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GA9 Series
Reference # - TD080
Rev. - C
Date - 0411



IMPORTANT - READ CAREFULLY

This manual contains important information about the correct installation, operation and maintenance of this equipment. All persons involved in the installation, operation and maintenance of this equipment must be thoroughly familiar with the contents of this manual. To safeguard against the possibility of personal injury or property damage, follow the recommendations and instructions of this manual. Keep this manual for reference.

WARRANTY STATEMENT

SIMPLEX products are warranted to be free of defects in materials and workmanship under normal use for as long as the original purchaser owns them, subject to the guidelines and limitations listed. This warranty does not cover: normal wear & tear, cosmetic items, abuse, overloading, alterations, improper lubrication, or use in a manner for which they are not intended. If the customer believes a product is defective, the product must be delivered, or shipped freight prepaid, to the nearest SIMPLEX Authorized Service Center for evaluation and repair.

RECEIVING INSTRUCTIONS

Important! Make sure to inspect all of the components for shipping damage. If damage is found, notify carrier at once. Shipping damage will not be covered by warranty. The carrier is responsible for all loss associated with shipping damage.

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- Note -

This Operational Manual is intended as a technical guideline only. SIMPLEX accepts no liability for any use or reliance made of any information in this Operational Manual. All information, illustrations and specifications in this Operational Manual are based on the latest information available at the time of publication. SIMPLEX reserves the right to make changes at any time without notice. Equipment operators and installers shall be responsible for ensuring that a safe working environment and safe systems of work are in place before operating the equipment.



GA9 Series Foot Pumps

1.0 RECEIVING INSTRUCTIONS

Important! Make sure to inspect all of the components for shipping damage. If damage is found, notify carrier at once. Shipping damage will not be covered by warranty. The carrier is responsible for all loss associated with shipping damage.

2.0 SAFETY

Make sure to read the instructions, warnings and precautions carefully. Follow all recommended safety precautions to avoid personal injury or damage to the unit. Simplex cannot be responsible for any damage or injury from unsafe use, lack of maintenance, or incorrect operation. In the event any questions or concerns arise, contact SIMPLEX or a local SIMPLEX Distributor for clarification.

The pump's maximum working pressure is 10,000 PSI (700kg/cm2). Make sure that all hydraulic equipment such as rams, hoses, etc. used with this pump are rated at 10,000 PSI (700kg/cm2) operating pressure.

If you have never been trained on high-pressure hydraulic safety, consult your distributor or service center for a free Simplex Hydraulic Safety Course. Failure to comply with the following cautions and warnings could cause equipment damage, property damage, or personal injury.

DANGER: is only used when your action or lack of action may cause serious injury or even death.

WARNING: indicates a potential danger that requires correct procedures or practices to avoid personal injury.

CAUTION: is used to indicate correct operating or maintenance procedures and practices to prevent damage to, or destruction of equipment, or other property.



WARNING: Wear proper personal protective gear when operating hydraulic equipment.



WARNING: 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. Gauges help the user see what is happening with the hydraulic pressure in the system.



WARNING: Avoid damaging hydraulic hose. Avoid sharp bends and kinks when routing hydraulic hoses. Using a bent or kinked hose will cause severe back-pressure. 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.



IMPORTANT: Do not lift hydraulic equipment by the hose or swivel couplers. Use the carrying handle or other means of safe transport.



CAUTION: Keep hydraulic equipment away from flames and heat. Excessive heat will soften seals, resulting in fluid leaks. Heat also weakens hose materials. For optimum performance do not expose equipment to temperatures of 65° C (170° F) or higher. Protect hoses and cylinders from weld spatter.



WARNING: 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. Untreated oil injection could be fatal, but normally just causes severe injury.

3.0 TECHNICAL SPECIFICATIONS

Model	Tool Type	Control	Usable Oil Capacity (cu. in.)	Oil Flow @ 0 psi (cu. in.)	Oil Flow @ 10,000 psi (cu. in.)	Operating Air Pressure Range (psi)	Weight (lbs)
GA90	S/A	Foot Pedal	90	68	11	60 - 150	18.5
GA9230	S/A	Foot Pedal	230	68	11	60 - 150	32.6
GA9460	S/A	Foot Pedal	460	68	11	60 - 150	41
GA90-R	S/A	Pendant	90	68	8	60 - 150	23.5
GA9230R	S/A	Pendant	230	68	8	60 - 150	37.6
GA9230D	D/A	Control Valve	230	68	11	60 - 150	31.6
GA9460D	D/A	Control Valve	460	68	11	60 - 150	41

DOCUMENTED FLOWS WERE TESTED AT 110 PSI, 10 CFM.

4.0 BASIC OPERATION AND FUNCTION

1. Locate and remove the shipping plug and discard. Ensure the oil level is just below (approx. 1/2") the oil filler plug hole. Install the vent / oil fill / dip stick plug.
2. Remove air inlet shipping plug and discard. Pour a teaspoon of good quality, air tool #10 wt. non-detergent oil into the air inlet port). Install the appropriate air supply coupler and a 3/8" NPT hydraulic connection. The air quick disconnect configuration of your choice can be installed in the threaded hole underneath the foot pedal labeled "PUMP". An in-line filter/ regulator/lubricator should be installed close to pump. Add a few drops of SAE 10 oil to the air intake weekly if no lubricator is used or when pump will be idle for a long time.
3. Remove the pressure port shipping plug and discard. Use at least 1-1/2 wraps of Teflon tape (or suitable sealant) on the hose fitting threads. Make sure the first complete thread is free from tape or sealant so they do not enter and contaminate the hydraulic system. Thread the hose fitting into the pump manifold's threaded hole and turn until snug - make sure the hose fitting threads are not cross-threaded.

4.1 OPERATION

1. Make sure the pump is on a level surface.
2. Connect Foot Pump to an external air source that is capable of supplying 90 PSI @ 10 CFM. Next connect a 3/8" NPT quick disconnect coupler or hose to the oil outlet side. (SIMPLEX recommends that a gauge adaptor and 10,000 PSI gauge be use during operation). Connect tooling (i.e. cylinder, bender, or cutter)
3. Check for leaks in system and repair as needed. Before repairs are made, disconnect air source and application, then depressurize reservoir. Do so simply by pressing the pedal or pendant button for three seconds (see figure 1).
4. To build pressure, depress the pedal or pendant button where "PUMP" is located. Operate pump until desired position is reached and/or pressure is obtained (see figure 1).
5. To retract application, simply press down on the RELEASE valve or pendant button portion of the pump. Fully depressing pedal will LOCK the DETENT feature to "on" (see figure 1).



Figure 1

4.2 AFTER COMPLETING THE JOB

Before disconnecting hoses, fittings, etc., be sure the ram is unloaded and retracted, then disconnect air source and hydraulic connections. Store the pump in a clean, dry area.

5.0 PERIODIC MAINTENANCE

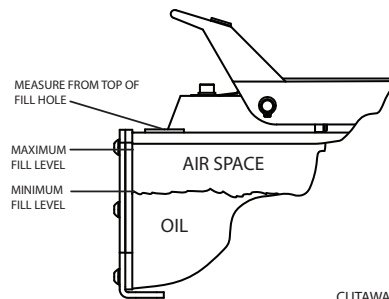
A) MAINTENANCE

1. Inspect hose and connections daily. Replace damaged components immediately with Simplex Authorized replacement parts only.
2. Tighten connections as needed. Use pipe thread Teflon when servicing connections. **NOTE: DO NOT OVER TIGHTEN CONNECTIONS.**
3. When Not In Use Or During Storage:
 - Disconnect pump from air source, depressurize and disconnect hydraulic hoses from application.
 - Wipe clean, throughout.
 - Shelter the pump with protective cover.
 - Store in clean, dry environment.
 - Avoid temperature extremes.

B) HOW TO FILL THE RESERVOIR

1. Disconnect hydraulic hose from application, remove air source from pump.
2. With reservoir horizontal, remove the vent / oil filler plug.
3. Use a small funnel to fill reservoir so the oil level remains the distance stated below in the table, distances are measures from the top of the fill hole.

Models	Recommended Oil Level Range from the Top of Fill Hole	
	Minimum distance	Maximum distance
GA90, GA90R	1.25"	.50"
GA9230, GA9230D, GA9230D	3.5"	1.5"
GA9460, GA9460D	1.75"	1.5"



CUTAWAY

continued on next page.

4. Use Simplex oil only (Model # AO1, 1 gallon). Using oil other than Simplex Brand voids the pump warranty.
5. Wipe up any spilled fluid and install oil filler screw.
6. Return pump to original position (parallel to a flat level surface), reconnect application and air source. Operate for a few seconds, and then check for leaks.

C) CHANGING THE OIL

1. For best results, change fluid once a year.
2. Repeat steps (B) "How to Fill Reservoir", and then pour used fluid into a sealable container.
3. Fill with Simplex oil. Reinstall oil filler plug.

D) LUBRICATION (When no In-Line Oiler is used)

1. When used daily, pour a teaspoon of good quality air tool oil #10 non-detergent oil into the air source inlet of pump. Connect hydraulic hose to application, connect air source to pump and operate pump a few seconds to evenly distribute fluid.
2. Use light machine oil to lubricate pivot points, hinges etc.

NOTE: NEVER OPERATE PUMP WHILE DISCONNECTED FROM APPLICATION. IF OPERATED IN THIS CONDITION, THE HOSE AND CONNECTIONS BECOME PRESSURIZED. THIS INCREASES THE BURST HAZARD AND DAMAGE MAY OCCUR TO PUMP / COMPONENTS.

5.1 MAINTAIN OIL LEVEL

Check hydraulic oil level every 30 hours of operation (sight gauge should be completely covered in oil when all tools are retracted. Add Simplex oil (Model # AO1 – 1 gallon) when necessary. Oil level should be no more than 1/2" from top of reservoir plate – with cylinders retracted and motor off.

6.0 TROUBLESHOOTING

UNIT OPERATES, BUT TOOLING DOES NOT MOVE: NO HYDRAULIC FLOW / LOW FLOW	
Reservoir not vented, causing a vacuum	Unclog plastic vent plug.
No oil, reservoir empty or low.	Check oil level once the tooling is fully retracted, should be ½" from top of oil tank cover or check that your tooling requirement does not exceed the foot pump oil capacity.
Defective coupler, not allowing flow.	Coupler is not fully seated or ball seats are defective, replace coupler.
Oil entrance valve clogged.	Oil inlet is clogged with foreign matter or seat is defective.
UNIT DOES NOT OPERATE AND AIR BY PASSES: AIR CYLINDER DRY OR DAMAGED AIR VALVE	
Insufficient air supply.	Ensure you have 110 PSI @ 10 CFM supplied.
Air supply does not have ample lubrication.	Use a recommend lubrication such as "Kilfrost". Apply 1 drop per minute into foot pump.
Air entrance base has defective seals or is damaged.	O-rings are damaged; replace seal or damaged components.
Air piston is frozen, worn seals or air valve is defective.	Replace O-ring and/or air piston assembly or lubricate
Muffler are completely clogged, not allowing air to pass.	Remove and clean or replace mufflers. Adjust the external relief by turning inward.

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