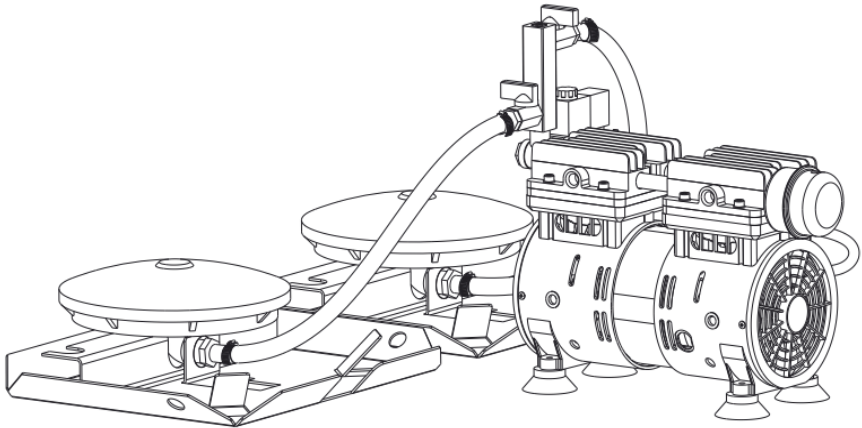


**VEVOR<sup>®</sup>**

**POND AERATION SYSTEM  
USER'S MANUAL**

OLF400D-140BS-A  
OLF400D-140BS-B  
OLF400D-140BS-C



### NEED HELP? CONTACT US!

Have product questions? Need technical support? Please feel free to contact us:



**CustomerService@vevor.com**

This is the original instruction. Please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.

## Attention

To use this pond aeration system, you must read the instruction manual before use, and please be careful.

# 1. INTRODUCTION

Thank you for using our company's pond aeration system (from now on referred to as air compressor)! Before installing and using the air compressor for the first time, you must carefully read all the accompanying information, especially the installation information and other items mentioned in the precautions in this manual. This will help you make better use of VEVOR products.

## General Power Tool Safety



Read all safety warnings, instructions, illustrations, and specifications that come with this compressor. Failure to follow all instructions listed below could result in electric shock, fire, and/or severe injury. Save all warnings and instructions for future reference.

## Workspace Safety

- Keep the work area clean and well-lit. Cluttered or dark areas are prone to accidents. Air compressors can't be exposed to an explosive environment, such as an environment with flammable liquid, gas, or dust.

## Electrical Safety

- The air compressor plug must match the socket, and do not modify the plug in any way.
- Do not expose the air compressor to rain or humidity, water entering the air compressor will increase the risk of electric shock.
- Do not abuse the power cord, keep the power cord away from heat, oil, sharp edges, or moving parts, damaged or tangled wires will increase the risk of electric shock.
- Please ensure that the socket has an effective grounding, which can avoid the risk of electric shock.

## Personal Safety

- Be vigilant when operating the air compressor, pay attention to what you are doing, use common sense, and do not use power tools when tired or under the influence of drugs, alcohol, or drugs. Serious personal injury may result from momentary inattention while operating the power tool.
- To prevent accidental activation, make sure the switch is in the off position before connecting the power supply.

## Precautions For Use

- If the switch cannot be switched on and off, do not use the air compressor. Any power tool that cannot be controlled by the switch is dangerous and must be repaired.
- Before making any adjustments, replacing accessories, or storing the compressor, disconnect the power plug, such precautionary safety measures reduce the risk of an accidental start-up.
- Do not allow anyone who is not familiar with the air compressor or these instructions to operate it.
- Maintain the air compressor and accessories, and check whether the moving parts are dislocated or stuck, or the parts are damaged, etc., which may affect the operation of the power tool. If there is any damage, please repair the air compressor before use. Many accidents are caused by improper power supply maintenance.

## 2. GENERAL INFORMATION

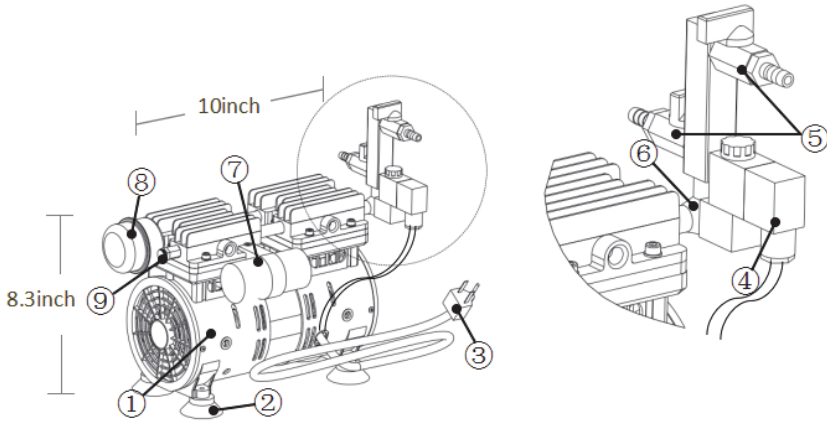
### 2.1 Product Specification

Model SPEC.	OLF400D-140BS-A	OLF400D-140BS-B	OLF400D-140BS-C
<b>Voltage (V/Hz)</b>	120V~ 60Hz	120V~ 60Hz	120V~ 60Hz
<b>Rated power</b>	550W	550W	550W
<b>Max. flow</b>	5.2CFM	5.2CFM	5.2CFM
<b>Length of wire</b>	1.8m	1.8m	1.8m
<b>Max. water area</b>	/	1 acre	3 acres
<b>Max. water depth</b>	15.2m	15.2m	15.2m
<b>G.W</b>	10.2Kg	19Kg	27.7Kg
<b>N.W</b>	9Kg	17.6Kg	26Kg

<b>Model</b> <b>Parts</b>	<b>OLF400D-140BS-A</b>	<b>OLF400D-140BS-B</b>	<b>OLF400D-140BS-C</b>
<b>Air compressor</b>	1	1	1
<b>Airline</b>	×	1	2
<b>Airflow diffuser</b>	×	1	2
<b>Hose clamp</b>	2	2	4
<b>Air Filter</b>	1	1	1
<b>Timer</b>	1	1	1
<b>Pressure relief valve</b>	1	1	1
<b>Check valve</b>	1	1	1
<b>Solenoid valve</b>	1	1	1
<b>Joints distributor</b>	1	1	1
<b>Air flow valve</b>	1	1	2
<b>Stainless Base</b>	×	1	2
<b>Users' Manual</b>	1	1	1

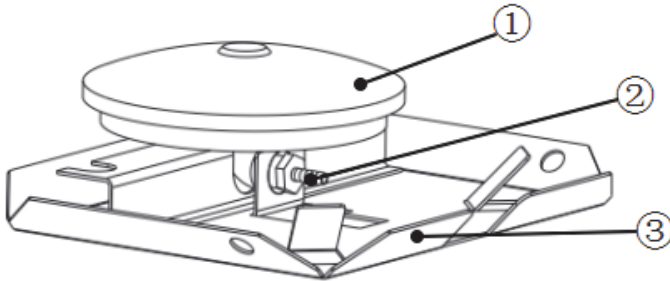
## 2.2. System components

### 1) Oil-free air compressor



- ① High efficiency, silent, oil-free, continuous-duty rocking piston compressor.
- ② Rubber compressor mounts reduce noise and vibration for silent operation.
- ③ SJT3×2.08mm<sup>2</sup>(14AWG)×1.8m plug power cord.
- ④ The solenoid valve can better protect the motor from starting with a load.
- ⑤ Single/double diffuser airflow valve.
- ⑥ The check valve can avoid the risk of water vapor backflow.
- ⑦ Capacitor that works as a part of the compressor. Do not operate the electrical connection of it.
- ⑧ Air Filter maximizes the life of the compressor.
- ⑨ Pressure relief valve safeguards from back pressure.

## 2) Airflow diffuser



- ① EPDM non-stick 8" membrane diffuser sticks provide the synergy of air stones while being virtually maintenance-free.
- ② Stainless steel connector for the airline and the diffuser plate.
- ③ L13.6"×W11.6" square stainless steel base for the diffuser's stability.

## 3) Airline



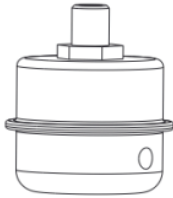
3/8"

The 3/8" 100 ft lead-free airline is made of durable PVC materials. Fish hook is resistant and kink-free.

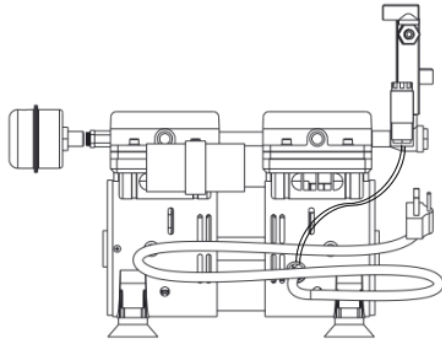
The connector kits that you need to connect the compressor to diffuser.

## 2.3 Installation

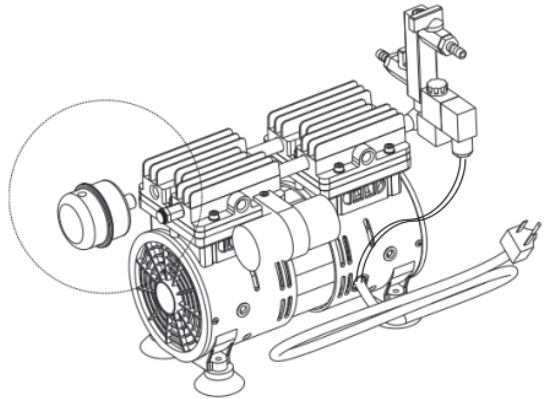
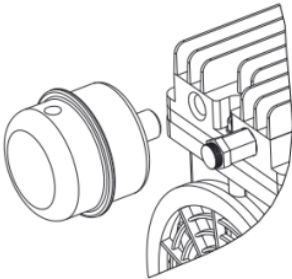
**Step1:** Find a place for the compressor to be ventilated and sheltered from rain, sunshine, also less dust.



Air Filter



Air Compressor



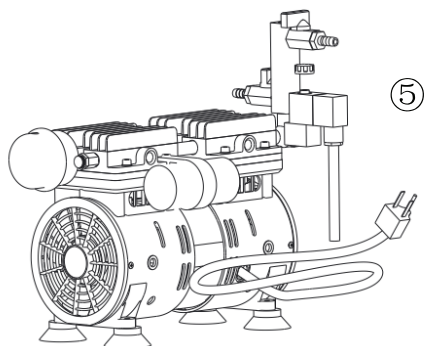
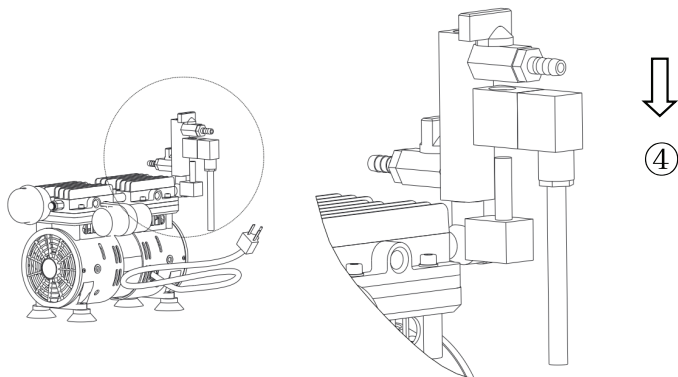
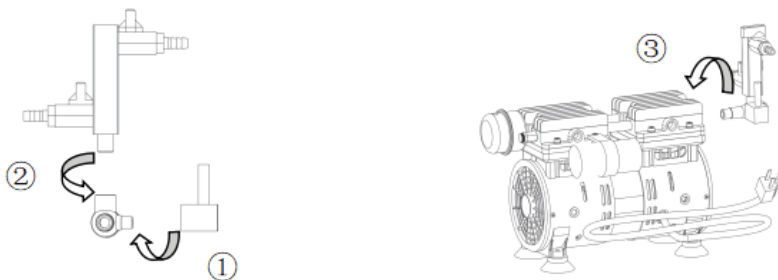
**Step2:** Screw the air filter into the compressor right near the pressure-relief valve. ( Use Teflon tape if needed.)

**Step3:** Use your shovel to dig a trench from the shelter to the pond. The minimum depth of the trench should not be less than 8 inches to protect the air pipe. We recommend marking utility lines before starting excavation.

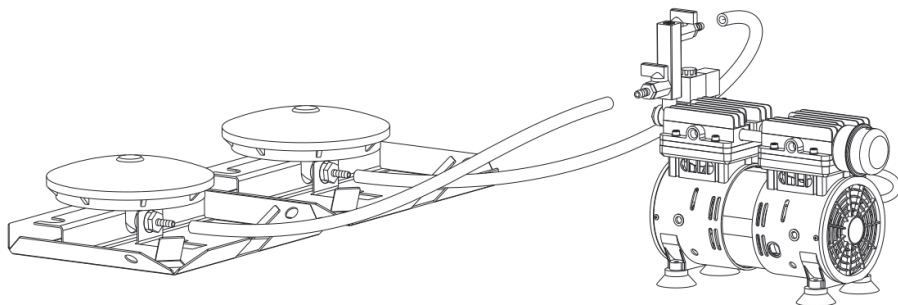
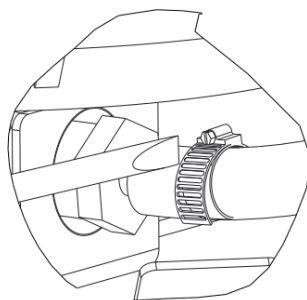
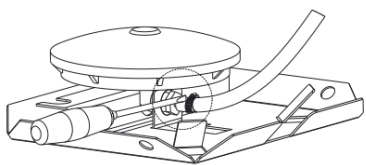
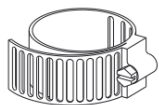
If the length of the standard air tube is not enough, we can provide a longer air tube.



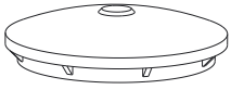
**Step4:** Take the accessories attached, tighten the solenoid valve base and the 1/8 interface of the check valve, then tighten the square tube with the 1/4 thread, and then tighten the assembly with the exhaust hole of the air compressor cylinder head. After the above actions are completed, thread the molded shell of the solenoid valve onto the base and tighten it with a black screw cap. Note that all threaded connections need to use the raw material tape attached to wrap the threads to prevent poor sealing.



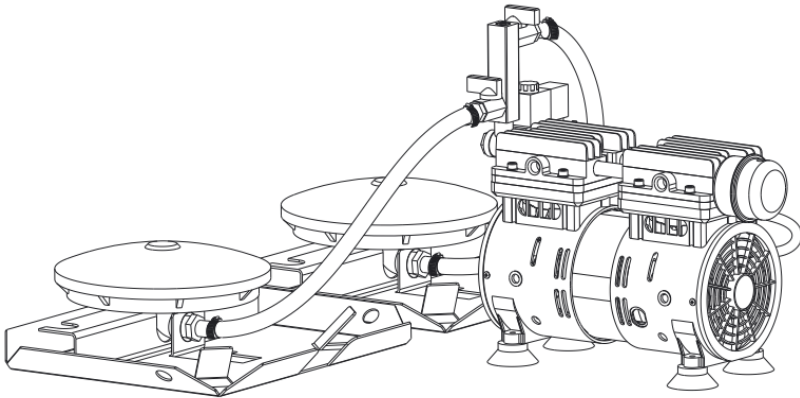
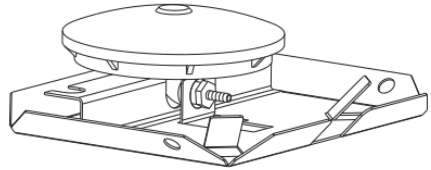
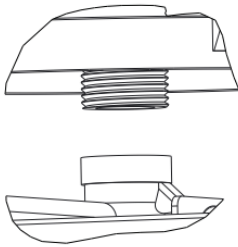
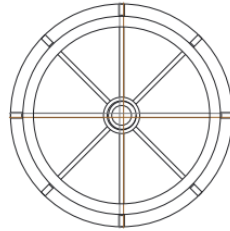
**Step5:** Connect the two ends of the air pipe with the airflow valve on the air compressor and the pagoda connector on the aeration disk, and lock and fix them with a hose clamp.



**Step6:** Screw and fix the aeration disk on the stainless steel base.



8"EPDM Diffuser plate



## 2.4 Operation

- Please check the following items at least once a day during operation.
  - 1) Is there any abnormal sound;
  - 2) Whether the pump is abnormally hot;
  - 3) Whether the exhaust is normal;
  - 4) Is the muffler clogged?

The machine can work after the power is turned on. The aeration system is equipped with timers for users to set the opening and closing mode of the machine according to the actual climate.

## **Timer :**

### **Introduction :**

The timer can set the opening and closing time independently to save energy and reduce consumption and improve the service life of the motor. The user can regularly adjust the working time of the aeration system according to the weather environment. For example, in the rainy season, if the pond is oxygen deficient, the aeration system will be turned on for 2 hours and turned off for half an hour to help the pond oxygenate.

Min. setting time is 1 sec/min. It can set 8/20 programs of on and off every day.

The function mode is divided into normal open state and timing state.

### **Button instructions:**

"CLOCK": function-key, exit the current setting.

"SET UP(PROG)":set 8/20 groups of on and off.

"MODE": control mode switching.

"SEC": set the seconds.

"HOUR": set the hours.

"WEEK": set the weeks.

"MINUTE": set the minutes.

"RESET": reset the groups of on and off.

### **Time Setting:**

The correct time of day and day of week must be set prior to using the timer for the first time.

- 1). Press "CLOCK" and "WEEK" to set the day of the week. Press "WEEK" for more than 2 seconds, it can be adjusted rapidly.
- 2). Press "CLOCK" and "HOUR" to set the hour of the day. Press "HOUR" for more than 2 seconds, it can be adjusted rapidly.
- 3). Press "CLOCK" and "MIN" to set minutes. Press "MIN" for more than 2 seconds, it can be adjusted rapidly.
- 4). Press "CLOCK" and "SEC" to set the day of the second. Press "SEC" for more than 2 seconds, it can be adjusted rapidly.

### **Program Setting:**

There are 8/20 possible program combinations available.

- 1). Press "SET UP(PROG)" to enter program mode. The display will show a "10N" in the left side of display.
- 2). Press "HOUR" , "MIN" , and "WEEK" to program the correct day and time when you desire the timer should turn on.
- 3). Press "SET UP(PROG)" to set the timer for "OFF" time and day for "1oFF".
- 4). Press "HOUR" , "MIN" , and "WEEK" to program the correct day and time.
- 5). If needed, press "SET UP(PROG)" to advance the second on/off setting.

**ON/OFF switch to turn on or turn off mode:**

- 1). Press "ON/AUTO/OFF" , there is an indicator in the display show "ON" or "ON AUTO" or "OFF" or "AUTO OFF".
- 2). Press the indicator to "ON", the time will give a permanent "switch on output".
- 3). Press the indicator to "ON AUTO" or "AUTO OFF", the timer will be switched on and switched off during the setted time.
- 4). Press the indicator to "OFF", the timer is turned off.

**When the following situations occurs:**

- 1). When timer does not power on or off according to the settings, check whether the settings are correct, or reset;
- 2). If it is the right time to turn on or off, but the timer starts to work in advance or delay in shutting down, there may be multiple sets of switch programs, please check whether the settings are correct, or reset.
- 3). If the above-mentioned two points are right, but the timer still works incorrectly, please check and adjust the mode.
- 4). If the timer does not display or displays blurred, please charge the timer.
- 5). If it still fails when the above situations are ruled out, please contact with us or the dealer to solve.

**WARNING:** The diffuser can not be directly thrown into the pond or water to prevent the hose from falling off or the diffuser from overturning. It is recommended to put it into the water gently.

## 3. MAINTENANCE

**Pond Aeration Systems are designed for low-maintenance and require minimal scheduled maintenance. Keep the room cool, dry and ventilated for the compressor.**

- Always unplug system before performing any maintenance or troubleshooting.
- Always unplug system and refer servicing to a qualified electrician when cord is damaged or frayed, compressor, power control, compressor fan, or other electrical components are producing unusual noises or odors.

**WARNING:** Compressors are equipped with a thermal overload switch. If temperature becomes high enough to trip the overload, the compressor will shut down. It will then automatically start up when temperature decreases as long as power is applied.

- **Please use only qualified service personnel with the same replacement parts to service your air compressor, which will ensure the safety of the electric air compressor.**

# ELECTRIC AIR COMPRESSOR WARNINGS

## **WARNING**

- Know your air compressor and read the operating manual carefully to understand its applications and limitations, as well as specific potential hazards associated with this product. Do not alter or modify the original design or functionality of the device. Misuse and improper handling can cause injury.
- Always follow all safety rules recommended by air compressors and accessory manufacturers.
- Do not start under pressure.
- When used to inflate, do not overinflate, follow all manufacturer's instructions for inflatable items.
- Inspect the air hose and fittings for wear or damage before each use, and make sure the connection is secure. Do not use it if it is leaking, keep the hose away from sharp objects, chemical spills, oils, solvents, and wet floors.
- Make sure the windpipe is clear of obstructions, winding the windpipe can cause loss of balance or footing and may damage.
- Do not attempt to block or block the air outlet during operation.

**EVERY 3-6 MONTHS - Air Filter:** Clean/replace air filter

Pressure Relief Valve: Check to ensure air is not escaping from valve and replace if needed.

**EVERY 24-36 MONTHS - Airflow diffuser:** We recommend inspecting and/or cleaning the Airflow diffuser every 24-36 months.

## Troubleshooting

Faults	Possible Reasons	Processing Method
The motor does not rotate and there is no sound.	<ol style="list-style-type: none"> <li>1. No power supply</li> <li>2. The fuse is blown</li> <li>3. Overload protector is in a protection state</li> <li>4. The motor stator winding is burnt</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the plug and switch</li> <li>2. Replace the fuse</li> <li>3. The motor will restart after cooling</li> <li>4. Replace the stator</li> </ol>
The motor has current sound but cannot operate or the speed is very slow.	<ol style="list-style-type: none"> <li>1. The voltage is too low</li> <li>2. The capacitance value of starting and running capacitor drops or is damaged</li> <li>3. Motor coil short-circuited or open-circuited</li> <li>4. The one-way valve or air pressure switch is damaged</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the voltage, no less than 10% of the rated voltage</li> <li>2. Check or replace</li> <li>3. Contact a reliable service center</li> <li>4. Contact the reliable service center</li> </ol>
Overload and the protector cut off the power repeatedly.	<ol style="list-style-type: none"> <li>1. The voltage is too low</li> <li>2. Poor ventilation and high temperature</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the voltage, no less than 10% of the rated voltage</li> <li>2. Place the air compressor in a well-ventilated place</li> </ol>

The air compressor keeps running.	<ol style="list-style-type: none"> <li>1. The air pressure switch is damaged</li> <li>2. Leakage</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the air pressure switch</li> <li>2. Check and eliminate</li> </ol>
Air compressor vibration.	<ol style="list-style-type: none"> <li>1. Loose fasteners</li> <li>2. The valve plate is damaged</li> <li>3. The supporting foot pad is damaged or missing</li> </ol>	<ol style="list-style-type: none"> <li>1. Check and eliminate</li> <li>2. Inspection and replacement</li> <li>3. Replace the foot pad</li> </ol>
The air supply of the air compressor is slow or cannot reach the specified pressure.	<ol style="list-style-type: none"> <li>1. The drain valve is open</li> <li>2. Cold blockage of air filter</li> <li>3. The pipeline leaks</li> <li>4. The valve plate has a poor function or foreign matters or air leakage</li> <li>5. Excessive wear of piston ring and cylinder</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten the drain valve</li> <li>2. Clean or replace the filter element</li> <li>3. Check and eliminate</li> <li>4. Cleaning or replacement</li> <li>5. Replace with new products</li> </ol>
Extraordinary sound.	<ol style="list-style-type: none"> <li>1. Fasteners are loose or damaged</li> <li>2. Excessive wear of piston ring and cylinder</li> <li>3. Foreign matters enter the air compressor</li> <li>4. Large crank swing</li> </ol>	<ol style="list-style-type: none"> <li>1. Check and replace</li> <li>2. Replace with new products</li> <li>3. Check and eliminate</li> <li>4. Check and replace</li> </ol>

**Manufacturer:** Zhejiang Shengyuan Air Compressor Manufacturing Co., Ltd  
**Add:** Danya Industrial Zone, Zeguo Town, Wenling City, Zhejiang Province, China

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