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SPECIFICATIONS

Capacity	10 Tons
Length	14.56"
Height	7.32"
Width	6.61"
Connector	1/4" NPT
Air Pressure	100-120 PSI
Weight	5.15 lbs



SAFETY AND WARNING INFORMATION

For your safety read all instructions, cautions, and warnings carefully. Follow all safety precautions to avoid personal injury or property damage. American Forge & Foundry will not be responsible for damage or injury resulting from unsafe product use, lack of maintenance, or incorrect product and/or system operation.

WARNING

- Stay clear of loads supported by hydraulic means. A cylinder when used as a load lifting device should never be used as a load holding device. After the load has been raised it must always be supported by mechanical means.
- Do not exceed rated capacity of 10 tons. Overloading can cause equipment failure and personal injury. The cylinders are designed for maximum pressure of 10,000 PSI. Do not connect a jack or cylinder to a pump with a higher pressure rating.
- The system operating pressure must not exceed the pressure rating of the lowest rated component in the system. Install and use pressure gauges to monitor operating pressure accurately.
- Only use hydraulic cylinders in a coupled system. Never use a cylinder with unconnected couplers.
- Be sure setup is stable before lifting load. Cylinders should be placed on a flat surface that can support the load. Where applicable use a cylinder base for added stability. Do not weld or otherwise modify the cylinder to attach a base or other support.
- Avoid situations where loads are not directly centered on the cylinder plunger. Off-center loads produce considerable strain on cylinders and plungers. Loads may slip or fall and personal or property damage may result.
- Immediately replace worn or damaged parts with genuine AFF parts.

DANGER

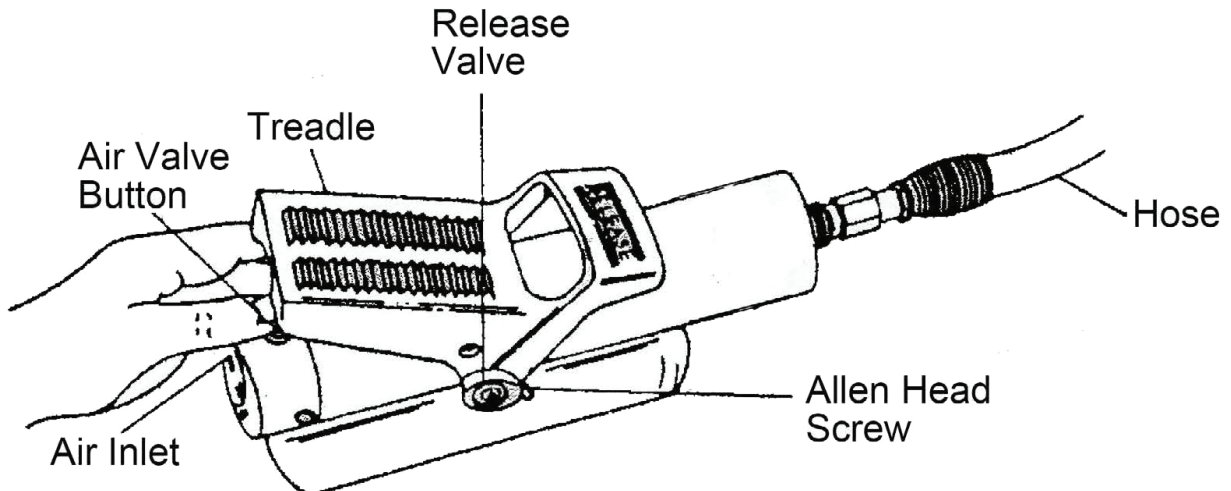
- To avoid personal injury keep hands and feet away from cylinder and work piece during operation.
- NEVER set the relief valve to a higher pressure than the maximum rated pressure of the pump. Higher settings may result in equipment damage and/or personal injury. Do not remove relief valve.
- Do not hold pressurized hoses by hand.

CAUTION

- Using a bent or kinked hose will lead to backpressure and will result in internal damage to the housing.
- Do not drop objects on hose.
- Do not lift hydraulic equipment by the hose or swivel couplers. Use the carrying handle or other means of safe transport.
- Keep hydraulic equipment away from heat and open flame.
- Hydraulic equipment must only be serviced by a qualified hydraulic technician. For a local repair depot contact American Forge & Foundry.



OPERATING INSTRUCTIONS



BEFORE USING PUMP:

- Check all system fitting and connections to be sure they are tight and leak free.
- Check oil level in the reservoir before operating pump.

TO OPERATE PUMP:

- Remove the filler plug without hole and replace with the filler plug with hole.
- Remove the shipping plug from the air inlet hole and insert a 1/4" NPT quick air coupler.
- Connect hydraulic pressure hose and/or pneumatic pressure hose.
- Connect air supply line to the air coupler.
- To activate the pump for ram extension depress the treadle/lever at air inlet valve end.
- To retract ram plunger depress treadle/lever end marked "RELEASE."
- To stop the pump and maintain pressure release the pedal and the lever will return automatically to the neutral position.
- If pump needs to be primed:
 1. Press the pedal on the "RELEASE" end while pushing the valve under the pedal area
 2. Hold for approximately 15 seconds
 3. Repeat if necessary
 4. Pump should be primed and ready for operation



OPERATING INSTRUCTIONS Continued

Pump with Single-Acting Cylinder

- Position pump at higher elevation than cylinder.
- Position cylinder with plunger end down (up if using pull cylinder).
- Operate pump to fully extend the cylinder (retract if using a pull cylinder).
- Depress release valve to retract cylinder (extend if a pull cylinder.) This will force the trapped air to move up to the pump reservoir.
- Repeat the above steps as necessary.
- Add oil if necessary.
- Return vent/fill cap to operating position.

Release Valve Adjustment Procedure

- Attach pump to air source.
- Loosen Allen-head screw by turning counterclockwise two full turns.
- Back out slotted head release valve by turning counterclockwise two full turns.
- Lift treadle at air inlet end and place your thumb under the treadle on top of air valve button as illustrated.
- Using your thumb press down on the air valve button and actuate the pump to build up pressure in the hose. Hose will become stiff under pressure.
- Turn slotted-head release valve clockwise until you feel the valve seat against the internal ball. Excessive tightening will cause loss of pressure in hose.
- Keep the thumb under treadle to obtain proper operating clearance between the treadle, air valve, and release valve. Turn Allen-head screw clockwise and tighten firmly to lock valve adjustment.
- Release valve should now be correctly adjusted to operate the pump properly.

To Change Oil

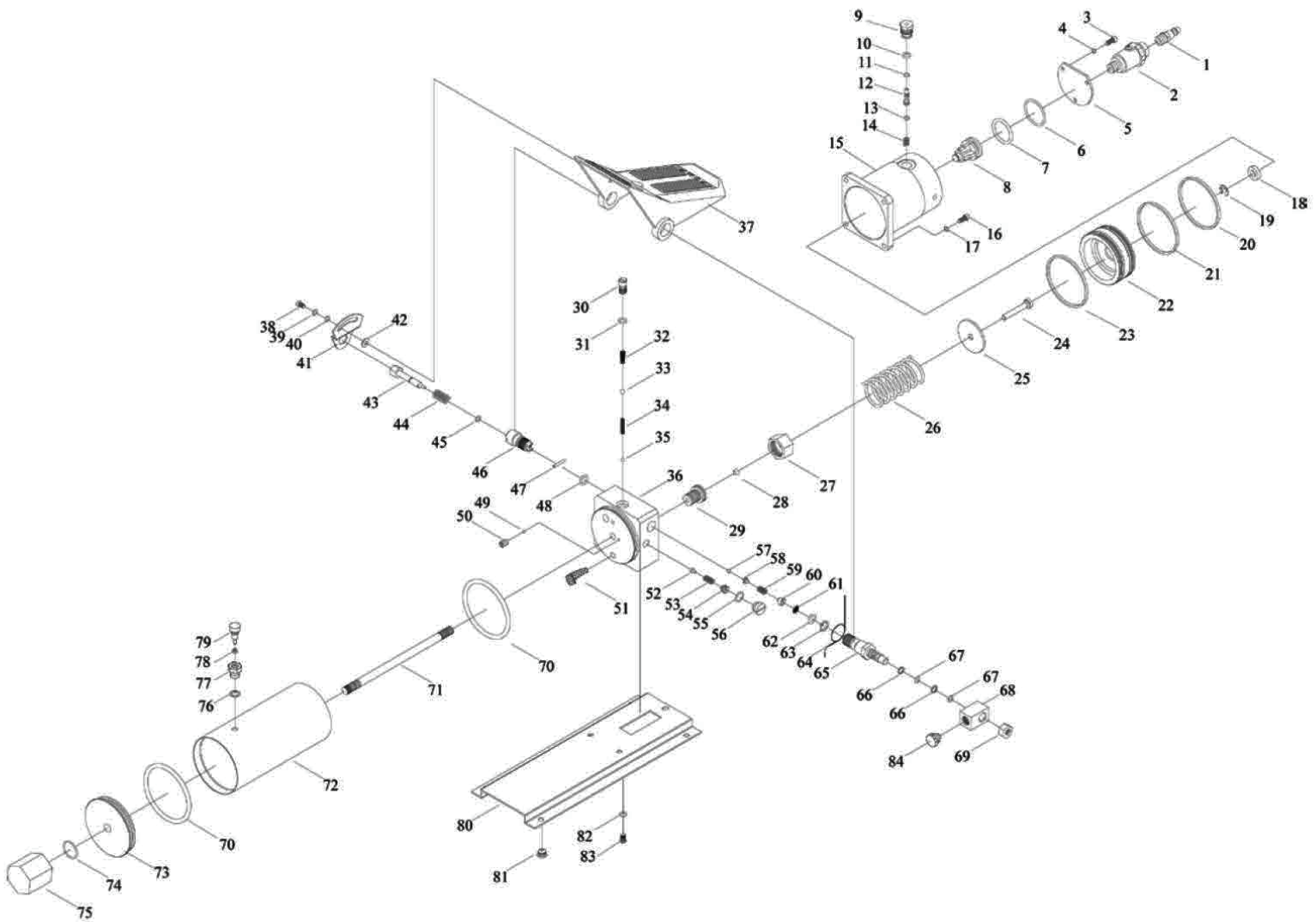
- Drain all oil and refill with clean hydraulic oil every 12 months.
- Remove vent/fill cap or plug from reservoir.
- Tilt pump to drain old oil.
- Fill reservoir only to the level mark shown on pump.
- Replace the vent/fill cap or plug.
- Dispose of used oil properly.

To Add Oil

- Turn pump upside down and remove hex filler plug. Tip pump so the hose end is lowest to prevent air from entering system. Fill reservoir with hydraulic oil and replace filler plug and tighten.



DIAGRAM





PARTS LIST

REF	PART NUMBER	DESCRIPTION	REQ	REF	PART NUMBER	DESCRIPTION	REQ
1	PCN-401A-01	Quick coupler-male	1	43	PCN-401A-43	Release bar	1
2	PCN-401A-02	Oil mist	1	44	PCN-401A-RK	Spring	1
3	PCN-401A-03	Screw	3	45	PCN-401A-RK	O-ring	1
4	PCN-401A-04	Lock washer	3	46	PCN-401A-46	Release valve seat	1
5	PCN-401A-05	Cover	1	47	PCN-401A-47	Pin	1
6	PCN-401A-RK	O-ring	1	48	PCN-401A-RK	O-ring	1
7	PCN-401A-RK	O-ring	1	49	PCN-401A-RK	Ball	1
8	PCN-401A-08	Small piston	1	50	PCN-401A-50	Screw	1
9	PCN-401A-09	Air valve seat	1	51	PCN-401A-RK	Strainer	1
10	PCN-401A-RK	O-ring	1	52	PCN-401A-RK	Needle valve	1
11	PCN-401A-RK	O-ring	1	53	PCN-401A-RK	Safe valve spring	1
12	PCN-401A-12	Air valve	1	54	PCN-401A-RK	Screw	1
13	PCN-401A-RK	O-ring	1	55	PCN-401A-RK	O-ring	1
14	PCN-401A-RK	Spring	1	56	PCN-401A-56	Screw	1
15	PCN-401A-15	Air cylinder	1	57	PCN-401A-RK	Ball	1
16	PCN-401A-16	Screw	1	58	PCN-401A-RK	Ball cup	1
17	PCN-401A-17	Lock washer	1	59	PCN-401A-RK	Spring	1
18	PCN-401A-RK	Sealing ring	1	60	PCN-401A-60	Screw	1
19	PCN-401A-RK	Snap retainer	1	61	PCN-401A-RK	Oil filter	1
20	PCN-401A-RK	Sealing ring	1	62	PCN-401A-RK	O-ring	1
21	PCN-401A-RK	O-ring	1	63	PCN-401A-RK	Retainer	1
22	PCN-401A-22	Air piston	1	64	PCN-401A-RK	Torsion spring	1
23	PCN-401A-RK	Sealing ring	1	65	PCN-401A-65	Oil outlet seat	1
24	PCN-401A-24	Piston	1	66	PCN-401A-RK	Retainer	2
25	PCN-401A-25	Washer	1	67	PCN-401A-RK	O-ring	2
26	PCN-401A-26	Spring	1	68	PCN-401A-68	Hose connector	1
27	PCN-401A-27	Nut	1	69	PCN-401A-69	lock nut	1
28	PCN-401A-RK	Sealing ring	1	70	PCN-401A-RK	O-ring	2
29	PCN-401A-29	Cylinder	1	71	PCN-401A-71	lever	1
30	PCN-401A-30	Screw	1	72	PCN-401A-72	Reservoir	1
31	PCN-401A-RK	Copper washer	1	73	PCN-401A-73	Reservoir cover	1
32	PCN-401A-RK	Spring	1	74	PCN-401A-RK	O-ring	1
33	PCN-401A-RK	Ball	1	75	PCN-401A-75	Nut	1
34	PCN-401A-RK	Spring	1	76	PCN-401A-RK	Nylon ring	1
35	PCN-401A-RK	Ball	1	77	PCN-401A-77	Fill plug	1
36	PCN-401A-36	Valve base	1	78	PCN-401A-RK	Sealing ring	1
37	PCN-401A-37	Foot pedal	1	79	PCN-401A-79	Breathe valve	1
38	PCN-401A-38	Screw	1	80	PCN-401A-80	Base plate	1
39	PCN-401A-39	Lock washer	1	81	PCN-401A-81	Rubber foot	4
40	PCN-401A-40	Washer	1	82	PCN-401A-82	Lock washer	3
41	PCN-401A-41	Bleeding plate	1	83	PCN-401A-83	Screw	3
42	PCN-401A-42	Washer	1	84	PCN-401A-84	Dust cap	1



TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
<ul style="list-style-type: none"> ● Cylinder does not advance, advances slowly, or advances in spurts 	<ul style="list-style-type: none"> ● Oil level in pump reservoir is low ● Release valve open ● Loose hydraulic coupler ● Load is too heavy ● Air trapped in system ● Cylinder plunger binding 	<ul style="list-style-type: none"> ● Add oil ● Close the release valve ● Check that all couplers are fully tightened ● Do not attempt to lift more than rated capacity ● Purge air according to the instructions ● Inspect pump for damage. Have pump serviced by an authorized AFF repair depot.
<ul style="list-style-type: none"> ● Cylinder advances but does not hold pressure 	<ul style="list-style-type: none"> ● Leaking connection ● Leaking seals ● Internal leaking in pump 	<ul style="list-style-type: none"> ● Check that all connections are tight and leak free ● Locate leak(s) and have equipment serviced by an authorized AFF repair depot.
<ul style="list-style-type: none"> ● Cylinder does not retract, retracts part way, or retracts more slowly than normal 	<ul style="list-style-type: none"> ● Pump reservoir is overfilled ● Loose hydraulic coupler ● Air trapped in system ● Cylinder retraction spring broken or other cylinder damage 	<ul style="list-style-type: none"> ● Drain oil level to fill mark ● Check that all couplers are fully tightened ● Remove air according to the instructions ● Have cylinder serviced by an authorized AFF repair depot



1 YEAR LIMITED WARRANTY

AMERICAN FORGE & FOUNDRY, INC. WARRANTS, to the final purchaser, jacks and related service equipment distributed by it to be free from defects in material and workmanship for a period of 1 year from date of sale. This warranty covers American Forge & Foundry and Viking branded products.

If a jack or related equipment is determined to be defective during the warranty period, it will be repaired or replaced without charge provided that the equipment is shipped, transportation charges prepaid and with proof of purchase to American Forge & Foundry, Inc. or to a designated field service depot.

This warranty does not apply to parts damaged from accident, overload, or abuse, nor does it apply to product which has been altered or used with special attachments other than recommended by the distributor or equivalent.

THERE ARE NO OTHER WARRANTIES OF ANY SORT, EXPRESS OR IMPLIED, AND SELLER SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. THE SELLER'S SOLE OBLIGATION, WHICH SHALL REPRESENT THE BUYER'S SOLE EXCLUSIVE REMEDY, SHALL BE TO REPAIR OR AT THE SELLER'S OPTION TO REPLACE ANY PRODUCT OR PART DETERMINED TO BE DEFECTIVE AS AFOREMENTIONED. IN NO EVENT SHALL THE SELLER BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES OF A SIMILAR PRODUCTION TIME, OR LOSS OR EXPENSES OF ANY NATURE, INCURRED BY THE BUYER OR ANY THIRD PARTY.

For warranty information call American Forge & Foundry toll free at (800) 255-0555