General Operation and Parts Instructions for Gasoline Compressor Outfits

MODEL NO.

L1130GH2

ENGINE HORSE POWER	11HP
COMPRESSOR BORE	4.13” Low Pressure Cylinder 2.05” High Pressure Cylinder
COMPRESSOR STROKE	2.95”
AIR TANK CAPACITY	30 GAL.
APPROXIMATE UNLOADER PRESSURE	175 PSIG
SCFM @ 100 psig	14.0
SCFM @ 175 Psig	12.9

SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting **YOUR SAFETY** and **PREVENTING EQUIPMENT PROBLEMS.** To help you recognize this information, we use symbols to the right. Please read the manual and pay attention to these sections.

⚠ DANGER

URGENT SAFETY INFORMATION - A HAZARD THAT WILL CAUSE SERIOUS INJURY OR LOSS OF LIFE.

⚠CAUTION

Information for preventing damage to equipment.

⚠WARNING

IMPORTANT SAFETY INFORMATION - A HAZARD THAT *MIGHT* CAUSE SERIOUS INJURY OR LOSS OF LIFE.

NOTE

Information that you should pay special attention to.

⚠ WARNING

Read Owner's Manual. Do not operate equipment until you have read Owners Manual for Safety, Operation, and Maintenance Instructions.

- **This product is not equipped with a spark arresting muffler.** If the product will be used around flammable materials, or on land covered with materials such as agricultural crops, forest, brush, grass, or other similar items, then an approved spark arrester must be installed and is legally required in the state of California. It is a violation of California statutes section 130050 and/or sections 4442 and 4443 of the California Public Resources Code, unless the engine is equipped with a spark arrestor, as defined in section 4442, and maintained in effective working order. Spark arresters are also required on some U. S. Forest service land and may also be legally required under other statutes and ordinances.
- Engine exhaust from this product contains chemicals known, in certain quantities, to cause cancer, birth defects or other reproductive harm.

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LIMITED WARRANTY
ONE YEAR FROM DATE OF PURCHASE

*All merchandise manufactured by DeVilbiss Air Power Company is warranted to be free of defects in workmanship and material which occur during the first year from the date of purchase by the original purchaser (initial user). Products covered under this warranty include: air compressors, *air tools, accessories, service parts, pressure washers, and generators used in consumer applications (i.e., personal residential household usage only).*

DeVilbiss Air Power will repair or replace, at DeVilbiss's option, products or components which have failed within the warranty period. Repair or replacement, and service calls on 60 and 80 gallon air compressors, will be handled by Authorized Warranty Service Centers and will be scheduled and serviced according to the normal work flow and business hours at the service center location, and depending on the availability of replacement parts.

All decisions of DeVilbiss Air Power Company with regard to this policy shall be final.

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

RESPONSIBILITY OF ORIGINAL PURCHASER (Initial User):

- ❑ Retain original cash register sales receipt as proof of purchase for warranty work.
- ❑ Use reasonable care in the operation and maintenance of the product as described in the Owners Manual(s).
- ❑ Deliver or ship the product to the nearest DeVilbiss Air Power Authorized Warranty Service Center. Freight costs, if any, must be paid by the purchaser.
- ❑ Air compressors with 60 and 80 gallon tanks only will be inspected at the site of installation. Contact the nearest Authorized Warranty Service Center, that provides on-site service calls, for service call arrangement.
- ❑ If the purchaser does not receive satisfactory results from the Authorized Warranty Service Center, the purchaser should contact DeVilbiss Air Power Company.

THIS WARRANTY DOES NOT COVER:

- ❑ Merchandise sold as reconditioned, floor models and/or display models. Any damaged or incomplete equipment sold "as is".
- ❑ Merchandise used as "rental" equipment.
- ❑ Merchandise that has become inoperative because of ordinary wear, misuse, freeze damage, use of improper chemicals, negligence, accident, improper and/or unauthorized repair or alterations including failure to operate the product in accordance with the instructions provided in the Owners Manual (s) supplied with the product. *Air Tools: O-Rings and driver blades are considered ordinary wear parts, therefore, they are warranted for a period of 45 days from the date of purchase.
- ❑ An air compressor that pumps air more than 50% during a one hour period is considered misuse because the air compressor is undersized for the required air demand. Maximum compressor pumping time per hour is 30 minutes.
- ❑ Merchandise sold by DeVilbiss Air Power which has been manufactured by and identified as the product of another company. The product manufacturer's warranty will apply.
- ❑ Repair and transportation costs of merchandise determined not to be defective.
- ❑ Cost associated with assembly, required oil, adjustments or other installation and start-up cost.
- ❑ **ANY INCIDENTAL, INDIRECT OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE OR MALFUNCTION OF THE PRODUCT.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
- ❑ **IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

DeVilbiss Air Power Company

213 Industrial Drive • Jackson, TN 38301-9615 • Telephone: 1-800-888-2468 , Ext. 2 • FAX: 1-800-888-9036

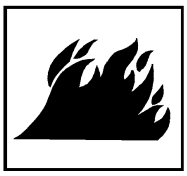
Form: SNAP - 11/21/96

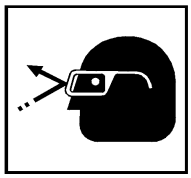
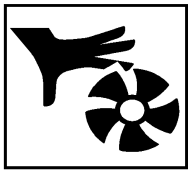
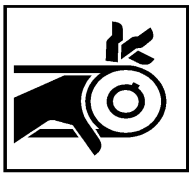
IMPORTANT SAFETY INSTRUCTIONS

• **SAVE THESE INSTRUCTIONS** •

⚠WARNING

IMPROPER OPERATION OR MAINTENANCE OF THIS PRODUCT COULD RESULT IN SERIOUS INJURY AND PROPERTY DAMAGE. READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT.

HAZARD	WHAT CAN HAPPEN	HOW TO PREVENT IT
RISK OF EXPLOSION OR FIRE  	GASOLINE AND **GASOLINE VAPORS CAN BECOME IGNITED** BY COMING INTO CONTACT WITH HOT COMPONENTS SUCH AS THE MUFFLER, **FROM ENGINE EXHAUST** GASES, **OR FROM AN ELECTRICAL SPARK.** COMBUSTIBLE MATERIALS WHICH COME INTO CONTACT WITH HOT ENGINE PARTS CAN BECOME IGNITED. **UNATTENDED OPERATION OF THIS PRODUCT COULD RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE.**	**TURN ENGINE OFF AND ALLOW IT TO COOL BEFORE ADDING FUEL TO THE TANK.** EQUIP AREA OF OPERATION WITH A FIRE EXTINGUISHER CERTIFIED TO HANDLE GASOLINE OR FUEL FIRES. **ADD FUEL OUTDOORS** OR IN A WELL VENTILATED AREA. MAKE SURE THERE ARE NO SOURCES OF IGNITION, SUCH AS CIGARETTES NEAR REFUELING LOCATION. **OPERATE COMPRESSOR** IN AN OPEN AREA **AWAY FROM** DRY BRUSH, WEEDS OR OTHER **COMBUSTIBLE MATERIALS.** STORE FUEL IN A SECURE LOCATION AWAY FROM COMPRESSOR. ALWAYS **REMAIN** IN ATTENDANCE **WITH THE PRODUCT WHEN IT IS OPERATING.**
RISK OF BURSTING 	**AIR TANK** **THE FOLLOWING CONDITIONS COULD** LEAD TO A WEAKENING OF THE TANK, AND **RESULT IN A VIOLENT TANK EXPLOSION:** 1. **FAILURE TO PROPERLY DRAIN** CONDENSED **WATER FROM THE TANK,** CAUSING RUST AND THINNING OF THE STEEL TANK. 2. **MODIFICATIONS** OR ATTEMPTED REPAIRS **TO THE TANK.** 3. UNAUTHORIZED **MODIFICATIONS TO THE UNLOADER VALVE, SAFETY VALVE, OR** ANY **OTHER COMPONENTS WHICH CONTROL** TANK **PRESSURE.** 4. **EXCESSIVE VIBRATION CAN WEAKEN THE AIR TANK** AND CAUSE RUPTURE OR EXPLOSION. **EXCESSIVE VIBRATION WILL OCCUR IF THE COMPRESSOR IS NOT PROPERLY MOUNTED** OR IF THE ENGINE OPERATES ABOVE RECOMMENDED RPM. ***ATTACHMENTS & ACCESSORIES*** **EXCEEDING THE PRESSURE RATING OF AIR TOOLS,** SPRAY GUNS, AIR OPERATED ACCESSORIES, TIRES AND OTHER INFLATABLES **CAN CAUSE THEM TO EXPLODE** OR FLY APART, AND COULD RESULT IN SERIOUS INJURY.	**DRAIN TANK DAILY OR AFTER EACH USE.** IF TANK DEVELOPS A LEAK, REPLACE IT IMMEDIATELY WITH A NEW TANK OR NEW COMPRESSOR OUTFIT. **NEVER** DRILL INTO, WELD, OR **MAKE ANY MODIFICATIONS TO THE TANK** OR ITS ATTACHMENTS. THE TANK IS DESIGNED TO WITHSTAND SPECIFIC OPERATING PRESSURES. **NEVER MAKE ADJUSTMENTS OR PARTS SUBSTITUTIONS TO** ALTER THE **FACTORY SET** OPERATING **PRESSURES.** **DO NOT REMOVE THE STIFFENER BAR** CONNECTING THE COMPRESSOR PUMP TO THE ENGINE, EXCEPT TO ADJUST BELT TENSION, THEN SECURELY TIGHTEN THE STIFFENER BAR NUTS. **THIS BAR CONTROLS OUTFIT VIBRATION.** FOLLOW THE EQUIPMENT MANUFACTURERS RECOMMENDATION AND NEVER EXCEED THE MAXIMUM ALLOWABLE PRESSURE RATING OF ATTACHMENTS. **NEVER USE COMPRESSOR TO INFLATE SMALL LOW-PRESSURE OBJECTS SUCH AS CHILDREN'S TOYS, FOOTBALLS, BASKETBALLS. ETC.**

HAZARD	WHAT CAN HAPPEN	HOW TO PREVENT IT
RISK FROM FLYING OBJECTS 	THE **COMPRESSED AIR** STREAM **CAN CAUSE SOFT TISSUE DAMAGE** TO EXPOSED SKIN **AND CAN PROPEL** DIRT, CHIPS, **LOOSE PARTICLES** AND SMALL OBJECTS AT **HIGH SPEED**, RESULTING IN PROPERTY DAMAGE OR PERSONAL INJURY.	**ALWAYS WEAR ANSI Z87.1 APPROVED SAFETY GLASSES WITH SIDE SHIELDS** WHEN USING THE COMPRESSOR. **NEVER POINT ANY NOZZLE OR SPRAYER TOWARD ANY PART OF THE BODY OR AT OTHER PEOPLE OR ANIMALS.** ALWAYS **TURN THE COMPRESSOR OFF AND BLEED PRESSURE** FROM THE AIR HOSE AND TANK **BEFORE** ATTEMPTING MAINTENANCE, **ATTACHING TOOLS** OR ACCESSORIES.
RISK TO BREATHING 	**BREATHING EXHAUST FUMES** FROM ENGINE **WILL CAUSE** SERIOUS INJURY OR **DEATH.** THE **COMPRESSED AIR** FROM YOUR COMPRESSOR **IS NOT SAFE FOR BREATHING!** THE AIR STREAM MAY CONTAIN CARBON MONOXIDE, TOXIC VAPORS OR SOLID PARTICLES FROM THE TANK. **SPRAYED MATERIALS** SUCH AS PAINT, PAINT SOLVENTS, PAINT REMOVER, INSECTICIDES, WEED KILLERS, ETC.. **CONTAIN HARMFUL VAPORS** AND POISONS.	ALWAYS **OPERATE AIR COMPRESSOR IN A CLEAN, WELL VENTILATED AREA.** AVOID ENCLOSED AREAS SUCH AS GARAGES, BASEMENTS, STORAGE SHEDS, ETC., WHICH LACK A STEADY EXCHANGE OF AIR. **NEVER OPERATE** UNIT **IN ENCLOSED LOCATIONS** OCCUPIED BY HUMANS OR ANIMALS. KEEP CHILDREN, PETS AND OTHERS AWAY FROM AREA OF OPERATION. **NEVER INHALE AIR FROM THE COMPRESSOR** EITHER DIRECTLY OR FROM A BREATHING DEVICE CONNECTED TO THE COMPRESSOR. **WORK IN AN AREA WITH GOOD CROSS-VENTILATION.** READ AND **FOLLOW THE SAFETY INSTRUCTIONS** PROVIDE ON THE LABEL OR SAFETY DATA SHEETS **FOR THE MATERIAL YOU ARE SPRAYING. USE A NIOSH/MSHA APPROVED RESPIRATOR** DESIGNED FOR USE WITH YOUR SPECIFIC APPLICATION.
RISK FROM MOVING PARTS  	THE **ENGINE CAN START ACCIDENTALLY** IF THE FLYWHEEL IS TURNED BY HAND OR MOVED BY PULLING ON THE STARTER ROPE. **MOVING PARTS** SUCH AS THE PULLEY, FLYWHEEL AND BELT **CAN CAUSE SERIOUS INJURY** IF THEY COME INTO CONTACT WITH YOU OR YOUR CLOTHING. **ATTEMPTING TO OPERATE** COMPRESSOR **WITH DAMAGED OR MISSING PARTS OR ATTEMPTING TO REPAIR COMPRESSOR WITH PROTECTIVE SHROUDS REMOVED CAN EXPOSE YOU TO MOVING PARTS** AND CAN **RESULT IN SERIOUS INJURY.**	ALWAYS **DISCONNECT THE SPARK PLUG AND BLEED PRESSURE FROM THE TANK BEFORE PERFORMING MAINTENANCE.** **NEVER OPERATE** THE **COMPRESSOR WITH GUARDS** OR COVERS WHICH ARE DAMAGED OR **REMOVED.** ANY **REPAIRS** REQUIRED ON THIS **PRODUCT SHOULD BE PERFORMED BY AUTHORIZED SERVICE CENTER PERSONNEL.**
RISK OF BURNS 	**TOUCHING EXPOSED METAL** SUCH AS THE COMPRESSOR HEAD OR OUTLET TUBES **OR CONTACT WITH HOT ENGINE PARTS** SUCH AS THE MUFFLER **CAN RESULT IN SERIOUS BURNS.** THE GASOLINE ENGINE , THE ENGINE MUFFLER, THE COMPRESSOR HEAD AND TUBING BECOME VERY HOT DURING OPERATION.	**NEVER TOUCH ANY EXPOSED METAL PARTS ON ENGINE OR COMPRESSOR** DURING OR IMMEDIATELY AFTER OPERATION. **ENGINE AND COMPRESSOR WILL REMAIN HOT** FOR SEVERAL MINUTES AFTER OPERATION. DO NOT REACH AROUND PROTECTIVE SHROUDS OR ATTEMPT MAINTENANCE UNTIL UNIT HAS BEEN ALLOWED TO COOL. ***GCOLTM — 5/1/97***

GENERAL INFORMATION

You have purchased a complete compressor outfit consisting of an air compressor, ASME approved air tank, gasoline engine, and associated controls and instruments. The compressor outfit you have selected is a two stage stationary outfit.

Your new compressor can be used for operating paint sprayers, air tools, grease guns, air brushes, caulking guns, and sand blasters, inflating tires and plastic toys, spraying weed killer and insecticides, etc. An air pressure regulator may be necessary for some of these applications.

A regularly scheduled program of preventive maintenance is necessary to insure the long life that has been designed into your compressor outfit. This instruction manual, along with maintenance, will keep your compressor outfit in good working order. Before operating or performing any maintenance on your outfit, refer to these publications.

DESCRIPTION OF OPERATION

The pistons move up and down in the cylinder to compress air. On the downstroke, air is drawn in through the air intake valves. The exhaust valve remains closed. On the upstroke of the piston, air is compressed. The intake valves close and compressed air is forced out through the exhaust valve, through the outlet tube, through the check valve and into the air tank.Working air pressure becomes available when the compressor has raised the tank pressure above that required at the air discharge valve. The air intake must be kept clear of all obstructions which could interfere with air delivery to the compressor.

All gasoline compressor outfits are continuously running outfits controlled by tank pressure. At maximum tank pressure the unloader valve exhausts air to atmosphere (blowoff); tank pressure closes the check valve retaining air pressure inside the tank. When tank pressure drops to a pre-determined pressure, the unloader valve closes, and air pressure opens the check valve allowing compressed air into the tank. As maximum tank pressure is reached, if the unloader valve malfunctions and compressed air is not exhausted at or near its blowoff setting, the air tank safety valve will protect the air tank against high pressure by popping at its factory set pressure. The safety valve popping pressure is slightly higher than the unloader valve blowoff pressure.

Your compressor outfit is equipped with a gas saving throttle control device. When maximum tank pressure is reached and the unloader valve opens, the throttle control is also activated. The throttle control holds the engine at a factory set idling speed until air pressure in the tank drops to reset or minimum tank pressure. At reset pressure when the unloader valve closes, the throttle control is reactivated and the engine accelerates to full throttle.

ON-RECEIPT INSPECTION

Each air compressor outfit is carefully checked before shipment. With improper handling, damage may result in transit and cause problems in compressor operation.

Immediately upon arrival, check equipment for both concealed and visible damages to avoid expenses being incurred to correct such problems. This should be done regardless of any visible signs of damage to the shipping container. Report any damages to carrier and arrange for inspection of goods immediately.

For the location of the nearest DeVilbiss Air Power Authorized Warranty Service Center, call our toll free number at **1-800-888-2468, Ext. 2, then 1**.

INSTALLATION

LOCATION OF THE COMPRESSOR OUTFIT

⚠WARNING

Engine exhaust contains toxic carbon monoxide. Operate the engine in a well ventilated area only. If inhaled, it can cause dizziness, unconsciousness and possibly death.

The air compressor outfit should be located as close as possible to the point where the compressed air is to be used. The area selected should be dry, clean, cool, and well ventilated. Make certain that the outfit is mounted level on a solid foundation so no strain is imposed on the support feet or base. Keep the outfit away from areas which have dirt, vapor, and volatile fumes in the atmosphere which may clog and gum the intake filter and valves causing inefficient operation. Where this is not practical a remote air intake is recommended.

NOTE

Where a remote air intake is used, enlarge the size of the air intake piping by one pipe size for each 10 feet of length.

The flywheel side of the outfit should be placed toward the wall and protected with a totally enclosed belt guard. In no case should the flywheel be closer than 12 to 18 inches from the wall or other obstruction that will interfere with the flow of air through the fan bladed flywheel. The area should allow space on all sides for air circulation and for ease of normal maintenance.

⚠CAUTION

The compressor outfit must not be operated in any confined area where heat from the outfit cannot readily escape. Damage to the outfit may result.

VIBRATION MOUNTING KIT (Stationary Compressor Outfits)

⚠WARNING

Bolting legs to a stiff surface can cause tank rupture resulting in serious injury or damage. Do not permanently mount compressor to any surface without using the vibration mount kit.

Stationary outfits must be bolted or lagged to the floor to prevent movement. When lagging down, leave a minimum of 1/8 inch between the bolt and support feet. The use of vibration pads at each support foot is required to eliminate the possibility of tank rupture.

1. Using the holes in the air tank support legs as a guide, mark and drill four 5/16 inch diameter holes in the mounting surface.

2. Insert the vibration mounts under the mounting holes. Place a flat washer under the mounting surface and secure each mount with a lockwasher and nut. See Figure 1.

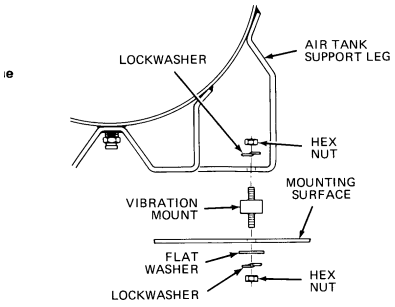


Figure 1 - Typical Installation of Vibration Mounting Kit

AIR LINE PIPING
(STATIONARY COMPRESSOR OUTFITS)

⚠WARNING

The use of plastic pipe, soldered joint, or failure to insure system capability of flex joints and flexible hose can result in mechanical failure, property damage, and serious injury.

Plastic or PVC pipe is not designed for use with compressed air. Regardless of its indicated pressure rating, plastic pipe can burst from air pressure. Use only metal pipe for air distribution lines.

A typical compressed air distribution system as shown in Figure 2, should be of sufficient pipe size to keep the pressure drop between the supply and point of use to a minimum. All pipes and fittings used must be certified safe for the pressures involved. Pipe thread sealant must be used on all threads, and all joints are to be made up tight, since small leaks in the piping system are the largest single cause of high operating costs.

All piping should be sloped to an accessible drain point and all outlets should be taken from the top of the main distribution air line so that moisture cannot enter the outlet.

The main distribution air line should not be smaller than the compressor air discharge valve outlet. A smaller line will restrict the flow of air. It is recommended that a flexible coupling be installed between the air discharge valve outlet and main air distribution line to allow for vibration.

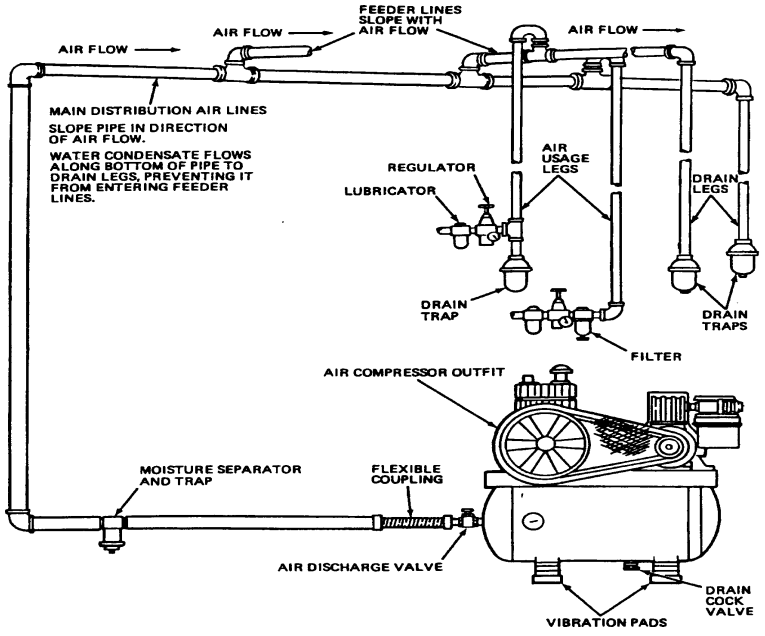
To remove entrained dirt, oil and water, install a separator in the main distribution line, a sufficient distance from the compressor. This will allow the air to cool to room temperature before passing through the separator.

Additional separators or filter may be used depending on the application.

NOTE

For underground installation, bury air lines below the frost line and avoid pockets where condensation can gather and freeze. Apply pressure before underground lines are covered to make sure all pipe joints are free from leaks.

Figure 2.
Typical Compressed Air Distribution System



OPERATION

Operator Controls

The operator controls for the operation of the gasoline compressor outfit are located between the compressor pump and gasoline engine.

Unloader Valve

The unloader is used because frequent start-ups and stops are impractical with a gasoline engine. The unloader valve is preset at the factory. **Never attempt to make adjustments to the unloader valve.**

⚠WARNING

Pressure loads beyond the design limits may cause tank rupture or explosion. Do not attempt to adjust, remove, or defeat the unloader valve, or change and modify any pressure control device. If replacement is necessary, the same rated valve must be used.

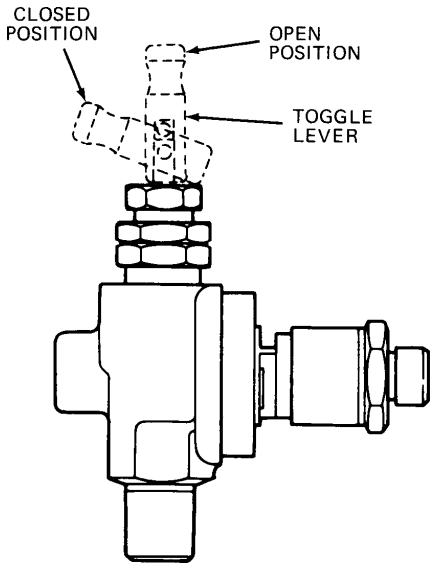


Figure 3. Unloader Valve

The unloader valve, Figure 3, is controlled by tank pressure. Compressors with unloaders run continuously and maintain air pressure within set limits. At maximum tank pressure the unloader valve opens and the compressed air is exhausted to the atmosphere. This prevents the compressor from continually building more pressure if air is not needed. When the tank pressure drops to a predetermined minimum pressure, the unloader valve closes and the compressor again builds up the tank pressure. Pressure continues to build until maximum tank pressure is achieved. The cycle then repeats itself.

The toggle lever at the top of the unloader valve should be placed in the straight up or vertical position when starting up the compressor. This prevents the compressor from starting under load. Once the engine has reached full throttle, the lever should be returned to the horizontal position to allow the compressor pump to build compressed air in the air tank.

⚠WARNING

Over-pressurization of the air tank may cause tank rupture or explosion. The air tank is protected from over-pressurization by a safety valve. Do not eliminate, make adjustments or subsitutions to this device. Occasionally pull the ring on the safety valve to make sure it operates freely, if not it must be replaced. Intercooler safety valves used on two stage outfits must be similarly checked.

The safety valve, is set at the factory at a pressure approximately 15 pounds higher than the rated pressure of the outfit. If the unloader valve malfunctions and does not exhaust compressed air automatically at maximum tank pressure, the safety valve will protect the air tank against excessive air pressure by popping off at its preset pressure.

Two stage compressors with unloader controls will have a safety valve on the intercooler, set approximately 50 to 55 pounds. The purpose of this safety valve is to prevent the full tank pressure building up in the large, low pressure cylinder or intercooler.

OPERATOR CONTROLS (cont'd)

THROTTLE CONTROL

During normal operation, as maximum tank pressure is obtained, the unloader exhausts compressed air and activates the throttle control of the engine. The throttle control holds the engine at a factory set idling speed until air pressure in the tank drops to reset or minimum tank pressure. The unloader then reactivates the throttle control and accelerates the engine to full throttle.

ADDITIONAL REGULATORS AND CONTROLS

Since the air tank pressure is usually greater than that which is needed, a separate regulator is usually employed to control the air pressure to any individual air driven device.

OPERATING PROCEDURES

DAILY STARTUP PROCEDURES

Perform the following checks before starting the compressor outfit.

⚠CAUTION

The gasoline engine and air compressor pumps on all compressor outfits are shipped without oil. Do not attempt to operate for any reason without first adding oil to the engine and compressor pump crankcase. Serious damage can result from even very limited operation unless filled with oil and broken in correctly. Make sure to closely follow the initial startup procedures.

NOTE

The compressor outfit should be placed on a level surface in a dry, clean, well ventilated, area. Do not place any material on or against the belt guard. This blocks ventilator openings necessary for proper compressor cooling.

1. Check the engine oil level. Add oil if necessary. Refer to Engine Owner's Manual oil specifications.
2. Check the pump oil level. (See chart below)

TWO STAGE COMPRESSOR UNITS

Viscosity Chart

Recommended Oil (API SG/CD Heavy Duty)	Room or Ambient Temperature
SAE20	Below 20ºF
SAE40	Above 32ºF

Crankcase capacity equals approximately 56 fluid ounces.

3. Ensure that nothing is blocking the belt guard air openings.
4. Pull the ring on all safety valves to make sure the valves move freely and smoothly.

⚠WARNING

Gasoline is extremely flammable and explosive. Refuel in a well ventilated area with engine stopped.

Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.

⚠WARNING

Do not overfill the tank and make sure the filler cap is securely closed after refueling. Be careful not to spill fuel when refueling. Fuel vapor or spilled fuel may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.

5. Check the engine fuel tank level. Add fuel if necessary.
6. Close the air discharge valve.
7. Set the toggle lever of the unloader valve in the vertical position to relieve compressor head pressure.
8. Move the control lever or choke lever to the **CHOKE** position.
9. Turn the engine lever or key switch to the **ON** position.

NOTE

If the engine is warm or the air temperature is high, move the control lever or choke lever away from the CHOKE position as soon as the engine starts.

OPERATING PROCEDURES (cont'd)

DAILY STARTUP PROCEDURES (cont'd)

Break-In Procedures:

Upon starting the compressor for the first time, open the air discharge valve fully to prevent pressure buildup in the tank. Let the compressor operate for 15 minutes. Once this is complete, close the air discharge valve to allow the unit to build pressure.

10. Start the compressor outfit by pulling the starter handle or by depressing the starter button. Return the toggle lever on the unloader valve to the horizontal position and allow the outfit to pump up to maximum tank pressure. Check that the unloader exhausts air at maximum tank pressure.

11. Check the following:

    a. Make sure all controls are operating correctly. Refer to the "Operator Controls" section of this manual. A separate gasoline engine instruction manual is provided detailing engine operation.
    b. Check all air lines, fittings and pipes for leaks. Even minor leaks can cause the compressor to overwork resulting in premature breakdown or unsatisfactory performance.
    c. Check for excessive vibration and noise. Correct any defects found.
    d. Check for oil leaks. Correct any leaks found.

12. After all checks are complete, your air compressor is now ready for use.

SHUT DOWN PROCEDURES

To stop the engine in an emergency, turn the engine ON/OFF lever or key switch to the OFF position. Under normal conditions, use the following procedures.

1. Allow the tank pressure to build to maximum and the engine to throttle down to idle speed.
2. Turn the engine lever or key switch to the OFF position.
3. Close the air discharge valve.
4. Remove air tool or accessory.
5. Open air discharge valve or regulator to allow air to slowly bleed from the tank. Close the air discharge valve or regulator when the tank pressure is approximately 20 psig.
6. Drain water and remaining pressure from tank.

MAINTENANCE

⚠WARNING

Moving parts, unexpected engine start-up and compressed air can cause serious injury. Always disconnect the spark plug wire and relieve pressure from the air tank before performing any of these service procedures. Never operate the air compressor with the belt guard removed.

A clean air compressor runs cooler and provides longer service. Clean or blow off fins and any other parts of the air compressor that collect dust or dirt. Do not place rags, containers or other material on or against the ventilation openings in the belt guard. Adequate ventilation is necessary to maintain proper air compressor operating temperature.

⚠CAUTION

For any maintenance instructions, recommended oil and fuel for the gasoline engine, refer to "Gasoline Engine Owners Manual".

ROUTINE MAINTENANCE SCHEDULE

DAILY

1. Check the gasoline engine and air compressor pump oil levels; add if necessary.

NOTE

Drain and refill the compressor pump crankcase after the first 100 hours of operation.

2. Drain water from the air tank and any moisture separators or transformers.
3. Check for any unusual noise and/or vibration.
4. Manually check all safety valves to make sure they are operating properly.
5. Check the gasoline engine's fuel level. Add fuel if necessary.
6. Inspect for oil leaks and repair any leaks found.

WEEKLY

1. Clean and inspect the compressor air intake filter; replace if necessary.
2. Check the condition of the air cleaner on the gasoline engine. Clean and/or replace as necessary.
3. Inspect condition of drive belt; replace if necessary.
4. Clean outside parts of the compressor as well as the engine in order to maintain efficient cooling.

MONTHLY

1. Check the alignment of the engine pulley to the flywheel if necessary, align to within 1/16 inch.
2. Inspect for and correct any oil leaks.
3. Check drive belt tension adjust if necessary.
4. Inspect air lines and fittings for leaks; correct as necessary.

EVERY 500 HOURS OF OPERATION

1. Drain and refill compressor crankcase with clean oil.

EVERY 2000 HOURS OF OPERATION, OR IF A PROBLEM IS SUSPECTED

1. Check condition of compressor pump intake and exhaust valves. Replace if damaged or worn out.

MAINTENANCE (cont'd)

CHECKING AND CHANGING OIL

⚠CAUTION

Overfillng with oil will cause premature air compressor failure. Do not overfill.

1. Check oil level in compressor crankcase before each use.

   a. For two stage compressors the oil level should be to the middle of the oil sight glass (the red dot).

2. Replace the oil after every 500 hours of operation, or at least once a year.

NOTE

The compressor pump oil must be changed after the first 100 hours of operation.

3. Remove the oil fill and drain plugs. Collect the oil in a suitable container.

4. Replace the oil drain plug and refill the crankcase with recommended oil. See page 10.

NOTE

It is important to maintain the proper oil level. A low oil level reduces proper cylinder wall lubrication and increases ring wear.

5. Replace the oil fill plug.

6. Start the engine and run the compressor outfit for several minutes. Shut the compressor down and check the oil level. Add more oil if necessary.

CHECKING AND CHANGING AIR INTAKE FILTER

NOTE

Keep the air filter clean at all times. Do not operate compressor outfit when the filters are removed.

The condition of the air intake filter should be checked once a week. A dirty air intake filter will not allow the compressor to operate at full capacity and will increase oil usage.

When the air filter becomes dirty, oily, or covered with paint overspray it must be replaced. To check and/or replace the air intake filter, remove the wing nut securing the filter assembly to the air compressor pump. Remove the filter. Inspect condition of filter, replace if necessary.

NOTE

Felt and foam intake filters can be washed in non-explosive solvent. Allow to dry and reinstall. DO NOT OIL INTAKE FILTERS.

DRAINING WATER FROM AIR TANK

⚠WARNING

Water will condense in the air tank. If not drained, the water will corrode and weaken the air tank. A weakened tank may explode or rupture causing personal injury. Drain the tank as instructed below.

Water should be drained from the air tank daily. If humidity is high the tank should be drained at regular intervals during the day. Operate the compressor outfit to allow 15 to 20 psi air pressure in the tank. Open the draincock. Continue operating outfit until all moisture is removed from the tank. Close the draincock tightly.

NOTE

If the draincock is clogged, release the air pressure in the tank. Remove the draincock and clean or replace. Apply sealant to the threads before reinstalling the draincock.

MAINTENANCE (cont'd)

CHECKING AND ADJUSTING BELT TENSION

⚠WARNING

Serious injury or damage may occur if parts of the body or loose items get caught in moving parts. Never operate the compressor outfit with the belt guard removed. The belt guard should only be removed after the spark plug wire has been disconnected.

The drive belt should be kept in proper tension as a loose belt will slip and wear faster. An over tightened belt will place an excessive load on the engine and compressor pump bearings causing premature failure. The belt tension should be checked as follows:

1. Disconnect the spark plug wire and drain all air pressure from the air tank.

2. Remove the belt guard.

3. Loosen all engine mounting hardware and slide the engine either toward or away from the compressor until correct belt tension is achieved.

   a. On compressors equipped with standard V-belts, each belt should deflect 1/4" at the midway point between the engine pulley and flywheel when a downard force of 8 pounds, is applied at the midway point. Refer to Figure 4.

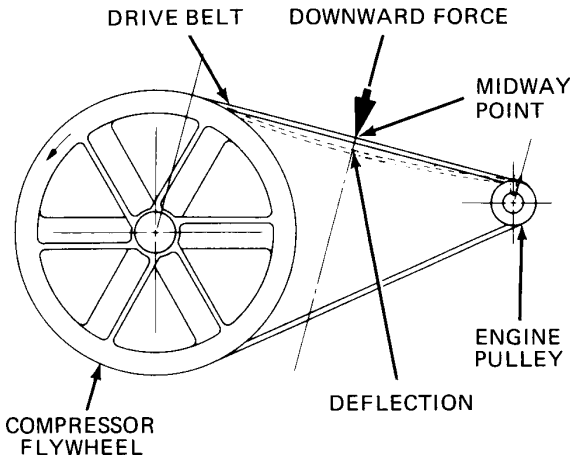


Figure 4. Checking Belt Tension

4. Hold the belt tension until the engine mounting hardware can be tightened.

5. Ensure that the belts are centered on the engine pulley and compressor flywheel.

NOTE

Once the engine has been moved from its factory set location the engine pulley must align to within 1/16 inch to the compressor flywheel.

6. Torque engine mounting bolts to **20-25 ft. lbs.**

7. Reinstall the belt guard.

8. Connect the spark plug wire.

TROUBLESHOOTING GUIDE

⚠WARNING

Performing service checks or repairs may expose moving parts, hot surfaces, or compressed air sources. Personal injuries may occur. Prior to attempting any service check or repairs, remove the spark plug wire, and bleed off all air pressure and allow outfit to cool. Never operate the outfit with the belt guard removed.

TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION
Gasoline Engine will not run. (Consult the "Gasoline Engine Owners Manual" for Manufacturer's Service Centers for warranty, repairs, service parts, maintenance, and oil and gasoline recommendations.)	The gasoline tank is empty.	Fill the tank with gas.
	The choke is not set properly.	Reset the choke. Remember, a warm engine requires less choking than a cold engine.
	Improper fuel mixture.	Adjust the fuel mixture.
	The unloader valve toggle lever is in a horizontal position.	Place unloading valve toggle lever in a vertical position. (Page 9)
		⚠WARNING **If any fuel is spilled, make sure the area is dry before testing the engine. Fuel vapor or spilled fuel may ignite.**
	No spark from the spark plug.	Remove the spark plug, clean and adjust gap or replace.
	Spark plug disconnected.	Connect spark plug.

TROUBLESHOOTING CHART(Continued)

PROBLEM	CAUSE	CORRECTION
Gasoline Engine will not run. (Consult the "Gasoline Engine Owners Manual" for Manufacturer's Service Centers for warranty, repairs, service parts, maintenance, and oil and gasoline recommendations.)	Clogged fuel line.	Clean.
	Water in fuel.	Be sure outfit is adequately protected from the elements so as to prevent water seeping into system. Drain contaminated fuel into a suitable container and add fresh fuel.
	Faulty choke control.	Adjust. See engine manufacturer's instructions included with engine.
	Improper fuel mixture.	Use only fuel recommended by engine manufacturer. See manufacturer's instructions.
	Loose ignition system connections.	Check all connections to insure tightness.
	Air leaks in carburetor or manifold connections.	Check to be sure all connections are tight.
Insufficient air and too much compressor "ON" time.	Restricted air intake	Clean filter or properly size pipe to the remote intake.
	Air leaks in system.	Check for source of leak and correct.
	Undersized unit for air requirement.	Replace with larger unit or purchase a second outfit.
	Worn or carbonized valves.	Replace.
Air leaks.	Tube fittings loose.	Tighten fittings with audible leak and check fittings under pressure with soapy water solution.
	Leak at welds	Contact DeVilbiss Air Power Company at 1-800-888-2468. **⚠WARNING** **Do not drill into, weld or otherwise modify air tank or tank will be weakened. Tank must be replaced.**

TROUBLESHOOTING CHART (Continued)

PROBLEM	CAUSE	CORRECTION
Air leaks (cont)	Air leak in safety valve.	Operate safety valve manually by pulling on ring. If valve still leaks, it should be replaced. **If safety valve or unloader valve replacement is necessary, a part with the same pressure rating must be used.**
	Defective check valve.	A defective check valve results in a constant air leak, back through the unloader valve when there is pressure in the air tank and the compressor is not running. Turn the engine off; move the unloader valve toggle lever to the vertical position. If air leaks out of the tank through the unloader valve, clean or replace the check valve. Remove and clean or replace, check valve. **(Do not overtighten).**
Low Discharge Pressure	Prolonged excessive use of air.	Decrease amount of air usage.
	Restricted check valve.	Remove and clean, or replace.
	Restricted air intake filter.	Clean or replace air intake filter.
	Air leaks.	Tighten fittings.
	Hole in hose or air piping.	Check and replace if required.
	Faulty pump.	Authorized Warranty Service Center to repair or replace.
Knocking	Loose pulley.	Tighten pulley set screw. (145-165 in-lbs.)
	Low oil level (compressor pump and/or gasoline engine).	Check oil level and maintain at prescribed level.
	Restricted check valve.	Remove and clean or replace.
	Wrong oil used.	Follow oil recommendations listed in the "Gasoline Engine Owners Manual". For engine see page 10 for Pump Oil Recommendations.
	Compressor and/or engine bolts loose.	Check all bolts and tighten as required.
	Excessive carbon deposits in head.	Remove the head and valve plate. Clean top of piston and bottom of valve plate. Reassemble using new gaskets and torque screws to 30-33 foot-pounds.

TROUBLESHOOTING CHART (Continued)

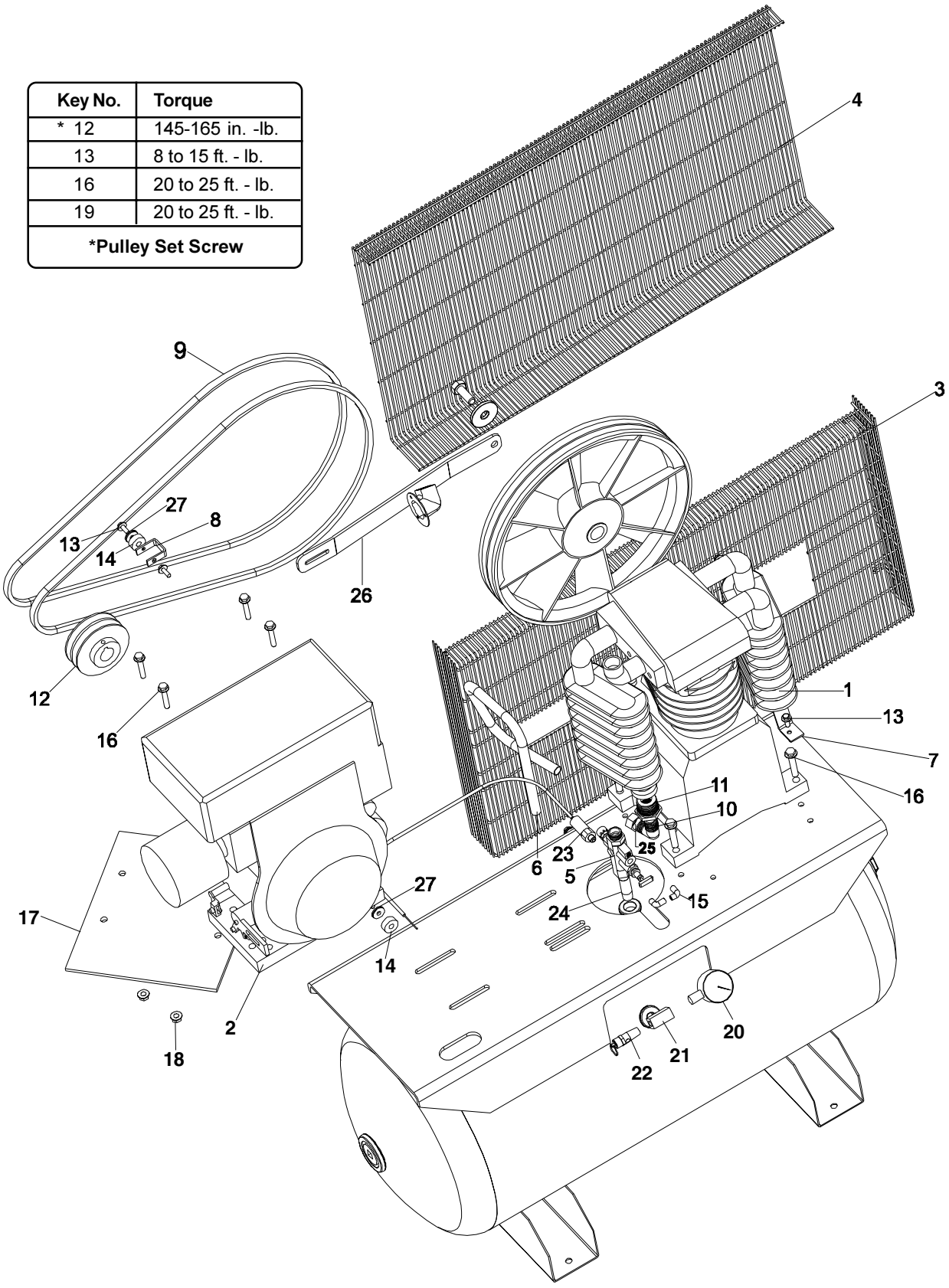
PROBLEM	CAUSE	CORRECTION
Knocking (cont)	Flywheel loose.	Make sure flywheel is tight by tightening screw. Torque screw to 33-37 ft. lbs.
	Loose belt.	Tighten belt tension to deflect 1/4" with 8 lbs. applied to mid span of belt.
Excessive Oil Comsumption	Restricted air intake.	Replace.
	Compressor overworked.	Reduce air consumption or add additional air compressor to take up load.
	Poor quality or automotive multiviscosity oil used.	Drain pump and replace with new oil. (Page 10)
	Excessive engine or compressor shaft end play.	Check pulley and/or flywheel for lateral movements. Contact engine manufacturer for repair, or DeVilbiss if a compressor problem exists.
Compressor Over heating	Compressor overworked.	Reduce air consumption or add additional air compressor to take up load.
	Check valve restricted.	Clean.
	Dirty compressor.	Clean.
	High ambient temperature.	Use remote air intake.
	Worn or carbonized valves.	Replace.
	Compressor too close to wall.	Relocate.
	Air leaks in system.	Check for source or leaks and correct.
	Under sized unit for air requirement.	Replace with a larger unit.
	Unloader not operating.	Replace.
	Remote air intake pipe to small or restricted.	Replace remote air intake pipping.
	Insufficient "OFF" time. Compressor is running almost continuously.	Compressor should not exceed 50% run time, which is maximum 30 min/hr. Check for source of leaks and correct, or replace with larger compressor.

TROUBLESHOOTING CHART (Continued)

PROBLEM	CAUSE	CORRECTION
Compressor Overheating (Cont)	Restricted air intake.	Remove and clean or replace air filter.
	Improper level and/or grade of oil used.	Check for proper oil levels and recommended oil usage. (See page 10)
	Damaged valves (intake and/or exhaust).	Repair or replace as necessary.
Excessive Belt Wear	Loose belt.	Tighten belt tension to deflect 1/4" with 8 lbs. applied to mid span of belt.
	Pulley misalignment.	Align pulley to within 1/16 inch of the flywheel.
	Loose pulley.	Check for worn key or pulley bore. Also check for bent engine shaft. Replace or repair as necessary.
		Tighten pulley set screw or bolt.
Reduced Air Delivery	Compressor valves leaking, sticking or carboned up.	Replace.
	Worn rings.	Replace.
	Head gasket leaking.	Tighten or replace gasket.
	Restricted air intake.	Clean or replace.
	Loose drive belt.	Tighten belt tension to deflect 1/4" with 8 lbs. applied to mid span of belt.
Water in Crankcase; oil appears milky in color.	Unit not reaching proper operating temperature because the compressor runs in frequently and is oversized for the air requirement.	Consult with factory or dealer.
	Humid operating conditions.	Relocate compressor outfit. Change oil frequently. Avoid cylinder rusting and ring wear.

Air Compressor Diagram

Key No.	Torque
* 12	145-165 in. -lb.
13	8 to 15 ft. - lb.
16	20 to 25 ft. - lb.
19	20 to 25 ft. - lb.
***Pulley Set Screw**	



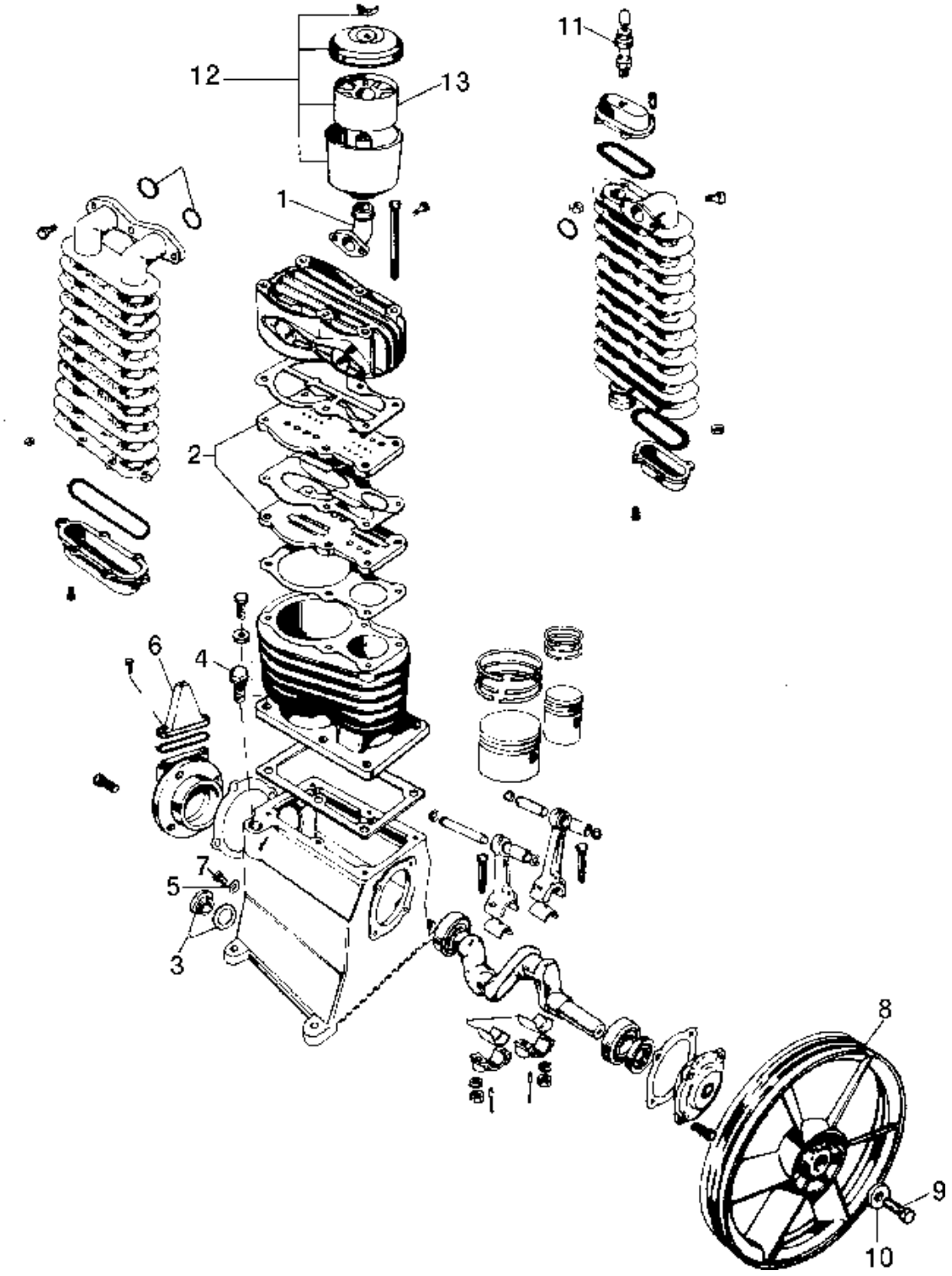
Parts List

Key No.	Part Number	Description
1	BAL-T39	Two-Stage Compressor Pump
2	AC-0421	11 Hp Robin Engine
3	CAC-1334-1	Inside Beltguard
4	CAC-1335	Outside Beltguard
5	AC-0509	Unloader Valve
6	AC-0422	Outlet Tube 5/8"
7	AC-0485	Beltguard Bracket
8	AC-0530	Beltguard Bracket
9	BT-310	Belt (2 used)
10	SSP-6461	Elbow
11	SSP-529	Bushing
12	PU-2903	Pulley
13	91895680	Screw ¼-20 x 0.75
14	CAC-1011	Elastomer Bushing
15	SSP-535	Elbow (2 used)
16	SSF-3159	Pump Bolt - 3/8”-16 x 2” (8 used)
17	AC-0528	Stiffener Plate
18	SSF-8111-ZN	Engine Nut - 3/8”-16 (4 used)
20	GA-359	Gauge
21	SSP-6820	Tee
22	TIA-4200	Safety Valve
23	AC-0510	Throttle Control Assembly
24	SSP-454	Nipple - 1/2 NPT x 2½”
25	SSP-7824	Nut/Sleeve Assembly 5/8" (2 used)
26	CAC-1343-1	Strap
27	SSN-51	Washer (5 used)

Not Shown

SS-2707	Drain Valve
KK-4877	Isolator Kit
SSF-8131	Beltguard Nut(4 used)
SSF-953-ZN	Beltguard Screw (4 used)
SST-100	Engine Pulley Key

Compressor Pump Diagram



Parts List

Key No.	Part Number	Description
1	AC-0454	AIR INLET ELBOW
2	BAL-1000345	VALVE PLATE
3	BAL-1000306	OILSIGHT GLASS
4	BAL-1000519	OIL FILL PLUG
5	BAL-1000269	OIL PLUG GASKET
6	BAL-1000112	OIL BREATHER ASSEMBLY
7	SSP-525	DRAIN PLUG
8	AC-0436	FLYWHEEL
9	BAL-1000587	FLYWHEEL BOLT
10	BAL-1000417	FLYWHEEL WASHER
11	AC-0469	SAFETY VALVE (AFTERCOOLER)
12	AC-0437	INLET FILTER ASSEMBLY
13	AC-0438	AIR FILTER ELEMENT

KITS AVAILABLE

BAL-8226021	RING KIT
BAL-8226022	GASKET KIT
BAL-8226024	VALVE KIT
BAL-8226023	RUNNING GEAR KIT

General Operation and Parts Instructions for Gasoline Compressor Outfits

MODEL NO.

L1130GH2

Call our ***Toll Free Number 1-800-888-2468, Ext 2, then 1*** to obtain the location of the nearest Authorized Service Center for ordering repair parts and for warranty repairs.

When ordering repair parts from your local Authorized Service Center, always give the following information:

- Model number of your product
- Part number and description of the item you wish to purchase

WARRANTY

This product is covered by the DeVilbiss one year limited warranty. The warranty can be found in this General Manual or is available upon request

Attach Sales Receipt here.

Retain Original Sales Receipt as Proof of Purchase for Warranty Repair Work.

DeVilbiss Air Power Company • 213 Industrial Dr. • Jackson, TN 38301-9615