

Belt Drive, Electric Air Compressors

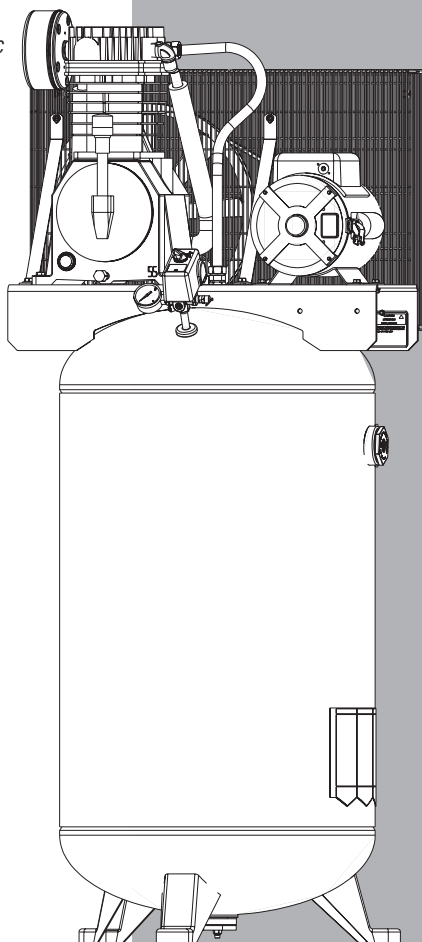
Actionnement pour courroie, Compresseur d'air électrique

Accionamiento por correa, Compresor de aire eléctrico

NOTE: These units DO NOT require a magnetic starter.

REMARQUE : Ces compresseurs ne nécessitent pas l'installation d'un démarreur magnétique.

NOTA: Estas unidades no requieren la instalación de un arrancador magnético por correa.



**Instruction manual
Manuel d'instructions
Manual de instrucciones**

**Français : Page 30
Español: Página 60**

PXCMV5048055

200-2926_Rev. B_7-14-14

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SAFETY GUIDELINES

The following information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the following symbols. Please read the manual and pay attention to these sections.

⚠ DANGER Indicates an imminently hazardous situation which, if not avoided, **will** result in **death or serious injury**.

⚠ WARNING Indicates a potentially hazardous situation which, if not avoided, **could** result in **death or serious injury**.

⚠ CAUTION Indicates a potentially hazardous situation which, if not avoided, **may** result in **minor or moderate injury**.

CONSIGNES DE SÉCURITÉ

Les informations suivantes concernent VOTRE SÉCURITÉ et LA PROTECTION DU MATÉRIEL CONTRE LES PANNES. Pour vous aider à identifier la nature de ces informations, nous utilisons les symboles suivants. Veuillez lire le manuel et prêter attention à ces sections.

⚠ DANGER DANGER POTENTIEL POUVANT ENTRAÎNER DE GRAVES BLESSURES OU LA MORT.

⚠ AVERTISSEMENT DANGER POUVANT CAUSER DES BLESSURES GRAVES VOIRE MORTELLES.

⚠ ATTENTION DANGER POUVANT CAUSER DES BLESSURES MOYENNEMENT GRAVES OU L'ENDOMMAGEMENT DE L'APPAREIL.

PAUTAS DE SEGURIDAD

La información que sigue se refiere a la protección de SU SEGURIDAD y la PREVENCIÓN DE PROBLEMAS DEL EQUIPO. Como ayuda para reconocer esta información, usamos los siguientes símbolos. Lea por favor el manual y preste atención a estas secciones.

⚠ PELIGRO UN POSIBLE RIESGO QUE CAUSARÁ LESIONES GRAVES O LA PÉRDIDA DE LA VIDA.

⚠ ADVERTENCIA UN RIESGO POTENCIAL QUE PODRÍA PROVOCAR GRAVES LESIONES O MUERTE.

⚠ PRECAUCION UN RIESGO POTENCIAL QUE PODRIA PROVOCAR LESIONES LEVES O DA—AR EL EQUIPO.

WARNING

Read and understand all safety precautions in this manual before operating. Failure to comply with instructions in this manual could result in personal injury, property damage, and/or voiding of your warranty. The manufacturer WILL NOT be liable for any damage because of failure to follow these instructions.



1. RISK OF FIRE OR EXPLOSION. Never spray flammable liquids in a confined

area. It is normal for the motor and pressure switch to produce sparks while operating. If sparks come into contact with vapors from gasoline or other solvents, they may ignite, causing fire or explosion. Always operate the compressor in a well-ventilated area. Do not smoke while spraying. Do not spray where sparks or flame are present. Keep compressor as far from spray area as possible.



2. RISK OF BURSTING. Do not weld, drill or modify the air tank of this compressor. Welding or modifications on the air compressor tank can severely

impair tank strength and cause an extremely hazardous condition. Welding or modifying the tank in any manner will void the warranty.



3. RISK OF ELECTRICAL SHOCK. Never use an electric air compressor outdoors when it is raining or on a wet surface, as it may cause an electric

shock.



4. RISK OF INJURY. This unit starts automatically. ALWAYS shut off the main power disconnect, and bleed all pressure from the system before

servicing the compressor, and when the compressor is not in use. Do not use the unit with the shrouds or belt guard removed. Serious injury could occur from contact with moving parts.



5. RISK OF BURSTING. Check the manufacturer's maximum pressure rating for air tools and accessories. Compressor outlet pressure must be regulated so

as to never exceed the maximum pressure rating of the tool. Relieve all pressure through the hose before attaching or removing accessories.



6. RISK OF BURNS. High temperatures are generated by the pump and manifold. To

prevent burns or other injuries, DO NOT touch the pump, manifold or transfer tube while the pump is running. Allow them to cool before handling or servicing. Keep children away from the compressor at all times.



7. RISK TO BREATHING. Be certain to read all labels when you are spraying paints or toxic materials, and follow the safety instructions. Use a respirator mask if there is a chance of inhaling anything you are spraying. Read all instructions and be sure that your respirator mask will protect you. Never directly inhale the compressed air produced by a compressor. It is not suitable for breathing purposes.



8. RISK OF EYE INJURY. Always wear ANSI Z87.1 approved safety goggles when using an air compressor. Never point any nozzle or sprayer toward a person or any part of the body. Equipment can cause serious injury if the spray penetrates the skin.



9. RISK OF BURSTING. Do not adjust the relief valve for any reason. Doing so voids all warranties. The relief valve has been pre-set at the factory for the maximum pressure of this unit. Personal injury and /or property damage may result if the relief valve is tampered with.



10. RISK OF BURSTING. Do not use plastic or pvc pipe for compressed air. Use only galvanized steel pipe and fittings for compressed air distribution

lines.



11. RISK OF BURSTING. Failure to properly drain condensed water from air tank, causing rust and thinning of the steel air tank. Drain air tank daily or after each use. If air tank develops a leak, replace it immediately with a new air tank or replace the entire compressor.



12. RISK TO HEARING. Always wear hearing protection when using an air compressor. Failure to do so may result in hearing loss.



13. The interconnect cord on this product contains lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. **Wash hands after handling.**

NOTE: ELECTRICAL WIRING. Refer to the air compressor's serial label for the unit's voltage and amperage requirements. Ensure that all wiring is done by a licensed electrician, in accordance with the National Electrical code.

DANGER



RISK OF BURSTING.

Air Tank: On February 26, 2002, the U.S. Consumer Product Safety Commission published Release # 02-108 concerning air compressor tank safety:

Air compressor receiver tanks do not have an infinite life. Tank life is dependent upon several factors, some of which include operating conditions, ambient conditions, proper installations, field modifications, and the level of maintenance. The exact effect of these factors on air receiver life is difficult to predict.

If proper maintenance procedures are not followed, internal corrosion to the inner wall of the air receiver tank can cause the air tank to unexpectedly rupture allowing pressurized air to suddenly and forcefully escape, posing risk of injury to consumers.

Your compressor air tank must be removed from service by the end of the year shown on your tank warning label.

The following conditions could lead to a weakening of the air tank, and result in a violent air tank explosion:

WHAT CAN HAPPEN

- Failure to properly drain condensed water from air tank, causing rust and thinning of the steel air tank.
- Modifications or attempted repairs to the air tank.
- Unauthorized modifications to the safety valve, or any other components which control air tank pressure.

HOW TO PREVENT IT

- Drain air tank daily or after each use. If air tank develops a leak, replace it immediately with a new air tank or replace the entire compressor.
- Never drill into, weld or make any modifications to the air tank or its attachments. Never attempt to repair a damaged or leaking air tank. Replace with a new air tank.
- The air tank is designed to withstand specific operating pressures. Never make adjustments or parts substitutions to alter the factory set operating pressures.

WARNING

1. Drain the moisture from the tank on a daily basis. A clean, dry tank will help prevent corrosion.
2. Pull the pressure relief valve ring daily to ensure that the valve is functioning properly, and to clear the valve of any possible obstructions.
3. To provide proper ventilation for cooling, the compressor must be kept a minimum of 12 inches (31 cm) from the nearest wall, in a well-ventilated area.
4. To prevent damage to tank and compressor on stationary models, the tank must be shimmed so the pump base is level within 1/8" to distribute oil properly. All feet must be supported, shimming where necessary, prior to attaching to the floor. Fasten all feet to floor. We also recommend the use of

vibration pads (094-0137) under tank feet.

5. Fasten the compressor down securely if transporting is necessary. Pressure must be released from the tank before transporting.

6. Protect the air hose from damage and puncture. Inspect them weekly for weak or worn spots, and replace if necessary.

7. To reduce the risk of electric shock, do not expose to rain. Store indoors.

⚠ WARNING

CALIFORNIA PROPOSITION 65 WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects and/or reproductive harm.

SPECIFICATION CHART

MODEL NO.	RUNNING H.P.	TANK CAPACITY GALLONS	VOLTAGE/ AMPS/ PHASE	KICK-IN PRESSURE	KICK-OUT PRESSURE
PXCMV5048055	6	Vert 80 (302.8)	230/24/1	145 (10 bar)	175 (12 bar)

BASIC AIR COMPRESSOR COMPONENTS

The basic components of the air compressor are the electric motor, Thermal Overload Protection System (TOPS), pump, and receiver (tank).

The **electric motor** (see **A**) powers the pump.

TOPS senses both temperature and current, providing more complete motor overload protection than a magnetic starter, which senses only current. If TOPS senses an overload condition, it will automatically shut down the compressor. Allow 10-15 minutes for the unit to cool down, then press the reset button on the motor to restart the compressor.

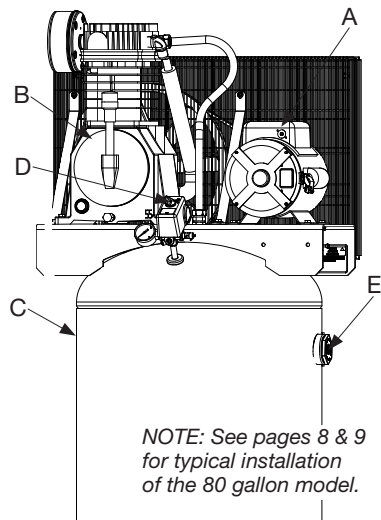
Fig. 1

The **pump** (see **B**) compresses the air and discharges it into the tank.

The **tank** (see **C**) stores the compressed air.

The **pressure switch** (see **D**) shuts down the motor and relieves air pressure in the pump and transfer tube when the air pressure in the tank reaches the kick-out pressure. As compressed air is used and the pressure level in the tank drops to the kick-in pressure, the pressure switch restarts the motor automatically, without warning and the pump resumes compressing air.

The **air line outlet** (see **E**). Connect 1/4" NPT air hose to this outlet.



ASSEMBLING THE COMPRESSOR

1. Unpack the air compressor. Inspect the unit for damage. If the unit has been damaged in transit, contact the carrier and complete a damage claim. Do this immediately because there are time limitations to damage claims.

The carton should contain:

- air compressor
- operator and parts manuals

2. Check the compressor's serial label to ensure that you have received the model ordered, and that it has the required pressure rating for its intended use.
3. Locate the compressor according to the following guidelines:



⚠ WARNING

Never locate the compressor in an area where there are fumes from flammable fluids such as paint, solvents, or gasoline. It is normal for the motor and pressure switch to produce sparks while operating. If sparks come into contact with flammable fumes, they may ignite, causing a fire or explosion. Always operate the compressor in a well ventilated area.

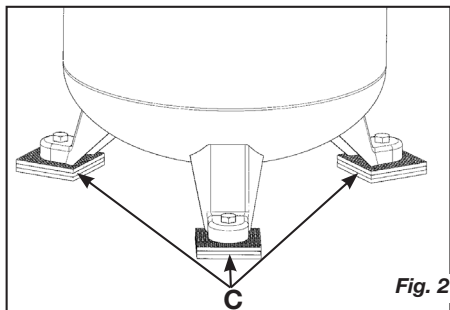
- a. For optimum performance, locate the compressor close to the power panel, as specified in ELECTRICAL POWER REQUIREMENTS, and as close as possible to the place where the air will be used. This ensures maximum power to the compressor and maximum air pressure to the tool. **If both of these conditions cannot be met, it is better to locate the compressor close to the power panel, and use a longer air hose to reach the usage area.**
- b. The flywheel side of the compressor must be at least 12 inches (31 cm) from any wall or obstruction, in a clean, well-ventilated area, to ensure sufficient air flow and cooling.
- c. In cold climates, locate the compressors in a heated building when not in use. This will reduce problems with lubrication, motor starting and freezing of water condensation.
- d. Remove the compressor from the shipping pallet and place it on the floor or a hard, level surface. The compressor must be level to ensure proper lubrication of the pump and good drainage of the moisture in the tank.

⚠ WARNING

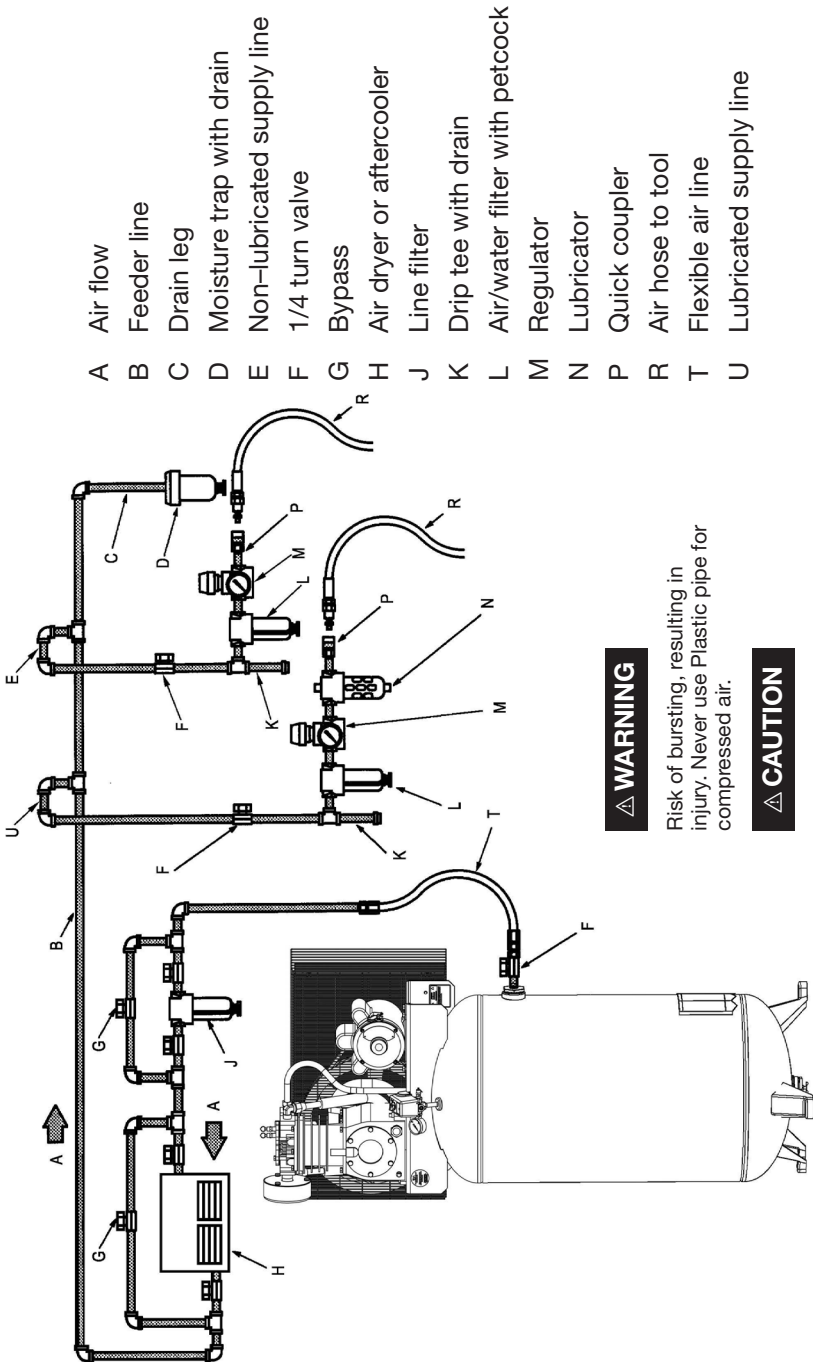
Risk of injury: The shipping pallet is not designed as a base for an operating compressor. Operating the compressor while it is on the pallet will void your warranty.

- e. To prevent damage to tank and pump, the tank must be shimmed so the pump is level within 1/8" per lineal foot maximum to distribute oil properly. Fasten to floor and NEVER force tank feet to floor without shims when tightening. We also recommend the use of vibration pads (094-0137) under tank feet (C).

4. Connect an air hose (not included) to the compressor.



TYPICAL INSTALLATION



⚠ WARNING

Risk of bursting, resulting in injury. Never use Plastic pipe for compressed air.

⚠ CAUTION

Risk of property damage. Never use lubricator for paint spraying or similar applications.

TYPICAL INSTALLATION

AIR DRYERS AND AFTER COOLERS

An air dryer or aftercooler is installed directly in the air line.

MOISTURE REMOVAL AND AIR FILTRATION

As the air cools, moisture will condense in the lines. This moisture must be removed before it reaches the tool being used. To remove this moisture, run the main air line downhill to a moisture trap and drain. Air/water filters should also be installed in the positions shown.

AIR PRESSURE REGULATION

Install an air regulator in the drop line for each tool, to regulate air pressure to that tool. *Never exceed the maximum pressure rating of the tool.*

AIR LUBRICATION

Install an air lubricator only for those tools requiring lubrication. *Do not use a lubricator for paint spraying or similar applications.* The oil will contaminate the paint and ruin the job.

SHUT-OFF VALVES

Install shut-off valves in each drop line, to isolate the tool and its accessories for servicing. You can also install a bypass line around an accessory.

COMPRESSOR CONTROLS

Refer to Fig. 3.



WARNING For your safety, tank pressure is preset within the switch and must never be tampered with.

Pressure Switch (see A)

This switch must not be adjusted by the operator; doing so will void the warranty. The pressure switch controls the level of air pressure in the tank by automatically starting and stopping the motor, as required to maintain the factory preset pressure level.

The pressure switch also automatically bleeds pressure from the pump head when the pump stops. This feature eliminates back pressure in the pump, ensuring easier starting.

Pressure Relief Valve (see B)

If the pressure switch does *not* shut down the motor when pressure reaches the preset level, this valve will pop open automatically to prevent over pressurization. To operate manually, pull the ring on the valve to relieve air pressure in the tank.

Tank Pressure Gauge (see C)

This gauge measures the pressure level of the air stored in the tank. It is not adjustable by the operator, and does *not* indicate line pressure.

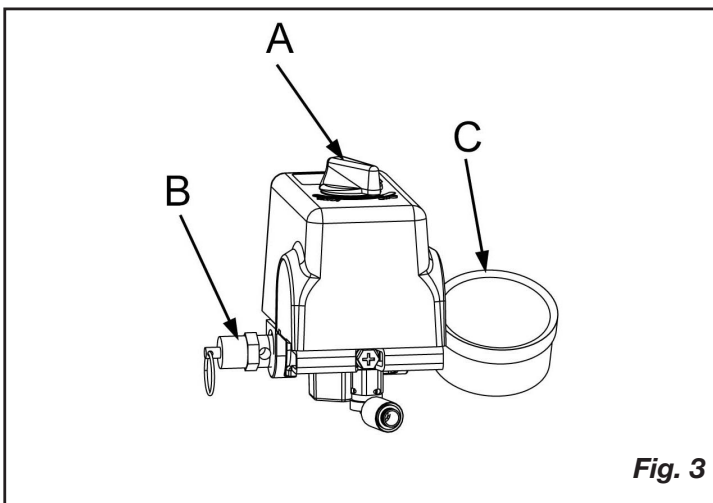


Fig. 3

ELECTRICAL POWER REQUIREMENTS

⚠ WARNING

Risk of electrical shock. Improper electrical grounding can result in electrical shock. The wiring should be done by a qualified electrician.

ELECTRICAL WIRING

Refer to the air compressor's serial label for the unit's voltage and amperage requirements. Ensure that all wiring is done by a licensed electrician, in accordance with the National Electrical Code.

MAIN POWER PANEL

For best performance and reliable starting, the air compressor must be installed on a dedicated circuit, as close as possible to the electrical power panel. Provide circuit breaker or fuse protection at your main power panel. Use time delay fuses on the circuit, because the compressor will momentarily draw several times its specified amperage when first started.

NOTE: A circuit breaker is recommended. If the air compressor is connected to a circuit protected by a fuse, use dual element time delay fuses (Buss Fusetron type "T" only).

MAIN POWER DISCONNECT SWITCH

Install a main power disconnect switch in the line from the panel to the compressor. The main power disconnect switch must be located near the compressor, for ease of use and safety. When turned OFF, the main power disconnect switch shuts off all power to the compressor. When it is turned ON, the compressor will start and stop automatically, controlled by the pressure switch.

LOW VOLTAGE PROBLEMS

Low voltage will cause difficult starting or an overload. Low voltage can be caused by a low supply voltage from the local power company, other equipment running on the same line, or inadequate wiring. If any other electrical devices are drawing from the compressor's circuit, it may fail to start.

Low voltage to the compressor can be caused by a supply wire of insufficient gauge for the distance between the compressor and the power source. The longer the distance, the larger the wire gauge (lower the number) must be, to overcome the inherent voltage loss caused by the wire resistance. Refer to the National Electrical Code to determine proper wire size for your circuit.

If the wiring is not adequate, the input voltage will drop by 20 to 40 volts at startup. Low voltage or an overloaded circuit can result in sluggish starting that causes the circuit breaker to trip, especially in cold conditions.

GROUNDING INSTRUCTIONS

This product must be connected to a grounded, metallic, permanent wiring system, or an equipment - grounding terminal or lead on the product.

MOTOR RESET SWITCH AND WIRING

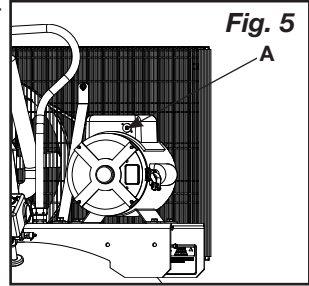
⚠ WARNING

Ensure that all guards and shrouds are in place before pressing the reset switch to restart the motor.

TOPS senses both temperature and current, providing more complete motor overload protection than a magnetic starter, which senses only current. If TOPS senses an overload condition, it will automatically shut down the compressor. Allow 10-15 minutes for the unit to cool down, then press the reset button on the motor to restart the compressor.

If the motor shuts down because of overload, wait 10-15 minutes so the motor can cool down, then press (*NEVER force*) the reset switch (see **A**) to restart the motor (see **Fig. 5**).

Note: On stationary models not supplied with a power cord, the electrical power must be wired into the pressure switch by a Licensed Electrician.



OPERATING INSTRUCTIONS

BREAK-IN OF THE PUMP (Fig. 6)

NOTE: The pump is shipped with break-in oil which should be changed after the first 8 hours of operation.

1. Make sure the power is connected at the power panel.
2. Check the oil level in the pump (see "Checking the Oil" in the maintenance section).
3. Open the petcock (see **F**).



⚠ WARNING

Escaping air and moisture can propel debris that may cause eye injury. Wear safety goggles when opening petcock.

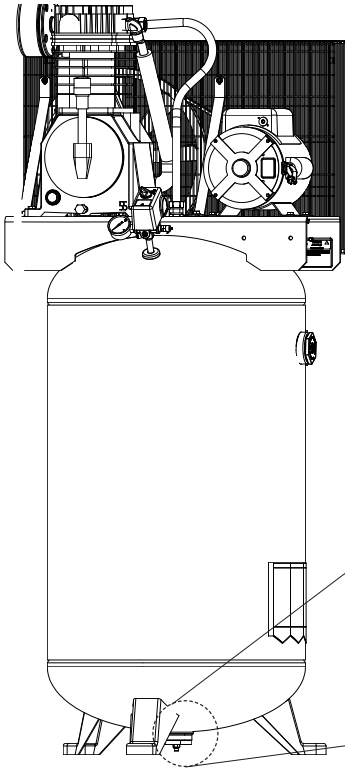
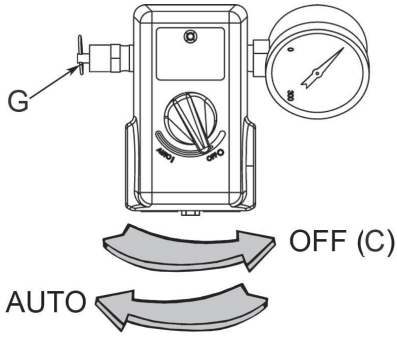
4. Turn ON the main power disconnect switch. Turn the pressure switch to the AUTO position (see **D**). The motor should start. Allow the compressor to run for 30 minutes, to break in the internal parts.

NOTE: If the unit does not operate properly, SHUT DOWN IMMEDIATELY, and contact your nearest Service Center or call the factory's Customer Service Department. **DO NOT** return the unit to the store where it was purchased.

5. Shut OFF the main power disconnect. Close the petcock (see **E**). Connect your air hose to the tank outlet.

NOTE: As compressed air is used, the pressure switch will restart the motor automatically to supply more compressed air to the tank.

Fig. 6



OPEN
F

CLOSE
E

OPERATING INSTRUCTIONS

DAILY START-UP (Fig. 6)

1. Check the oil level in the pump (see “Checking the Oil” in the maintenance section).
2. Make sure the main power disconnect switch is shut OFF.
3. Close the tank petcock (see **E**).
4. Turn ON the main power disconnect switch. Turn the pressure switch to the AUTO position (see **D**). The pump will start filling the tank with air. When the air pressure in the tank reaches the level preset at the factory, the pressure switch will turn off the electric motor. As air is used and the pressure level in the tank drops, the pressure switch will start the motor and the pump will begin refilling the tank.



⚠ WARNING

High temperatures are generated by the pump. To prevent burns or other injuries, **DO NOT touch the pump or transfer tube while the pump is running. Allow it to cool before handling or servicing. Keep children away from the compressor at all times.**

NOTE: If the unit does not operate properly, SHUT DOWN IMMEDIATELY, and contact your nearest Service Center or call the factory's Customer Service Department. DO NOT return the unit to the store where it was purchased.

COLD WEATHER STARTING

In cold weather check that the air filter is clean. ALWAYS use synthetic blend, non-detergent air compressor oil.

Open the petcock (**F**) (Fig. 6) to depressurize the tank to zero PSI before starting. If the compressor will not start, relocate it in a warmer location.

SHUTDOWN (Fig. 6)

1. Turn the pressure switch to the OFF position (see **C**).
2. Shut OFF the main power disconnect switch.
3. Reduce pressure in the tank through the outlet hose. You can also pull the tank safety valve ring (see **G**) and keep it open to relieve pressure in the tank.



⚠ WARNING

Escaping air and moisture can propel debris that may cause eye injury. **Wear safety goggles when opening petcock.**

4. Open the petcock (see **F**) to allow moisture to drain from the tank.

MAINTENANCE

MAINTENANCE

⚠ WARNING To avoid personal injury, always shut off and unplug the compressor and relieve all air pressure from the system before performing any service on the air compressor.

Regular maintenance will ensure trouble-free operation. Your electric powered air compressor represents high-quality engineering and construction; however, even high-quality machinery requires periodic maintenance. The items listed below should be inspected on a regular basis

DRAINING THE TANK (Fig. 6)



⚠ WARNING Condensation will accumulate in the tank. To prevent corrosion of the tank from the inside, this moisture must be drained at the end of every workday.



⚠ WARNING Be sure to wear protective eyewear. Relieve the air pressure in the system and open the petcock on the bottom of the tank to drain.

CHECKING THE OIL

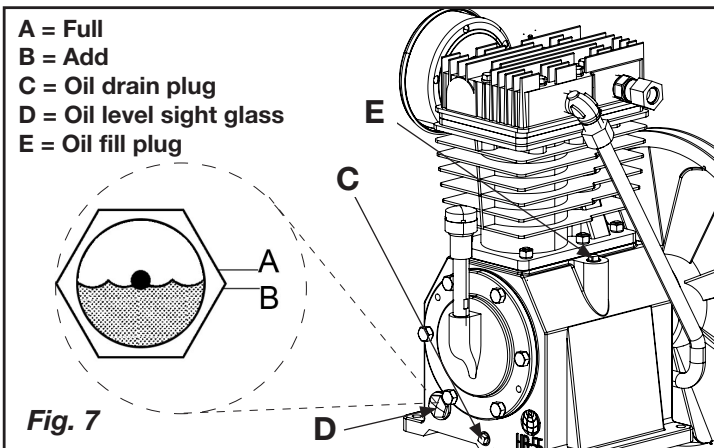
Check the level of oil in the pump with the sight glass. The pump oil level must be between **A** and **B** (See Fig. 7). Do not overfill or underfill.

NOTE: Use synthetic blend, non-detergent air compressor oil.

CHANGING THE OIL

Remove the oil plug (**C**) (Fig. 7) and drain the oil until it slows to a drip, then close. Add oil to the pump by first removing the oil fill plug (**E**). Add oil until the level viewed through the sight glass (**D**) is between **FULL** (**A**) and **ADD** (**B**) (approx. 49 oz.). Never overfill or underfill the pump.

NOTE: The compressor is pre-filled with synthetic oil. Use synthetic blend, non-detergent air compressor oil.



MAINTENANCE

BELT TENSION AND PULLEY ALIGNMENT



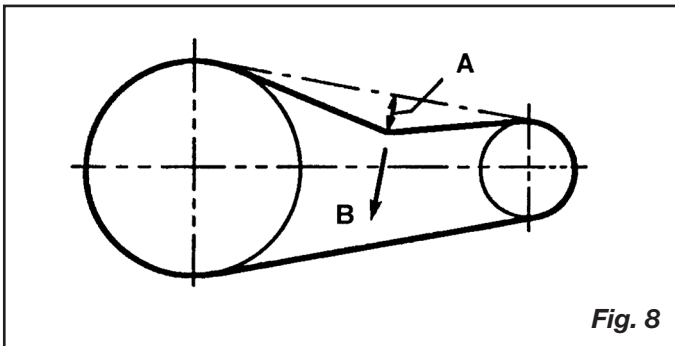
WARNING To avoid personal injury, always shut off and unplug the compressor and relieve all air pressure from the system before performing any service on the air compressor.

NOTE: Drive belt tensioning and pulley alignment are done at the same time. They are discussed separately for clarity.

ADJUSTING DRIVE BELT TENSION

Proper belt tension and pulley alignment must be maintained for maximum drive efficiency and belt life. The correct tension exists if a deflection (see **A**) of 1/2" (13 mm) occurs by placing 5 lb (2.3 kg) of force (see **B**) midway between the motor pulley and the pump flywheel (See **Fig. 8**). This deflection can be adjusted by the following procedure. The pulley should be carefully aligned with the flywheel, and all setscrews should be kept tight.

1. Remove the belt guard.
2. Loosen the motor mounting bolts.
3. Shift the motor to the point where the correct deflection exists.
4. Retighten the motor mounting bolts.
5. Check to ensure that the tension remained correct.
6. Reinstall the belt guard. All moving parts must be guarded.



MAINTENANCE

PULLEY ALIGNMENT

To check pulley alignment, remove the belt guard and place a straightedge (see **A**) against the pump flywheel (see **B**) (See **Fig. 9**). Measure and record the distance from the straightedge to the edge of the drive belt at point **C**. Then measure the distance from the straightedge to the edge of the drive belt again at points **D** and **E**. Both distances should be the same as at point **C**. If **D** or **E** are different from **C**, there is a misalignment which must be corrected before the compressor is run. To correct a pulley misalignment, use the following procedure.

1. Remove the belt guard.
2. Loosen the motor mounting bolts.
3. Loosen the setscrew on the motor pulley.
4. Align the motor pulley with the pump flywheel ($C = D = E$).
5. Retighten the motor pulley setscrew.
6. Adjust the proper belt tension.
7. Retighten the motor mounting bolts.
8. Reinstall the belt guard. All moving parts must be guarded.

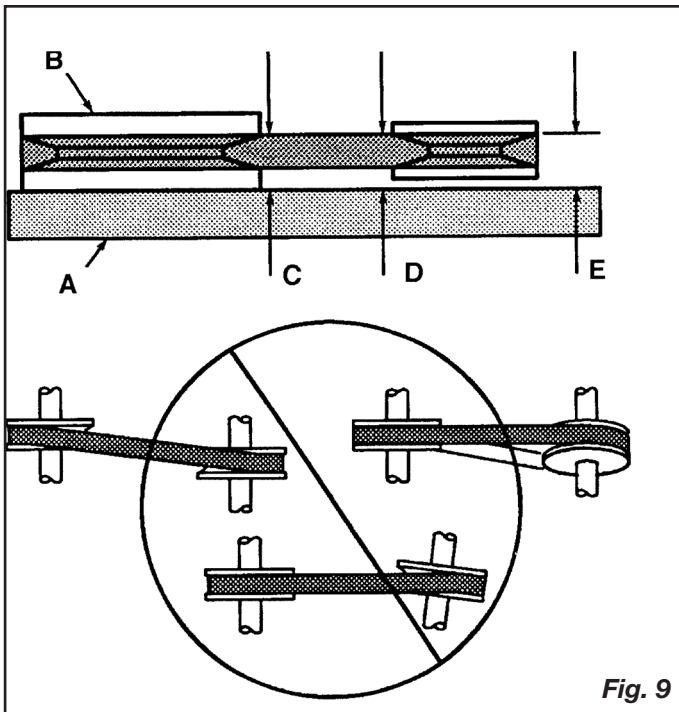
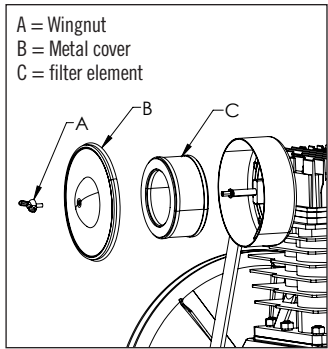


Fig. 9

MAINTENANCE

CLEANING THE AIR FILTER

A dirty air filter will reduce the compressor's performance and life. To avoid any internal contamination of the pump, the filter should be cleaned frequently, and replaced on a regular basis. Felt filters should be cleaned in warm, soapy water, rinsed, and allowed to air dry before reinstallation. Paper filters should be replaced when dirty. Do not allow the filter to become filled with dirt or paint. If the filter becomes filled with paint, it should be replaced. Direct exposure to dirty conditions or painting areas will void your warranty.



CHECKING THE RELIEF VALVE

Pull the relief valve daily to ensure that it is operating properly and to clear the valve of any possible obstructions.

TESTING FOR LEAKS

Check that all connections are tight. A small leak in any of the hoses, transfer tubes, or pipe connections will substantially reduce the performance of your air compressor. If you suspect a leak, spray a small amount of soapy water around the area of the suspected leak with a spray bottle. If bubbles appear, repair or replace the faulty component. Do not overtighten any connections.

STORAGE

Before storing the compressor for a prolonged period, use an air blow gun to clean all dust and debris from the compressor. Disconnect the power cord and coil it up. Pull the pressure relief valve to release all pressure from the tank. Drain all moisture from the tank. Clean the filter element and filter housing; replace the element if necessary. Drain the oil from the pump crankcase and replace it with new oil. Cover the entire unit to protect it from moisture and dust.

SERVICE INTERVAL

Perform the following maintenance at the intervals indicated below.

Inspect and clean air filter	Weekly
Check pump oil level	Daily
Change pump oil	Every 200 operating hours <i>Use synthetic blend, non-detergent air compressor oil.</i>
Operate the pressure relief valves	Daily
Check belt tension	Every 250 operating hours
Drain tank.....	Daily
Check and tighten all bolts	After first 8 hours and every 500 operating hours

TROUBLESHOOTING

Note: Troubleshooting problems may have similar causes and solutions.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Excessive current draw trips circuit breaker of motor reset switch	Low voltage/motor overload	Check that power supply is adequate and that compressor is on a dedicated circuit. If compressor is connected to a circuit protected by a fuse, use dual element time delay fuses (Buss Fusetron type "T" only).
	Drive belt too tight	Readjust belt tension
	Restricted air passages	Inspect and replace transfer tubes or check valve, as required.
Compressor stalls	Low voltage motor	Furnish adequate power.
	Bad check valve	Replace the check valve.
	Seized pump	Contact authorized service center.
Low discharge pressure	Air leaks	Tighten or replace leaking fittings or connections. Do not overtighten.
	Leaking valves	Contact authorized service center.
	Restricted air intake	Clean or replace air filter element(s).
	Blown gaskets	Contact authorized service center.
	Worn piston rings or cylinder	Contact authorized service center.
Compressor pump knocking	Loose engine pulley or compressor flywheel	Retighten pulley and flywheel. Check alignment.
	Low oil level in pump crankcase	Keep oil at proper level at all times.
	Excess carbon on valves or top of piston	Contact authorized service center.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Oil in discharge air	Worn piston rings or cylinder	Contact authorized service center.
	Restricted air intake	Clean or replace the air filter element(s).
	Oil level too high	Reduce to proper level.
Overheating	Poor ventilation	Relocate compressor to an area with cool, dry, well circulated air, at least 12 in. from nearest wall.
	Dirty cooling surfaces	Clean all cooling surfaces thoroughly.
	Restricted air passages	Replace transfer tubes and/or unloader.
Excessive belt wear	Pulley out of alignment	Realign pulley with compressor flywheel.
	Improper belt tension	Readjust.
	Pulley wobbles	Replace the pulley and check for a damaged crankshaft or flywheel.
Compressor won't start in cold temperatures	Too much back pressure in tank	Open petcock when starting motor.
	40W oil in crankcase	Use synthetic blend, non-detergent air compressor oil.
	Compressor too cold	Move compressor to a warmer location.

LIMITED WARRANTY

Porter-Cable Industrial Tools are warranted from date of purchase.

2 Year – Limited warranty on oil-lubricated air compressor pumps.

1 Year – Limited warranty on all other air compressor components.

This warranty is not transferable to subsequent owners.

Porter-Cable will repair or replace, without charge, at Porter-Cable's option, any defects due to faulty materials or workmanship. For further detail of warranty coverage and warranty repair information, call 1-(888)-895-4549 or visit portercable.com. This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others. This warranty also does not apply to merchandise sold by PORTER-CABLE which has been manufactured by and identified as the product of another company, such as gasoline engines. Such manufacturer's warranty, if any, will apply. **ANY INCIDENTAL, INDIRECT OR CONSEQUENTIAL LOSS, DAMAGE OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE OR MALFUNCTION OF THE PRODUCT IS NOT COVERED BY THIS WARRANTY.** Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. **IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

What the Company Will Do: (the company) will cover parts and labor to remedy substantial defects due to materials and workmanship during the first year of ownership, with the exceptions noted below. Parts used in repair of whole goods or accessories are warranted for the balance of the original warranty period.

What is not covered Under This Warranty? Failures by the original retail purchaser to install, maintain, and operate said equipment in accordance with standard industry practices. Modifications to the product, or tampering with components, or failure to comply with the specific recommendations of the Company set forth in the owner's manual, will render this warranty null and void. The Company shall not be liable for any repairs, replacements, or adjustments to the equipment, or any costs for labor performed by the purchaser without the Company's prior written approval. The effects of corrosion, erosion, surrounding environmental conditions, cosmetic defects, and routine maintenance items, are specifically excluded from this warranty. Routine maintenance items such as: oil, lubricants, and air filters, as well as changing oil, air filters, belt tensioning, etc... fall under the owner's responsibility. Additional exclusions include: freight damage, failures resulting from neglect, accident, or abuse, induction motors when operated from a generator, oil leaks, air leaks, oil consumption, leaky fittings, hoses, petcocks, bleeder tubes, and transfer tubes.

- The following components are considered normal wear items and are not covered after the first year of ownership: Belts, sheaves, flywheels,

check valves, pressure switches, air unloaders, throttle controls, electric motors, brushes, regulators, o-rings, pressure gauges, tubing, piping, fittings, fasteners, wheels, quick couplers, gaskets, seals, air filter housings, piston rings, connecting rods, and piston seals.

- Labor, service calls, and travel charges, are not covered after the first year of ownership on stationary compressors (compressors without handles, or wheels). Repairs requiring overtime, weekend rates, or any other charges beyond the standard shop labor rate are not covered.
- Time required for orientation training for the service center to gain access to the product, or additional time due to inadequate egress.
- Damage caused by incorrect voltage, improperly wired, or failure to have a certified licensed electrician install the compressor, will render this warranty null and void.
- Damage caused from inadequate filter maintenance.
- Pump wear or valve damage caused by using oil not specified.
- Pump wear or damage caused by any oil contamination.
- Pump wear or valve damage caused by failure to follow proper maintenance guidelines.
- Operation below proper oil level or operation without oil.
- Gas Engines, if product is equipped with a gas engine, see engine manual for specific engine manufacturer's warranty coverage.

Parts purchased separately: The warranty for parts purchased separately such as: pumps, motors, etc., are as follows:

From Date of Purchase


- All single & two stage pumps 1 year
- Electric motors 90 days
- Universal motor/pump 30 days
- All other parts 30 days
- No return authorization will be issued for electrical components once items are installed.

How do You Get Service? In order to be eligible for service under this warranty you must be the original retail purchaser, and provide proof of purchase from one of the Company's dealers, distributors, or retail outlet stores. Portable compressors or components must be delivered, or shipped, to the nearest Authorized Service Center. All associated freight costs and travel charges must be borne by the consumer. Please call our toll free number 1-888-895-4549 for assistance.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. THE COMPANY MAKES NO OTHER WARRANTY OR REPRESENTATION OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE. ALL IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF

MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIABILITY FOR CONSEQUENTIAL AND INCIDENTAL DAMAGES UNDER ANY AND ALL WARRANTIES, OTHER CONTRACTS, NEGLIGENCE, OR OTHER TORTS IS EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW.

FREE WARNING LABEL REPLACEMENT: If your warning labels become illegible or are missing, call 1-(888)-895-4549 for a free replacement.

<p>WARNING AVERTISSEMENT ADVERTENCIA</p>	<p>HOT SURFACES: To reduce the risk of burns - Do not touch exposed metal surfaces.</p> <p>SURFACES CHAUDES: Pour réduire le risque de brûlures - Ne pas toucher aux surfaces métalliques exposées.</p> <p>SUPERFICIES CALIENTES: Para reducir el riesgo de sufrir quemaduras - No tocar las superficies metálicas expuestas.</p>	
098-2994		

450-3370 WARNING	AVERTISSEMENT	ADVERTENCIA
<p>Before starting, read and understand the operator manual for safe operation and maintenance.</p> <p>Risk of fire or explosion—Do not spray a flammable liquid in a confined area or towards a hot surface. • Spray area must be well ventilated. • Do not smoke while spraying or spray where spark or flame is present. • Strain parts—Keep compressor at least 20 feet away from explosive vapors, such as when spraying with a spray gun.</p> <p>Risk of electric shock—Do not expose to rain. Store indoors. • Use a dedicated circuit. If connected to a circuit protected by a fuse, use time delay (marked D) fuses with the product.</p> <p>Risk of bursting—Do not adjust regulator to result in output pressure greater than the marked maximum pressure of attachment. • If a regulator has not been installed use only attachments rated at 200 psi or higher. • Rust weakens tank, may cause explosion and severe or fatal injury/property damage. Drain condensed water from tank after each use to reduce rusting. • Never weld on or repair tank—replace by authorized dealer.</p> <p>Risk of injury—Do not direct air stream at body. • Disconnect power and drain all air pressure from tank before servicing and after each use. • Do not use compressed air for breathing. • Wear ANSI Z87 approved eye protection. • Do not operate with supplier guards removed.</p> <p>RISK OF BURSTING Prevent tank corrosion. After each usage, drain all moisture from tank. MOISTURE DRAIN</p> <p style="text-align: center;">OPEN </p>	<p>Avant de commencer, lisez le temps de bien comprendre le manuel de l'opérateur pour une utilisation et un entretien sûrs.</p> <p>Risque d'incendie ou d'explosion—Ne pas pulvériser de liquide inflammable dans un endroit confiné ou vers une surface chaude. • La zone de pulvérisation doit être correctement ventilée. • Ne pas fumer pendant la pulvérisation et ne jamais pulvériser en présence d'étincelles ou de flammes. • Pièces de soude - Installer la compresseur à au moins 6 mètres (20 pi) des vapeurs explosives comme lors de l'application de peinture au pistolet.</p> <p>Risques de choc électrique—Ne pas exposer à la pluie. Garder à l'intérieur. • Utiliser un circuit distinct. Si l'équipement est connecté à un circuit protégé par fusibles, employer de fusibles de marqué D.</p> <p>Risque d'éclatement—Ne pas régler le régulateur à une pression de sortie supérieure à la pression maximale des accessoires. Si aucun régulateur n'est installé, n'utiliser que des accessoires d'une capacité nominale de 200 psi ou plus. • Les réservoirs affaiblis par la rouille peuvent exploser et entraîner la mort ou de graves blessures et provoquer d'importants dommages. Vidanger l'eau de condensation au réservoir après chaque utilisation afin de réduire la corrosion. Ne jamais souder ni réparer le réservoir - faire remplacer celui-ci par un centre de service agréé.</p> <p>Risque de blessure—Ne jamais diriger le jet d'air vers le corps. • Couper l'alimentation électrique et chasser toute pression d'air du réservoir avant l'entretien et après chaque usage. • Ne pas respirer l'air comprimé. • Porter des verres protecteurs homologués ANSI Z87. • Ne pas faire fonctionner si les capots protecteurs sont enlevés.</p> <p>RISQUE D'ÉCLATEMENT Prévenir la corrosion en drainant toute humidité ou du réservoir après chaque usage. ÉVACUATION D'EAU</p> <p style="text-align: center;">OUVERT </p>	<p>Antes de comenzar, lea y entienda el manual del operador para operar y dar mantenimiento a la unidad de manera segura.</p> <p>Riesgo de incendio o explosión—No rocíe líquidos inflamables en áreas confinadas ni hacia superficies calientes. • El área donde se va a rociar debe estar bien ventilada. • No fume mientras rocía, ni rocíe en presencia de chispas o llamas. • Partes que pueden producir arco. Mantenga el compresor al menos a 6 metros (20 pies) de distancia de vapores explosivos, como los que se forman cuando se usa una pistola rociadora.</p> <p>Riesgo de descarga eléctrica—No exponga a la lluvia. Almacene en el interior. • Utilice un circuito dedicado. Si se conecta a un circuito protegido con un fusible, utilice fusibles con retardo (marcado D) con este producto.</p> <p>Riesgo de explosión—No ajuste el regulador de manera que la presión de salida sea mayor que la presión máxima marcada del accesorio. Si no se ha instalado un regulador, use solamente accesorios con presión nominal de 200 psi o más. • La corrosión debilita el tanque, puede causar una explosión y daños materiales graves o lesiones graves o fatales. Drene el agua condensada del tanque después de cada uso para reducir la corrosión. • Nunca soldes ni repare un tanque; reemplácelo en un centro de servicio autorizado.</p> <p>Riesgo de lesiones—No dirija la corriente de aire hacia el cuerpo. • Desconecte la corriente y libere toda la presión del aire del tanque antes de dar servicio y después de cada uso. • No use aire comprimado para respirar. • Use protección ocular aprobada según ANSI Z87. • No opere sin los dispositivos de protección proporcionados.</p> <p>RISQUE DE EXPLOSION Prevenir la corrosión del tanque. Después de cada uso, drene toda la humedad del tanque. DESAGÜE DE AGUA</p> <p style="text-align: center;">ABIERTO </p>

<p>WARNING</p>
<p>For supply connection, use wires acceptable for at least 90°C.</p>
<p>AVERTISSEMENT</p>
<p>Pour la connexion d'alimentation, utilisez des fils pouvant supporter au moins 90°C.</p>
<p>ADVERTENCIA</p>
<p>La conexión del suministro debe efectuarse con cables homologados para una temperatura de 90°C o mayor.</p>

<p>CAUTION ATTENTION PRECAUCION</p>
<p>To provide proper cooling the compressor must be kept a minimum of 12" (twelve inches) from the nearest wall or obstruction.</p>
<p>Afin d'assurer un refroidissement adéquat, le compresseur doit être situé à au moins 30 cm de tout mur ou obstacle.</p>
<p>Para que la compresora tenga el enfriamiento apropiado, debe mantenerse a una distancia mínima de 30 cm de la pared u obstrucción más cercana.</p>
098-3031

GLOSSARY OF TERMS

CFM

Cubic feet per minute; a unit of measure of air flow.

PSI

Pounds per square inch; a unit of measure of air pressure.

Kick-in pressure

Factory set low pressure point that starts the compressor to repressurize the tank to a higher pressure.

Kick-out pressure

Factory set high pressure point that stops the compressor from increasing the pressure in the tank above a certain level.

Well-ventilated

A means of providing fresh air in exchange for dangerous exhaust or vapors.

Dedicated circuit

An electrical circuit reserved for the exclusive use of the air compressor.

ASME

American Society of Mechanical Engineers.

Indicates that the components are manufactured, tested and inspected to the specifications set by ASME.

CSA

Canadian Standards Association



Indicates that the products that have this marking have been manufactured, tested and inspected to standards that are set by CSA.

Canadian Standards Association (USA)



Indicates that the products that have this marking have been manufactured, tested and inspected to standards that are set by CSA. These products also conform to U.L. standard 1450.

PARTS AND SERVICE

Replacement parts and service are available from your nearest authorized Service Center. If the need arises, contact Product Service as listed at right.

When consulting with a Service Center or Product Service, refer to the model number and serial number located on the serial label of the compressor. Proof of purchase is required for all transactions and a copy of your sales receipt may be requested.

Record the model number, serial number, and date purchased in the spaces provided below. Retain your sales receipt and this manual for future reference.

When needing service, please contact the nearest authorized Service Center or call:

PRODUCT SERVICE



In U.S.A. or Canada

Toll-Free
Fax

1-888-895-4549
1-507-723-5013

Model No.	Serial No.	Date Purchased

Made in USA with domestic and foreign components

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Springfield, MN 56087

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