

Date: 8/20/2025

Region: 4C

FAC ID: WV014

FEMS No.: 3190216

Maximo WO No.: 19521

Asset #: NA

Priority: Urgent



**Original Work Request:**

Repair air compressor. Blew a line, maintenance progress has suffered.

**Description of Repairs Needed:**

Labor and material to a.) isolate the old compressor from the lines, b.) remove the wiring, c.) install new electric air compressor 5 hp, 2 Stage, Horizontal, 80 gal, 16.4 cfm, 175 psi, 208-230V AC, 35WC84, d.) modify the air lines and the wiring to fit the new compressor, e.) test for proper operation.

Labor	Labor Hrs	Labor Rate	Total
Tidewater Technician	8	\$ 100.00	\$ 800.00
		\$ -	\$ -

Material List:	Quantity	Cost	Total
Electric Air compressor 5hp, 2 stage, horizontal 80 gal, 16.4 cfm, 175 psi, 208-230V AC 35WC84	1	\$ 5,416.51	\$ 5,416.51
Miscellaneous piping and electrical fittings	1	\$ 200.00	\$ 200.00
Compressor Oil 1qt 100 ISO Viscosity Grade, 97 Viscosity Index 1WG49	2	\$ 57.51	\$ 115.02
Shipping and handling (510 lbs)	1	\$ 338.74	\$ 338.74
		\$ -	\$ -
		\$ -	\$ -

Equipment List:	Quantity	Cost	Total
		\$ -	\$ -
		\$ -	\$ -
		\$ -	\$ -

**PM WO History:**

NA

**Estimate Summary:**

Labor	Material	Equipment
\$800.00	\$6,070.27	\$0.00

Sub Total	G&A 12%	Fee 6%	Total Estimate
\$6,870.27	--	--	\$6,870.27

Note: G&A and Fee are not applied on top of work performed by Tidewater.



Prepared by:

Tidewater, Inc.

6625 Selknick Drive, Suite A

Elkridge, MD 21075

Prepared for:

CMI Management, Inc.

5285 Shawnee Road Suite 510

Alexandria, VA 22312-2334

Date: 8/20/2025

FEMS #: 3190216

FAC ID: WV014

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**DESCRIPTION OF WORK**

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EQUIPMENT	QTY	UNIT/RATE	TOTAL
		\$0.00	\$0.00
		\$0.00	\$0.00
		\$0.00	\$0.00
SUB-TOTAL COSTS:	LABOR TOTAL		\$800.00
	MATERIAL TOTAL		\$6,070.27
	EQUIPMENT TOTAL		\$0.00
TOTAL COST:			\$6,870.27

Accepted By: \_\_\_\_\_

Date: \_\_\_\_\_



# SPEEDAIRE



## Two Stage Air Compressors

Models 35WC40, 35WC41, 35WC42, 35WC47,  
35WC48, 35WC49, 35WC84



# SPEEDAIRE

**PLEASE READ AND SAVE  
THESE INSTRUCTIONS.  
READ CAREFULLY  
BEFORE ATTEMPTING  
TO ASSEMBLE, INSTALL,  
OPERATE OR MAINTAIN THE  
PRODUCT DESCRIBED.**

**PROTECT YOURSELF AND  
OTHERS BY OBSERVING ALL  
SAFETY INFORMATION. FAILURE  
TO COMPLY WITH INSTRUCTIONS  
COULD RESULT IN PERSONAL  
INJURY AND/OR PROPERTY DAMAGE!  
RETAIN INSTRUCTIONS FOR FUTURE  
REFERENCE.**

**PLEASE REFER TO BACK COVER  
FOR INFORMATION REGARDING  
SPEEDAIRE'S WARRANTY AND OTHER  
IMPORTANT INFORMATION.**

**Model #:** \_\_\_\_\_

**Serial #:** \_\_\_\_\_

**Purch. Date:** \_\_\_\_\_

**Form 5S7552 / Printed in USA**

**Version 2 07/2015**

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## BEFORE YOU BEGIN

### Introduction

This Speedaire line of air compressors are two stage, oil lubricated reciprocating compressors.

#### Shop Air Series Models Include:

- Compressor pump
- ASME air receiver with safety valve
- Electric motor
- Starter
- Pressure switch

Quick Reference
Recommended Oil (2 Options)
Single viscosity SAE 30 ISO100 nondetergent compressor oil. Part number 1WG50 or 4ZF21.
10W30 synthetic oil such as Mobil 1® or 1WG49.
Oil Capacity
Approximately 2 quarts

## UNPACKING

### **⚠ CAUTION**

Do not lift or move unit without appropriately rated equipment. Be sure the unit is securely attached to lifting device used. Do not lift unit by holding onto tubes or coolers. Do not use unit to lift other attached equipment.

After unpacking the unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Check to be sure all supplied accessories are enclosed with the unit. In case of questions, damaged or missing parts, please call 1-855-504-5678 for customer assistance.

### **⚠ WARNING**

Do not operate unit if damaged during shipping, handling or use. Damage may result in bursting and cause injury or property damage.

### Required Items - Not Included

- Oil

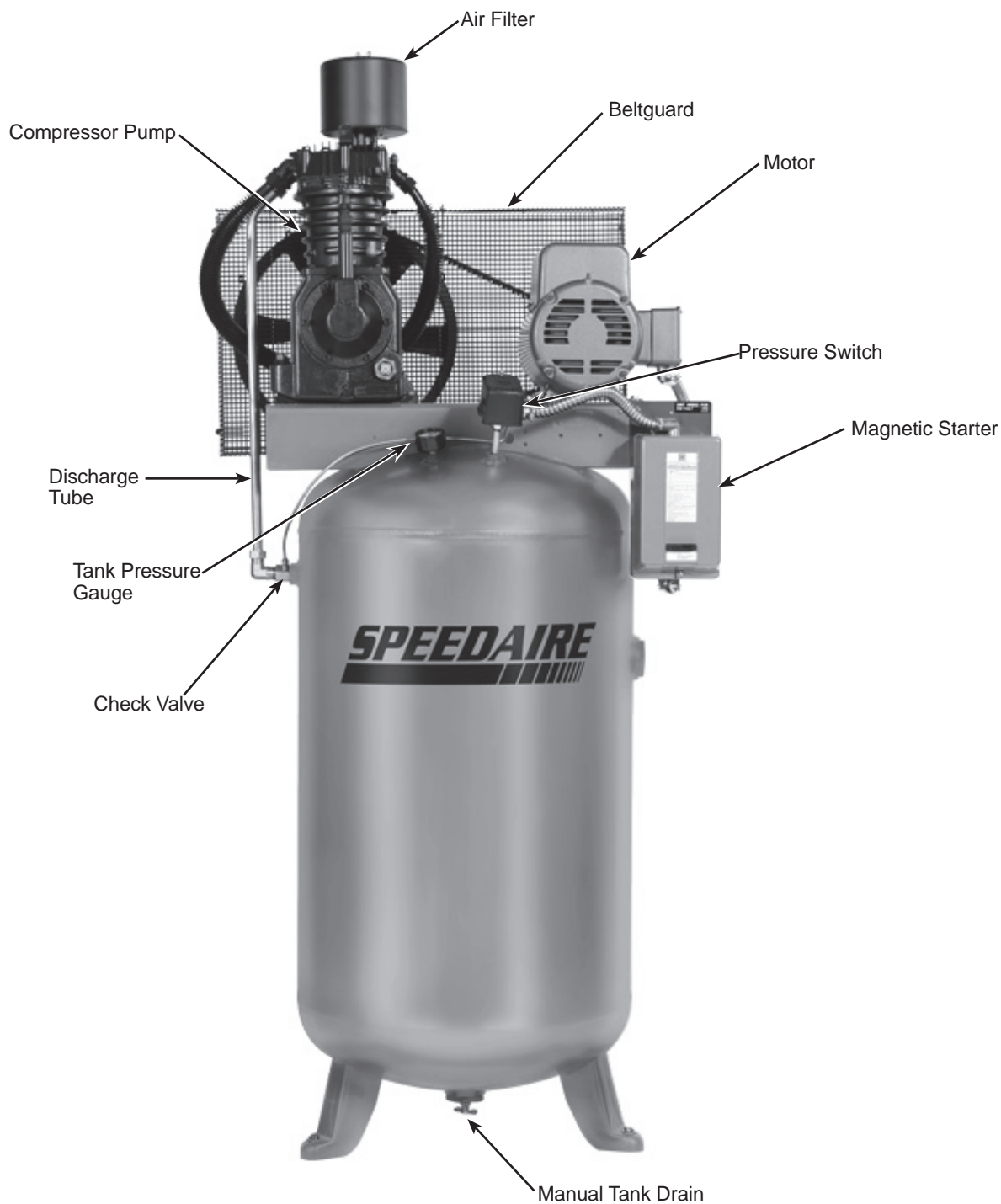


Figure 1 - Shop Air Series Compressor Vertical

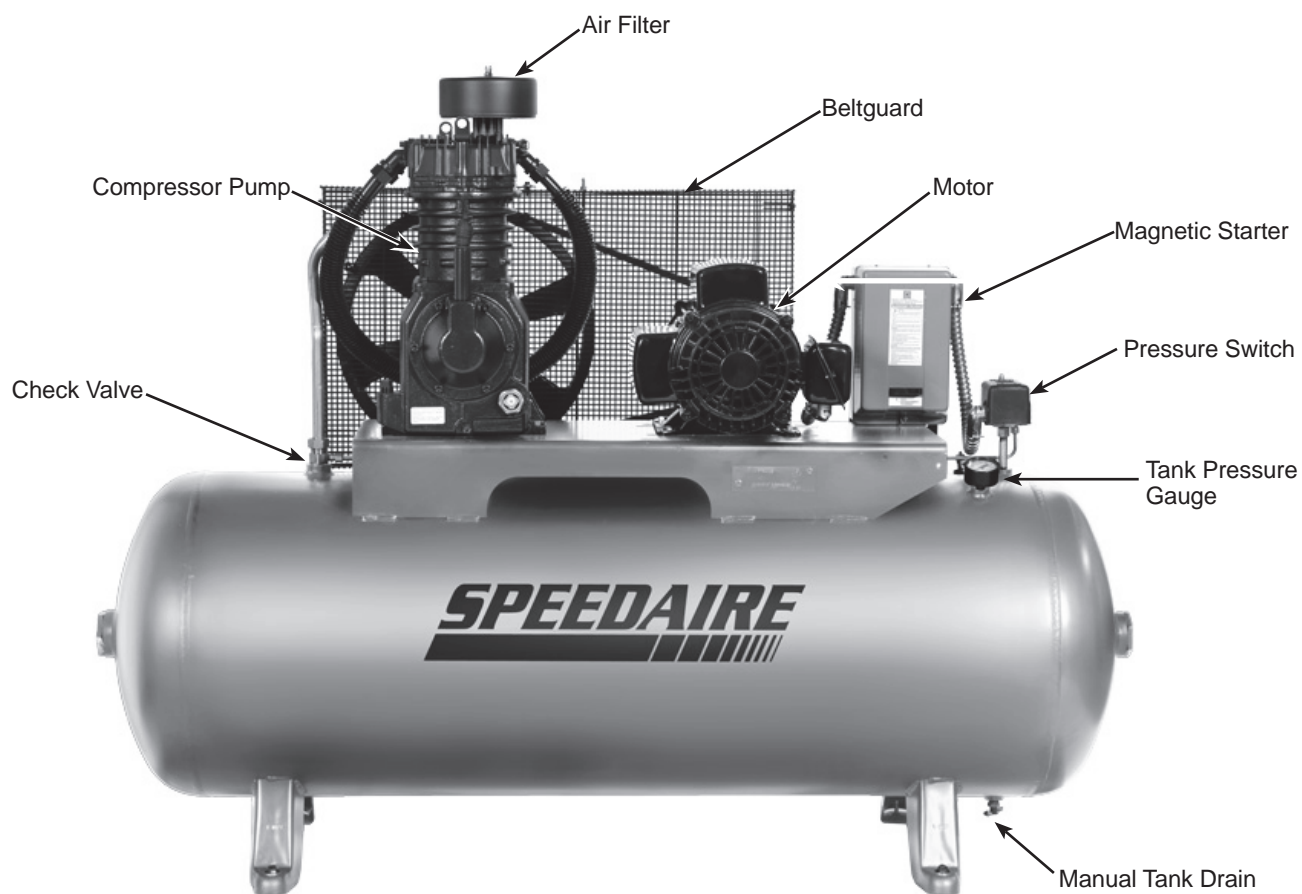


Figure 2 - Shop Air Series Compressor Horizontal

## GENERAL SAFETY INSTRUCTIONS

### Safety Guidelines

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

#### **⚠ DANGER**

Danger indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

#### **⚠ WARNING**

Warning indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

#### **⚠ CAUTION**

Caution indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.

#### **NOTICE**

Notice indicates important information, that if not followed, may cause damage to equipment.

**IMPORTANT:** Information that requires special attention.

### Safety Symbols

The following Safety Symbols appear throughout this manual to alert you to important safety hazards and precautions.



*Wear Eye and Mask Protection*



*Read Manual First*



*Risk of Fire*



*Risk of Moving Parts*



*Risk of Hot Parts*



*Risk of Explosion*



*Risk of Fumes*



*Risk of Pressure*



*Risk of Shock*

### California Proposition 65

#### **⚠ WARNING**

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



#### **⚠ 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.

### Important Safety Information

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

This manual contains important safety, operational and maintenance information. If you have any questions, please call 1-855-504-5678 for customer assistance.

Since the air compressor and other components (material pump, spray guns, filters, lubricators, hoses, etc.) used make up a high pressure pumping system, the following safety precautions must be observed at all times:



## Important Safety Information (Continued)

### **⚠ DANGER**

#### BREATHABLE AIR WARNING

**This compressor/pump is not equipped and should not be used “as is” to supply breathing quality air. For any application of air for human consumption, the air compressor/pump will need to be fitted with suitable in-line safety and alarm equipment. This additional equipment is necessary to properly filter and purify the air to meet minimal specifications for Grade D breathing as described in Compressed Gas Association Commodity Specification G 7.1, OSHA 29 CFR 1910. 134, and/or Canadian Standards Associations (CSA).**

#### DISCLAIMER OF WARRANTIES

**In the event the compressor is used for the purpose of breathing air application and proper in-line safety and alarm equipment is not simultaneously used, existing warranties shall be voided, and Campbell Hausfeld disclaims any liability whatsoever for any loss, personal injury or damage.**

### General Safety



- Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
- Follow all local electrical and safety codes as well as the United States National Electrical Codes (NEC) and Occupational Safety and Health Act (OSHA).
- Only persons well acquainted with these rules of safe operation should be allowed to use the compressor.
- Keep visitors away and NEVER allow children in the work area.
- Wear safety glasses and use hearing protection when operating the unit.
- Do not stand on or use the unit as a handhold.
- Before each use, inspect compressed air system and electrical components for signs of damage, deterioration, weakness or leakage. Repair or replace defective items before using.
- Check all fasteners at frequent intervals for proper tightness.



#### **⚠ WARNING**

Motors, electrical equipment and controls can cause electrical arcs that will ignite a flammable gas or vapor. Never operate or repair in or near a flammable gas or vapor. Never store flammable liquids or gases in the vicinity of the compressor.



#### **⚠ WARNING**

Never operate compressor without a beltguard. This unit can start automatically without warning. Personal injury or property damage could occur from contact with moving parts.



#### **⚠ CAUTION**

Compressor parts may be hot even if the unit is stopped.

- Keep fingers away from a running compressor; fast moving and hot parts will cause injury and/or burns.
- If the equipment should start to vibrate abnormally, STOP the engine/motor and check immediately for the cause. Vibration is generally an indication of trouble.
- To reduce fire hazard, keep engine/motor exterior free of oil, solvent, or excessive grease.

#### **⚠ WARNING**

An ASME code safety relief valve with a setting no higher than the Maximum Allowable Working Pressure (MAWP) of the tank MUST be installed in the air lines or in the tank for this compressor. The ASME safety valve must have sufficient flow and pressure ratings to protect the pressurized components from bursting. The flow rating can be found in the parts manual. The safety valve in the intercooler does not provide system protection.

#### **⚠ WARNING**

Maximum operating pressure is 175 psi for two-stage compressors. Do not operate with pressure switch or pilot valves set higher than 175 psi (two-stage).

- Never attempt to adjust ASME safety valve. Keep safety valve free from paint and other accumulations.



### Important Safety Information (Continued)

#### **⚠ WARNING**

Never attempt to repair or modify a tank! Welding, drilling or any other modification will weaken the tank resulting in damage from rupture or explosion. Always replace worn, cracked or damaged tanks.

#### **NOTICE**

Drain liquid from tank daily.

- Tanks rust from moisture build-up, which weakens the tank. Make sure to drain tank regularly and inspect periodically for unsafe conditions such as rust formation and corrosion.
- Fast moving air will stir up dust and debris which may be harmful. Release air slowly when draining moisture or depressurizing the compressor system.

### Spraying Precautions



#### **⚠ WARNING**

Do not spray flammable materials in vicinity of open flame or near ignition sources including the compressor unit.



- Do not smoke when spraying paint, insecticides, or other flammable substances.
- Use a face mask/respirator when spraying and spray in a well ventilated area to prevent health and fire hazards.
- Do not direct paint or other sprayed material at the compressor. Locate compressor as far away from the spraying area as possible to minimize overspray accumulation on the compressor.
- When spraying or cleaning with solvents or toxic chemicals, follow the instructions provided by the chemical manufacturer.

Save These Instructions

Do Not Discard

The **DANGER**, **WARNING**, **CAUTION**, and **NOTICE** notifications and instructions in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that caution is a factor which cannot be built into this product, but must be supplied by the operator.

## SPECIFICATIONS

	35WC47 +	35WC48 + 35WC49 *	35WC40 + 35WC84 *	35WC42 + 35WC41 *
Motor HP	7.5	7.5	5.0	5.0
Power	208-230V	208-230/460V	208-230V	208-230/460V
Phase	1	3	1	3
Displacement CFM	31.4	31.4	21.1	21.1
Air Delivery CFM	25.1	25.1	17.4	17.4
Max PSI	175	175	175	175
Pump RPM	1020	1020	700	700
Tank Capacity	80 gallons	80 gallons	80 gallons	80 gallons
Unit Weight	540 lbs	540 lbs	510 lbs	510 lbs
Amp Draw	31	19.8-17.9/9	22	14.2-12.8/6.4
Max Duty Cycle	80/20	80/20	80/20	80/20
Tank Outlet	3/4 inch (F) NPT	3/4 inch (F) NPT	3/4 inch (F) NPT	3/4 inch (F) NPT

+ = Vertical Unit

\* = Horizontal Unit

## DIMENSIONS

	35WC40 +	35WC41 *	35WC42 +	35WC47 +	35WC48 +	35WC49 *	35WC84 *
Length	35 inches	63 inches	35 inches	35 inches	35 inches	63 inches	63 inches
Width	27 inches	21 inches	27 inches	27 inches	27 inches	21 inches	21 inches
Height	71 inches	46 inches	71 inches	71 inches	71 inches	46 inches	46 inches

## INSTALLATION INSTRUCTIONS



### ⚠ WARNING

maintenance.

Disconnect, tag and lock out power source then release all pressure from the system before attempting to install, service, relocate or perform any

### ⚠ CAUTION

Do not lift or move unit without appropriately rated equipment. Be sure the unit is

securely attached to lifting device used. Do not lift unit by holding onto tubes or coolers. Do not use unit to lift other attached equipment.

### ⚠ CAUTION

Never use the wood shipping skids for mounting the compressor.

### Picking the Location

Install and operate unit at least 18 inches from any obstructions in a clean, well ventilated area. The surrounding air temperature should not exceed 100° F. This will ensure an unobstructed flow of air to cool compressor and allow adequate space for maintenance.

### ⚠ CAUTION

Do not locate the compressor air inlet near steam, paint spray, sandblast areas or any other source of contamination.

**NOTE:** If compressor operates in a hot, moist environment, supply compressor pump with clean, dry outside air. Supply air should be piped in from external sources.

### Tank Mounting

The tank should be bolted into a flat, even, concrete floor or on a separate concrete foundation. Vibration isolators should be used between the tank leg and the floor. Part number 2LVP7 isolator pads are recommended for units. Isolator pads are included with fully packaged models.

When using isolator pads, **do not draw bolts tight**. Allow the pads to absorb vibrations. When isolators are used, a flexible hose or coupling should be installed between the tank and service piping.

### ⚠ WARNING

Failure to properly install the tank can lead to cracks at the welded joints and possible bursting.

### Piping

### ⚠ WARNING

Never use plastic (PVC) pipe for compressed air. Serious injury or death could result.

Any tube, pipe or hose connected to the unit must be able to withstand the temperature generated and retain the pressure. All pressurized components of the air system must have a pressure rating of 200 psi or higher. Incorrect selection and installation of any tube, pipe or hose could result in bursting and injury. Connect piping system to tank using the same size fitting as the discharge port.

Minimum Pipe Size For Compressed Air Line

CFM	Length Of Piping System			
	25 feet	50 feet	100 feet	250 feet
10	1/2 inch	1/2 inch	3/4 inch	3/4 inch
20	3/4 inch	3/4 inch	3/4 inch	1 inch
40	3/4 inch	1 inch	1 inch	1 inch
60	3/4 inch	1 inch	1 inch	1 inch
100	1 inch	1 inch	1 inch	1-1/4 inch

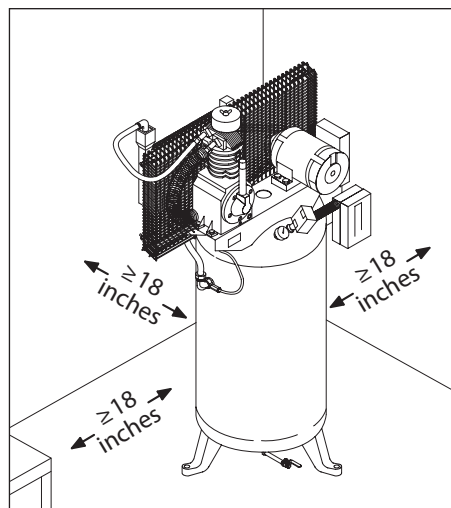


Figure 3 - Location

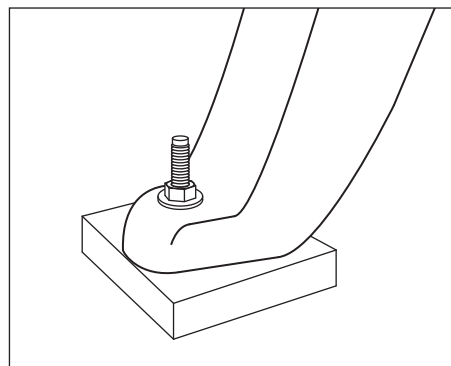


Figure 4 - Isolator Pad



## INSTALLATION INSTRUCTIONS (CONTINUED)

### Installing A Shut-Off Valve



Figure 5 - Shut-off Valve

A shut-off valve should be installed on the discharge port of the tank to control the air flow out of the tank. The valve should be located between the tank and the piping system.

**⚠ WARNING**

Never install a shut-off valve between the compressor pump and the tank. Personal injury and/or equipment damage may occur. Never use reducers in discharge piping.

When creating a permanently installed system to distribute compressed air, find the total length of the system and select pipe size from the chart. Bury underground lines below the frost line and avoid pockets where condensation can gather and freeze.

Apply air pressure to the piping installation and make sure all joints are free from leaks BEFORE underground lines are covered. Before putting the compressor into service, find and repair all leaks in the piping, fittings and connections.

### Wiring

**⚠ WARNING**

All wiring and electrical connections must be performed by a qualified electrician familiar with induction motor controls. Installations must be in accordance with local and national codes.

**⚠ WARNING**

Overheating, short circuiting and fire damage will result from inadequate wiring.

Wiring must be installed in accordance with National Electrical Code and local codes and standards that have been set up covering electrical apparatus and wiring. These should be consulted and local ordinances observed. Be certain that adequate wire sizes are used, and that:

1. Service is of adequate ampere rating.
2. The supply line has the same electrical characteristics (voltage, cycles and phase) as the motor. Refer to motor name plate for electrical ratings and specifications.
3. The line wire is the proper size and that no other equipment is operated from the same line. The chart gives minimum recommended wire sizes for compressor installations.

#### Minimum Wire Size (Use 75°C Copper Wire)

Make sure voltage is correct with the motor wiring.

**NOTE:** If using 208 volts single phase, make sure the motor name plate states it is rated for 208 volts single phase. 230 volt single phase motors do not work on 208 volts unless they have the 208 volt rating.

HP	Amps	Single Phase	Three Phase	
		230V	208/230V	460/575V
SPL	up to 22.0	10 AWG		
5.0		8 AWG	12 AWG	14 AWG
7.5		8 AWG	10 AWG	12 AWG
10.0		--	8 AWG	12 AWG
15.0		--	6 AWG	10 AWG
25.0		--	3 AWG	8 AWG

Recommended wire sizes may be larger than the minimum set up by local ordinances. If so, the larger size wire should be used to prevent excessive line voltage drop. The additional wire cost is very small compared with the cost of repairing or replacing a motor electrically "starved" by the use of supply wires which are too small.

## INSTALLATION INSTRUCTIONS (CONTINUED)

### Grounding

#### **⚠ WARNING**

Improperly grounded electrical components are shock hazards. Make sure all the components are properly grounded to prevent death or serious injury.



This product **must** be grounded. Grounding reduces the risk of electrical shock by providing an escape wire for the electric current if short circuit occurs. This product must be installed and operated with a power cord or cable that has a grounding wire.

### Breakers and Fuses

The entire electrical system should be checked by a certified electrician. Time delay breakers and fuses are required for this compressor. A tripped breaker or blown fuses may indicate a direct short to ground, high current draw, improper wiring, incorrect fuse or breaker size and/or type. This needs to be evaluated by a certified electrician.

### Motor Hookup and Starter Installation

Branch circuit protection must be provided as specified in the United States National Electrical Code, Chapter 2, "Wiring Design and Protection," Article 210, using the applicable article "For Motors and Motor Controllers," (Article 430, Table 430-1 52).

**IMPORTANT:** Overload protection is required for all motors.

Motors used on the Shop Air Series do not have built-in overload protection. A magnetic starter is required. Refer to the following wiring diagrams for electrical installation (Figures 8 & 9):

Three phase motors are tri-voltage rated: 208-230/460. They are shipped from the factory pre-wired for 208-230 volt operation. If 460 volt operation is desired, some rewiring is required.

1. Rewire the motor leads for 460 volt per motor data plate.
2. Install the 460 volt conversion kit, part numbers are listed below. Both the coil and the thermal overload elements in the magnetic starter must be changed (see Figure 6).



Figure 6 - 460 Volt Conversion Kit - Shop Air Series

Model	460 Conversion Kit Part Number
35WC42	ST122004AJ
35WC41	ST122004AJ
35WC48	ST122012AJ
35WC49	ST122012AJ

### Direction of Rotation

**NOTE:** Improper rotation will result in reduced compressor life.

The direction of rotation must be counterclockwise (as shown by the arrow on the flywheel in Figure 7) while facing the flywheel side of the pump. The motor nameplate will show wiring information for counterclockwise rotation.

The proper direction is very important. The direction of rotation of 3 phase motors can be reversed by interchanging any two motor-line leads. For single phase motors, refer to the motor nameplate.

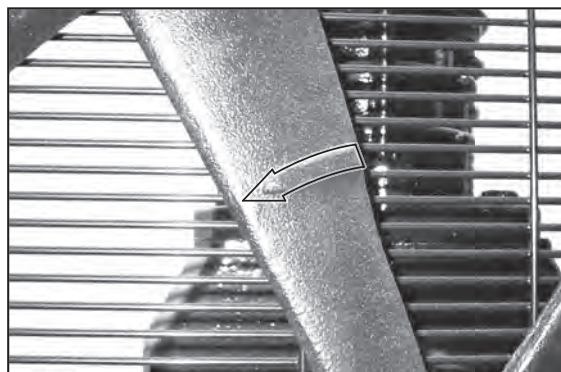


Figure 7 - Direction of rotation

INSTALLATION INSTRUCTIONS (CONTINUED)

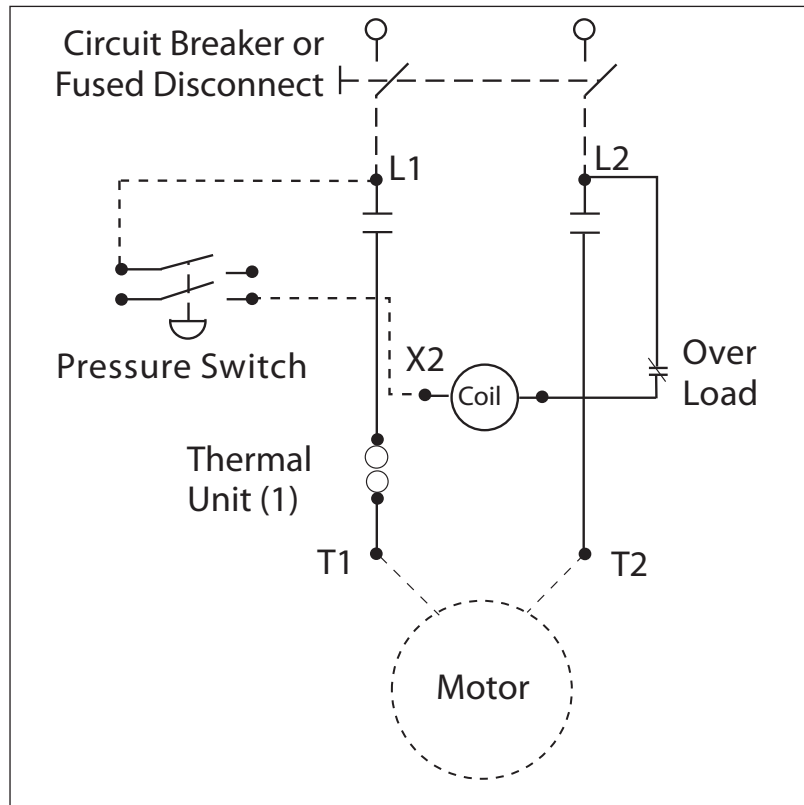


Figure 8 - Single Phase Wiring Diagram

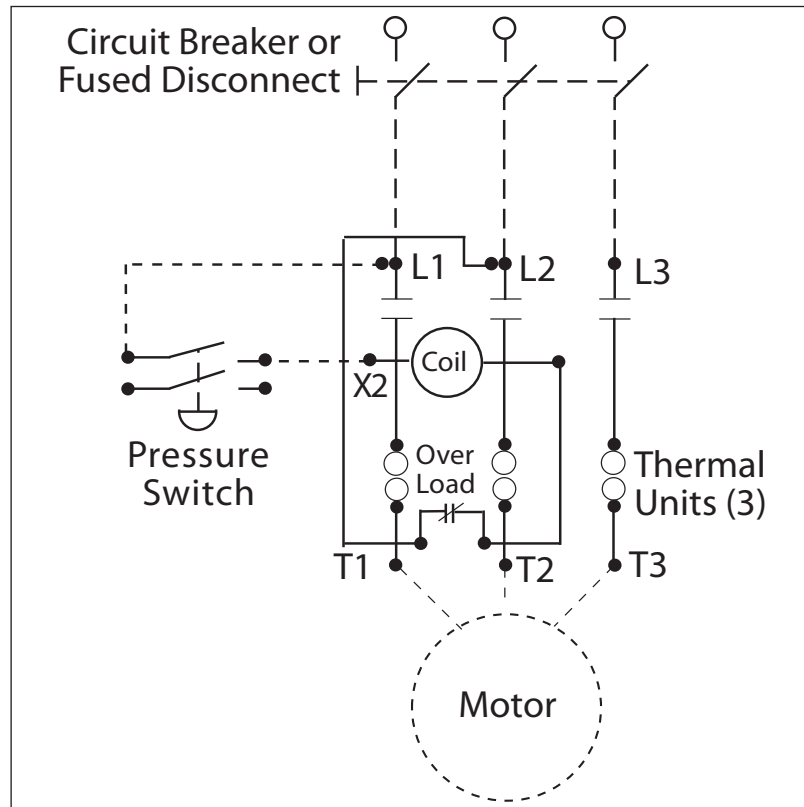


Figure 9 - Three Phase Wiring Diagram



## INSTALLATION INSTRUCTIONS (CONTINUED)

### Lubrication

#### ⚠ CAUTION

This unit contains no oil. Before operating compressor, fill to the center of the sight gauge (see Figure 10).

#### ⚠ CAUTION

Using any other type of oil may shorten pump life and damage valves.

#### Recommended Oil (2 Options)

Single viscosity SAE 30 ISO100 nondetergent compressor oil. Part number 1WG50 or 4ZF21.

10W30 synthetic oil such as Mobil 1® or 1WG49.

#### Oil Capacity

Approximately 2 quarts

Fill the pump with oil to the center of the sight gauge using oil fill opening (see Figure 10). Do NOT fill the pump through the breather cap opening as this may cause oil to leak and spray out during operation.

**NOTE:** Some residual oil may still be in the pump from factory testing leaving a thin coat on the sight gauge; however, there is not enough oil to operate the unit.

## OPERATING INSTRUCTIONS

**IMPORTANT:** Check motor rotation before operating the compressor.

All lubricated compressor pumps discharge some condensed water and oil with the compressed air. Install appropriate water/oil removal equipment and controls as necessary for the intended application.

#### NOTICE

Failure to install appropriate water/oil removal equipment may result in damage to machinery or workpiece.

### Guarding

#### ⚠ WARNING

The belt guard provided must be installed before operating the unit.

All moving parts must be guarded. All electrical covers must be installed before turning on the power.

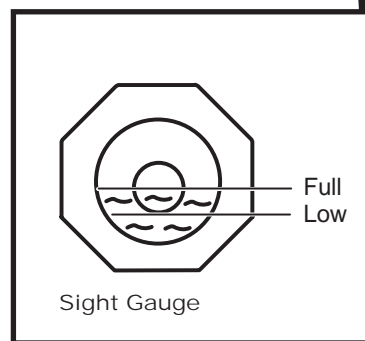


Figure 10- Lubrication



## OPERATING INSTRUCTIONS (CONTINUED)

### Recommended Break-In Period

The compressor should be run continuously for one hour to allow proper seating of the piston rings.

1. Open drain cock completely and run the compressor for 60 minutes.
2. Turn off the compressor and close drain cock. The compressor is now ready for use.

### Pressure Switch, Start - Stop

**NOTE:** This compressor has a maximum operating pressure of 175 psi. Do not alter pressure settings on control components above this limit.

The compressor unit starts and stops based on preset pressure switch settings of 145 psi cut-in and 175 psi cut-out. The pressure switch contains an unloader which is a small valve that vents air to allow the motor to start easily (see Figure 11).

The unloader valve on the pressure switch should hiss for a short period of time when the compressor shuts off. This relieves the head and the exhaust tubing of any pressure and allows the compressor to start under no load. Because compressors have high starting torque the unloader is necessary for proper starting of the compressor.

The check valve is a one way valve that keeps the air in the tank when the unit shuts off. The easiest way to determine if the check valve is working properly is to make sure that the pressure switch unloader quits hissing after the compressor shuts off. The hissing should last for several seconds and then quit.

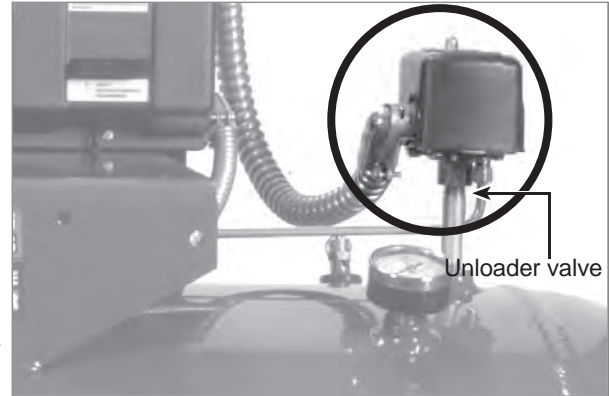


Figure 11 - Pressure Switch

### Crankcase Breather

During severe operating conditions or initial start-up, some oil may accumulate at the crankcase breather opening. This is normal and will diminish as the pump accumulates run time and the piston rings become fully seated.

### Draining Tank

Condensate must be drained from the tank daily, use manual tank drain (see Figure 12). Refer to instructions provided with the automatic drain.



Figure 12 - Manual Tank Drain

## TROUBLESHOOTING GUIDE FOR NEW INSTALLATIONS

Symptom	Possible Cause(s)	Corrective Action
Unit fails to start - Motor makes no noise	1. Insufficient power to compressor	1. Source electric to the compressor is either the incorrect voltage, insufficient wire size to carry the load, the fuse box or breaker box is not sufficient to carry the load requirements to the compressor.
	2. Unit wired incorrectly	2. Any wiring other than what is stated in the manual could cause a malfunction (see Wiring Section)
	3. Wrong voltage supplied to unit	3. Make sure voltage is correct with the motor wiring (see Wiring Section)
	4. Loose electrical connections	4. The entire electrical system should be checked by a certified electrician. The incoming wires and the compressor electrical connections should be checked. Loose connections will cause malfunctions
	5. Wrong size wiring	5. Check that wire size is rated for the current of the compressor. State and local codes vary widely and need to be checked before installation
	6. Blown fuse and/or tripped breaker	6. The breaker and fuses required for this unit must be time delay. A tripped breaker or blown fuse may result from a direct short to ground, high current draw, improper wiring, incorrect fuse or breaker size and/or type. This needs to be evaluated by a service center or certified electrician
	7. Starter overload tripped	7. Check and reset if necessary. If the overload trips after the initial reset, refer to the below section "reset trips on starter"
Unit fails to start - Motor hums	1. Unit wired incorrectly	1. Any wiring other than what is stated in the manual could cause a malfunction (see Wiring Section)
	2. Wrong voltage	2. Make sure voltage is correct with the motor wiring (see Wiring Section)
	3. Loose electrical connections	3. The entire electrical system should be checked by a certified electrician. The incoming wires and the compressor electrical connections should be checked. Loose connections will cause malfunctions
Reset trips on starter	1. Unit wired incorrectly	1. Check voltage, wire size, etc. This problem needs to be evaluated and corrected (see Wiring Section)
	2. Wrong voltage	2. Make sure voltage is correct with the motor wiring (see Wiring Section)
	3. Wrong size wiring	3. Check to make sure wire size is rated for the current of the compressor. Check that wire size is rated for the current of the compressor. State and local codes vary widely and need to be checked before installation
Unit starts but does not get to full speed	1. Insufficient power to compressor	1. Source electric to the compressor is either the incorrect voltage, insufficient wire size to carry the load, the fuse box or breaker box is not sufficient to carry the load requirements to the compressor
	2. Loose electrical connections	2. The entire electrical system should be checked by a certified electrician. The incoming wires and the compressor electrical connections should be checked. Loose connections will cause malfunctions
Unit does not make any or very little air	1. Drain valve open	1. Make sure the drain valve at the bottom of the tank is closed
	2. Air leak	2. Check the entire system for leaks, including the compressor unit and any piping attached to the compressor
	3. Restricted or blocked intake	3. Make sure that the air intake of the compressor is not blocked in any way

*Continued on next page*

## TROUBLESHOOTING GUIDE FOR NEW INSTALLATIONS

Symptom	Possible Cause(s)	Corrective Action
Unit runs very noisy	1. Damage to the compressor	1. Check to make sure the compressor has not been damaged in the shipping or installation. Make sure the belt guard was not damaged. Belt guard should not be making contact with flywheel or pulley
	2. Loose fasteners	2. Check all bolts and nuts to assure they did not loosen during shipping
	3. Loose flywheel or pulley	3. Check to assure pulley and flywheel are correctly tightened
	4. Improper installation	4. If unit is left on skid it may cause excessive vibration. Remove unit from skid and mount loosely to floor with vibration pads and anchor bolts. Do not tighten bolts tight. Leave nut loose approximately 1/8 inch from compressor foot
Oil in discharge air or out crankcase breather	1. Break in period	1. Some oil in the exhaust air is normal during the break-in period and during heavy usage after the break-in period. Oil discharge should reduce as hours are accumulated on the unit
	2. Wrong type of oil	2. Do not use SAE-30 automotive type oil. Using the wrong oil can cause problems with the pump and will void the warranty. Only use the oils that the operating manual recommends (see Lubrication section)
	3. Improper environment	3. Unit should not be installed in a poorly vented area or exposed to extreme cold or hot conditions. Normal operating range should be between 32°F and 100°F
Compressor seems to run hot	Rotation incorrect	Check to make sure the compressor is running the direction of the flywheel arrow. Air flow should be so that the flywheel directs air across the head of the pump. Standing in front of the compressor (non-belt guard side) air should flow back to front

## TROUBLESHOOTING GUIDE FOR UNITS IN SERVICE FOR A PERIOD OF TIME

Symptom	Possible Cause(s)	Corrective Action
Motor does not run	1. Loose electrical connections	1. The entire electrical system should be checked by a certified electrician. The incoming wires and the compressor electrical connections should be checked. Loose connections will cause malfunctions
	2. Blown fuse and/or tripped breaker	2. The breaker and fuses required for this unit must be time delay. A tripped breaker or blown fuse may result from a direct short to ground, high current draw, improper wiring, incorrect fuse or breaker size and/or type. This needs to be evaluated by a service center or certified electrician
	3. Starter overload tripped	3. Check and reset if necessary. If the overload trips after the initial reset, refer to "Troubleshooting Guide for New Installations."
	4. Defective capacitor	4. Check and replace (if necessary) defective capacitor
	5. Defective magnetic starter	5. First check for any loose wiring and tighten if loose. Check and replace (if necessary) defective magnetic starter
Motor hums; motor draws high amps, trips overload, trips breaker, or blows fuse on start up	1. Defective pressure switch unloader	1. Drain the tank of all pressure. Restart compressor under no load. If compressor is able to start, then the unloader needs to be checked. If this problem is not corrected it will fail the motor and / or other electrical components
	2. Defective check valve - constant loss of tank pressure	2. Determine if the check valve is working properly - pressure switch unloader should quit hissing after the compressor shuts off. If the hissing continues and if there is a constant loss of tank pressure, then the check valve is not working properly. Replace check valve
	3. Loose electrical connections	3. The entire electrical system should be checked by a certified electrician. The incoming wires and the compressor electrical connections should be checked. Loose connections will cause malfunctions
	4. Defective capacitor	4. Check and replace (if necessary) defective capacitor
	5. Valve problem or blown gasket	5. Check gasket and replace as needed. Other symptoms occur when a valve is not sealing or a gasket is blown such as higher than normal amp draw which may trip out the overload or breaker
Compressor runs but builds pressure slowly	1. Air leak	1. Check the entire system for leaks, including the compressor unit and any piping attached to the compressor
	2. Dirty air filter	2. Air filters need to be changed regularly based on usage and environment. A dirty filter may appear to be clean. Change filters often
	3. Valve problem or blown gasket	3. Check gasket and replace as needed. Other symptoms occur when a valve is not sealing or a gasket is blown such as higher than normal amp draw which may trip out the overload or breaker
	4. Tank cracked	4. Replace the tank. <b>The unit should not be run under any conditions.</b> Tanks cannot be welded or patched
Interstage safety valve pops off when the unit is running	1. Valve problem or worn gasket 2. Low head bolt torque 3. Defective interstage safety valve	1. Check and replace valve or gaskets as needed. 2. Check and retighten head bolts to specified torque 3. Replace interstage safety valve. Under no circumstances plug the safety valve port
Oil out breather	1. Worn rings or scored cylinder	1. Replace rings and/or replace cylinder
	2. Compressor running hot	2. Make sure compressor is running the correct rotation. Compressor should be clean and in a well ventilated area. Oil should be changed on regular intervals according to the specifications listed in the manual. Air filter must be changed as it gets dirty

*Continued on next page*

## TROUBLESHOOTING GUIDE FOR UNITS IN SERVICE FOR A PERIOD OF TIME (CONTINUED)

Symptom	Possible Cause(s)	Corrective Action
Milky oil in crankcase	1. Low usage of compressor - water is condensing in the crankcase	1. Run the compressor continuously for 1 hour. The heat generated during this running period will evaporate the moisture out of the oil
	2. Wrong type of oil	2. Do not use SAE-30 automotive type oil. Using the wrong oil can cause various problems with the pump and will void the warranty. Only use the oils that the operating manual recommends
	3. Improper environment	3. Unit should not be installed in a poorly vented area or exposed to extreme cold or hot conditions. Normal operating range should be between 32°F and 100°F
	4. Rotation incorrect	4. Check to make sure the compressor is running the direction of the flywheel arrow. Air flow should be so that the flywheel directs air across the head of the pump. Standing in front of the compressor (non-belt guard side) air should flow back to front
	5. Slight leakage of tank check valve	5. Air cools and condensates, then leaks back into the pump. Draining tank of air after use will normally take care of this situation
Pressure switch continually blows air out the unloader valve	Defective check valve	Replace check valve
Pressure switch does not release air when the compressor shuts off.	Pressure switch unloader not working properly	Drain the tank of all pressure. Restart compressor under no load. If compressor is able to start, then the unloader needs to be checked. If this problem is not corrected it will fail the motor and / or other electrical components
Compressor will not shut off	1. Defective pressure switch	1. Setting too high. Replace pressure switch
	2. Defective safety valve	2. Make sure tank pressure gauge is reading correctly and if necessary replace tank safety valve
Unit vibrates excessively	1. Loose fasteners	1. This includes mounting bolts for the pump, motor, belt guard, mag. starter, etc. Check for loose fasteners as part of a routine maintenance schedule. Tighten any loose fasteners
	2. Loose pulley, loose belt or misalignment or pulleys	2. The pulley and belt may need to be tightened over time. The pulleys may need to be realigned to assure proper belt wear and lower vibration. These should be checked as part of regular maintenance
	3. Defective pump	3. A defective pump includes knocking or making noises not normal to the pump design. Severe oil out the breather usually indicates ring or cylinder wear. Low pump performance could indicate valve problems. There are numerous symptoms associated with a defective pump. The pump will need to be evaluated
Water in discharge air	1. Hot humid weather	1. During hot and humid weather it is normal to accumulate water in the compressor tank. This is normal and requires frequent draining of tank. We recommend use of an automatic drain along with filters and dryers if this is a problem
	2. Water accumulated in the tank	2. Drain tank of water to prevent tank corrosion and air tool wear. It is recommended use of an automatic drain along with filters and dryer to prevent water into exhaust air of the compressor

*Continued on next page*

## TROUBLESHOOTING GUIDE FOR UNITS IN SERVICE FOR A PERIOD OF TIME (CONTINUED)

Symptom	Possible Cause(s)	Corrective Action
Oil in discharge air	1. Restricted intake filter	1. The filter should be changed frequently to avoid possible problems and to make the compressor operation efficient. There is a vacuum created in the intake of the compressor, which causes high oil consumption by pulling oil through the rings. There is also a chance of the intake filter media being destroyed, allowing contaminants to enter the intake and cause wear problems
	2. Wrong type of oil	2. Do not use SAE-30 automotive type oil. Using the wrong oil can cause various problems with the pump and will void the warranty. Only use the oils that the operating manual recommends
	3. Worn rings or scored cylinder	3. Replace rings and/or replace cylinder
	4. Compressor running hot	4. Make sure compressor is running the correct rotation. Compressor should be clean and in a well ventilated area. Oil should be changed on regular intervals according to the specifications listed in the manual. Air filter must be changed as it gets dirty

## MAINTENANCE AND INSPECTION INSTRUCTIONS



### **⚠ WARNING**

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

In order to maintain efficient operation of the compressor system, check the air filter and oil level before each use. The ASME safety valve should also be checked daily (see Figure 13). Pull ring on safety valve and allow the ring to snap back to normal position. This valve automatically releases air if the tank pressure exceeds the preset maximum. If air leaks after the ring has been released, or the valve is stuck and cannot be actuated by the ring, the ASME safety valve must be replaced.

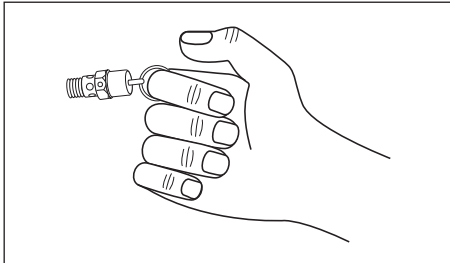


Figure 13 - ASME Safety Valve

### **⚠ WARNING**

Do not tamper with the ASME safety valve.

### Tank



### **⚠ WARNING**

Never attempt to repair or modify a tank! Welding, drilling or any other modification will weaken the tank resulting in damage from rupture or explosion. Always replace worn, cracked or damaged tanks.

### **NOTICE**

Drain liquid from tank daily.

The tank should be carefully inspected at a minimum of once a year. Look for cracks forming near the welds. If a crack is detected, remove pressure from tank immediately and replace.

### Compressor Lubrication

See Installation. Add oil as required. The oil should be changed every three months or after every 500 hours of operation; whichever comes first.

If the compressor is run under humid conditions for short periods of time, the humidity will condense in the crankcase and cause the oil to look creamy. Oil contaminated by condensed water will not provide adequate lubrication and must be changed immediately. Using contaminated oil will damage bearings, pistons, cylinders and rings and is not covered under warranty. To avoid water condensation in the oil, periodically run the compressor with tank pressure near 150 psi for two-stage compressors or 120 psi for single stage compressors by opening the drain cock or an air valve connected to the tank or hose. Run the pump for an hour at a time at least once a week or more often if the condensation reoccurs.

**IMPORTANT:** Change oil after first 50 hours of operation.

### Air Filter

Never run the compressor pump without an intake air filter or with a clogged intake air filter. The air filter element should be checked monthly (see Figure 14). Operating compressor with a dirty filter can cause high oil consumption and increase oil contamination in the discharge air. If the air filter is dirty it must be replaced.



Figure 14 - Air Filter Element

## MAINTENANCE AND INSPECTION INSTRUCTIONS (CONTINUED)

### Intercooler

#### ⚠ CAUTION

Intercooler fins are sharp, always wear gloves and use care when you clean or work near the intercooler.

Weekly, check the intercooler to be sure all fittings are secure and tight. Clean all dirt, dust and other accumulations from the intercooler fins.

### Components

Turn off all power and clean the cylinder head, motor, fan blades, air lines, intercooler and tank on a monthly basis.

### Belts

#### ⚠ WARNING

Lock out and tag the power then release all pressure from the tank to prevent unexpected movement of the unit.

Check belt tension every 3 months. Adjust belt tension to allow 3/8 inch to 1/2 inch deflection with normal thumb pressure. Also, align belts using a straight edge against the face of the flywheel and touching the rim on both sides of the face. The belts should be parallel to this straight edge (see Figure 15). Dimension A should be the same as B and C to ensure proper alignment of the belts.

Slots in the bed-plate allow for sliding the motor back and forth to adjust belt tension.

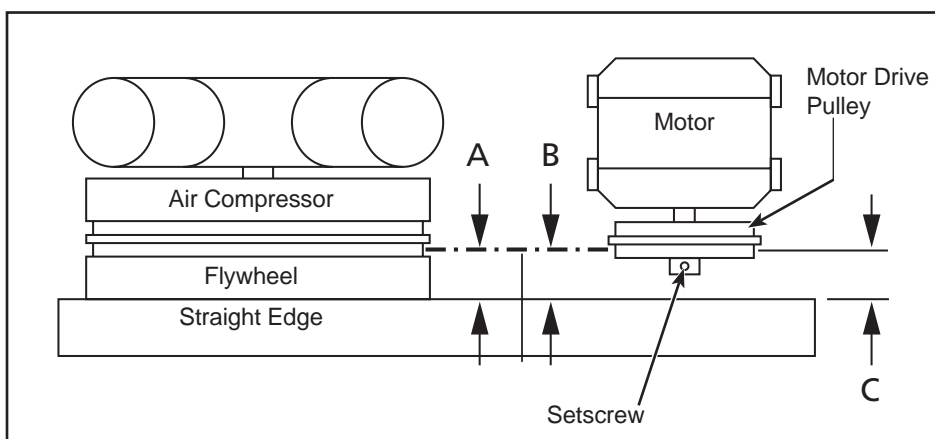


Figure 15 - Top View

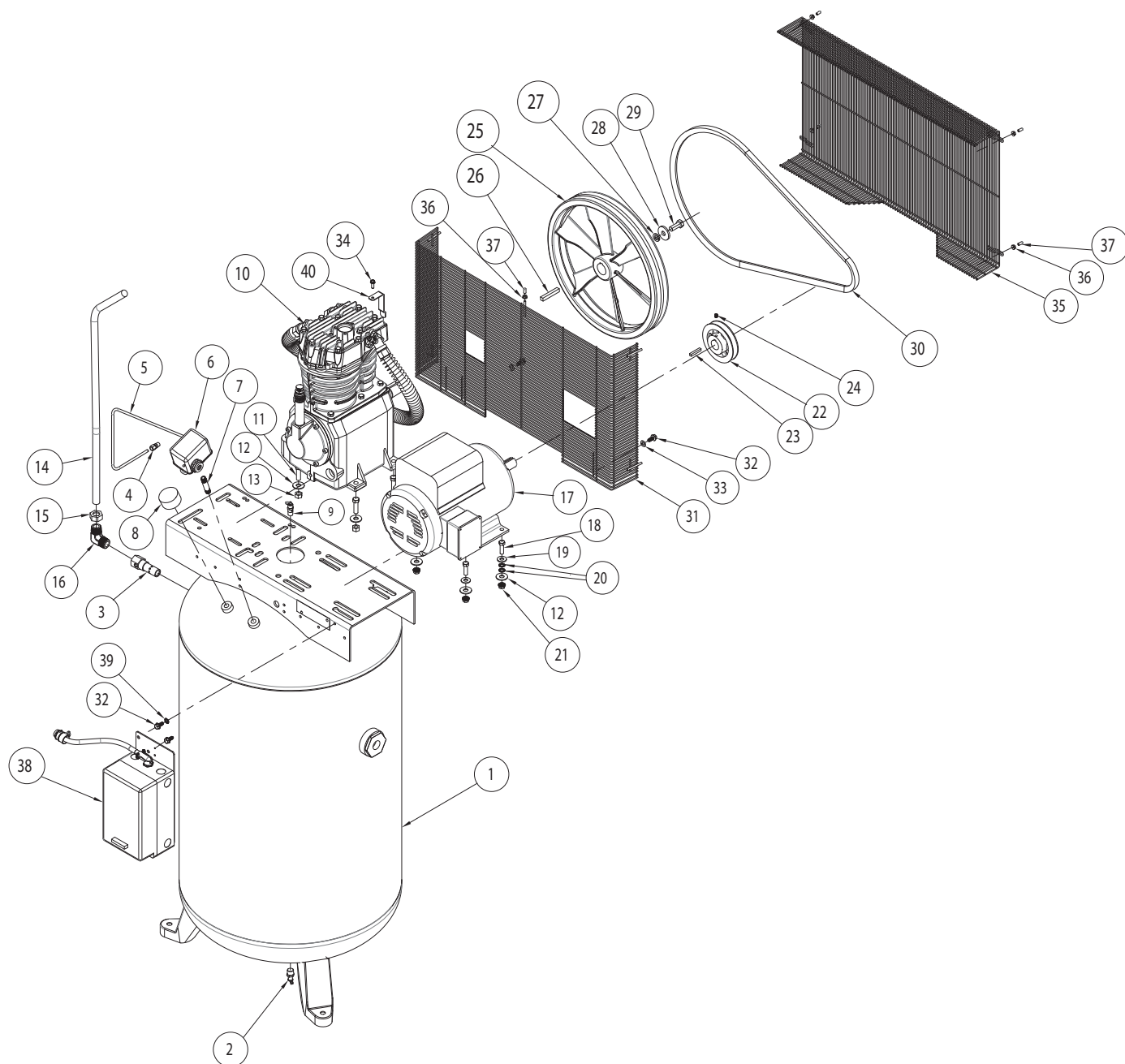
### Maintenance Schedule

Operation	Daily	Monthly	3 Months
Check Safety Valve	●		
Drain Tank (see Figure 12)	●		
Check Oil Level	●		
Clean or Change Air Filter		●	
Check Intercooler		●	
Clean Unit Components		●	
Check Belt Tightness			●
Change Oil (see Figure 10)			●



## NOTES

## REPAIR PARTS ILLUSTRATION FOR 35WC47



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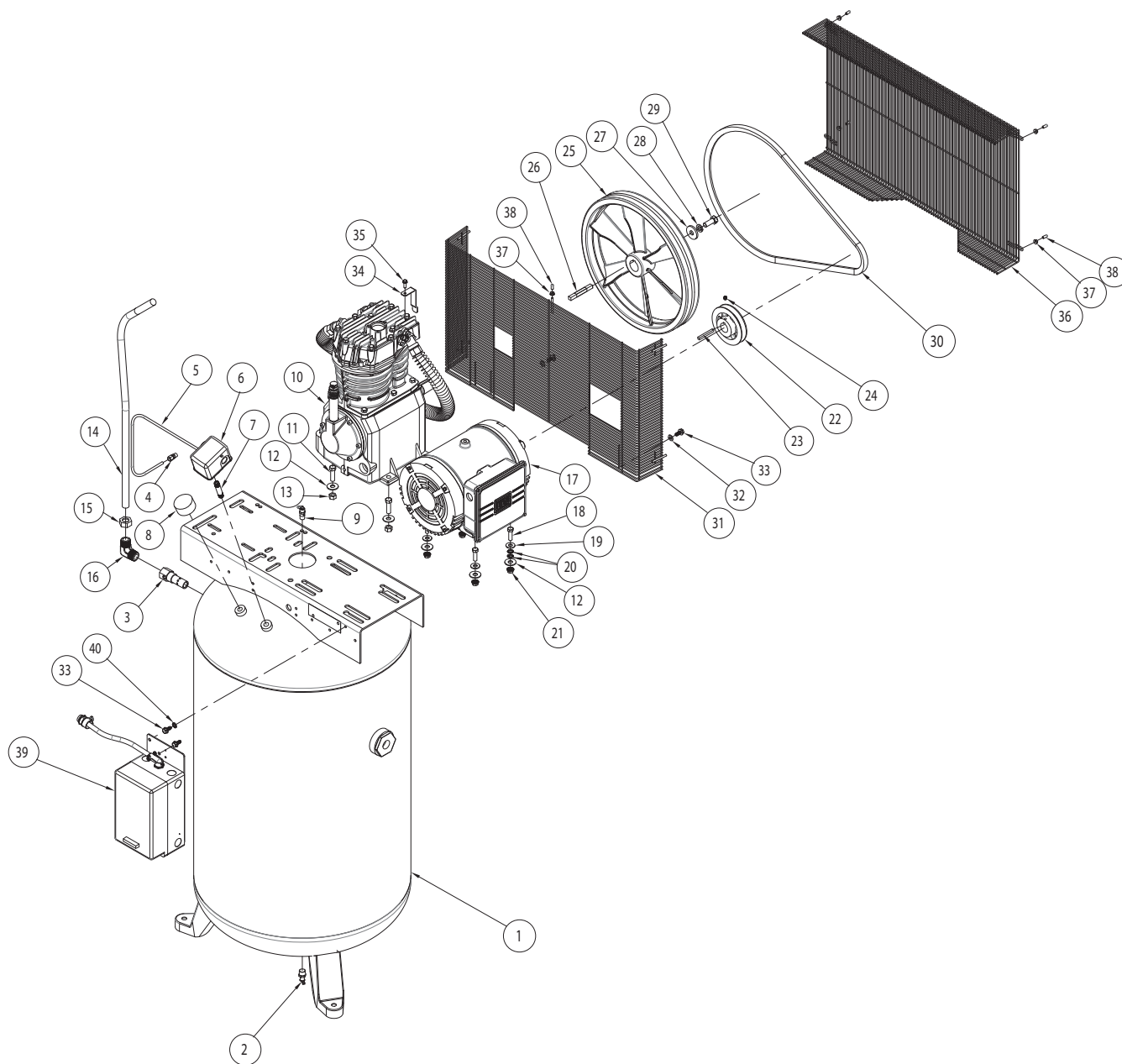
Please provide following information:

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

## REPAIR PARTS LIST FOR 35WC47

Ref. No.	Description	Part Number:	Qty.
1	TANK	TF006607CG	1
2	3/8 DRAIN VALVE	45U948	1
3	CHECK VALVE	33MH64	1
4	COMPRESSION CONNECTOR	ST011701AV	1
5	UNLOADER TUBE	TF063500AP	1
6	PRESSURE SWITCH	33MH71	1
7	1/4-18 X 2 3/4 PIPE NIPPLE	ST070387AV	1
8	300 PSI 1/4 NPT PRESSURE GAUGE	GA031901AV	1
9	200PSI SAFETY VALVE	33MH70	1
10	PUMP	5F566	1
11	7/16-14 1.5 LG HEX CAP SCREW	†	4
12	7/16 WASHER	†	8
13	7/16-14 HEX NUT	†	4
14	DISCHARGE TUBE	TF069000AJ	1
15	3/4 COMPRESSION NUT W/ CAPTIVE FERRULE	ST072321AV	1
16	3/4 NPT PIPE ELBOW	ST072231AV	1
17	MOTOR WITH KEY	MC025100AV	1
18	3/8-16 1.25 LG HEX CAP SCREW	†	4
19	3/8 WASHER	†	4
20	EXT TOOTH LOCK WASHER	†	2
21	3/8-16 FLANGE NUT	†	4
22	4.6 X 1.125 PULLEY	PU009750AV	1
23	1/4 X 1.5 LG KEY	KE001304AV	1
24	SET SCREW	--	2
25	FLYWHEEL WITH KEY	PU016701AJ	1
26	FLYWHEEL KEY	KE001310AV	1
27	1/2 WASHER	†	1
28	1/2 LOCK WASHER	†	1
29	1/2-13 1.25 LG HEX CAP SCREW	†	1
30	BELT BX-66	BT008501AV	1
31	BELTGUARD BACK	BG217100AV	1
32	5/16-12 SELF TAPPING HEX SCREW	†	4
33	5/16 WASHER	†	2
34	1/4-20 SELF TAPPING SCREW	†	1
35	BELTGUARD FRONT	BG217000AV	1
36	#10-24 FLANGE NUT	†	5
37	SAFETY CAP	ST075400AV	5
38	STARTER WITH HEATERS	ST122010AJ	1
39	5/16 EXT TOOTH LOCKWASHER	†	1
40	BELT GUARD BRACKET	TF063400AV	1
†	AVAILABLE AT LOCAL HARDWARE STORE		
--	NOT AVAILABLE		

## REPAIR PARTS ILLUSTRATION FOR 35WC48



**For Repair Parts, call 1-800-Grainger**  
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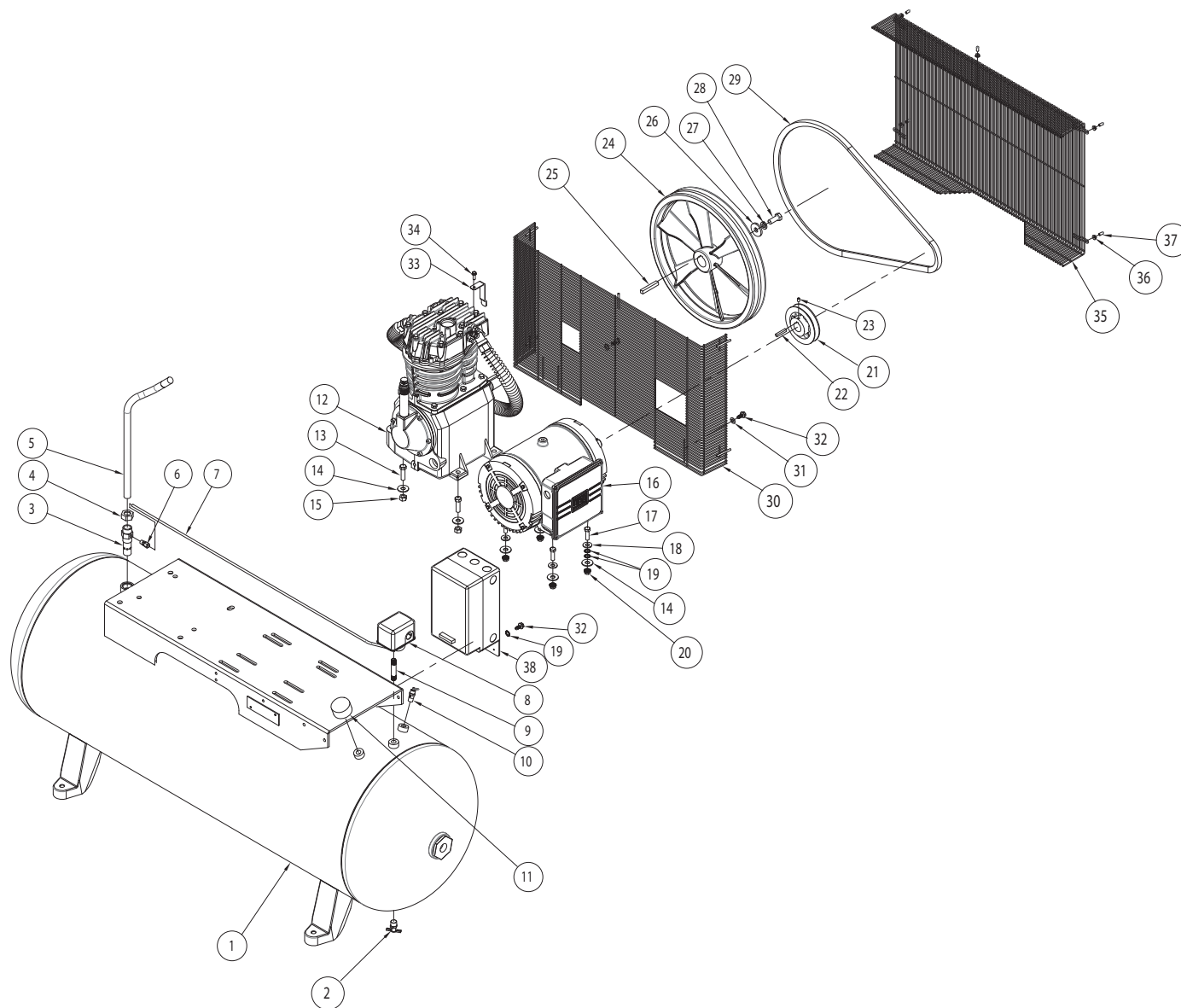
Please provide following information:

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

# REPAIR PARTS LIST FOR 35WC48

Ref. No.	Description	Part Number:	Qty.
1	TANK	TF006607CG	1
2	3/8 DRAIN VALVE	45U948	1
3	CHECK VALVE	33MH64	1
4	COMPRESSION CONNECTOR	ST011701AV	1
5	UNLOADER TUBE	TF063500AP	1
6	PRESSURE SWITCH	33MH71	1
7	1/4-18 X 2 3/4 PIPE NIPPLE	ST070387AV	1
8	300 PSI 1/4 NPT PRESSURE GAUGE	GA031901AV	1
9	200PSI SAFETY VALVE	33MH70	1
10	PUMP	5F566	1
11	7/16-14 1.5 LG HEX CAP SCREW	†	4
12	7/16 WASHER	†	8
13	7/16-14 HEX NUT	†	4
14	DISCHARGE TUBE	TF069000AJ	1
15	3/4 COMPRESSION NUT W/ CAPTIVE FERRULE	ST072321AV	1
16	3/4 NPT PIPE ELBOW	ST072231AV	1
17	MOTOR WITH KEY	MC033600SJ	1
18	3/8-16 1.25 LG HEX CAP SCREW	†	4
19	3/8 WASHER	†	4
20	EXT TOOTH LOCK WASHER	†	2
21	3/8-16 FLANGE NUT	†	4
22	4.6 X 1.125 PULLEY	PU009750AV	1
23	1/4 X 1.5 LG KEY	†	1
24	SET SCREW	--	2
25	FLYWHEEL WITH KEY	PU016701AJ	1
26	FLYWHEEL KEY	KE001310AV	1
27	1/2 WASHER	†	1
28	1/2 LOCK WASHER	†	1
29	1/2-13 1.25 LG HEX CAP SCREW	†	1
30	BELT BX-66	BT008501AV	1
31	BELTGUARD BACK	BG217100AV	1
32	5/16 WASHER	†	2
33	5/16-12 SELF TAPPING HEX SCREW	†	4
34	BELT GUARD BRACKET	TF063400AV	1
35	1/4-20 SELF-TAPPIING HEX SCREW	†	1
36	BELTGUARD FRONT	BG217000AV	1
37	#10-24 HEX FLANGE NUT	†	5
38	SAFETY CAP	ST075400AV	5
39A	STARTER WITH HEATERS 208-230V	ST122011AJ	1
39B	STARTER WITH HEATERS 460V (OPTIONAL)	ST122012AJ	1
40	5/16 EXT TOOTH LOCKWASHER	ST146800AV	1
†	AVAILABLE AT LOCAL HARDWARE STORE		
--	NOT AVAILABLE		

## REPAIR PARTS ILLUSTRATION FOR 35WC49



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*Please provide following information:*

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

# REPAIR PARTS LIST FOR 35WC49

Ref. No.	Description	Part Number:	Qty.
1	TANK	TF003603CG	1
2	3/8 DRAIN VALVE	45U948	1
3	CHECK VALVE	CV003404AV	1
4	3/4 COMPRESSION NUT W/ CAPTIVE FERRULE	ST072321AV	1
5	EXHAUST TUBE	TF066200AP	1
6	COMPRESSION CONNECTOR	ST011701AV	1
7	UNLOADER TUBE	TF063501AP	1
8	PRESSURE SWITCH	33MH71	1
9	1/4-18 X 2 3/4 PIPE NIPPLE	ST070387AV	1
10	SAFETY VALVE 200PSI	33MH70	1
11	300 PSI 1/4 NPT PRESSURE GAUGE	GA031901AV	1
12	PUMP	5F566	1
13	7/16-14 1.5 LG HEX CAP SCREW	†	4
14	7/16 WASHER	†	8
15	7/16-14 NUT	†	4
16	MOTOR WITH KEY	MC033600SJ	1
17	3/8-16 1.25 LG HEX CAP SCREW	†	4
18	3/8 WASHER	†	4
19	EXT TOOTH WASHER	†	3
20	3/8-16 FLANGE NUT	†	4
21	4.6 X 1.125 PULLEY	PU009750AV	1
22	1/4 X 1.5 LG KEY	KE001304AV	1
23	SET SCREW	--	2
24	FLYWHEEL	PU016701AJ	1
25	FLYWHEEL KEY	KE001310AV	1
26	WASHER	TX034600AV	1
27	1/2 WASHER	†	1
28	1/2-13 1.25 LG HEX CAP SCREW	†	1
29	BELTBX-66	BT008501AV	1
30	BELTGUARD BACK	BG217100AV	1
31	5/16 WASHER	†	2
32	5/16-12 SELF TAPPING HEX SCREW	†	4
33	BELT GUARD BRACKET	TF063400AV	1
34	1/4-20 SELF-TAPPIING HEX SCREW	†	1
35	BELTGUARD FRONT	BG217000AV	1
36	#10-24 HEX FLANGE NUT	†	5
37	SAFETY CAP	ST075400AV	5
38A	STARTER WITH HEATERS 208-230V	ST122011AJ	1
38B	STARTER WITH HEATERS 460V (OPTIONAL)	ST122012AJ	1
†	AVAILABLE AT LOCAL HARDWARE STORE		
--	NOT AVAILABLE		

GETTING STARTED

SAFETY /  
SPECIFICATIONS

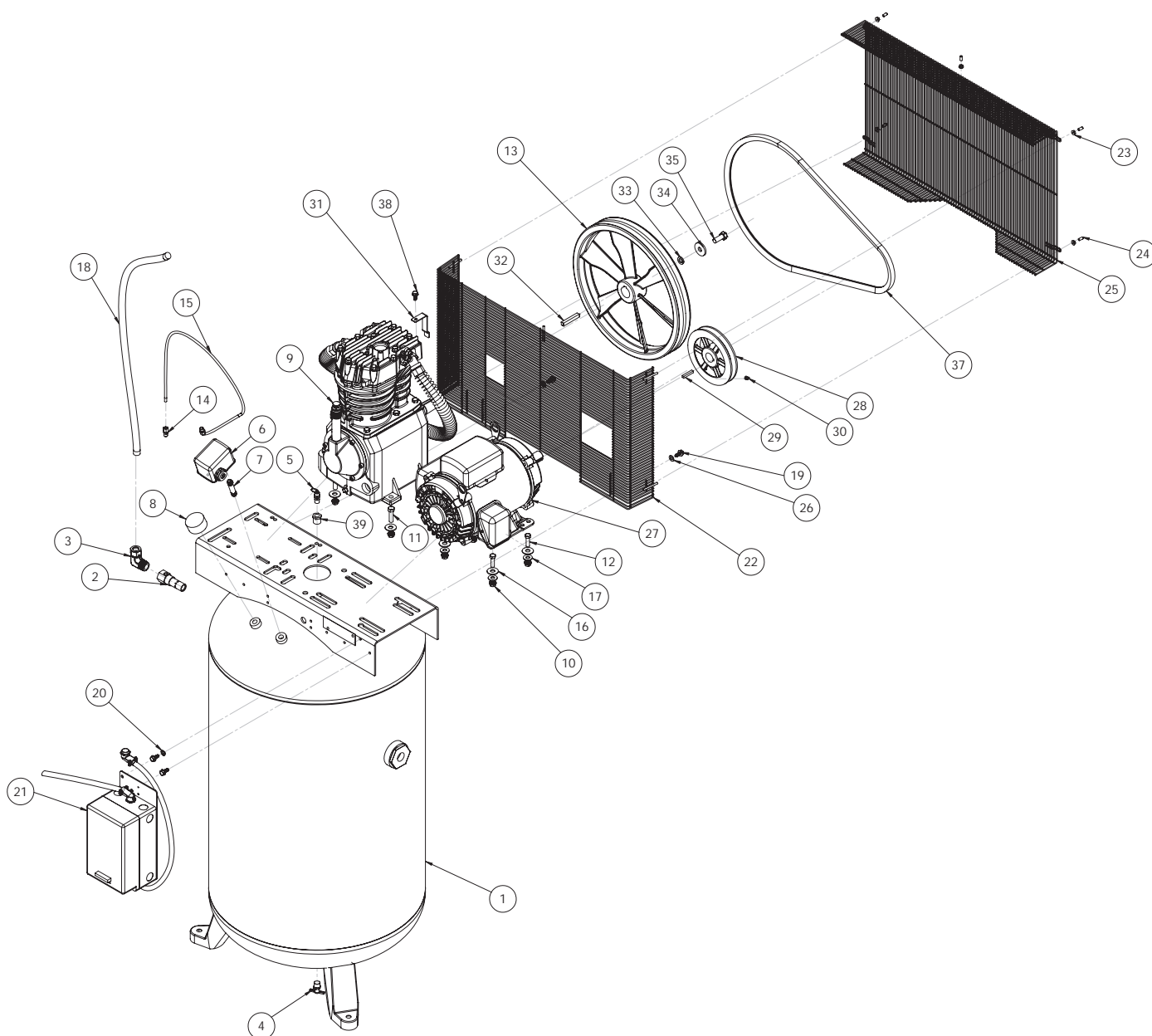
ASSEMBLY /  
INSTALLATION

OPERATION

TROUBLESHOOTING

MAINTENANCE /  
REPAIR

## REPAIR PARTS ILLUSTRATION FOR 35WC40



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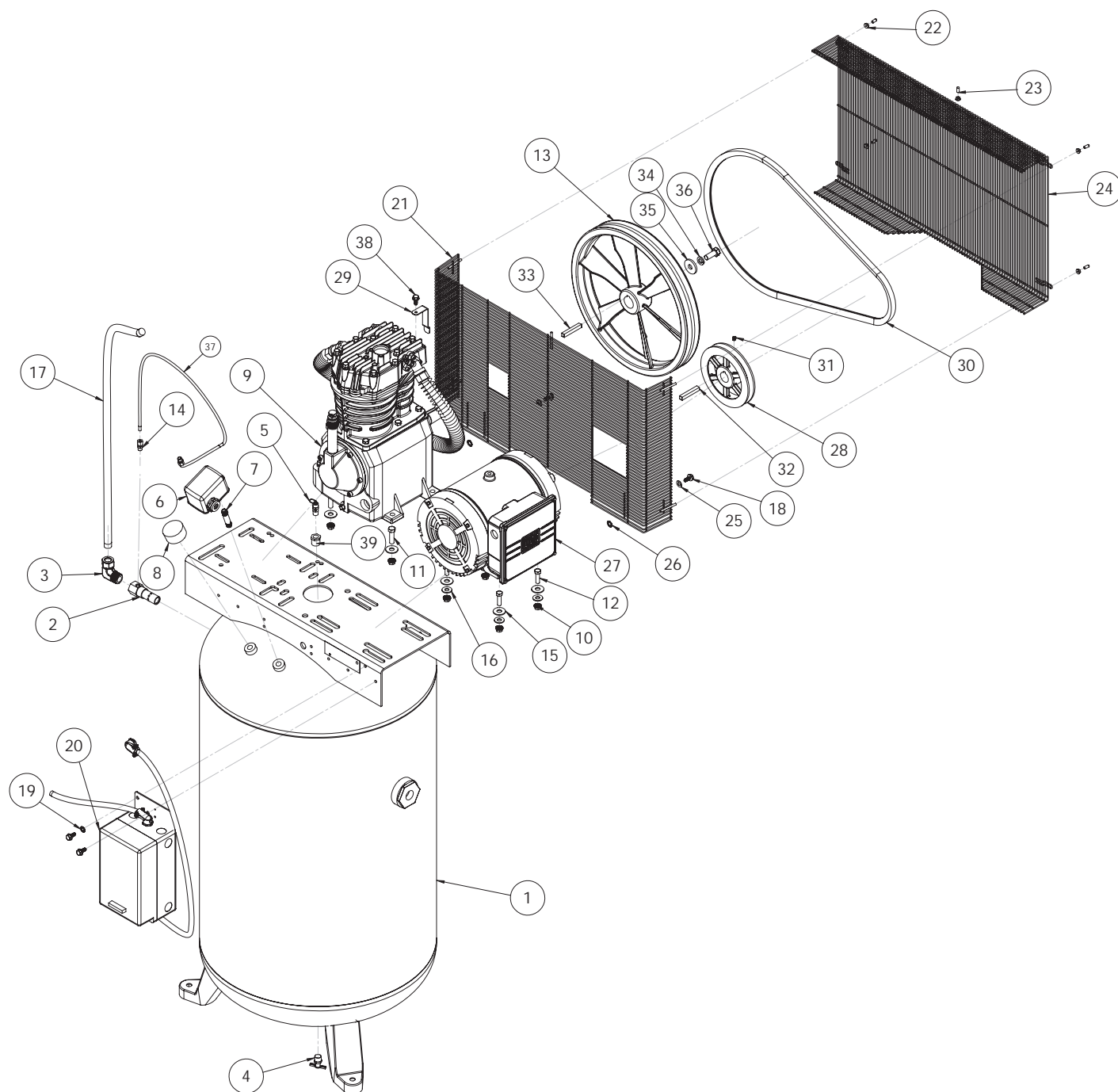
- Model number
- Serial number (if any)
- Part description and number as shown in parts list



## REPAIR PARTS LIST FOR 35WC40

Ref. No.	Description	Part Number:	Qty.
1	TANK	TF006607CG	1
2	CHECK VALVE	33MH64	1
3	3/4 NPT PIPE ELBOW	ST072231AV	1
4	3/8 NPT WINGED DRAIN	45U948	1
5	200PSI SAFETY VALVE	33MH70	1
6	PRESSURE SWITCH	33MH71	1
7	1/4-18 X 2 3/4 PIPE NIPPLE	ST070387AV	1
8	300 PSI 1/4 NPT PRESSURE GAUGE	GA031901AV	1
9	PUMP	5Z404	1
10	3/8-16 FLANGE NUT	†	8
11	7/16-14 1.5 LG HEX CAP SCREW	†	4
12	3/8-16 1.25 LG HEX CAP SCREW	†	4
13	FLYWHEEL	PU016701AJ	1
14	1/4 COMPRESSION FITTING	ST011701AV	1
15	1/4 DIA COPPER TUBING	TF063500AP	1
16	7/16 WASHER	†	8
17	3/8 WASHER	†	7
18	DISCHARGE TUBE	TF069000AJ	1
19	5/16-12 SELF TAPPING SCREW	†	4
20	5/16 EXT TOOTH LOCKWASHER	†	1
21	STARTER WITH HEATER	ST122001AJ	1
22	BELTGUARD BACK	BG217100AV	1
23	#10-24 FLANGE NUT	†	5
24	SAFETY CAP	ST075400AV	5
25	BELTGUARD FRONT	BG217000AV	1
26	5/16 WASHER	†	2
27	MOTOR	45U933	1
28	PULLEY 6.75 X 1.125	PU008003AV	1
29	1/4 X 1.5 LG KEY	KE001304AV	1
30	5/16-18 SET SCREW	--	2
31	BELT GUARD BRACKET	TF063400AV	1
32	KEY FLYWHEEL	KE001310AV	1
33	LOCK WASHER	†	1
34	WASHER	†	1
35	1/2-13 X 1.25 LG HEX CAP SCREW	†	1
36	WIRE NUT (NOT SHOWN)	†	3
37	BELT B67	BT022001AV	1
38	1/4-20 SELF TAPPING SCREW	†	1
39	REDUCER FITTING	ST071428AV	1
†	AVAILABLE AT LOCAL HARDWARE STORE		
--	NOT AVAILABLE		

## REPAIR PARTS ILLUSTRATION FOR 35WC42



**For Repair Parts, call 1-800-Grainger**  
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Please provide following information:

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

# REPAIR PARTS LIST FOR 35WC42

Ref. No.	Description	Part Number:	Qty.
1	TANK	TF006607CG	1
2	CHECK VALVE	33MH64	1
3	3/4 NPT PIPE ELBOW	ST072231AV	1
4	3/8 NPT WINGED DRAIN	45U948	1
5	200PSI SAFETY VALVE	33MH70	1
6	PRESSURE SWITCH	33MH71	1
7	1/4-18 X 2 3/4 PIPE NIPPLE	ST070387AV	1
8	300 PSI 1/4 NPT PRESSURE GAUGE	GA031901AV	1
9	PUMP	5Z404	1
10	3/8-16 FLANGE NUT	†	8
11	7/16-14 1.5 LG HEX CAP SCREW	†	4
12	3/8-16 1.25 LG-HEX CAP SCREW	†	4
13	FLYWHEEL	PU016701AJ	1
14	1/4 COMPRESSION FITTING	ST011701AV	1
15	7/16 WASHER	†	4
16	3/8 WASHER	†	7
17	3/4 DIA COPPER TUBING	TF069000AJ	1
18	5/16-12 SELF TAPPING HEX SCREW	†	5
19	EXT TOOTH LOCKWASHER	†	1
20A	STARTER WITH HEATERS 208-230V	ST122003AJ	1
20B	STARTER WITH HEATERS 460V (OPTIONAL)	ST122004AJ	1
21	BELTGUARD BACK	BG217100AV	1
22	#10-24 HEX FLANGE NUT	ST116201AV	5
23	SAFETY CAP	ST075400AV	5
24	BELTGUARD FRONT	BG217000AV	1
25	5/16 WASHER	†	2
26	EXT TOOTH WASHER	†	2
27	MOTOR	MC033500SJ	1
28	PULLEY 6.25 X 1.125	PU008003AV	1
29	BELT GUARD BRACKET	TF063400AV	1
30	BELT B67	BT022001AV	1
31	SET SCREW	†	2
32	MOTOR KEY	KE001304AV	1
33	KEY FLYWHEEL	KE001310AV	1
34	LOCK WASHER	†	1
35	WASHER	TX034600AV	1
36	1/2-13 X 1.25 HEX CAP SCREW	†	1
37	1/4 DIA COPPER TUBING	TF063500AP	1
38	1/4-20 SELF TAPPING SCREW	†	1
39	REDUCER FITTING	ST071428AV	1
40	WIRE NUT (NOT SHOWN)	†	3
†	AVAILABLE AT LOCAL HARDWARE STORE		
--	NOT AVAILABLE		

GETTING STARTED

SAFETY /  
SPECIFICATIONS

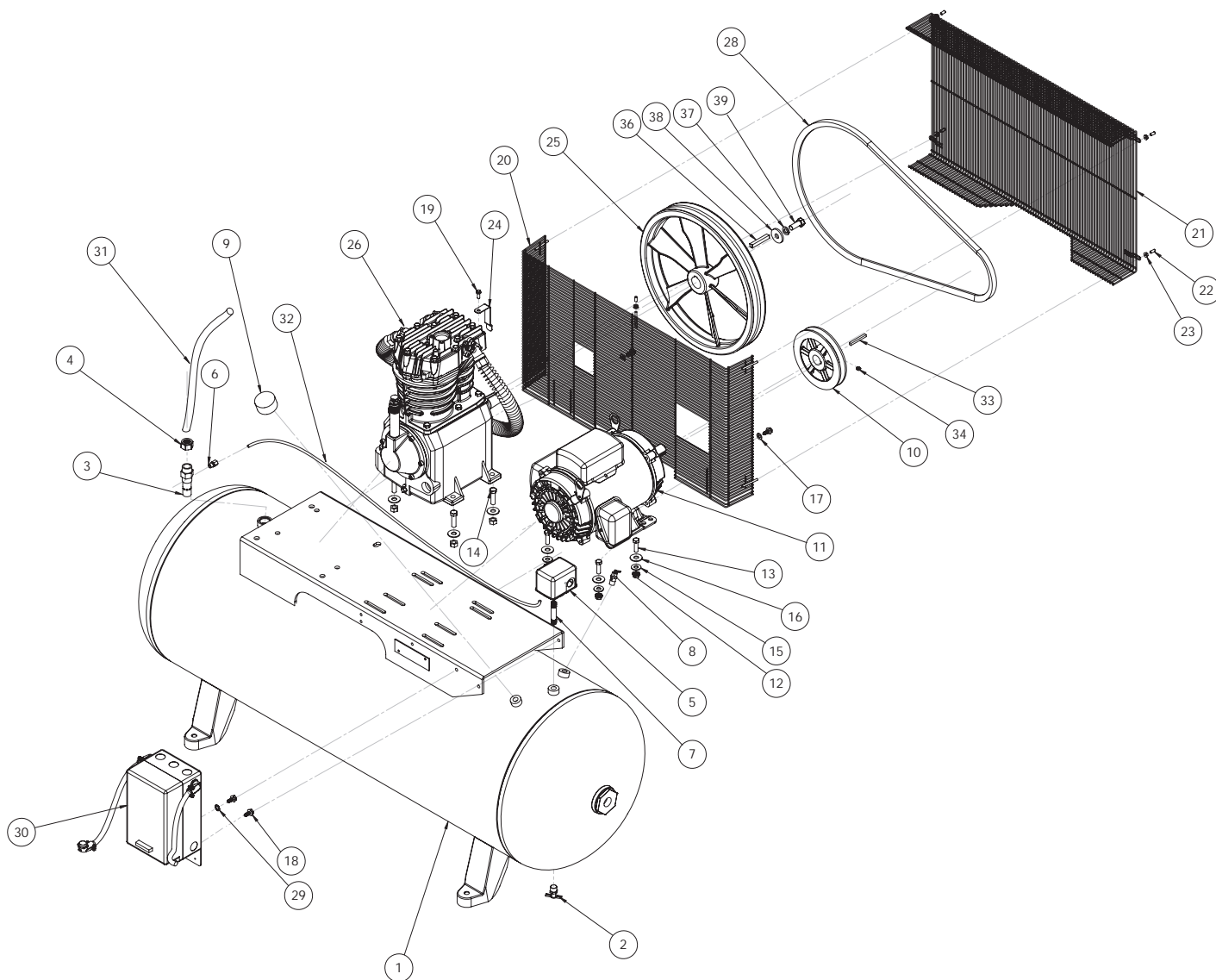
ASSEMBLY /  
INSTALLATION

OPERATION

TROUBLESHOOTING

MAINTENANCE /  
REPAIR

## REPAIR PARTS ILLUSTRATION FOR 35WC84



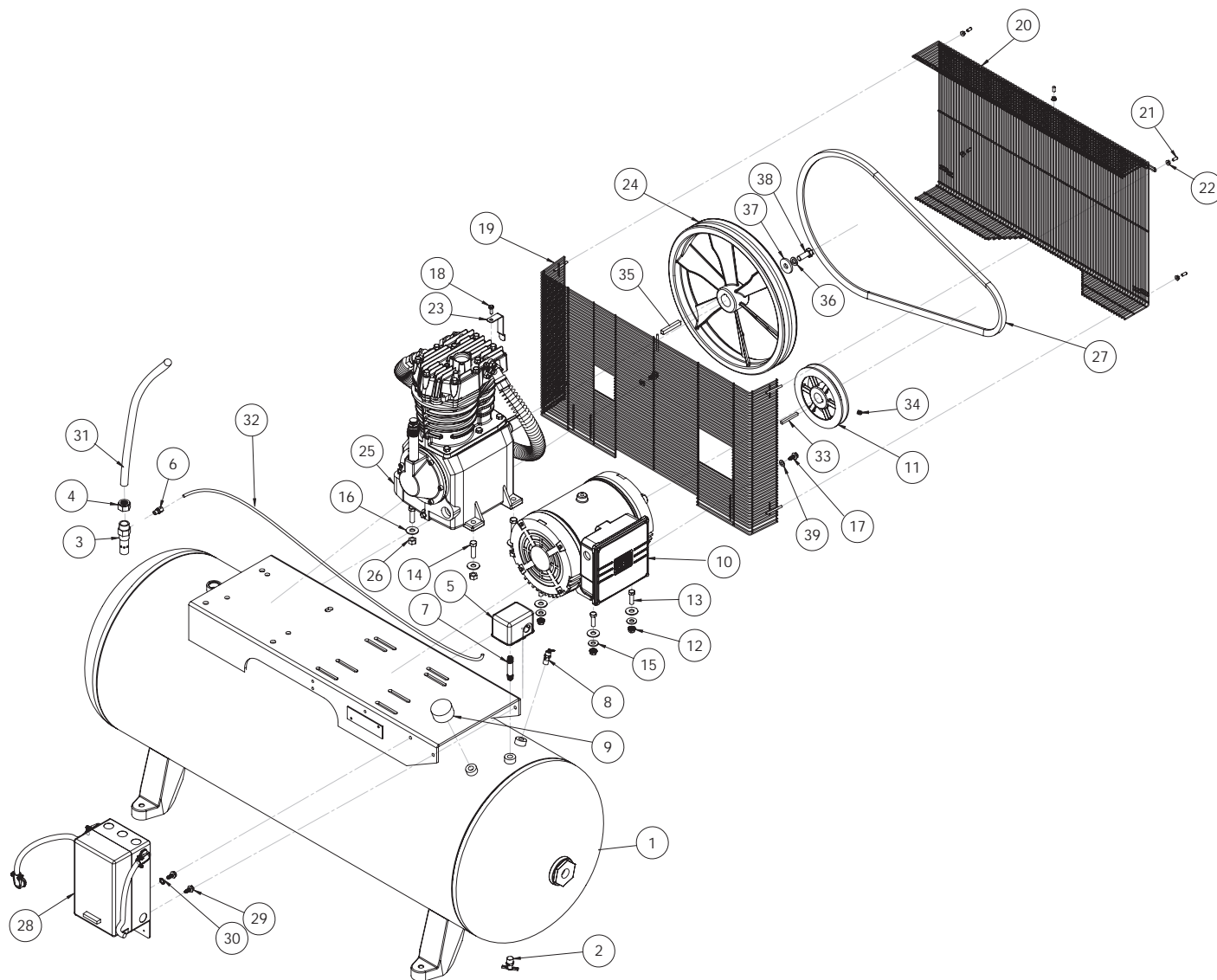
**For Repair Parts, call 1-800-Grainger**  
**24 hours a day – 365 days a year**

Please provide following information:

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

# REPAIR PARTS LIST FOR 35WC84

Ref. No.	Description	Part Number:	Qty.
1	TANK	TF003603CG	1
2	3/8 DRAIN VALVE	45U948	1
3	CHECK VALVE	CV003404AV	1
4	COMPRESSION NUT	ST072321AV	1
5	PRESSURE SWITCH	33MH71	1
6	1/4 COMPRESSION FITTING	ST011701AV	2
7	1/4-18 X 2 3/4 PIPE NIPPLE	ST070387AV	1
8	200PSI SAFETY VALVE	33MH70	1
9	300 PSI 1/4 NPT PRESSURE GAUGE	GA031901AV	1
10	PULLEY 6.75 X 1.125	PU008003AV	1
11	MOTOR	45U933	1
12	3/8-16 FLANGE NUT	†	4
13	3/8-16 1.25 LG HEX CAP SCREW	†	4
14	7/16-14 1.5 LG HEX CAP SCREW	†	4
15	3/8 WASHER	†	4
16	7/16 WASHER	†	8
17	5/16 WASHER	†	2
18	5/16-12 SELF TAPPING SCREW	†	4
19	1/4-20 SELF TAPPING SCREW	†	1
20	BELTGUARD BACK	BG217100AV	1
21	BELTGUARD FRONT	BG217000AV	1
22	SAFETY CAP	ST075400AV	5
23	#10-24 FLANGE NUT	†	5
24	BELTGUARD BRACKET	TF063400AV	1
25	FLYWHEEL	PU016701AJ	1
26	PUMP	5Z404	1
27	7/16-14 HEX NUT (NOT SHOWN)	†	4
28	BELT B67	BT022001AV	1
29	EXT TOOTH WASHER	ST072608AV	2
30	STARTER WITH HEATERS	ST122001AJ	2
31	3/4 COPPER TUBING	TF062200AP	1
32	1/4 COPPER TUBING	TF063501AP	1
33	PULLEY KEY	KE001304AV	1
34	5/16-18 SET SCREW	--	2
35	WIRE NUT (NOT SHOWN)	†	1
36	FLYWHEEL KEY	KE001310AV	1
37	LOCK WASHER	†	1
38	WASHER	†	1
39	1/2-13 X 1.25 HEX CAP SCREW	†	1
†	AVAILABLE AT LOCAL HARDWARE STORE		
--	NOT AVAILABLE		



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# REPAIR PARTS LIST FOR 35WC41

Ref. No.	Description	Part Number:	Qty.
1	TANK	TF003603CG	1
2	3/8 DRAIN VALVE	45U948	1
3	CHECK VALVE	CV003404AV	1
4	COMPRESSION NUT	ST072321AV	1
5	PRESSURE SWITCH	33MH71	1
6	1/4 COMPRESSION FITTING	ST011701AV	1
7	1/4-18 X 2 3/4 PIPE NIPPLE	ST070387AV	1
8	200PSI SAFETY VALVE	33MH70	1
9	300 PSI 1/4 NPT PRESSURE GAUGE	GA031901AV	1
10	MOTOR	MC033500SJ	1
11	PULLEY 6.75 X 1.125	PU008003AV	1
12	3/8-16 FLANGE NUT	†	4
13	3/8-16 1.25 LG-HEX CAP SCREW	†	4
14	7/16-14 1.5 LG HEX CAP SCREW	†	4
15	3/8 WASHER	†	4
16	7/16 WASHER	†	8
17	5/16-12 SELF-TAPPING HEX SCREW	†	4
18	1/4-20 SELF-TAPPING HEX SCREW	†	1
19	BELTGUARD BACK	BG217100AV	1
20	BELTGUARD FRONT	BG217000AV	1
21	SAFETY CAP	ST075400AV	5
22	NUT 10-24 HEX FLANGE	†	5
23	BELT GUARD BRACKET	TF063400AV	1
24	FLYWHEEL	PU016701AJ	1
25	PUMP	5Z404	1
26	7/16-14 HEX NUT	†	4
27	BELT B67	BT022001AV	1
28A	STARTER WITH HEATERS 208-230V	ST122003AJ	1
28B	STARTER WITH HEATERS 460V (OPTIONAL)	ST122004AJ	1
29	5/16-18 BLK	†	2
30	EXT TOOTH WASHER	†	1
31	3/4 DIA COPPER TUBING	TF062200AP	1
32	UNLOADER TUBE	TF063501AP	1
33	PULLEY KEY	KE001304AV	1
34	5/16-18 SET SCREW	--	2
35	KEY FLYWHEEL	KE001310AV	1
36	LOCK WASHER	†	1
37	WASHER	TX034600AV	1
38	1/2-13 X 1.25 HEX CAP SCREW	†	1
39	5/16 WASHER	†	2
40	WIRE NUT (NOT SHOWN)	†	3
†	AVAILABLE AT LOCAL HARDWARE STORE		
--	NOT AVAILABLE		



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**W.W. Grainger, Inc.**  
**100 Grainger Parkway, Lake Forest, IL 60045 U.S.A.**  
**or call +1-888-361-8649**