

Air Compressor Maintenance

General

In the following instructions refer to Figure 2 as each instruction step is performed.

Air is supplied from the air intake system on the engine which is down stream from the air cleaner. See Figure 1.

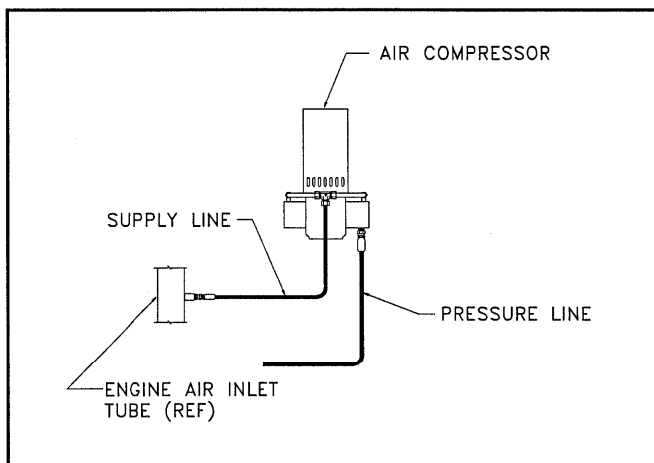


Figure 1 - Air Supply Configuration

Relief Valve

WARNING

The relief valve may become very hot during operation. Do not touch the valve until the pump has been turned off and allowed to cool.

A safety relief valve is provided on standard compressors and is preset at the factory. Do not exceed or adjust safety relief to pressures other than those preset at the factory.

WARNING

Do not unscrew relief valve head entirely off while the pump is operating. Ejection of valve parts could cause severe injury.

Operation

WARNING

Solid or liquid material exiting the unit can cause eye or skin damage. Keep away from air stream.

WARNING

Always disconnect the power before servicing. The motor may be thermally protected and will restart automatically when it cools if the thermal protection switch is tripped.

WARNING

Beware of any exposed movable parts. Proper guards should be in place to prevent severe personal injury or death.

CAUTION

Do not operate units above recommended pressures or vacuum duties. To do so will damage the unit.

WARNING

Pump surfaces can be very hot during operation. Do not touch these until the unit has been shut off and allowed to cool.

Pump Disassembly

1. Disconnect pump from the electrical power supply.



WARNING

You must disconnect the pump from the electrical power before servicing it. Failure to do so can result in personal injury or death.

2. Vent all air lines to the pump to remove pressure.



WARNING

You must vent all air lines to the pump to remove pressure before servicing. Failure to do so can result in personal injury or death.

3. Remove the shroud, cylinder head, and valve components. DO NOT rearrange the valve components.

4. Remove the cylinder and rings. The rider thickness can be an indication of when rings need replacing. If a rider ring measures .055 inch or less in thickness, a change of all rings should be made.

TROUBLESHOOTING GUIDE					
REASON FOR PROBLEM	LOW PRESSURE	HIGH PRESSURE	EXCESSIVE NOISE	OVER HEATING	WON'T START
Dirty Filters	X				
Dirty Valves	X				
Damaged or Worn Rings	X				
Improper Cylinder Alignment	X	X	X	X	
Leaky Hose	X				
Leaky Check Valve	X				X
Plugged Vac. or Pres. Line		X		X	
Low Voltage	X	X		X	X
Leaky Relief Valve	X	X		X	X
Bent Valves	X				

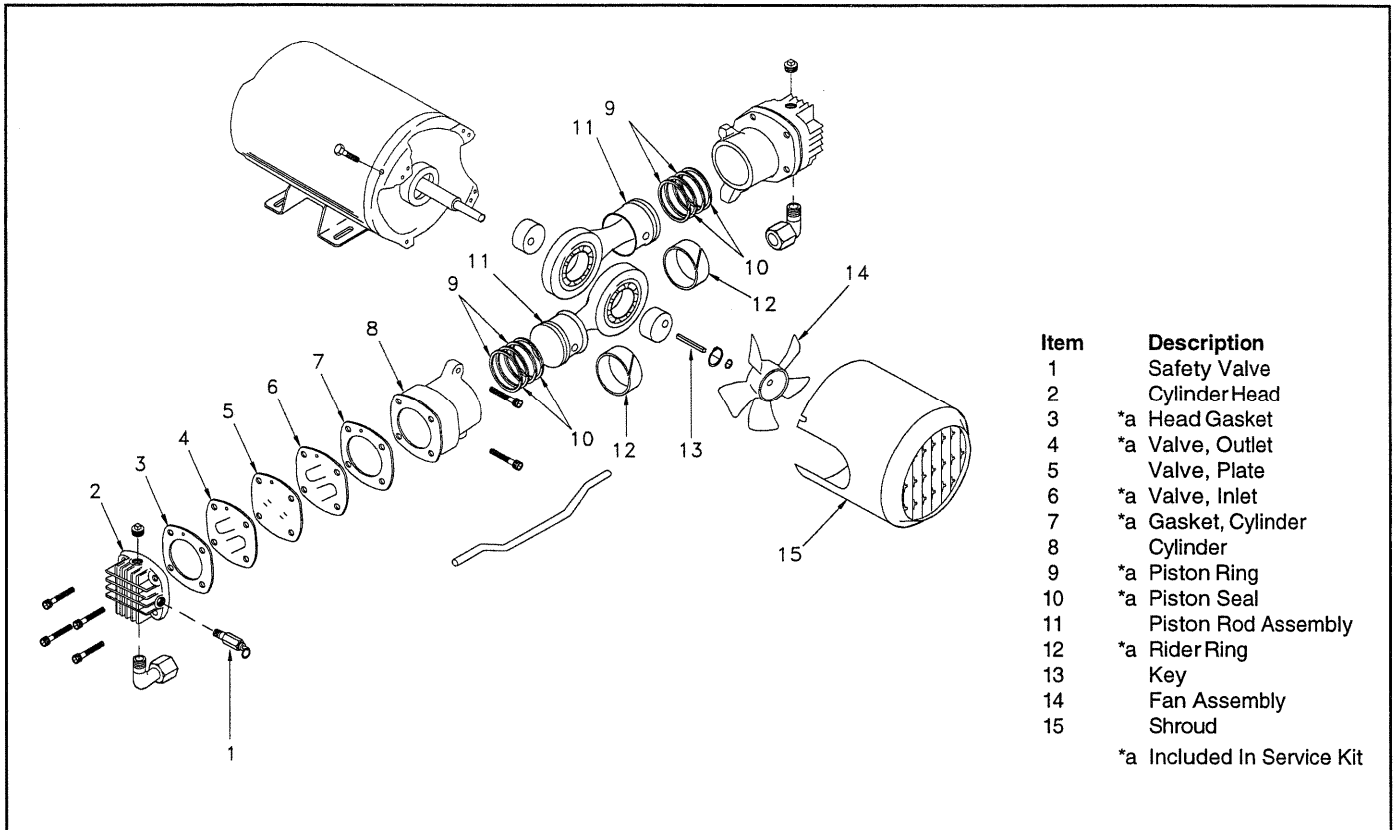


Figure 2 - Air Compressor

Pump Assembly

Make sure all parts are clean before reassembling. **DO NOT** use any chlorinated solvents to clean valves, or any liquids to flush units. **THE STAINLESS STEEL VALVES MAY BE CLEANED WITH WATER.** All parts, except the valves, can be cleaned with any industrial, nonflammable, nontoxic, cleaning solvent.

- Install piston seals, piston rings, and rider rings on the piston.
- Locate ring joints approximately opposite each other.
- Attach cylinder to bracket with cylinder screws and washers.
- Tighten screws finger tight. Move pistons to top dead center position.
- Adjust each cylinder flush with top of piston and torque cylinder screws to 150-160 inch lbs. Retorque the second time.
- Stack the valve components in order as originally assembled.

- Install the cylinder head and head screws.

NOTE: The exhaust ports in the cylinder heads have been marked by omitting the ends of two of the fins.

- Do not tighten head screws at this time.
- Install manifold nuts and seals on the manifold and assemble into the other cylinder head and manifold.
- Torque all head screws to 150-160 inch lbs.
- Turn fan by hand at this point to ensure that the rod assembly is not hitting the head.

NOTE: If the rod assembly does hit the head, loosen cylinders and re-adjust.

- Position manifold and tighten manifold nut 1/2 to 3/4 turns beyond hand tight.
- Retorque head screws again after running for ten minutes.

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