



**CAMPBELL
HAUSFELD™**
BUILT TO LAST

Single Stage Air Compressors

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Low discharge pressure	<ol style="list-style-type: none"> 1. Air demand exceeds pump capacity 2. Air leaks 3. Restricted air intake 4. Blown gaskets 5. Leaking or damaged valves 	<ol style="list-style-type: none"> 1. Reduce air demand or use a compressor with more capacity. 2. Listen for escaping air. Apply soap solution to all fittings and connections. Bubbles will appear at points of leakage. Tighten or replace leaking fittings or connections. 3. Clean the air filter element. 4. Replace any gaskets proven faulty on inspection. 5. Remove head and inspect for valve breakage, misaligned valves, damaged valve seats, etc. Replace defective parts and reassemble. <p>CAUTION <i>Install a new head gasket each time the head is removed</i></p>
Pump overheating causes air filter to melt	<ol style="list-style-type: none"> 1. Insulating gasket between filter and head is missing 2. Broken valves/blown gasket 	<ol style="list-style-type: none"> 1. Install gasket. 2. Replace valves or install new gasket.
Excessive noise (knocking)	<ol style="list-style-type: none"> 1. Loose motor or compressor pulley 2. Lack of oil in crankcase 3. Worn connecting rod 4. Worn piston pin bores 5. Piston hitting the valve plate 6. Noisy check valve in compressor system 	<ol style="list-style-type: none"> 1. Loose motor or compressor pulleys are a very common cause of compressors knocking. Tighten pulley clamp bolts and set-screws. 2. Check for proper oil level; if low, check for possible damage to bearings. Dirty oil can cause excessive wear. 3. Replace connecting rod. Maintain oil level and change oil more frequently. 4. Remove piston assemblies from the compressor and inspect for excess wear. Replace excessively worn piston pin or pistons, as required. Maintain oil level and change oil more frequently. 5. Remove the compressor head and valve plate and inspect for carbon deposits or other foreign matter on top of piston. Replace head and valve plate using new gasket. See Lubrication section for recommended oil. 6. Replace. <p>DANGER <i>Do not disassemble check valve with air pressure in tank</i></p>
Large quantity of oil in the discharge air NOTE: In an oil lubricated compressor there will always be a small amount of oil in the air stream.	<ol style="list-style-type: none"> 1. Worn piston rings 2. Compressor air intake restricted 3. Excessive oil in compressor 4. Wrong oil viscosity 	<ol style="list-style-type: none"> 1. Replace with new rings. Maintain oil level and change oil more frequently. 2. Clean filter. Check for other restrictions in the intake system. 3. Drain down to full level. 4. Use Mobil 1® 10W-30
Water in discharge air/tank	<ol style="list-style-type: none"> 1. Normal operation. The amount of water increases with humid weather 	<ol style="list-style-type: none"> 1. Drain tank more often. At least daily. 2. Add a filter to reduce the amount of water in the air line.
Motor hums and runs slowly or not at all	<ol style="list-style-type: none"> 1. Use of extension cord 2. Malfunctioning check valve or unloader valve 3. Low voltage 	<ol style="list-style-type: none"> 1. Do not use an extension cord. Use longer air hose with larger diameter. 2. Replace check valve, unloader valve or pressure switch. <p>DANGER <i>Do not disassemble check valve with air pressure in tank</i></p> <ol style="list-style-type: none"> 3. Check with voltmeter, check reset switch on motor. If reset switch trips repeatedly, find and correct the cause. See next item.

Troubleshooting Chart Continued

Symptom	Possible Cause(s)	Corrective Action
Motor hums and runs slowly or not at all (Continued)	4. Malfunctioning pressure switch - contacts will not close	4. Repair or replace pressure switch.
Reset mechanism cuts out repeatedly or fuses blow repeatedly	<ol style="list-style-type: none"> 1. Too many devices on same circuit 2. Incorrect fuse size or circuit breaker 3. Malfunctioning check valve 4. Pressure switch set too high 5. Loose wiring 6. Malfunctioning motor 	<ol style="list-style-type: none"> 1. Limit the circuit to the use of only the air compressor. 2. Be sure that fuses or circuit breakers are rated properly. 3. Replace check valve. ⚠ DANGER <i>Do not disassemble check valve with air pressure in tank</i> 4. Adjust or replace. 5. Check all electrical connections. 6. Replace motor.
Tank does not hold pressure when compressors off and the shut off valve is closed	<ol style="list-style-type: none"> 1. Worn check valve 2. Check all connections and fittings for leaks 3. Check tank for cracks or pin holes 	<ol style="list-style-type: none"> 1. Replace check valve. ⚠ DANGER <i>Do not disassemble check valve with air pressure in tank</i> 2. Tighten. 3. Replace tank. Never repair a damaged tank.
Pressure switch continuously blows air out the unloader valve	1. Malfunctioning check valve	<ol style="list-style-type: none"> 1. Replace the check valve if the unloader valve bleeds off constantly. ⚠ DANGER <i>Do not disassemble check valve with air pressure in tank</i>
Pressure switch does not release air when the unit shuts off	1. Malfunctioning unloader valve on pressure switch	<ol style="list-style-type: none"> 1. Replace the pressure switch if it does not release the pressure for a short period of time when the unit shuts off. ⚠ DANGER <i>Do not disassemble pressure switch with air pressure in tank</i>
Excessive vibration	<ol style="list-style-type: none"> 1. Loose fasteners 2. Belt needs replaced 3. Belt alignment 	<ol style="list-style-type: none"> 1. Tighten. 2. Replace with correct size. 3. Align flywheel and pulley.