

Installation Instructions for 81966

Pancake Air Compressor

6 Gallon 1.5 HP

IMPORTANT SAFETY INSTRUCTIONS AND GUIDELINES

This manual contains information that relates to PROTECTING YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS and is very important for you to know and understand.

DANGER POTENTIAL HAZARD THAT WILL RESULT IN SERIOUS INJURY OR LOSS OF LIFE

WARNING POTENTIAL HAZARD THAT COULD RESULT IN SERIOUS INJURY OR LOSS OF LIFE

CAUTION POTENTIAL HAZARD THAT MAY RESULT IN MODERATE INJURY OR DAMAGE TO EQUIPMENT

DANGER

This compressor/pump is not equipped and should not be used to supply breathing quality air. Additional equipment would be 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. Compressed Gas Association, 4221 Walney Road, Fifth Floor, Chantilly, VA 20151-2923, (703) 788-2700, www.cganet.com. Any such additional equipment has not been examined and no implication of proper use for breathing air is intended or implied.

WARNING

- 1. RISK OF EXPLOSION OR FIRE.** Never spray flammable liquids in a confined area. It is normal for the motor and pressure switch to produce sparks while operating. If sparks come into contact with vapors from gasoline or other solvents, they may ignite and cause a fire or explosion. Do not smoke while spraying. Do not spray where sparks or flame are present. Keep compressor as far from spray area as possible. Always operate the compressor in a well-ventilated area.
- 2. RISK OF ELECTRIC SHOCK.** A licensed electrician in accordance with all local and national codes must install all wiring. To avoid electric shock, NEVER use an electric air compressor outdoor when it is raining or on a wet surface.
- 3. RISK OF BURSTING.** Rust can weaken the tank. Drain the condensed water from the tank after each use to reduce rusting. DO NOT weld, drill or modify the air tank of this compressor. Welding or modifications on the air tank can severely impair tank strength and cause an extremely hazardous condition. If a leak is detected in the tank, replace the tank right away.
- 4. RISK OF INJURY.** ALWAYS shut off the compressor, remove the plug from the outlet and bleed all pressure from the system before servicing the compressor or when the compressor is not in use. Do NOT use the unit with the shrouds removed. Contact with moving parts could cause serious injury.
- 5. RISK OF BURSTING.** Check the maximum pressure rating in the manual or the serial tag label. Compressor outlet pressure must be regulated so as to never exceed the maximum pressure rating. Relieve all pressure through the hose before removing or attaching accessories.
- 6. RISK OF BURSTING.** DO NOT adjust the pressure switch or relief valve for any reason. They have been preset at the factory for the maximum pressure of this unit. If the pressure switch or the relief valve are tampered with, personal injury or property damage may occur.
- 7. RISK OF BURNS.** Pump and manifold generate high temperature. To avoid burns or other injuries, DO NOT touch the pump, manifold or transfer tube while the unit is running. Allow the parts to cool before handling or servicing. Keep children away from the compressor at all times.
- 8. RISK TO BREATHING.** Be certain to read all labels when you are spraying paints or toxic materials, and follow the safety instructions. Use a respirator mask if there is a chance of inhaling anything you are spraying. NEVER directly inhale the compressed air produced by a compressor.
- 9. RISK OF EYE INJURY.** ALWAYS wear ANSI Z87.1 approved safety goggles when using an air compressor. NEVER point nozzle or sprayer toward a person or any part of the body. If the spray penetrates the skin, serious injury may occur.



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CAUTION

1. Pull the pressure relief valve ring daily to ensure that the valve is functioning properly.
2. The unit must be kept a minimum of 12 inches from the nearest wall, in a well-ventilated area for cooling.
3. Protect the air hose and electric cord from damage and puncture. Inspect them weekly for weak or worn spots and replace if necessary.
4. Always wear hearing protection when using an air compressor. Failure to do so may result in hearing loss.
5. Operation of the unit should always be in a position that is stable. Never use the unit on a rooftop or elevated position that could allow the unit to fall or be tipped over.

BASIC COMPRESSOR FEATURES

A. ELECTRIC MOTOR: The motor is used to power the pump. It contains a thermal overload protector and an automatic reset. If the motor overheats for any reason, the thermal overload protector will shut it down to prevent the motor from being damaged. The motor will automatically restart when it completely cools.

AIR COMPRESSOR PUMP: The pump is used to compress the air and discharge it into the tank via the piston moving up and down in the cylinder.

B. AIR TANK: The tank is used to store the compressed air.

C. TANK PRESSURE GAUGE: The gauge is used to measure the stored air pressure level of the tank. It is not adjustable by the operator, and does not indicate line pressure.

D. AIR PRESSURE REGULATOR: The regulator is used to adjust line pressure to the tool you are using. Turn the knob clockwise to increase pressure and counterclockwise to decrease pressure.

WARNING: Never exceed the maximum working pressure of the tool.

E. REGULATED PRESSURE GAUGE: The gauge is used to measure the regulated outlet pressure.

F. AIR LINE OUTLET: The outlet is used to connect 1/4" NPT air hose.

G. AIR TANK DRAIN VALVE: The drain valve is used to remove moisture from the air tank after the unit is shut off.

WARNING: Never attempt to open the drain valve when the tank pressure is over 10 PSI.

H. PRESSURE RELIEF VALVE: The valve is used to prevent system failures by relieving pressure from the system. If the pressure reaches the preset level and the pressure switch will not shut down the motor, it will automatically pop open. You can also pull the ring on the valve to open.

I. ON/OFF SWITCH: This switch turns on the compressor and is operated manually. When in the ON position, it allows the compressor to start up or shut down automatically, without warning, upon air demand. ALWAYS set this switch to OFF when the compressor is not being used, and before unplugging the compressor.

J. POWER CORD: This product is for use on a nominal 120-volt circuit and should be grounded. A cord with a grounding plug as illustrated must be used. Make sure that the product is connected to an outlet having the same configuration as the plug (see Figure 1). No adapter should be used with this product. Check with a licensed electrician if the grounding instructions are not understood, or if in doubt as to whether the product is properly grounded. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a licensed electrician.

DANGER: Improper installation of the grounding plug will result in a risk of electric shock. If repair or replacement of the cord or plug is necessary, do not connect the grounding Pin Grounding wire to either flat blade terminal. The grounding wire is in the green outer surface.

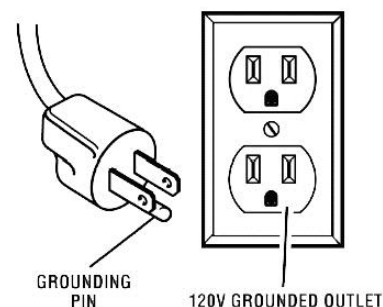


Figure 1

CAUTION: This compressor is intended to be used at a duty cycle 50%.



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SPECIFICATIONS

Electrical Rating	120V AC/60Hz/9.7A
Air Outlet Size	1/4"-18NPT
Air Pressure Shut-off	150PSI
Air Pressure Restart	120PSI
Air Tank Capacity	6 Gallons
Air Flow Capacity	2.5 SCFM @ 90PSI
	3.4 SCFM @ 40PSI
Sound Level	90 dB @ 3'

INSTRUCTIONS

Read the ENTIRE IMPROTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product

WARNING: TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Turn the Power Switch "OFF" and unplug the Air compressor from its electrical outlet before assembling or making any adjustments to the compressor.

OIL-FREE UNIVERSAL MOTOR

Your air compressor features permanently lubricated bearings.

PRESSURE REGULATOR KNOB

Use the pressure regulator knob to adjust the amount of air being delivered through the hose.

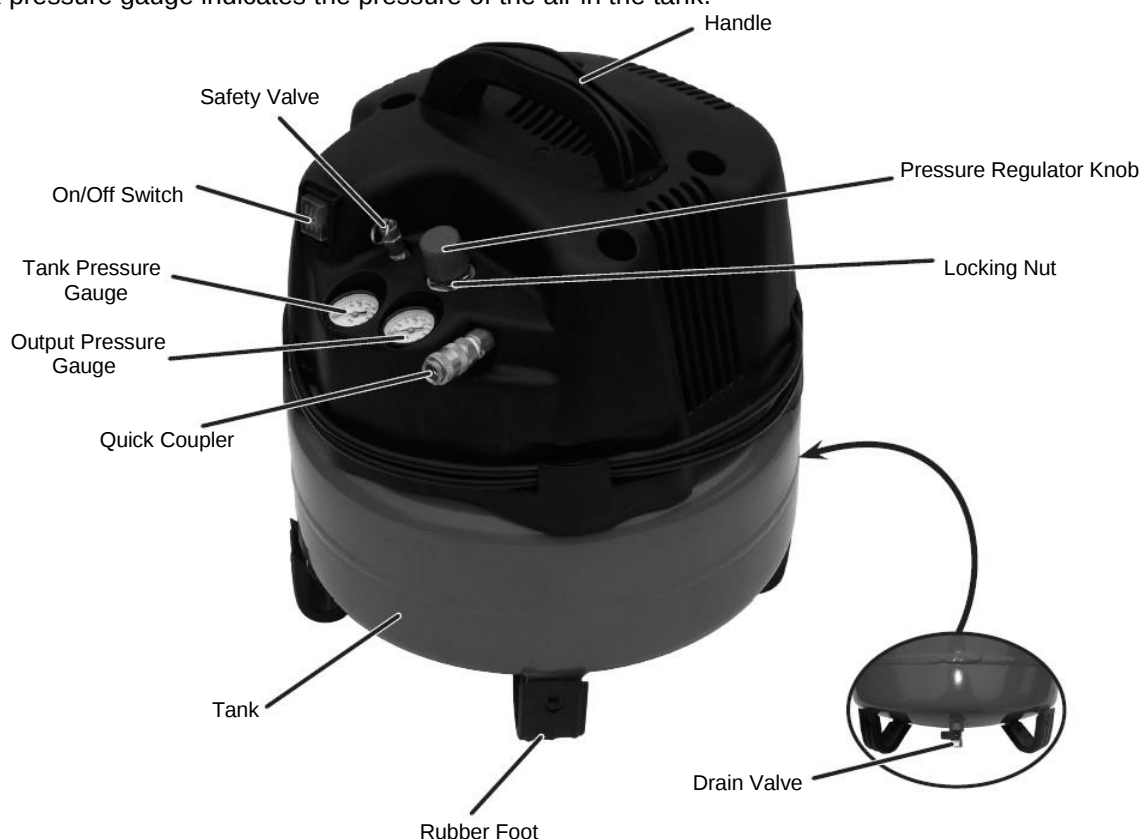
PRESSURE RELIEF VALVE

The pressure relief valve is designed to automatically release air if the air receiver pressure exceeds the preset maximum.

REGULATOR PRESSURE GAUGE

The current line pressure is displayed on the regulator pressure gauge. This pressure can be adjusted by rotating the pressure regulator knob.

The tank pressure gauge indicates the pressure of the air in the tank.



1. Break in the new Air compressor as follows:
 - a. Turn the Power Switch off and unplug the unit. Insert a male coupler (Sold separately) into the female Quick Coupler and fully open all regulators and valves.
 - b. Plug in the Power Cord.
 - c. Turn the Power Switch ON.
 - d. Let the unit run for 30 minutes.
Air will expel freely through the coupler.
 - e. Turn the Power Switch OFF.
 - f. Unplug the Power Cord and remove the male coupler
 2. Connect a regulator valve, an inline shut off valve and a 1/4" NPT air hose to the Quick Coupler (all sold separately).
The air hose must be long enough to reach the work area with enough extra length to allow free movement while working.
- NOTE:** An in-line shutoff ball valve is an important safety device because it controls the air supply even if the air hose is ruptured. The shutoff valve should be a ball valve because it can be closed quickly.
3. Depending on the tool which you will be using with this compressor, you may need to incorporate additional components, such as an in-line oiler, a filter, or a dryer (all sold separately)

MAINTENANCE

WARNING

To avoid personal injury, always shut off and unplug the unit and relieve all air pressure from the system before performing any service on the air compressor.

Regular maintenance will ensure trouble free operation. The items listed in the chart should be inspected on a regular basis

ITEM	DESCRIPTION	SERVICE INTERVAL
Drain the tank	To prevent corrosion inside the tank, the condensation must be drained at the end of every workday. Be sure to wear protective goggles. Relieve the air pressure in the system and open the drain valve on the bottom of the tank.	Daily
Check the relief valve	Pull the relief valve on the ring daily to ensure that it is operating properly and to clear the valve of any possible obstructions.	Daily
Test for leakage	Check all connections to see if tight. A small leak of part (the tank, hoses, pipe connections or transfer tubes) will reduce the unit's performance. Spray a small amount of soapy water around the area of the suspected leak with a spray bottle. If bubbles appear, repair or replace the faulty component. Do not over tighten any connections.	N/A
Storage	Before storing the unit for a long period, use an air blow gun to clean all dust and debris from the compressor. Disconnect and coil the power cord up. Pull the pressure relief valve to release all pressure from the tank. Drain all moisture from the tank. Cover the entire unit to protect it from moisture and dust.	N/A



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COMMON TERMS

Air Filter

Porous element contained within a metal or plastic housing attached to the compressor cylinder head which removes impurities from the intake air of the compressor.

Air Tank

Cylindrical component which contains the compressed air.

Check Valve

Device that prevents compressed air from flowing back from the air tank to the compressor pump.

Cut-In Pressure

The low pressure at which the motor will automatically restart.

Cut-Off Pressure

The high pressure at which the motor will automatically shut off.

Electric Motor

Device which provides the rotational force necessary to operate the compressor pump.

Manual On/Off Switch

Control which turns the air compressor on or off. The pressure switch will not automatically start and control the compressor unless the manual On/Off Switch is in the ON position.

NPT (National Pipe Thread)

A seal thread tape must be used to provide a leak-free seal on pipe threaded connections.

SCFM (Standard Cubic Feet Per Minute)

A unit of measure of air delivery.

Pressure Regulator Knob

Regulates the outgoing pressure from the air outlet to the tool. It is possible to increase or decrease the pressure at the outlet by adjusting this control knob.

Pressure Switch

Automatically controls the on/off cycling of the compressor. It stops the compressor when the cut-off pressure in the tank is reached and starts the compressor when the air pressure drops below the cut-in pressure.

PSI (Pounds Per Square Inch)

Measurement of the pressure exerted by the force of the air. The actual psi is measured by a pressure gauge on the compressor.

Pump

Produces the compressed air with a reciprocating piston contained within the cylinder.

Regulator Pressure Gauge

Displays the current line pressure. Line pressure is adjusted by rotating the pressure regulator knob.

Pressure Relief Valve

Prevents air pressure in the air tank from rising over a predetermined limit.

Tank Pressure Gauge

Indicates the pressure in the air tank.

Thermal Overload Switch

Automatically shuts off the compressor if the temperature of the electric motor exceeds a predetermined limit.



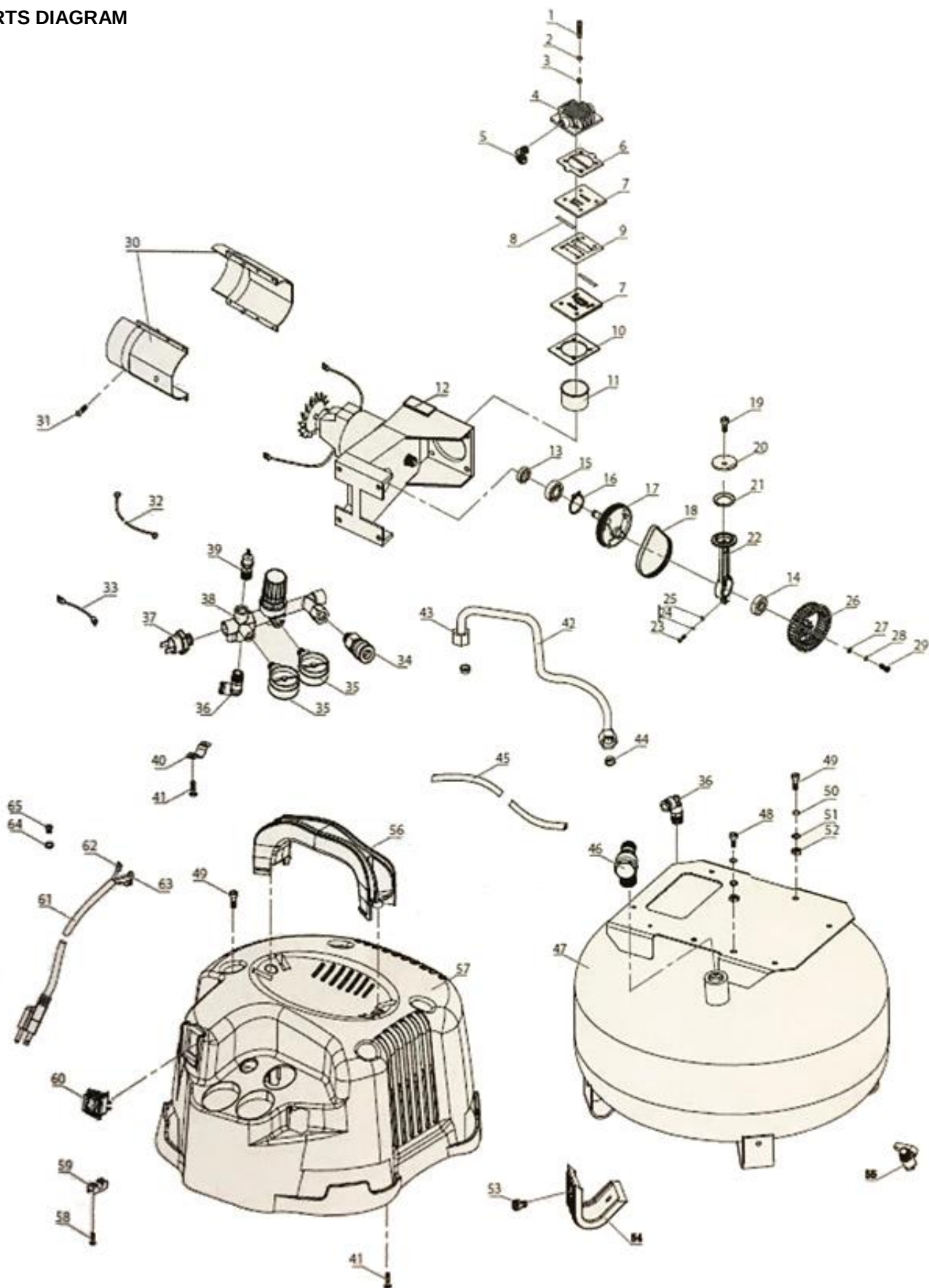
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TROUBLESHOOTING CHART

NOTE: Troubleshooting problems may have similar causes and solutions.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Low pressure or not enough air or compressor does not stop	Tank drain valve is open	Close tank drain valve.
	Fittings leak	Check fittings with soapy water. Tighten or reseal leaking fittings. DO NOT OVERTIGHTEN!
	Restricted air intake	Clean or replace air filter element.
	Prolonged or excessive use of air	Decrease amount of air used.
	Compressor not large enough	Check air requirement of accessory. If it is higher than CFM and pressure supplied by compressor, you need a larger compressor. Most accessories are rated at 25% of actual CFM while running continuously.
	Hole in air hose	Check and replace if necessary
	Tank Leaks	WARNING Immediately replace tank. DO NOT attempt to repair
	Blown seals	Replace compressor assembly.
	Valve leaks	Replace compressor assembly.
	Leaking or worn piston	Replace compressor assembly.
Air leaks from regulator, or regulator does not regulate pressure	Dirty or damaged regulator internal parts	Replace regulator or internal parts.
Regulated pressure gauge reading drops when air accessory is being used	This is normal	If pressure drops to low, adjust regulator while accessory is used.
	Compressor not large enough	Check air requirement of accessory. If it is higher than CFM and pressure supplied by compressor, you need a larger compressor. Most accessories are rated at 25% of actual CFM while running continuously.
Pressure relief valve opens	Tank pressure exceeded normal rating pressure	Replace pressure switch.
	Pressure switch stuck	Replace pressure switch.
Motor will not run	Tank pressure exceeds preset pressure switch limit	Motor will start automatically when tank pressure drops below tank cut-in pressure.
	Motor overload protection has tripped	Let motor cool off and overload switch will automatically reset. This may take several minutes.
	Fuse blown or circuit breaker tripped	Replace blown fuse or reset circuit breaker. Do not use fuse or circuit breaker with higher rating than specified for your branch circuit.
		Check for proper fuse: "Fusetron" type T is acceptable
		Check for low voltage and proper extension cord size.
		Disconnect other applications from circuit. Operate compressor on a dedicated circuit.
	Check valve is stuck open	Remove and clean or replace.
	Pressure bleeder valve on pressure switch has not unloaded head pressure	Bleed line by moving pressure switch lever to OFF position before restarting. If bleeder valve does not open, replace bleeder valve.
	Wrong wire gauge in cord or excessive extension cord length	Check for proper gauge and extension cord length.
	Loose electrical connections	Contact authorized service center.
	Possible defective capacitor	Contact authorized service center.
	Paint spray on internal motor parts	Have checked at service center. Do not operate compressor in the paint spray area.
	Possible defective motor	Contact authorized service center.

PARTS DIAGRAM



PARTS LIST

Part	Description	Qty	Part	Description	Qty
1	Screw M6x35	4	34	Quick Coupler	1
2	Spring Washer M6	4	35	Pressure Gauge	2
3	Nut M6	4	36	Quick Connect 90°	2
4	Cylinder Head	1	37	Pressure Switch	1
5	Exhaust Elbow	1	38	Regulator	1
6	Gasket Of Cylinder Head	1	39	Safety Valve	1
7	Valve Plate	1	40	Fixture Clab For Regulator	2
8	Valve	2	41	Screw St5x18	6
9	Aluminum Gasket	1	42	Pressure Tube	1
10	Gasket Of Cylinder Upper	1	43	Compression Nut G3/8	2
11	Cylinder	1	44	Brass Compression	2
12	Motor Set	1	45	Nylon Hose	1
13	Bearing 6001	1	46	Check Valve	1
14	Bearing 6201	1	47	Tank	1
15	Bearing 6203	1	48	Screw M6x20	2
16	Circlip Dia. 40	1	49	Screw M6x30	5
17	Eccentric	1	50	Washer M6	3
18	Belt	1	51	Spring Washer M6	3
19	Screw M6x16	1	52	Nut M6	3
20	Cover Of Conrod	1	53	Screw M5x12	8
21	Piston Ring	1	54	Rubber Foot	4
22	Conrod	1	55	Drain Valve	1
23	Screw M4x20	1	56	Handle	1
24	Spring Washer M4	1	57	Shroud	1
25	Nut M4	1	58	Tapping Screw St4x12	2
26	Round Fan	1	59	Press Fixture	1
27	Washer M5	1	60	Power Switch	1
28	Spring Washer M5	1	61	Power Cord	1
29	Screw M5x15	1	62	Cable Connector U	2
30	Motor Shroud	1	63	Cable Connector O	1
31	Screw St3.0x10	6	64	Inner Washer	2
32	Grounding Cable	1	65	Screw M4x6	2
33	Dual Connect Cord	1			



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