900M-3

OWNER'S MANUAL

Forward

Thank you for purchasing our company's tiller.

This manual contains information on operation and maintenance of the tiller, which is based on the most recent product information available at the time of approval for printing. We reserve the right to make amendments without advance notice and without incurring any obligation for sequences.

This manual should be considered a permanent part of the tiller, and remain with it if it is resold.

Safety information

Safety is very important for you and others. We have written down important safety information in both manual and machine. Please read it carefully.

Safety information gives you warning that you may bring potential danger to yourself and others. The key words with "!" are put before every piece of information. These words are "danger, warning, attention".

◇Please pay attention to the meanings of the above-mentioned identifiers.

! Danger: if you don't operate follow those indicated in the manual, serious injures, even death will be caused.

! Warning: if you don't operate follow those indicated in the manual, device damage and injures will be caused.

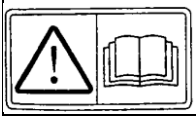
! Attention: if you don't operate follow those indicated in the manual, device damage and injures may be caused.

Damage prevention

You can see other important information marked with "ATTENTION".

ATTENTION: If you don't operate as those indicated in the manual, device damage will be caused.

Safety prevention



◆If mini tiller is operated follow those indicated in the manual, it will work safely and reliably. Before operating the mini tiller, please read this manual carefully. Otherwise, injures and device damage will be caused.

Attention

●When starting engine, please turn gear lever to neutral position.

●When the machine is working, please pay attention to safety!

●Be careful about the rotary blades, because they may hurt you!

●Fuel and lube oil must be clear.

●Before shifting the gear , you must disconnect the clutch. When holding the backshift bar, the gear lever must be put in the neutral position.

●Gasoline is flammable, you must pay attention to fire and exploding.

As model is always improved, photos or illustrations may have difference

comparing the actual machine.

Contents

1. Safety information and warning……..….4

2. Profile of mini tiller……. …….8

   - 1.Specification……. …….8
   - 2.General chart……. …….9

3. Applicable scope……. ……10

4. Operation and use of mini tiller……..11

   - 1.Pre-operation check……. …….11
   - 2.Starting the engine……. …….15
   - 3.Tiller operation……. …….18
   - 4.Stopping the engine……. …….23

5. Maintenance……..25

6. Troubleshooting……..34

7. Easily-damaged parts of rotary tiller……..35

1. Safety information and warning

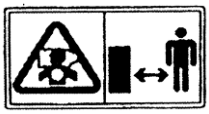
! WARNING

To ensure safe operation

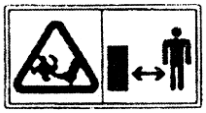
For the safety of yourself and others, please pay special attention to these precautions.



This tiller is designed to give safe and dependable service if operated according to the instructions.
Read and understand the Owner's Manual before operating the tiller. Failure to do so could result in personal injury or equipment damage.



Exhaust gas contains poisonous carbon monoxide.
Never run the tiller in enclosed areas.
Be sure to provide adequate ventilation.
When installing, ventilated protection is to be observed.



The rotating parts are sharp and running at high speed. Accidental contact can cause serious injury.
Keep your hands and feet away from the parts while engine is running .
Stop the engine and disengage the tines clutch before inspection or maintenance of the tines.
Disconnect the spark plug cap to prevent any possibility of accidental starting .Wear heavy gloves to protect your hands from the tines when clearing the tines or when inspecting or replacing the tines.

Operator Responsibility

- Keep the tiller in good operating condition. Operating a tiller in poor or questionable condition could result in serious injury.
- Be sure all safety devices are in working order and warning labels are in place. These items are installed for your safety.
- Be sure the safety covers (Fan cover, recoil starter cover) are in place.

- Know how to stop the engine and tines quickly in case of emergency. Understand the use of all controls.
- Keep a firm hold on the handlebars, they may tend to lift during clutch engagement.

! WARNING

To ensure safe operation

Operator Responsibility

- Don't allow anyone without proper training to operate this tiller to avoid injury.
- Wear sturdy, full-coverage footwear. Operating this tiller on barefoot or with open toe shoes or sandals increase your risk of injury.
- Dress sensibly. Loose clothing may be caught by moving parts, increasing your risk of injury.
- Be alert, operating this tiller when you are tired, ill or under the influence of alcohol or drugs may result in serious injury.
- Keep all persons and pets away from the tilling area.
- Be sure drag bar is in place and properly adjusted.

Children Safety

- Keep children indoors and supervised at all times while outdoor power equipment is being used nearby, as young children move quickly and are attracted especially by the tiller and tilling activity.
- Never assume children will remain where you last see them. Be alert and turn the tiller off if children enter the operation area.
- Children should not be allowed to operate the tiller even under adult supervision.

Thrown Object Hazard

- Objects hit by the rotating tines can be thrown from the tiller with great force and may cause severe injury.
- Before tilling, clear the tilling area of sticks, large stones, wire, glass, etc.
- Till only in daylight.
- Pieces thrown from worn or damaged tines can cause serious injury. Always inspect the tines before using the tiller.

! WARNING

To ensure safe operation

Fire and Burn Hazard

Gasoline is extremely flammable and gasoline vapor is explosive.

Take extreme care when handling gasoline. Keep gasoline out of reach of children.

• Refuel in a well-ventilated area with the engine stopped.

•Allow the engine to cool down before refueling. Fuel vapor or spilled fuel may be ignited.

• The engine and exhaust system become very hot during operation and remain hot for a while after stopping. Touch the hot engine components can cause burn injuries and ignite some materials.

• Avoid touching a hot engine or exhaust system.

•Allow the engine to cool down before performing maintenance or storing the tiller indoors.

Carbon Monoxide Poisoning Hazard

Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness, even lead to death.

• If you run the engine in an area that is confined or even partially enclosed, the air you breathe could contain a dangerous amount of exhaust gas .To keep exhaust gas from building-up, provide adequate ventilation.

Operation on Slope

• When tilling on slopes, keep less than half tank of fuel to minimize fuel spillage.

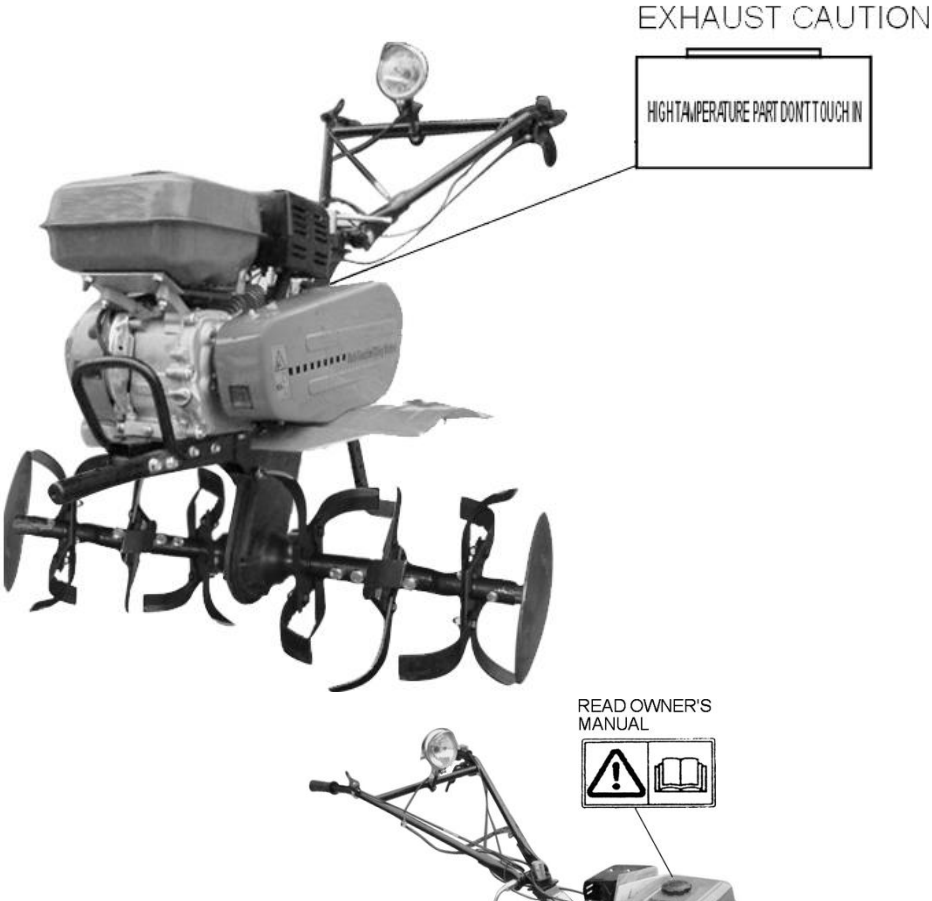
• Till across the slope (at equally spaced intervals) rather than up and down.

• Be very careful when changing the direction of the tiller on a slope.
• Do not use the tiller on a slope of more than 10°.
• The maximum safe grade angle shown is for reference purpose only and should be determined according to the type of the tool before starting the engine, ensure that the tiller is not damaged and in good condition. For the safety of yourself and others, exercise extreme care when using the tiller up or down hills.

Safety mark

These labels warn you potential hazards which can cause serious injury. Read the labels and safety notes and precautions described in this manual carefully.

If a label comes off or becomes hard to read, contact your dealer for a new one.

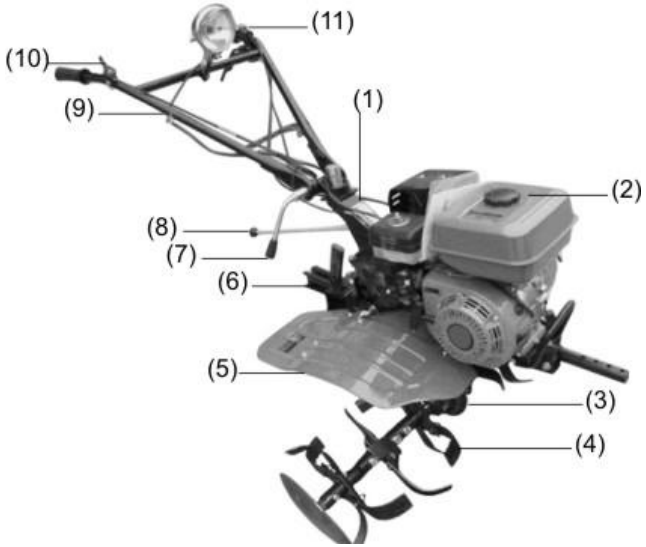


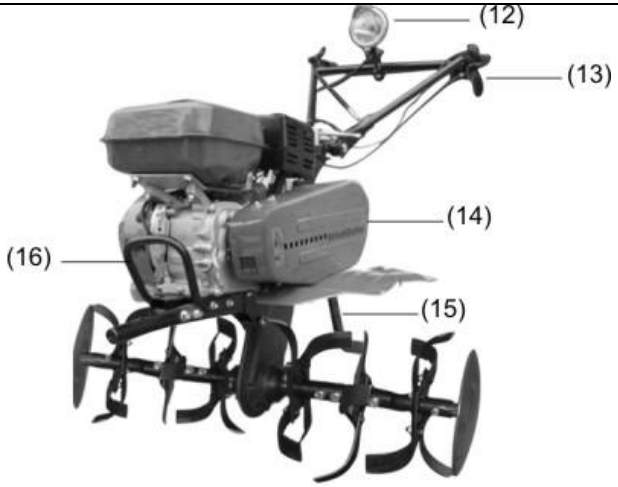
2. Profile of mini tiller

◆ 1. Specification

ITEM		CONTENT
		900m-3
TILLER	Dimension (L*W*H)	1390×800×1070
	N.W/G.W(kg)	99/109
	Transmission system	Belt
	Tilling scope(mm)	800-1200
	Tilling depth(mm)	150-300
	Gear shifting	1,2,3,0,-1
ENGINE	Model	168FB/P
	Type	1-cylinder, 4stroke,OHV25, forced air cooling
	Bore X stroke(mm)	φ 68×54
	Displacement(ml)	196
	Compression ratio	8.5:1
	Max. power (kw/rpm)	4.8 (6.5)/3600
	Rated power (kw/rpm)	4.2 (5.7)/3600
	Max. .torque (n.m)	12/2500
	Ignition system	Transistor Magneto
	Starting system	Recoil start
	Air cleaner	Semi-dry, Oil bath, Foam filter element
	Fuel tank capacity(l)	6.5
	Low oil consumption (g/kw*h)	395
	Oil Capacity (L)	0.6

◆ 2. General chart





(1) Handrail seat (2) Fuel tank (3) Gear box parts
(4) Blades (5) Mud fender (6) Connecting plate
(7) Lock handle (8) Shift lever (9) Handle comp. (10) Throttle switch
(11) Stop switch (12) Light (13) Tension pulley handle (14) Belt protector
(15) Deep furrowing resistance part (16) Bumper

3. Applicable scope

The Mini-tiller is suitable for tilling sandy soil and clayey soil of canopied vegetables base and dry land, slopes with gradient less than 10%, paddy field with the depth of water surface to hard layer not more than 250mm.

For weedy plots, remove the weeds before using the mini-tiller to cultivate the land.

4. Operation and use of mini tiller

◆ **1. Pre-operation check**

1）Engine oil

CAUTION: Running the engine with low oil level will cause serious engine damage.

- Remove the oil filler cap and wipe off dipstick.
- Put the dipstick into the oil filler neck, but do not screw it.
- If the level is low, fill the recommended oil to the top of the oil filler neck.

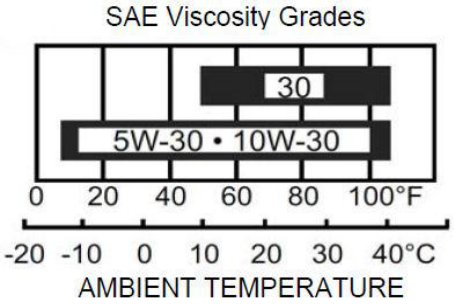
Use high-detergent, premium quality 4-stroke engine oil, certified to meet or exceed U.S. automobile manufacturer's requirement for API Service Classification SG, SF.

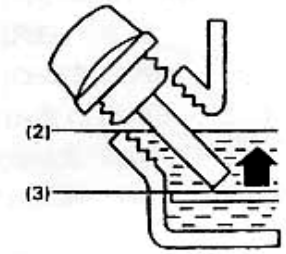
CAUTION: Using nondetergent oil or 2-stroke engine oil could shorten the engine's service life.

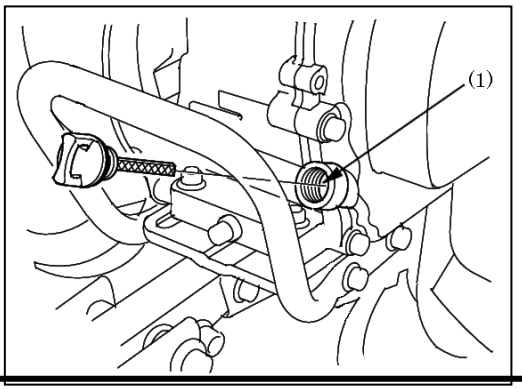
SAE 10w-30 is recommended for general, all temperature use. Other viscosities

shown in the following chart might be used when at the average temperature in your area is within the indicated range.

(1) OIL FILLER HOLE
(2) UPPER LEVEL
(3) LOWER LEVEL







2）Transmission gear oil

Place the tiller horizontal and remove the oil filler cap.

The oil should be level with the lower edge of the oil filler hole.

Add high quality engine oil if the level is low.

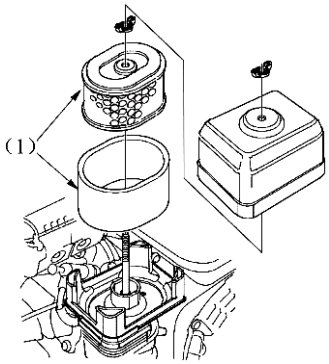
(1) OIL FUEL HOLE



3）Air cleaner

Check cleaner for dirt or obstruction of elements

(1) ELEMENTS



4）Fuel

Use automotive gasoline (Unleaded or lowleaded is preferred to minimize combustion chamber deposits.)

Never use an oil/gasoline mixture or dirty gasoline.

Avoid dirt, dust or water from getting into the fuel tank.

CAUTION: Do not fill over the red level line.

! WARNING

• Gasoline is extremely flammable and explosive under certain conditions.

• Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the engine is refueled or the gasoline is stored.

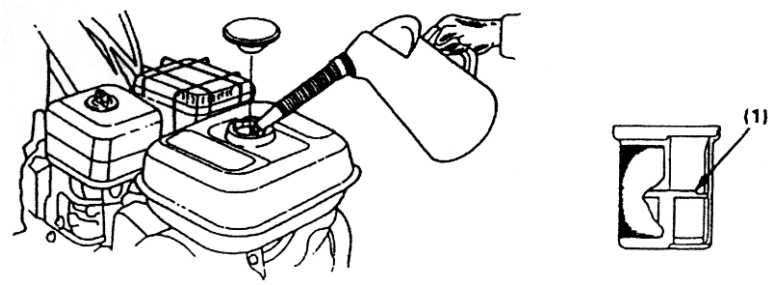
• Do not overfill the fuel tank (there should be no fuel in the filler neck). After refueling make sure the tank cap is closed properly and securely.

• Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may be ignited. If any fuel is spilled, make sure the area is dry before starting the engine.

• Avoid repeated or prolonged contact with skin or breathing of vapor.

Fuel tank capacity: 3.6L

(1) RED LEVEL LINE



Gasoline containing alcohol

If you decide to use a gasoline containing alcohol (gasohol)，be sure it's octane rating is at least as high as that recommended for tiller. There are two types of "gasohol": one containing ethanol (ethyl alcohol), and the other containing methanol. Do not use gasohol that contains more than 10% ethanol. Do not use gasoline containing methanol (methyl or wood alcohol) which does not contain inhibitors for methanol corrosion. Never use gasoline containing more than 5% methanol, even if it has corrosion inhibitors,

NOTE:

• Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol over the upper limits is not covered under the warranty. The tiller can not endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.

• Before buying fuel from an unfamiliar station, try to find out if the fuel contains alcohol, or if it does conform the type and percentage of alcohol used. If you notice any undesirable operating symptoms while using a gasoline that contains alcohol,

change to use a gasoline that you know does not contain alcohol.

5）Tools and attachments

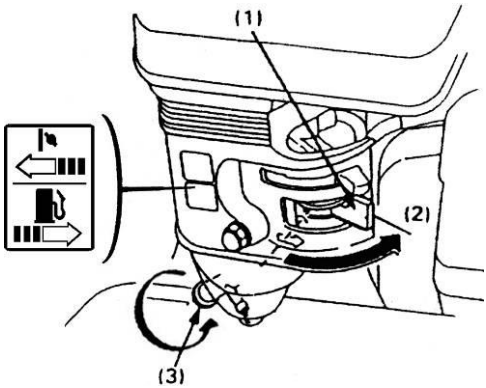
To install a tool or attachment on the tiller, follow the instructions furnished with the tool or attachment. Ask your dealer for advice if you encounter any problem or difficulty in installing a tool or attachment.

◆ **2．Starting the engine**

CAUTION: Be sure the clutch is disengaged and the shift lever is in the neutral position to prevent sudden uncontrolled movement when the engine starts. The clutch is engaged by pulling in the clutch lever and disengaged by releasing the lever.

1）Turn the fuel valve to ON, check whether it is tightened.

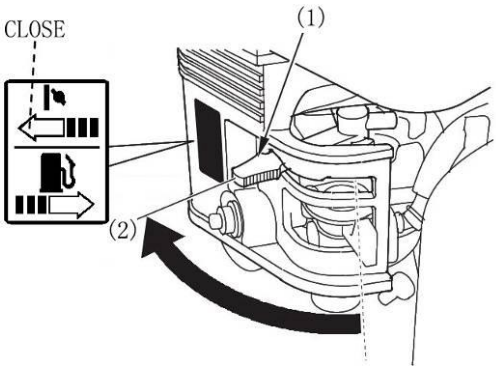
(1) FUEL VALVE
(2) ON
(3) DRAIN BOLT



2）Close the choke lever.

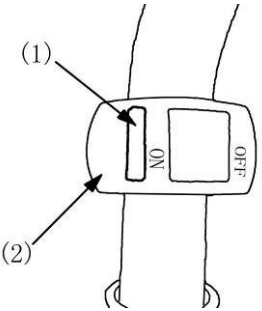
NOTE: Do not use the choke when the engine is warm or the air temperature is high.

（1）CHOKE LEVER
（2）CLOSE



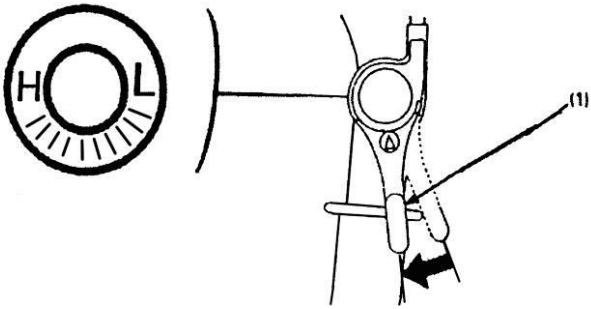
3）Turn the engine switch to "ON".

（1）ON
（2）ENGINE SWITCH



4）Move the throttle lever slightly to the left.

（1）THROTTLE LEVER



5）Pull the starter grip lightly until resistance is felt then pull it fast.

CAUTION: Do not allow the starter grip to bounce back against the engine. Return it slowly to prevent damage to the starter.

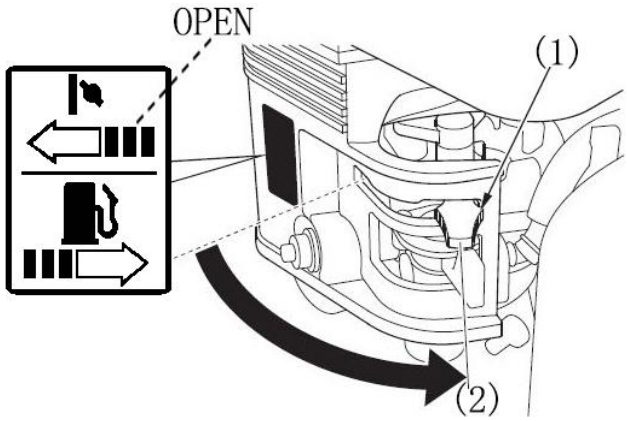
（1）STARTER GRIP



6）As the engine warms up, gradually open the choke.

（1）CHOKE LEVER

（2）OPEN



• high altitude operation

At high altitude, the standard carburetor air–fuel mixture will be excessively rich. Performance and fuel consumption will increase.

High altitude performance can be improved by installing a smaller diameter main fuel jet in the carburetor and readjusting the pilot screw. If you always operate the tiller at altitude higher than 1,830m (6,000 feet) above sea level ask your authorized dealer to perform these carburetor modifications.

Even with suitable carburetor jetting, engine horsepower will decrease approximately 3-5% for each 305m(1,000 feet) increase in altitude.
The affect of altitude on the horsepower will be greater than this if no carburetor modification is made.

CAUTION: Operation of the tiller at an altitude lower than the carburetor is jetted for may result in reduced performance, overheating and serious engine damage caused by an excessively lean air/fuel mixture.

◆ **3．Tiller operation**

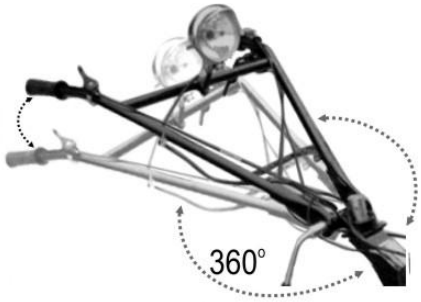
1) Tiller height adjustment

CANTION: Before adjusting the handlebar, place the tiller on horizontal ground to prevent the handle from collapsing accidentally.

To adjust the tiller height, loosen the adjuster, select the needed holes and tighten the adjuster.

(1) ADJUSTER

The tillers have revolving adjustable handle bar. It allows the operator to dirve the tiller from the right or left when tilling.



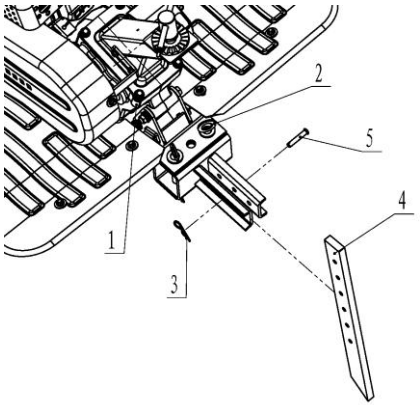
2) Tilling depth adjustment

Install the hitch attachment in the hitch box with a hitch pin.

The tilling depth adjustment can be made as follows:

Remove the hitch pin and lock pin, loosen the bolt securing the drag bar and sliding the drag bar up or down as necessary.

（1）HITCH BOX（2）HITCH PIN（3）LOCK PIN（4）DRAG BAR（5）PIN

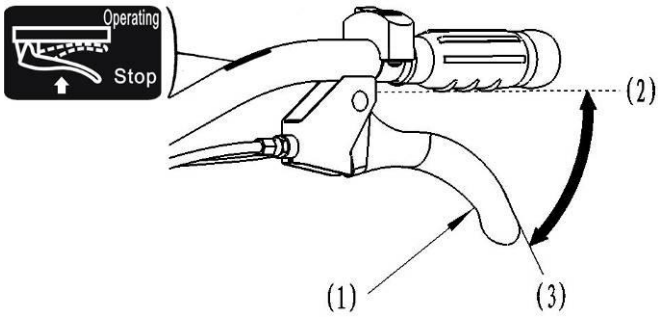


3) Clutch operation

The clutch engages and disengages the power from the engine to the transmission.
When the clutch lever is squeezed the clutch is engaged and power is transmitted. Squeeze the lever, the tiller will be rotated.
When the lever is released, the clutch is disengaged and power is not transmitted, release the clutch lever, the tiller will be stopped.

CAUTION: Reduce engine rpm before operating main clutch.

(1) CLUTCH LEVER
(2) ENGAGED
(3) DISENGAGED

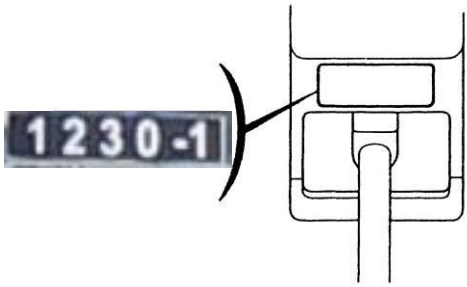


4) Gear selection

The transmission can be shifted into the 2nd forward gear.
The shift lever should be operated in accordance with the attached gear shifting plate.

Gear shifting :

- Return the throttle lever to the extreme right.
- Release the clutch lever to disengage the clutch.
- Move the shift lever to the needed gear position.,



NOTE: If the shift lever will not engage the needed gear, squeeze the clutch lever

and move the tiller slightly to reset the gears.

5) Choose the gear

The tilling machine has three gears to choose:

Gear Converted:

(1) Pulling the throttle switch to the right.

(2) Unloosen the clutch handle and let the clutch separate.

(3) Moving the gear shifting arm to your required gear.

(4) Gripping the clutch handle, the engine will work on the converted gear.



900M-3
F1 F2 F3 R N

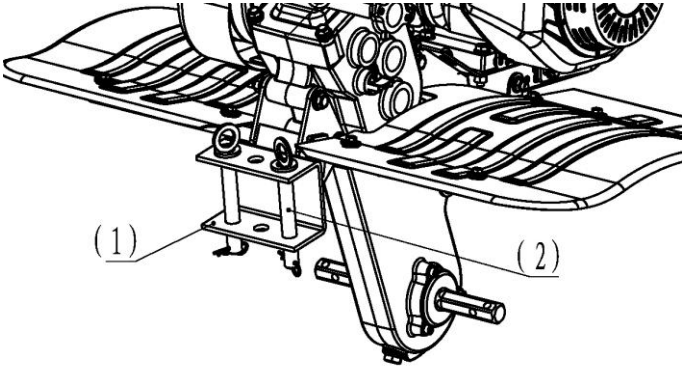
900M-3
FORWARD 1 FORWARD 2 FORWARD 3 REVERSE NEUTRAL

6) Use of a hitch box

Install the hitch attachment in the hitch box with a hitch pin.

(1) HITCH BOX

(2) HITCH PIN



7) Front wheel（500）

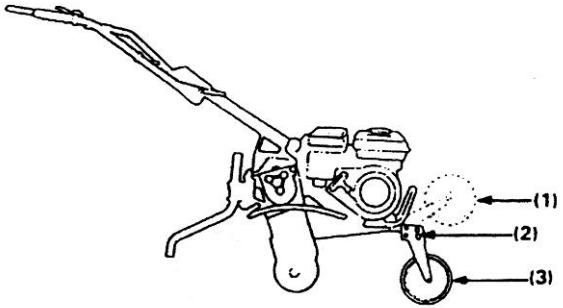
Move the tiller on road by the front wheel, lift the handlebars up and ground the front wheel.

When the tiller is used in the field, move the wheel up by replacing the lock pin.

(1) WHEN USED IN THE FIELD

(2) LOCK PIN

(3) WHEN MOVED ON ROAD



8) Handling Tips

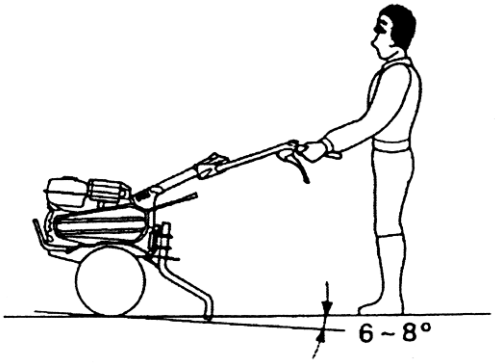
Adjust the handlebar height to a comfortable position (usually waist height is recommended)

If the machine jerk forward while tilling, press down the handlebars; if the machine will not move forward, move the handlebars from side to side.

Turn: The proper method of negotiating a turn is to lower the handlebars to make the gravity of tiller backward centre toward the rear and then make the turn. This will permit a turn with relative ease.

9) Normal Operating Angle

Lower the handle slightly so the front of the machine is raised about 6-8^{o}.



To get the maximum advantage from the tiller, try to hold the machine at the angle shown while you are tilling the ground.

CAUTION:

- Do not use the tiller with a rotor with diameter over 300mm.
- Operating the tiller on grades could cause the tiller to tip over .
- Allowing any one to operate this tiller without proper instruction may result in injury.
- Wear sturdy, full coverage footwear. Operating this tiller on bare feet, or with open toe shoes or sandals increases your risk of injury.
- Do not use the tiller in the night .
- Be sure to transport the tiller from one place to another by two people, if a carrier is not available.
- When the rotor is clogged with mud, pebble etc, immediately stop the engine and

clean the rotor in a safe place. Be sure to wear heavy gloves when cleaning the rotor.

To prevent damage, check the tiller for any signs of damage or other faults each time when the tiller is used after it has been operated.

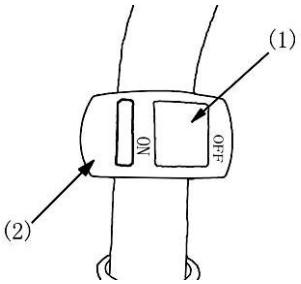
◆ 4. Stopping the engine

If in an emergent situation

Turn the engine switch to “OFF”.

(1) OFF

(2) ENGINE SWITCH

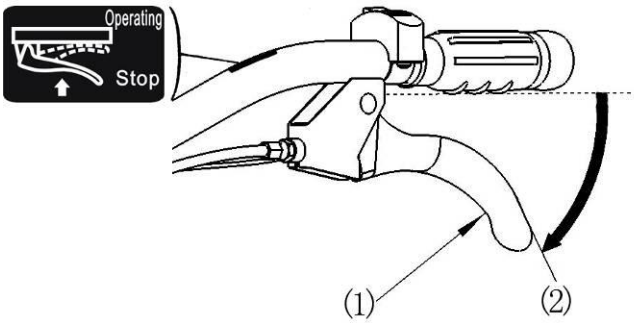


In normal situation

• Release the clutch lever to DISENGAGED position and let shift lever in neutral position.

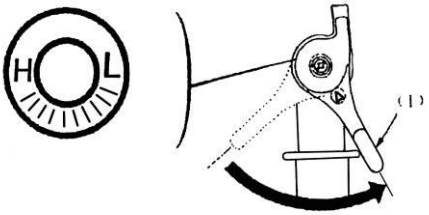
(1) CLUTCH LEVER

(2) DISENGAGED



1）Move the throttle lever fully to the right.

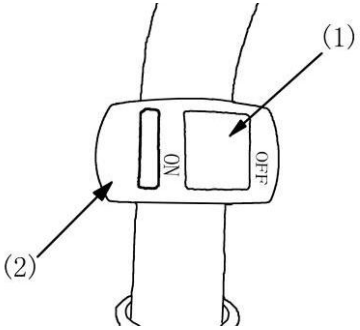
(1) THROTTLE LEVER



2） Turn the engine switch to “OFF”.

(1) OFF

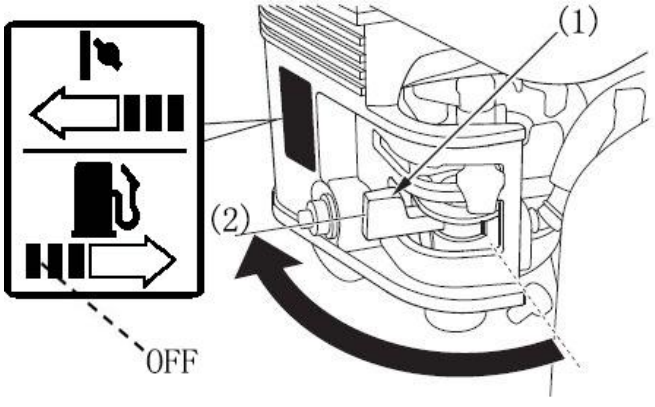
(2) ENGINE SWITCH



3）Turn the fuel valve to OFF.

（1）FUEL VALVE

（2）OFF



5. Maintenance

The purpose of the maintenance schedule is to keep the tiller in the best working condition, inspect or service as scheduled in the table below.

! WARNING Turn off the engine before performing any maintenance. If the engine must be run, make sure the area is good-ventilated. The exhaust contains poisonous carbon monoxide gas.

CAUTION: Use only genuine parts or their equivalents. The use of replacement parts which are not of equivalent quality may damage the engine.

Maintenance Schedule

REGULAR SERVICE PERIOD Perform at every indicated month or operating hour interval whichever occurs first / ITEM		Daily	First month or 20 Hrs	Every 3 months or 50 Hrs	Every 6 months or 100 Hrs	Every year or 300 Hrs
Engine oil	Check level	O				
	Change		O		O	
Air cleaner element	Check	O				
	Clean			O (1)		
Fuel strainer cup	clean				O	

Spark plug	Clean readjust				O	
Transmission gear oil	Check level	O				
Tappet clearance	Check readjust					O (2)
Fuel tank and strainer	Clean					O (2)
Clutch cable	Adjust		O		O	
Throttle cable	Adjust					O
Belt tension	Adjust		O		O	
Fuel line	Check	Every 2 years (2) (Replace if necessary)				

NOTE: (1) Check more frequently when used in dusty areas.

(2)These items should be serviced by an authorized dealer, unless the owner has the proper tools and is mechanically qualified.

1. Changing engine oil

Drain the oil while the engine is still warm to assure rapid and complete drainage

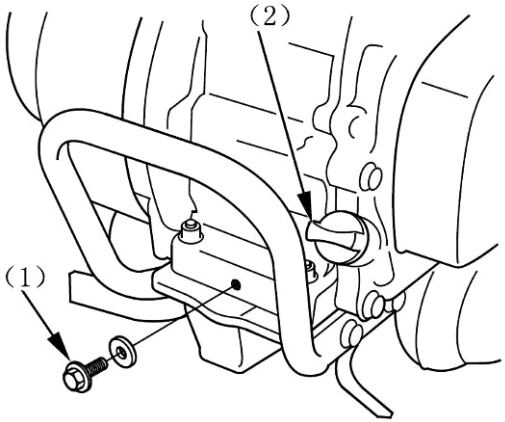
- Remove the oil filler cap and drain the oil.
- Refill with the recommended oil and check its level.

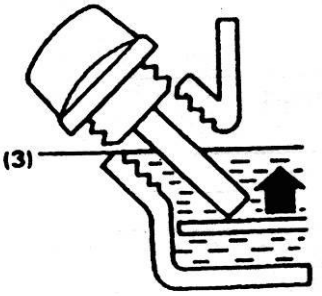
Oil capacity: 0.6 L

(1) DRAIN BOLT

(2) OIL FILLER CAP

(3) UPPER LEVER





Wash your hands with soap and water after touching used oil.

NOTE: Please dispose used motor oil in a manner that is compatible with the environment. We suggest you put it in a sealed container to your local service for reclamation. Do not throw it to the trash can or pour it on the ground.

2. Air Cleaner Service

A dirty air cleaner will block air flow into the carburetor. To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the engine in extremely dusty areas.

! WARNING Never use gasoline or low flash point solvents to clean the air cleaner element. A fire or explosion could result in.

CAUTION: Never run the engine without air cleaner, or engine will be worn out rapidly.

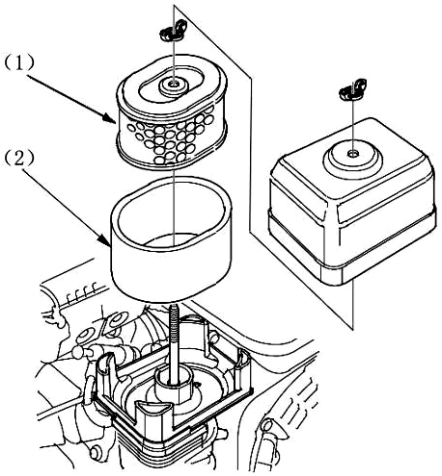
- Remove the wing nut and the air cleaner cover. Remove the elements and

separate them. Carefully check elements for holes and tears, and replace it if damaged.

• Foam element: clean in warm soapy water, risen and allow to dry thoroughly or clean in high flash-point solvent and allow to dry. Dip the element in clean engine oil and squeeze out all the excess. The engine will smoke during initial start –up if too much oil is left in the foam.

• Paper element: Tap the element lightly several times on a hard surface to remove excess dirt or blow compressed air through the filter from the inside out. Never try to brush the dirt off, for so doing will force dirt into the fibers.

(1) PAPER ELEMENT
(2) FOAM ELEMENT

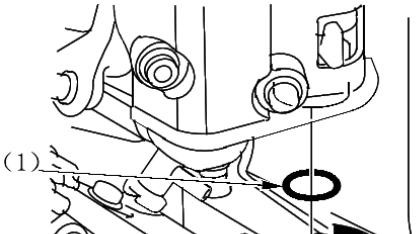


3. Fuel Strainer Cup Cleaning

! WARNING Gasoline is highly flammable and explosive under certain conditions. Do not smoke or allow flames of sparks in the area.

Turn the fuel valve to the OFF position and remove the fuel strainer cup and the O-ring. Wash the removed parts in solvent, dry them thoroughly and reinstall them securely. Turn the fuel valve ON and check for leaks.

(1) O-RING
(2) FUEL STRAINER CUP



4. Spark plug service

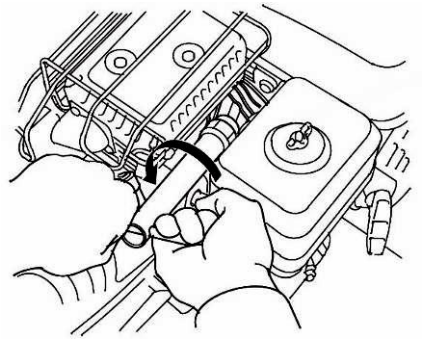
Recommended spark plug: BPR5ES (NGK)

W16EPR-U (NIPPONDENSO)

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

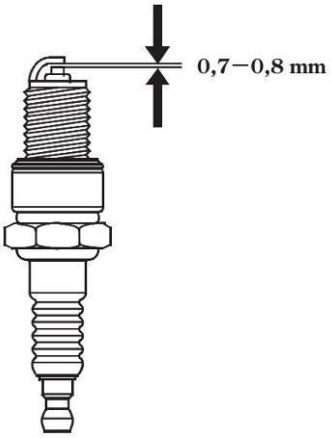
• Remove the spark plug cap.

! WARNING If the engine has been running，the muffler will be very hot. Be careful not to touch the muffler.

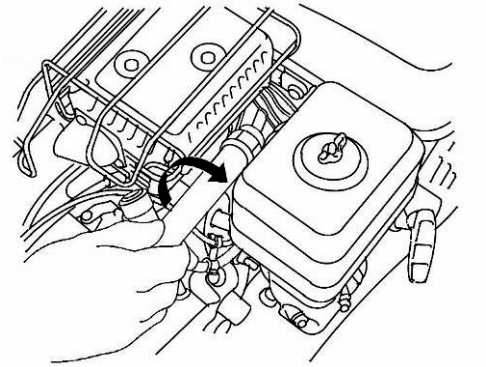


• Visually inspect the spark plug. Discard it if the insulator is cracked or chipped.

• Measure the plug gap with a feeler gauge. The gap should be 0.7-0.8mm (0.028-0.031 in),Correct as necessary by bending the side electrode.



• Attach the plug washer, thread the plug in by hand to prevent cross-threading.



• When mounting a new spark plug, you should screw 1/2 more thread with the wrench after the washer is compressed. If you are mounting an old one, you should only screw 1/8-1/4 more thread.

CAUTION:

The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the engine. Never use a spark plug with an improper heat range.

5. Clutch Cable Adjustment

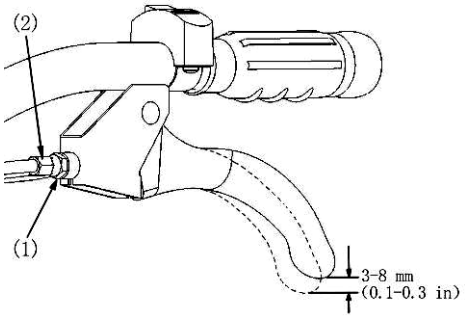
Measure the free play at the lever tip.

Free play: 3-8mm (0.1-0.3 inch)

If the free play is incorrect, loosen the lock nut and turn the adjusting bolt near or far as you need.

(1) LOCK NUT

(2) ADJUSTING BOLT



After adjustment, tighten the lock nut securely. Then start the engine and check for proper clutch lever operation.

6. Throttle Cable Adjustment

Measure the free play at the lever tip.

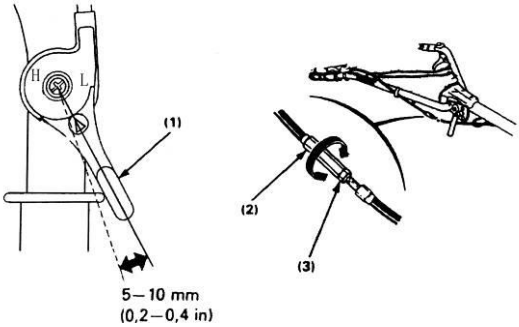
Free play: 5-10mm (0.2-0.4 in)

If the free play is incorrect, loosen the lock nut and turn the adjusting nut near or far as you need.

(1) THROTTLE LEVER

(2) ADJUSTING NUT

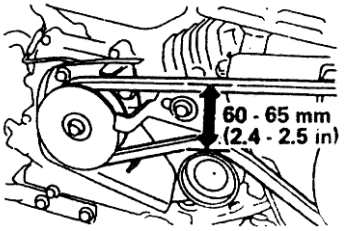
(3) LOCK NUT



7. Belt Tension Adjustment

Adjust the clutch lever free play

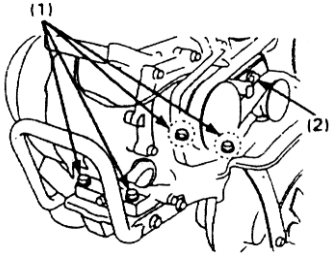
The standard belt tension is 60-65mm (2.4-2.6 inch) at the belt pulley with the clutch engaged (clutch lever is squeezed).



To adjust, loosen the four engine mounting bolts and the engine stay tightening bolt, and move the engine forward or reverse to arrive proper tension of the belt.

NOTE: After adjusting the tension, make sure that the outside face of the drive pulley is flush by using a straight gauge.

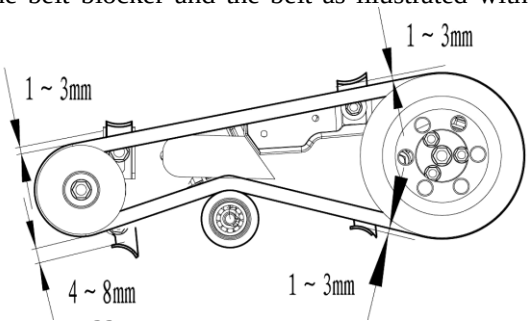
(1) ENGINE MOUNTING BOLTS
(2) ENGINE STAY TIGHTENING BOLT



Loosen the attaching bolts of belt stopper.

Adjust the clearance between the belt blocker and the belt as illustrated with the clutch lever squeezed.

(1) BELT BLOCKERS



8. Transporting /Storage

! WARNING When transporting the tiller, turn the fuel valve OFF and keep the tiller level to prevent fuel spillage. Fuel vapor or spilled fuel may be ignited.

Before storing the unit for an extended period:

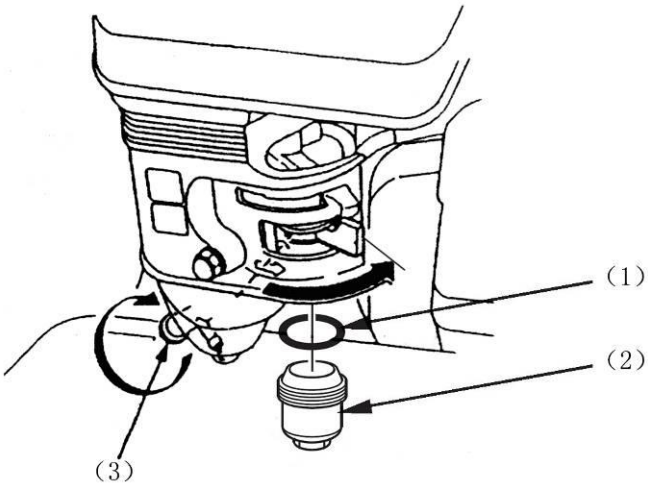
1) Be sure the storage area is free of excessive humidity and dust.

2) Drain the fuel.

! WARNING Gasoline is highly flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in the area.

- With the fuel valve turned OFF, remove and empty the fuel strainer cup.
- Turn the fuel valve ON and drain the gasoline in the fuel tank into a suitable container.
- Replace the fuel strainer cup and tighten securely.
- Drain the carburetor by loosening the drain bolt. Drain the gasoline into a suitable container.

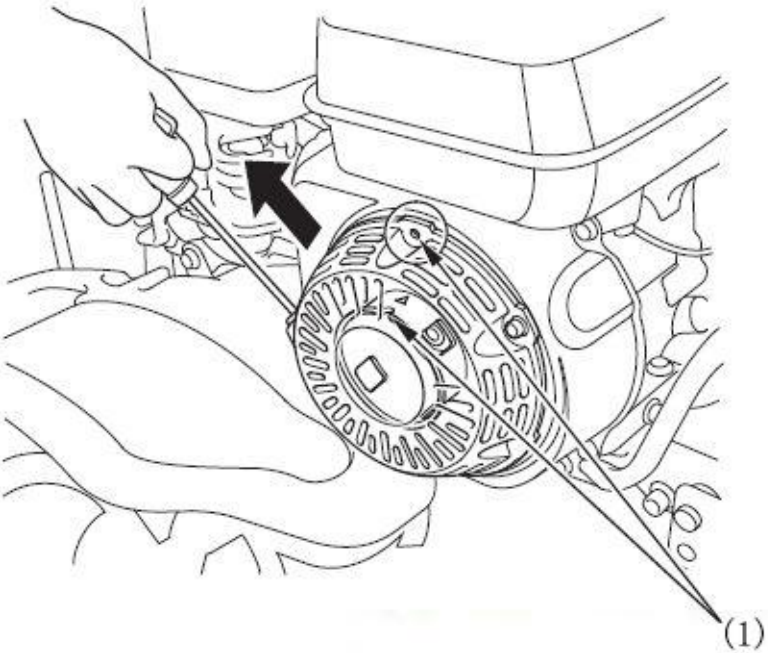
(1)O-RING
(2)FUEL STRAINER CUP
(3)DRAIN BOLT



3) Pull the starter grip until resistance is felt. Continue pulling until the notch on the starter puller aligns with the hole on the recoil starter.

At this point, the intake and exhaust valves are closed and this will help to protect the engine from internal corrosion.

(1) Align the notch on the starter pulley with the hole at the top of recoil starter .



4) Change engine oil.

5) Cover tiller with plastic sheet.

Do not place the tiller with the handlebars on the ground. It will cause the oil entering the cylinder or the fuel spillage.

6. Troubleshooting

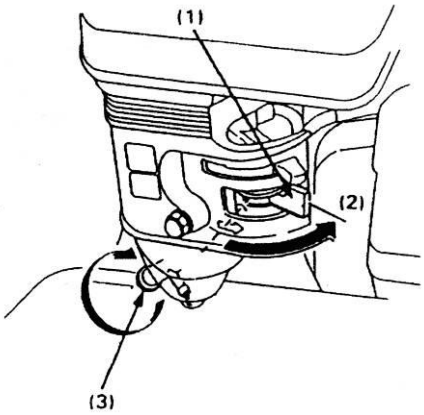
When the engine can not start:

- Is there enough fuel?
- Is the fuel valve on?
- Is the engine switch ON?
- Has gasoline reached the carburetor?

To check, loosen the drain bolt with the fuel valve ON. Fuel can flow out freely. Retighten drain bolt.

! WARNING If any fuel is spilled, make sure the surface is dry before testing the spark plug or starting the engine. Fuel vapor or spilled fuel may ignite.

(1) Fuel valve
(2) ON
(3) DRAIN BOLT



- Is there a spark from the spark plug?

  - Remove the spark plug cap. Clean any dirt from around the spark plug base, then remove the spark plug.
  - Install the spark plug to the plug cap.

- Turn the engine switch on.
- Grounding the side electrode to any engine ground, pull the recoil starter to see if sparks jump across the gap.
- If there is no spark, replace the plug.

If OK, try to start the engine according to the instructions.

- If the engine still cannot be started, take the tiller to an authorized dealer.

7. Easily-damaged parts of rotary tiller

Number	Name	Assy.
1	Oil plug A	Gear box assy.
2	Oil plug B	Gear box assy.
3	Paper pad	Gear box assy.
4	Oil seal 12×22×6	Gear box assy.
5	Oil seal 15×35×7	Gear box assy.
6	Rubber handlebar	Handle frame assy.
7	Engine vulnerable parts	Refer to engine manual and catalogue