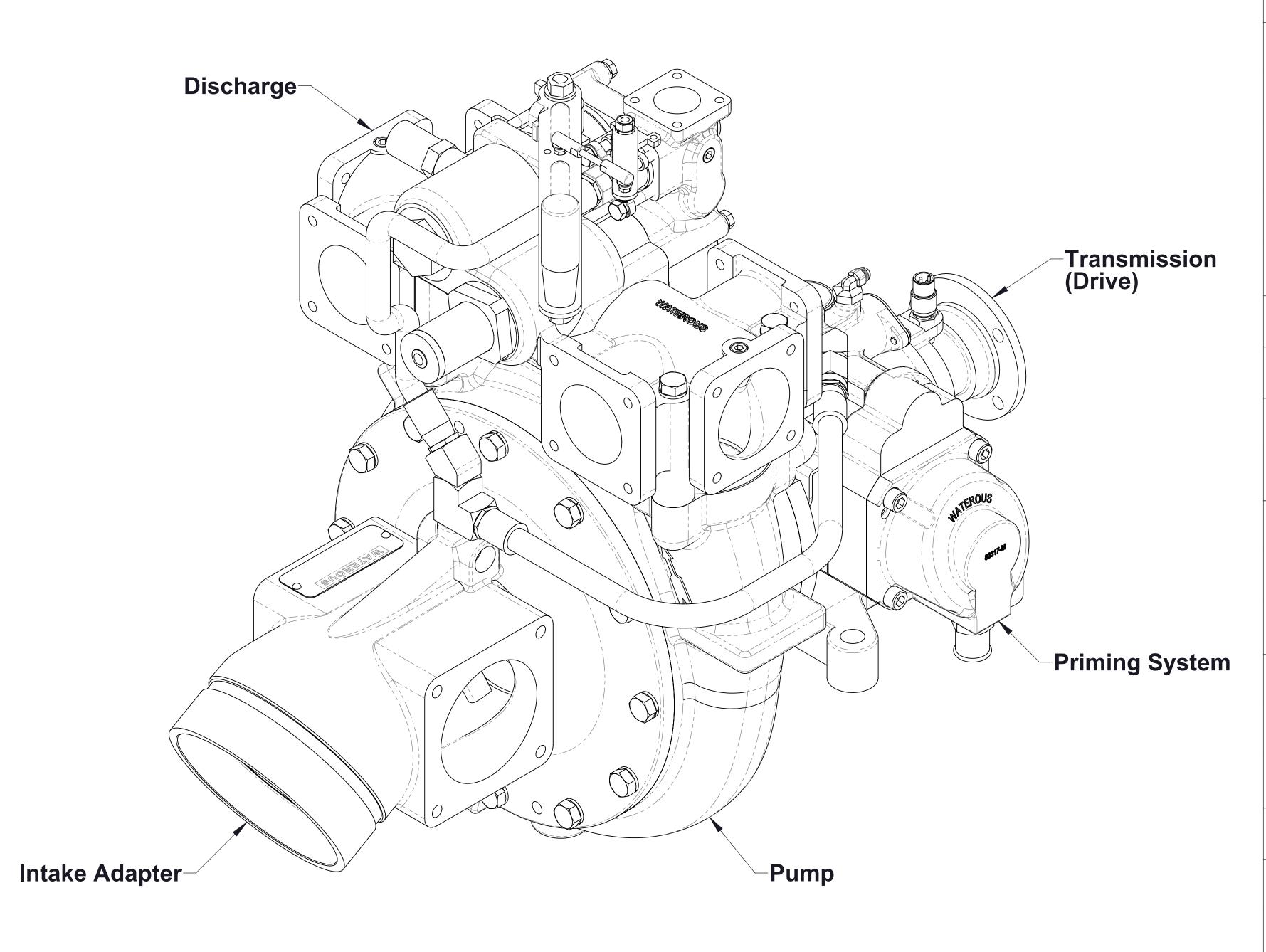
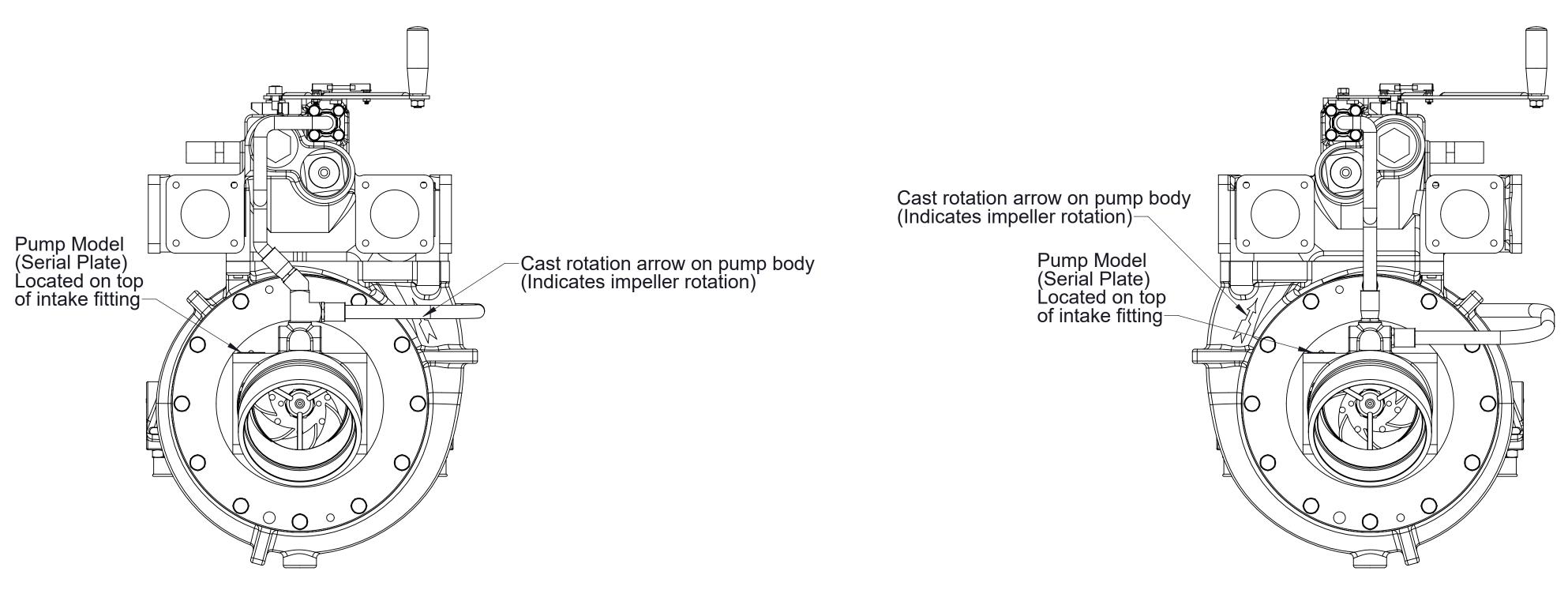
Document Number
 Issue Date
 Rev. Date

 SPL83161
 09/27/11
 07/17/24

HL200/300 Series Fire Pump Service Parts List



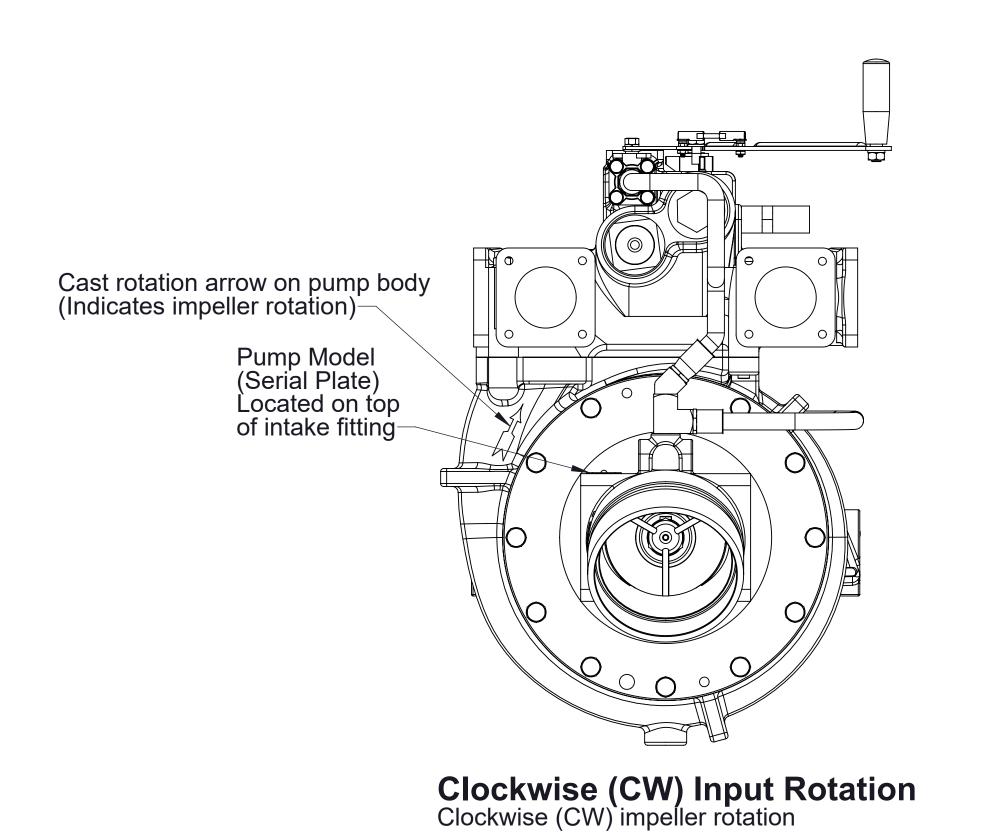
| Index: | | | | | | |
|----------------------|---|---------------|--|----------|--------|----------|
| Component | | | See Pages Complete Pump and Transmission Model (Located on pump serial plate) Direct Drive Gear Drive (K Series) HL200D, HL300D HL200K, HL300K | | | |
| | | | | Rotation | | Rotation |
| | | | CW | CCW | CW | CCW |
| Determining P | ump Model and I | nput Rotation | | 2 | | |
| | Intake Adapter | | | 3 | | |
| Discharge | Crossove | er Valve | 4 | 5 | 5 | 4 |
| Discharge | Mani | fold | 6 | 7 | 7 | 6 |
| | Primers | | 8 | | | |
| Priming System | PIV (Priming Isolation Valve) | With | | S | | |
| | | Without | 10 | | | |
| | Body and | Impellers | 11 | | | |
| Pump | Impeller Shaft and Pedestal | | 12 13 | | 13 | |
| | Cross-Section View | | 14 15 | | 15 | |
| Transmission (Drive) | | 12 15 | | 15 | | |
| Optional Items | Auxiliary Intake and Discharge Fittings | | See SPL83156 | | | |
| | RTP Foam System | | See SPL83157 | | | |
| | Control Panel | | See SPL83158 | | | |
| | Gauges and Tank Level Monitors | | | See SP | LOSIOŎ | |

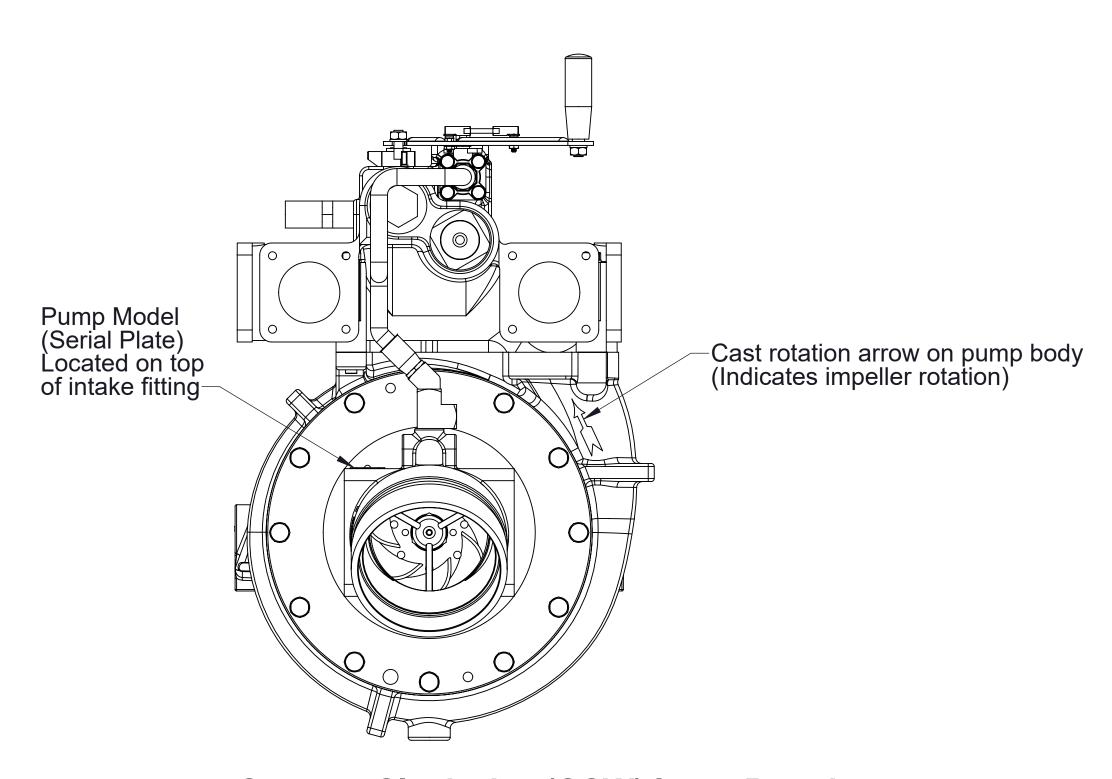


Clockwise (CW) Input Rotation Counter-clockwise (CCW) impeller rotation

Counter-Clockwise (CCW) Input Rotation Clockwise (CW) impeller rotation

Models HL200D and HL300D





Counter-Clockwise (CCW) Input Rotation Counter-clockwise (CCW) impeller rotation

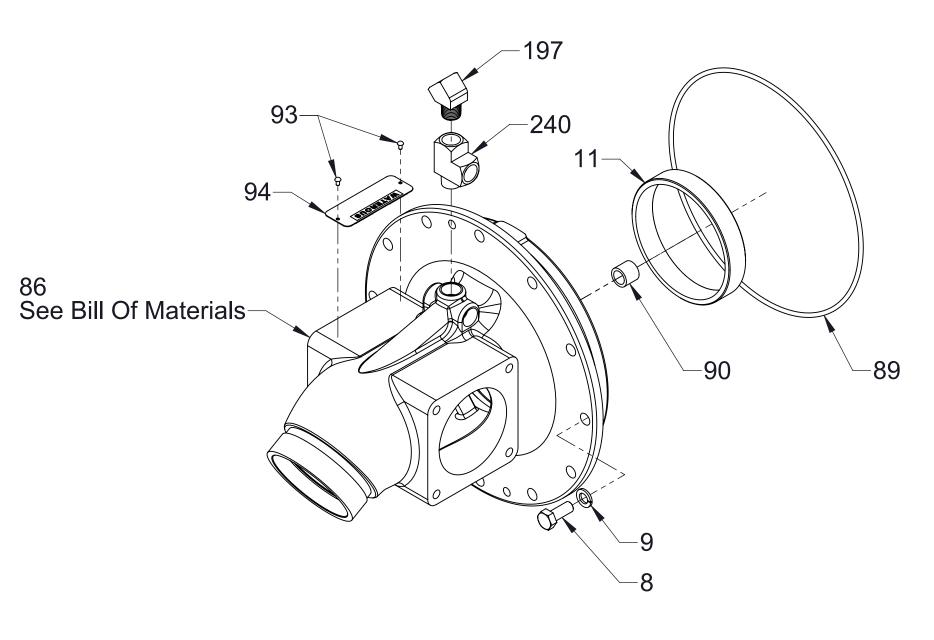
Models HL200K and HL300K

Determining Pump Model and Input Rotation

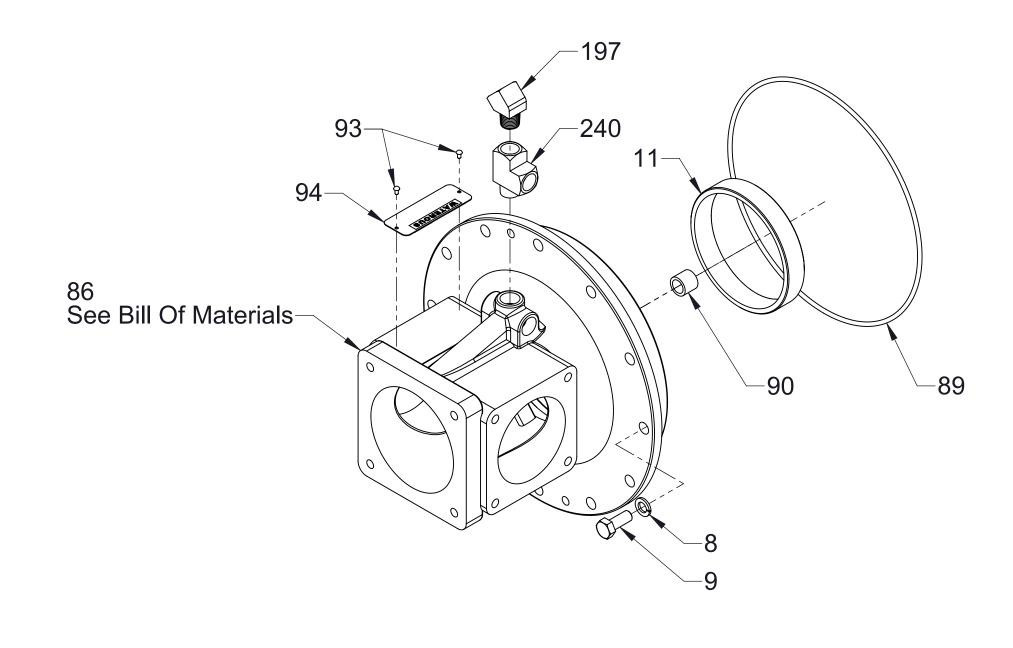
- The pump configuration and components vary for each pump model and input rotation.
 The input rotation of the drive end of the pump determines the direction the pump impeller rotates.
 Use the pump model and input rotation when referring to pages listed in the index.
 If you are unsure of the input rotation of your pump, the cast rotation arrow on the pump body can be used to determine which rotation configuration you have. The pump model can be obtained from the serial plate attached to the pump intake fitting.
 Compare your pump to the diagrams on this page.

| Ref No. | Description |
|---------|--|
| 8 | Screw-Hex Hd, M12-1.75 x 30 mm |
| 9 | Washer-Lock, 12 mm |
| 11 | Ring-Wear |
| 42 | O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156) |
| 86 | Fitting-Intake Assembly (Includes 11, 90, 93, 94) |
| 89 | O-Ring, 11 x 11-3/8 in |
| 90 | Bearing-Out Board |
| 93 | Screw-Drive, #6 x 1/4 in |

| Ref No. | Description |
|---------|-------------------------------------|
| 94 | Plate-Serial |
| 109 | Fitting-Storz |
| 110 | Cap-Storz |
| 197 | Elbow-Street, 45°, 1/2 NPT |
| 203 | Screen-Intake |
| 222 | O-Ring, 5-1/2 x 5-3/4 in |
| 223 | Dual Threaded Intake Fitting |
| 240 | Tee-Street, 1/2 NPTM x (2) 1/2 NPTF |



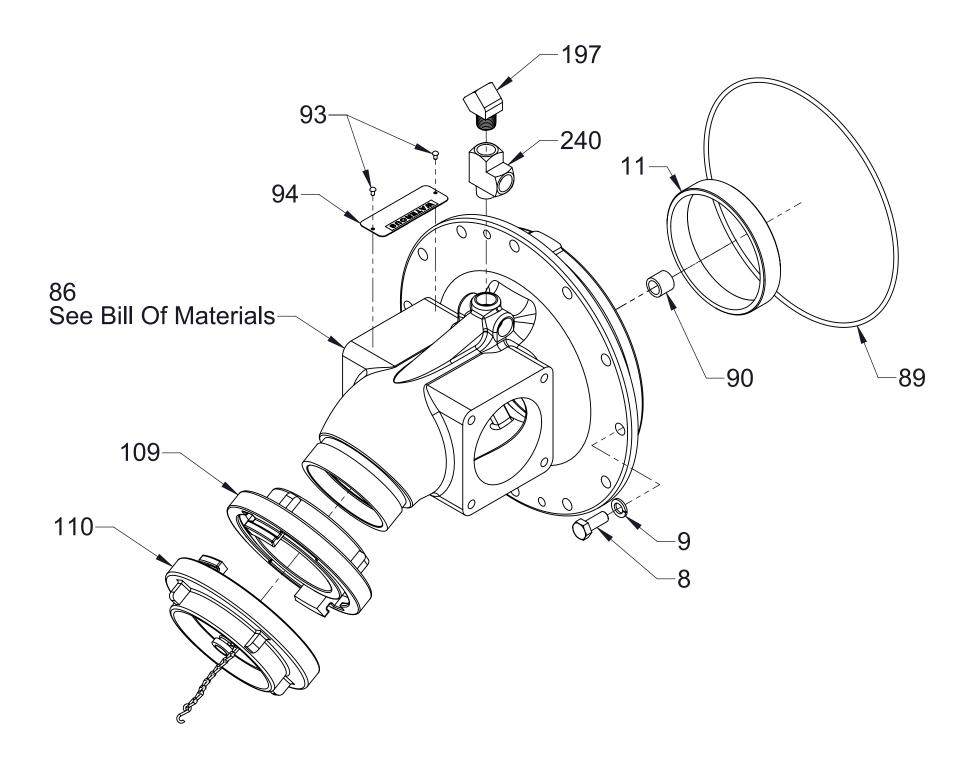
86 See Bill Of Materials
94
99
99
90
89

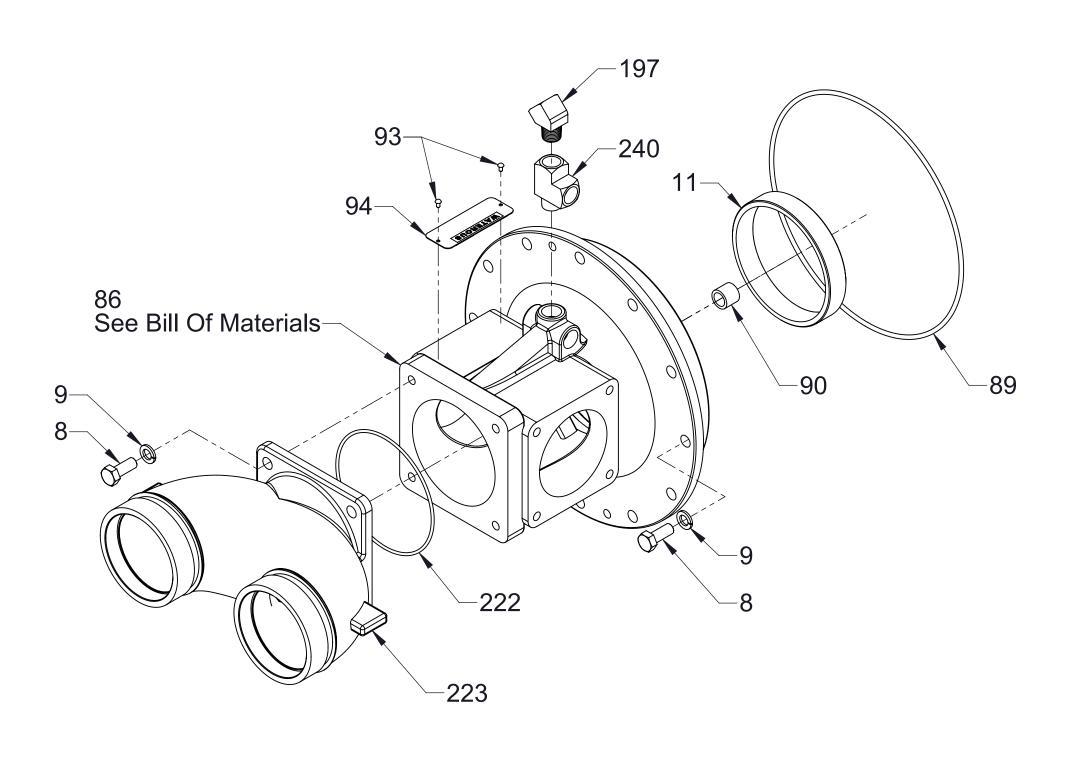


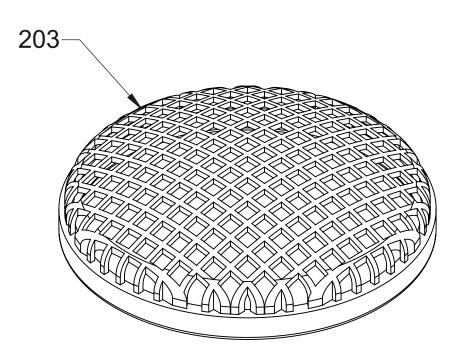
Single Threaded Inlet

Single Grooved (Victaulic) Inlet

Single 4-Bolt Flanged Inlet







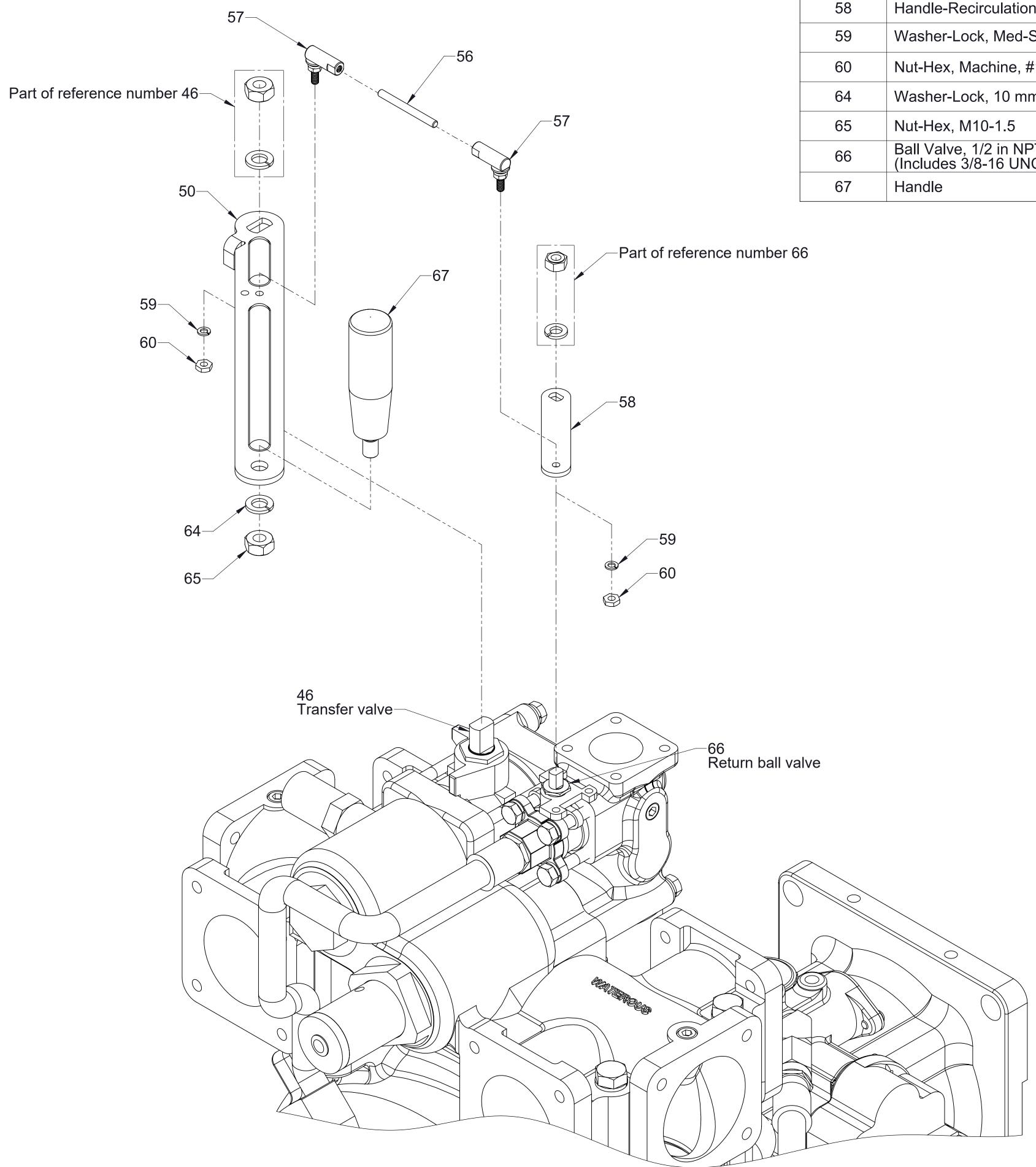
Optional Intake Screen

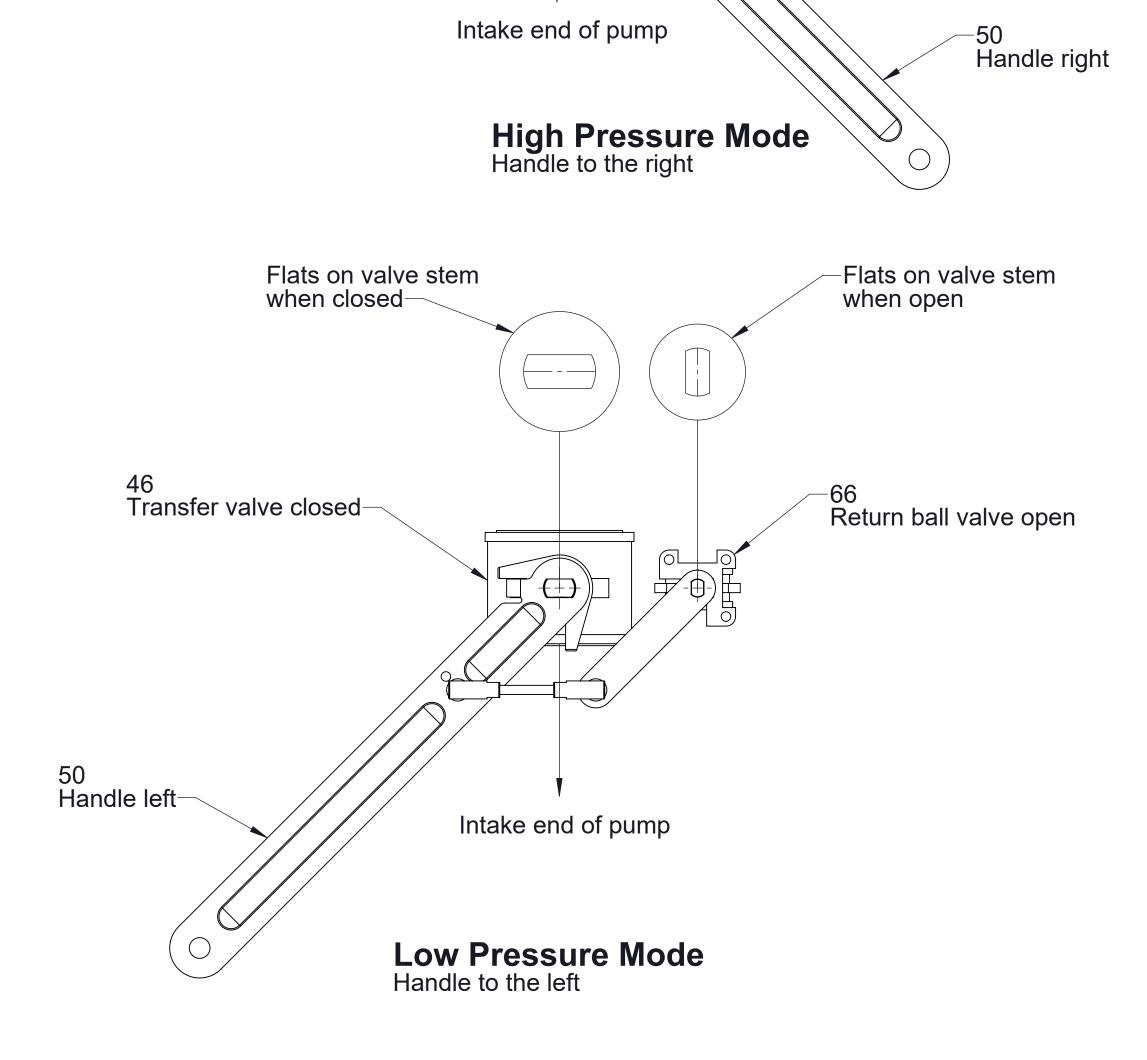
42 O-ring Repair Kit

Single Storz Inlet with Cap

Dual Threaded Inlet

| Ref No. | Description |
|---------|--|
| 46 | Transfer Valve, 1-1/2 in (Includes 7/16-14 UNC Hex Nut and Lockwasher) |
| 50 | Handle-Crossover Valve |
| 56 | Stud-Fine, #10-32 x 2 in |
| 57 | Linkage-Ball Joint, Right Angle |
| 58 | Handle-Recirculation (CCW Rotation) |
| 59 | Washer-Lock, Med-Spring, #10 |
| 60 | Nut-Hex, Machine, #10-32 |
| 64 | Washer-Lock, 10 mm |
| 65 | Nut-Hex, M10-1.5 |
| 66 | Ball Valve, 1/2 in NPT (Includes 3/8-16 UNC Hex Nut and Lockwasher) |
| 67 | Handle |





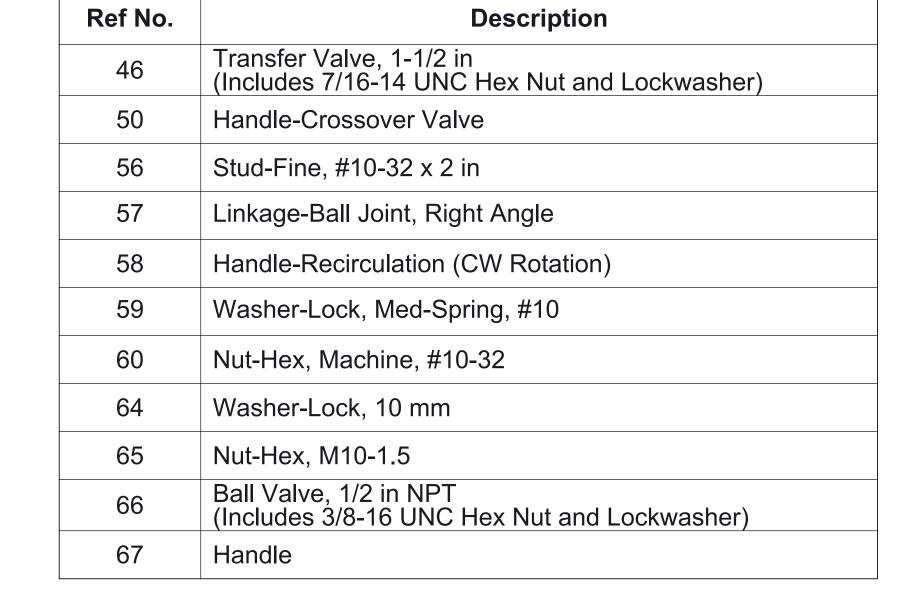
-Flats on valve stem when closed

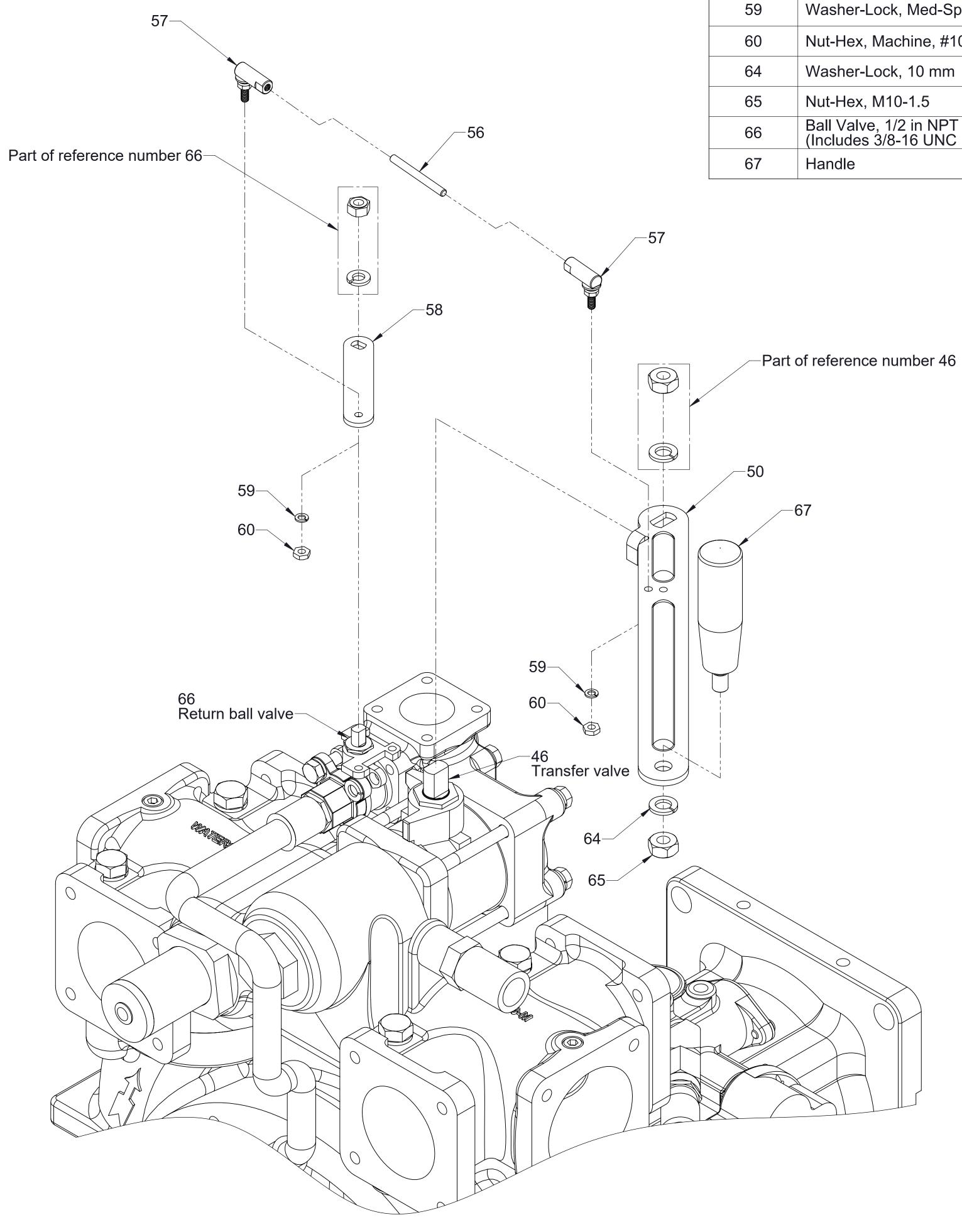
-66 Return ball valve closed

Flats on valve stem when open

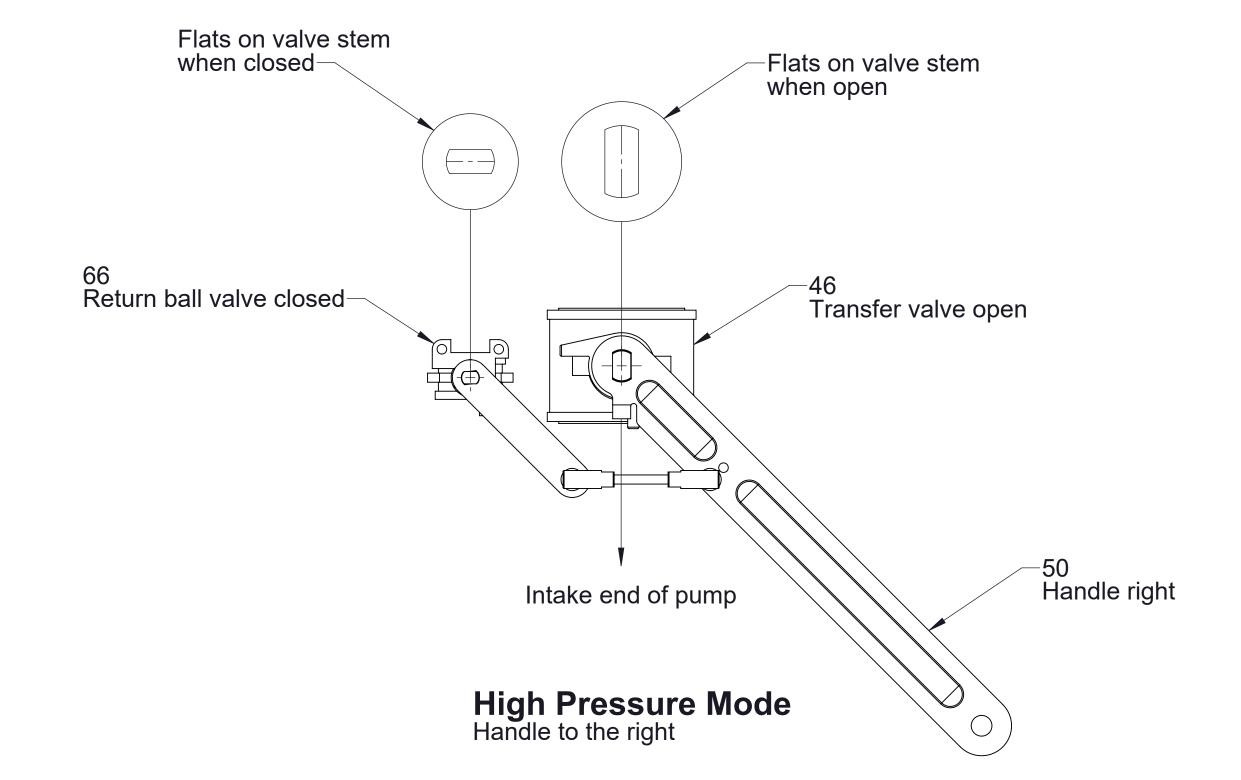
46 Transfer valve open-

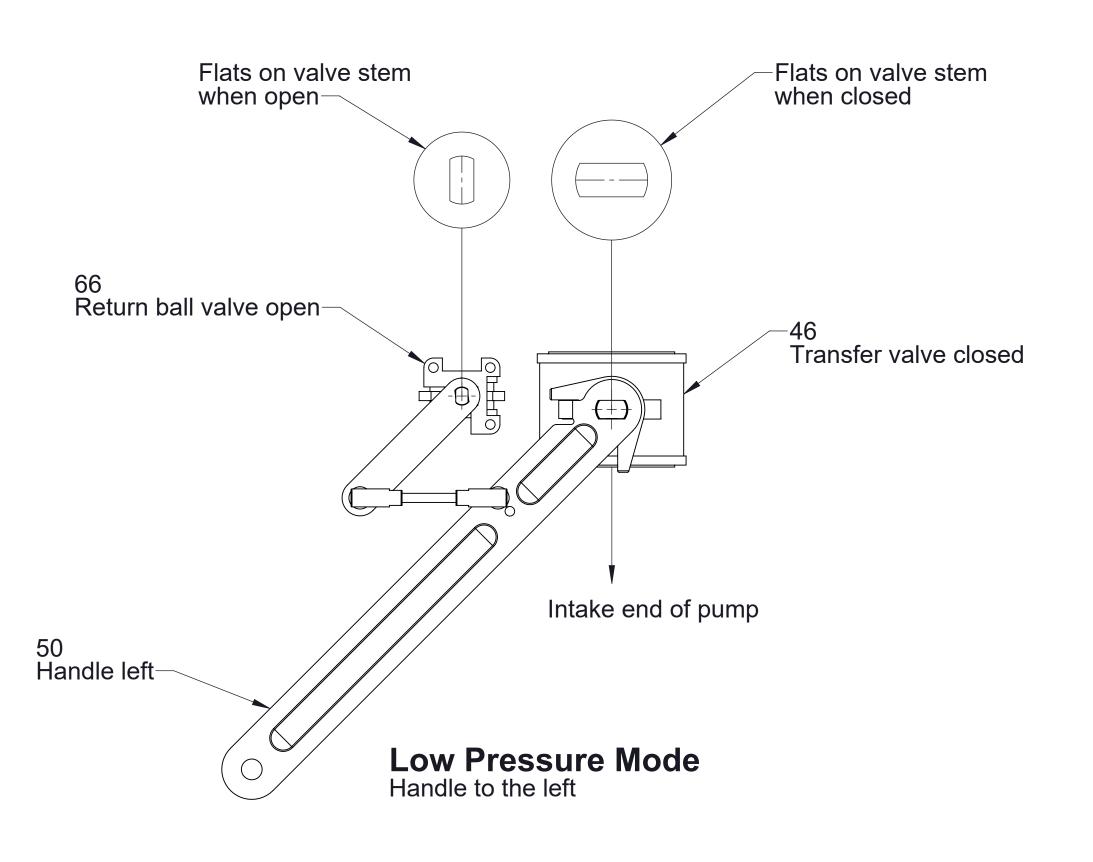
Discharge-Crossover ValveHL200D, HL300D - CW input rotation (CCW impeller rotation)
HL200K, HL300K - CCW input rotation (CCW impeller rotation)





Discharge-Crossover ValveHL200D, HL300D - CCW input rotation (CW impeller rotation)
HL200K, HL300K - CW input rotation (CW impeller rotation)

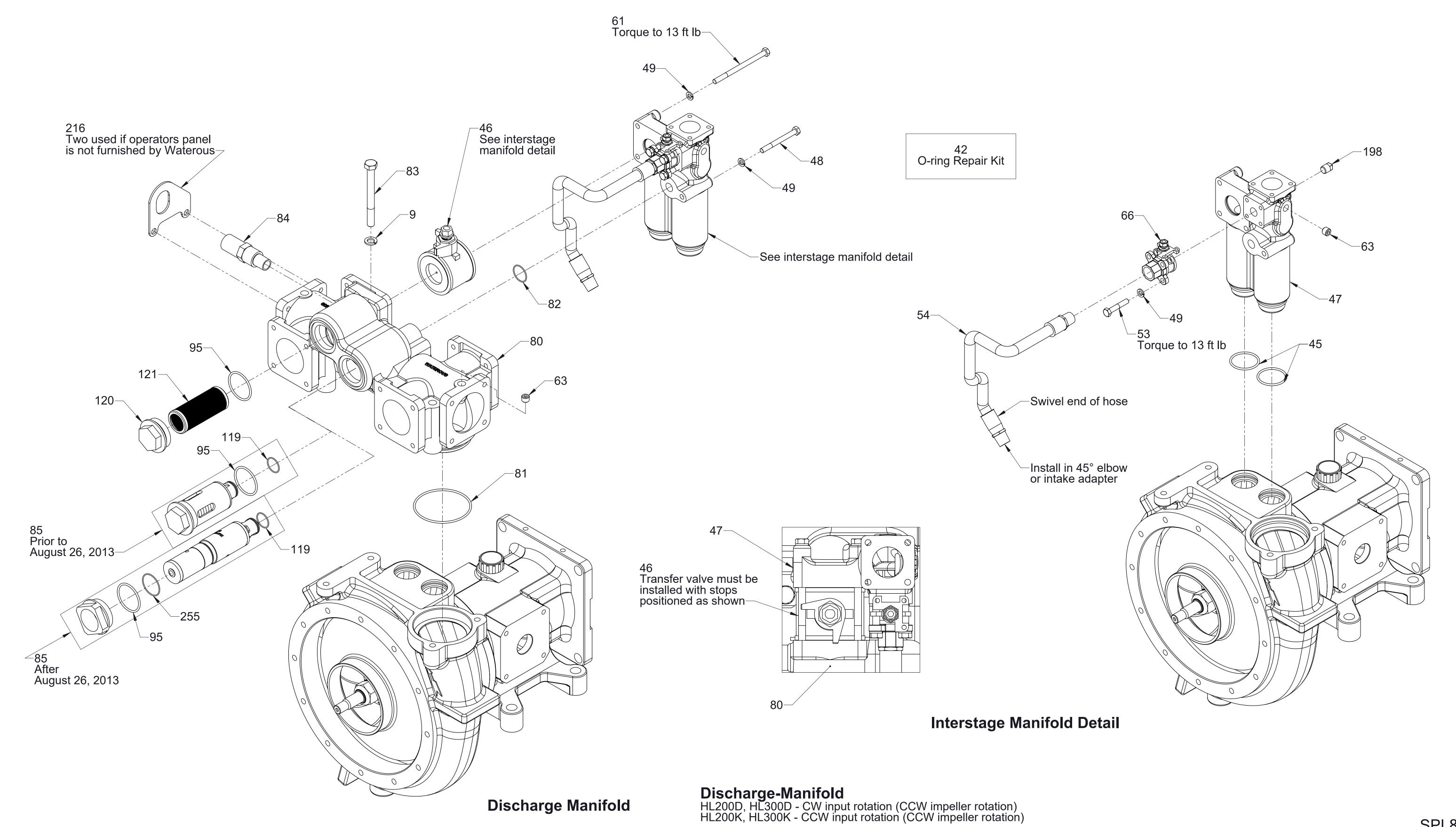




| Ref No. | Description |
|------------|---|
| 9 | Washer-Lock, 12 mm |
| 42 | O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156) |
| 45 | O-Ring, 1-3/4 x 2 in |
| 46 | Valve-Ball, 1-1/2 in (Includes 3/8-16 Hex Nut and Lockwasher) |
| 47 | Manifold-Interstage |
| 48 | Screw-Hex Hd, M8-1.25 x 80 mm |
| 49 | Washer-Lock, 8 mm |
| 53 | Screw-Hex Hd, M8-1.25 x 45 mm |
| 54 | Hose Assembly |
| | |

| Ref No. | Description |
|------------|--|
| 61 | Screw-Hex Hd, M8-1.25 x 120 mm |
| 63 | Plug-Pipe, JIS, 1/4 BSPT |
| 66 | Valve-Ball, 1/2 NPT (Includes 3/8-16 Hex Nut and Lockwasher) |
| 80 | Manifold-Discharge |
| 81 | O-Ring, 3-5/8 X 3-7/8 in |
| 82 | O-Ring, 1-1/8 x 1-1/4 in |
| 83 | Screw-Hex Hd, M12-1.75 x 120 mm |
| 84 | Valve-Thermal Relief |
| 85 | Discharge Relief Valve Assembly (Includes 95, 119) |

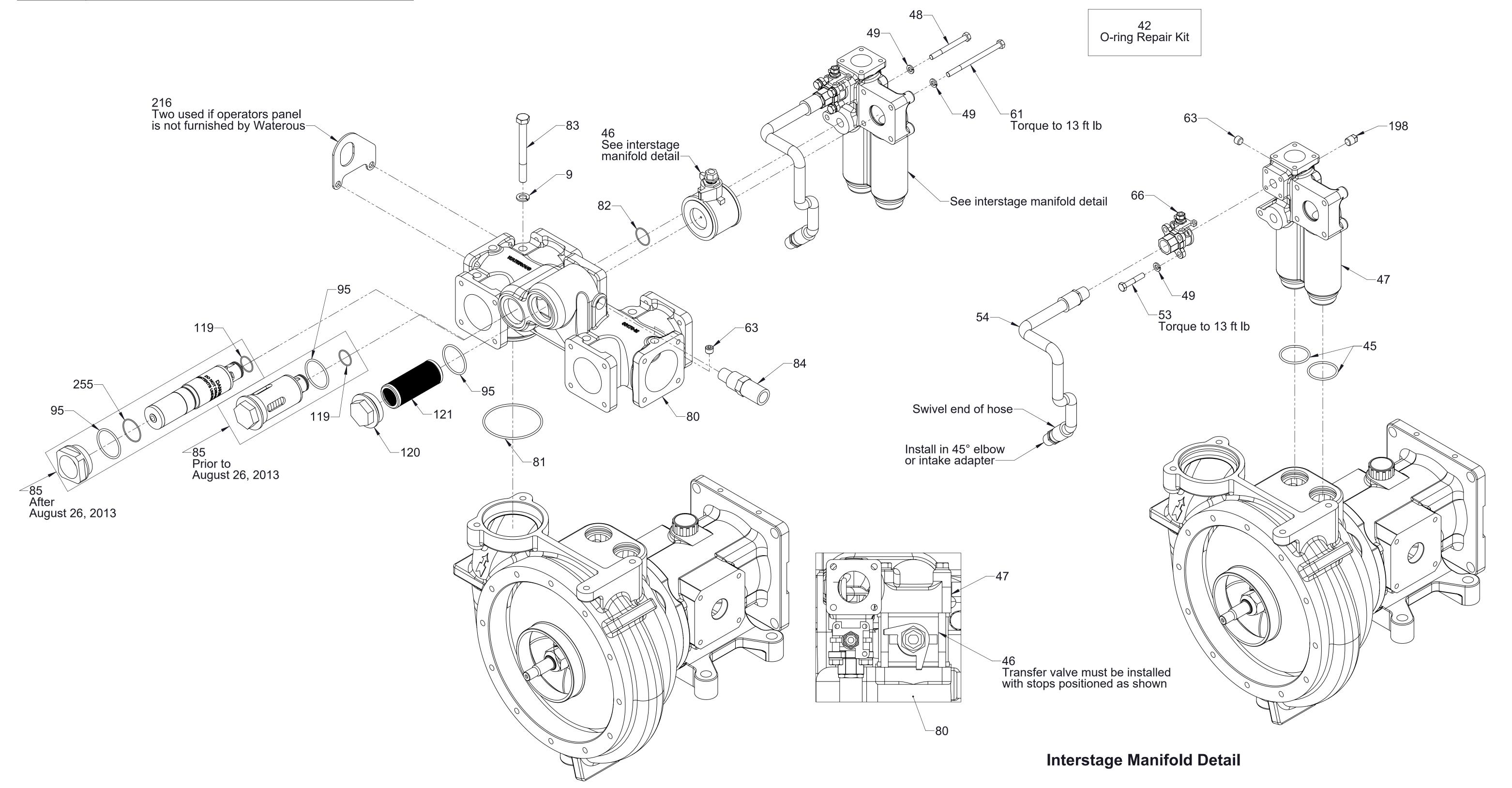
| Ref No. | Description |
|------------|-------------------------------|
| 95 | O-Ring, 1-7/8 x 2-1/8 in |
| 119 | O-Ring, 1 x 1-1/8 in |
| 120 | Cap-End, Strainer |
| 121 | Strainer |
| 198 | Plug-Pipe, Square Hd, 1/4 NPT |
| 216 | Bracket-Lifting |
| 255 | O-Ring, 1-1/2 x 1-5/8 in |



| Ref No. | Description |
|---------|---|
| 9 | Washer-Lock, 12 mm |
| 42 | O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156) |
| 45 | O-Ring, 1-3/4 x 2 in |
| 46 | Valve-Ball, 1-1/2 in (Includes 3/8-16 Hex Nut and Lockwasher) |
| 47 | Manifold-Interstage (CW) |
| 48 | Screw-Hex Hd, M8-1.25 x 80 mm |
| 49 | Washer-Lock, 8 mm |
| 53 | Screw-Hex Hd, M8-1.25 x 45 mm |
| 54 | Hose Assembly |

| Ref No. | Description |
|---------|--|
| 61 | Screw-Hex Hd, M8-1.25 x 120 mm |
| 63 | Plug-Pipe, JIS, 1/4 BSPT |
| 66 | Valve-Ball, 1/2 NPT (Includes 3/8-16 Hex Nut and Lockwasher) |
| 80 | Manifold-Discharge (CW) |
| 81 | O-Ring, 3-5/8 X 3-7/8 in |
| 82 | O-Ring, 1-1/8 x 1-1/4 in |
| 83 | Screw-Hex Hd, M12-1.75 x 120 mm |
| 84 | Valve-Thermal Relief |
| 85 | Discharge Relief Valve Assembly (Includes 95, 119) |
| | · |

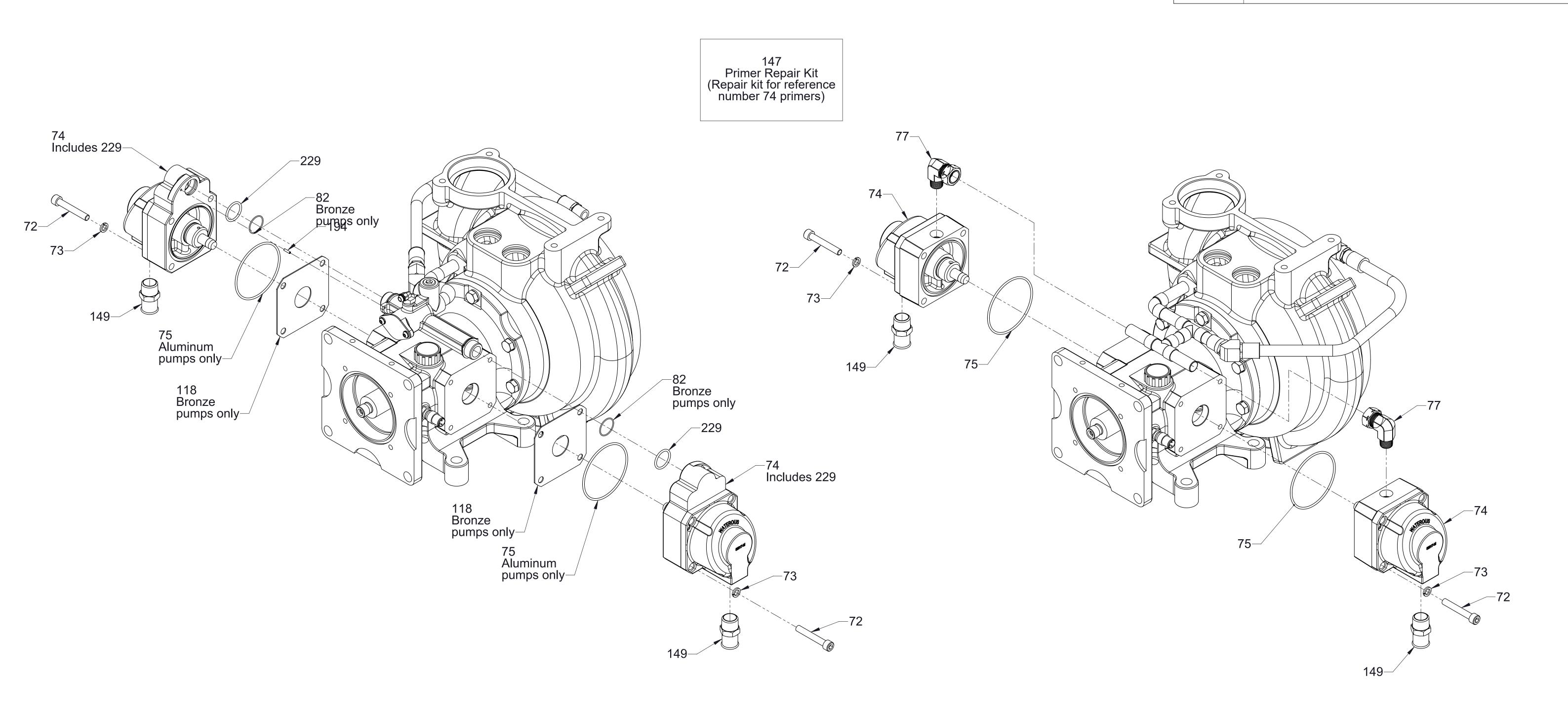
| Ref No. | Description |
|---------|-------------------------------|
| 95 | O-Ring, 1-7/8 x 2-1/8 in |
| 119 | O-Ring, 1 x 1-1/8 in |
| 120 | Cap-End, Strainer |
| 121 | Strainer |
| 198 | Plug-Pipe, Square Hd, 1/4 NPT |
| 216 | Bracket-Lifting |
| 255 | O-Ring, 1-1/2 x 1-5/8 in |



Discharge Manifold

Discharge-ManifoldHL200D, HL300D - CCW input rotation (CW impeller rotation)
HL200K, HL300K - CW input rotation (CW impeller rotation)

| Ref No. | Description |
|---------|--|
| 72 | Screw-Soc Hd, M10-1.5 x 65 mm |
| 73 | Washer-Lock, High Collar, 10 mm |
| 74 | Piston Primer Assembly (Includes 229) |
| 75 | O-Ring, 3-3/4 X 4 in (Used on aluminum pumps only) |
| 77 | Elbow-Male, 1/2 NPT x 3/4 Tube |
| 82 | O-Ring, 1-1/8 x 1-1/4 in (Used on bronze pumps only) |
| 118 | Gasket-Priming Module (Used on bronze pumps only) |
| 147 | Piston Primer Repair Kit |
| 149 | Fitting-Hose Barb, 3/4 NPT X 1 Hose |
| 194 | Pin-Spring, 1/8 x 5/8 in |
| 229 | O-Ring, 1-1/8 x 1-3/8 in |



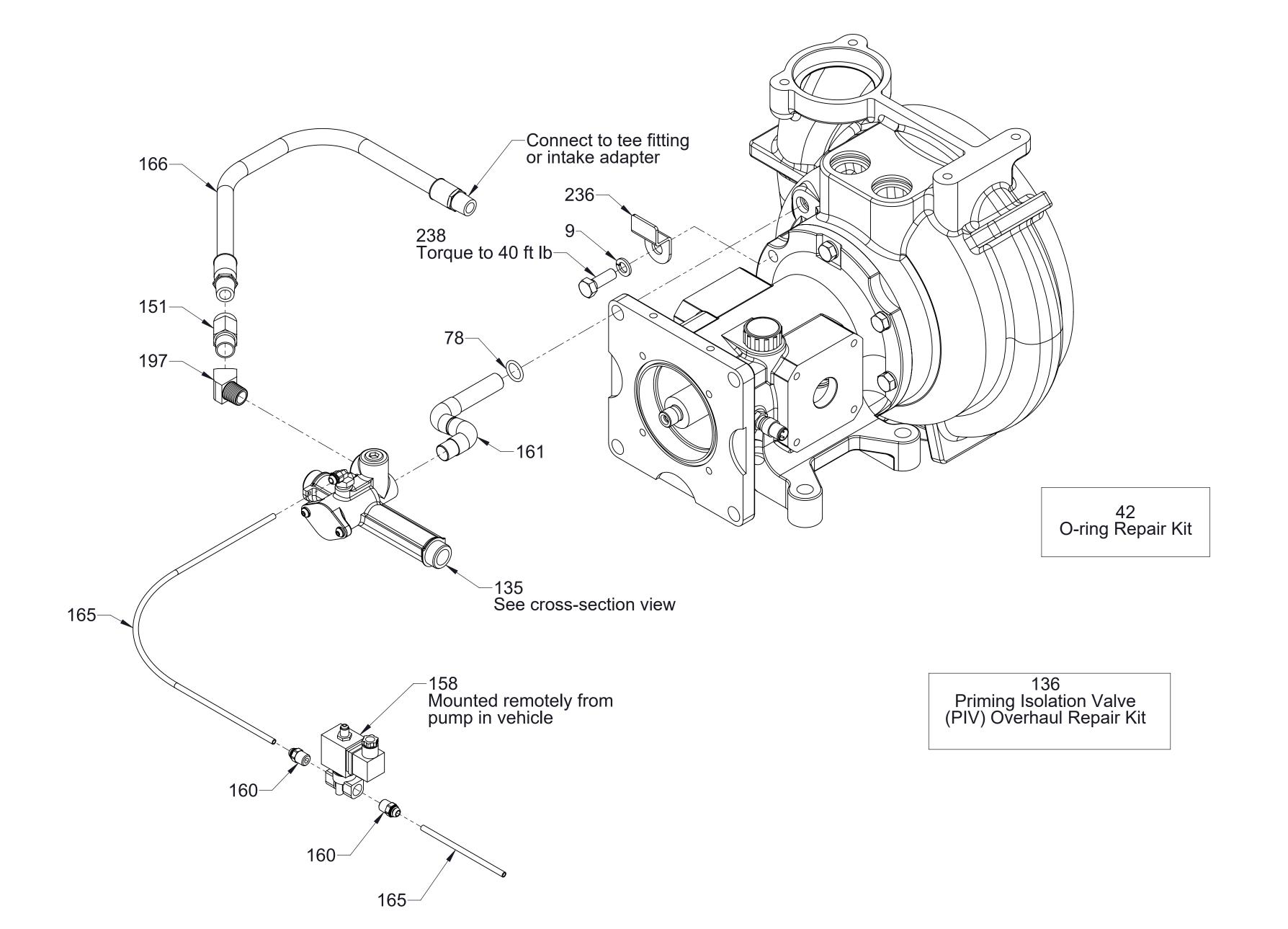
With PIV (Priming Isolation Valve)

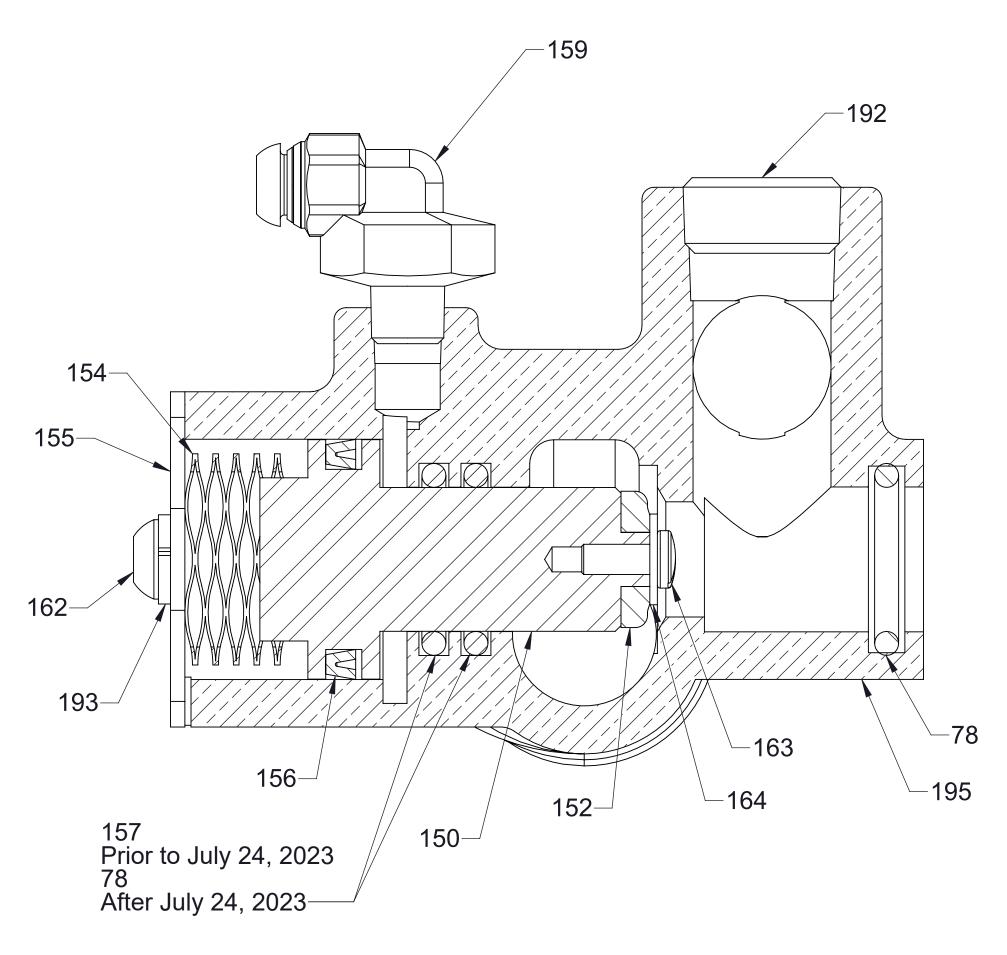
Priming System-Primers

Without PIV (Priming Isolation Valve)

| Ref No. | Description |
|---------|---|
| 9 | Washer-Lock, 12 mm |
| 42 | O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156) |
| 78 | O-Ring, 3/4 x 1 in |
| 135 | Priming Isolation Valve (PIV) Assembly (Includes 78, 150, 152, 154, 155, 156, 157, 159, 162, 163, 164, 192, 195) |
| 136 | Priming Isoation Valve (PIV) Overhaul Repair Kit (Includes 75, 78, 82, 118, 152, 154, 156, 163, 164, 229) |
| 150 | Piston-Priming Valve |
| 151 | Valve-Check |
| 152 | Seal-Priming Valve |
| 154 | Spring-Wave |
| 155 | Cover-Priming Valve |
| 156 | Seal-Piston |
| 157 | Seal-Rod |
| 158 | Valve-Solenoid, 3-Way, 1/4 NPT, 12V |
| 159 | Connector-Elbow, 90°, 6 mm Tube X 1/8 BSPT |
| 160 | Connector-Male, 6 mm Tube x 1/4 BSPT |

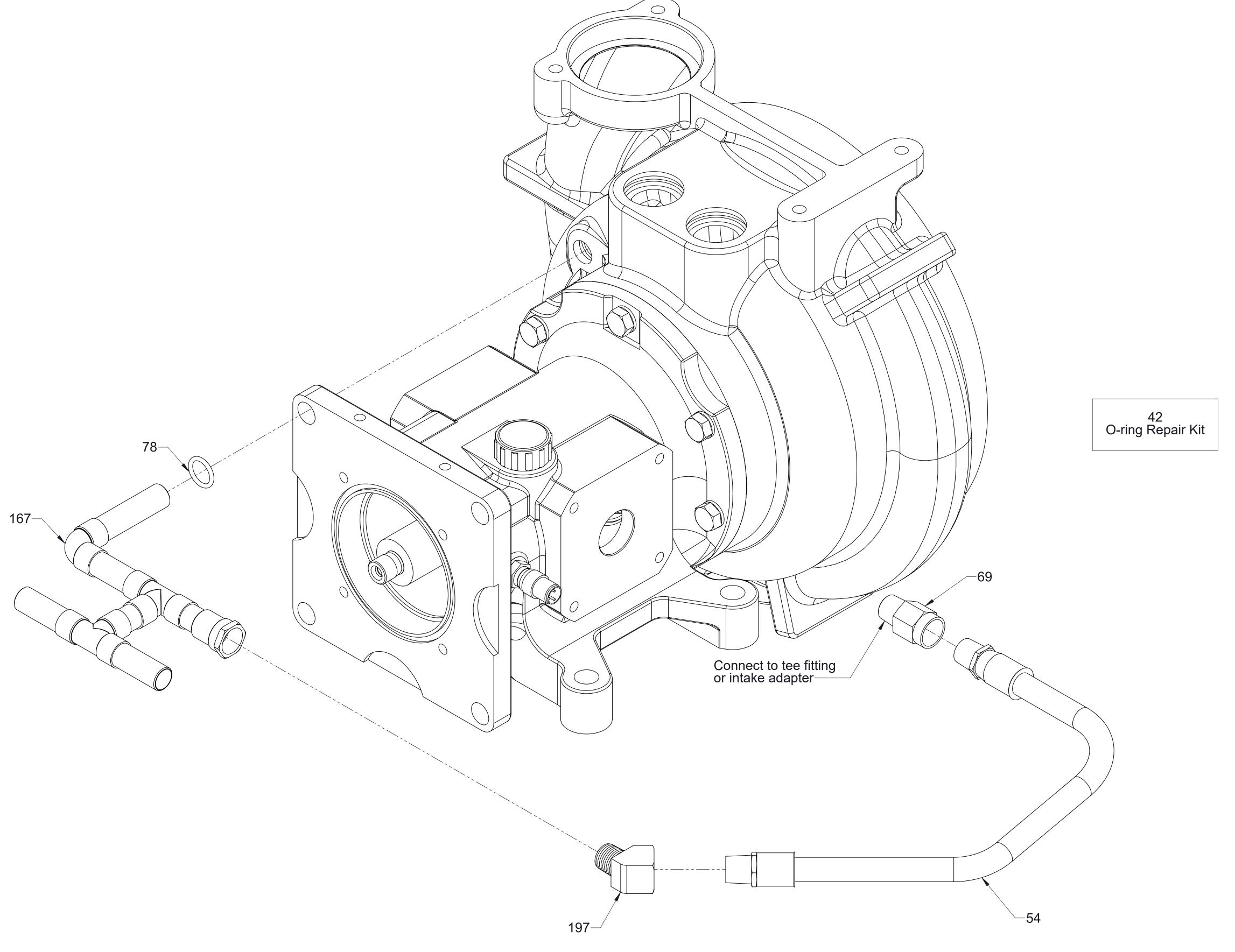
| Ref No. | Description |
|---------|-----------------------------------|
| 161 | Tube-Priming |
| 162 | Screw-Soc Button Hd, M6-1 x 12 mm |
| 163 | Screw-Pan Hd, M47 x 10 mm |
| 164 | Washer, 4 mm |
| 165 | Tube-Nylon, Metric |
| 166 | Hose Assembly |
| 192 | Plug-Pipe, JIS, 1/2 BSPT |
| 193 | Washer-Lock, 6 mm |
| 195 | Valve-Priming, Body |
| 197 | Elbow-Street, 45°, 1/2 NPT |
| 236 | Clip-PIV Priming Tube |
| 238 | Screw-Hex Hd, M12-1.75 x 35 mm |





Reference Number 135 Cross-Section View

| Ref No. | Description |
|---------|--|
| 42 | O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156) |
| 54 | Hose Assembly |
| 69 | Valve-Check, Primer |
| 78 | O-Ring, 3/4 x 1 in |
| 167 | Tube-Priming (Non-PIV) |
| 197 | Elbow-Street, 45°, 1/2 NPT |

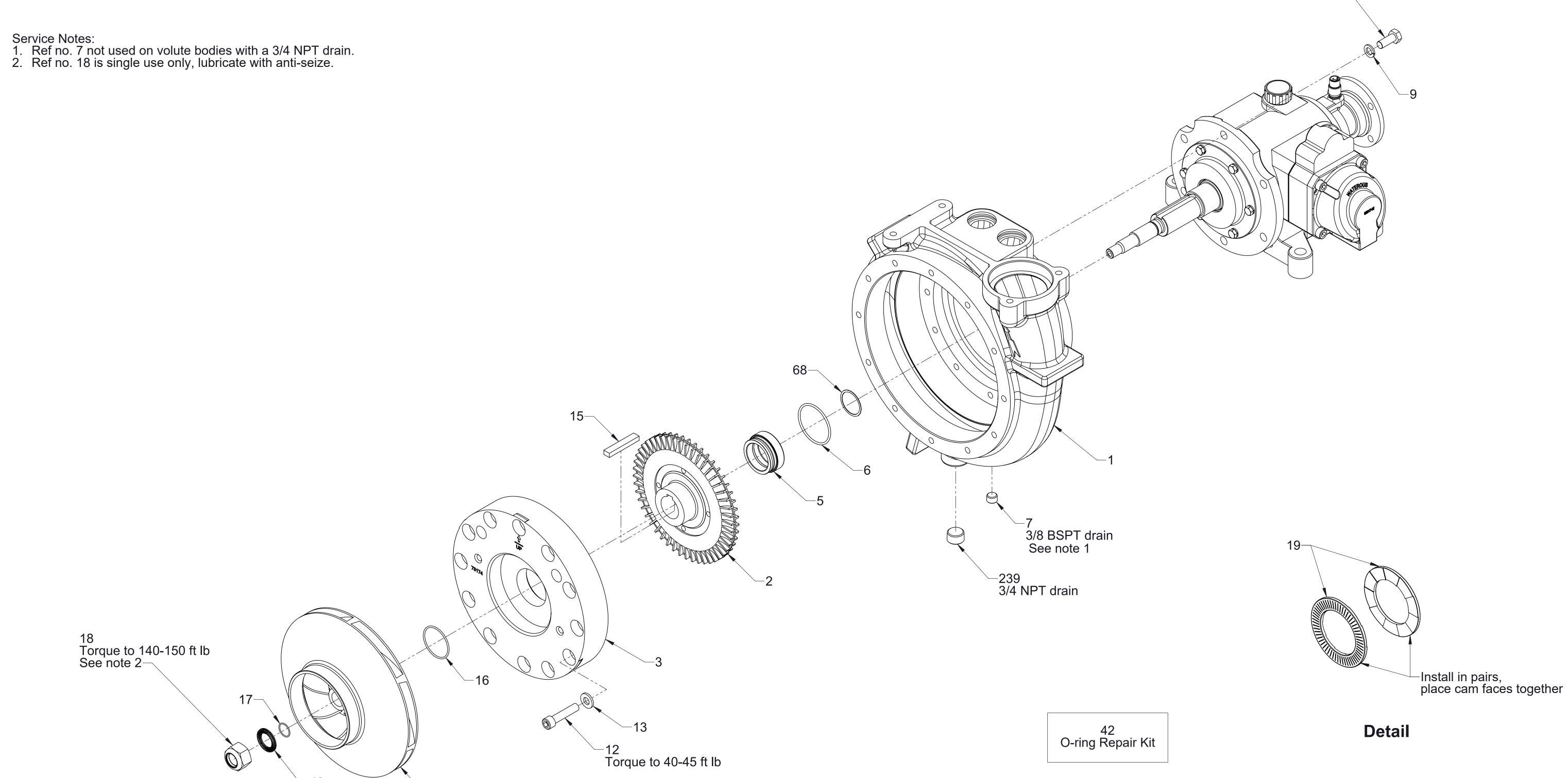


Priming System-PIV (Priming Isolation Valve)-Without
Prior to April 15, 2022

| Ref No. | Description |
|---------|--|
| 1 | Body-Volute |
| 2 | Impeller-High Pressure |
| 3 | Plate-Separator (CW or CCW) |
| 4 | Impeller |
| 5 | Mechanical Seal Repair Kit (Includes 6, 16, 17, 18, 19, 68, 89) |
| 6 | O-Ring, 2-1/2 x 2-3/4 in |
| 7 | Plug-Pipe, JIS, 3/8 BSPT |
| 8 | Screw-Hex Hd, M12-1.75 x 30 mm |
| 9 | Washer-Lock, 12 mm |
| 12 | Screw-Soc Hd, M12-1.75 x 55 mm |
| 13 | Washer-Flat, 12 mm |

| Ref No. | Description |
|---------|--|
| 15 | Key, 8 x 12 x 65 mm |
| 16 | O-Ring, 2 x 2-3/16 in |
| 17 | O-Ring, 13/16 x 15/16 in |
| 18 | Nut-Lock |
| 19 | Washer Nord-Lock, 24 mm |
| 42 | O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156) |
| 68 | High Pressure Impeller Shim Pack (Includes .002, .005, .010 thick shims) See overhaul instructions F-1031, section 4321 for shimming instructions |
| 239 | Plug-Pipe, Headless, 3/4 NPT |
| 124 | O-Ring, 3/4 x 1 in |

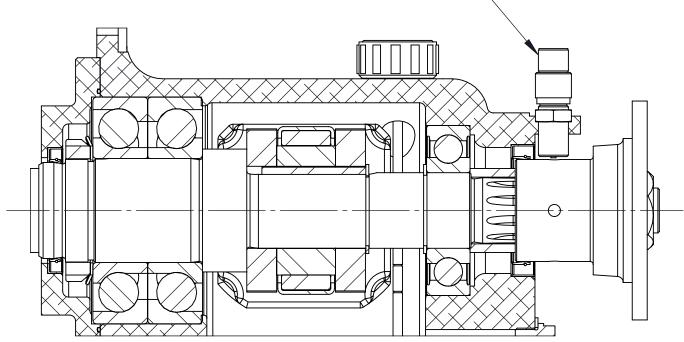
─19 See detail



8 Torque to 40 ft lb—

| Ref No. | Description |
|---------|--|
| 20 | Housing-Oil Seal |
| 21 | Seal-Oil, 2 x 2-5/8 in |
| 22 | Nut-Lock, Bearing, N11 |
| 23 | Washer-Lock, Bearing, W11 |
| 24 | Bearing-Ball, Single Row |
| 25 | Shaft-Impeller |
| 26 | Counterweight-Primer |
| 27 | Key, 8 x 12 x 55 mm |
| 28 | Eccentric-Primer |
| 30 | Bearing, Ball, Single Row, 40 x 90 x 23 mm |
| 31 | Bearing - Roller, Needle |
| 32 | Pedestal |
| 33 | Plug-Straight Thread, Hex Hd, M16-1.5 |
| 34 | Washer-Flat, 5/8 in |

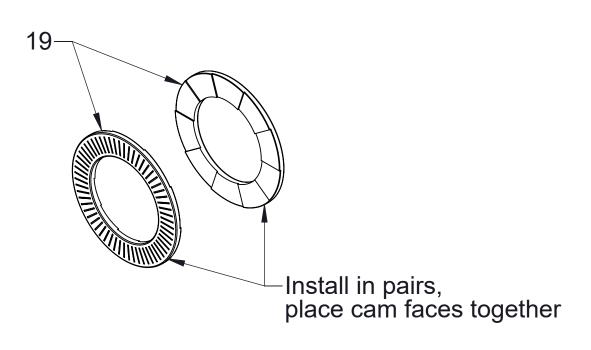
Thread into housing until contact with companion flange is made, back off 1/4 turn and tighten nut—



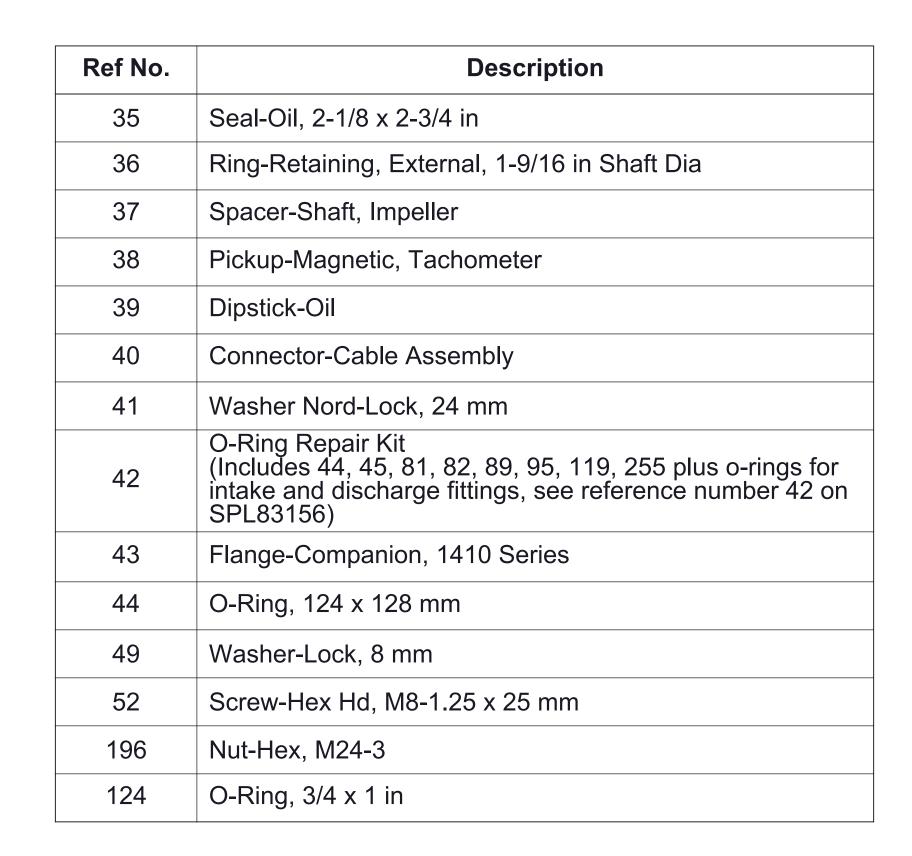
Angular contact bearing installation

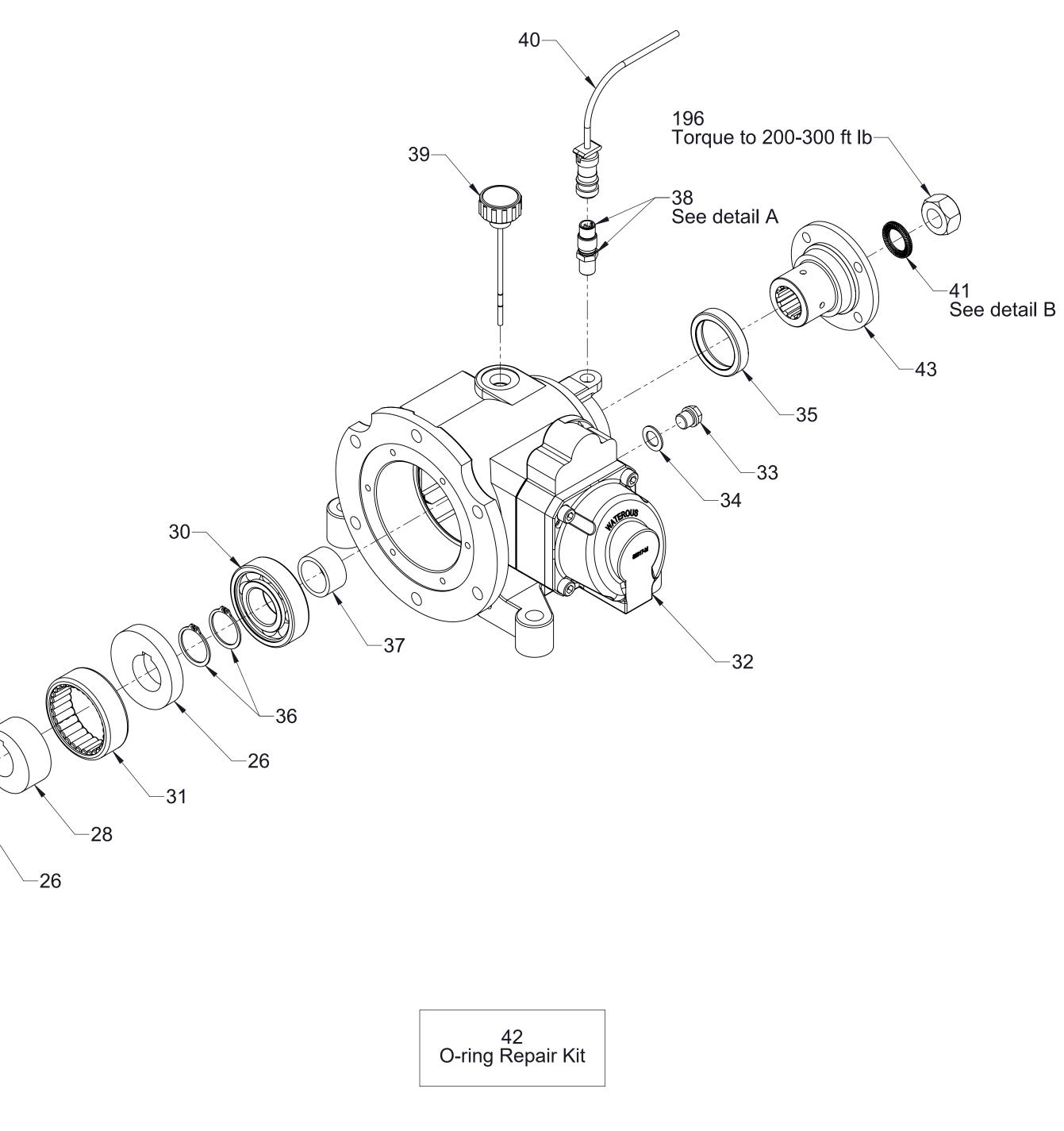
Tachometer pickup installation

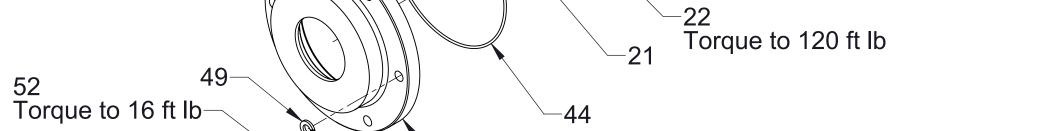
Detail A



Detail B





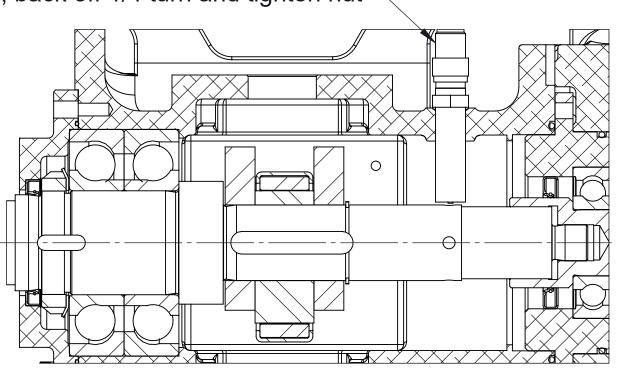


−24 See detail A

Pump-Impeller Shaft and Pedestal Models HL200D, HL300D

-25

Thread into housing until contact with impeller shaft is made, back off 1/4 turn and tighten nut—



Angular contact bearing installation

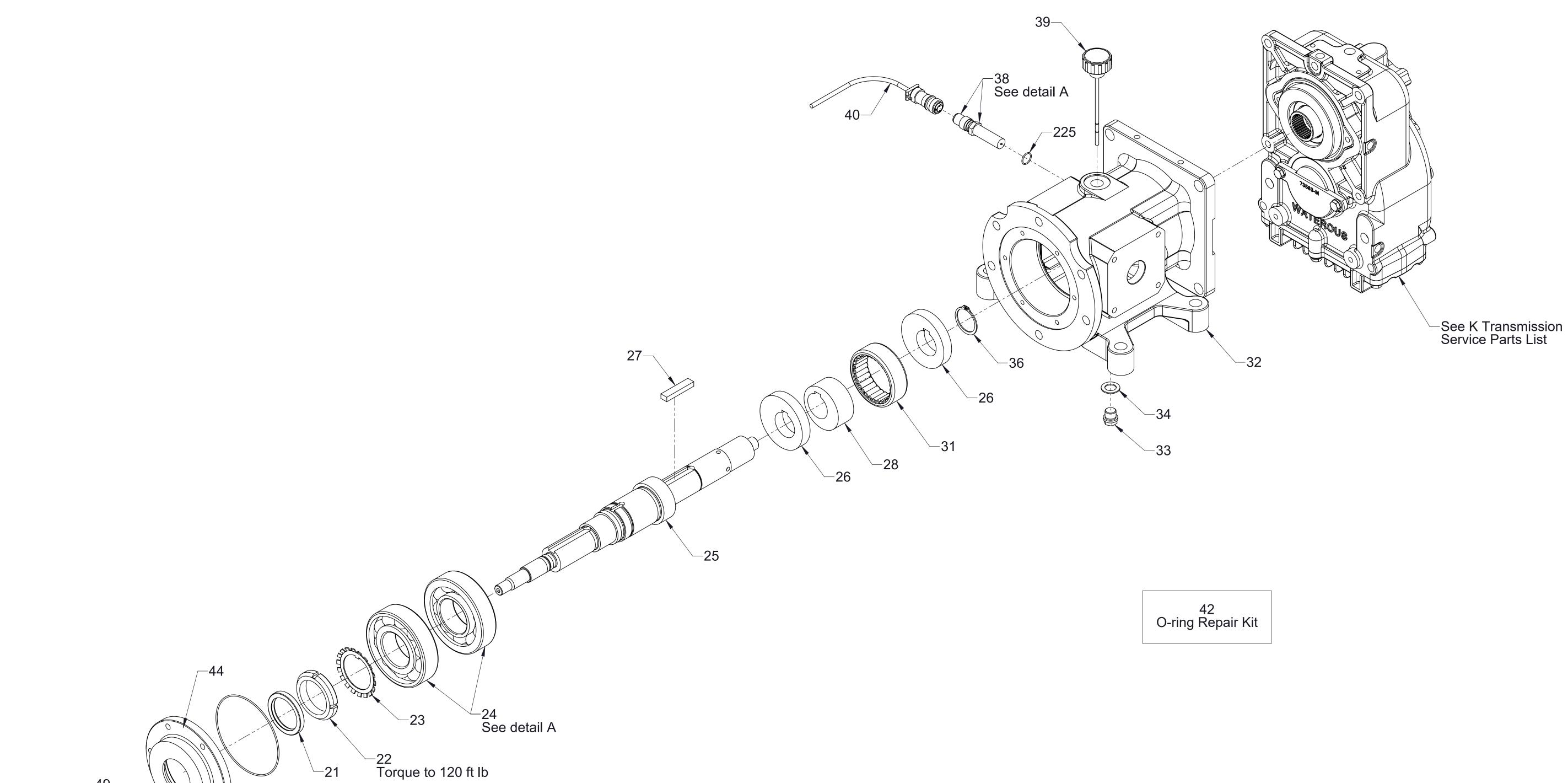
Tachometer pickup installation

Detail A

52 Torque to 16 ft lb—

| Ref No. | Description |
|---------|---------------------------------------|
| 20 | Housing-Oil Seal |
| 21 | Seal-Oil, 2 x 2-5/8 in |
| 22 | Nut-Lock, Bearing, N11 |
| 23 | Washer-Lock, Bearing, W11 |
| 24 | Bearing-Ball, Single Row |
| 25 | Shaft-Impeller |
| 26 | Counterweight-Primer |
| 27 | Key, 8 x 12 x 55 mm |
| 28 | Eccentric-Primer |
| 31 | Bearing - Roller, Needle |
| 32 | Pedestal |
| 33 | Plug-Straight Thread, Hex Hd, M16-1.5 |

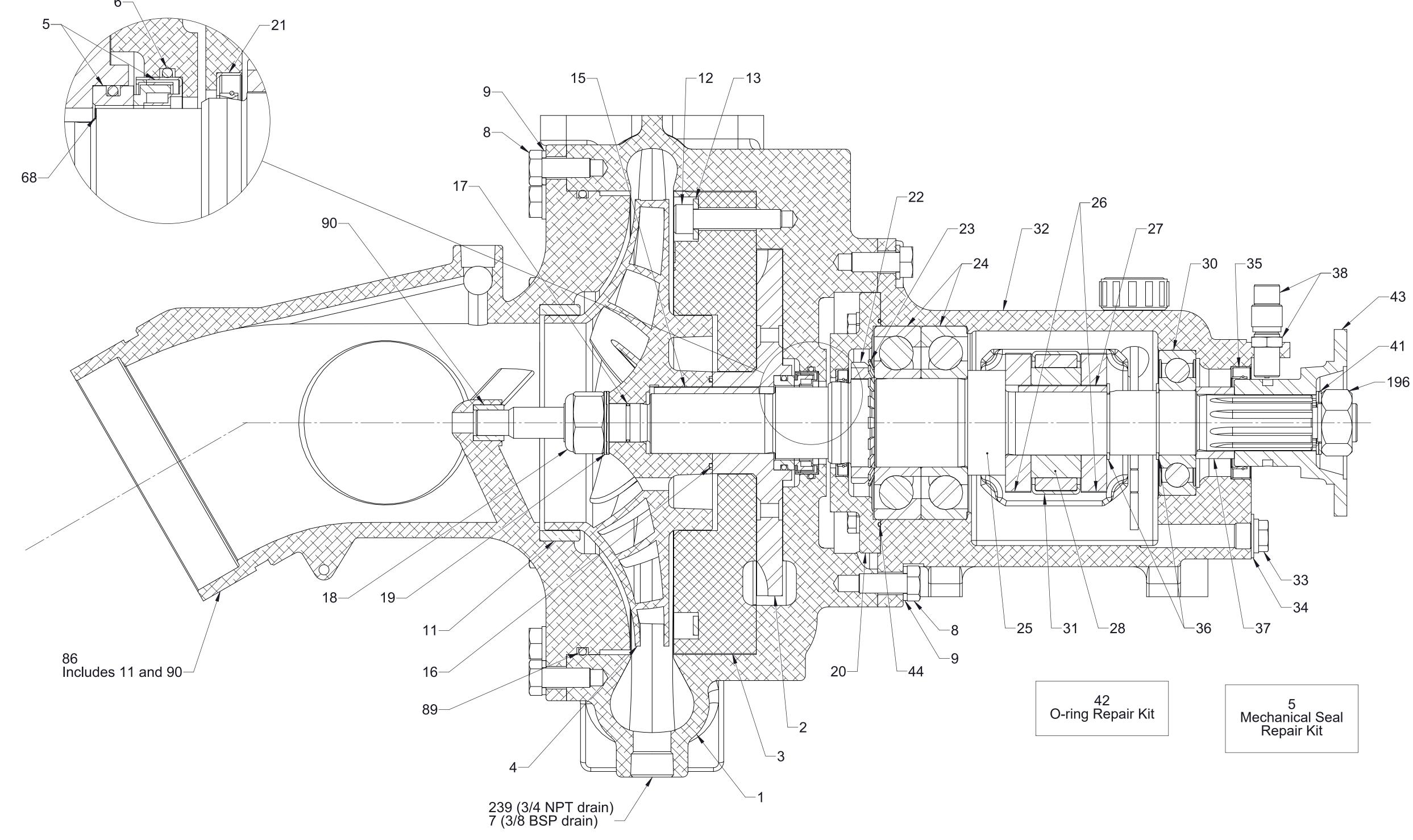
| Ref No. | Description |
|---------|--|
| 34 | Washer-Flat, 5/8 in |
| 36 | Ring-Retaining, External, 1-9/16 in Shaft Dia |
| 38 | Pick-Up-Magnetic, Tachometer |
| 39 | Dipstick-Oil |
| 40 | Connector-Cable Assembly |
| 42 | O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156) |
| 44 | O-Ring, 124 x 128 mm |
| 49 | Washer-Lock, 8 mm |
| 52 | Screw-Hex Hd, M8-1.25 x 25 mm |
| 225 | O-Ring, 5/8 x 3/4 in |



| Ref No. | Description |
|---------|--|
| | - |
| 1 | Body-Volute |
| 2 | Impeller-High Pressure |
| 3 | Plate-Separator (CW or CCW) |
| 4 | Impeller |
| 5 | Mechanical Seal Repair Kit (Includes 6, 16, 17, 18, 19, 68, 89) |
| 6 | O-Ring, 2-1/2 x 2-3/4 in |
| 7 | Plug-Pipe, JIS, 3/8 BSPT |
| 8 | Screw-Hex Hd, M12-1.75 x 30 mm |
| 9 | Washer-Lock, 12 mm |
| 11 | Ring-Wear |
| 12 | Screw-Soc Hd, M12-1.75 x 55 mm |
| 13 | Washer-Flat, 12 mm |
| 15 | Key, 8 x 12 x 65 mm |
| 16 | O-Ring, 2 x 2-3/16 in |
| 17 | O-Ring, 13/16 x 15/16 in |
| 18 | Nut-Lock |

| Ref No. | Description |
|---------|--|
| 19 | Washer Nord-Lock, 24 mm |
| 20 | Housing-Oil Seal |
| 21 | Seal-Oil, 2 x 2-5/8 in |
| 22 | Nut-Lock, Bearing, N11 |
| 23 | Washer-Lock, Bearing, W11 |
| 24 | Bearing-Ball, Single Row |
| 25 | Shaft-Impeller |
| 26 | Counterweight-Primer |
| 27 | Key, 8 x 12 x 55 mm |
| 28 | Eccentric-Primer |
| 30 | Bearing, Ball, Single Row, 40 x 90 x 23 mm |
| 31 | Bearing - Roller, Needle |
| 32 | Pedestal |
| 33 | Plug-Straight Thread, Hex Hd, M16-1.5 |
| 34 | Washer-Flat, 5/8 in |
| 35 | Seal-Oil, 2-1/8 x 2-3/4 in |

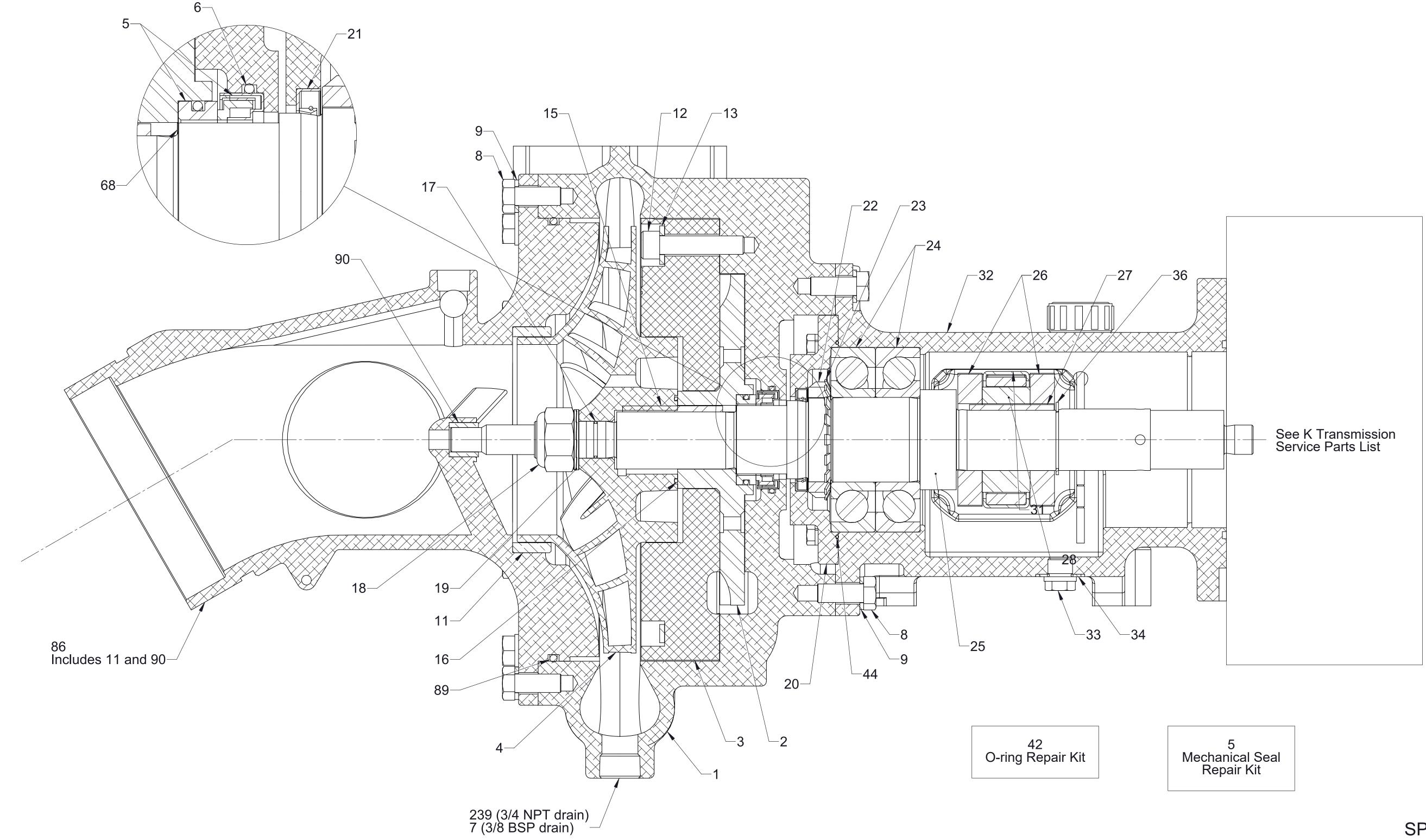
| Ref No. | Description |
|---------|--|
| 36 | Ring-Retaining, External, 1-9/16 in Shaft Dia |
| 37 | Spacer-Shaft, Impeller |
| 38 | Pickup-Magnetic, Tachometer |
| 41 | Washer Nord-Lock, 24 mm |
| 42 | O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156) |
| 43 | Flange-Companion, 1410 Series |
| 44 | O-Ring, 124 x 128 mm |
| 68 | High Pressure Impeller Shim Pack (Includes .002, .005, .010 thick shims) See overhaul instructions F-1031, section 4321 for shimming instructions |
| 86 | Fitting-Intake Assembly (Includes 11, 90, 92, 93) |
| 89 | O-Ring, 11 x 11-3/8 in |
| 90 | Bearing-Out Board |
| 196 | Nut-Hex, M24-3 |
| 239 | Plug-Pipe, Headless, 3/4 NPT |
| 132 | O-Ring, 3/4 x 1 in |



| Ref No. | Description |
|---------|--|
| 1 | Body-Volute |
| 2 | Impeller-High Pressure |
| 3 | Plate-Separator (CW or CCW) |
| 4 | Impeller |
| 5 | Mechanical Seal Repair Kit (Includes 6, 16, 17, 18, 19, 68, 89) |
| 6 | O-Ring, 2-1/2 x 2-3/4 in |
| 7 | Plug-Pipe, JIS, 3/8 BSPT |
| 8 | Screw-Hex Hd, M12-1.75 x 30 mm |
| 9 | Washer-Lock, 12 mm |
| 11 | Ring-Wear |
| 12 | Screw-Soc Hd, M12-1.75 x 55 mm |
| 13 | Washer-Flat, 12 mm |
| 15 | Key, 8 x 12 x 65 mm |

| Ref No. | Description |
|---------|---------------------------|
| 16 | O-Ring, 2 x 2-3/16 in |
| 17 | O-Ring, 13/16 x 15/16 in |
| 18 | Nut-Lock |
| 19 | Washer Nord-Lock, 24 mm |
| 20 | Housing-Oil Seal |
| 21 | Seal-Oil, 2 x 2-5/8 in |
| 22 | Nut-Lock, Bearing, N11 |
| 23 | Washer-Lock, Bearing, W11 |
| 24 | Bearing-Ball, Single Row |
| 25 | Shaft-Impeller |
| 26 | Counterweight-Primer |
| 27 | Key, 8 x 12 x 55 mm |
| 28 | Eccentric-Primer |

| Ref No. | Description |
|---------|--|
| 31 | Bearing - Roller, Needle |
| 32 | Pedestal |
| 33 | Plug-Straight Thread, Hex Hd, M16-1.5 |
| 34 | Washer-Flat, 5/8 in |
| 36 | Ring-Retaining, External, 1-9/16 in Shaft Dia |
| 42 | O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156) |
| 44 | O-Ring, 124 x 128 mm |
| 68 | High Pressure Impeller Shim Pack (Includes .002, .005, .010 thick shims) See overhaul instructions F-1031, section 4321 for shimming instructions |
| 86 | Fitting-Intake Assembly (Includes 11, 90, 92, 93) |
| 89 | O-Ring, 11 x 11-3/8 in |
| 90 | Bearing-Out Board |
| 239 | Plug-Pipe, Headless, 3/4 NPT |



Pump-Cross-Section View Models HL200K, HL300K