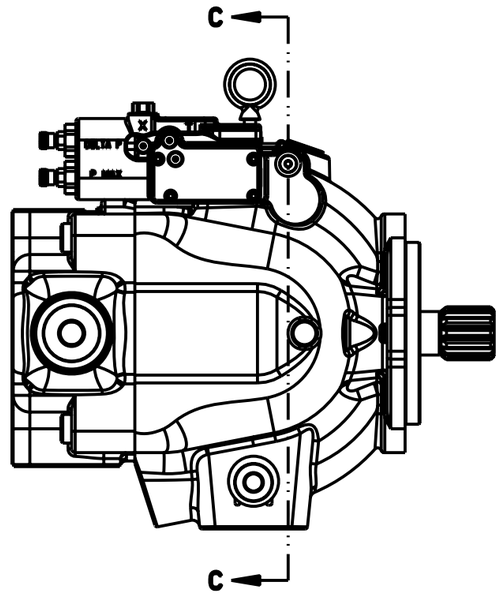
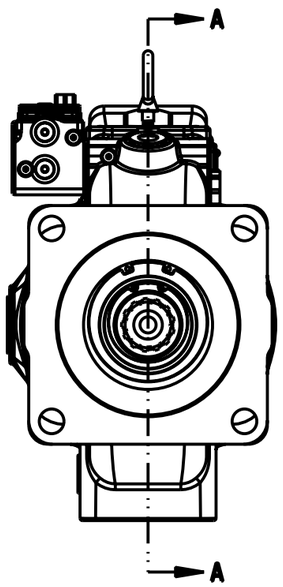
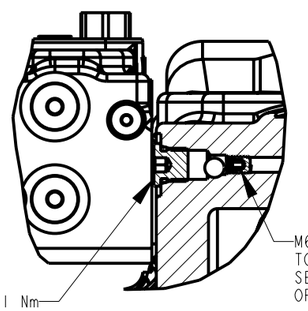
TITLE	DRAWING NUMBER	REVISION	STATUS	
SERVICE PARTS P2145 DESIGN SERIES 15	P2-145-0411	A	PR	SHEET 1 OF 8







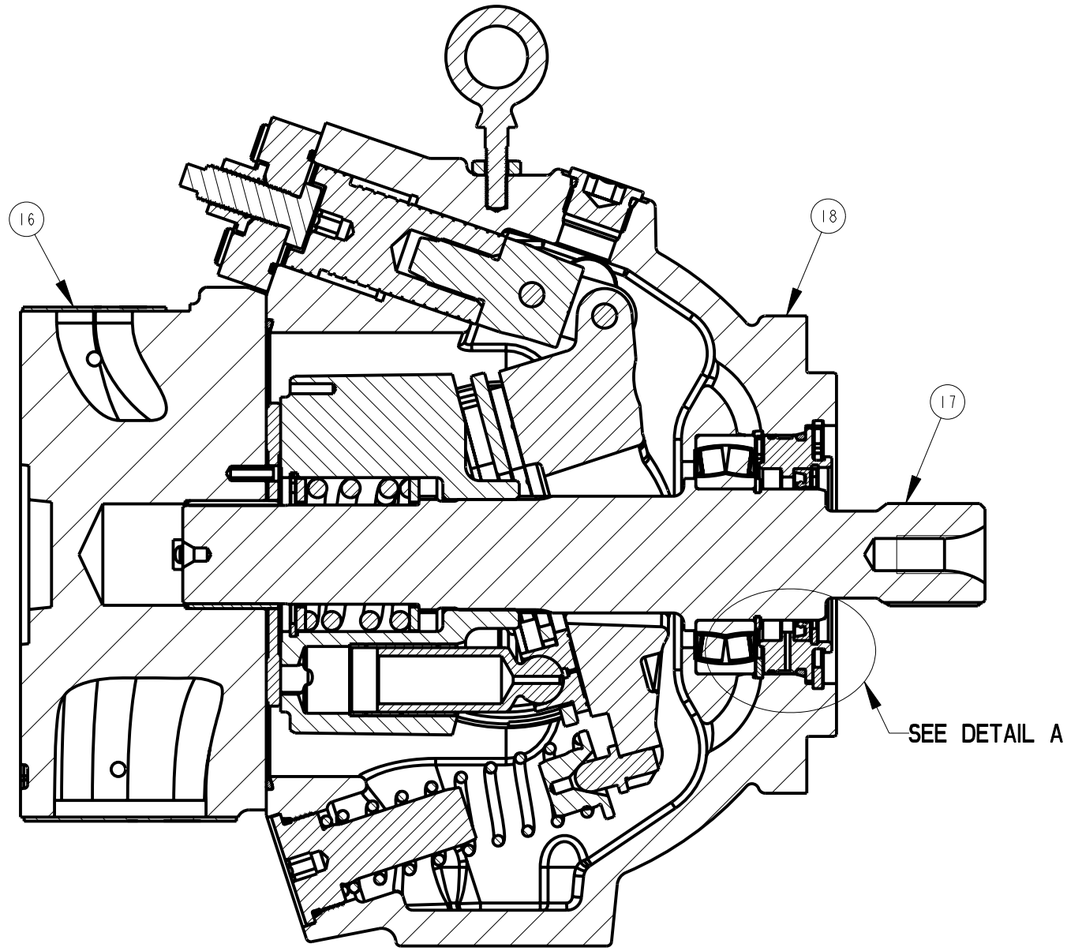
M6X6 SET SCREW INSTALLED FOR NON TORQUE CONTROL OPTION PUMPS.REMOVE SET SCREW FOR PUMPS USING TORQUE CONTROL OPTION.

TORQUE 5 Nm

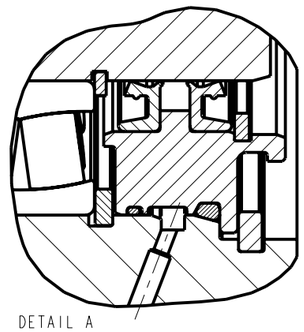
SECTION C-C

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
L. NAGEL	10FEB10	L. NAGEL	16DEC11	715311

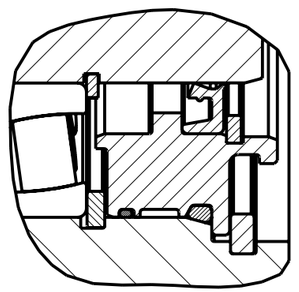


SECTION A-A



DETAIL A

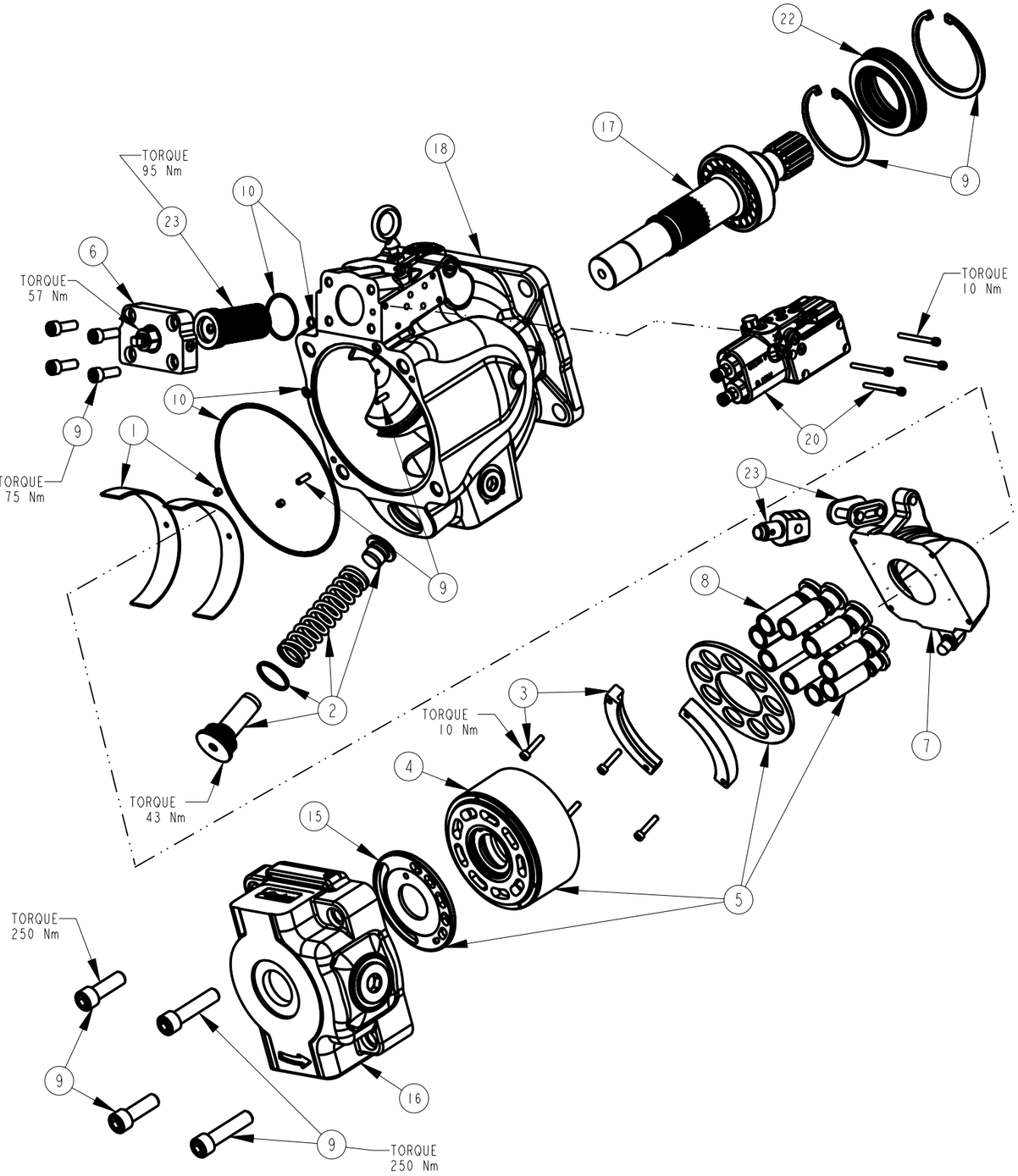
DUAL SHAFT SEAL ASSEMBLY (D/T OPTION)
P2-105-0210-02□



DETAIL A

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

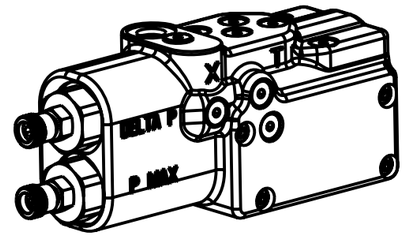
TITLE	DRAWING NUMBER	REVISION	STATUS	
SERVICE PARTS P2145 DESIGN SERIES 15	P2-145-0411	A	PR	SHEET 2 OF 8



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

COMPENSATOR KITS

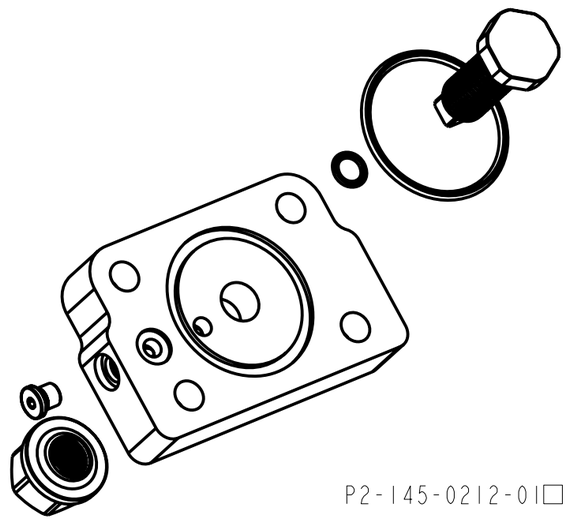
ITEM 20



PA	A	20	P2-075-0806-07☐	1	COMPENSATOR ASSY
	B	20	P2-075-0806-08☐	1	COMPENSATOR ASSY
RA	A	20	P2-075-0806-05☐	1	COMPENSATOR ASSY
	B	20	P2-075-0806-06☐	1	COMPENSATOR ASSY
LA	A	20	P2-075-0806-01☐	1	COMPENSATOR ASSY
	B	20	P2-075-0806-02☐	1	COMPENSATOR ASSY
LB	A	20	P2-075-0806-03☐	1	COMPENSATOR ASSY
	B	20	P2-075-0806-04☐	1	COMPENSATOR ASSY
TA TC	A	20	P2-075-0806-11☐	1	COMPENSATOR ASSY
	B	20	P2-075-0806-12☐	1	COMPENSATOR ASSY
TB TD	A	20	P2-075-0806-13☐	1	COMPENSATOR ASSY
	B	20	P2-075-0806-14☐	1	COMPENSATOR ASSY

MAX. VOLUME ASSEMBLY

ITEM 6

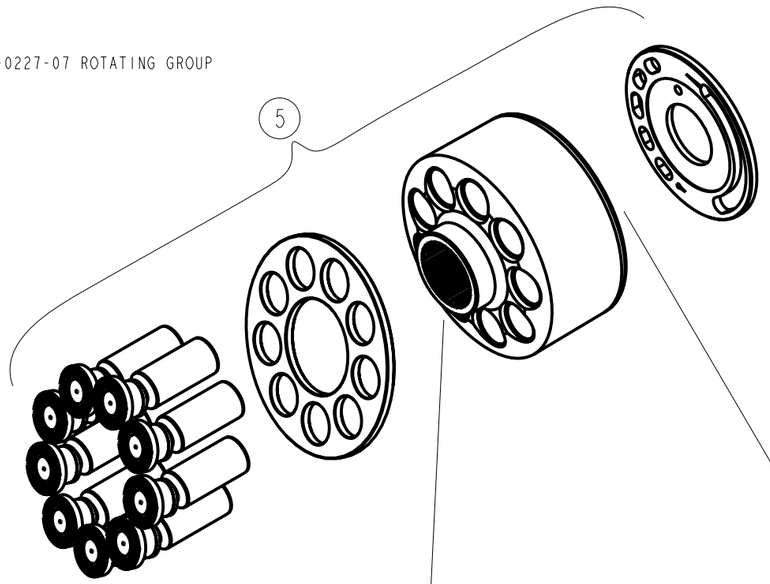


P2-145-0212-01☐

ROTATING GROUP / BARREL KIT

ITEM 5 ITEM 4

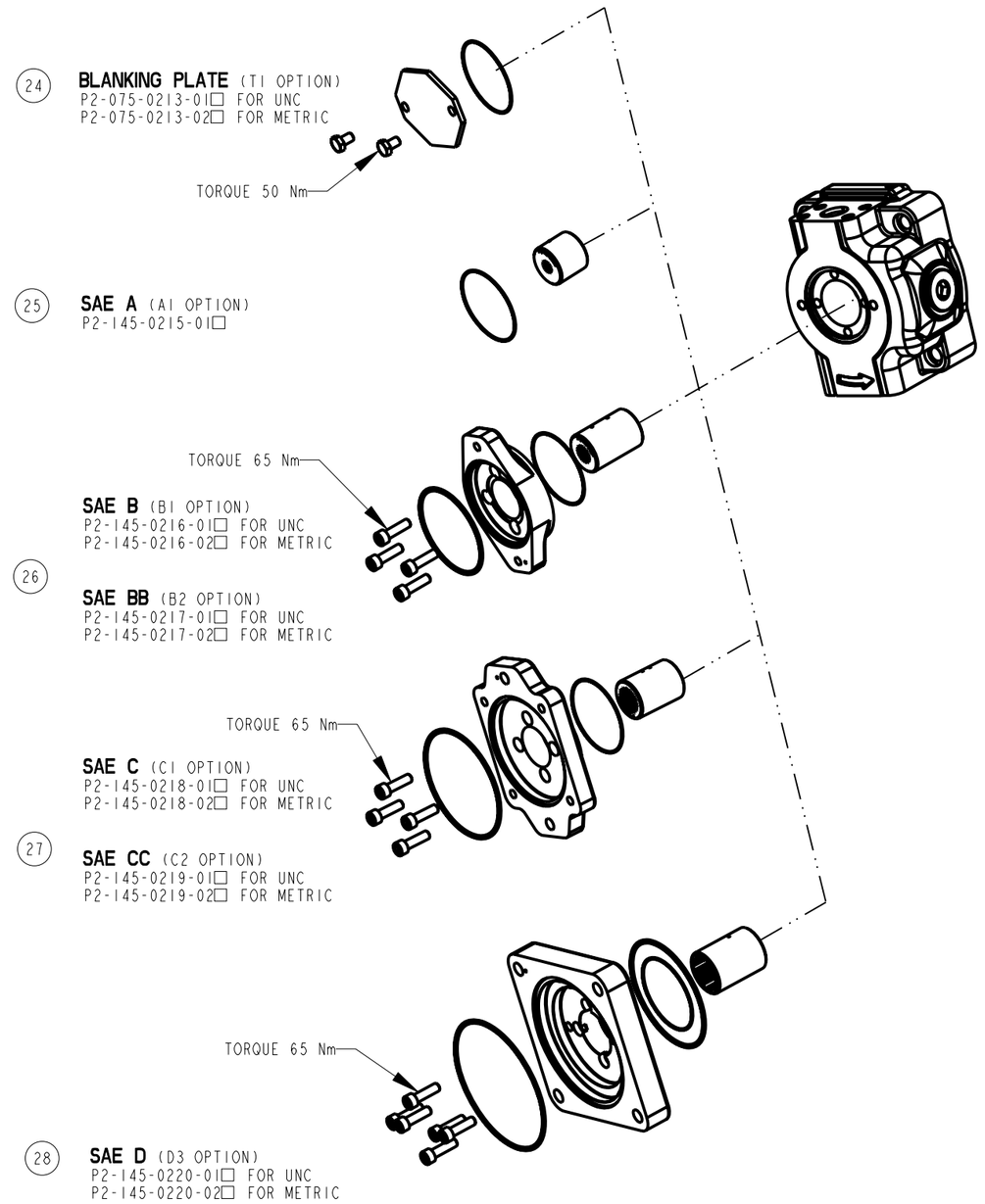
SHOWN:
P2-145-0227-07 ROTATING GROUP



PART NUMBER	DESCRIPTION
P2-145-0227-07	CW ROTATION GROUP
P2-145-0227-08	CCW ROTATION GROUP

P2-145-0222-08 BARREL KIT

THRU DRIVE KITS



24 **BLANKING PLATE** (T1 OPTION)
P2-075-0213-01☐ FOR UNC
P2-075-0213-02☐ FOR METRIC

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

SAE B (B1 OPTION)
P2-145-0216-01☐ FOR UNC
P2-145-0216-02☐ FOR METRIC

26 **SAE BB** (B2 OPTION)
P2-145-0217-01☐ FOR UNC
P2-145-0217-02☐ FOR METRIC

SAE C (C1 OPTION)
P2-145-0218-01☐ FOR UNC
P2-145-0218-02☐ FOR METRIC

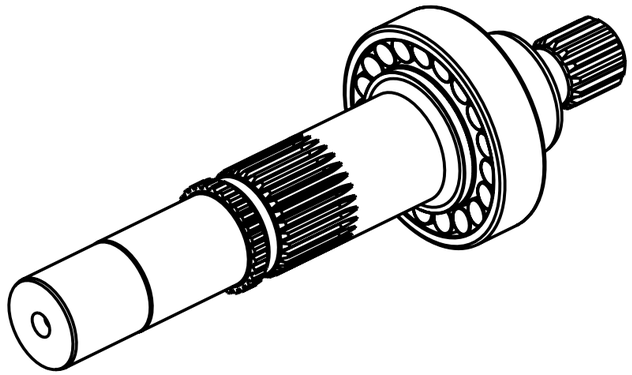
27 **SAE CC** (C2 OPTION)
P2-145-0219-01☐ FOR UNC
P2-145-0219-02☐ FOR METRIC

28 **SAE D** (D3 OPTION)
P2-145-0220-01☐ FOR UNC
P2-145-0220-02☐ FOR METRIC

TITLE	DRAWING NUMBER	REVISION	STATUS	
SERVICE PARTS P2145 DESIGN SERIES 15	P2-145-0411	A	PR	SHEET 4 OF 8

SHAFT ASSEMBLY KITS

ITEM 17

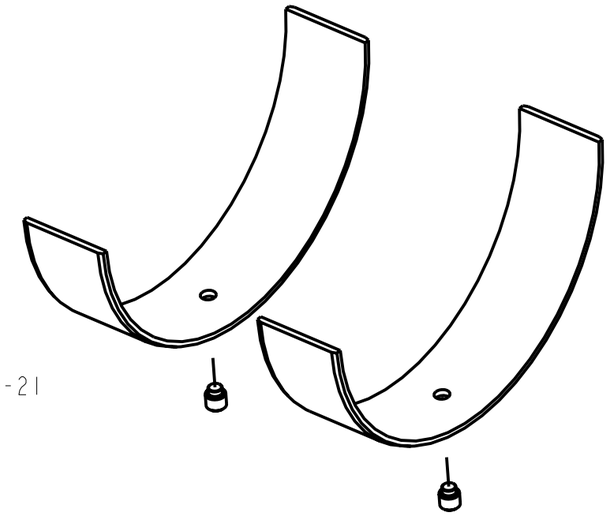


	SHAFT ASSEMBLY	DESCRIPTION
C1	P2-145-0238-36	C SPLINE THRU
C1	P2-145-0238-37	C SPLINE NOT THRU
D1	P2-145-0238-40	D SPLINE THRU
D1	P2-145-0238-41	D SPLINE NOT THRU
C5	P2-145-0238-46	C KEY THRU
C5	P2-145-0238-47	C KEY NOT THRU
C6	P2-145-0238-48	CC KEY THRU
C6	P2-145-0238-49	CC KEY NOT THRU
D3	P2-145-0238-50	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

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

KIT SADDLE BEARING

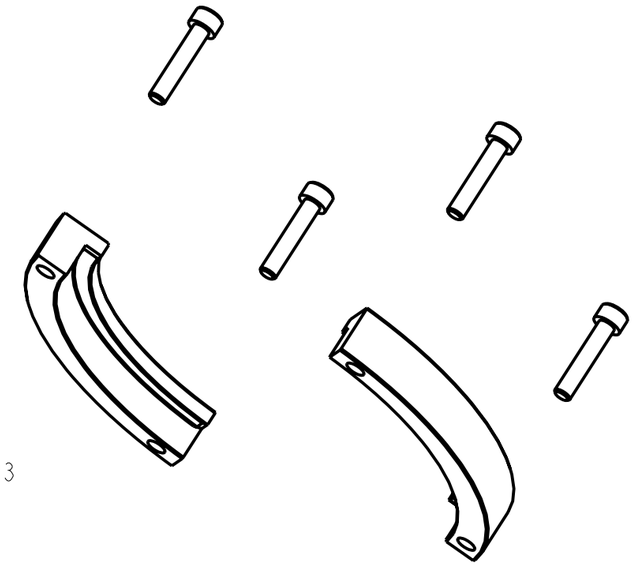
ITEM 1



P2-145-0229-21

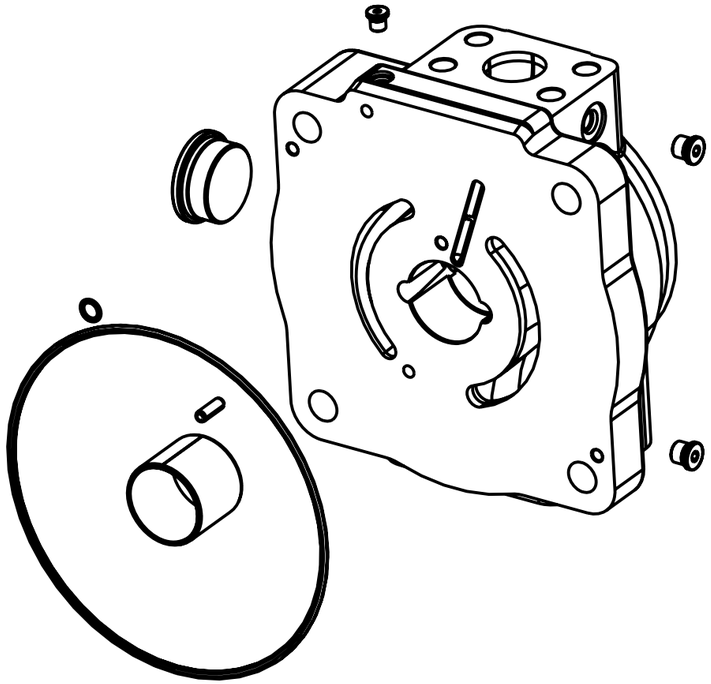
KIT FIXED CLEARANCE HOLD DOWN

ITEM 3



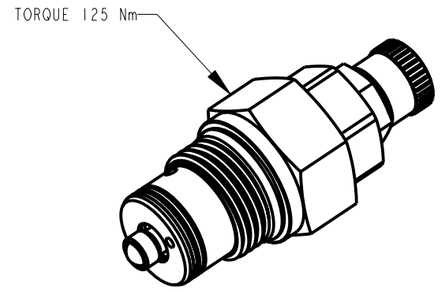
P2-145-0229-23

COVER ASSEMBLY KITS
ITEM 16



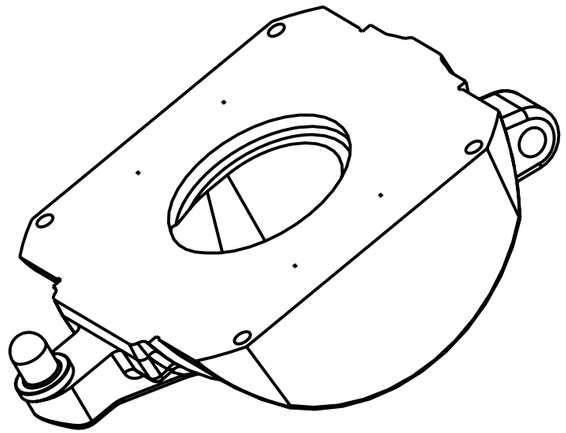
	THRDS		COVER ASSEMBLY	DESCRIPTION
L	A	SI	P2-145-0226-01□	SIDE PORTS, CCW, UNC
	A	NOT SI	P2-145-0226-02□	SIDE PORTS, CCW, UNC, THRU
	B	SI	P2-145-0226-03□	SIDE PORTS, CCW, METRIC
	B	NOT SI	P2-145-0226-04□	SIDE PORTS, CCW, METRIC, THRU
R	A	SI	P2-145-0226-05□	SIDE PORTS, CW, UNC
	A	NOT SI	P2-145-0226-06□	SIDE PORTS, CW, UNC, THRU
	B	SI	P2-145-0226-07□	SIDE PORTS, CW, METRIC
	B	NOT SI	P2-145-0226-08□	SIDE PORTS, CW, METRIC, THRU

TORQUE CONTROL CARTRIDGE
ITEM 19



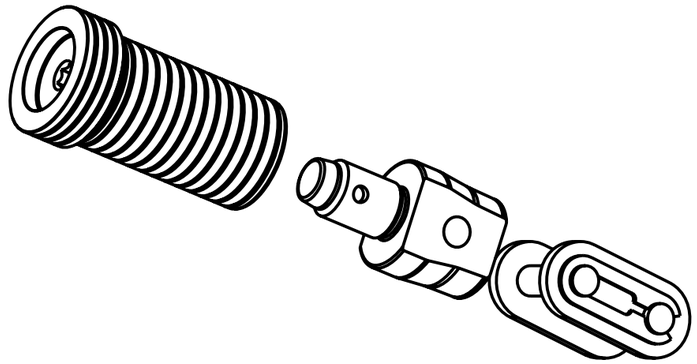
P2-000-0803 □

KIT SWASH PLATE
ITEM 7



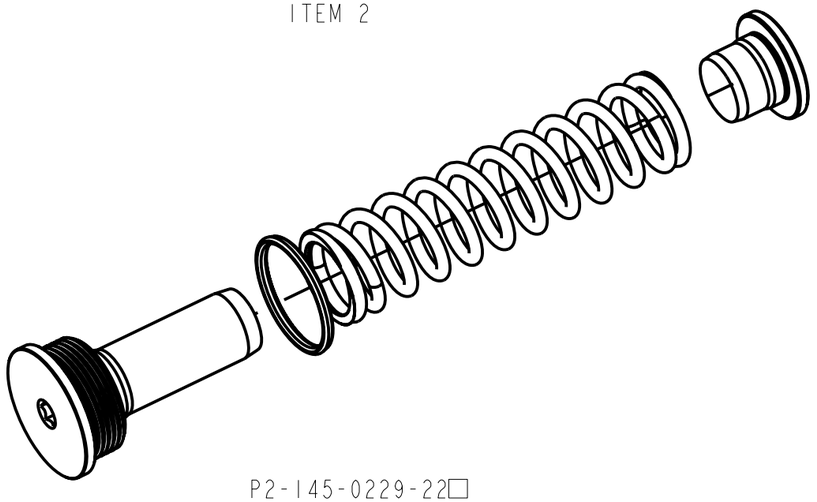
P2-145-0221-05

KIT SERVO PISTON
ITEM 23



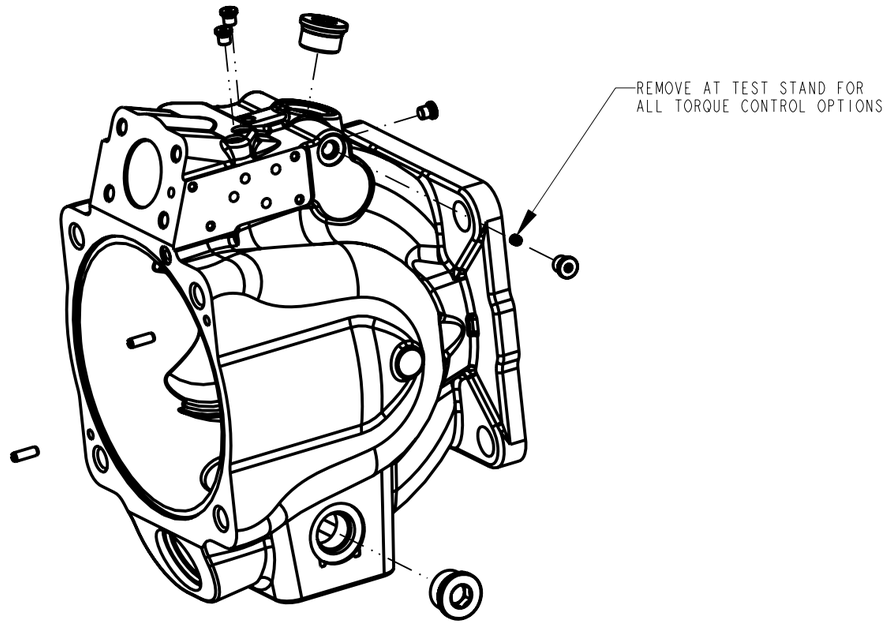
PART NUMBER	DESCRIPTION	
P2-145-0229-19	KIT SERVO PISTON 40%	USED EXEPT WITH TC & TD OPTION
P2-145-0229-20	KIT SERVO PISTON 70%	USED WITH TC & TD OPTION

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	P2-145-0221-40□	MACHINING C-PILOT 1 SEAL METRIC HOUSING
	D/T	B	P2-145-0221-41□	MACHINING C-PILOT 2 SEAL METRIC HOUSING
D	N/V	B	P2-145-0221-42□	MACHINING D-PILOT 1 SEAL METRIC HOUSING
	D/T	B	P2-145-0221-43□	MACHINING D-PILOT 2 SEAL METRIC HOUSING
C	N/V	A	P2-145-0221-44□	MACHINING C-PILOT 1 SEAL UNC HOUSING
	D/T	A	P2-145-0221-45□	MACHINING C-PILOT 2 SEAL UNC HOUSING
D	N/V	A	P2-145-0221-46□	MACHINING D-PILOT 1 SEAL UNC HOUSING
	D/T	A	P2-145-0221-47□	MACHINING D-PILOT 2 SEAL UNC HOUSING

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

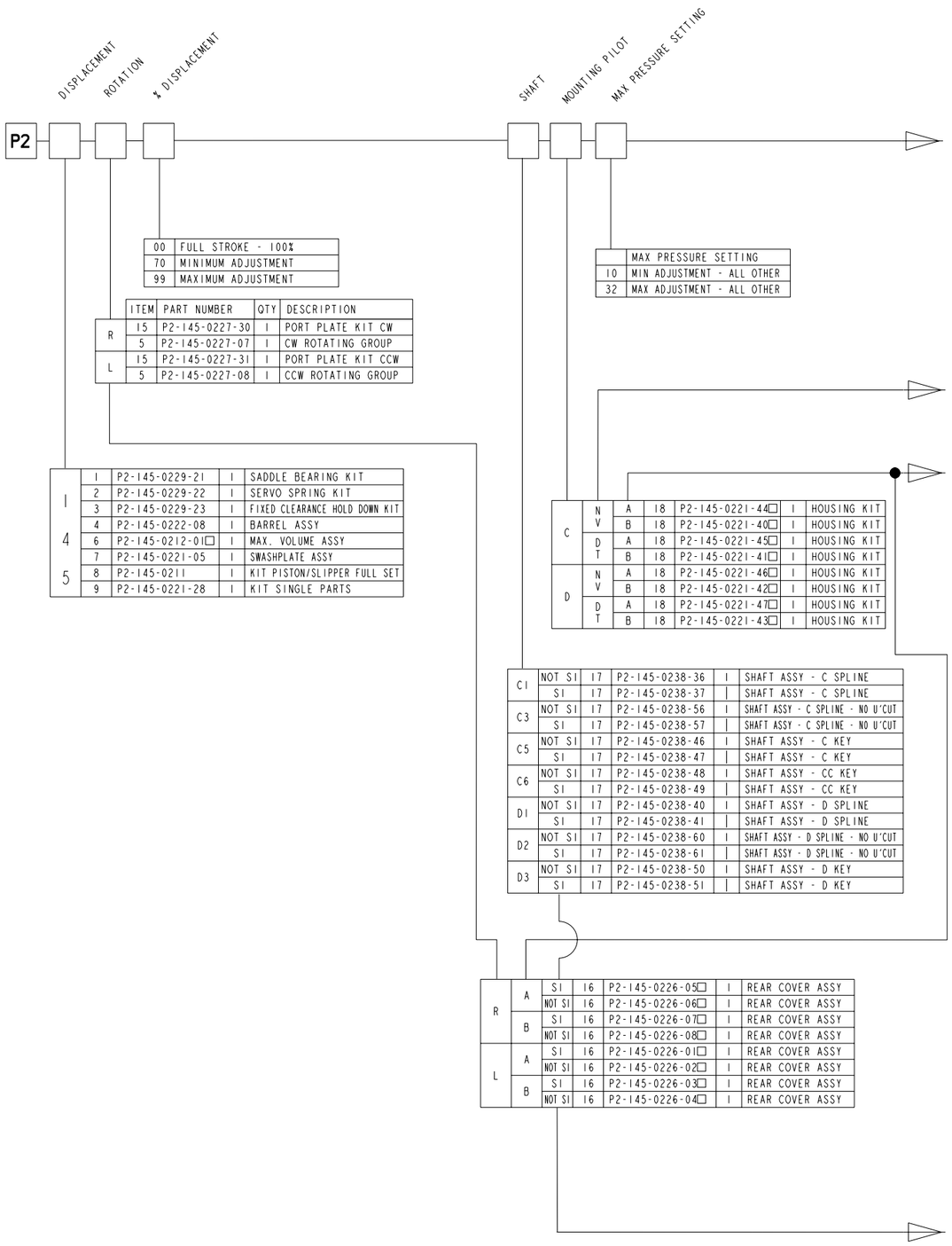
NOTES:

Parker Hannifin GmbH
Pump & Motor Division
Chemnitz, Germany

Parker Hannifin Corporation
Hydraulic Pump Division
Marysville, Ohio

TITLE	DRAWING NUMBER	REVISION	STATUS	
SERVICE PARTS P2145 DESIGN SERIES 15	P2-145-0411	A	PR	SHEET 8 OF 8

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



00	FULL STROKE - 100%	
70	MINIMUM ADJUSTMENT	
99	MAXIMUM ADJUSTMENT	

	ITEM	PART NUMBER	QTY	DESCRIPTION
R	15	P2-145-0227-30	1	PORT PLATE KIT CW
	5	P2-145-0227-07	1	CW ROTATING GROUP
L	15	P2-145-0227-31	1	PORT PLATE KIT CCW
	5	P2-145-0227-08	1	CCW ROTATING GROUP

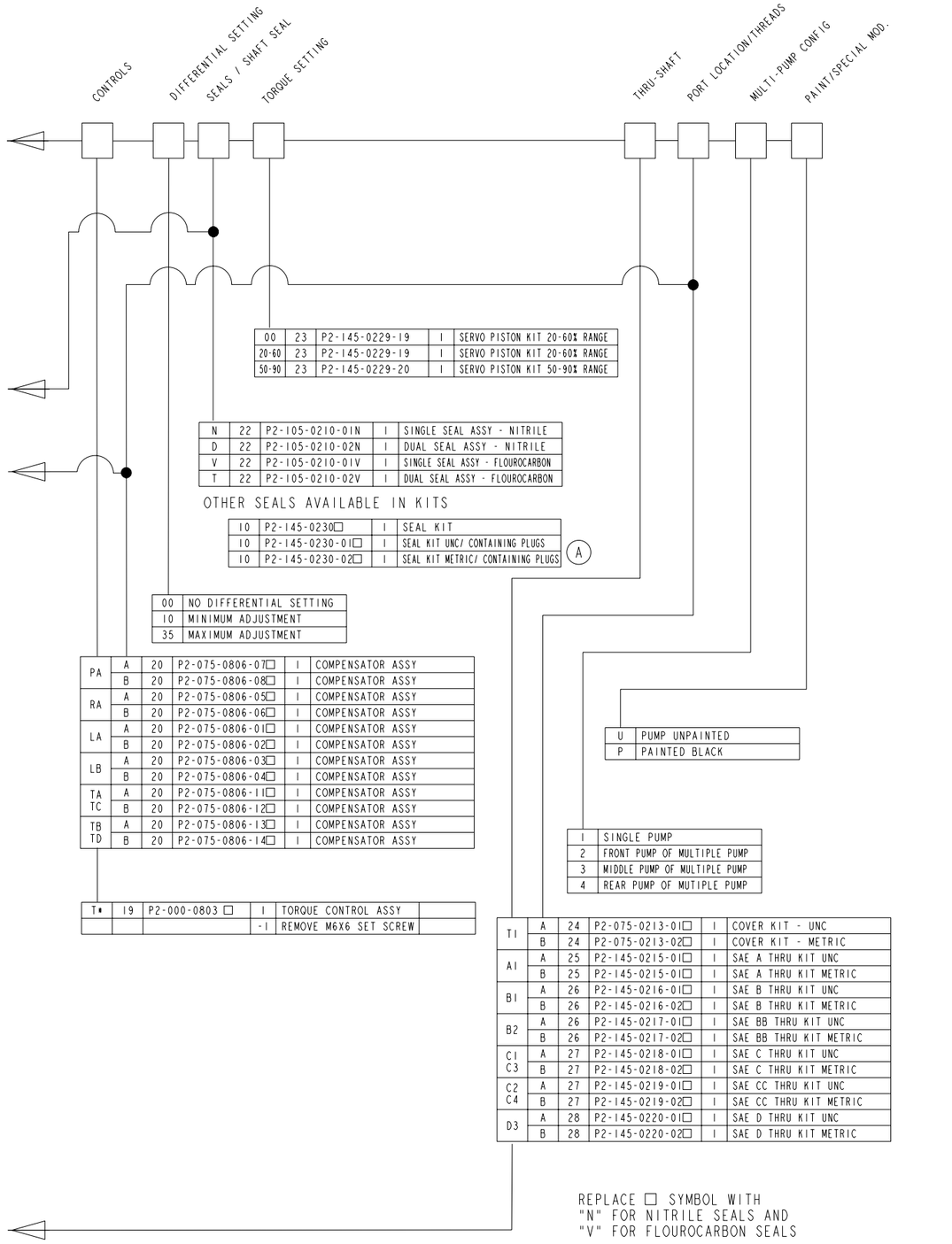
145	1	P2-145-0229-21	1	SADDLE BEARING KIT
	2	P2-145-0229-22	1	SERVO SPRING KIT
	3	P2-145-0229-23	1	FIXED CLEARANCE HOLD DOWN KIT
	4	P2-145-0222-08	1	BARREL ASSY
	6	P2-145-0212-01☐	1	MAX. VOLUME ASSY
	7	P2-145-0221-05	1	SWASHPLATE ASSY
	8	P2-145-0211	1	KIT PISTON/SLIPPER FULL SET
	9	P2-145-0221-28	1	KIT SINGLE PARTS

		MAX PRESSURE SETTING				
10	MIN ADJUSTMENT - ALL OTHER					
32	MAX ADJUSTMENT - ALL OTHER					

C	NV	A	18	P2-145-0221-44☐	1	HOUSING KIT
		B	18	P2-145-0221-40☐	1	HOUSING KIT
	DT	A	18	P2-145-0221-45☐	1	HOUSING KIT
		B	18	P2-145-0221-41☐	1	HOUSING KIT
D	NV	A	18	P2-145-0221-46☐	1	HOUSING KIT
		B	18	P2-145-0221-42☐	1	HOUSING KIT
	DT	A	18	P2-145-0221-47☐	1	HOUSING KIT
		B	18	P2-145-0221-43☐	1	HOUSING KIT

C1	NOT S1	17	P2-145-0238-36	1	SHAFT ASSY - C SPLINE	
	S1	17	P2-145-0238-37	1	SHAFT ASSY - C SPLINE	
C3	NOT S1	17	P2-145-0238-56	1	SHAFT ASSY - C SPLINE - NO U'CUT	
	S1	17	P2-145-0238-57	1	SHAFT ASSY - C SPLINE - NO U'CUT	
C5	NOT S1	17	P2-145-0238-46	1	SHAFT ASSY - C KEY	
	S1	17	P2-145-0238-47	1	SHAFT ASSY - C KEY	
C6	NOT S1	17	P2-145-0238-48	1	SHAFT ASSY - CC KEY	
	S1	17	P2-145-0238-49	1	SHAFT ASSY - CC KEY	
D1	NOT S1	17	P2-145-0238-40	1	SHAFT ASSY - D SPLINE	
	S1	17	P2-145-0238-41	1	SHAFT ASSY - D SPLINE	
D2	NOT S1	17	P2-145-0238-60	1	SHAFT ASSY - D SPLINE - NO U'CUT	
	S1	17	P2-145-0238-61	1	SHAFT ASSY - D SPLINE - NO U'CUT	
D3	NOT S1	17	P2-145-0238-50	1	SHAFT ASSY - D KEY	
	S1	17	P2-145-0238-51	1	SHAFT ASSY - D KEY	

R	A	S1	16	P2-145-0226-05☐	1	REAR COVER ASSY
		NOT S1	16	P2-145-0226-06☐	1	REAR COVER ASSY
	B	S1	16	P2-145-0226-07☐	1	REAR COVER ASSY
		NOT S1	16	P2-145-0226-08☐	1	REAR COVER ASSY
L	A	S1	16	P2-145-0226-01☐	1	REAR COVER ASSY
		NOT S1	16	P2-145-0226-02☐	1	REAR COVER ASSY
	B	S1	16	P2-145-0226-03☐	1	REAR COVER ASSY
		NOT S1	16	P2-145-0226-04☐	1	REAR COVER ASSY



00	23	P2-145-0229-19	1	SERVO PISTON KIT 20-60% RANGE	
20-60	23	P2-145-0229-19	1	SERVO PISTON KIT 20-60% RANGE	
50-90	23	P2-145-0229-20	1	SERVO PISTON KIT 50-90% RANGE	

N	22	P2-105-0210-01N	1	SINGLE SEAL ASSY - NITRILE	
D	22	P2-105-0210-02N	1	DUAL SEAL ASSY - NITRILE	
V	22	P2-105-0210-01V	1	SINGLE SEAL ASSY - FLOUROCARBON	
T	22	P2-105-0210-02V	1	DUAL SEAL ASSY - FLOUROCARBON	

OTHER SEALS AVAILABLE IN KITS

10	P2-145-0230☐	1	SEAL KIT
10	P2-145-0230-01☐	1	SEAL KIT UNC/ CONTAINING PLUGS
10	P2-145-0230-02☐	1	SEAL KIT METRIC/ CONTAINING PLUGS

(A)

00	NO DIFFERENTIAL SETTING				
10	MINIMUM ADJUSTMENT				
35	MAXIMUM ADJUSTMENT				

PA	A	20	P2-075-0806-07☐	1	COMPENSATOR ASSY	
	B	20	P2-075-0806-08☐	1	COMPENSATOR ASSY	
RA	A	20	P2-075-0806-05☐	1	COMPENSATOR ASSY	
	B	20	P2-075-0806-06☐	1	COMPENSATOR ASSY	
LA	A	20	P2-075-0806-01☐	1	COMPENSATOR ASSY	
	B	20	P2-075-0806-02☐	1	COMPENSATOR ASSY	
LB	A	20	P2-075-0806-03☐	1	COMPENSATOR ASSY	
	B	20	P2-075-0806-04☐	1	COMPENSATOR ASSY	
TA TC	A	20	P2-075-0806-11☐	1	COMPENSATOR ASSY	
	B	20	P2-075-0806-12☐	1	COMPENSATOR ASSY	
TB TD	A	20	P2-075-0806-13☐	1	COMPENSATOR ASSY	
	B	20	P2-075-0806-14☐	1	COMPENSATOR ASSY	

T*	19	P2-000-0803 ☐	1	TORQUE CONTROL ASSY	
			-1	REMOVE M6X6 SET SCREW	

U	PUMP UNPAINTED				
P	PAINTED BLACK				

1	SINGLE PUMP				
2	FRONT PUMP OF MULTIPLE PUMP				
3	MIDDLE PUMP OF MULTIPLE PUMP				
4	REAR PUMP OF MUTIPLE PUMP				

T1	A	24	P2-075-0213-01☐	1	COVER KIT - UNC
	B	24	P2-075-0213-02☐	1	COVER KIT - METRIC
A1	A	25	P2-145-0215-01☐	1	SAE A THRU KIT UNC
	B	25	P2-145-0215-01☐	1	SAE A THRU KIT METRIC
B1	A	26	P2-145-0216-01☐	1	SAE B THRU KIT UNC
	B	26	P2-145-0216-02☐	1	SAE B THRU KIT METRIC
B2	A	26	P2-145-0217-01☐	1	SAE BB THRU KIT UNC
	B	26	P2-145-0217-02☐	1	SAE BB THRU KIT METRIC
C1 C3	A	27	P2-145-0218-01☐	1	SAE C THRU KIT UNC
	B	27	P2-145-0218-02☐	1	SAE C THRU KIT METRIC
C2 C4	A	27	P2-145-0219-01☐	1	SAE CC THRU KIT UNC
	B	27	P2-145-0219-02☐	1	SAE CC THRU KIT METRIC
D3	A	28	P2-145-0220-01☐	1	SAE D THRU KIT UNC
	B	28	P2-145-0220-02☐	1	SAE D THRU KIT METRIC

REPLACE ☐ SYMBOL WITH
"N" FOR NITRILE SEALS AND
"V" FOR FLOUROCARBON SEALS

Parker Hannifin GmbH
Pump & Motor Division
Chemnitz, Germany

Parker Hannifin Corporation
Hydraulic Pump Division
Marysville, Ohio

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Chemnitz, Germany

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