

SECTION 6: TROUBLESHOOTING

6.1 GENERAL INFORMATION

The information contained in this section has been compiled from field report data and factory experience. It contains symptoms and usual causes for the most common types of problems that may occur; however, **DO NOT** assume that these are the only problems that may occur. All available data concerning the trouble should be systematically analyzed before undertaking any repairs or component replacement procedures.

A detailed visual inspection is worth performing for almost all problems, and may avoid unnecessary additional damage to the machine. The procedures which can be performed in the least amount of time and with the least amount of removal or disassembly of parts, should be performed first. Always remember to:

1. Check for loose wiring.
2. Check for damaged piping.
3. Check for parts damaged by heat or an electrical short circuit, usually noticeable by discoloration or a burnt odor.

Should the problem persist after making the recommended check, consult your nearest Vanair representative or the Vanair Service Department.

Vanair Manufacturing, Inc.

10896 West 300 North
 Michigan City, IN 46360
 Phone: (219) 879-5100
 (800) 526-8817
 Service: (844) VANSERV
 [844-826-7378]
 Service Fax: (219) 879-5335
 Parts Fax: (219) 879-5340
 Sales Fax: (219) 879-5800
 www.vanair.com

WARNING

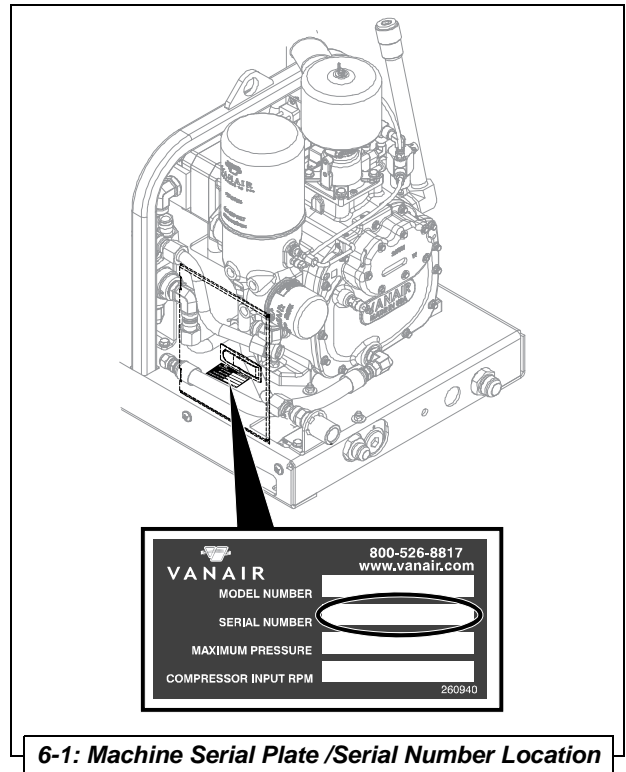
DO NOT operate the compressor or any of its systems if there is a known unsafe condition. **Disable the equipment by disconnecting it from its power source.**

NOTE THAT THE SYSTEM CAN BE STARTED REMOTELY:

Install a lock-out tag to identify the equipment as inoperable to other personnel to prevent accidental application.

WARNING

Before starting, performing maintenance, or replacing parts, relieve the entire system pressure by opening a service valve, which will vent all pressure to the atmosphere.



6-1: Machine Serial Plate /Serial Number Location

6.2 TROUBLESHOOTING GUIDE			
MALFUNCTION/FAULT	POSSIBLE CAUSE	CORRECTIVE ACTION	
Compressor shuts down air with demand present	Compressor discharge temperature switch is open	Cooling air flow is insufficient; clean cooler and check for proper ventilation.	
		Low fluid sump level; add fluid.	
		Fan not operating. Check ground and fan switch.	
		Plugged oil filter	Replace oil filter.
		Dirty cooler core exterior	Clean cooler core.
		Contaminated cooler core	Remove and clean cooler core.
		Hydraulic pressure and flow incorrect	Adjust and reset.
Compressor will not build up pressure	Air demand is too great	Check service lines for leaks or open valves. Too much air demand.	
	Dirty air filter	Check the filter and clean or change element if required.	
	Pressure regulator out of adjustment	DO NOT ATTEMPT TO ADJUST. Contact the Vanair Service Department for assistance.	
	Defective pressure regulator	Replace pressure regulator.	
	Motor does not speed up	Check hydraulic flow and pressure and adjust if necessary.	
	Service valve wide open	Close service valve.	
	Inlet stuck shut	Check oil level	
Compressor over pressures	Pressure regulator out of adjustment	Contact factory service department.	
	Defective pressure regulator	Replace pressure regulator; Contact factory service department.	
	Leak in air control line	Check line and correct.	
	Inlet valve stuck open	Free or replace valve.	
	Restriction in control line		Dirt or ice present. Clean or free up.
		Defective safety valve	Replace safety valve.
		Plugged coalescer (air/oil separator)	Replace coalescer.
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6.2 TROUBLESHOOTING GUIDE		
MALFUNCTION/FAULT	POSSIBLE CAUSE	CORRECTIVE ACTION
Insufficient air delivery	Plugged air filter	Replace air filter.
	Plugged coalescer (air/oil separator)	Replace coalescer element.
	Motor speed too low	Check hydraulic flow and pressure and adjust if necessary.
	Inlet valve stuck closed.	Free or replace inlet valve. Order rebuild kit if necessary.
	Defective regulator	Replace regulator.
	Stuck minimum pressure valve	Free or replace valve.
Oil carryover	Oil level overfull	Drain to proper level.
	Plugged oil scavenge line	Remove and clean strainer thoroughly. See Section 7.2A, P/N 271054.
	Discharge pressure too low	Check minimum pressure valve and adjust. Replace if necessary.
	Defective coalescer	Replace coalescer element.
	Overspeeding	Readjust speed.
	Incorrect oil used	Drain and replace with proper oil.
Compressor overheating		Check oil level and fill to proper level.
		Reposition machine to assure proper air flow.
		Check ground connection and ensure proper connection.
		Check fan switch.
		Check circuit breaker.
		Check for short in wires.
		Check fan motor.
	Plugged oil filter	Replace oil filter.
	Cooler core plugged	Clean cooler core.
	Pressure set too high	Contact factory service department.
	Contaminated cooler core	Remove and clean cooler core.
	Unit running too fast	Check hydraulic flow and pressure and adjust if necessary.
	Thermal valve	Faulty valve; replace thermal valve.
Incorrect oil used	Drain and replace with proper oil.	
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6.2 TROUBLESHOOTING GUIDE		
MALFUNCTION/FAULT	POSSIBLE CAUSE	CORRECTIVE ACTION
System retains pressure after shutdown	Blowdown valve stuck	Clean or replace blowdown valve.
	Leak back from air line	Check minimum pressure valve for leaks.
Compressor stalls	Insufficient hydraulic system pressure flow. This can occur if another hydraulically activated component is used off same pump system. Activating the secondary component may drop hydraulic supply system pressure/flow and leave insufficient for compressor. NOTE: Even a momentary drop in supply hydraulic supply pressure/flow may initiate compressor blowdown to commence.	Check setting on supply pressure system relief valve. Check to ensure adequate pressure/flow. Check if other systems are activated off same supply.
	Hydraulic pressure relief valve set too low	Contact factory service department.
	Leak in seals on pressure relief valve.	Remove and check seals or fit new valve cartridge.
	Air pressure set too high for hydraulic system.	Contact Vanair Service Department.
	Leak in solenoid valve cartridge (directional flow control valve) on manifold.	Remove and check seals or fit new valve cartridge.
	Check over-pressure or over-temperature	Adjust if necessary.