

# AIR COMPRESSOR MAINTENANCE AND TROUBLE SHOOTING

## A. COMPRESSOR "NOT PRODUCING ENOUGH AIR"

1. Drain air tank and measure pump up time. Compare with proper time for compressor model (see factory guide). If time is O.K., compressor may be too small for application. Increasing operating pressure will exaggerate the problem.
2. Test for leaks in air lines, tank, or compressor fittings. Soap suds solution works well.
3. Clogged filter element — remove, clean or replace. Intake air must be free of contamination such as paint mist.
4. Hot air blows out of intake. Intake valves not sealing. Remove and clean. Polish disc on fine emery cloth (#400). Replace worn parts. A complete valve plate assembly can be obtained as a factory exchange at low cost.
5. Check valve or discharge tubing clogged. Clean or replace.

## B. AIR LEAKS FROM CENTRIFUGAL UNLOADER (BACK OF COMPRESSOR - PART EQ74B)

1. To provide "loadless starting", this device opens air valve (EQ74A) when the compressor stops — thus bleeding off air contained between the compressor and tank check valve. If air leaks continuously when compressor stops, the tank check valve is leaking. Drain tank — remove and repair check valve. If air leak is steady when compressor runs, adjust air release. Remove tube from EQ76. Loosen lock nut EQ74C. Turn EQ74B out one turn (CCW). Valve should seal when running and open when stopped. Repeat adjustment if necessary.

## C. INTERSTAGE SAFETY VALVE LEAKS (EQ56) (VALVE FACTORY SET TO OPEN AT 65 PSIG)

1. Head gasket or high pressure inlet valve leak. Examine, clean valve or replace.
2. Defective safety valve; Replace. Do not adjust safety valve.

## D. EXCESSIVE OIL CONSUMPTION (Measure oil consumed per hour of operation.)

1. Clogged air intake filter. Clean or replace.
2. Inferior or dirty oil — see recommendations in instructions.
3. Crankcase not sealed — air leaks in. Check oil fill cap and shaft oil seal. Replace if necessary. Tighten crankcase bolts (15 Ft. lb.)
4. Piston rings worn or sticking. Remove rings, clean grooves. Check ring wear by pushing ring into cylinder bore. New ring end gap is approximately .007 to .017 inches. (Operation is O.K. to .060.) Stagger ring gaps when installing.
5. Deep scratch on cylinder wall. Caused by lack of oil or dirt in oil. Hone (.015 max. on diameter) or replace.
6. Oil in discharge air. Some oil is always present. Clean accumulation in air lines and tank. Add air line filter or clean element.
7. Compressor unloaded more than 60% with constant running control. Consider start-stop or dual control.

## E. MILKY OIL IN RESERVOIR

1. Normal result of water mixing with oil in tank or possibly in crankcase. Change oil and/or drain tank.
2. Move compressor or pipe intake to lower humidity source or cooler area. Increase intake pipe one size for every 3 feet of length — keep short.

## F. NOISE, KNOCK OR VIBRATION

1. Assembly-vibrating. See mounting instruction.
2. Flywheel wobbles. Cracked flywheel or bent shaft. Replace.
3. Flywheel or pulley loose. Remove, apply loctite on shaft, re-install with new key.
4. Loose or worn connecting rod or piston pin. Tighten or replace.
5. Pressure switch or magnetic starter chatter. Adjust switch for greater differential or replace.
6. Loose vee belt. Adjust tension on slotted platform.
7. Foreign matter (carbon, dirt, piece of gasket) on top of piston. Remove cylinder head and check. To increase head clearance, add crankcase gaskets . . . not head gaskets.

## G. RUNS HOT (Head and discharge line normally are hot enough to burn if touched.)

1. Compressor operating in excess of rated discharge pressure. Reset pressure control.
2. Poor ventilation. Provide cooler location. Allow minimum 6" flywheel clearance.
3. Incorrect rotation. Check flywheel arrow. Reverse motor.
4. Discharge valve or head gasket leak. Remove and clean valve. Replace.
5. Restriction in discharge line or check valve. Clean or replace.

## H. COMPRESSOR "SLOWDOWN" OR "FROZE UP"

1. Check that supply voltage matches motor, i.e., 115 volt supply with motor connected for 230 volts or 208 supply with 230 volt motor.
2. Measure actual voltage at the motor while the compressor is under load (starting up or at high pressure). If voltage is more than 10% below motor nameplate rating, relocate compressor closer to main switch panel and/or provide heavier wiring. Check with electric power company.
3. Vee belt slipping. Adjust tension by moving motor. Clean oil from belt and pulleys.
4. Operating pressure set higher than design pressure. Reset control.
5. If flywheel cannot be turned by hand (drain tank to eliminate back pressure), check oil level. If "frozen" condition exists after cooling down and adding oil, disassemble compressor and replace damaged components. After compressor "run in" period, freezing is caused by lack of adequate clean lubrication.
6. Gas Engine Driven Compressors: If engine stalls during acceleration, increase engine idle speed. On engines equipped with a clutch, maintain idle speed below clutch engagement speed, (approx. 1900 RPM).



A. WMH Walter Meier Holding Co

303 Industrial Park Road, Johnstown, PA 15904

8141269-1000  
FAX #814/269-1070

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