Operating Instructions

EMAX designs and manufactures products for safe operation. However, operators and maintenance persons are responsible for maintaining safety. All safety precautions are included to provide a guideline for minimizing the possibility of accidents and property damage while equipment is in operation. **Keep these instructions for reference.**



Stationary Air Compressor Model # : HI05V08Y1 / HS05V08Y1 UPC: 815002014265 / 815002014272

EMAX Compressor

1000 Cass Dr., Clayton, OH 45315 USA 866.294.4153 info@emaxcompressor.com Fax: (937) 540-1157

A WARNING READ INSTRUCTION MANUAL BEFORE OPERATING.

In order to receive maximum performance and long life from your compressor, the following instructions should be read carefully and all points regarding installation and operation of the unit should be noted and observed. Carefully reading this manual before connecting anything to the motor or compressor is necessary for optimum trouble-free operation.

Contents

| Model Specifications | 2 |
|-------------------------------|----|
| Inspection | 3 |
| Description | 3 |
| Get to know your compressor | .3 |
| Safety Information | 4 |
| Basic Guidelines | 5 |
| Breathable Air | .5 |
| Pressurized Components | .5 |
| Personal Protective Equipment | .5 |
| Installation | 6 |
| Area | .6 |
| Electrical Safety | .6 |
| Operation | 7 |
| Safety Rules | .7 |
| Air Tool Cautions | .7 |
| Getting Started | 8 |
| Power Source Connection | 8 |
| Power Requirements | .8 |
| Grounding Instructions | .8 |
| Assembly | 8 |
| Operation | 8 |
| | |

Model Specifications

- Model: HI05V08Y1 HS05V08Y1 (with noise suppression)
- Motor: 230 V (+ or 10%) ~ 60 Hz, Single Phase
- No-load motor speed: 1750 rpm
- Power: 5 HP
- 2 stage, 3 cylinder, cast-iron piston pump
- Max. pressure: 155 psi
- No-load pump speed: 790 rpm
- Pump oil capacity: 2 quarts (1.9 liters)
- Air delivery: 18 cfm @ 100 psi 16.5 cfm @ 155 psi
- Tank size: 80 gal. (302.8 L)
- Tank outlet: 3/4"
- Weight- HI05V08Y1: 485 lb. (220 kg) HS05V08Y1: 558 lb. (253 kg)
- Complies with CCR462 (L)(2).

| Before operating your air compressor:8 |
|--|
| General Overview |
| Installation and Location9 |
| Air Intake9 |
| Pipe Connection9 |
| Starting 10 |
| Pressure Switch10 |
| Adjusting the air pressure10 |
| Shutting off your compressor |
| Cold Weather Starting10 |
| Maintenance 10 |
| Service10 |
| Daily |
| Weekly |
| Monthly |
| Troubleshooting 11 |
| Slow Pumping Or Insufficient Pressure 11 |
| Overheating 12 |
| Storago 12 |
| Stol age |
| Troubleshooting Chart 13 |
| Hulk Warranty Statement 14 |

Inspection

- Inspect compressor prior to any use.
- Check for external damage that might have occurred during transit. Check for possible damage from transit and test the pulley by turning it freely with your hands. Be careful of moving parts.
- Report any damage to delivery carrier immediately.

A WARNING Do not operate unit if damaged during shipping, handling or use. Damage may result

in bursting and cause injury or property damage.

Description



Get to know your compressor Please refer to fig 1 and 2.

1.TANK DRAIN VALVE

(located on bottom of tank) - The tank drain valve can be opened to allow moisture and compressed air to be released from the air tank.

A WARNING The tank drain valve should always be opened slowly to avoid damage to equipment and possible injury.

2.AIR TANK -

eighty gallon (302.8 liters) tank

3.**FOOT**

Allows fastening to the floor, reduces compressor tip danger, vibration and movment.

A WARNING 1/4" thick vibration isolator must be used.

4. SAFETY VALVE -The safety pressure relief valve automatically relieves pressure from the air tank in the event of excessive pressure build up. The safety valve is preset at factory. Do not attempt to make any adjustments to the safety valve. Periodically pull the ring on the safety valve end to check that it is working properly.

- 5.RESERVOIR AIR PRESSURE GAUGE -Indicates pressure of compressed air built up in the tank.
- 6.PRESSURE SWITCH -

Turns the air compressor on and off and will start the compressor pump automatically when tank pressure is below the factory-set minimum. The pressure switch continues to monitor the pressure and turns the pump off when the pressure reaches the factory-set maximum.

NOTICE Always make sure that the compressor power is in the OFF position before performing any maintenance or plugging the compressor into a power supply.

7. AIR FILTERS -

Ensures the air being pressurized is free of contaminants and reduces the amount of noise the pump generates. Air filters are mounted in Whisper 100 (19, fig.2),

on units that have the Whisper Silencer. 8.PUMP OUTPUT AIR TUBE -

Conducts the compressed air to the tank as it leaves the compressor pump.

- 9.SIGHT GAUGE -Allows easy viewing of your air compressor pump's oil level.
- **10.PUMP CYLINDER -**Where the air is pressurized.
- **11. MOTOR**
- 12.CONNECTION BOX -

A place to make connection to electrical power for the air compressor.

- 13.MOTOR WIRING BOX AND CAPACITORS-Vary the connection to electrical power for the air compressor.
- **14.BELT AND PULLEY GUARD**
- **15.DRIVEN PUMP PULLEY / FAN**
- **16.DRIVE PULLEY**
- 17. TANK (PRESSURE VESSEL) ASME/CRN CERTIFICATION PLATE
- **18.MOUNTING BRACKET FOR "WHISPER" NOISE** SUPPRESSION SYSTEM.
- 19. "WHISPER" NOISE SUPPRESSION SYSTEM mounted (HS05V080Y1- fig 2). Houses air pre-filters and compressor air filters, which require routine maintenance.



20.TANK ACCESS PLUG 21.TANK OUTLET WITH BALL VALVE SHUT-OFF

Safety Information

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

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

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

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

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



Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment.

CALIFORNIA PROPOSITION 65

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

Basic Guidelines

- Allow only trained, authorized persons who have read and understood these operating instructions to use this compressor. Failure to follow the instructions, procedures and safety precautions in this manual can result in accidents and injuries.
- 2. NEVER start or operate the compressor under unsafe conditions. Tag the compressor, disconnect and lock out all power to it to prevent accidental start-up until the condition is corrected.
- 3. Install, use and operate the compressor only in full compliance with all pertinent OSHA regulations and all applicable Federal, State & Local Codes, standards and regulations.
- 4. NEVER modify the compressor and/or controls in any way.
- 5. Keep a first aid kit in a convenient place. Seek medical assistance promptly in case of injury. Avoid infection by caring for any small cuts and burns promptly.

Breathable Air

 This compressor/pump is NOT equipped and should NOT be used "as is" to supply breathing quality air. For any application of air for human consumption, you must fit the air compressor/pump with suitable in-line safety and alarm equipment. This additional equipment is necessary to properly filter and purify the air to meet minimal specifications for Grade D breathing as described in Compressed Gas Association Commodity Specification G 7.1 – 1966, OSHA 29 CFR 1910. 134, and/or Canadian Standards Associations (CSA)



Death or serious injury can result from inhaling compressed air without using proper safety equipment. See OSHA standards on safety equipment.

 DO NOT use air line anti-icer systems in air lines supplying respirators or other equipment used to produce breathable air. DO NOT discharge air from these systems in unventilated or other confined areas. In the event the compressor is used for the purpose of breathing air application and proper in-line safety and alarm equipment is not simultaneously used, existing warranties are void, and EMAX Air Force Technology disclaims any liability whatsoever for any loss, personal injury or damage.

Pressurized Components

A DANGER *RISK OF BURSTING* – do not adjust regulator to result in output pressure greater than marked maximum pressure of attachment. If a regulator has not been installed. Use only attachments rated at 200 psi or higher. Do not weld on or repair tank – replace. Do not operate without proper asme safety valve in place.

 This equipment is supplied with a ASME designed pressure vessel protected by an ASME rated relief valve. Pull the ring before each use to make sure the valve is functional. DO NOT attempt to open valve while the machine is under pressure.

2. Improper maintenance could lead to the air tank bursting or exploding.



3. Drain air tank after each use or every day to prevent corrosion due to moisture buildup in the air tank. Rust can weaken the air tank and cause leaks or bursting. If rust is detected, replace tank immediately.

- 4. Do not attempt repairs to the air tank by welding, drilling or other modifications. Such modifications may weaken the air tank and cause a hazardous condition.
- 5. If the air tank develops a leak, replace it immediately. Never repair, weld or make modifications to the air tank or its attachments.
- 6. Do not make adjustments to the factory-set pressures.
- 7. Never exceed attachments' manufacturer's maximum-allowable pressure rating.
- 8. Do not use plastic pipe or lead tin solder joints for a discharge line as the may not withstand the high heat developed during air compression.

Personal Protective Equipment

Be sure all operators and others around the compressor and its controls comply with all applicable OSHA, Federal, State and local regulations, codes and standards relating to personal protective equipment. This includes respiratory protective equipment, protection for the extremities, protective clothing, protective shields and barriers, electrical protective equipment, and personal hearing protective equipment.

1. Eye protection should be worn at all times when operating this tool. Use ANSI approved

safety glasses. Everyday eyeglasses are NOT safety glasses. Dust mask, non-skid safety shoes, hard hat, or hearing protection should be used in appropriate conditions.

2. Wear proper apparel. Loose clothing, gloves, neckties, rings, bracelets, or other jewelry may present a potential hazard when operating this tool. Please keep all apparel clear of the tool.

Installation

Area

- Install compressor in a clean, dry and well-lit area. Be sure installation area can maintain a temperature range between 35° - 110° F (2° -43° C).
- 2. Do not use below garage floor or grade level

▲ CAUTION If ambient temperature drops below 32°F (0° C), be sure to protect safety/relief valves and drain valves from freezing. NEVER operate compressor with temperatures below 15°F (-9.5° C) or above 125°F (52° C).

- Allow sufficient space around compressor for maintenance access and adequate airflow. Mount unit leaving a minimum of 15 inches (38 cm) of clearance.
- 4. Use 1/4" rubber shims to level compressor if installation area is not flat. This will avoid excessive vibration and premature pump wear.

A DANGER DO NOT use shims thicker than

1/4". Thicker shims can cause

tank damage.

A DANGER DO NOT install compressor in boiler room, paint spray room, or area where sandblasting occurs. Make sure inlet air is away from exhaust fumes or other toxic, noxious or corrosive fumes or substances.

A DANGER *RISK OF FIRE OR EXPLOSION* – do not spray combustible/ flammable liquid in a confined area. spray area must be well ventilated. do not smoke while spraying or spray where spark or flame is present. arcing parts – keep compressor at least 20 feet away from spraying area and all explosive vapors.

- 5. If acid is used in operating environment or air is dust laden, pipe intake to outside, fresh air. Increase pipe size by one size for every 20 feet of run. Be sure to install protective hood around intake filter.
- 6. Insulate cold water or other low temperature pipes that pass overhead to avoid condensation dripping on compressor which could cause rust and/or motor shorting.

Electrical Safety

A DANGER Be sure only trained and



authorized personnel maintain this compressor in accordance with all applicable federal, state and local codes, standards and regulations. Follow all NEC

(National Electric Code) standards especially those concerning equipment grounding conductors.

- 1. Follow all NEC and local codes for electrical wiring. Allow only authorized Polar Air service person or certified electrician to install electrical components.
- Put unit on dedicated circuit and make sure no other electrical equipment is wired into it. Failure to wire unit on independent circuit can cause circuit overload and/or imbalance in motor phasing. Install proper No Fuse Breaker (NFB) according to kW output of compressor.
- 3. Ensure incoming service has adequate ampere rating.
- 4. Ensure supply line has the same electrical characteristics (voltage, cycles and phase) as the electric motor.
- 5. Refer to amp load information on the specifications label and use correctly sized wiring. Be sure to consider distance between power supply and machine.
- 6. Install surge protection device between power supply and compressor motor.
- 7. Make sure to install properly sized breakers and fuses.
- 8. The unit must be properly grounded. DO NOT connect ground wire to air or cooling lines.
- 9. If the tool is equipped with three-pin plug, it should be plugged into a three-pin electrical socket. Never remove the ground pin.
- 10. Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.
- To reduce the risk of electrical shock or injury, do not expose tool to moisture. Don't use this tool in damp or wet locations. Keep out of rain.

12. Do not abuse cord.

Never use the cord to carry tools or pull the plug from an outlet. Keep cord away from heat, sharp edges or moving parts. Check for damage and replace damaged cords immediately before connecting to power supply. Damaged cords increase the risk of electric shock.

- 13. Always disconnect the tool from power source before making any adjustments, storing, servicing, or changing accessories. Such preventative safety measures reduce the risk of starting the tool accidentally.
- 14. Keep away from flammables. Do not attempt to operate this tool near flammable materials or combustibles. Failure to comply may cause serious injury or death.

Operation

Safety Rules

1. Make sure all operators receive product training, read and understand all instructions.



poisonous and noxious materials away from operating area. Make sure there are no oily rags, trash, leaves, litter or other combustible materials in

operating area. Keep suitable, fully charged fire extinguishers nearby when servicing and operating the compressor.

- 2. NEVER allow modifications to compressor structure or controls.
- 3. Keep all ignition sources away from exposed electrical parts.
- 4. Keep all persons clear of compressor during start-up and operation.
- 5. NEVER operate the compressor with the fan, coupling or other guards removed.
- 6. DO NOT engage in horseplay with air hoses as death or serious injury may result.
- 7. Make sure to provide adequate ventilation while operating the compressor. If combustible substances are spilled, clean up immediately.
- 8. When checking or when refilling air line antiicer systems with antifreeze compound, shut off compressor and allow it to cool. Keep sparks, flames and other ignition sources away and DO NOT permit smoking in the vicinity.
- 9. Stop compressor and disconnect power if a hazardous condition arises.
- 10. Wear snug fitting clothing and confine long hair when around compressor. Keep all body parts and clothing away from couplings, flywheel and other moving parts of the equipment.

A WARNING **RISK OF INJURY** – do not direct air stream at body. Use eye protection. Compressor starts automatically. Moving parts. Do not touch. Keep guards in place. Compressor does not supply breathable air.



discharge opening of hoses or tools or other points of compressed air discharge. If the machine is installed in an enclosed area, be sure to vent

Keep all persons away from the

the relief valve outside of the structure or to an unoccupied area.

Always make sure main power is A WARNING



off before touching moving parts of compressor.

- 11. Never exceed the pressure rating of any component in system.
- 12. Protect material and air lines from damage or puncture. Keep hose and power cable away from sharp objects, moisture, chemicals, oil, etc.
- 13. Check condition of hoses before each use. Do not use a damaged hose. If hose is damaged, replace immediately.
- 14. Read, understand and comply with all warning labels on unit.
- 15. Drain tank of moisture after each use. If compressor is not to be used for extended periods of time. leave tank drain valve open to allow moisture to completely drain from tank.
- 16. Do not tamper with Safety Valve. The Safety Valve is factory set for your model air compressor. Any user adjustments to Safety Valve will automatically void warranty.
- 17.Air compressors get hot while in operation.



NEVER touch the motor, the discharge tubing or compressor pump while in operation.

- 18. The compressor turns itself on and off automatically while the pressure switch is turned on.
- 19. The air pressure switch is set at the factory for optimum performance of your equipment. Never attempt to bypass or remove this switch as serious damage to equipment or personal injury could result from excessive air pressure.
- 20. Compressed air from the unit may contain carbon monoxide. Air produced is not suitable for breathing purposes.
- 21. Always use a respirator when spraying paint or chemicals.

Air Tool Cautions

1. DO NOT use air tools that are rated below the maximum rating of the compressor. Select air tools, air hoses, pipes, valves, filters and other fittings accordingly. DO NOT exceed manufacturer's rated safe operating pressures for these items.

- 2. Make sure all hose connections are adequately secured to prevent tools or hose ends from being accidentally disconnected.
- 3. Remove adjusting keys or wrenches before turning the tool on. A wrench or key that is left attached to a moving part of the tool may result in personal injury.
- 4. Keep work area clean and well lit. Cluttered or dark work areas invite accidents.
- 5. Keep children away. All children should be kept away from the work area. Never let a child handle a tool without strict adult supervision.
- Store idle tools out of the reach of children and untrained persons. Tools may be dangerous in the hands of untrained users.
- Do not operate any tool if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to operate.
- Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it was designed.
- Do not use the tool if the switch does not turn it on and off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- 10. Check for damage.

Check your tool regularly. If part of the tool is damaged it should be carefully inspected to make sure that it can perform its' intended function correctly. If in doubt, the part should be repaired. Refer all servicing to a qualified technician. Consult your dealer for advice.

 Maintain tools with care. Keep tools sharp and clean. Properly maintained tools, with sharp cutting edges, are less likely to bind and are easier to control.

Getting Started

Unpack your compressor.

Before operating your tool, check the contents of the box to make sure you have everything you will need. Items included in the box:

- Air Compressor
- Owner's Manual

NOTICE Save packaging in case you need to return the compressor for servicing or repair.

Power Source Connection

Power Requirements

This equipment is designed to operate on a properly grounded 230 volt, 60 Hz, single phase alternating

current (AC) power source. If connected to a circuit protected by fuses, use time-delay fuse marked "D".

Installation should be executed by a licensed electrician who should verify the ACTUAL VOLTAGE of the circuit into which the tool will be connected and that it is properly grounded.

A 230 volt motor will not work sufficiently on a nominal 208 volt system. Even if the actual voltage is up to 208 volts, the 10-12 volt drop during start up (this is an average, but not a high figure for commercial buildings) may cause the motor to labor and blow fuses or heater elements. Do not accept the nominal figure for line voltage, but rather measure it with a voltmeter during a period of maximum power demand.

The use of the proper circuit size can eliminate nuisance circuit breaker tripping when using your tool. Improper performance, and/or, damage to the tool will result if operated on inadequate, or excessive power.

Wiring should be installed by a licensed electrician who is familiar with requirements of the National Board of Fire Underwriters and of the local inspectors is recommended. Consult your local electrical contractor regarding electric codes and recommended wire sizes.

A CAUTION DO NOT OPERATE THIS TOOL if the ACTUAL power source voltage is less than 215 volts AC or greater than 230 volts AC.

Grounding Instructions

- In the event of an electrical malfunction or short circuit, grounding reduces the risk of electric shock. The motor of this machine is wired for 230 V single phase operation and must be hard-wired into your electrical panel.
- All electrical connections must be tightened before starting. This includes connections at the Magnetic starter. This shall include all factory connections.
- Repeat: Check **all** electrical connections before startup.

WARNING *RISK OF ELECTRICAL SHOCK – hazardous voltage: disconnect from power source before servicing. Compressor must be grounded. Do not use grounding adaptors. Do not expose to rain. Store indoors.*

Assembly

NOTICE Before performing any assembly or maintenance, make sure compressor

is turned off and unplugged from the power supply.

Place compressor on a level surface. It is top-heavy and must be fastened securely to the floor.

Operation

Before operating your air compressor:

 Inspect for damage before using the air compressor, make sure the air tank is not damaged, inspect all parts for damage, and check that all pipes and hoses are firmly connected.

- Do not use the air compressor if any damage is found. If damaged, have an authorized service center inspect and test the air compressor to ensure that is working properly.
- Pull the ring on the safety valve before each use to make sure the valve is functional.
- Depending on the CFM draw of the tools being operated, your new air compressor can be used for operating paint sprayers, air tools, grease guns, airbrushes, caulking guns, abrasive blasters, tire & plastic toy inflation, spraying weed killer and insecticides, etc. Proper adjustment of the air pressure regulator is necessary for all of these operations. Refer to the air pressure specifications provided with the tool you are using.

General Overview

Installation and Location

- Locate the compressor in a clean, dry and well ventilated area. In cold climates, the compressor should be installed in a heated building. Compressor should be located in a temperature-controlled area between 32° and 95° fahrenheit (0° and 35°C).
- Insulate cold water or other low temperature pipes that pass overhead to avoid possible collection and dripping of condensate onto the compressor and motor that could cause rust and/or motor shorting.
- Do not install the compressor in a boiler room, paint spray room, or area where sandblasting occurs. If acid or dust is in the air where the compressor is operating, the compressor intake should be piped to the outside. This intake pipe should be increased one pipe size for every twenty (20) feet of run and the intake filters should be installed at the end of the pipes with a hood to protect them from the elements. Special size filters are required for pipe away.
- If the compressor has to be located where the motor will be exposed to appreciable quantities of water, oil, dirt, acid, or alkaline fumes, the motor must be of special construction to avoid rapid deterioration; i.e. TEFC
- Place the compressor on a firm, level surface. Unless the base is exactly level, shims will probably be required. Any space between base and foot should be shimmed rather than drawing the foot down, thus placing strain on the unit. When unit is properly shimmed, vibration will be at a minimum.

NOTICE Tank feet should be placed on

vibration isolator pads (1/4" thick or less) available through your dealer. Anchor bolts should be gently snug, but not tight, to allow for vibration. Remember, the bolt is only a guide to hold the compressor in place. Do not over tighten the legs of the tank against the pads...it will damage your tank.



A CAUTION Do not store tank on dirt or on an uneven surface. Over time, the tank will tilt causing pump failure from no lubrication.

- Allow sufficient space around the compressor so that it is accessible from all sides for maintenance. Mount the unit with the pulley towards the wall at least 18 inches (45 cm) between pulley & wall.
- The compressor should be located 12 to 18 inches (30 to 45 cm) from walls or any other obstruction which would interfere with airflow. The compressor is designed with heat dissipation fins which allow for proper cooling. Keep the fins (and all other parts which collect dust or dirt) clean. A clean compressor runs cooler and provides longer service. Do not place rags, containers or other material on top of the compressor.

Air Intake

The compressor is equipped with an intake filter that requires no piping. If it is necessary to pipe the intake to the outdoors, see the section above, "Installation and Location".

Pipe Connection

A flexible connector should be used between the compressor tank and the building air system piping or connection to the after cooler or other similar equipment in order to minimize noise, vibration, vibration damage and wear and tear.

A CAUTION Never install a shut-off valve (e.g. glove or gate valve) between the compressor discharge opening and the receiver unless a safety valve is installed in the line between this valve and the compressor.

▲ CAUTION Never operate the pump at a pressure or a speed in excess of those recommended by the factory.

NOTICE Use only air hoses rated for use with 155 psi air pressure or higher.

Starting

• Check oil level before starting. The oil should be in the center of the sight glass.



- Turn the compressor over a few revolutions by hand to make sure that everything is free.
- Check belt tension. (should be ½" of play).



- Remove rags, tools, and any other objects from the vicinity of the compressor. Never put hands on the belts of an idle unit unless you are sure the main motor switch is off. Note the direction of the arrow stated on the belt guard and be sure rotation is the same direction when running. Correct direction is counter-clockwise when standing facing the flywheel. Air should be drawn through the intercooler onto the cylinders for maximum cooling.
- Drain Valve: Make sure the tank drainage valve is closed and not in the open position.

Pressure Switch

- Ensure that the power supply you are going to use is operating normally.
- Turn the power on.
- On the reservoir pressure gauge, you can watch pressure build in the tank until the pump stops at the factory-set pressure, about 150 psi.
- This first time running your compressor and periodically thereafter, check for air leaks. If the gauge indicates pressure is going down in the tank or you hear leakage, you could apply

soapy water to all joints in the air transport piping. Tighten these joints if bubbles form.

Adjusting the air pressure

Use an air pressure regulator (not supplied). This regulator adjusts the air pressure supplied to the piping system.

- To increase or decrease air pressure, turn air regulator knob in the direction indicated by the manufacturer.
- Use an outlet pressure gauge (not supplied) mounted downstream from the regulator to see the resulting pressure.

Shutting off your compressor

- 1. Move the power switch to the OFF position (fig 8.0).
- 2. Disconnect the compressor from the electical power.
- 3. If not draining the tank, reduce air pressure through the air hose.
- 4. Drain the tank by slowly opening the drain valve. Place a catch basin under the valve to protect the surface from water damage.

Cold Weather Starting

Temperatures below freezing (32 °F / 0 °C) cause the metal parts of your air compressor to contract and that makes starting more difficult. To assist the air compressor in starting in cold weather, follow these tips:

- 1. Try to keep the air compressor stored in temperatures above 32 °F (0 °C).
- 2. Open the air tank drain valve and release all air pressure from the air tank before attempting to start in cold weather. (After air is released from air tank, close drain valve.)
- 3. Pull the ring on the safety valve before each use to make sure the valve is functional.

Maintenance

Service

- All units are shipped with break-in oil and must be changed after the first 50 hours to insure gasket seating.
- Thereafter, oil should be changed every 3 months or 1000 hours; whichever occurs first.
- Always maintain proper oil level in unit. If the unit runs out of oil due to neglect the warranty will void.
- Use only EMAX approved oils in your compressor, or your warranty is void.

A WARNING DO NOT use automotive-type oil.

Oil level should be halfway level in the sight glass when unit is off.

• If oil is milky an oil change will be required.

Daily

- Before each use,
 - 1. check for any unusual noise or vibration.
 - 2. be sure all nuts and bolts are tight.
- After each use, drain condensation from the air tank.

Weekly

• Inspect air filters (fig.6) weekly and clean or change as needed.



• For HS05V080Y15 compressors, with the "Whisper 100" Noise Suppression System mounted (fig.7), to access and replace silencer filter elements:



- 1. Remove thumb screws from front of Silencer
- 2. Remove Silencer access panel
- 3. Remove filter wing nuts
- 4. Remove filter covers
- 5. Remove filter elements
- 6. Clean or change as needed.

Monthly

 Inspect air system for leaks by applying soapy water to all joints. Tighten these joints if leaks are discovered.

Troubleshooting

Always inspect the compressor before use, and make sure it is in good working condition. Make sure all air vents are clear. Check the power cable to make sure it is intact and free from cracks, bare wires etc. Avoid using solvents when cleaning plastic parts, most plastics are susceptible to damage from the various types of commercial solvents.

Belt Adjustment

- Always pull the motor disconnect switch before working on the belts so the motor cannot start up unexpectedly.
- When belt tension is adjusted properly, the belts can be depressed at a point midway between the motor pulley and the flywheel approximately one half inch. Loose belts will slip on the motor pulley and cause excessive heating and wear. A belt that is too tight will overload the bearings.
- Adjustments can be made by sliding the motor along its base.



 When installing new belts, it is necessary that the motor bolts be loosened and the motor moved toward the compressor. The new belts can be installed without damage or strain. Over time belts stretch, and it is recommended that all belts be changed at the same time.

Slow Pumping Or Insufficient Pressure

Can be caused by:

- 1. Clogged inlet filter (disassemble and clean thoroughly).
- 2. Leaks in air lines, valves, fittings, etc. (Locate by using soapy water if necessary; replace or tighten threaded parts).
- 3. Compressor too small for equipment application. Check air requirements vs. compressor capacity and consult dealer.
- 4. Leaking head valves (remove hold-down covers than remove valves for inspection. Repair or replace faulty valves).
- 5. If the power network in the building is 208 volts, order a 208 volt motor. If the starting voltage is much less the 90% of the motor nameplate voltage, the motor cannot be expected to start and the interior building wiring must be corrected.

Overheating

Compression of air generates heat, much of which is dissipated as air passes over the intercooler and/or after cooler.

- Overheating can be caused by:
- 1. Pump running backwards (reverse direction). Proper rotation is counter-clockwise when facing the flywheel.
- 2. One or more head valves are failing to seat properly.
- 3. Blown cylinder head gasket. Restriction in head, intercooler, or check valve.
- 4. Lack of oil (check oil level).
- 5. Dirt in intercooler fins or cylinder fins-(blow out with air).
- 6. Poor ventilation and ambient temperature is too high where the compressor is stored.

Storage

When storing your compressor:

- 1. Be sure the unit is turned OFF.
- 2. Remove it from power source.
- 3. Rotate the regulator to set the outlet pressure to zero.
- 4. Release air pressure from all hoses and air tank(s).
- 5. Drain all moisture from air tank(s).
- 6. Fully close drain valve(s).
- 7. Protect electrical cabling and air hoses from damage (such as being stepped on or driven over). Wrap all cords and hoses loosely around the (cooled) air compressor.
- 8. Place air compressor in a cool, dry, safe, and indoor location.

Trouble **Possible Cause Corrective Action** Compressor will not start 1. Blown fuse or circuit breaker 1. Replace or reset fuse/circuit breaker tripped 2. Loose electrical connections 2. Check wiring connnections 1. Restricted air filter 1. Replace air filter Low pressure 2. Defective check valve 2. Replace check valve 3. Air leak in safety valve 3. Check valve by pulling on ring. If condition persists, replace valve Replace pressure switch Safety valve releases Defective pressure switch Pressure in tank falls 1. Air leaks at joints 1. Allow the compressor to build pressure in the tank, to the max pressure if possible. Spray or brush soapy water on all air connections and look for bubbles. Tighten leaky connections. Do not over-tighten. 2. If the problem continues, contact customer support for further advice. Unloader valve leaks when Unloader valve seal defective Allow air in the air tank out until all pump is not running pressure is released. Remove the unloader valve plug and clean the valve seal. If damaged, replace seal and re-install. Compressor stopped and will 1. Thermal overload protector has 1. Check that the main supplied not re-start engaged due to motor overheatvoltage corresponds to the compressor specifications. An inadequate ing extension cord (too thin or too long) can cause the motor to overheat due to voltage drop. Excessive use (over 1 hour continuous) can cause motor overheating. Allow the motor to cool down. 2. Motor windings burn-out Contact customer support Motor does not start and Capacitor burn-out Contact customer support makes a humming sound Motor does not start or starts Low voltage electrical supply to Check that the main supplied voltage corresponds to the compressor specislowly motor fications. An inadequate extension cord (too thin or too long) can cause the motor to overheat due to voltage drop. Check power quality at outlet Stop the compressor and contact cus-Compressor runs noisily and Head gasket or reed valve dammetallic sounds are heard aged. tomer support Compressor will not come to max pressure Compressor doesn't provide 1. Tank has reduced capacity due 1. Open drain valve to release water as much air as when new to water retention and/or cuts off after a much 2. Pressure switch is out of adjust-2. Contact customer support shorter time period. ment Pump unit does not stop Defective or pressure switch out Stop the compressor immediately (risk when the tank reaches maxiof adjustment of explosion) and contact customer mum working pressure. support

Troubleshooting Chart

Hulk Warranty Statement

Hulk Power by EMAX Compressor makes the following Warranty guarantee:

• <u>Standard warranty</u>: That each compressor unit is free from defects in material, workmanship, and parts for 1 year from the date of purchase. Hulk Power by EMAX is not reasonable for downtime during warranty service. If downtime is necessary, it is the purchaser's discretion and obligation, at purchases expense, to have a redundant compressor. Warranty repair parts shall only include freight charges for the first 90 days of the warranty, there after purchase is reasonable for freight charges for warranty parts.

*Required maintenance schedule to maintain warranty status

- a. All units are shipped with break-in oil and must be changed after the first 50 hours to insure gasket seating.
- b. Thereafter, oil should be changed every 3 months or 1000 hours whichever occurs first
- c. Always maintain proper oil level in unit. If the unit runs out of oil due to neglect, the warranty will void.
- d. Use only EMAX-approved oils in your compressor, or your warranty is void.
- *Extended warranty:* Hulk Power by EMAX will extend your 1-year warranty by 3 years, for a total of 4 years of warranty coverage when you opt to register for the extended warranty plan.

To register your warranty and find the extended warranty options, go to <u>www.emaxwarranty.com</u>. Details and options for our extended warranty will be provided online once you enter the required information.

- Choose the new **SMART OIL**[™] maintenance kit option to extend your Hulk by EMAX air compressor pump up to 8 years of coverage! **SMART OIL**[™] not only extends the life of your compressor pump, it also can reduce operating noise and can creates further energy savings.
- <u>Exclusions include</u> * service such as oil changes, filter replacements, gasket tightening to correct oil seepage or drive belt tightening and valve cleaning and are not covered under warranty.

<u>Warranty shall be voided under the following conditions:</u> Failure to routinely change oil and to maintain clean filtration or exceeding 70% duty cycle resulting in overheating and excessive wear and tear. Exposing electrical components to rain or water, or installing the unit in a hostile environment such as acid vapors or any caustic or abrasive matter that may be ingested into the pump, or installing the unit in an enclosed area where lack or cooling ventilation if present, such as in boiler or equipment rooms where the ambient air exceeds 100° F

Parts used for warranty purposes must be supplied by EMAX, Inc. Warranty work will be performed be an approved EMAX, Inc Technician. If any maintenance (other than routine maintenance) is performed by a non-approved EMAX, Inc. Technician, written pre-approval must be obtained from EMAX, Inc to prevent voiding this warranty. Failure to fully comply with this warranty and fully comply with the manual herein will void this warranty.

*All warranties are non-transferable

The oil purchase program is effective as of July 1, 2019