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# Thank you !

For ordering a **JENNY**<sup>®</sup>. Jenny has been a manufacturer of high quality equipment since 1929. Special attention has been given to every detail of engineering design, perfection of manufacturing methods, individual part inspection, and thorough testing upon completion to assure the continuous trouble-free operation of your Jenny.

In short, your Jenny was designed and made by customer-minded workers. If you, for any reason, fail to find that our product serves as you believe it should, you will be doing yourself and us a favor by telling our Customer Representative, through our Distributor - or direct, just how our product has failed to please you. Over the years we have found that when troubles are reported by our customers, both of us profit. So please help us to serve you properly, which is our first desire.

In the march of progress, engineering and design changes are inevitable, therefore, we reserve the right to vary our designs and/or specifications without implying that they need to be installed on previous models. If you have occasion to order parts or request information about your Jenny, be sure to give machine model number, pump model letter or model number and serial number.

You will find this booklet a valuable guide to the proper and safe operation and maintenance of your new Jenny. It is intended to be used by anyone using or maintaining the equipment. Follow the instructions carefully and you will assure yourself of the utmost in compressed air efficiency and economy.

# Section 1

# Safety and Health Instructions

# Important!

### SAFETY AND HEALTH INSTRUCTIONS FOR SAFE USE



THIS PRODUCT CAN CAUSE SERIOUS INJURY OR DEATH IF NOT USED IN ACCORDANCE WITH THE FOLLOWING SAFETY INSTRUCTIONS. WE CAN NOT ANTICIPATE EVERY POSSIBLE CIRCUMSTANCE THAT MIGHT INVOLVE A POTENTIAL HAZARD. THE WARNINGS, CAUTIONS, DANGERS, AND SAFETY SUGGESTIONS ARE THEREFORE NOT ALL INCLUSIVE. AS THE OWNER YOU ARE RESPONSIBLE FOR THE SAFE OPERATION OF THIS EQUIPMENT. ALWAYS MAKE SURE THAT ANYONE USING THIS EQUIPMENT HAS READ THIS MANUAL AND FOLLOWS THE SAFETY WARNINGS TO HELP PREVENT THE POSSIBILITY OF PERSONAL INJURY TO THE OPERATOR OR ANYONE ELSE. IF ANY OPERATING PROCEDURE. **INSTALLATION, MAINTENANCE, OR WORK METHOD** NOT SPECIFICALLY RECOMMENDED IS USED, YOU MUST SATISFY YOURSELF THAT IT IS SAFE FOR YOU AND OTHER PERSONS. YOU MUST ALSO ENSURE THAT THE PRODUCT WILL NOT BE DAMAGED OR MADE UNSAFE BY THE PROCEDURE YOU CHOSE.

In the event that an injury does occur, please seek medical attention at once since the equipment may cause injuries that are not initially recognized.

#### 1. Use proper electrical power.



Connect unit to a dedicated circuit of the proper voltage, proper rated circuit breaker, and wired with the proper wire size and number of conductors.

Ensure that all connections are properly tightened. Improper connections could result, causing damage, injury, or death of the equipment operator.

This machine must be connected in accordance with the National Electric Code (NEC) Article 422-4 - Ed-31, Except as provided for in NEC 90-4.

This machine must be properly grounded to avoid fatal electrical shock in the event of an electrical malfunction. A ground connector screw should be fastened into the chassis to facilitate supplemental grounding as permitted by NEC 250-91. Do not connect any other equipment to the electrical circuit serving this unit.

Do not replace a fuse or circuit breaker with one of a higher rating without being certain the wire size is adequate to handle the increased electrical load.

Keep all electrical connections dry and off of the ground.

Observe all local and national codes for the installation and use of this type of equipment.

Please use the following criteria for wire selection.

- 0 to 25 Feet from Main Power Source At least the same size wire.
- 25 to 50 Feet from Main Power Source At least one wire size larger.
- 50 to 100 Feet from Main Power Source At least two wire sizes larger.
- 100 to 150 Feet from Main Power Source At least three wire sizes larger.

If the wire size being used is too small, the voltage drop will be high, and this will cause the motor to draw excessive current and overheat or fail.

### *If there are any questions or problems with the electrical system being used please, do not hesitate in calling a local qualified electrician.*

#### 2. Wear proper protective clothing and equipment.



Wear full eye protection (preferably a face shield) while operating this product. The pressurized spray from this unit can cause severe injury to the eyes. It also may contain irritants, particles or caustic chemicals.

#### 3. Do not operate with protective covers or guards removed.



Operating this machine with the protective guards or covers removed could expose high speed moving components which could allow the operator or bystander to become entangled. Entanglement in this equipment may result in serious injury, amputation, or death.

This unit may start and stop automatically when switch is in Auto mode.

#### 4. Do not operate with any electrical panels or covers opened.



Operating this unit with any of the electrical panels or covers opened may expose high powered electrical connections and/or components which may come in contact with the operator. Contact with high powered electrical equipment by a person could result in serious injury or death.

#### 5. Do not operate this unit with any of the safety controls bypassed.

This unit was designed with safety in mind. Never allow anyone to bypass, modify, or alter any of the safety devices on this unit. If any of the safety devices appear to be dysfunctional, do not operate the unit and immediately contact a qualified technician.

Periodically have all the safety devices checked for proper operation.

# 6. Do not operate this unit with any components rated less than the maximum operating pressure of the unit.



This unit was designed to compress air at a specific operating pressure and volume. Never exceed the pressure rating of air tools, spray guns, air operated accessories, tires, and other inflatables. This can cause them to explode or fly apart and could result in a serious injury.

# 7. Do not direct air stream at people, animals, or any living thing. Use only OHSA approved air blow guns.



The pressurized spray from this product can cause serious injury or death if sprayed at people, animals, or any living thing. This machine is capable of producing extremely high pressures and/or temperatures. The pressurized spray can cut exposed flesh like a knife. The spray can also cause severe irritation, cuts and/or burns. It can inject air and/or harmful particles and chemicals into the skin and other soft tissues, and this can cause serious injury or death. To prevent this from happening, always hold the air blow gun securely at all times. Never point spray at people, animals, or any living thing.

Never put hands or fingers over the spray tip while in operation.

Use only OSHA approved air blow guns.

If an accident occurs and the spray appears to have penetrated the skin, even if the injury appears to be minor, seek medical care immediately. Do not treat as a simple cut. Be prepared to tell a physician what particles and/or chemicals you are using.

### For treatment instructions, have your physician contact the nearest regional poison information center for more information.

#### 8. Do not use compressed air from this equipment for breathing.



The compressed air from the compressor is not safe for breathing! The air stream may contain carbon monoxide, toxic vapors, hydrocarbons, oil mist, water vapor, and/or solid particles. Never inhale air from the compressor either directly or from a breathing device connected to the compressor.

#### 9. Unplug or disconnect unit before cleaning or servicing.



To help prevent the risk of injury or death as a result of shock or electrocution or entanglement while this product is being cleaned, serviced, or repaired, electrical power must be removed. Unplug or disconnect the power cord or "lock out" the switch box that supplies power. For more details, please refer to U.S. Department of Labor, Occupational Safety and Health Administration, Regulation 29 CFR 1910.147, Control of Hazardous Energy Source (lockout/tagout).

Only qualified personnel should attempt any electrical repairs or trouble shooting on the equipment. Serious injury or death could result from improper repairs and/or trouble shooting.

#### 10. Never modify or alter this unit.

For your own safety as well as others, never allow this unit to be altered or modified. Modifying or altering equipment to operate in a fashion other than its original design may cause serious injury or death.

Never exceed the factory pressure or temperature rating of the system. Be sure that all accessory equipment and system components meets or exceeds the pressures and temperatures developed by the unit.

#### 11. Do not operate unit with damaged or worn hoses, fittings, clamps, or spuds.



Always check the connection hose, control hoses, fittings, clamps, and spuds prior to operation. Replace all damaged or worn items with one which meets or exceeds the specifications of the original equipment. The use of an improper hose, fitting, clamp, or spud may cause the hose, fitting, clamp, or spud to rupture which could result in serious injury or death or damage to the machine.

#### 12. Do not repair damaged hoses or fittings.



Replace all damaged hoses and/or fittings with ones which meet or exceed the specifications of the original equipment.

Do not use the hose if cuts, leaks, abrasions, bulges, or coupling damage is evident.

Never remove any hose or fitting while the unit is on. The risk of fluid injection is present.

## 13. Do not touch exposed metal such as the compressor pump, motor, tank, connection hoses, or any fluids.



This unit operates at extremely high temperatures. These temperatures may reach in excess of 240° F. Touching any exposed metal or other surfaces may cause severe burns.

Compressor will remain hot for a long period of time. Allow the compressor to cool to room temperature before attempting any service or repairs.

#### 14. Provide at least three (3) feet of clearance to adjacent construction.



This unit requires adequate ventilation and must be placed in a location which provides at least three feet of clearance to all adjacent construction. This unit operates at high temperatures and failure to allow adequate ventilation or restrict the air flow may cause the machine to overheat or cause materials in close proximity to reach their flash temperatures and ignite.

#### 15. Do not operate near flammable or combustible materials.



This product is not intended for use in locations where fire or explosion hazards may exist due to the presence of flammable vapors, liquids or gases, or combustible dusts or fibers.



Heat generated by the compression cycle and/or drive system is released into the atmosphere and can cause materials in close proximity to reach their flash temperatures and ignite or explode.

Always operate the compressor in a well ventilated area.

Always store flammable or combustible materials in a secure location away from all open flames, sparks, and heat sources.

## 16. Do not remove any air line or receiver connections before relieving air pressure in the entire air system and receiver tank(s).



This machine is capable of producing extremely high pressures and/or temperatures. The pressurized spray can cut exposed flesh like a knife. The spray can also cause severe irritation, cuts and/or burns. It can inject air and/or harmful particles and chemicals into the skin and other soft tissues, and this can result in serious injury or death. To prevent this from happening, always relieve the air pressure in the entire system and in the receiver tanks before removing any air lines or receiver connections.

## 17. Do not operate at pressures, temperatures and rotational speeds in excess of the manufacturers recommendations.

With safety in mind, the unit was designed and is tested to withstand specific operating pressures, temperatures, and volumes. The different components of the machine are matched to produce the factory set operating pressure and volume. Any modification of these settings can cause damage to the compressor and/or maintenance and operating personnel

Never make adjustments and/or parts substitutions to alter the factory set operating pressures, temperatures, and volumes.

# 18. Do not spray flammable or toxic liquids in confined areas. Areas must be well ventilated. Follow all manufacturers supplied instructions of the material to be sprayed and the warnings associated with those products.



Never spray flammable liquids in confined areas. The flammable vapors may accumulate and then ignite causing an explosion. Always spray flammable liquids in a well ventilated area free from combustible materials, gasoline, or solvent vapors.

Never spray toxic liquids or chemicals in confined areas. The toxic vapors may accumulate and overcome the operator. Injury or death may result.

Read and follow all the safety instructions provided on the product label and Material

Safety Data Sheet (MSDS) for the material being used.

Use a NIOSH/MSHA approved respirator designed for use each specific application.

Always wear the appropriate approved safety equipment.

Always operate the compressor in a well ventilated area.

Always store flammable materials in a secure location away from all open flames, sparks, and heat sources.

#### 19. Use this machine only in a well ventilated area.

This unit requires adequate ventilation. Heat generated by the compression cycle of the unit must be released into the atmosphere. Failure to allow adequate ventilation or restrict the air flow may cause the machine to overheat.

# 20. To prevent corrosion, drain receiver tank(s) after 4 hours of use or at the end of each day, whichever comes first. Have the receiver tank(s) inspected for corrosion and/or damage periodically.



Always drain receiver tanks daily or after each use. If the receiver or any air lines develop leaks, immediately replace them. There is a risk of a violent tank or air line explosion which can cause damage to property and can injure or kill people nearby.

All pressure vessels should be inspected once every year or more often depending on use. To find your state pressure vessel inspector, look under Division of Labor and Industries in the government section of a phone book.

Never make modifications, weld, drill into, or attempt any repairs to compressor tanks. If modifications are necessary, take the tank to an A.S.M.E. certified coded pressure vessel shop that can perform these modifications. The shop will need an ASME "R" stamp.

Never make adjustments and/or parts substitutions to alter the factory set operating pressures, temperatures, and volumes.

#### 21. Do not use in flammable or combustible atmosphere.



This product is not intended for use in locations where fire or explosion hazards may exist due to the presence of flammable vapors, liquids or gases, or combustible dusts or fibers.

It is normal for the electrical contacts within the motor and the electrical control box to spark. Also, it is normal for gasoline engines to produce extremely high temperatures and sparks. If the high temperatures or sparks from the compressor come in contact with flammable vapors, they may ignite causing a fire or explosion.

#### 22. Do not permit untrained personnel to maintain or make repairs on this unit.

Only qualified personnel should be permitted to make any type of repairs to this unit. Improper repairs may cause this unit to malfunction which could result in serious injury or death to the operator, repair person, or bystander.

#### 23. Risk of Asphyxiation.



The pressurized spray from this unit can cause particles as well as vapors to become airborne. Keep a safe distance from the vapors and airborne particles. Wear protective breathing apparatus and approved safety equipment. Use only in a well ventilated area.

Never use the equipment to spray toxic chemicals. The risk of inhalation or contact with the skin may result in injury or death.

Never attempt to stop or deflect a leak with any part of your body (including the use of a rag). The risk of injection is present.

Some dust may contain chemicals known to the state of California to cause cancer, birth defects, and other reproductive harm. Some of these chemicals are compounds in fertilizers, insecticides, herbicides, pesticides and arsenic and chromium found in treated lumber.

## 24. Keep compressor as far away from spraying area as possible. At least 25 feet minimum.

## 25. Do not leave loose parts, rags, tools, and other foreign matter on the compressor, drive system, or fan blade.

Loose parts, rags, tools, and other foreign matter can become entangled in the unit or be expelled from the machine at a high rate of speed. This can result in damage to the machine or serious injury or death to the operator, repair person, or bystander.

# 26. All local code requirements for pressure vessels should be investigated to assure all requirements have been met. Pressure vessels such as the receiver may require additional ASME code stamping to meet local code(s).

#### 27. Always wear hearing protection when operating or working near the unit.



This unit is capable of producing noise that can be hazardous and can cause hearing loss. In order to avoid hearing loss, always wear hearing protection when operating or working near this machine.

28. Do not route hose in a manner that will cause sharp bending, kinking, cutting, abrasion, or exterior damage.

29. Do not pull on the hose to move the unit, untangle knots, or any other excessive pulling stress.

## 30. Always release the system pressure prior to service, storage, daily shutdown, and/or disconnecting the hose or from the unit.

Always release pressure prior to service, storage, daily shutdown, and/or disconnecting the hose from the unit. Pressure contained within the unit could be released unexpectedly and could cause injury.

#### 31. Never leave an operating machine unattended.

Always shut off the machine and relieve the system pressure before leaving the unit. Never leave an operating machine unattended.

#### 32. Never allow children or any unauthorized persons to operate the machine.

Allow only personnel trained in the use of the equipment to operate the unit. Never allow children or unauthorized personnel to operated the unit. Keep all persons at a safe distance when the machine is being operated.

# 33. Never exceed the pressure rating of air tools, spray guns, air operated accessories, tires and other inflatables could cause them to explode or fly apart.



Exceeding the pressure rating of air tools, spray guns, air operated accessories, tires and other inflatables could cause them to explode or fly apart. Always follow the manufacturers recommendations and never exceed the maximum allowable pressure ratings.

Never use the compressor to inflate small low pressure objects such as children's toys, footballs, basketballs, etc.

#### 34. Explosive fuel. (If gasoline engine equipped)



Gasoline is extremely flammable and its vapors can explode if ignited. Store gasoline only in approved containers, in well-ventilated, unoccupied buildings, away from sparks or flames.

Do not fill the fuel tank while the engine is hot or running, since spilled fuel could ignite if it comes in contact with hot parts or sparks from ignition.

Do not start the engine near spilled fuel; wipe up spills immediately. Never use gasoline as a cleaning agent.

Do not fill the fuel tank to the point of over flowing. Allow approximately 1-1/4" of tank space for expansion.

Shut off fuel valve on engine before transporting unit to prevent fuel leaking from carburetor.

# 35. Do not touch the exhaust system, cylinder head or crankcase when hot. (If gasoline engine equipped)



The crankcase, cylinder head, exhaust system, and other components can get extremely hot from operation. To prevent severe burns, do not touch these areas while the engine is running - or immediately after it is turned off. Never operate the engine with heat shields or guards removed.

#### 36. Do not inhale engine exhaust gases. (If gasoline engine equipped)



Engine exhaust gases contain poisonous carbon monoxide. Carbon monoxide is odorless, colorless, and can cause death if inhaled. Avoid inhaling exhaust fumes, and never run the engine in a closed building or confined area without adequate ventilation.

## 37. Always shut down the unit and refuel away from open fires or sparks. (If gasoline engine equipped)



Due to the explosive nature of the fuels involved in running this type of equipment, never attempt to refuel this unit while it is in operation, or anywhere close to open fires or sparks. Do not smoke while refueling the unit.

#### 38. Do not over fill the fuel tank(s). (If gasoline engine equipped)

Do not over fill the fuel tanks. If any spillage does occur, clean up and/or neutralize the spilled fuel before any attempt to use the machine is made. It may be prudent to move the machine away from the area where the fuel was spilled before using the equipment.

## 39. Disconnect the spark plug lead before cleaning or servicing. (If gasoline engine equipped)

To help prevent injury while this product is being cleaned, serviced, or repaired, the spark plug lead must be removed. Ground the lead to prevent sparks that could cause fires.

#### 40. Use only Jenny repair parts and accessories.

To preserve the safety features that are built in to this product, use only Jenny repair parts and accessories.

This product must be periodically serviced in accordance with the instructions in this owner's manual.

# Section 2

# Introduction and Description

#### INTRODUCTION

This manual contains operation and service instructions for the Jenny Air Compressors.

Brief Compressor Nomenclature:



Manufactured by Jenny Products, Inc., 850 North Pleasant Avenue, Somerset, PA 15501

#### **GENERAL DESCRIPTION**

The Jenny Air Compressor is a reciprocating piston oil bath crankcase air compressor driven by either an electric motor or gasoline engine mounted either on a base or air compressor receiver.

#### **MAJOR COMPONENTS**

The Reciprocating Compressor is comprised of the following major components: the air compressor pump, air control system, control box, electric motor or gasoline engine and base weldment or receiver tank.

#### **RECIPROCATING (Piston) AIR COMPRESSOR ASSEMBLY**

The air compressor is an oil bath, reciprocating (piston) type. It is powered by an electric motor

or gasoline engine V-belt drive sheave assembly. The pumping unit is either a Single Stage or Two Stage Reciprocating Pump.

#### SINGLE STAGE AND TWO STAGE RECIPROCATING PUMPS

Reciprocating (Piston) Compressors can be widely found in these two primary configurations; Single Stage and Two Stage.

Single stage air compressors work by drawing free air in and subsequently compressing the air to its final pressure in a single piston stroke. Single stage air compressors can attain pressures of up to 150 PSI. Typically, a single stage pump will have a higher CFM(Cubic Feet per Minute) rating than a two stage pump because every cylinder is drawing in air and compressing it with air during every rotation.

Two stage air compressors work in a very similar manner with the primary difference being that they compress the air in 2 steps or stages. During the first step or stage, air is drawn in and compressed to an intermediate pressure. After being compressed in the first stage, the air is piped, usually through an intercooler where the air is allowed to cool, to be compressed in the final or second stage. Two stage compressors are normally good for pressures up to 200psi. Two stage pumps are more efficient at higher pressures because the air is cooled between the stages.

#### ELECTRIC MOTOR

A single or three phase, open drip proof, electric motor, is furnished to drive the air compressor assembly. Depending on the horsepower rating of the motor and phase, the motor is capable of operating on different voltages(please see following chart) by changing the wiring in the motor and starter(if greater than 5HP). These changes should only be attempted by a qualified electrician.

Motor HP Rating	Voltage	Phase	
1/3 thru 2 HP	115V, 208V or 230V	Single	Switchable
3 thru 7-1/2 HP	208V or 230V	Single	Only
1/3 thru 25 HP	208V	Three	Only
1/3 thru 25 HP	230V or 460V	Three	Motor and Starter Switchable-Different Motor Overloads
1/3 thru 25 HP	575V	Three	Only

#### **GASOLINE ENGINE**

A Honda OHV gasoline engine can be furnished to drive the air compressor assembly. The engines are all industrial/commercial grade and can be either 5.5, 6.5, 8, 11, 13, or 18 HP depending on the requirements of the air compressor pump.

#### AIR CONTROL SYSTEM

#### Constant Run Units - Head Unloader and Discharge Unloader

The air intake is regulated by discharge air pressure demand. A pilot valve is used to operate an unloading device in the compressor head or a line discharge unloader. For most units, air pressure is fed through the pilot valve to a specially designed compressor head. The air pressure actuates the special head's unloading pins that hold the air intake valves in the closed position. For line discharge unloaders, a specially designed valve controls the flow of air. Based on the system pressure, the valve directs the flow into the air system or to the atmosphere.

#### Start-Stop Control Units

As with constant run units, the air intake is controlled by air pressure demand. Instead of being controlled by a pilot valve, Start-Stop units are controlled by an electrical switching device, called a pressure switch. When the system reaches a designated pressure, or maximum pressure set point, the pressure switch de-energizes the electric motor. As air is consumed and the system pressure falls below another designated pressure, or minimum pressure set point, the pressure switch energizes the electric motor.

Unloading the pressure from the pump for Start-Stop Units is accomplished either by a pressure switch with unloading capabilities (Single Stage Units) or by a centrifical unloader(Two Stage Units).

Centrifical Unloader Units - Centrifical Unloader units use the rotation of the pump to actuate a specially designed valve. As the pump rotates, weights spin outward causing a specially designed valve to close. When the pressure switch de-energizes the electric motor, the pump stops spinning and consequently allows weights to return to their original position and open the valve. This allows the trapped air between stage one and two to escape through the valve and bleed to the atmosphere.

#### **Dual Control Units**

Dual Control Units allow the compressor to operate in both constant run and start-stop control. The unit has both a pilot valve and a pressure switch. The unit can be switched from either operating mode by opening and closing a ball valve. The pilot valve is used to control the compressor when operating in the constant run and the pressure switch is used to control the compressor when operating in the stop/start mode.

A good rule of thumb in determining which is the best mode of operation is by the amount of time the compressor will be required to supply air. If the demand for air is infrequent, then the unit should be set up for stop/start operation to minimize unnecessary run time and operational wear and tear and to save energy. If there is a frequent or extended demand for air, and/or the unit is located in a distant or remote area where access to the compressor is difficult, the unit should be set up for constant run to minimize the number of times the motor must start in an hour to ensure good motor life.

#### PILOT VALVE

The pilot valve is a pressure control device used to maintain system pressure within a preset range while the compressor runs contantly. The pilot valve may be used to actuate an unloading device such as a discharge line unloader or an unloading device in the head of the compressor. When the system reaches a predetermined pressure, the pilot valve actuates the unloading device and allows the system to run in the unloaded mode. When the system falls below the preset cut-in pressure, the pilot valve closes and disengages the unloading device(s) which allows the compressor to pump air into the system.

#### PRESSURE SWITCH

The pressure switch is a pressure control device. It functions by opening and closing an electrical switch based on the system pressure. When the system pressure reached a preset pressure, the pressure switch opens a set of electrical contacts which in turn shuts off the electric

motor. Once the air demand drops the system pressure to a predetermined set point, the pressure switch activates and closes the switch and subsequently starts the electric motor. Many pressure switches also contain a special unloading device which relieves the pressure from the compressor pump when the motor is shut off.

#### PRESSURE REGULATOR

The pressure regulator is used to maintain a constant outlet pressure. It allows adjustment to any desired pressure below the maximum outlet pressure of the compressor.

#### **BASE/TANK WELDMENT ASSEMBLY**

The base/tank weldment serves two primary functions. First, it gives the air compressor a rigid structure that was designed specifically for the operational requirements of the unit. Secondly, the weldment provides the mounting capability for all of the major components of the compressor assembly.

#### **MAGNETIC STARTER**

A magnetic starter is included on all models 5HP and larger on simplex and all duplex single phase units and three phase units. The magnetic starter works in conjunction with a pressure switch to start and stop the electric motor. The magnetic starter is primarily a switch which can take the full load of starting and stopping an electric motor when other switching devices are incapable of handling this load. Starters typically are made of two components; the contractor and a heater overload block.

The contractor is a switch designed to engage and disengage all the power to an electric motor.

The heater overload block is a protective device for the motor. If the motor draws over a preset number of amps, the overload will disengage the starter and shut the unit down.

#### CHECK VALVE (Start-Stop Units and All 2-Stage Units)

The check valve functions by allowing air to only move in one direction. This is required and accomplished when the unit switches into either unload (Constant Run Unit) or stopped (Start-Stop Unit) mode of operation. In this situation, the air receiver pressure is built up to the maximum pressure. The pilot valve or pressure switch senses the pressure and at this point either closes the air intake valves or turns off the motor.

#### RELIEF VALVE

A pressure relief value is mounted on the manifold assembly or on the receiver. In the event that air pressure continues to build when the demand for compressed air has either slowed or ceased altogether, the relief value will open at a predetermined set point and allow excess pressure to discharge into the atmosphere. In most cases, this is an indication that there has been a failure in air system somewhere and the cause should be investigated immediately.

#### AIR INTAKE FILTER(S)

Air filters are designed to remove foreign particles from the air entering the pump. Keeping the filters clean and free from obstructions will ensure the pump continually receives a clean air supply.

# Section 3

# Preparation for Use and Initial Installation Instructions

#### PREPARATION FOR USE

#### GENERAL

The Jenny Air Compressor unit was thoroughly tested at our factory as part of the manufacturing process. The machine will function as designed if properly assembled, set up, and operated. There are certain steps that must be taken prior to attempting to operate unit to assure it is ready for operation.

#### INSPECTION OF NEW EQUIPMENT

#### 1.) Check the box or crate for possible shipping damage.

If extensive damage is apparent to the box, please notify the freight carrier immediately. Do not open the box. Wait for the freight carrier's inspector to be present before opening.

#### 2.) Open the shipping box and inspect for damage and missing components.

You should find:

- 1 Jenny Air Compressor
- 1 Instruction Manual and Warranty Card(s)
- 1 Spare parts bag (not included with all units)

Check all of the equipment against the packing list. Examine identification plates for positive identification of the equipment received. If any of these components are missing, please notify the distributor from whom the machine was purchased immediately.

Inspect the unit carefully for any possible hidden damage. If the unit or any of the components are damaged, please notify the freight carrier immediately.



Do not attempt to repair or use the unit or any of the components **WARNING** if the unit is damaged. Notify the distributor from whom the machine was purchased immediately.

3.) Record the machine model number, serial number, and specifications located on the machine. Always include unit model, unit serial number, and compressor model number when ordering spare parts.

- 4.) Fill out the enclosed warranty card.
- 5.) Inspect for and tighten any loose nuts and/or bolts.
- 6.) Inspect the controls, instruments, and gauges for damage or loose mountings.
- 7.) Inspect all hoses for kinks and loose connections.
- 8.) Inspect electrical wiring for cuts, fraying, and loose connections.

9.) Inspect all tubing and piping for loose connections or damage.

10.) Check all accessories for damage and loose mountings.

#### SERVICING NEW EQUIPMENT

1.) Remove the unit from the shipping pallet and place on a level surface.

This can be accomplished by removing the shipping bolts or bands located at the four corners of the base weldment or receiver tank.

2.) Check oil level in pump, safety relief valve operation, air filter cleanliness, air receiver condensate as specified in Section 4.

3.) Perform all the preventive maintenance servicing as specified in Section 5 of this manual.

#### LUBRICATION

If the unit is portable, lubrication of the wheels may be required. Use a high quality standard grease. Maintain proper oil level in the compressor pump and gasoline engine if so equipped.

#### AIR CLEANER

The air cleaner is of the dry, replaceable type. One of the most important service requirements for long term maintenance free operation is to replace or clean the air cleaner element regularly.



Excessive wear, high oil consumption and poor performance will result if the air cleaner is clogged or allows contamination to enter the compressor. Refer to maintenance instructions in Section 4 for service instructions and intervals for cleaning or replacement of element.

#### INSTALLATION

Proper installation is a key factor in determining the longevity of an air compressor. Please study the installation information in this manual. This information is a guideline for a typical shop installation and is not all inclusive. If there are questions concerning the installation, please do not hesitate to contact your Jenny representative or the Jenny Compressor Company if additional information is required.

#### 1.) Position compressor and receiver tank in a safe work area.

Place the compressor and receiver in the designated work area. Leave a minimum of 3 feet clearance around the unit for work space.



This unit requires adequate ventilation and must be placed in a location which provides at least three feet of clearance to all adjacent construction. Failure to allow adequate ventilation or restrict the air flow may cause the machine to overheat. Damage to the machine, operator, and any other unit, product, and accessory in the air stream may result.

Compressors run out of level by over 10 degrees may be permanently damaged.



Do not locate near flammable or combustible liquids or operate in flammable or combustible atmosphere. A fire or explosion may result.

2.) Connect plumbing or air hoses.

Tighten all connections securely. Use pipe dope or teflon tape to help seal the connections that require the use of a wrench. See **Section 4** for information on connecting and disconnecting and hoses.

**AVARNING** Do not operate this unit with any components rated less than the maximum operating pressure of the unit.

3.) Connect electrical service using a fusible disconnect switch. Ensure that the machine is connected to the proper power supply both amperage and voltage.

Ensure that all connections are properly tightened. Improper connections could result, causing damage, injury, or death of the equipment operator.

This machine must be connected in accordance with the National Electric Code (NEC) Article 422-4 - Ed-31, Except as provided for in NEC 90-4.

This machine must be properly grounded to avoid fatal electrical shock in the event of an electrical malfunction. A ground connector screw should be fastened into the chassis to facilitate supplemental grounding as permitted by NEC 250-91.

Do not connect any other equipment to the electrical circuit serving this unit.

Do not replace a fuse or circuit breaker with one of a higher rating without being certain the wire size is adequate to handle the increased electrical load.

Keep all electrical connections dry and off of the ground.

Observe all local and national codes for the installation of this type of equipment.

If the wire size being used is too small, the voltage drop will be high, and this will cause the motor to draw excessive current and overheat.

If there are any questions or problems with the electrical system being used please, do not hesitate in calling a local qualified electrician.

4.) Ensure the new equipment service was performed prior to operation.

5.) Review all Danger, Warning, and Caution information located on the machine and in the Operator's Manual.

6.) Check to be certain that all the control switches are in the off position.

### **MARNING** The unit is capable of starting automatically.

- 7.) Turn the power on to the machine.
- 8.) Start the unit.

#### **Constant Run Control Equipped -**

If the unit is a constant run equipped and does not have an On/Off Switch, the unit will start immediately. If the unit is equipped with an On/Off switch move the switch to the On position.

#### Start/Stop Control -

If the unit is Start/Stop equipped and does not have an On/Off switch turn the OFF-AUTO (MAN) switch from the OFF position to either the MAN or AUTO position. If the unit is equipped with an On/Off switch move the switch to the On position.

#### Dual Control -

If the unit is Dual Control equipped and does not have an On/Off switch turn the OFF-AUTO (MAN) switch from the OFF position to either the MAN or AUTO position. If the unit is equipped with an On/ Off switch move the switch to the On position.

#### Starting Gasoline Engine (If so equipped) -

If so equipped, your air compressor is powered by a Honda® gasoline engine. Most accidents with engines can be prevented if you follow all instructions in this manual, the engine owner's manual and on the engine. Follow the instructions in the owners manual for the proper starting procedure.

1. Turn the engine switch to the On or Run position

2a. If the engine is only rope start, pull rope to start. Continue until engine is running.

2b. If electric start, turn switch past the On position to the Start position. Hold switch in Start position until engine is running, then release.

# Section 4

# Operating Instructions

#### **OPERATING INSTRUCTIONS**

This section describes the operating controls and indicators, detail theory of operation, and operating procedures.

#### **OPERATING CONTROLS AND INDICATORS**

Jenny compressors are designed to be highly reliable and very simple to operate. Therefore, there are only a few operating control and indicators. They are as follows:

On/Off Switch (SW-3, SW-4, Start/Stop Control & Dual Control)- A switch which allows the operator to manually turn the machine on and off. The switch is located either on the motor, as in the case of the SW-3 and SW-4, or a rotatable lever on the pressure switch for Dual Control and Start/Stop control.



**Pressure Regulator** - The pressure can be increased or decreased by turning the knob on the regulator. Clockwise increases the outlet pressure and counterclockwise decreases the outlet pressure.

**Pressure Regulator Gauge** - Indicates the outlet or line pressure in PSI. The pressure regulator gauge is located on the pressure regulator

Oil Level Gauge (If so equipped) - Allows for the visual inspection of the oil level in the crankcase of the pump through a clear window or sight glass.

> **Pressure Switch** (Start/Stop Control & Dual Control) - Starts and stops the unit at predesignated high and low pressures. The compressor will start when the pressure within the receiver tank falls below the preset low pressure setting and will stop when the system has reached the high pressure setting. Also located on the pressure switch is a rotatable lever that allows the operator of the unit to turn the unit on or off.

**Pilot Valve** (Constant Run and Dual Control) - Opens and closes the air intake check valves at predesignated high and low pressures while the motor or engine runs. The air intake check valves will be allowed to operate normally when the pressure within the receiver tank falls below the preset low pressure setting and will hold the intake check valves open when the system has reached the high pressure setting.



**Dual Control Switch** (If so equipped) - Dual Control Units allow the compressor to operate in both constant run and start-stop control. The unit has both a pilot valve and a pressure switch. The unit









can be switched from either operating mode by opening and closing a ball valve. The pilot valve is used to control the compressor when operating in the constant run and the pressure switch is used to control the compressor when operating in the stop/start mode.

A good rule of thumb in determining which is the best mode of operation is by the amount of time the compressor will be required to supply air. If the demand for air is infrequent, then the unit should be set up for stop/start operation to minimize unnecessary run time and operational wear and tear and to save energy. If there is a frequent or extended demand for air, and/or the unit is located in a distant or remote area where access to the compressor is difficult, the unit should be set up for constant run to minimize the number of times the motor must start in an hour to ensure good motor life.

**Dual Voltage Switch** (If so equipped) - The dual voltage switch allows the operator to change the operating voltage of the unit from 115VAC to 230VAC by toggling the switch to the corresponding voltage position.



**Magnetic Starter** (If so equipped) - A magnetic starter is included on all models 5HP and larger simplex and all duplex single phase units and three phase units. The magnetic starter works in conjunction with a pressure switch to start and stop the electric motor. The magnetic starter is primarily a switch which can take the full load of starting and stopping an electric motor when other switching devices are incapable of handling this load. Starters typically are made of two components; the contactor and a heater overload block.

The contactor is a switch designed to engage and disengage all the power to an electric motor. The heater overload blocks is a protective device for the motor. If the motor draws over a preset number of amps, the overload will disengage the starter and shut the unit down.

#### PREPARATION FOR USE

Read and understand the safety instructions before using any Jenny Air Compressor.

Prior to any use of the compressor, it is important to follow the check list outlined below:

1.) Check the pump and gasoline engine (if so equipped) to ensure proper oil levels as specified in Section 5.



Do not operate the unit without or an inadequate amount of lubricant(s). This may cause severe damage to the air compressor pump or gasoline engine (if so equipped).

2.) Check oil level safety relief valve operation, air filter cleanliness, air receiver condensate as specified in Section 5.

3.) Perform all the preventive maintenance servicing as specified in Section 5 of this manual.

#### LUBRICATION

If the unit is portable, lubrication of the wheels may be required. Use a high quality standard grease. Maintain proper oil level in the compressor pump and gasoline engine if so equipped.

#### AIR CLEANER

The air cleaner is of the dry, replaceable type. One of the most important service requirements for long term maintenance free operation is to replace or clean the air cleaner element regularly.



Excessive wear, high oil consumption and poor performance will result if the air cleaner is clogged or allows contamination to enter the compressor. Refer to maintenance instructions in Section 5 for service instructions and intervals for cleaning or replacement of element.

#### ADJUSTING REGULATOR

1. Pull regulator knob out

2. Turn knob clockwise to increase regulated pressure and counter clockwise to decrease regulated pressure.

3. When desired pressure is shown on the regulated pressure gauge push knob in to lock.



Collar

Female

### **NOTICE** Never adjust the regulator down to the very bottom of adjustment range, damage to the regulator may result

#### CONNECTING AND DISCONNECTING HOSES

#### To Connect:

- 1. Ensure that the regulated pressure gauge reads 0 PSI and that all system pressure is relieved.
- 2. Hold hose in hand at the quick coupler location.
- 3. Pull back collar or sleeve on female quick connect coupler located on the compressor.
- 4. Push male connector into female connector.
- 5. Release female connector.
- 6. Grasp hose and pull to ensure couplers are seated.
- 7. Adjust regulator to the desired pressure.

#### To Disconnect:

- 1. Ensure that the regulated pressure gauge reads 0 PSI and that all system pressure is relieved.
- 2. Hold hose in hand at quick coupler location.
- 3. Pull back collar or sleeve on female quick connect coupler located on the compressor.
- 4. Pull male connector out of female connector.
- 5. Release female connector.



Firmly grasp hose in hand when connecting or disconnecting to prevent hose whip.

Male

An improperly seated coupler can blow off the machine when started.



Never decouple the quick coupler when the machine is running.

Always release the pressure in the system before coupling or decoupling.

#### DRAINING AIR RECEIVER CONDENSATE

1. Ensure that the ON/OFF switch is in the OFF position or disconnect the power from the power source.

2. If the unit is portable, move the compressor into an inclined position so that the drain valve(s) are at the lowest point (this will assist in removing moisture, dirt, etc. from tanks)

- 3. Place a suitable container underneath the drain(s) to catch all of the discharge condensate.
- 4. Grasp black lever or the knurled drain cock on one drain valve.
- 5. Slowly rotate lever or drain cock so as to gradually bleed air from tank.

6. If the unit is a twin tank type, then grasp black lever or knurled drain cock on other drain valve and rotate to approximately the same position as the first.

7. When tank pressure gauge reads 10 psi, rotate valve(s) to the fully open position.

8. Close drain valve(s) when finished.





Tanks contain high pressure air. Keep face and other body parts away from outlet of drain. Use safety glasses when draining as debris can be kicked up into face. Use ear protection as air flow noise is loud when draining.

All compressed air systems generate condensate that accumulates in any drain point (e.g. tanks, filter, aftercoolers, dryers). This condensate may contain lubricating oil and/or substances which may be regulated and must be disposed of in accordance with local, state, and federal laws and regulations.

#### HUMID AREAS

In frequently humid areas, moisture may form in the bare pump and produce sludge in the lubricant, causing running parts to wear out prematurely. Excessive moisture is especially likely to occur if the unit is located in an unheated area that is subject to large temperature changes. Two signs of excessive humidity are external condensation on the bare pump when it cools down and a "milky" appearance in compressor lubricant. You may be able to prevent moisture from forming in the bare pump by increasing ventilation or operating for longer intervals.

#### DUAL VOLTAGE SWITCH (If so equipped)

The dual voltage switch allows the operator to change the operating voltage of the unit from 115VAC to 230VAC by toggling the switch to the corresponding voltage position.

#### To change voltage:

- 1. Remove the safety hitch pin from the switch guard.
- 2. Move the switch to the desired voltage (115VAC or 230VAC).



- 3. Replace the safety hitch pin in the guard.
- 4. Check and/or replace the plug with the UL/CSA listed plug for the rated current and voltage.

Follow the cord plug manufacturers installation instructions and procedures or contact a qualified electrician.

Ensure that all connections are properly tightened. Improper connections could result, causing damage, injury, or death of the equipment operator.

This machine must be connected in accordance with the National Electric Code (NEC) Article 422-4 - Ed-31, Except as provided for in NEC 90-4.

This machine must be properly grounded to avoid fatal electrical shock in the event of an electrical malfunction. A ground connector screw should be fastened into the chassis to facilitate supplemental grounding as permitted by NEC 250-91.

Observe all local and national codes for the installation of this type of equipment.

If there are any questions or problems with the electrical system being used please, do not hesitate in calling a local qualified electrician.

#### NOISE CONSIDERATIONS

Consult local officials for information regarding acceptable noise levels in your area. Hearing protection may be required if in close proximity to the compressor. To reduce excessive noise, use vibration mounts or silencers, relocate the unit away from the work area or construct total enclosures or baffle walls.

#### LOCATION CONSIDERATIONS

#### Stationary Type Compressors

Stationary compressors are permanent type installations and typically are secured in place. There are numerous ways to achieve this type of installation, the most common of which is bolting them to directly to the floor or other part of the building. Often times, vibration isolators are used to reduce noise and vibration and increase stability.

#### Portable Type Compressors

Portable Compressors are much more universal and can be used in almost any location as long as reasonable care is taken. Please refer to the Danger, Warning and Cautions as to location limitations and safe operation.

#### **Compressors run out of level by over 10 degrees may be** permanently damaged.

Consult all local codes and standards for information regarding installation and location of compressors as they may differ from one locale to another.

#### **TRANSPORTING (Portable Compressors)**

If the unit is a portable type either hand carry or wheeled portable, care must be taken when transporting the compressor. When transporting the compressor in a vehicle, trailer, etc. ensure that the tanks are drained and the unit is secured and placed on a flat horizontal surface. Secure the machine in place by use of a rope or some type of strapping. Use care when driving so to avoid tipping the unit over in the vehicle. Damage can occur to the unit or surrounding items if unit is tipped. Use a ramp if loading or unloading the unit from a height of more than 12".



If the unit is a hand carry type compressor, use proper lifting procedures when lifting or carring the unit. If the unit is a wheeled portable type compressor, the unit will weigh more than 160 lbs. Do not move or lift the unit without assistance.

#### **MOVING (Portable units only)**

If the unit is a wheeled portable type; When moving the unit into a position for use, grasp handle grips at rear of compressor, and lift compressor high enough so unit can be rolled on the front tire.

If the unit is a hand carry type; When moving the unit into position for use, grasp the handle at the center of the unit and lift the unit off the ground. Use proper lifting procedures in order to avoid injury.



Ensure proper footing and use caution when moving compressor so that unit does not tip or cause loss of balance. When location is reached slowly lower rear of compressor to ground.



Always store compressor in a horizontal position, on all four rubber mounts. Should the unit tip over, hard starting and smoking will occur due to oil spillage.

#### COMPATIBILITY

Air tools and accessories that are run off the compressor must be compatible with petroleum based products. If you suspect that a material is not compatible with petroleum products, an air line filter for removal of moisture and oil vapor in compressed air is required.

### NOTICE

Always use an air line filter to remove moisture and oil vapor when spraying paint.

#### GENERAL REQUIREMENTS

The piping, fittings, receiver tank, etc. must be certified safe for at least the maximum working pressure of the unit. Use hard welded or threaded steel or copper pipes, cast iron fittings and hoses that are certified safe for the units discharge pressure and temperature. Use pipe thread sealant on all threads, and tighten joints thoroughly to prevent air leaks.



Do not use PVC Plastic pipe or fittings.

#### CONDENSATE DISCHARGE PIPING

If installing a condensate discharge line, the piping must be at least one size larger than the connection, as short and direct as possible, secured tightly and routed to a suitable drain point. Condensate must be disposed of in accordance with local, state and federal laws and regulations.

#### **REFUELING (If gasoline engine equipped)**

The fuel tank is located on top of the gasoline engine or in an approved red gasoline container. Always refuel with care. Always allow the engine to cool.



Gasoline is extremely flammable and its vapors can explode if ignited. Store gasoline only in approved containers, in well-ventilated, unoccupied buildings, away from sparks or flames.

Do not fill the fuel tank while the engine is hot or running, since spilled fuel could ignite if it comes in contact with hot parts or sparks from ignition.

Do not start the engine near spilled fuel; wipe up spills immediately. Never use gasoline as a cleaning agent.

Do not fill the fuel tank to the point of over flowing. Allow approximately 1-1/4" of tank space for expansion.

Shut off fuel valve on engine before transporting unit to prevent fuel leaking from carburetor. STORAGE

Always store the compressor in the horizontal position on the machine's rubber feet and/or wheels.

Always ensuring the pump is upright so that the oil does not flow into the cylinder or out the crankcase breather.

#### GROUNDING

In the event of a malfunction or breakdown, proper grounding provides a path of least resistance for electric current to travel and this reduces the risk of electric shock. This compressor is equipped with an electric cord having an equipment grounding conductor and grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Make sure that the electrical circuit to which the compressor is connected provides proper electrical grounding, correct voltage and adequate fuse protection.

Do not modify plug provided as this could result in electrical **AWARNING** shock or machine electrical malfunction : if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment grounding conductor. If repairing or replacing the electric cord or plug is necessary, do

not connect the equipment-grounding conductor to a live terminal. Check with a gualified electrician or service personnel if the grounding instructions are not completely understood or if in doubt as to whether the unit is properly grounded.

# CAUTION Use only 3-wire extension cords that have 3-prong grounding

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood or if in doubt as to whether the tool is properly grounded.

#### STARTING PROCEDURE

#### 1.) Position compressor and receiver tank in a safe work area if not already so located or if the unit is of a portable type.

Place the compressor and receiver in the designated work area. Leave a minimum of 3 feet clearance around the unit for work space.



This unit requires adequate ventilation and must be placed in a location which provides at least three feet of clearance to all AWARNING adjacent construction. Failure to allow adequate ventilation or restrict the air flow may cause the machine to overheat. Damage to the machine, operator, and any other unit, product, and accessory in the air stream may result.



Compressors run out of level by over 10 degrees may be permanently damaged.



Do not locate near flammable or combustible liquids or operate in flammable or combustible atmosphere. A fire or explosion may result.

- 2.) Inspect for and tighten any loose nuts and/or bolts.
- 3.) Inspect the controls, instruments, and gauges for damage or loose mountings.
- 4.) Inspect all hoses for kinks and loose connections.
- 5.) Inspect electrical wiring for cuts, fraying, and loose connections.
- 6.) Inspect all tubing and piping for loose connections or damage.
- 7.) Check all accessories for damage and loose mountings.
- 8.) Connect plumbing or air hoses.

Tighten all connections securely. Use pipe dope or teflon tape to help seal the connections that require the use of a wrench. See the section on connecting and disconnecting air hoses.

# **CAUTION** Do not operate this unit with any components rated less than the maximum operating pressure of the unit.

9.) If machine is electric powered, connect electrical service using a fusible disconnect switch. Ensure that the machine is connected to the proper power supply both amperage and voltage.

Ensure that all connections are properly tightened. Improper connections could result, causing damage, injury, or death of the equipment operator.

This machine must be connected in accordance with the National Electric Code (NEC) Article 422-4 - Ed-31, Except as provided for in NEC 90-4.



This machine must be properly grounded to avoid fatal electrical shock in the event of an electrical malfunction. A ground connector screw should be fastened into the chassis to facilitate supplemental grounding as permitted by NEC 250-91.

Do not connect any other equipment to the electrical circuit serving this unit.

Do not replace a fuse or circuit breaker with one of a higher rating without being certain the wire size is adequate to handle the increased electrical load.

Keep all electrical connections dry and off of the ground.

Observe all local and national codes for the installation of this type of equipment.

If the wire size being used is too small, the voltage drop will be high, and this will cause the motor to draw excessive current and overheat.

If there are any questions or problems with the electrical system being used please, do not hesitate in calling a local qualified electrician.

10.) Ensure preventive equipment service was performed prior to operation.

11.) Review all Danger, Warning, and Caution information located on the machine and in the Operator's Manual.

12.) Check to be certain that all the control switches are in the off position.



The unit may be capable of starting automatically.

- 13.) If machine is electric powered, turn the power on to the machine.
- 14.) Start the unit.

#### **Constant Run Control Equipped -**

If the unit is a constant run equipped and does not have an On/Off Switch, the unit will start immediately. If the unit is equipped with an On/Off switch move the switch to the On position.

#### Start/Stop Control -

If the unit is Start/Stop equipped and does not have an On/Off switch turn the OFF-AUTO (MAN) switch from the OFF position to either the MAN or AUTO position. If the unit is equipped with an On/Off switch move the switch to the On position.

#### **Dual Control -**

If the unit is Dual Control equipped and does not have an On/Off switch turn the OFF-AUTO (MAN) switch from the OFF position to either the MAN or AUTO position. If the unit is equipped with an On/ Off switch move the switch to the On position.

#### Starting Gasoline Engine (If so equipped) -

If so equipped, your air compressor is powered by a Honda® gasoline engine. Most accidents with engines can be prevented if you follow all instructions in this manual, the engine owner's manual and on the engine. Follow the instructions in the owners manual for the proper starting procedure.

1. Turn the engine switch to the On or Run position

2a. If the engine is only rope start, pull rope to start. Continue until engine is running.

2b. If electric start, turn switch past the On position to the Start position. Hold switch in Start position until engine is running, then release.

#### SHUTDOWN PROCEDURE

#### 1.) Turn off the unit.

#### **Constant Run Control Equipped -**

If the unit is a constant run equipped and does not have an On/Off Switch, the unit will continue to run until the power is removed from the unit. To stop the unit, allow the unit to reach reache its cut-out pressure. At which point, the unit will continue to run at a significantly lower amp draw and will not charge air. A slight air noise may be heard which is the unloading of the air through the pump head. Disconnect the unit from the power source.

If the unit is equipped with an On/Off switch move the switch to the OFF position.

#### Start/Stop Control -

If the unit is Start/Stop equipped and does not have an On/Off switch turn the OFF-AUTO (MAN) switch from either the MAN or AUTO position to the OFF position. If the unit is equipped with an On/Off switch move the switch to the OFF position.

#### Dual Control -

If the unit is Dual Control equipped and does not have an On/Off switch turn the OFF-AUTO (MAN)

switch from either the MAN or AUTO position to the OFF position. If the unit is equipped with an On/ Off switch move the switch to the OFF position.

#### Stopping Gasoline Engine (If so equipped) -

If so equipped, your air compressor is powered by a gasoline engine. Most accidents with engines can be prevented if you follow all instructions in this manual, the engine owner's manual and on the engine. Follow the instructions in the owners manual for the proper stopping procedure.

- A. Turn the engine switch to the OFF position
- B. Close the fuel shutoff valve.

2.) If machine is electric powered, disconnect the machine from the electrical service.

3.) Inspect for and tighten any loose nuts and/or bolts.

4.) Check all accessories for damage and loose mountings. Replace or repair any damaged accessories.

4.) Inspect the controls, instruments, and gauges for damage or loose mountings. Replace or repair any damaged controls, instruments, or gauges.

7.) Inspect all hoses for kinks and loose connections. Replace or repair any damaged hoses.

8.) Inspect electrical wiring for cuts, fraying, and loose connections. Replace or repair any damaged electrical wire(s).

9.) Inspect all tubing and piping for loose connections or damage. Replace or repair any damaged tubing or piping.

10.) Drain Condensate from tanks(s). Follow the procedure for Draining Air Receiver condensate.

11.) If the unit is portable, relocate compressor to suitable storage location.

# Section 5

# Maintenance Instructions

#### **PREVENTIVE MAINTENANCE CHECKS**

#### CHECKING COMPRESSOR PUMP OIL LEVEL



Aftercooler, pump head, and surrounding parts are very hot, do not touch.



Do not operate without lubricant or with inadequate lubricant. Jenny can not be responsible for compressor failure caused by inadequate lubrication.

- 1. Ensure Unit is off and disconnect from the power source
- 2. Locate unit onto a flat horizontal surface.
- 3. Remove knurled oil fill plug from crankcase.
- 4. Insert a clean screwdriver into the crankcase and remove it.

6. Oil should not exceed top raised line on side of crankcase (oil will be even with bottom of threads in crankcase fill port). If necessary fill with Jenny Ultimate Blue synthetic oil.



#### CHANGING COMPRESSOR PUMP OIL

Aftercooler, pump head, and surrounding parts are very hot, do not touch.



Do not operate without lubricant or with inadequate lubricant. Jenny can not be responsible for compressor failure caused by inadequate lubrication.

- 1. Ensure unit is off and disconnected from the power source
- 2. Locate unit onto a flat horizontal surface.
- 3. Remove knurled oil fill plug from crankcase.
- 4. Place approved oil collection container underneath the oil drain cap. The use
- of a funnel may be required to help the oil collection and drainage procedure.
- 5. Remove the oil drain cap.
- 6. Allow oil to drain from compressor pump.

7. Look for visual signs of contaminants (water, dirt, etc...). This might help in identifying irregular running conditions, maintenance issues or potential future problems.

8. Replace oil drain cap on the oil drain pipe. Tighten the connection securely. Use pipe dope or teflon tape to help seal the connection.

9. Fill the crankcase with Jenny Ultimate Blue synthetic oil. Oil should not exceed top raised line on side of crankcase (oil will be even with bottom of threads in crankcase fill port).



Oil Drain Cap

<sup>5.</sup> Look for visual signs of contaminants (water, dirt, etc.) Change pump oil if contaminants are present.

#### CHECKING SAFETY RELIEF VALVE OPERATION

## **Aftercooler**, pump head, and surrounding parts are very hot, do not touch.

- 1. Ensure unit is off and disconnected from the power source.
- 2. Ensure tanks are empty by looking at tank pressure gauge. Drain tanks if necessary.
- 3. Grasp wire ring on safety valve.
- 4. Pull and release ring a few times to ensure plunger moves in and out.

#### CHECKING AIR FILTER ELEMENT

# Aftercooler, pump head, and surrounding parts are very hot, do not touch.

1. Ensure unit is off.

2. Allow unit to cool.

3. Unscrew filter top from filter base by turning counter clockwise about 5 degrees.

- 4. Separate filter top from base.
- 5. Remove element from filter base.
- 6. If element needs cleaning, blow out with air. Replace element if unsure.
- 7. Place element back in filter base.

8. Reconnect filter top to filter base and while pushing in, rotate top clockwise 5 degrees.

#### PILOT VALVE CUT-OUT PRESSURE ADJUSTMENT



Unit can remain running while performing this adjustment.

## **Aftercooler**, pump head, and surrounding parts are very hot; do not touch.



Moving Parts: Keep your hair, clothing and gloves away from moving parts. Loose clothing, jewelry, or long hair can be caught in moving parts. Air vents may cover moving parts and should be avoided as well. Do not remove the protective covers from this product.



The pilot valve is brass which is a soft metal. Do not overtighten screw as threads can strip out.

1. Hold "C" firmly and loosen nut "B".



Do not loosen screw "A" more than 1 revolution as screw is subjected to tank pressure and can burst out which can harm the user or surrounding personnel.



2. Turn screw "A" clockwise to increase cut-out pressure limit or counter clockwise to decrease cutout pressure. (example: if the cut-out pressure on the tank gauge reads 120 psi. and desired cut out is 130 psi, turn screw "A" clockwise)

- 3. Drain air from tanks through drain valves until pump begins to charge tanks.
- 4. Close drain valves.
- 5. Monitor cut-out pressure to verify the new setting
- 6. Once setting is complete hold screw "A" firmly
- 7. Hold "C" firmly and tighten nut "B"



#### PILOT VALVE PRESSURE DIFFERENTIAL ADJUSTMENT



Unit can remain running while performing this adjustment.

Aftercooler, pump head, and surrounding parts are very hot; do not touch.



Moving Parts: Keep your hair, clothing and gloves away from moving parts. Loose clothing, jewelry, or long hair can be caught in moving parts. Air vents may cover moving parts and should be avoided as well. Do not remove the protective covers from this product.

1. Hold "C" firmly and loosen nut "D"



Do not loosen barrel "C" more than 1 revolution as barrel is subjected to tank pressure and can burst out which can harm the user or surrounding personnel.

2. Turn barrel "C" clockwise to increase differential or counter clockwise to decrease differential. (for example: if pressure differential is 100 –130 psi and 100–120 psi is desired, turn "C" counterclockwise)

### NOTICE

Too narrow of a differential can cause chatter of the pilot valve. Increase differential to eliminate chatter.

3. Hold barrel "C"

4. Hold "C" firmly and tighten nut "D"

#### PRESSURE SWITCH ADJUSTMENT



Unit can remain running while performing this adjustment



There is live electrical power on the four contact points on the switch. Use only electrically insulated tools to perform this adjustment in case of accidental contact with the electrical system.

#### Pressure Range Adjustment

*To increase the pressure range:* Turn screw A clockwise to increase the overall system pressure range (both cut-in and cut-out).

**To decrease the pressure range:** Turn screw A counter clockwise to decrease the overall system pressure range (both cut-in and cut-out).



#### **Differential Pressure Range Adjustment**

To increase the cut-in pressure: Turn screw C clockwise to increase the differential cut in pressure.

*To decrease the cut-in pressure:* Turn screw C counterclockwise to decrease the differential cut in pressure.



Do not set the pressure switch cut-out pressure higher than the maximum factory setting. This will cause the motor to draw excessive amps and cause damage to the electrical system and motor.

#### DRIVE BELT ADJUSTMENT

Check tension of compressor drive v-belts. The first 24 hours of operation and check tension of v-belts frequently. Make adjustments as follows:

- 1.) Shut down unit.
- 2.) Disconnect unit from power supply.
- 3.) Check to be certain that all the control switches are in the off position.
- 4.) Allow unit to cool down so pump can be touched.
- 5.) Remove the belt guard from the machine.

6.) Attach a belt tension gauge to the center of the span between the motor and compressor sheaves.

- 7.) Follow the operational directions of the belt drive tension gauge.
- 8.) Scribe a mark on the deck of the unit along the edge of the motor base to be used as a

reference location.

9.) If the deflection of belt too great, then loosen the motor or engine bolts and slide the motor or engine away from the pump. If the deflection of belt too small, then loosen the motor or engine bolts and slide the motor or engine toward the pump.

- A.) Remove the Belt
- B.) Scribe a mark approximately 1/8" from the original reference mark.
- C.) Loosen the 4 screws holding the electric motor or gasoline engine.
- D.) Slide the motor or engine to the new mark.
- E.) Ensure that the pulleys are in alignment. Use a straight edge to check.
- F.) Properly tighten the 4 screws to hold the electric motor or gasoline engine in place.
- G.) Roll the belt onto motor pulley and then the pump flywheel.



Care must be taken when rolling the belt onto the pulleys, as fingers can get caught between the belt and the pulleys.

10.) Recheck the belt tension with the gauge.

#### 11.) Repeat steps 6 & 7 until the proper belt tension is achieved.

If no belt tension gauge is available, then use this figure to roughly approximate the belt drive tension. The amount of forced to be applied is approximately 8 lbs. Use a ruler to measure the deflection. This is only a temporary solution and a belt drive tension gauge should be used as soon as possible.





Drive pulleys must be properly aligned and belt drive tension must be set to specification. Improper pulley alignment and belt tension can cause motor overloading, excessive vibration and premature belt and/or bearing failure.

#### CHECKING FOR AIR LEAKS



Unit must be pressurized while performing this task.

- 1.) Start unit and allow it to come up to pressure.
- 2.) Apply a solution soapy water around all the joints, fittings and hose connections.
- 3.) Look for air bubbles.
- 4.) If air bubbles are found, shut the unit down, bleed off all the air, and allow to cool.

4.) Tighten or replace any joints, fittings or hose connections that are found to be leaking.

**CAUTION** Do not attempt to tighten or repair any joints, fittings or hoses while the unit is pressurized.

#### PREVENTIVE MAINTENANCE SCHEDULE

#### GENERAL

Preventive maintenance pays off in many ways. Avoid long serious downtimes, costly delays, and harmful effects to intricate parts of compressor. Do all repair work at your convenience without jeopardizing manufacturing and shipping schedules, and preventive maintenance will reduce the chances of industrial accidents.

To ensure efficient maintenance free life span, the Jenny compressor must be serviced and maintained by the operator and qualified maintenance personnel on a periodic and systematic basis. Preventive Maintenance Checks and Services are outlined below. By following this inspection schedule, most defects will be discovered and corrected, or avoided, before they result in serious damage.

Dirt is the most common cause of faulty operation and excessive wear. Every precaution should be taken to prevent contamination from entering the compressor. The most essential preventive measures are proper maintenance of the air cleaner element and compressor oil. Detailed preventive maintenance checks and services follows:

Procedure	Daily	Weekly	Monthly	Annually (200 Hrs.)
Check pump oil level	Х			
Oil leak inspection	Х			
Drain condensation in air tanks	Х			
Check for unusual noise/vibration	Х			
Check for air leaks	Х			
Inspect belt(s)	Х			
Inspect air filter(s). Clean or replace if necessary		Х		
Clean exterior of compressor		Х		
Check safety relief valve			Х	
Check belt adjustment			Х	
Check and tighten all bolts			Х	
Check air connections and compressor joints for leaks			Х	
Change pump and/or engine oil				Х

### NOTICE

The pump oil must be changed after the first 20 hours of operation. The will remove contaminants contained in the crankcase due to break-in.



In the presence of harsh operating conditions and environments, the oil change and air cleaner change interval should be performed on a more accelerated schedule.

#### SERVICE INFORMATION

Please have the following information available for all service calls:

Model Number:	 	
Serial Number:	 	
Date of Purchase:	 	
Place of Purchase:	 	

#### REPAIRS

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by authorized service centers or other qualified service organizations, always using identical replacement parts. For the closest warranty repair center, please contact us.

#### WARRANTY

Full One Year Warranty - Jenny Compressors are warranted for one year from date of purchase. We will repair, without charge, any defects due to faulty materials or workmanship.

For warranty repair information, call 1-888-4-A-Jenny.

This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others. This warranty gives you specific legal rights and you may have other rights which vary in certain states or provinces.

#### FREE WARNING LABEL REPLACEMENT

If your warning labels become illegible or are missing, call 1-888-4-A-Jenny for a free replacement.

Jenny Products, Inc. 850 North Pleasant Avenue Somerset, PA 15501 Ph: (814) 445-3400 Fx: (814) 445-2280 Web: www.jennycompressor.com e-mail: info@ jennycompressor.com

# Section 6

# Troubleshooting Instructions

#### TROUBLESHOOTING

The following chart lists the malfunctions that occur most commonly when operating an industrial air compressor. It gives the symptoms, their causes and the corresponding corrective actions. In some cases, the operator or maintenance personnel can perform the corrective actions, while others may require the assistance of a qualified Jenny compressor technician or dealer.

This procedure has been written assuming that the unit has been installed correctly, has been operating and functioning correctly. The voltage or pressure ratings listed within the troubleshooting tables are  $\pm$  5% unless otherwise specified. The dependent sequence of events are illustrated as they must occur and to determine at what point in the troubleshooting to begin you must know what mode of operation the malfunction is occurring. To accomplish this, the operator must read and understand the theory of operation in chapter 4. Once you can observe the unit and recognize the modes as the unit automatically switches into them, you should be very successful in determining what to do using these procedures.



This unit contains lethal voltages, hazardous temperatures, dangerous pressure and moving parts which may cause serious injury to personnel. Perform troubleshooting with extreme caution.

Troubleshooting Guide

Problem	Possible Cause	Possible Solution	
Compressor does not start or restart	Power cord not plugged in.	Plug cord into grounded outlet.	
	Motor thermal overload switch has tripped.	Turn air compressor off, wait until motor is cool, if motor is a manual reset type, then press motor thermal overload button firmly until click is heard. (Located on motor)	
	Fuse blown or circuit has tripped.	Replace fuse or reset circuit breaker. Check for proper fuse; only "Fusetron" type T fuses are acceptable. Check for low voltage conditions. Disconnect any other electrical appliances from circuit or operate air compressor on its own branch circuit.	
	Wrong gauge wire or length of extension cord.	Check chart for proper gauge wire and cord length. If possible, eliminate extension cord.	
	Defective motor, motor capacitor or pressure switch.	Contact Jenny Customer Service at 1-888-4-A-JENNY.	
	Tanks have air pressure in them.	Bleed tanks fully.	
	Engine oil too low. Low oil shut off is on.	Add engine oil.	
	Manual lock on pilot valve is in the loaded position.	Move manual lock into an in-line position.	
	Engine idle speed too low.	Increase idle speed.	
	Engine problem.	See "Taking care of unexpected problems" in engine owners manual.	
Compressor Stalls	Air compressor on unlevel surface.	Do not incline the air compressor more than 10° in any direction while running.	
	Engine idle speed too low.	Increase idle speed.	
	Engine problem.	See "Taking care of unexpected problems" in engine owners manual.	
Unit does not or is slow to come up to speed.	Lubricant viscosity too high.	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.	
	Carbon build up on top of piston.	Clean piston. Repair or replace as required.	
	Connecting rod, piston pin, or crank wrist pin bearings worn or scored.	Inspect all. Repair or replace as required.	
	Crankshaft seal worn or crankshaft scored.	Replace seal or crankshaft assembly.	

Problem	Possible Cause	Possible Solution
	Ambient temperature too low.	Relocate unit to warmer environment. Ensure Jenny Ultimate Blue Synthetic Oil is in crankcase.
	Worn cylinder finish.	Deglaze cylinder with 180 grit flex- hone
	Defective motor, motor capacitor or pressure switch.	Contact Jenny Customer Service at 1-888-4-A-JENNY.
	Air compressor is not large enough for air required.	Check the accessory air requirement. If it is higher than the CFM or pressure supply of the air compressor, you need a larger air compressor.
	Possible defective safety/relief valve.	Operate safety relief valve manu- ally by pulling on test ring. If it still leaks, replace.
	Defective gaskets.	Replace and torque head bolts to 6 - 7 ft lb.
	Fittings not tight enough or leaking.	Warning drain air before tightening: tighten fittings where air can not be heard escaping. Check joint with soap solution. Do not overtighten.
	Crankcase overfilled with oil.	Drain oil. Refill to proper level with Jenny Ultimate Blue Synthetic Oil.
	Manual lock on pilot valve is in the loaded position.	Move manual lock into an in-line position.
	Engine idle speed too low.	Increase idle speed.
	Engine problem.	See "Taking care of unexpected problems" in engine owners manual.
Air compressor not making enough air.	Clogged or dirty inlet and or discharge line filter.	Clean or replace.
	Lubricant viscosity too high	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Compressor check valve leaky, broken, carbonized or loose.	Clean or replace as required. Inspect valves.
	Carbon build up on top of piston.	Clean piston. Repair or replace as required.
	Piston rings damaged or worn (broken, rough, or scratched). Excessive end gap or side clearance. Piston rings not seated, are stuck in grooves or end gaps not staggered.	Install new rings.
	Cylinder or piston scratched, worn, or scored.	Repair or replace as required.

Problem	Possible Cause	Possible Solution
	Connecting rod, piston pin, or crank wrist pin bearings worn or scored.	Inspect all. Repair or replace as required.
	Air compressor is not large enough for air required.	Check the accessory air requirement. If it is higher than the CFM or pressure supply of the air compressor, you need a larger air compressor.
	Defective gaskets.	Replace and torque head bolts to 6 - 7 ft lb.
	Fittings not tight enough or leaking.	Warning drain air before tightening: tighten fittings where air can not be heard escaping. Check joint with soap solution. Do not overtighten.
	Hose or hose connections are to small or long.	Replace with larger hose or connectors.
	Possible defective reed valve. (Hand Carry Units)	Remove pump head and inspect valve plate and (reed) valve. Clear or replace valves as required.
Insufficient pressure at air tool or accessory	Clogged or dirty inlet and or discharge line filter.	Clean or replace.
	Lubricant viscosity too high	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Compressor check valve leaky, broken, carbonized or loose.	Clean or replace as required. Inspect valves.
	Carbon build up on top of piston.	Clean piston. Repair or replace as required.
	Piston rings damaged or worn (broken, rough, or scratched). Excessive end gap or side clearance. Piston rings not seated, are stuck in grooves or end gaps not staggered.	Install new rings.
	Cylinder or piston scratched, worn, or scored.	Repair or replace as required.
	Connecting rod, piston pin, or crank wrist pin bearings worn or scored.	Inspect all. Repair or replace as required.
	Air compressor is not large enough for air required.	Check the accessory air requirement. If it is higher than the CFM or pressure supply of the air compressor, you need a larger air compressor.
	Defective gaskets.	Replace and torque head bolts to 6 - 7 ft lb.

Problem	Possible Cause	Possible Solution
	Fittings not tight enough or leaking.	Warning drain air before tightening: tighten fittings where air can not be heard escaping. Check joint with soap solution. Do not overtighten.
	Pressure regulator knob not turned to high enough pressure or defective pressure regulator.	Adjust pressure regulator knob to proper setting or replace.
	Hose or hose connections are to small or long.	Replace with larger hose or connectors.
	Possible defective reed valve. (Hand Carry Units)	Remove pump head and inspect valve plate and (reed) valve. Clear or replace valves as required.
High oil consumption.	Lubricant viscosity too low	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Extremely light duty cycles.	Run unit for longer duty cycles
	Piston rings damaged or worn (broken, rough, or scratched). Excessive end gap or side clearance. Piston rings not seated, are stuck in grooves or end gaps not staggered.	Install new rings.
	Cylinder or piston scratched, worn, or scored.	Repair or replace as required.
	Connecting rod, piston pin, or crank wrist pin bearings worn or scored.	Inspect all. Repair or replace as required.
	Crankshaft seal worn or crankshaft scored.	Replace seal or crankshaft assemby.
	Worn cylinder finish.	Deglaze cylinder with 180 grit flex- hone.
	Air compressor on unlevel surface.	Do not incline the air compressor more than 10° in any direction while running.
	Plugged oil crankcase vent.	Clean.
Unit runs excessively hot.	Clogged or dirty inlet and or discharge line filter.	Clean or replace.
	Lubricant viscosity too low	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Lubricant level too low	Add Jenny Ultimate Blue Synthetic Oil to crankcase to proper level. Check for bearing damage.
	Detergent type lubricant being used.	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Cylinder or piston scratched, worn, or scored.	Repair or replace as required.

Problem	Possible Cause	Possible Solution
	Connecting rod, piston pin, or crank wrist pin bearings worn or scored.	Inspect all. Repair or replace as required.
	Crankshaft seal worn or crankshaft scored.	Replace seal or crankshaft assembly.
	Extremely dusty atmosphere.	Install more effective filtration or relocate unit.
	Worn cylinder finish.	Deglaze cylinder with 180 grit flex- hone.
	Wrong gauge wire or length of extension cord.	Check chart for proper gauge wire and cord length. If possible, eliminate extension cord.
	Air compressor on unlevel surface.	Do not incline the air compressor more than 10° in any direction while running.
Excessive starting and stopping	Compressor check valve leaky, broken, carbonized or loose.	Clean or replace as required. Inspect valves.
	Defective motor, motor capacitor or pressure switch.	Contact Jenny Customer Service at 1-888-4-A-JENNY.
	Air compressor is not large enough for air required.	Check the accessory air requirement. If it is higher than the CFM or pressure supply of the air compressor, you need a larger air compressor.
	Defective gaskets.	Replace and torque head bolts to 6 - 7 ft lb.
	Fittings not tight enough or leaking.	Warning drain air before tightening: tighten fittings where air can not be heard escaping. Check joint with soap solution. Do not overtighten.
	Possible defective reed valve. (Hand Carry Units)	Remove pump head and inspect valve plate and (reed) valve. Clear or replace valves as required.
Excessive noise during operation	Lubricant viscosity too low	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Lubricant viscosity too high.	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Lubricant level too low	Add Jenny Ultimate Blue Synthetic Oil to crankcase to proper level. Check for bearing damage.
	Detergent type lubricant being used.	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Carbon build up on top of piston.	Clean piston. Repair or replace as required.

Problem	Possible Cause	Possible Solution
	Piston rings damaged or worn (broken, rough, or scratched). Excessive end gap or side clearance. Piston rings not seated, are stuck in grooves or end gaps not staggered.	Install new rings.
	Cylinder or piston scratched, worn, or scored.	Repair or replace as required.
	Connecting rod, piston pin, or crank wrist pin bearings worn or scored.	Inspect all. Repair or replace as required.
	Crankshaft seal worn or crankshaft scored.	Replace seal or crankshaft assembly.
	Worn cylinder finish.	Deglaze cylinder with 180 grit flex- hone.
	Fittings not tight enough or leaking.	Warning drain air before tightening: tighten fittings where air can not be heard escaping. Check joint with soap solution. Do not overtighten.
	Possible defective reed valve. (Hand Carry Units)	Remove pump head and inspect valve plate and (reed) valve. Clear or replace valves as required.
	Air compressor on unlevel surface.	Do not incline the air compressor more than 10° in any direction while running.
	Crankcase overfilled with oil.	Drain oil. Refill to proper level with Jenny Ultimate Blue Synthetic Oil.
Moisture in discharge air.	Condensation in air tank caused by high level of atmospheric humidity.	Drain air tank after every use. Drain air tank more often in humid weather and use an air line filter.
	Unit located in damp or humid location.	Relocate unit.
Moisture in crankcase or "milky" appearance in petroleum lubricant or rusting in cylinders.	Extremely light duty cycles.	Run unit for longer duty cycles
	Compressor check valve leaky, broken, carbonized or loose.	Clean or replace as required. Inspect valves.
	Piston rings damaged or worn (broken, rough, or scratched). Excessive end gap or side clearance. Piston rings not seated, are stuck in grooves or end gaps not staggered.	Install new rings.
	Cylinder or piston scratched, worn, or scored.	Repair or replace as required.
	Worn cylinder finish.	Deglaze cylinder with 180 grit flex- hone.

Problem	Possible Cause	Possible Solution
	Fittings not tight enough or leaking.	Warning drain air before tightening: tighten fittings where air can not be heard escaping. Check joint with soap solution. Do not overtighten.
	Defective or rusted air tank	Air tank must be replaced. Do not attempt to repair air tank
	Water in oil due to condensation.	Drain oil. Refill to proper level with Jenny Ultimate Blue Synthetic Oil.
	Unit located in damp or humid location.	Relocate unit.
Oil in discharge air (oil pumping)	Lubricant viscosity too low	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Extremely light duty cycles.	Run unit for longer duty cycles
	Carbon build up on top of piston	Clean piston. Repair or replace as required.
	Piston rings damaged or worn (broken, rough, or scratched). Excessive end gap or side clearance. Piston rings not seated, are stuck in grooves or end gaps not staggered.	Install new rings.
	Cylinder or piston scratched, worn, or scored.	Repair or replace as required.
	Connecting rod, piston pin, or crank wrist pin bearings worn or scored.	Inspect all. Repair or replace as required.
	Worn cylinder finish.	Deglaze cylinder with 180 grit flex- hone.
	Crankcase overfilled with oil.	Drain oil. Refill to proper level with Jenny Ultimate Blue Synthetic Oil.
	Plugged oil crankcase vent.	Clean.
Oil leaking from shaft seal	Crankshaft seal worn or crankshaft scored.	Replace seal or crankshaft assembly.
Safety relief valve "pops" or reliefs pressure.	Possible defective safety/relief valve	Operate safety relief valve manually by pulling on test ring. If it still leaks, replace.
	Excessive air tank pressure	Adjust pilot valve or pressure switch. If problem still exists replace pilot valve or pressure switch.
Air leaks at pump.	Defective gaskets.	Replace and torque head bolts to 6 - 7 ft lb.
	Fittings not tight enough or leaking.	Warning drain air before tightening: tighten fittings where air can not be heard escaping. Check joint with soap solution. Do not overtighten.

Problem	Possible Cause	Possible Solution
Air leaks at fittings.	Fittings not tight enough or leaking.	Warning drain air before tightening: tighten fittings where air can not be heard escaping. Check joint with soap solution. Do not overtighten.
Air leaks from tank.	Defective or rusted air tank.	Air tank must be replaced. Do not attempt to repair air tank
Abnormal piston ring or cylinder wear.	Lubricant viscosity too low	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Lubricant level too low	Add Jenny Ultimate Blue Synthetic Oil to crankcase to proper level. Check for bearing damage.
	Detergent type lubricant being used.	Drain existing lubricant and refill with Jenny Ultimate Blue Synthetic lubricant.
	Extremely light duty cycles.	Run unit for longer duty cycles
	Piston rings damaged or worn (broken, rough, or scratched). Excessive end gap or side clearance. Piston rings not seated, are stuck in grooves or end gaps not staggered.	Install new rings.
	Cylinder or piston scratched, worn, or scored.	Repair or replace as required.
	Connecting rod, piston pin, or crank wrist pin bearings worn or scored.	Inspect all. Repair or replace as required.
	Extremely dusty atmosphere.	Install more effective filtration or relocate unit