



INSTRUCTION MANUAL
MISTDUSTER
BON-P-MD82

Warning to Users

1. The gasoline engine must use mixed fuel with volume rate of 30:1 for No.90 gasoline to two-stroke automobile oil.
2. 3 to 5 minutes' low speed rotation after start and before stop is very necessary. In order to prevent damage of some parts or body harm caused by violent movement of the engine,
3. high-speed rotation without load must be prohibited! It is strictly prohibited to stop the engine suddenly at high speed.
4. When adding fuel, the engine should stop, fire sources must be far away and smoking is prohibited.
5. In order to avoid electric shock, do not touch the cap of spark plug and the conducting wire during the rotation of the engine.
6. The surface of the muffler and the cylinder is very hot, so neither the hands nor the body approaches them. Especially children should be far away from the engine.
7. The engine should be turned off when the unit is moved between work areas. After the engine has stopped ,the muffler is still hot. never touch hot Parts such as the muffler.Confirm that the fuel is not leaked from tank.
8. Securing the mist-blower during transport to prevent loss of fuel,damage or injury.

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SAFETY PRECAUTION



This graphic accompanied by the words WARNING and DANGER calls attention to an act or a condition which can lead to SERIOUS INJURY.



Do not lend or rent your sprayer-duster without the Owner's Manual. Be sure that anyone using your sprayer-duster reads and understands the information contained in this manual.



Wear ear protection



Wear respiratory protection



Wear safety boots



Wear safety gloves



Wear exposure suit

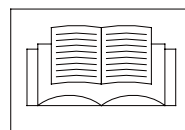
The use of the machine

Starting engine

- (1) Put the dust gate handle to the lowest position before starting the engine, otherwise chemical will be jetted when starting engine.
- (2) Be sure nobody stands in front of nozzle, even though dust gate closed, residual dust in pipe will be blown out.

Spray operation

- (1) It is fine to carry out operation during cool weather with little wind. For example, in the early morning or in the late afternoon. This can reduce the evaporation and drift of chemicals and improve the protecting effect.
- (2) Operator should move windward.
- (3) If your mouth or eyes are spattered with chemicals, wash them with clean water and go to see a doctor.
- (4) If the operator has a headache or dizziness, stop working at once and go to see a doctor in time.
- (5) For the operator's safety, dusting must be carried out strictly according to the instruction of the chemicals and agricultural requirements.
- (6) If you want to stop the engine while dusting, the dust gate must be shut at first.



Contains specifications and information for operation, starting, stopping, maintenance, storage and assembly specific to this product.

Fueling



Your sprayer-duster uses oil-gasoline mixture.

- Do not smoke or bring any fire or flame near the fuel or the sprayer-duster.
- Never refuel the machine when it is hot or running.
- Never pour fuel on the machine. If you do ,be sure clean them off.

Warning



Never to touch the muffler, spark plug, or other metallic parts of the engine while the engine is in operation or immediately after shutting down the engine. These metallic parts reach high temperatures during operation and doing so could result in serious burns.

Your mistblower produces toxic exhaust fumes as soon as the engine is running. These gases may be colorless and odorless. To reduce the risk of serious or fatal injury from inhaling toxic fumes, never run the mistblower indoors or in poorly ventilated locations.

Ensure proper ventilation when working in trenches, hollows or other confined areas.

To reduce the risk of igniting highly combustible fuel vapor and causing a fire, never smoke while working with or standing next to the mistblower.

Always hold your unit firmly-make sure you always have a firm and secure footing.

Examine the work area:Do not direct the air blast towards bystanders since the air flow can blow small objects at great speed.

If you get tired while operating your mistblower, take a break in good time.

Take care in slippery conditions

- On ice, in wet or snow
- On slopes or uneven ground

Watch out for obstacles:

Roots,ditches,holes or rubbish which could cause you to trip or stumble.

Do not point the blow pipe at people or animals.

Start unit on ground with throttle at idle. Check that blower pipe is not blocked by the ground or by any objects.

All values must be inserted in the equation in the units specified. Note that hectares have to be multiplied by 10,000 to obtain square meters.

Assuming a working width of 3m and a walking speed of 60 m/min(1 m/s),the calculation of the above example would be as follows.

The engine exhaust contains chemicals to cause cancer,birth defects, of other reproductive harm.

Please use the low-poisonous liquid or powder, In the process of adding or emptying the liquid and powder, it may cause environmental pollution and poison human and animal when touch or inhale.

Operator must be trained before operating the machine.

It may cause harm if start the machine or leave it works in a closed room.

1. Technical Specification

| MODEL | BON-P-MD82 |
|--------------------------|-------------------|
| Maximum power | 5.5 HP |
| Maximum vertical reach | 18 m |
| Maximum horizontal range | 20 m |
| Liquid output | 0 - 7 L/min |
| Gas tank capacity | 2.0L |
| Starting system | Manual |
| Tank capacity | 20 Liters |

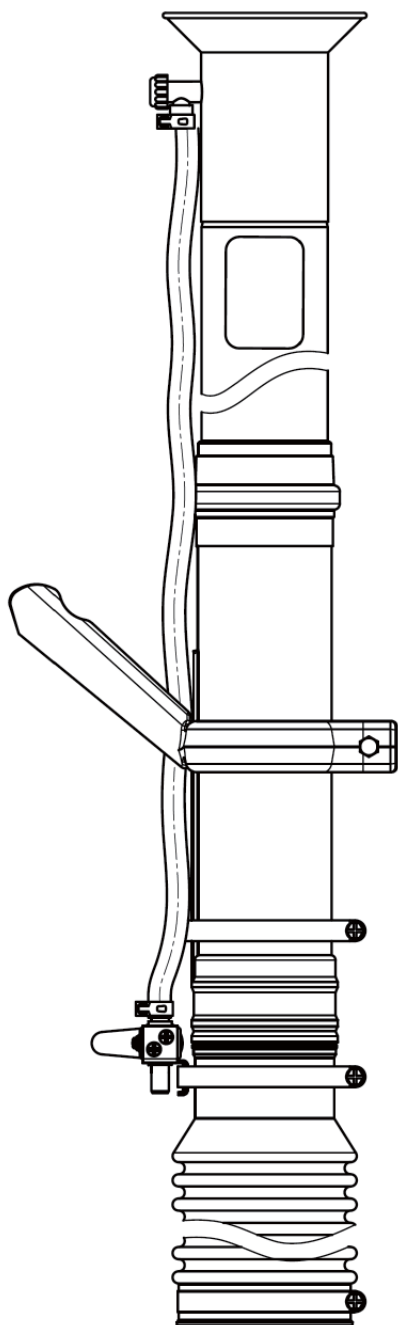


Fig 2

Press figure 2 constructions sprays a tube so much, mounting a boiling pass.

(2) Assembly for dusting

Remove the chemical tank, take down the inlet rubber tube, outlet rubber tube, suction strainer, spraying lid plate, pressing lid and union, change for lower lid of chemical tank, then connect the dusting pipe as Fig.3.

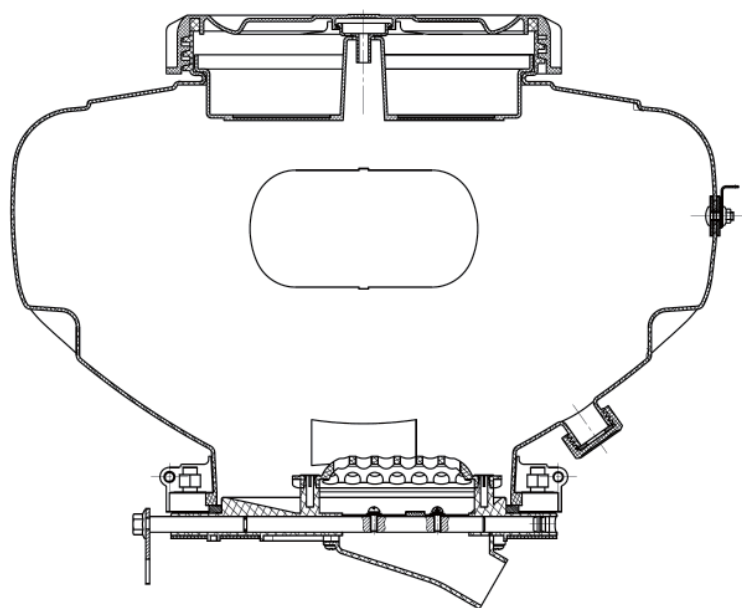


Fig 3

Remove the four nuts (M6) fixed on the chemical tank and take down the tank. Change dusting lid plate for spraying lid plate, connect the guide pipe to the machine, then assemble the chemical tank.

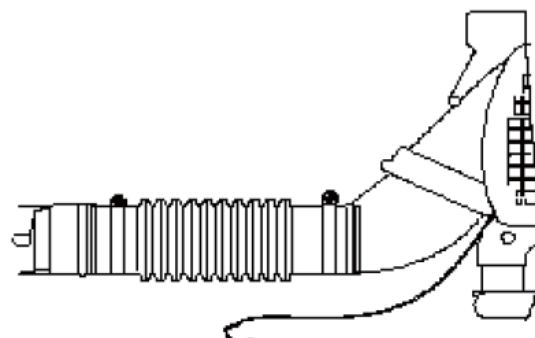


Fig 4

Dusting or spreading granular chemicals may cause the electrostatics, that is related to the factors, such as the kind of chemicals, air temperature, air wet etc. In order to prevent anti-electrostatics, please use the attachment-insurance chain. The air becomes dryer, the electrostatic is more serious. Use screw to fix at the bend pipe, One end of insurance chain is inserted into jet pipe, vibrated freely and touched to the ground.

5. Rotation

(1)Check

a.Checking whether the spark plug and all the connection are tightened.Whether check fuel tank leaks oil or not.

b.Checking whether the cooling air channel is clogged. If so, the engine will be over heated.

c.Checking whether the air filter is dirty. If so, the dirt will reduce the amount of air drawn in. So the engine doesn't run well and waste fuel.

d.Check whether the gap of the sparking plug is 0.6~0.7mm.

e.Pull the starter 2 or 3 times, check whether it rotates normally.

(2)Fueling

a.The fuel for this machine is a mixture of gasoline No.70 or No.90 and 2-stroke oil. The ratio between them is determined by the oil instruction. Incorrect gasoline, oil and mixture may damage the engine.

b.Never fuel the engine when it is hot or running.

c.When fuel , never take away the strainer.

(3)Adding chemical

a.During spraying operatin,while adding chemical,the switch must be shut,see Fig.7.During dusting operation,dusting valve throttle and fuel lever should be on the bottom position,other-wise,the machine will have chemical out.

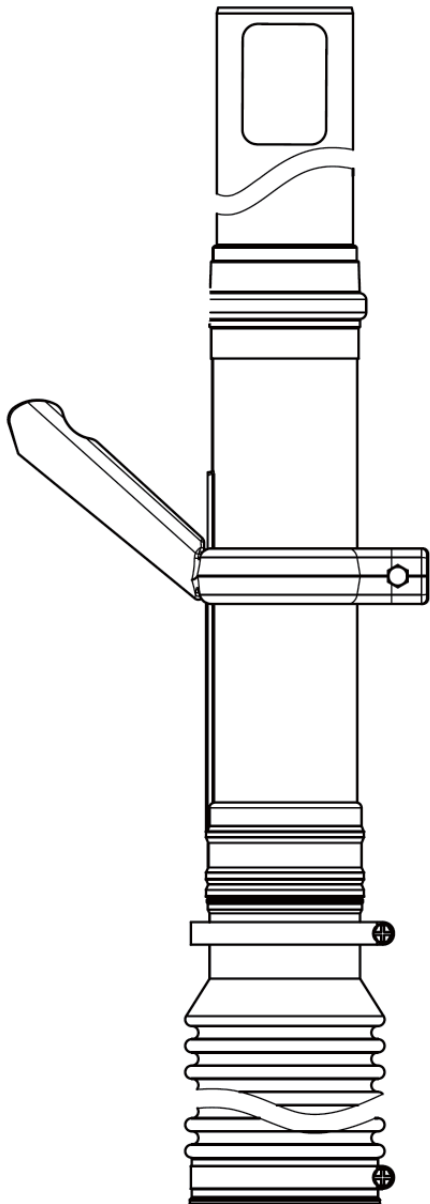


Fig 5

b.As powder chemical can easily become block,so the chemicals should not be in the chemical tank for a long time.

c.While spraying,the chemical tank lid should be turned on tightly.After adding powder chemical,please clean the screw of the chemical tank mouth,then turn on the lid tightly.

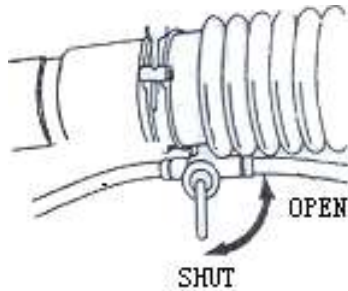


Fig 7

(4)Colding starting

Please operate according to the following procedures:

- Fill the fuel tank with the amount of Fuel/oil mixture needed for the job.
- Put the fuel lever on the starting position.
- Press and release the primer bulb 3-5 times until it is full of fuel.
- Pull the starter for a few times and have it returned slowly.Do not leave the handle to return freely to avoid the damage of the starter.
- circumgyrate the choke handle so that the choke is closed.(Fig.9)and pull starter handle until the engine fires.

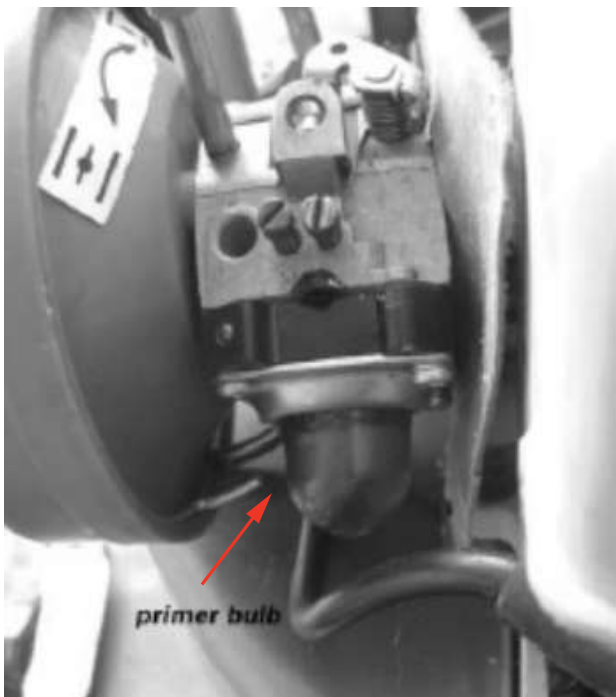


Fig 8

- After starting the engine,open choker fully.
 - Let the engine run at low speed for 2-3 minutes,then start the spraying or dusting operation.
- (5)Starting the warm engine

- Leave the choker fully open.
- If the engine draws in too much fuel.Leave the fuel switch fully close,pull the starter 5-6 times.Then start the engine as above.

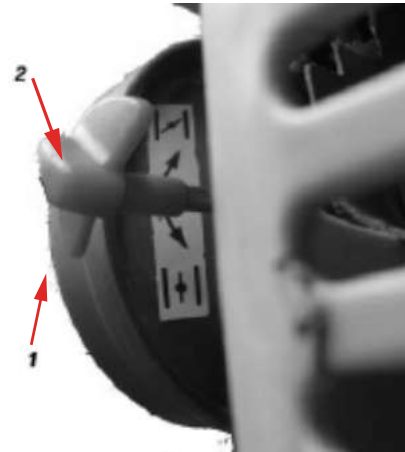


Fig 9

- 1.Air filter 2.Choke handle

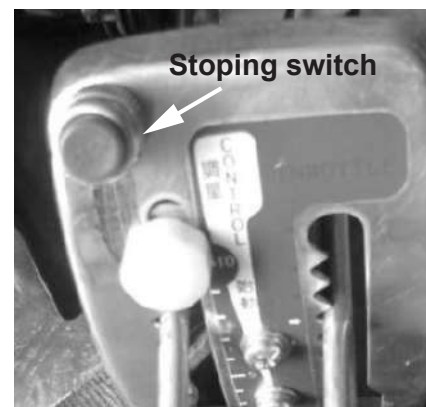


Fig 10

(6)Stopping the engine

- During misting operation turn off the chemical switch first,then press the stoping switch(Fig.10) stop the machine.
- During dusting operation,put the dusting lever at the close position,then press the stoping switch stop the machine.

Note:While the engine is running,the hose must be mounted to the machine,otherwise ,cooling air will be reduced and the engine may be damaged.

6.Misting/Dusting

(1)Misting.Loosen the pressing lid,regulate the length of the nozzle opening to meet the different requirments of misting.Turn the regulating valve to change the amount of misting.See Fig.11.

| Opening | Discharging(l/min) |
|---------|--------------------|
| 1 | 1 |
| 2 | 1.5 |
| 3 | 2 |
| 4 | 3 |

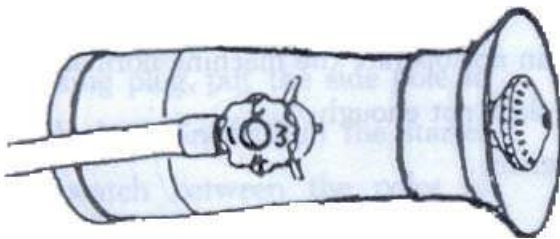


Fig 11

(2)Dusting.Regulate the discharge by shifting the dust rod's position in the three holes of the rock-arm.See Fig.12.

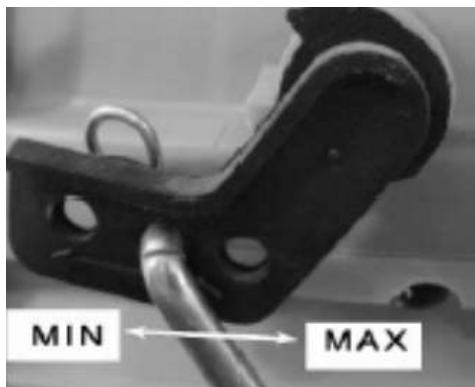


Fig 12

7.Safety

(1)Read this manual carefully.Be sure you understand how to operate this machine properly before you use it.

(2)Protective clothing (Fig.13)

- Wear flanged cap.
- Wear dirt/fog-proof glasses.
- Wear gauze mask.
- Wear long gloves.
- Wear coat guarding against poisons.
- Wear boots.

(3)Following personnel can not use the machine.

- Mental patients.
- Drunk.
- Under age or old person.
- Person with no knowledge of the machine.
- Dog-tired person or patient and others who can not operate the machine normally.
- Person who have just exercised strenuously or slept not enough.
- Women giving the breast to baby or being pregnant.

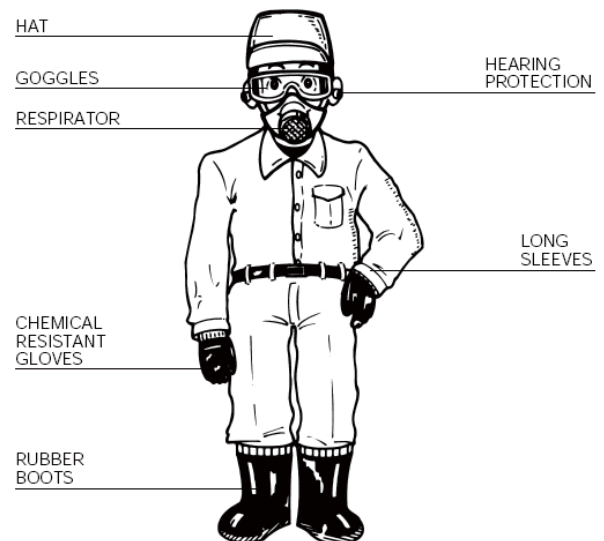


Fig 13

(4)Avert fire

- Do not fire or smoke nearby the machine.
- Never fuel the machine when it is hot or running.
- Never pour fuel on the machine when it is hot or running.
- Always tighten the fuel tank lid.
- Always move at least 10 feet away from the fuel container before starting the machine.

(5) Starting engine (Fig 14)



a. Put the dust gate handle to the stop position before starting the engine, otherwise chemicals will be jetted when starting engine.

b. It is prohibited to stand in front of nozzle. Even though dust gate is closed, residual dust in pipe will be blown out.



Fig 14

(6) Misting/Dusting

a. It is fine to carry out operation during cool weather with little wind. For example, in the early morning or in the late afternoon, this can reduce the evaporation and drift of chemicals and improve the protecting effect.

b. Operator should move windward.

c. Review area to be cleared. Look for potential hazards such as stones or metal objects. Spectators and fellow workers must be warned, and children and animals prevented from coming nearer than 15m while the blower is in use. Do not point the blowy pipe at people or animals.

d. If your mouth or eyes are spattered with chemicals, wash them with clean water and then go to see the doctor.

e. If the operator has a headache or dizziness, stop working at once and go to see a doctor in time.

f. For the operator's safety, misting/dusting must be carried out strictly according to the

instruction of the chemicals and agricultural requirements.

8. Troubles and Remedies

(1) Engine starts difficultly or can not start. Check if the sparking plug has sparked-over. Screw down the sparking plug, put the side pole to touch the cylinder. Pull the starter and watch between the poles of sparking plug whether there are sparks. Pull the starter carefully, do not touch the metal part of sparking plug for prevention of getting an electric shock as shown in Fig.15.

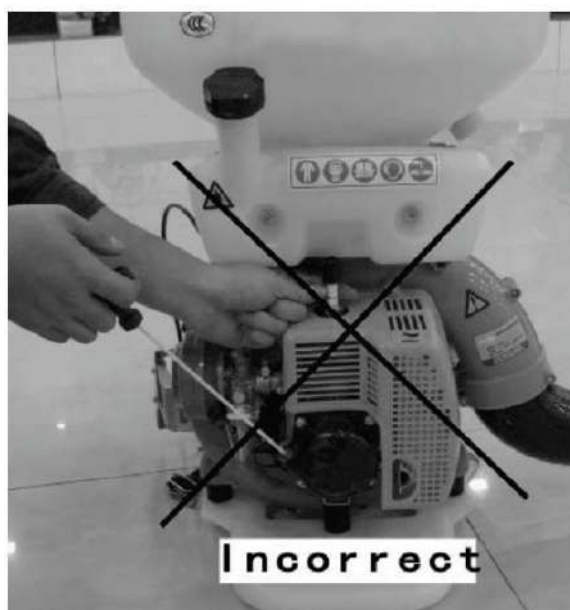


Fig 15

| TROUBLE | | CAUSE | REMEDY |
|----------|---|---|-------------------|
| No flash | Spark plug | 1.Poles wet | Dry it |
| | | 2.Covered with carbon | Clean the carbon |
| | | 3.The insulation damaged | Replace |
| | | 4.Spark gap incorrect | Adjust 0.6~0.7mm |
| | | 5.The poles burned | Replace |
| | Magneto | 1.The wrap of wire damaged. | Remedy or replace |
| | | 2.Insulation of coil bad | Replace |
| | | 3.The wire of coil broken. | Replace |
| | | 4.The electronic firing unit defective | Replace |
| Normal | Compression ratio and fueling well | 1.Too much fuel in cylinder | Drain |
| | | 2.Water or dirt in fuel | Replace |
| | Fueling well but compression ratio bad. | 1.Cylinder and piston ring wore or tore | Replace them |
| | | 2.The plug loose | Tighten it |
| | Carburetor not fueling | 1.No fuel in tank | Fuel |
| | | 2.Fileter gauze clogged | Clean |
| | | 3.The air hole of the tank clogged | Clean |

(2)Engine lacks power

| TROUBLE | CAUSE | REMEDY |
|-------------------------------|---|---|
| The compression ratio is fine | 1. The filter plate clogged | Clean |
| | 2.Air passes through the connection of carburetor | Tighten |
| | 3.Engine overheat | Stop the engine and cool it |
| | 4.Water in fuel | Refill with fresh fuel |
| | 5.The carbon clogs muffler | Clean |
| Engine overheats | 1.Mixed gas (fuel) thin | Adjust the carburetor. |
| | 2.Cylinder covered with carbon | Clean |
| | 3.Oil bad | Use 2-T engine oil and adjust the mix ration. |
| | 4.No connection with hose | Correctly assemble the machine |
| Engine noisy or knocking | 1.Fuel bad | Replace |
| | 2.Carbon in cylinder | Clean |
| | 3.The running parts wore and tore. | Check and replace |

(3)Engine stops while running

| TROUBLE | CAUSE | REMEDY |
|-------------------------|------------------------------------|------------------------|
| Engine stops suddenly | 1.The lead wire of plug loose | Replace firmly |
| | 2.Piston bitten | Change or remedy |
| | 3.Plug covered with carbon | Clean plug |
| | 4.Fuel used up | Fill the fuel tank |
| The engine stops slowly | 1.Carburetter clogged | Clean |
| | 2.The air hole in the tank clogged | Clean |
| | 3.Water in fuel | Refill with fresh fuel |

(4)Engine hard to stop

| TROUBLE | CAUSE | REMEDY |
|---|--|--|
| Throttle handle put to the lowest position, the engine still runs . | The throttle cord is short or piston of carburetter blocked. | Adjust the cord or remedy the carburetter. |

(5)Dusting

| TROUBLE | CAUSE | REMEDY |
|---|--|--------------------------------------|
| No dust discharge or discharge intermittently | 1.The dust gate can not be opened. | Adjust the pull rod of the dust gate |
| | 2.The tank lid not tightened | Tighten the tank lid |
| | 3.The dust or granule mix with foreign body. | Clean it |
| | 4.The dust or granule lumped. | Break the lump |
| | 5.Wet dust or granule | Dry it |
| | 6.The granules is too big | Change the granules |
| The dust gate not work properly | 1.The dust gate can't closed | Clean it |
| | 2.The dust gate clogged by foreign matter | Tighten it |
| Leakage of dust | 1.the clamp plate of the chemical tank bottom loosened | Tight it |
| | 2.The sealing gasket of the dusting lid damaged | Change it with new one |
| | 3.The O-sealing ring of the elbow damaged | Change it with new one |
| The discharge rate out of control | The control device of dust gate not work properly | Remedy it |

(6)Spraying

| TROUBLE | CAUSE | REMEDY |
|--|---|--|
| No spray mixture jet or jet intermittently | 1.Nozzle switch or control valve clogged | Clean |
| | 2.Liquid lead pipe clogged. | Clean it |
| | 3.No pressure or the pressure is lower | Tighten the tank lid and screw down the two wing nuts. |
| Spray mixture leakage | 1.The spraying lid plate fitted incorrect | Refit it |
| | 2.Every threaded joint loosened | Screw down it |

9. Technical Maintenance and Deposit for a Long Time

(1) Spraying units

- a. Clean out any residual spray mixture or dust in the chemical tank and all other parts after operation with clean water and dry it.
- b. Clean the dust gate and chemical tank inside and outside after dusting.
- c. Loosen the chemical tank lid while the machine free.
- d. Let the machine run at a low speed 2-3 minutes after cleaning.

(2) Fuel system maintenance

- a. Water or dirt in fuel is one of the main cause of the engine trouble, clean the fuel system regularly.
- b. Residual fuel remaining in the fuel tank and carburetor for long time will gum and clog the fuel system, thus cause the engine not to working properly. So all of the fuel should be discharged if the machine isn't used after one week.

(3) Air filter and plug.

- a. Clean the filter after every day operation. Dirt adhering to sponge reduces the engine power.
- b. Dry filter before reinstalling.
- c. Clean stains or carbon off the spark plug and adjust spark gap to 0.6~0.7mm.
- d. The plug model of this machine is 4106J. Do not use other models. If it is necessary for change, may buy it from local agricultural department or plant protection department. as shown in Fig.16.

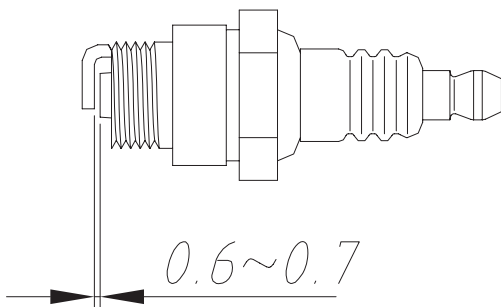


Fig 16

Note:

- a) The work including maintenance, cleaning and adjusting must be done after stopping the machine and out of the danger range.
- b) When maintenance, the discharge spout can't be awarded to the maintenance man.
- c) Please periodic check the braces situation. Without delay replace the worn-out braces.
- d) The improper maintenance, the use of on-conforming components and removal of safety devices will change to damage or injury.

(4) Long time storage

- a. Clean the machine and apply antirust oil to metal parts.
- b. Remove the spark plug and pour 15~20g of 2-stroke engine oil into the cylinder through the spark plug pole. Pull the starter handle 4~5 times to distribute the oil inside the engine. Pull the handle slowly until the piston reaches the top of its travel and leave it there, then install the spark plug.
- c. Remove the chemical tank, clean the dust gate and inside and outside of chemical tank, then install the tank and leave the lid loose.
- d. Remove spray units and clean them. Store by themselves.
- e. Discharge fuel in the tank and carburetor entirely.
- f. Cover the machine with plastic dustcoat and store it in a dry and clean place.



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CORPORATE OFFICE:

PLOT NO. 756, UDYOG VIHAR PHASE-5,
GURUGRAM, HARYANA - 122016, INDIA

sales@bonhoeffermachines.com