



# KING CANADA

## 5 PEAK HP 20 GALLON AIR COMPRESSOR



MODEL: 8498

# INSTRUCTION MANUAL

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# IMPORTANT INFORMATION



<p><b>2-YEAR LIMITED WARRANTY FOR THIS 20 GALLON AIR COMPRESSOR</b></p>	<p><b>KING CANADA TOOLS OFFERS A 2-YEAR LIMITED WARRANTY FOR NON-COMMERCIAL USE.</b></p>
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## **PROOF OF PURCHASE**

Please keep your dated proof of purchase for warranty and servicing purposes.

## **REPLACEMENT PARTS**

Replacement parts for this tool are available at our authorized KING CANADA service centers across Canada. For servicing, contact or return to the retailer where you purchased your product along with your proof of purchase.

## **LIMITED TOOL WARRANTY**

KING CANADA makes every effort to ensure that this product meets high quality and durability standards. KING CANADA warrants to the original retail consumer a 2-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations and lack of maintenance. KING CANADA shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products. To take advantage of this warranty, the product or part must be returned for examination by the retailer. Shipping and handling charges may apply. If a defect is found, KING CANADA will either repair or replace the product.

## **PARTS DIAGRAM & PARTS LISTS**

Refer to the Parts section of the King Canada web site for the most updated parts diagram and parts list.



# IMPORTANT SAFETY INSTRUCTIONS



## RISK OF EXPLOSION OR FIRE WHAT CAN HAPPEN

It is normal for electrical contacts within the motor and pressure switch to spark.



If electrical sparks from the compressor come in contact with flammable vapors, they may ignite, causing fire or explosion. Restricting any of the compressor ventilation openings will cause serious overheating and could cause fire.

Unattended operation of this compressor could result in personal injury or property damage.



## RISK OF BURSTING WHAT CAN HAPPEN

1. Failure to properly drain condensed water from the tank, causing rust and thinning of the steel tank.
  2. Modifications or attempted repairs to the tank.
  3. Unauthorized modifications to the unloader valve, safety valve or any other components which control tank pressure.
  4. Excessive vibration can weaken the air tank and cause rupture or explosion.
- Attachments & Accessories; Exceeding the operating pressure of air tools can cause them to explode.



## RISK OF BURNS WHAT CAN HAPPEN

Touching exposed metal such as the compressor head or outlet tubes, can result in serious burns.



## RISK OF PROPERTY DAMAGE WHEN TRANSPORTING COMPRESSOR WHAT CAN HAPPEN

Oil can leak or spill and could result in fire or breathing hazard, serious injury or death can result. Oil leaks will damage carpet, paint or other surfaces in vehicles or trailers.

## HOW TO PREVENT IT

Always operate the compressor in a well ventilated area free of combustible materials, gasoline or solvent vapors. If spraying flammable materials, locate the compressor at least 20 feet away from the spray area. An additional length of hose may be required.

Store flammable materials in a secure location away from the compressor.

Never place objects against or on top of the compressor. Operate compressor in an open area at least 12 inches away from any wall or obstruction that would restrict the flow of fresh air to the ventilation openings.

Operate compressor in a clean, dry and well ventilated area. Do not operate compressor indoors in a confined area.

Always remain in attendance with the compressor when it is operating.

## HOW TO PREVENT IT

Drain tank daily or after every use. If the tank develops a leak, replace tank or get a new air compressor. Never drill into, weld or make any modifications to the tank or its attachments.

The tank is designed to withstand specific operating pressures. Never make adjustments or parts substitutions to alter the factory set operating pressures.

For essential control of air pressure, you must install a pressure regulator and pressure gauge to the air outlet.

## HOW TO PREVENT IT

Never touch any exposed metal parts on compressor during or immediately after operation. The compressor will remain hot several minutes after use.

Do not reach around protective shrouds or attempt maintenance until the compressor has cooled down completely.

## HOW TO PREVENT IT

Always place compressor on a protective mat when transporting to protect against damage to vehicle from leaks. Remove compressor from vehicle immediately upon arrival.

# SPECIFICATIONS & ELECTRICAL INFORMATION



## SPECIFICATIONS

Model .....	8498
Voltage .....	120V
Horsepower .....	.5 (peak)
Amperage .....	14.5A
RPM (no load speed) .....	3400
Phase .....	1
Hertz .....	60Hz
Maximum tank pressure .....	125 PSI
Operating pressure .....	115 PSI
CFM @ 40 PSI .....	7.4
CFM @ 90 PSI .....	5.7
Tank size .....	.20 Gallon

### WARNING

ALL ELECTRICAL CONNECTIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY! ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE COMPRESSOR DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

## POWER SUPPLY

**WARNING:** YOUR COMPRESSOR MUST BE CONNECTED TO A 110V, WITH A MINIMUM 15-AMP. BRANCH CIRCUIT. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

## GROUNDING

Your compressor must be properly grounded. Not all outlets are properly grounded. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician.

**WARNING:** IF NOT PROPERLY GROUNDED, THIS COMPRESSOR CAN CAUSE ELECTRICAL SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS. TO AVOID SHOCK OR FIRE, IF THE POWER CORD IS WORN OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY.

If this compressor should malfunction or breakdown, grounding provides a path of least resistance for electric current, to reduce the risk of electric shock. This cut-off is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

**WARNING:** TO MAINTAIN PROPER GROUNDING, DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER.

## 110V OPERATION

As received from the factory, your compressor is ready to run for 110V operation. This machine is intended for use on a circuit that has an outlet and a plug which looks like the one illustrated in Fig.1.

**WARNING:** DO NOT USE A TWO-PRONG ADAPTOR FOR THEY ARE NOT IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES. NEVER USE IN CANADA.

## EXTENSION CORDS

The use of any extension cord will cause some loss of power. IT IS RECOMMENDED TO USE A LONGER AIR HOSE INSTEAD OF AN EXTENSION CORD. If you do not have a choice, use the table in Fig.2 to determine the minimum wire size (A.W.G-American Wire Gauge) extension cord. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-hole receptacles which accept the tool's plug.

For circuits that are further away from the electrical circuit box, the wire size must be increased proportionately in order to deliver ample voltage to the compressor motor. Refer to Fig.2 for wire length and size.

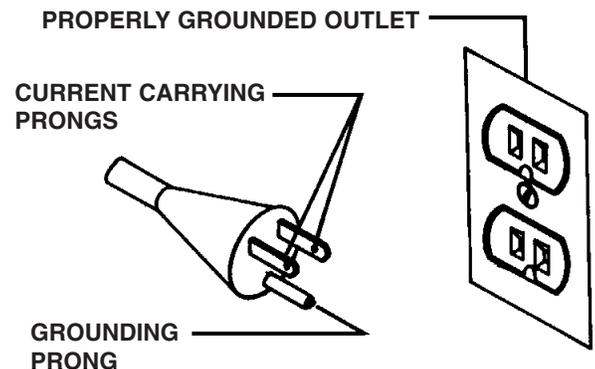


FIGURE 1

<u>LENGTH OF CONDUCTOR</u>	<u>WIRE SIZES REQUIRED (AMERICAN WIRE GAUGE)</u>
	<u>110V LINES</u>
0-25 FEET	NO.12
26-50 FEET	NO.12
51-100 FEET	NO.10

FIGURE 2



# OPERATION CONTROLS

**AIR COMPRESSOR PUMP.** To compress air, the piston moves up and down in the cylinder. On the downstroke, air is drawn in through the intake valves. The exhaust valves remain closed. On the upstroke of the piston, air is compressed. The intake valves close and compressed air is forced out through the exhaust valves.

**CHECK VALVE (A) FIG.3.** When the air compressor is operating, the check valve is “open”, allowing compressed air to enter the air tank. When the air compressor reaches “Cut-Out” pressure, the check valve “closes”, allowing air pressure to remain inside the air tank.

**ON/AUTO-OFF SWITCH (C) FIG.5.** Turn this switch ON to provide power to the automatic pressure switch and OFF to remove power at the end of each use.

**PRESSURE SWITCH (D) FIG.5.** The pressure switch automatically starts the motor when the tank pressure drops below the factory set “Cut-In” pressure. It also stops the motor when the air tank pressure reaches the factory set “Cut-Out” pressure.

**REGULATOR (E) FIG.5.** The air pressure coming from the air tank is controlled by the regulator. Lift the regulator knob to unlock it and then turn it clockwise to increase pressure and counterclockwise to decrease pressure, push bouton down to relock it into position. To avoid minor readjustment after making a change in the pressure setting, always approach the desired pressure from a lower pressure. When reducing from a higher to a lower setting, first reduce the pressure less than that desired, then bring it up to the desired pressure. Depending on the air requirements of each particular accessory, the outlet regulated air pressure may have to be adjusted while operating the accessory.

**OUTLET PRESSURE GAUGE (F) FIG.5.** The outlet pressure gauge indicates the air pressure available at the outlet side of the regulator. The pressure is controlled by the regulator and is always less than or equal to the tank pressure.

**TANK PRESSURE GAUGE (G) FIG. 5.** The tank pressure gauge indicates the air pressure in the tank.

**COOLING SYSTEM.** This compressor contains an advanced design cooling system. The cooling system is working when air is being expelled.

**DRAIN VALVE (B) FIG. 4.** The drain valve is located at the bottom center of the air tank and is used to drain condensation from the tank at the end of each use.

**MOTOR THERMAL OVERLOAD PROTECTOR (RESET (I) FIG. 6).** The electric motor has an automatic thermal overload protector. If the motor overheats for any reason, the thermal overload protector will shut off the motor. The motor must be allowed to cool before restarting. Press the reset button (I) after 15 minutes.

**PRESSURE RELEASE VALVE.** The pressure release valve located on the side of the pressure switch, is designed to automatically release compressed air from the compressor head and the outlet tube when the air compressor reaches “cut-out” pressure or is shut off. The pressure release valve allows the motor to restart freely. When the motor stops running, air will be heard escaping from this valve for a few seconds. No air should be heard leaking when the motor is running, or continuous leaking after unit reaches “cut-out” pressure.

**SAFETY VALVE (H) FIG. 5.** If the pressure switch does not shut off the air compressor at its cutout pressure setting, this safety valve will protect against high pressure by “popping out” at its factory set pressure (slightly higher than the pressure switch cut-out setting).

**WARNING!** If the safety valve does not work properly, over pressurization may occur, causing air tank rupture or an explosion. Daily pull the ring on the safety valve to make sure that the safety valve operates freely. If the valve is stuck or does not operate smoothly, it must be replaced with the same type of valve.

**WATER FILTER (J) FIG. 5.** The water filter allows you to drain water periodically based on the amount of condensation which forms. Pull down on the drain valve (K) Fig.5 to drain water from the water filter. **Warning!** Do not pull drain valve while tank is under pressure or else risk of projectile.

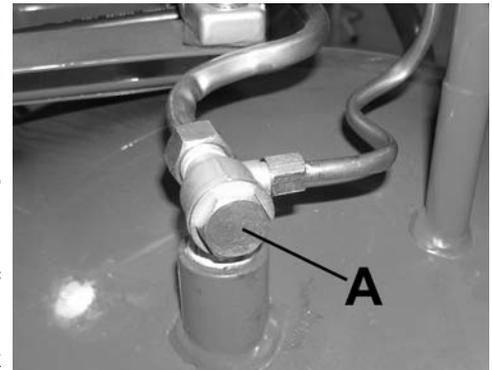


FIGURE 3

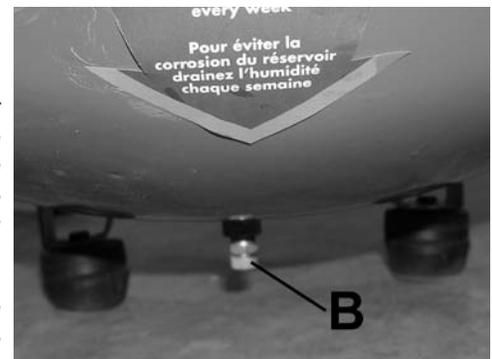


FIGURE 4

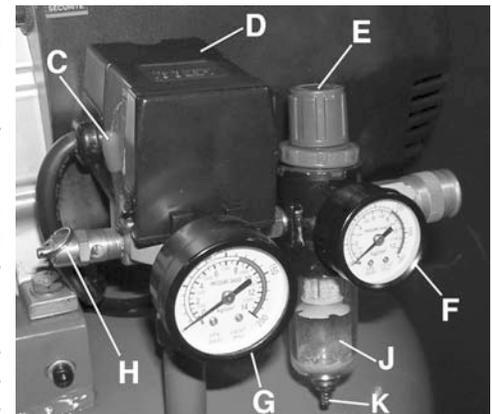


FIGURE 5



FIGURE 6

# BREAK-IN PROCEDURES & OPERATION



## ASSEMBLY AND LOCATION OF THE AIR COMPRESSOR

Your compressor comes almost completely assembled. The muffler part# 78 (refer to parts diagram) must be screwed to the cylinder cover #3. The oil breather cap #20 must be screwed to the crankcase cover #24. It may be necessary to install the pressure gauges #'s 50, place teflon tape around the pressure gauge threaded shaft and fix them in their respective places. Assemble both 8" rubber wheels to the wheel shaft, then the wheel shaft to the wheel shaft brackets on the base of the tank. Finally, lock carry handle into place with the 2 supplied lock knobs #81, make sure to tighten the 2 lock knobs into both holes in the carry handle for a secure installation.

Operate the air compressor in a dry, clean, cool, well ventilated area. The air compressor pump and case are designed to allow for proper cooling. Clean or blow off dust or dirt that collects on the air compressor. A clean air compressor runs cooler and provides longer service. The ventilation openings on your air compressor are necessary to maintain proper operating temperature. Do not place rags or other containers on or near these openings.

## ADDITIONAL REGULATORS AND CONTROLS

Since the air tank pressure is usually greater than that which is needed, a regulator is employed to control the air pressure ahead of any individual driven device. Separate air transformers which combine the function of air regulation, moisture and dirt removal should be used where applicable.

## BREAK-IN PROCEDURES

**NOTE: MAKE SURE THAT YOU HAVE FILLED THE CRANKCASE WITH COMPRESSOR OIL UP TO THE CENTER DOT OF THE OIL LEVEL AS DESCRIBED IN "MAINTENANCE SECTION" AND THAT ALL ASSEMBLY INSTRUCTIONS ABOVE HAVE BEEN FOLLOWED BEFORE DOING THE FOLLOWING "BREAK-IN PROCEDURES (MUFFLER, OIL BREATHER CAP AND PRESSURE GAUGES). SERIOUS DAMAGE MAY RESULT IF THE FOLLOWING BREAK-IN INSTRUCTIONS ARE NOT CLOSELY FOLLOWED. THIS PROCEDURE IS REQUIRED BEFORE THE AIR COMPRESSOR IS PUT INTO SERVICE, OR AFTER REPLACING THE CHECK VALVE, AND WHEN THE PISTON OR THE CYLINDER SLEEVE IS REPLACED.**

- A. Set the pressure switch to the "OFF" position.
- B. Plug the power cord into the correct branch circuit receptacle.
- C. Turn the drain valve (B) Fig. 4, opening it fully, to prevent air pressure build-up in the tank.
- D. Move the pressure switch to "ON/AUTO". The compressor will start.
- E. Run the compressor for 15 minutes. Make sure the drain valve is open and there is no tank pressure build-up.
- F. After 15 minutes, close the drain valve by turning the knob. The air receiver will fill to cut-out pressure and the motor will stop. The air compressor is now ready for use.

## OPERATING PROCEDURES

Preparation for use:

1. Before attaching air hose or accessories, make sure the OFF/AUTO is set to "OFF" and the air regulator is closed.
2. Attach hose and accessories.

**WARNING:** Too much air pressure causes a hazardous risk of bursting. Check the manufacturer's maximum pressure rating for air tools and accessories. The regulator outlet pressure must never exceed the maximum pressure rating of the tool being used.

3. Turn the "OFF/AUTO" to "ON" and allow tank pressure to build. Motor will stop when tank pressure reaches "cut-out" pressure.
4. Open the regulator by lifting it and then turning it clockwise. Adjust the regulator to the correct pressure setting. The compressor is ready for use.
5. Always operate the air compressor in well ventilated areas; free of gasoline or other solvent vapors. Do not operate the compressor near the spray area.

After Use:

6. Set the switch to "OFF".
7. Lift then turn the regulator button counterclockwise to set the outlet pressure to zero and finally push the button down again to lock in place.
8. Remove the air tool or accessory.
9. Pull ring on safety valve (H) Fig. 5, allowing air to bleed from the tank until tank pressure is approximately 20 psi. Release safety valve ring.
10. Drain water from air tank. Turn drain valve (B) Fig. 4, counterclockwise to open.

**WARNING!: WATER WILL CONDENSE IN THE AIR TANK. IF NOT DRAINED WATER WILL CORRODE AND WEAKEN THE AIR TANK CAUSING A RISK OF AIR TANK RUPTURE.**

NOTE: If drain valve is plugged, pull ring on safety valve (H) Fig. 5, and hold until air pressure has been released. The valve can then be removed, cleaned, and reinstalled.



# MAINTENANCE & STORAGE

## MAINTENANCE

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

- Disconnect electrical power.
- Drain air tank of pressure.

### Daily or before each use

1. Check oil level. Oil level should be centered with the red dot.
2. Drain condensation from tank.
3. Check for any unusual noise or vibration.
4. Be sure all nuts and bolts are tight.

### Monthly

1. Inspect air system for leaks by applying soapy water to all joints. Tighten those joints if leakage is observed.

### 250 hours or six months (whichever comes first)

1. Change compressor oil. See following instructions.
2. Replace oil more often if compressor is used near paint spraying operations or in dusty environments.

## CHANGING OIL

To change oil, oil must be drained from the crankcase by removing oil sight glass (C) Fig.7. Drain oil and replace oil sight glass. To fill the crank case with oil (approx. 450ml), first unscrew and remove oil breather cap (A), pour air compressor oil (SAE 30 weight non-detergent oil) into crankcase oil opening (B) until the oil level reaches the center red dot on the oil sight glass (C). Retighten oil breather cap (A).

## KEEP TOOL CLEAN

Periodically blow out all air passages with dry compressed air. Clean all plastic parts with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

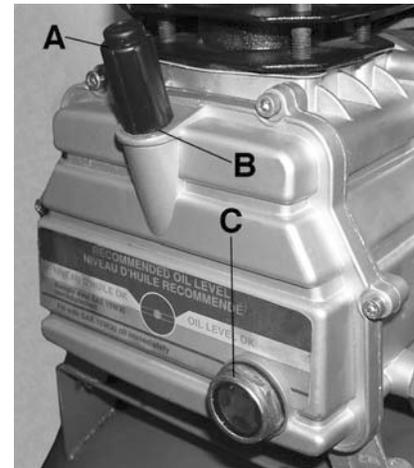
**CAUTION:** Wear safety glasses while using compressed air.

## FAILURE TO START

Should your compressor fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line. If using an extension cord, try using a longer air hose instead and try to start compressor again.

## STORAGE

1. Set the "OFF/AUTO" button to "OFF".
  2. Lift and turn the regulator counterclockwise to set the outlet pressure to zero.
  3. Remove the air tool or accessory .
  4. Pull ring on safety valve (H) Fig. 5, allowing air to bleed from the tank, until tank pressure is approximately 20psi. Release safety valve ring.
  5. Drain water from air tank. Turn drain valve (B) Fig. 4, counterclockwise, to open.
- NOTE: If drain valve is plugged, pull ring on safety valve (H) Fig. 5, and hold until air pressure has been released. The valve can then be removed, cleaned, and reinstalled.
6. After the water has been completely drained, turn drain valve to close. The air compressor can now be stored.
  7. Protect the electrical cord and air hose from damage by winding them loosely around the air compressor.
  8. Store the air compressor in a clean and dry location.



**FIGURE 7**

## TROUBLE SHOOTING

TROUBLE	POSSIBLE CAUSE	CORRECTIVE ACTION
No start condition	Fuse blown or circuit breaker tripped Loose electrical connections Overheated motor	Check voltage or eliminate extension cord or reset Check wiring connections Press the reset button or wait for automatic reset
Low pressure	Air leak in safety valve  Restricted air filter Defective check valve	Check valve manually by pulling upwards on ring. If condition persists replace valve Clean or replace as necessary Replace check valve
Safety valve releasing	Defective pressure switch or improper adjustment	Check for proper adjustment and if problem persists, replace pressure switch
Oil discharge in air	Improper oil viscosity Too much oil in crankcase Compressor overheated Restricted air filter	Replace oil with SAE 30 oil Drain crankcase and fill to proper level Air pressure regulated too high Replace filter