Pro-Tech TOOLS

# Pro-Tech TOOLS Air Compressor










## Instructions for use

**BEFORE OPERATION, YOU SHOULD FIRST READ THE MANUAL.**

**IMPORTANT NOTICE !**

**WHAT NEEDS TO BE DONE BEFORE USING A NEW COMPRESSOR FOR THE FIRST TIME**

**1. On the top front of the compressor you will find a black plastic shipping plug inserted into the oil fill hole. Remove the shipping plug and replace it by pushing the oil fill plug (supplied in the parts bag) into the oil fill hole.**

**2. In the parts bag you will also find a black air vent.**

**Screw this assembly into the hole on the side and top of the compressor head.**

**3. Check the oil level using the sight glass built into the bottom front of the compressor (just behind the regulator). For normal operation, it should be at half level on the sight glass. If oil needs to be added, use any standard air compressor oil available at home centers and other large stores.**

**4. There are two outlet fittings on the controller. The air flow for one fitting is controlled by turning the handle of the regulator. The second fitting is free flowing from the tank. Before starting the compressor, screw a metal cap or quick coupler (not supplied) onto the free flowing fitting. When working with the air fitting, use nylon sealing tape to prevent leakage.**

# 1. INTRODUCTION

1. Before operating or maintaining this air compressor, read this manual carefully to familiarize yourself with proper safety, operating and maintenance procedures. DON'T MISS
INSTRUCTIONS IN THIS MANUAL MAY RESULT in personal injury, property damage, or loss of warranty. Following the instructions in this manual will ensure a longer and safer life for your air compressor.

# 2. SAFETY INSTRUCTIONS



**HAZARD - AN IMMINENT DANGER THAT MAY CAUSE SERIOUS INJURY OR LOSS OF LIFE.**

2. TO AVOID THE RISK OF FIRE OR EXPLOSION, NEVER SPRAY FLAMMABLE LIQUIDS IN CONFINED SPACE



It is normal for the motor and pressure switch to produce sparks during operation. If sparks come into contact with gasoline vapors or other solvents, they may ignite.

Do not smoke while spraying. Do not spray where sparks or flame are present. Keep the compressor as far away from the spraying area as possible.

3. The solvents trichloroethane, methylene chloride can chemically react with aluminium used in paint spray guns, paint pumps etc. and cause an explosion. If using these solvents, use only stainless steel spray equipment. This does not affect your air compressor, but does affect the equipment you use.



4. Never use compressed air produced by a compressor directly in the package. It is not suitable for breathing.

**WARNING - A POTENTIAL HAZARD THAT COULD CAUSE SERIOUS INJURY, OR LOSS OF LIFE!**



1. Do not weld on the air tank of this compressor. Welding on the air compressor tank can weaken the strength and cause an extremely hazardous condition. Welding on the tank in any way will void the warranty.



2. Never use an electric air compressor outdoors when it is raining or on a wet surface, this will cause electric shock to many.

3. This unit starts automatically, ALWAYS turn off the compressor. Before servicing the compressor and when the compressor is not in use, remove the plug from the outlet and bleed all pressure from the system.



4. Check the maximum pressure specified by the manufacturer for pneumatic tools and accessories, the compressor output pressure must be regulated so that it never exceeds the maximum rated pressure of the tool.



5. High temperatures and moving parts are located under the cover.
Allow compressor parts to cool before handling or servicing.



6. When spraying paint or toxic materials, be sure to read all labels and follow safety instructions. Use a respirator if there is a possibility of inhaling the sprayed material. Read all instructions and make sure the respirator will protect you.



7. Always wear safety goggles when using the air machine.
Never point the nozzle or sprayer at a person or any part of the body.

8. Do not modify the pressure switch or relief valve for any reason, doing so will void all warranties, they were preset at the factory to the maximum pressure of this unit.



**BEWARE - THE POTENTIAL DANGER THAT CAN CAUSE**

1. Drain moisture from the tank daily. A clean, dry tank will help prevent corrosion.

2. Pull the relief valve ring daily to make sure the valve is working properly and to clear the valve of any obstructions.

3. To ensure proper ventilation for cooling, the compressor must be located a minimum of 31 cm (12 inches) from the nearest wall in a well-ventilated area.

4. If transport is necessary, securely fasten the compressor, the pressure must be released from the tank before transport.

5. Protect the air hose and electrical cable from damage and punctures, check them weekly for weak or worn spots and replace them if necessary

**ATTENTION!**

**DISCONNECT POWER AND RELIEVE ALL PRESSURE FROM THE SYSTEM BEFORE ATTEMPTING INSTALLATION, SERVICE, RELOCATION OR ANY MAINTENANCE.**

1. Comply with all local electrical and safety codes and the Occupational Health and Safety Act.

2. Electric motors and starters shall be safely and adequately grounded using a three-prong receptacle.

**WARNING**

Never use an extension cord with this product. Use an additional air hose instead of an extension cord to prevent loss of power.

Use of an extension cable will void your warranty.

## 3. BRIEF DESCRIPTION

This air compressor has new design and excellent workmanship, it has the advantages of compact taper, fine appearance, light weight, easy operation, high safety and low noise, it can be widely used engineering, chemical industry, spraying and decoration, automatic control system and other fields compressed air is needed.

## 4. GENERAL OVERVIEW AND MAIN COMPONENTS (Figure 1)

**1) Main compressor**

**2) Pressure switch**

**3) Outlet valve**

**4) Control valve**

**5) Pressure gauge**

**6) One-way valve**

**7) Drain cock**

**8) The Wheel**

**9) Discharge pipe**

**10) Air tank**

**11) Fan cover**




Fig.1

# 5. MAIN TECHNICAL PARAMETERS

| Model | BM-1520 | BM-2050 | JN-30V |
|---|---|---|---|
| Power | 2000W | 2000W | 2400W |
| Voltage | 230 V | | |
| Frequency | 50 HZ/60 HZ | | |
| Air flow | 260 l/min | 260 l/min | 390 l/min |
| Maximum working pressure | 8 bar | | |
| Tank capacity | 24 L | 50 L | 115 L |
| Insulation class | B | B | B |

# 6. PREPARATION FOR LAUNCH

1) The compressor setup area should be clean, dry and ventilated.

2) Use voltages within ±5% of nominal voltage.

3) Keep the oil level within the red circle of the spirit level.

4) We recommend using SAE30 or L-DAB 100 compressor oil above 10℃ and use SAE10 or L-DAB68 below 10 ℃

5) Open the outlet valve, set the pressure switch knob to the on position (Fig. 2), let the compressor

ran for 10 minutes without load to ensure lubrication of moving parts.

## 7. OPERATION AND SETUP

1) The compressor is controlled by a pressure switch in normal operation. It can stop automatically when the pressure rises to the maximum and restart when the pressure drops to the minimum. The nominal pressure has been set at the factory. Do not change it carelessly. As soon as the engine is switched off, the compressed air in the discharge line should be released through the release valve below the switch. This is a prerequisite for restarting, otherwise the engine will be damaged. The nominal pressure can be adjusted by turning the adjustment screw on the switch (fig.2)

2) The compressed air outlet pressure can be adjusted by means of a control valve (Fig.2).

3) When it is necessary to stop the compressor from running, set the pressure switch knob to the off position.

**1. Safety valve**

**2. Drain valve**

**3. Adjusting screw**




Fig. 2

## 8. NOTICES

1) Before starting the compressor, first remove the cover and replace the oil fill plug and air filter (Fig. 3).

2) Never unscrew any connecting part when the tank is under pressure.

3) Never disassemble any electrical part before disconnecting the plug.

4) Never set the safety valve carelessly.

5) Never use the compressor in a place where the voltage is too low or too high.

6) Never use an electrical wire longer than 5 m with a smaller by cross-section, as shown in Table 1.

7) Never to stop compressor, set the switch to off instead.

8) If the release valve does not work when the engine stops, find out the cause immediately so as not to damage the engine.

(9) The lubricating oil should be clean, the oil level should be kept within the red circle of the buffer

10) Disconnect the power supply by unplugging the plug and open the outlet valve.

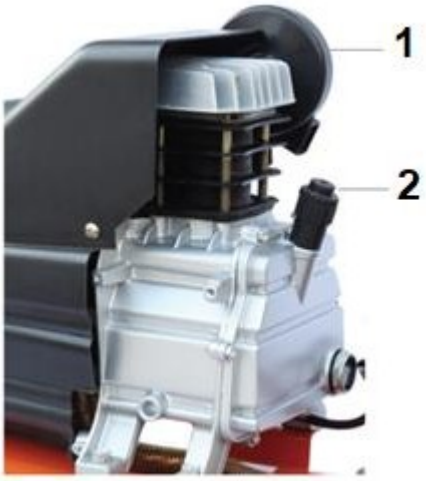



Fig. 3

**1. Air filter**

**2. Oil fill plug**

## 9. MAINTENANCE

1) Clean the crankcase and change the lubricating oil of the first 10 working hours.

2) After every 20 working hours, clean the oil level and top up if necessary (Fig. 4)

3) After every 60 working hours, open the drain cock under exhaust for condensate drainage.

4) Clean the crankcase and change the oil, clean the air filter and check the relief valve and pressure gauge.



Fig. 4

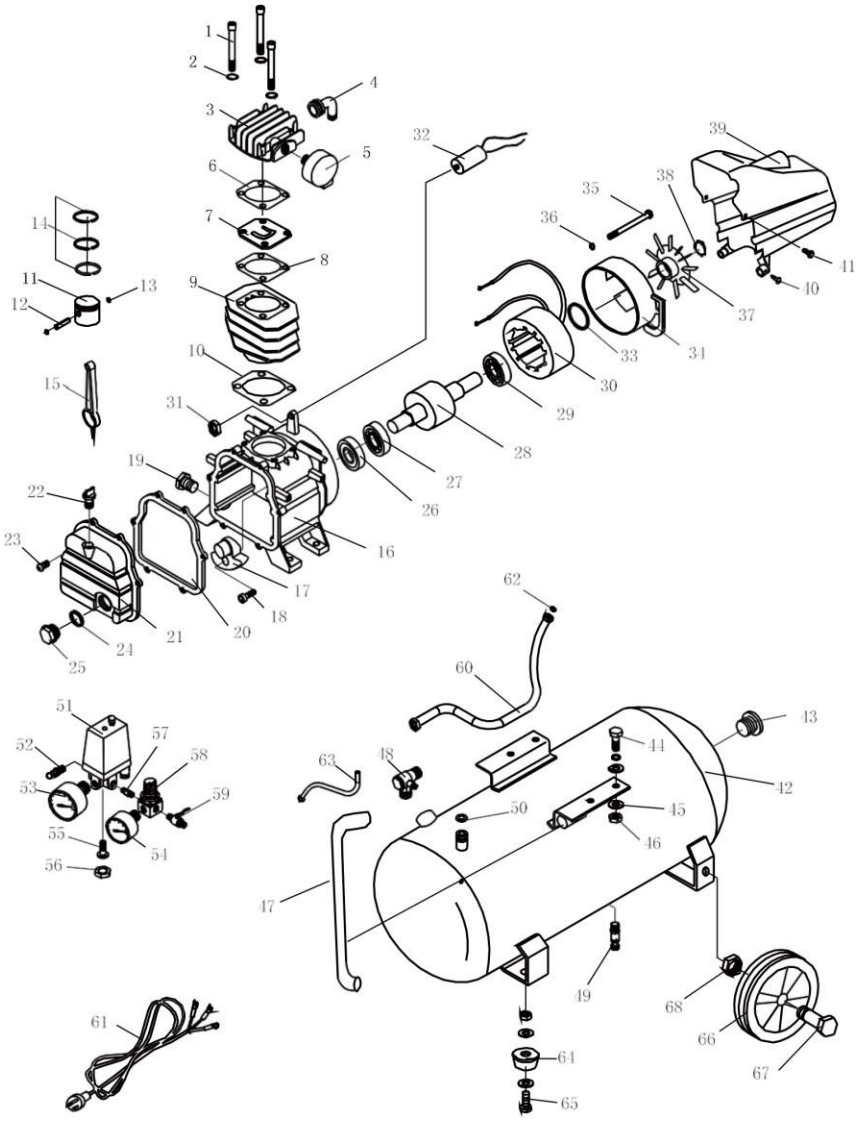
## 10. PROBLEMS AND CORRECTIVE MEASURES

Table 2

| Problems | Possible cause | Remedies |
|---|---|---|
| The engine is not capable of running, running too slow, or heating up | (1) Fault in the wiring insufficient voltage<br>(2) Power lead too thin or too long<br>(3) Fault in the pressure switch<br>(4) Fault in the engine<br>(5) Main compressor jam | (1) Check the link<br>(2) Replace the wiring<br>(3) Repair or replacement<br>(4) Repair or replacement<br>(5) Inspection and repair |
| Main compressor jam | (1) The moving parts were burned in due to insufficient oil<br>(2) Damaged moving parts or a stuck foreign body | Check the crankshaft, bearing, connecting rod, piston, piston ring, etc. and replace if necessary |
| Terrible shivering, or abnormal noise | (1) The connecting part has become loose<br>(2) A foreign body has entered the main compressor<br>(3) The piston knocked the valve seat<br>(4) Moving parts are seriously worn | (1) Check and tighten<br>(2) Check and clean<br>(3) Replace with a thicker paper gasket<br>(4) Repair or replace |

| | | |
|---|---|---|
| Insufficient pressure, or reduced discharge capacity | (1) Engine runs too slowly<br>(2) The air filter is dirty<br>(3) Safety valve leakage<br>(4) Drain pipe leakage<br>(5) Damaged sealing gasket<br>(6) Damaged valve plate, accumulated or stuck carbon<br>(7) The piston ring and cylinder are worn or damaged | (1) Control and correction<br>(2) Clean or replace the filter<br>(3) Check and adjust<br>(4) Check and correct<br>(5) Check and replace<br>(6) Replace and clean<br>(7) Repair or replace |
| Too high oil consumption | (1) The oil filter is dirty<br>(2) The oil filler plug has become clogged<br>(3) The piston ring and cylinder are worn or damaged | (1) Keep the level within the set range<br>(2) Check and clean<br>(3) Repair or replace |

## 11. REPRESENTATION OF PARTS



# LIST OF WORKS

| Number | Designation | Number | Designation |
|---|---|---|---|
| 1 | Screw | 35 | Screw |
| 2 | natural gasket | 36 | natural gasket |
| 3 | cylinder head | 37 | fan |
| 4 | connector | 38 | hail ok |
| 5 | air filter | 39 | fan cover |
| 6 | cylinder head gasket | 40 | nut bolts |
| 7 | valve plate | 41 | nut bolts |
| 8 | valve seal | 42 | tank |
| 9 | roller | 43 | nut bolts |
| 10 | cylinder seals | 44 | Screw |
| 11 | piston | 45 | The base |
| 12 | piston ap | 46 | nut bolts |
| 13 | hail ok | 47 | Handle |
| 14 | piston ring ok | 48 | non-return valve |
| 15 | Connection | 49 | drain cock |
| 16 | metal cabinet | 50 | substrate |
| 17 | k uka | 51 | pressure switches |
| 18 | Screw | 52 | safety valve |
| 19 | Screw | 53 | manometer |
| 20 | rubber seal | 54 | manometer |
| 21 | enclosure to the enclosure | 55 | Screw |
| 22 | d hut tube | 56 | nut bolts |
| 23 | Screw | 57 | connector |
| 24 | oil scoop | 58 | pressure regulator |
| 25 | oil scoop | 59 | gu valve |
| 26 | front bearing | 60 | power plug |
| 27 | front bearing | 61 | draining pipe |
| 28 | rotor | 62 | clamping screws |
| 29 | rear bearing | 63 | Conduit |
| 30 | stator | 64 | rubber foot |
| 31 | walnut | 65 | Screw |
| 32 | Capacity | 66 | The Wheel |
| 33 | wave seal | 67 | Screw |
| 34 | engine script and | 68 | nut bolts |