



OPERATION/MAINTENANCE
MANUAL & PARTS LIST

Gasoline Engine Driven Two Stage Air
Compressor Featuring the R15BHU Compressor

 **WARNING**

THIS MANUAL CONTAINS IMPORTANT SAFETY INFORMATION AND SHOULD ALWAYS BE AVAILABLE TO THOSE PERSONNEL OPERATING THIS UNIT. READ, UNDERSTAND AND RETAIN ALL INSTRUCTIONS BEFORE OPERATING THIS EQUIPMENT TO PREVENT INJURY OR EQUIPMENT DAMAGE.

MODELS

| | |
|---------|----------|
| HGR3-3 | HGR7-6K |
| HGR3-LP | HGR7-6H |
| BGR7K | HGR7-8K |
| BGR7H | HGR7-8H |
| HGR7-3K | HGR7-LPK |
| HGR7-3H | HGR7-LPH |

MAINTAIN COMPRESSOR RELIABILITY AND PERFORMANCE WITH GENUINE CHAMPION® COMPRESSOR PARTS AND SUPPORT SERVICES

Champion® Compressor genuine parts, manufactured to design tolerances, are developed for optimum dependability – specifically for Champion compressor systems. Design and material innovations are the result of years of experience with hundreds of different compressor applications. Reliability in materials and quality assurance are incorporated in our genuine replacement parts.

Your authorized Champion Compressor distributor offers all the backup you'll need. A worldwide network of authorized distributors provides the finest product support in the air compressor industry. Your authorized distributor can support your Champion air compressor with these services:

1. Trained parts specialists to assist you in selecting the correct replacement parts.
2. A full line of factory tested CHAMPLUB™ compressor lubricants specifically formulated for use in Champion compressors.
3. Repair and maintenance kits designed with the necessary parts to simplify servicing your compressor.

Authorized distributor service technicians are factory trained and skilled in compressor maintenance and repair. They are ready to respond and assist you by providing fast, expert maintenance and repair services.

To Contact Champion or locate your local distributor:

Visit: www.championpneumatic.com

Or

Call: (888)436-5499

INSTRUCTIONS FOR ORDERING REPAIR PARTS

When ordering parts, specify Compressor MODEL, HORSEPOWER and SERIAL NUMBER (see nameplate on unit). All orders for Parts should be placed with the nearest authorized distributor.

Order by part number and description. Reference numbers are for your convenience only.

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SAFETY AND OPERATION PRECAUTIONS

Because an air compressor is a piece of machinery with moving and rotating parts, the same precautions should be observed as with any piece of machinery of this type where carelessness in operation or maintenance is hazardous to personnel. In addition to the many obvious safety rules that should be followed with this type of machinery, the additional safety precautions as listed below must be observed:

1. Read all instructions completely before operating air compressor or unit.
2. For installation, follow all local safety codes, as well as the Occupational Safety and Health Act (OSHA).
3. Do not attempt to remove any compressor parts without first relieving the entire system of pressure.
4. Do not attempt to service any part while machine is in an operational mode.
5. Do not operate the compressor at pressures in excess of its rating.
6. Do not operate compressor at speeds in excess of its rating.
7. Periodically check all safety devices for proper operation. Do not change pressure setting or restrict operation in any way.
8. Be sure no tools, or rags or loose parts are left on the compressor or drive parts.
9. Do not use flammable solvents for cleaning the air inlet filter or element and other parts.
10. Exercise cleanliness during maintenance and when making repairs. Keep dirt away from parts by covering parts and exposed openings with clean cloth or Kraft paper.
11. Do not operate the compressor without guards, shields and screens in place.
12. Do not install a shut-off valve in the discharge line, unless a pressure relief valve, of proper design and size, is installed in the line between the compressor unit and shut-off valve.
13. Do not operate compressor in areas where there is a possibility of ingesting flammable or toxic fumes.
14. Be careful when touching the exterior of a recently run engine - it may be hot enough to be painful or cause injury.
15. Inspect unit daily to observe and correct any unsafe operating conditions found.
16. Do not "play around" with compressed air or direct air stream at body, because this can cause injuries.
17. Compressed air from this machine absolutely must not be used for food processing or breathing air without adequate downstream filters, purifiers and controls.
18. Always use an air pressure regulating device at the point of use, and do not use air pressure greater than marked maximum pressure of attachment.
19. Check hoses for weak or worn condition before each use and make certain that all connections are secure.
20. Always wear safety glasses when using a compressed air blow gun.
21. Engine drive unit precautions
 - Understand the operation of all controls and learn how to stop the engine quickly in case of emergency. Make sure the operator receives adequate instruction before operating the equipment.
 - Do not allow children to operate the engine. Keep children and pets away from the area of operation.
 - Your engine's exhaust contains poisonous carbon monoxide. Do not run the engine without adequate ventilation, and never run the engine indoors.
 - The engine and exhaust become very hot during operation. Keep the engine at least 1 meter (3 feet) away from buildings and other equipment during operation. Keep flammable materials away, and do not place anything on the engine while it is running.

The user of any air compressor package manufactured by Champion is hereby warned that failure to follow the preceding Safety and Operation Precautions can result in injuries or equipment damage. However, Champion does not state as fact or does not mean to imply that the preceding list of Safety and Operating Precautions is all inclusive, and further that the observance of this list will prevent all injuries or equipment damage.

EXPLANATION OF SAFETY INSTRUCTION SYMBOLS AND DECALS



Indicates immediate hazards which will result in severe injury or death.



Indicates hazards or unsafe practice which could result in severe injury or death.



Indicates hazards or unsafe practice which could result in damage to the Champion compressor or minor injury.

NOTICE

Notice is used to notify people of installation, operation or maintenance information which is important but not hazard-related.

SAFETY AND OPERATION PRECAUTIONS

OBSERVE, UNDERSTAND AND RETAIN THE INFORMATION GIVEN IN THE SAFETY PRECAUTION DECALS AS SHOWN IN THE PARTS LIST SECTION



This reciprocating compressor must not be used for breathing air. To do so will cause serious injury whether air is supplied direct from the compressor source or to breathing tanks for later use. Any and all liabilities for damage or loss due to injury, death and/or property damage including consequential damages stemming from the use of this compressor to supply breathing air, will be disclaimed by the manufacturer.



The use of this compressor as a booster pump and/or to compress a medium other than atmospheric air is strictly non-approved and can result in equipment damage and/or injury.



This unit may be equipped with special options which may not be included in this manual. User must read, understand and retain all information sent with special options.

INTRODUCTION

Champion R Series compressors are the result of advanced engineering and skilled manufacturing. To be assured of receiving maximum service from this machine the owner must exercise care in its operation and maintenance. This book is written to give the operator and maintenance department essential information for day-to-day operation, maintenance and adjustment. Careful adherence to these instructions will result in economical operation and minimum downtime.

WARRANTY

Champion Five Year Warranty "R" Series Compressors

CHAMPION warrants each new compressor pump manufactured by **CHAMPION**, mounted on a factory assembled unit, to be free from defects in material and workmanship under normal use and service for a period of sixty (60) months from date of installation or sixty-six (66) months from date of shipment by **CHAMPION** or **CHAMPION** distributor, whichever may occur first. **Applies to the compressor pump only, excluding head valves. Valves, controls and accessories are warranted for the first year only.** Compressor pumps purchased separately would carry a one year warranty.

This five year extended warranty will be prorated over the 5 years as follows:

| | | |
|-------------|---|---------------------------------|
| First Year | - | 100% Allowance, Parts and Labor |
| Second Year | - | 90% Allowance, Parts and Labor |
| Third Year | - | 80% Allowance, Parts and Labor |
| Fourth Year | - | 70% Allowance, Parts and Labor |
| Fifth Year | - | 60% Allowance, Parts and Labor |

Applies to CHAMPION logo, tank or base mounted complete compressors only.

Express Limited Warranty

CHAMPION warrants each new air compressor unit manufactured by **CHAMPION** to be free from defects in material and workmanship under normal use and service for a period of twelve (12) months from date of installation or eighteen (18) months from date of shipment by **CHAMPION** or **CHAMPION** distributor, whichever may occur first.

CHAMPION makes no warranty in respect to components and accessories furnished to **CHAMPION** by third parties, such as **ELECTRIC MOTORS, GASOLINE ENGINES** and **CONTROLS**, which are warranted only to the extent of the original manufacturer's warranty to **CHAMPION**. To have warranty consideration, electric motors must be equipped with thermal overload protection.

The extended five year warranty will apply to ASME air receivers provided they are installed on rubber vibro isolator pads or approved equivalent.

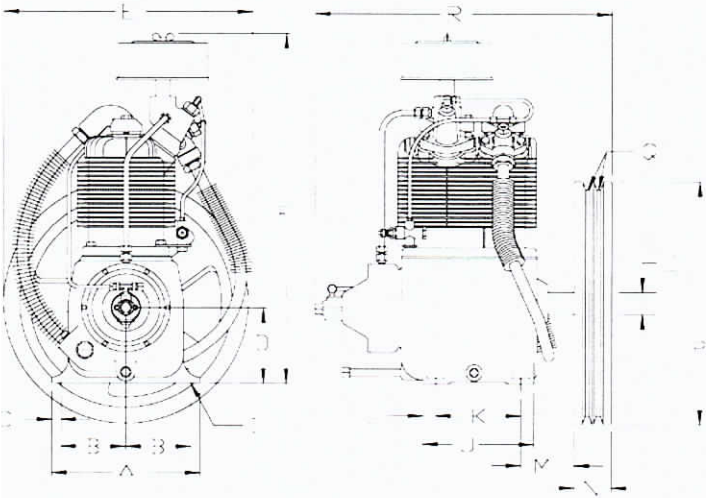
When a compressor pump, or component is changed or replaced during the warranty period, the new/replaced item is warranted for only the remainder of the original warranty period.

Repair, replacement or refund in the manner and within the time provided shall constitute **CHAMPION'S** sole liability and your exclusive remedy resulting from any nonconformity or defect. **CHAMPION SHALL NOT IN ANY EVENT BE LIABLE FOR ANY DAMAGES, WHETHER BASED ON CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, INCLUDING WITHOUT LIMITATION ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES, ARISING WITH RESPECT TO THE EQUIPMENT OR ITS FAILURE TO OPERATE, EVEN IF CHAMPION HAS BEEN ADVISED OF THE POSSIBILITY THEREOF.**

CHAMPION MAKES NO OTHER WARRANTY OR REPRESENTATION OF ANY KIND, EXCEPT THAT OF TITLE, AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY DISCLAIMED. NO SALESMAN OR OTHER REPRESENTATIVE OF CHAMPION HAS AUTHORITY TO MAKE ANY WARRANTIES.

TWO STAGE AIR COMPRESSORS - MODEL R15BHU

DIMENSIONS



C-593-B
(Ref. Drawing)

| | ITEM | R15BHU |
|---|---------------------------|---------|
| A | Base-Width | 10" |
| B | Bolt Down-Width | 4-3/8" |
| C | Bolt Down to Edge | 5/8" |
| D | Base to Crank Ctr | 5-1/2" |
| E | Overall Width | 18" |
| F | Overall Height | 23-1/4" |
| G | Bolt Down Hole Dia. | 15/32" |
| H | Base-Depth | 7-1/2" |
| I | Bolt Down Depth | 5-3/4" |
| J | Bolt Down to Edge | 7/8" |
| K | Bolt Hole to Wheel (Max.) | 3-5/8" |
| L | Flywheel Width | 2-1/2" |
| M | Crank Diameter | 1-5/16" |
| N | Flywheel Diameter | 16-1/2" |
| O | Flywheel Grooves | 2VB |
| P | Overall Depth | 20" |

NOTE:

Flywheel Rotation – Clockwise when viewed from front, flywheel to rear.

SPECIFICATIONS

| MODEL | BORE & STROKE (INCH) | NO. of CYLINDERS | OIL CAPACITY (QTS) | WEIGHT (LBS) | MAXIMUM PRESSURE (PSIG) | CU FT./REV. | MIN./MAX. RPM. |
|--------|----------------------|------------------|--------------------|--------------|-------------------------|-------------|----------------|
| R15BHU | 4-5/8" & 2-1/2" x 3" | 2 | 2 | 109 | 175 | .02914 | 400/1050 |

INSTALLATION



Do not operate unit if damaged during shipping, handling or use. Operating unit if damaged may result in injury.

1. Permanently installed compressors must be located in a clean, well ventilated dry room so compressor receives adequate supply of fresh, clean, cool and dry air. It is recommended that a compressor, used for painting, be located in a separate room from that area wherein body sanding and painting is done. Abrasive particles or paint, found to have clogged the air intake filters and intake valves, shall automatically void warranty.
2. Compressors should never be located so close to a wall or other obstruction that flow of air through the fan blade flywheel, which cools the compressor, is impeded. Permanently mounted units should have flywheel at least 12" from wall.
3. Place stationary compressors on firm level ground or flooring. Permanent installations require bolting to floor or truck bed. Bolt holes in tank or base feet are provided. Before bolting or lagging down, shim compressor level. Avoid putting a stress on a tank foot by pulling it down to floor. This will only result in abnormal vibration, and possible cracking of air receiver. It is recommended that unit be set on optional vibro-isolator pads. Tanks bolted directly to a floor without isolators will not be warranted against cracking. Champion vibro-isolators or approved equivalent must be installed for extended warranty to apply to ASME receivers.
4. If installing base mounted unit, make certain the pressure limiting controls are properly installed and operational. The unloading system requires a control air pressure line from the air receiver to be connected to the pilot valve fitting on the pump.
5. Gas engine driven units installed indoors must have proper engine exhausting out of building.
* See Safety & Precautions Item 21 (page 3).
6. Battery and Wiring Recommendations:
 - A. If engine is connected to a dedicated battery
 1. The battery should have a minimum capacity of 24 AH and at least 350 CCA rating
 2. The wire size must be a minimum of #4 AWG. If the positive cable is longer than 5 feet or the negative cable is longer than 7.5 feet the wire size should be increased so that the maximum voltage drop from the battery to the unit connection does not exceed 0.5 volts while cranking. The battery location should be selected to keep the connecting leads as short as possible.
 3. Care should be taken when routing battery leads to insure that the leads are properly supported and insulated.
 4. The positive lead should be color coded RED and all connections should be enclosed by non-conducting covers. See Figure 1 for Kohler connection. See Figure 2 for Honda connection.
 5. The negative lead should be connected directly to the engine using one of the four 3/8" diameter mounting foot studs.
 6. Electrical connections should be regularly inspected to insure that they are clean and tight.

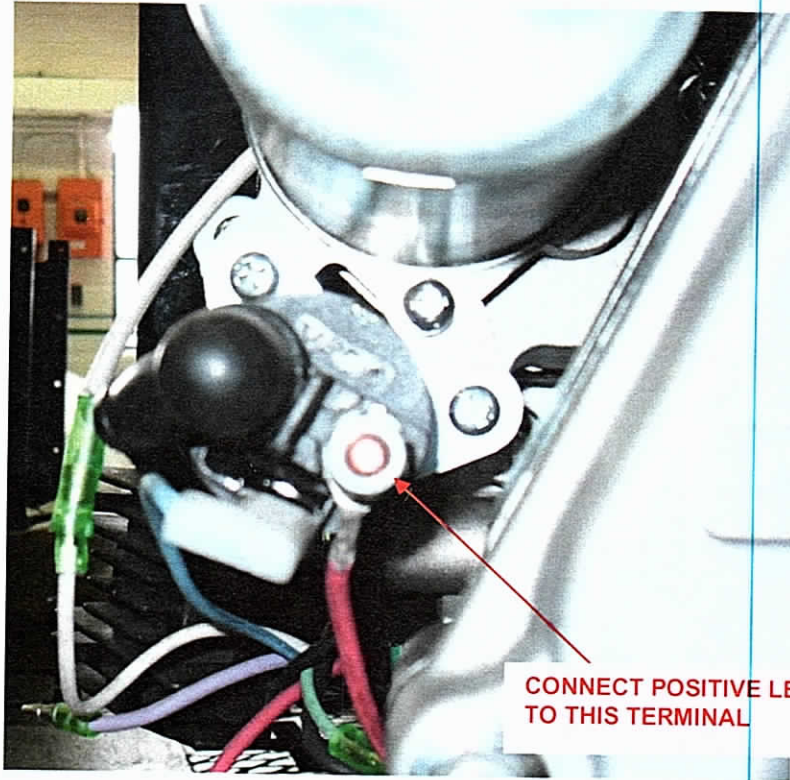


Figure 1

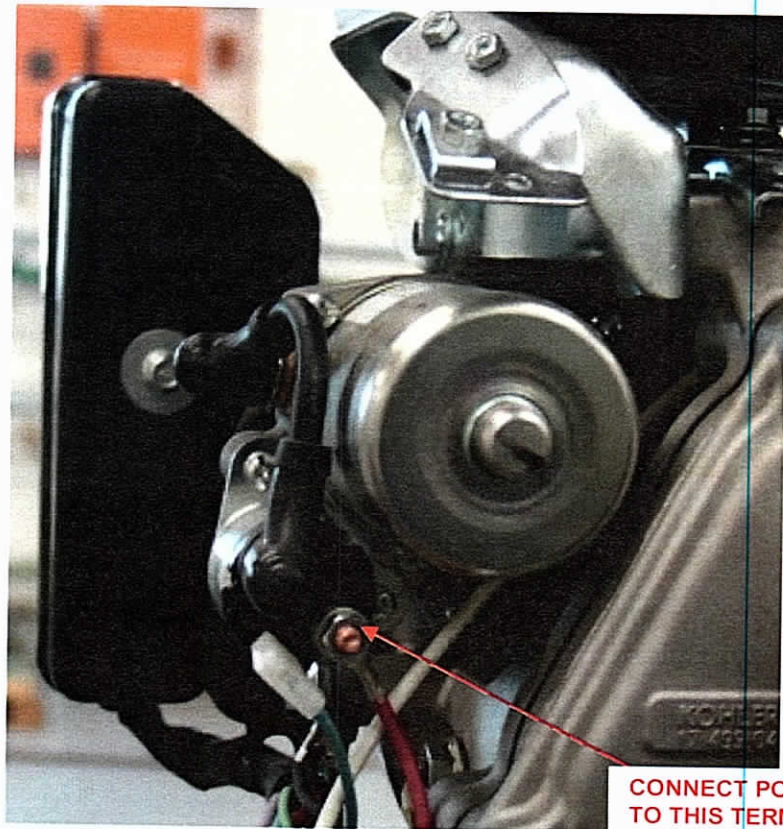


Figure 2

B. HONDA ENGINE ONLY: If engine is connected to the vehicle battery.

1. The vehicle battery should have a minimum capacity of 24 AH and at least 350 CCA rating.
2. The wire size must be a minimum of #4 AWG. If the positive cable is longer than 5 feet or the Negative cable is longer than 7.5 feet the wire size should be increased so that the maximum voltage drop from the battery to the unit connection does not exceed 0.5 volts while cranking. The battery location should be selected to keep the connecting leads as short as practical.
3. The Honda engine's charging system should be disabled to prevent the damage from the vehicles charging system. This is done by removing the rectifier diode that is located in the key switch box.
 - a) Remove the Phillips head screw holding the black plastic cover on the back of the key switch box See Figure 3.

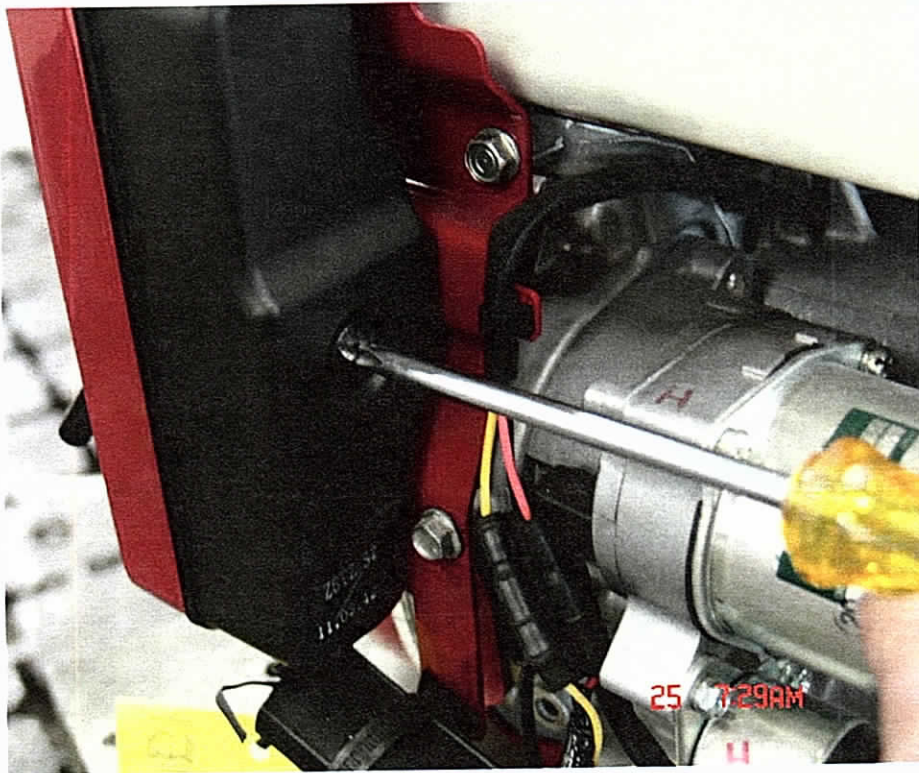


Figure 3

- b) Remove the black plastic cover from the back of the key switch box. Locate the black rectangular rectifier diode. It is on the side closet to the engine. Gently pry back the white plastic retainer clip on top of the diode closest to the key switch end and remove the diode. See Figure 4

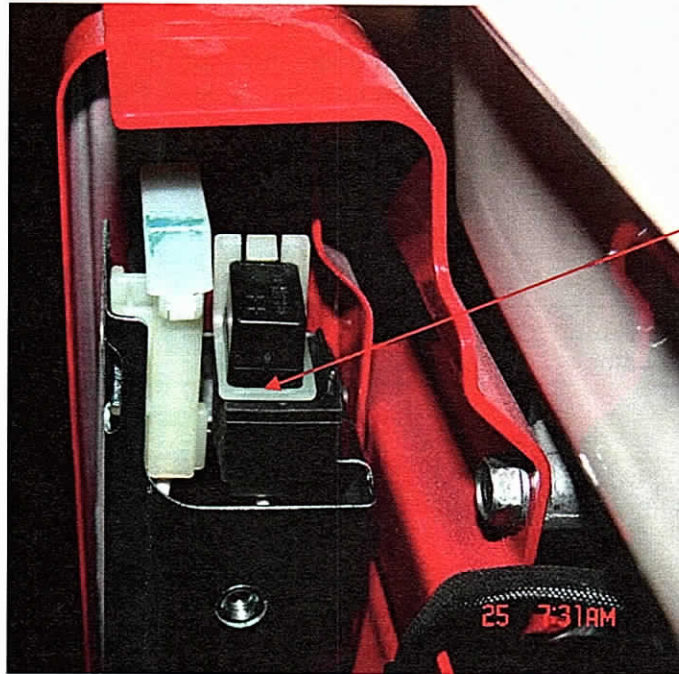


Figure 4

- c) Replace the black plastic cover on the back of the key switch box. Insure rubber wire grommet is installed correctly in the slot.
- d) Tighten Phillips head screw.
4. Care should be taken when routing battery leads to insure that the leads are properly supported and insulate.
 5. The positive lead should be color coded RED and all connections should be enclosed by non-conducting covers. See Figure 2
 6. The negative lead should be connected directly to the Honda engine using one of the four 3/8" diameter mounting foot studs.
 7. Electrical connections should be regularly inspected to insure that they are clean and tight.

⚠ DANGER

Do not install isolating valves between compressor outlet and air receiver. This will cause excessive pressure if valve is closed, and cause injury and equipment damage.

⚠ WARNING

Always use an air pressure regulating device at the point of use. Failure to do so can result in injury or equipment damage.

⚠ CAUTION

- Do not install in an area where ambient temperature is below 32 degrees F or above 100 degrees F.
- Do not install unit in an area where air is dirty and/or chemical laden.
- Unit is not to be installed outdoors.

AIR LINE PIPING

Connection to air system should be of the same size, or larger, than discharge pipe out of unit. The table gives recommended minimum pipe sizes. A union connection to the unit is recommended. Install a flexible connector between the discharge of the unit and the air piping. Piping should be periodically inspected for leaks using a soap and water solution for detection on all pipe joints. Air leaks waste energy and are expensive.

Minimum Pipe Sizes For Compressor Air Lines (Based on clean Smooth Schedule 40 Pipe)

| MODEL | 25' | 50' | 100' | 200' | 300' |
|--------|------|------|------|------|------|
| R15BHU | 3/4" | 3/4" | 3/4" | 1" | 1" |



WARNING

Never use plastic pipe or improperly rated metal pipe. Improper piping material can burst and cause injury or property damage.

OPERATION

This compressor has been inspected, thoroughly tested and approved at the factory. For this unit to give long satisfactory service it must be installed and operated properly. This compressor has been designed for an 80%/ON – 20%/OFF duty cycle.

R15B models are equipped with a pilot valve and head unloaders to provide continuous run capabilities. The pilot valve acts as an automatic air switch allowing air to flow from the receiver to the head unloader mechanism, thus actuating it. The pilot valve senses receiver pressure. When the receiver pressure reaches the cut-out pressure setting of the pilot valve, the pilot valve opens and air is released to the unloader mechanism. The compressor stops compressing air and runs unloaded until the cut-in pressure setting of the pilot valve has been reached. At this time air is released from the unloader mechanism and the compressor starts compressing again.

Initial Start Up

1. Inspect unit for any visible signs of damage that would have occurred in shipment or during installation.
2. Check compressor oil level. Add oil as required. See "Compressor Oil Specifications" Section. **NOTE:** Do not mix oil type, weights or brands.
3. Check engine oil level. Add oil as required. Consult engine manual for oil specifications.
4. Close receiver outlet valve.
5. Flip toggle lever on pilot valve to the "Manual Unload" position. See Figure 5.

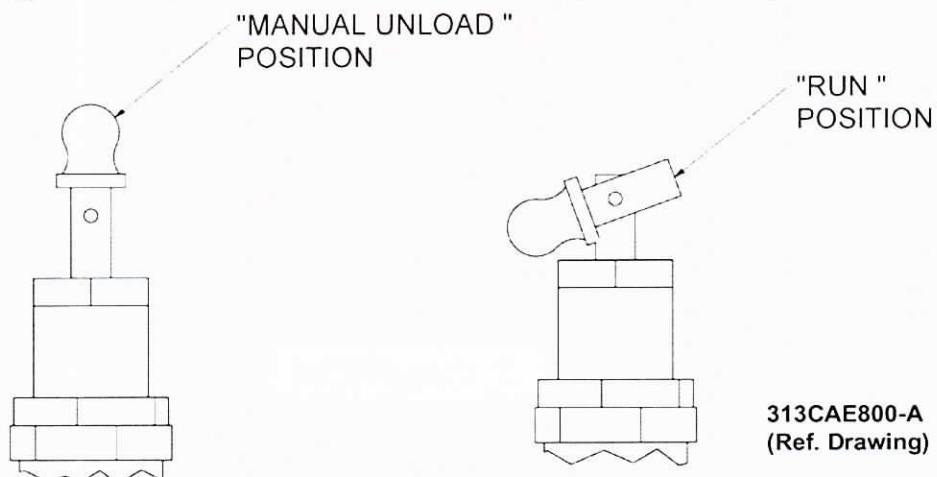


Figure 5

6. Start engine. Allow engine to warm up.
7. Flip toggle lever on pilot valve to the "Run" position. See Figure 5
8. With receiver outlet valve closed, let unit pump up to operating pressure. At this point, the automatic controls will take over. Check system pressure. Check for proper cycling operation.
9. When the initial run period has shown no operating problems, shut unit down and recheck oil level
10. Open receiver outlet valve. The air compressor unit is now ready for use.

Daily Starting

1. Check compressor and engine oil level.
2. Drain liquid from receiver.
3. Close receiver outlet valve.
4. Flip toggle lever on the pilot valve to the "Manual Unload" position. See Figure 5.
5. Start engine. Allow engine to warm up.
6. Flip toggle level on pilot valve to "Run" position. See Figure 5.
7. When unit reaches operation pressure, open receiver outlet valve.

GUIDE TO MAINTENANCE

For Service contact an authorized Champion distributor. All requests should include model number and serial number. To obtain reliable and satisfactory service, this unit requires a consistent preventive maintenance schedule. Maintenance schedule form is included to aid in keeping the proper records, See Pages 42 & 43



Before performing any maintenance function, be sure all air pressure in unit is relieved. Failure to do this may result in injury or equipment damage.



Never add fuel to the fuel tank of a hot engine. Spilled fuel may ignite and cause injury or equipment damage.

DAILY MAINTENANCE

1. Check oil level of compressor. Add Champlub recip lubricant as required. See "Compressor Oil Specifications" Section. **NOTE:** Do not mix oil type, weight, or brands.
2. Check oil level of engine. Consult engine manual for manufacturer's recommended oil.
3. Drain moisture from tank by opening tank drain cock located in bottom of tank. Do not open drain valve if tank pressure exceeds 25 PSIG.

WEEKLY MAINTENANCE

1. Clean dust and foreign matter from cylinder head, engine, fan blade, air lines, intercooler and tank.
2. Remove and clean intake air filters.



Do not exceed 15 PSIG nozzle pressure when cleaning element parts with compressed air. Do not direct compressed air against human skin. Serious injury could result. Never wash elements in fuel oil, gasoline or flammable solvent.

3. Check V-belts for tightness. The V-belts must be tight enough to transmit the necessary power to the compressor. Adjust the V-belts as follows:
 - a. Remove belt guard bracket and open top half of belt guard.
 - b. Loosen engine mounting plate fasteners (3 Bolts & 1 Nut)
 - c. Use belt adjustment bolt at end of base plate to adjust belt tension.
 - d. Apply pressure with finger to one belt at midpoint span. Tension is correct if top of belt aligns with bottom of adjacent belt. Make further adjustments if necessary.
 - e. Check the alignment of pulleys. Adjust if necessary.
 - f. Tighten engine mounting plate fasteners
 - g. Close top half of belt guard and re-install belt guard bracket.



Never operate unit without belt guard in place. Removal will expose rotating parts which can cause injury or equipment damage.

EVERY 90 DAYS OR 500 HOURS MAINTENANCE

1. Change compressor crankcase oil and oil filter. Use only Champlub recip lubricant.
2. Check entire system for air leakage around fittings, connections, and gaskets, using soap solution and brush.
3. Tighten nuts and cap screws as required.
4. Check and clean compressor valves as required. Replace when worn or damaged parts.

CAUTION

Valves must be replaced in original position. Valve gaskets should be replaced each time valves are serviced.

5. Pull ring on all pressure relief valves to assure proper operation.

GENERAL MAINTENANCE NOTES

PRESSURE RELIEF VALVE: The pressure relief valve is an automatic pop valve. Each valve is properly adjusted for the maximum pressure of the unit on which it is installed. If it should pop, it will be necessary to drain all the air out of the tank in order to reseal properly, or drop pressure in line. Do not readjust.

BELTS: Drive belts must be kept tight enough to prevent slipping. If belts slip or squeak, see V-belt maintenance in preceding section.

CAUTION

If belts are too tight, overload will be put on motor and motor bearings.

COMPRESSOR VALVES: If compressor fails to pump air or seems slow in filling up tank, disconnect unit from power source and remove valves and clean thoroughly, using compressed air and a soft wire brush. After cleaning exceptional care must be taken that all parts are replaced in exactly the same position and all joints must be tight or the compressor will not function properly. When all valves are replaced and connections tight, close hand valve at tank outlet for final test. Valve gaskets should be replaced each time valves are removed from pump.

CENTRIFUGAL UNLOADER AND PRESSURE RELEASE VALVE: The centrifugal unloader is operated by two governor weights. It is totally enclosed and lubricated from the crankcase of the compressor. When compressor starts the governor weights automatically open compressing the main spring, allowing the unloader pressure release valve to close. When the compressor stops, the main spring returns the governor weights to normal position opening the unloader pressure release valve and unloading the compressor. This prevents overloading the engine when starting. If air continues to escape through the governor or unloader pressure release valve while operating, this is an indication that the unloader pressure release valve is not closing tightly and may be held open by foreign substance which has lodged on the seat. In order to correct this, remove the governor release valve cap, giving access to release valve spring and ball. Clean thoroughly and return parts in the same order in which they were removed. Loose drive belts can also cause unloader to leak by preventing the compressor from reaching proper speed. (See "BELTS" above).

CHECK VALVE: The check valve closes when the compressor stops operating, preventing air from flowing out of the tank through the pressure release. After the compressor stops operating, if air continues to escape through the release valve, it is an indication that the check valve is leaking. This can be corrected by removing check valve and cleaning disc and seat. If check valve is worn badly, replace same.

WARNING

Before removing check valve be sure all air is drained out of tank and power is disconnected. Failure to do so may result in injury or equipment damage.

GENERAL MAINTENANCE (Cont'd.)

THE INTERSTAGE PRESSURE RELIEF VALVE is provided to protect against interstage over pressure and is factory set for maximum pressure of 75 PSIG. **DO NOT RESET.**

If the pressure relief valve pops, it indicates trouble. Shut down the unit immediately and determine and correct the malfunction. Inspect the head valves. Serious damage can result if not corrected and can lead to complete destruction of the unit. Tampering with the interstage pressure relief valve, or plugging the opening destroys the protection provided and voids all warranty.

COMPRESSOR LUBRICATION: Fill crankcase to proper level as indicated by oil sight gauge. Keep crankcase filled as required by usage. It is recommended that only Champlub recip lubricant be used. This is a 30-weight, non-detergent industrial oil with rust and oxidation inhibitors specially formulated for reciprocating compressors. Do not mix oil types, weights or brands.

PILOT VALVE: The pilot valve actuates the head unloader mechanism to provide a means of stopping or starting the compression of air by the compressor without stopping or starting the electric motor.

GAS ENGINE: For service refer to separate engine manual.

COMPRESSOR PILOT VALVE PRESSURE ADJUSTMENT

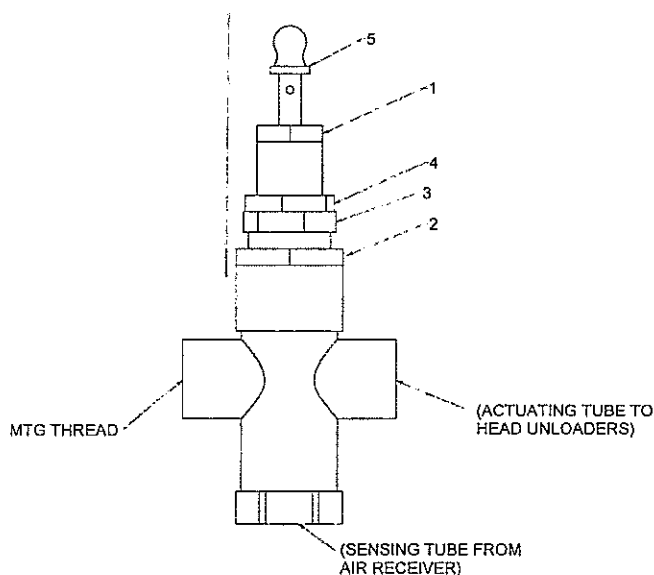
Proceed with the following instructions while compressor is running:

1. Loosen locknut (4) and back off several turns. Do not turn differential pressure adjustment nut (3).
2. Check reading on the tank pressure gauge. Set the compressor maximum pressure by turning the threaded cap (1) clockwise to increase pressure or counter clockwise to decrease pressure.
3. After pressure is set, tighten locknut (4). Be careful not to move threaded cap (1).

COMPRESSOR PILOT VALVE DIFFERENTIAL PRESSURE ADJUSTMENT

Proceed with the following instructions while compressor is running:

1. Loosen locknut (2) and back off several turns.
2. Check reading on the tank pressure gauge. Set the pressure to 30 psig differential (unload at 170 psig, reload at 140 psig). Turn nut (3) clockwise to increase differential pressure or counterclockwise to decrease differential pressure.
3. After pressure is set, tighten locknut (2). Be careful not to move nut (3).



312CAE800-A
(Ref. Drawing)

COMPRESSOR OIL SPECIFICATIONS

Compressors are factory filled with CHAMPLUB hydrocarbon based recip lubricant. This is an ISO 100 non-detergent industrial lubricant with rust and oxidation inhibitors specially formulated for reciprocating compressors. It is recommended this compressor be maintained using this oil for ambient temperatures above 32°F.

CHAMPLUB synthetic is a premium grade diester based synthetic lubricant providing excellent performance in high temperature applications.



Do not mix oil types, weights or brands.



“Emulsification of oil (white milky substance) indicates unsafe accumulation of moisture and may be evidence compressor is oversized for application. Failure to promptly consult your local distributor, or Champion Customer Service, can be grounds to deny warranty.”

NOTES:

1. Normal break-in period of Champion air compressors is 25 hours.
2. For the first 100 hours of compressor operation, a careful and regular check of the oil level should be made. Maintain oil level at the full line.

CHANGING TO SYNTHETIC LUBRICANT

(Applies to diester based synthetic lubricant only)

If changing to synthetic lubricant, the following steps must be completed.

1. Compressor must run for a 25 hour break-in period using ChampLub ISO 100 oil.
2. Thoroughly drain existing oil from crankcase.
3. Fill crankcase with a full charge of synthetic lubricant.
4. Run compressor for 200 hours.
5. Stop compressor and thoroughly drain the synthetic lubricant.
6. Add a full charge of synthetic lubricant.
7. Compressor now ready to run for extended period before next lubricant change.

LUBRICANT

| CHAMPLUB | |
|---------------------------|-------------|
| DESCRIPTION | PART NUMBER |
| 1 – Quart Case (12/case) | P09479A |
| 1 – Gallon Case (4/case) | P08909A |
| 5 – Gallon Pail | P08908A |
| 55 – Gallon Drum | P08907A |
| CHAMPLUB SYNTHETIC | |
| DESCRIPTION | PART NUMBER |
| 1 – Quart Case (12/case) | P13179A |
| 1 – Gallon Case (4/case) | P13180A |
| 5 – Gallon Pail | P11506A |
| 55 – Gallon Drum | P13181A |

TORQUE VALVES



| SPECIFIC APPLICATION | FASTENER SIZE & THREAD | TORQUE INCH-POUNDS |
|----------------------|------------------------|--------------------|
| BEARING HOUSING BOLT | 3/8 – 16 | 400 |
| CYLINDER FLANGE BOLT | 7/16 – 20 | 400 |
| CONNECTING ROD BOLT | 5-16 – 18 | 230 |
| MANIFOLD BOLT | 3/8 – 16 | 200 |
| FLYWHEEL BOLT | 1/2 – 13 | 600 |

TROUBLE SHOOTING CHART FOR COMPRESSOR

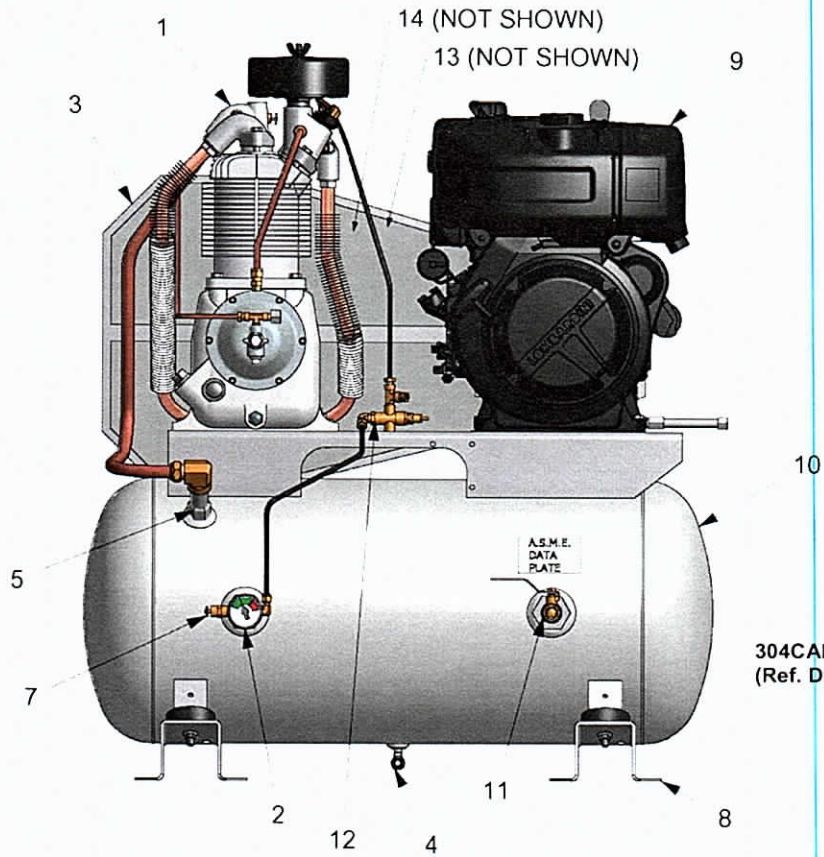


Always shut off unit and relieve all pressure from air tank before performing any maintenance. Failure to do so may result in equipment damage or injury.

Never operate unit without belt guard in place.

| Symptom | Possible Cause(s) | Corrective Action |
|---|---|--|
| Engine will not start. | <ol style="list-style-type: none"> No fuel in fuel tank. High tank pressure. Refer to separate engine manual for other causes. | <ol style="list-style-type: none"> Add fuel Reduce tank pressure to 130 PSIG or less. |
| Tank pressure builds up slowly. | <ol style="list-style-type: none"> Air leaks. Dirty air filter. Defective compressor valves | <ol style="list-style-type: none"> Tighten fittings. Clean or replace. Install new valve plate assembly. |
| Tank pressure builds up quickly. | <ol style="list-style-type: none"> Excessive water in tank. | <ol style="list-style-type: none"> Drain tank. |
| Discharge pressure relief valve pops off while compressor is running. | <ol style="list-style-type: none"> Wrong pressure switch setting. Defective ASME relief valve. | <ol style="list-style-type: none"> Adjust to correct setting. Replace valve. <p> Warning – Relieve tank pressure before servicing.</p> |
| Compressor will not unload | <ol style="list-style-type: none"> Wrong pilot valve setting. Defective pilot valve. Lack of air to pilot valve.. | <ol style="list-style-type: none"> Adjust to correct sitting Replace pilot valve. Check piping from tank to pilot valve for leaks. |
| Excessive belt wear. | <ol style="list-style-type: none"> Pulley out of alignment. Belts too tight or too loose. | <ol style="list-style-type: none"> Realign engine pulley. Adjust belt tension. |
| Compressor runs hot. | <ol style="list-style-type: none"> Improper flywheel rotation Defective compressor valves. Dirty air filter. Dirty cylinder and/or intercooler. | <ol style="list-style-type: none"> Check for correct rotation. (Counter clockwise when viewed from drive side. Install new valve plate assembly. Clean or replace. Clean cylinder fins and/or intercooler. |
| Interstage pressure relief valve pops off. | <ol style="list-style-type: none"> Defective compressor valves. | <ol style="list-style-type: none"> Install new valves. |
| Excessive oil consumption. | <ol style="list-style-type: none"> Dirty air filter. Wrong oil viscosity. Oil leaks. Worn piston rings. Scored cylinder | <ol style="list-style-type: none"> Clean or replace. Refill with proper viscosity oil. Tighten bolts. Replace gaskets. Replace rings. Replace cylinder. |
| Air escapes from centrifugal unloader when unit is running. | <ol style="list-style-type: none"> Centrifugal unloader release valve dirty or defective | <ol style="list-style-type: none"> Clean or replace valve. |
| Air escapes from centrifugal unloader when unit is stopped. | <ol style="list-style-type: none"> Check valve stuck in open position. | <ol style="list-style-type: none"> Replace check valve. <p> Warning – Relieve tank pressure before servicing.</p> |

UNIT REPAIR PARTS ILLUSTRATION
MODELS: HGR3-3B

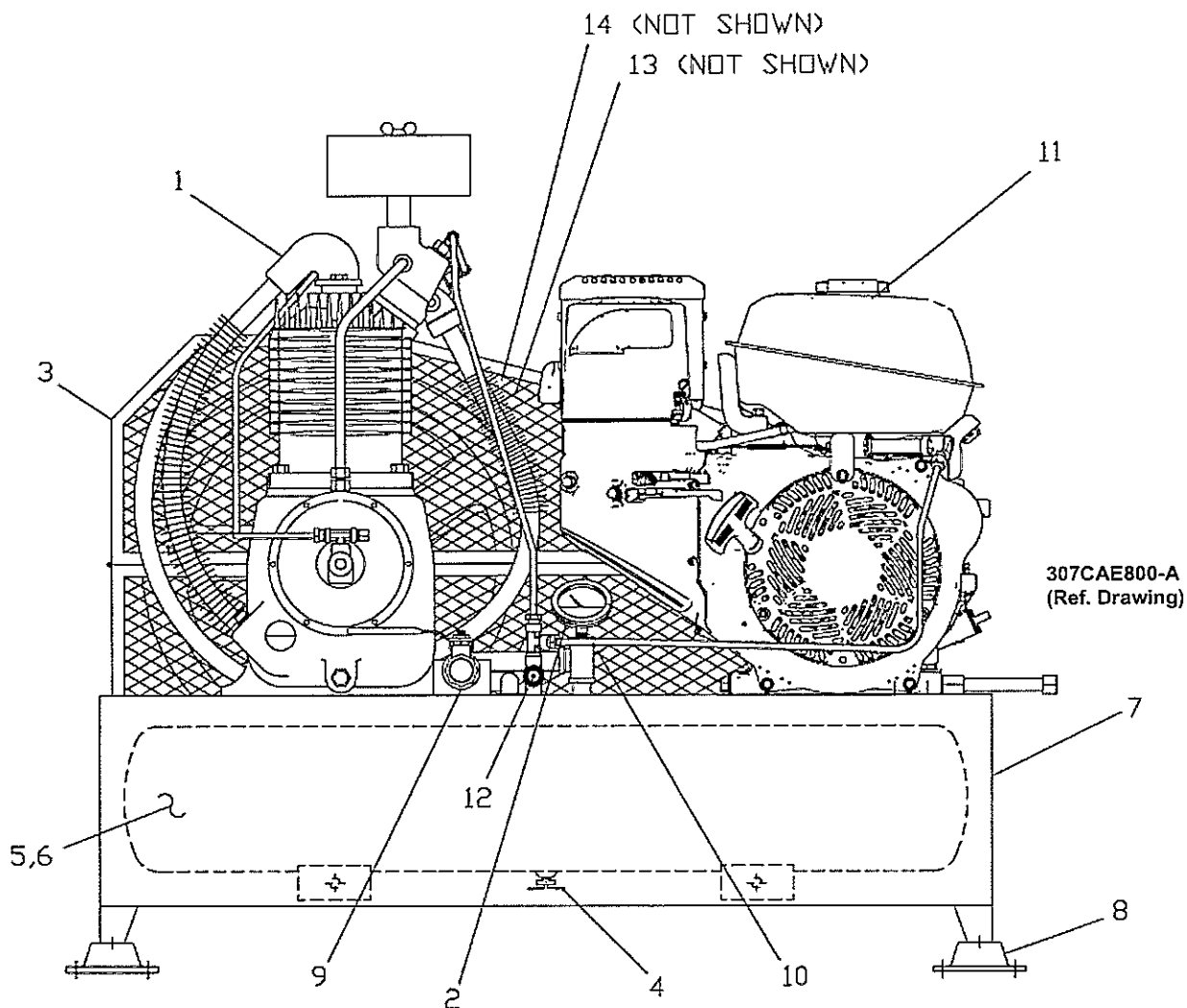


304CAE800-A
 (Ref. Drawing)

REPAIR PARTS LIST

| | | HGR3-3B |
|----|-----------------------|---|
| 1 | Pump | R15BHU |
| 2 | Pressure Gauge | M519C |
| 3 | Belt Guard | CQZ13160 |
| 4 | Drain Valve | VP1022988 |
| 5 | Check Valve | P05822A |
| 7 | Pressure Relief Valve | M2843 |
| 8 | Vibration Isolators | Z5123 |
| 9 | Engine | 8 HP |
| 10 | Tank | P13706D |
| 11 | Isolation Valve | M3590 |
| 12 | Pilot valve | M2853 |
| 13 | Pulley | VP1041597 Pulley P09799A Bushing |
| 14 | Belts | B73 (2) |

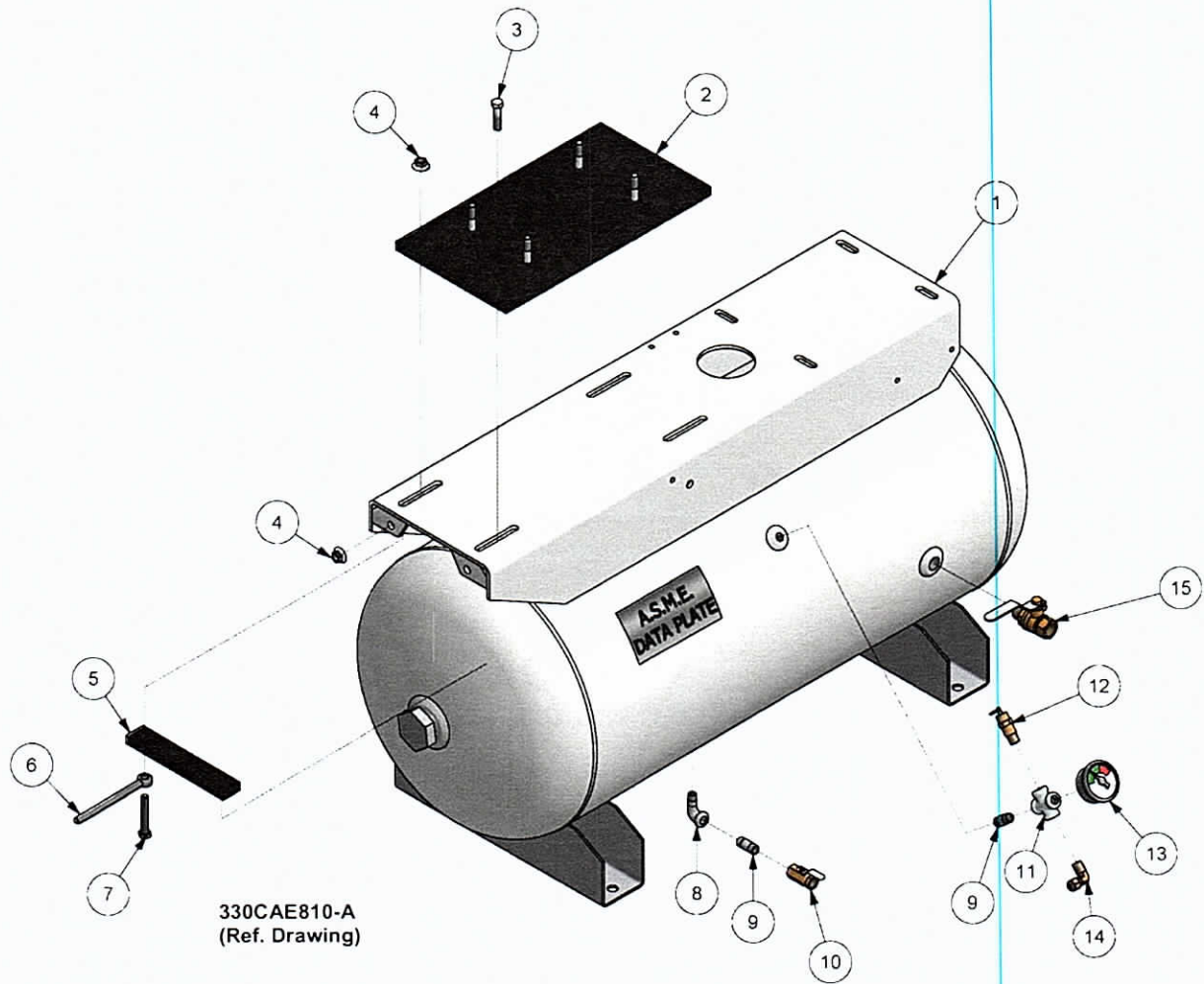
UNIT REPAIR PARTS ILLUSTRATION
MODELS: HGR3-LP



REPAIR PARTS LIST

| | MODEL |
|--------------------------|-----------|
| | HGR3-LP |
| 1 Pump | CC1119843 |
| 2 Pressure Gauge | M519C |
| 3 Belt Guard | Z5280 |
| 4 Drain Valve | M521 |
| 5 Tank | P09502D |
| 6 Check Valve | P05822A |
| 7 Base Plate | P14449D |
| 8 Vibration Isolators | P09808A |
| 9 Isolation Valve | M3590 |
| 10 Pressure Relief Valve | M2843 |
| 11 Engine | 8 HP |
| 12 Pilot Valve | M2853 |
| 13 Pulley | VP1041597 |
| | Pulley |
| | P09799A |
| 14 Belts | Bushing |
| | B73 (2) |

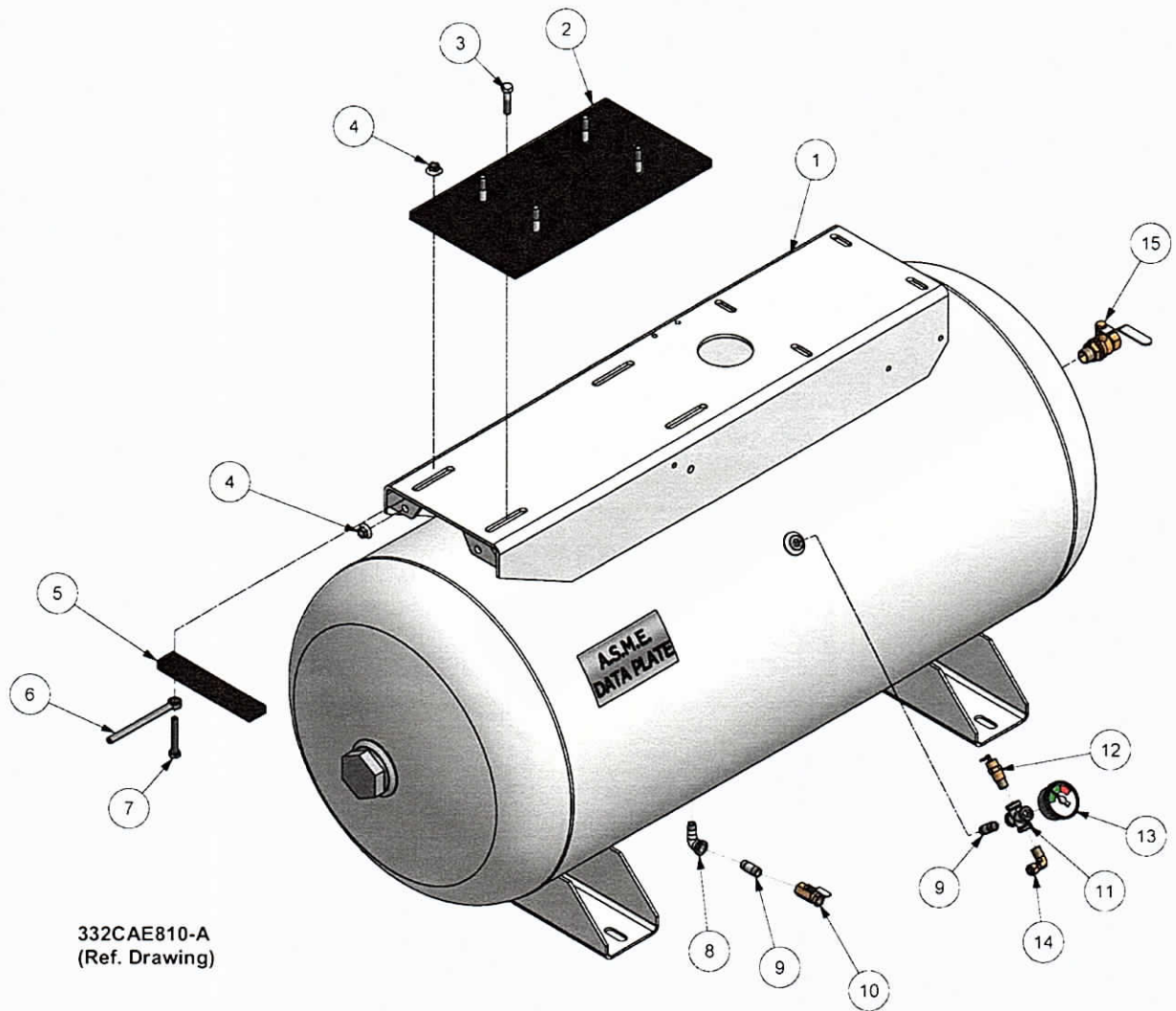
UNIT REPAIR PARTS ILLUSTRATION
MODEL: HGR7-3K, HGR7-3H



30 GALLON TANK ASSEMBLY

| No. | Description | Part Number | Qty. |
|-----|------------------------|-------------|------|
| 1 | Receiver | CC1089338 | 1 |
| 2 | Mounting Plate | 300CAE4017 | 1 |
| 3 | Screw | M3460 | 3 |
| 4 | Nut | M3483 | 2 |
| 5 | Motor Mounting Bracket | 300CAE145 | 2 |
| 6 | Eye Bolt | VP1096404 | 1 |
| 7 | Screw | 655ED09AZ | 1 |
| 8 | Elbow | M980B | 1 |
| 9 | Nipple | P08798A | 2 |
| 10 | Ball Valve | VP1022988 | 1 |
| 11 | Cross | 64K1 | 1 |
| 12 | Pressure Relief Valve | M2843 | 1 |
| 13 | Pressure Gauge | M519C | 1 |
| 14 | Elbow | 86A40 | 1 |
| 15 | Ball Valve | M3590 | 1 |

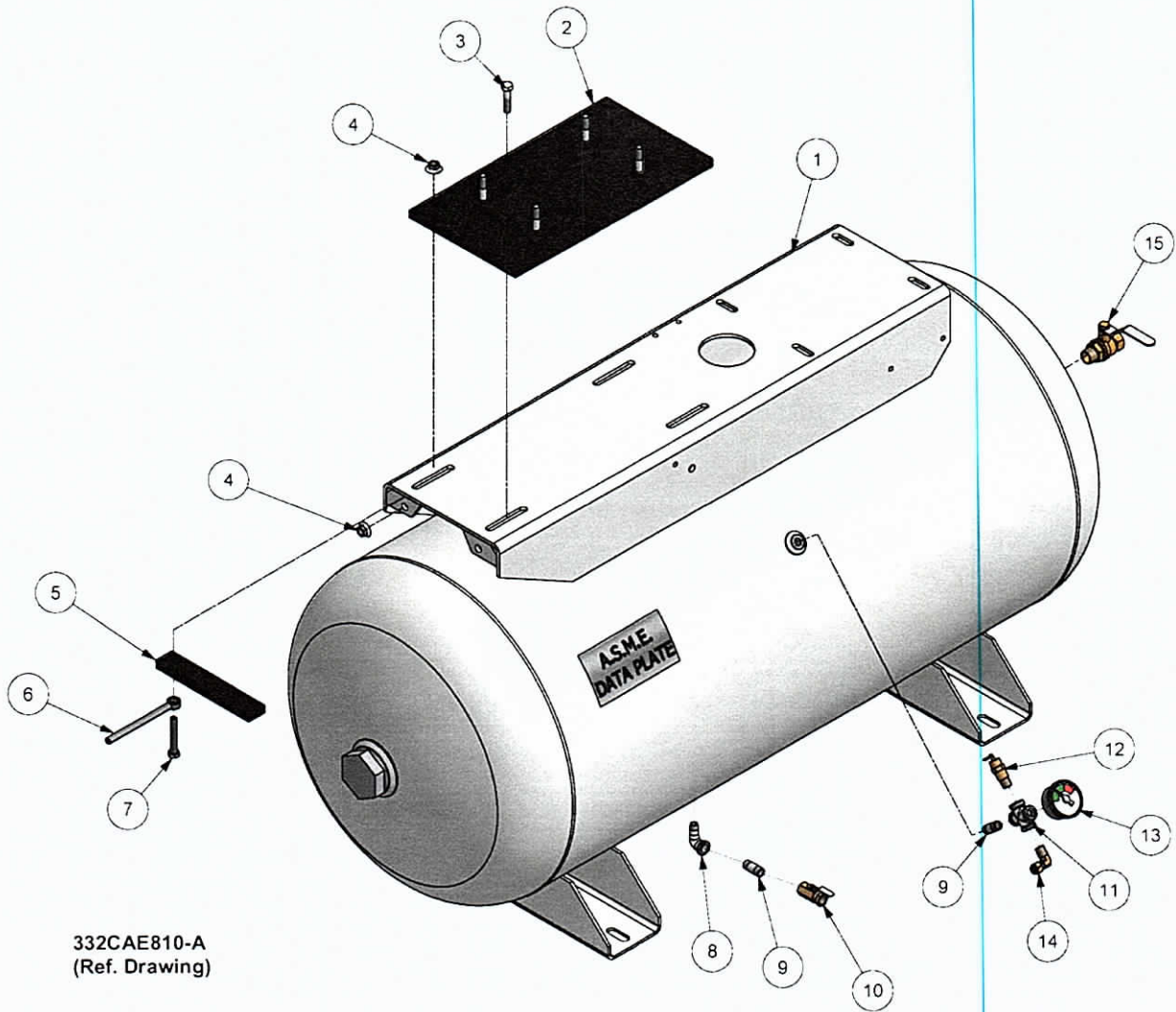
UNIT REPAIR PARTS ILLUSTRATION
MODEL: HGR7-6K, HGR7-6H



60 GALLON TANK ASSEMBLY

| Ref. No. | Description | Part Number | Qty. |
|----------|------------------------|-------------|------|
| 1 | Receiver | CC1096721 | 1 |
| 2 | Mounting Plate | 300CAE4017 | 1 |
| 3 | Screw | M3460 | 3 |
| 4 | Nut | M3483 | 2 |
| 5 | Motor Mounting Bracket | 300CAE145 | 2 |
| 6 | Eye Bolt | VP1096404 | 1 |
| 7 | Screw | 655ED09AZ | 1 |
| 8 | Elbow | M980B | 1 |
| 9 | Nipple | P08798A | 2 |
| 10 | Ball Valve | VP1022988 | 1 |
| 11 | Cross | 64K1 | 1 |
| 12 | Pressure Relief Valve | M2843 | 1 |
| 13 | Pressure Gauge | M519C | 1 |
| 14 | Elbow | 86A40 | 1 |
| 15 | Ball Valve | M3590 | 1 |

UNIT REPAIR PARTS ILLUSTRATION
MODEL: HGR7-8K, HGR7-8H

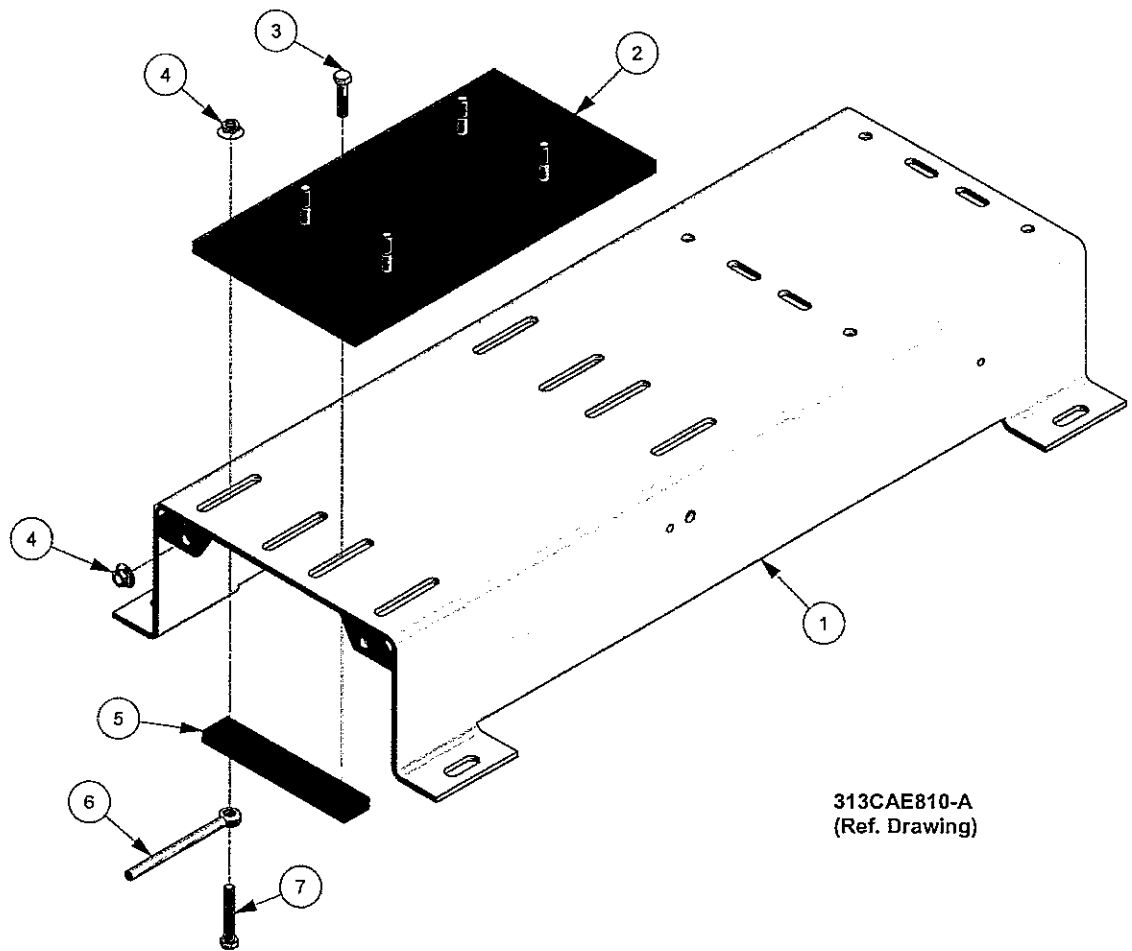


332CAE810-A
 (Ref. Drawing)

80 GALLON TANK ASSEMBLY

| Ref. No. | Description | Part Number | Qty. |
|----------|------------------------|-------------|------|
| 1 | Receiver | CC1096723 | 1 |
| 2 | Mounting Plate | 300CAE4017 | 1 |
| 3 | Screw | M3460 | 3 |
| 4 | Nut | M3483 | 2 |
| 5 | Motor Mounting Bracket | 300CAE145 | 2 |
| 6 | Eye Bolt | VP1096404 | 1 |
| 7 | Screw | 655ED09AZ | 1 |
| 8 | Elbow | M980B | 1 |
| 9 | Nipple | P08798A | 2 |
| 10 | Ball Valve | VP1022988 | 1 |
| 11 | Cross | 64K1 | 2 |
| 12 | Pressure Relief Valve | M2843 | 1 |
| 13 | Pressure Gauge | M519C | 1 |
| 14 | Elbow | 86A40 | 1 |
| 15 | Ball Valve | M3590 | 1 |

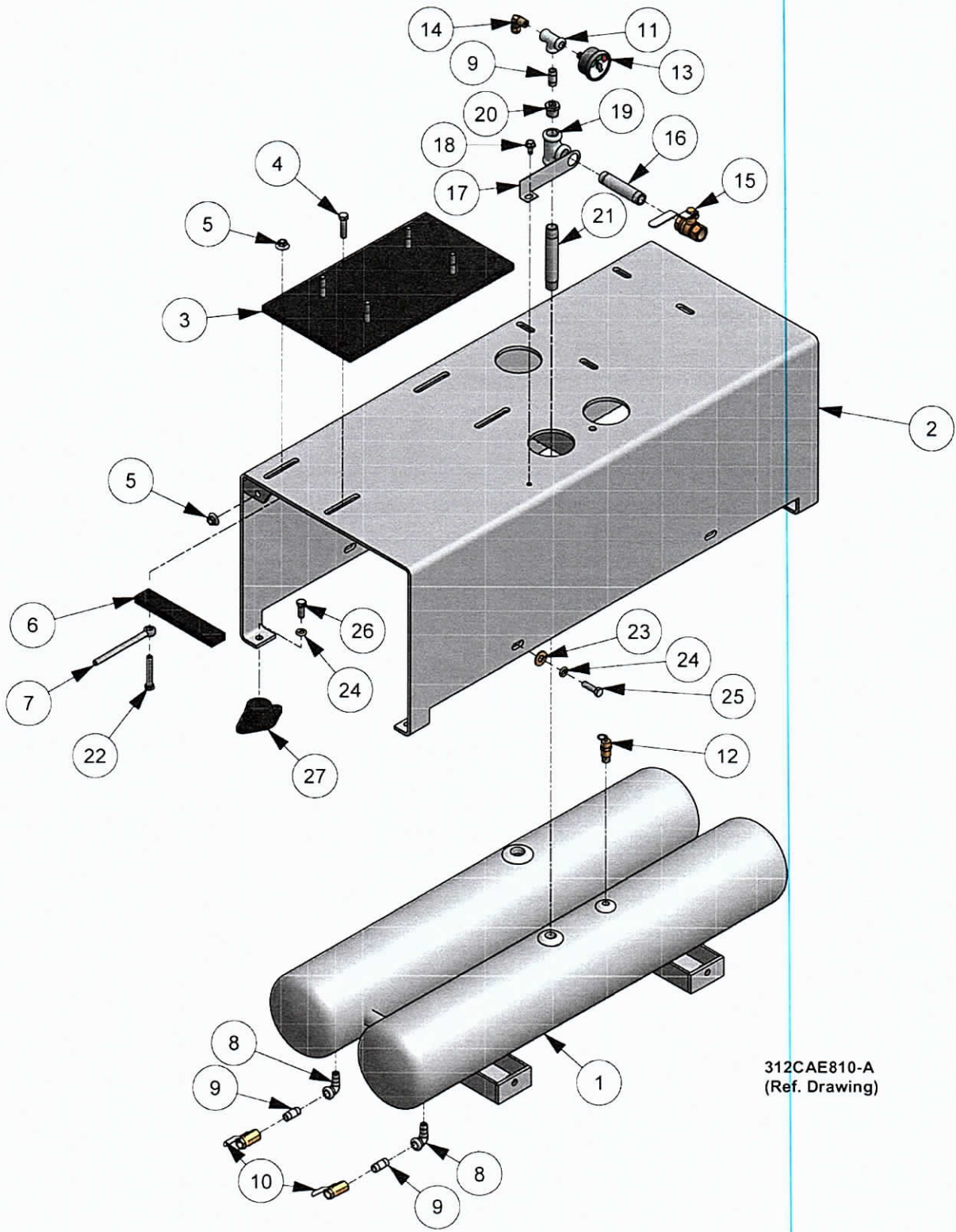
UNIT REPAIR PARTS ILLUSTRATION
MODEL: BGR7K, BGR7H



BASE PLATE GROUP

| Ref. No. | Description | Part Number | Qty. |
|----------|------------------------|-------------|------|
| 1 | Base plate | CC1119843 | 1 |
| 2 | Mounting Plate | 300CAE4017 | 1 |
| 3 | Screw | M3460 | 3 |
| 4 | Nut | M3483 | 2 |
| 5 | Motor Mounting Bracket | 300CAE145 | 2 |
| 6 | Eye Bolt | VP1096404 | 1 |
| 7 | Screw | 655ED09AZ | 1 |

UNIT REPAIR PARTS ILLUSTRATION
MODEL: HGR7-LPK, HGR7-LPH



312CAE810-A
(Ref. Drawing)

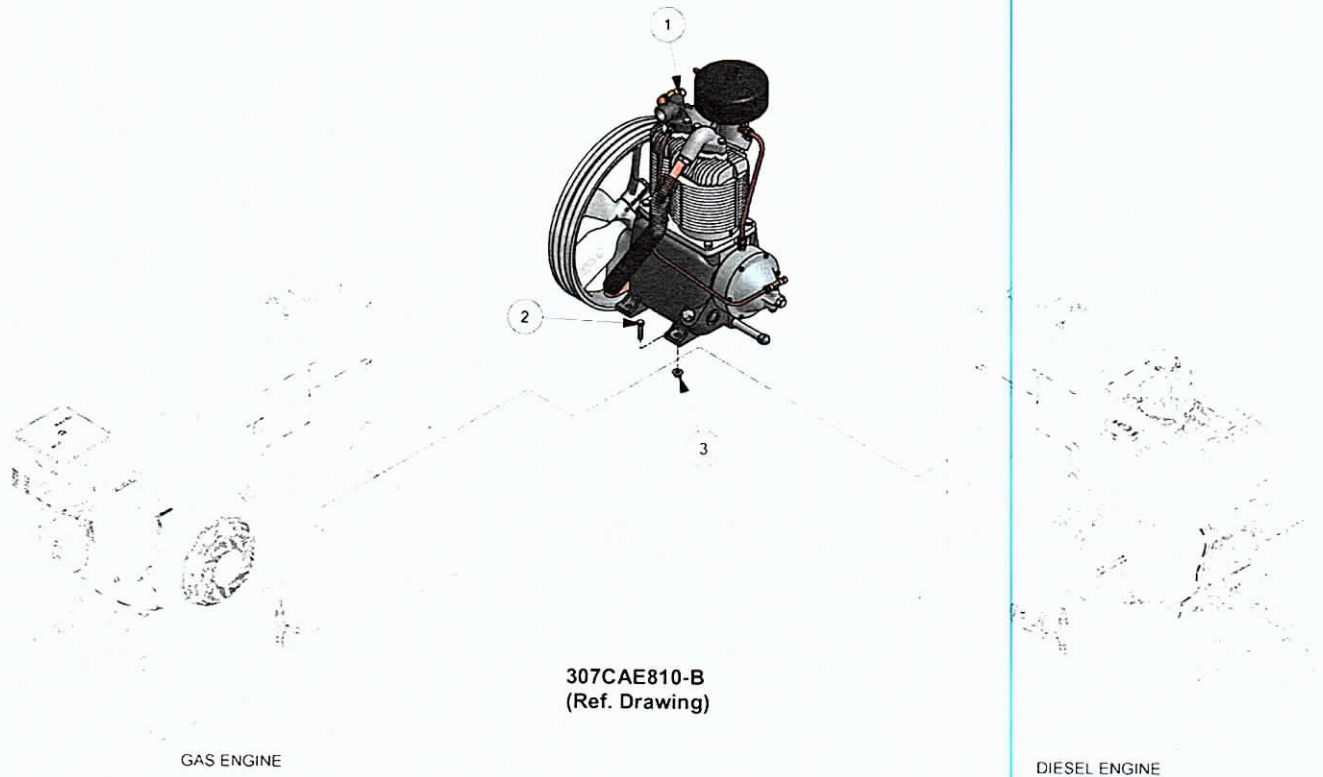
LOW PROFILE TANK ASSEMBLY

REPAIR PARTS LIST
MODEL: HGR7-LPK, HGR7-LPH

| Ref. No. | Description | Part Number | Qty. |
|----------|------------------------|-------------|------|
| 1 | Receiver | CC1097097 | 1 |
| 2 | Base | 301CAE285 | 1 |
| 3 | Mounting Plate | 300CAE4017 | 1 |
| 4 | Screw | M3460 | 3 |
| 5 | Nut | M3483 | 2 |
| 6 | Motor Mounting Bracket | 300CAE145 | 2 |
| 7 | Eye-Bolt | VP1096404 | 1 |
| 8 | Elbow | M980B | 2 |
| 9 | Nipple | P08798A | 3 |
| 10 | Ball Valve | VP1022988 | 1 |
| 11 | Pipe Tee | M1003B | 1 |
| 12 | Pressure Relief Valve | M2843 | 1 |
| 13 | Pressure Gauge | M519C | 1 |
| 14 | Elbow | 86A40 | 1 |
| 15 | Ball Valve | M2685 | 1 |
| 16 | Nipple | M1051B | 1 |
| 17 | Bracket | P08733A | 1 |
| 18 | Screw | M1454 | 1 |
| 19 | Tee | M934B | 1 |
| 20 | Bushing | M1318 | 1 |
| 21 | Nipple | 63F39 | 1 |
| 22 | Screw | 655ED09AZ | 1 |
| 23 | Washer | M3055 | 4 |
| 24 | Lock Washer | M3052 | 8 |
| 25 | Hex Head Cap Screw | M3460 | 4 |
| 26 | Screw | 655ED040Z | 4 |
| 27 | Vibration Isolator | P09808A | 4 |

UNIT REPAIR PARTS ILLUSTRATION

MODELS: HGR7-3K, HGR7-3H, HGR7-6K, HGR7-6H, HGR7-8K, HGR7-8H, BGR7K, BGR7H, HGR7-LPK, HGR7-LPH

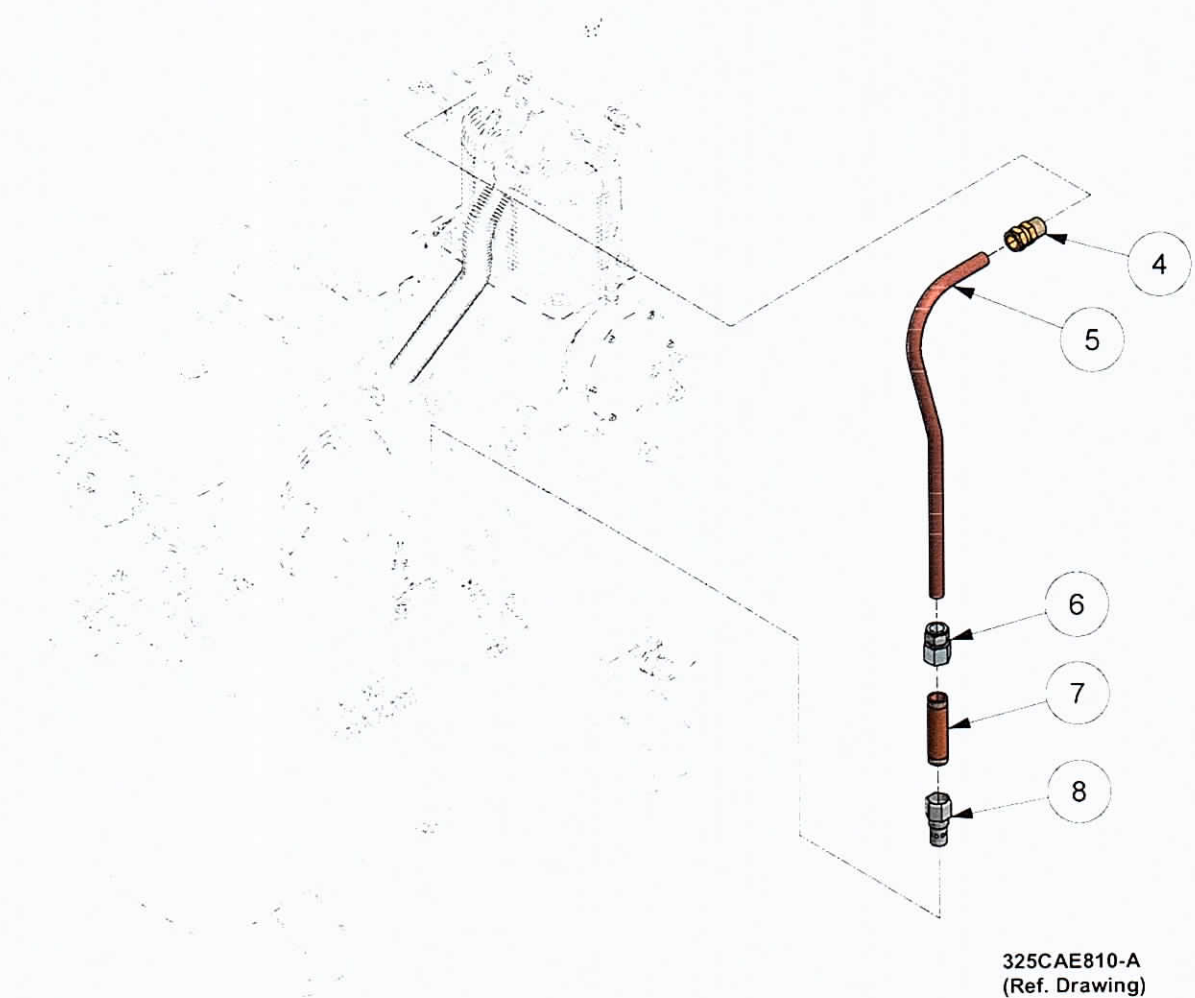


Compressor Group

| Ref. No. | Description | Part Number | Qty. |
|----------|-------------------|-------------|------|
| 1 | R15BHU Compressor | CC1119843 | 1 |
| 2 | Screw | M3460 | 4 |
| 3 | Nut | M3483 | 4 |

UNIT REPAIR PARTS ILLUSTRATION

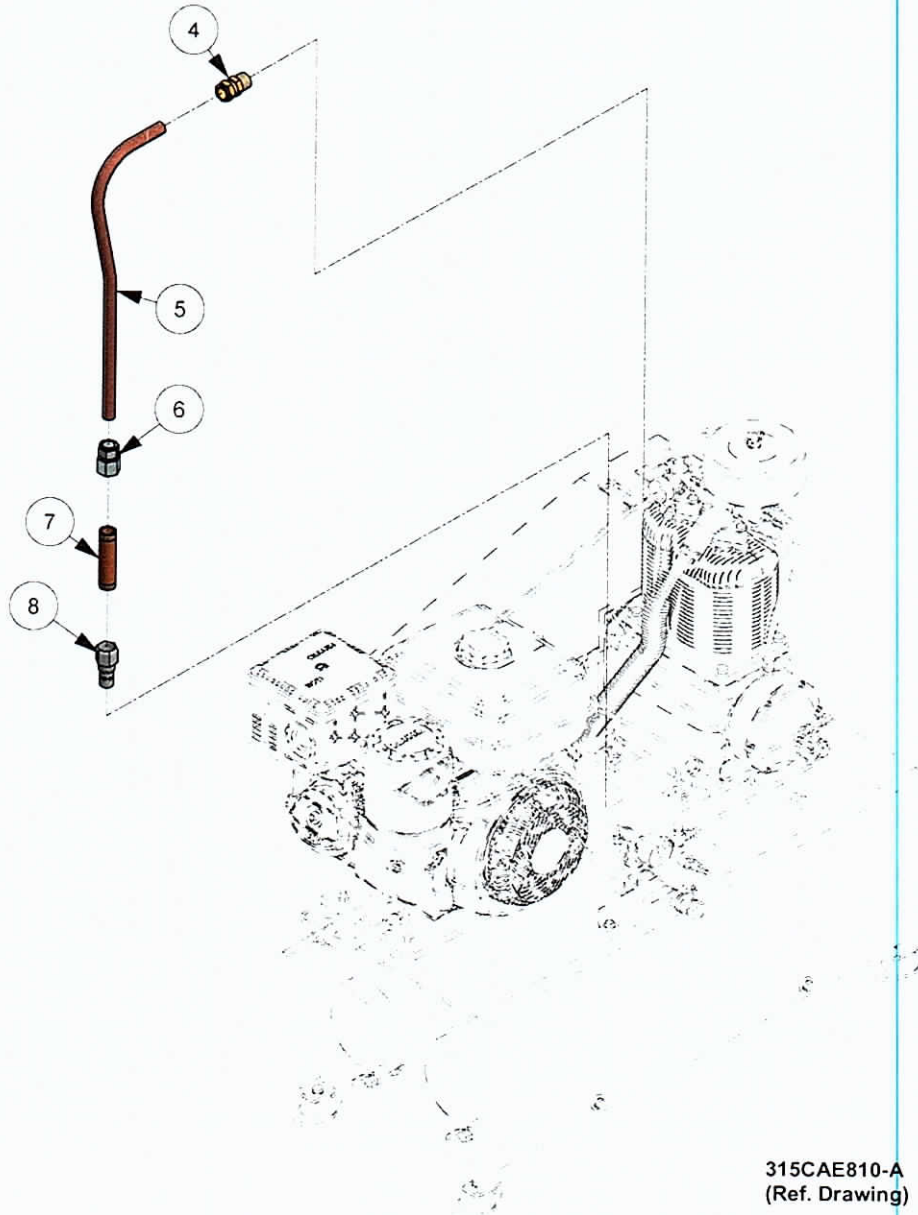
MODELS: HGR7-3K, HGR7-3H, HGR7-6K, HGR7-6H, HGR7-8K, HGR7-8H



DISCHARGE GROUP

| Ref. No. | Description | Part Number | |
|----------|----------------|-------------|---|
| 4 | Tube Fitting | M2867 | 1 |
| 5 | Discharge Tube | 300CAE857 | 1 |
| 6 | Tube Fitting | 86E279 | 1 |
| 7 | Nipple | M478 | 1 |
| 8 | Check Valve | P05822A | 1 |

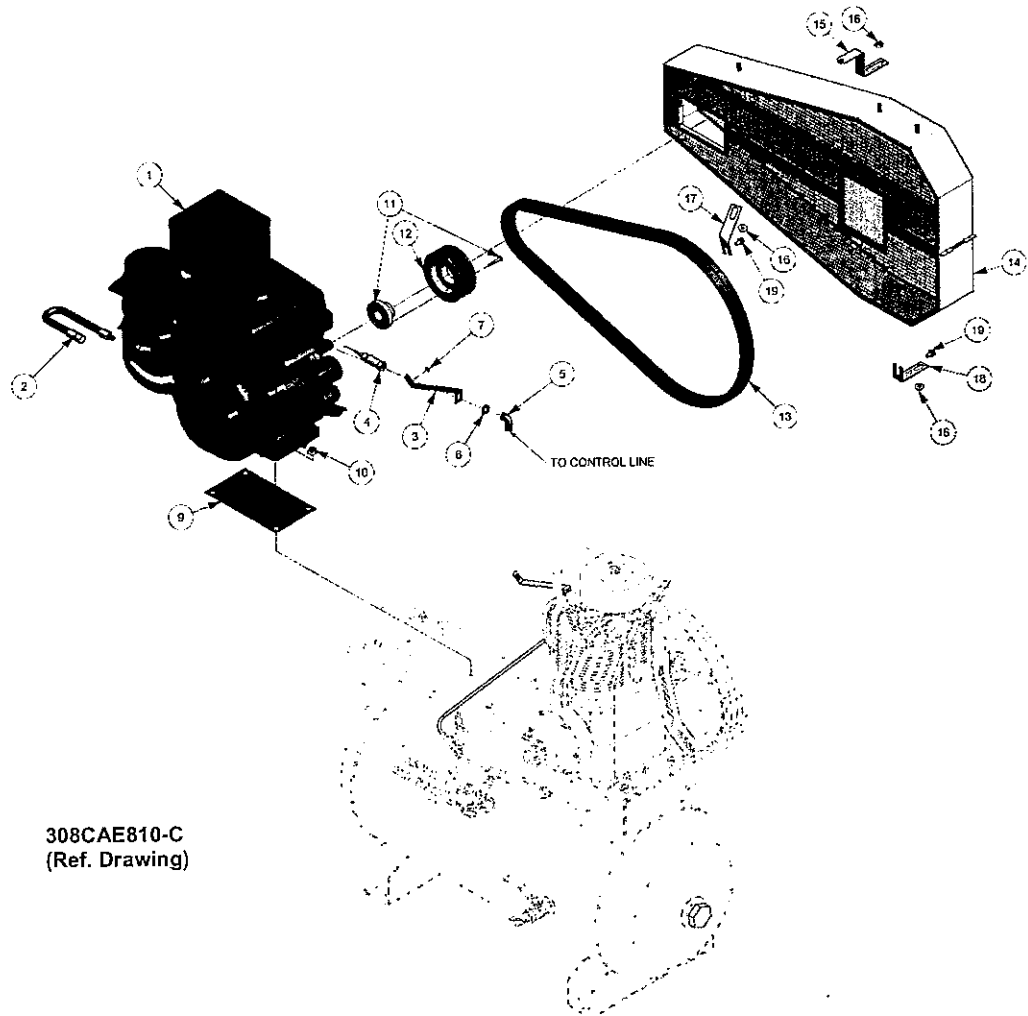
UNIT REPAIR PARTS ILLUSTRATION
MODELS: HGR7-LPK, HGR7-LPH



DISCHARGE GROUP

| Ref. No. | Description | Part Number | Qty. |
|----------|----------------|-------------|------|
| 4 | Tube Fitting | M2867 | 1 |
| 5 | Discharge Tube | 301CAE857 | 1 |
| 6 | Tube Fitting | 86E279 | 1 |
| 7 | Nipple | M478 | 1 |
| 8 | Check Valve | P05822A | 1 |

UNIT REPAIR PARTS ILLUSTRATION
MODELS: HGR7-3K, HGR7-6K, HGR7-8K, HGR7-LPK, BGR7K



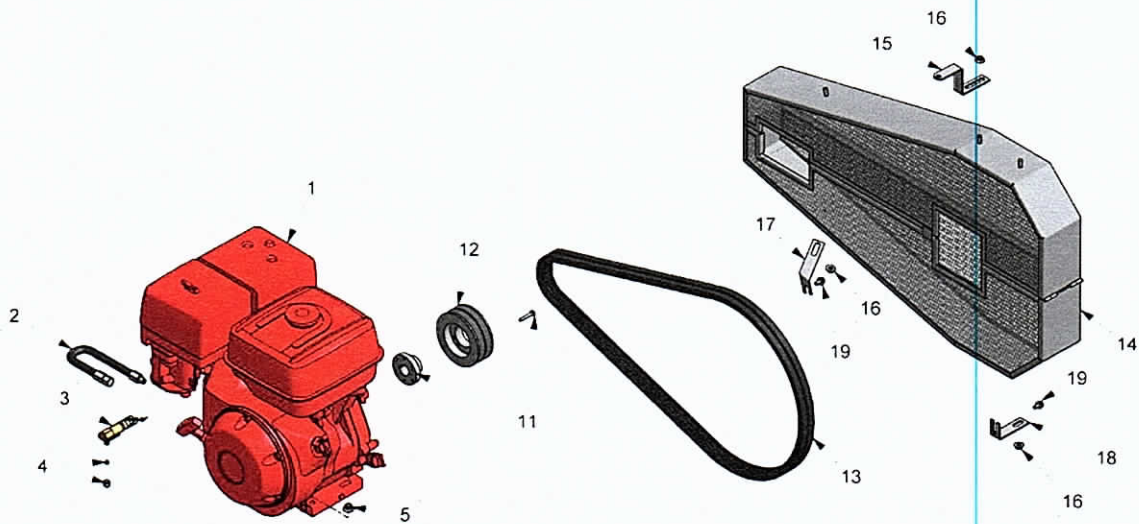
308CAE810-C
 (Ref. Drawing)

ENGINE, DRIVE & BELT GUARD GROUP

| Ref. No. | Description | Part Number | Qty |
|----------|--------------------------|-------------|-----|
| 1 | Engine | 301CAE4013 | 1 |
| 2 | Oil Drain | VP1096045 | 1 |
| 3 | Throttle Control Bracket | 307CAE017 | 1 |
| 4 | Throttle Control | 300CAE0509 | 1 |
| 5 | Tube Fitting | 86E229 | 1 |
| 6 | Lock Washer | M3464 | 1 |
| 7 | Lock Washer | 95B1Z | 1 |
| 9 | Motor Shim | 301CAE247 | 1 |
| 10 | Nut | M3483 | 4 |
| 11 | Bushing | 22F16SDS | 1 |
| 12 | Pulley | VP1045266 | 1 |
| 13 | Belt | 13E544 | 2 |
| 14 | Belt Guard | 304CAE120 | 1 |
| 15 | Bracket | M855 | 1 |
| 16 | Nut | M3485 | 3 |
| 17 | BRACKET | P05517A | 1 |
| 18 | Bracket | M856 | 1 |
| 19 | Screw | M1454 | 2 |

UNIT REPAIR PARTS ILLUSTRATION

MODELS: HGR7-3H, HGR7-6H, HGR7-8H, HGR7-LPH, BGR7H

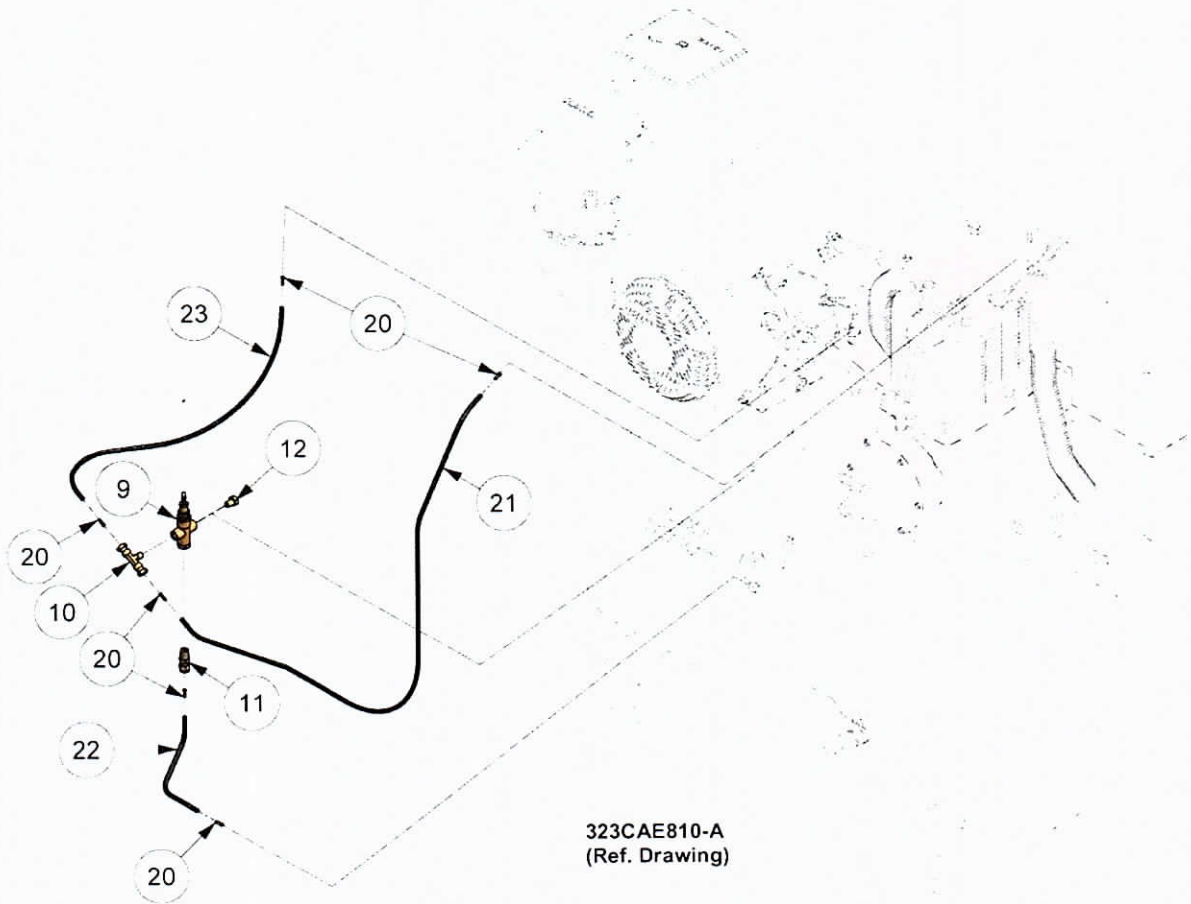


309CAE810-B
(Ref. Drawing)

ENGINE, DRIVE & BELT GUARD GROUP

| Ref. No. | Description | Part Number | Qty. |
|----------|------------------|-------------|------|
| 1 | Engine | 303CAE4013 | 1 |
| 2 | Oil Drain | VP1096045 | 1 |
| 3 | Throttle Control | VP1096614 | 1 |
| 4 | Nut & Ferrule | M2959 | 1 |
| 5 | Nut | M3483 | 4 |
| 11 | Bushing | 22F16SDS | 1 |
| 12 | Pulley | VP1045266 | 1 |
| 13 | Belt | 13E544 | 2 |
| 14 | Belt Guard | 304CAE120 | 1 |
| 15 | Bracket | M855 | 1 |
| 16 | Nut | M3485 | 3 |
| 17 | Belt | P05517A | 1 |
| 18 | Bracket | M856 | 1 |
| 19 | Screw | M1454 | 2 |

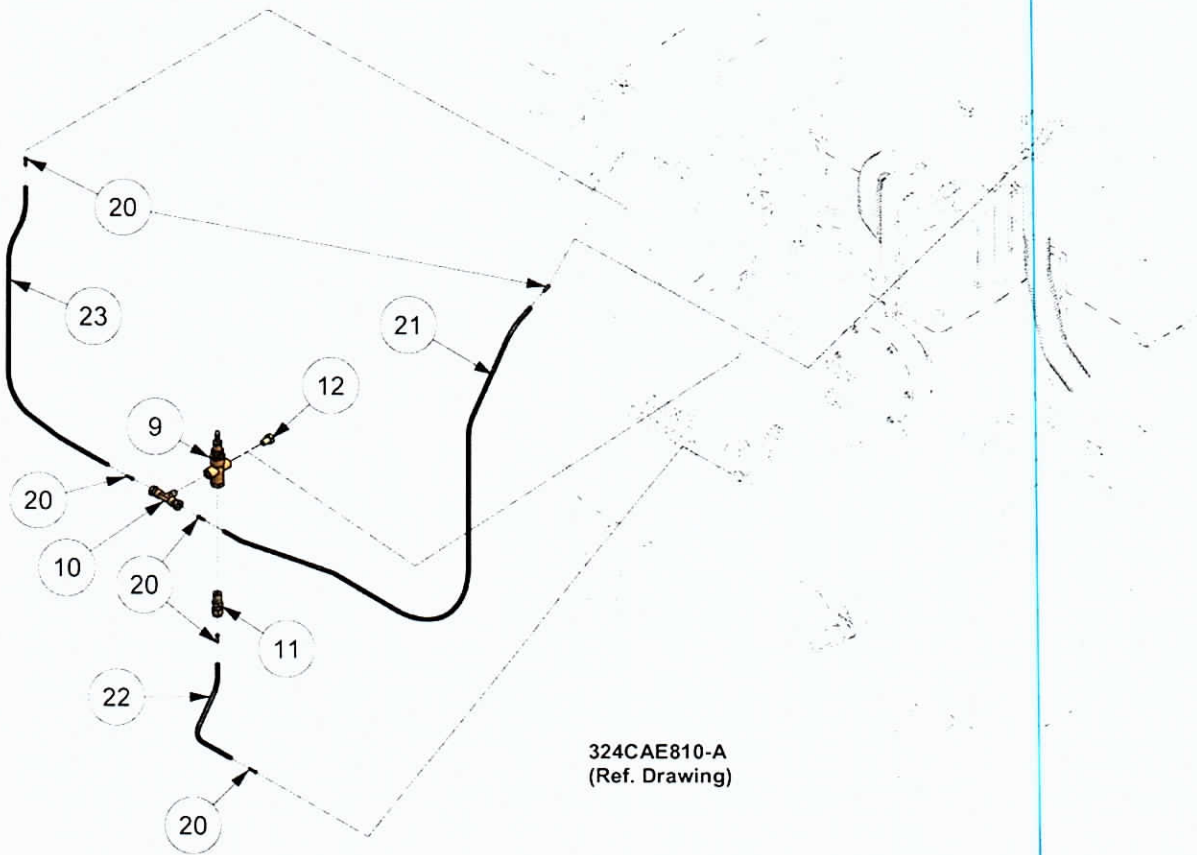
UNIT REPAIR PARTS ILLUSTRATION
MODELS: HGR7-3K, HGR7-6K, HGR7-8K, BGR7K



CONTROL GROUP

| Ref. No. | Description | Part Number | Qty. |
|----------|--------------|-------------|--------|
| 9 | Pilot Valve | VP1089041 | 1 |
| 10 | Tee | M2879 | 1 |
| 11 | Tube Fitting | M2862 | 1 |
| 12 | Screw | M3465 | 1 |
| 20 | Tube Insert | P10118A | 6 |
| 21 | Tubing | P10117A | 3.4ft. |
| 22 | Tubing | P10117A | .65ft. |
| 23 | Tubing | P10117A | 1.7ft. |

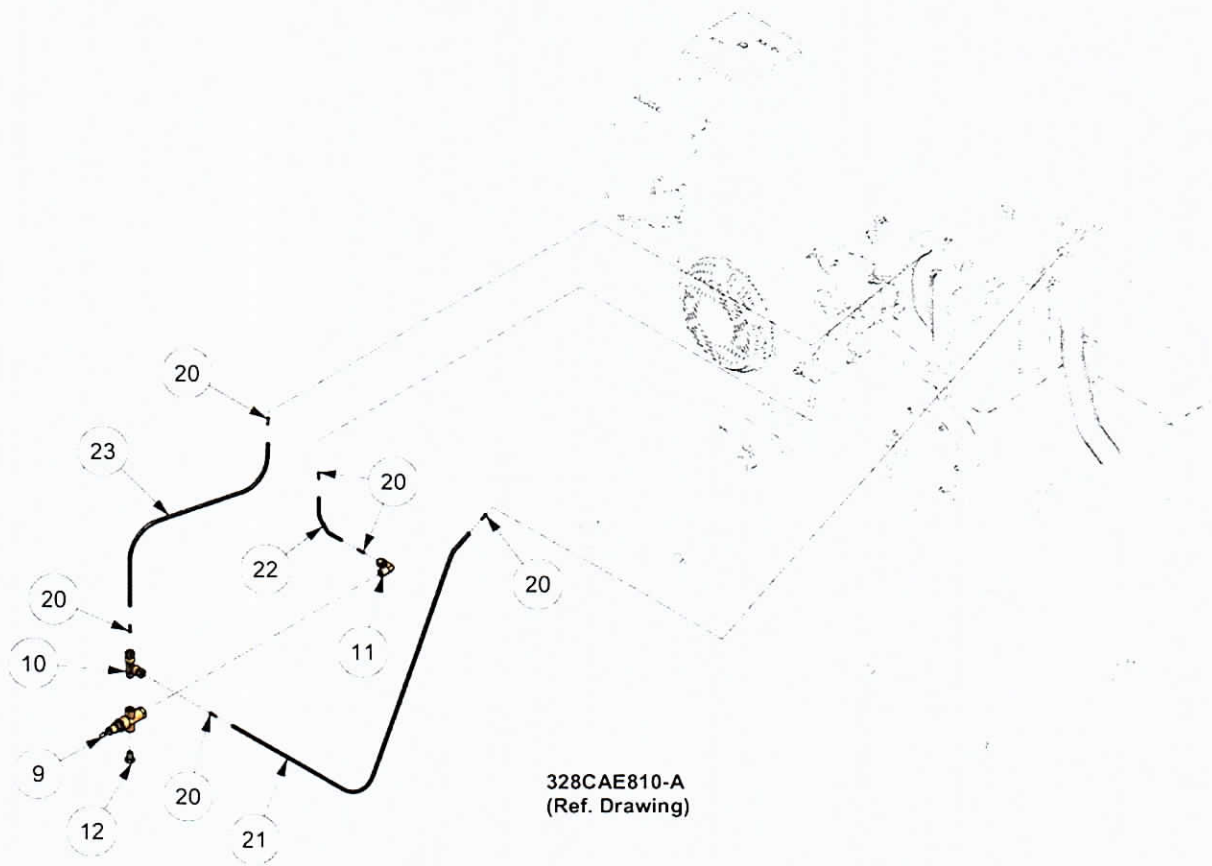
UNIT REPAIR PARTS ILLUSTRATION
MODELS: HGR7-3H, HGR7-6H, HGR7-8H, BGR7H



CONTROL GROUP

| Ref. No. | Description | Part Number | Qty. |
|----------|--------------|-------------|---------|
| 9 | Pilot Valve | VP1089041 | 1 |
| 10 | Tee | M2879 | 1 |
| 11 | Tube Fitting | M2862 | 1 |
| 12 | Screw | M3465 | 1 |
| 20 | Tube Insert | P10118A | 6 |
| 21 | Tubing | P10117A | 3.4ft. |
| 22 | Tubing | P10117A | 0.65ft. |
| 23 | Tubing | P10117A | 1.85ft. |

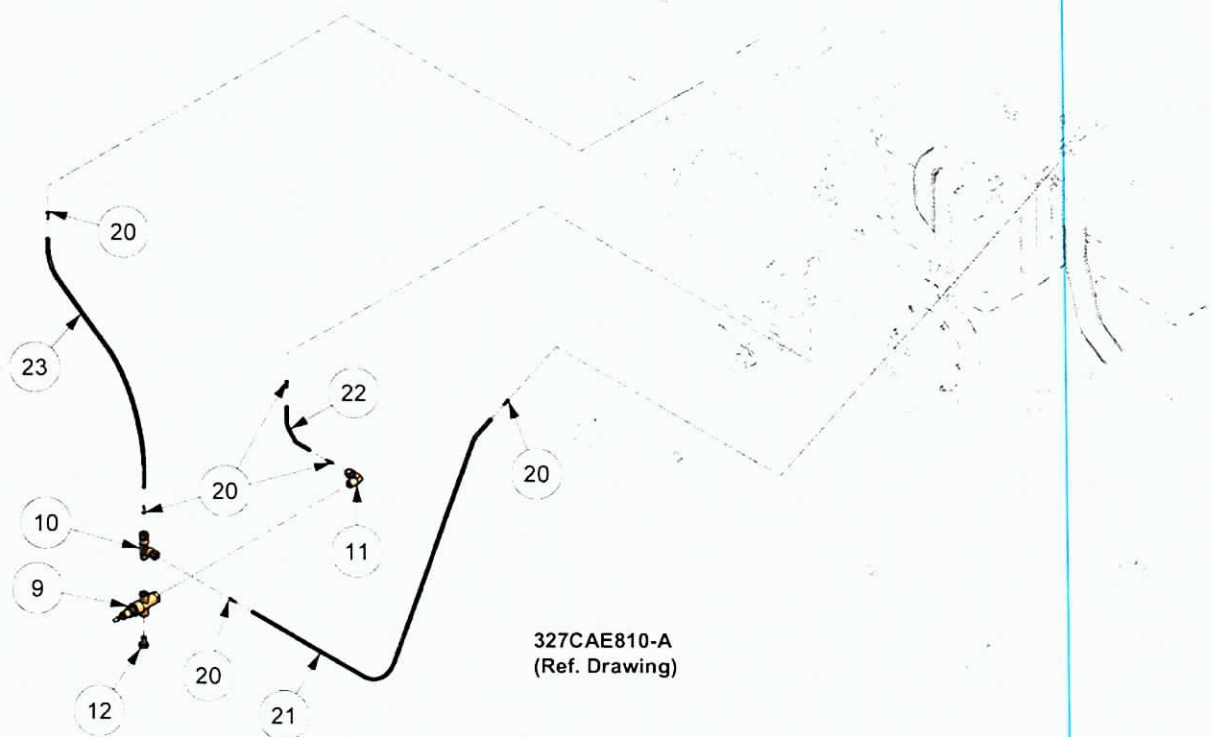
UNIT REPAIR PARTS ILLUSTRATION
MODELS: HGR7-LPK



328CAE810-A
 (Ref. Drawing)

| Ref. No. | Description | Part Number | Qty. |
|----------|--------------|-------------|---------|
| 9 | Pilot Valve | VP1089041 | 1 |
| 10 | Tube Fitting | 86E235 | 1 |
| 11 | Elbow | 86A40 | 1 |
| 12 | Screw | M3465 | 1 |
| 20 | Tube Insert | P10118A | 6 |
| 21 | Tubing | P10117A | 2.63ft. |
| 22 | Tubing | P10117A | 0.34ft. |
| 23 | Tubing | P10117A | 1.57ft. |

UNIT REPAIR PARTS ILLUSTRATION
MODELS: HGR7-LPH

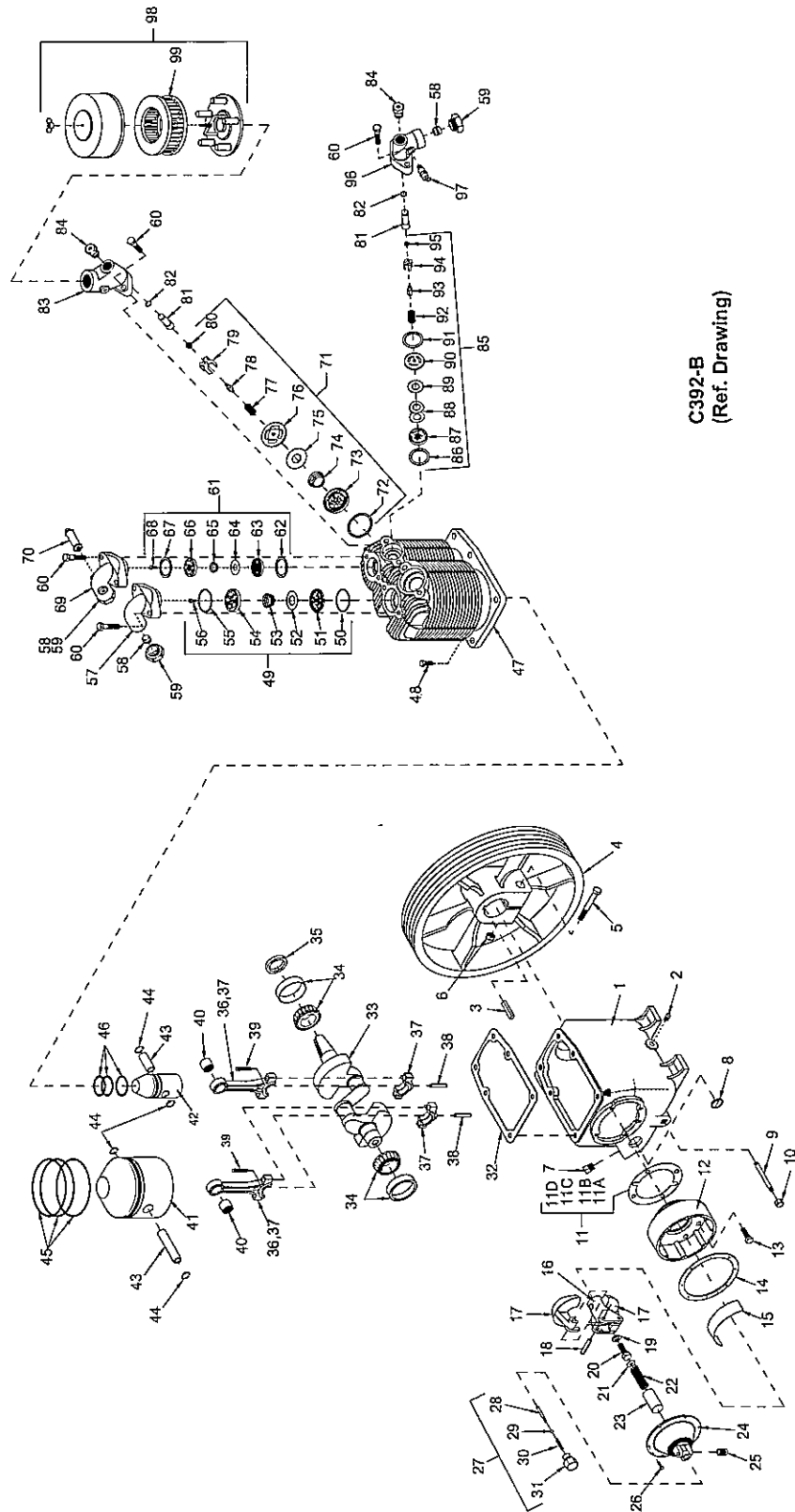


CONTROL GROUP

| Ref. No. | Description | Part Number | Qty. |
|----------|--------------|-------------|---------|
| 9 | Pilot Valve | VP1089041 | 1 |
| 10 | Tube Fitting | 86E235 | 1 |
| 11 | Elbow | 86A40 | 1 |
| 12 | Screw | M3465 | 1 |
| 20 | Tube Insert | P10118A | 6 |
| 21 | Tubing | P10117A | 2.63ft. |
| 22 | Tubing | P10117A | 0.34ft. |
| 23 | Tubing | P10117A | 1.79ft. |

COMPRESSOR REPAIR PARTS ILLUSTRATION

Model: R15BHU



C392-B
(Ref. Drawing)

Repair Parts List
Compressor Models R10DHU & R15BHU

| Ref. No | Description | Part Number | Qty. |
|---------|---|-------------|------|
| 1 | Crankcase | M1820 | 1 |
| 2 | Pipe plug | 64AA5 | 1 |
| 3 | Key | U8 | 1 |
| 4 | Flywheel | NR7A | 1 |
| 5 | Hex head cap screw | M738 | 1 |
| 6 | Hex nut | M2955 | 1 |
| 7 | Pipe plug | 64A5 | 1 |
| 8 | Oil level gauge | RE714 | 1 |
| 9 | Pipe nipple | M492 | 1 |
| 10 | Pipe cap | M461 | 1 |
| 11 | Governor housing gasket set (includes, items, 11A,11B,11C, & 11D) | Z130 | 1 |
| 11A | Governor housing gasket (.032" thick) | SE1430 | 1 |
| 11B | Governor housing gasket (.005/.007" thick) | SE1430A | 1 |
| 11C | Governor housing gasket (.010" thick) | SE1430B | 1 |
| 11D | Governor housing gasket (.015" thick) | SE1430C | 1 |
| 12 | Governor housing | NR80A | 1 |
| 13 | Hex head cap screw | M2343 | 4 |
| 14 | Governor housing cover gasket | SE1489 | 1 |
| 15 | Baffle plate | NR104 | 1 |
| 16 | Governor weight spindle | SE583B | 1 |
| 17 | Governor weight | SE582B | 2 |
| 18 | Governor weight pin | SE592A | 2 |
| 19 | Lock washer | M3468 | 1 |
| 20 | Hex head cap screw | M2345 | 1 |
| 21 | Flat washer | M912A | 1 |
| 22 | Governor spring | SE590 | 1 |
| 23 | Spring sleeve | SE587 | 1 |
| 24 | Governor housing cover | RE10100A | 1 |
| 25 | Unloader muffler assembly | Z4593 | 1 |
| 26 | Head machine screw | M3473 | 6 |
| 27 | Release valve assembly | Z12414A | 1 |
| 28 | Release valve plunger | SE586B | 1 |
| 29 | Release valve ball | P07841A | 1 |
| 30 | Release valve spring | SE591 | 1 |
| 31 | Release valve body | NR101 | 1 |
| 32 | Cylinder flange gasket | NR29A | 1 |
| 33 | Crankshaft (Model R10D) | R105 | 1 |
| 33 | Crankshaft (Model R15A) | R155 | 1 |
| 34 | Main bearing | ZNR16 | 2 |
| 35 | Oil seal | OSN4 | 1 |
| 36 | Connecting rod assembly model R15B (includes items 37 thru 40) | Z750 | 2 |
| 37 | Connecting rod (not sold separately) | --- | -- |
| 38 | Oil dipper | R1524 | 2 |
| 39 | Connecting rod bolt | M1583 | 4 |
| 40 | Piston pin bearing | R1037 | 2 |
| 41 | Low pressure piston with pin (includes items 43 & 44) | ZR154 | 1 |
| 42 | High pressure piston with pin (includes items 43 & 44) | ZP2709C | 1 |

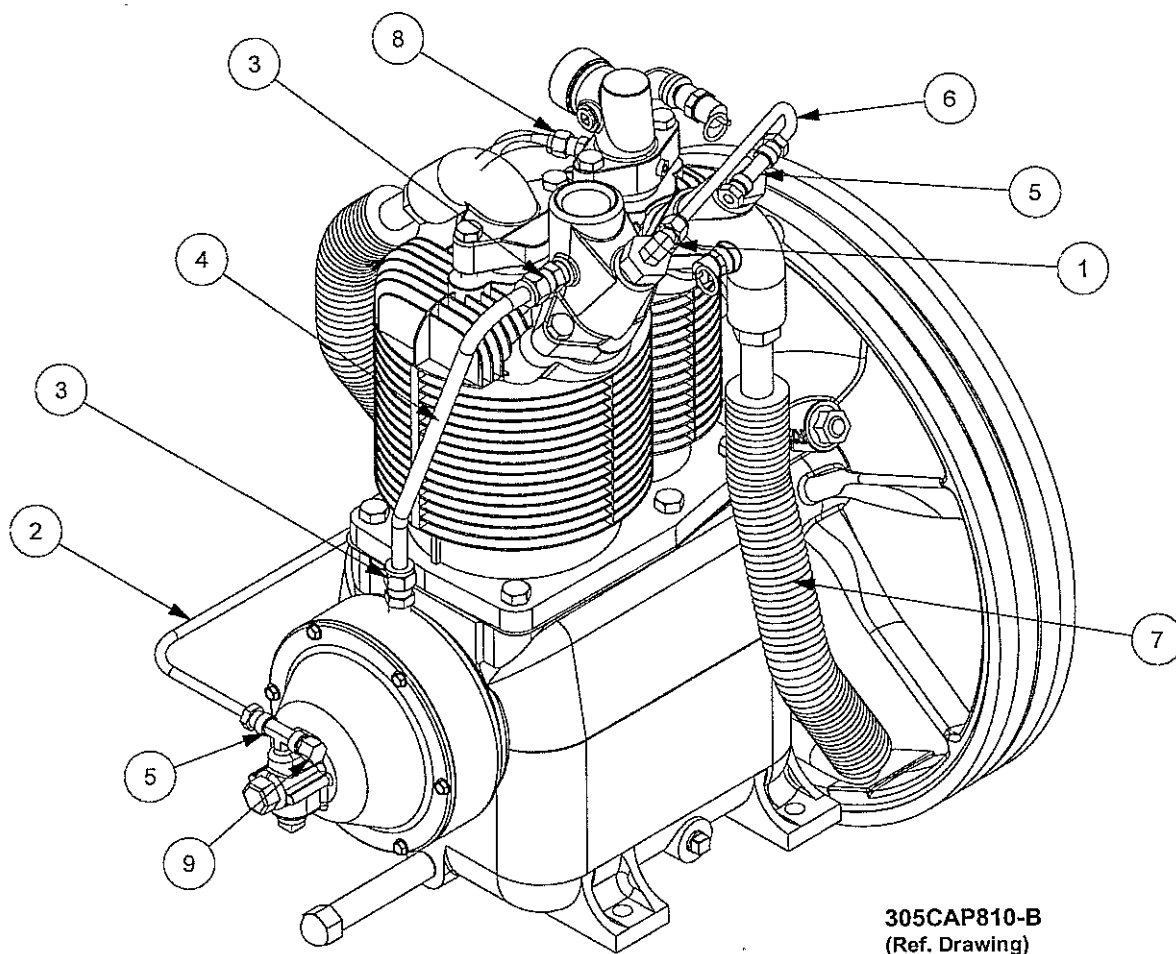
Repair Parts List
Compressor Models R10DHU & R15BHU

| Ref. No. | Description | Part Number | Qty. |
|----------|--|-------------|------|
| 43 | Piston pin | R1021 | 2 |
| 44 | Piston pin retaining ring | R10102 | 4 |
| 45 | Low pressure piston ring set | Z798 | 1 |
| 46 | High pressure piston ring set | Z797 | 1 |
| 47 | Cylinder | P12237D | 1 |
| 48 | Hex head cap screw | M2345 | 6 |
| 49 | Low pressure discharge valve assembly | Z813 | 1 |
| 50 | Valve gasket | P04135A | 1 |
| 51 | Discharge valve seat | M2097 | 1 |
| 52 | Valve disc | RE1061 | 1 |
| 53 | Valve spring | RE1059 | 1 |
| 54 | Discharge valve cage | M2099 | 1 |
| 55 | Valve gasket | P04135A | 1 |
| 56 | Hex head machine screw | M3220 | 1 |
| 57 | Low pressure discharge manifold | RE102E | 1 |
| 58 | Ferrule | SE542 | 3 |
| 59 | Compression nut | SE541 | 3 |
| 60 | Hex head cap screw | P05005A | 8 |
| 61 | High pressure discharge valve assembly | Z115 | 1 |
| 62 | Valve gasket | P04137A | 1 |
| 63 | Discharge valve seat | RE757A | 1 |
| 64 | Valve disc | RE1062 | 1 |
| 65 | Valve spring | RE760 | 1 |
| 66 | Discharge valve cage | M2100 | 1 |
| 67 | Gasket, Valve | CQP14869A | 1 |
| 68 | Hex head machine screw | M3220 | 1 |
| 69 | High pressure discharge manifold | M1717 | 1 |
| 70 | Pressure relief valve | P09704A | 1 |
| 71 | Low pressure intake valve/unloader assembly | Z4877 | 1 |
| 72 | Gasket, Valve | CQP14832A | 1 |
| 73 | Intake valve cage | M2098 | 1 |
| 74 | Valve spring | RE1458 | 1 |
| 75 | Valve disc | RE1470 | 1 |
| 76 | Intake valve seat | RE1471 | 1 |
| 77 | Unloader spring | P09084A | 1 |
| 78 | Guide stem | P09083A | 1 |
| 79 | Unloader finger | P09085A | 1 |
| 80 | Locking hex nut | P09086A | 1 |
| 81 | Unloader piston | P09923A | 2 |
| 82 | O-Ring | P02547A | 2 |
| 83 | Low pressure intake manifold | P09670C | 1 |
| 84 | Unloader cylinder | P02306B | 2 |
| 85 | High pressure intake valve/unloader assembly | Z11938 | 1 |
| 86 | Valve gasket | P09171A | 1 |
| 87 | Intake valve cage | P14224B | 1 |
| 88 | Valve spring | P13866A | 2 |
| 89 | Valve disc | P13865A | 1 |
| 90 | Intake valve seat | P14118B | 1 |

Repair Parts List
Compressor Models R10DHU & R15BHU

| Ref. No. | Description | Part Number | Qty. |
|----------|---|-------------|------|
| 91 | Gasket, Valve | CPQ14870A | 1 |
| 92 | Unloader spring | P01882A | 1 |
| 93 | Guide stem | P09296A | 1 |
| 94 | Unloader finger | P14119A | 1 |
| 95 | Locking hex nut | P09086A | 1 |
| 96 | High pressure intake manifold | P12304B | 1 |
| 97 | Interstage pressure relief valve | M3685 | 1 |
| 98 | Intake filter | P04999A | 1 |
| 99 | Intake filter element | P05050A | 1 |
| | Complete compressor pump gasket set (items 11, 14 & 32) | Z764 | 1 |
| | Low pressure piston kit (items 41 & 45) | Z9101 | 1 |
| | High pressure piston kit (items 42 & 46) | Z9100 | 1 |
| | Complete compressor pump ring set (items 45 & 46) | Z799 | 1 |
| | Complete valve set w/gaskets | Z6795 | 1 |
| | Complete valve gasket set | Z5156 | 1 |

COMPRESSOR REPAIR PARTS ILLUSTRATION
Models: R15BHU



305CAP810-B
 (Ref. Drawing)

Repair Parts List

| Ref. No. | Description | Part Number | Qty. |
|----------|----------------------------|-------------|------|
| 1 | Compression fitting | M2868 | 1 |
| 2 | Tube, Unloading w/Fittings | ZSB250A | 1 |
| 3 | Compression Fitting | M2864 | 2 |
| 4 | Breather Tube w/Fittings | ZUB375 | 1 |
| 5 | Compression Fitting | M2879 | 2 |
| 6 | Manifold Tube | Z9172 | 1 |
| 7 | Intercooler w/Fittings | Z9140 | 1 |
| 8 | Compression Fitting | M2868 | 1 |
| 9 | Compression Nut | VP1061773 | 1 |

UNIT HAZARD DECALS

5

⚠ WARNING

- RELIEVE TANK PRESSURE BEFORE SERVICING. Failure to do so can result in injury.
- DO NOT ADJUST PRESSURE SWITCH, PILOT VALVE, OR SAFETY VALVES. Exceeding factory settings can cause equipment damage and injury.

4

⚠ DANGER

DRAIN THIS TANK DAILY!

Failure to drain moisture will corrode tank material and lead to tank failure which will cause equipment damage, injury, or death.

3

⚠ DANGER

Air from this compressor must not be used for food processing or breathing without adequate filtering. Failure to comply will result in injury or death.

2

⚠ WARNING

DO NOT START ENGINE UNLESS TANK PRESSURE IS BELOW 130 PSIG. TO REDUCE TANK PRESSURE, OPEN VALVE ADJACENT TO THIS DECAL.

1

UNIT PRESSURE SETTING

UNIT PRESSURE FACTORY SET AT

1

UNIT PRESSURE SETTING

UNIT PRESSURE FACTORY SET AT

10

⚠ WARNING

DO NOT REMOVE BELT OR FAN GUARD

Removal will expose rotating parts which can cause severe injury and/or property damage.

9

⚠ WARNING

Do not touch hot surfaces! Contact with these surfaces can cause injury.

7

⚠ DANGER

Valves must be replaced in original position. Failure to do this will result in equipment damage, injury, or death. Do not disassemble valves.

11a

⚠ NOTICE

YOUR COMPRESSOR HAS BEEN TESTED AND SHIPPED WITH

Champ-Lite

FOR OPTIMUM PERFORMANCE USE ONLY GENUINE CHAMPION PARTS AND LUBRICANTS. CONTACT YOUR DISTRIBUTOR FOR ADDITIONAL LUBRICANT AND REPLACEMENT PARTS.

6

MODEL: SERIAL NO:

2

FOOD GRADE SYNTHETIC

10

⚠ WARNING

DO NOT REMOVE BELT OR FAN GUARD

Removal will expose rotating parts which can cause severe injury and/or property damage.

9

⚠ WARNING

Do not touch hot surfaces! Contact with these surfaces can cause injury.

8

⚠ DANGER

HIGH VOLTAGE DISCONNECT POWER SOURCE BEFORE SERVICING.

11b

⚠ NOTICE

YOUR COMPRESSOR HAS BEEN TESTED AND SHIPPED WITH

Aeon

FOR OPTIMUM PERFORMANCE USE ONLY GENUINE GARDNER DENVER PARTS AND CT LOCAL GARDNER DENVER DISTRIBUTOR FOR ADDITIONAL LUBRICANT AND REPLACEMENT PARTS.

3

AC-SY AC-FG

3

AC-HC

RESET RESET

17

16

INSTRUCTIONS DUAL CONTROL

This unit is equipped with a dual control valve. Open valve completely for continuous run operation. Close valve completely for start-stop operation.

15

⚠ NOTICE

Read, understand and retain all labels and Owners Manuals before using this equipment. **IMPORTANT:** Please keep the operating Instructions with this compressor unit.

Master Decal Set
P/N P10157A

PUMP HAZARD DECAL LISTING

| DESCRIPTION | PART NO. |
|--|----------|
| PUMP DECAL SHEET – MASTER | P13805A |
| NOT USED | A1 |
| NOTICE - Lubricants | A2 |
| DECAL – Rotation Direction | B |
| NOTICE – Read and Retain Manuals | C |
| DANGER – Breathing Air | D |
| DECAL – Made in the United States of America | E |

PUMP HAZARD DECALS

A1

A2

B

C

D

E

Master Decal Set
P/N P13805A

MAINTENANCE KITS

| DESCRIPTION | Qty. | Part Number |
|--|------|-------------|
| 8 HP Briggs & Stratton Engine Maintenance Kit (includes the following) . | | CC1031192 |
| Air Cleaner Element | 1 | VP1031096 |
| Spark Plug | 1 | VP1031099 |
| Oil (1 Quart) | 2 | VP1031101 |
| 14 HP Kohler Engine Maintenance Kit (includes the following)..... | | CC1111195 |
| Air Cleaner Element | 1 | VP1111197 |
| Air Cleaner Element Pre-Filter | 1 | VP1111198 |
| Spark Plug | 1 | VP1111199 |
| Fuel Filter..... | 1 | VP1111200 |
| Oil (1 Quart) | 2 | VP1031102 |
| R10, R15 Compressor Maintenance Kit (includes the following)..... | | Z11882 |
| Air Filter Element..... | 1 | P05050A |
| Oil (1 Quart) | 2 | P13796A |

RECORD OF MAINTENANCE SERVICE

RECORD OF MAINTENANCE SERVICE

| DAILY <ul style="list-style-type: none">• CHECK OIL LEVEL• DRAIN MOISTURE FROM TANK | | | | | MONTHLY <ul style="list-style-type: none">• INSPECT AIR SYSTEM | | EVERY 3 MONTHS <ul style="list-style-type: none">• CHANGE OIL• INSPECT VALVE ASSEMBLIES• TIGHTEN ALL FASTENERS• TEST PRESSURE RELIEF VALVE |
|---|--|--|--|--|---|--|--|
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