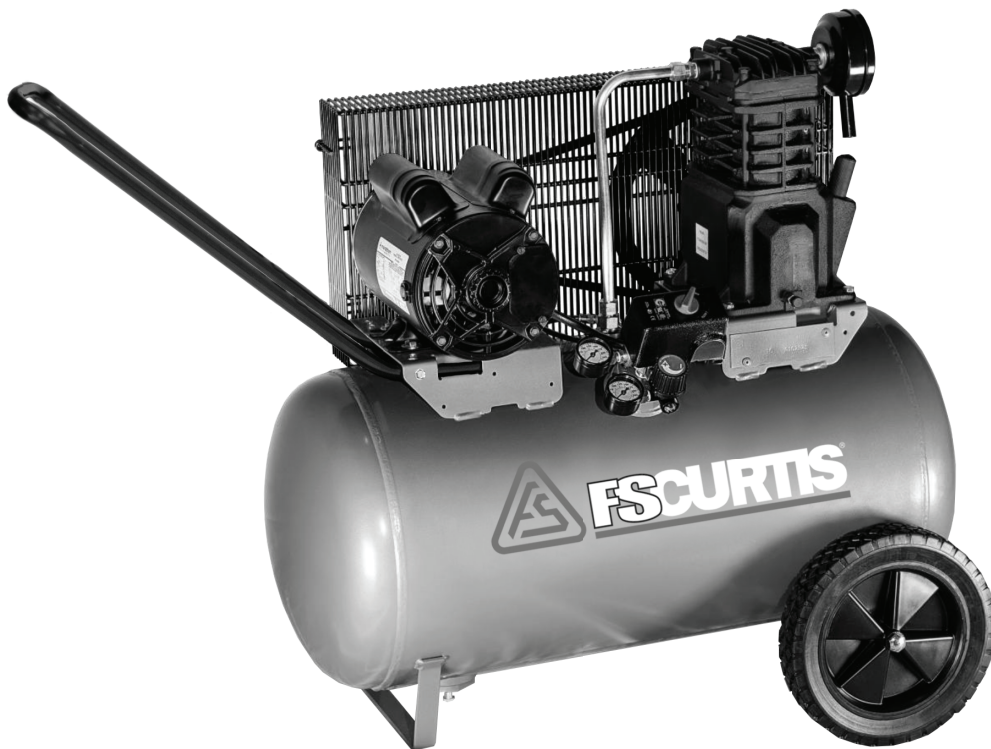


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20 Gallon Portable Air Compressor

Operating Instructions and Parts Manual



Model: FCT02C48H2X-A1X1XX



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.

For parts, product & service information
visit www.fscurtis.com

Model #: _____
Serial #: _____
Purchase Date: _____

FS-CURTIS, CURTIS-TOLEDO, INC.
1905 Kienlen Avenue,
St Louis, Missouri 63133
Tech Support: 1-800-925-5431, option 2
Email: info@curtistoledo.com

**REGISTER YOUR PRODUCT ONLINE NOW! <http://us.fscurtis.com/support/warranty/register>
READ AND FOLLOW ALL INSTRUCTIONS • SAVE THESE INSTRUCTIONS • DO NOT DISCARD**

BEFORE YOU BEGIN

Introduction

Air compressor units are intended to provide compressed air to power pneumatic tools, operate spray guns and supply air for pneumatic valves and actuators. The pumps supplied with these units have oil lubricated bearings. A small amount of oil carryover is present in the compressed air stream. Applications requiring air free of oil vapor should have the appropriate filters installed. The air compressor units are to be mounted per the instructions provided on a solid floor. Any other use of these units will void the warranty and the manufacturer will not be responsible for problems or damages resulting from such misuse.

QUICK REFERENCE

Recommended Oil (2 Options)

FSC-1000A ISO-100 Premium Reciprocating Compressor Lubricant

1 quart part number FSC-1000A-1

12 quart case part number FSC-1000A-12

For generic option use 10W30

Oil Capacity

Approximately 8.5 oz.

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 visit www.fscurtis.com 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.

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 visit www.fscurtis.com 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 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 150 psi MUST be installed in the tank for this compressor. The ASME safety valve must have sufficient flow and pressure ratings to protect the pressurized components from bursting.*

▲ CAUTION *See compressor specification decal for maximum operating pressure. Do not operate with pressure switch or pilot valves set higher than the maximum operating pressure.*

Important Safety Information (Continued)

⚠ WARNING *Maximum operating pressure is 135 psi for single stage compressors. Do not operate with pressure switch or pilot valves set higher than 135 psi (single stage).*

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



⚠ 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.

Getting To Know Your Compressor

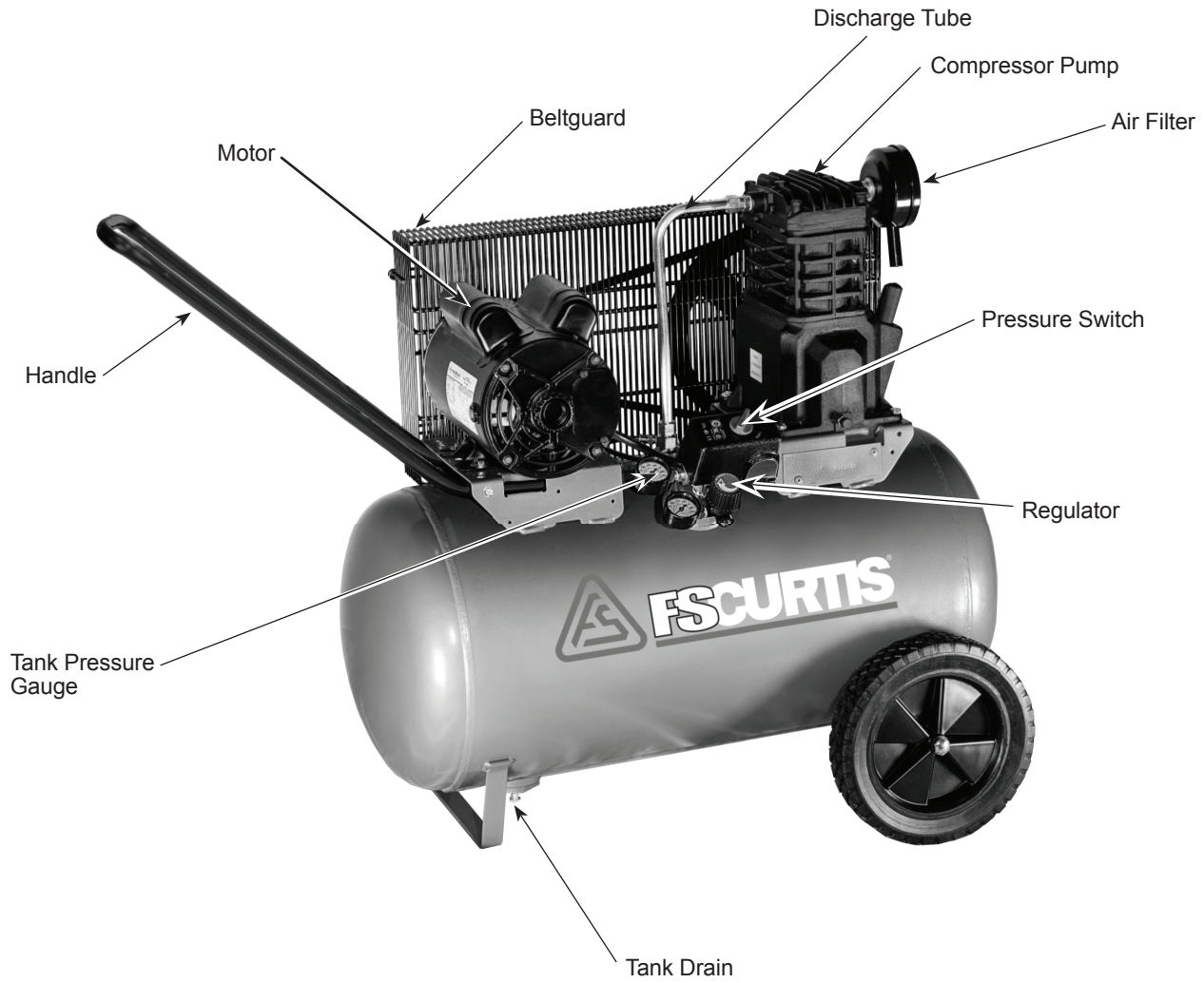


Figure 1 - Horizontal Unit Identification

SPECIFICATIONS

FCT02C48H2X-A1X1XX	
Motor HP	2
Power	120V/240V
Phase	1 (single)
Displacement CFM	7.2
Air Delivery CFM @ 90 PSI	5.5
Air Delivery CFM @ 135 PSI	4.9
Max PSI	135
Pump RPM	1020
Tank Capacity	20 gallons
Unit Weight	148 lbs
Amp Draw	15A / 7.5A
Max Duty Cycle	75%
Tank Outlet	1/4 inch NPT

DIMENSIONS

FCT02C48H2X-A1X1XX	
Length	37 in.
Width	21 in.
Height	30.5 in.

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.*

GROUNDING

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not use grounding adapter.

This product is for use on a nominal 120 volt circuit and has a grounding plug similar to the plug illustrated in Figure 2. If the listed conditions cannot be met or if nuisance tripping of the current protection device occurs, it may be possible to operate the compressor from a 120 volt 20 amp circuit. See Figure 2.

Check motor data plate for 240 volt compatibility. A 240 volt unit must be operated on a 240 volt circuit. The cord must only plug into a 240 volt grounded outlet and may require a new cord and plug. See Figure 3.

Use only a 3-wire extension cord that has a 3-blade grounding plug and a 3-slot receptacle that accepts the plug on the product. Make sure your extension cord is not damaged. When using an extension cord, be sure to use one heavy enough to carry the current your product draws. For lengths less than 25 ft. 16-3 AWG extension cords shall be used. An undersized cord results in a drop in the voltage and loss of power and overheating. (NOTICE: Table below shows the correct size to use depending on cord length. When in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.)

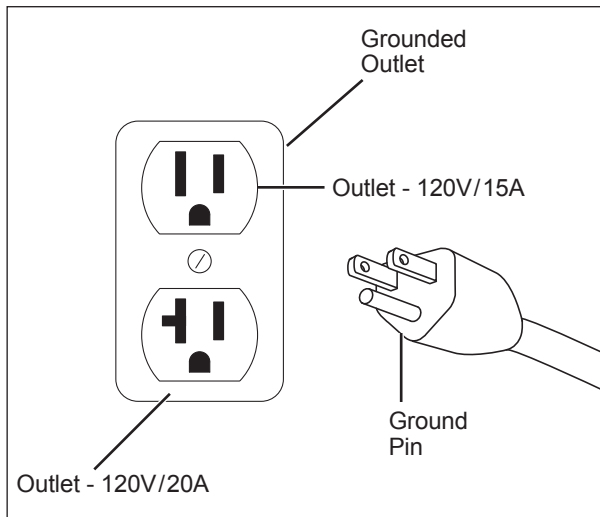
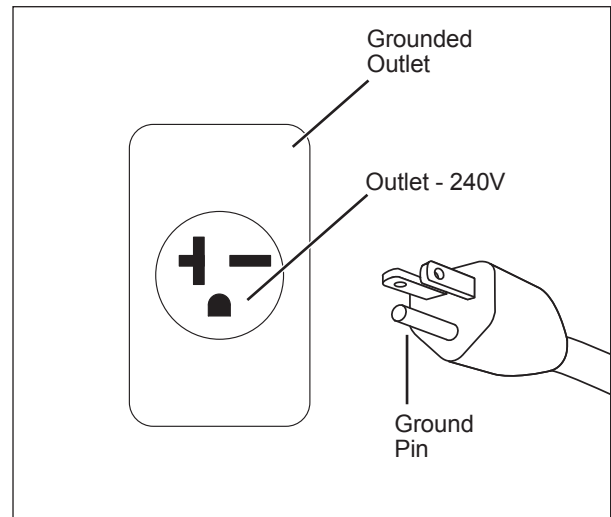
Use of an extension cord may cause excess heat to motor. This could lead to tripped breaker (at electrical panel) or tripped thermal overload (on compressor motor). If this occurs, eliminate extension cord and plug compressor directly into electrical outlet. Avoid using extension cords; use longer air hose(s) instead.

Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded. Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician. Only connect the product to an outlet having the same configuration as the plug. Do not use an adapter with this product.

INSTALLATION INSTRUCTIONS (CONTINUED)

The 120 volt, 15 amp units can be operated on a 120 volt 15 amp circuit under the following conditions:

1. No other electrical appliances or lights are connected to the same branch circuit.
2. Voltage is 120 Volts.
3. Circuit is equipped with a 15 amp circuit breaker or a 15 amp slow blow fuse type T (For Canada use Type D).
4. The length of copper wire between the outlet and circuit breaker is not longer than 40 feet of 14 AWG or 70 feet of 12 AWG.

**Figure 2 - 120V****Figure 3 - 240V**

Amp Rating Range	Voltage		Cord Length in Feet								
	120V	240V	25 ft.	50 ft.	100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	400 ft.	500 ft.
			50 ft.	100 ft.	200 ft.	300 ft.	400 ft.	500 ft.	600 ft.	800 ft.	500 ft.
8 - 10			14	10	8	6	6	6	4	4	2
10 - 12			12	10	8	6	6	4	4	2	2
12 - 14			12	8	8	6	6	4	4	2	0
14 - 16			12	8	8	4	4	4	2	2	0

INSTALLATION INSTRUCTIONS (CONTINUED)

Lubrication

⚠ CAUTION Before operating compressor, ensure oil is filled to the center of the sight gauge (See Figure 4).

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

Recommended Oil (2 Options)
FSC-1000A ISO-100 Premium Reciprocating Compressor Lubricant
1 quart part number FSC-1000A-1
12 quart case part number FSC-1000A-12
For generic option use 10W30
Oil Capacity
Approximately 8.5 oz.

Remove cap from oil fill opening. Install breather (found in parts bag with this manual). Check oil level. See specification label on compressor pump for the proper oil capacity and oil type. 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.

Do not use regular automotive oil. Additives in regular motor oil can cause valve deposits and reduce pump life. For maximum pump life, drain and replace oil after the first fifty (50) hours of operation. Then perform oil changes every three (3) months.

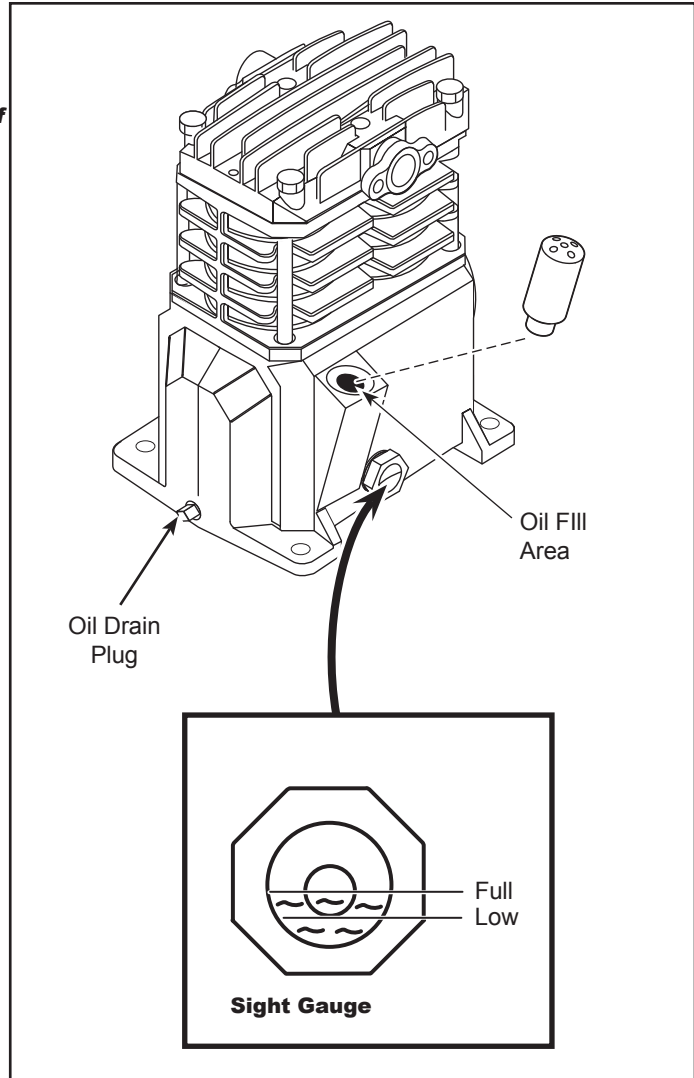


Figure 4 - Lubrication

OPERATING INSTRUCTIONS

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.

Start-up/Break-in Procedure

⚠ WARNING

Risk of Personal Injury. Do not attach air tools to open end of the hose until start-up is completed and the unit checks okay.

⚠ WARNING

Risk of Personal Injury. Never disconnect threaded joints with pressure in tank!

1. Check oil level per the Lubrication Section of this manual.
2. Open the bottom tank drain valve (see Figure 5). Turn outlet valve to open air flow.
3. Plug unit in.
4. Move pressure switch to the **AUTO** position to run the unit (see Figure 6).
5. Run the unit for thirty (30) minutes at zero (0) psi (under no load) to break in pump parts.
6. Move the pressure switch lever or knob to **OFF** and turn tank drain valve to shut off air flow. The compressor is now ready for use.
7. Change oil after first fifty (50) hours of operation. Then perform oil changes every three (3) months.

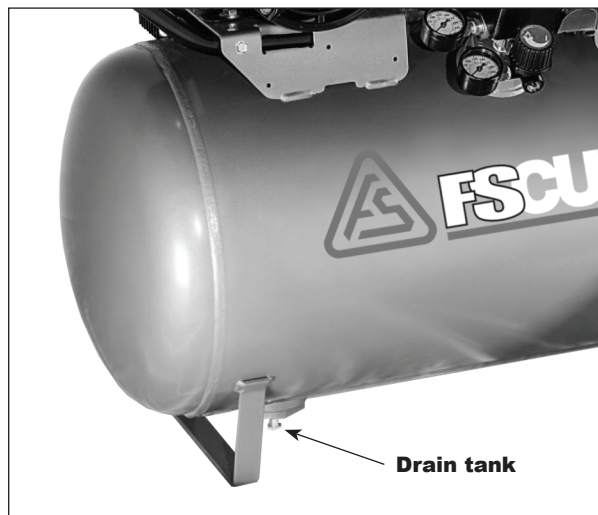


Figure 5

Compressor Use

It is extremely important to operate the compressor in a clean, well-ventilated area where the surrounding air temperature will not be more than 100°F. Do not locate the compressor air inlet near steam, paint spray, sandblast areas or any other source of contamination.

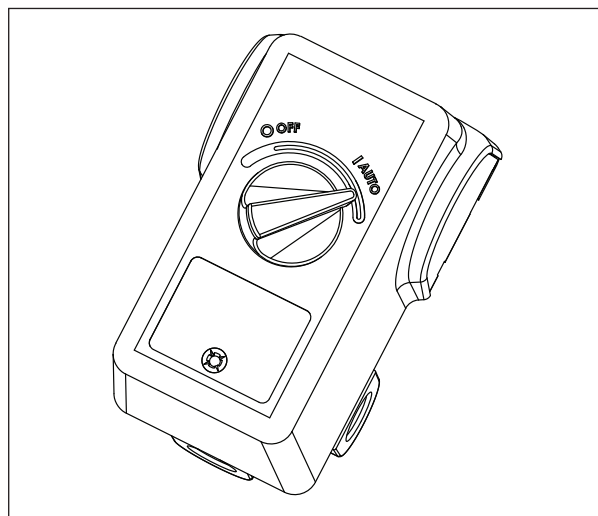


Figure 6

OPERATING INSTRUCTIONS

On/Off Cycling of Compressor

⚠ WARNING *Risk of Bursting. Drain tank every day to prevent corrosion and possible injury due to tank damage. Do not operate drain with more than 40 psi in tank or drain valve may be damaged. Drain tank of moisture daily using the drain valve in the bottom of the tank.*

NOTICE *Unit care and maintenance. Drain liquid from tank daily.*

In the **AUTO** position, the compressor pumps air into the tank. When a shut-off (preset “cut-out”) pressure is reached, the compressor automatically shuts off.

If the compressor is left in the **AUTO** position and air is depleted from the tank by use of a tire chuck, tool, etc., the compressor will restart automatically at its preset “cut-in” pressure. When a tool is being used continuously, the compressor will cycle on and off automatically.

In the **OFF** position, the compressor will not operate.

Drain Tank. Disconnect, tag, unplug and lock out power source; release pressure. Drain moisture from tank by opening drain valve underneath tank (See Figure 7).



Figure 7

MOISTURE IN COMPRESSED AIR

Moisture in compressed air will form into droplets as it comes from an air compressor pump. When humidity is high or when a compressor is in continuous use for an extended period of time, this moisture will collect in the tank. When using a paint spray or sandblast gun, this water will be carried from the tank through the hose, and out of the gun as droplets mixed with the spray material.

IMPORTANT: This condensation will cause water spots in a paint job, especially when spraying other than water based paints. If sandblasting, it will cause the sand to cake and clog the gun, rendering it ineffective. A filter in the air line, located as near to the gun as possible, will help eliminate this moisture.

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Low discharge pressure	<ol style="list-style-type: none"> 1. Air demand exceeds pump capacity 2. Restricted air intake 3. Air leaks (fittings, tubing on compressor, or plumbing outside of system) 4. Blown gaskets 5. Leaking or damaged valves 	<ol style="list-style-type: none"> 1. Reduce air demand or use a compressor with more capacity. 2. Clean or replace the air filter element. 3. Listen for escaping air. Apply soap solution to all fittings and connections. Bubbles will appear at points of leakage. Tighten or replace leaking fittings or connections. Use pipe thread sealant. 4. Replace any gaskets proven faulty on inspection. 5. Remove head and inspect for valve breakage, misaligned valves, damaged valve seats, etc. Replace defective parts and reassemble. <p>⚠ CAUTION <i>Unit care and maintenance. Install a new head gasket each time the head is removed.</i></p>
Excessive noise (knocking)	<ol style="list-style-type: none"> 1. Loose motor pulley or flywheel 2. Loose fasteners on pump or motor 3. Lack of oil in crankcase 4. Worn connecting rod 5. Worn piston pin bores 6. Piston hitting the valve plate 7. Noisy check valve in compressor system 	<ol style="list-style-type: none"> 1. Tighten pulley/flywheel clamp bolts and set-screws. 2. Tighten fasteners. 3. Check for proper oil level; if low, check for possible damage to bearings. Dirty oil can cause excessive wear. 4. Replace connecting rod. Maintain oil level and change oil more frequently. 5. Remove piston assemblies from the compressor and inspect for excess wear. Replace excessively worn piston pin or pistons, as required. Maintain oil level and change oil more frequently. 6. Remove the compressor head and valve plate and inspect for carbon deposits or other foreign matter on top of piston. Replace head and valve plate using new gasket. See Lubrication section for recommended oil. 7. Replace check valve. <p>⚠ DANGER <i>Risk of Explosion. Do not disassemble check valve with air pressure in tank.</i></p>
Large quantity of oil in the discharge air NOTE: In an oil-lubed compressor there will always be a small amount of oil in the air stream.	<ol style="list-style-type: none"> 1. Worn piston rings 2. Compressor air intake restricted 3. Excessive oil in compressor 4. Wrong oil viscosity 	<ol style="list-style-type: none"> 1. Replace with new rings. Maintain oil level and change oil more frequently. 2. Clean or replace filter. Check for other restrictions in the intake system. 3. Drain down to full level. 4. Use Mobil 1® 10W-30 or full synthetic.
Water in discharge air/tank	Normal operation. The amount of water increases with humid weather	<ol style="list-style-type: none"> 1. Drain tank more often. At least daily. 2. Add a filter to reduce the amount of water in the air line.
Motor hums and runs slowly or not at all	<ol style="list-style-type: none"> 1. Low voltage 2. Use of extension cord 3. Too many devices on same circuit 4. Loose electrical connections 5. Malfunctioning pressure switch - contacts will not close 6. Malfunctioning check valve 	<ol style="list-style-type: none"> 1. Check incoming voltage. It should be approximately 230 volts. Motor will not run properly on 208 volts. Low voltage could be due to wires (from electrical source to compressor) being too small in diameter and / or too long. Have a qualified electrician check these conditions and make repairs as needed. 2. Do not use an extension cord. Use longer air hose with larger diameter. 3. Limit the circuit to the use of compressor only 4. Check all electrical connections. 5. Replace pressure switch. 6. Replace check valve. <p>⚠ DANGER <i>Risk of Explosion. Do not disassemble check valve with air pressure in tank.</i></p>

TROUBLESHOOTING GUIDE (CONTINUED)

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Motor hums and runs slowly or not at all (Continued)	<ol style="list-style-type: none"> Defective unloader valve on pressure switch Defective motor capacitor(s) Defective motor 	<ol style="list-style-type: none"> Replace unloader valve. Replace capacitor(s). Replace motor.
Reset mechanism cuts out repeatedly or circuit breaker trips repeatedly	<ol style="list-style-type: none"> Lack of proper ventilation/room temperature too high Too many devices on same circuit Restricted air intake Loose electrical connection Pressure switch shut-off pressure set too high Malfunctioning check valve 	<ol style="list-style-type: none"> Move compressor to well-ventilated area. Limit the circuit to the use of only the air compressor. Clean or replace filter element. Check all electrical connections. Replace pressure switch. Replace check valve. <p>⚠ DANGER <i>Risk of Explosion. Do not disassemble check valve with air pressure in tank.</i></p>
	<ol style="list-style-type: none"> Defective unloader valve on pressure switch Defective motor capacitor(s) Malfunctioning motor 	<ol style="list-style-type: none"> Replace unloader valve. Replace capacitor(s). Replace motor.
Tank does not hold pressure when compressor is off and the shut off valve is closed	<ol style="list-style-type: none"> Air leaks (fittings, tubing on compressor, or plumbing outside system) Worn check valve Check tank for cracks or pin holes 	<ol style="list-style-type: none"> Check all connections with soap and water solution. Tighten; or remove and apply sealant to threads, then reassemble. Replace check valve. Replace tank. Never repair a damaged tank. <p>⚠ DANGER <i>Risk of Explosion. Do not disassemble check valve with air pressure in tank.</i></p>
Pressure switch continuously blows air out the unloader valve	Malfunctioning check valve	<p>Replace the check valve if the unloader valve on the pressure switch bleeds off constantly when unit shuts off.</p> <p>⚠ DANGER <i>Risk of Explosion. Do not disassemble check valve with air pressure in tank.</i></p>
Excessive vibration	<ol style="list-style-type: none"> Loose fasteners on pump or motor Belt needs replaced Belt alignment 	<ol style="list-style-type: none"> Tighten fasteners. Replace with correct size. Align flywheel and pulley.
Pressure switch does not release air when the unit shuts off	Malfunctioning unloader valve on pressure switch	<p>Replace the unloader valve if it does not release the pressure for a short period of time when the unit shuts off.</p> <p>⚠ DANGER <i>Risk of Explosion. Do not disassemble unloader valve with air pressure in tank.</i></p>

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 8). 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.

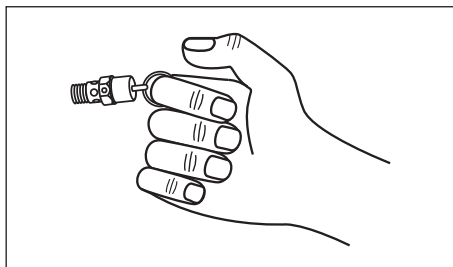


Figure 8 - ASME Safety Valve

⚠ 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 200 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 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 9). 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 9 - Air Filter Element

MAINTENANCE AND INSPECTION INSTRUCTIONS (CONTINUED)

Components

Turn off all power and clean the cylinder head, motor, fan blades, air lines, aftercooler 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 10). 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.

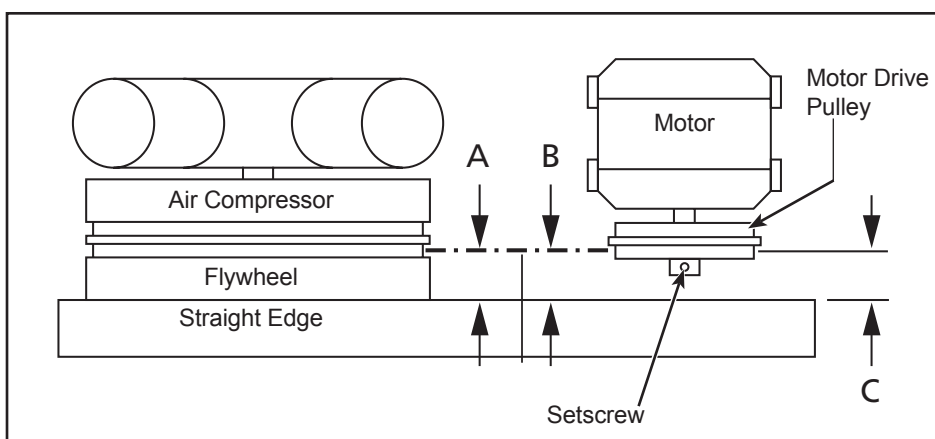


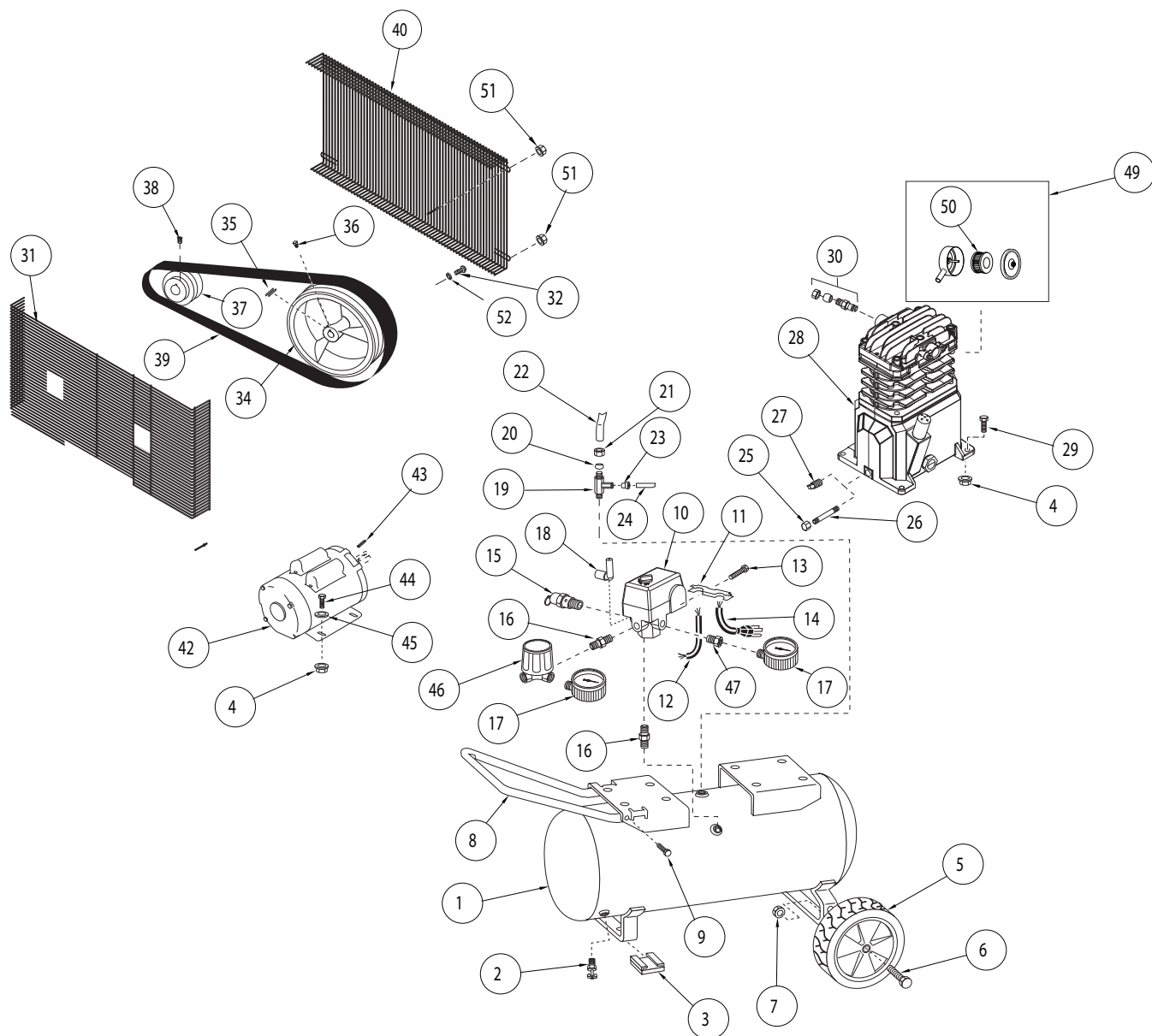
Figure 10 - Top View

Storage

If compressor is to be stored for a short period of time, make sure that it is stored in a normal position and in a cool protected area.

Maintenance Schedule

OPERATION	DAILY	MONTHLY	3 MONTHS
Check Safety Valve	●		
Drain Tank (see Figure 5)	●		
Check Oil Level	●		
Clean or Change Air Filter		●	
Check Intercooler		●	
Clean Unit Components		●	
Check Belt Tightness			●
Change Oil (see Figure 4)			●

REPAIR PARTS ILLUSTRATION FOR FCT02C48H2X-A1X1XX

**For Repair Parts, visit www.fscurtis.com to find your local distributor
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 FCT02C48H2X-A1X1XX

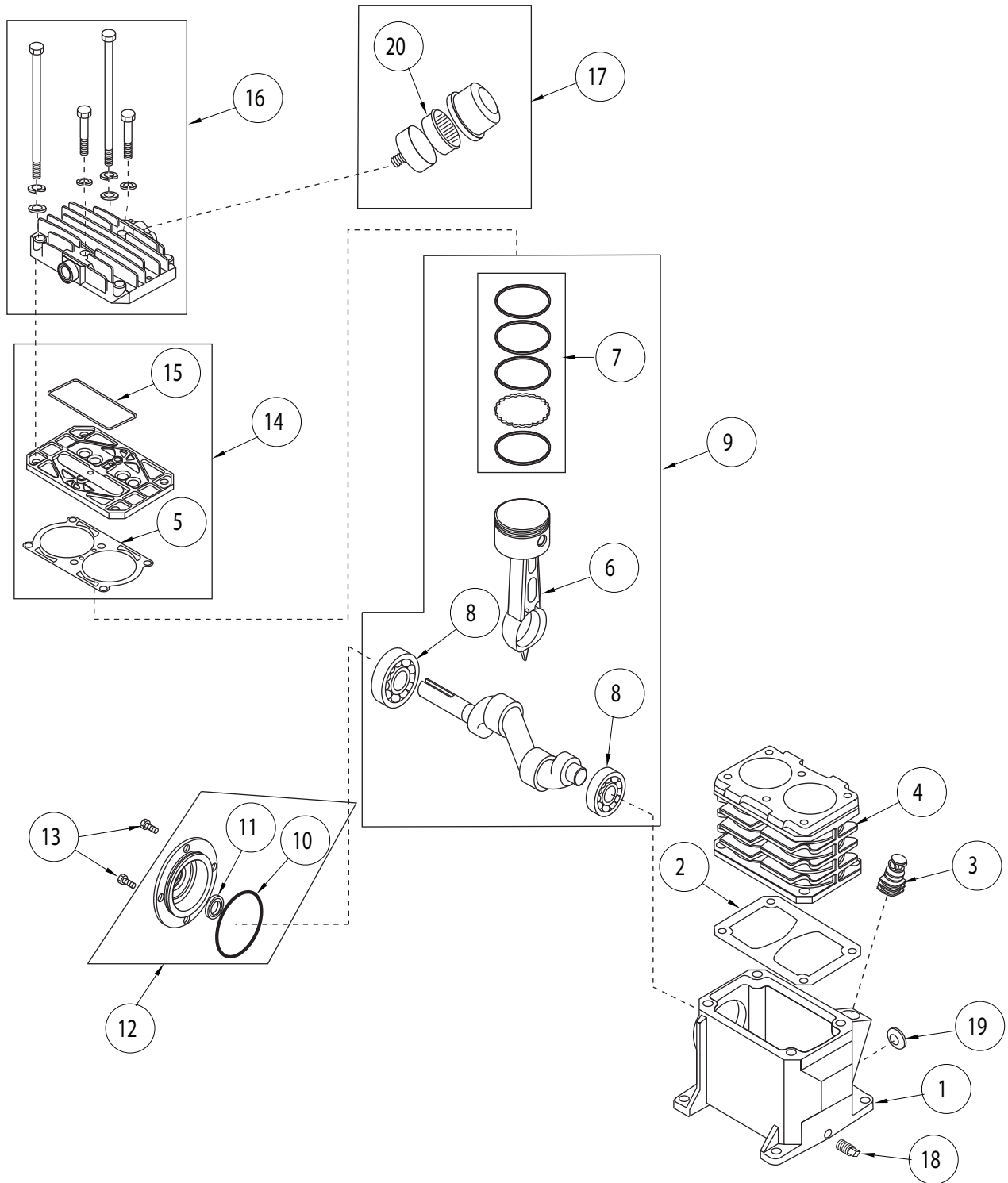
Ref No	Description	Part Number	Qty
1	TANK	FTKC48H2	1
2	DRAIN COCK	FD-1403	1
3	FOOT	●	2
4	LOCKNUT	--	8
5	WHEEL	●	2
6	AXLE BOLT	●	2
7	HEX KEPS NUT	●	2
8	HANDLE	●	1
9	HANDLE SCREW	●	1
10	PRESSURE SWITCH	■	1
11	STRAIN RELIEF	■	1
12	MOTOR CORD	■	1
13	STRAIN RELIEF SCREW	■	1
14	POWER CORD	■	1
15	ASME SAFETY VALVE	■	1
16	FITTING	■	2
17	OUTLET PRESSURE GAUGE	■	2
18	UNLOADER VALVE	■	1
19	CHECK VALVE	▼	1
20	FERRULE	▼	1
21	COMPRESSION NUT	▼	1
22	DISCHARGE TUBE	▼	1
23	PUSH-IN FITTING	▼	1
24	UNLOADER TUBE	▼	1
25	OIL DRAIN CAP	--	1
26	OIL DRAIN EXTENSION	--	1
27	OIL DRAIN PLUG	--	1
28	PUMP	FC48	1
29	HEX HEAD BOLT	--	4
30	COMPRESSION CONNECTOR ASSEMBLY	FCT2-5CCA	1
31	BELT GUARD (BACK)	◆	1

Ref No	Description	Part Number	Qty
32	SELF-TAPPING SCREW	◆	3
33	SELF-TAPPING SCREW	◆	1
34	FLYWHEEL	FCT2-5FW	1
35	KEY	--	1
36	SETSCREW	◆	1
37	PULLEY	FC48PY	1
38	SETSCREW	◆	1
39	BELT	FCT2-3B	1
40	BELT GUARD (FRONT)	◆	1
41	PLASCREW	◆	1
42	ELECTRIC MOTOR	FC48EM	1
43	KEY	--	1
44	HEX HEAD BOLT	--	4
45	WASHER	--	4
46	REGULATOR	■	1
47	FITTING	■	1
48	WARNING DECAL (NOT SHOWN)	--	1
49	FILTER ASSEMBLY	FC48H2AFA	1
50	FILTER ELEMENT	FC48H2AFE	1
51	NUT	--	2
52	WASHER	--	2

Repair Parts Kits

●	FOOT, WHEEL, HANDLE KIT	FSK-C48H2HD
■	PRESSURE SWITCH KIT	FSK-C48H2EL
▼	CHECK VALVE AND TUBE KIT	FSK-C48H2ULK
◆	BELT GUARD KIT	FSK-C48H2BG
—	NOT AVAILABLE	

REPAIR PARTS ILLUSTRATION FOR FC48



**For Repair Parts, visit www.fscurtis.com to find your local distributor
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 FC48

Ref. No.	Description	Part Number:	Qty.
1	CRANKCASE	--	1
2	CRANKCASE GASKET	●	1
3	BREATHER	FCT2-5BR	1
4	CYLINDER	--	1
5	CYLINDER GASKET	●	1
6	CONNECTING ROD AND PISTON ASSEMBLY	FC48CRA	2
7	PISTON RING SET	--	2
8	BALL BEARING	--	2
9	CRANKSHAFT, BEARINGS, RODS, PISTON ASSEMBLY	FSK-C48DK	1
10	O-RING	●	1
11	OIL SEAL	--	1
12	BEARING CAP ASSEMBLY	--	1
13	M6 X 10 MM SCREW	†	4
14	VALVE PLATE ASSEMBLY	FSK-C48VK	1
15	VALVE PLATE MOLDED SEAL	●	1
16	CYLINDER HEAD AND FASTENERS	--	1
17	AIR FILTER ASSEMBLY	FC48H2AFA	1
18	1/8 IN.-27 OIL DRAIN PLUG	--	1
19	SIGHT GLASS	FCT02SG	1
20	AIR FILTER ELEMENT	FC48H2AFE	1
REPAIR PARTS KITS			
●	GASKET KIT	FSK-C48GK	
--	NOT AVAILABLE		
†	AVAILABLE AT LOCAL HARDWARE STORE		



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

LIMITED WARRANTY

1. **DURATION:** The compressor pump and air receiver is warranted for one year from the date of purchase by the original purchaser. The balance of the compressor package is warranted for one year from the date of purchase by the original purchaser.
2. **WHO GIVES THIS WARRANTY (WARRANTOR):** FS-CURTIS, CURTIS-TOLEDO, INC. 1905 Kienlen Avenue, St Louis, Missouri 63133. Visit www.fscurtis.com
3. **WHO RECEIVES THIS WARRANTY (PURCHASER):** The original purchaser (other than for purposes of resale) of the FS-CURTIS, CURTIS-TOLEDO, INC air compressor.
4. **WHAT PRODUCTS ARE COVERED BY THIS WARRANTY:** FS-CURTIS, CURTIS-TOLEDO, INC FCT02C48H2X-A1X1XX air compressor.
5. **WHAT IS COVERED UNDER THIS WARRANTY:** Parts and Labor to remedy defects in material and/or workmanship with the exceptions noted below.
6. **WHAT IS NOT COVERED UNDER THIS WARRANTY:**
 - A. Implied warranties, including those of merchantability and FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED FROM THE DATE OF ORIGINAL PURCHASE AS STATED IN THE DURATION. Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.
 - B. ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF THE FS-CURTIS, CURTIS-TOLEDO, INC PRODUCT. Some States do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
 - C. Any failure due to:
 1. Accident or purchaser's abuse
 2. Improper installation
 3. Equipment that has not been operated or maintained in accordance with FS-CURTIS, CURTIS-TOLEDO, INC's instructions as detailed in the operating manual provided with the compressor.
 4. Equipment that has been repaired or modified without authorization from FS-CURTIS, CURTIS-TOLEDO, INC.
 - D. Pre-delivery service, i.e. assembly, oil or lubricants, and adjustment.
 - E. The effects of normal wear and tear.
 - F. Gasoline engines and components are expressly excluded from coverage under this limited warranty. The Purchaser must comply with the warranty given by the engine manufacturer which is supplied with the product.
 - G. Equipment that has been damaged in transit.
7. **RESPONSIBILITIES OF WARRANTOR UNDER THIS WARRANTY:** Repair or replace, at Warrantor's option, compressor or component which is defective, has malfunctioned and/or failed to conform within duration of the warranty period. Warranted repairs will be made at the Purchaser's location.
8. **RESPONSIBILITIES OF PURCHASER UNDER THIS WARRANTY:**
 - A. Provide dated proof of purchase and maintenance records.
 - B. Use reasonable care in the operation and maintenance of the products as described in the owner's manual(s).
 - C. Repairs requiring overtime, weekend rates, or anything beyond the standard manufacturer warranty repair labor reimbursement rate.
 - D. Time required for any security checks, safety training, or similar for service personnel to gain access to facility.
 - E. Location of unit must have adequate clearance for service personnel to perform repairs and easily accessible.
9. **WHEN WARRANTOR WILL PERFORM REPAIR OR REPLACEMENT UNDER THIS WARRANTY:** Repair or replacement will be scheduled and serviced according to the normal work flow at the servicing location, and depending on the availability of replacement parts.

This Limited Warranty applies in the U.S., Canada and Mexico only and gives you specific legal rights. You may also have other rights which vary from State to State or country to country.