



SUPER HEAVY DUTY

STRONGARM®

PROD NO. 033125, 033126, 033127
MOD NO. AHP002, AHP003, AHP004

AIR HYDRAULIC PUMP MANUAL



WARNING:

Important: read these instructions and all warnings prior to using this equipment. Understand all operating procedures, safety warnings and maintenance requirements. Failure to do so could cause an accident resulting in serious or fatal injury and/or personal property damage.

Repair Parts Sheets for hydraulic air pumps are available from your nearest authorized STRONGARM Service Centre or www.jetgroupbrands.com.

NOTE: PLEASE READ AND FOLLOW THESE INSTRUCTIONS BEFORE YOU USE STRONGARM AIR HYDRAULIC PUMP.

Carefully inspect all components for shipping damage. If shipping damage is found, 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. STRONGARM is not responsible for injury or damage resulting from unsafe and/or incorrect product 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 with correct training and work experience with 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.
- 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-centre 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 gauge 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 be lower than the lowest rated pressure in the system.
- Carefully inspect the cylinder and coupler(s) before use. Never connect a cylinder with damaged coupler(s) or damaged port threads. Damaged coupler(s) or damaged port threads may cause equipment failure and possible personal injury.
- Install coupler(s) 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(s), 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.
- Use only high-quality hydraulic oil
- For hydraulic technical help or repair service, please contact the authorized STRONGARM Service Centre in your area. STRONGARM 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 at all time.
- When the air hydraulic pump is not in use, release the valve, remove hose and use rubber caps to cover the port.
- Do not drop objects on hose.
- Do not lift or 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°C (150°F) or higher. Overheating will soften seals and weakens hose material, resulting in oil leaking or other equipment failure.

2. DESCRIPTION

Air hydraulic pump supplies hydraulic fluid pressure to selected tools. It consists of an inline air and hydraulic cylinder.

Specifications:

Product No.	Pressure Rating (PSI)	Usable Oil Capacity (in ³)	Input Air pressure (PSI)	Input Port Threads (NPT)	Output port Threads (NPT)	Oil Delivery (in ³ /min)		Operational Manner	Weight lbs
						No load	Load		
033125	10,000	98	90-145	1/4"-18	3/8"-18	49.5	7.6	Foot Pedal	19
033126	10,000	275	90-145	1/4"-18	3/8"-18	49.5	7.6	Foot Pedal	28
033127	10,000	442	90-145	1/4"-18	3/8"-18	49.5	7.6	Foot Pedal	36

3. BEFORE USE

To prevent oil leaks during shipment, a metal knob is installed and tightened to ensure a good seal. Loosen it by turning 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 thread compound into port openings.

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 specifications chart above for details of oil port thread size, usable oil capacity, and other information.



4. OPERATION

To operate the pump:

- Connect the hose of the air hydraulic pump to the hydraulic coupling on the selected tool.
- Connect the air supply line to the air hydraulic pump. Air supply should be 5-10 CFM at 100 PSI to obtain proper operating characteristic. The air line should be equipped with an air line filter.
- To advance, hold or retract

Foot pedal operated pump:

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



5. MAINTENANCE

5.1 Inspecting the connections

Inspect hoses and connections, 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" (19 mm) of the opening.
- Wipe up any spilled fluid and reinstall the oil filler plug.

Note: Use only high-quality hydraulic oil. Never use brake fluid, transmission fluid, turbine oil, motor oil, alcohol, glycerin etc. Use of other than high-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 5.2, and then pour used fluid into a sealable container.
- Dispose of fluid in accordance with local regulations.
- Fill with high-quality hydraulic oil. 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, hose and coupler(s)
- Store in clean, dry environment, avoid temperature extremes.

6. TROUBLESHOOTING

IMPORTANT

STRONGARM air hydraulic pumps should be repaired only by a qualified operator or Authorized STRONGARM Service Centre. Repairing air hydraulic pumps without special tools and knowledge may result in personal injury. Always release pressure and disconnect hose 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 • Reservoir overfilled	• Secure load by other means. Open release valve, depressurize pump and hose, remove coupler(s) and/or application, then renew or replace • Secure load by other means. Open release valve, depressurize pump and hose, remove coupler(s) 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, and removing application, then ensure proper fluid level
Poor performance	• Air trapped in system	• Ensure proper fluid level • Ensure vented oil filler plug lets pressurized reservoir air escape (see BEFORE USE)