



# INSTRUCTION MANUAL & PARTS BREAKDOWN



## Model 15905

**2.5 Quart Air/Hydraulic Pump, Aluminum  
Reservoir**

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## SPECIFICATION

Input Air Pressure (psi)	Input Port Threads	Output Port Threads	Oil Delivery (cu.in./min)		Internal Relief Setting (Psi)	Usable Oil Capacity (cu.in.)	Weight (lbs. w/fluid)	L+W+H
			0 psi	10,000 psi				
90-140	¼-18 NPT	3/8-18 NPT	24.4	7.3	10,000	140	19	12.3"x6.7"x7.5"

## DESCRIPTION

This Air/Hydraulic Pump supplies hydraulic fluid pressure to selected tools. It consists of an in-line air and hydraulic cylinder. The ratio of hydraulic fluid pressure generated compared to supply air pressure is 100:1. In other words, 100 PSI out of every 1 PSI in – 100 PSI input air pressure equals 10,000 PSI output pressure.

Depressing the **RELEASE** pedal causes a decrease in pressure and pressing the **PUMP** end of the pedal provides fluid pressure.

## WARNING

**The air hydraulic is capable of generating fluid pressure up to 10,000 psi. Make certain the tool in use is held securely and is in proper working condition. Do not continue to operate the pump once the work is completed. Failure to comply with these instructions could result in personal injury or damage to the equipment.**

## 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 o use. Refer to specification chart on above for details of oil port thread size, usable oil capacity, and more.

## OPERATION

Operation of the unit is as follows:

1. Connect the hose of the Air/Hydraulic Pump to the hydraulic coupling on the selected tool.
2. Connect the air supply line to the Air/Hydraulic Pimp. Air supply should 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
3. Stepping on the **PUMP** end of the pedal engager the pump, producing the force necessary to run the tool.
4. Depressing the **RELEASE** end of the pump pedal will release the pressure.



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Symptom	Possible Causes	Corrective Action
Application will not extend, move or respond to pressurized fluid	<ul style="list-style-type: none"> <li>• Overload Condition</li> <li>• Release Valve not closed</li> </ul>	<ul style="list-style-type: none"> <li>• Remedy overload Condition</li> <li>• Ensure release valve closed</li> </ul>
Application responds to pressurized fluid, but system does not maintain pressure	<ul style="list-style-type: none"> <li>• Overload Condition</li> <li>• Release Valve not closed</li> <li>• Hydraulic unit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Remedy overload Condition</li> <li>• Ensure release valve closed</li> </ul>
Application will not return fluid to pump (ie. Cylinder will not retract)	<ul style="list-style-type: none"> <li>• Malfunctioning coupler, damaged application</li> <li>• Reservoir overfilled</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Secure load by other means.</b> Open release valve, depressurize pump and hose, remove coupler and/or application, then renew or replace</li> <li>• <b>Secure load by other means.</b> Open release valve, depressurize pump and hose, remove application, then drain fluid to proper level</li> </ul>
Application will not fully extend (cylinder or spreader)	<ul style="list-style-type: none"> <li>• Fluid level low</li> <li>• Fluid level low</li> </ul>	<ul style="list-style-type: none"> <li>• Follow Symptom 3 procedure for securing load, depressurizing pump, remove application, then ensure proper fluid level</li> </ul>
Poor Performance	<ul style="list-style-type: none"> <li>• Air trapped in System</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure proper fluid level</li> <li>• Ensure vented oil filler plug let pressurized reservoir air escape (see before use)</li> </ul>