



# Two Stage Air Compressors

Operating Instructions and Parts Manual



**Models: JCP-803 and JCP-804**

**Part No. M-506803**



**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.**

**REMINDER: Keep your dated proof of purchase for warranty purposes! Attach it to this manual or file it for safekeeping.**

## BEFORE YOU BEGIN

### Introduction

The JET two-stage air compressors are oil lubricated reciprocating compressors.

### General Purpose Series Models Include:

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

Quick Reference
Recommended Oil (2 Options)
Single viscosity SAE 30 ISO100 nondetergent compressor oil.
10W30 synthetic oil such as Mobil 1®.
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.

**⚠ 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

## 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.**

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 the manufacturer 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.*

- Do not wear loose clothing or jewelry that will get caught in the moving parts of the unit.



**⚠ 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 use plastic (PVC) pipe for compressed air. Serious injury or death could result.*

**⚠ WARNING**

*damaged tanks.*

*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*

**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.

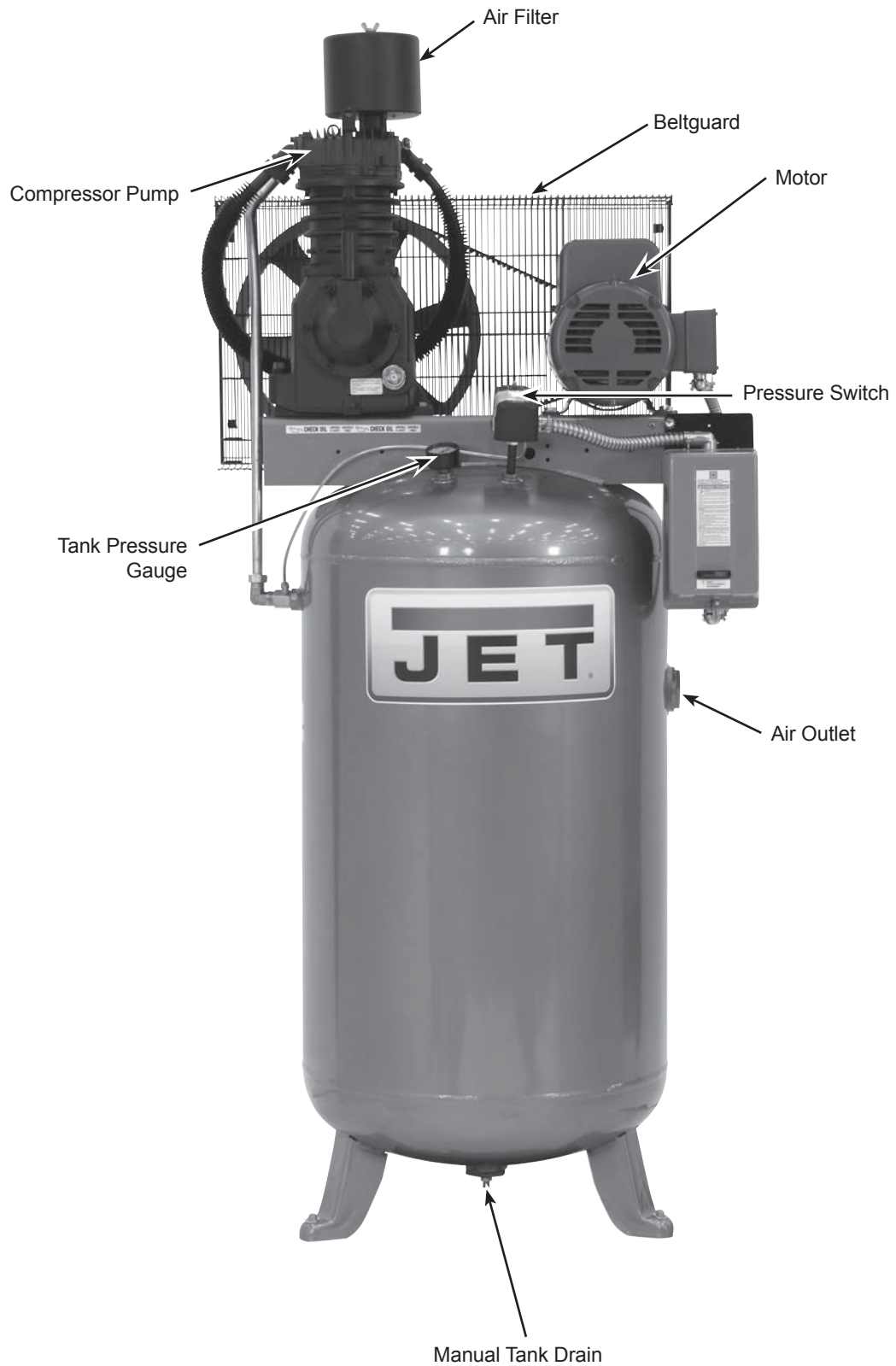


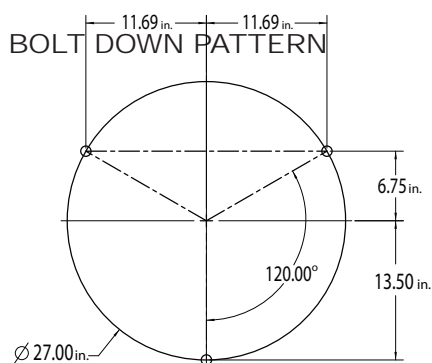
Figure 1 - Compressor Features

## SPECIFICATIONS

	JCP-803	JCP-804
Stock Number	506803	506804
Motor HP	7.5	7.5
Power	208-230V	208-230/460V* (prewired 208-230V)
Phase	1	3
Displacement CFM	31.4	31.4
Air Delivery CFM	25.1 @ 175 PSI	25.1 @ 175 PSI
Max PSI	175	175
Pump RPM	1020	1020
Tank Capacity	80	80
Unit Weight	540 lb	540 lb
Amp Draw	31	19.8-17.9/9
Max Duty Cycle	80/20	80/20
Tank Outlet	3/4 (F) NPT	3/4 (F) NPT
Tank MAWP	200 PSI	200 PSI
Sound Rating	87 dB(A) at 1M	87 dB(A) at 1M
		*Requires installation of 460V starter and heater (provided)

## DIMENSIONS

	JCP-803	JCP-804
Length	35 inches	35 inches
Width	27 inches	27 inches
Height	71 inches	71 inches





## INSTALLATION 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.*

### **⚠ 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 24 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.

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.

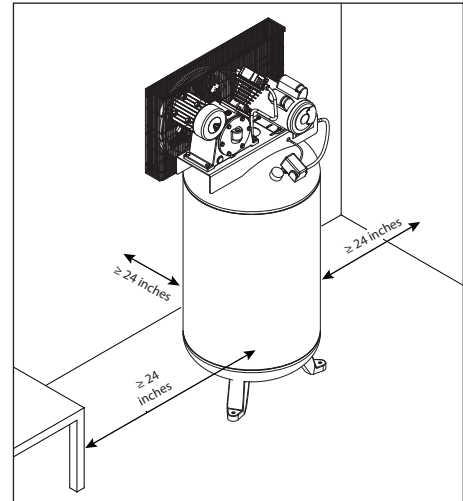


Figure 2 - Location

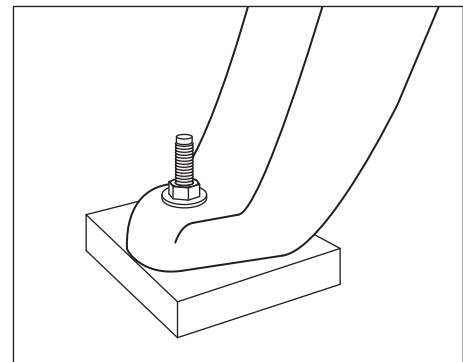


Figure 3 - Isolator Pad

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

## INSTALLATION INSTRUCTIONS (CONTINUED)

Installing A Shut-Off Valve

A shut-off valve (not provided) 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.*



Figure 4 - Shut-off Valve

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
7.5		8 AWG	10 AWG	12 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. Certain motors have this protection built-in. To determine if a motor has built-in overload protection, refer to the frame size on the motor nameplate.

Motors with frame size R56HZ, Y56Y or L143T include built-in overload protection. No additional protection is required. Use Figure 5 wiring diagram.

Motors with frame sizes 184T, 215T, 254T or 284T do not have built-in overload protection. A magnetic starter is required. Use Figure 5 wiring diagram.

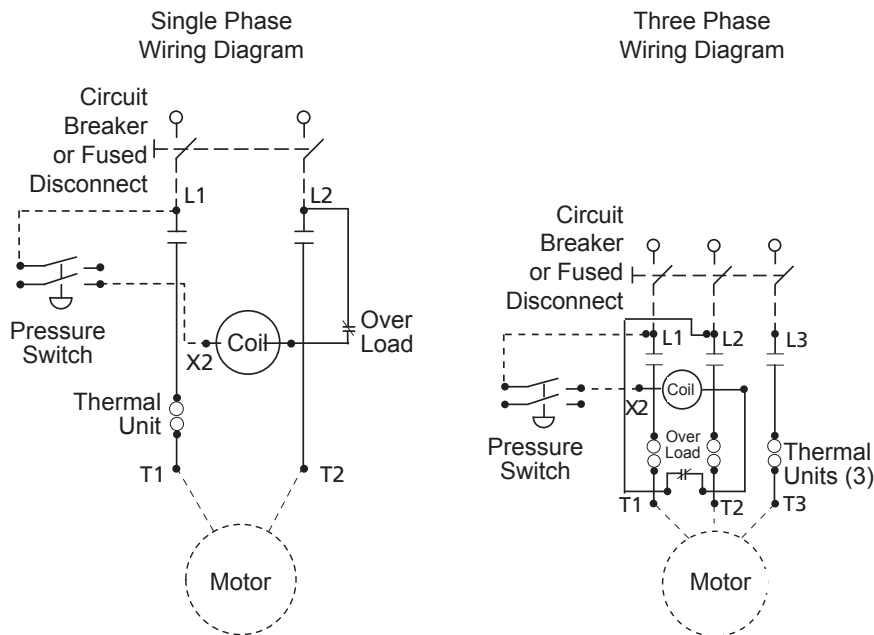


Figure 5 - Motor Starter Wiring Diagram

## INSTALLATION INSTRUCTIONS (CONTINUED)

Installing Air Inlet Filter

Use supplied self tapping screws to fasten inlet filter housing to the head of the pump. Then assemble pump with filter inside. See Figure 7.

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 6) 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.

Lubrication

**CAUTION** This unit contains no oil. Before operating compressor, fill to the center of the sight gauge (see Figure 7).

**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.

10W30 synthetic oil such as Mobil 1®.

Oil Capacity

Approximately 2 quarts

Fill the pump with oil to the center of the sight gauge using oil fill opening (see Figure 7). **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.

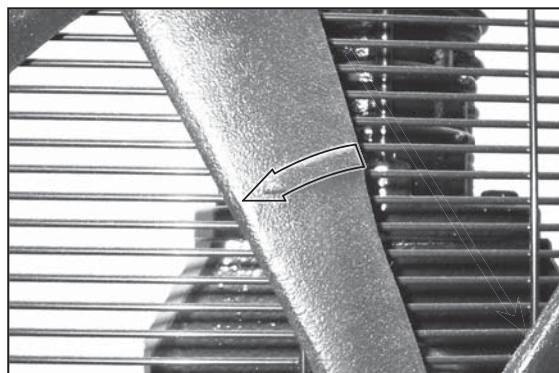


Figure 6- Direction of rotation

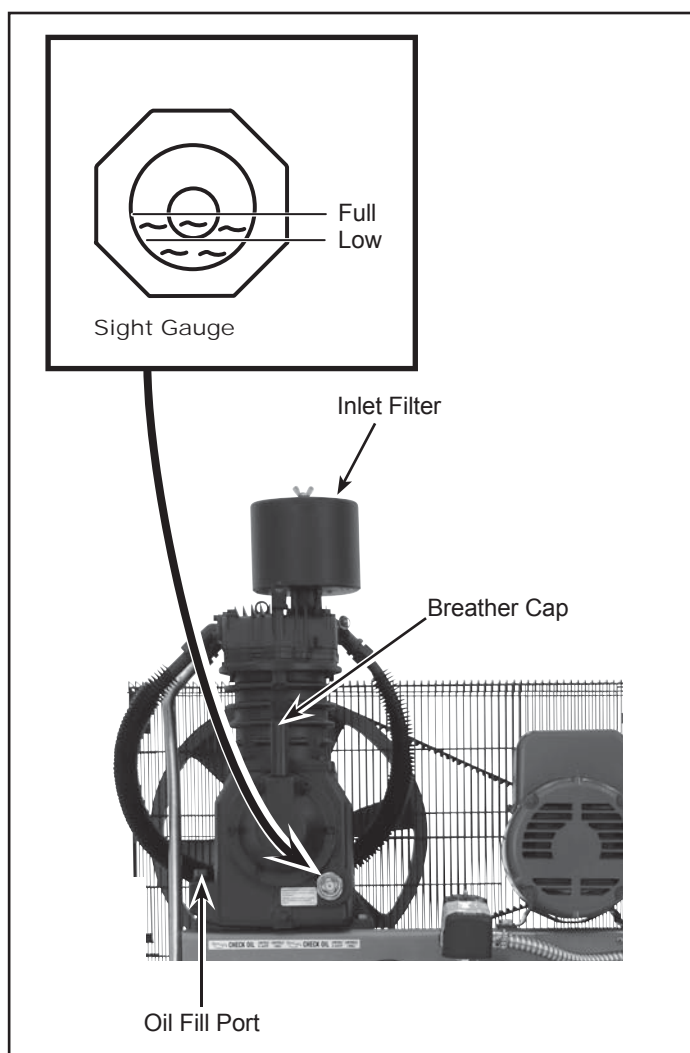


Figure 7

## 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.

### Recommended Break-In Period

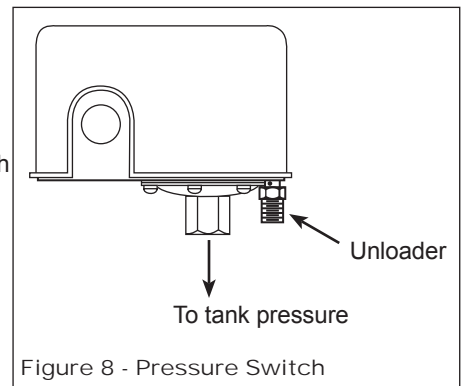
The compressor should be run continuously for one hour to allow proper seating of the piston rings.

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 for two-stage compressors or 135 PSI for single stage compressors. Do not alter pressure settings on control components above this limit.

The compressor unit starts and stops based on preset pressure switch settings. The pressure switch contains an unloader which is a small valve that vents air to allow the motor to start easily (See Figure 8).



### 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

Condensation must be drained from the tank daily.

### Duty Cycle

Each pump on this compressor is designed to operate up to 75% of the time. Long-term or on-time operation over 75% could decrease the life of the pump and motor.

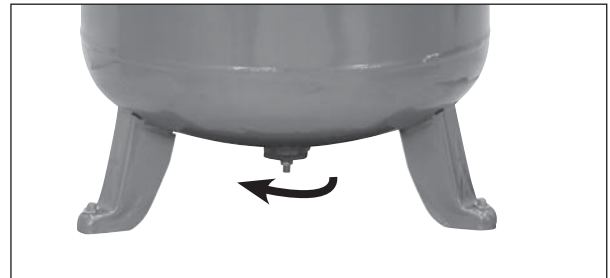


Figure 9 - Manual Tank Drain

## TROUBLESHOOTING CHART

Symptom	Possible Cause(s)	Corrective Action
Motor hums and runs slowly or not at all	1. Low voltage or no voltage	1. Check with voltmeter, check overload relay in magnetic starter or reset switch on motor. If overload or reset switch trips repeatedly, find and correct the cause. See next item
	2. Shorted or open motor winding	2. Replace motor
	3. Malfunctioning check valve or unloader valve	3. Replace check valve or unloader valve
	4. Malfunctioning pressure switch - contacts will not close	4. Repair or replace pressure switch
Reset mechanism cuts out repeatedly or fuses blow repeatedly	1. Pressure switch set too high	1. Replace pressure switch
	2. Malfunctioning check valve	2. Clean or replace faulty valve
	3. Incorrect fuse size or magnetic starter heaters	3. Be sure that fuses and heaters are rated properly
	4. Malfunctioning motor	4. Replace motor
	5. Loose Wiring	5. Check all electrical connections
Excessive noise in operation	1. Loose pulley, flywheel, belt, belt guard, etc	1. Tighten
	2. Lack of oil in crankcase	2. Check for damage to bearings, replenish oil
	3. Compressor floor mounting loose	3. Shim to level and tighten or place on isolator pads
	4. Malfunctioning check valve	4. Replace check valve
	5. Unit not on vibration pads	5. Install vibration pads under compressor feet
Milky oil in oil 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
Excessive oil consumption or oil in air lines	1. Be sure there is a problem	1. Diagnose oil contamination problems by testing the discharge air or measuring oil consumption from the crankcase
	2. Restricted air intake	2. Clean or replace air filter
	3. Wrong oil viscosity	3. Drain oil. Refill with oil of proper viscosity
	4. Worn piston rings	4. Replace rings
	5. Oil leaks	5. Tighten bolts, replace gaskets or o-rings
	6. Scored cylinder	6. Replace cylinder
Water in discharge air	1. Excessive water in tank	1. Drain tank
	2. Hot, humid weather	2. Purchase dryer
Air blowing out of inlet	1. Broken first stage inlet valve (two-stage unit)	1. Replace valve assembly
	2. Broken inlet valve (single stage unit)	2. Replace valve assembly
Insufficient pressure	1. Air demand too high	1. Limit air usage
	2. Leaks or restrictions in hoses or piping	2. Check for leaks or restriction in hose or piping
	3. Slipping belts	3. Tighten belts
Tank does not hold pressure when compressor is off and shutoff valve is closed	1. Worn check valve	1. Replace check valve
	2. Check all connections and fittings for tightness	2. Tighten
	3. Check tank for cracks or pin holes	3. Replace tank. Never repair a damaged tank

**⚠ DANGER*****Do not disassemble check valve with air in tank***

Symptom	Possible Cause(s)	Corrective Action
Excessive belt wear. (Light dust from start is normal. Worn belts separate at layers)	<ol style="list-style-type: none"> <li>1. Pulley out of alignment</li> <li>2. Belts too tight or too loose</li> </ol>	<ol style="list-style-type: none"> <li>1. Realign motor pulley</li> <li>2. Adjust tension</li> </ol>
Tank pressure builds slowly	<ol style="list-style-type: none"> <li>1. Dirty air filter</li> <li>2. Blown cylinder head gasket</li> <li>3. Worn/broken intake/discharge valves</li> <li>4. Air leaks</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean or replace filter element</li> <li>2. Install new gasket</li> <li>3. Install new valve plate assembly</li> <li>4. Tighten joints</li> </ol>
Tank pressure builds up quickly on compressor	Excessive water in tank	Drain tank, check speed. See Performance table
ASME safety valve pops open while compressor is running	<ol style="list-style-type: none"> <li>1. Pressure switch setting to high</li> <li>2. Malfunctioning ASME safety valve</li> <li>3. Pressure switch contacts welded</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace pressure switch</li> <li>2. Replace ASME safety valve</li> <li>3. Replace pressure switch</li> </ol>
Pressure switch continuously blows air out the unloader valve	Malfunctioning check valve	Replace the check valve if the unloader valve bleeds off constantly
Pressure switch unloader valve does not release air when the unit shuts off	Malfunctioning unloader valve on pressure switch	Replace the pressure switch if the unit does not hiss for a short period of time when the unit shuts off
Interstage safety valve pops off while the unit is running	<ol style="list-style-type: none"> <li>1. Head gasket or the gasket in the valve plate assembly blown</li> <li>2. Valve not seating properly</li> <li>3. Malfunctioning safety valve</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace valve plate and gaskets</li> <li>2. Replace valve plate and gaskets</li> <li>3. Replace safety valve</li> </ol>
Interstage safety valve pops off after the unit shuts off	Malfunctioning tank check valve	Replace the check valve



## 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 10). 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.

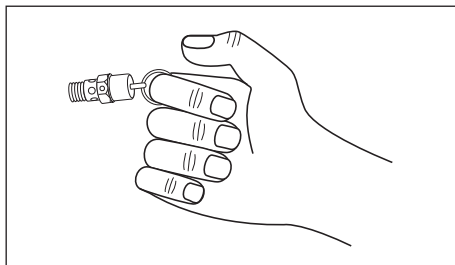


Figure 10 - ASME Safety Valve

### **⚠ 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 running 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 11). 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.

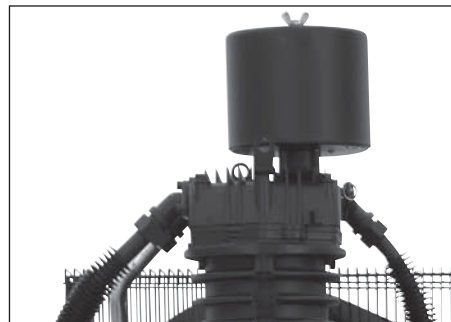


Figure 11



## MAINTENANCE AND INSPECTION INSTRUCTIONS (CONTINUED)

### Intercooler



**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



**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 12). 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.

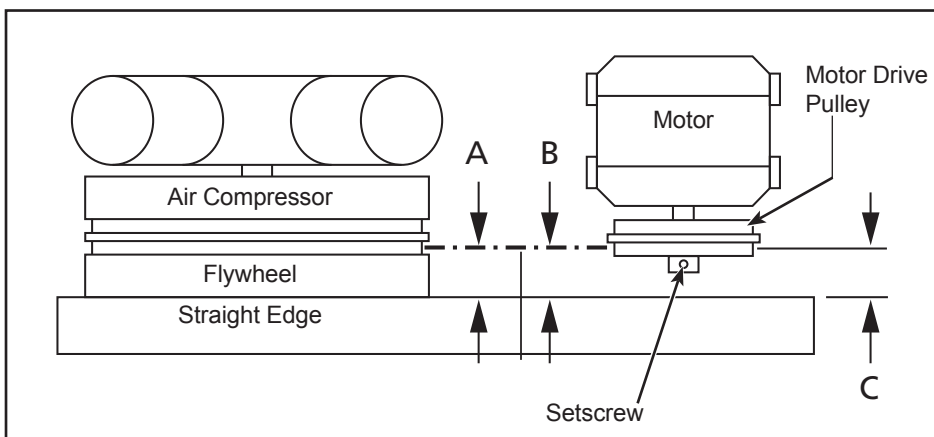
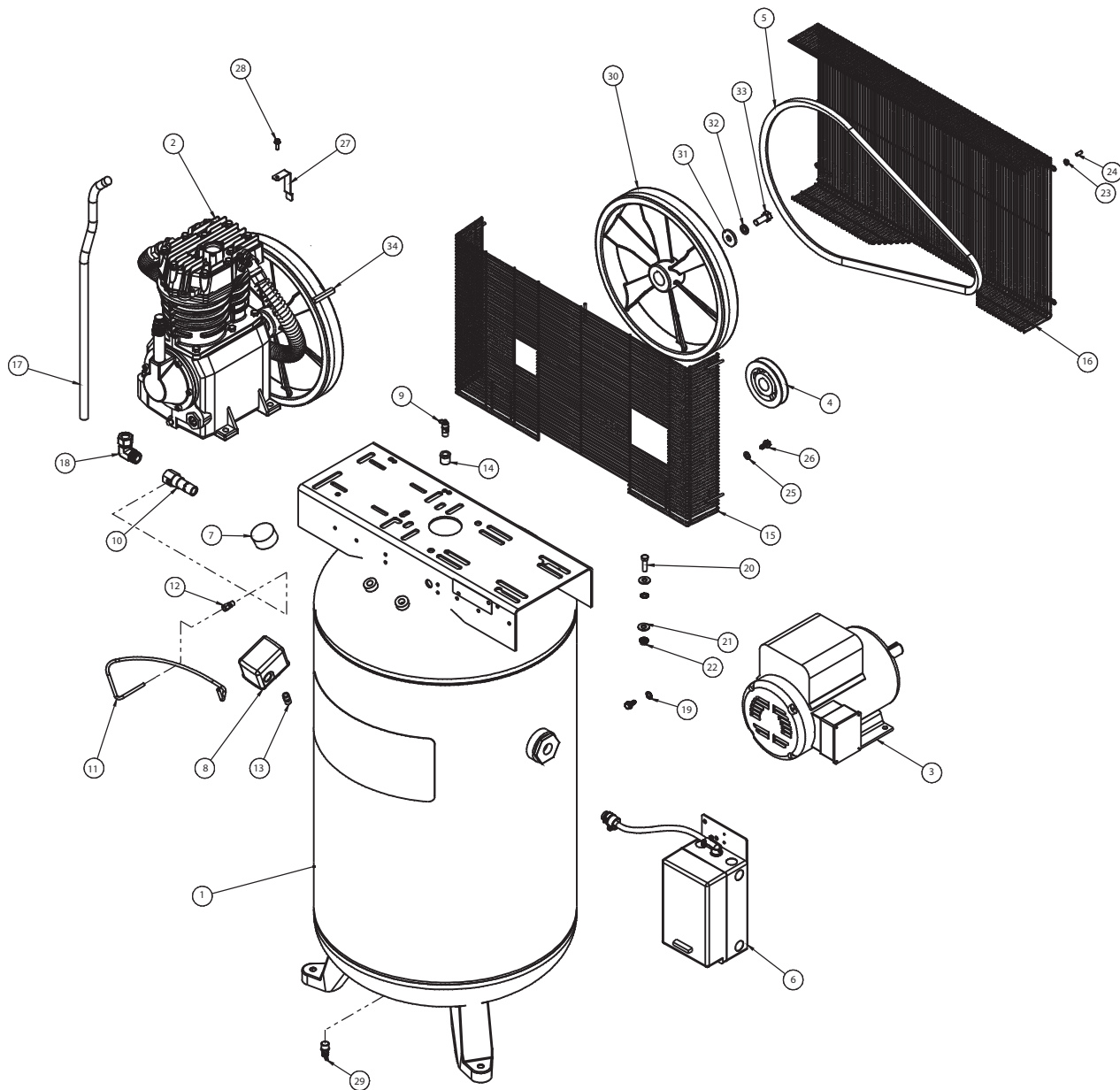


Figure 12 - Top View

### Maintenance Schedule

Operation	Daily	Monthly	3 Months
Check Safety Valve	●		
Drain Tank	●		
Check Oil Level	●		
Clean or Change Air Filter		●	
Check Intercooler		●	
Clean Unit Components		●	
Check Belt Tightness			●
Change Oil (see Figure 7)			●

## REPAIR PARTS ILLUSTRATION FOR JCP-803 and JCP-804



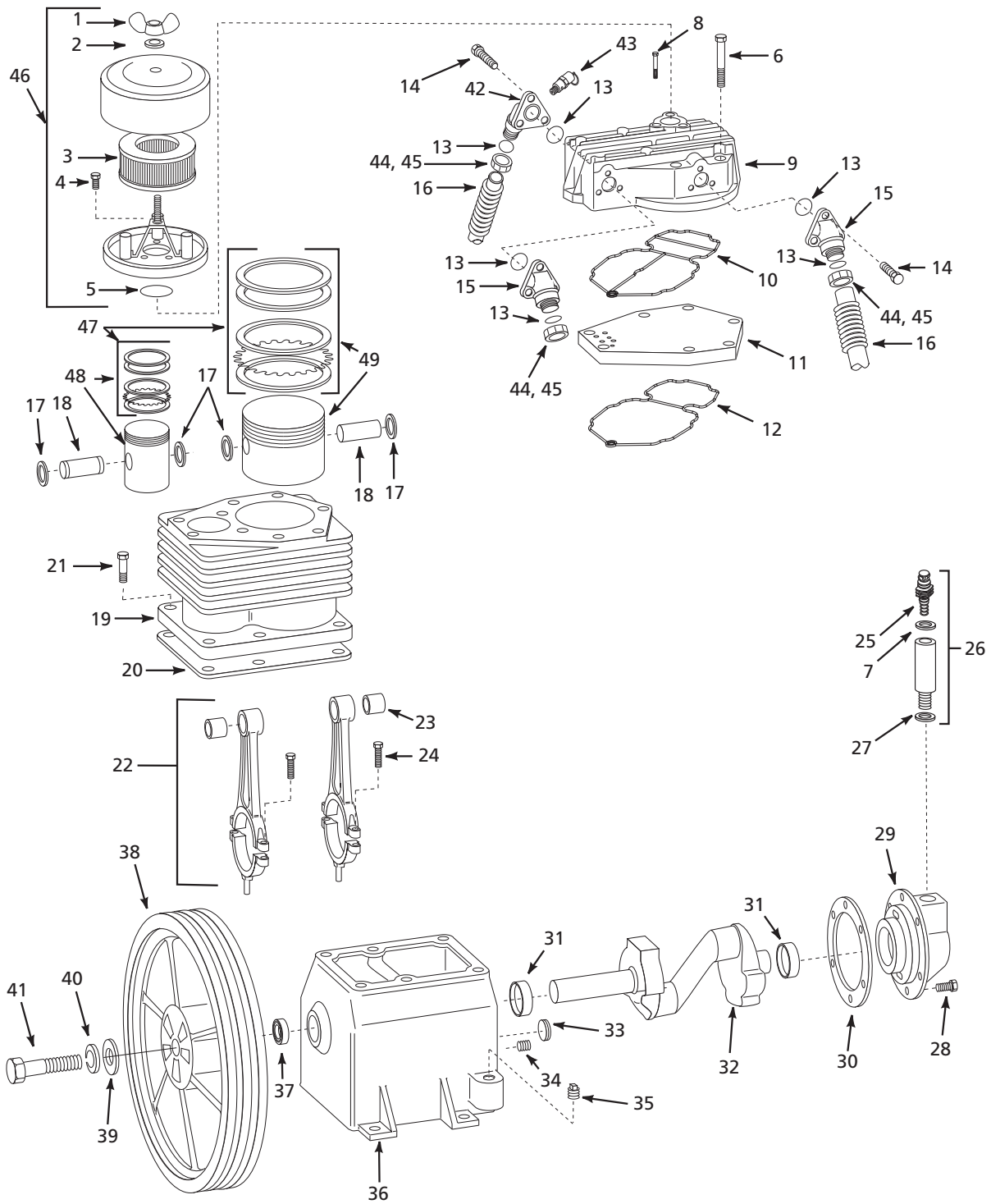
Please provide following information:

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

## REPAIR PARTS LIST FOR JCP-803 and JCP-804

Ref. No.	Description	JCP-803	JCP-804	Qty.
1	TANK, 80 GALLON VERTICAL	JCP803-001	JCP803-001	1
2	COMPRESSOR PUMP, 7.5HP 2-STAGE	JCP803-002	JCP803-002	1
3	MOTOR, 7.5HP 208-230V 1PH MOTOR, 7.5HP 208-230/460V 3PH	JCP803-003 -	- JCP804-001	1 1
4	PULLEY, 4.6" PD X 1.125" BORE	JCP803-005	JCP803-005	1
5	BELT, BX66	JCP803-006	JCP803-006	1
6	MOTOR STARTER, 1PH MOTOR STARTER, 3PH – 230V MOTOR STARTER, 3PH – 460V	JCP803-007 - -	- JCP804-002 JCP804-004	1 1 1
7	GAUGE, 300PSI	JCP601-011	JCP601-011	1
8	PRESSURE SWITCH	JCP803-008	JCP803-008	1
9	SAFETY VALVE, 200PSI	JCP801-011	JCP801-011	1
10	CHECK VALVE	JCP803-009	JCP803-009	1
11	COPPER TUBE, 1/4"	-	-	1
12	COMPRESSION FITTING, 1/8"NPT X 1/4" TUBE	JCP803-010	JCP803-010	1
13	PIPE NIPPLE, 1/4"NPT X 1.5"	-	-	1
14	REDUCING BUSHING, 1/2"NPT X 1/4"NPT	-	-	1
15	BELT GUARD BACK	JCP803-011	JCP803-011	1
16	BELT GUARD FRONT	JCP803-012	JCP803-012	1
17	COPPER TUBE, 3/4"	-	-	1
18	ELBOW COMPRESSION FITTING, 3/4" TUBE X 3/4"NPT	-	-	1
19	EXTERNAL TOOTH LOCK WASHER, 5/16"	-	-	2
20	HEX HEAD CAP SCREW, 3/8"-16 X 1.25"	-	-	8
21	WASHER, 3/8" (ID - 0.438", OD - 1")	-	-	12
22	HEX FLANGE NUT, 3/8" - 16	-	-	8
23	HEX FLANGE NUT, #10 - 24	-	-	5
24	THREAD SAFETY CAP	-	-	5
25	WASHER, 5/16"	-	-	2
26	SELF TAPPING HEX SCREW, 5/16"-12	-	-	4
27	BELT GUARD BRACKET	JCP803-013	JCP803-013	1
28	SELF TAPPING HEX SCREW, 1/4" X 0.75"	-	-	1
29	DRAINCOCK	JCP801-009	JCP801-009	1
30	PUMP FLYWHEEL	JCP803-014	JCP803-014	1
31	FLYWHEEL WASHER	JCP803-015	JCP803-015	1
32	FLYWHEEL LOCK WASHER	JCP803-016	JCP803-016	1
33	FLYWHEEL BOLT	JCP803-017	JCP803-017	1
34	FLYWHEEL KEY	JCP803-018	JCP803-018	1
<b>Not Shown:</b>				
32	GENERAL WARNING DECAL	LM000184	LM000184	1
33	JET LOGO 7-1/4"H X 17"W	LM000173	LM000173	1
34	ID LABEL JCP-803 ID LABEL JCP-804	LM000176 -	- LM000177	1 1
35	HEATER 230V 1PH (SET OF 1)	JCP803-032	-	1
36	HEATER 230V 3PH (SET OF 3)	-	JCP804-005	1
37	HEATER 460V 3PH (SET OF 3)	-	JCP804-006	1
<b>Optional:</b>				
38	ISOLATOR PAD (SET OF 3)	JCP804-100	JCP804-100	1

## REPAIR PARTS ILLUSTRATION FOR JCP-803 and JCP-804



Please provide following information:

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

## REPAIR PARTS LIST FOR JCP-803 and JCP-804

Ref. No.	Description	Part Number	Qty.
1	1/4 INCH-20 WING NUT	▣	1
2	1/4 INCH WASHER	▣	1
3	FILTER ELEMENT	JCP803-019	1
	FILTER ELEMENT	JCP803-020	1
4	1/4 INCH-20 X 1/2 INCH SCREW	JCP803-021	3
5	O-RING (INCLUDED IN REF. #46)	--	1
6	3/8 INCH-16 X 3 - 1/2 INCH SCREW	▣	9
7	O-RING	JCP803-022	1
8	1/4"-20X2.5 SELF-TAPPING SCREW	▣	1
9	CYLINDER HEAD	JCP803-023	1
10 ●	O-RING, HEAD TO VALVE PLATE	--	1
11	VALVE PLATE ASSEMBLY	JCP803-024	1
12 ●	O-RING, CYLINDER TO VALVE PLATE	--	1
13 ●	O-RING	--	6
14	1/4 INCH-20 X 3/4 INCH SCREW	--	9
15	TUBE FITTING	--	2
16	INTERCOOLER	--	1
17	RETAINING RING	--	4
18	PISTON PIN	--	2
19	CYLINDER	--	1
20 ●	GASKET, CYLINDER TO CRANKCASE	--	1
21	3/8 INCH-24 X 1 INCH HEX HEAD SCREW	--	6
22	CONNECTING ROD ASSEMBLY	--	2
23	NEEDLE BEARING	--	2
24	5/16 INCH-18 X 1 - 1/2 INCH SOCKET HEAD SCREW	▣	4
25	BREATHER CAP	--	1
26	BREATHER TUBE ASSEMBLY	--	1
27	O-RING	--	1
28	5/16-18 X 3/4 INCH SOCKET SCREW	--	6
29	BEARING CAP	--	1
30 ●	0.015 INCH GASKET	--	1
31	BALL BEARING	--	2

Ref. No.	Description	Part Number	Qty.
32	CRANKSHAFT W/BEARINGS	--	1
33	OIL LEVEL GAGE	--	1
34	1/4 INCH-18 NPT DRAIN PLUG	--	1
35	1/2 INCH-14 NPT FILLER PLUG	--	1
36	CRANKCASE	--	1
37	OIL SEAL	--	1
38	FLYWHEEL	JCP803-025	1
39	WASHER	--	1
40	LOCKWASHER	--	1
41	1/2 INCH-13 SCREW	--	1
42	TUBE FITTING	--	1
43	SAFETY VALVE	JCP803-026	1
44	TUBE NUT	--	3
45	FERRULE	--	3

## REPLACEMENT KITS AND ACCESSORIES

46	FILTER KIT, (INCL. REF. # 1-5)	JCP803-027	1
	FILTER KIT, (INCL. REF. # 1-5)	JCP804-003	1
47	RING KIT	JCP803-028	1
48	HIGH PRESSURE PISTON ASSEMBLY	JCP803-029	1
49	LOW PRESSURE PISTON ASSEMBLY	JCP803-030	1
●	GASKET KIT	JCP803-031	1
▣	STANDARD HARDWARE ITEM, AVAILABLE LOCALLY		

## TORQUE VALUES

Ref No.	Description	Torque
6	3/8 INCH-16 SCREW, HEAD	42 ft. lb.
8	1/4"-20X2.5 SELF-TAPPING SCREW	100 in. lb.
21	3/8 INCH-24 SCREW, CYLINDER	15 ft. lb.
24	5/16 INCH-18 SCREW, CONNECTING ROD	14 ft. lb.
28	5/16 INCH-18 SCREW, BEARING CAP	14 ft. lb.
41	1/2 INCH TORQUE SCREW, FLYWHEEL	50 ft. lb.