



# Stationary Compressor Operating Instructions



*Brands of stationary air compressors*

## NOTICE

Carefully read this instruction manual before attempting to operate this compressor.

Model # \_\_\_\_\_ Serial # \_\_\_\_\_



**PUMP & COMPRESSOR LTD.  
COMPRESSOR LLC.**

**IRON  
HORSE**



**MAXair  
PREMIUM**

*Brands of stationary air compressors*

**1-800-551-2406**

**[www.eaglecompressor.com](http://www.eaglecompressor.com)**



Wear hearing protection.  
Wear eye protection.  
Wear respiratory protection.



Read the instruction manual

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**IRON  
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**CAREFULLY READ THIS  
INSTRUCTION MANUAL BEFORE  
ATTEMPTING TO OPERATE  
THIS COMPRESSOR.**

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# SAFETY PRECAUTIONS

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Please familiarize yourself with the following information to prevent damage to your compressor unit and injury to the operator.

## CAUTIONS

**CAUTION** The air compressor and motor will get hot while in operation. Never touch the discharge tubing, motor or compressor pump while in operation. The compressor operates automatically while the power is connected and turned on.

**WARNING** Compressed air from the unit may contain hazardous fumes. Air produced by this compressor is not suitable for breathing purposes. Always use a respirator when spraying paint or chemicals, or when sandblasting. Always wear safety glasses or goggles when using compressed air.

It is not practical or possible to warn you about all the hazards associated with operating or maintaining this equipment. You must use your own good judgment.

## AIR RECEIVER

Over pressurizing the air receiver could cause personal injury or material damage. To protect from over pressurizing, a factory pre-set safety valve is installed.



**NEVER WELD, DRILL OR CHANGE  
THE AIR RECEIVER IN ANY WAY**

Any replacement parts should be purchased with the same specifications as the original equipment. Please contact the authorized dealer for replacement parts or specifications.

## SAFETY VALVE

This valve is factory installed to prevent over pressurizing of the air receiver. It is factory set at a specific limit for your particular model, and should never be tampered with.

**Adjustment by user will automatically void the warranty.**



**DO NOT REMOVE,  
MAKE ADJUSTMENTS TO  
OR SUBSTITUTE THIS VALVE!**

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# INSTALLATION & OPERATION

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## INSTALLATION

Proper care, maintenance and lubrication ensures longevity. The compressor should always be level for proper lubrication. Use only in a clean, dry, and well-ventilated area. The compressor has heat dissipation fins for proper cooling. Keep the fins and other parts that collect dust clean. Do not place rags or other materials on top of the compressor, as this obstructs cooling and can be a fire hazard.

## MOUNTING

Mount the compressor on a concrete pad or solid floor, making certain that the air receiver feet are level and that no stress is placed on the legs when the mounting nuts, if used, are tightened, shim feet if necessary. Severe vibrations will result when feet are uneven and drawn tightly to the floor, which can lead to welds cracking or fatigue failure of the air receiver.



**ALMOST ALL WELD CRACKS OR FATIGUE FAILURES ARE CAUSED BY IMPROPER INSTALLATION AND ARE NOT COVERED BY WARRANTY.**

## WIRING



**REGULATIONS REQUIRE THAT ALL WIRING BE DONE BY A LICENSED ELECTRICIAN, FAILURE TO DO SO COULD VOID YOUR WARRANTY.**

- A) Single phase models with factory installed wiring between the electric motor and the pressure switch, - do not require a magnetic starter.
- B) Single phase models which are not pre wired between pressure switch and motor require a magnetic starter or combo switch (can be supplied by Eagle)
- C) Three phase models require magnetic starters or combi-pressure switches (can be supplied by Eagle) and are not factory Pre-wired in any way.

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# INSTALLATION & OPERATION

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## WIRING ... CONTINUED



**ALL WIRING INFORMATION IS STATED ON THE ELECTRIC MOTOR AND ON THE PRESSURE SWITCH OR PROVIDED WITH THE MAGNETIC STARTER, IF SUPPLIED. EAGLE CUSTOMER SERVICE PERSONNEL CANNOT, BY LAW, PROVIDE ANY WIRING INFORMATION.**

**Any warranty claims for electrical components can only be considered when submitted with proof of proper electrical installation.**

## BEFORE OPERATING THE AIR COMPRESSOR

### PLEASE CHECK THE FOLLOWING CAREFULLY:

- 1) Check to see that nuts and bolts are all snug.
- 2) Check if the quantity and quality of oil is correct.
- 3) If the intake filters are dirty, they should be replaced or cleaned.

## COMPRESSOR LUBRICATION



**ALWAYS CHECK THE OIL LEVEL AND QUALITY BEFORE START-UP. DO NOT ADD OR CHANGE OIL WHILE THE UNIT IS RUNNING. USE ONLY RECOMMENDED NON-DETERGENT OIL.**

### RECOMMENDED OIL.

**Eagle compressor oil: #EAOIL 10 (1 Litre)**

**Eagle compressor oil: #EAOIL 40 (4 Litres).**

**\* Compressor originally filled with SAE 20W oil (ISO 68)**

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# INSTALLATION & OPERATION

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## COMPRESSOR LUBRICATION ... CONTINUED

Eagle compressor oil is a non-detergent mineral oil formulated with additives to help minimize carbon build-up, increase ring life and reduce oil consumption, for use at ambient temperatures of 0° to 30°C (32°F - 86°F).

### OTHER APPROVED OILS.

Regular mineral oils can also be used in Eagle compressors. Always use a non-detergent oil with the following specifications:

AMBIENT TEMPERATURES AT POINT OF OPERATION	SAE VISCOSITY	ISO VISCOSITY
-16°C TO 0°C (3.2°F - 32°F)	SAE 10W	ISO 32
1°C TO 26°C (33.8°F - 78.8°F)	SAE 20W	ISO 68
ABOVE 27°C (80.6°F)	SAE 30W	ISO 100

## FILLING THE COMPRESSOR WITH OIL

- 1) Remove the oil filler plug
- 2) Slowly pour the proper oil into the pump crankcase.
- 3) Always keep oil level in the middle of the sight glass.

## OIL CHANGES

### INITIAL OIL CHANGE DUE AT 100 HOURS.

*CHANGE OIL EVERY 300 HOURS OR 3 MONTHS  
WHICHEVER COMES FIRST.*

- 1) Remove the oil drain plug. Allow oil to drain completely.
- 2) Replace the oil drain plug.
- 3) Refill with the recommended oil to the proper level.

## ENGINE LUBRICATION (If Engine Driven)

Check engine Owner's manual for lubrication and maintenance requirements.

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# INSTALLATION & OPERATION

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## MAINTENANCE

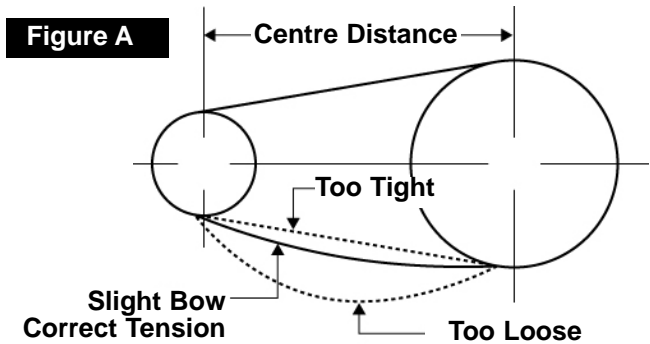
Before doing any maintenance or adjustments to your air compressor, the following safety precautions should be taken:

- ▶ TURN OFF AND LOCK OUT ELECTRIC POWER.
- ▶ DRAIN AIR RECEIVER AND AIR LINES OF AIR PRESSURE.

## CHECKING BELT TENSION (If belt driven)

Adjust belt(s) so when pressure is applied at the center, there is approximately 1/2" slack (see diagram "Figure A" below).

If the belt is installed too tight, the motor might be overloaded. This will cause the motor to overheat. If the belt is installed too loosely, it will slip and excessive wear and vibration will occur.



## HOW TO INSTALL A NEW BELT IF REQUIRED:

- 1) Disconnect power supply.
- 2) Remove belt guard.
- 3) Loosen motor bolts and slide motor toward compressor head just enough to allow old belt to be removed.
- 4) Install proper replacement belt.
- 5) Slide motor away from compressor head to provide recommended tension as shown in diagram (Figure A.)
- 6) Align belt using a straight edge ruler against pulley's edge.
- 7) Fasten motor bolts.
- 8) Ensure motor and compressor pulley's are secure. Re-check alignment.
- 9) Re-install belt guard and reconnect power supply.
- 10) Belt tension should be checked after 20 hours of operation. Check tension monthly thereafter.



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# OPERATING YOUR AIR COMPRESSOR

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**EXTRA CARE SHOULD BE TAKEN  
TO AVOID PERSONAL INJURIES  
WITH AUTOMATIC CONTROLLED  
COMPRESSORS.**

- 1) Check unit for any damage. All compressors are tested and inspected at the factory and supplied in perfect condition. Any damage is the freight carriers' responsibility and you must notify the freight company immediately upon discovering any damage, and submit a claim. Ensure you have documented the damage on the waybill receipt if possible.
- 2) Check compressor installation and wiring
- 3) Turn on electric power and turn pressure switch knob to "auto". Compressor should start running and air pressure should build up in the air receiver as evidenced by the air receiver pressure gauge. Make sure drain valve and outlet valve are closed.
- 4) When air receiver pressure reaches the pressure switch cut-out pressure, the compressor should stop automatically and you are now ready to start using the compressed air. As air is used, the pressure in the air receiver will drop and cause the pressure switch to close and this will automatically start the compressor.
- 5) The compressor will cycle automatically until you are finished using compressed air and the pressure switch knob is switched to "off".



**DO NOT LEAVE THE POWER TO  
THE COMPRESSOR OVERNIGHT  
OR CONNECTED WHEN UNIT IS  
UNATTENDED**

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# MAINTENANCE SCHEDULE

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## DAILY OR BEFORE EACH USE

- ▶ CHECK OIL LEVEL.
- ▶ DRAIN CONDENSATION FROM AIR RECEIVER.
- ▶ CHECK FOR ANY UNUSUAL NOISE OR VIBRATION.
- ▶ BE SURE ALL NUTS AND BOLTS ARE TIGHT.

## WEEKLY

- ▶ TURN OFF POWER. CLEAN DUST AND FOREIGN MATTER FROM CYLINDER HEAD, MOTOR, FAN BLADES, INTER-COOLER AND AIR RECEIVER.
- ▶ CLEAN AIR FILTER BY OPENING AIR FILTER, REMOVING FILTER ELEMENT AND CLEANING IT THOROUGHLY WITH SOAPY WATER. RINSE THOROUGHLY AND ALLOW TO DRY COMPLETELY BEFORE ASSEMBLY.
- ▶ WORN FILTERS SHOULD BE REPLACED.
- ▶ CHECK V-BELTS FOR WEAR.

## MONTHLY

- ▶ INSPECT UNIT FOR LEAKS.
- ▶ TIGHTEN JOINTS IF LEAKS ARE OBSERVED.
- ▶ CHECK V-BELTS FOR PROPER TENSION.
- ▶ CHECK COMPRESSOR PULLEY AND MOTOR SHEAVE ARE ALIGNED AND SECURELY FASTENED.

## QUARTERLY OR 300 HOURS (Whichever comes first)

- ▶ INSPECT THE AIR RECEIVER FOR CORROSION OR OTHER DAMAGE.
- ▶ CHANGE COMPRESSOR OIL.
- ▶ REPLACE AIR FILTER (MORE OFTEN IF COMPRESSOR IS USED NEAR PAINT SPRAYING OPERATIONS OR IN DUSTY ENVIRONMENTS).

# TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Will not start	Incorrect power supply and/or wiring.	Make sure power is turned on. (Consult with a licensed electrician).
	Air receiver is at full pressure.	Drain air receiver.
Low pressure	Safety valve leaks.	Replace safety valve.
	Drain cock open.	Close drain cock.
	Loose tubes or fittings.	Tighten fittings.
	Dirty or plugged air filter.	Clean or replace as necessary.
	Defective unloader valve.	Replace unloader valve.
Oil in discharge	Too much oil in the crankcase.	Drain oil and fill to proper level.
	Improper oil viscosity.	drain and replace oil
	Compressor overheated.	Air pressure regulated too high.
	Restricted air filter.	Clean or replace air filter.
	Worn piston rings.	Replace piston rings.
Compressor overheats	Dirty compressor head, cylinder or intercooler.	Clean with compressed air.
	Clogged inlet filter.	Clean or replace as necessary.
	Operating pressure too high.	Reduce operating pressure.
	Low oil or wrong oil being used.	Drain and replace oil.
	Compressor cycle too long. Proper cycle is 50-60% on Stop/Start operation.	Allow for longer rest between cycles.
	Leaks in air system.	Check for leaks.
Compressor loads & unloads or stops & starts excessively	Pressure switch differential adjusted too close.	Replace worn components as necessary. Make necessary adjustments.
	Defective compressor valves.	Replace valves.
	Compressor too small for intended use.	Upgrade to larger compressor.

# TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Insufficient output, low discharge pressure	Clogged inlet filter.	Clean or replace as necessary.
	Leaks in air lines, air valves, fittings, etc...	Replace worn components as necessary.
	Drive belts slipping.	Tension V-belts.
	Drain valve left open.	Close drain valve.
	Defective pressure gauge.	Replace pressure gauge.
	Leaking head gasket.	Replace head gasket.
	Dirty or plugged inter cooler tubes.	Remove and clean inter cooler tubes.
	Pressure switch adjusted too low, or defective.	Make necessary adjustments.
	Worn or defective compressor valves.	Replace valves.
	Worn piston, worn out rings.	Replace worn parts.
	Restrictive check valve.	Clean check valve and replace if necessary.
Motor stalls or blows breaker	Faulty check valve.	Replace check valve.
	Valves incorrectly installed	Install valves correctly.
	Drive belts too tight.	Tension V-belts.
	Defective pressure switch.	Replace switch.
	Defective Motor.	Replace Motor. (Consult licensed electrician).
	Power being supplied by generator.	Consult licensed electrician
Water in crankcase oil gets dirty, rusty valves or cylinders	Cycle too short; compressor does not operate long enough to vaporize condensed moisture during compression.	Allow for longer operating cycle.
	System pressure leaking back through check valve when compressor is stopped.	Check and replace check valve if necessary.
	Wrong oil being used.	Drain and replace with proper oil




# TROUBLE SHOOTING

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>CORRECTIVE ACTION</b>
Excessive vibration / compressor knocks	Loose compressor, motor or engine guard.	Tighten components.
	Compressor not level.	Level compressor
	Feet bolts over tightened to floor.	Loosen feet bolts.
	Excessive discharge pressure.	Reduce operating pressure.
	Wrong oil being used.	Drain and replace with proper oil.
	Loose flywheel, drive, pulley or drive belts.	Tighten loose components and check belts.
	Worn connector rods, wrist pin or main bearings.	Check and replace worn parts.
	Compressor valves loose or broken.	Check and replace worn or broken valves..
Compressor uses too much oil	Check valve knocks at low pressure.	Remove and clean check valve.
	Clogged inlet filter.	Clean inlet filter or replace as necessary.
	Wrong oil being used, wrong viscosity.	Drain and replace oil.
	Oil level too high.	Fill compressor with oil to proper level.
	Crankcase breather valve malfunction.	Replace crankcase breather.
	Compressor runs unloaded too long	Increase load or stop compressor when not needed. Check for air leaks.
	Compressor operating outside in cold conditions or inlet filter not protected against weather.	Provide adequate protection against extreme weather conditions.
	Worn piston rings.	Replace piston rings.
Piston rings not seated.	See instructions on page 14.	



# EAGLE STANDARD WARRANTY

Seller warrants products of its own manufacture against defects in workmanship and materials under normal use and service as follows:

Compressor Brand			
COMPRESSORS: months from date of start-up	<b>12 Months</b>	<b>24 Months</b>	<b>36 Months</b>
COMPRESSORS: months from date of shipment from factory or whichever comes first.	<b>15 Months</b>	<b>27 Months</b>	<b>39 Months</b>
PARTS: from date of sale	<b>90 Days</b>	<b>90 Days</b>	<b>90 Days</b>

**Eagle** warrants repaired or replaced parts of its own manufacture against defects in materials and workmanship under normal use and service for ninety (90) days or the remainder of the warranty on the product being repaired, whichever is longer.

With respect to products not manufactured by **Eagle**, **Eagle** will, if practical, pass along the warranty of the original manufacturer.

Notice of the alleged defect must be given to Seller in writing with all identifying details including serial number, model number, type of equipment and proof of purchase, within thirty (30) days of the discovery of same during the warranty period.

**Eagle's** sole obligation on this warranty shall be, at its option, to repair, replace or refund the purchase price of any product or part thereof, which proves to be defective, F.O.B. **Eagle** shop.

If requested by **Eagle**, such product or part thereof must be promptly returned to **Eagle**, freight prepaid for inspection.

This warranty shall not apply and Eagle shall not be responsible nor liable for:

- a) Consequential, collateral or special losses or damages;
- b) Equipment conditions caused by normal wear and tear, abnormal conditions of use, accident, neglect or misuse of equipment, improper storage or damages resulting during shipment;
- c) Deviation from operating instructions, specification or other special terms of sale;
- d) Labor charges, loss or damage resulting from improper operation, maintenance or repairs made by person(s) other than **Eagle** or **Eagle** authorized service representative;
- e) Improper application of product.

In no event shall **Eagle** be liable for any claims, whether arising from breach of contract or warranty of claims of negligence or negligent manufacture, in excess of purchase price.

**THIS WARRANTY IS THE SOLE WARRANTY OF EAGLE AND ANY OTHER WARRANTIES, EXPRESSED, IMPLIED IN LAW OR IMPLIED IN FACT, INCLUDING ANY WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR USE, ARE HEREBY SPECIFICALLY EXCLUDED.**