

SEARS

OWNERS MANUAL

MODEL NO.
919.176841
919.176941
919.176951

IMPORTANT:
Read the Safety Guidelines
and All instructions
Carefully Before Operating



CRAFTSMAN AIR COMPRESSOR

ASSEMBLY
OPERATION
MAINTENANCE
REPAIR PARTS

Record in the spaces provided.

- (1) The model number which can be found on the maintenance label on the rear of the air tank.
- (2) The code number which can be found on the foil label on the rear of the air tank.
- (3) The Manufacturers Number (MFG. . .) (ASME Code Compressors only) is located on the metal data plate which is welded onto the backside of the air tank. (This data plate is painted the same color as the tank.)
- (4) The Motor Manufacturers name which is located on the motor label or specification plate.
- (5) The Motor Mfg. number - also located on the motor label or specification plate.

Retain these numbers for future reference.

Model No. _____

Code No. _____

Mfg. No. _____

Motor Mfg. Name _____

Motor Mfg. No. _____

Sears, Roebuck and Co., Chicago, IL 60684 U.S.A.

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FULL ONE YEAR WARRANTY ON AIR COMPRESSORS

If this air compressor fails due to a defect in material or workmanship within one year from the date of purchase, return it to the nearest Sears Service Center/Department throughout the United States and Sears will repair it, free of charge.

If this air compressor is used for commercial or rental purposes, the warranty will apply for ninety days from the date of purchase.

This warranty gives you specific legal rights and you may have other rights that vary from state to state.

Sears, Roebuck and Co., Sears Tower, Dept. 698/731 CR-W, Chicago, IL 60684

SAFETY GUIDELINES

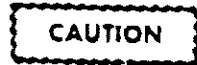
This manual contains information that is important for you to know and understand. This information relates to protecting your safety and preventing equipment problems. To help you recognize this information, we use the following symbols. Please read the manual and pay special attention to sections headed by these symbols.



URGENT SAFETY INFORMATION – A HAZARD THAT WILL CAUSE SERIOUS INJURY OR LOSS OF LIFE.



IMPORTANT SAFETY INFORMATION – A HAZARD THAT MIGHT CAUSE SERIOUS INJURY OR LOSS OF LIFE.



Information for preventing damage to equipment.

NOTE

Information that you should pay special attention to.



**HAZARDS CAN OCCUR IF EQUIPMENT IS NOT USED PROPERLY.
PLEASE READ THE FOLLOWING CHART.**

WHAT TO LOOK FOR	WHAT COULD HAPPEN	HOW TO PREVENT IT
Hot Parts	The compressor head and tubes get hot when the air compressor is running. If you touch them, you can be seriously burned.	Never touch the air compressor head or tubes during or immediately after operation.
Flammable Vapors	It is normal for the motor's electrical contacts to spark when the compressor starts or stops. A spark can ignite flammable vapors from gasoline, flammable paints or solvents, causing an explosion or fire.	Operate the compressor in well ventilated areas that are free of gasoline, flammable paint or solvent vapors. If spraying a flammable material – provide ample ventilation. Never spray in a closed area. There must be a flow of fresh air at all times. Do not operate the compressor in the spray area.
Unsuitable Solvents	The solvents 1,1,1 – Trichlorethane and Methylene Chloride can chemically react with aluminum used in paint spray guns, paint pumps, etc., and cause an explosion. These solvents can also react with galvanized components and cause corrosion and weakening of parts. This does not affect your air compressor – but it may affect the equipment being used.	If the material you intend to spray contains the solvents listed at left (read the label or data sheet), do not use accessories that contain aluminum or galvanized parts. You must either change the material you intend to spray, or use only stainless steel spray equipment.

Compressed Air

Compressed air can propel dust, dirt or loose particles it comes in contact with.

Never point any nozzle or sprayer toward a person or any part of the body.

Always wear safety goggles or glasses when using the air compressor.

Always turn the air compressor off and release air pressure from hose before attaching or removing accessories.

Too much air pressure applied to air tools or accessories can cause damage or risk of bursting.

Check the manufacturer's maximum pressure rating for air tools and accessories. Regulator outlet pressure must never exceed the maximum pressure rating.

Electricity

Your air compressor is powered by electricity. Like any other electrically powered device, if it is not used properly it can cause electrical shock.

Always unplug the air compressor prior to maintenance or repair.

Never use the air compressor outdoors when it is raining.

Always plug the cord into an electrical outlet with the specified voltage and adequate fuse protection.

Moving Parts

This compressor cycles automatically when the switch is in the "On-Auto" position. If you attempt repair or maintenance while the compressor is operating, or with the switch in the "On-Auto" position, you can expose yourself to moving parts. These moving parts can cause serious injury or damage, if they come into contact with you or your clothing.

Always unplug the unit and release air pressure from the tank and any accessories before doing repair or maintenance.

Never operate the compressor with the belt guard removed.

Toxic Vapors

It is normal for compressed air to contain toxic or irritating vapors. Such vapors are harmful if inhaled.

Certain materials you are spraying (like paint, weed killer, sand or insecticide) can be harmful if you inhale them.

Never directly inhale the compressed air produced by this unit.

Read labels and safety data for all materials you spray. Follow all safety precautions.

Use a mask or respirator if there is a chance of inhaling toxic sprayed materials. Masks and respirators have limits and will only provide protection against some kinds and limited amounts of toxic material. Read mask and respirator instructions carefully. Consult with a safety expert or industrial hygienist if you are not sure about the use of a certain mask or respirator.

Air Tank

Modifications to the air compressor can cause the air tank to rupture or explode.

Do not adjust, remove or tamper with the safety valve or pressure switch. If safety valve or pressure switch replacement is necessary, a part with the same pressure rating must be used.

For service replacement use only the motors, pulleys and belts designed as standard service replacement parts as indicated in parts list. Use of improper parts could cause overloading of your unit and electrical supply.

Do not substitute a gas engine for the motor . . . this compressor was not designed to be powered by a gasoline engine.

Never replace the compressor pump with a different model.

Never increase the compressor pump speed.

Never drill into, weld, or in any way modify the air tank. Do not repair a leaking tank, it must be replaced.

Never replace the air tank with a different model or a larger tank.

Changing the air tank will cause it to weaken. The tank can rupture or explode.

SPECIFICATION CHART

Model No.	919.176841	919.176941	919.176951
Horsepower	4	4	5
Displacement CFM	12.7	12.7	14.9
Bore	2 ³ / ₄ "	2 ³ / ₄ "	2 ⁷ / ₈ "
Stroke	2"	2"	2"
Voltage-Single Phase	240	240	240
Minimum Branch Circuit Requirement	15 amp	15 amp	15 amp
*Fuse Type	Fusetron Type "T"	Fusetron Type "T"	Fusetron Type "T"
Air Tank Capacity - Gallons	20	20 ASME	30 ASME
Approximate Cut-in Pressure	100	100	100
Approximate Cut-out Pressure	125	125	125
SCFM @ 40 psig	10.3	10.3	12.0
SCFM @ 90 psig	8.5	8.5	10.0
SCFM @ 125 psig	7.2	7.2	8.3
U.L. Listed	No	Yes	Yes

*A circuit breaker is preferred. Use only a fuse or circuit breaker that is the same rating as the branch circuit the compressor is operated on. If the air compressor is connected to a circuit protected by fuses, use dual element time delay fuses (Buss Fusetron Type "T" only).

CAUTION

These air compressors can be operated on a 15 amp circuit if:

1. Voltage supply to circuit is normal.
2. Circuit is not used to supply any other electrical needs (lights, appliances, etc.)
3. Extension cords comply with specifications in owners manual.

4. Circuit is equipped with 15 amp circuit breaker or 15 amp Fusetron Type "T" time delay fuse.

If any of the above conditions cannot be met, or if operation of the compressor repeatedly causes interruption of the power it may be necessary to operate it from a 20 amp circuit. It is not necessary to change the cordset.

GLOSSARY

CFM: Cubic feet per minute.

SCFM: Standard cubic feet per minute; a unit of measure of air delivery.

PSIG: Pounds per square inch gauge; a unit of measure of pressure.

ASME: American Society of Mechanical Engineers; made, tested, inspected and registered to meet the standards of the ASME.

U.L. Listed: Underwriter Laboratories; Samples of compressor outfits, taken from production, were submitted to U.L. and found to comply with their requirements for design and performance.

Cut-in Pressure: While the motor is off, air tank pressure drops as you continue to use your accessory. When the tank pressure drops to a certain low level the motor will re-start automatically. The low pressure at which the motor automatically re-starts is called "cut-in pressure."

Cut-Out Pressure: When you turn on your air compressor and it begins to run, air pressure in the air tank begins to build. It builds to a certain high pressure before the motor automatically shuts off - protecting your air tank from pressure higher than its capacity. The high pressure at which the motor shuts off is called "cut-out pressure."

ACCESSORIES FOR USE WITH SEARS AIR COMPRESSORS

The following accessories are available through the current general sales catalog or at full-line Sears stores.

- SPRAY GUNS
- BLOW GUNS
- AIR CAULKING GUNS
- AIR POWERED WASHER GUNS
- SAND BLASTERS
- AIR BRUSHES
- AIR LINE FILTERS
- TIRE AIR CHUCKS

- PAINT TANKS
- AIR TANKS
- INFLATOR KITS
- QUICK CONNECTOR SETS
(various sizes)
- VISCOSIMETER
- AIR PRESSURE REGULATORS
- OIL FOG LUBRICATORS

- AIR TOOLS:
 - Sanders
 - Drills
 - Impact wrenches
 - Hammers
- AIR HOSE:
 - 1/4", 5/16" OR 3/8" I.D.
 - in various lengths.

GENERAL INFORMATION

You have purchased an air compressor unit consisting of a 2 cylinder, single stage air compressor pump, an air tank, air hose, wheels, handle and associated controls. You will also find an air chuck.

Your air compressor can be used for operating paint spray guns, air tools, caulking guns, grease guns, air brushes, sandblasters, power washers, inflating tires and plastic toys, spraying weed killers, insecticides, etc.

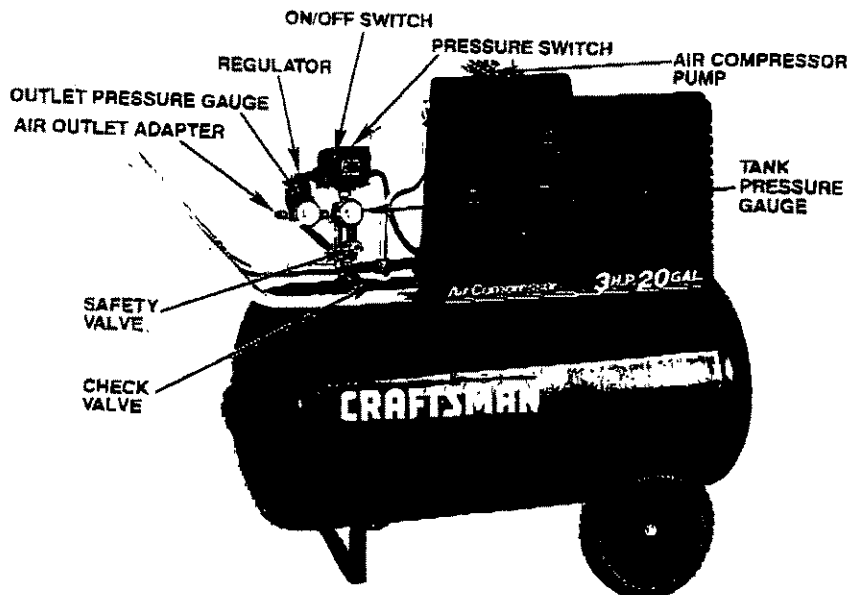
Model Nos. 919.176841 and 919.176941 are not equipped with a pressure regulator. An air pressure regulator is usually necessary for most of these applications. An Air

Line Filter is usually required for removal of moisture and oil vapor in compressed air when a paint spray gun is used.

An in-line lubricator is usually required for air tools to prolong tool life.

Separate air transformers which combine the functions of air regulation and/or moisture and dirt removal should be used where applicable. These accessories can be purchased from most Sears stores or through the Sears General catalog or Power Tool catalog.

DESCRIPTION OF OPERATION



Air Compressor Pump: To compress air, the pistons move up and down in the cylinders. On the downstroke, air is drawn in through the air intake filter and then through the air intake valves. The exhaust valve remains closed. On the upstroke of the piston, air is compressed. The intake valves close and compressed air is forced out through the exhaust valve, through the outlet tube, through the check valve and into the air tank. Working air is not available until the compressor has raised air tank pressure above that required at the air outlet.

Check Valve: 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.

Pressure Switch: The pressure switch automatically starts the motor when the air tank pressure drops below the factory set "cut-in" pressure. It stops the motor when the air tank pressure reaches the factory set "cut-out" pressure.

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. If the air is

not released, the motor will try to start, but will be unable to. The pressure release valve allows the motor to restart freely. When the motor stops running, air will be heard escaping from the valve for a few seconds. No air should be heard leaking from the valve when the motor is running.

Safety Valve: If the pressure switch does not shut off the air compressor at or near its cut-out pressure setting, the safety valve will protect against high pressure by "popping out" at its factory-set pressure (slightly higher than the pressure switch cut-out setting).

Regulator: The air pressure coming from the air tank is controlled by the regulator knob. Turn the knob clockwise to increase pressure and counterclockwise to decrease pressure. To avoid minor readjustment after making a change in pressure setting, always approach the desired pressure from a lower pressure. When reducing from a higher to a lower setting, first reduce to some pressure less than that desired, then bring up to the desired pressure. Depending on the air requirements of each particular accessory, the outlet regulated air pressure might have to be adjusted while you are operating the accessory. Model No. 919.176841 and 919.176941 have shut-off valves only, they do not include regulators.

the valve and clockwise to close.

Outlet Pressure Gauge (Regulator Outfits Only): The outlet pressure gauge indicates the air pressure available at the outlet side of the regulator. This pressure

is controlled by the regulator and is always less or equal to the tank pressure. See "Operating Procedures."

Tank Pressure Gauge: The tank pressure gauge indicates the reserve air pressure in the tank. On outfits with no pressure regulator, this is also the pressure available at the air outlet.

ASSEMBLY INSTRUCTIONS

Items You Will Need To Assemble Your Compressor

- 16 oz. compressor oil, Sears 9-16426
- pipe thread sealant
- an adjustable wrench for attaching the pressure regulator or shut-off valve
- a 9/16" socket or open-end wrench for attaching the wheels and hose adapter
- a 7/16" open-end wrench for attaching the air pressure gauge (model no. 919.176951 only)
- a 3/16" hex key for installing the plug in the regulator (model no. 919.176951 only)

Installing Handle

WARNING

THE WHEELS AND HANDLE DO NOT PROVIDE ADEQUATE CLEARANCE, STABILITY OR SUPPORT FOR PULLING THE UNIT UP AND DOWN STAIRS OR STEPS. THE UNIT MUST BE LIFTED OR PUSHED UP A RAMP. DO NOT LIFT THE UNIT BY THE MANIFOLD ASSEMBLY. THE UNIT CAN BE DAMAGED.

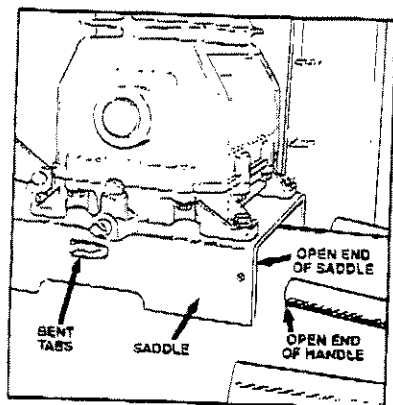


FIG. 1

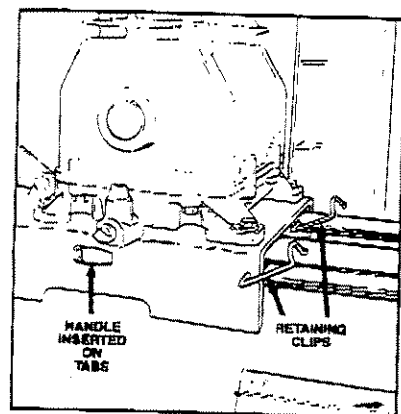


FIG. 3

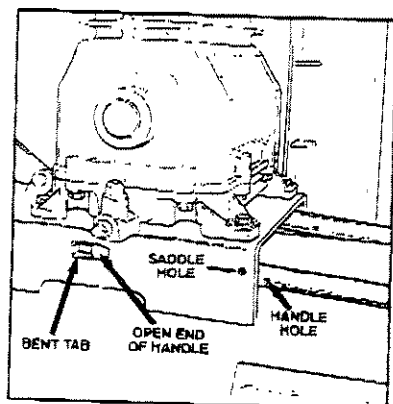


FIG. 2

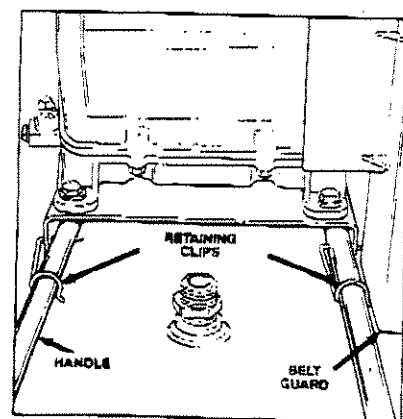


FIG. 4

1. Insert the open end of the handle under the saddle (Fig. 1). Before attaching handle, you may have to pull the open ends of the handle apart so they fit tightly against the side of the saddle. Looking in from the open end of the saddle, position the handle towards the two bent tabs, on the inside walls of the saddle. Slowly push the open ends of the handle onto both tabs at the same time (Fig. 2). Continue pushing the handle into the saddle until the holes on the side of the saddle and handle are in line.
2. Guide the straight end of each retaining clip through the saddle hole and both handle holes (Fig. 3).
3. Rotate each retaining clip clockwise and press down until it snaps into place over the pull handle (Fig. 4).
4. If the handle has excessive movement, it is improperly installed. Check the following:
 - A. Are both tabs inside the handle (Step #1)?
 - B. Does each clip pass through both the saddle and handle (Step #2)?

CAUTION

It may be necessary to brace or support one end of the outfit when attaching the wheels because the air compressor will have a tendency to tip.

Installing Rubber Foot Strip and Wheels

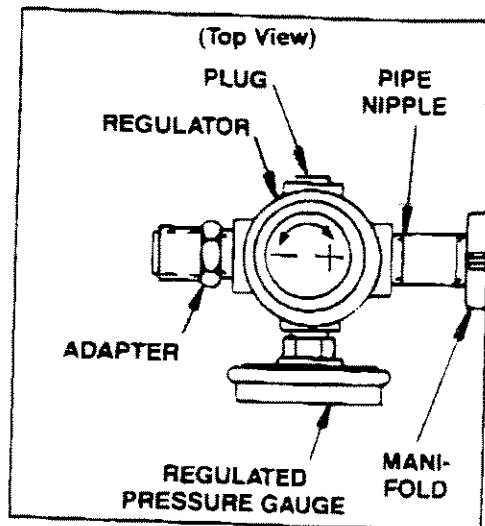
1. Remove the protective paper strip from the adhesive-backed rubber foot strip. Attach the rubber foot strip to the bottom of the air tank leg. Press firmly into place. (See key no. 39 on page 15.)
2. The leg bracket on the underside of the air compressor tank has 2 holes on each side for mounting the wheels. Place one shoulder bolt through the hole in a wheel. Model no. 919.176951, push the bolt through the **TOP** hole of the leg bracket. For model nos. 919.176841, and 919.176941, push the bolt through the **BOTTOM** hole of the leg bracket. Screw on one hex locking nut. The special locking nut does not turn freely. Tighten the nut firmly until it contacts the tank leg. See page 15. The outfit will set level if the wheels are properly installed.

Installing Tank Pressure Gauge:

Apply pipe sealant (not supplied) to the gauge threads and install in the threaded opening in front of the manifold. Refer to photo on page 6.

Installing Regulator

(not included with Models 919.176841 and 919.176941)

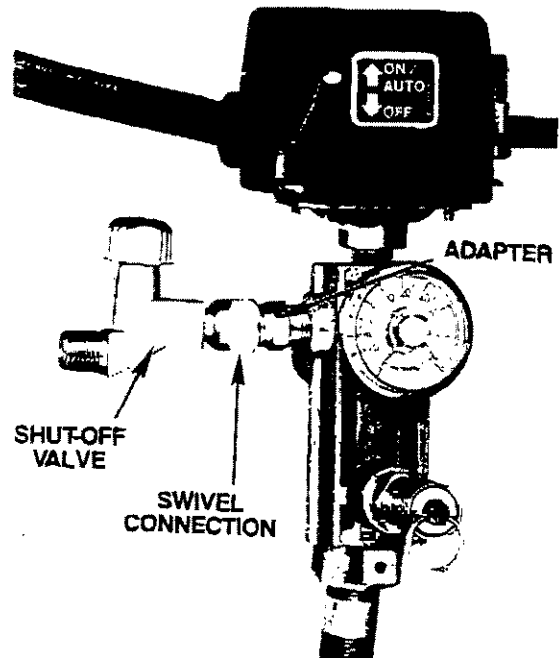


NOTE

Use a small amount of pipe thread sealant (not supplied) on all pipe thread joints. Install the regulator on the end of the manifold using the short pipe nipple. The arrow on the bottom of the regulator must point away from the manifold in order for the regulator to function properly. Next, install the gauge, adapter and plug in the regulator. The plug is supplied with the regulator.

Installing Shut-off Valve

(Models 919.176841 and 919.176941 only.)



Apply a small amount of pipe sealant to the tapered pipe threads on the adapter and tighten into the manifold. Install the swivel connection end of the shut-off valve to the straight threaded end of the adapter (pipe sealant is not required) and tighten this connection. See photo above.

INSTALLATION AND BREAK-IN PROCEDURES

Location of the Air Compressor

Operate the air compressor in a clean, dry and well ventilated area. The air filter must be kept clear of obstructions which could reduce air delivery of the air compressor. The air compressor should be located at least 12" away from walls or other obstructions that could interfere with the flow of air through the fan bladed fly-

wheel. The air compressor crankcase and head are designed with fins to provide proper cooling.

If humidity is high, a Sears air filter can be installed to remove excessive moisture and oil vapor from the air. Closely follow the instructions packaged with the filter for proper installation. It must be installed as close as possible to the accessory.

Extension Cords

To avoid voltage drop and power loss to the motor, use extra air hose instead of an extension cord.

If an extension cord *must* be used:

- use only a 3-wire extension cord that has a 3-blade grounding plug and a 3-slot receptacle that will accept the plug on the product.
- make sure the extension cord is in good condition.
- the extension cord should be no longer than 50 feet.
- the minimum wire size is 12 gauge (AWG). (Wire size increases as gauge number decreases. 10 AWG and 8 AWG may also be used. DO NOT USE 14 AWG or 16 AWG.)

Lubrication and Oil

CAUTION

Compressors are shipped without oil. Do not attempt to operate this air compressor without first adding oil to the crankcase.

Place unit on a level surface. Remove oil fill plug (key no. 77 on pg. 19) and slowly add a special compressor oil such as Sears 9-16426 or SAE 20-20W SF motor oil until it is even with the top of the oil fill hole. (It must not be allowed to be lower than 3/8" – 6 threads down – from the top, at any time.) When filling the crankcase, the oil flows very slowly. If the oil is added too quickly, it will overflow and appear to be full. Crankcase oil capacity is 16 fluid ounces. Under winter-type conditions use SAE 10W oil. Multi-viscosity oil, 10W 30, will leave carbon deposits on critical components reducing performance and compressor life. Replace oil fill plug.

Grounding Instructions

WARNING

IMPROPER GROUNDING CAN RESULT IN ELECTRICAL SHOCK. IN THE EVENT OF A SHORT CIRCUIT, GROUNDING REDUCES THE RISK OF SHOCK BY PROVIDING AN ESCAPE WIRE FOR THE ELECTRIC CURRENT. THIS AIR COMPRESSOR MUST BE PROPERLY GROUNDING.

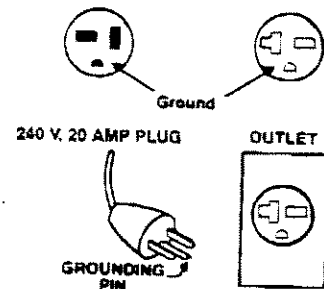
1. The air compressor is equipped with a cord having a grounding wire and an appropriate grounding plug. The plug must be used with an outlet that has been installed and grounded in accordance with all local codes and ordinances. The outlet must have the same configuration as the plug. DO NOT USE AN ADAPTER.
2. Do not modify the plug that has been provided. If it does not fit the available outlet, the correct outlet should be installed by a qualified electrician.

3. Inspect the plug and cord before each use. Do not use the compressor if there are signs of damage.

⚠ DANGER

ELECTRICAL SHOCK HAZARD. WHEN REPAIRING OR REPLACING THE CORD OR PLUG, KEEP THE GROUNDING WIRE SEPARATE FROM THE CURRENT-CARRYING WIRES. NEVER CONNECT THE GROUNDING WIRE TO A FLAT BLADE PLUG TERMINAL. (THE GROUNDING WIRE HAS INSULATION WITH AN OUTER SURFACE THAT IS GREEN – WITH OR WITHOUT YELLOW STRIPES.)

If these grounding instructions are not completely understood, or if you are not sure your compressor is properly grounded, have the installation checked by a qualified electrician.



Break-in Procedures

CAUTION

Serious damage may result if the following break-in instructions are not closely followed.

This procedure is required only once, before the air compressor is put into service.

1. Set the pressure switch lever to the "OFF" position.
2. Plug the power cord into the correct branch circuit receptacle.
3. Turn the regulator clockwise (or open the shut-off valve), opening it fully, to prevent air pressure build-up in the tank.
4. Move the pressure switch lever to "ON/AUTO". The compressor will start.
5. Run the compressor for 30 minutes. Make sure the regulator, or shut-off valve, is open and there is no tank pressure build-up.
6. After 30 minutes, close the regulator by turning it counter-clockwise or close the shut-off valve by turning the knob clockwise. The air receiver will fill to cut-out pressure and the motor will stop. The compressor is now ready for use.

1. Before attaching an air hose or accessory, make sure the pressure switch lever is in the "OFF" position. Close the air regulator outlet by turning it counter-clockwise or the shut-off valve by turning the knob clockwise.
2. Attach hose and accessory.

WARNING

TOO MUCH AIR PRESSURE CAUSES A HAZARDOUS RISK OF BURSTING. CAREFULLY FOLLOW STEPS 3 THROUGH 12 EACH TIME THE COMPRESSOR IS USED.

3. Check the manufacturer's maximum pressure rating for air tools and accessories. The regulator outlet pressure must never exceed the maximum pressure rating. **On models without an air regulator, a regulator must be installed before using accessories rated at less than 125 psig.**

CAUTION

Compressed air from the outfit may contain water condensation and oil mist. Do not spray unfiltered air at an item that could be damaged. Some air operated tools or devices may require filtered air. Read the instructions for the air tool or device.

4. Turn the pressure switch lever to the "ON-AUTO" position and allow tank pressure to build. The motor will stop when tank pressure reaches cut-out pressure.
5. Open the regulator by turning it clockwise. Adjust the regulator to the correct pressure setting. See pg. 6 for regulator instructions. Your outfit is ready for use.

When You Are Finished:

6. Set the pressure switch lever to "OFF".
7. Turn the regulator counter-clockwise and set the outlet pressure to zero.
8. Remove the air tool or accessory.
9. Open the regulator and allow the air to slowly bleed from the tank. Close the regulator when tank pressure is approximately 20 psi.
10. Drain water from air tank.

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.

11. With tank pressure at approximately 20 psi., open the drain cock and allow moisture to drain. Turn drain T-handle counter-clockwise to open.

NOTE

If the drain cock valve is plugged, release all air pressure. The valve can then be removed, cleaned, and reinstalled.

12. After the water has been drained, close the drain cock (turn clockwise). The air compressor can now be stored.

MAINTENANCE

WARNING

UNIT CYCLES AUTOMATICALLY WHEN POWER IS ON. WHEN DOING MAINTENANCE, YOU MAY BE EXPOSED TO VOLTAGE SOURCES, COMPRESSED AIR OR MOVING PARTS. PERSONAL INJURIES CAN OCCUR. BEFORE PERFORMING MAINTENANCE OR REPAIR UNPLUG THE UNIT AND BLEED OFF ALL AIR TANK PRESSURE. NEVER OPERATE THE UNIT WITH THE BELT GUARD REMOVED.

Air Compressor

A clean air compressor runs cooler and provides longer service. Clean or blow off fins and any other parts of the air compressor that collect dust or dirt. Do not place rags, containers or other material on or against the ventilation openings in the belt guard. Adequate ventilation is necessary to maintain proper air compressor operating temperature.

A dirty air filter will not allow the compressor to operate at full capacity. Before you use the compressor, check the air filter to be sure it is clean.

If it is dirty, replace it with a new filter. The filter may be removed by using a pair of needle nosed pliers or a screwdriver. Pull or pry out the old filter. Push in the new air filter.

Air Filter – Inspection and Replacement

NOTE

Keep the air filter clean at all times. Do not operate the compressor with the air filter removed.

Oil – Checking and Changing

CAUTION

Overfilling with oil will cause premature compressor failure. Do not overfill.

plug (key no. 77, pg. 19). The oil level should be even with the top of the fill hole and must not be allowed to be lower than 3/8" from the top (6 threads) at any time. It is recommended that the oil be changed after every 100 hours of operation. To drain the oil, remove the oil drain plug and collect the oil in a suitable container. Be sure to replace the plug securely before adding new oil. Use a special compressor oil such as Sears 9-16426 or SAE 20-20W SF motor oil. (Crankcase oil capacity is 16 fluid ounces.) Under extreme winter conditions use SAE 10W oil. Multi-viscosity oil (10W30) will leave carbon deposits on critical components which will reduce performance and compressor life.

Check Valve – Replacement

1. Release air pressure from the air tank.
2. Loosen the top and bottom tube nuts and remove the outlet tube.
3. Unscrew the check valve (turn counter-clockwise) using socket wrench.
4. Check that the valve disc moves freely and that the spring holds the disc in the upper, closed position. The check valve may be cleaned with a solvent, such as paint thinner or carburetor cleaner.
5. Apply sealant to the check valve threads. Reinstall the check valve (turn clockwise). Do not over tighten.
6. Replace the outlet tube and tighten top and bottom tube nuts.

Safety Valve – Inspection

WARNING

IF THE SAFETY VALVE DOES NOT WORK PROPERLY OVER-PRESSURIZATION MAY OCCUR, CAUSING AIR TANK RUPTURE OR EXPLOSION. OCCASIONALLY 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 A VALVE HAVING THE SAME PRESSURE RATING.

Motor

The motor has a manual thermal overload protector. If the motor overheats for any reason, the overload protector will shut off the motor. The motor must be allowed to cool down before restarting. Turn the unit off. To restart, depress the red reset button located on the end of the motor and turn the unit on.

NOTE

If the overload protector shuts the motor off frequently, check for a possible voltage problem.

Before You Store The Air Compressor:

1. Review the "Maintenance" section on the preceding pages and perform maintenance as necessary. Drain the water from the air tank.
2. Set the OFF/AUTO switch to the "OFF" position, and unplug the unit.

Low voltage can also be suspected when:

1. the motor does not get up to full power or speed;
2. fuses blow out when the motor is started.
3. lights dim when motor is started, and remain dim while it is running.

Minimum acceptable voltage for 240V is 208V at the motor terminals.

Belt – Replacement

WARNING

SERIOUS INJURY OR DAMAGE MAY OCCUR IF PARTS OF THE BODY OR LOOSE ITEMS GET CAUGHT IN MOVING PARTS. NEVER OPERATE THE OUTFIT WITH THE BELT GUARD REMOVED. THE BELT GUARD SHOULD BE REMOVED ONLY WHEN THE COMPRESSOR IS UNPLUGGED.

To Replace Belt:

1. Unplug compressor.
2. Remove the front of the belt guard by disengaging the snaps. Insert a flat bladed screwdriver at each snap location and pry the beltguard apart.
3. The motor is mounted on a special base. By loosening the wing nut, the motor can be tilted to allow for easy removal of the belt.
4. Remove belt and replace.

NOTE

The belt must be centered over the grooves on the flywheel and motor pulley.

5. Tighten the wing nut until it contacts the washer, plus one more turn.
6. Replace the front beltguard.

To Adjust Belt Tension:

1. Tighten the wing nut until it contacts the washer, plus one more turn.
2. To TIGHTEN the belt tension turn the wing nut CLOCKWISE in 1/4 turn increments.

Pulley and Flywheel – Alignment

The compressor flywheel and motor pulley grooves must be in-line (in the same plane) within 1/32" to assure belt alignment within grooves. To check alignment, disconnect electrical power and remove the beltguard. Place a straightedge against the outside of the flywheel and measure the distance from it to the nearest groove. Alignment is achieved when the other end of the straightedge is within 1/32" of the measured dimension at the pulley grooves.

STORAGE

3. Remove the air tool or accessory.
4. Protect the electrical cord and air hose from damage (such as being stepped on or run over). Wind them loosely around the outfit handle.
5. Store the compressor in a clean and dry location.

WARNING

PERFORMING REPAIRS MAY EXPOSE VOLTAGE SOURCES, MOVING PARTS, OR COMPRESSED AIR SOURCES. PERSONAL INJURY MAY OCCUR. PRIOR TO ATTEMPTING ANY REPAIRS. UNPLUG THE COMPRESSOR AND BLEED OFF ALL AIR TANK PRESSURE. NEVER OPERATE THE UNIT WITH THE BELT GUARD REMOVED.

PROBLEM	CAUSE	CORRECTION
Excessive tank pressure – safety valve pops off.	Pressure switch does not shut off motor when compressor reaches "cut-out" pressure.	Move the pressure switch lever to the "OFF" position. If the outfit doesn't shut off, and the electrical contacts are welded together, replace the pressure switch. If the contacts are good, check to see if the pin in the bottom of the pressure relief valve is stuck. If it does not move freely, replace the valve.
Air leaks at fittings	Pressure switch "cut-out" too high. Tube fittings are not tight enough.	Return the outfit to the Sears Service Center to check and adjust or replace switch. Tighten fittings where air can be heard escaping. Check fittings with soapy water solution. DO NOT OVER-TIGHTEN.
Air leaks at check valve	Defective or dirty check valve.	A defective check valve results in a constant air leak at the pressure release valve when there is pressure in the tank and the compressor is shut off. Remove and clean or replace check valve. DO NOT OVER-TIGHTEN.
Air leaks at pressure switch release valve	Defective pressure switch release valve. Defective check valve.	Remove and replace the release valve. A defective check valve results in a constant air leak at the pressure release valve when there is pressure in the tank and the compressor is shut off. Remove and clean or replace check valve. DO NOT OVER-TIGHTEN.
Air leaks in air tank	Defective air tank.	Air tank must be replaced. Do not repair the leak.

WARNING

DO NOT DRILL INTO, WELD, OR OTHERWISE MODIFY AIR TANK OR IT WILL WEAKEN.

Air leaks from safety valve	Possible defect in safety valve	Operate safety valve manually by pulling on ring. If valve still leaks, it should be replaced.
Regulator knob – continuous air leak. Regulator will not shut-off at air outlet.	Dirty or damaged regulator internal parts.	Clean or replace regulator, or internal parts.
Excessive belt wear	Loose belt.	Adjust belt tension, see belt replacement, pg. 11.
	Loose pulley.	Check for worn keyway or pulley bore. Also check for bent motor shaft. Replace parts if necessary.
	Pulley misalignment.	Motor pulley and flywheel must be in line within 1/32".
Squealing sound	Loose belt.	Adjust belt tension, see belt replacement, pg. 11.
	There is no oil in the compressor.	Add oil.

TROUBLESHOOTING GUIDE (continued)

PROBLEM	CAUSE	CORRECTION
Knocking noise	Defective check valve.	Remove and clean or replace.
	Loose pulley.	Tighten pulley set screw, 70-80 in. lbs.
	Low oil level.	Maintain prescribed oil level. Add oil.
	Loose flywheel.	Tighten screw. 15 to 20 ft. lbs.
	Loose compressor mounting screws.	Check screws. Tighten as required. (15-20 Ft Lbs.)
	Loose belt.	Tighten wing nut until it contacts the washer, plus one more turn.
	Carbon build up.	Remove the head and valve plate. Clean the valve plate and the top of the piston. (Be sure carbon does not fall into the cylinder.) Reassemble using new gaskets and torque screws, 25 to 30 ft. lbs.
Compressor is not supplying enough air to operate accessories.	Prolonged excessive use of air.	Decrease amount of air usage.
	Compressor is not large enough for air requirement.	Check the accessory air requirement. If it is higher than the CFM or pressure supplied by your air compressor, you need a larger compressor.
	Restricted air intake filter.	Clean or replace air intake filter. Do not operate the compressor in the paint spray area.
	Hole in hose.	Check and replace.
	Check valve restricted.	Remove and clean or replace.
	Air leaks.	Tighten fittings. (See Air Leaks section of Troubleshooting Guide.)
Motor will not run	Motor overload protection switch has tripped.	Let motor cool off and reset switch by pressing the red button located on the end of the motor. If overload still trips, check for defective capacitor.
	Possible defective capacitor.	Return to Sears Service Center for inspection or replacement if necessary.
	Tank pressure exceeds pressure switch "cut-in" pressure.	Motor will start automatically when tank pressure drops below "cut-in" pressure of pressure switch.
	Wrong gauge wire or length of extension cord.	Check for proper gauge wire and cord length.
	Check valve stuck open.	Remove and clean or replace. DO NOT OVERTIGHTEN.
	Loose electrical connections.	Unplug the compressor. Check wiring connection inside pressure switch and motor terminal box area.
	Paint spray on internal motor parts.	Have checked at Sears Service Center. Do not operate the compressor in the spray area. See Flammable Vapor Warning on page 3.
	Possible defective motor.	Have checked at a local Sears Service Center.
	Fuse blown, circuit breaker tripped.	1. Check fuse box for blown fuse and replace if necessary. Re-set circuit breaker. Do not use a fuse or circuit breaker with higher rating than that specified for your particular branch circuit.

TROUBLESHOOTING GUIDE (continued)

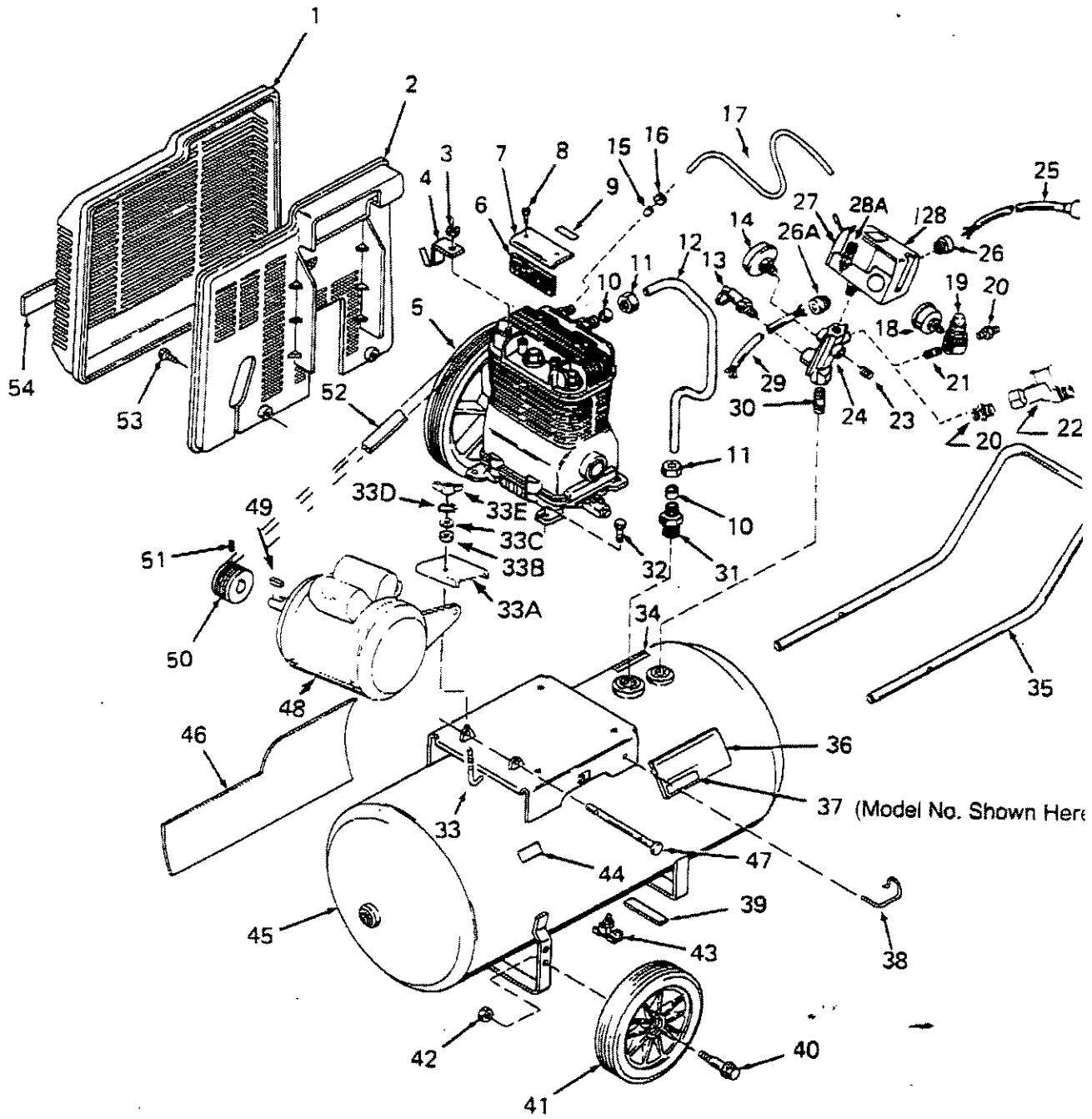
PROBLEM	CAUSE	CORRECTION
Motor will not run Cont'd.	Fuse blown, circuit breaker tripped. - Cont'd.	<ol style="list-style-type: none"> 2. Check for proper fuse; only Buss Fusetron Type "T" fuses are acceptable. 3. Check for low voltage conditions and/or proper extension cord. 4. Remove check valve and clean or replace if it is stuck open or closed. 5. Disconnect the other electrical appliances from circuit or operate the compressor on its own branch circuit.
	Pressure release valve on pressure switch has not unloaded head pressure.	Bleed the line by pushing the lever on the pressure switch to the "OFF" position; if valve does not open, replace it.
Pressure reading on the regulated pressure gauge drops when an accessory is used.	It is normal for "some" pressure drop to occur.	If there is an excessive amount of pressure drop when the accessory is used, adjust the regulator following the instructions on pg. 6.

NOTE

Adjust the regulated pressure under flow conditions (while the accessory is being used).

AIR COMPRESSOR DIAGRAM

(view from back)

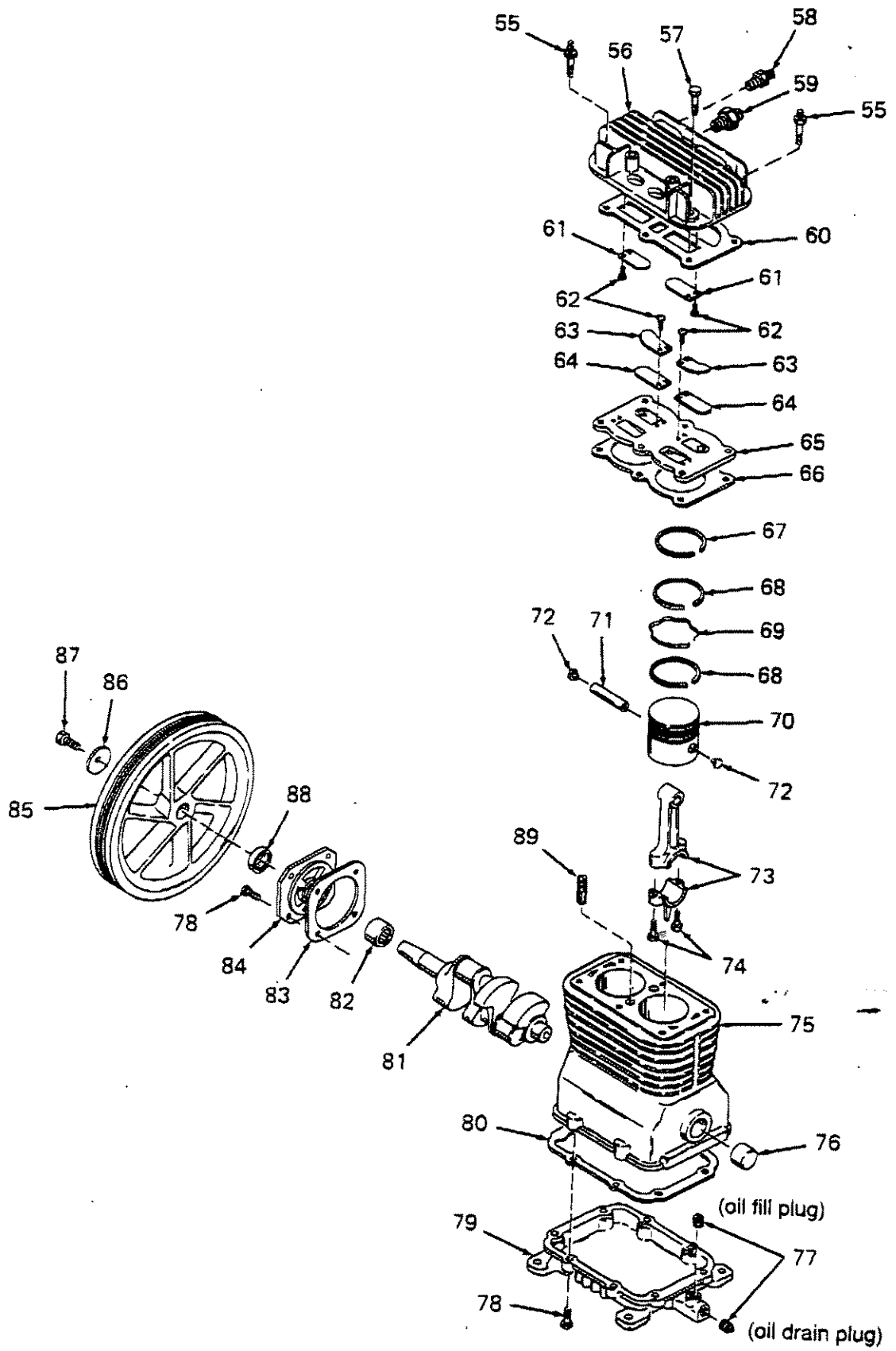


(See pg. 8, step #2 for proper wheel placement and assembly)



PARTS LIST

KEY NO.	PART NUMBER	DESCRIPTION
1	CAC-322	Belt guard, outside
2	CAC-323	Belt guard, inside
3	SSF-8113-ZN	Lock nut
4	CAC-327	Bracket
5	9-17411	Compressor pump assembly (Models 919.176841 and 919.176941)
	CAC-4003-1	Includes Key No. 55 through 57 and 60 through 89 Compressor pump assembly (Model 919.176951)
✓ 6	9-16279	Intake filter - package of 2 (1 used)
7	265-18	Filter retainer
8	SSF-935	Screw, #8-32 x 3/8" (2 used)
9	LA-1779	Hot Surface Label
10	STD575051	Ferrule (2 used for 1/2" O.D. Tube)
11	STD575050	Nut (2 used for 1/2" O.D. Tube)
12	CAC-317	Outlet tube
13	TIA-4150	Safety valve
14	C-GA-345	Pressure gauge
15	STD575026	Ferrule (2 used for 1/4" O.D. Tube)
16	STD575025	Nut (2 used for 1/4" O.D. Tube)
17	CAC-387	Pressure release tube
18	C-GA-345	Pressure gauge (Model 919.176951)
19	CAC-4296	Pressure regulator (Model 919.176951)
20	H-2099	Adapter
21	SS-2071	Nipple (Model 919.176951)
22	CAC-4284	Shut-off valve (Models 919.176841 and 919.176941)
23	SS-3222-CD	Pipe plug
24	CAC-366	Manifold
25	SUDL-404-1	Cord assembly (Model 919.176841)
	SUDL-415-1	Cord assembly (Models 919.176941 and 919.176951)
26	SSW-7385	Strain relief (Models 919.176941 and 919.176951)
26A	SSW-7367	Strain relief (Model 919.176841)
27	LA-1531-1	Label
28	CAC-4221-1	Pressure switch
28A	KK-4315	Pressure release valve and mounting nut (Included with #28)
29	CAC-4215-1	Motor cord assembly
30	SS-1287	Nipple
31	CAC-437	Check valve
32	SSF-928	Screw 5/16"-18 x 7/8" (4 used)
33	CAC-1013	Hold down screw
33A	CAC-1012	Hold down plate
33B	CAC-1011	Elastomer spring
33C	SSN-56-ZN	Washer
33D	SSN-1619-ZN	Lock washer
33E	SS-2038-ZN	Wing nut
34	LA-1535	Warning label (Model 919.176951)
	LA-1848-1	Warning label (Models 919.176841 and 919.176941)
35	CAC-320	Handle
36	LA-1814	Periodic maintenance label
37	LA-1821-1	Specification label (Model 919.176941)
	LA-1822-1	Specification label (Model 919.176951)
	LA-1833-1	Specification label (Model 919.176841)

COMPRESSOR PUMP DIAGRAM



PARTS LIST (Con't)

38	CAC-1059	Retaining clip (2 used)	
39	SUDL-6-1	Rubber foot strip	
40	CAC-60	Shoulder bolt (2 used)	
41	CAC-374	8" wheel (2 used) (Models 919.176841, and 919.176941)	
	CAC-375	10" wheel (2 used) (Model 919.176951)	
42	STD541437	Lock nut (2 used)	
43	SS-2707	Drain cock	
44	Not Available	Code number label	
45	TA-4099	Air tank, 20 gallon (Model 919.176841)	
	TA-4072	Air tank, 20 gallon ASME (Model 919.176941)	
	TA-4070	Air tank, 30 gallon ASME (Model 919.176951)	
46	LA-1811-1	Sears Craftsman label	
47	CAC-287	Motor pin	
48	MO-5500	Motor, 4 HP (Models 919.176841 and 919.176941)	
	MO-6436	Motor, 5 HP (Model 919.176951)	
49	STD560104	Motor shaft key (3/16" x 3/16" x 1 1/4")	
50	C-PU-2868	Motor pulley (Models 919.176841, and 919.176941)	
	C-PU-2861	Motor pulley (Model 919.176951)	
51	SS-391	Set screw	
52	C-BT-223	Poly-V-Belt, 39" long	
53	SSF-986	Self-tapping screw (2 used)	
54	LA-1801	Label (Models 919.176841 and 919.176941)	
	LA-1802	Label (Model 919.176951)	
55	SSF-6627	Stud 3/8" x 16 both ends (2 used)	
56	CAC-293	Head	
57	SSF-955	Screw, 3/8"-16 x 1-1/2" (4 used)	
58	SS-8553	Adapter	
59	SSP-9401	Adapter	
✓ 60	CAC-291	Head gasket	
● 61	265-25	Intake flapper valve - square corners (2 used on head) 	
● 62	SSF-9821	Screw #5-40 x 1/4" (8 used)	
63	CAC-294	Restrictor plate (2 used)	
● 64	265-196	Exhaust flapper valve - beveled corners (2 used on valve plate) 	
65	CAC-289	Valve plate	
✓ 66	265-28-2	Valve plate gasket (Models 919.176841 and 919.176941)	
+	CAC-54-1	Valve plate gasket (Model 919.176951)	
67	265-195-1	Compression ring (2 used) (Models 919.176841, and 919.176941) Install in top piston groove only.	
+	CAC-56	Compression ring (4 used) (Model 919.176951)	
68	265-191-1	Oil ring (4 used) (Models 919.176841 and 919.176941)	
	CAC-58	Oil ring (4 used) (Model 919.176951)	
+	69	265-192-1	Oil ring expander (2 used) (Models 919.176841 and 919.176941)
	CAC-57	Oil ring expander (2 used) (Model 919.176951)	
70	265-15	Piston (2 used) (Models 919.176841 and 919.176941)	
	CAC-55	Piston (2 used) (Model 919.176951)	
71	265-19	Piston pin (2 used)	
72	CAC-207	Piston pin plug (4 used)	
73	265-410	Connecting rod assembly (2 used) Includes two SSF-927 screws.	
74	SSF-927	Screw, 1/4"-20 x 1-1/8" (4 used)	

PARTS LIST (Con't)

75	265-4-1	Crankcase and cylinder (Models 919.176841 and 919.176941)
	CAC-51	Crankcase and cylinder (Model 919.176951)
76	265-41	Needle bearing
77	SSP-1413	Pipe plug (2 used)
78	SSF-925	Screw, 1/4"-20 x 7/8" (12 used)
79	265-3	Base
✓ 80	265-16	Base gasket
81	CAC-373	Crankshaft
82	265-23	Needle bearing
✓ 83	265-13	End plate gasket
84	265-9	End Plate
85	265-2	Flywheel
86	SSN-1014-ZN	Belleville washer
87	STD523107	Cap screw
✓ 88	265-111	Seal
✓ 89	265-6	Vent filter
90	LA-1851	Caution label
		NOT ILLUSTRATED
	9-16269	Air chuck
	9-16163	Air hose assembly (1/4" I.D. x 15')
	SI-30-02-2-C	Owners Manual

✦ Key No. 67, 68 and 69, only available in Ring Kit KK-4209 (Models 919.176841 and 919.176941) and Kit KK-4313 (Model 919.176951).

✓ Key No. 6, 60, 66, 80, 83, 88 and 89, available as individual parts and part of Gasket Kit KK-4268-2 (Models 919.176841 and 919.176941) and Kit KK-4312-2 (Model 919.176951).

● Key No. 61, 62 and 64, only available in Valve Kit KK-4275.

SEARS

OWNERS MANUAL

SERVICE

MODEL NO.
919.176841
919.176941
919.176951

HOW TO ORDER REPAIR PARTS

CRAFTSMAN AIR COMPRESSOR

Now that you have purchased your Sears Air Compressor, should a need ever exist for repair parts or service, simply contact any Sears Service Center and most Sears, Roebuck and Co. stores. Be sure to provide all pertinent facts when you call or visit.

The model number of your Sears Air Compressor is 919. _____
This number can be found on the maintenance label which is located on the rear of the air tank.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- PART NUMBER
- PART DESCRIPTION
- MODEL NUMBER
- NAME OF ITEM

If service or repair parts are required for the motor, supply all motor nameplate information including manufacturers name.

All parts listed may be ordered from any Sears Service Center and most Sears stores.

If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

Sears, Roebuck and Co., Chicago, IL 60684 U.S.A.

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