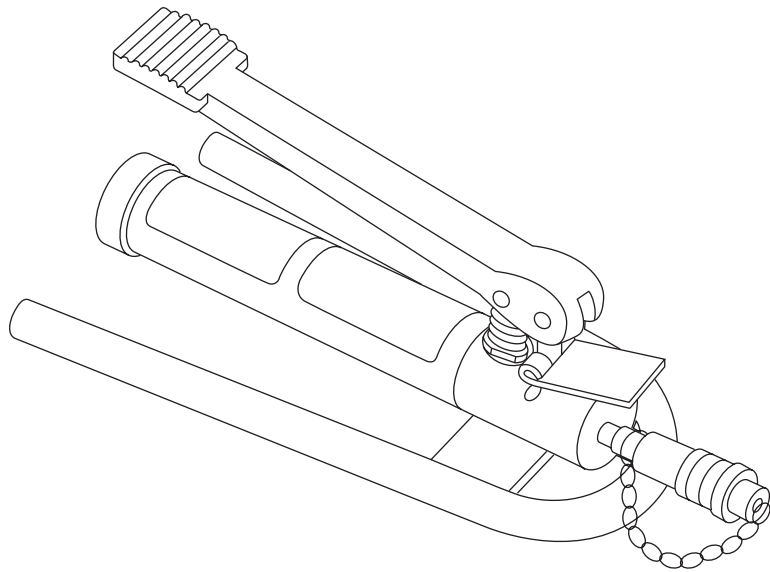


INSTRUCTION MANUAL



1725 Hydraulic Foot Pump



Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

Table of Contents

Description	2
Safety	2
Purpose of this Manual	2
Important Safety Information	3–4
Preparation	5
Operation	5
Filling the Reservoir with Hydraulic Oil	5
Purging Air from the System	6
Maintenance	6
Troubleshooting	7
Replacing the Valve Pin	8
Setting the Relief Pressure	8
Repairing an Intake Leak	8
Detecting and Repairing a Discharge Leak	8
Refinishing a Ball Seat	9
Illustrations and Parts List	9–11

Description

The 1725 Hydraulic Foot Pump develops 6500 psi (44, 818 kPa) and is intended to be used with the following Greenlee hydraulically powered tools:

- Cable Bender: model 800
- Cable Cutter: model 750
- Punch Drivers: model 1731
model 7606
model 7610
model 7625

Fill with Greenlee hydraulic oil or Mobil DTE-13 only.

Safety

Safety is essential in the use and maintenance of Greenlee tools and equipment. This manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

Purpose of this Manual

This instruction manual is intended to familiarize operators and maintenance personnel with the 1725 Hydraulic Foot Pump.

Keep this manual available to all personnel.

Replacement manuals are available upon request at no charge.

All specifications are nominal and may change as design improvements occur. Greenlee Textron Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

KEEP THIS MANUAL

IMPORTANT SAFETY INFORMATION



SAFETY ALERT SYMBOL

This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

⚠ **DANGER**

Immediate hazards which, if not avoided, **WILL** result in severe injury or death.

⚠ **WARNING**

Hazards which, if not avoided, **COULD** result in severe injury or death.

⚠ **CAUTION**

Hazards or unsafe practices which, if not avoided, **MAY** result in injury or property damage.



⚠ **WARNING**

Electric shock hazard.

This is not an insulated tool. Contact with live circuits could result in severe injury or death.

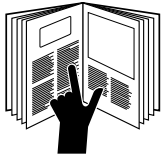


⚠ **WARNING**

Skin Injection Hazard:

Oil under pressure easily punctures skin causing serious injury, gangrene or death. If you are injured by escaping oil, seek medical attention immediately.

- Hand-tighten all couplers completely before operating the pump. Do not use tools to tighten the couplers.
- Do not use fingers or hands to check for leaks while operating the pump.
- Do not hold hose or couplers while operating the pump.
- Release hydraulic pressure before disconnecting hoses or couplers, and before servicing the pump or accessory.



⚠ **WARNING**

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

Failure to observe this warning could result in severe injury or death.

IMPORTANT SAFETY INFORMATION

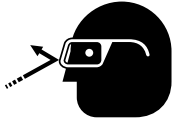
⚠ WARNING

Inspect pump, hoses, and couplers. Replace any worn, damaged, or missing components with Greenlee replacement parts.

⚠ WARNING

Follow the operating instructions and safety information supplied with the hydraulic ram or accessory. Failure to observe this warning could result in severe injury or death.

⚠ WARNING



Wear eye protection when operating or servicing this tool. Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.

⚠ CAUTION

Use this tool for the manufacturer's intended use only. Any other use may result in injury or property damage.

Preparation

1. Remove dust cap.
2. Connect the hose to the punch driver, cable cutter, or cable bender.

Note: Hand-tighten all couplers completely. Do not use tools.

3. Place the pump on a stable horizontal surface.
4. While depressing the lever (1), remove the latch lever pin (6).

Operation

Note: The pump must be used in a horizontal position. Operating the pump in a vertical position will allow air into the system.

1. Press down on the lever (1) and release. Repeat until the operation is complete. See Figure 1.
2. Press down on the release lever (15) to release the hydraulic pressure. See Figure 2.



Figure 1

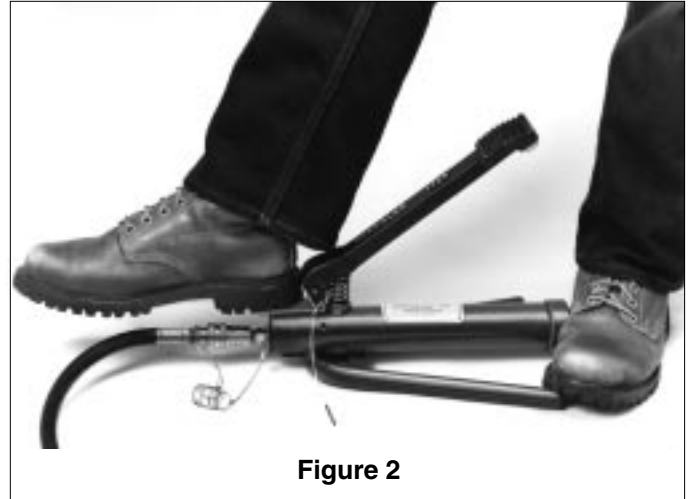


Figure 2

Filling the Reservoir with Hydraulic Oil

1. Secure the pump in a vertical position with the end cap (35) upward.
2. Unscrew the end cap.

⚠ CAUTION

Use Greenlee hydraulic oil or Mobil DTE-13 only. Using brake fluid, transmission fluid, synthetic oils or inferior grades of hydraulic fluid may damage the seals and will void the warranty.

3. Fill the reservoir up to 2-3/4" from the end of the reservoir.
Note: Do not overfill the reservoir. Overfilling will prevent the pump from operating properly.
4. Replace the end cap.

Purging Air from the System

1. Press down on the release lever (15) to release the hydraulic pressure.
2. Locate the pump above the tool, with the end cap of the pump upward. See Figure 3.
3. Pump the lever by hand several times and release. Repeat this process several times. See Figure 4.
4. Set the pump on a horizontal surface and operate the pump as usual. If the lever still feels spongy or operation is erratic, repeat steps 1–3.



Figure 3–Pump



Figure 4–Release

Maintenance

The 1725 requires little maintenance. The tool should be kept reasonably clean to prevent contamination of the hydraulic fluid. The pump should be visually inspected every time it is used; if it appears to be leaking hydraulic fluid, see the Troubleshooting section of this manual.

Troubleshooting

Before performing any troubleshooting or repairs: (1) check the level of the hydraulic fluid, and add fluid if it is more than 2-3/4" from the top, and (2) connect a pressure gauge to the pump to determine maximum relief pressure.

Problem	Probable Cause	Possible Remedy
Oil leak near release plunger (17).	Worn or damaged O-ring.	Replace O-ring (16).
Oil leak near the plunger (7).	Worn or damaged O-ring or backup ring.	Replace O-ring (11) or backup ring (10).
Oil leak where the pump block (25) meets the reservoir tube (33).	Worn or damaged O-ring.	Replace O-ring (28).
Oil leak at end cap (35).	Worn or damaged O-ring.	Replace end plug (34).
Lever feels "spongy."	Air in hydraulic system.	See instructions under Purging Air from the System.
	Worn intake valve seat plug.	See Repairing an Intake Leak.
Pump will not build pressure.	Grit or other foreign matter in hydraulic system will not allow proper seating of balls and plunger.	Disassemble pump. Clean all parts thoroughly with solvent. Reassemble and fill with fresh hydraulic fluid.
Pump pressure does not relieve between 6000 and 6500 psi.	Worn or damaged valve pin.	See Replacing the Valve Pin.
	Valve not set correctly.	See Setting the Relief Pressure.
To fully retract the 746 ram requires more than 40 strokes.	The pump has an intake leak.	See Repairing an Intake Leak.
Pump will build pressure, but pressure does not hold. (Check this with a gauge capable of measuring 10,000 psi. Pump the pressure up to 6000 psi; the pressure may immediately drop by 500 psi, but should then hold. If the pressure does not hold at this point, go to the Probable Causes).	Worn or damaged ball (19), compression spring (18)	Replace ball (19) and compression spring (18).
	Worn or scratched ball seat.	See Refinishing the Ball Seats.

Replacing the Valve Pin

1. Remove the end cap (35) and pour out the oil.
2. Clamp the pump block (25) into a vise, with the end cap (35) upward.
3. Unscrew the reservoir tube (33).
4. Loosen the jam nut (31) and remove the valve screw (32), safety valve compression spring (30), and the valve pin (29).
5. Install a new valve pin; install the compression spring, valve screw, and jam nut.
6. Screw the reservoir tube back onto the pump block.
7. Connect the pump to a pressure gauge capable of measuring 10,000 psi.
8. Fill the reservoir to 2-3/4" from the top with fresh hydraulic fluid.
9. Pump the lever until the pump achieves pressure relief; take note of the relief pressure.

Note: The correct relief pressure is 6000–6500 psi. If the pump pressure does not relieve between 6000 and 6500 psi, see steps 6–10 under Setting the Relief Pressure.

Setting the Relief Pressure

1. Connect the pump to a pressure gauge capable of measuring 10,000 psi.
2. Clamp the pump block (25) into a vise, with the end cap (35) upward.
3. Remove the end cap (35).
4. Pump the lever until the pump achieves pressure relief; take note of the relief pressure.
Note: The correct relief pressure is 6000–6500 psi.
5. Loosen the jam nut (31) by using a 5/8" socket wrench with an extension.
6. Turn the valve screw (32) clockwise to decrease the relief setting or counterclockwise to increase the relief setting.
7. Repeat steps 4–7 until the relief setting is at the correct pressure.
8. Tighten the jam nut (31).
9. Replace the end cap (35).

Repairing an Intake Leak

1. Follow steps 1–3 under Replacing the Valve Pin.
2. Remove the intake valve seat plug (27), 3/16" ball (19), and the intake check compression spring (26).
3. Polish the plug (27) and the seat to remove any nicks or scratches. If necessary, replace the plug (27) and refinish the seat (see Refinishing the Ball Seats).
Note: Screw must be flush to pump block when installed.
4. Clean the pump, reassemble, fill with fresh hydraulic fluid, and test.

Detecting and Repairing a Discharge Leak

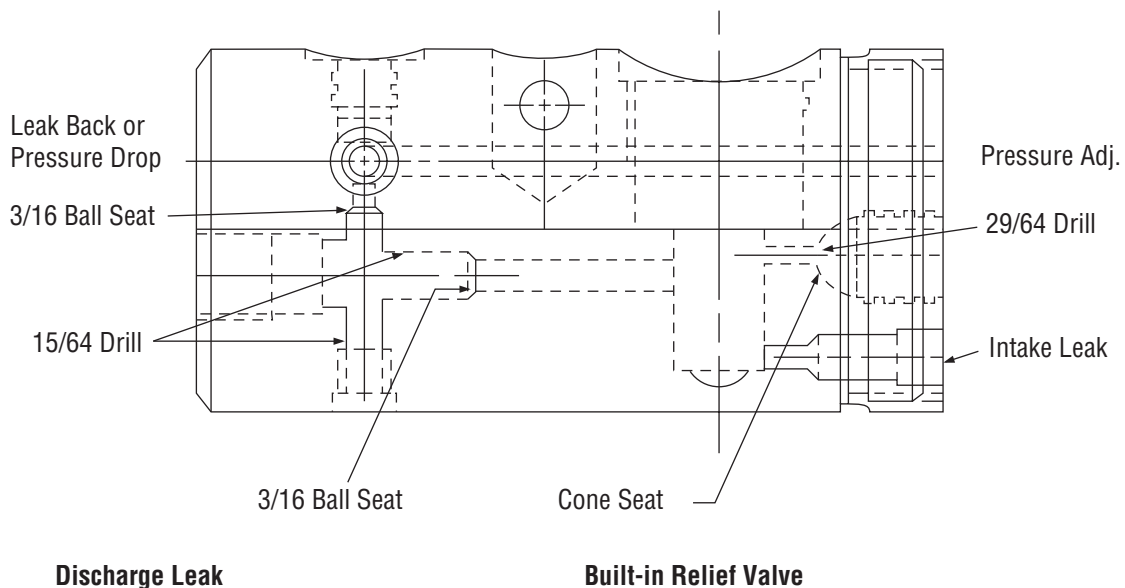
To determine whether the pump has a discharge leak, you must remove the compression spring (8) under the high-pressure plunger (7); follow steps 1–4 below.

1. Remove the lever latch pin (6). Drive out the fulcrum pin (4) and pivot plunger drive lock pin (4).
2. Remove the lever (1) and the compression spring (8).
3. Reassemble the lever and pins (4) without the compression spring (8) in place.
4. Press the lever (1) down. If the lever rises, the pump has a discharge leak; follow steps 5–8. Otherwise, follow step 5 only.
5. Remove the lever, then reassemble the pump with the compression spring (8).
6. Remove the set screw (20), discharge check compression spring (18), and the 3/16" ball (19).
7. Polish the seat. Install a new ball (19) and spring (18).
8. Clean the pump, reassemble, fill with fresh hydraulic fluid, and test.

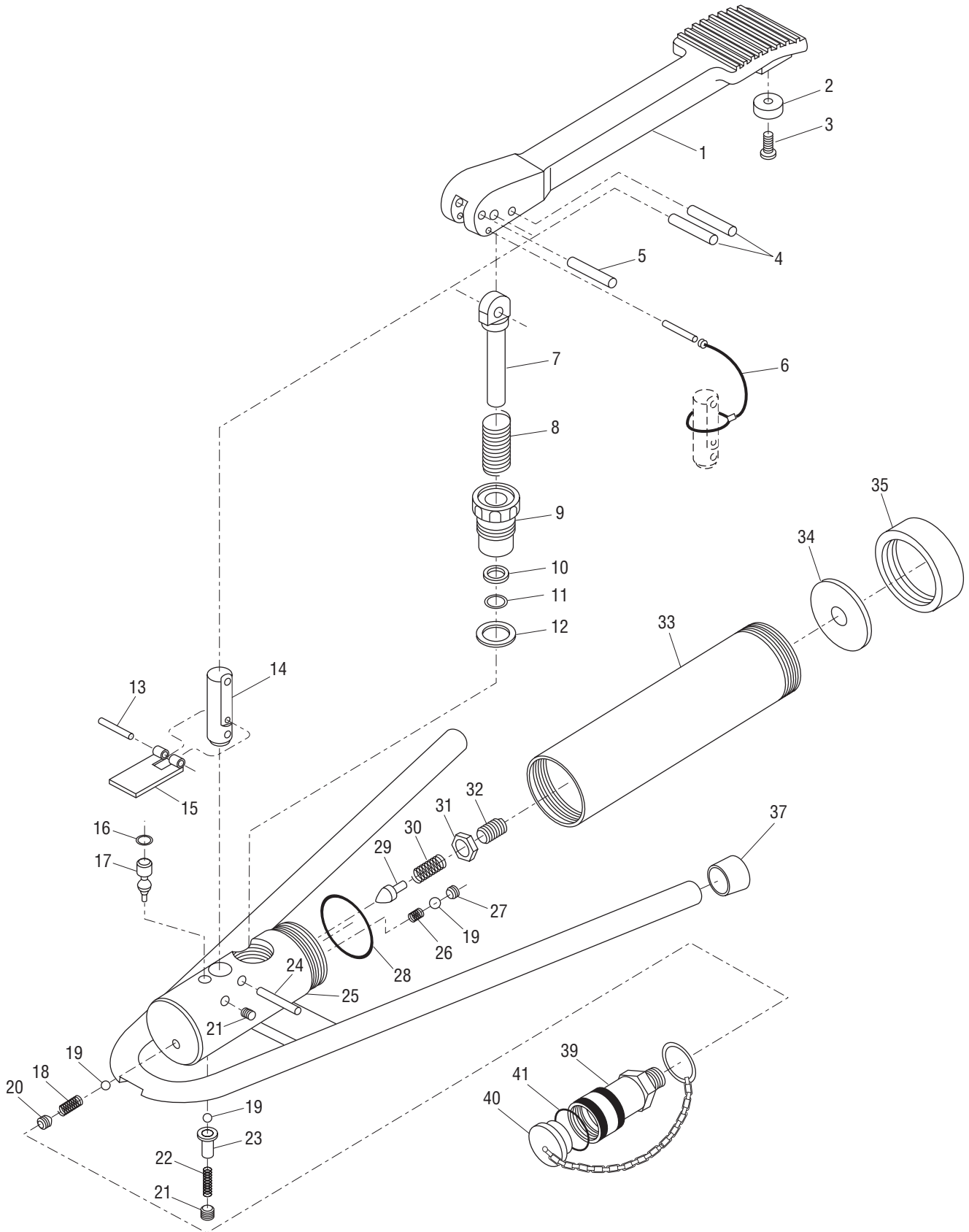
Refinishing a Ball Seat

1. See illustration: 1725 Pump Block Seat.
2. Disassemble the pump.
3. Chuck a 15/64" drill bit with a standard angle into a drill press.
4. Lock the pump block into the vise. Be sure the block is level.
5. Bring the bit down to the seat and set the depth stop.
6. Back the bit off and turn the depth stop up 0.010".
7. Start the drill and slowly remove the old seat.
8. Back the drill off and inspect the seat. If the old seat has not been completely removed, repeat steps 6–8.
9. Remove the pump from the vise.
10. Place the ball on the seat. Use a seating tool and a 1-1/2 pound mallet to lightly tap the ball.
11. Inspect the new seat. If necessary, repeat step 10.
12. Clean the pump, reassemble, fill with fresh hydraulic fluid, and test.

1725 Pump Block Seat



1725 Hydraulic Foot Pump—Exploded View



1725 Hydraulic Foot Pump—Parts List

Key	Part No.	Description	Qty
1	502 3872.8	Lever	1
2	905 2728.3	Bumper, Ashland Products Co. No. 7714-E	1
3	905 2726.7	Screw, #8-32 x 3/8" slotted pan head Type-F	1
4	905 0449.6	Pin, fulcrum and pivot plunger Drive Lok type C 5/16 x 1-1/4"	2
5	905 2740.2	Pin, lever stop, 1/4 x 1-1/8 spiral	1
6	503 1352.5	Pin, lever latch	1
7	503 1345.2	Plunger, hi-pressure	1
8*	905 3354.2	Spring, compression Lee #LC-080K-6 lever return	1
9	503 1343.6	Nut, injector packing	1
10*	905 2475.6	Ring, 7/16 x 9/16 x .056/054 Teflon spiral backup	1
11*	905 1215.4	O-ring, plunger 7/16 x 9/16 x 1/16 #013-N-674 (replaces 905 4773.0**)	1
12*	503 2537.0	Washer	1
13	905 0700.2	Roll pin, 3/16 x 1-1/2" release pivot	1
14	503 1344.4	Post, fulcrum	1
15	503 1346.0	Lever release	1
16*	905 0722.3	O-ring, packing 1/8 x1/4 x 1/16" 006-N-674-7 (replaces 905 4774.8**)	1
17	503 1349.5	Plunger, release	1
18*	905 3355.0	Spring, compression Lee #LC-022BC-3 discharge check.....	1
19*	905 0678.2	Ball, 3/16 grade #25 chrome steel	3
20	905 1337.1	Screw, 5/16-24 NF x 5/32" Holo-Krome socket	1
21	905 0824.6	Plug, 1/16" Unbrako Teflon-coated level-seal soc. hyd pipe	2
22*	502 3946.5	Spring, compression - release valve	1
23	502 9420.2	Stop, ball	1
24	905 0737.1	Pin, fulcrum - retaining 1/4 x 1-1/8" type E Drive-Lok	1
25	503 1351.7	Block, pump weldment	1
26*	501 6141.5	Spring, compression - intake check	1
27*	502 5026.4	Plug, intake valve seat	1
28*	905 2381.4	O-ring, 1-3/4 x 1-5/16 x 3/32 #132-N-219-7 (replaces 905 4772.1**)	1
29	503 0146.2	Pin, valve	1
30*	501 6606.9	Spring, compression - safety valve	1
31	501 7899.7	Nut, jam	1
32	502 3876.0	Screw, valve	1
33	500 3425.1	Tube, reservoir	1
34*	503 2829.8	Plug, end	1
35	503 2805.0	Cap, end	1
37	905 3340.2	Plug, pipe-plastic	2
39	905 4167.7	Coupler, Bruning #SM-251 1/4" NPSF female	1
40	905 4168.5	Plug, Bruning #P-25 protective	1
41*	905 0084.9	O-ring, .625 x .812 x .093 (not shown)	1
*	503 3336.4	Repair kit (includes items marked with an asterisk)	

**Fluorocarbon O-rings are used at the factory as a part of production process.



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