

Operator's manual

362D28



Please read the operator's manual carefully and make sure you understand the instructions before using the machine.


English

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Safety

Safety first

Instructions contained in warnings within this manual and warning seals marked with a  symbol on the product concern critical points which must be taken into consideration to prevent possible serious bodily injury, and for this reason you are requested to read all such instructions carefully and follow them without fail.

Notes on types of warnings

WARNING

Instructions labeled as shown above, concern critical steps or procedures which must be followed in order to prevent accidents which could lead to serious bodily injury or death. This mark is used to indicate instructions which must be followed without exception.

IMPORTANT

Instructions labeled as shown above concern steps or procedures which, if not followed correctly, could lead to mechanical failure, breakdown, or damage.

NOTE

Used to label supplementary instructions designed to provide hints or directions useful in the use of the product.

Warning labels on the machine



(1) (2) (3) (4) (5)

- (1) Read the operator's manual carefully and make sure you understand the instructions before using the machine.
- (2) Wear a protective mask, eye and ear protection.
- (3) Wear foot protection.
- (4) Wear gloves.
- (5) **WARNING!** The machine can be a dangerous tool if used incorrectly or carelessly, which can cause serious or fatal injury to the operator or others.

⚠ IMPORTANT

If the warning label peels off or becomes soiled and impossible to read, you should contact the dealer from which you purchased the product to order new labels and affix them in the required location(s).

Symbols on the machine

For safe operation and maintenance, symbols are carved in relief on the machine. According to these indications, be careful not to make a mistake.



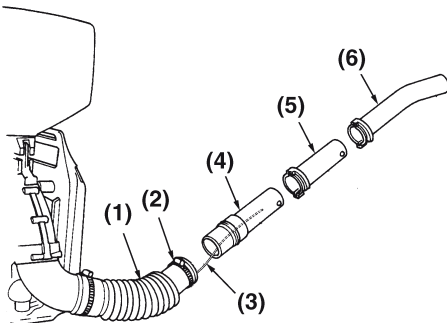
The port to refuel the "MIX GASOLINE"
Position: FUEL TANK CAP



The direction to open the choke
Position: CARBURETTOR BODY

O
P
E
N

What is what?



- (1) Flexible hose
- (2) Clamp
- (3) Wire
- (4) Joint
- (5) Straight pipe
- (6) Bent pipe

Technical data

Model name and number	Husqvarna Back-Packed Motorized Duster 362D28	
Dry weight * (kg)	13	
External dimensions of main unit (length x width x height) (mm)	475x550x780	
Capacity of material tank (litres)	28	
Capacity of fuel tank (litres)	1.8	
Pump	Speed (rpm)	7800
	Discharge performance (max.)	
	Powder (kg/min)	7
	Granule (kg/min)	14
Engine	Type	Single-cylinder air-cooled 2-cycle gasoline engine
	Exhaust capacity (cc)	62.0
	Fuel used	Lubricating oil/gasoline mix
	Lubricating oil used	2-cycle engine oil
	Admixture ratio	50:1
	Carburetor	Diaphragm, rotary valve type
	Ignition system	Electronic controlled flywheel magnet type
	Spark plugs	NGK BPMR7A
	Starter system	Recoil starter type
	Stopping system	Primary cable short circuit
Air cleaner	Half-wet type	

*When nozzle (supplied) is attached

Due to product improvements, these specifications are subject to change without notice.

Safety Precautions

WARNING

1. Read this Operator's Manual carefully. Be sure you understand how to operate this unit properly before you use it. Failure to do so could result in serious injury.
2. Be sure to keep this manual handy so that you may refer to it later whenever any questions arise. Also note that you are requested to contact the dealer from whom you purchased the product for assistance the event that you have any questions which cannot be answered herein.
3. Always be sure to include this manual when selling, lending, or otherwise transferring the ownership of this product.
4. Do not lend or rent your machine without the owner's manual.
5. Be sure that anyone using your unit understands the information contained in this manual.
6. Never let a child use the machine.
7. Long-term exposure to noise can result in permanent hearing impairment. So always use approved hearing protection.
8. Under no circumstances may the design of the machine be modified without the permission of the manufacturer. Always use genuine accessories. Non-authorized modifications and/or accessories can result in serious personal injury or the death of the operator or others.
9. A mister is a dangerous tool if used carelessly or incorrectly and can cause serious, even fatal injuries. It is extremely important that you read and understand the contents of this Operator's manual.
10. Husqvarna AB has a policy of continuous product development and therefore reserves the right to modify the design and appearance of products without prior notice.
11. This product has been designed mainly for the purpose of spraying pest control chemicals and weedkillers. Do not use it for any other purpose, as this may cause unforeseen accidents.
12. Always follow the instructions from the chemical supplier regarding personal protective equipment, usage of the chemicals, mixing and handling of the chemicals and waste.

BEFORE USING THE PRODUCT

- Since this product uses agricultural chemicals that require careful operation, misuse can be dangerous. Do not use this product when tired or otherwise in poor physical condition, or when you may be unable to judge correctly or operate accurately, such as after taking cold relief medicines or drinking alcohol. Also, children or persons who are unable to understand the contents of this Manual should under no circumstances be permitted to use the product.
- The engine exhaust gas contains toxic carbon monoxide. Do not use the product indoors, in vinyl houses or tunnels, or in other poorly ventilated places.
- Do not use this product in the following cases.
 1. When the product could fall over or in other situations when it is difficult to hold or operate.
 2. After sunset or at other times when eyesight is poor and the safety of the spraying area is difficult to ascertain.
 3. In worsening weather (rain, fog, strong wind, lightning, etc.)
- When using for the first time, before commencing actual spraying receive guidance in operating the product from a person with adequate experience.
- Fatigue reduces powers of concentration and increases the risk of accidents. When planning work, allow ample time, setting a limit of 30-40 minutes for single spraying sessions and breaks of 10-20 minutes in between. Also, do not spray for more than 2 hours in any one day.
- The ignition system of your unit produces an electromagnetic field of a very low intensity. This field may interfere with some pacemakers. To reduce the risk of serious or fatal injury, people with pacemaker should consult their physician and the pacemaker manufacturer before operating this tool.

WARNING

1. If you don't observe the working time, or working manner, Repetitive Stress Injury (RSI) could occur.
If you feel discomfort, redness and swelling of your fingers or any other part of your body, see a doctor before getting worse.

Safety Precautions



NOTE

To avoid noise complaints, in general, operate product between 8 a.m. and 5 p.m. on weekdays and 9 a.m. to 5 p.m. on weekends.

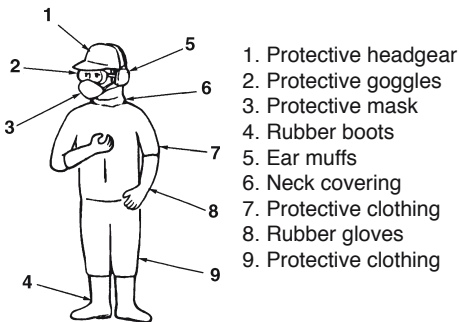


NOTE

Check and follow the local regulations as to sound level and hours of operations for the product.

PRECAUTIONS BEFORE SPRAYING

- Make sure you have the correct protective clothing, headgear, rubber gloves and boots, a protective mask, goggles, a towel, protective cream, etc., to prevent chemicals from coming into contact with your skin or entering your lungs. When spraying, wear this protective gear to prevent any risk of injury.



- Store chemicals in a locked storage box, locker, or other safe place out of the reach of children.
- Carefully read the instructions for using the chemicals, and familiarize yourself with the level of toxicity, method of use, etc.
- Pay all due consideration to the area in which you will be spraying, to ensure that you do not pollute the water supply, rivers, lakes, ponds, etc., or cause any damage to residents, passers-by, livestock, etc.
- Prepare yourself physically on the day before spraying, by for example cutting down on alcoholic beverages or late-night work.
- Do not allow children, animals, etc., to enter the chemical spraying area.
- Before spraying, prepare fully by inspecting sprayer nozzles and checking for abnormalities such as loose screws or spray

hose connections, fuel leaks, defective or broken fluid gaskets, or damage to the carrying band.

PRECAUTIONS WHEN TRANSPORTING CHEMICALS

- When transporting chemicals, handle with care to ensure that there is no spillage of chemicals from torn bags, broken bottles, or loose stoppers.
- Do not carry chemicals in the same container as food.

PRECAUTIONS WHEN TRANSPORTING THE SPRAYER

- Do not transport the sprayer while it has chemicals or fuel in the tank, as these could leak out as a result of impact during transportation.
- When transporting in a vehicle, use a rope or similar to fix the sprayer firmly to the cargo trailer in an upright position. Do not transport by bicycle or motorbike, as this is dangerous.

PRECAUTIONS CONCERNING FUEL

WARNING

To reduce the risk of fire and burn injury:

- a) Handle fuel with care. It is highly flammable.
- b) Do not smoke while handling fuel.
- c) Do not refuel a hot engine.
- d) Do not refuel a running engine.
- e) Avoid spilling fuel or oil. Always wipe unit dry before using.
- f) Move at least 10 ft. (3 meters) away from the fueling point before starting the engine.
- g) Always store gasoline in a container approved for flammable liquids.
- h) Make sure the unit is properly assembled and in good operating condition.

PRECAUTIONS WHEN REFILLING CHEMICALS

- Before filling the sprayer tank with chemicals, make sure to check if a bottom shutter (outlet valve) of the tank is fully closed. Opened shutter is dangerous because chemicals will be sprayed simultaneously with the engine start.
- After chemical refilling, firmly tighten the tank cap. If not fully tightened the cap may become loose during spraying, with the risk of physical exposure to the chemicals.

Safety Precautions

PRECAUTION WHEN STARTING THE ENGINE

- Keep children, animals, etc. well away when starting the engine and spraying.
- Check if the adjust lever (outlet valve open/close lever) is in full close position. Otherwise, large volumes of chemicals will spout immediately when the engine starts and are dangerous.
- Assure that there is no person in front of the spray head (output nozzle) when starting the engine. Remaining chemicals stuck in the spray pipe may spout out.

PRECAUTIONS WHEN SPRAYING

- Since protective clothing generally offers poor ventilation and thus places stress on the body, there is a risk of contracting heatstroke or other illness when operating for long periods under high temperatures. Avoid spraying on hot days, aiming instead for early morning and late afternoon times when temperatures are relatively cool and winds are low.
- When starting work, pay all due consideration to the spraying time, wind direction, etc., to ensure that no noise disturbance or chemical hazard is caused to nearby residents, passers-by, farm crops, and so on.
- While spraying hold the grip firmly at all times and be careful not to point the nozzle in the direction of people or animals.
- While spraying be careful of the wind direction and always stand on the upwind side, to avoid spraying yourself with chemicals.
- Should you begin to feel even slightly unwell while spraying, consult a doctor immediately. When doing so, inform the doctor of the name of the chemical you were using, the conditions of use, etc.
- If the sprayer is tilted the chemical may leak out through the air holes in the cap. When spraying always make sure you have a firm footing and maintain your balance.
- Do not touch the spark plugs or plug cords while the engine is running, as you may get an electric shock.

- Do not touch the muffler, spark plugs, or other metal parts with your bare hands while the engine is running or immediately after stopping the engine, as there is the risk of burns due to high temperatures.

PRECAUTIONS AFTER SPRAYING

- Seal unused chemicals and store them out of the reach of children.
- Do not simply discard empty chemical containers, but dispose of them safely by incinerating, burying, or another similar method. In addition, take every care that the water used to clean spraying tools does not create any hazard.
- Fully inspect and maintain protective clothing, masks, gloves, and other protective gear in preparation for the next session.
- After completing the work and tidying away chemicals and spraying tools, you should immediately take a bath or wash your hands, feet, face, etc. thoroughly with soap, as well as washing your mouth out.
- You should change all clothes worn, including underwear, and wash them thoroughly. Clothes worn during spraying should not be worn again the following day.
- After spraying, limit your alcohol intake and rest thoroughly by going to bed early. If you feel even slightly unwell, see a doctor as soon as possible.

OTHER PRECAUTIONS

- When engaged in spraying work over a protracted period of time, have your health checked regularly.
- Carry out spraying in a planned fashion, keeping a daily record of the date and time of spraying, the chemicals used, the target pest, contents of the work, duration of the work, and other details.
- Keep the following points in mind when selecting or using protective gear.
 - a) Protective clothing
Choose clothing that is cool to wear and offers good ventilation and waterproofing. In addition, wear items that enable you to carry out spraying work in total comfort and safety.
 - b) Spraying hood
Use a hood with a brim that is waterproof and covers your neck and shoulders.

Safety Precautions

- c) Gloves
Use gloves that are difficult for chemicals to penetrate and do not slip even if you perspire while doing the work.
- d) Rubber apron
When mixing chemicals, wear a long, thick, and wide apron that cannot be penetrated by chemical splashes.
- e) Protective goggles, mask, etc.
Select suitable protective goggles, mask, rubber boots, eye washer, and protective cream, etc., paying attention to standards and the recommendations of farm work safety promotion organizations.

MAINTENANCE PRECAUTIONS

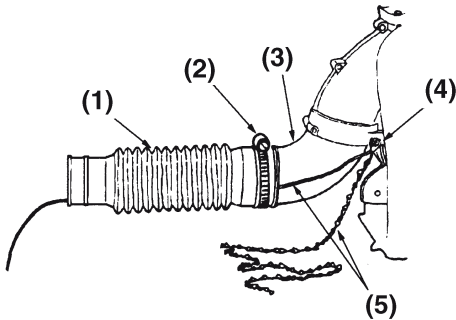
- In order to maintain the functions of the product, regularly carry out the maintenance inspections listed in this Manual. When maintenance or parts replacement not indicated in this Manual are required, consult your product supplier or nearest HUSQVARNA product dealer.
- Never keep the engine running while carrying out inspections or maintenance.
- Do not modify the sprayer or dismantle the engine. This could lead to breakdown and serious accidents during operation.
- Do not touch the muffler or spark plugs with your bare hands immediately after stopping the engine. There is the risk of burns due to high temperature.
- For replacement parts, use original HUSQVARNA parts or brands designated by HUSQVARNA.

Assembly

■ CONNECTION OF EARTH CHAIN

⚠ WARNING

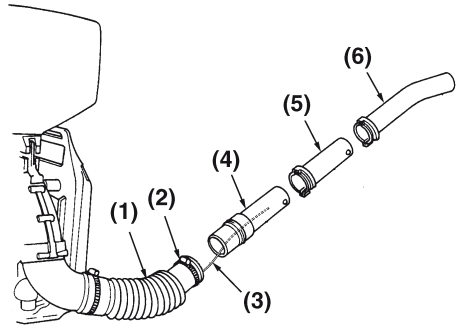
Spray of chemicals in dry air may generate high static electricity due to the friction. To avoid electric shocks, an earth chain shall be attached.



- (1) Flexible hose
- (2) Clamp(Large)
- (3) Elbow
- (4) Screw
- (5) Earth chain

1. Slacken a screw inside of the elbow of the blower. Insert a part of the earth chain into the gap between the screw and the main body. Fix with the screw.
2. Apply a clamp(large) onto the larger end of the attached flexible hose. Insert a wire of the earth chain into the hose. Securely fit the hose on the elbow.
3. Fix the hose securely by tightening the clamp screw using a screwdriver.

■ CONNECTION OF BLOWER



- (1) Flexible hose
- (2) Clamp
- (3) Wire
- (4) Joint
- (5) Straight pipe
- (6) Bent pipe

1. Connect the blower pipes securely
2. Connect the joint to the flexible hose and fix with the clamp.

Assembly

Changing discharge rate

362D28 is equipped with an outlet volume changer mechanism. The volume is initially set to a "High rate" position in our factory. Depending on your spray condition, change it to an adequate position.

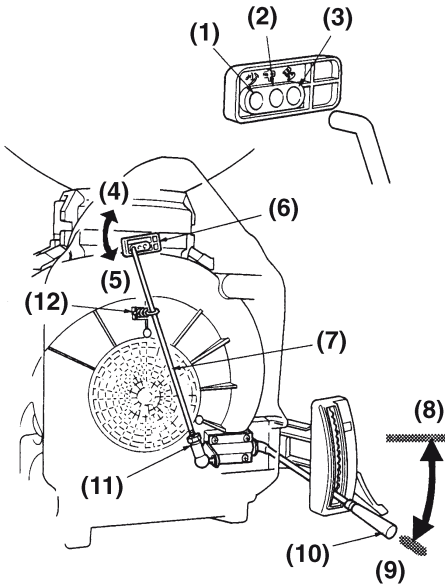
❗ IMPORTANT

For Flow dust (FD) powder agents and 1kg-Weed killers, set to the "Small rate" position.

1. Put the adjust lever to "Full open" position
2. Push up the change arm with fingers to "Full open" position.
3. Slacken the lock nut on the lower end of the rod and turn the rod till the upper end of the rod come to "High rate" position. Right turn of the rod shortens it and left turn makes it longer. Tighten the lock nut after the adjustment.

📖 NOTE

- Inadequate rod length may cause the rod disengaged or the shutter improperly operated.
- Even for an operation at "Small rate" or "Medium rate", adjustment of the rod length shall be made to "High rate" position hole. Otherwise, it may cause an excessive discharge.



- | | |
|------------------|---------------------|
| (1) "Small rate" | (2) "Medium rate" |
| (3) "High rate" | (4) Full Open |
| (5) Full Close | (6) Change arm |
| (7) Rod | (8) Full Open |
| (9) Full Close | (10) Adjust lever |
| (11) Lock Nut | (12) Stopper spring |

■ HOW TO CHANGE

1. Pull the rod on backrest side of the chemical tank holder and disengage from the change arm.
2. Insert the upper end of the rod into the required position hole.

📖 NOTE

In case the rod length does not match with the hole position, adjust the length in following manner:

Fuel

■ FUEL

WARNING

- **Gasoline is very flammable. Avoid smoking or bringing any flame or sparks near fuel. Make sure to stop the engine and allow it cool before refueling the unit. Select outdoor bare ground for fueling and move at least 3 m (10 ft) away from the fueling point before starting the engine.**
- The engines are lubricated by oil specially formulated for air-cooled 2-cycle gasoline engine use. If Husqvarna oil is not available, use an anti-oxidant added quality oil expressly labeled for air-cooled 2-cycle engine use (JASO FC GRADE OIL or ISO EGC GRADE).
- Do not use BIA or TCW (2-stroke water-cooling type) mixed oil.

■ RECOMMENDED MIXING RATIO GASOLINE 50 : OIL 1

- **Exhaust emission are controlled by the fundamental engine parameters and components (eq., carburation, ignition timing and port timing) without addition of any major hardware or the introduction of an inert material during combustion.**
- These engines are certified to operate on unleaded gasoline.
- Make sure to use gasoline with a minimum octane number of 89RON (USA/Canada: 87AL).
- If you use a gasoline of a lower octane value than prescribed, there is a danger that the engine temperature may rise and an engine problem such as piston seizing may consequently occur.
- Unleaded gasoline is recommended to reduce the contamination of the air for the sake of your health and the environment.
- Poor quality gasolines or oils may damage sealing rings, fuel lines or fuel tank of the engine.

■ HOW TO MIX FUEL

WARNING

- **Pay attention to agitation.**
1. Measure out the quantities of gasoline and oil to be mixed.
 2. Put some of the gasoline into a clean, approved fuel container.
 3. Pour in all of the oil and agitate well.
 4. Pour in the rest of gasoline and agitate again for at least one minute. As some oils may be difficult to agitate depending on oil ingredients, sufficient agitation is necessary for the engine to last long. Be careful that, if the agitation is

insufficient, there is an increased danger of early piston seizing due to abnormally lean mixture.

5. Put a clear indication on the outside of the container to avoid mixing up with gasoline or other containers.
6. Indicate the contents on outside of container for easy identification.

■ FUELING THE UNIT

1. Untwist and remove the fuel cap. Rest the cap on a dustless place.
2. Put fuel into the fuel tank to 80% of the full capacity.
3. Fasten the fuel cap securely and wipe up any fuel spillage around the unit.

WARNING

1. **Select bare ground for fueling.**
2. **Move at least 3 meters (10 feet) away from the fueling point before starting the engine.**
3. **Stop the engine before refueling the unit. At that time, be sure to sufficiently agitate the mixed gasoline in the container.**
4. **Do not smoke or place hot objects near fuel.**

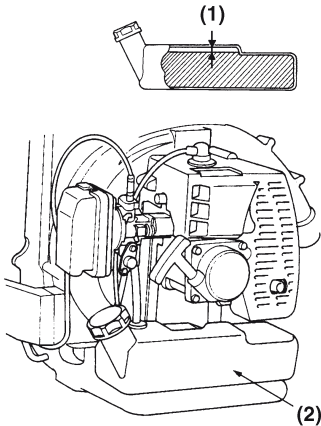
■ FOR YOUR ENGINE LIFE, AVOID:

1. **FUEL WITH NO OIL (RAW GASOLINE)** – It will cause severe damage to the internal engine parts very quickly.
2. **GASOHOL** – It can cause deterioration of rubber and/or plastic parts and disruption of engine lubrication.
3. **OIL FOR 4-CYCLE ENGINE USE** – It can cause spark plug fouling, exhaust port blocking, or piston ring sticking.
4. **Mixed fuels which have been left unused for a period of one month or more may clog the carburetor and result in the engine failing to operate properly.**
5. **In the case of storing the product for a long period of time, clean the fuel tank after rendering it empty. Next, activate the engine and empty the carburetor of the composite fuel.**
6. **In the case of scrapping the used mixed oil container, scrap it only at an authorized repository site.**

Operation

■ STARTING ENGINE

1. Fill the fuel tank with fuel, and turn the cap to the tank to make sure that it is fixed on tightly.

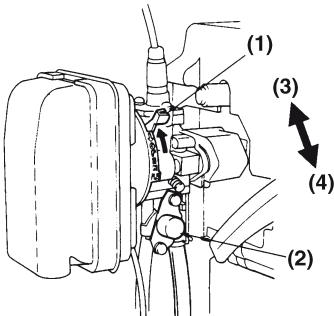


- (1) More than 5mm height space
- (2) Fuel tank

❗ IMPORTANT

When refueling the tank, remain more than 5mm height space inside the tank.

2. Push the primer pump several times until overflowed fuel flows out in the clear tube.
3. Move the choke lever to the closed position.

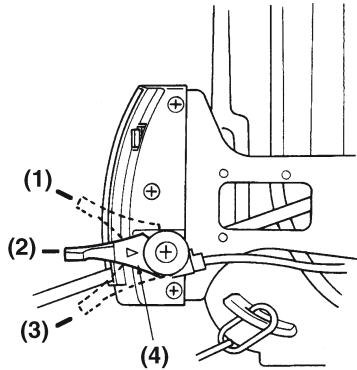


- (1) Choke lever
- (2) Primer pump
- (3) Close
- (4) Open

📖 NOTE

When restarting immediately after stopping the engine, move the choke lever to the opened position.

4. Set the throttle lever to the "START" position.



- (1) Full
- (2) Start
- (3) Idle
- (4) Throttle lever

5. To start, hold the top of the duster firmly with your left hand. Pull the starter knob slowly until you feel it engage and then give it a vigorous strong pull.

- **Avoid pulling the starter rope out to its full extension. Do not allow the starter rope to snap back. Rewind the rope slowly. This will prevent premature damage to the starter.**

6. Once the engine is running, gradually open the choke if it was set closed, and let the engine run at idle speed for a minute to warm it up.

📖 NOTE

When the engine failed to start after Several attempts due to overchoking, open the choke and repeat pulling the rope.

■ "DECOMP" VALVE

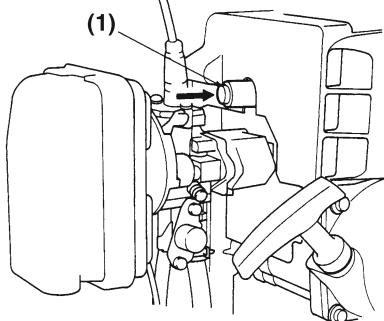
The engine on 362D28 is equipped with a "Decomp" valve (decompression valve) to lighten rope tension for starting the engine. Air leakage noise can be heard by pulling the rope for starting the engine. This is not an irregular status; as the engine starts, the valve is automatically closed and the engine works same as other engines.

Operation

[Clear button]

After usages, the valve may be locked with contamination in the engine that makes the rope heavy.

In such a case, push the Clear button 1 or 2 times with your finger before starting the engine. The valve will return to a normal position and the function is recovered.

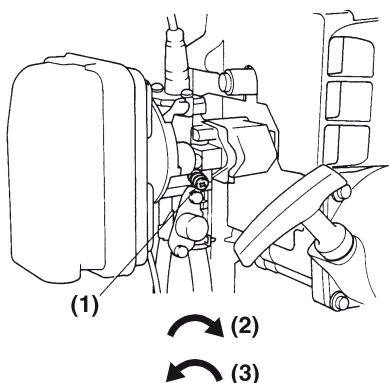


(1) Clear button

■ IDLE SPEED ADJUSTMENT

In case the engine stalls or runs at too high speed when the throttle lever is fully down, use the idle speed adjust screw for readjustment of the idle speed.

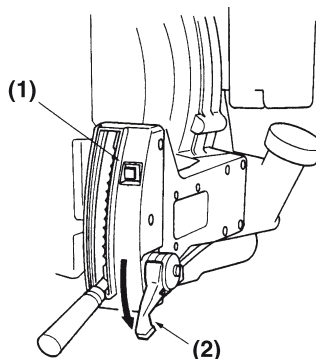
1. Start the engine and set the engine run at middle speed for a few minute to worm up.
2. Return the throttle to the idle position and adjust the idle screw.



- (1) Idle adjust screw
(2) Rotation increase
(3) Rotation decrease

■ STOPPING ENGINE

1. Move the regulator lever to the bottom position.



- (1) Stop switch
(2) Throttle lever

2. After checking that the powder/granule stops, move the throttle lever to the idle position.
3. Press the stop switch until the engine stops completely.

■ CHARGING CHEMICALS (FERTILIZERS/ AGRICHEMICALS)

▲ WARNING

- To charge chemicals into the sprayer tank, stop the engine and fully down the adjust lever. In case the adjust lever is in upper position (the shutter is opened), it is dangerous as chemicals will be sprayed simultaneously when the engine starts.
- Tighten the tank cap securely after filling chemicals. Loose cap may cause danger of chemicals spout of the tank during use.

❗ IMPORTANT

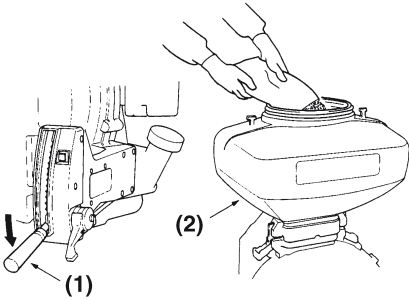
- Leaving chemicals in the tank for long time may cause insufficient output volume or incorrect shutter action due to moisture. Remaining chemicals shall be separately put into a storage container within the same day.
- To carry the sprayer by vehicles, empty the chemical tank. Otherwise, chemicals may be tamped down by vibration and cause insufficient output failure.

Operation

▲ WARNING

1. Always work from the windward side.
2. Be alert to bystanders or fragile things in the blowing direction.

1. Put material into the tank with the regulator lever kept at the bottom position. If the regulator is opened, the material will blow out concurrently with the start of the engine.

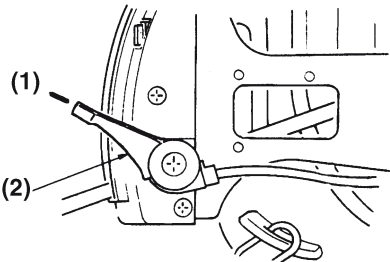


- (1) Regulator lever
(2) Tank

2. Tighten the tank cap securely.
3. Start the engine and carry the unit on your back.

■ SETTING THROTTLE LEVER

Set the throttle lever to the full throttle position at the time of spraying work.

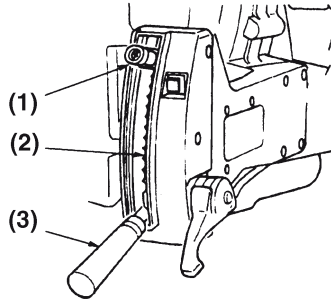


- (1) Full throttle
(2) Throttle lever

■ SETTING ADJUST LEVER STOPPER

To maintain shutter opening at the same level for a spray operation, set the regulator lever stopper on the required position.

1. Slide the stopper while pulling the knob.



- (1) Stopper
(2) Notch
(3) Regulator Lever

2. Release the knob when the stopper is on one notch above the required opening.

Operation

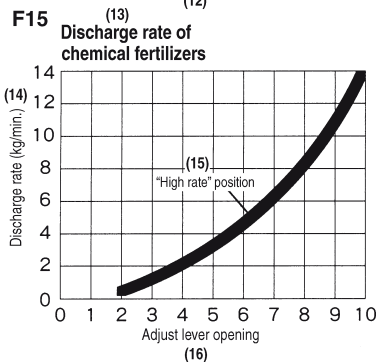
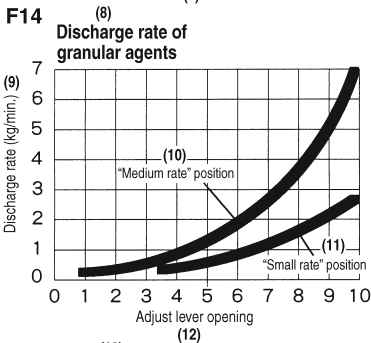
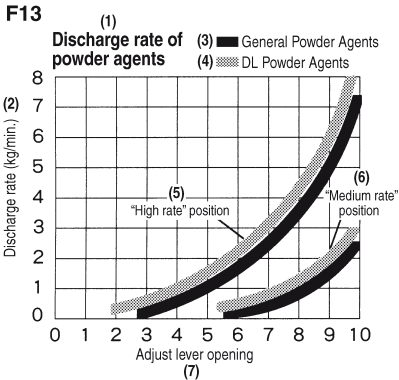
■ ADJUSTMENT OF DISCHARGE RATE

❗ IMPORTANT

- Discharge rate can be varied according to grade and dryness of chemicals
- As granular agents are uneasy to distinguish, care should be taken not to spray excess volumes.
- To avoid uneven sprays, try to keep constant walking speed during the operation.

Fig.F13 – F15 show relation between the adjust lever opening and the Discharge rate for each type of chemicals.

By referring those Figures based on your applied chemicals and operation conditions (i.e. spray area, spray equipment, walking speed, etc.), set the adjust lever at an adequate position.



Maintenance

⚠ WARNING

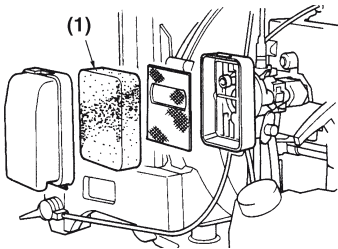
Make sure that the engine has stopped and is cool before performing any service to the blower. Contact with rotating blower fan or hot muffler may result in a personal injury.

■ AIR FILTER

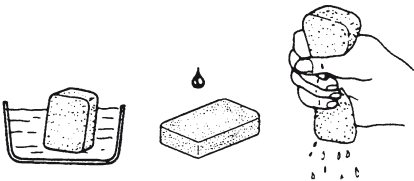
Check the air filter every 25 hours of use or more frequently if used under dusty conditions. **A clogged air filter may increase fuel consumption while cutting down the engine power. Never operate the machine without the air filter or with a deformed filter element because unfiltered dusty air may quickly ruin the engine.**

CLEANING AIR FILTER:

1. Remove the air filter cover and take out the filter. Wash it clean in warm, soapy water. Ensure that the filter is dry before refitting it.

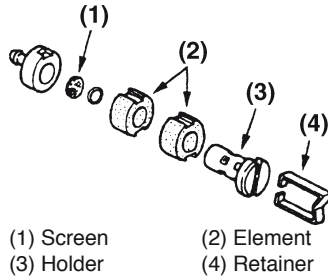


2. Use neutral detergent and warm water to clean the filter element. After cleaning, air dry the element completely and moisten with a small amount of 2 cycle motor oil.



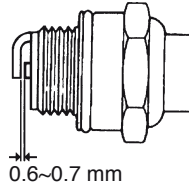
■ FUEL FILTER

- A clogged fuel filter may cause poor acceleration of the engine. Check periodically to see if the filter is clogged with dirt. The filter can be taken out of the fueling port using a small wire hook. Disconnect the filter assembly from the fuel pipe and unhook the retainer to disassemble it. Clean the components with gasoline.



■ Spark plug

- After every 50 hours of operation, detach the spark plug and remove dirt from the electrodes with a wire brush or similar.
- The correct electrode gap is 0.6 to 0.7mm.
- When replacing plugs, use designated items.



⚠ IMPORTANT

- If too much fuel is absorbed or poor quality oil is used, the spark plug electrodes become dirty, making the engine harder to start.
- Note that using any spark plug other than those designated may result in the engine failing to operate properly or in the engine becoming overheated and damaged.
- To install the spark plug, first turn the plug until it is finger tight, then tighten it a quarter turn more with a socket wrench.

■ MUFFLER

⚠ WARNING

- **Inspect periodically, the muffler for loose fasteners, any damage or corrosion. If any sign of exhaust leakage is found, stop using the machine and have it repaired immediately.**

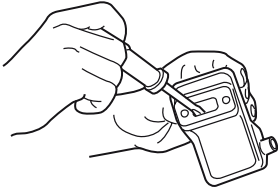
⚠ IMPORTANT

- Before starting operation, always make sure to check if the muffler is properly held by three bolts to the cylinder. (Fastening Torque : 8~12 N·m)

PROCEDURES TO BE PERFORMED AFTER EVERY 100 HOURS OF USE

Maintenance

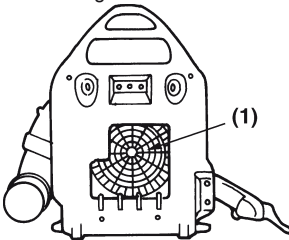
1. Remove the muffler, insert a screwdriver into the vent, and wipe away any carbon buildup. Wipe away any carbon buildup on the muffler exhaust vent and cylinder exhaust port at the same time.
2. Tighten all screws, bolts, and fittings.
3. Check to see if any oil or grease has worked its way in between the clutch lining and drum, and if it has, wipe it away using oil-free, lead-free gasoline.



■ AIR INLET NET

⚠ IMPORTANT

- Blowing air is taken in from the air inlet net. When air flow has dropped down during operation, stop the engine and inspect the air inlet net for blocking by obstacles.
- Note that failure to remove any such obstacles may result in the engine becoming overheated and damaged.



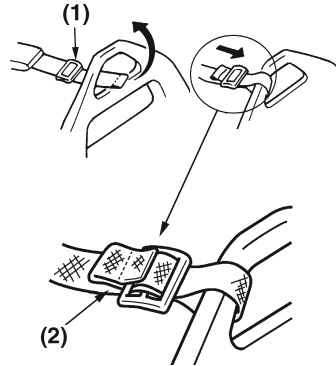
(1) Air inlet net

⚠ WARNING

Never use the blower without the net of the machine. Before each use, check that the net is attached in place and is free from any damage.

■ SHOULDER STRAP

- If the shoulder strap is damaged it may break during use, thus causing the product to fall and resulting in personal injury. Follow the instructions below to replace the shoulder strap with new one.
1. Pass the upper end of the strap through the hanger, making the FLAPPED SIDE OUTSIDE.
 2. Put the end of the strap through the ring on the strap, and then push the ring toward the hanger as close as possible.



(1) Ring
(2) Flapped side

⚠ WARNING

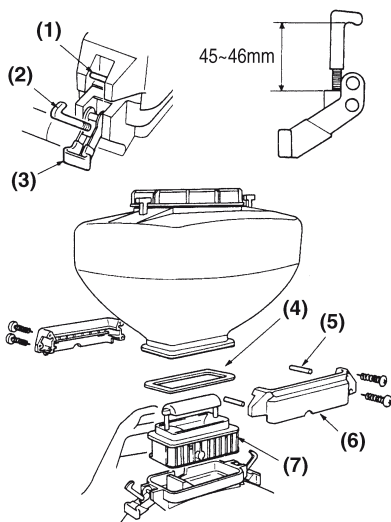
The flap on the end of the strap works as a stopper. Never install the strap with the flapped side inside, or the unit may fall from the operation, which could result in injury to the operator and/or damage to the unit.

■ SPRAY DEVICE

⚠ IMPORTANT

- As fertilizers are easy to absorb moisture, left behind fertilizers will cause error for the shutter operation. After spraying fertilizers, clean the spray device carefully.
- Correct length of the chemical tank locking hooks is 45-46mm. Shorter hooks than this cause excess fixing forces and may end up with deformation or breakage of related components. Longer hooks cause insufficient contact of the tank and chemicals may leak.
- For long time storage of the sprayer, leave the chemical tank cap loose. Otherwise, a cap gasket may be deformed.

Maintenance



- | | |
|------------------|------------|
| (1) Pin | (2) Hook |
| (3) Lever | (4) Gasket |
| (5) Pin | (6) Clamp |
| (7) Shutter case | |

- When the tank becomes empty, increase the engine speed, and up and down the adjust lever several times to blow away adhered chemicals from the shutter, inside of the blower, spray head, etc.
- Periodically detach the chemical tank and remove chemicals adhered to the shutter case.

How to Detach the Chemical Tank

1. Disengage the adjust rod from the change arm.
2. Push up tank fixing levers on both sides of the blower top, and remove hooks.

Storage

⚠ WARNING

- **When draining fuel, be careful not to spill it. If fuel is spilt, wipe off thoroughly. In addition, be sure to close the storage container cap tightly.**

❗ IMPORTANT

- If fuel is left in the engine for protracted periods, the inside of the carburetor may become clogged and cause engine malfunction (faulty starting and insufficient output).
- During storage, slightly loosen the cap of the chemical fluid tank. If screwed too tightly, the gasket may become distorted.

On completion of all work procedures, when not planning to use again for a protracted period carry out the following pre-storage care, to prevent trouble caused by time-lapse changes.

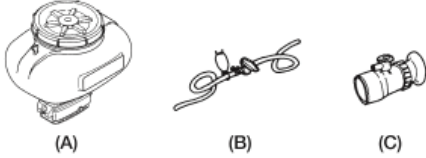
1. Clean the chemical fluid tank and nozzle (see page 11).
2. Remove dirt from the sprayer, inspect it for any damage or looseness, and, if any abnormality is found, correct it thoroughly in preparation for the next time you use the unit.
3. Drain the fuel tank.
4. Start the engine, and leave it in idling condition until all the fuel inside the carburetor is spent and the engine comes to a natural stop.
5. Remove the spark plug and put a few drops (1 to 2 cc) of 2-cycle oil inside the engine. After pulling the starter rope 2 or 3 times, return the spark plugs to their original position and stop in compressed position.
6. After oiling the throttle lever and other metal parts with anti-corrosive oil, cover the sprayer and store indoors in a low-humidity location.

Disposal

When disposing your machine, fuel or oil for the machine, be sure to allow your local regulations.

Mist kit (Available as accessory)

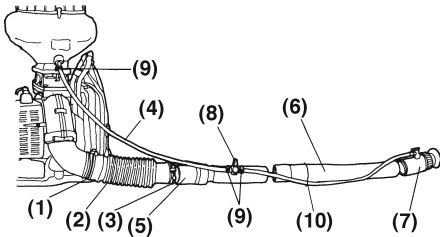
COMPONENTS



- (A) Tank
(B) Intermediate valve
(C) Mist nozzle

ASSEMBLY

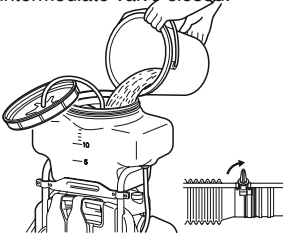
Connect the blow pipes and route the solution tube from the material tank to the mist nozzle.



- (1) Clamp A
(2) Flexible hose
(3) Clamp B
(4) Solution tube
(5) Swivel joint
(6) Bent pipe
(7) Mist nozzle
(8) Intermediate valve (fixed with Clamp B)
(9) Clip
(10) Clamp C

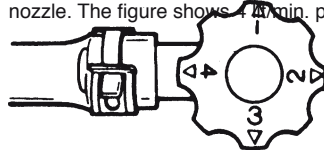
HOW TO USE

1. Pour the solution into the tank with the intermediate valve closed.

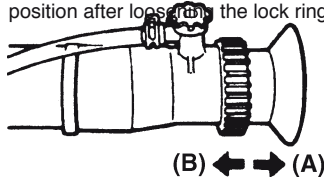


2. Adjust the solution flow and the spray range according to work conditions.

The solution flow is changed by shifting the number on the top of the valve at the mist nozzle. The figure shows 4 lit/min. position.



The spray range is changed by shifting the bell position after loosening the lock ring.



- (A) Pulled out position: Long distance, narrow angle spray
(B) Pushed In position: Short distance, wide angle spray
3. Start the engine and carry the unit on your back.
 4. While holding the swivel joint in your right hand, move the throttle lever upward and turn the intermediate valve to the open position.
 5. After spraying work has finished, close the intermediate valve and stop the engine.

WARNING

- Before the solution spraying work, supply water into the tank and operate the mister to make sure that there is any leakage or any mechanical failure.
- Repair it if there is any leakage or failure before the solution spraying work.

Valve travel	Discharge rate (lit/min.)
1	1
2	2
3	3
4	4

Max. Longitudinal coverage

Horizontal direction :	12 m
Vertical direction :	12 m

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