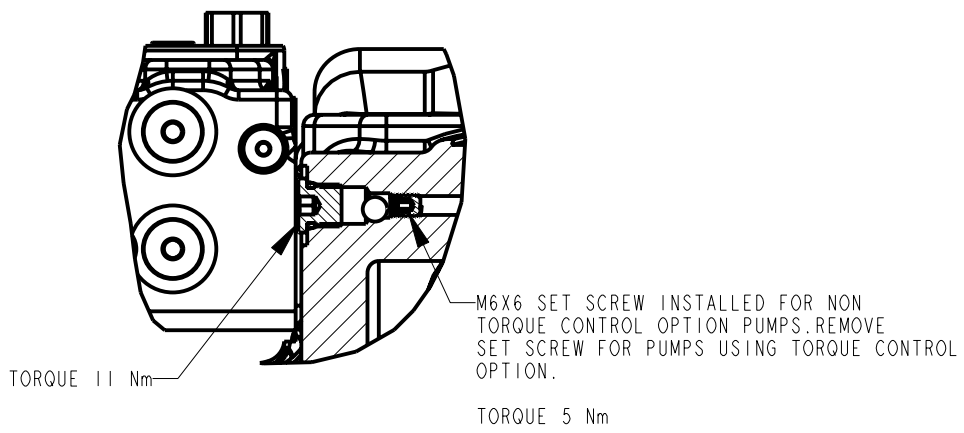
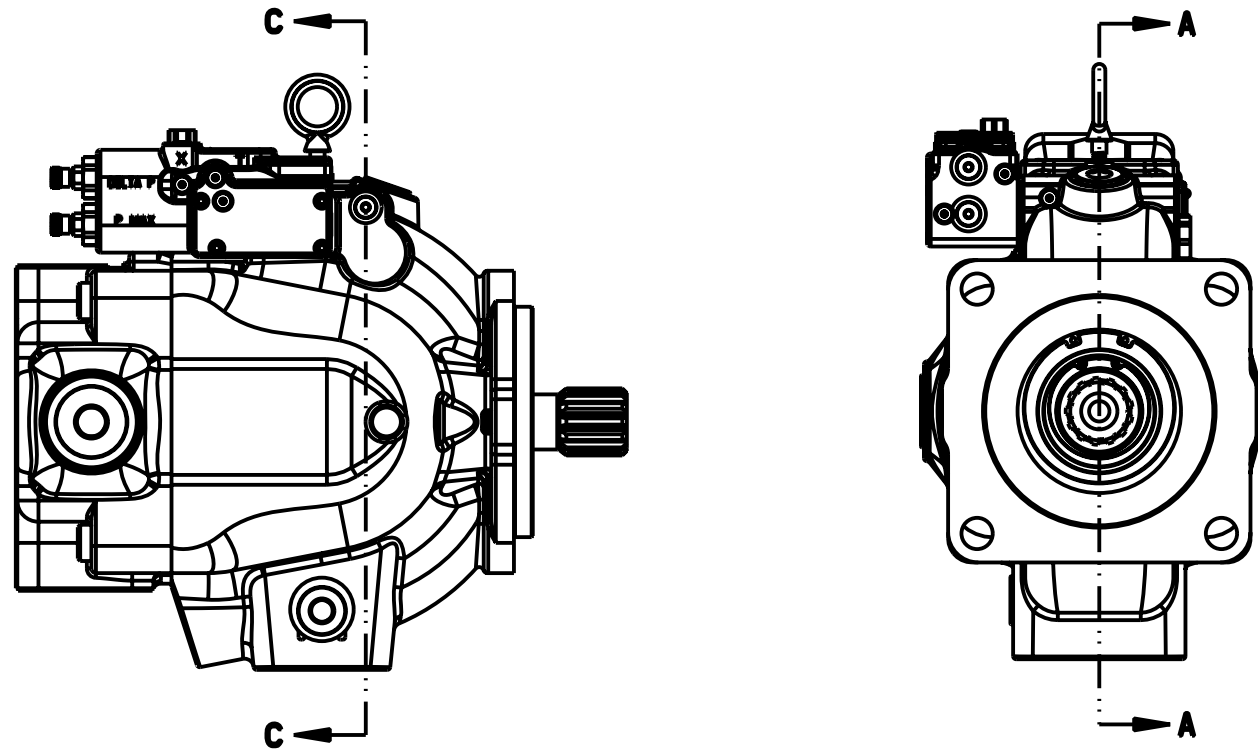


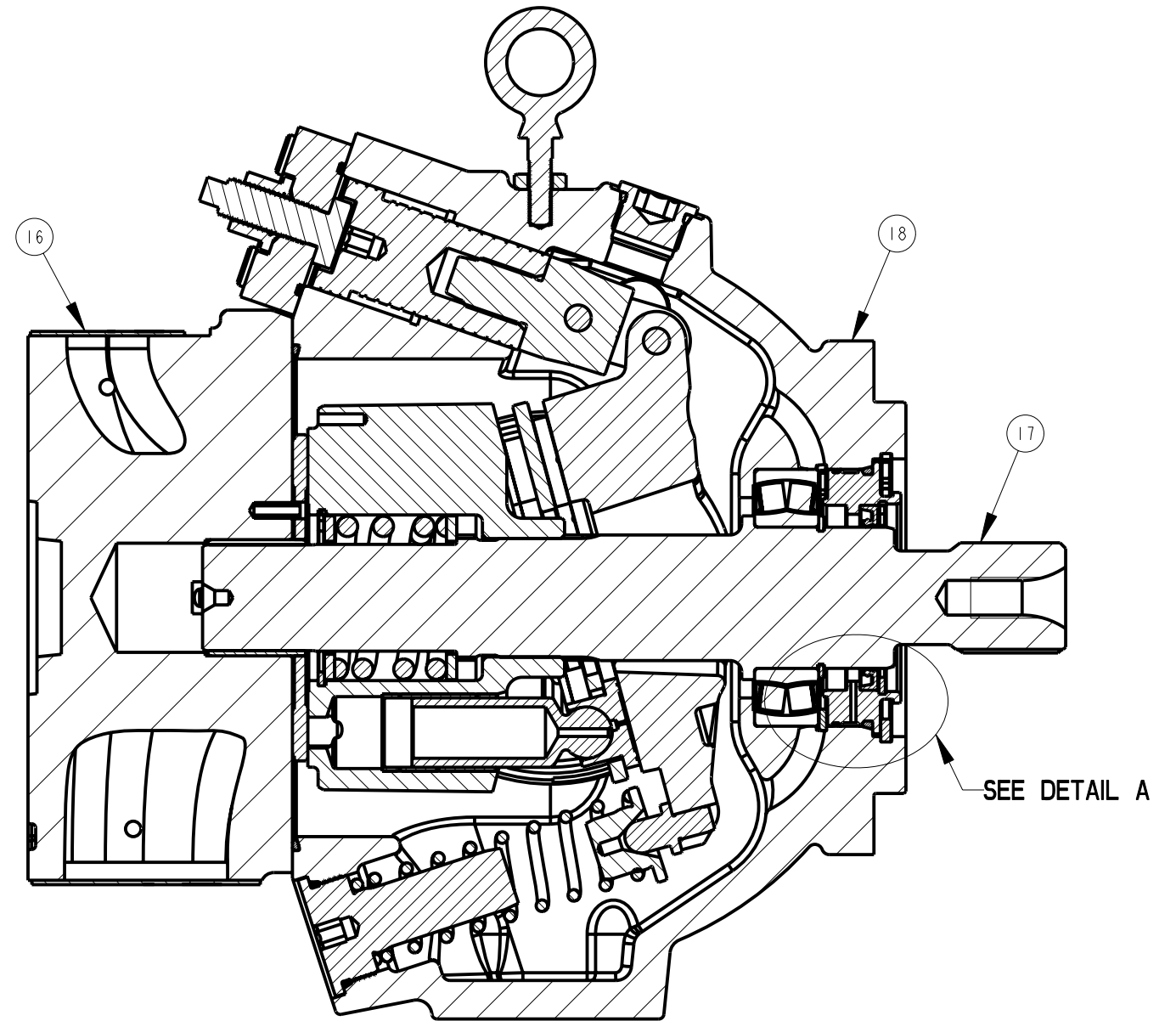
| | | | | | | | | |
|-------|---|----------------|-------------|----------|---|--------|----|--------------|
| TITLE | SERVICE PARTS P2145 DESIGN SERIES 15 | DRAWING NUMBER | P2-145-0411 | REVISION | A | STATUS | PR | SHEET 1 OF 8 |
|-------|---|----------------|-------------|----------|---|--------|----|--------------|

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

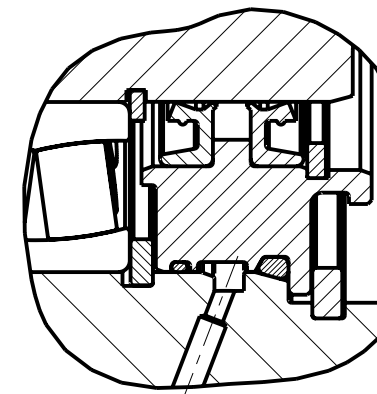


SECTION C-C

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

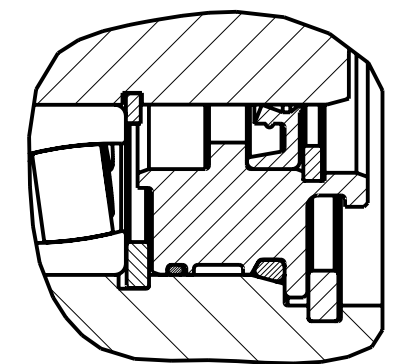


SECTION A-A



DETAIL A

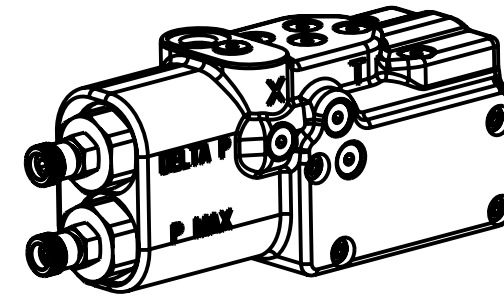
DUAL SHAFT SEAL ASSEMBLY (D/T OPTION)
P2-105-0210-02□



DETAIL A

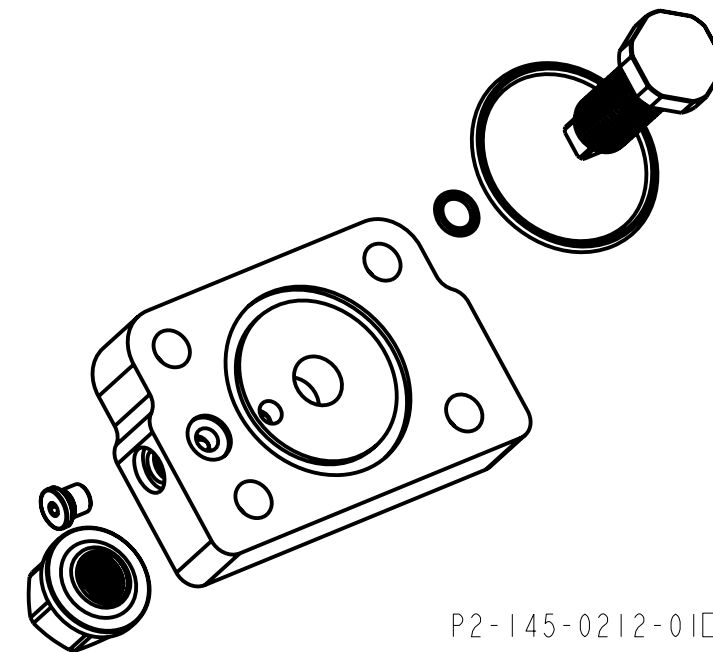
SINGLE SHAFT SEAL ASSEMBLY (N/V OPTION)
P2-105-0210-01□

COMPENSATOR KITS
ITEM 20

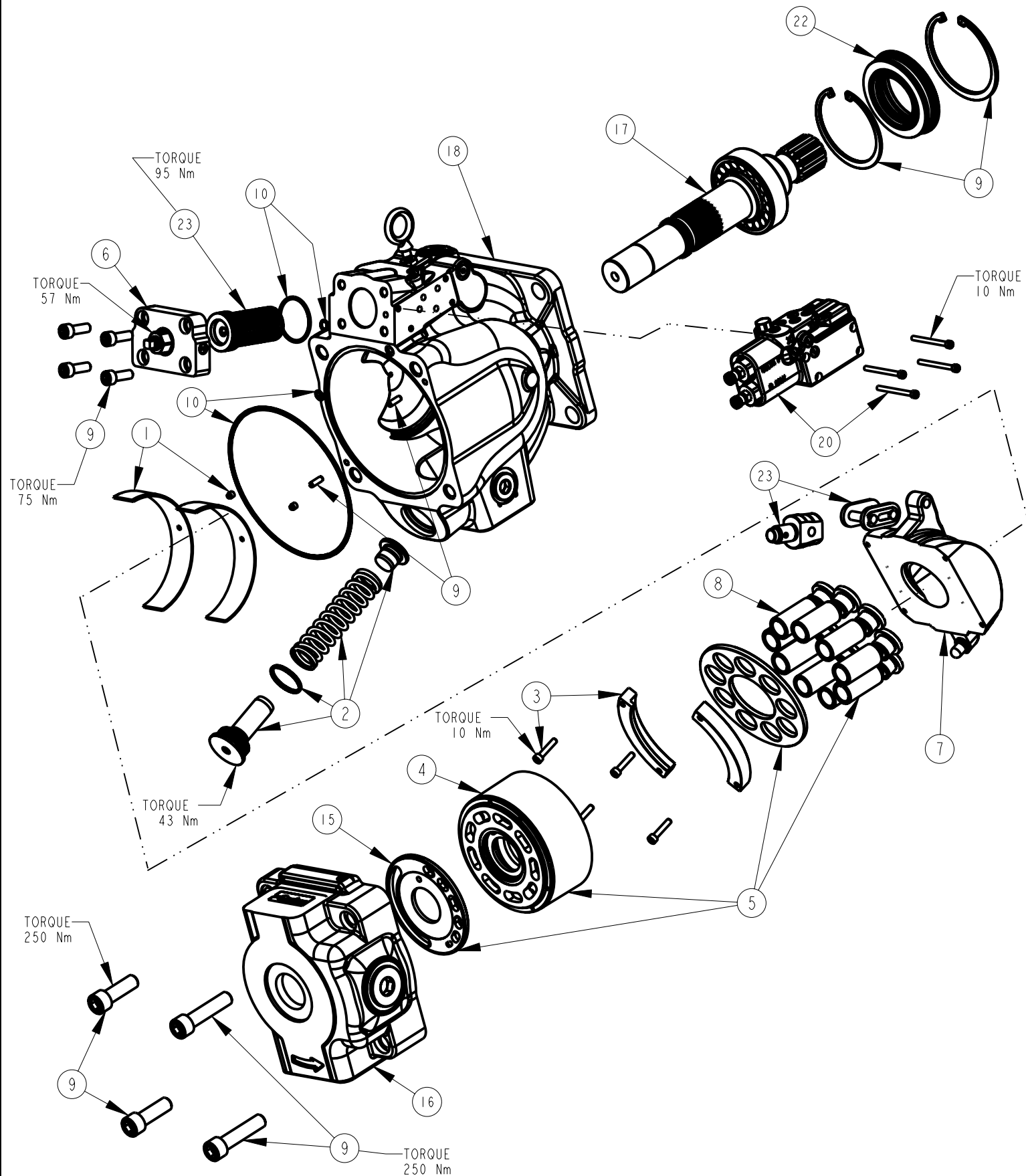


| | | | | | |
|----|---|----|-----------------|---|------------------|
| PA | A | 20 | P2-075-0806-07□ | 1 | COMPENSATOR ASSY |
| | B | 20 | P2-075-0806-08□ | 1 | COMPENSATOR ASSY |
| RA | A | 20 | P2-075-0806-05□ | 1 | COMPENSATOR ASSY |
| | B | 20 | P2-075-0806-06□ | 1 | COMPENSATOR ASSY |
| LA | A | 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 | A | 20 | P2-075-0806-11□ | 1 | COMPENSATOR ASSY |
| TC | B | 20 | P2-075-0806-12□ | 1 | COMPENSATOR ASSY |
| TB | A | 20 | P2-075-0806-13□ | 1 | COMPENSATOR ASSY |
| TD | B | 20 | P2-075-0806-14□ | 1 | COMPENSATOR ASSY |

MAX. VOLUME ASSEMBLY
ITEM 6

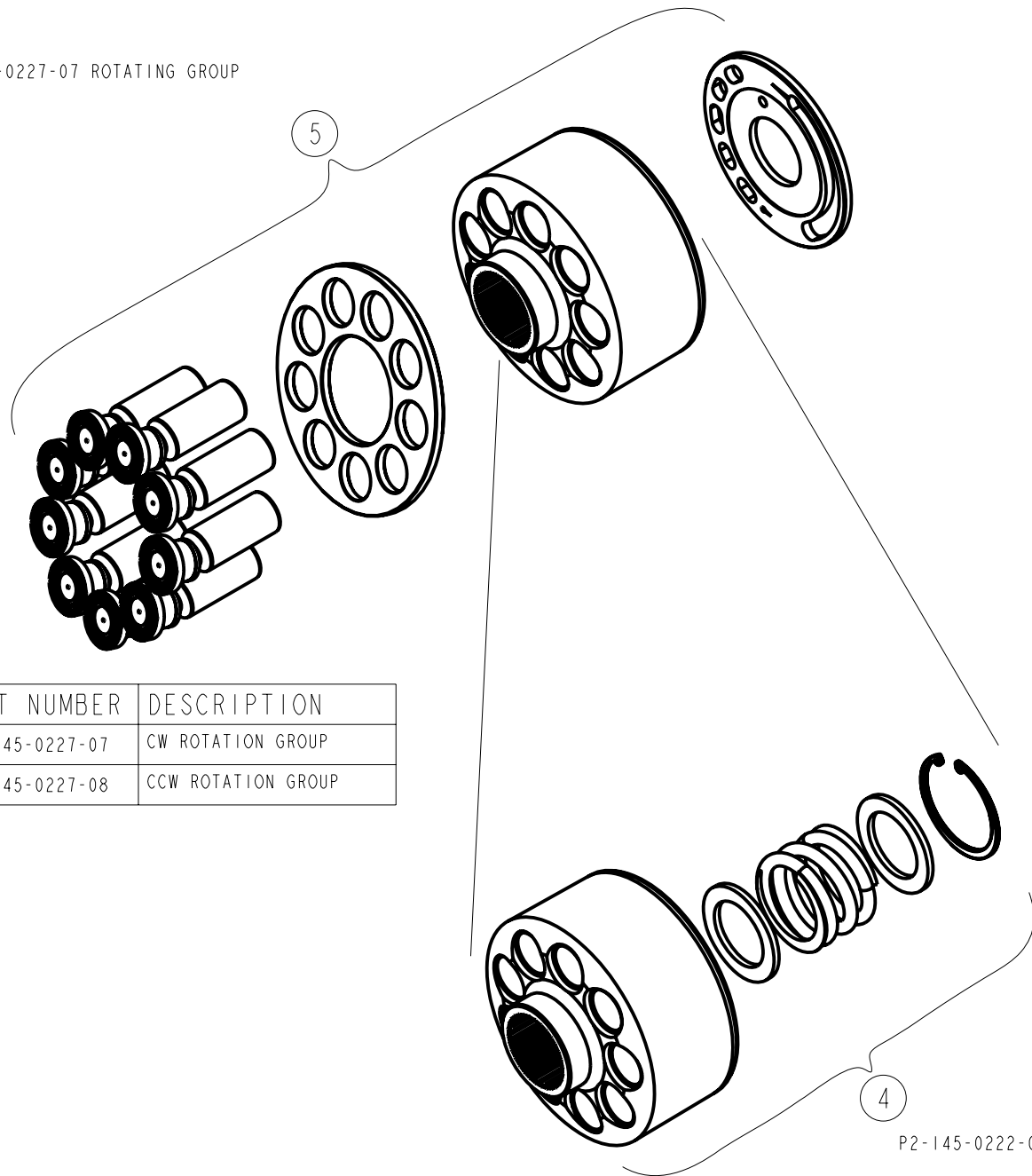


P2-145-0212-01□



ROTATING GROUP / BARREL KIT
ITEM 5 / ITEM 4

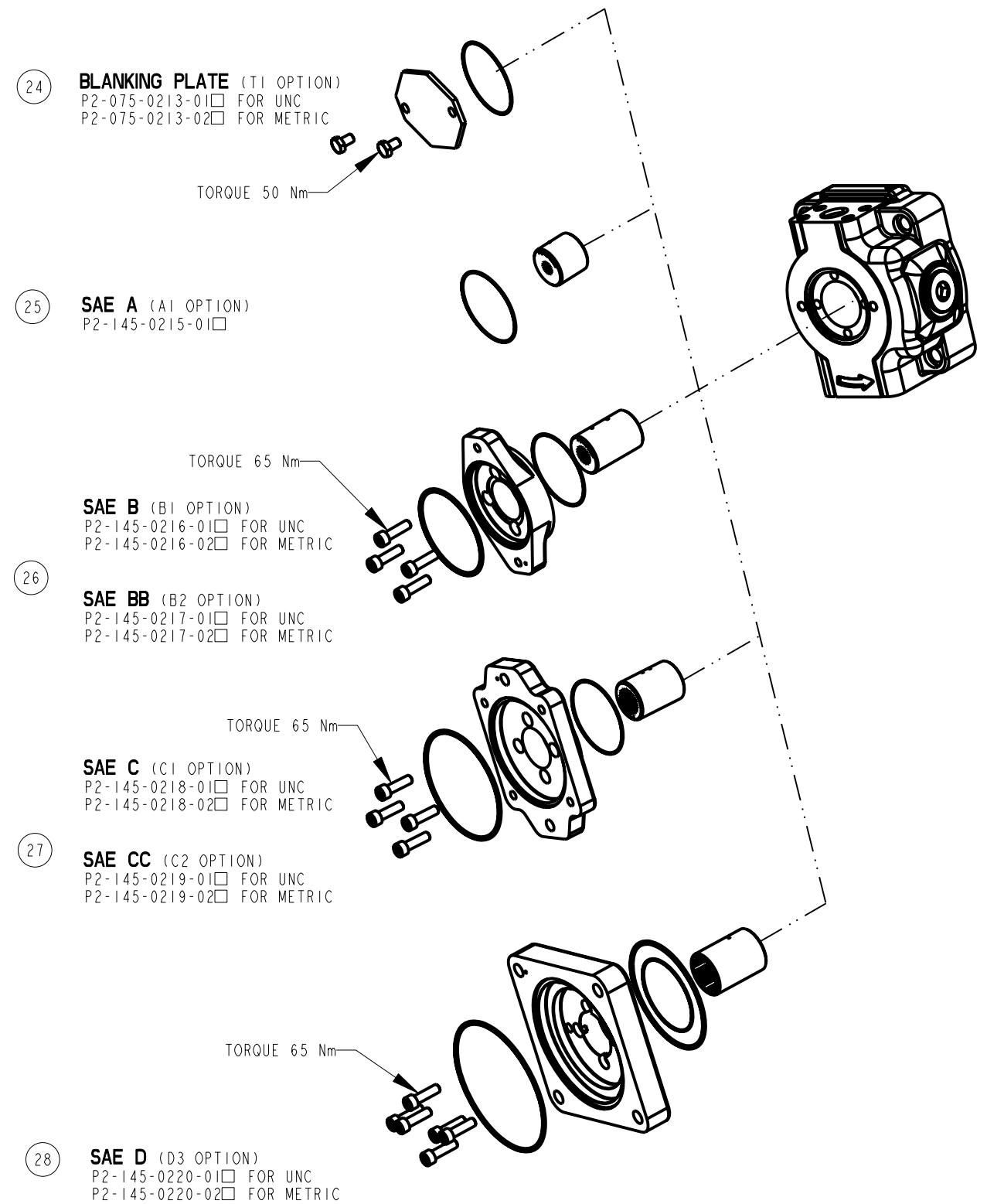
SHOWN:
P2-145-0227-07 ROTATING GROUP



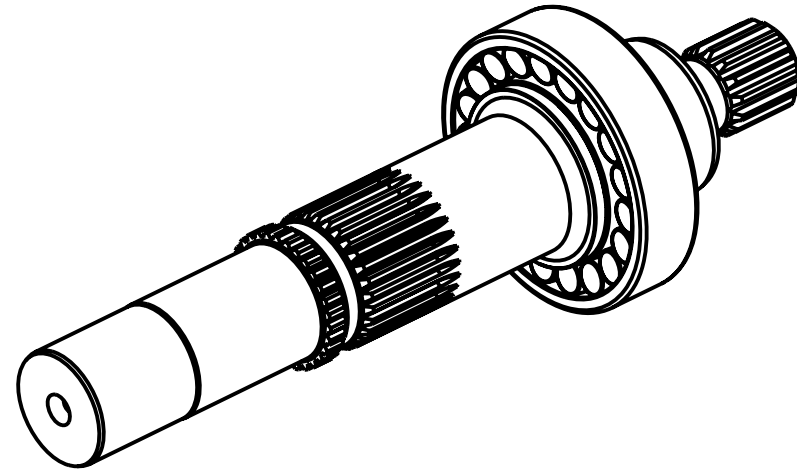
| PART NUMBER | DESCRIPTION |
|----------------|--------------------|
| P2-145-0227-07 | CW ROTATION GROUP |
| P2-145-0227-08 | CCW ROTATION GROUP |

P2-145-0222-08 BARREL KIT

THRU DRIVE KITS

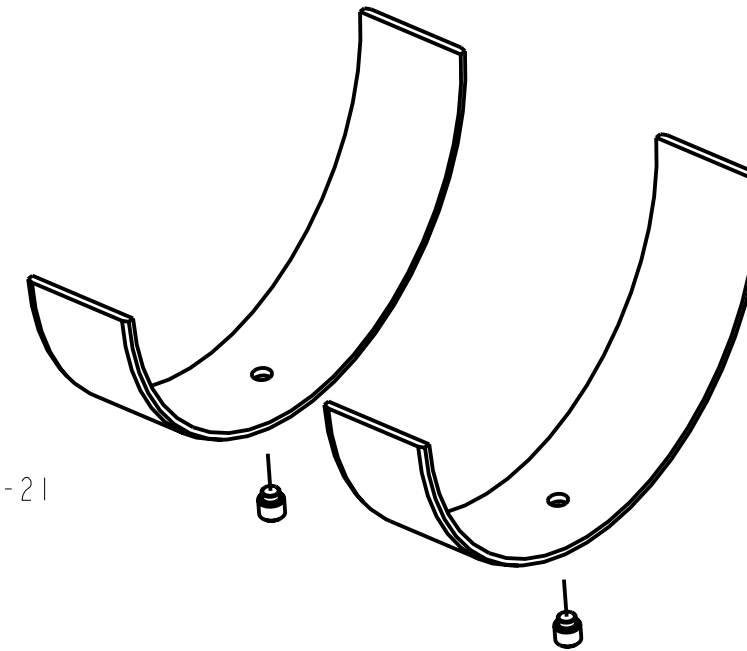


SHAFT ASSEMBLY KITS
ITEM 17



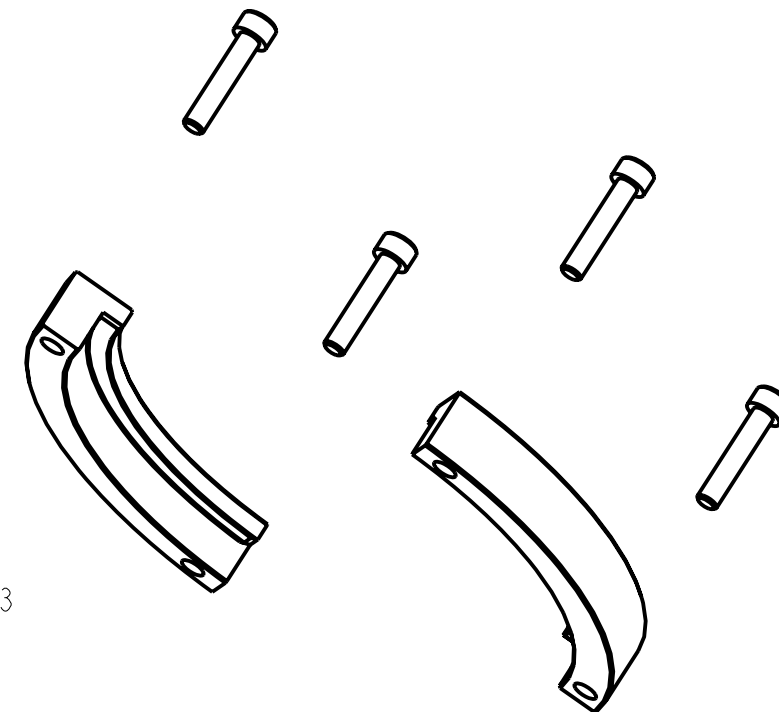
| | SHAFT ASSEMBLY | DESCRIPTION |
|----|----------------|-------------------------------|
| C1 | P2-145-0238-36 | C SPLINE THRU |
| C1 | P2-145-0238-37 | C SPLINE NOT THRU |
| D1 | P2-145-0238-40 | D SPLINE THRU |
| D1 | P2-145-0238-41 | D SPLINE NOT THRU |
| C5 | P2-145-0238-46 | C KEY THRU |
| C5 | 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 |

KIT SADDLE BEARING
ITEM 1



P2-145-0229-21

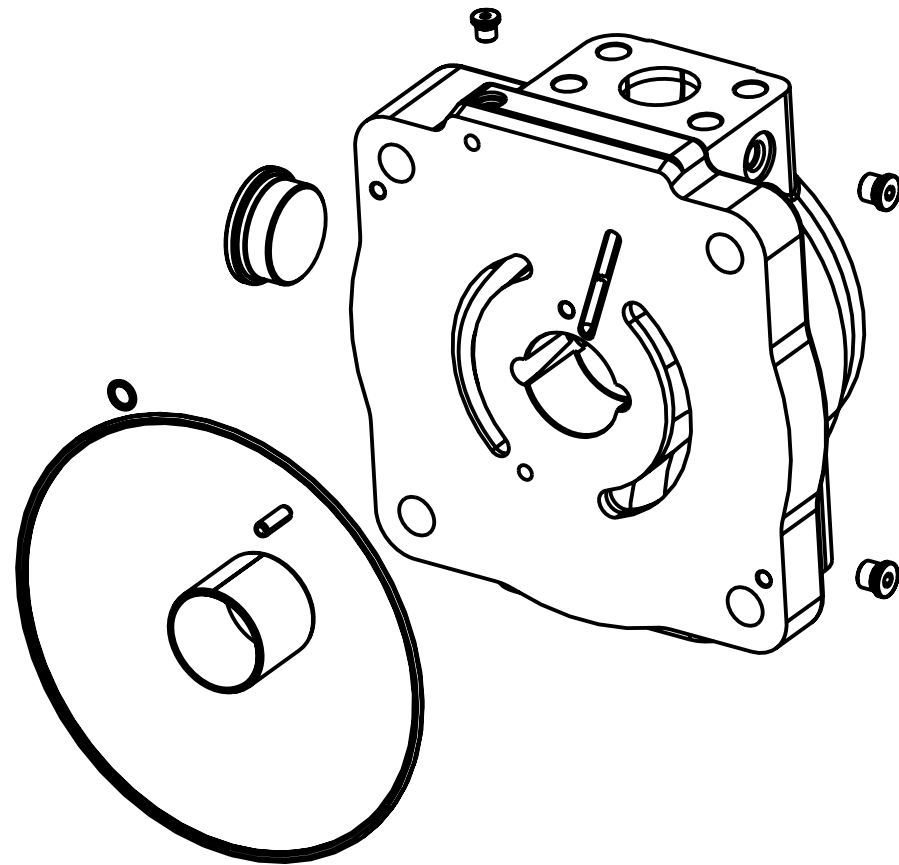
KIT FIXED CLEARANCE HOLD DOWN
ITEM 3



P2-145-0229-23

| | | | | | | | | |
|-------|---|----------------|-------------|----------|---|--------|----|--------------|
| TITLE | SERVICE PARTS P2145 DESIGN SERIES 15 | DRAWING NUMBER | P2-145-0411 | REVISION | A | STATUS | PR | SHEET 5 OF 8 |
|-------|---|----------------|-------------|----------|---|--------|----|--------------|

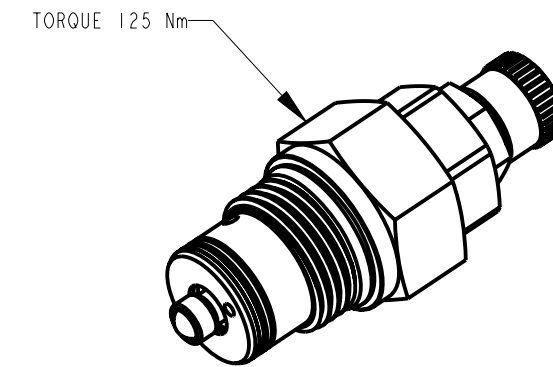
COVER ASSEMBLY KITS
ITEM 16



| | 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 |

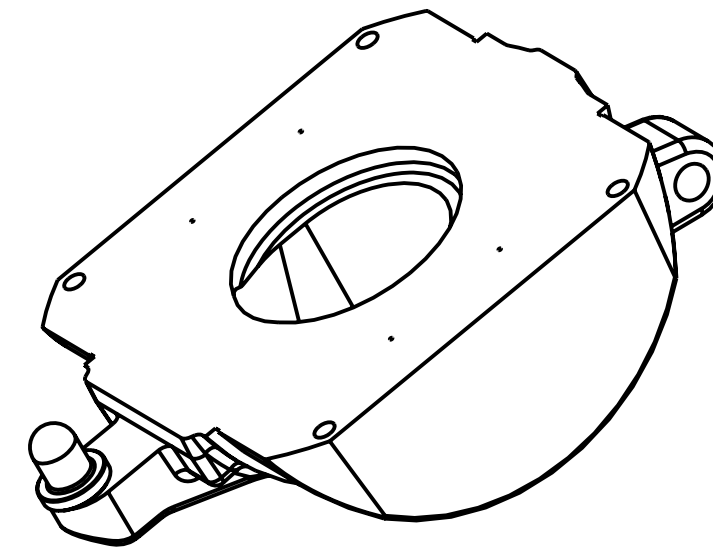
| | | | | | | | | | |
|----------|----------|------|---------|------------|----------|------|---------|------------|--------|
| DRAWN BY | L. NAGEL | DATE | 10FEB10 | CHANGED BY | L. NAGEL | DATE | 16DEC11 | ECN NUMBER | 715311 |
|----------|----------|------|---------|------------|----------|------|---------|------------|--------|

TORQUE CONTROL CARTRIDGE
ITEM 19



P2-000-0803 □

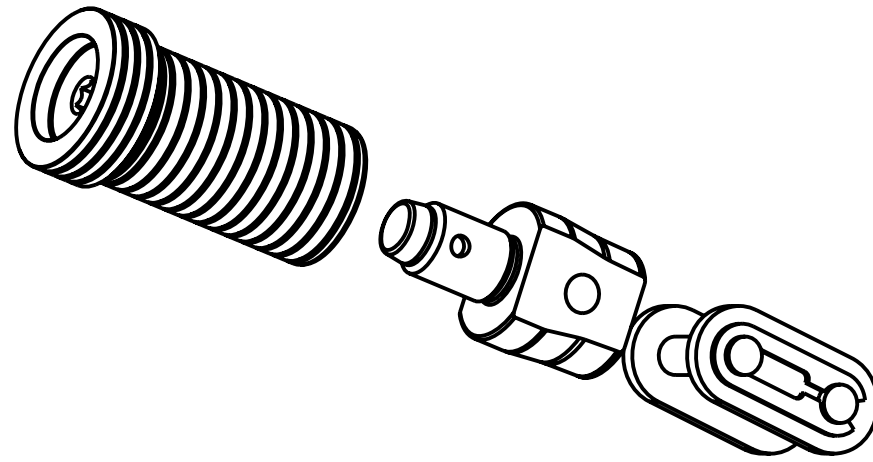
KIT SWASH PLATE
ITEM 7



P2-145-0221-05

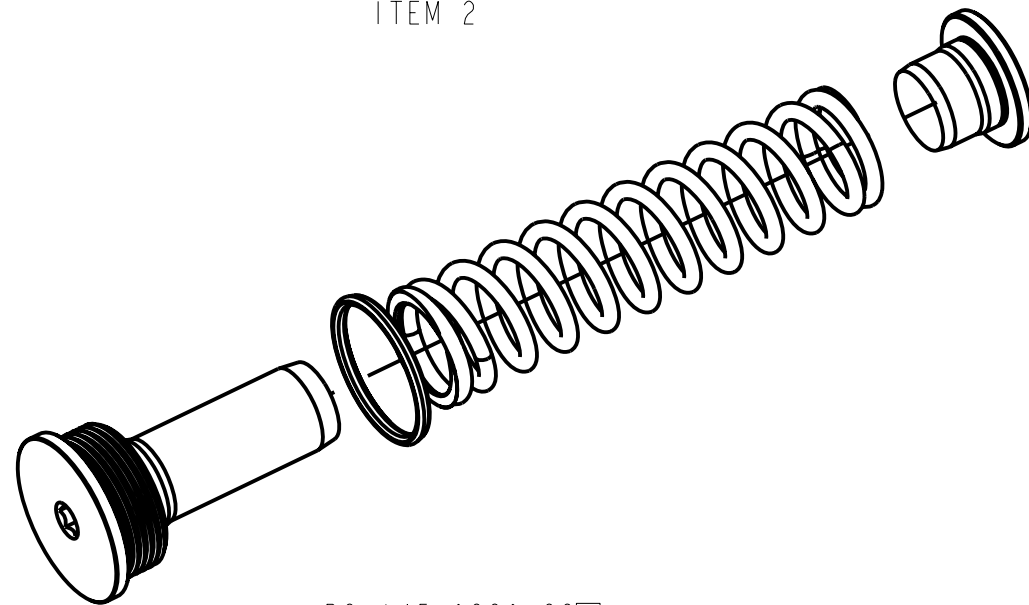
| | | | | | | | | |
|-------|---|----------------|-------------|----------|---|--------|----|--------------|
| TITLE | SERVICE PARTS P2145 DESIGN SERIES 15 | DRAWING NUMBER | P2-145-0411 | REVISION | A | STATUS | PR | SHEET 6 OF 8 |
|-------|---|----------------|-------------|----------|---|--------|----|--------------|

KIT SERVO PISTON ITEM 23



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

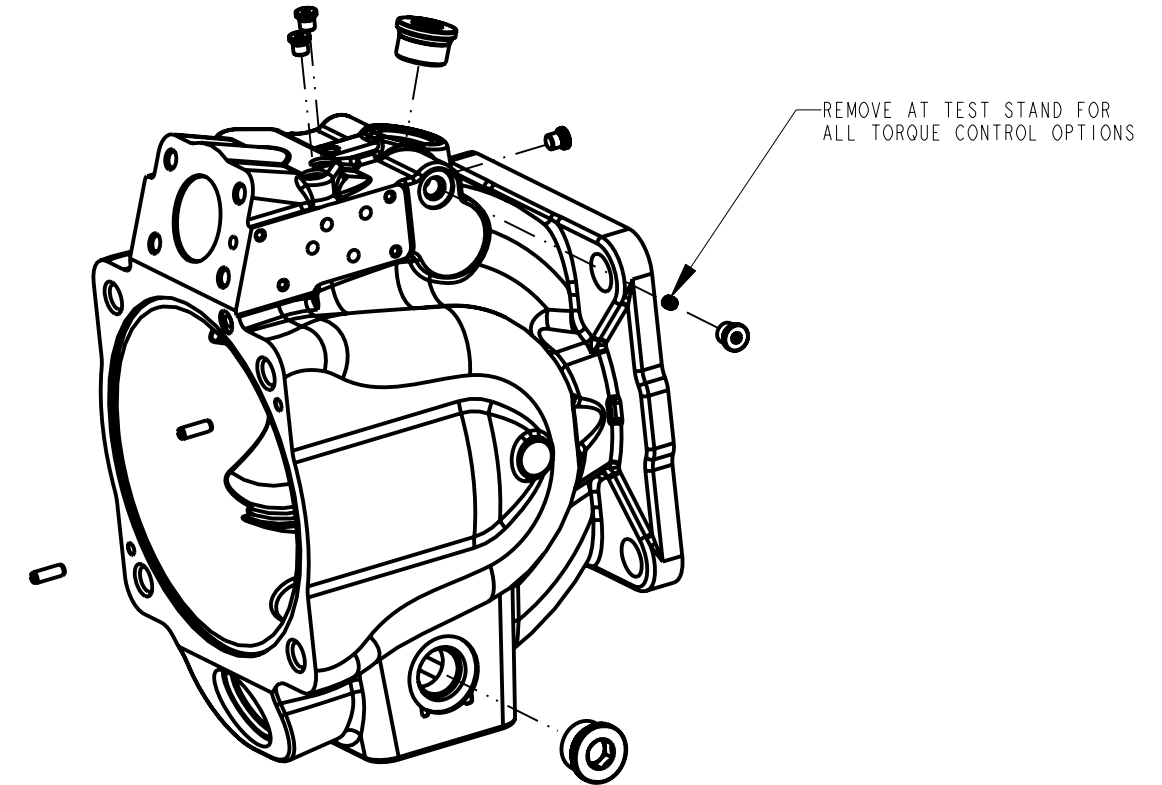
KIT SERVO SPRING ITEM 2



P2-145-0229-22□

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

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 |

| | | | | |
|---|----------------|----------|--------|--------------|
| TITLE | DRAWING NUMBER | REVISION | STATUS | |
| SERVICE PARTS P2145 DESIGN SERIES 15 | P2-145-0411 | A | PR | SHEET 7 OF 8 |

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

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:



