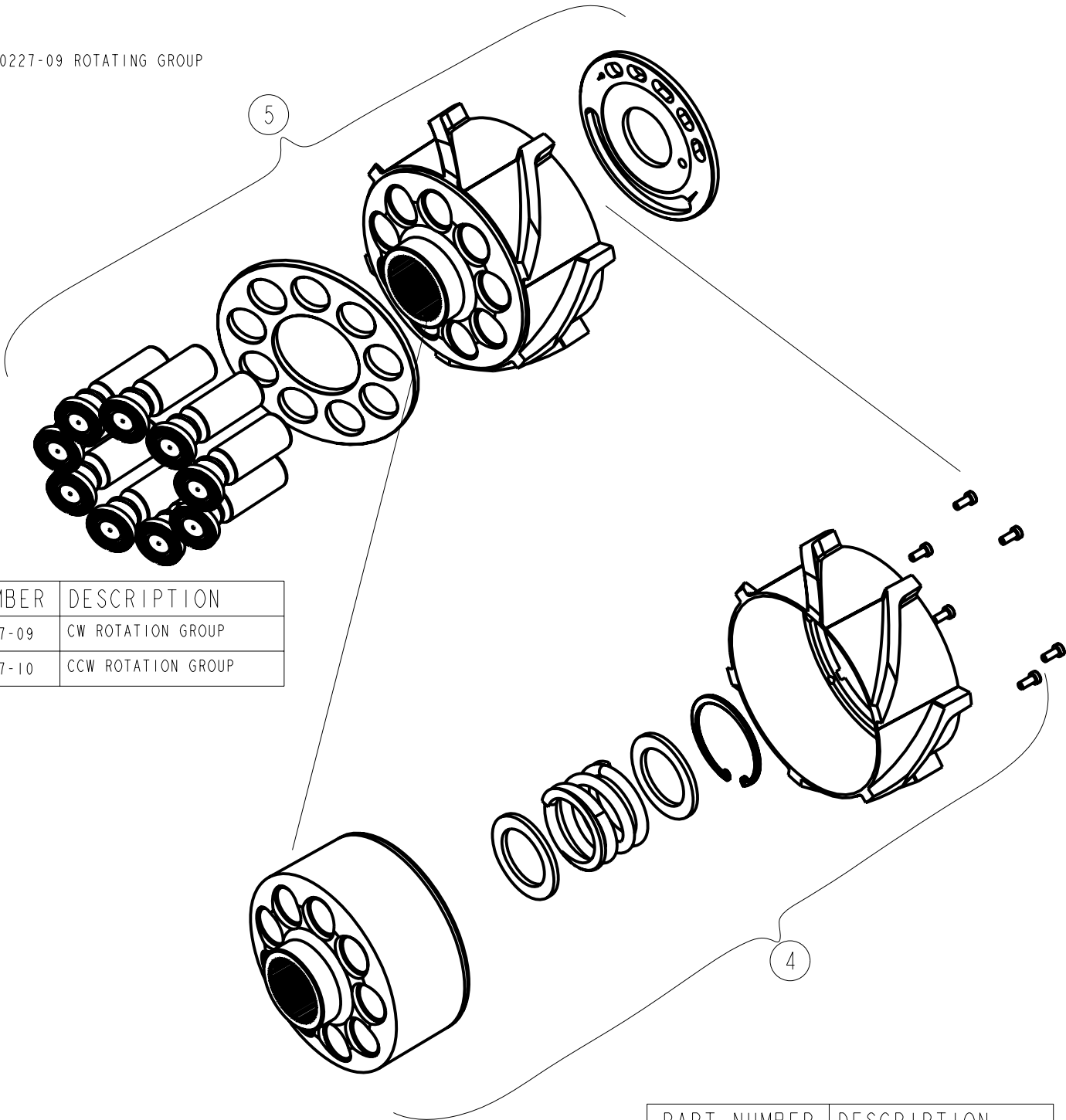
NOT D&E	PA	A	20	P2-145-0807-07□	I	COMPENSATOR ASSY
		B	20	P2-145-0807-08□	I	COMPENSATOR ASSY
	RA	A	20	P2-145-0807-05□	I	COMPENSATOR ASSY
		B	20	P2-145-0807-06□	I	COMPENSATOR ASSY
	LA	A	20	P2-145-0807-01□	I	COMPENSATOR ASSY
		B	20	P2-145-0807-02□	I	COMPENSATOR ASSY
	LB	A	20	P2-145-0807-03□	I	COMPENSATOR ASSY
		B	20	P2-145-0807-04□	I	COMPENSATOR ASSY
	TA	A	20	P2-145-0807-11□	I	COMPENSATOR ASSY
		B	20	P2-145-0807-12□	I	COMPENSATOR ASSY
	TB	A	20	P2-145-0807-13□	I	COMPENSATOR ASSY
		B	20	P2-145-0807-14□	I	COMPENSATOR ASSY

WHEN ORDERING SPARE PART COMPENSATOR
PLEASE SPECIFY MAX. PRESSURE AS WELL AS
DELTA P PRESSURE IN YOUR ORDER



ROTATING GROUP / BARREL KIT
ITEM 5
ITEM 4

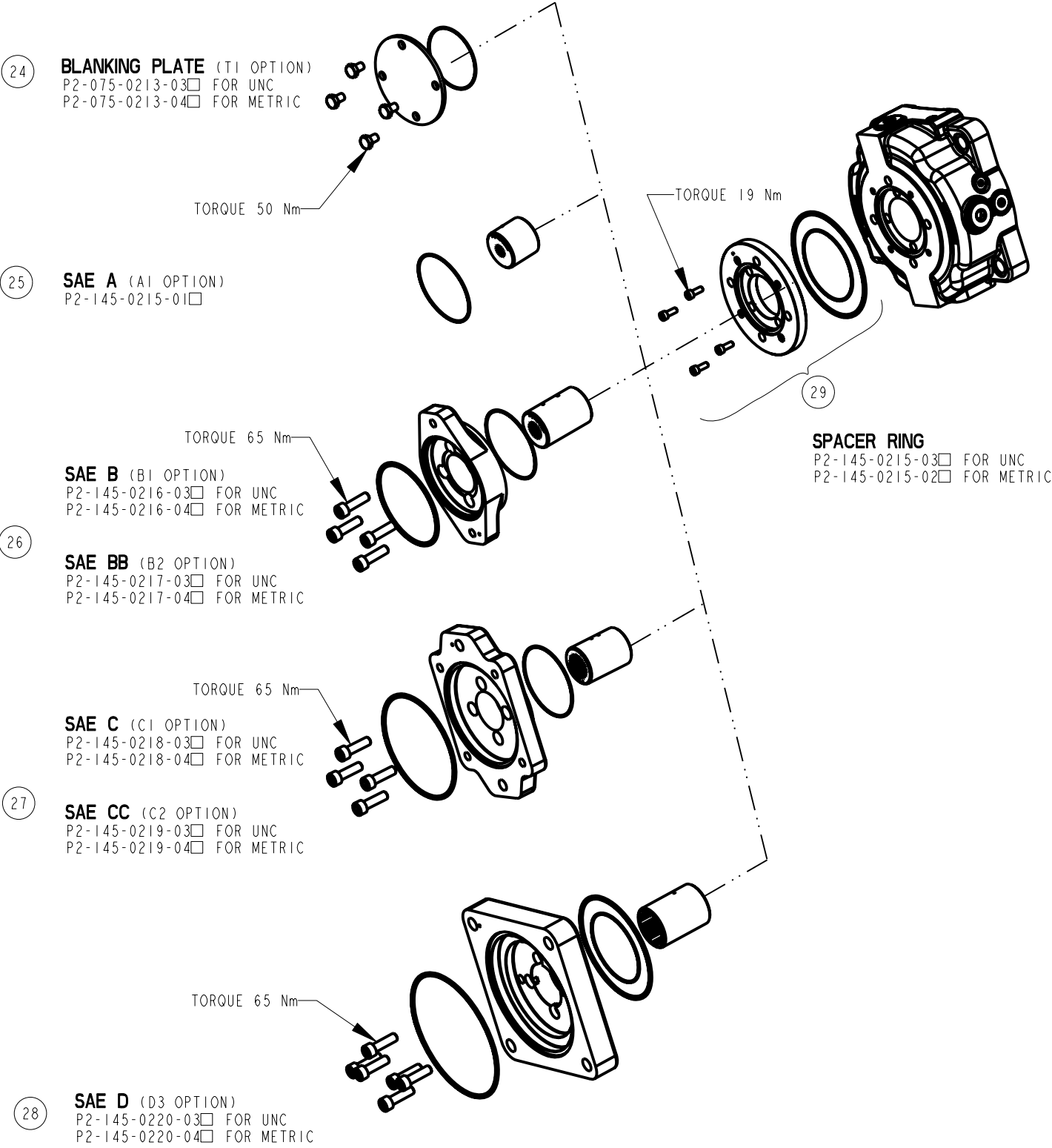
SHOWN:
P2-145-0227-09 ROTATING GROUP



PART NUMBER	DESCRIPTION
P2-145-0227-09	CW ROTATION GROUP
P2-145-0227-10	CCW ROTATION GROUP

PART NUMBER	DESCRIPTION
P2-145-0222-06	CW BARREL KIT
P2-145-0222-07	CCW BARREL KIT

THRU DRIVE KITS



24 **BLANKING PLATE** (T1 OPTION)
P2-075-0213-03 ☐ FOR UNC
P2-075-0213-04 ☐ FOR METRIC

25 **SAE A** (A1 OPTION)
P2-145-0215-01 ☐

26 **SAE B** (B1 OPTION)
P2-145-0216-03 ☐ FOR UNC
P2-145-0216-04 ☐ FOR METRIC

SAE BB (B2 OPTION)
P2-145-0217-03 ☐ FOR UNC
P2-145-0217-04 ☐ FOR METRIC

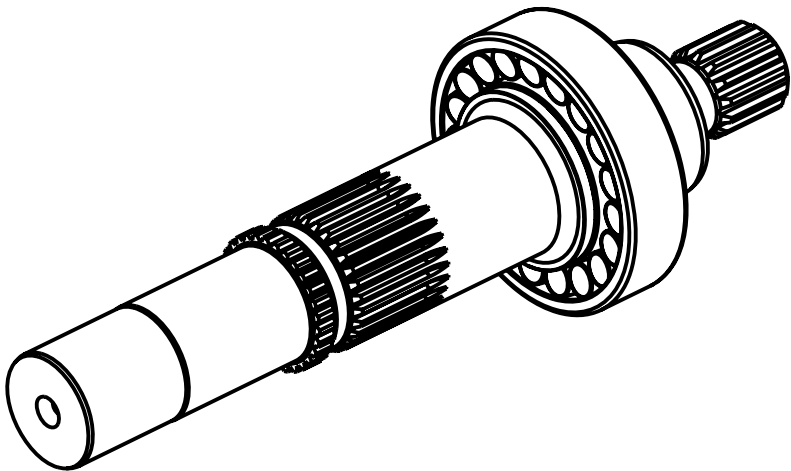
27 **SAE C** (C1 OPTION)
P2-145-0218-03 ☐ FOR UNC
P2-145-0218-04 ☐ FOR METRIC

SAE CC (C2 OPTION)
P2-145-0219-03 ☐ FOR UNC
P2-145-0219-04 ☐ FOR METRIC

28 **SAE D** (D3 OPTION)
P2-145-0220-03 ☐ FOR UNC
P2-145-0220-04 ☐ FOR METRIC

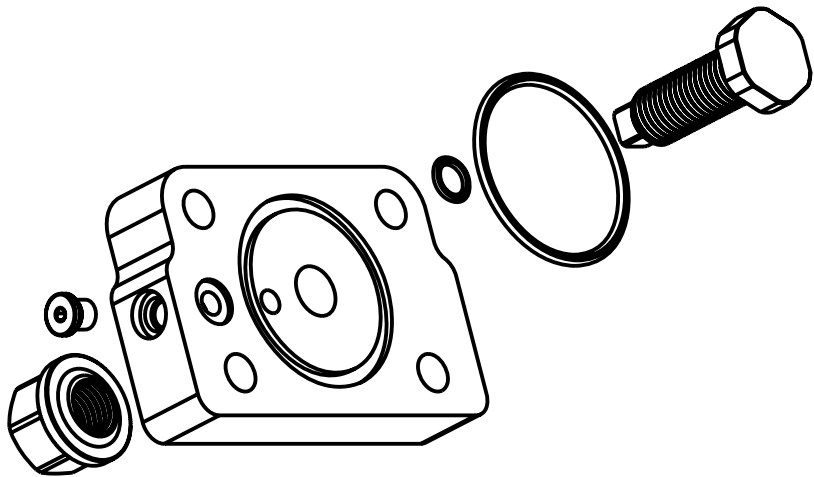
29 **SPACER RING**
P2-145-0215-03 ☐ FOR UNC
P2-145-0215-02 ☐ FOR METRIC

SHAFT ASSEMBLY KITS
ITEM 17



	SHAFT ASSEMBLY	DESCRIPTION
C1	P2-145-0238-36	C SPLINE THRU
C1	P2-145-0238-37	C SPLINE NOT THRU
D1	P2-145-0238-40	D SPLINE THRU
D1	P2-145-0238-41	D SPLINE NOT THRU
C5	P2-145-0238-46	C KEY THRU
C5	P2-145-0238-47	C KEY NOT THRU
C6	P2-145-0238-48	CC KEY THRU
C6	P2-145-0238-49	CC KEY NOT THRU
D3	P2-145-0238-50	D KEY THRU
D3	P2-145-0238-51	D KEY NOT THRU
C3	P2-145-0238-56	C SPLINE THRU NO UNDERCUT
C3	P2-145-0238-57	C SPLINE NOT THRU NO UNDERCUT
D2	P2-145-0238-60	D SPLINE THRU NO UNDERCUT
D2	P2-145-0238-61	D SPLINE NOT THRU NO UNDERCUT

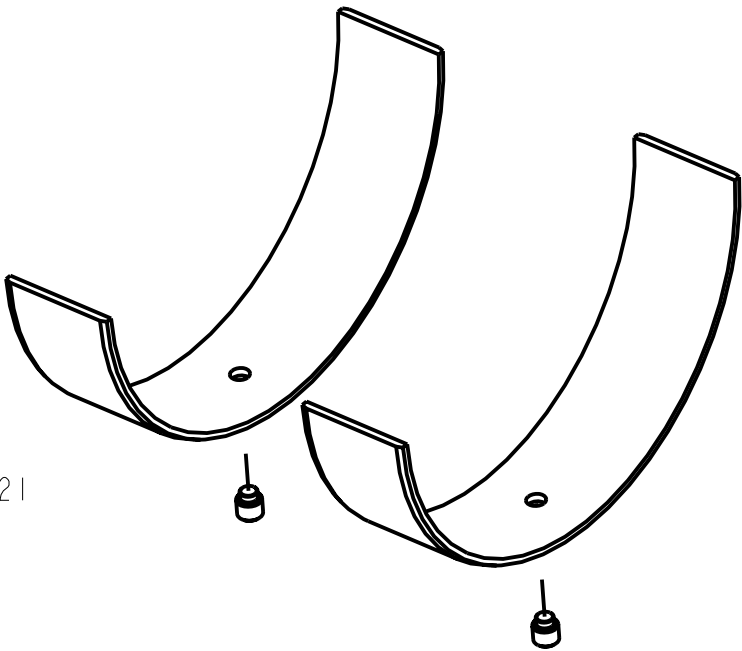
MAX. VOLUME ASSEMBLY
ITEM 6



P2-145-0212-01□

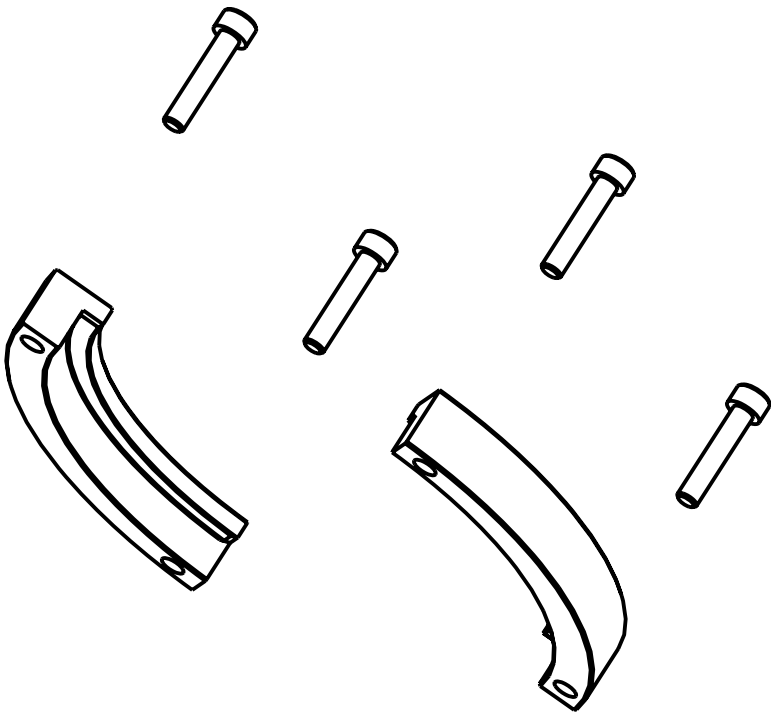


KIT SADDLE BEARING
ITEM 1



P2-145-0229-21

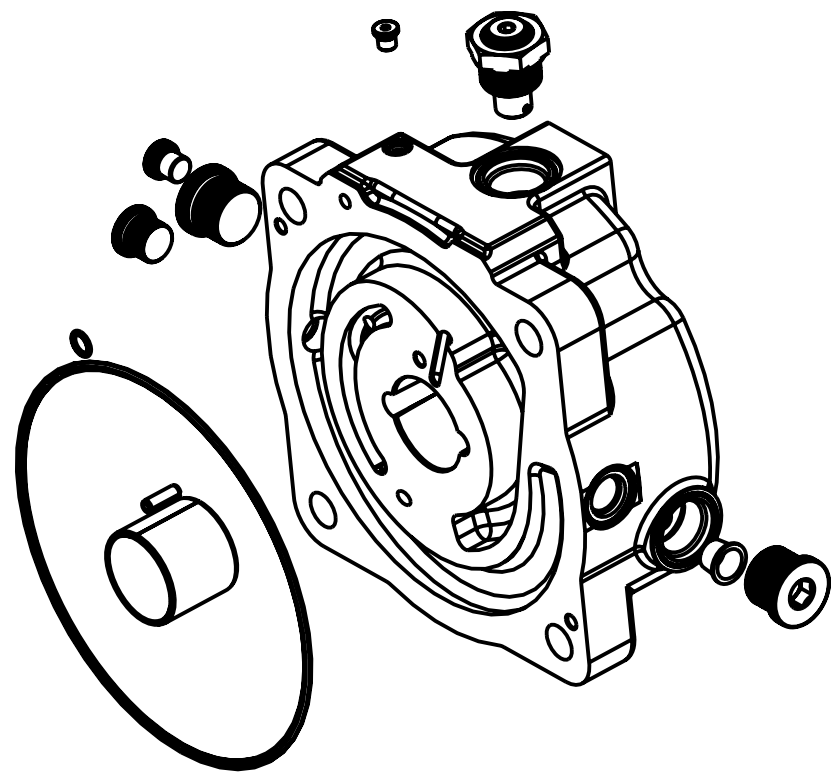
KIT FIXED CLEARANCE HOLD DOWN
ITEM 3



P2-145-0229-23



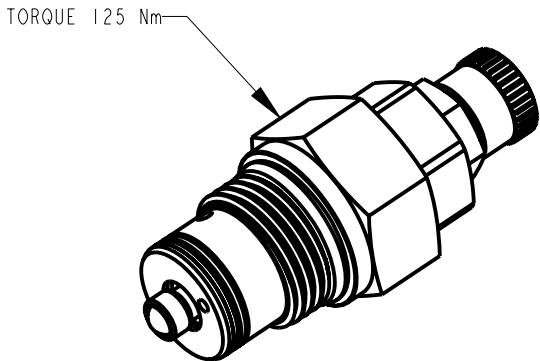
COVER ASSEMBLY KITS
ITEM 16



	THRDS	CODE		COVER ASSEMBLY	DESCRIPTION
L	A	U & P	SI	P2-105-0226-09□	SIDE PORT, CCW, UNC
	A	U & P	NOT SI	P2-105-0226-10□	SIDE PORT, CCW, UNC, THRU
	B	U & P	SI	P2-105-0226-11□	SIDE PORT, CCW, METRIC
	B	U & P	NOT SI	P2-105-0226-12□	SIDE PORT, CCW, METRIC, THRU
	A	D & E	SI	P2-105-0226-37□	SIDE PORT, CCW, UNC, DRAINS
	A	D & E	NOT SI	P2-105-0226-38□	SIDE PORT, CCW, UNC, THRU, DRAINS
	B	D & E	SI	P2-105-0226-39□	SIDE PORT, CCW, METRIC, DRAINS
	B	D & E	NOT SI	P2-105-0226-40□	SIDE PORT, CCW, METRIC, THRU, DRAINS
R	A	U & P	SI	P2-105-0226-13□	SIDE PORT, CW, UNC
	A	U & P	NOT SI	P2-105-0226-14□	SIDE PORT, CW, UNC, THRU
	B	U & P	SI	P2-105-0226-15□	SIDE PORT, CW, METRIC
	B	U & P	NOT SI	P2-105-0226-16□	SIDE PORT, CW, METRIC, THRU
	A	D & E	SI	P2-105-0226-41□	SIDE PORT, CW, UNC, DRAINS
	A	D & E	NOT SI	P2-105-0226-42□	SIDE PORT, CW, UNC, THRU, DRAINS
	B	D & E	SI	P2-105-0226-43□	SIDE PORT, CW, METRIC, DRAINS
	B	D & E	NOT SI	P2-105-0226-44□	SIDE PORT, CW, METRIC, THRU, DRAINS

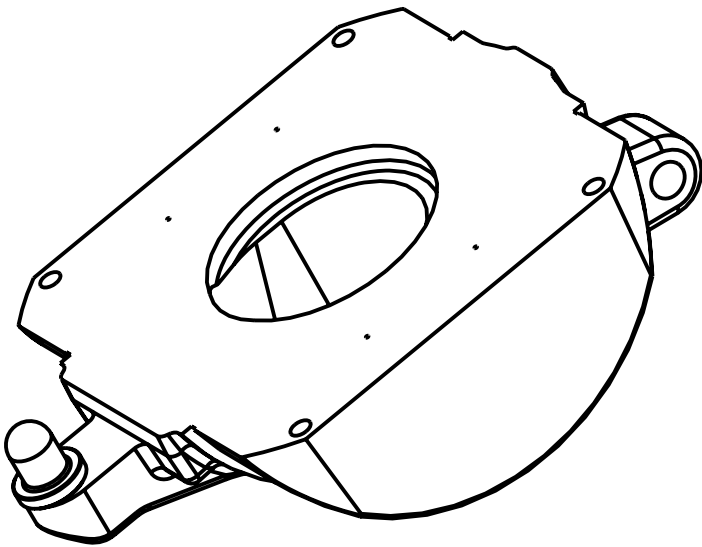


TORQUE CONTROL CARTRIDGE
ITEM 19



P2-000-0803 □

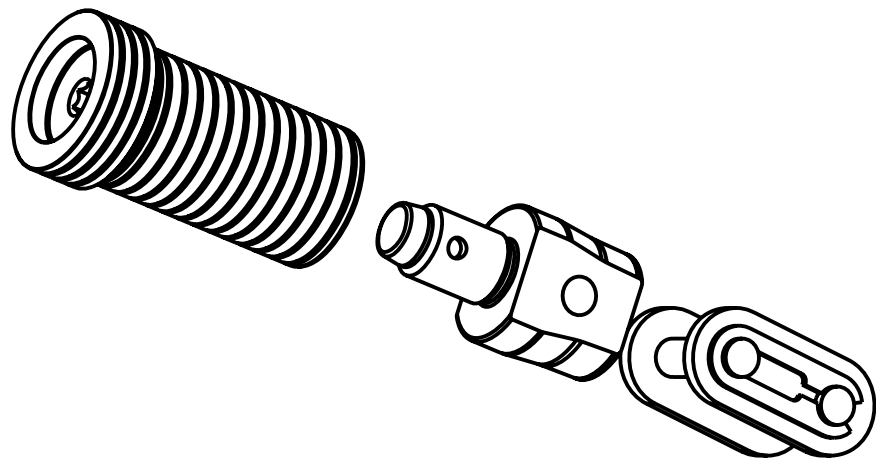
KIT SWASH PLATE
ITEM 7



P2-145-0221-05

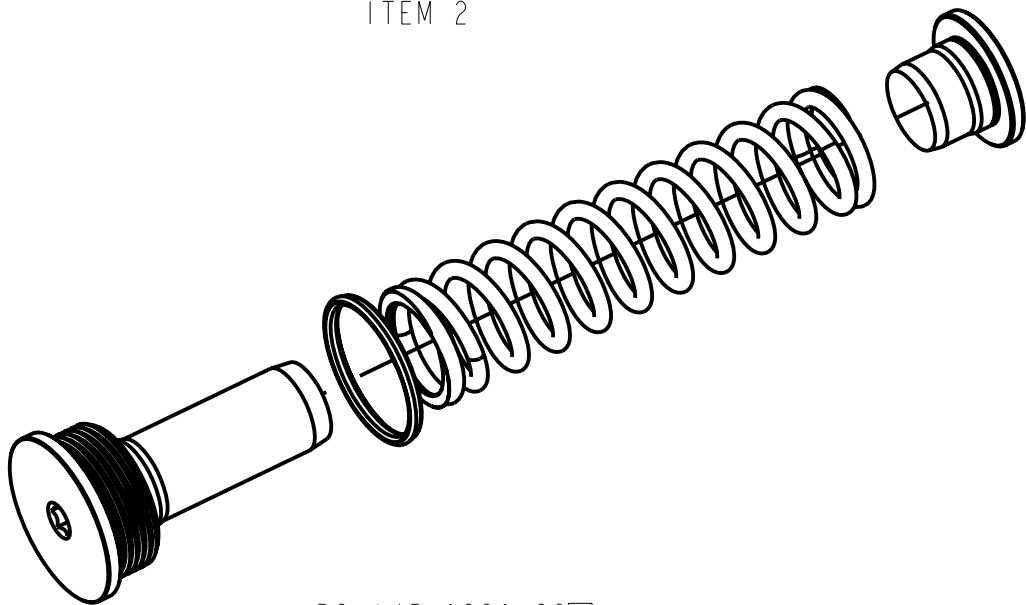


KIT SERVO PISTON
ITEM 23



PART NUMBER	DESCRIPTION	
P2-145-0229-19	KIT SERVO PISTON 40%	USED EXEPT WITH TC & TD OPTION
P2-145-0229-20	KIT SERVO PISTON 70%	USED WITH TC & TD OPTION

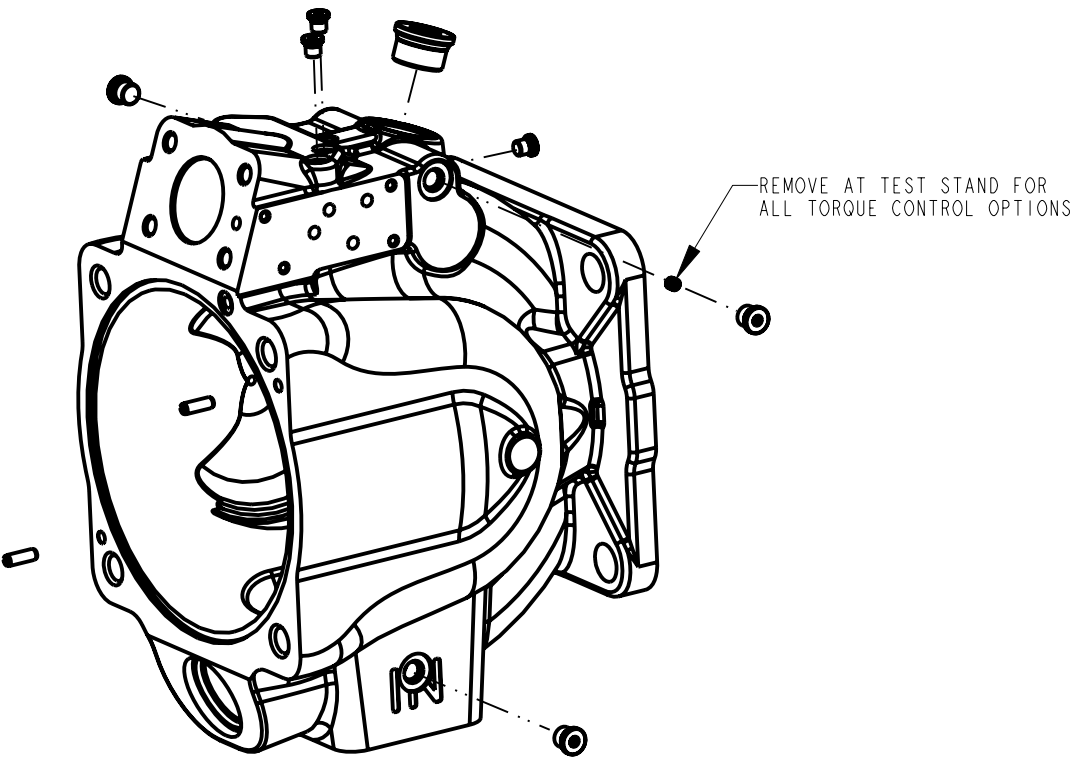
KIT SERVO SPRING
ITEM 2



P2-145-0229-22□



KIT HOUSING
ITEM 18



MTG-PILOT	SEAL OPTION	THRDS	PART NUMBER	DESCRIPTION
C	N/V	B	P2-145-0221-50□	MACHINING C-PILOT 1 SEAL METRIC HOUSING
	D/T	B	P2-145-0221-51□	MACHINING C-PILOT 2 SEAL METRIC HOUSING
D	N/V	B	P2-145-0221-52□	MACHINING D-PILOT 1 SEAL METRIC HOUSING
	D/T	B	P2-145-0221-53□	MACHINING D-PILOT 2 SEAL METRIC HOUSING
C	N/V	A	P2-145-0221-54□	MACHINING C-PILOT 1 SEAL UNC HOUSING
	D/T	A	P2-145-0221-55□	MACHINING C-PILOT 2 SEAL UNC HOUSING
D	N/V	A	P2-145-0221-56□	MACHINING D-PILOT 1 SEAL UNC HOUSING
	D/T	A	P2-145-0221-57□	MACHINING D-PILOT 2 SEAL UNC HOUSING



TITLE	DRAWING NUMBER	REVISION	STATUS	
SERVICE PARTS P3145 DESIGN SERIES 15	P2-145-0412	A	PR	SHEET 7 OF 8

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
 - 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

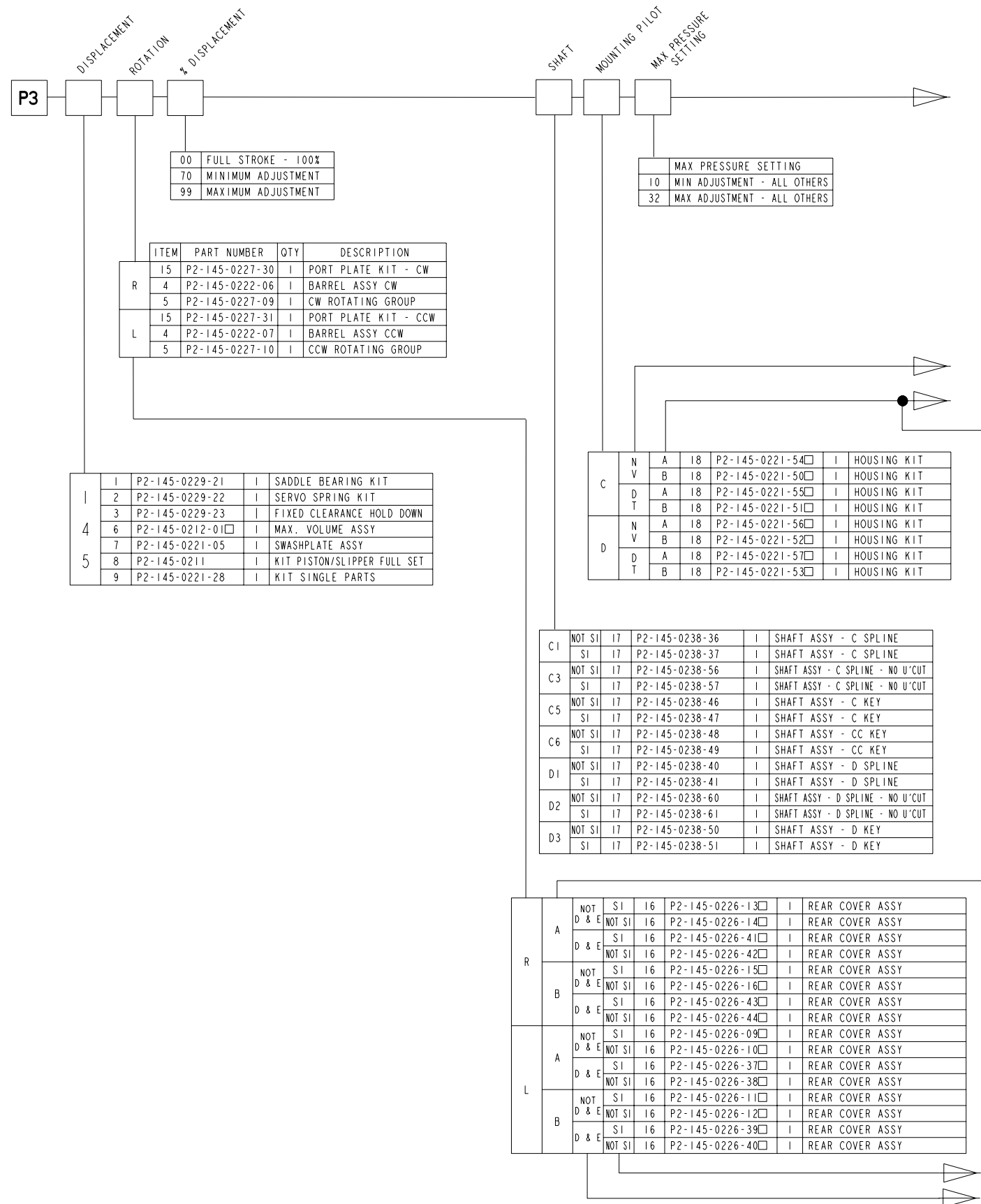


DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
L. NAGEL	10FEB10	L. NAGEL	16DEC11	715311

NOTES:



TITLE	SERVICE PARTS P3145 DESIGN SERIES 15	DRAWING NUMBER	P2-145-0412	REVISION	A	STATUS	PR	SHEET 8 OF 8
-------	---	----------------	-------------	----------	---	--------	----	--------------



DRAWN BY	DATE	CHANGED BY	DATE	ECN NUMBER
L. NAGEL	10FEB10	L. NAGEL	16DEC11	715311

