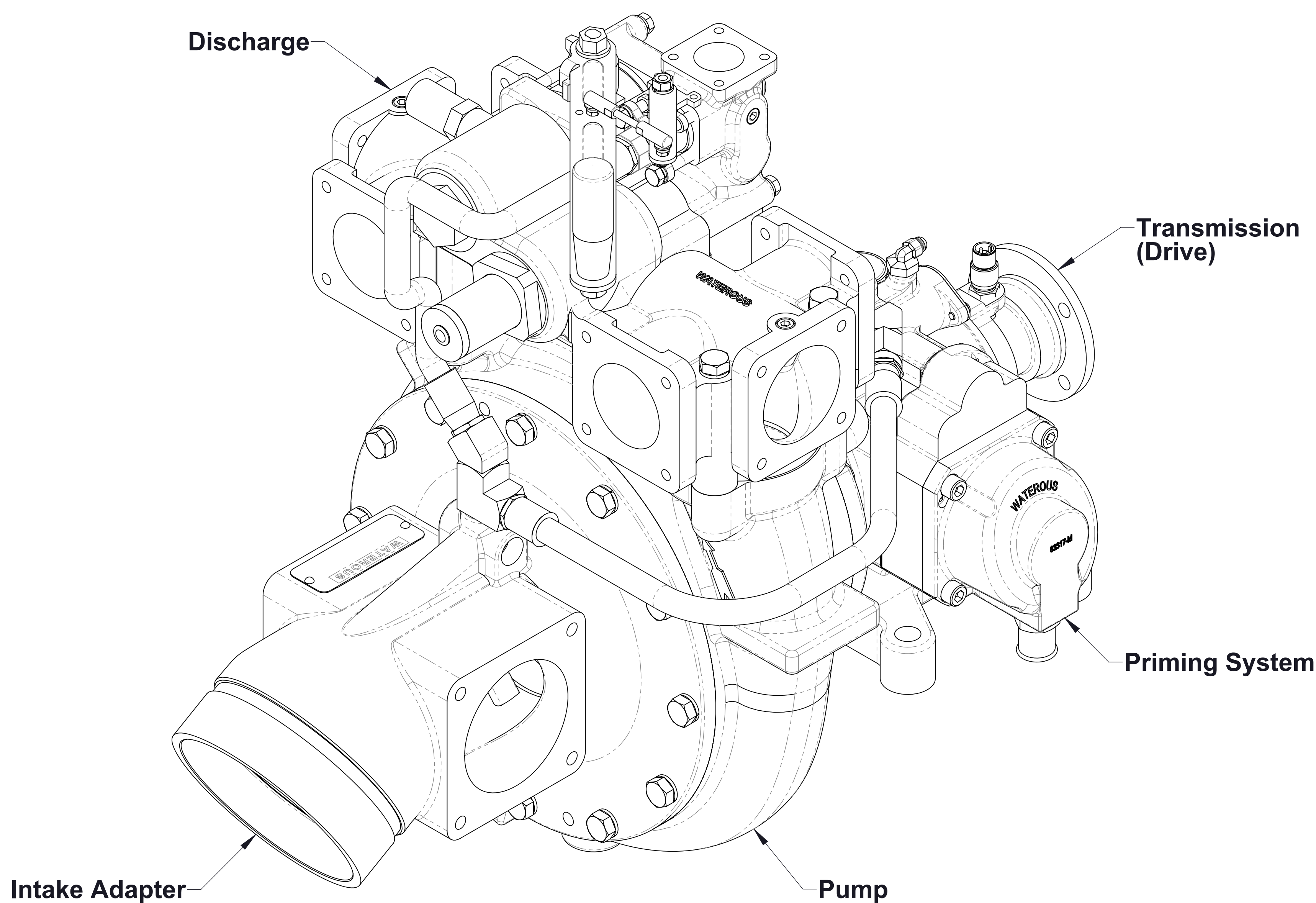
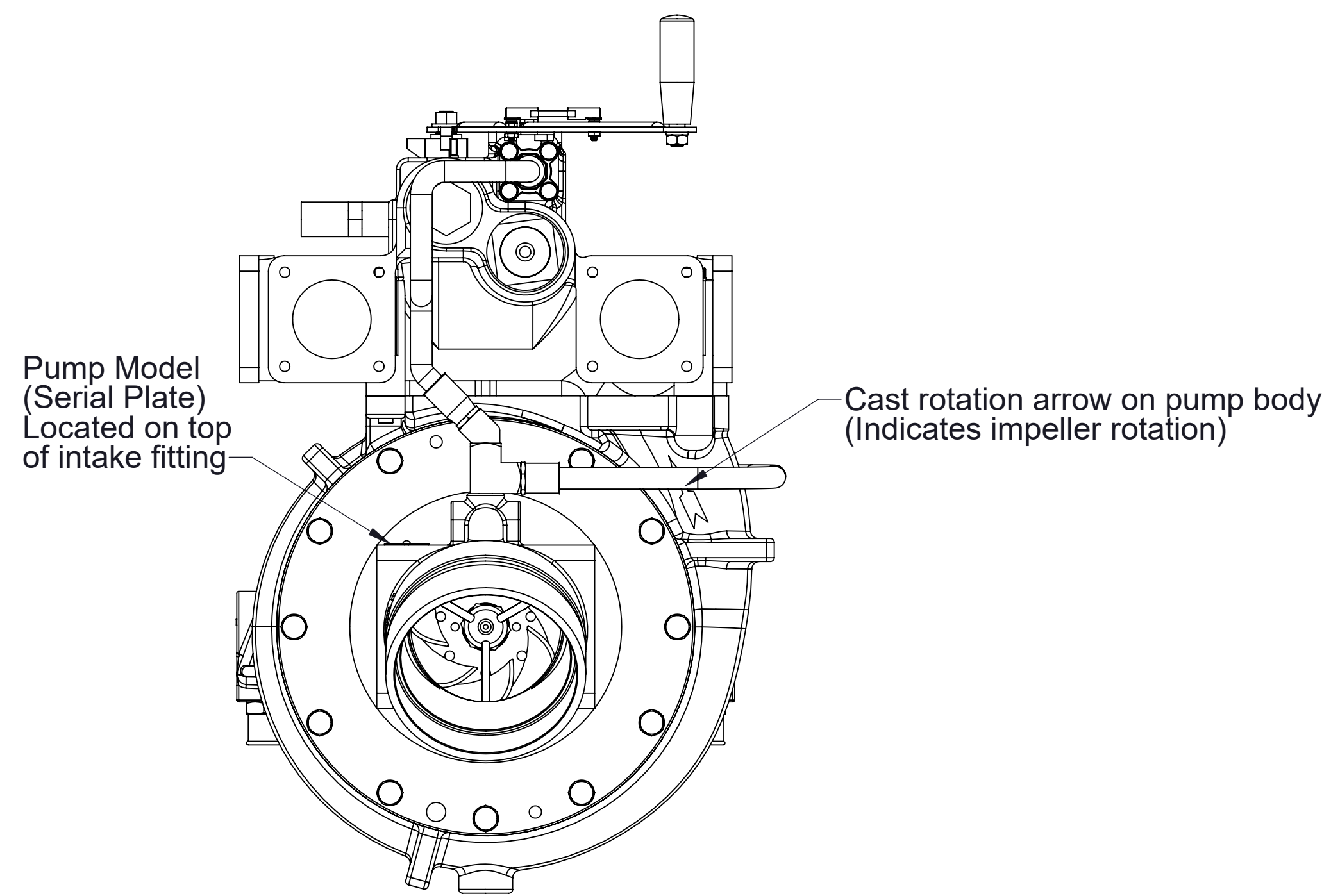


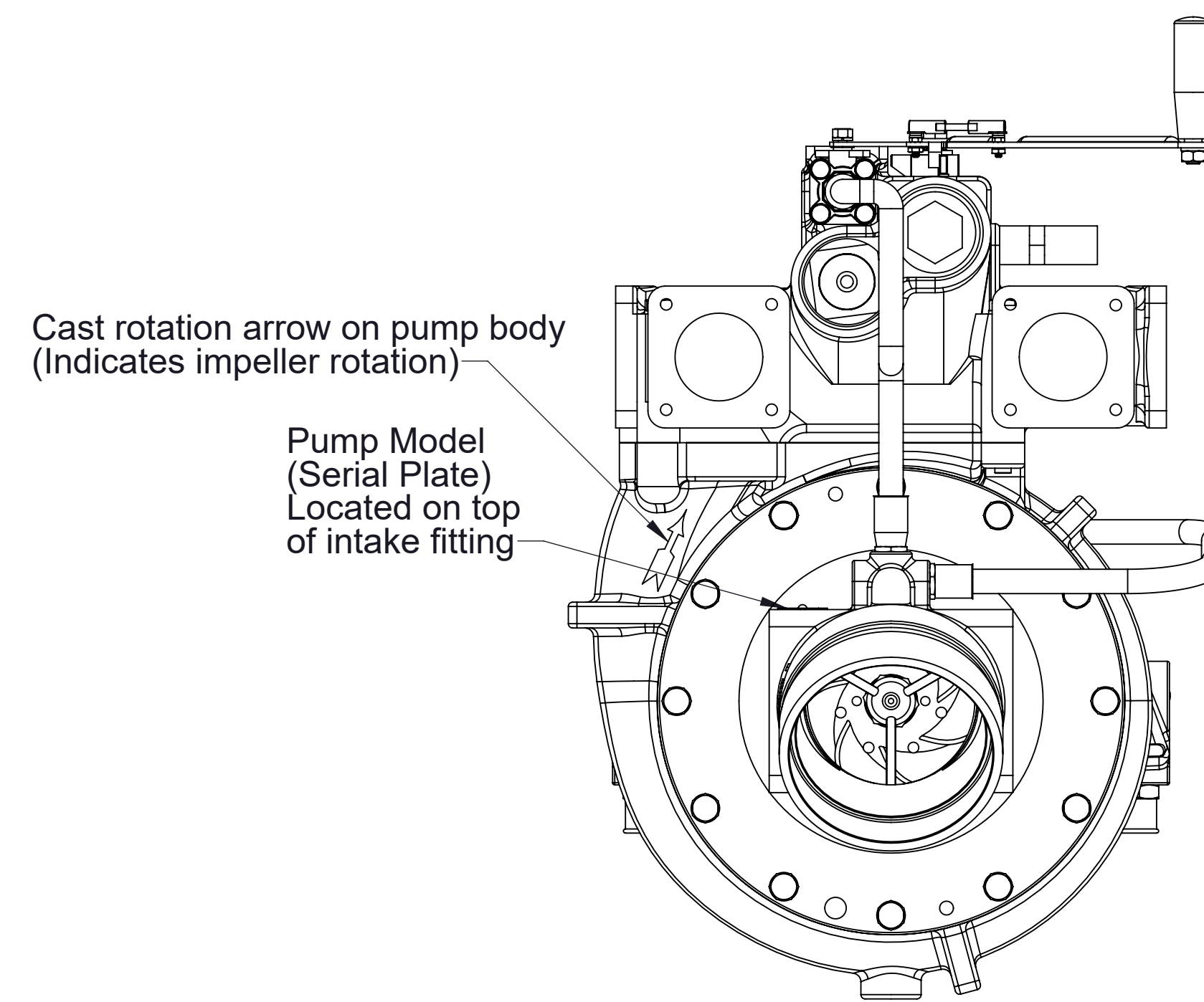
## HL200/300 Series Fire Pump Service Parts List



Index:					
Component		See Pages			
		Complete Pump and Transmission Model (Located on pump serial plate)			
		Direct Drive (D Series) HL200D, HL300D		Gear Drive (K Series) HL200K, HL300K	
		Input Rotation		Input Rotation	
		CW	CCW	CW	CCW
Determining Pump Model and Input Rotation		2			
Intake Adapter		3			
Discharge	Crossover Valve	4	5	5	4
	Manifold	6	7	7	6
Priming System	Primers		8		
	PIV (Priming Isolation Valve)	With	9		
		Without	10		
Pump	Body and Impellers		11		
	Impeller Shaft and Pedestal		12	13	
	Cross-Section View		14	15	
Transmission (Drive)		12	15		
Optional Items	Auxiliary Intake and Discharge Fittings		See SPL83156		
	RTP Foam System		See SPL83157		
	Control Panel		See SPL83158		
	Gauges and Tank Level Monitors				

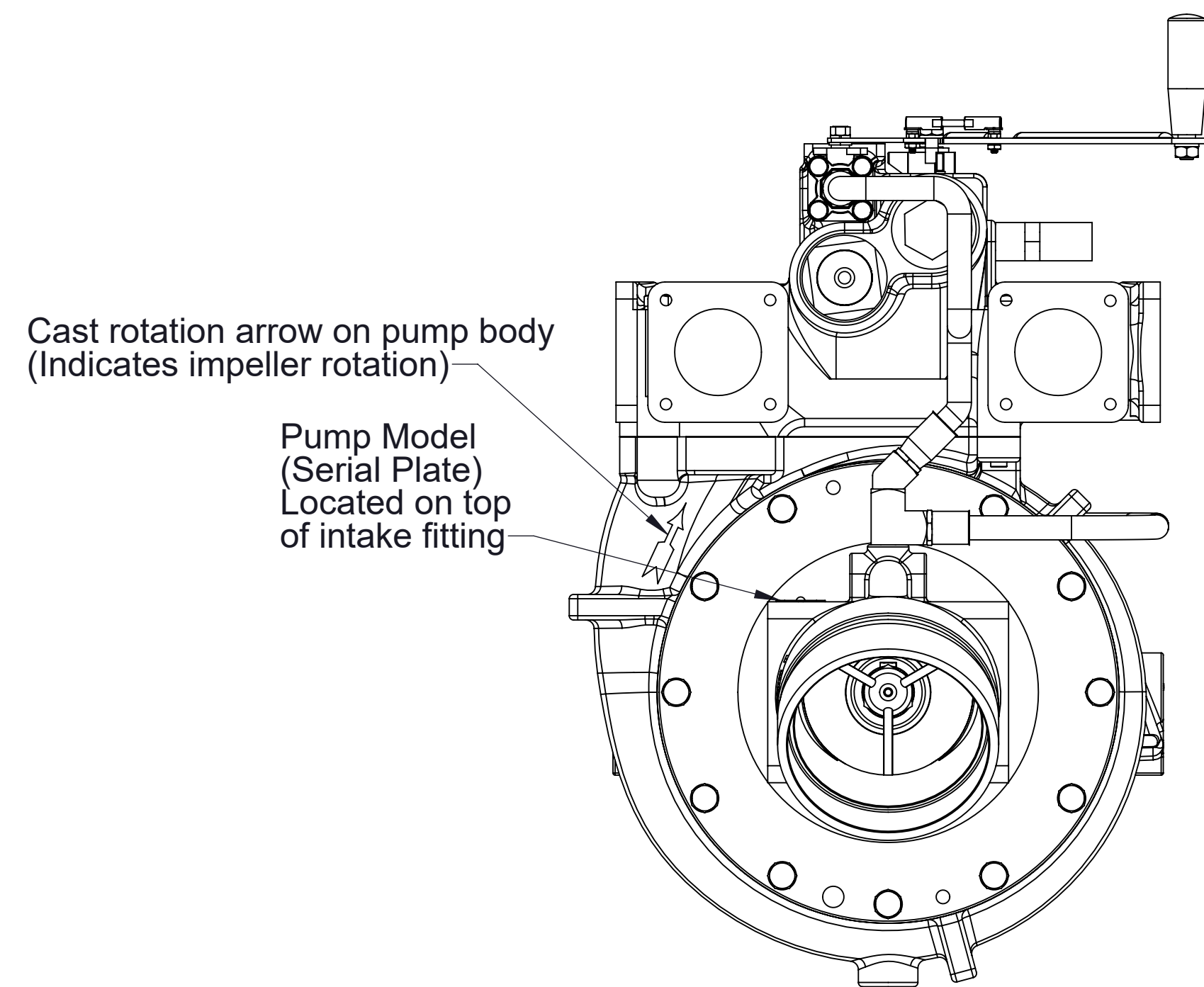


**Clockwise (CW) Input Rotation**  
Counter-clockwise (CCW) impeller rotation

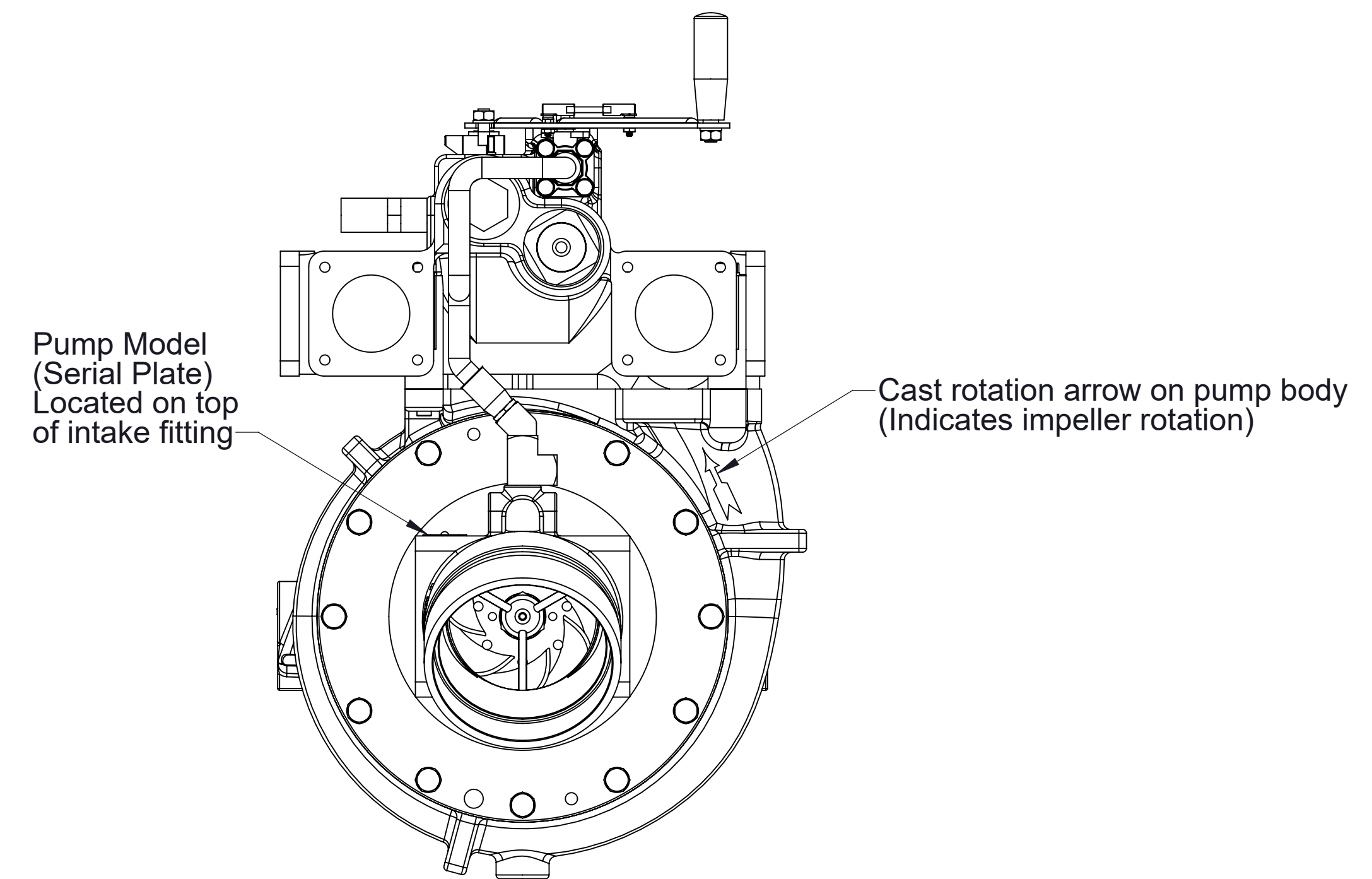


**Counter-Clockwise (CCW) Input Rotation**  
Clockwise (CW) impeller rotation

**Models HL200D and HL300D**



**Clockwise (CW) Input Rotation**  
Clockwise (CW) impeller rotation



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

**Models HL200K and HL300K**

**Determining Pump Model and Input Rotation**

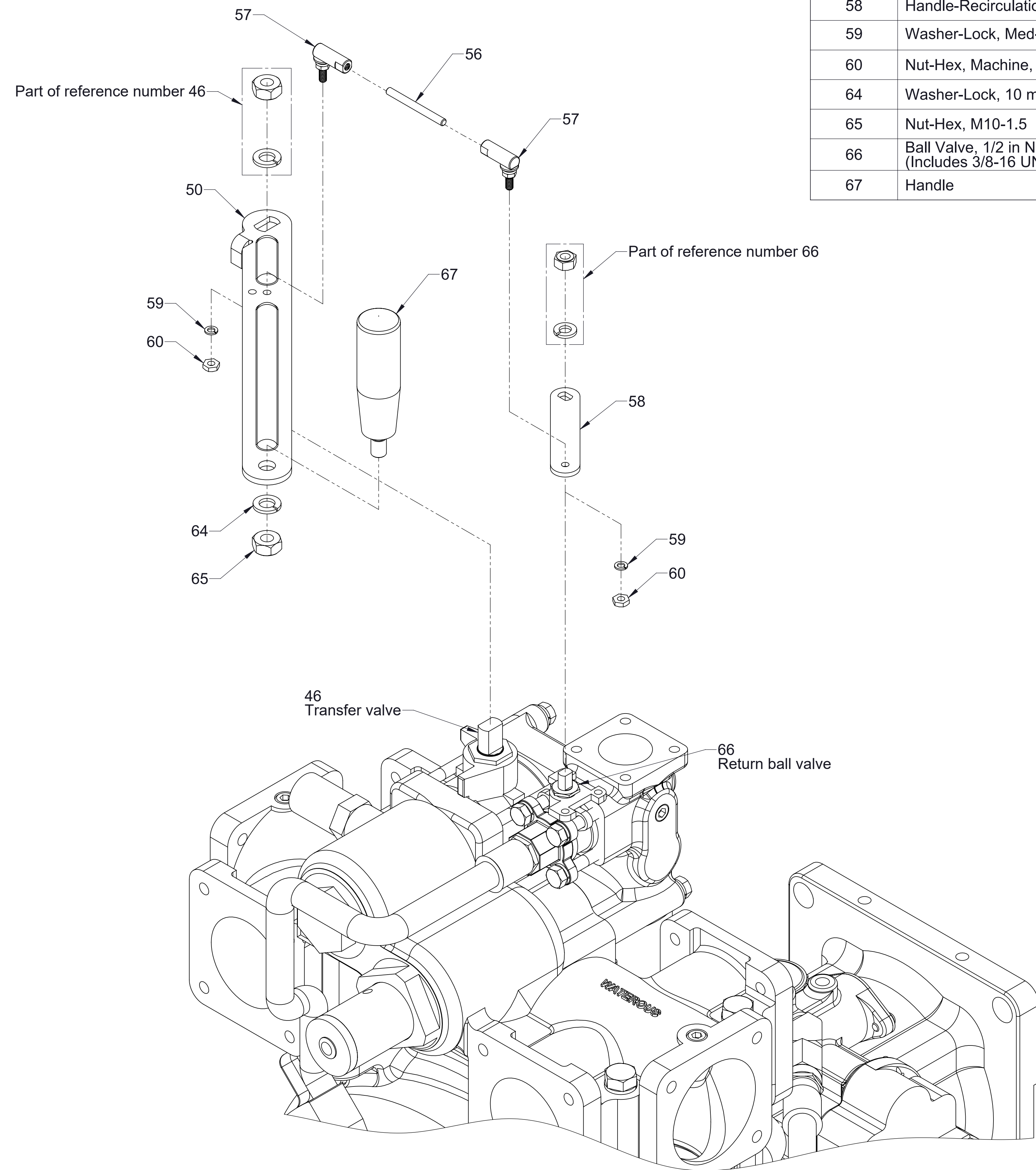
- The pump configuration and components vary for each pump model and input rotation.
- The input rotation of the drive end of the pump determines the direction the pump impeller rotates.
- Use the pump model and input rotation when referring to pages listed in the index.
- If you are unsure of the input 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	Ref No.	Description
8	Screw-Hex Hd, M12-1.75 x 30 mm	94	Plate-Serial
9	Washer-Lock, 12 mm	109	Fitting-Storz
11	Ring-Wear	110	Cap-Storz
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)	197	Elbow-Street, 45°, 1/2 NPT
		203	Screen-Intake
86	Fitting-Intake Assembly (Includes 11, 90, 93, 94)	222	O-Ring, 5-1/2 x 5-3/4 in
89	O-Ring, 11 x 11-3/8 in	223	Dual Threaded Intake Fitting
90	Bearing-Out Board	240	Tee-Street, 1/2 NPTM x (2) 1/2 NPTF
93	Screw-Drive, #6 x 1/4 in		

42  
O-ring Repair Kit

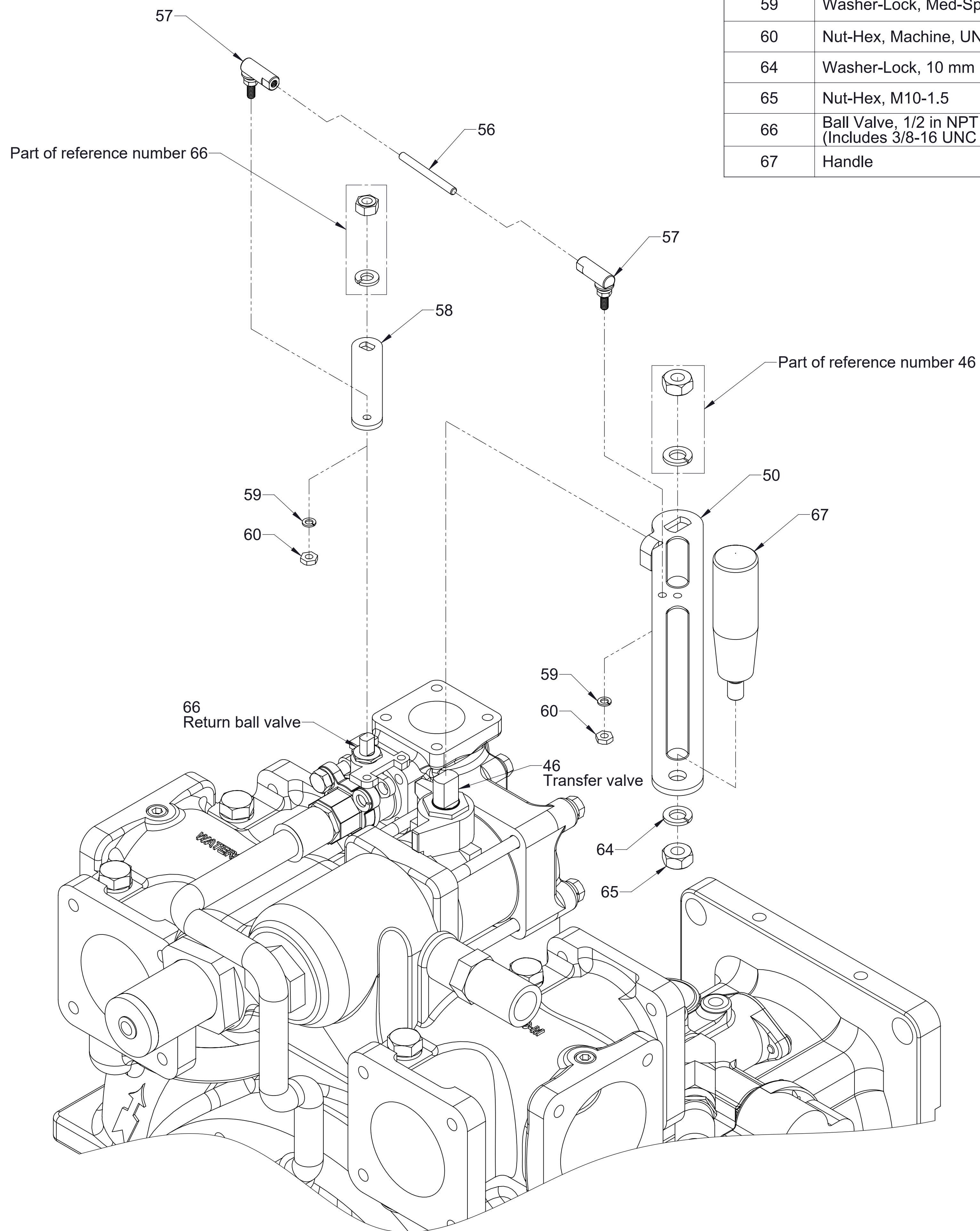
**Intake Adapter**

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, Fully Threaded, #10-32 x 2 in
57	Linkage-Ball Joint, Right Angle
58	Handle-Recirculation (CCW Rotation)
59	Washer-Lock, Med-Spring, No.10
60	Nut-Hex, Machine, UNF, #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



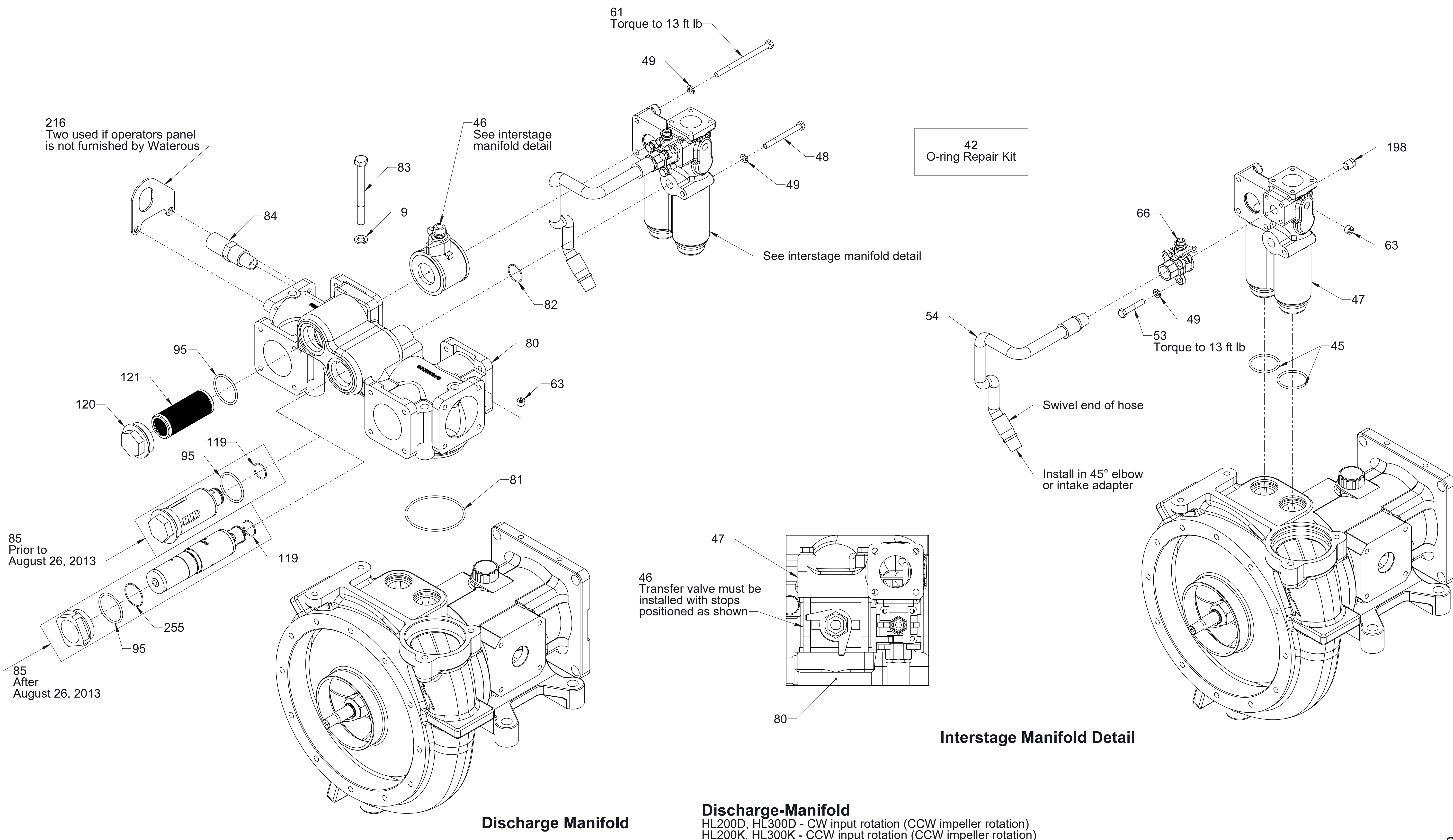
**Discharge-Crossover Valve**  
HL200D, HL300D - CW input rotation (CCW impeller rotation)  
HL200K, HL300K - CCW input rotation (CCW impeller rotation)

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, Fully Threaded, #10-32 x 2 in
57	Linkage-Ball Joint, Right Angle
58	Handle-Recirculation (CW Rotation)
59	Washer-Lock, Med-Spring, No.10
60	Nut-Hex, Machine, UNF, #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



**Discharge-Crossover Valve**  
 HL200D, HL300D - CCW input rotation (CW impeller rotation)  
 HL200K, HL300K - CW input rotation (CW impeller rotation)

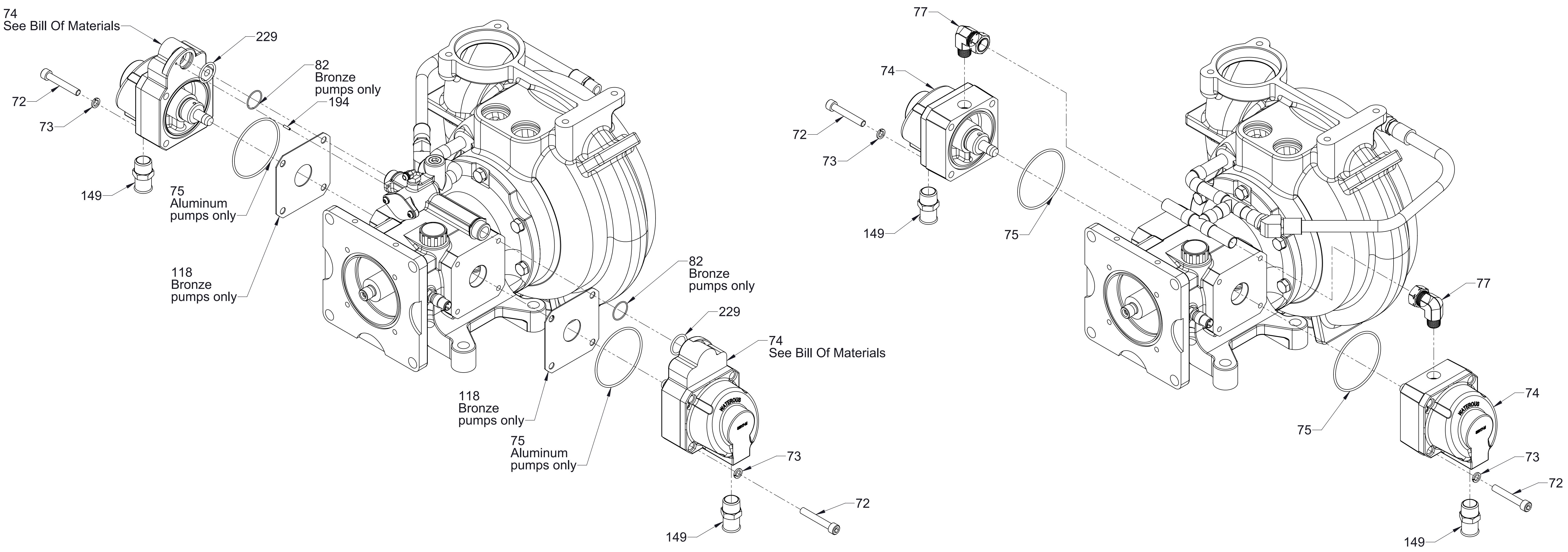
Ref No.	Description	Ref No.	Description	Ref No.	Description
9	Washer-Lock, 12 mm	61	Screw-Hex Hd, M8-1.25 x 120 mm	95	O-Ring, 1-7/8 x 2-1/8 in
42	O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156)	63	Plug-Pipe, JIS, 1/4 BSPT	119	O-Ring, UL, 1 x 1-1/8 in
45	O-Ring, 1-3/4 x 2 in	66	Valve-Ball, 1/2 NPT (Includes 3/8-16 Hex Nut and Lockwasher)	120	Cap-End, Strainer
46	Valve-Ball, 1-1/2 in (Includes 3/8-16 Hex Nut and Lockwasher)	80	Manifold-Discharge	121	Strainer
47	Manifold-Interstage	81	O-Ring, 3-5/8 X 3-7/8 in	198	Plug-Pipe, Square Hd, 1/4 NPT
48	Screw-Hex Hd, M8-1.25 x 80 mm	82	O-Ring, 1-1/8 x 1-1/4 in	216	Bracket-Lifting
49	Washer-Lock, 8 mm	83	Screw-Hex Hd, M12-1.75 x 120 mm	255	O-Ring, 1-1/2 x 1-5/8 in
53	Screw-Hex Hd, M8-1.25 x 45 mm	84	Valve-Thermal Relief		
54	Hose Assembly	85	Discharge Relief Valve Assembly (Includes 95, 119)		





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, UL, 1-1/8 x 1-3/8 in

147  
Primer Repair Kit  
(Repair kit for reference  
number 74 primers)



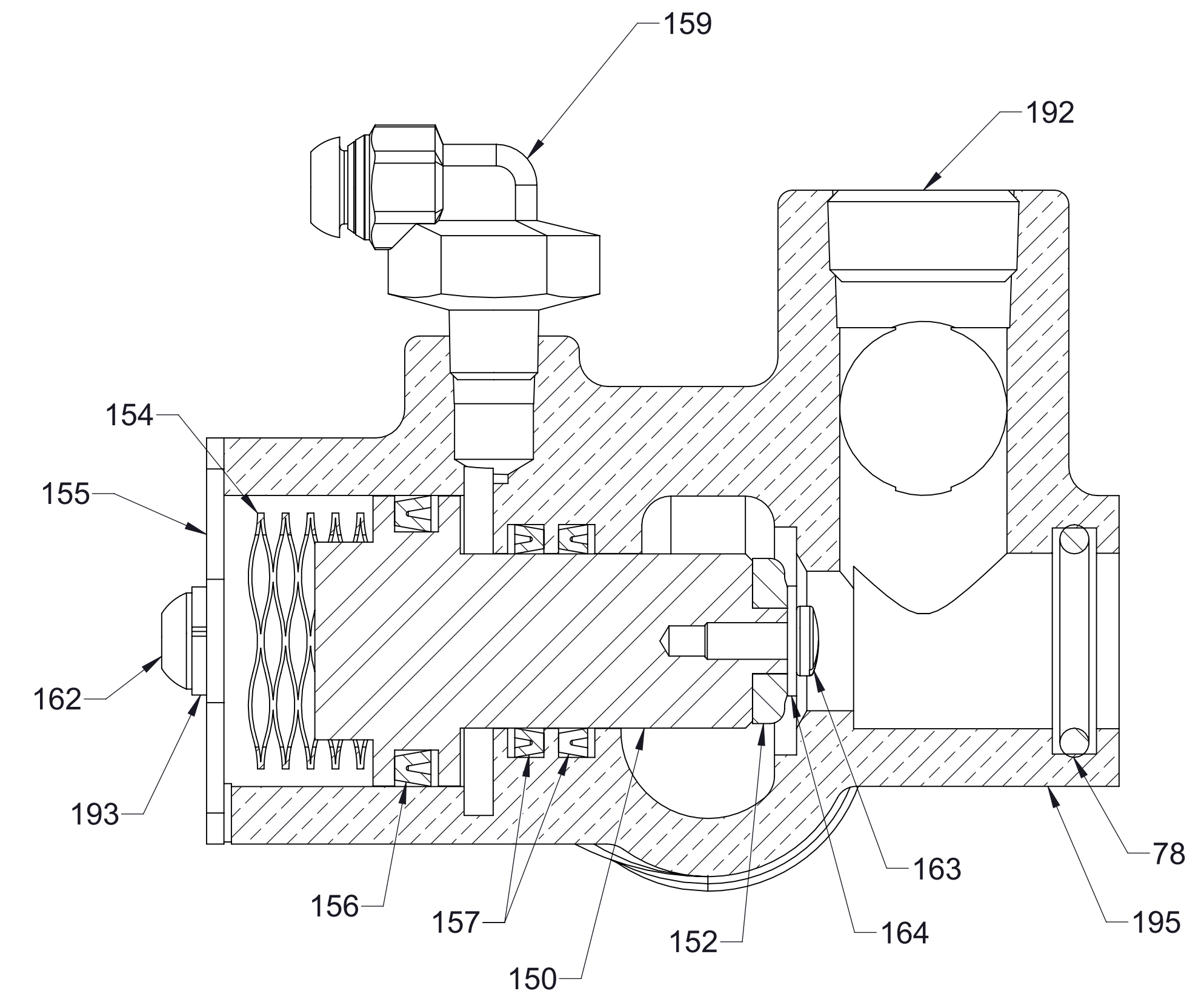
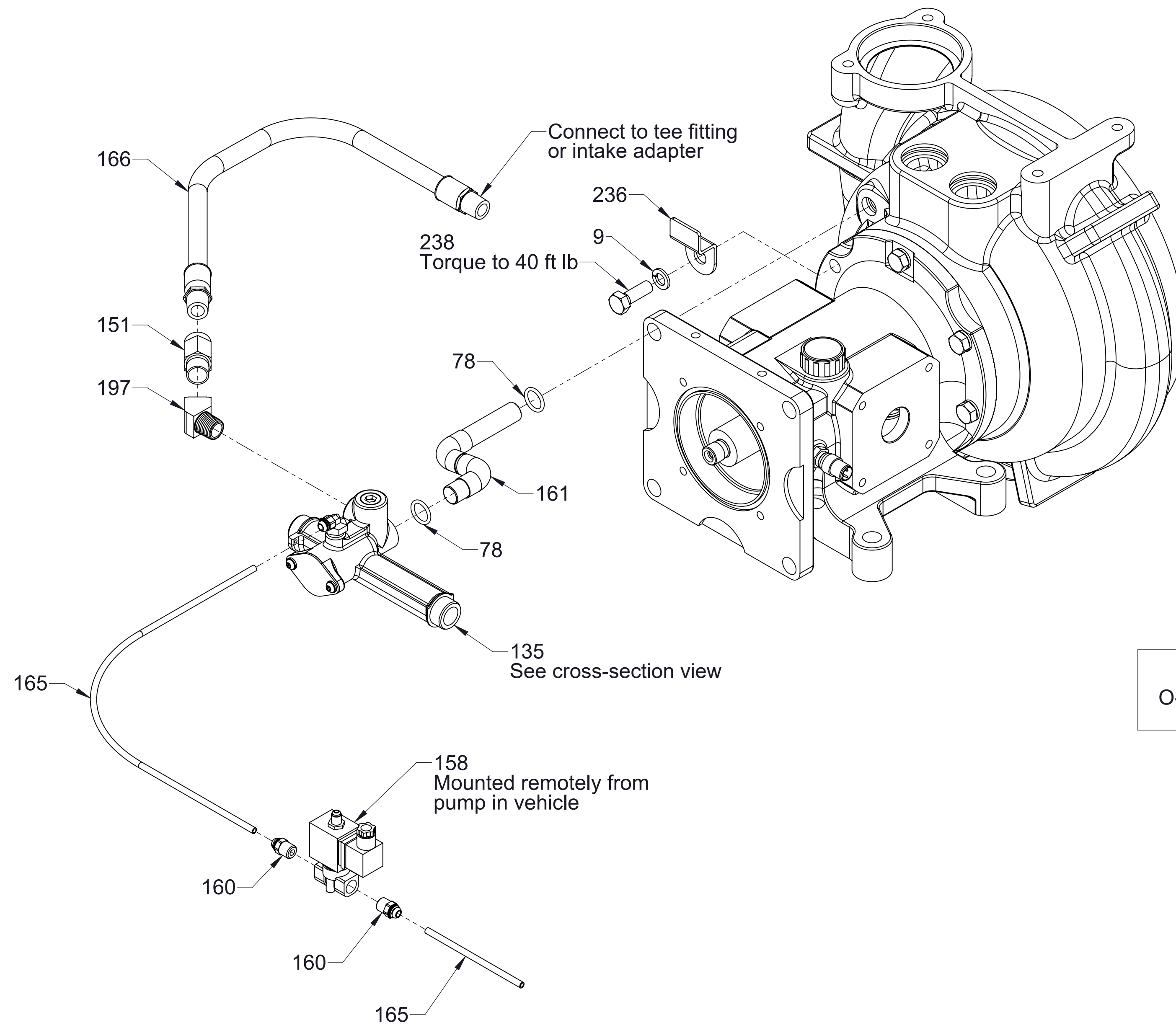
**With PIV (Priming Isolation Valve)**

**Priming System-Primers**

**Without PIV (Priming Isolation Valve)**



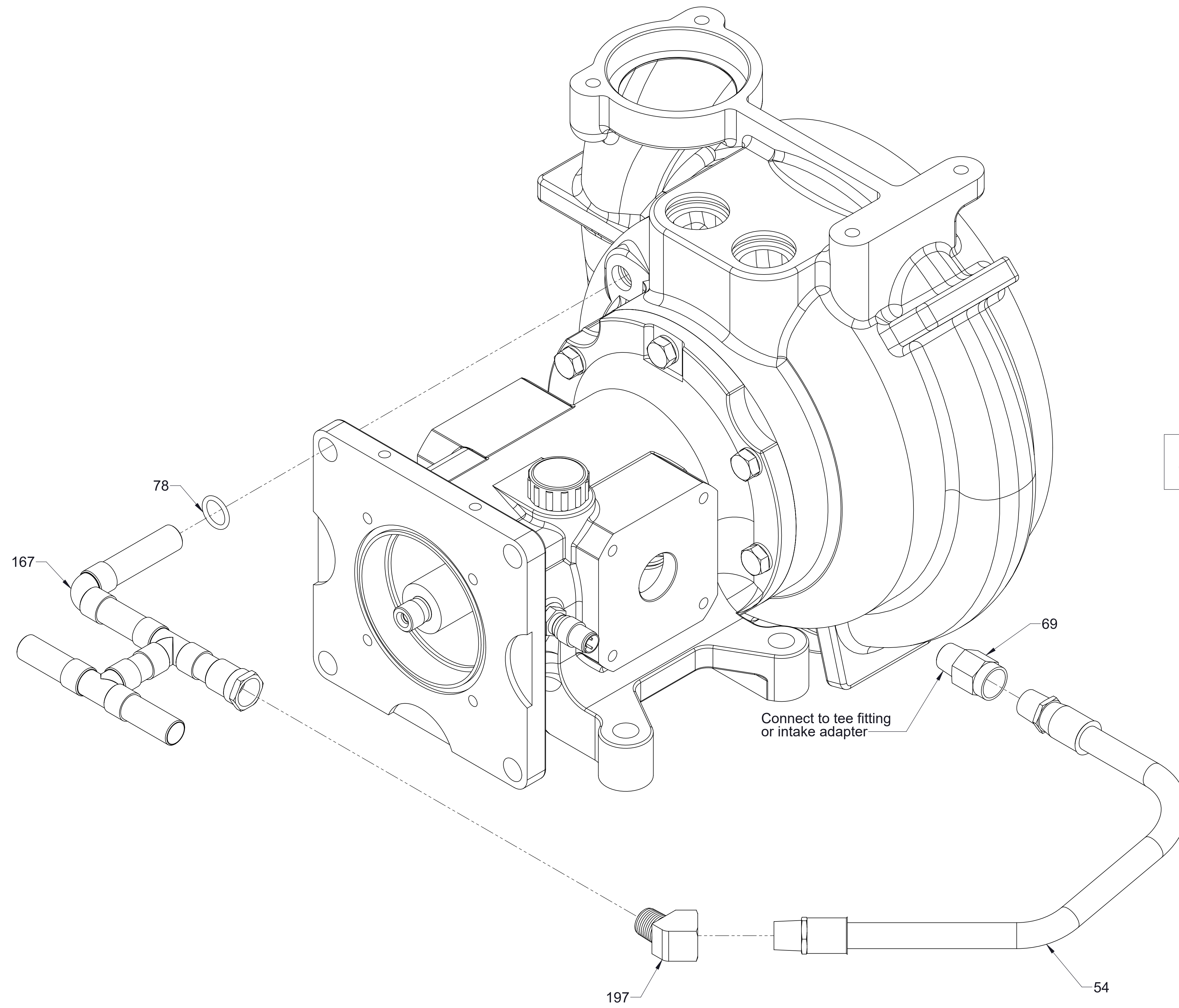
Ref No.	Description	Ref No.	Description
9	Washer-Lock, 12 mm	160	Connector-Male, 6 mm Tube x 1/4 BSPT
42	O-Ring Repair Kit (Includes 44, 45, 81, 82, 89, 95, 119, 255 plus o-rings for intake and discharge fittings, see reference number 42 on SPL83156)	161	Tube-Priming
78	O-Ring, 3/4 x 1 in	162	Screw-Soc Button Hd, M6-1 x 12 mm
135	Priming Isolation Valve (PIV) Assembly (Includes 78, 150, 152, 154, 155, 156, 157, 159, 162, 163, 164, 192, 195)	163	Screw-Pan Hd, M4-.7 x 10 mm
150	Piston-Priming Valve	164	Washer, 4 mm
151	Valve-Check	165	Tube-Nylon, Metric
152	Seal-Priming Valve	166	Hose Assembly
154	Spring-Wave	192	Plug-Pipe, JIS, 1/2 BSPT
155	Cover-Priming Valve	193	Washer-Lock, 6 mm
156	Seal-Piston	195	Valve-Priming, Body
157	Seal-Rod	197	Elbow-Street, 45°, 1/2 NPT
158	Valve-Solenoid, 3-Way, 1/4 NPT, 12V	236	Clip-PIV Priming Tube
159	Connector-Elbow, 90°, 6 mm Tube X 1/8 BSPT	238	Screw-Hex Hd, M12-1.75 x 35 mm



**Reference Number 135**  
Cross-Section View

**Priming System-PIV (Priming Isolation Valve)-With**

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 (HL)
78	O-Ring, 3/4 x 1 in
167	Tube-Priming (Non-PIV)
197	Elbow-Street, 45°, 1/2 NPT

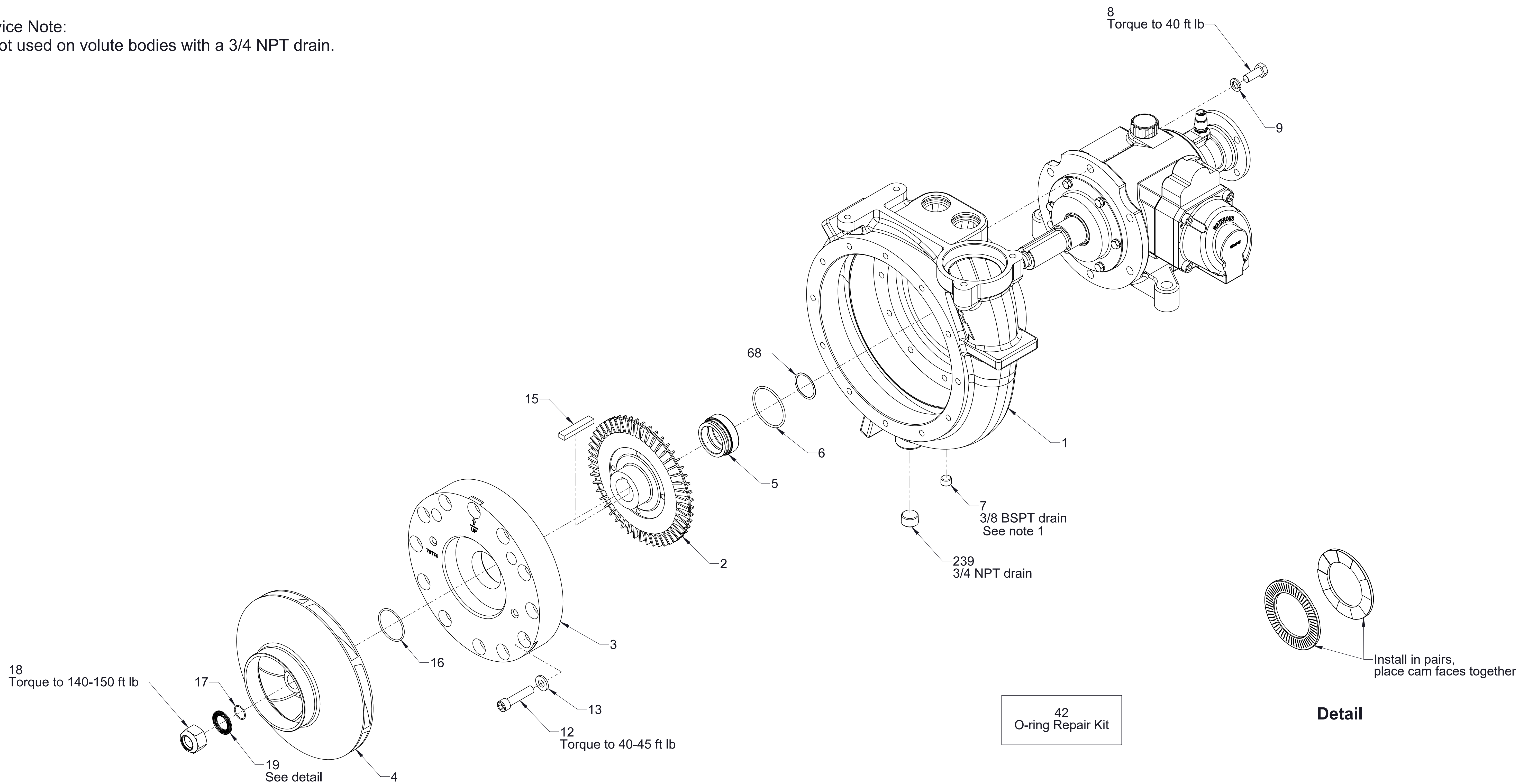


**Priming System-PIV (Priming Isolation Valve)-Without**

Ref No.	Description	Ref No.	Description
1	Body-Volute	15	Key, 8 x 12 x 65 mm
2	Impeller-High Pressure	16	O-Ring, 2 x 2-3/16 in
3	Plate-Separator (CW or CCW)	17	O-Ring, 13/16 x 15/16 in
4	Impeller	18	Nut-Lock, M24- 3
5	Mechanical Seal Repair Kit (Includes 6, 16, 17, 18, 19, 68, 89)	19	Washer Nord-Lock, 24 mm
6	O-Ring, 2-1/2 x 2-3/4 in	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)
7	Plug-Pipe, JIS, 3/8 BSPT	68	High Pressure Impeller Shim Pack (Includes .002, .005, .010 thick shims) See overhaul instructions F-1031, section 4321 for shimming instructions
8	Screw-Hex Hd, M12-1.75 x 30 mm	239	Plug-Pipe, Headless, 3/4 NPT
9	Washer-Lock, 12 mm		
12	Screw-Soc Hd, M12-1.75 x 55 mm		
13	Washer-Flat, 12 mm		

**Service Note:**

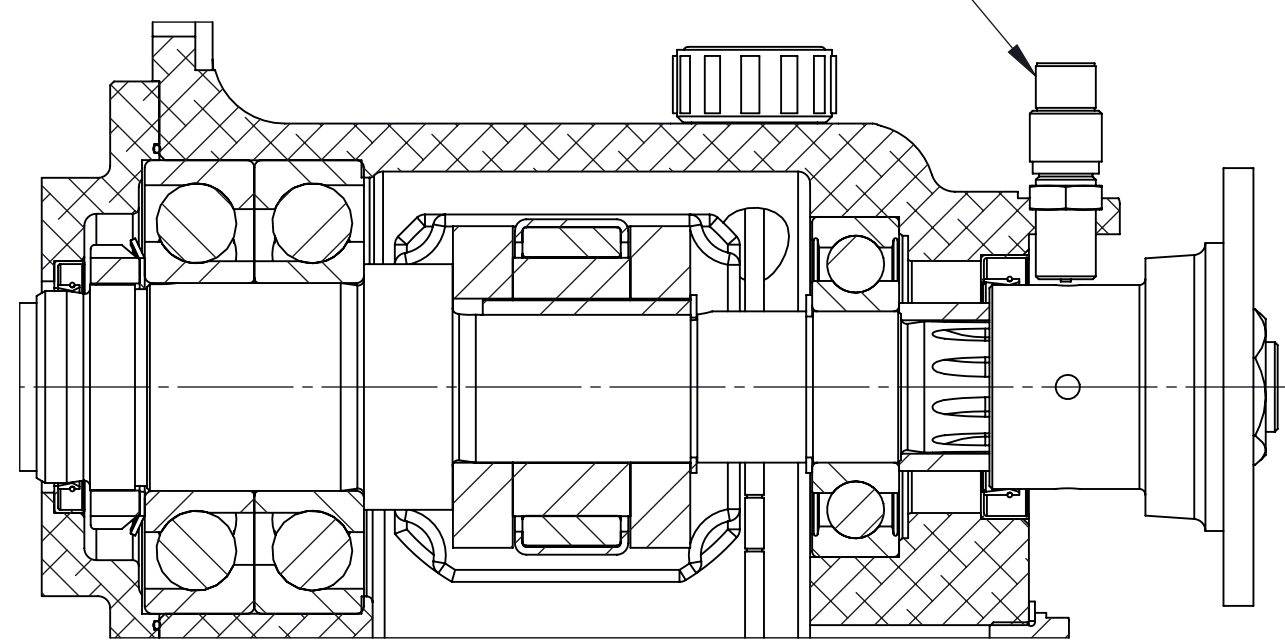
1. Not used on volute bodies with a 3/4 NPT drain.



**Pump-Body and Impeller**

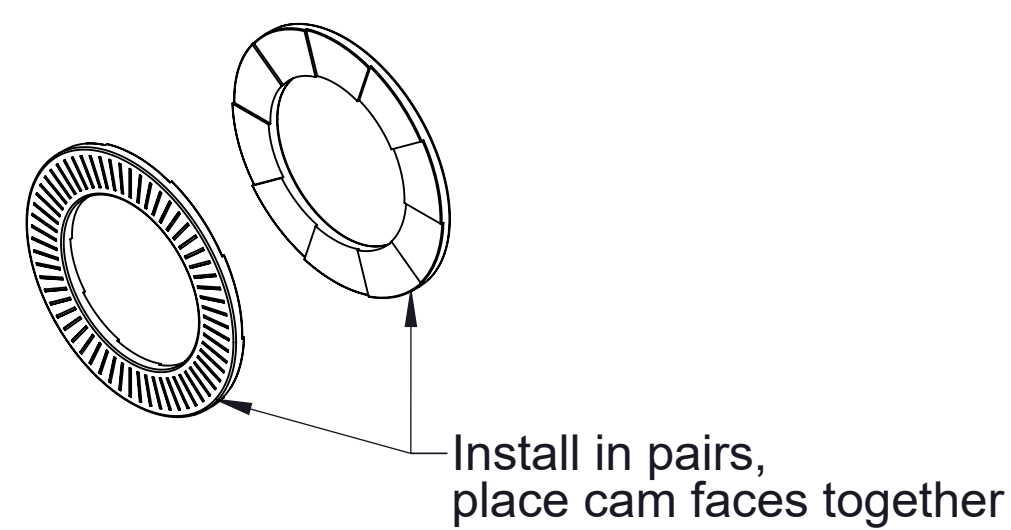
Ref No.	Description	Ref No.	Description
20	Housing-Oil Seal	35	Seal-Oil, 2-1/8 x 2-3/4 in
21	Seal-Oil, 2 x 2-5/8 in	36	Ring-Retaining, External, 1-9/16 in Shaft Dia
22	Nut-Lock, Bearing, N11	37	Spacer-Shaft, Impeller
23	Washer-Lock, Bearing, W11	38	Pickup-Magnetic, Tachometer
24	Bearing-Ball, Single Row	39	Dipstick-Oil
25	Shaft-Impeller	40	Connector-Cable Assembly
26	Counterweight-Primer	41	Washer Nord-Lock, 24 mm
27	Key, 8 x 12 x 55 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)
28	Eccentric-Primer	43	Flange-Companion, 1410 Series
30	Bearing, Ball, Single Row, 40 x 90 x 23 mm	44	O-Ring, 124 x 128 mm
31	Bearing - Roller, Needle	49	Washer-Lock, 8 mm
32	Pedestal	52	Screw-Hex Hd, M8-1.25 x 25 mm
33	Plug-Straight Thread, Hex Hd, M16-1.5	196	Nut-Hex, M24-3
34	Washer-Flat, 5/8 in		

Thread into housing until contact with companion flange is made, back off 1/2 turn and tighten nut



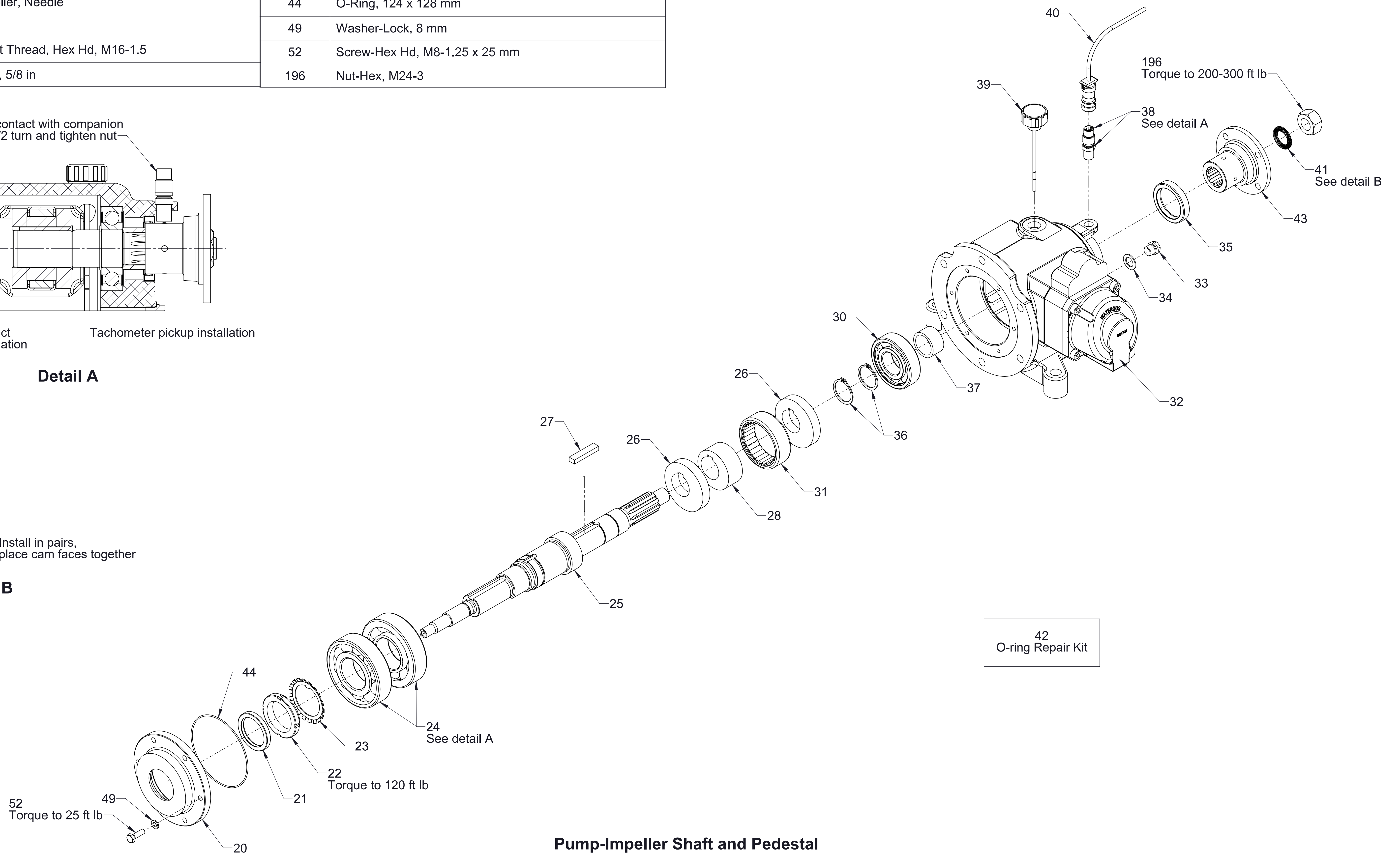
Angular contact bearing installation      Tachometer pickup installation

**Detail A**



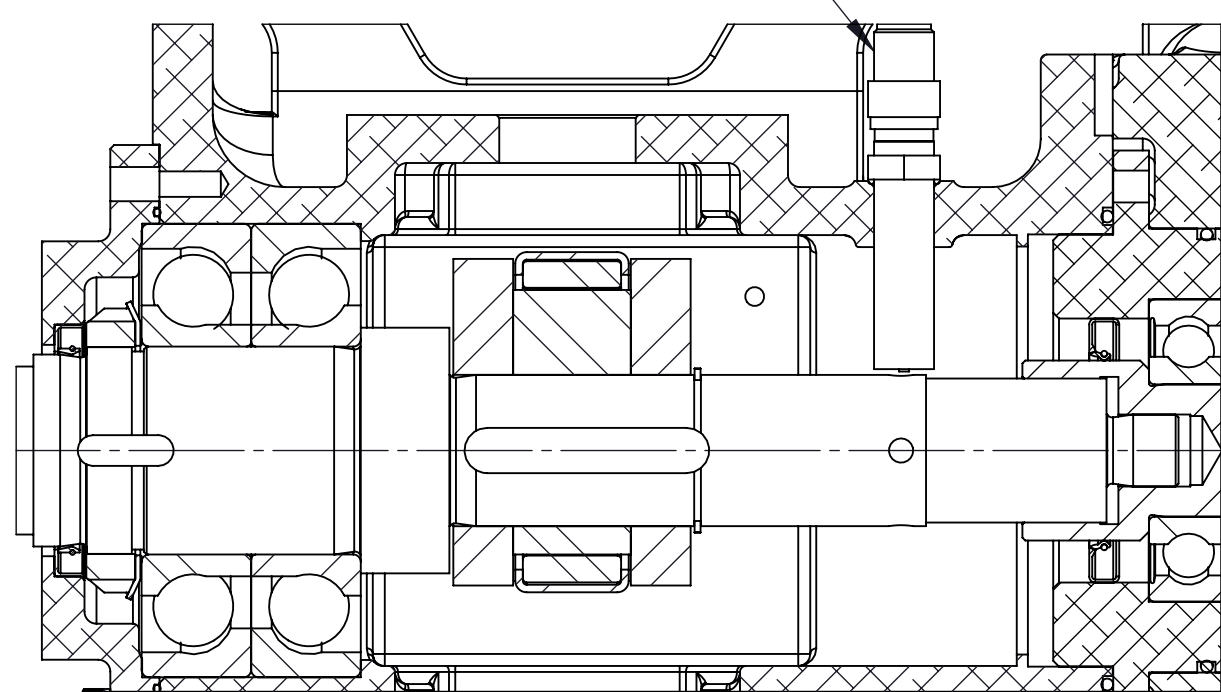
Install in pairs, place cam faces together

**Detail B**



**Pump-Impeller Shaft and Pedestal**  
Models HL200D, HL300D

Thread into housing until contact with companion flange is made, back off 1/2 turn and tighten nut

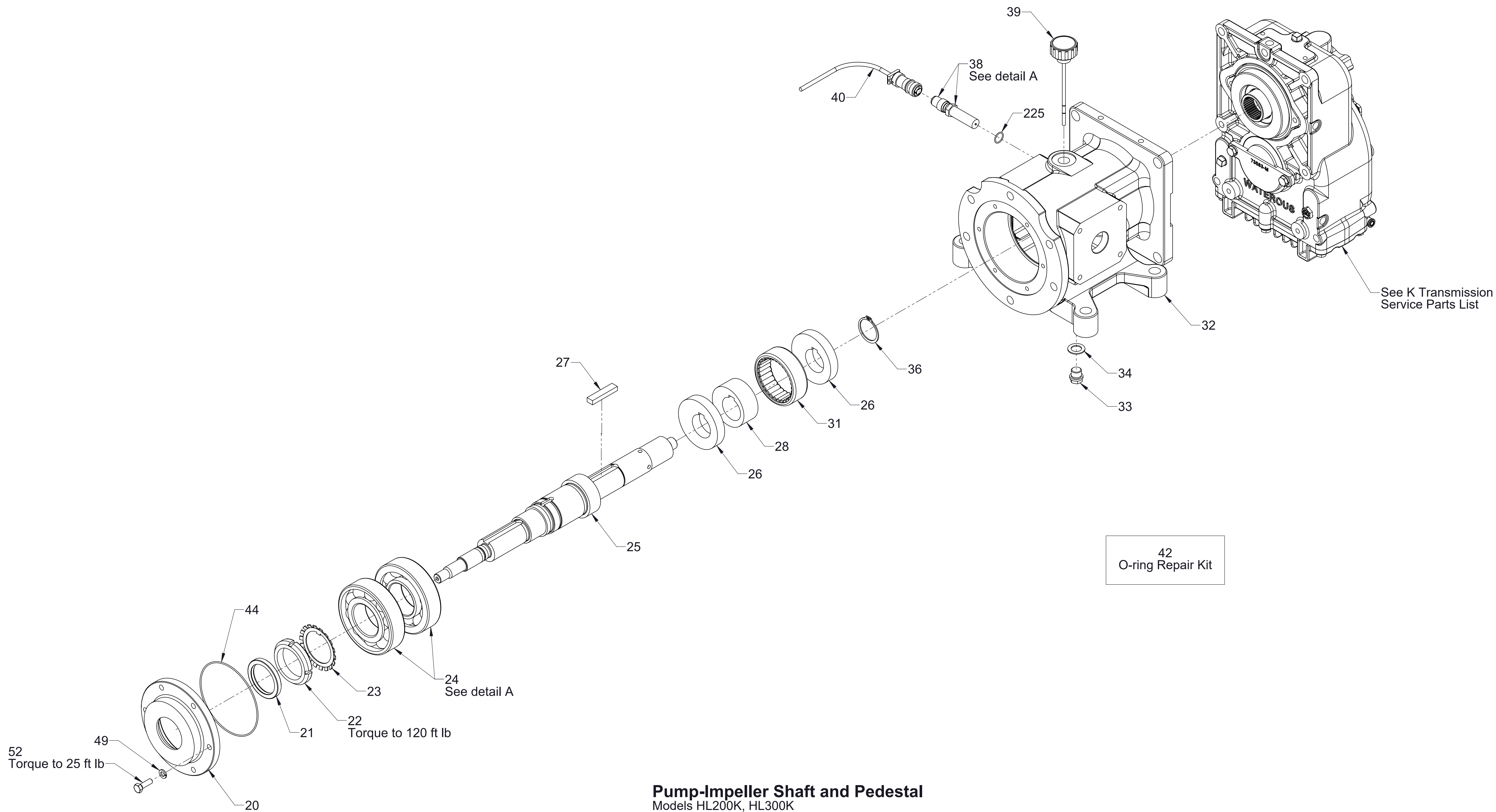


Angular contact bearing installation

Tachometer pickup installation

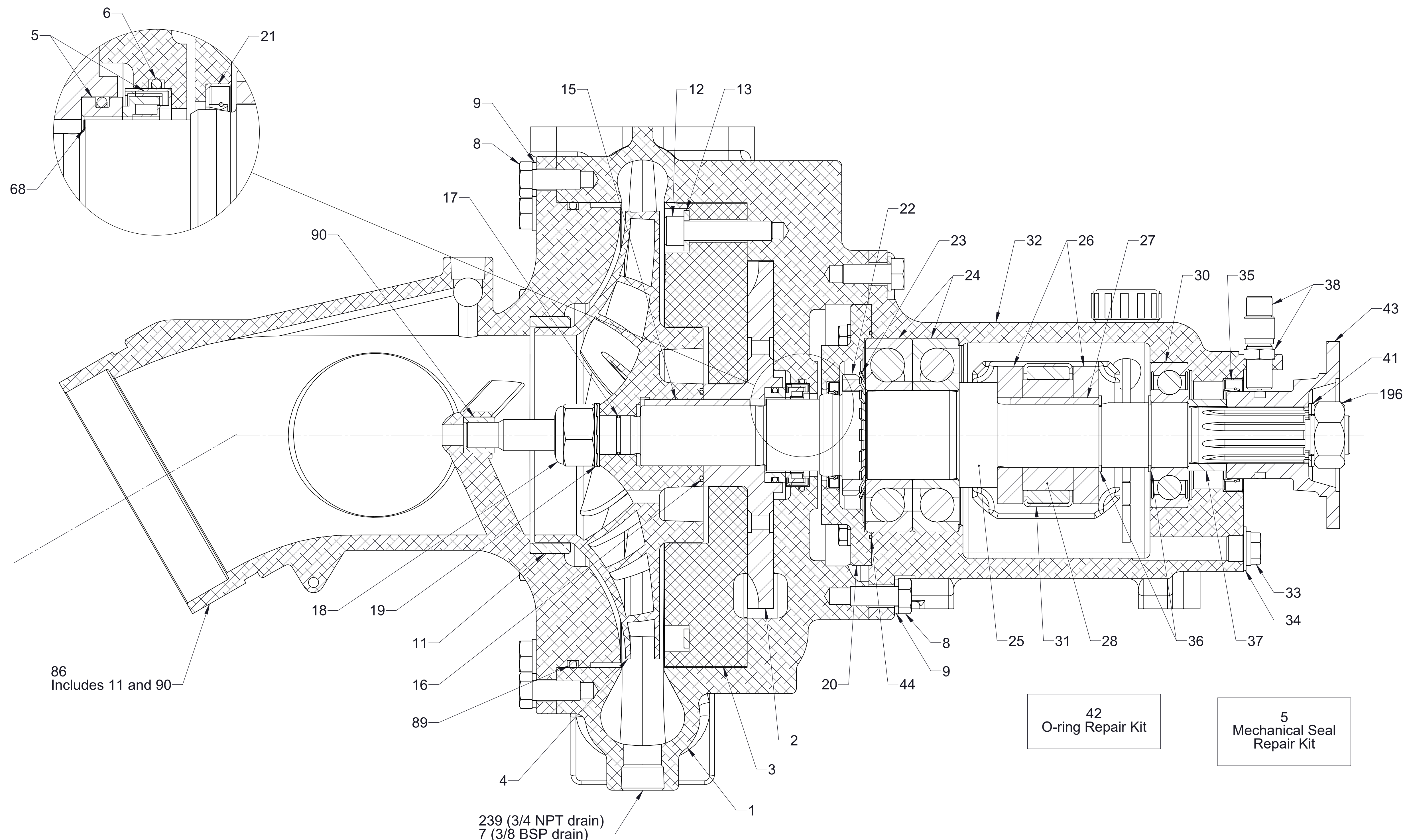
**Detail A**

Ref No.	Description	Ref No.	Description
20	Housing-Oil Seal	34	Washer-Flat, 5/8 in
21	Seal-Oil, 2 x 2-5/8 in	36	Ring-Retaining, External, 1-9/16 in Shaft Dia
22	Nut-Lock, Bearing, N11	38	Pick-Up-Magnetic, Tachometer
23	Washer-Lock, Bearing, W11	39	Dipstick-Oil
24	Bearing-Ball, Single Row	40	Connector-Cable Assembly
25	Shaft-Impeller	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)
26	Counterweight-Primer	44	O-Ring, 124 x 128 mm
27	Key, 8 x 12 x 55 mm	49	Washer-Lock, 8 mm
28	Eccentric-Primer	52	Screw-Hex Hd, M8-1.25 x 25 mm
31	Bearing - Roller, Needle	225	O-Ring, 5/8 x 3/4 in
32	Pedestal		
33	Plug-Straight Thread, Hex Hd, M16-1.5		



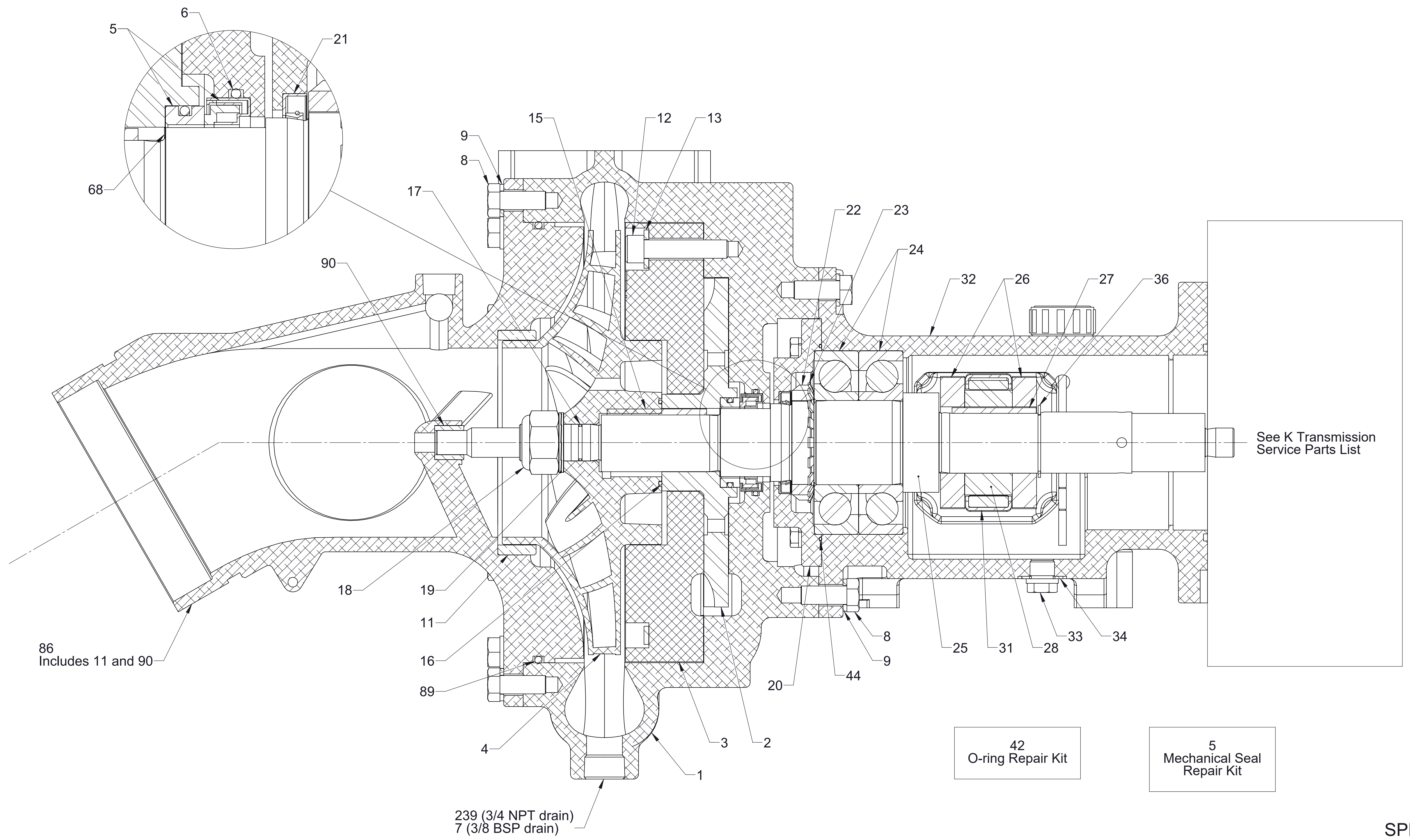
**Pump-Impeller Shaft and Pedestal**  
Models HL200K, HL300K

Ref No.	Description	Ref No.	Description	Ref No.	Description
1	Body-Volute	19	Washer Nord-Lock, 24 mm	36	Ring-Retaining, External, 1-9/16 in Shaft Dia
2	Impeller-High Pressure	20	Housing-Oil Seal	37	Spacer-Shaft, Impeller
3	Plate-Separator (CW or CCW)	21	Seal-Oil, 2 x 2-5/8 in	38	Pickup-Magnetic, Tachometer
4	Impeller	22	Nut-Lock, Bearing, N11	41	Washer Nord-Lock, 24 mm
5	Mechanical Seal Repair Kit (Includes 6, 16, 17, 18, 19, 68, 89)	23	Washer-Lock, Bearing, W11	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)
6	O-Ring, 2-1/2 x 2-3/4 in	24	Bearing-Ball, Single Row	43	Flange-Companion, 1410 Series
7	Plug-Pipe, JIS, 3/8 BSPT	25	Shaft-Impeller	44	O-Ring, 124 x 128 mm
8	Screw-Hex Hd, M12-1.75 x 30 mm	26	Counterweight-Primer	68	High Pressure Impeller Shim Pack (Includes .002, .005, .010 thick shims) See overhaul instructions F-1031, section 4321 for shimming instructions
9	Washer-Lock, 12 mm	27	Key, 8 x 12 x 55 mm	86	Fitting-Intake Assembly (Includes 11, 90, 92, 93)
11	Ring-Wear	28	Eccentric-Primer	89	O-Ring, 11 x 11-3/8 in
12	Screw-Soc Hd, M12-1.75 x 55 mm	30	Bearing, Ball, Single Row, 40 x 90 x 23 mm	90	Bearing-Out Board
13	Washer-Flat, 12 mm	31	Bearing - Roller, Needle	196	Nut-Hex, M24-3
15	Key, 8 x 12 x 65 mm	32	Pedestal	239	Plug-Pipe, Headless, 3/4 NPT
16	O-Ring, 2 x 2-3/16 in	33	Plug-Straight Thread, Hex Hd, M16-1.5		
17	O-Ring, 13/16 x 15/16 in	34	Washer-Flat, 5/8 in		
18	Nut-Lock, M24- 3	35	Seal-Oil, 2-1/8 x 2-3/4 in		



**Pump-Cross-Section View**  
Models HL200D, HL300D

Ref No.	Description	Ref No.	Description	Ref No.	Description
1	Body-Volute	16	O-Ring, 2 x 2-3/16 in	31	Bearing - Roller, Needle
2	Impeller-High Pressure	17	O-Ring, 13/16 x 15/16 in	32	Pedestal
3	Plate-Separator (CW or CCW)	18	Nut-Lock, M24- 3	33	Plug-Straight Thread, Hex Hd, M16-1.5
4	Impeller	19	Washer Nord-Lock, 24 mm	34	Washer-Flat, 5/8 in
5	Mechanical Seal Repair Kit (Includes 6, 16, 17, 18, 19, 68, 89)	20	Housing-Oil Seal	36	Ring-Retaining, External, 1-9/16 in Shaft Dia
6	O-Ring, 2-1/2 x 2-3/4 in	21	Seal-Oil, 2 x 2-5/8 in	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)
7	Plug-Pipe, JIS, 3/8 BSPT	22	Nut-Lock, Bearing, N11	44	O-Ring, 124 x 128 mm
8	Screw-Hex Hd, M12-1.75 x 30 mm	23	Washer-Lock, Bearing, W11	68	High Pressure Impeller Shim Pack (Includes .002, .005, .010 thick shims) See overhaul instructions F-1031, section 4321 for shimming instructions
9	Washer-Lock, 12 mm	24	Bearing-Ball, Single Row	86	Fitting-Intake Assembly (Includes 11, 90, 92, 93)
11	Ring-Wear	25	Shaft-Impeller	89	O-Ring, 11 x 11-3/8 in
12	Screw-Soc Hd, M12-1.75 x 55 mm	26	Counterweight-Primer	90	Bearing-Out Board
13	Washer-Flat, 12 mm	27	Key, 8 x 12 x 55 mm	239	Plug-Pipe, Headless, 3/4 NPT
15	Key, 8 x 12 x 65 mm	28	Eccentric-Primer		



**Pump-Cross-Section View**  
Models HL200K, HL300K