

Please carefully read and save these instructions before attempting to assemble, maintain, install, or operate this product. Observe all safety information to protect yourself and others. Failure to observe the instructions may result in property damage and/or personal injury. Please keep instructions for future reference.

## Important Operating Instructions



# 15 GALLON AIR COMPRESSOR

**Model: 7678, 8502**

### CALIFORNIA PROPOSITION 65

**WARNING:** You can create dust when you cut, sand, drill or grind materials such as wood, paint, metal, concrete, cement, or other masonry. This dust often contains chemicals known to cause cancer, birth defects, or other reproductive harm. Wear protective gear.

**WARNING:** This product or its power cord may contain chemicals, including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

### Important!

When using equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating manual with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, give them these operating instructions as well.

We accept no liability for damage or accidents which arise due to non-observance of these instructions and the safety information herein.

### SPECIFICATIONS

**Horsepower:** 1.5 Running  
**Maximum PSI:** 125  
**Tank Capacity:** 15 Gallons  
**CFM:** 8.6 CFM @ 40 PSI  
6 CFM @ 90 PSI

**CAUTION:**  
**FOR YOUR OWN SAFETY,  
READ INSTRUCTION MANUAL  
COMPLETELY AND  
CAREFULLY BEFORE  
OPERATING THIS 15 GALLON  
AIR COMPRESSOR.**

**Any failures made in  
following the safety  
regulations and instructions  
may result in an electric  
shock, fire and/or serious  
injury.**

### FEATURES

- Dual quick-connect manifold for running multiple tools
- Space-saving vertical design
- Oil-lubricated solid cast iron pump for extended life and heavy-duty use
- Reliable direct drive motor
- Side port valve for stationary applications

### SAFETY INSTRUCTIONS

To reduce the 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 a fire or explosion. Always operate the compressor in a well-ventilated area. Do not smoke while spraying. Do not spray where sparks or flames are present. Keep compressor as far away from the spray area as possible.

For warranty purchases, please keep your dated proof of purchase. File or attach to the manual for safekeeping.

The solvents trichloroethane and Methylene Chloride can chemically react with aluminum used in paint spray guns, paint pumps, etc. and cause an explosion. If you are using these solvents, use only stainless steel spray equipment. This does not affect your air compressor, but may affect the equipment being used.

Never directly inhale compressed air produced by a compressor. It is not suitable for breathing purposes.

Do not weld on the air tank of this compressor. Welding on the air compressor tank may weaken the tank and result in extremely hazardous conditions. Welding on the tank in any manner will void the warranty.

Never use an electric air compressor outdoors when it is raining or on a wet surface, as it may cause electric shock.

When not in use or before servicing, make sure that the compressor is turned off, unplugged from the power source, and all pressure has been released from the unit.

Check the manufacturer's maximum pressure rating for air tools and accessories. The compressor outlet pressure must be regulated so that it never exceeds the maximum pressure rating of the tool.

High temperatures and moving parts are present under the shroud. In order to

prevent burns or other injuries, do not operate with the shroud removed. Allow the compressor parts to cool before handling or servicing.

Be certain to read all the labels and follow all safety instructions when you are spraying paint or toxic materials. If there is a chance of inhaling anything you are spraying, use a respirator mask. Read all instructions and be sure that your respirator mask will protect you from the fumes.

Always wear safety goggles or glasses when using an air compressor. Never point the nozzle or sprayer toward a person or any part of the body.

Do not adjust the pressure switch or relief valve for any reason. Doing so will void the warranty. The compressor is preset for the maximum pressure of the unit.

Drain the moisture from the tank on a daily basis. A clean, dry tank will help prevent corrosion.

Pull the pressure relief valve ring daily to ensure that the valve is functioning properly, and to clear the valve of any possible obstructions.

To provide proper ventilation for cooling, the compressor must be kept at a minimum of a foot from the nearest wall, in a well-ventilated area.

Fasten the compressor down securely. If transporting is necessary, the pressure must be released from the tank

before transporting.

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

### **WARNING**

Disconnect the power and release all pressure from the system before attempting to install, service, relocate, or perform any maintenance.

Follow all electrical and safety codes as well as National Electrical Codes (NEC) and Occupational Safety and Health Act (OSHA).

Electric motors and starters must be securely and adequately grounded using a three-pronged outlet.

### **CAUTION**

Never use an extension cord with this product. Use additional air hose instead of an extension cord to avoid power loss and permanent motor damage. Use of an extension cord will void the warranty.

## **OPERATING PRINCIPLE AND COMPONENTS CHARACTERISTIC**

### **1. OPERATION PRINCIPLE**

The compressor is driven by the motor directly. The crankshaft turns to drive the connecting rod up and down; the connecting rod drives the piston back and forth. The piston's movement leads to the air pressure in the cylinder. The

air valve in the cylinder head makes the natural air enter into the cylinder through the air filter, and then the compressed air pressure enters the tank through the pipe. Finally, connect the air hose to the tool, making the tool operate.

## 2. COMPONENTS CHARACTERISTIC

The compressor motor is a direct-drive, single-stage, z type reciprocation air-cooled compressor. The valve structure is a strip-style valve. Its cooling and lubricating is reasonable and its performance is reliable.



## APPLICATION

The compressors are widely used in various pneumatic tools and machines of communication, machinery manufacturers, medical and health, garments, spinning and weaving works, such as tire, gas-filled, painting, etc.

## OPERATION, LUBRICATION, AND MAINTENANCE

After opening your tool, make sure that you have all of the safety manuals, all of the spare parts, and carefully inspect the compressor for any damage.

Pull out the oil ruler. During the winter, fill the tank to the stipulated level with N32 machine lubricating oil. In the summer, fill the tank with N68 machine lubricating oil. After filling, reinsert the oil ruler, plug in the power cord, and operate the compressor without load. Check to make sure that it is operating properly.

Connect the pneumatic tool to the air compressor, and then start the compressor. You may now use your tool.

**NOTE:** The compressor should be started without any working pressure.

The compressor uses machine lubricating oil. Fill the compressor with oil before starting. During operation, the oil temperature must be below 158-F. (Use N32 in the winter and N68 in the summer.)

After 500 hours of operation, replace the oil, disassemble the crankcase and cover, and clean the old oil and dirty things. After giving the compressor a thorough cleaning, reassemble the crankcase and cover, and fill the tank with fresh oil.

Clean the air filter once every week.

After 16 hours of operation, open the petcock and drain the water from the tank. Clean the tank once every 6 months.

After each use, turn off the power and drain all the pressure from the tank.

In order to maintain the compressor normally, disassemble the compressor, then with a light oil, such as gasoline, clean all the parts. After cleaning, dry the parts thoroughly. When reassembling, smear grease on the touching surfaces. If necessary, repair or replace worn or broken parts. Reassemble and adjust the parts correctly.

**NOTE:** Electric units should be ground correctly.

If the compressor is not going to be used for an extended period of time, the air valves and touching surfaces should be cleaned and smeared with grease.

## Troubleshooting Guide

Symptom	Possible Cause(s)	Corrective Action
Compressor will not run	No electrical power	Check to see if it is plugged in. Check the fuse/breaker
	Blown fuse	Replace blown fuse
	Breaker down	Reset. Determine why the problem happened
	Thermal overload open	Motor will restart when cool (approx. 15 minutes)
	Pressure switch bad	Contact authorized service center
Motor hums but does not run or runs slowly	Low voltage	Check with voltmeter (105v min)
	Shorted or open motor winding	Contact authorized service center
	Defective check valve or pressure switch	Contact authorized service center
	Compressed air in cylinder	Turn the AUTO/OFF switch to the OFF position for 15 sec., then turn to the AUTO position
Fuses blow/circuit breaker trips repeatedly <b>CAUTION!</b> Never use an extension cord with this product	Incorrect size fuse/circuit overloaded	Check for proper fuse. Use time-delay fuse. Disconnect from other electrical appliances from circuit or operate compressor on its own branch circuit
	Defective check valve or pressure switch	Contact authorized service center
Thermal overload protector cuts off repeatedly	Low voltage	Check with voltmeter (105v min)
	Clogged air filter	Clean filter (See MAINTENANCE section, p. 3)
	Lack of proper ventilation/room temperature too high	Move the compressor to a well-ventilated area

## Troubleshooting Guide

Symptom	Possible Cause(s)	Corrective Action
Tank pressure drops when compressor shuts off	Loose connections (fittings, tubing, etc.)	Check for air leaks. Use sealing tape on all leaking connections
	Open draincock	Tighten draincock
	Check valve leaking	Disassemble check valve assembly. Clean or replace. <b>DANGER! Do not disassemble check valve with air in tank. Bleed tank first.</b>
Excessive moisture in discharge air	Excessive water in tank	Drain receiver
	High humidity	Move compressor to area of less humidity; use air line filter
	Clogged intake filter	Clean or replace filter
Compressor runs continually	Defective pressure switch	Replace switch
	Excessive air usage	Compressor not large enough to meet CFM requirement for the air tool
Compressor vibrates	Loose mounting bolts	Tighten bolts
	Rubber tank feet worn/missing	Replace tank feet
Air output lower than normal	Open draincock	Tighten draincock
	Intake filter dirty	Clean or replace intake filter
	Connection leaking	Tighten connections

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## **Limited Manufacturer Warranty**

*North American Tool (NAT) Industries makes every effort to ensure that this product meets high quality and durability standards. NAT warrants to the original retail consumer a 1-year limited warranty from the date the product was purchased at retail and 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, or a lack of maintenance. NAT 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 receive service under warranty, the original manufacturer part must be returned for examination by an authorized service center. Shipping and handling charges may apply. If a defect is found, NAT will either repair or replace the product at its discretion.*

## **DO NOT RETURN TO STORE**

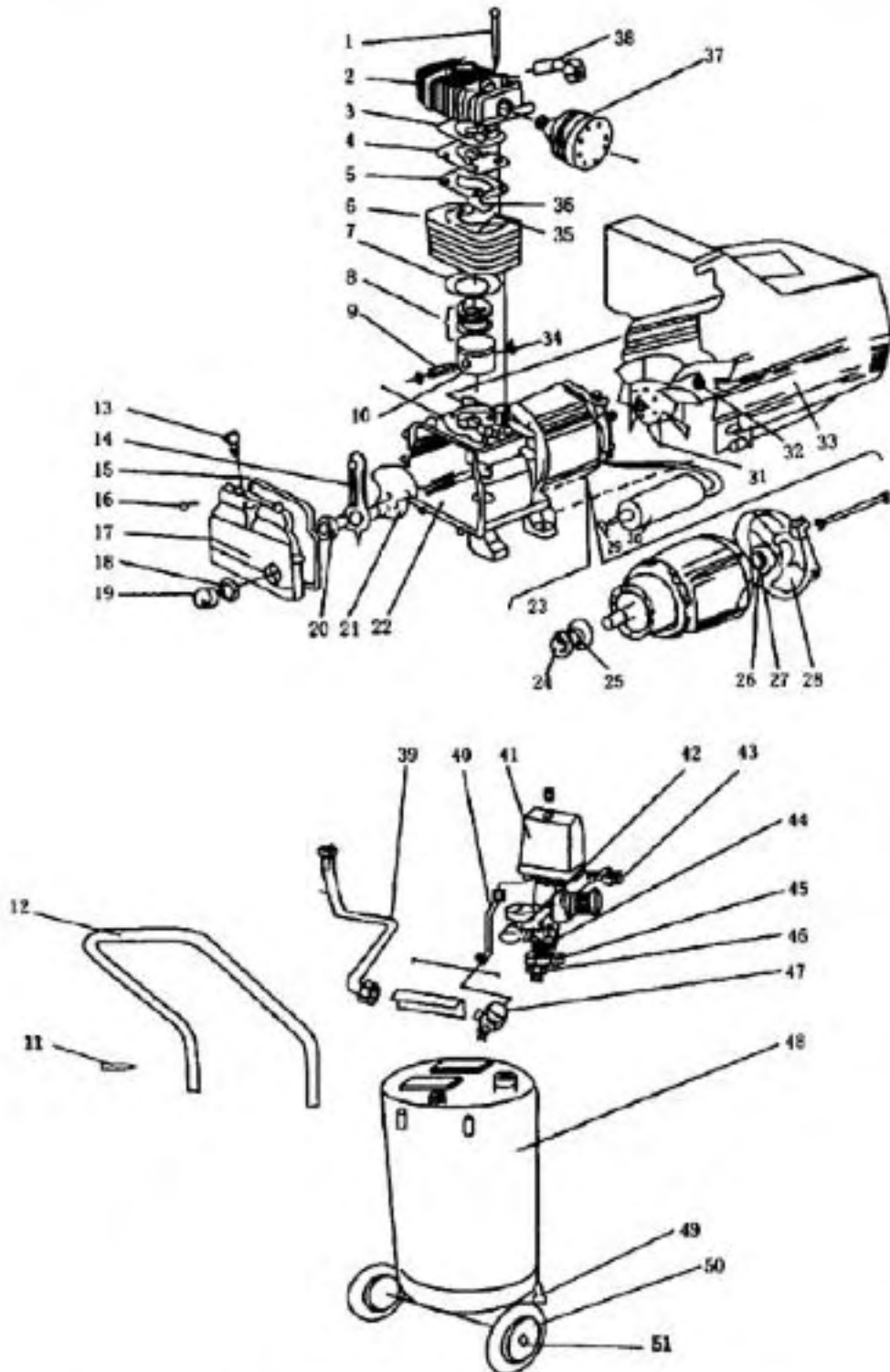
For Customer Service:

Email: [feedback@natitools.com](mailto:feedback@natitools.com) or Call 1-800-348-5004

# 15 GALLON AIR COMPRESSOR

**Model: 7678, 8502**

## Parts List



## Call 1-800-348-5004 for assistance or replacement parts

Please provide the following information:

- Model number
- Part description and number as shown in parts list
- Serial number (if any)

Address any correspondence to:

North American Tool Industries  
84 Commercial Rd  
Huntington, IN 46750

No.	Description	Quantity
1	Bolt M8x110	4
2	Cylinder Head	1
3	Cylinder Head Gasket	1
4	Valve Plate	1
5	Valve Gasket	1
6	Cylinder	1
7	Cylinder Gasket	1
8	Piston Ring	3
9	Piston Pin	1
10	Piston	1
11	Screw M5x14	2
12	Handhold	1
13	Breath Pipe	1
14	Connecting Rod	1
15	Rubber Gasket	1
16	Screw M5x14	6
17	Crank Case Cover	1
18	Oil Leveler Washer	1
19	Oil Leveler	1
20	Bolt M8x22	1
21	Crank	1
22	Crank Case	1
23	Motor	1
24	Sealing Ring	1
25	Bearing 6201RS	1
26	Bearing 6202RS	1

No.	Description	Quantity
27	Corrugated Washer	1
28	Motor Bracket	1
29	Nut M8	1
30	Catalance	1
31	Fan	1
32	Circlip	1
33	Fan Cover	1
34	Circlip	2
35	Locating Pin	2
36	Valve Check	1
37	Air Filter	1
38	Connector	1
39	Discharge Pipe	1
40	Release Pipe	1
41	Pressure Switch	1
42	Pressure Gauge	1
43	Discharge Valve	1
44	Switch Bracket	1
45	Connector Nut	1
46	Discharge Connect	1
47	Unilateralism Valve	1
48	Air Tank	1
49	Foot Washer	2
50	Wheel	2
51	Pin	2