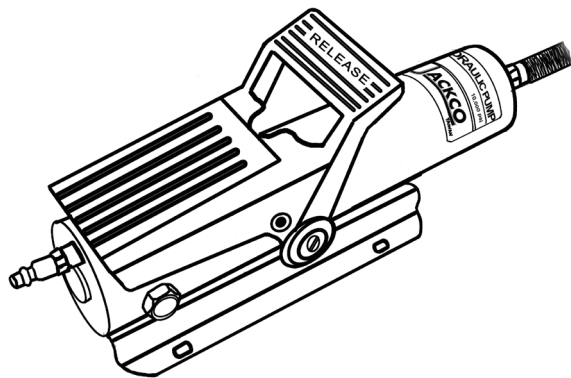




MODEL 840
AIR HYDRAULIC PUMP
INSTRUCTION



FOR YOUR SAFETY

Read all instructions, warnings and cautions carefully. Follow all safety precautions to avoid personal injury or property damage during system operation. Jackco cannot be responsible for damage or injury resulting from unsafe product use, lack of maintenance or incorrect product and/or system operation. Contact Jackco when in doubt as to the safety precautions and operations.

Failure to comply with the following cautions and warnings could cause equipment damage and personal injury.

WARNING

- Stay clear of loads supported by hydraulics. A cylinder, when used as a load lifting device, should never be used as a load holding device. After the load had been raised or lowered, it must always be blocked mechanically.
- Do not exceed equipment rating never attempt to lift a load weighing more than the capacity of the cylinder. Overloading causes equipment failure and possible personal injury. The cylinders are designed for a 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 pressure gauges in the system to monitor operating pressure. It is your window to what is happening in the system.
- Only use hydraulic cylinders in a coupled system. Never use a cylinder with unconnected couplers. If the cylinder becomes extremely overloaded, components can fail catastrophically causing severe personal injury.
- **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. In addition, the load may slip or fall, causing potentially dangerous results.
- Immediately replace worn or damaged parts genuine JACKCO parts. Standard grade parts will break causing personal injury and property damage. JACKCO parts are designed to fit properly and withstand high loads.

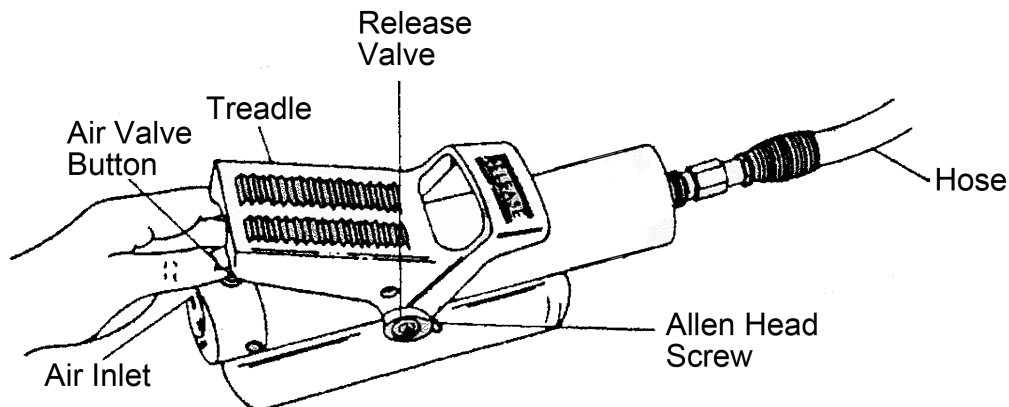
DANGER

- 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 handle pressurized hoses. Escaping oil under pressure can penetrate the skin, causing serious injury. If oil is injected under the skin, see a doctor immediately.

CAUTION

- Avoid damaging hydraulic hose. Avoid sharp bends and kinks when routing hydraulic hoses. Using a bent or kinked hose will cause severe backpressure. Sharp bends and kinks will internally damage the hose leading to premature hose failure.
- Do not drop heavy objects on hose. A sharp impact may cause internal damage to hose wire strands. Applying pressure to a damaged hose may cause it to rupture.
- Do not lift hydraulic equipment by the hoses or swivel couplers. Use the carrying handle or other means of safe transport.
- Keep hydraulic equipment away from flames and heat. Excessive heat will soften packing and seals, resulting in fluid leaks. Heat also weakens hose materials and packings. For optimum performance do not expose equipment to temperatures of 150°F or higher. Protect hoses and cylinders from weld spatter.
- Hydraulic equipment must only be serviced by a qualified hydraulic technician. For repair service, contact JACKCO Inc. To protect your warranty, use only JACKCO hydraulic oil.

INSTRUCTION



BEFORE USING THE PUMP

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

TO OPERATE THE PUMP

- Remove the shipping plug from the air inlet hole and insert a ¼" NPT quick air coupler of your choice.
- Connect air supply line to the air coupler.
- To activate the pump for ram extension, depress the treadle at air inlet valve end.
- To retract ram plunger, depress treadle end marked "RELEASE". Retraction of ram will stop and load will be held when pressure on treadle is removed.

AIR REMOVAL

Removing air from the hydraulic system will help the cylinder to advance and retract smoothly.

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 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.

TO ADD OIL TO PUMP RESERVOIR

- Turn pump upside down and remove hex filler plug. Tip pump so the hose end is lowest to prevent air from entering the hydraulic system. Fill to the top with HYDRAULIC oil. Replace filler plug and tighten firmly. Do not use brake fluid nor transmission oil.

AIR SUPPLY

- To obtain maximum performance and rated hydraulic pressure, air pressure should be 100 psi minimum.
- To insure trouble-free performance, your air supply equipment should be equipped with an air filter/dryer and the compressor tank should be drained of water everyday.

LUBRICATION

- To insure long service life, add a few drops of # 30 oil into the air inlet once a week.

RELEASE VALVE ADJUSTMENT PROCEDURE

- Attach pump to its air source.
- Turning counterclockwise to loosen Allen-head screw by two full turns.
- Turning counterclockwise back out slotted-head release valve two full turns.
- Lift treadle at air inlet end and place your thumb under the treadle on top of the 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 gently 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.

MAINTENANCE

Use only recommended JACKCO hydraulic oil with these pumps to promote long pump life and protect your warranty. Contact your JACKCO representative for more information on these products and their applications.

KEEPING OIL LINES CLEAN

When coupler halves are disconnected, always screw on dust caps. Use every precaution to guard unit against entrance of dirt because foreign matter may cause pump, cylinder or valve failure.

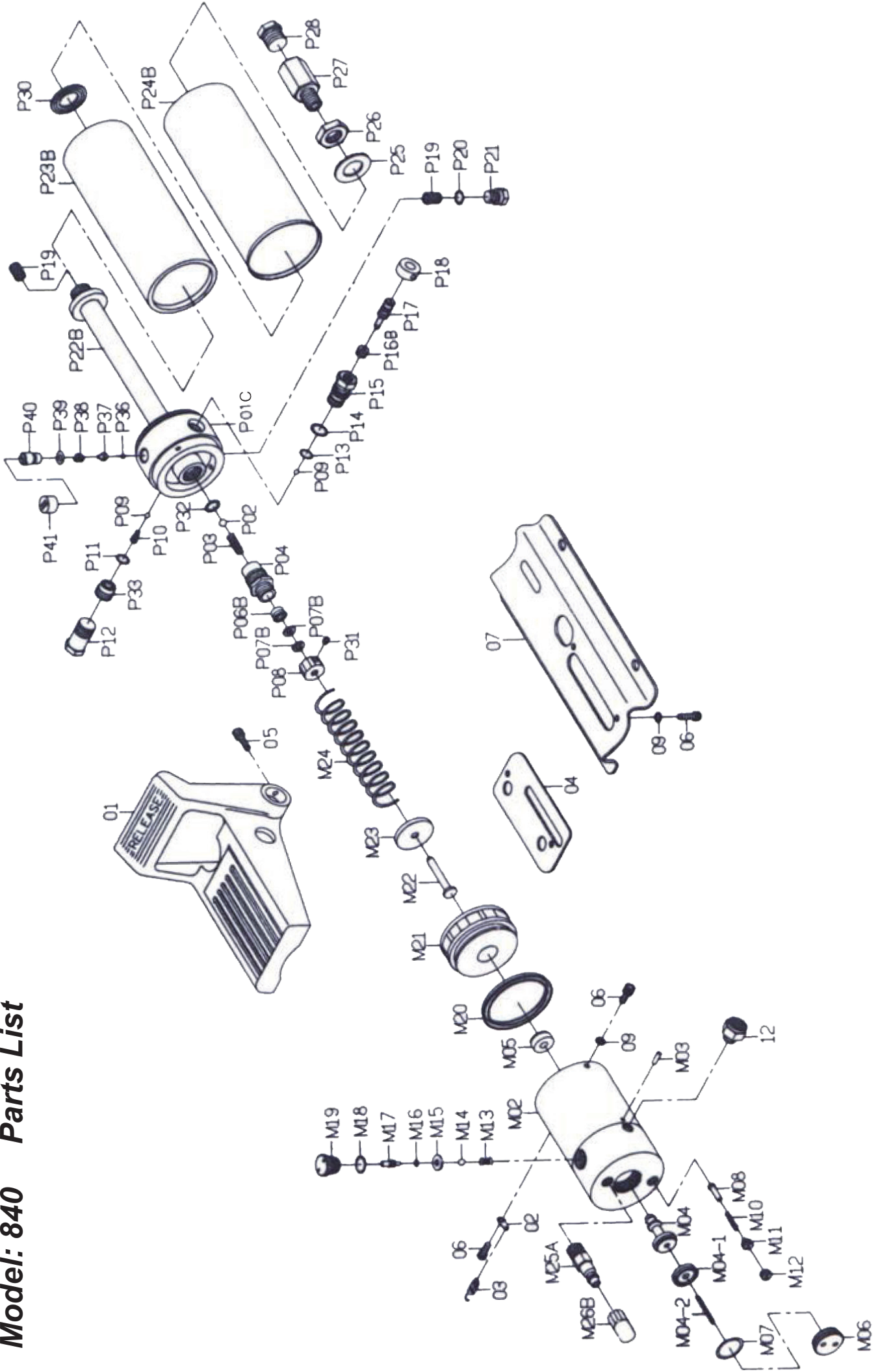
CHANGING THE OIL

- Drain all oil and refill with clean JACKCO hydraulic oil every 12 months, if pump is used in dirty environments, change the oil more often.
- Remove vent/fill cap or plug from reservoir
- Tilt pump to drain out old oil.
- Fill reservoir only to level mark shown on pump
- Replace the vent/fill cap or plug.
- Dispose of used oil properly.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Cylinder does not advance, advances slowly, or advances in spurts.	<ol style="list-style-type: none"> 1. Oil level in pump reservoir is low. 2. Release valve open. 3. Loose hydraulic coupler. 4. Load is too heavy. 5. Air trapped in system. 6. Cylinder plunger binding. 	<ol style="list-style-type: none"> 1. Add oil according to the maintenance instructions. 2. Close the release valve. 3. Check that all couplers are fully tightened. 4. Do not attempt to lift more than rated tonnage. 5. Remove air according to the instructions. 6. Check for damage to cylinder. Have cylinder serviced by a qualified hydraulic technician.
Cylinder advance, but does not hold pressure.	<ol style="list-style-type: none"> 1. Leaking connection. 2. Leaking seals. 3. Internal leakage in pump. 	<ol style="list-style-type: none"> 1. Check that all connections are tight and leak free. 2. Locate leak(s) and have equipment serviced by qualified hydraulic technician. 3. Have pump serviced by a qualified hydraulic technician.
Cylinder does not retract, retracts part way, or retracts more slowly than normal.	<ol style="list-style-type: none"> 1. Pump reservoir is over-filled 2. Loose hydraulic coupler. 3. Air trapped in system. 4. Cylinder retraction spring broken or other cylinder damage. 	<ol style="list-style-type: none"> 1. Drain oil level to fill mark. 2. Check that all couplers are fully tightened. 3. Remove air according to the instructions. 4. Have cylinder serviced by a qualified hydraulic technician.

Model: 840 Parts List



Part No.	Description	Q'ty	Part No.	Description	Q'ty	Part No.	Description	Q'ty
M01	Motor Body	1	M25A	Coupling	1	P25	Washer	1
M02	Body with Sleeve	1	M26B	Dust Cap	1	P26	Nut	1
M03	Pin	1	P01C	Pump Base	1	P27	Adapter	1
M04	Vavle-stem	1	P02	Ball 5/16"	1	P28	Screw	1
M04-1	Seal Cap	1	P03	Spring	1	P30	Washer	1
M04-2	Spring	1	P04	Pump Cylinder	1	P31	Set Screw	1
M05	Seal Cap	1	P06B	O-ring	1	P32	Washer	1
M06	Exhaust Plug	1	P07B	Washer	2	P33	Bolt Check Valve	1
M07	O-ring	1	P08	Nut	1	P34	Washer	1
M08	Stem	1	P09	Ball 7/32"	2	P36	Steelball 3/16"	1
M10	Spring	1	P10	Spring	1	P37	Spring, Safety Valve	1
M11	Screw	1	P11	O-ring	1	P38	Spring Safety	1
M12	Plug	1	P12	Check Valve	1	P39	Spring O-ring	1
M13	Spring	1	P13	O-ring	1	P40	Screw Safety Valve	1
M14	Ball 9/23"	1	P14	O-ring	1	P41	Plastic Cap Safety Valve	1
M15	Seal Washer	1	P15	Release Valve	1	01	Treadle	1
M16	O-ring	1	P16B	Seal	1	02	Spring Hook Washer	1
M17	Stem	1	P17	Release	1	03	Spring	1
M18	O-ring	1	P18	Ring Retaninig	1	04	Gasket	1
M19	Plug	1	P19	Filter	2	05	Allen Head Screw	1
M20	Piston Ring	1	P20	Washer	1	06	Allen Head Screw	4
M21	Piston	1	P21	Screw	1	07	Base	1
M22	Plunger	1	P22B	Hydraulic Pipe	1	12	Silencer Bolt	2
M23	Cap Washer	1	P23B	Oil Reservoir	1			
M24	Spring	1	P24B	Reservoir	1			

LIMITED ONE YEAR WARRANTY

Jackco Transnational Inc. warrants all Jackco equipment and tools to the original purchaser against any manufacturing defect in material or workmanship for a period of one (1) year from the original date of purchase. If the defective equipment or tool is determined to be covered under this warranty, it shall be repaired or replaced at manufacturer's discretion without charge, provided that the equipment or tool must be returned with proof of purchase to the dealer and freight prepaid, if returned to the manufacturer. This warranty shall not apply to damage due to accident, negligent use, and lack of maintenance, abuse or applications other than the specific function the equipment or tool is designed for.

No other warranties, expressed or implied, including those of merchantability or fitness for particular purpose shall be applicable to Jackco except as specifically stated herein. In no event shall Jackco be liable to any party for any special, direct, indirect, consequential, punitive damage of any nature caused by the sale or use of the equipment or tool.

Note: This warranty gives the original purchaser specific legal rights which may vary from state to state.

Jackco Transnational Inc. © 2016
Azusa, CA
888-452-2526 www.jackco.com