INSTRUCTION SHEET FOR AIR HYDRAULIC PUMP

Repair Parts Sheets for hydraulic hand pumps are available from your nearest authorized Service Center or Sales office.

NOTE
PLEASE READ AND FOLLOW THIS INSTRUCTION BEFORE YOU USE AIR HYDRAULIC PUMP.

Carefully inspect all components for shipping damage, if shipping damage is found. Please notify carrier at once. The carrier is responsible for any damage resulting from shipment.

1. SAFETY

To avoid personal injury or property damage, please follow all safety precautions. cannot be responsible for injury or damage resulting from unsafe and incorrect products use or system operation, or lack of maintenance.

DANGER is used when your action or lack of action may cause serious injury or even death.
WARNING indicates a potential danger that requires correct action to avoid personal injury.
IMPORTANT indicates correct action to prevent damage or equipment failure.

DANGER

- The hydraulic equipment operator must be a qualified operator familiar with correct training and work experience of hydraulic equipment. Lack of knowledge in any of these areas can lead to equipment damage or personal injury.

- To avoid personal injury, please do not modify or weld hydraulic equipment without approval of .
- Please never lift a more than the rated capacity of the cylinder, overloading causes equipment failure and serious personal injury.
- The cylinder is a load lifting device, not a load holding device. After the load has been raised or lowered, it must always be held mechanically, never work under a load supported by a hydraulic unit.
- Keep hands and feet away from cylinder and workplace during operation to avoid personal injury.
- Do not put unbalanced or off-center loads on cylinders. The incorrect load can result in equipment failure and serious personal injury.

WARNING

- Wear safety glasses, helmet and other necessary personal protective equipment when operating hydraulic equipment.
- Cylinder used to lift load must have solid footing for correct support. Please select steel or wood blocks that are capable of supporting the load.
- Install Pressure gauges in the system to monitor the operating pressure. The gauge must have the same pressure rating as the pump and cylinder. The wrong gauges may result in personal injury.
- The system operating pressure must lower than the lowest rated pressure in the system.
- Carefully inspect the cylinder and couplers before use cylinder. Never connect the cylinder with damaged couplers or damaged port threads. The damaged coupler or damaged port threads may cause equipment failure and possible personal injury.
- Install coupler in a clean environment; prevent dirt or other debris from entering into cylinder body or tube. Dirt or other debris will damage the cylinder and result in equipment failure and possible personal injury.
- Before removing or tightening hose or coupler, release hydraulic pressure in system.
- Never handle pressurized hoses; escaping oil under high pressure can penetrate the skin, causing serious injury. Seek medical aid immediately if injured.
- Please use or other approved hydraulic oil
- For hydraulic technical help or repair service. Please contact the authorized Service Center in your area. has no obligations under any warranty with respect to products that have been repaired by unauthorized personnel, modified, or damaged through misuse, abuse, accident, neglect, or mishandling.

IMPORTANT

- Keep the air hydraulic pump clean all the time.
- When the Air hydraulic pump is not in use, release the valve, remove hose and use rubber cap to recover the port.

- Do not drop objects on hose.
- Do not lift and carry hydraulic equipment by the hoses or couplers, use the handle or other means.
- Use hydraulic equipment in normal operating temperatures. Do not use equipment in temperatures of 65 ℃ (150℉) or higher. Overheating will soften seals and weakens hose materials, resulting in oil leaking or other equipment failure.

2. DESCRIPTION

Air Hydraulic Pump supplies hydraulic fluid pressure to selected tools. It consists of an in-line air and hydraulic cylinder.

SPECIFICATIONS

Model	Pressure Rating (psi)	Useable Oil Capacity (cu.in)	Input Air pressure (psi)	Input Port Threads (NPT)	Output port Threads (NPT)	Oil Delivery (cu.in / min)		Operational Manner	Weight lbs
						No load	load		
TAP-1600	7,500	98	90-145	1/4"-18	3/8"-18	49.5	7.6	Foot Pedal	19

3. BEFORE USE

To prevent oil leak during shipment, a metal knob is installed and tightened to ensure the best sealing function. Loosen it counterclockwise before use.

Note: Always secure threaded port connections with non-hardening pipe thread compound. Tighten securely to prevent accidental removal of components while in use. Take care not to introduce compound into port orifices. Familiarize yourself with the specifications and illustrations in this operator's manual. Know your pump, its limitations and how it operates before attempting to use. Refer to Specification chart on above for details of oil port thread size, usable oil capacity, and more.

4. OPERATION

Operation of the Unit as follow:

4.1 Connect the hose of the Air Hydraulic pump to the hydraulic coupling on the selected tool.

4.2 Connect the air supply line to the Air Hydraulic pump. Air supply be 5-10 CFM at 100 PSI to obtain proper operating characteristics, in addition, the air line should be equipped with an air line filter.

4.3 To Advance, hold or Retract

- **Foot Pedal operate pumps:**

a. Depress the “Pump” end of pedal will pump hydraulic oil to the system.
b. Stop depressing the “Pump” or “Release” end will stop and hold the pressure.
c. Depress the “Release” end of pedal will release the pressure in the system.

5. MAINTENANCE

5.1 Inspect the connections

Please Inspect hoses and connections and tighten connections as needed. Use non-hardening pipe thread compound when servicing connections.

5.2 Adding Hydraulic Fluid

- Depressurize and disconnect hydraulic hose from application.
- With pump in its upright, horizontal position, remove the oil filler plug located on the top plate of the reservoir.
- Use a small funnel to fill reservoir to within 3/4’’ (19mm) of the opening.
- Wipe up any spilled fluid and reinstall the oil filler plug.

Note: Use only or other approved hydraulic oil. Never use brake fluid, transmission fluid, turbine oil, motor oil, alcohol, glycerin etc. Use of other than good quality hydraulic oil will void warranty and damage the pump, hose and application.

5.3 Changing Hydraulic Fluid

- For best results, change fluid once a year.
- Repeat step 2 above, and then pour used fluid into a sealable container.
- Dispose of fluid in accordance with local regulations.
- Fill with good quality hydraulic oil as recommended above. Reinstall vented oil filler plug.

5.4 Lubrication

Use a light machine oil to lubricate pivot points, hinges etc.

5.5 Storage

- Depressurize and disconnect hydraulic hoses from application.

- Clean the pump and hose and couplers
- Store in clean dry environment, avoid temperature extremes.

6. TROUBLE SHOOTING

IMPORTANT: hand pumps should be repaired only by a qualified operator or Authorized Service Centers. Repairing hand pumps without special tools and knowledge may result in personal injury. Always release pressure and disconnect hose(s) before making repairs.

Symptom	Possible Causes	Corrective Action
Application will not extend, move or respond to pressurized fluid	• Overload condition • Release valve not closed	• Remedy overload condition • Ensure release valve closed
Application responds to pressurized fluid, but system does not maintain pressure	• Overload condition • Release valve not closed • Hydraulic unit malfunction	• Remedy overload condition • Ensure release valve closed
Application will not return fluid to pump (i.e. cylinder will not retract)	• Malfunctioning coupler, damaged application • Reservoir overfilled	• **Secure load by other means.** Open release valve, depressurize pump and hose, remove coupler and/ or application, then renew or replace • **Secure load by other means.** Open release valve, depressurize pump and hose, remove coupler and/ or application, then drain fluid to proper level
Application will not fully extend (cylinder or spreader)	• Fluid level low	• Follow symptom 3 procedure for securing load, depressurizing pump, remove application, then ensure proper fluid level
Poor performance	• Air trapped in system	Ensure proper fluid level Ensure vented oil filler plug let pressurized reservoir air escape (see BEFORE USE)