



Single Stage Compressors

Instruction & Parts Manual

This manual contains important safety information and must be carefully read in its entirety and understood prior to installation by all personnel who install, operate and/or maintain this product.

On-line product registration, parts ordering and warranty information is available at www.quincycompressor.com

Manual No. **XXXX XXXX XX** March 2018 edition

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SAFETY GUIDELINES - DEFINITIONS

Safety is a combination of common sense, staying alert and knowing how your compressor works. Read this manual to understand this compressor.



DANGER

means if safety information is not followed someone **will** be seriously injured or killed



WARNING

means if safety information is not followed someone **could** be seriously injured or killed



CAUTION

means if safety information is not followed someone **may** be seriously injured or killed

IMPORTANT SAFETY INSTRUCTIONS

Save these instructions

Improper operation or maintenance of this product could result in serious injury and property damage. Read and understand all warnings and operation instructions before using this compressor.

Before using the air compressor

Things you should know

Air compressors are utilized in a variety of air system applications. Because air compressors and other components (hoses, connectors, air tools, spray guns, etc.) make up a high pressure pumping system, the following safety precautions should be observed at all times.

Only persons familiar with these rules of safe operation should use the air compressor.

1. Read the instruction manual carefully before attempting to assemble, disassemble or operate your system. Be thoroughly familiar with the controls and the proper use of the equipment.
2. Review and understand all safety instructions and operating procedures in this manual.
3. Review the maintenance methods for this compressor (See "Maintaining Your Compressor" section).

Inspect your work area

1. Keep work area clean.
2. Cluttered areas and benches invite accidents. Floors must not be slippery from wax or dust.

Inspect your compressor

1. To reduce the risk of injury from accidental starting, turn switch off and disconnect the power before checking it.
2. If any part is missing, bent or broken in any way, or any electrical part does not work properly, keep the compressor off and disconnected.
3. Check hoses for weak or worn condition before each use, making certain all connections are secure. Do Not use if defect is found.



WARNING

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



DANGER

This compressor is Not designed for and should not be used in breathing air applications.

When installing or moving the compressor



WARNING

This compressor is extremely top heavy. The compressor must be bolted to the floor with vibration pads before operating to prevent equipment damage, injury or death. **Do Not** tighten bolts completely as this may cause stress to the tank welds. **Chart 1a**.

To reduce the risk of a dangerous environment

1. Keep work area well lit.
2. Operate compressor in a well-ventilated area free from flammable liquids and vapors.
3. Operate compressor in a ventilated area so that compressor may be properly cooled and the surrounding air temperature will not be more than 100°F.
4. Never use a compressor in a wet environment.
5. Protect material lines and air lines from damage or puncture. Keep hose and wires away from sharp objects, chemical spills, oil, solvents and wet floors.



WARNING

Do Not secure compressor with toggle bolts into drywall. Drywall sheeting or plaster will not support the weight of the compressor.

Always Shut Off Gas Valve before moving Gas Drive Compressors

6. A minimum clearance of 18 inches between the compressor and a wall is required because objects could obstruct airflow.

7. The compressor should be located where it can be directly wired to a circuit breaker. The compressor should be wired by a qualified electrician.
8. Never store flammable liquids or gases in the vicinity of an operating compressor.
9. **Do Not** locate the compressor air inlet near steam, paint spray, sandblasting areas or any other source of contamination. The debris could damage the motor and pump.



WARNING

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



CAUTION

Never use the shipping skid for mounting the compressor.



NOTICE

Electric Compressors are not suitable for outdoor installation.



NOTICE

Gasoline Compressors must be operated outdoors, sheltered from the weather.



WARNING

Never install a shut off valve between the compressor pump and tank. Personal injury and/or equipment damage could occur.

Before each use

Inspect your work area

1. Keep work area clean. Cluttered areas and benches invite accidents.
2. The floor must not be slippery from wax or dust.

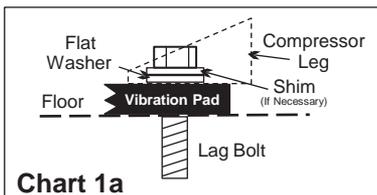


Chart 1a

Inspect your compressor

1. To reduce the risk of injury from accidental starting, turn the switch off and disconnect power.
2. If any part is missing, bent or broken in any way, or any electrical part does not work properly, keep the compressor off and disconnect power. **Do Not** use if defect is found.
3. Check hoses for weak or worn condition before each use, making certain all connections are secure. **Do Not** use if defect

Follow the safety precautions for electrical connections

1. Follow all local electrical and safety codes, as well as the National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).
2. Wiring and fuses should follow electrical codes, current capacity and be properly grounded.

3. Protect wires from contact with sharp objects.



CAUTION

All electrical connections should be made by a qualified electrician.

Plan ahead to protect your eyes, hands, face and ears

Dress for safety

1. Wear safety glasses (meeting ANSI Z87.1 or in Canada CSA Z94.3-99) and use hearing protection when operating the unit. Everyday glasses are not safety glasses.
2. Wear shoes to prevent shock hazards.
3. Tie back long hair.

Pay attention to your hands



WARNING

Keep fingers away from running compressor. Fast moving and hot parts may cause injury and/or burns.



WARNING

Be careful when touching the exterior of compressor, pump, motor and air lines; they may become hot enough to cause injury.



WARNING

Never operate the compressor without a belt guard. The compressor can start automatically without warning. Personal injury or property damage could occur from contact with moving parts.



CAUTION

The compressor may be hot even if the unit is stopped.



WARNING

Use of a mask or respirator per chemical manufacturers' instructions may be necessary if there is a chance of inhaling toxic fumes. Read mask and respirator instructions carefully. Consult a safety expert if you are not sure about the use of certain masks or respirators.

When operating

1. Do not exceed the pressure rating of any component of the system.
2. Release pressure within the system slowly to prevent flying dust and debris.
3. If the equipment starts to abnormally vibrate, STOP the compressor immediately and check for the cause.



WARNING

Never change the safety valve or pressure switch settings. Keep safety valve free from paint and other accumulations. See compressor specification decal for maximum operating pressure. Do not operate with the pressure switch set higher than the maximum operating pressure.

Spraying precautions

WARNING

Never point a spray gun at yourself or any other person or animal. Accidental discharge may result in serious injury.

Reduce the risk of dangerous environment

WARNING

Extreme caution should be taken when spraying flammable liquids as the spark from a motor or pressure switch may cause a fire or explosion. Ample ventilation must be provided.

WARNING

Spray in a well ventilated area to keep fumes from collecting and causing serious injury and fire hazards.

1. **Do Not** spray in the vicinity of open flames or other places where a spark can cause ignition. **Do Not** smoke when spraying paint, insecticides, or other flammable substances.

Be informed about the materials you use

1. When spraying with solvents or toxic chemicals, follow the instructions provided by the chemical manufacturer. Consult a safety expert if unsure about the use of masks or respirators.
2. If the material you intend to spray contains trichloroethane and methylene chloride, do not use accessories that contain aluminum or galvanized materials, as these chemicals can react with galvanized components causing corrosion and weakening equipment. Use stainless steel accessories.

Perform these maintenance operations

1. Do regular maintenance; keep all nuts, bolts, and screws tight, to be sure equipment is in safe working condition.
2. Inspect tank yearly for rust, pin holes or any other imperfections that could cause it to become unsafe.
3. Clean electrical equipment with an approved cleaning agent, such as a dry, non-flammable cleaning solvent.
4. Drain tanks of moisture after each day's use. If unit will not be used for a while, it is best to leave the drain cock open until such time as it is to be used. This will allow moisture to completely drain out and help prevent corrosion of inside of tank.
5. Always disconnect from power source before working on or near a motor, or its connected load. If power disconnect point is out-of-sight, secure it in the "OFF" position and tag it to prevent unexpected application of power.

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.

Daily

Check oil level at sight glass. Oil level should be 1/2 to slightly higher in the oil sight glass.

Drain moisture from tank.

Verify the pressure switch unloader is working by listening for a brief hissing sound when the compressor shuts off.

Visually check the compressor for loose parts, excessive noise or vibration. Tighten any necessary part.

WARNING

Disconnect power and depressurize system before servicing air compressor. Slightly open the drain cock after shutting off compressor.

Monthly

(Make sure the main power is off.) Check the belts for tension. Belts should not move up and down when the compressor runs and when stopped, should not have more than 1/2 in of play when depressed. Be careful not to over tighten belts during adjustment.

Remove and check air filter, replace if necessary.

Change oil every 3 months or 300 hours. *40 wt non-detergent for single stage.*

GLOSSARY OF TERMS

Air Filter

Porous element contained within a metal or plastic housing attached to the compressor cylinder head which removes impurity from the intake air of the compressor.

Air Tank

Cylindrical component which contains the compressed air.

Check Valve

Device which prevents compressed air from flowing back from the air tank to the compressor pump.

Electric Motor

Device which provides the rotational force necessary to operate the compressor pump.

Pressure Gauge

Device which shows the tank or regulated pressure of the compressed air.

Pressure Switch

Device which automatically controls the on/off cycling of the compressor. It stops the compressor when the cut-off pressure in the tank is reached and starts the compressor when the air pressure drops below the cut-in pressure.

PSI (Pounds per Square Inch)

Measurement of the pressure exerted by the force of air. The actual psi is measured by a pressure gauge on the compressor.

Pump

Device which produces the compressed air with a reciprocating piston contained within a cylinder.

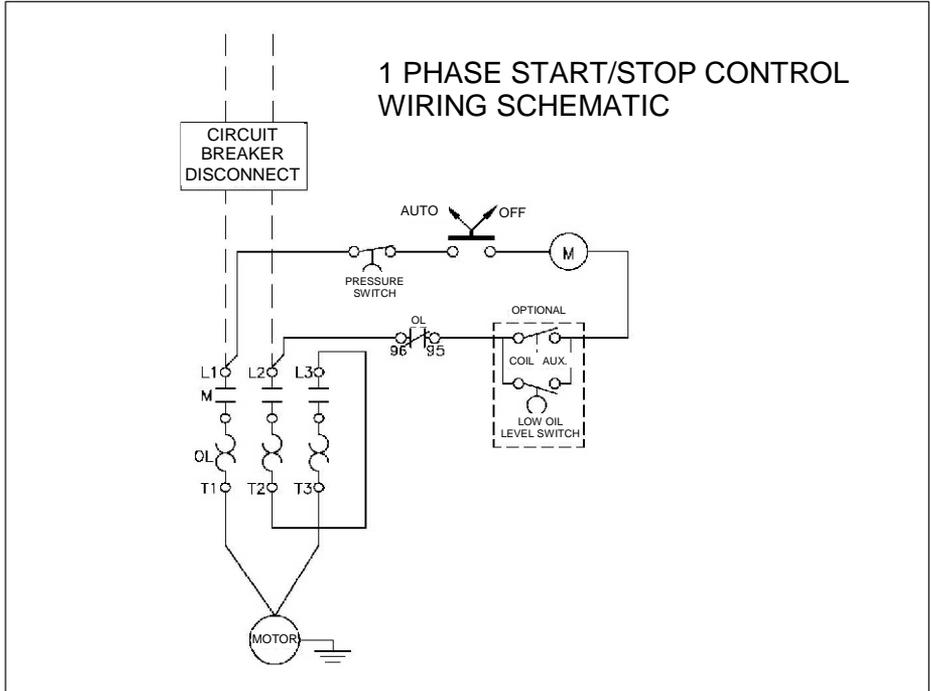
Safety Valve

Device which prevents air pressure in the air tank from rising over a predetermined limit.

Thermal Overload Switch

Device, integrated into the electric motor winding, which automatically "shuts off" the compressor if the temperature of the electric motor exceeds a predetermined limit.

WIRING



STARTING THE COMPRESSOR

Prior to actually running the compressor, check the following items:

Crankcase oil - Make sure the sight glass shows 1/2 full or slightly above.

Make sure all rags, tools, oil, etc. are away from the unit.

Open the air system to free it of any pressure.

Switch the compressor on for a few revolutions to make sure the rotation is correct. Correct rotation is clockwise when facing the sight glass on the pump.

Operate the compressor for a few minutes unloaded (air system open) then allow the compressor to pump up. Make sure the electrical pressure switch properly switches off the compressor according to the setting desired. 145 psi - Single Stage or 165 psi.



CAUTION

Make sure the pressure in the tank does not exceed its rating. Single Stage units - 145 psi

If the pressure gauge indicates a pressure that is higher than these maximum pressures, shut off compressor immediately and call your distributor.

(Gas Drive Models)

Please refer to your engine operation manual for proper starting instructions.

Gasoline driven compressors are equipped with a cold start valve for loadless starts.

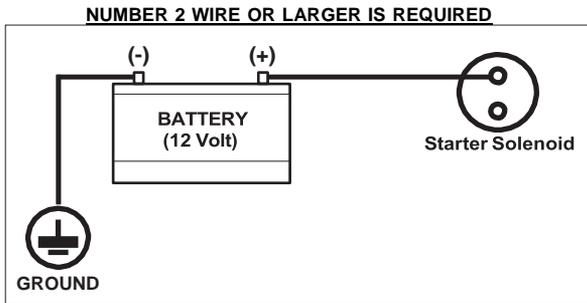
Note: In some instances, it still may be necessary lift the toggle on the unloader/pilot valve to relieve the head pressure. See page 11

Battery Connection Instructions for Electric Start Engines

Note: Make sure to follow instructions carefully to avoid a short and possible damage to the starter solenoid and/or battery.

1. Connect the positive (+) terminal on the battery to the starter solenoid.
2. Connect the negative (-) terminal on the battery to an engine mounting bolt or other acceptable ground connection.

Always connect the positive (+) battery cable to the starter solenoid before connecting the negative (-) battery cable.



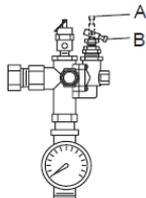
Cold Start Procedure (Gasoline Engine Units)



WARNING

Do Not Operate Gasoline Engine Units in an Enclosed Area.

- Release any remaining tank pressure by slowly opening the manual drain valve.
- Turn on the engine gasoline supply.
- Put the choke in the "On" position.
- Close the service valve and put Unloader lever in the "unload" (A) position for Briggs and Stratton and Honda engine driven models, or the "load" (B) position for Kohler engine models.
- Start the engine, release the choke, and allow the engine to warm up for two to three minutes.
- Return the unloader lever to the "load" (B) position on Briggs and Stratton and Honda driven models.



Note: Turn the gasoline supply off when the compressor is not being used.

TROUBLESHOOTING GUIDE

<p>Low discharge pressure</p>	<ol style="list-style-type: none"> 1. Compressor too small for application 2. Air leaks 3. Restricted intake air 4. Blown gasket(s) 5. Broken or misaligned valves 	<ol style="list-style-type: none"> 1. Reduce air demand or use a compressor with more air capacity. 2. Listen for air leaks. Apply a soap solution to all fittings and connections. Bubbles will form at points of leakage. Tighten or replace fittings or connections. 3. Clean or replace air filter. 4. Replace necessary gaskets. 5. Remove head and inspect for broken or misaligned valves. Replace valves, if necessary. Install a new head gasket each time head is removed <p>⚠ CAUTION</p>
<p>Excessive noise "knocking"</p>	<ol style="list-style-type: none"> 1. Loose drive pulley or flywheel 2. Low on oil 3. Worn connecting rod or connecting rod bearing 4. Noisy check valve 	<ol style="list-style-type: none"> 1. Tighten drive pulley or flywheel bolt. 2. Check for proper oil level. Low or dirty oil may cause bearing damage. 3. Replace connecting rod and/or connecting rod bearings. 4. Replace check valve. <p>⚠ DANGER Do not remove check valve with air pressure in tank</p>
<p>Excessive oil carryover</p>	<ol style="list-style-type: none"> 1. Worn piston rings 2. Restricted intake air 3. Too much oil in compressor 4. Incorrect oil viscosity 	<ol style="list-style-type: none"> 1. Replace with new piston rings. 2. Clean or replace air filter. 3. Drain oil to proper oil level. 4. Use a quality non-detergent 30 or 40 wt oil specified for each model (Page 4).
<p>Water in tank and/or discharge line</p>	<ol style="list-style-type: none"> 1. Normal. Amount of water will increase as humidity in the air increases. 	<ol style="list-style-type: none"> 1. Drain tank at least once per day. 2. Add an inline filter to reduce moisture in the air line.
<p>Will not run or motor hums</p>	<ol style="list-style-type: none"> 1. Low voltage 2. Malfunctioning pressure switch 3. Malfunctioning check valve 	<ol style="list-style-type: none"> 1. Check voltage with volt meter across both legs of incoming power. Check reset button on motor. 2. Repair or replace pressure switch. 3. Replace check valve or pressure switch. <p>⚠ DANGER Do not remove check valve with air pressure in tank</p>
<p>Breaker or reset repeatedly trips</p>	<ol style="list-style-type: none"> 1. Incorrect breaker size 2. Low voltage 3. Malfunctioning motor 4. Loose electrical connections 5. Malfunctioning pressure switch 6. Malfunctioning check valve 	<ol style="list-style-type: none"> 1. Make sure the breaker is sized properly. See page 6 in this manual. 2. Check voltage with volt meter across both legs of incoming power. 3. Replace motor. 4. Check all electrical connections. 5. Adjust or replace pressure switch. 6. Replace check valve. <p>⚠ DANGER Do not remove check valve with air pressure in tank</p>
<p>Tank does not hold pressure when not running and shut off valve is closed</p>	<ol style="list-style-type: none"> 1. Malfunctioning check valve 2. Loose fittings or connections 3. Crack or pin hole in tank 	<ol style="list-style-type: none"> 1. Replace check valve. 2. Tighten or replace fittings or connections. 3. Replace tank. Do not attempt to repair tank. <p>⚠ DANGER Do not remove check valve with air pressure in tank</p>

TROUBLESHOOTING GUIDE (Continued)

<p>Pressure switch unloader constantly leaking air</p>	<p>1. Malfunctioning check valve</p>	<p>1. Replace check valve if unloader bleeds constantly.</p> <p> DANGER Do not remove check valve with air pressure in tank</p>
<p>Pressure switch not unloading</p>	<p>1. Malfunctioning pressure switch</p>	<p>1. Replace pressure switch if it does not release air pressure briefly when unit shuts off.</p> <p> DANGER Do not remove pressure switch with air pressure in tank</p>
<p>Excessive vibration</p>	<p>1. Improper installation 2. Loose belts 3. Misaligned flywheel or drive pulley</p>	<p>1. Make sure unit is mounted on a level surface with vibration pads. 2. Replace belts. Align and tighten properly. 3. Align flywheel and drive pulley.</p>
<p>Overheating</p>	<p>1. Compressor too small for application 2. Cooling surfaces dirty 3. Improper cooling</p>	<p>1. Reduce air demand or use a compressor with more air capacity. 2. Clean all cooling surfaces of dirt and dust. 3. Install compressor in an area with adequate cool dry air.</p>

PUMP SPECIFICATIONS

Pump Model	Pump P/N	Cyl. No.	Stages
PAT24	4116091136	2	1
PAT38	4116091337	2	1

Pump Model	Cyl. Diam. In. (mm)		Stroke in. (mm)	Max rpm	Oil Cap. Qt. (L)	Displacement @ max RPM	
	1st Stg	2nd Stg				CFM	L/M
PAT24	2.48 (63)	N/A	1.50 (38)	1400	.56 (.53)	11.71	331.59
PAT38	2.48 (63)	N/A	2.36 (60)	1400	.91 (.86)	18.49	523.58

Pump Model	Bolt Torque Ft.-Lbs. (NM)				
	Conrod	Head	Cylinder	Bearing Housing	Flywheel
PAT24	N/A	18-20 (24-27)	18-20 (24-27)	5-7 (7-10)	18-20 (24-27)
PAT38	N/A	18-20 (24-27)	18-20 (24-27)	5-7 (7-10)	18-20 (24-27)

TANK SPECIFICATIONS

Volume		Max Pressure		Discharge Conn.
Gal.	Liter	PSI	Bar	NPT
20H	76	150	10.345	1/4"
26V	99	150	10.345	1/4"
2X4	2X15.2	200	13.793	3/8"
2X5	2X19	200	13.793	3/8"
30H	114	200	13.793	3/4"



WARNING

Oil and moisture residue must be drained from the air receiver daily or after each use. Accumulations of oil residue in the receiver can be ignited by embers of carbon created by the heat of compression - causing an explosion, damage to property and injury to personnel.



WARNING

Do not open a manual tank drain valve on any air tank containing more than 30 PSIG of air pressure!



WARNING

Never attempt to relieve an air tank by removing a pipe plug or any other system component!

Manually Draining an Air Tank:

- Step 1)** Disconnect & lockout the compressor from the power source (electric models) or disconnect the spark plug wire from the spark plug (gas engine models).
- Step 2)** Tank(s) subjected to freezing temperatures may contain ice. Store the compressor in a heated area before attempting to drain moisture from the tank(s). Reduce the air pressure in the tank to 30 PSIG by pulling the pressure relief valve ring.
- Step 3)** Slowly open the drain valve and allow the moisture and air mixture to drain from the tank.
- Step 4)** Once the moisture has been completely drained, close the drain valve.

Air Tank Inspection

Tank Capacity	Horizontal or Vertical	Minimum Allowable Wall		Visually Inspect	Hydrostatically Inspect
		HEAD	SHELL		
8 Gal.	Horizontal	0.096	0.094	Yearly	10 Years
8 Gal.	Twin Horiz.	0.098	0.098	Yearly	10 Years
10 Gal.	Twin Horiz.	0.118	0.118	Yearly	10 Years
20 Gal.	Horizontal	0.094	0.094	Yearly	10 Years
26 Gal.	Vertical	0.094	0.094	Yearly	10 Years
30 Gal.	Horizontal	0.109	0.098	Yearly	10 Years

Recommended Air Tank Inspection Intervals

The factory recommends that all air tanks be inspected at scheduled intervals. Refer to **Recommended Air Tank Inspection Intervals Table** for relative information.

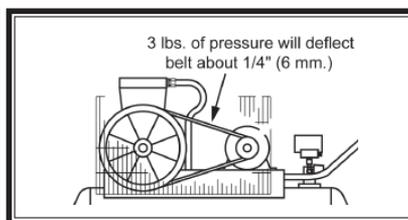
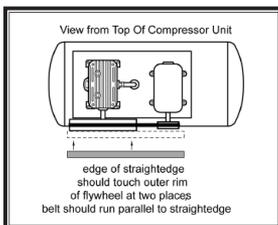
Refer to federal, state or provincial, or local codes for mandatory air tank maintenance information.

Belt alignment and adjustment

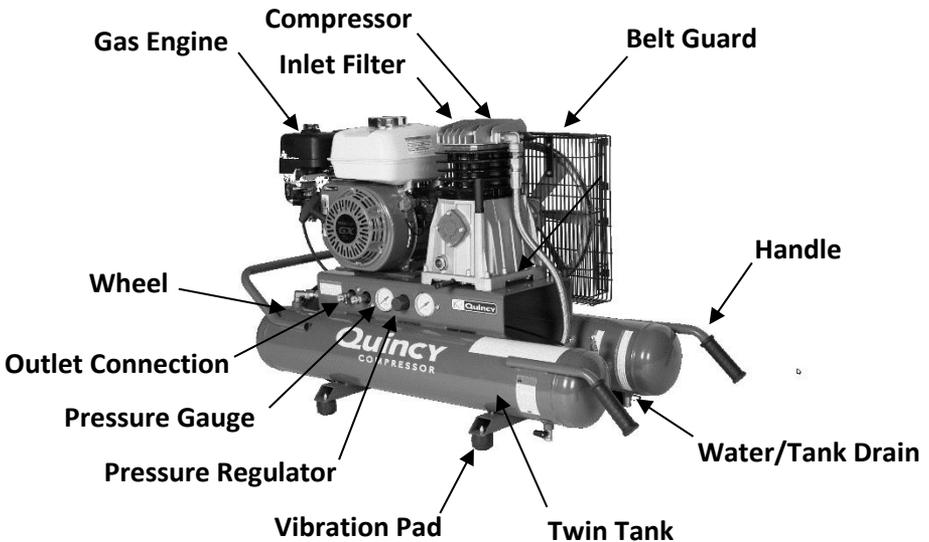
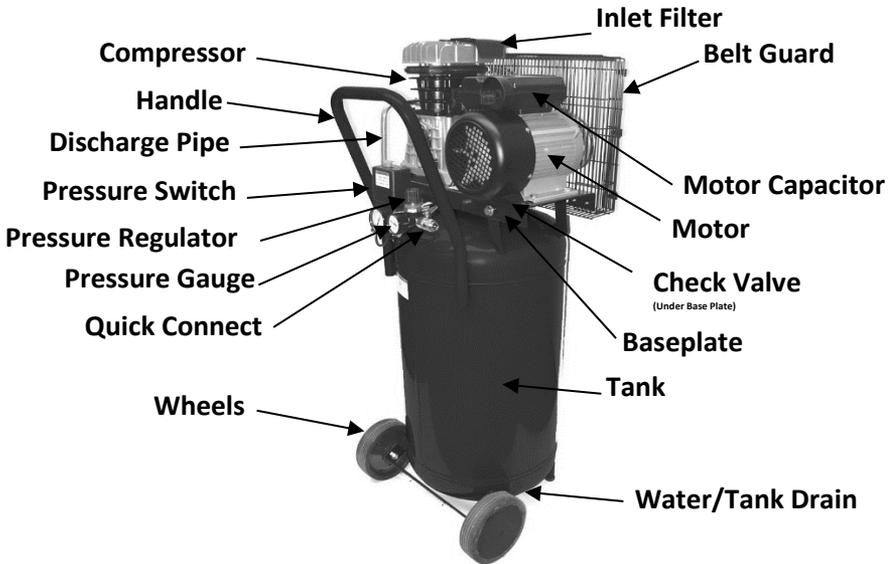
Drive belts tend to stretch with normal use and require adjustment periodically (check monthly). In order to adjust the drive belt the belt guard must be removed.

Check the belt alignment by placing a straightedge against the face of the flywheel, touching its rim at two places. Adjust the flywheel or motor pulley so that the belt runs parallel to the straightedge. Use a wheel puller to move the motor pulley on the shaft.

Properly adjusted, a 3 pound pressure applied to the belt between the motor pulley and the compressor flywheel will deflect the belt about 1/4" (6mm). To adjust the belt tension, loosen the 4 motor mounting screws and slide the motor in the proper direction. Retighten the motor mounting screws



PARTS CALLOUTS

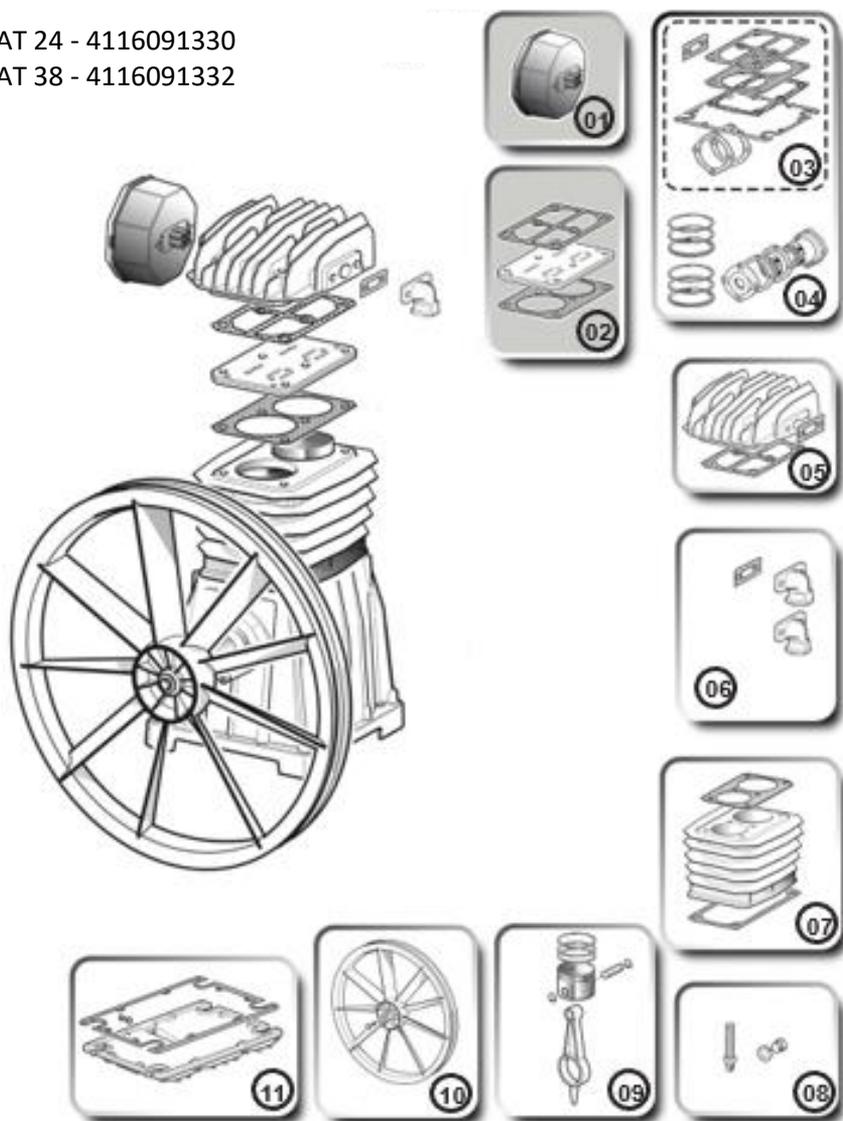


Single Stage

*Note: Verify Model and Part Number of Machine before Ordering

PAT 24 - 4116091330

PAT 38 - 4116091332



Compressor Pump 4116091336 (PAT24) and 4116091337 (PAT38)

1	Air Filter Kit	2236111635
2	Valve Assembly Kit	2236112518
3	Gasket Kit	2901325045
4	Bearing and Ring Kit	2901325046
5	Head Kit	2901325044
6	Discharge Elbow Kit	2901325047
7	Cylinder Kit	2236112434(PAT24) 2236112435(PAT38)
8	Oil Level Kit	6229021000
9	Conrod Kit	2236111619(PAT24) 2236111620(PAT38)
10	Flywheel Kit	6229023400(PAT24) 2901325048(PAT38)
11	Crankcase Bottom Kit	2236112437(PAT24) 2236112438(PAT38)

WARRANTY

Quincy Compressor Reciprocating Products
Single Stage Series Compressors

What does this warranty cover?

Quincy Compressor (the Company) warrants this compressor to be free from defects in materials and workmanship for a period of one year from date of purchase.

What are the Company's obligations under this warranty?

In the event this compressor proves to be defective during the warranty period, the Company will, at its sole option, either repair or replace this compressor. The Company and its authorized agents may use, at their discretion, reconditioned units when undertaking such repairs or replacement. Repaired or replacement units shall be warranted hereunder for the remainder of the warranty period applicable to the original compressor, or ninety (90) days, whichever is greater.

How do you get service?

Contact your local Quincy Distributor, or find your nearest authorized warranty repair center by visiting Quincy's online Service Locator at quincycompressor.com. In order for you to be eligible to utilize this warranty, Company must have received a completed warranty registration card within thirty (30) days of your purchase of this compressor or, at the time service is requested, you must be prepared to provide proof of purchase in the form of a receipt or invoice. All moving, shipping and insurance charges incurred by you to deliver this compressor to the nearest authorized warranty repair center shall be paid by you and shall be your exclusive responsibility. All risk of loss or damage to your compressor in transit shall remain with you until such time as Company or its authorized agents take receipt of your compressor.

What does this warranty not cover?

This warranty is contingent upon proper use of the compressor by purchaser and does not cover:

- (A) Abnormal conditions, accident, neglect, misuse or improper storage of the unit.
- (B) Deviation from operating or maintenance instructions.
- (C) Modifications not authorized by the Company.
- (D) Repairs or maintenance (other than routine air tank draining and air filter changes required by your operating and maintenance manual) made by persons other than Company or its authorized agents.

What are the limits of Company's Liability?

The warranty given herein, together with any implied warranties covering this compressor, including warranties of merchantability or fitness for a particular purpose are limited in duration to one year from the date of purchase, and no warranties, whether express or implied will apply after this period. Some states and provinces do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

If this compressor is not in good working order as warranted above, your sole remedy shall be repair or replacement as provided above. In no event will Company be liable to you for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use such compressor, even if Company or your place of purchase has been advised of the possibility of such damages.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state or province to province.

Quincy Compressor LLC.

701 N Dobson Ave

Bay Minette, AL 36507

Service and Technical Support 1.877.QUINCY2