



AIR COMPRESSOR OWNERS MANUAL

IMPORTANT INFORMATION

MODEL NUMBER

BRA618V

SERIAL NUMBER

6E37890

DATE PURCHASED _____

CALL TOLL FREE 1-800-231-5203

TABLE OF CONTENTS

SAFETY GUIDELINES

HAZARD SYMBOLS	1
PRECAUTIONS & WARNINGS.....	2

DESCRIPTION OF OPERATION	4
--------------------------------	---

INSTALLATION	6
TYPICAL INSTALLATION DIAGRAM	8

START-UP CHECKLIST.....	9
-------------------------	---

BREAK-IN PROCEDURES	10
---------------------------	----

MAINTENANCE SCHEDULE	11
SERVICE PROCEDURES	12
TORQUE SPECIFICATIONS.....	16

TROUBLESHOOTING	17
-----------------------	----

HOW TO ORDER PARTS	18
--------------------------	----

WARRANTY STATEMENT	19
--------------------------	----

FREIGHT INSPECTION UPON DELIVERY

INSERTS:

ASSEMBLY INSTRUCTIONS (detachable models only)
EXPLODED VIEW OF PUMP
PUMP PARTS LISTING
ELECTRICAL SCHEMATIC

SAFETY GUIDELINES

Throughout this manual we have identified key safety hazards. The following symbols identify the level of hazard seriousness.



Immediate hazard which will result in severe personal injury or death.



Hazards or unsafe practices that could result in severe personal injury or death.



Hazards or unsafe practices that could result in minor personal injury or product or property damage.

SAFETY PRECAUTIONS AND WARNINGS

Air compressors are precision high-speed mechanical equipment requiring caution in operation to minimize hazard to property and personnel. There are many obvious safety rules that must be observed in the operation of this type of equipment. Listed are some, but not all safety precautions that must be observed with compressors and compressed air systems. Failure to follow any of these warnings may result in severe personal injury, death, property damage and/or compressor damage.

- Air from this compressor will cause severe injury or death if used for breathing or food processing. Air used for these processes must meet O.S.H.A. 29 C.F.R. 1910.134 or F.D.A. 178.3570 regulations.
- This compressor is designed for use in the compression of normal atmospheric air only. No other gases, vapors or fumes should be exposed to the compressor intake, nor processed through the compressor.
- Turn off and lockout/tagout (per O.S.H.A. regulation 1910.147) the main power disconnect switch before attempting to service or perform maintenance procedures.
- Relieve all pressure internal to the compressor prior to servicing per O.S.H.A. regulation 1910.147. Do not depend on check valves to hold system pressure.
- A properly sized safety relief valve must be installed in the discharge piping ahead (upstream) of any shut-off valve, heat exchanger, orifice or any potential blockage point. Failure to install a safety relief valve could result in rupturing or explosion of some compressor or safety component.
- Do not operate the compressor in excess of the A.S.M.E. pressure vessel rating for the receiver or the service rating of the compressor, whichever is lower.
- Do not change the pressure setting of the safety relief valve, restrict the function of the safety relief valve, or replace the safety relief valve with a plug. Over pressurization of some system or compressor component can occur, resulting in severe personal injury, death and property damage.
- Do not operate the unit with any of its safety guards, shields, or screens removed.
- Do not attempt to service any part of the unit while the compressor is operating.

- Never use plastic pipe or rubber hose not specifically rated for the necessary pressure and temperature, or lead-tin soldered joints in any part of the compressed air system.
- Provisions should be made to have the owners manual readily available to the operator and maintenance personnel. If for any reason any part of the manual becomes illegible or the manual is lost, have it replaced immediately. The owners manual should be read periodically to refresh one's memory. It may prevent a serious or fatal accident.
- Do not remove or paint over any DANGER!, WARNING!, CAUTION!. or instructional materials attached to the compressor. Lack of information regarding hazardous conditions can cause property damage or personal injury, or death.
- Never use a flammable or toxic solvent for cleaning the air filter or any parts.
- Make a general overall inspection of the unit daily and correct any unsafe conditions.
- Never play with compressed air. Reckless behavior of any kind involving compressed air can cause serious personal injury.
- Periodically check all pressure relief valves for proper operation.
- Any alterations to the compressor must have prior factory approval.

This manual should be carefully read and understood prior to starting the compressor. If there are any questions regarding any part of the instructions, procedures, or diagrams, please call the 800 number listed on the front cover. A simple phone call could save life, limb, or equipment.

The owner, lessor or operator of this compressor is hereby warned that failure to observe the above safety precautions and warnings may result in serious injury to personnel and/or damage to property. Brama neither states as fact, or in any way implies that the above list of safety precautions and warnings is an all inclusive list, the observance of which will prevent all damage to property or injury to personnel.

Every effort has been taken to ensure that complete and correct instructions have been included with this owners manual. However, possible product updates and changes may have occurred since this printing. Brama reserves the right to change specifications without incurring any obligation for equipment previously or subsequently sold.

DESCRIPTION OF OPERATION

PRINCIPLES OF COMPRESSION CYCLES

A reciprocating compressor is a piston type pump that develops pressure from the action of a piston moving through a cylinder. The cylinder, or cylinders, may be vertical, horizontal, or angular.

SINGLE STAGE When air is drawn in from the atmosphere and compressed to its final pressure in a single stroke, the compressor is referred to as a **"single stage"** pump. During the downstroke of a single stage compressor, air is drawn through an intake valve in the head of the compressor and into the cylinder. At the bottom of the stroke, the intake valve closes and air is trapped in the cylinder. The air is then compressed in the cylinder during the upstroke of the piston.

TWO STAGE Compressing air to higher pressure it is accomplished by using multiple stages. During the downstroke of the piston of a **"two stage"** pump, air is drawn through an intake valve in the head of the compressor, into the low-pressure cylinder and compressed during the upstroke of the piston. The compressed air is then released through a discharge valve in the head of the compressor to an intercooler where the heat resulting from compression is allowed to dissipate. The cooler compressed air is then drawn into a second compression cylinder, the high pressure cylinder, for compression to final pressure. From there the compressed air is released through a discharge valve to an air receiver tank. In one revolution of the crankshaft a compression cycle is completed.

APPLICATIONS

Single stage compressors normally run in the 95 to 125 PSI range. These pressure settings are designed to provide working air in the 90 to 100 PSI range that most air tools operate. These compressors are generally used in lighter duty applications such as in your garage at home.

A two-stage compressor normally runs in the 145 to 175 PSI range. The higher-pressure settings of the two-stage unit are required in commercial and industrial applications that have tools and equipment such as in-ground lifts and tire changers that need air at higher pressure than a single stage compressor can provide. Two stage compressors are generally better suited for commercial use for several other important reasons. First, this high-pressure air is stored in the tank as "available energy" so the compressor runs less. Secondly, two stage compressors run at much lower discharge temperatures so that you have cooler, dryer air in the shop air system. The two-stage compressor is more versatile because it gives the shop owner the ability to use the higher pressures when necessary but also use air regulated down to the 90 to 100 PSI range for normal air tools.

SYSTEM COMPONENTS

PRESSURE SWITCH The pressure switch senses the air pressure in the system and automatically starts the motor when the pressure drops below the cut in setting. Once the pump builds the pressure up to the maximum or cut out pressure, the pressure switch shuts off the motor and bleeds down the air pressure between the pump and check valve. This allows the motor to restart in an unloaded mode.

CHECK VALVE The check valve is a device that allows the air to flow in only one direction. While the compressor is running, the check valve is "open", allowing the air to flow from the pump to the tank. When the compressor stops, the check valve is "closed" and keeps the air in the tank from trying to back up to the pump.

PRESSURE RELIEF VALVE This valve is often called a "pop-off" or a "safety relief valve". Its job is to open up and relieve the air pressure in the event the pump did not shut off at the maximum setting.

TANK DRAIN VALVE This valve, also known as a petcock, is to drain out any condensation in the tank. Since some moisture will form inside the tank every time the compressor runs, it is important to drain the tank daily.

INTAKE AIR FILTER As air is drawn into the compressor pump it must pass through a filter to remove dirt and dust. When the filter element becomes clogged with dirt it creates a high vacuum condition in the cylinder which can cause the oil from the crankcase to be sucked up past the rings and into the tank.

ON / OFF SWITCH Starts and stops the air compressor. It is important to remember that in the "On" position, the compressor can start automatically. The compressor should not be turned off in mid-cycle using the switch (except in an emergency) so that the pressure switch is allowed to relieve the head pressure when it turns off the compressor.

PRESSURE GAUGE The pressure gauge reads the air pressure in the tank or air system.

SHUT OFF VALVE A ball or gate valve that is installed on the tank where the air is going out to the shop air system. This valve is used during scheduled maintenance to separate the compressor from the rest of the air system. It could also be important to quickly shut off the air from the tank in case of a problem like an airline breaking.

COOLING SYSTEM Air compressor pumps create remarkable amounts of heat as they operate (see Rules of Thumb). Because so much heat is generated, the cooling system of the compressor is *critical* to the life of the pump. Compressor pumps are heavily finned to dissipate heat. Cooling air is blown over the fins by the fan blades designed into the flywheel of the pump. The inter cooler and after cooler lower the air temperature significantly, thereby making it easier to compress the air.

INSTALLATION

Location The air compressor should be installed in a clean, dry, well lighted, and well ventilated area on a level floor. The flywheel side of the compressor should be towards the wall and the distance between the compressor and the wall should be a minimum of 15" to allow for proper cooling air circulation, inspections, and maintenance.



Under no circumstances should a compressor be placed in an area that may be exposed to a toxic, volatile or corrosive atmosphere nor should toxic, volatile or corrosive agents be stored near the compressor.

Mounting Your compressor must be installed according to all applicable State and Local Laws. Vibration isolators are provided by the factory to be used between the foot of the tank and the floor. Shims may be needed to level the legs. Care must be taken when tightening anchor bolts. Uneven torque can lead to excessive vibration that can weaken welds and cause explosions. Tighten three leveled legs equally and leave the fourth nut loose.

Air Intake Do not locate the compressor where it could ingest toxic, volatile or corrosive vapors or extremely dirty air. If a remote inlet filter is going to be installed you must increase one pipe size for every ten feet in length and use a flex hose between the pump and any solid pipe to minimize the potential of damage from vibration.

Piping The main distribution line should not be any smaller than the pipe size of the shut off valve of the compressor. It is recommended that the shop air system be connected to the air compressor shut off valve with a flexible coupler to reduce the risk of damage from vibration. All airlines should slope to an accessible drain or moisture trap for removal of condensation. Make sure that there are no leaks in the airlines as even small leaks can cause your compressor to run outside of the rated duty cycle. A typical installation is shown below, note that the feeder lines come off of the top of the main distribution line so that moisture can't enter the feeder line.



ASME coded pressure vessels must not be modified, welded, repaired, reworked or subjected to operating conditions outside the nameplate ratings. Such actions will negate code status, affect insurance status and may cause severe personal injury, death and property damage.



High voltage may cause personal injury or death. Disconnect and lockout/tagout per O.S.H.A. regulation 1910.147 all electrical power supplies before opening the electrical enclosure or servicing.

Wiring Before starting the installation procedure, check that the building's electrical service has an adequate capacity to handle the motor and the same electrical characteristics (voltage, cycle, and phase). Install the compressor as close to the main power supply as possible and follow all National Electric Safety Codes as well as those dictated by State and Local authorities. A qualified electrician must do the electrical installation. Every compressor model has a specific power requirement and the wire size used is critical to a proper installation. Have your electrician refer to the decal on our beltguard for the recommended wire size. The three decals (shown below) are for reference only and should not supersede specific National, State or Local code requirements. The compressor was factory wired with the proper size motor starter and pressure switch.

30 amp circuit

0-30 ft.	10 ga
31-50 ft.	8 ga
51-70 ft.	6 ga

71 ft and up:call factory

40 amp circuit

0-25 ft.	8 ga
26-50 ft.	6 ga
51-75 ft.	4 ga

76 ft and up:call factory

60 amp circuit

0-10 ft.	8 ga
11-30 ft.	6 ga
31-50 ft.	4 ga

51 ft and up:call factory

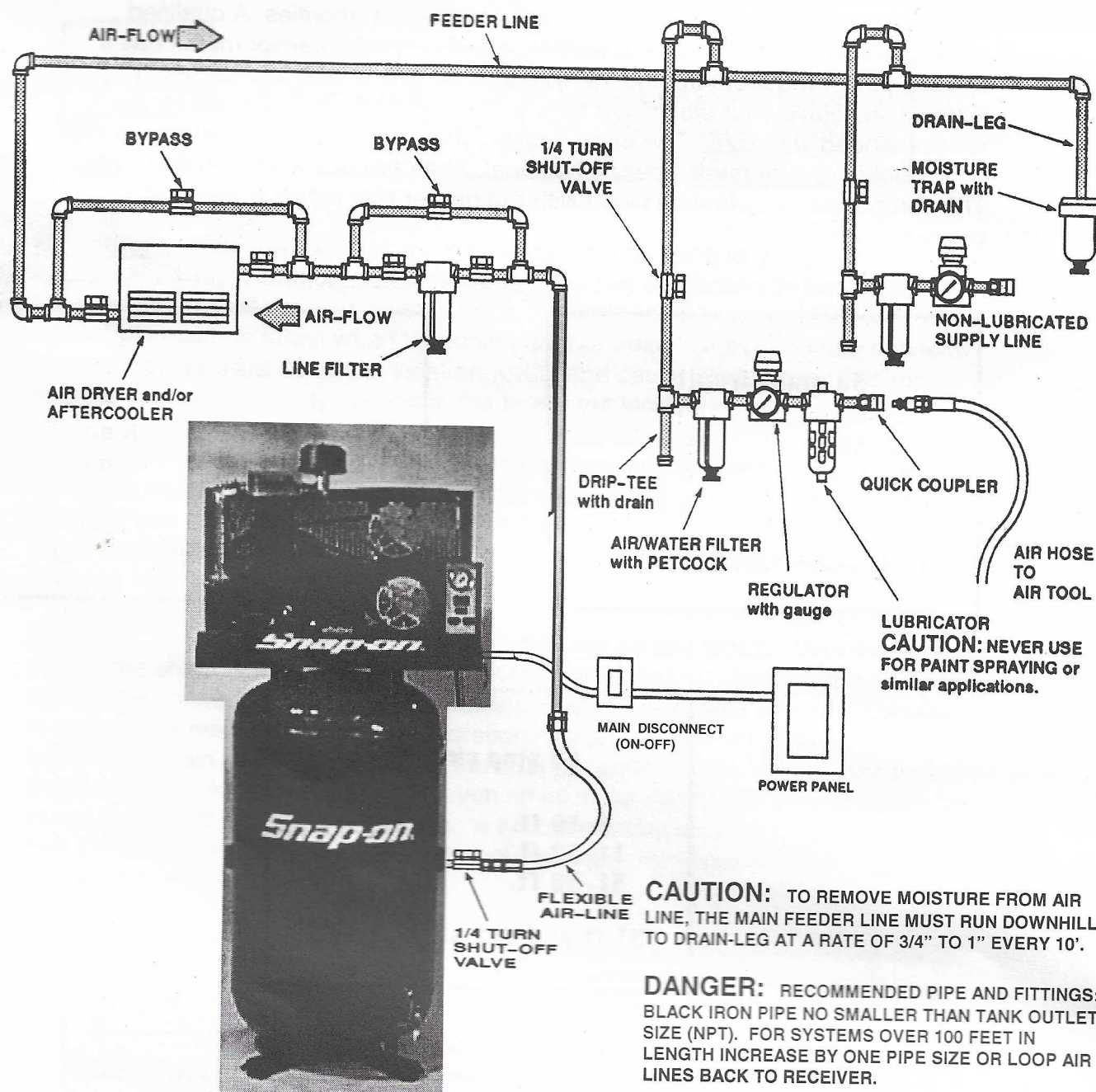
TYPICAL INSTALLATION DIAGRAM

This diagram is only a guide to a typical air system. Your needs may be different and you should consult a professional for more information regarding your particular installation.



IMPORTANT

FOLLOW ALL SAFETY PRECAUTIONS AND WARNINGS
ALLWAYS TURN OFF AND LOCKOUT/TAGOUT
THE MAIN POWER SUPPLY BEFORE SERVICING UNIT.



START-UP CHECKLIST



Never assume a compressor is safe to work on just because it is not operating. It could restart at any time. Follow all safety precautions and guidelines outlined in this manual.

Go through this checklist **before** you start the compressor for the first time.



Failure to perform the steps outlined in the start-up checklist may result in mechanical failure, property damage, serious personal injury or even death.

1. Review Installation parameters in the prior section.

Double-check these items:

Distance from walls at least 15".

Properly mounted.

Flexible coupler between compressor and shop.

No toxic, volatile, or corrosive fumes in the area.

Correct wire size, fuses, or circuit breakers.

2. Check the oil level in the pump and add if necessary.
3. Check that all pressure relief valves are in place and operational.
4. Check that the air filter is in place and securely mounted.
5. Remove all loose objects and tools around the compressor installation.
6. Open the service valve and any other shut off valves in the air system.
7. On three phase compressors, "bump" the motor to verify that you have the correct rotation (CCW facing the shaft). Reverse if necessary.

BREAK-IN PROCEDURES

After completing the START-UP CHECKLIST you are ready to run the compressor. Always go through this procedure before restarting your unit if you have moved it to a new location or have had service on the pump or motor.

1. Start the compressor and check for excessive noise or vibration. If there is any condition that appears unsafe, stop the compressor immediately and fix the problem. If the compressor is running normally, allow the unit to pump for ten minutes before closing the service valve and allowing the compressor to pump up and shut off. Check the system for leaks.
2. Pay close attention to the compressor for the first hour of use. It is not necessary to run the compressor "un-loaded" to seat the rings.
3. During the first full day of running the compressor you should note how many times an hour the compressor is starting. During an "average" hour you should check what percent of those 60 minutes the compressor is running. If the compressor starts more than eight times or runs for more than 75 percent of an average hour, you need more air.
4. After eight hours of running, check the oil level and look for any oil leaks. Turn the compressor off and bleed down the tank pressure to about 20 PSI and open the drain valve to allow all of the moisture to drain from the tank. Allow the pump to cool and torque the head bolts and the bolts which hold the inner and after cooler.
5. We recommend that you change your oil after the first week or 50 hours of running. This could help remove any small particles in the pump and will improve the life of the pump.
6. After the first week of operation follow the guidelines in the MAINTENANCE SCHEDULE.

MAINTENANCE SCHEDULE

THE LIFE OF YOUR COMPRESSOR WILL BE DETERMINED BY HOW IT IS MAINTAINED.

- A clean pump will run cooler, causing less moisture in the tank and lines. Since the cooler the air is, the easier it is to compress, cleaning the pump will make the motor and pump run less and save you money.
- A clean air filter will allow you to compress more air per cycle. A dirty air filter causes the oil from the crankcase to be sucked up past the piston rings and when this happens you get MAJOR problems. First, the oil gets into your air system, mixes with the water vapor in the lines and creates a "mayonnaise" that can foul up tools and destroy paint systems with "fish eye". Secondly, the oil becomes baked onto the valves and valve plates where it builds up and cuts the efficiency of the pump dramatically.
- Clean oil at the proper level in the crankcase is your best insurance against pump failure.
- A dry tank will last many more years than a tank that has water sitting in it rusting away the metal. The tank is a great heat sink and will take out the bulk of the moisture that is in your air system if you drain it.

DAILY OR EVERY 8 HOURS

Check the oil level and fill if necessary. Add the proper oil so that the level is to the middle of the sight gauge while the pump is running or $\frac{3}{4}$ of the way full when the compressor is stopped. Reduce the tank pressure and drain the moisture from the tank. (See Service Procedures)

WEEKLY OR EVERY 50 HOURS

Check the air filter condition and clean or replace when necessary.
Clean the compressor paying special attention to the pump fins.

MONTHLY OR EVERY 250 HOURS

Check the oil condition as well as the level. Change if dirty or milky.
Check the Vee belts for wear and tension. Tension and align per chart.
Generally inspect the compressor for loose bolts, air leaks, or noises.

EVERY 3 MONTHS OR 500 HOURS

Change the oil.

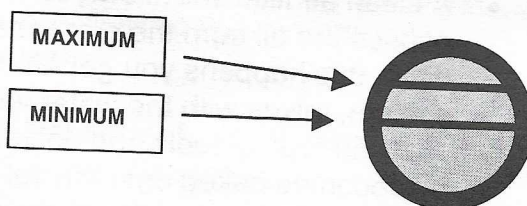
Inspect the compressor's reed valves and valve plates. Do not open up the pump until you are sure that you have the replacement gaskets, as it is easy to damage a gasket when removing the head and valve plates.

SERVICE PROCEDURES



Never assume a compressor is safe to work on just because it is not operating. It could restart at any time. Follow all safety precautions and guidelines outlined in this manual.

CRANKCASE OIL The oil level should be half way to three quarters up the sight gauge when the compressor is stopped. Do not over fill or check the oil level while the pump is running. Compressor must be level.



Use *non-detergent*, petroleum based, compressor or automotive grade oil only. Detergent or synthetic oil can damage the pump, cause excessive leaks, and will void the warranty. **DO NOT USE SYNTHETIC OIL IN THIS PUMP !**

SHOP TEMPERATURE	OIL WEIGHT	TYPE
COLD TO -10 F	20 WT.	NON-DETERGENT
NORMAL 30 TO 80 F	30 WT.	NON-DETERGENT
HOT ABOVE 80 F	40 WT.	NON-DETERGENT

Change the oil when the compressor is warm so that the oil will drain out of the crankcase easier. Carefully open the plug on the crankcase drain, open the ball valve and drain the oil into a suitable container. Remove the crankcase fill plug to make the oil flow out faster. Allow the crankcase to drain completely. Close ball valve, replace the plug, and fill the crankcase to the proper level. Check the level carefully after the first day of use. Please recycle the used oil.



Never attempt to change or fill the oil while the compressor is running. Do not work on the pump while it is hot as some parts of the pump can cause severe burns to unprotected skin. Never use flammable solvents to clean the pump or the intake system.

SERVICE CONT.

AIR FILTER

To service the air filter, remove the wing nut and cover that hold the element on to the intake assembly. Inspect the element and clean or replace as needed. Paper filters can be tapped out and back flushed with low-pressure air several times before they must be replaced. Fiber (Micronite) filters can be washed out with soapy water, rinsed, and reused until the element material starts to deteriorate. Never use solvents to clean the filter or inlet parts. Always keep extra filter elements on hand. **NEVER RUN THE COMPRESSOR WITHOUT A FILTER.** Clean all parts and re-assemble in reverse order.

DRAIN THE TANK

To drain the moisture from the tank you should first reduce the air pressure in the tank and air lines to a safe pressure, around 20 PSI. Open the drain valve and drain the moisture into a suitable container for disposal. All piston pumps have some level of oil bypass the rings and get pumped into the tank. This oil is measured in parts per million (PPM) and mixes with the moisture in the tank to form a whitish "mayonnaise" like substance. Check with local codes concerning the discharge of this fluid directly into the sewer system.

Compressors used in commercial applications should be drained at least once a day. If you only run your compressor occasionally, it should be drained after each time you use it. Shops that run multiple shifts a day should have automatic drains to help reduce the moisture build up in the tank. A 5 HP compressor can dump as much as a gallon of moisture a day into the tank.

VALVES

The compressor pump has a set of reed valves manufactured from the highest quality stainless steel. These valves and the valve plates that hold them in place need to be maintained in order for the pump to work at it's normal capacity. Once the valves become caked with carbonized dirt and oil they loose their ability to open and close properly and the amount of air that the compressor can make is dramatically compromised. Before starting this maintenance procedure you should make sure that you have a set of the gaskets you need to replace when you open up the pump.

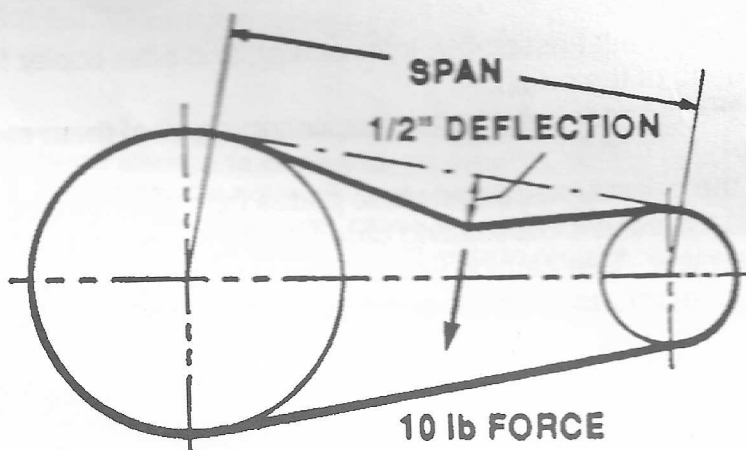
1. Remove the air inlet assembly, inter cooler, and after cooler from the cylinder head of the pump.
2. Remove the cylinder head bolts after loosening all of them evenly, from the center out.
3. Remove the cylinder head and valve plates from the cylinder. Separate the head from the valve plates taking care to note the position of the valve plates for re-assembly. Use caution when separating the parts as the gaskets may be stuck together. Inspect the condition of the cylinder and piston for damage.

SERVICE CONT.

4. Clean the valves and valve plates with a stiff bristle brush or other suitable device. Do not use a steel wire brush as severe damage may result to the valve seat or valve.
5. Use clean safety solvent to loosen carbon deposits. NEVER use gasoline, thinners or other flammable solutions to clean valves or related parts. Remove all broken or defective gasket material.
6. To re-assemble the valve plates, a small amount of light grease or petroleum jelly can be used *on clean, dry surfaces* to hold the reed valves in place while they are assembled. Reverse the order to complete this operation and follow the recommended torque settings for the head bolts found in the appendix. Use a crosshatch pattern when tightening the head bolts.
7. Turn the pump over by hand several revolutions to make sure there are no problems. Review the START-UP CHECKLIST and follow the recommended BREAK-IN PROCEDURES. Re-torque the head bolts and check for leaks after one hour of running.

BELT TENSION Proper belt tension and pulley alignment must be maintained for maximum drive efficiency and belt life. The correct tension exists if a deflection of $\frac{1}{2}$ " occurs by placing 10 pounds of force midway between the motor pulley and the pump flywheel. See figure below. This deflection can be adjusted using the following procedure.

1. Remove belt guard.
2. Loosen the motor mounting bolts. Remove belts.
3. Shift the motor to the point where the correct tension exists.
4. Retighten the motor mounting bolts. Replace belts.
5. Check the tension again.
6. Replace the belt guard.



PUMP ASSEMBLY TORQUE SPECIFICATIONS

PUMP MODEL	CYLINDER HEAD BOLTS	CYLINDER TO CRANKCASE	BEARING SUPPORTS	ROD BOLTS
P12 P17 P18	21	16	11	10
P20 P28 P29 P30 P35 P60	29	28	11	15
P50 P100	65	44	14	15

All values in foot pounds.

The cylinder head bolts should be set to the above specifications during the assembly procedure. Next, run the compressor for at least 30 minutes. Shut off the compressor and re-torque the head bolts to the same specifications while the pump is still warm. Follow all safety precautions outlined in this manual.

TROUBLESHOOTING

CONDITION	CAUSE	CORRECTION
Compressor will not start.	A. No electrical power. B. Tank pressure is between starting and stopping pressures.	A. Check or have system checked. B. Wait until pressure drops.
Motor overheats, blows fuses or overload relay cuts out.	A. Wrong fuse size. B. High ambient temperature. C. Wrong wire size. D. Thermal overload tripped. E. One leg of supply line interrupted	A. Replace with correct size. B. Provide ventilation. Check distance from the wall. C. Have electrical system checked. D. Allow to cool and reset overload relay. E. Check all fuses and terminals for tightness. Check each leg.
Pump using too much oil.	A. Air filter dirty B. Oil level too high. C. Breather valve malfunctioning. D. Piston rings worn or broken. E. Oil leaks. F. Wrong oil viscosity, synthetic oil.	A. Clean or replace element. B. Do not overfill crankcase. C. Check valve and fix if broken. D. Check rings and replace if necessary. E. Tighten pump bolts or replace leaking gaskets. F. Drain and refill with proper oil.
Tank does not hold pressure.	A. Diaphragm in pressure switch defective. B. Leaking fittings.	A. Replace pressure switch. B. Check for leaks and tighten.
Compressor starts more than six times per hour.	A. High moisture level in tank. B. Check valve leaks. C. Pressure switch set incorrectly. D. Excessive air requirements. E. Leaks in air system.	A. Drain tank. B. Drain air. Remove and fix. C. Check cut in and cut out setting. D. Decrease shop consumption by installing a regulator. Add another compressor to supply. E. Inspect air system and fix.
Compressor takes too long to fill tank.	A. Excessive air requirement. B. Compressor not in optimal condition. C. Dirty, sticking, or damaged valves.	A. Determine if compressor is properly sized for job. B. Perform maintenance, check for loose belts, dirty air filter. C. Remove cylinder head and clean, replace damaged reed valves and gaskets.
Compressor vibrates.	A. Compressor not properly installed. B. Mounting bolts too loose. C. Pulley and flywheel mis-aligned. D. Belts loose.	A. Level the tank feet with vibration isolators and shims. B. Torque mounting bolts evenly. C. Realign per manual. D. Tighten per manual.
Oil in discharge air.	A. Compressor air intake restricted. B. Excessive oil in the crankcase. C. Wrong oil viscosity. D. Worn rings. E. Crankcase breather valve sticking.	A. Clean or replace filter element. B. Drain level to mid sight glass. C. Drain pump and refill with the proper oil. D. Replace rings. E. Clean or replace.
Water in the crankcase. Oil appears milky.	A. Compressor not running long enough to vaporize the water.	A. Allow the compressor to run enough each day to vaporize the water.
Compressor leaks down when off.	A. Pressure switch diaphragm leaking. B. Check valve leaking. C. Fitting or valve leaking.	A. Replace pressure switch. B. Drain tank, remove and clean check valve. Replace if defective. C. Check for leaks and fix problem.

HOW TO ORDER PARTS

Whenever you need to order replacement parts for your compressor you can order them through your dealer or call or fax the factory direct. To help us expedite your order, we ask that you have the following information ready. By getting us all this information, there is a greater chance that you will get the right part in the time frame that you need it.

MODEL # _____

SERIAL # _____

DESCRIPTION OF PART _____

PART # (IF KNOWN) _____

CREDIT CARD INFORMATION:

TYPE OF CARD

MC _____

VISA _____

CREDIT CARD # _____

EXPIRATION DATE _____

NAME AS IT APPEARS ON CARD _____

SHIP TO ADDRESS:

NAME _____

STREET AND # _____

CITY, STATE, ZIP _____

SPECIAL SHIPPING INSTRUCTIONS:

UPS NEXT DAY _____

UPS SECOND DAY _____

UPS GROUND _____

FED EX _____

OTHER _____

PHONE 1 800 231-5203

FAX 1 317 786-7686

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

CERTIFICATE OF LIMITED WARRANTY

All component parts on your BRAMA compressor are warranted to be free of defects in workmanship and material for a period of one year on single stage units and two years on two stage units. Transportation charges are the responsibility of the purchaser. This warranty extends to the original purchaser of the compressor only.

There are no express warranties except as contained in this limited warranty statement and implied warranties, including those of merchantability and fitness for a particular purpose, are limited to the period of warranty.

Our liability is limited solely to replacement of nonconforming parts as set forth herein and does not include any liability for any incidental, consequential, or other damages of any kind. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

FREIGHT INSPECTION UPON DELIVERY

It is extremely important to carefully examine the compressor for visible damage when you receive it. If any damage has occurred you should follow the directions on the decal located on the outside of the package (shown below).

Make sure to act quickly on this matter, as there are specific time frames in which you need to file a claim for damage so as not to be charged for the repair. Call our toll free number if you need additional assistance with the situation.

CAUTION - EXTREMELY TOP HEAVY

Do Not Transport Unless Unit Is Nailed To Floor. Dropping Or Improper Lifting Of Machine Can Result In Personal Injury Or Property Damage. Use Forklift Or Pallet Jack To Move Unit.

MODEL # _____

SERIAL # _____

Important Instructions To Consignee Or Purchaser DAMAGED OR LOST GOODS

This merchandise has been received and signed for in good condition by the carrier as acknowledged by the bill of lading or express receipt. The shippers responsibilities for this shipment have now ceased.

IN CASE OF DAMAGE

If damage is beyond quick and easy part replacement-

REFUSE TO ACCEPT

Request carrier to describe any damage identically on both carrier's and your copies of transportation bill, and acknowledge by legible signature of agent.

If damage is discovered upon unpacking containers received in apparently good order, immediately notify carrier, requesting an inspection. You have only 15 days from delivery date:

PLEASE PHONE 1 800 231-5203 IF YOU NEED HELP.

CAUTION



DROPPING OR IMPROPER LIFTING OF MACHINE OR COMPONENT CAN RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE.

HANDLE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND GOOD SHOP PRACTICE.

DO NOT REMOVE OR DEFACE DECAL.