

See Warranty on page 8 for important information about commercial use of this product.

Operating Instructions

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Oil Lubricated Portable Air Compressors

Description

The Campbell Hausfeld portable contractor air compressor is intended for use in construction and workshop conditions. An oil lubricated, electric motor driven compressor provides compressed air to power nailers, staplers, paint guns and other air tools. The compressed air produced by the unit will contain traces of oil and water. In-line filters may be required for some applications.

A pressure switch shuts off the compressor when the tank is filled to 125 PSI. When air is used and the tank pressure drops to 100 PSI, the compressor will restart automatically. The regulator may be set to provide a line pressure lower than the tank pressure.

The valve on the compressor outlet fitting vents air for ease in motor startup.

NOTICE The sound of vented air is especially noticeable when the tank pressure is low and is not a defect.

The pressure switch also has an unloader valve to vent air when the compressor stops.

Safety Guidelines

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

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

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

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

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

Unpacking

When unpacking unit, inspect carefully for any damage that may have occurred during transit. Make sure to tighten fittings, bolts, etc., before putting unit into service.

General Safety

⚠ WARNING Do not operate unit if damaged during shipping, handling or use. Damage may result in bursting and cause injury or property damage.

Air compressors are utilized in a variety of air system applications. Because air compressors and other components (material pump, spray gun, filters, lubrications, hoses, etc.) used make up a high pressure pumping system, the following safety precautions should be observed at all times. Only persons well acquainted with these rules of safe operation should be allowed to use the air compressor.

1. Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
2. Keep visitors away and NEVER allow children in the work area.
3. Before each use, inspect compressed



⚠ DANGER Breathable Air Warning

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

DISCLAIMER OF WARRANTIES
IN THE EVENT THE COMPRESSOR IS USED FOR THE PURPOSE OF BREATHING AIR APPLICATION AND PROPER IN-LINE SAFETY AND ALARM EQUIPMENT IS NOT SIMULTANEOUSLY USED, EXISTING WARRANTIES SHALL BE VOIDED, AND CAMPBELL HAUSFELD DISCLAIMS ANY LIABILITY WHATSOEVER FOR ANY LOSS, PERSONAL INJURY OR DAMAGE.

air system and electrical components for signs of damage, deterioration, weakness or leakage. Repair or replace defective items before using.

4. Check all fasteners at frequent intervals for proper tightness.
5. Do not exceed pressure rating of any component in system.

REMINDER: Keep your dated proof of purchase for warranty purposes! Attach it to this manual or file it for safekeeping.

**General Safety
(Continued)**

⚠WARNING

Motors, electrical equipment and controls can cause electrical arcs that will ignite a flammable gas or vapor. Never operate or repair in or near a flammable gas or vapor. Never store flammable liquids or gases in the vicinity of the compressor.



6. Do not stand on or use the pump or unit as a handhold.

⚠WARNING

Disconnect power and depressurize system before servicing air compressor! (Turn pressure regulator knob fully clockwise after unplugging compressor.)

7. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

⚠WARNING

All electrical work should be done by a qualified (licensed or certified) electrician. On a properly wired circuit, the black wires supply a voltage potential even when the unit is off.

8. Unit must be securely and adequately grounded. See grounding instructions and extension cord information in this manual.

9. Wear safety glasses and use hearing protection when operating the pump or unit.



10. Do not wear loose clothing or jewelry that will get caught in the moving parts of the unit.

⚠CAUTION

Compressor parts may be hot even if the unit is stopped.



11. Keep fingers away from a running compressor; fast moving and hot parts will cause injury and/or burns.
12. If the equipment should start to vibrate abnormally, STOP the motor and check immediately for the cause. Vibration is generally a warning of trouble.
13. To reduce fire hazard, keep motor exterior free of oil, solvent, or excessive grease.
14. To avoid spontaneous combustion, keep cleaning rags and other flammable waste materials in a tightly closed metal container and dispose of waste rags into approved metal waste cans.

⚠WARNING

Never remove or attempt to adjust safety valve. Keep safety valve free from paint and other accumulations.

⚠DANGER

Never attempt to repair or modify a tank! Welding, drilling or any other modification will weaken the tank resulting in damage from rupture or explosion. Always replace worn or damaged tanks.



15. Tanks rust from moisture build-up, which weakens the tank. Make sure to drain tank daily and inspect periodically for unsafe conditions such as rust formation and corrosion.
16. Fast moving air will stir up dust and debris which may be harmful. Release air slowly when draining moisture or depressurizing the compressor system.

⚠WARNING

Do not spray flammable materials in vicinity of open flame or near ignition sources including the compressor unit.



17. Do not smoke when spraying paint, insecticides, or other flammable substances.

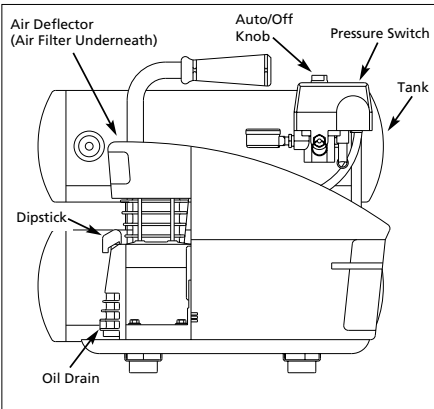


Figure 1 - Side View of Compressor

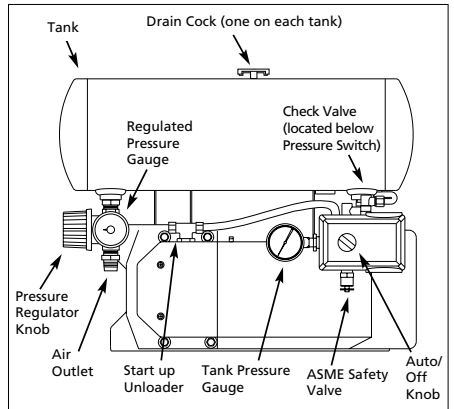


Figure 2 - Top View of Compressor (handle not shown)

General Safety (Continued)

- Use a face mask/respirator when spraying and spray in a well ventilated area to prevent health and fire hazards.



- Do not direct paint or other sprayed material at the compressor. Locate compressor as far away from the spraying area as possible to minimize overspray accumulation on the compressor.

- When spraying with solvent of toxic chemicals, follow instructions provided by the chemical manufacturer.

Assembly

HOSE (MAY NOT BE SUPPLIED WITH UNIT)

Use an air hose with at least 140 PSI rating. Assemble the hose to hose connector or manifold and tighten snugly with a wrench.

Preparation

LUBRICATION

NOTICE

THIS UNIT CONTAINS NO OIL!

Fill the crankcase to the full line on the dipstick before turning unit on. Crankcase requires 7.1 fluid oz. (210 ml) of oil to fill. Operating without oil, even for just a few seconds will damage the pump.

Use Chevron synthetic 5W-30, Mobil 1 5W-30 or OW-30 synthetic motor oil in this compressor. Using other types of oil will cause starting problems.

- Check and tighten all bolts, fittings, etc., before operating compressor.
- Operate compressor in a ventilated area so that compressor may be properly cooled.
- Locate compressor on a level surface where it can be directly plugged

into an outlet. If accidentally bumped, ensure compressor will not fall on anyone or anything.

- If extension cord is used, refer to chart on page 3 to select the appropriate cord.
- To avoid loss of power and overheating, use additional air hose instead of extension cords to reach work area.

WIRING

Local electrical wiring codes differ from area to area. Source wiring, plug and protector must be rated for at least the amperage and voltage indicated on motor nameplate and meet all electrical codes for this minimum.

NOTE: This compressor unit may be operated on a 115 volt, 15 amp circuit if the following conditions are met:

- No other electrical appliances or lights are connected to the same branch circuit.
- Voltage supply is normal.
- Extension cords are of the minimum gauge specified in this instruction manual.
- Circuit is equipped with a 15 amp circuit breaker or a 15 amp slow blow type fuse.

If previous conditions cannot be met or if nuisance tripping of current protection device occurs, operate compressor from a 115 volt, 20 amp circuit.

CAUTION

Overheating, short circuiting and fire damage will result from inadequate wiring, etc.



GROUNDING INSTRUCTIONS

- This product must be grounded. In the event of an electrical short circuit, grounding reduces risk of electrical shock by providing an escape wire for electric current. This

product is equipped with a cord having a grounding wire with an appropriate grounding plug. Plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

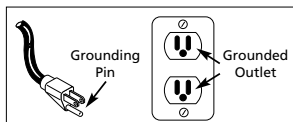


Figure 3 - Grounding Method

DANGER

Improper use of grounding plug can result in a possible risk of electrical shock!



NOTE: Do not use grounding adapter.

MOISTURE IN COMPRESSED AIR

Moisture in compressed air will form into droplets as it comes from an air compressor pump. When humidity is high or when a compressor is in continuous use for an extended period of time, this moisture will collect in the tank. When using a paint spray or sandblast gun, this water will be carried from the tank through the hose, and out of the gun as droplets mixed with the spray material.

IMPORTANT: This condensation will cause water spots in a paint job, especially when spraying other than water based paints. If sandblasting, it will cause the sand to cake and clog the gun, rendering it ineffective. A filter in the air line, located as near to the gun as possible, will help eliminate this moisture.

Extension cords for 120V/15 Amp Unit

Length of Cord (ft)	25	50	100	150	200	250	300	400	500
Gauge of Cord	14	10	10	8	6	6	4	4	2

Preparation (Cont.)

- If repair or replacement of cord or plug is necessary, do not connect grounding wire to either flat blade terminal. The grounding wire has insulation and an outer surface that is green with or without yellow stripes.
- Check with a qualified electrician or serviceman to ensure product is properly grounded. Do not modify plug provided; if plug will not fit outlet, have proper outlet installed by a qualified electrician.

⚠WARNING Never connect green (or green and yellow) wire to a live terminal.

EXTENSION CORDS

Avoid using an extension cord. To extend the reach of the compressor, additional air hose is recommended.

- Use only a 3-wire extension cord that has a 3-blade grounding plug, and a 3-slot receptacle that will accept plug on product.
- Make sure extension cord is in good condition, and heavy enough is in good condition, and heavy enough to carry current product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.
- The chart on page 3 shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use next heavier gauge.

NOTE: The smaller the gauge number, the heavier the cord.

Operation

FOR TROUBLE-FREE OPERATION

- Keep compressor level during operation and while checking oil level.
- Check oil level before each use. Add oil to full line on the dipstick. Operation with low oil will damage pump and may cause difficulty in starting.
- Read instructions: Carefully read through this owner's manual BEFORE OPERATING the new air compressor.

It contains information about operation and maintenance of unit.



- Drain tank daily: Open drain cocks and tilt unit to drain moisture from tanks (See Figure 12). Be sure to close drain cocks tightly before operating compressor. This helps prevent tank corrosion and keeps oil and moisture out of compressed air.
- Check air filter: Never run compressor without an air filter nor with a clogged air filter. See maintenance section for cleaning and replacement instructions.

BREAK-IN

Break-in: Allow new compressor to run for at least 30 minutes without compressing air, to properly seat working parts.

⚠CAUTION Do not attach air chuck or other tool to open end of hose until start-up has been completed and unit checks OK.

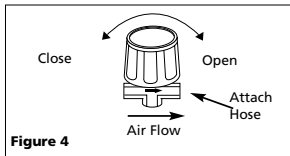


Figure 4

- Turn regulator knob fully clockwise.
- Turn switch or knob to OFF position, and plug in power cord.
- Turn switch or knob to AUTO position and run unit for 30 minutes to break in pump parts.

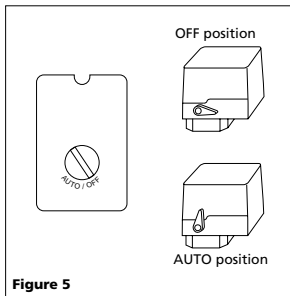


Figure 5

- Turn regulator knob fully counterclockwise. Compressor will build to maximum preset pressure and shut off.
- Turn regulator knob clockwise to cause air to bleed off. Compressor will restart at present pressure.
- Turn regulator knob counterclockwise to shut off air and turn switch to OFF position.
- Attach air chuck or other tool to open end of hose. Turn regulator fully ON. Apply a soap and water solution around hose fittings and check for signs of leaks (bubbles forming). If there is a leak, tighten connections and check again. When there are no leaks, compressor is ready for operation.

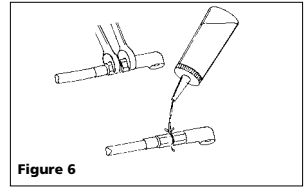


Figure 6

ASME SAFETY VALVE

- This valve automatically releases air if air receiver pressure exceeds preset maximum.

⚠DANGER Do not attempt to tamper with this valve!

- This valve should be checked occasionally by pulling the ring by hand. Air may leak even after ring has been released. However, if the leaking continues for an extended period of time, or if the safety valve is stuck and cannot be activated by the ring, the safety valve MUST be replaced. (Note: Valve will reset when tank pressure reaches 40-50 PSI.)

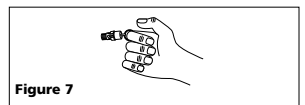


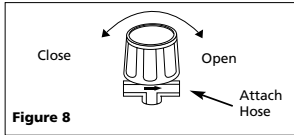
Figure 7

REGULATOR KNOB

- This knob controls air pressure to an air operated tool, or paint spray gun.

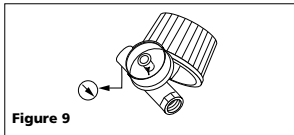
Operation (Cont.)

- Turning knob clockwise increases air pressure at outlet.
- Turning counterclockwise will lower air pressure at outlet.
- Fully counterclockwise will shut off flow of air completely.



REGULATED OUTLET GAUGE

- This gauge shows at-a-glance, air pressure at outlet. Air pressure is measured in pounds per square inch (PSI).
- Be sure this gauge reads ZERO before changing air tools or disconnecting hose from outlet.



TANK PRESSURE GAUGE

Gauge shows pressure in air receiver indicating compressor is building pressure properly.

WARNING Release all pressure and disconnect power before making any repair.

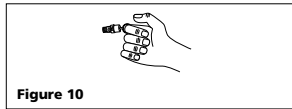
Maintenance

- Check compressor for any visible problems, especially check oil level to be sure it is at full line.

MAINTENANCE SCHEDULE

Operation	Daily	Monthly
Drain Tank	●	
Check Oil Level	●	
Check Safety Valve		●
Change Oil		●
Clean Air Filter		● (More often in dusty conditions)

- Pull ring on safety valve and allow it to snap back to normal position.

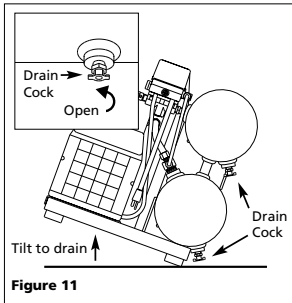


WARNING Safety valve must be replaced if it cannot be actuated or it leaks air after ring is released.

- Turn power OFF and clean dust and dirt from motor, tank, air lines and pump cooling fins.

TANK DRAINAGE

- Daily with compressor shut off: Drain moisture from tanks by opening drain cocks underneath end of tanks.
- There are two drain cocks, one for each tank. Open both by turning counter-clockwise.
- Tilt unit to drain liquid. Dispose of condensation properly according to all laws and regulations.

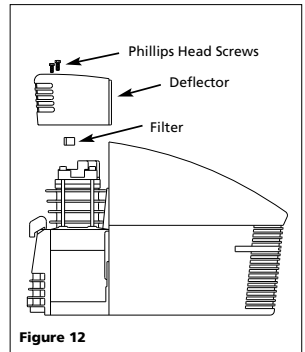


OIL CHANGE

- Allow compressor to run and warm up oil.
- Position a pan under pump end of unit.
- Unplug unit. Remove drain plug, allow oil to collect in pan. Tilt unit to completely drain.
- Replace drain plug, fill pump to full line on dipstick. Use Chevron synthetic 5W-30, Mobil 1 5W-30 or 0W-30 synthetic motor oil. Using other types of oil will cause starting problems.

AIR FILTER MAINTENANCE

- Locate and remove the two Phillips head screws on the top of the air deflector over the cylinder head of the pump.
- Lift off cover to expose the air filter.
- Remove filter. Clean with air blast or soap and water. Replace filter if clogged or damaged.
- Replace air deflector and screws. **Do not operate without air deflector as the pump will overheat and become damaged.**



THERMAL OVERLOAD PROTECTOR

WARNING This compressor is equipped with an automatic reset thermal overload protector which will shut off motor if it becomes overheated. Motor can automatically restart at any time. Keep away from moving parts at all times.

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Compressor will not run	<ol style="list-style-type: none"> 1. Loss of power or overheating 2. No electrical power 3. Blown fuse 4. Breaker open 5. Thermal overload open 6. Pressure switch bad 	<ol style="list-style-type: none"> 1. Check for proper use of extension cord (see EXTENSION CORDS, page 3) 2. Plugged in? Check fuse/breaker 3. Replace blown fuse 4. Reset. Determine why problem happened 5. Motor will restart when cool 6. Replace
Motor hums but cannot run or runs slowly	<ol style="list-style-type: none"> 1. Low voltage 2. Wrong gauge wire or length of extension cord 3. Shorted or open motor winding 4. Defective check valve or unloader 5. Unit is cold, oil too thick 6. Low oil level 7. Defective capacitor 	<ol style="list-style-type: none"> 1. Check with voltmeter 2. Check gauge chart under Operation for proper gauge wire and cord length 3. Replace motor 4. Replace or repair 5. Use 5W-30 synthetic (Mobil 1) and/or warm up the unit 6. Add oil to full line on dipstick 7. Replace or repair
Fuses blow/circuit breaker trips repeatedly	<ol style="list-style-type: none"> 1. Incorrect size fuse, circuit overloaded 2. Wrong gauge wire or length of extension cord 3. Defective check valve or unloader 4. Low oil level 	<ol style="list-style-type: none"> 1. Check for proper fuse, use time-delay fuse. Disconnect other electrical appliances from circuit or operate compressor on dedicated branch circuit 2. Check gauge chart, under Operation 3. Replace or repair 4. Add oil to full line on dipstick
Thermal overload protector cuts out repeatedly	<ol style="list-style-type: none"> 1. Low voltage 2. Clogged air filter 3. Lack of proper ventilation/room temperature too high 4. Wrong gauge wire or length of extension cord 5. Low oil level 	<ol style="list-style-type: none"> 1. Check with voltmeter 2. Clean filter (see Maintenance section) 3. Move compressor to well ventilated area 4. Check gauge chart, under Operation 5. Add oil to full line on dipstick
Tank pressure drops when compressor shuts off	<ol style="list-style-type: none"> 1. Loose connections (fittings, tubing, etc.) 2. Loose drain lock 3. Check valve leaking 	<ol style="list-style-type: none"> 1. Check all connections with soap and water solution and tighten 2. Tighten 3. Disassemble check valve assembly, clean or replace <p>⚠ DANGER <i>Do not disassemble check valve with air in tank; bleed tank</i></p>
Excessive moisture in discharge air	<ol style="list-style-type: none"> 1. Excessive water in air receiver 2. High humidity 	<ol style="list-style-type: none"> 1. Drain receiver 2. Move to area of less humidity; use air line filter
Compressor runs continuously	<ol style="list-style-type: none"> 1. Defective pressure switch 2. Excessive air usage 3. Air leak 	<ol style="list-style-type: none"> 1. Replace switch 2. Decrease air usage; compressor not large enough for air requirement 3. Repair or replace leaking component
Compressor vibrates	Loose mounting bolts	Tighten pump mounting bolts so rubber washer is slightly compressed
Compressor "walks" on hard surfaces	Foot mounting bolts not securely tightened	Tighten foot mounting bolts underneath tank assembly
Air output lower than normal	<ol style="list-style-type: none"> 1. Broken valves 2. Intake filter dirty 3. Connections leaking 	<ol style="list-style-type: none"> 1. Have authorized service representative repair unit 2. Clean or replace intake filter 3. Tighten connections

Limited Warranty

1. **DURATION:** From the date of purchase by the original purchaser as follows: Standard Duty - One Year; Serious Duty - Two Years; Extreme Duty - Three Years; Maxus Model Series - Five Years.
2. **WHO GIVES THIS WARRANTY (WARRANTOR):**
Campbell Hausfeld / Scott Fetzer Company, 100 Production Drive, Harrison, Ohio, 45030, Telephone: (800) 543-6400
3. **WHO RECEIVES THIS WARRANTY (PURCHASER):** The original purchaser (other than for purposes of resale) of the Campbell Hausfeld compressor.
4. **WHAT PRODUCTS ARE COVERED BY THIS WARRANTY:** Any Campbell Hausfeld air compressor.
5. **WHAT IS COVERED UNDER THIS WARRANTY:** Substantial defects due to material and workmanship with the exceptions noted below.
6. **WHAT IS NOT COVERED UNDER THIS WARRANTY:**
 - A. Implied warranties, including those of merchantability and FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED FROM THE DATE OF ORIGINAL PURCHASE AS STATED IN THE DURATION. If this compressor is used for commercial, industrial or rental purposes, the warranty will apply for ninety (90) days from the date of purchase. Extreme Duty Contractor Compressors are not limited to a ninety (90) day warranty when used in contractor applications. Four cylinder single-stage and two-stage compressors are not limited to a ninety (90) day warranty when used in commercial or industrial applications. Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.
 - B. ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF THE CAMPBELL HAUSFELD PRODUCT. Some States do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
 - C. Any failure that results from an accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) supplied with compressor.
 - D. Pre-delivery service, i.e. assembly, oil or lubricants, and adjustment.
 - E. Items or service that are normally required to maintain the product, i.e. lubricants, filters and gaskets, etc.
 - F. Gasoline engines and components are expressly excluded from coverage under this limited warranty. The Purchaser must comply with the warranty given by the engine manufacturer which is supplied with the product.
 - G. Additional items not covered under this warranty:
 1. All Compressors
 - a. Any component damaged in shipment or any failure caused by installing or operating unit under conditions not in accordance with installation and operation guidelines or damaged by contact with tools or surroundings.
 - b. Pump or valve failure caused by rain, excessive humidity, corrosive environments or other contaminants.
 - c. Cosmetic defects that do not interfere with compressor functionality.
 - d. Rusted tanks, including but not limited to rust due to improper drainage or corrosive environments.
 - e. Electric motors, check valves and pressure switches after the first year of ownership.
 - f. Drain cocks.
 - g. Damage due to incorrect voltage or improper wiring.
 - h. Other items not listed but considered general wear parts.
 - i. Pressure switches, air governors and safety valves modified from factory settings.
 2. Lubricated Compressors
 - a. Pump wear or valve damage caused by using oil not specified.
 - b. Pump wear or valve damage caused by any oil contamination or by failure to follow proper oil maintenance guidelines.
 3. Belt Drive / Direct Drive / Gas Driven Compressors
 - a. Belts.
 - b. Ring wear or valve damage from inadequate filter maintenance.
 - c. Manually adjusted load/unload and throttle control devices.
7. **RESPONSIBILITIES OF WARRANTOR UNDER THIS WARRANTY:** Repair or replace, at Warrantor's option, compressor or component which is defective, has malfunctioned and/or failed to conform within duration of the warranty period.
8. **RESPONSIBILITIES OF PURCHASER UNDER THIS WARRANTY:**
 - A. Provide dated proof of purchase and maintenance records.
 - B. Portable compressors or components must be delivered or shipped to the nearest Campbell Hausfeld Authorized Service Center. Freight costs, if any, must be borne by the purchaser.
 - C. Use reasonable care in the operation and maintenance of the products as described in the owner's manual(s).
9. **WHEN WARRANTOR WILL PERFORM REPAIR OR REPLACEMENT UNDER THIS WARRANTY:** Repair or replacement will be scheduled and serviced according to the normal work flow at the servicing location, and depending on the availability of replacement parts.

This Limited Warranty applies in the U.S., Canada and Mexico only and gives you specific legal rights. You may also have other rights which vary from State to State or country to country.