Bolting Systems®

SPXFLOW®

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Operating Instructions and Parts List For:

RWP55-BS
RWP55-BS-R
RWP55-4-BS
RWP55-4-BS-R
RWP55-PAT

TWO-STAGE HYDRAULIC PUMP

Maximum Capacity: 10,000 PSI

Form No. 1000680
Rev. 5 Nov. 24, 2022

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DESCRIPTION

The RWP55 Series hydraulic pumps are designed to have a maximum of 690 bar (10,000 psi) at a flow rate of 902 cc/min (55 cu. in/min) maximum. Note that Certain pump configurations, addition of accessories, and air line sizes may affect the flow. All pumps are supplied fully assembled, ready for operation, but without oils/fluids.

RWP55 Series Air/Hydraulic Pumps

The air/hydraulic versions of the RWP55 Series start under full load and are suitable for operation up to 345 or 690 bar (5,000 or 10,000 psi).

The pump has a 2.2 Kw (3 HP) air-driven motor at 3,000 RPM (optimum performance based on 5.5 bar (80 psi) air pressure and 1.4 M^3/min. (49 CFM) at the pump).

- Minimum 9.5 L (2.5 Gal) reservoir.
- Two-speed operation for rapid operation.

NOTE: The air supply must be minimum 1.4 M^3/min. (49 CFM) and 5.5 bar (80 psi), with 7 bar (100 psi) the maximum. Use of an air filter/lubricator is recommended.
5.5 bar (80 psi) air supply is required to start the pump under full load.

Figure 1. Air Pump (RWP55-4-BS Shown)

SAFETY SYMBOLS AND DEFINITIONS

Safety symbols are used to identify any action or lack of action that can cause personal injury. Your reading and understanding of these safety symbols is very important.

⚠ DANGER : Danger is used only when your action or lack of action will cause serious human injury or death.

⚠ WARNING : Warning is used to describe any action or lack of action where a serious injury can occur.

⚠ CAUTION : Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION : Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

IMPORTANT : Important is used when action or lack of action can cause equipment failure, either immediate or over a long period of time.

SAFETY PRECAUTIONS

⚠ WARNING

General:

- **The following procedures must be performed by qualified, trained personnel who are familiar with this equipment. Operators must read and understand all safety precautions and operating instructions included with the pump. If the operator cannot read these instructions, operating instructions and safety precautions must be read and discussed in the operator's native language.**
- **These products are designed for general use in normal environments. These products are not designed for lifting and moving people, agri-food machinery, certain types of mobile machinery, or in special work environments such as: explosive, flammable, or corrosive. Only the user can decide the suitability of this product in these conditions or extreme environments. Bolting Systems will supply information necessary to help make these decisions. Consult your nearest Bolting Systems facility.**

- **Safety glasses must be worn at all time by the operator and anyone within sight of the unit . Additional personal protection equipment may include: face shield, goggles, gloves, apron, hard hat, safety shoes, and hearing protection.**

- **The owner of this tool must ensure that safety-related decals are installed, maintained, and replaced if they become hard to read.**

- **Shut OFF the motor before opening any connections in the system.**
- **The guide cannot cover every hazard or situation so always do the job with SAFETY FIRST.**

Pump:

⚠ WARNING

- **Do not exceed the hydraulic pressure rating noted on the pump nameplate or tamper with the internal high pressure relief valve. Creating pressure beyond rated capacities can result in personal injury.**
- **Retract the system before adding fluid to prevent overfilling the pump reservoir. An overfill can cause personal injury due to excess reservoir pressure created when cylinders are retracted.**
- **The load must be under operator control at all times.**
- **Do not connect pump to hydraulic system powered by another pump.**

Air-Driven Motor:

⚠ WARNING

- **Install a shut-off valve or quick disconnect in the air line to the motor. Close the shut-off valve before connecting the air line to the pump.**
- **Read, understand, and follow the instruction manual for the air motor.**
- **Disconnect the air supply and relieve pressure when the pump is not in use or when disconnecting any connection in the hydraulic system.**
- **The control circuit must comply with local directives and standards.**

Hoses:

⚠ WARNING

- **Before operating the pump, tighten all hose connections using the correct tools. Do not overtighten. Connections should be only secure and leak-free. Overtightening can cause premature thread failure or high pressure fittings to split at pressures lower than their rated capacities.**

- **Should a hydraulic hose rupture, burst, or need to be disconnected, immediately shut off the pump and shift the control valve twice to release pressure. Never attempt to grasp a leaking hose under pressure with your hands. The force of escaping hydraulic fluid could cause serious injury.**

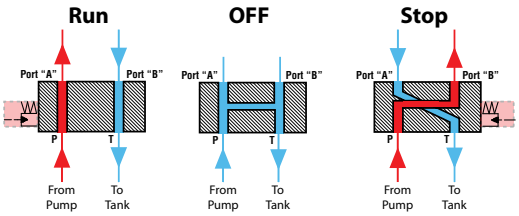
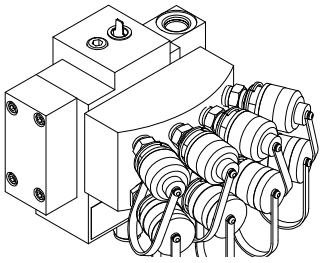
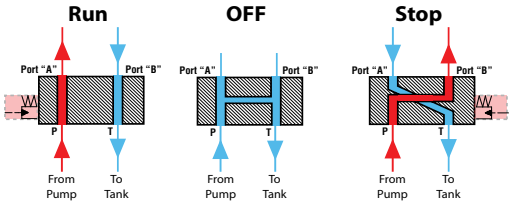
- **Do not subject the hose to potential hazard, such as fire, sharp surfaces, heavy impact, or extreme heat or cold. Do not allow the hose to kink, twist, curl, or bend so tightly that the fluid flow within the hose is blocked or reduced. Periodically inspect the hose for wear, because any of these conditions can damage the hose and possibly result in personal injury.**
- **Do not use the hose to move attached equipment. Stress can damage the hose and possibly cause personal injury.**
- **Hose material and coupler seals must be compatible with the hydraulic fluid used. Hoses also must not come in contact with corrosive material such as creosote-impregnated objects and some paints. Consult the manufacturer before painting a hose. Never paint the couplers. Hose deterioration due to corrosive materials may result in personal injury.**

- **Avoid straight line tubing connections in short runs. Straight line runs do not provide for expansion and contraction due to pressure and/or temperature changes. See diagrams in Initial Setup section of this form.**
- **Eliminate stress in the tube lines. Long tubing runs should be supported by brackets or clips. Tubes through bulkheads must have bulkhead fittings. This makes easy removal possible and helps support the tubing.**
- **Carefully inspect all hoses and fittings prior to use. Before each use, check entire hose for cuts, leaks, abrasion or bulging of cover, or damage or movement of couplings. If any of these conditions exist, replace the hose immediately. NEVER attempt to repair the hose.**

LIST OF TABLES

CONTROL VALVES

Max. Capacity: 690 bar (10,000 psi)

<table>
<tr><td rowspan="3">RWP55-4-BS</td><td>Valve Function</td><td>Used with</td><td>Valve No.</td></tr>
<tr><td rowspan="2"> 
</td><td>Torque Wrench only
NOT FOR LIFTING</td><td>3000167BK 4-way, 3-position Directional Valve</td></tr>
<tr><td colspan="2">Diagrams
  </td></tr>
<tr><td rowspan="3">RWP55-BS
RWP55-PAT</td><td>Valve Function</td><td>Used with</td><td>Valve No.</td></tr>
<tr><td rowspan="2"> 
</td><td>Torque Wrench only
NOT FOR LIFTING</td><td>3000273BK 4-way, 3-position Directional Valve</td></tr>
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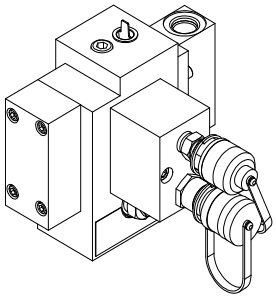
  </td></tr>
</table>

Table 1. Pump Configurations

Performance Specification Tables

The information in the following charts can be used as a basis to determine if the system is performing as expected during operation.

Pump	RPM	Amp Draw at 690 bar (10,000 psi) (115V)	Amp Draw at 690 bar (10,000 psi) (230V)	dB A at Idle and 690 bar (10,000 psi)	Air Supply Req'd bar (psi)
RWP55-4-BS RWP55-BS RWP55-PAT	3,000	N/A	N/A	85/90	2-9 bar (40-120 psi)
*** Requires 1.4 M^3/min. (49 CFM) at 5.5 bar (80 psi) shop air pressure at pump.**					

Table 2. Drive Unit Requirements

Pump	Max. Pressure Output bar (psi)	Fluid Delivery** (cu. in./min. @)					
		0 bar (0 psi)	7 bar (100 psi)	50 bar (700 psi)	70 bar (1,000 psi)	345 bar (5,000 psi)	690 bar (10,000 psi)
RWP55-4-BS RWP55-BS RWP55-PAT	690 bar (10,000 psi)	465	450	-	80	70	55
*** Requires 1.4 M^3/min. (49 CFM) at 5.5 bar (80 psi) shop air pressure at pump. ** Typical delivery. Actual flow varies with field conditions.**							

Table 3. Fluid Pressure Chart

A. Remove all packing materials from the assembled unit.

B. Inspect the unit upon arrival. The carrier, not the manufacturer, is responsible for any damage resulting from shipment.

1. Filling the Pump Reservoir

Most pumps are shipped without hydraulic fluid in the reservoir. Hydraulic fluid may have been shipped in a separate container, but if hydraulic fluid is needed, use only approved Power Team hydraulic fluid rated at AW 46 47 cSt @ 38°C (215 SUS @ 100°F). If low temperature requirements are needed, use hydraulic fluid 5.1 cSt @ 100°C (451 cSt @ -40°C).

A. Clean the area around the filler cap to remove dust and grit. Debris in the hydraulic fluid can damage the polished surfaces and precision-fit components of this pump.

B. Remove the filler cap and insert a clean funnel with a filter.

C. Fill the reservoir with hydraulic fluid to 1.3-3.8 cm (0.5-1.5 in.) from the cover plate.

D. Replace the filler cap. Verify the breather-hole is open, if applicable.

2. Hydraulic Connections

A. Clean the areas around the fluid ports of the pump and tools.

B. Inspect all threads and fittings for signs of wear or damage, replace as needed.

C. Clean all hose ends, couplers or union ends.

D. Remove the thread protectors from the hydraulic fluid outlets.

E. Connect the hose assembly to the hydraulic fluid outlet, and couple the hose to the tool.

⚠CAUTION: To prevent personal injury from leaking hydraulic fluid, seal all hydraulic connections with a high-quality, non-hardening, pipe thread sealant.

IMPORTANT: Sealant tape or non hardening sealer tape can be used to seal hydraulic connections if only one layer of tape is used. Apply tape carefully, two threads back, to prevent it from being pinched by the coupler and broken off inside the system. Loose pieces of sealant could travel through the system and obstruct the flow of fluid or cause jamming of precision-fit parts.

3. Rotary Air Motor Lubrication

The air supply must be minimum 1.4 M^3/min. (49 CFM) and 5.5 bar (80 psi), with 7 bar (100 psi) the maximum.

To ensure the pump can operate at a continuous duty cycle, and maximum speeds for extended periods, RWP55 Series pumps are pre-assembled with a Filter Regulator / Lubricator assembly. Before use, the lubricator should be filled with SAE 10 oil, up to the level marked on the bowl. With the air motor running, the Lubricator drip feed should be set to supply 1-3 drops of oil per minute into the system (one drop for every 1.4-2.1 M^3/min (49-75 CFM) of air), or refer to the air motor manufacturer's instructions for suggested drip rate.

NOTE: Ensure that a filter/regulator/lubricator/assembly is fitted to the air motor prior to use if it is not pre-installed.

4. Bleeding Air from the System

After all connections are made, the hydraulic system must be bled of any trapped air. With no load on the system and the pump vented and positioned higher than the hydraulic device, cycle the system several times. Check the reservoir fluid level and fill to proper level with Power Team hydraulic fluid as necessary. If there is a problem contact the Power Team.

OPERATING INSTRUCTIONS

1. Bleeding Air from the System

A. Cycle the hydraulic system until operation is smooth and consistent.

B. Check the pump reservoir level. Add Power Team hydraulic fluid as needed.

2. Air Motor Operation

A. Connect the air supply line.

B. The remote hand control has two momentary push buttons, advance and retract, with spring offset to hold. Press push buttons accordingly.

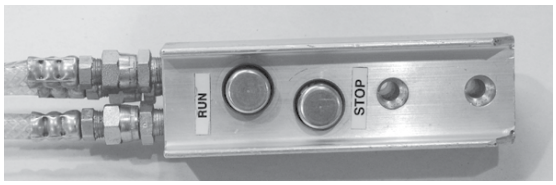


Figure 2. Air Pendant Control

3. Adjusting the Pressure Regulating Valve (if equipped). All others are factory preset

NOTE: For easy adjustment of the pressure regulating valve, always adjust the pressure by increasing to the desired pressure setting.

A. Loosen the locknut on the pressure regulating valve.

NOTE: The pressure range is from 69-690 bar (1,000-10,000 psi), depending on the pump model.

B. Use a screwdriver to back out the adjusting screw a few turns in a counterclockwise direction. This decreases the setting to a lower-than-desired pressure.

C. Air - The pump must be completely connected. Connect the pump to the appropriate air source and start the pump.

D. With the screwdriver, slowly turn the adjusting screw in a clockwise direction. This gradually increases the pressure setting. When the desired pressure is reached, lock the adjusting screw in position by tightening the locknut.

⚠ WARNING

- **Disconnect the unit from the power supply before performing maintenance or repair procedures.**
- **Repairs and maintenance are to be performed in a dust-free area by a qualified technician.**

1. System Evaluation

The components of your hydraulic system — tools, pumps, hoses, and couplings — all must be:

- Rated for the same maximum operating pressure.
- Correctly connected.
- Compatible with the hydraulic fluid used.

A system that does not meet these requirements can fail, possibly resulting in serious injury. If you are in doubt about the components of your hydraulic system, contact Power Team Technical Support.

2. Inspection

Keep a dated and signed inspection record of the equipment. Before each use, the operator or other designated personnel should visually inspect for the following conditions:

- Excessive wear, bending, damage, or insufficient thread engagement.
- Leaking hydraulic fluid.
- Incorrectly functioning or damaged heads and caps.
- Loose bolts or cap screws.
- Damaged or incorrectly assembled accessory equipment.
- Modified, welded, or altered equipment.
- Bent or damaged couplers or port threads.

3. Periodic cleaning

⚠ WARNING : Contamination of the hydraulic fluid could cause the valve to malfunction. Loss of the load or personal injury could result.

Establish a routine to keep the hydraulic system as free from debris as possible.

- Seal unused couplers with dust covers.
- Keep hose connections free of debris. Equipment attached to a tool must be kept clean.
- Keep the breather-hole in the filler cap clean and unobstructed.
- Use only Power Team hydraulic fluid. Replace hydraulic fluid as recommended, or sooner if the fluid becomes contaminated. Never exceed 300 hours of use between fluid changes.

4. Hydraulic Fluid Level

A. Check the fluid level in the reservoir after each 10 hours of use. The fluid level should be 1.3 cm (0.5 in.) from the top of the fill hole when all cylinders are retracted.

B. Drain, flush, and refill the reservoir with an approved Power Team hydraulic fluid after every 300 hours of use. The frequency of fluid changes depends upon general working conditions, severity of use, the overall cleanliness and care given to the pump. Fluid should be changed more frequently when the system is not operated regularly indoors.

5. Draining And Flushing The Reservoir

A. Clean the pump exterior before the pump interior is removed from the reservoir.

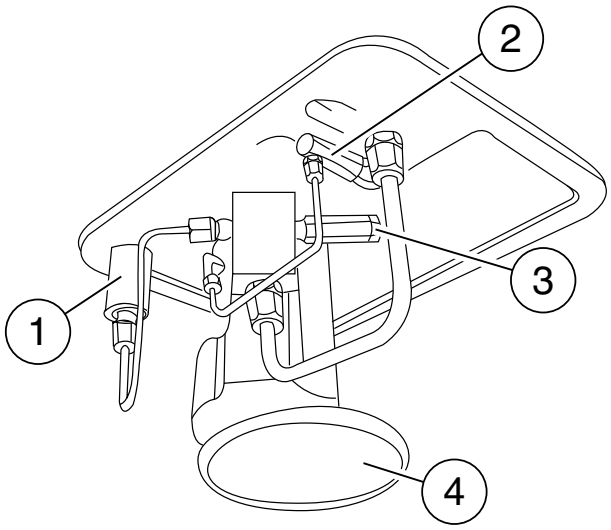
B. Remove and discard the screws fastening the motor and pump assembly to the reservoir.

⚠CAUTION :Do not damage the pump filter or pressure regulating valves when lifting the pump and motor off the reservoir. See Figure 3.

C. Clean the inside of the reservoir, and fill with Power Team hydraulic fluid. Rinse the filter clean.

D. Place the pump and motor assembly back onto the reservoir, and secure with two machine screws assembled on opposite corners of the housing.

E. Refer to priming procedure. Place the hydraulic flow control valve in the neutral position. If the pump is equipped with a valve that has only an advance or retract position, place the valve in the advance position, and connect a hose to the advance port on the valve. Place the other end of the hose into the fluid filler plug hole.



ITEM	DESCRIPTION
1	PRESSURE REGULATING VALVE
2	ACCUMULATOR (not used on all models)
3	HIGH PRESSURE RELIEF VALVE
4	FILTER

Figure 3. Pump Assembly

F. Run the pump for several minutes.

G. Disconnect the motor and pump assembly, and drain and clean the inside of the reservoir.

H. Fill the reservoir with Power Team hydraulic fluid.

I. Place the pump and motor assembly (with new gasket) on the reservoir, and install the new screws.

J. Tighten screws securely and evenly.

6. Adding Hydraulic Fluid To The Reservoir

A. Retract the cylinder(s) devices.

B. Disconnect the power supply.

C. Clean the entire area around the filler plug.

D. Remove the filler plug, and install a clean funnel with a filter.

E. Use only Power Team hydraulic fluid AW 46 47 cSt @ 38°C (215 SUS @ 100°F). If low temperature requirements are needed, use hydraulic fluid 5.1 cSt @ 100°C (451 cSt @ -40°C).

7. Lubrication (Air Driven Motor Only)

To ensure the pump can operate at a continuous duty cycle, and maximum speeds for extended periods, RWP55 Series pumps are pre-assembled with a Filter Regulator / Lubricator assembly. The lubricator should be filled with SAE 10 oil, up to the level marked on the bowl. With the air motor running, the Lubricator drip feed should be set to supply 1-3 drops of oil per minute into the system (one drop for every 1.4-2.1 M^3/min (49-75 CFM) of air), or refer to the air motor manufacturer's instructions for suggested drip rate.

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8. Draining and Flushing the Air Filter-Regulator

A. Drain any water from the Air Filter-Regulator Bowl using the drain tap located at the base of the bowl (note some may have automatic drainers, no tap)

B. It is important to periodically drain any water / condensation from inside the filter bowl (especially in high humidity conditions) before the water level reaches the maximum capacity. If accumulated water condensation enters the air flow, it can malfunction of the pneumatic systems.

9. Hose Connections

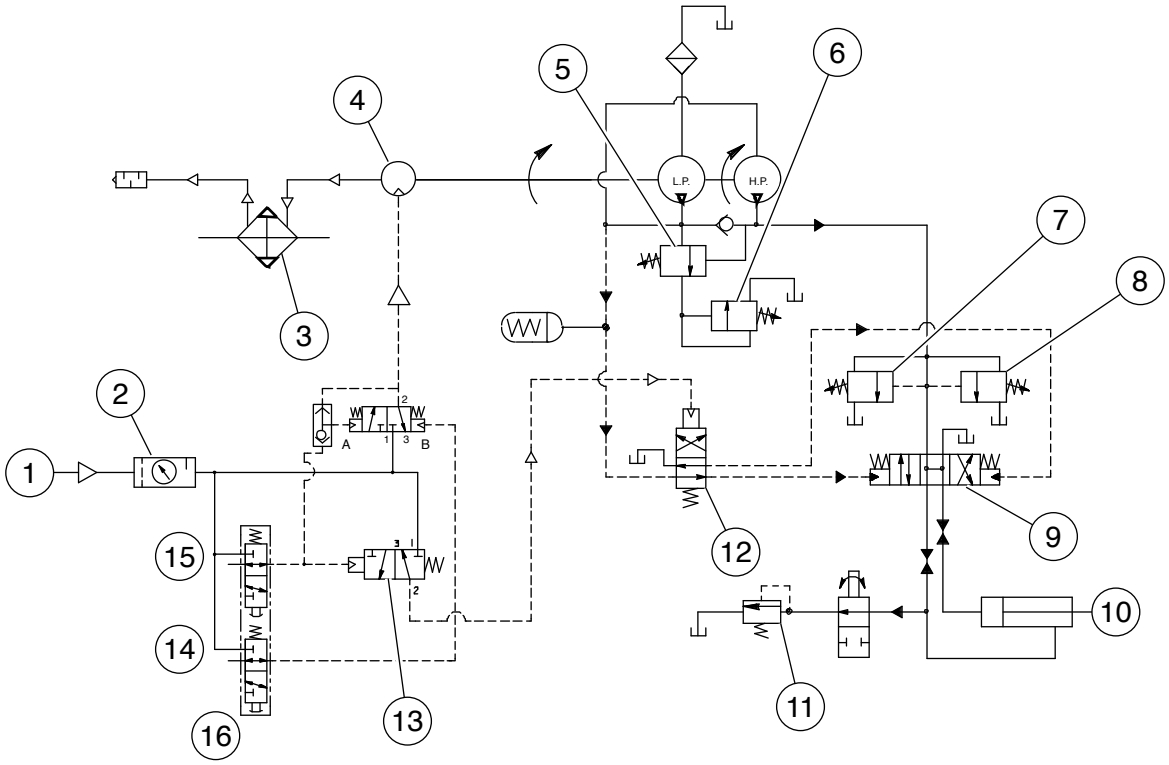
⚠CAUTION :To prevent personal injury from leaking hydraulic fluid, seal all hydraulic connections with a high-quality, non-hardening, pipe thread sealant.

IMPORTANT: Sealant tape or non-hardening sealer tape can be used to seal hydraulic connections if only one layer of tape is used. Apply tape carefully, two threads back, to prevent it from being pinched by the coupler and broken off inside the system. Loose pieces of sealant could travel through the system and obstruct the flow of fluid or cause jamming of precision-fit parts.

10. Storage

Store the unit in a dry, well-protected area where it will not be exposed to corrosive vapors, dust, or other harmful elements. If a unit has been stored for an extended period of time, it must be thoroughly inspected before it is used.

11. Hydraulic Schematic



ITEM	DESCRIPTION
1	AIR SUPPLY
2	FILTER/REGULATOR/LUBRICATED (FRL)
3	COOLER
4	AIR MOTOR
5	UNLOADING VALVE 69 Bar (1,000 psi)
6	SUPERCHARGE VALVE 12 Bar (175 psi)
7	INTERNAL RELIEF VALVE 717 Bar (10,400 psi)
8	EXTERNAL RELIEF VALVE
9	HYDRAULIC 4-WAY 3-POSITION DIRECTIONAL VALVE

ITEM	DESCRIPTION
10	CUSTOMER TOOL
11	RETRACT PORT RELIEF VALVE and SHUT-OFF 103 Bar (1,500 psi)
12	AIR PILOTED 4 -WAY 2-POSITION DIRECTIONAL VALVE
13	3-WAY AIR VALVE
14	AIR REMOTE
15	STOP
16	RUN

Figure 4. Hydraulic Schematic

TROUBLESHOOTING GUIDE

⚠ WARNING

- **Repair work or troubleshooting must be performed by qualified personnel who are familiar with this equipment.**
- **Check for system leaks by using a hand pump to apply pressure to the suspect area. Watch for leaking fluid and follow it back to its source. Never use your hand or other body parts to check for a possible leak.**

NOTES:

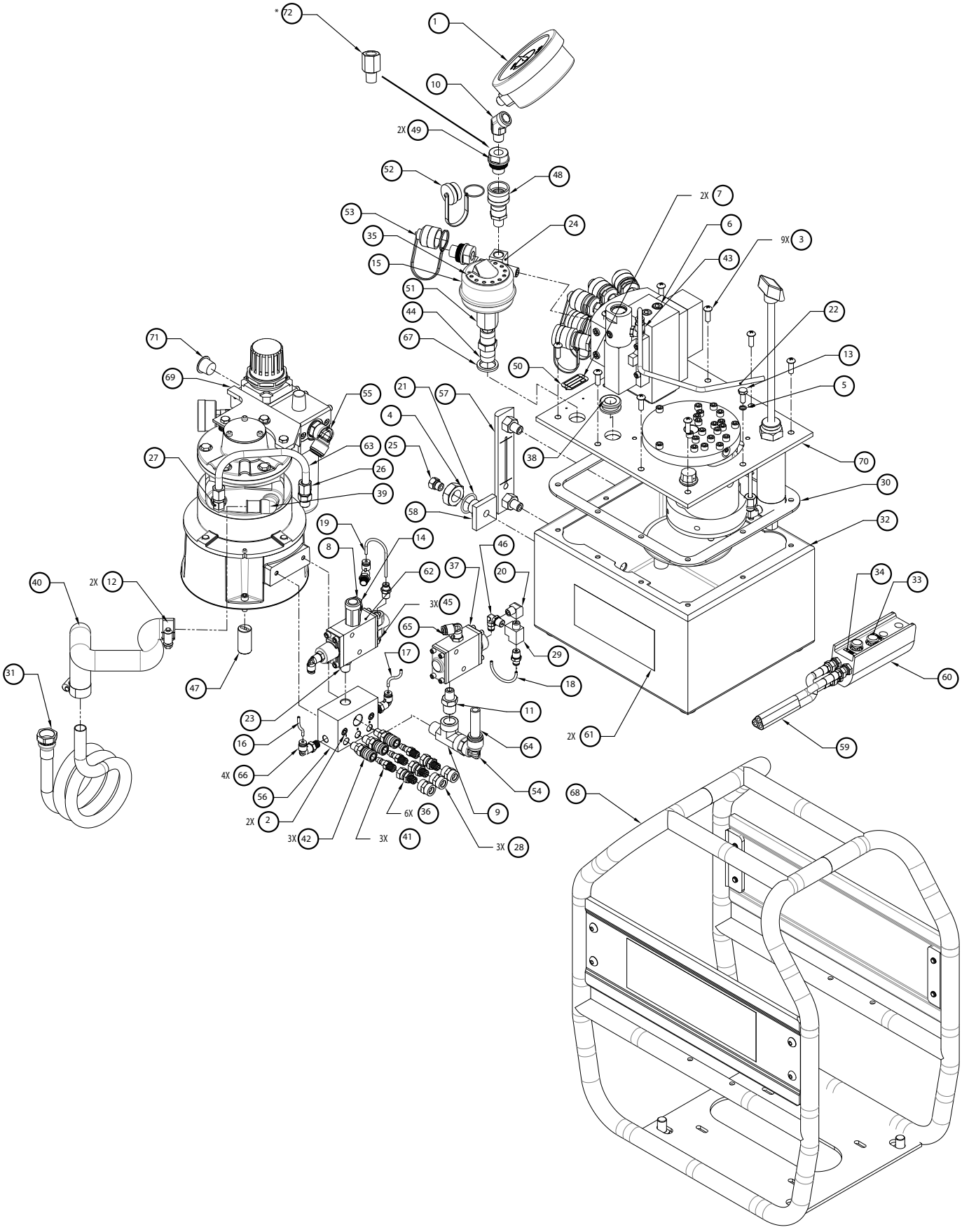
- **For a detailed parts list or to locate a Power Team Authorized Hydraulic Service Center, contact your nearest Bolting Systems facility.**
- **Plug the outlet ports of the pump when checking for leakage to determine if the leakage is in the pump or in the tool.**

TROUBLE	CAUSE	SOLUTION
Pump delivers excess fluid pressure.	1. Faulty pressure gauge.	1. Replace gauge.
	2. Relief valve set incorrectly.	2. Contact a Bolting Systems Service Center.
Pump is not delivering fluid, or delivers only enough fluid advance connected components partially or erratically or operation to slow.	1. Fluid level too low.	1. Add fluid, refer to filling the pump reservoir in Initial Setup section.
	2. Loose-fitting coupler to component.	2. Verify quick-disconnect couplings component.to tools are completely coupled. Couplers may need to be replaced because ball check does not stay open due to wear.
	3. Air in system.	3. Refer to Initial Setup in this manual to bleed air from system.
	4. Air leak in suction line.	4. Check and tighten suction line.
	5. Debris in pump or filter plugged.	5. Clean pump filter. If problem persists, disconnect from power supply contact authorized Power Team service center.
	6. Fluid bypasses through the tool.	6. Remove tool; cap hoses. Check pump and valve for leaks.
	7. Cold fluid or fluid too heavy. (Hydraulic fluid is of a higher viscosity than necessary.)	7. Drain, flush, and refill reservoir using a lighter weight fluid. Refer to General Maintenance section.
	8. External relief valve or low pressure unloading valve out of adjustment.	8. Refer to Adjusting the Pressure Regulating Valve.
	9. Power unit/reservoir capacity is too small for the size of the tool(s) used.	9. Use smaller tool(s) or larger reservoir.
	10. Vacuum in reservoir.	10. Clean plugged vent in filler plug.

Troubleshooting Guide Continued

TROUBLE	CAUSE	SOLUTION
Pump builds pressure but cannot maintain pressure.	1. Fluid leakage.	1. Look for external leaks. If no fluid leakage is visible, the problem is internal. If using a double-acting tool, remove it from the system to ensure the leak is not in the tool. Seal leaking pipe fittings with pipe sealant.
Pump does not build to full pressure.	1. Faulty pressure gauge.	1. Replace pressure gauge.
	2. Check for external leakage.	2. Seal faulty pipe fittings with pipe sealant.
	3. Check external pressure regulator. Check relief valve setting.	3. Refer to Adjusting the Pressure Regulating Valve.
	4. Look for internal leakage in tools.	4. Remove tool from pump. If pump builds full pressure, tool is defective.
	5. Inadequate air pressure for air motor operation.	5. Refer to Initial Setup section.
Erratic action	1. Air in system.	1. Check for leaks. Refer to bleeding procedure.
	2. Internal leakage in attached components.	2. Refer to manufacture's information for attached component.
	3. Attached component sticking or binding.	3. Refer to manufacture's information for attached component.
	4. Malfunctioning valve.	4. Verify connections. Contact authorized Power Team Service Center.
Air motor does not run **⚠ WARNING** **To help prevent personal injury, disconnect power supply before removing components.**	1. Pump not turned ON.	1. Push air supply button to "ON" position.
	2. Air supply is not plugged in.	2. Plug in unit to air supply,
	3. No air in the supply.	3. Check air supply.
	4. Broken air lines or leaks in air lines.	4. Replace defective parts.
	5. Defective switches.	5. Check switches.
	6. Defective motor.	6. Repair or replace motor.
	7. Defective remote switch.	7. Repair or replace remote controls.
	8. Air motor jammed or not working properly.	8. Remove drainage from air filters regularly.

General Assembly Views (RWP55-4-BS-R Shown)



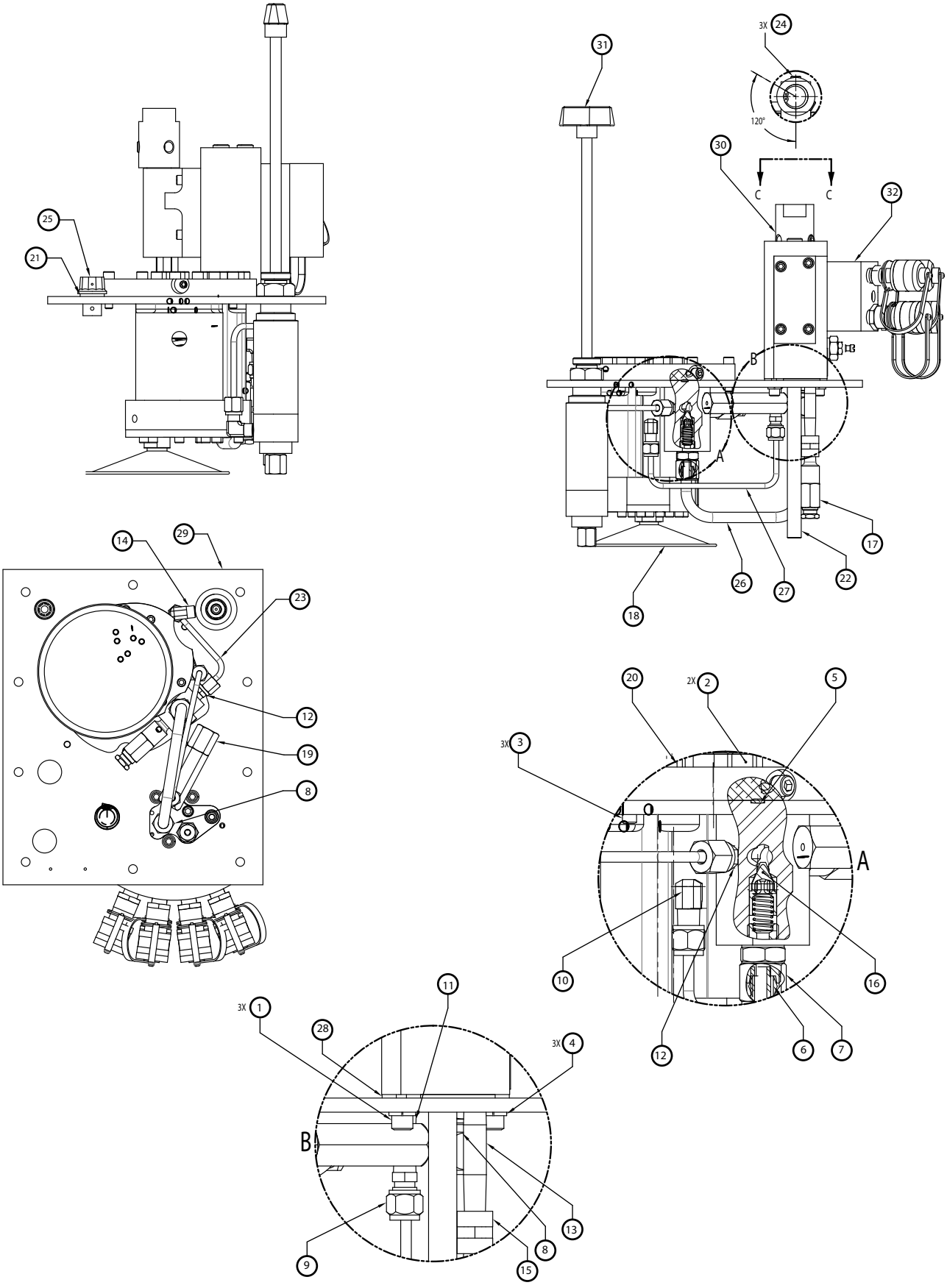
Parts List Continued

ITEM	PART NO	DESCRIPTION	QTY.
1	9072	GAUGE, 10000 PSI, 4” DIA, CAL. (SPX)	1
2	10020	SCREW, SOCKET HD CAP	2
3	10177	SCREW. RND 1/4-20 X 0.75	9
4	10396	NUT, JAM, 3/4-16 UNF	1
5	10442	WASHER, PLAIN 0.25X0.37X0.03 COPR	1
6	10479	FITTING, PLUG - 1/4 NPTF	1
7	10575	SCREW, DRIVE RD 2 X 0.19 STD B18.6.4	2
8	10618	FITTING, TEE 1/4 NPTF M X (2) 1/4 NPTF F	1
9	10623	FITTING, TEE 3/8 NPTF M X (2) 3/8 NPTF F	1
10	10645	FITTING, 45D ELB 1/4 NPTF M X 1/4 NPTF F (Not used on **RWP55-PAT**)	1
11	12328	FITTING, STR 1/4 NPTF M X 3/8 NPT M	1
12	12367	CLAMP, HOSE 11/16-1 1/4 WORM DRIVE	2
13	12825	SCREW, HEX CAP 1/4-20 X 0.63	1
14	13269	FITTING, REDUCING 1/4 TO 1/8	1
15	13966	MUFFLER	1
16	14281-1	TUBING	1
17	14281-2	TUBING	1
18	14281-3	TUBING	1
19	14281-4	TUBING	1
20	14680	FITTING, 90D ELB 1/8 NPTF M x 1/8 NPTF F	1
21	14725	O-RING (-119) 0.924ID X 0.103 NITRILE 70	1
22	15883	TUBING	1
23	16494	FITTING, STR 1/4 NPTF M X 1/4 NPTF M 1.3	1
24	16495	FITTING, TEE 1/4 NPTF F x (2) 1/4 NPTF M	1
25	17147	FITTING, PLUG 7/16-20 ORB HEX	1
26	17634	FITTING, STR 1/4 NPTF M X 3/8 TUBE	1
27	17636	FITTING, 90D ELB 1/2 NPTF M X 3/8 TUBE	1
28	18841	FITTING, STR 1/8 NPTF F x 1/8 NPTF F (Not used on **RWP55-PAT**)	3
29	19463	FITTING, TEE 1/8 NPTF M X (2) 1/8 NPTF F	1
30	40164	GASKET, RESERVOIR RECT	1
31	46626	COIL, HEAT EXCHANGER	1
32	65599BK2	TANK PT 02.00 GAL ALUM BLK VERT WELD 11	1
33	203769	DECAL, LABEL STOP	1
34	203770	DECAL, LABEL RUN	1
35	205505	DEFLECTOR, MUFFLER	1
36	208218	FITTING, STR 1/8 NPTF M x 1/8 NPSM F	6
37	212404	VALVE, AIR OPERATED 3 WAY	1
38	212896	GROMMET, RUBBER 5/8 ID	1
39	212897	FITTING, 90D ELB 1/2 NPTF M x 5/8 HOSE	1
40	212898	HOSE, PRESSURE	1

Parts List Continued

ITEM	PART NO	DESCRIPTION	QTY.
41	213343	COUPLER, QUICK “PLUG HALF” (MALE) (Not used on **RWP55-PAT**)	3
42	213344	COUPLER, FEMALE QUICK, FOSTER 2202 (Not used on **RWP55-PAT**)	3
43	250463	FITTING, 90D ELB 1/8 NPTF M x 1/4 TUBE	1
44	250643	FITTING, STR 1/2 NPT M x 1/2 NPT M 1.81”	1
45	250726	FITTING, STR 1/8 NPTF M X 1/8 TUBE	3
46	250804	FITTING, ELBOW 90 DEGREE	1
47	251206	COUPLING	1
48	251410	COUPLER, QUICK	1
49	251411	COUPLER, QUICK PLUG	2
50	251906	PLATE, PRODUCT NAME	1
51	252240	FITTING, STR 1/2 BSPP F X 1/2 BSPP F	1
52	252364	CAP, DUST	1
53	252365	CAP, DUST	1
54	253490	FITTING, 90D ELB 3/8 NPTF M x 1/2 TUBE	1
55	260108	FITTING, 90D ELB 1/2 NPTF M x 1/2 TUBE	1
56	350244	MANIFOLD	1
57	350431	GAUGE, FLUID LEVEL	1
58	351000	DRAIN	1
59	420096	HOSE, THREE STRAND 25’	1
60	421265	CONTROL, AIR OPERATED HAND	1
61	1000543	DECAL, SPX BOLTING SYSTEMS	2
62	2000383	VALVE, AIR OPERATED 3-WAY	1
63	2000397	TUBE	1
64	2001448	TUBING, POLYURETHANE 1/2”O.D. X .086 WALL	1
65	2001792	FITTING, 90 DEGREE ELBOW	1
66	2001841	FITTING, 90 DEGREE ELBOW	4
67	2002032	WASHER, FLAT 1.12 IN X .85 X .12 SS	1
68	3000761	ROLL CAGE, AIR (Used on **RWP55-BS-R** and **RWP55-4-BS-R**)	1
	3000995	ROLL CAGE, AIR (Used on **RWP55-PAT**)	1
69	3000762	ASSY, AIR MTR W/FRL BRKT, NO HANDLE	1
	3000764	ASS'Y, AIR MOTOR, FRL BRKT, HANDLE (Used on **RWP55-BS** and **RWP55-4-BS**)	1
70	3000769	COVERPLATE ASS’Y	1
	3000767	COVERPLATE ASS’Y (Used on **RWP55-BS** and **RWP55-4-BS**)	1
71	G4-1002-03	PACKING PLUG 1/2 NPT	1
72	2008281	FITTING, EXTENDER (Used on **RWP55-BS** and **RWP55-4-BS**)	1

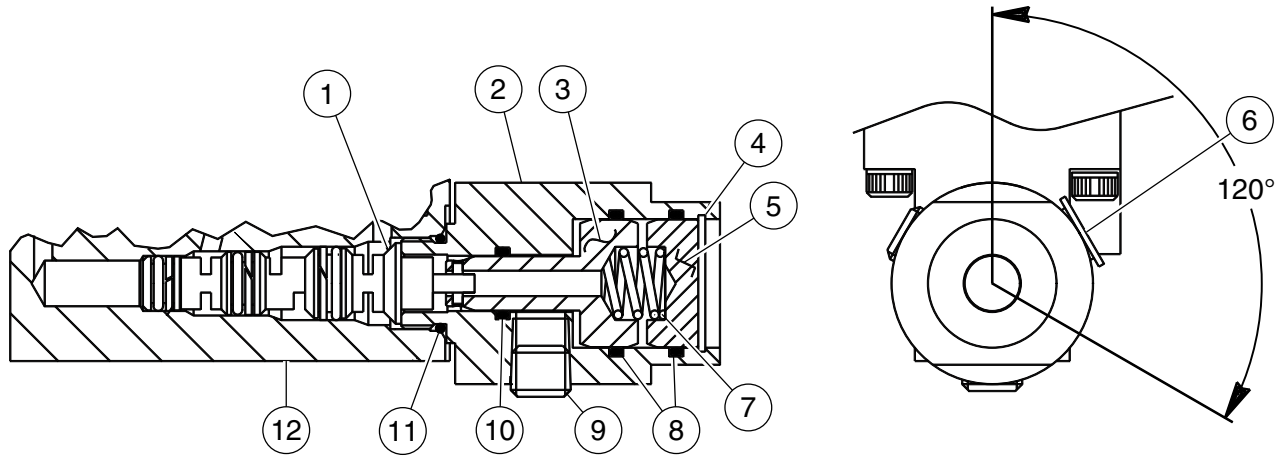
Cover Plate Assembly 3000769



Parts List Continued

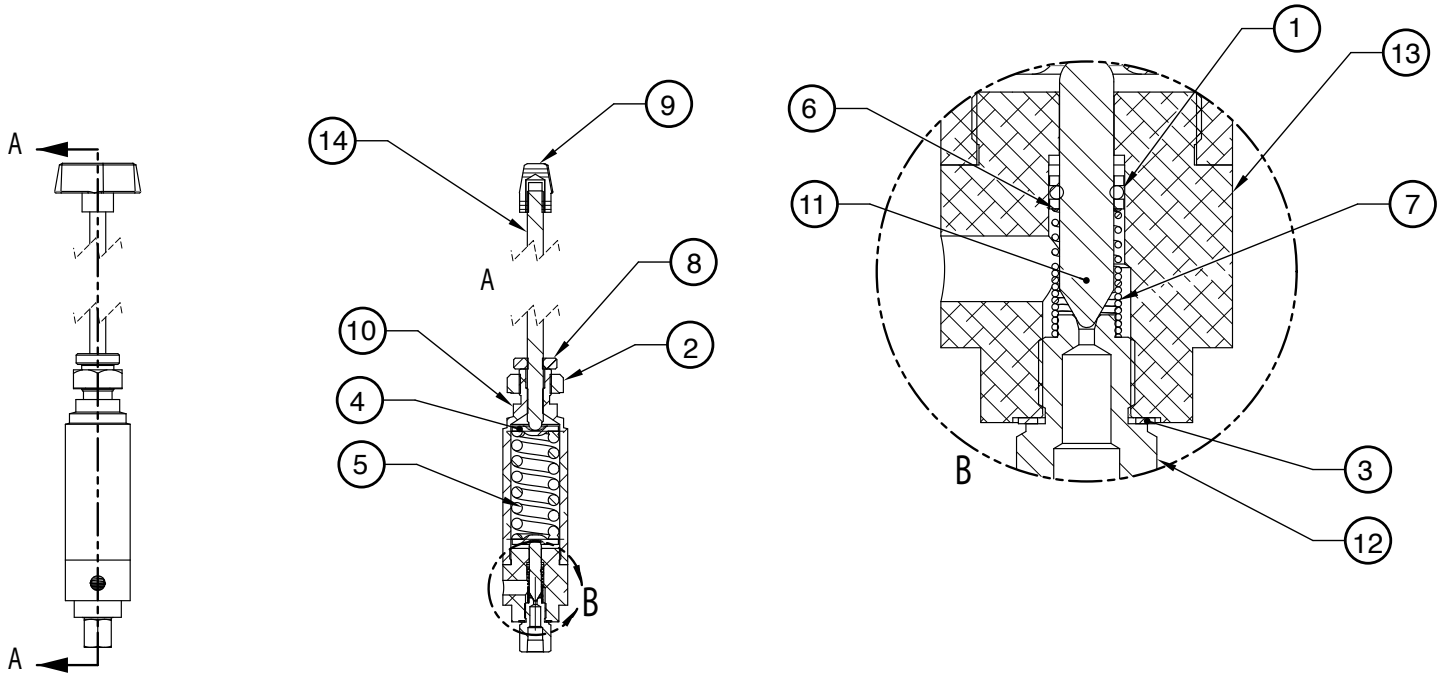
ITEM	PART NO.	DESCRIPTION	QTY.
1	10008	SCREW, SHC 1/4-20 X 0.75	3
2	10015	SCREW, SHC 1/4-28 x 1.00	2
3	10016	SCREW, SHC 1/4-20 x 1.00	3
4	10245	WASHER, LOCK 0.490 x0.260	3
5	10266	O-RING (-010) 0.239IDX0.070 NITRILE 70	1
6	10430	TUBE,SLEEVE 3/8 DIA.	2
7	10431	FITTING, NUT 5/8-18 F (3/8 OD TUBE)	1
8	10661	FITTING, STR 1/4 NPTF M x 3/8 TUBE	1
9	11173	FITTING, STR 1/8 NPTF M x 3/16 TUBE	1
10	11278	FITTING, 90D ELB 1/8 NPTF M x 3/16 TUBE	1
11	11421	FITTING, STR 1/8 NPT M x 1/8 NPT M 1.0”	1
12	14844	FITTING, STR 1/8 NPTF M x 7/16-20 M	1
13	15456	FITTING, STR 1/8 NPT M x 1/8 NPT M 2.5”	1
14	16177	FITTING, 90D ELB 1/8 NPTF M x 3/16 TUBE	1
15	18841	FITTING, STR 1/8 NPTF F x 1/8 NPTF F	1
16	21277-2	VALVE, CHECK AND 10,000 PSI RELIEF	1
17	21278-15	VALVE, RELIEF 1500 PSI	1
18	21345	SCREEN, FILTER	1
19	21943	ACCUMULATOR	1
20	41065-2	PUMP BASIC	1
21	200415	PACKING, O’RING (SQUARE SECTION)	1
22	200609	TUBE, DRAIN .50 OD X 6.00	1
23	201570	TUBE, PRESSURE REGULATOR	1
24	251279	FITTING, PLUG 1/8 PTF	2
25	251689	CAP, FILLER BREATHER	1
26	252117	LINE, OIL	1
27	252118	LINE, OIL	1
28	351095	GASKET, VALVE	1
29	2000481BK2	PLATE, COVER (MACHINED)	1
30	3000239	VALVE, PNEUMATIC 2P4W	1
31	3000768	REGULATOR ASS’Y	1
32	3000770	VALVE, DIR. - 3P4W (Used on **3000769**)	1
	3000273BK	VALVE, DIR. - 3P3W (Used on **3000767**)	1

Direction Valve 3000239



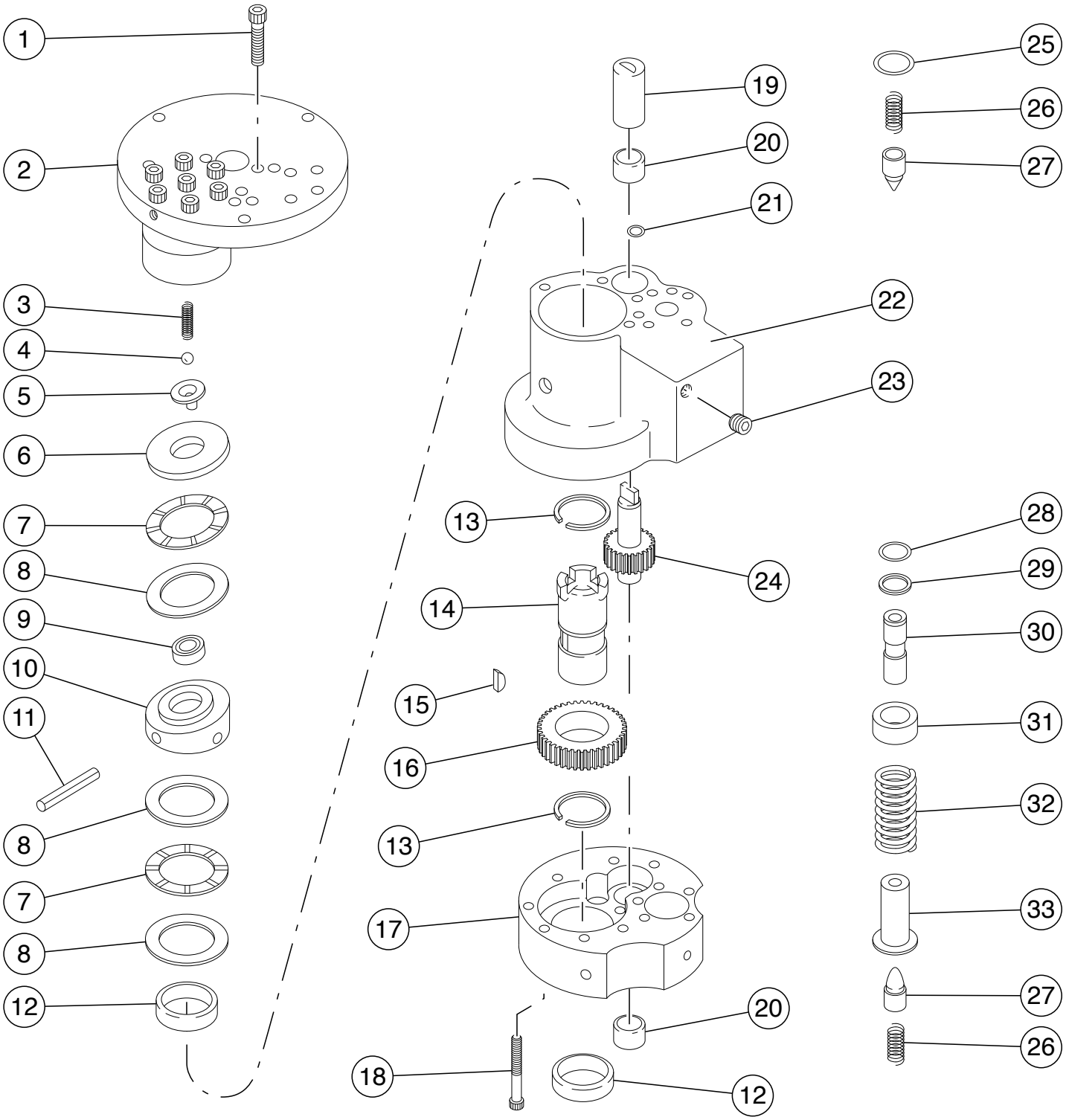
ITEM	PART NO.	DESCRIPTION	QTY.
1	351232	SPOOL VALVE (Pin supplied with spool valve. The pin holds the spool inside #12 to the air piston #3 (no part number))	1
2	421249	VALVE BODY	1
3	351231	PISTON	1
4	16686	RETAINING RING	1
5	252105	PISTON	1
6	15697	PLASTIC CAP	1
7	11195	SPRING	1
8	10304	O-RING NITRILE	2
9	251279	PLUG 1/8 INCH	2
10	10268	O-RING NITRILE	1
11	10301	O-RING NITRILE	1
12	3000167BK	SOLENOID VALVE 3-WAY	1

Pressure Regulator 3000768



ITEM	PART NO.	DESCRIPTION	QTY.
1	10266	O-RING (-010) 0.239IDX0.070 NITRILE 70	1
2	10396	NUT, JAM, 3/4-16 UNF	1
3	14874	WASHER, PLAIN	1
4	215428	RETAINER, SPRING	2
5	215429	SPRING, COMPRESSION	1
6	215430	WASHER, O'RING BACK-UP (SOLID)	2
7	215431	SPRING, SPACER	1
8	215683	REGULATOR LOCKING NUT	1
9	215693	T-HANDLE, PLASTIC	1
10	309077	Regulator Housing	1
11	309079	POPPET, REGULATOR	1
12	350944	FITTING SEAT	1
13	420891	BODY, REGULATOR	1
14	2008429	ROD, ADJUST 10IN X .37 ST	1

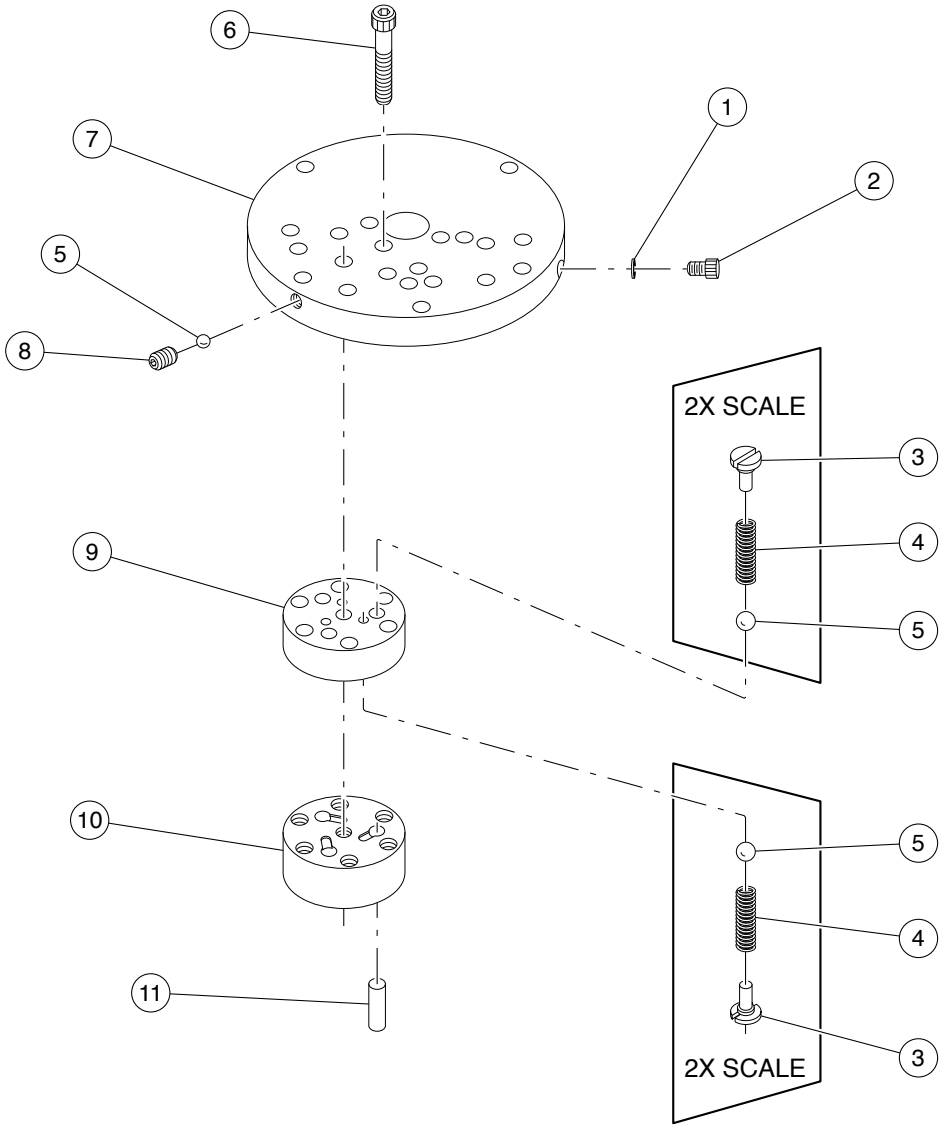
Basic Pump Assembly 41065-2



Parts List Continued

ITEM	PART NO.	DESCRIPTION	QTY.
1	10020	SCREW, 1/4-20 X 1.25 (Torque to 19-20 Nm (170-180 in-lbs.))	9
2	33113	HIGH PRESSURE PUMP	1
3	10361	SPRING COMPRESSION	1
4	10375	STEEL BALL	1
5	23547	BEARING TOP PLATE	1
6	23548	TOP PLATE	1
7	11228	THRUST BEARING	2
8	11813	BEARING RACE	3
9	11814	BALL BEARING	1
10	23549	10 DEGREE ANGLE PLATE	1
11	11955	SPRING SLOTTED PIN	1
12	11064	NEEDLE BEARING	2
13	11261	EXTERNAL RETAINING RING	2
14	23556	SHAFT	1
15	11821	WOODRUFF KEY	1
16	23557	DRIVE GEAR	1
17	30533	PUMP END PLATE	1
18	10001	SCREW, #10-32 X 1.75 (Torque to 6-7 Nm (50-60 in-lbs.))	12
19	21091	DRIVE COUPLING	1
20	11199	NEEDLE BEARING	2
21	10266	O-RING	1
22	40120	PUMP - MACHINE BODY	1
23	10427	PIPE PLUG	1
24	21272	DRIVE GEAR	1
25	10303	O-RING	1
26	10425	SPRING COMPRESSION	2
27	20771	POPPET	2
28	10271	O-RING	1
29	12389	BACKUP WASHER	1
30	20849	SPOOL	1
31	23255	SPRING GUIDE	1
32	10426	SPRING COMPRESSION	1
33	23256	SPRING GUIDE	1
PARTS INCLUDED BUT NOT SHOWN			
	200423	SHIM - 0.065/0.070 THICK	1
	200645	SHIM - 0.020 THICK	2

High Pressure Pump Assembly 33113



ITEM	PART NO.	DESCRIPTION	QTY.
1	10442	COPPER WASHER	1
2	10002	SOC. HD. CAP SCREW (Torque to 16-18 Nm (140-160 in-lbs.))	1
3	*24549	VALVE GUIDE	6
4	*10445	COMPRESSION SPRING	6
5	*12223	STEEL BALL	7
6	*10023	SOC. HD. CAP SCREW (See Bolt Tightening Sequence Torque to 19-20 Nm (170-180 in-lbs.))	7
7	*50411	TOP PLATE	1
8	10519	SOC. SET SCREW (Torque to 7-8 Nm (65-70 in-lbs.))	1
9	*40630	VALVE HEAD	1
10	*41062	PUMP BARREL	1
11	*21628	PISTON	3
***Consult factory when replacing items marked with an asterisk (*).**			

Bolt Tightening Sequence

See Figure 5. Assemble in sequence shown. Lubricate under head and on threads. Torque to 20.5 Nm (180 in. lbs).

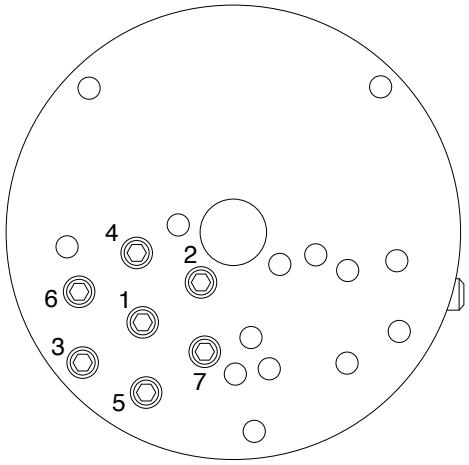
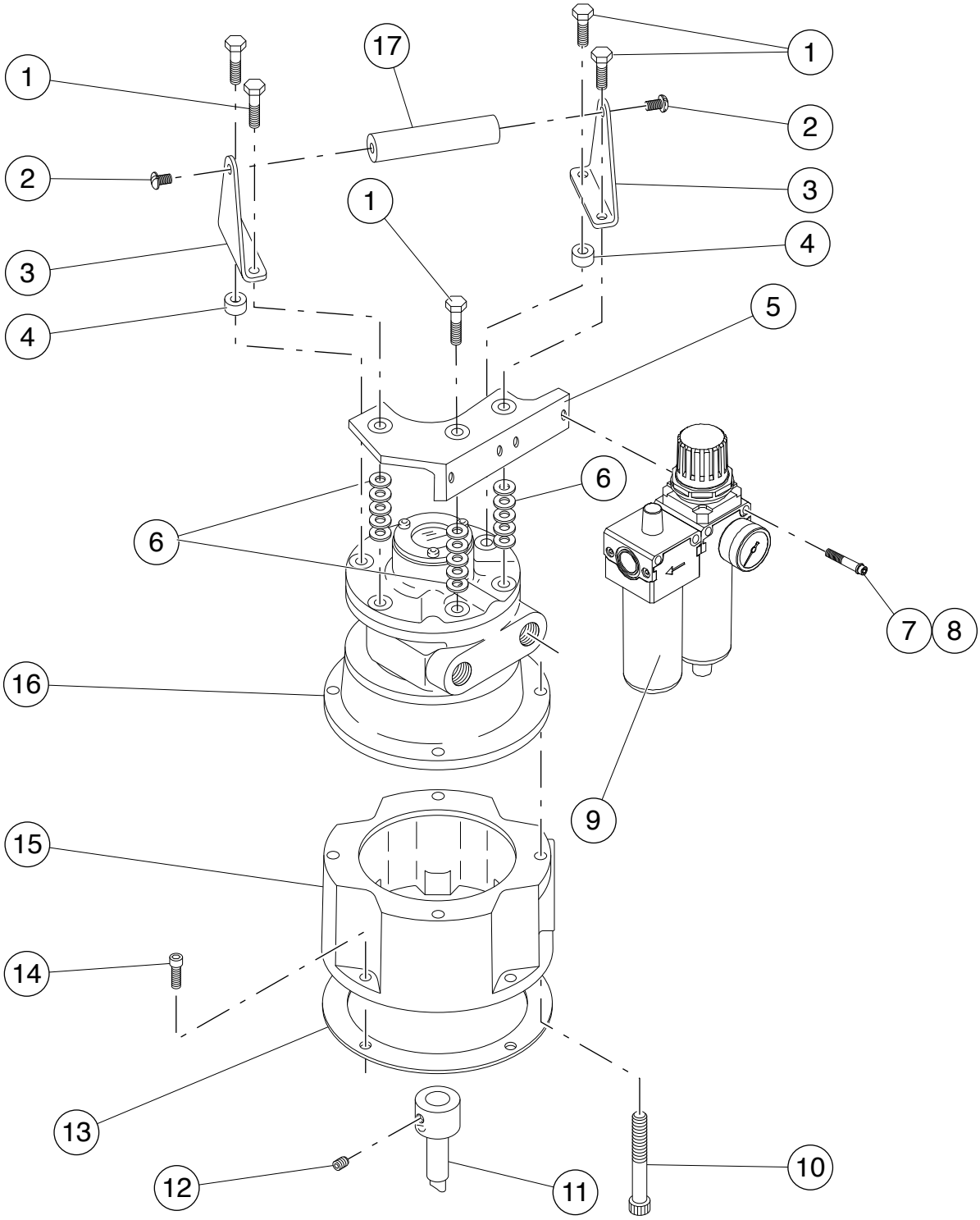


Figure 5. High Pressure Pump Assembly

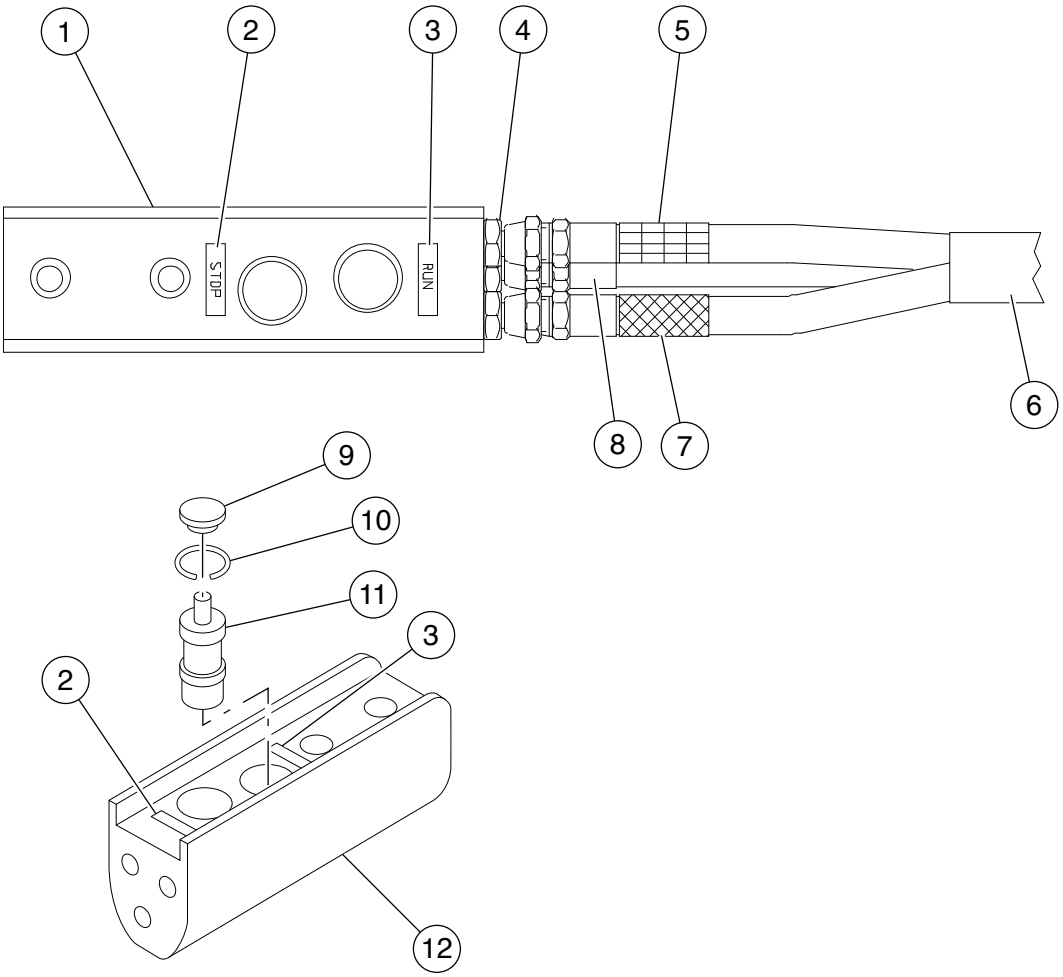
Air Motor Assembly 3000764 (Shown) & 3000762 (Used On RWP55-BS AND RWP55-4-BS)



Parts List Continued

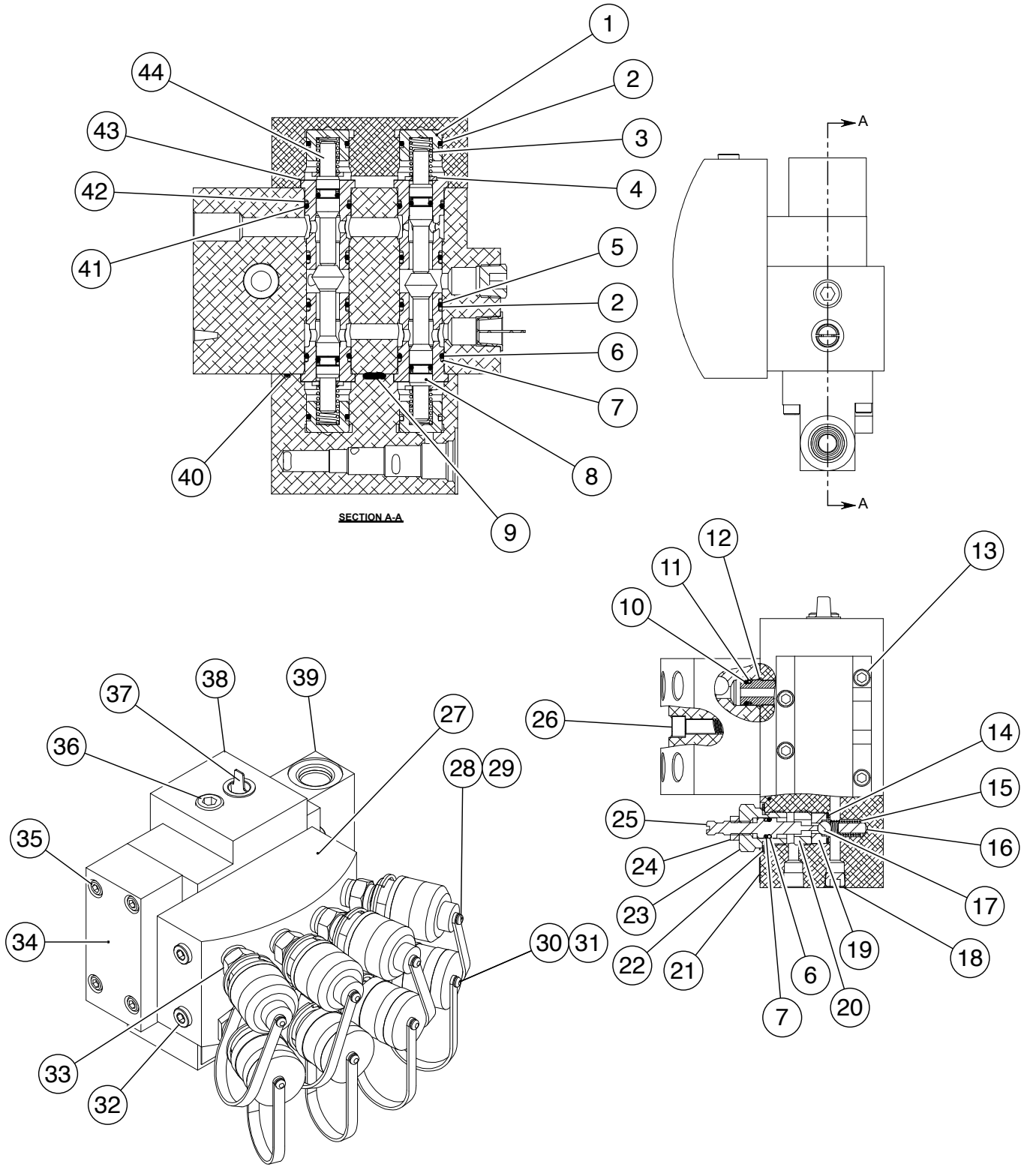
ITEM	PART NO.	DESCRIPTION	QTY.
1	10018	HEX SCREW	5
2	10174	ROUND SCREW (NOT ON 3000762)	2
3	33808	HANDLE BRACKET (NOT ON 3000762)	2
4	2001662	HANDLE BRACKET SPACER (NOT ON 3000762)	2
5	2007903	FRL MOUNTING BRACKET	1
6	12719	PLAIN STEEL WASHER	13
7	F7-5022-38	STEEL LOCK WASHER	4
8	250485	SCREW, #10-32 X 2.75 SHC	4
9	2008427	F-R-L ASS'Y, RWP-BS	1
10	17816	SCREW, SHC 3/8-16 X 3.00 (Install from underside)	4
11	37842	SHAFT EXTENSION	1
12	10556	SET SCREW	1
13	30650	MOTOR BASE GASKET	1
14	10008	SCREW, SHC 1/4-20 X 0.75	4
15	51158WH2	MOTOR BASE	1
16	14717	AIR MOTOR	1
17	28158	CROSS BAR HANDLE (NOT ON 3000762)	1

Hand Control 421265



ITEM	PART NO.	DESCRIPTION	QTY.
1	421265	AIR OPERATED HAND CONTROL	1
2	203769	LABEL STOP DECAL	1
3	203770	LABEL RUN DECAL	1
4	208218	STRAIGHT FITTING	6
5		RUN AIR LINE	
6	420096	THREE STRAND 25' HOSE	1
7		STOP AIR LINE	
8		MAIN AIR LINE	
9	206105	PUSH W/WRENCH BUTTON	2
10	11033	INTERNAL RETAINING RING	2
11	206104	3 WAY CLOSED CARTRIDGE VALVE	2
12	44024	VALVE BODY	1

Valve 3000167BK



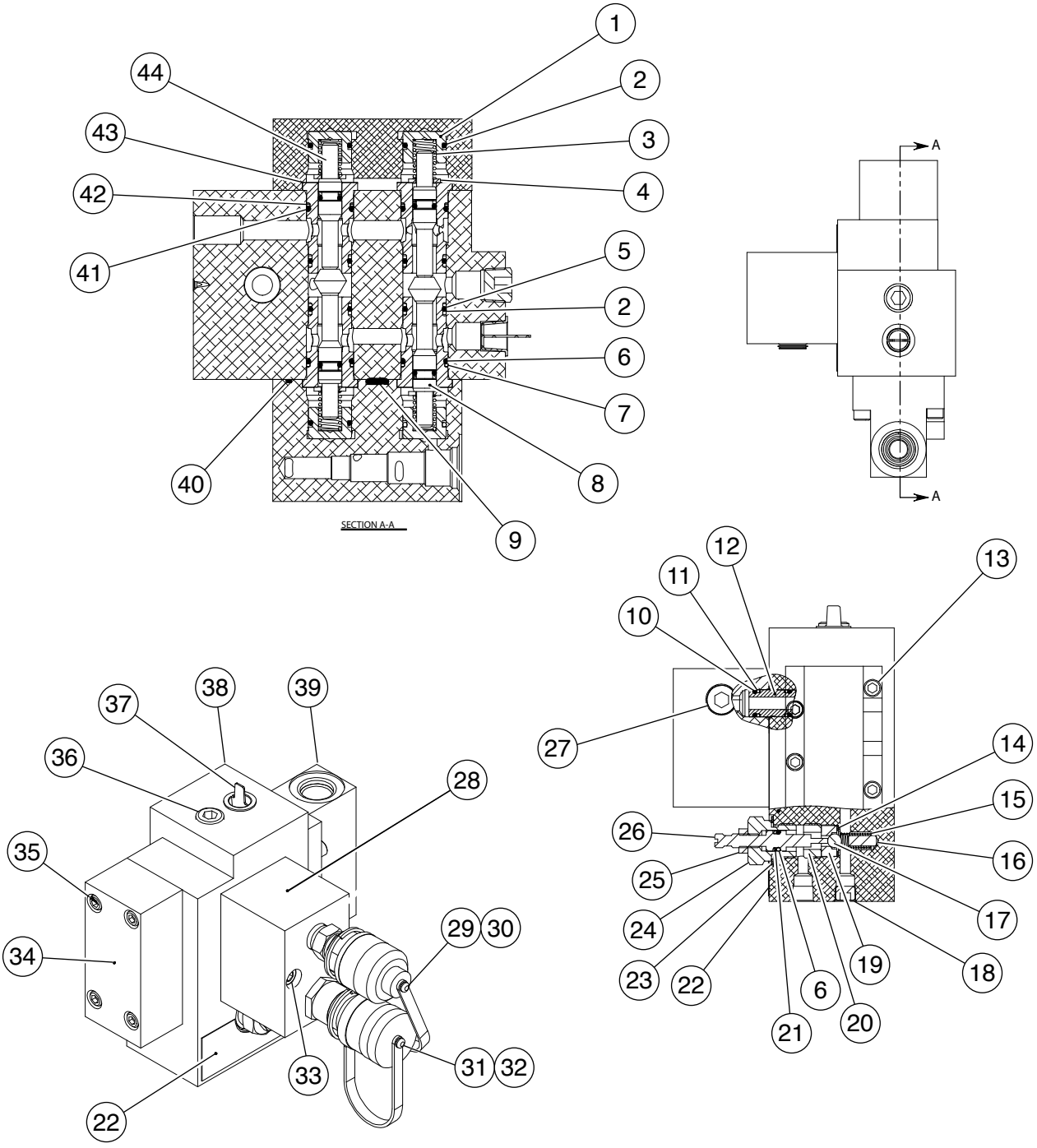
Parts List Continued

ITEM	PART NO.	DESCRIPTION	QTY.
1	22070	PISTON	4
2	11284	O-RING	8
3	10362	SPRING COMPRESSION	4
4	209541	PLAIN STEEL WASHER	4
5	12391	BACKUP WASHER	8
6	10266	O-RING	5
7	12184	BACKUP WASHER	5
8	2002148	SPOOL POPPET (Assemble in this end only)	2
9	10269	O-RING	1
10	10268	O-RING	4
11	11863	BACKUP WASHER	4
12	21094	BUSHING	2
13	14426	SCREW, SHC 10-24 X 1.00 (Torque to 6-8 Nm (50-70 in-lbs.))	4
14	12042	PLAIN COPPER WASHER	1
15	10361	SPRING COMPRESSION	1
16	12955	DOWEL PIN	1
17	10375	STEEL BALL	1
18	251279	PLUG FITTING (Torque to 14 Nm (120 in-lbs.))	1
19	351200	REPLACEABLE SEAT	1
20	212735	SCREW, HOL LCK 5/8-18 X 0.31 (Torque to 34 Nm (300 in-lbs.))	1
21	252164	INSTRUCTIONS DECAL	1
22	252099	SPECIAL WASHER	1
23	252053	VALVE CAP (Torque to 34 Nm (300 in-lbs.))	1
24	10383	HEX JAM NUT	1
25	351257	BUSHING	1
26	10854	SCREW, SHC 1/4-20 X 1.75 (Torque to 19 Nm (165 in-lbs.))	2
27	421856BK	MANIFOLD BODY	1
28	251411	QUICK PLUG COUPLER	4
29	252365	DUST CAP	4
30	251410	QUICK COUPLER	4
31	252364	DUST CAP	4
32	10427	PLUG FITTING (Torque to 28 Nm (250 in-lbs.))	2
33	10672	STRAIGHT FITTING	4
34	420902BK	LEFT END CAP	1
35	11151	SCREW, SHC 10-24 X 1.25 (Torque to 6-8 Nm (50-70 in-lbs.))	4
36	10479	PLUG FITTING (Torque to 6 Nm (50 in-lbs.))	1
37	1400-AA	1/4 PLASTIC PACKAGING PLUG	1
38	65095BK	VALVE BODY	1
39	64648BK	RIGHT END CAP	1
40	10265	O-RING	6

Parts List Continued

ITEM	PART NO.	DESCRIPTION	QTY.
41	10302	O-RING	4
42	12392	BACKUP WASHER	4
43	2002146	SEAT CARTRIDGE	4
44	2002147	ACTUATOR SPOOL (Assemble in this end only)	2

Valve 3000273BK



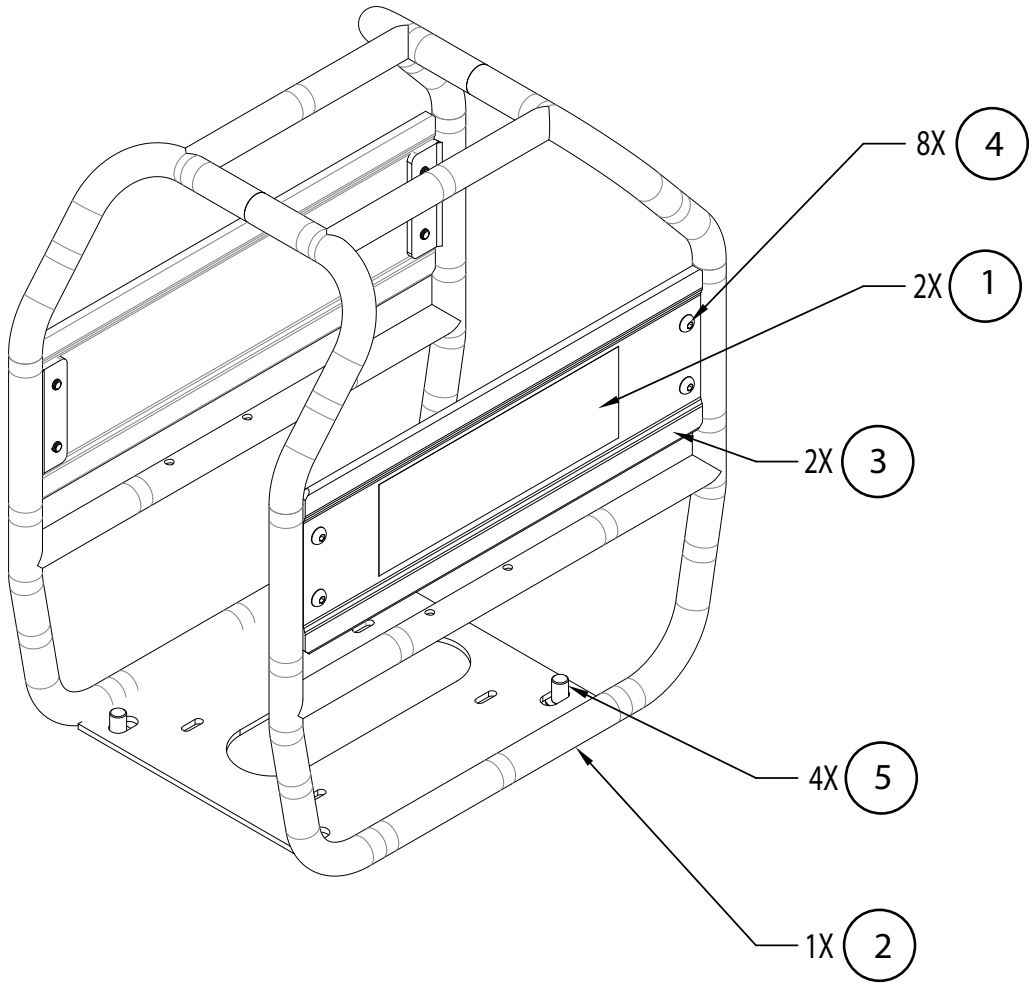
Parts List Continued

ITEM	PART NO.	DESCRIPTION	QTY.
1	22070	PISTON	4
2	11284	O-RING	8
3	10362	SPRING COMPRESSION	4
4	209541	PLAIN STEEL WASHER	4
5	12391	BACKUP WASHER	8
6	10266	O-RING	5
7	12184	BACKUP WASHER	4
8	2002148	SPOOL POPPET (Assemble in this end only)	2
9	10269	O-RING	1
10	10268	O-RING	4
11	11863	BACKUP WASHER	4
12	21094	BUSHING	2
13	14426	SCREW, SHC 10-24 X 1.00 (Torque to 6-8 Nm (50-70 in-lbs.))	4
14	12042	PLAIN COPPER WASHER	1
15	10361	SPRING COMPRESSION	1
16	12955	DOWEL PIN	1
17	10375	STEEL BALL	1
18	251279	PLUG FITTING	1
19	351200	REPLACEABLE SEAT	1
20	212735	SCREW, HOL LCK 5/8-18 X 0.31 (Torque to 34 Nm (300 in-lbs.))	1
21	12184	BACKUP WASHER	1
22	252164	INSTRUCTIONS DECAL	1
23	252099	SPECIAL WASHER	1
24	252053	VALVE CAP (Torque to 34 Nm (300 in-lbs.))	1
25	10383	HEX JAM NUT	1
26	351257	BUSHING	1
27	14972	PLUG FLUSH FITTING	1
28	351319BK	MANIFOLD BODY	1
29	251411	QUICK PLUG COUPLER	4
30	252365	DUST CAP	4
31	251410	QUICK COUPLER	4
32	252364	DUST CAP	4
33	10854	SCREW, SHC 1/4-20 X 1.75 (Torque to 17-20 Nm (150-180 in-lbs.))	2
34	420902BK	LEFT END CAP	1
35	11151	SCREW, SHC 10-24 X 1.25 (Torque to 6-8 Nm (50-70 in-lbs.))	4
36	10479	PLUG FITTING 1/4 inch	3
37	1400-AA	1/4 PLASTIC PACKAGING PLUG	1
38	10479	PLUG FITTING	1
38	65095BK	VALVE BODY	1
39	64648BK	RIGHT END CAP	1

Parts List Continued

ITEM	PART NO.	DESCRIPTION	QTY.
40	10265	O-RING	6
41	10302	O-RING	4
42	12392	BACKUP WASHER	4
43	2002146	SEAT CARTRIDGE	4
44	2002147	ACTUATOR SPOOL (Assemble in this end only)	2
PARTS INCLUDED BUT NOT SHOWN			
	10970	PLUG FITTING	2

Roll Cage, Air 3000761 & 3000995



ITEM	PART NO.	DESCRIPTION	QTY.
1	1000464	DECAL, SPX BOLTING SYSTEMS	2
2	2001573GR15	ROLL CAGE, ISP AIR (GREEN) (Used on **3000761**)	1
	2001573BL4	ROLL CAGE, ISP AIR (BLUE) (Used on **3000995**)	1
3	2001597	PLATE, ROLL CAGE NAME	2
4	2001612	SCREW, M8-1.25 X 10mm BHC	8
5	2001650	SCREW, 1/2-20 X.75 UNF BHC STL BOX	4

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English Original

DECLARATION OF CONFORMITY

We declare under our sole responsibility that the Air-driven Hydraulic Pump models

RWP55, RWP55-4, RWP55-4-BS, RWP55-4-BS-R, RWP55-4-BS-RH, RWP55-4-BS-RW, RWP55-4-BS-RWH, RWP55-DUAL, RWP55-4-Q5495, RWP55-BS, RWP55-BS-R, RWP55-BS-RH, RWP55-BS-RW, RWP55-BS-RWH, RWP55-IBT-AIR, RWP55-Q10757, RWP55-Q4421, RWP55-Q5495, RWP55-Q6254, RWP55-Q9856, RWP55-TL, RWP55-PAT

to which this declaration relates are in conformity with the following :

Legislation & Standards	**Title**
Directive concerning Equipment and Protective Systems intended for use in potentially explosive atmospheres	**2014/34/EU**
The Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulation	**2016 No. 1107**
EN ISO 80079-36 : 2016	Explosive atmospheres – part 36: Non-electrical equipment for explosive atmospheres
EN ISO 80079-37 : 2016	Explosive atmospheres – part 37: Non-electrical equipment for explosive atmospheres

Provisions of the ATEX Directive fulfilled are according to :

CE Ex **Ex h IIB T6 Gb IIIB T100°C Db**

The Technical File, reference no **Sira 14XT237** held by :
CSA Group Netherlands B.V., Utrechtseweg 310, 6812 AR Arnhem, The Netherlands

We, the undersigned, hereby declare that the equipment specified conforms to the above European Community Directive(s) and Standard(s)

November 24, 2022

Andreas J. Klemm, PhD
Compliance Program Manager

SPX FLOW US LLC
5885 11th Street
Rockford, IL 61109-3699
United States of America

SPX FLOW Europe Ltd. -
SPX Flow Europe Ltd.
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.
SPX Flow Europe Ltd. – Netherl.
SPX Hydraulic Technologies
Albert Thijsstraat 12
NL-6471 WX Eygelshoven

English Original

EC DECLARATION OF CONFORMITY

We declare under our sole responsibility that our Air Torque Wrench Pump Model:

*** RWP55 - series,**

to which this declaration relates are in conformity with the following:

EN, EN-ISO, ISO standards	**Title**
Per the provisions of the Machinery Safety Directive	**2006/42 EC**
EN_ISO 12100	Safety of machinery, basic concepts, general principles for design, risk assessment & risk reduction
EN 4413	Hydraulic Fluid Power – general rules and safety requirements for systems & their components
EN 4414	Pneumatic Fluid Power – general rules and safety requirements for systems & their components
Per the provisions of the Noise Emission in the Environment by Equipment for Use Outdoors Directive	**2000/14 EC**
EN_3200L0014	Noise emission in the environment for use outdoors
ISO 3744	Sound Power Level Measurements

We hereby declare that the equipment specified under * conforms to the above quoted European Community Directive(s) and Standard(s) as per the currently valid revision. SPX FLOW Europe Ltd. - Nethrelands is certified and registered to ISO 9001: 2015.

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The Netherlands

The Netherlands November 24th, 2022

Andreas J. Klemm, PhD

English Original

UKCA DECLARATION OF CONFORMITY

We declare under our sole responsibility that our Air-driven Torque Wrench Pump Model:

*** RWP55 - series,**

to which this declaration relates are in conformity with the following:

Legislation & standards	Title
The Supply of Machinery (Safety) Regulations 2008 No. 1597 and amendments	
EN_ISO 12100	Safety of machinery, basic concepts, general principles for design, risk assessment & risk reduction
EN 4413	Hydraulic Fluid Power – general rules and safety requirements for systems & their components
EN 4414	Pneumatic Fluid Power – general rules and safety requirements for systems & their components
The Noise Emissions in the Environment by Equipment for use Outdoors Regulation 2001 No. 1701	
EN_3200L0014	Noise emission in the environment for use outdoors
ISO 3744	Sound Power Level Measurements

We hereby declare that the equipment specified under * conforms to the above quoted UK Legislation and international Standard(s) as per the currently valid revision.
SPX FLOW Europe Ltd. - Netherlands is certified and registered to ISO 9001: 2015.

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The Netherlands November 24th, 2022

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