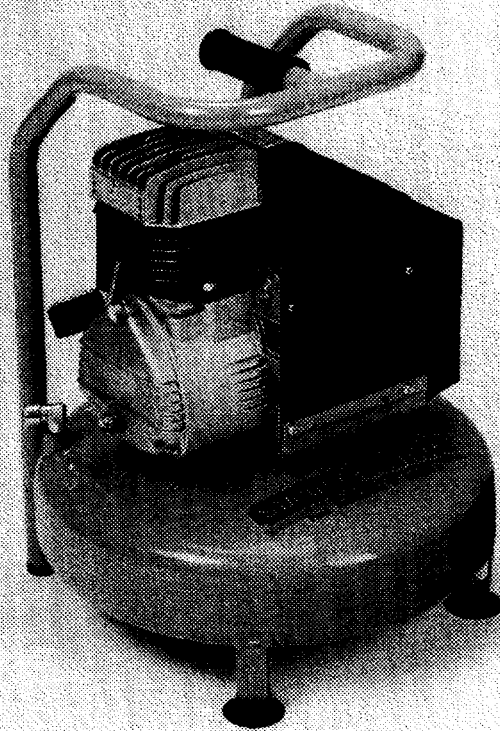


# CWC100



## FEATURES

**Compact, Lightweight Design**

**1 Horsepower Electric Motor**

**4 Gallon Tank Capacity**

**Conventionally Lubricated**

**Low Amperage Draw**

**Rugged Construction**

# CWC100

## SPECIFICATIONS

<b>Horsepower:</b>	1 Horsepower
<b>Lubrication:</b>	SAE10W-40 SAE30 Weight Non-detergent
<b>Tank Size/Type:</b>	4 Gallons, Pancake Design
<b>Air Displacement:</b>	4.48 CFM
<b>Output/Air Delivery:</b>	3.4CFM @ 50 PSI 2.9CFM @ 80 PSI 2.8CFM @ 100 PSI Maximum Pressure 135 PSI
<b>Pressure Switch/ Operating Range:</b>	On @ 105 PSI Off @ 135 PSI
<b>Recovery Time</b>	
From 105 to 135 PSI:	16 Seconds
<b>Pump Up Time</b>	
From 0 to 135 PSI:	80 Seconds
<b>Safety Valve Setting:</b>	150 PSI The safety valve is set to avoid over pressurization of the air tank. It is preset at 150 PSI and will not function unless tank pressure reaches 150 PSI.
<b>Warning:</b>	Do not attempt to adjust or eliminate this safety device.
<b>Pump Type:</b>	Single Stage Single Cylinder Splash Lubricated
<b>Direct Drive:</b>	Yes
<b>Decibel Level:</b>	69 dba (measured 3 feet from side of pump.)
<b>Warranty:</b>	One Year
<b>Entered Market:</b>	1986

## DIMENSIONS

<b>Weight:</b>	46 Lbs.
<b>Height:</b>	20 Inches
<b>Length:</b>	15-3/4"
<b>Width:</b>	18-3/4"
<b>Output Connection:</b>	3/8" Female Pipe Thread

## ELECTRICAL

<b>Motor:</b>	1 Horsepower Electric 115V, 60 HZ @ 1700 RPM Overload Protected
<b>Starting Switch:</b>	Mechanical
<b>Starting Current/ Fuse Requirements:</b>	15 Amps Minimum Slow-Blow Or Circuit Breaker
<b>Amperage Draw/ Amps at Working Pressure:</b>	12 Amps @ 125 PSI
<b>Voltage:</b>	Operates on 115 Volts (minimum 90 volts maintained at unit)
<b>Cord Length:</b>	7 Feet

### Extension Cord Requirements:

**Cord 25 feet or less requires minimum 14 gauge wire size.**

**Cord 25 to 50 feet requires minimum 12 gauge wire size.**

# CWC100

## 1. PRESSURE SWITCH:

This compressor is equipped with an automatic Pressure Switch which controls the electric motor according to the pressure in the tank. The Pressure Switch is set to an operating range of 105 PSI to 135 PSI. It is factory set to the following specifications:

**Restart (Cut-in) @ 105 PSI, Off (Cut-off) @ 135 PSI**

**Note:** Under no circumstances should a pressure switch be adjusted to pressures within 5 PSI of the safety valve setting of 150 PSI. There should be at least a 10 PSI differential between the Safety Valve setting and the maximum Pressure Switch setting on the tank.

**Do not exceed the 135 PSI maximum pressure.**

There are two types of pressure switches used on the CWC100. You must know which type you have in order to make the adjustment.

- |     |               |  |
|-----|---------------|--|
| a.) | Condor        | Part Number 7250220000 (older style)   |
| b.) | Telemecanique | Part Number 7250320000 (current style) |

To adjust, disconnect power, then remove the switch cover. Use a 7mm insulated nut driver for the **Condor** or #2 Phillips screw driver for the **Telemecanique**. The **Condor** has two nuts and **Telemecanique** has a single screw noted as "A" which set the cut-in pressure. Set these so that the motor starts at no more than 105 PSI. On the **Condor**, turn the adjusting nuts evenly, giving each nut 1/2 turn at a time.

The second adjustment, the single nut noted as "B" sets the difference between cut-in and cut-off pressure. This should not normally need adjustment. After setting the correct cut-in pressure, the cut-off should remain about 30 PSI higher than the cut-in. Adjust if required, do not go above 135 PSI.

**Note:** To repeat, cut-in pressure ( Adjustment "A") plus differential ( Adjustment "B") equal cut-off pressure.

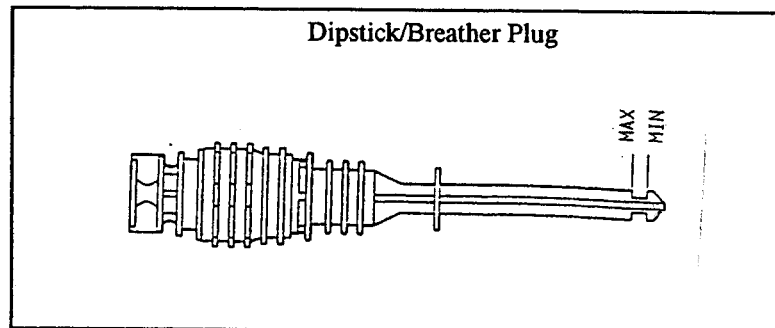
When reassembling Pressure Switch cover, make sure that the cover is seated squarely on the base of the switch, with the rim on the cover engaged with the outside of the base. If the cover is loose or crooked, the on/off switch will not work correctly.

Repair parts are not available for the Pressure Switch, the unit must be replaced if any part of it becomes damaged.

# CWC100

## 2. COMPRESSOR LUBRICATION:

The current Dipstick/ Breather Plug (7181060000) has two parts. The top part is a breather plug, the bottom part serves as a funnel for adding oil. There is a notch at the bottom of the dipstick to measure the amount of oil in the crankcase. When filled, the oil should come up to the top of the notch. It takes approximately 6 to 7 ounces of SAE 10W-40 or SAE 30 weight non-detergent oil to fill this compressor.



Early models of the CWC100 used a vented oil plug ( part #7098010000) and an oil level sight glass (part #7180010000). Sight glass is located on the pump cover.

Check oil level daily. If level is low, do not operate the compressor. Add oil to bring the level up to the maximum notch on the dipstick. After the first 50 hours of use, drain and refill with approximately 6 to 7 ounces of SAE10W-40 oil. Thereafter change oil every 100 hours of use. **This unit is splash lubricated and must run on a level surface to assure proper lubrication.**

**For cold weather operation, we recommend using:**

SAE20 weight for 32 to 55° F environment

SAE10 weight for 0 to 32° F environment

## 3. COLD START VALVE:

For quick starting in cold weather, when lubricating oil may be thick, and to minimize starting current draw, there is a cold start valve on the cylinder head. The cold start valve should be cleaned periodically.

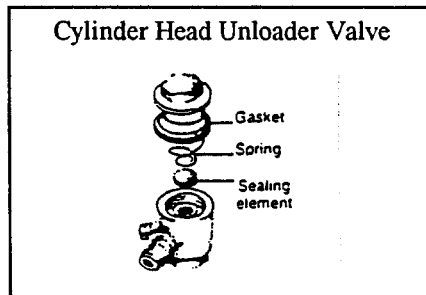
The Cold Start Valve can not be dismantled, but can be cleaned in any grease/oil solvent to remove small pieces of dirt on valve seat.

# CWC100

## 4. CYLINDER HEAD UNLOADER VALVE:

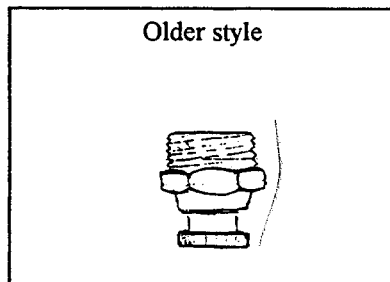
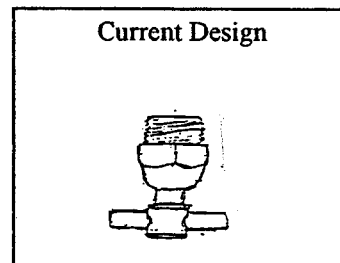
When the air tank has reached the shut off pressure and the compressor has stopped, this valve bleeds off the air remaining in the tank fill pipe and cylinder head unloader valve. This valve releases excess air pressure to ease restarting of the compressor.

If there is difficulty in restarting, The Cylinder Head Unloader Valve can be dismantled and cleaned.



## 5. DRAIN VALVE LOCATION:

On the current model, the Drain Valve is located near the side of the tank. It is a small threaded tee handled valve, part # 7130280000. Drain valve has 1/4" metric pipe thread.



On these older style units, the drain valve was located in the center bottom of the tank, and had very large threads. This part is no longer available. Refer calls to Service Centers.

## 6. TO REBUILD CWC100:

To improve the pump up time, replace the following parts:

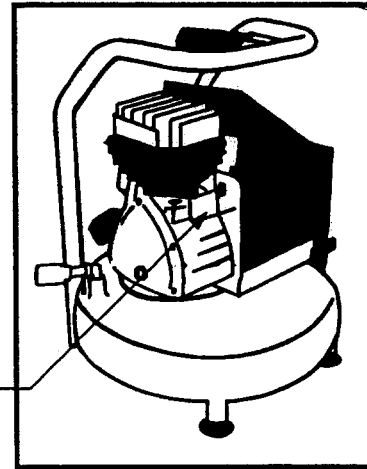
Gasket Kit  
Reed Valve Kit  
Piston Ring Kit

# CWC100

## 7. LOCATION OF SERIAL NUMBER:

The seven digit serial number is located on the top vertical flat surface of the crankcase.

Location of serial number



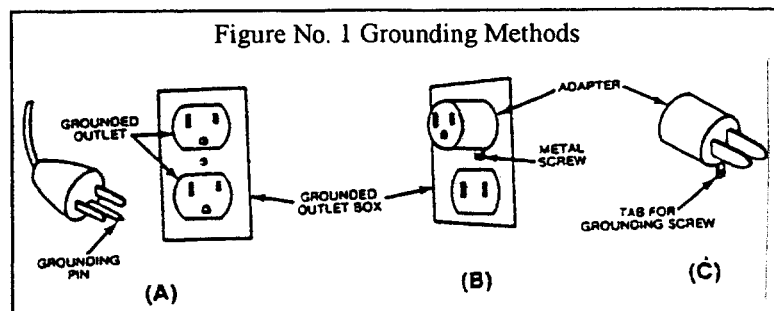
## 8. GROUNDING INSTRUCTIONS:

This product should be electrically grounded. In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an escape wire for the current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. **This compressor must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.**

**Figure No. 1** This product is shipped for use on a nominal 120 volt circuit and has a grounding plug that looks like the plug illustrated in figure 1, sketch A. A temporary adapter (see sketch "B" and "C") may be used to connect this to a two pole receptacle as shown in figure "B", if a properly grounded outlet is not available. **The temporary adapter should only be used until a properly grounded outlet ("A") can be installed by a qualified electrician.**

The green colored rigid lug, or wire extending from the adapter must be connected to a permanent ground, such as, a properly grounded outlet box cover (B) and (C). When ever the adapter is used it must be held in place by a metal screw.

**Danger: Improper installation of the grounding plug can result in a risk of electrical shock.**



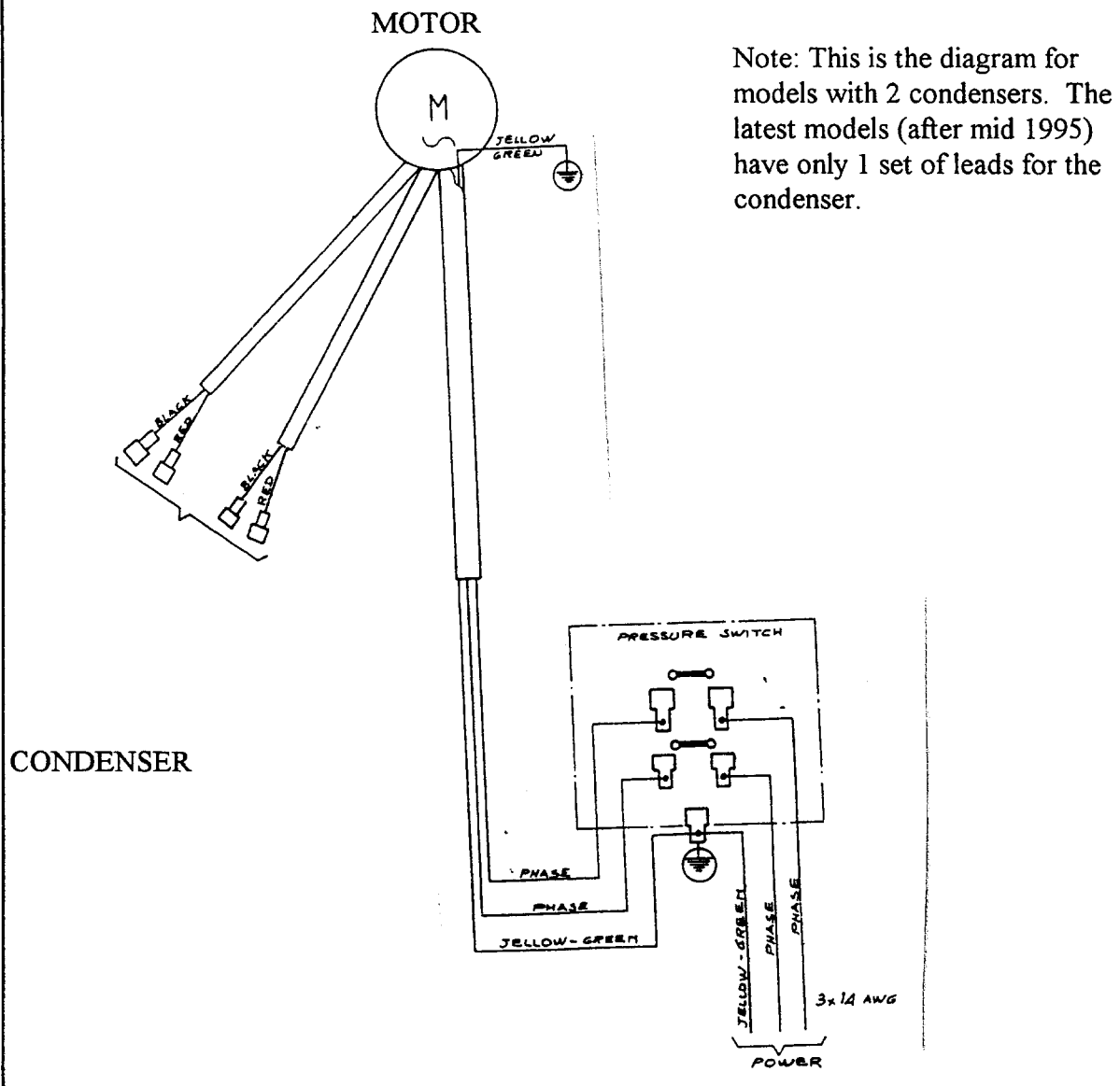
# CWC100

## 8. GROUNDING INSTRUCTIONS, CONTINUED:

If repair or replacement of the electrical cord is necessary, do not connect the grounding wire to either flat blade terminal. The green insulated wire, with or without yellow stripes is the grounding wire.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether this product is properly grounded. Do not modify the plug provided; if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

## 9. WIRING DIAGRAM FOR THE CWC100:



# CWC100

## 10. MAINTENANCE:

Always note position and orientation of parts as removed to assure correct positioning when reassembling the unit.

**Tank:** Drain the tanks after each use or after every four hours of operation to prevent condensation build-up and corrosion inside the tanks.

**Warning:** Failure to regularly drain tanks may cause tank corrosion and risk tank explosion, resulting in serious injury.

The tank is equipped with a drain fitting. Open fitting and tip toward drain unit to allow the water to drain. Note: When draining tanks, watch for debris (rust particles) in water. Contact an Authorized Service Center for tank replacement. It is recommended that tanks be replaced every three years.

**Air Filters:** Inspect air filters before each use. Clean filter pads with soap and water if necessary. If filters become clogged or damaged, replace them. Do not operate compressor without air filters.

**Warning:** Never clean air filters with a flammable liquid or solvent. Explosive vapors may accumulate in the air tanks and cause an explosion resulting in serious injury or death.

**Warning:** When spraying lacquer or other flammable liquids, there is a danger of fire or explosion. Spraying area must be well-ventilated and away from any open flame. Do not smoke. Locate compressor maximum distance from spraying area. To minimize risk of electrical shock, do not expose to rain, store indoors.

**Warning:** Do not perform welding operations on the air tank of this compressor. Welding on the air tank can severely impair tank strength and cause extremely hazardous conditions. Welding on the tank in any manner will void the warranty.

**If warranty service or repairs are needed, contact the nearest Factory Authorized Service Center. Unauthorized teardown of the unit will void the warranty.**



# CWC100

## 11. TROUBLE SHOOTING:

- A. Starting difficulty:** See sections B, C, D and E  
Use heavier or shorter extension cord.  
Insufficient power if light bulbs dim in vicinity
- B. Compressor will not start and the motor hums:**  
Turn the lever to the off position and turn it on again. If this solves the problem, than the plug was disconnected while the compressor was still running.  
Low voltage, try plugging directly into wall outlet  
Use heavier or shorter extension cord  
Capacitor, start or run, has failed
- C. Compressor will not start and the motor does not hum:**  
Fuse or breaker blown  
Check wires on capacitors and pressure switch  
Tank is already pressurized to 135 PSI  
Try plugging into another outlet  
#57 Pressure switch
- D. Compressor starts, runs a few seconds and stops:**  
Capacitor/ condenser-start or run  
#7 Starting valve is stuck closed  
#52 Head unloader valve leaking  
Loose capacitor wires  
Low voltage or undersized extension cord  
Damaged or burnt motor windings-refer to service center
- E. Compressor is turned on, runs several seconds, then trips breaker:**  
What size is breaker? Compressor requires minimum 15 AMP slow-blow breaker.  
Plug directly inot outlet  
Use shorter or heavier extension cord  
Start capacitor/condenser has failed

# CWC100

## 11. TROUBLE SHOOTING, CONTINUED:

- F. Compressor will not restart and the motor hums:  
Compressor runs and gets up to pressure, shuts off, does not give off a hiss of air from pressure switch. Compressor has to be drained for unit to kick on again.**

#57 Pressure switch  
#52 Head unloader valve

**A continuous hiss of air coming from Pressure Switch's Unloader Valve:**

#52 Head unloader valve

- G. Compressor keeps running, does not reach full pressure:**

#64 Drain valve-make sure drain valve is shut,  
check for leakage  
#7 Starting Valve  
#17 Piston rings worn  
Replace gaskets, #9-11,13-16  
#61 Safety valve  
#53 Filler pipe, check for leaks at end of pipe  
#4 Filter element, be sure it is clean  
Check for any air leaks. If leaks are found,  
this would be a good time for a tune-up.  
Replace: Piston ring kit  
Reed valve kit  
Gasket kit

- H. Compressor runs, stops, but does not reach full pressure:**

Possible thermal overload will shut it down.  
Running too close to wall  
Running in an enclosed area  
Plug directly into outlet  
Use shorter or heavier extension cord  
Low voltage  
#57 Pressure switch adjust or replace  
#59 Pressure gauge on tank

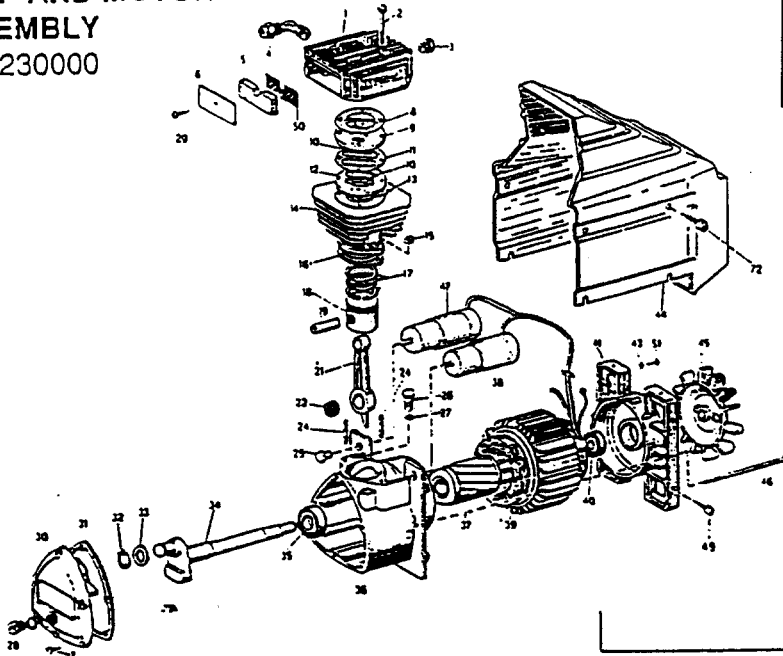
- I. Compressor does not shut off after reaching pressure setting (135PSI):**

#57 Pressure switch  
#59 Pressure gauge on tank

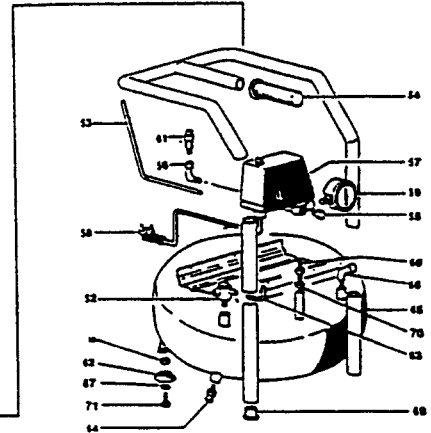
# CWC100 PARTS DRAWING AND PARTS LIST

PUMP AND MOTOR  
ASSEMBLY  
0011230000

With Oil Level Sight Glass



TANK AND  
PRESSURE SWITCH



## Motor and Pump Parts

KEY NO.	QTY.	DESCRIPTION	PART NO.	KEY NO.	QTY.	DESCRIPTION	PART NO.
1	1	Head GM200	5030011008	28	1	Oil Level Sight Glass	7180040000
2	4	Screws M6 x 50 R80B	7011010000	29	1	Screw	7012060000
3	1	Starting Valve 3/8"	7196010000	30	1	Crank Case Cover	5080011008
4	1	Elbow L3/8M. Tube D10	7084040000	31	1	Crank Case Cover Gasket	7078320000
5	2	Filter Element	7210010000	32	1	Retaining Ring	7040040000
6	1	Filter Plate	7458011000	33	1	Plain Washer	7038010000
7	3	Screws KNIPP 3.9 x 16	7012100000	34	1	Crank Shaft GM100-200	5040020008
8-11, 13-16	1	Gasket Kits D50	4082010000	35	1	Ball Bearing 6205 2RS	7060020000
9	1	Valve Plate - Upper	7458020000	36	1	Crank Case GM100-200	5070150008
10	1	Reed Valve Kit 10 PZ	4081010000	37	1	Rotor D80 L75 GM100	5090040008
12	1	Valve Plate - Lower	7458020000	38	1	Condenser MF20 V450	7310100000
14	1	Cylinder	5060170008	39	1	Motor Housing GM1104PHP1V115/60	4010520000
15	2	Nuts M8 Zinc	7020070000	40	1	Ball Bearing 6203 ZZ	7060010000
17	1	Piston Ring Kits	4080020000	41	1	Motor Housing Back Plate GM	5110010008
18	1	Piston	7220020000	43	1	Lock Washer D4	7031020000
19	1	Wrist Pin	7050020000	44	1	Motor Guard GM	7150150000
21	1	Connecting Rod	5050091008	45	1	Fan	7200010000
22	1	Roller Bearing	7061010000	46	2	Housing Bolts M6 x 136	7018010000
				47	1	Condenser, MF40 V250 HZ50	7310140000
24	2	Stud M8 x 32 Zinc	7015020000	49	4	Motor Base Screws 5 mm	7012090000
25	2	Nut	7028010000	50	1	Filter Screen Plate	7458031000
26	1	Oil Plug	7098010000	51	1	Screw KNIPP D4 2 x 9 2	7012030000
27	1	O-Ring 108-8. 73 x 1.78	7070010000	72	4	Motor Guard Screw 4 mm.	7012060000

## Tank and Pressure Switch Parts

KEY NO.	QTY.	DESCRIPTION	PART NO.	KEY NO.	QTY.	DESCRIPTION	PART NO.
52	1	Head Unloader Valve	7190040000	62	2	Rubber Foot Pad	7270010000
53	1	Filler Pipe	7239160000	63	1	Connector Tube	7235030000
54	1	Hand Grip	7280030000	64	1	Drain Valve	7130280000
55	1	Plug	7090070000	65	1	Tank	5153170008
56	1	Elbow	7080180000	66	1	Elbow	7080170000
57	1	Pressure Switch	7250320000	67	4	Washer	7030020000
58	1	Power Cord	4100070000	68	2	Hex Nut	7020060000
59	1	Tank Pressure Gauge	7110180000	69	2	Rubber Foot	7360040000
60	1	Nipple	7081140000	70	1	Lock Nut	7023040000
61	1	Safety Valve	7192170000	71	2	Bolt	7011040000

IF WARRANTY SERVICE OR REPAIRS ARE NEEDED, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER. OR, CONTACT THE FACTORY. UNAUTHORIZED REPAIRS OR TEARDOWN OF THE UNIT WILL VOID THE FACTORY WARRANTY.