



CAUTION

Before using your brush cutter, please read this manual carefully to fully understand how to use this product. Keep this manual handy.

Model	140937
Engine displacement (cc)	52
Max. engine performance (kW)	1.9
Max. rotation frequency of the spindle (min)	6500
Fuel tank volume (ml)	1200
Fuel/Oil mixture ratio	25:1
Carburettor	Diaphragm carburettor
Engine idling speed (min)	3000
Max. engine speed (min)	6500
Sound pressure level (db) A	LpA:99.7
Measured sound power level (db) A	LwA:110.9
Guaranteed sound power level (db) A	113
Diameter of the metal blades (mm)	25.4, 255x1.4-3T

SAFETY FIRST

Warnings contained within this manual are clearly marked with the symbol. This symbol indicates vitally important points, which must be taken into consideration to prevent possible serious injury. You are requested to read all such instructions carefully and follow them without fail.



Notes on Types of Warnings in the Manual

WARNING

This mark indicates instructions which must be followed in order to prevent accidents which could lead to serious bodily injury or death.

IMPORTANT

This mark indicates instructions which must be followed, or it may lead to mechanical failure, breakdown, or damage.

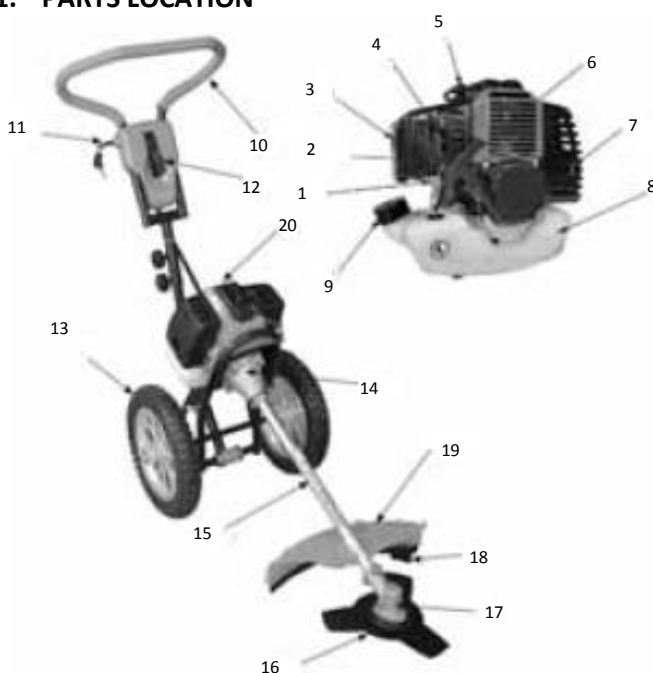
NOTE

This mark indicates hints or directions useful in the use of the product.

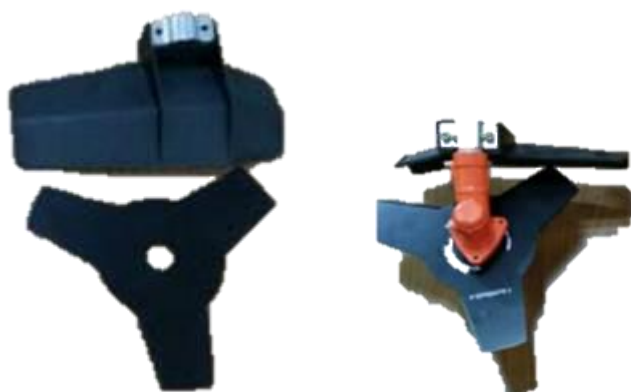
Contents

1. PARTS LOCATION	2
2. Warning Labels on the Machine	3
3. Symbols on the Machine.....	3
4. SAFETY PRECAUTIONS.....	4
5. SET UP	8
6. FUEL	10
7. OPERATION	11
8. MAINTENANCE.....	13
9. Troubleshooting.....	15

1. PARTS LOCATION

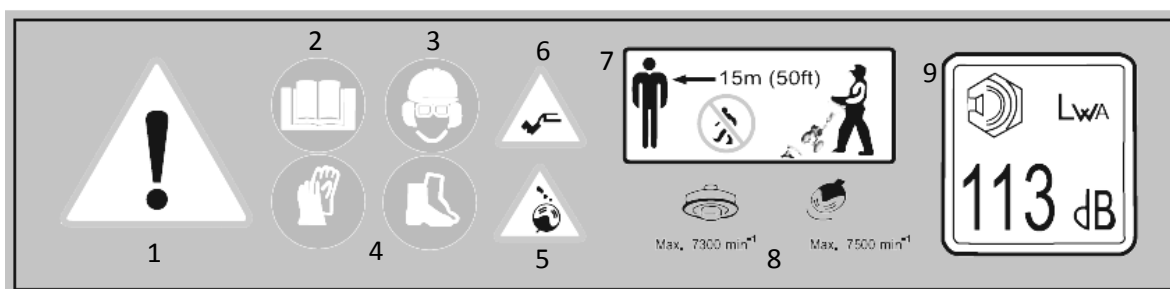


1. Fuel pump
2. Screw in the carburettor
3. Filter cover
4. Choke lever
5. Spark plug adapter
6. Handle of starting cord
7. Muffler
8. Fuel tank
9. Tank cap
10. Handle bar
11. Stop switch
12. Throttle trigger
13. Wheel
14. Driven Connector
15. Drive shaft
16. Cutting head
17. Gear case
18. Cut-off-knife
19. Safety guard
20. Engine



A blade and smaller guard plate (black) for cutting small branches is included. Before using the blade, the green guard plate needs to be replaced with the smaller black guard plate.

2. Warning Labels on the Machine



1. Warning/Attention.
2. Read the owner's manual before operating this machine and follow all warnings and safety instructions.
3. Wear head protection where there is a risk of falling objects, wear eye and ear protection.
4. Wear foot protection and gloves (on brush cutters).
5. Beware of thrown object.
6. Do not tilt up the brush cutter head during working.
7. Keep all children, bystanders and helpers 15m away from the brush cutter.
8. The maximum rotational frequency of the shaft for cutting attachment.
9. Noise Level 113dB

IMPORTANT

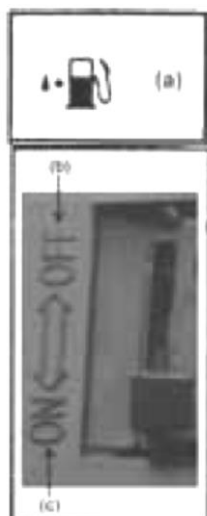
If the warning seal/label peels off becomes soiled, you should contact the seller to order a replacement seal/label.

WARNING

Never remodel/alter your brush cutter as this nullifies the warranty.

3. Symbols on the Machine

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



- (a) The port to refuel the "MIX GASOLINE"
Position: FUEL: TANK CAP

- (b) The direction to close the choke
Position: AIR CLEANER COVER

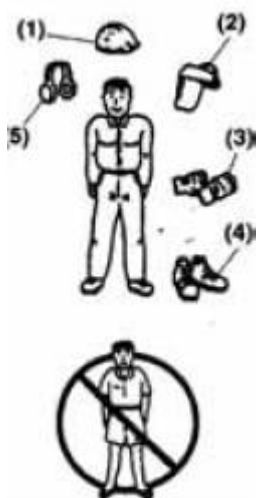
- (c) The direction to open the choke
Position: AIR CLEANER COVER

4. SAFETY PRECAUTIONS

BEFORE USING THE MACHINE

- Read this owner's manual carefully to understand how to operate this unit properly.
- This product has been designed for use in cutting grass, and it should never be used for any other purpose.
- You should never use this brush cutter when under the influence of alcohol, when suffering from exhaustion or lack of sleep when suffering from drowsiness as a result of having taken cold medicine, or any other time when a possibility exists that your judgement might be impaired or that you might not be able to operate the brush cutter properly and in a safe manner.
- Avoid running the engine indoors. The exhaust gases contain harmful carbon monoxide.
- Never use your brush cutter under circumstances like those described below:
When the ground is slippery and when other conditions exist which might make it not possible to maintain a steady stance while using the brush cutter.
At night, at times of heavy fog, or at any other times when your field of vision might be limited and it would be difficult to gain a clear view of the area.
During rain storms, lightning storms, at times of strong or gale-force winds, or any other time when weather conditions might make it unsafe to use this product.
- Lack of sleep, tiredness or physical exhaustion results in shorter attention spans, and this in turn can lead to accidents and injury. Limit the amount of time the brush cutter is to be used continuously to approximately 30-40 minutes per session, and take 10-20 minutes of rest between sessions. Also try to keep the total amount of work performed in a single day under 2 hours or less.
- Be sure to keep this manual handy so that you may refer to it later whenever any questions arise.
- Always be sure to include this manual when selling, lending or otherwise transferring the ownership of this product.
- Never allow children or anyone unable to fully understand the directions given in this manual to use this brush cutter.

WORKING GEAR AND CLOTHING

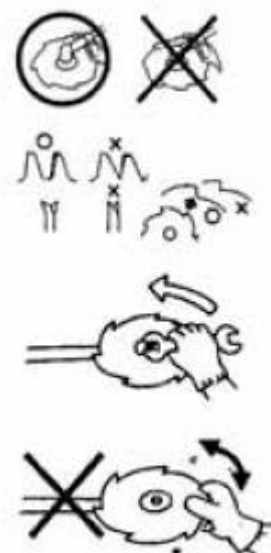


- A. When using your brush cutter, you should wear proper clothing and protective equipment as follows:
 1. Helmet
 2. Protective goggles or face protector
 3. Thick work gloves
 4. Non-slip-sole work boots
 5. Ear protectors
- B. Carry the following items with you:
 1. Attached tools and files
 2. Properly stored extra fuel
 3. Spare blade
 4. Notifications for working area (Tape, warning signs)
 5. Whistle (for communication or emergency)
 6. Hatchet or saw (for removal of obstacles)
- C. Never use your brush cutter when wearing pants with loose cuffs, when wearing sandals, or when barefoot.

WARNING – HANDLING OF FUEL



- a. The engine of this product is designed to run on a mixed fuel which contains highly flammable gasoline. You should never store cans of fuel or refill the tank in any place where there is a boiler, stove, wood fire, electrical sparks, welding sparks, or any other source of heat or fire which might ignite the fuel.
- b. Smoking while operating the brush cutter or refilling its fuel tank is extremely dangerous. Always be sure to keep lit cigarettes away from the brush cutter at all times.
- c. When refilling the tank always turn off the engine first and take a careful look around to make sure that there are no sparks or open flames anywhere nearby before refuelling
- d. If any fuel spillage occurs during refuelling, use a dry rag to wipe up spills before turning the engine back on again.
- e. After refuelling, screw the fuel cap back tightly onto the fuel tank and then carry the brush cutter to a spot 3m or more away from where it was refuelled before turning on the engine.



THINGS TO CHECK BEFORE USING YOUR BRUSHCUTTER

- a. Before beginning to work, look around carefully to get a feel for the shape of the land, or grass to be trimmed and whether or not there are any obstacles which might get in the way while working, and remove any obstacles, which can be cleared away
- b. The area within a perimeter of 15m of the person using the brush cutter should be considered a hazardous area into which no one should enter while the brush cutter is in use and when necessary yellow warning rope, warning signs should be placed around

the work area. When work is to be performed simultaneously by two or more persons, always check the presence and locations of others so as to maintain a distance sufficient to ensure the safety of each person.

- c. Make sure that there are no loose screws or bolts, fuel leaks, ruptures, dents, or any other problems which might interfere with safe operation. Be especially careful to check that there is nothing wrong with the blades or with the joints by which the blades are attached to the brush cutter.
- d. Never use blades that are bent, warped, cracked, broken or damaged in any way.
- e. Always keep the blade sharp.
- f. Filing the cutting edges, keep the end corner sharp and round the root of the edge.
- g. Check the bolt that fastens the blade and be sure the blade turns smoothly without abnormal noise.

NOTES ON STARTING THE ENGINE

1. Take a careful look around to make sure that no obstacles exist within a perimeter of 15m or less around the brush cutter.
2. Place the body of the brush cutter onto the ground in a flat clear area and hold it firmly in place to ensure neither the blades nor the throttle come into contact with any obstacles when the engine starts up.
3. Place the throttle into the idling position when starting the engine.
4. After starting up the engine, if the blades continue to rotate even after the throttle has been moved fully back, turn off the engine and check the throttle wire and other parts.



KICKBACK SAFETY PRECAUTIONS

A dangerous reaction may occur when the spinning blade contact a solid object in the critical area. It is called Kick back. As a result the operator can lose control of the unit, which can cause serious or fatal injury.

Avoid kickback; observe the safety precautions below strictly.

1. Before beginning work, clear your working area and remove grasses around the obstacles.
2. When using your brush cutter, don't grip other parts except the handles.
3. When using your brush cutter, never take your eyes off if you need to place the throttle into the idling position.
4. When using your brush cutter, don't let the unit get close to your feet nor raise the unit above your waist.



NOTES ON TRANSPORTATION

1. Make sure the appropriate blade cover is in place.
2. When transporting by car, fix the unit firmly using a rope. Do not transport by bicycle or motorcycle because it can be dangerous.

3. Never transport the brush cutter over rough roads over long distances without first removing all fuel from the fuel tank, as doing so might cause fuel to leak from the tank.

OPERATION SAFETY PRECAUTIONS

1. Grip the handles of the brush cutter firmly with both hands. If you need to suspend work, place the throttle into the idling position.
2. Always be sure to maintain a steady, even posture while working.
3. Maintain the speed of the engine at the level required to perform cutting work, and never raise the speed of the engine above the level necessary.
4. If the grass gets caught in the blade during operation, or if you need to check the unit or refuel the tank, always be sure to turn off the engine.
5. If the blade touches a hard object like a stone, immediately stop the engine and check if something is wrong with the blade. If so, replace the blade by a new one.
6. If someone calls out while working, always be sure to turn off the engine before turning around.
7. Never touch the spark plug or cord while the engine is in operation. Doing so may result in being subjected to an electrical shock.
8. Never 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. Doing so may result in serious burns.
9. When you finish cutting in one location and wish to continue in another spot, turn off the engine and turn the unit so the blade faces away from your body.

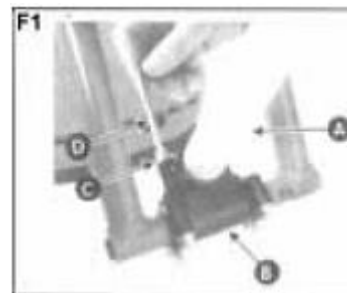
MAINTENANCE SAFETY PRECAUTION

1. Perform maintenance and checks described in this manual at regular intervals. If any parts must be replaced or any maintenance or repair work not described in this manual must be performed, please contact a representative from the store or nearest authorised servicing dealer for assistance.
2. Under no circumstances should you ever take apart the brush cutter or alter it in any way. Doing so might result in the brush cutter becoming damaged during operation or becoming unable to operate properly.
3. Always be sure to turn off the engine before performing any maintenance or checking procedures.
4. When sharpening, removing, or reattaching the blade, use proper tools and equipment to prevent injury.
5. When replacing blade or any other parts or when replacing the oil or any lubricants, always be sure to use only products which have been certified for use with the brush cutter.

5. SET UP

HANDLE BAR SUPPORT SHAFT (F1)

1. Insert support shaft (A) in to bottom support bracket (B).
2. Ensure the bottom of shaft and bracket is flush.
3. Tighten the two (2) 4mm Allen head screws (C) with tools supplied with unit (D).



HANDLE BAR ASSEMBLY (F2)

1. Attach the handle bar assembly from right side of unit (refer page2 for reference).
2. Insert the two bolts (1) in through the shaft and handle bar.
3. Insert two washers (2)
4. Tighten the two handlebar knobs (3) to secure the handle in the correct operating position.

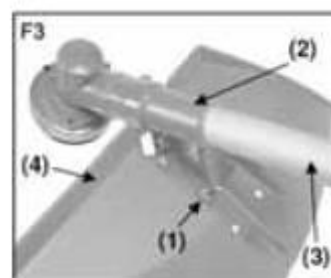


NOTE: Be careful not to crimp or pinch the engine switch wires and throttle cable.

SAFETY GUARD (F3)

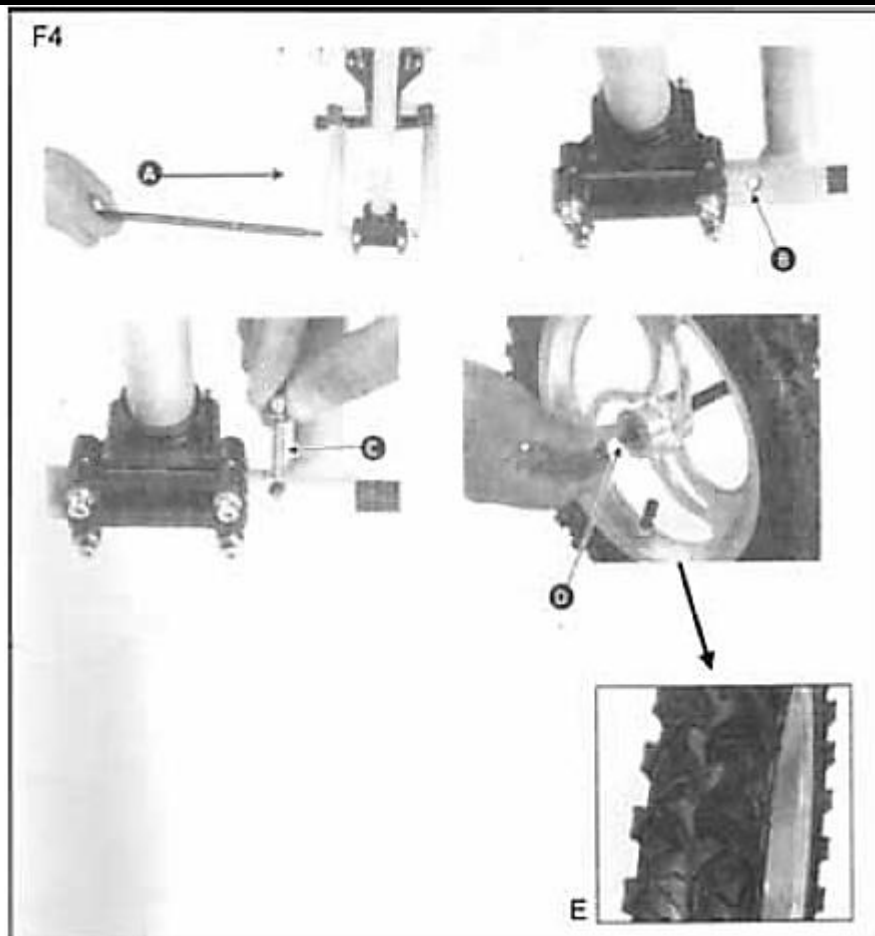
Attach the safety guard to the gear case and fix it with the clamp and 2 bolts (M5x25) securely.

- (1) Bolt
- (2) Clamp
- (3) Main pile
- (4) Safety guard



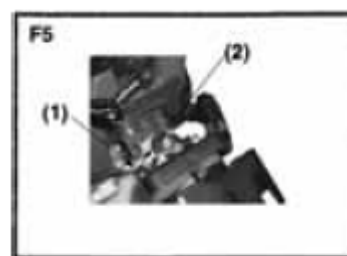
WHEEL ASSEMBLY (F4)

1. Insert the wheel axle (A).
2. Make sure the wheel axle bolt hole and axle tube hole are aligned (B).
3. Insert 5mm bolt and tighten nut (C).
4. Be sure to install wheel with wheel tread facing forward (E).
5. Install both wheels and tighten with two 13mm nuts (D).



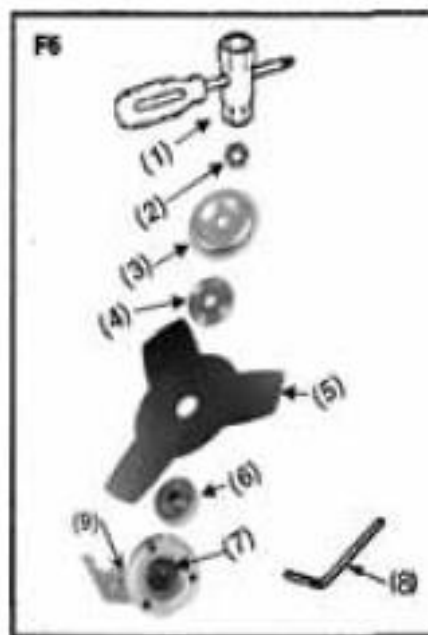
ADJUSTING THE THROTTLE CABLE

1. After releasing the throttle lever, pull the throttle wire. The normal play is 1 or 2mm when measured at the carburettor side end.
2. If the play is too much or too little, take off the air cleaner cover, loosen the lock nut and adjust the play (F5).
3. Adjust nut.
4. Lock nut.



INSTALLING THE METAL BLADE (F6)

1. Set the inner holder to the gear shaft and turn it so that the hole is aligned with the hole in the gear shaft, put the hex key in this hole to fixate for assembling the nut.
 2. Put the blade on the inner holder with the face with letters to the gear case, and match the hole of the blade to the projection of the inner holder correctly.
 3. Set the outer holder to the gear shaft with the hollowed face to the blade.
 4. Put the attached metal cover on the outer holder and secure it with the nut.
 5. Remove hex key.
- (1) Wrench
(2) Nut
(3) Top metal cover
(4) Outer holder
(5) Blade
(6) Inner holder
(7) Gear shaft
(8) Hex key
(9) Gear case



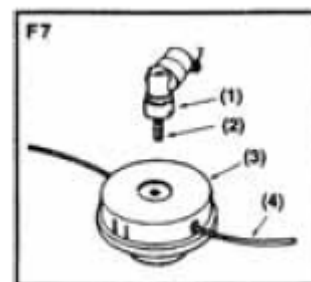
INSTALLING THE NYLON CUTTER (F7)

1. Set correctly the inner holder to the gear shaft only (see F6).
2. Screw the attached bolt (M10 left) into the gear shaft and secure it with the spanner.
3. Screw the nylon cutter into the bolt by fixing the inner holder with the L-shaped bar and tighten it manually.

NOTE

Keep bolts and washers to install the blade carefully so as not to lose them

- (1) Gear case
(2) Bolt
(3) Nylon cutter
(4) Nylon cord



6. FUEL

WARNING.

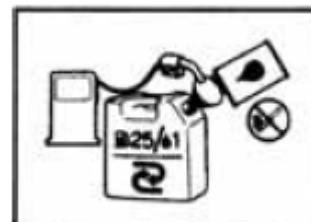
- Gasoline is very flammable. Avoid smoking or bringing any flame or sparks near fuel.
- Wipe up all spills before starting the engine.
- Make sure to stop the engine and allow it to cool before refuelling the unit.
- Keep open flames away from the area where fuel is handled or stored.



IMPORTANT

- Never use oil for 4-cycle engine or water cooled 2-cycle engine. It can cause spark plug fouling exhaust port blocking or piston ring sticking.
- Mixed fuels which have been left unused for a period of one month or more, may clog the carburettor or result in engine failing to operate properly. Put remaining fuel into an airtight container and keep it in a dark and cool room.

Mix a regular grade gasoline (leaded or unleaded, alcohol-free) and a quality-proven motor oil for air-cooled 2 cycle engines.
RECOMMENDED MIXING RATIO GASOLINE 25:OIL1



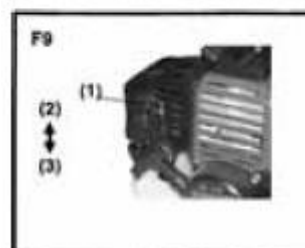
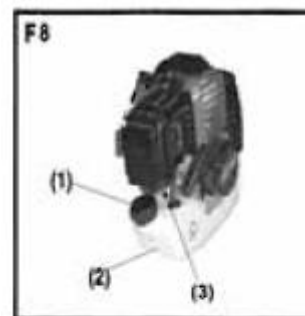
7. OPERATION

STARTING THE ENGINE

WARNING

- Before starting the engine, inspect the entire unit for loose fittings or fuel leaks, and the cutting attachment is properly installed and securely fastened.
- Place the unit on a flat, firm place. Keep the cutting head clear of everything around it.

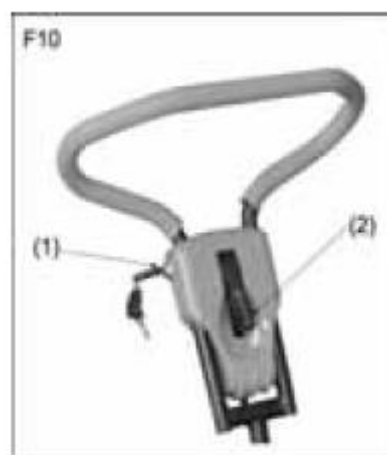
1. Turn the cap to the fuel tank to make sure that it is fixed on tightly. (F8)
2. Pump the fuel pump bulb until fuel is visible and flows freely in the clear fuel tank return hose.
 - (1) Tank cap
 - (2) fuel tank
 - (3) Fuel pump bulb
3. Move the choke lever to the closed position. (F9)
 - (1) Choke lever
 - (2) Close
 - (3) Open



NOTE

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

4. Set the engine stopping device to open: (F10)
5. Depress the throttle trigger 3 to 5 times;
(1) Engine stopping device
(2) Throttle trigger
6. With one hand on the power engine head and other gripping the pull starter lever, firmly grasp the start lever and rapidly pull the lever until the engine starts.
7. After the engine starts, or 4 to 6 pulls, move the choke lever to open position. Restart the engine if necessary and allow unit to warm up at idle for several minutes.
8. After the engine has warmed up, grip the throttle handle. Depress the throttle trigger gradually to increase engine RPM to operating speed.



NOTE

When restarting immediately after stopping the engine, release the throttle lever return to the idling position.

1. While holding the unit firmly, pull out the starter rope quickly.
2. After the engine has started, open the choke gradually.
3. Allow the engine to run for 2 to 3 minutes to warm up.

STOPPING THE ENGINE

1. Release the throttle trigger and allow engine return to idle before shutting off the engine.
2. Push stopping device until engine has completely stopped.

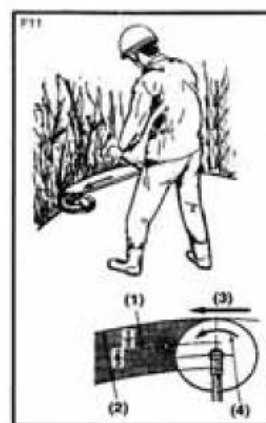
WARNING

1. During operation, always grip the support handle firmly with both right and left hands.
2. Hold the trimmer/cutter handle firmly and depress the throttle trigger slowly to accelerate the engine.
3. NEVER remove your hands from the trimmer/cutter handle bar when unit is working.
4. The engine continues running even the blade or nylon cutter have stopped due to an obstruction. If this occurs, stop the engine and remove the obstruction before you continue.

CUTTING OPERATION

METAL BLADE USAGE

- a) Always cut by guiding the head from your right to left.
- b) A metal blade will cut up to the point 1/3 from the edge. Use that area for cutting shrubs, tough and thick weeds. For cutting young grass, you can use up to 2/3 from the tip of blade.
- c) Adjust the engine speed according to the cutting objects. Cut the young grass at middle speed, and cut shrubs or tough and thick weeds at high speed.
(1) For branches and trees.
A blade and smaller guard plate (black) for cutting small branches is included. Before using the blade, the green guard plate needs to be replaced with the smaller black



guard plate.

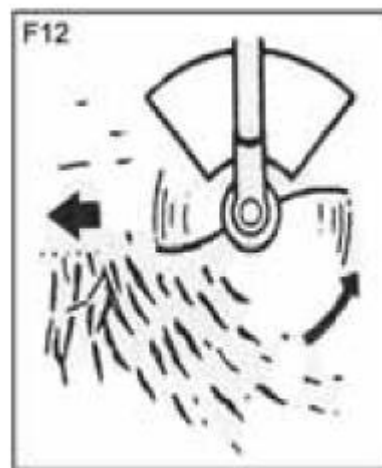
- (2) For grass and weeds.
- (3) Direction of cutting.
- (4) Direction of rotation.

IMPORTANT

Operating at low speed makes it easier for grass, weeds, or twigs to become caught up the blades and also it makes the shaft and clutch wear down more quickly.

NYLON CUTTER USAGE

- Nylon cord consumes large amounts of power. Please note that the engine rotation speed in operation should be 50% as fast as when using metal blade.
- Nylon cutter cuts grass with the power of cord rotation. If you try to cut grass for the length of cord at one time, rotation speed becomes reduced due to resistance and you cannot cut grass so well. In case of large resistance, remove the nylon cutter away from grass at once, make the rotation speed higher, and cut a small amount of grass at one time.
- If you try to cut grass by swinging the brush cutter in the reverse way (from left to right), scraps fly in the direction away from the body. You can avoid getting your clothes dirty this way.



8. MAINTENANCE

BLADE

- Sharpen each cutting edge and make sure the bottom corner is rounded (F13)
- Do not cool the blade with water in case of using grinder. It may cause cracks on the blade.

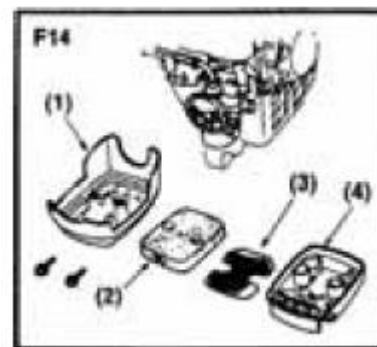


AFTER 25 HOURS OF USE

AIR CLEANER

Check and clean the filter element in warm, soapy water as required. Dry completely before installing. If the element is broken or shrunk, replace with a new one. (F14)

- (1) Cover
- (2) Element
- (3) Screen
- (4) Body



IMPORTANT

A clogged air filter may increase fuel consumption while decreasing engine power. Operating the brush cutter without the air filter or with a deformed filter element will quickly ruin the engine.

FUEL FILTER

Take the filter out of the fuelling 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.

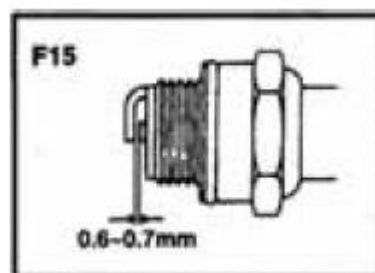
IMPORTANT

A clogged fuel filter may cause poor acceleration of the engine.

SPARK PLUG

Remove and inspect the spark plug and clean the electrodes as necessary with a brush.

The spark gap should be adjusted to 0.6-0.7mm (F15).



INTAKE AIR COOLING VENT

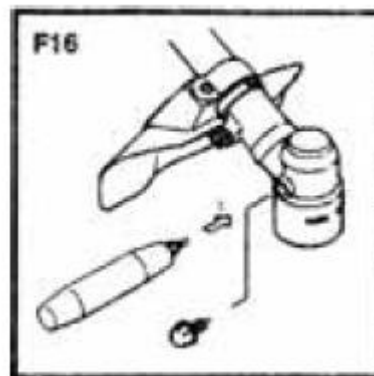
Check the intake air-cooling vent and the area around the cylinder cooling fins, and remove any waste which has attached itself to the brush cutter.

IMPORTANT

Note that failing to do so could cause the muffler to become overheated and that this in turn could cause the brush cutter to catch fire.

GEAR CASE

1. Supply multi-purpose grease every 25 hours of use.
2. Remove the cutter holders to allow old grease to exit.
(F16)



AFTER 100 HOURS OF USE

MUFFLER

1. Remove the muffler, insert a screwdriver into the vent, and wipe away any carbon build-up. Wipe away any carbon build-up on the muffler exhaust vent 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.
4. Remove the float cabin of the carburettor and clean the inside.

ADJUSTING THE CARBURETOR

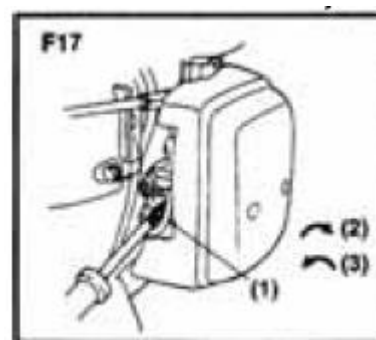
IMPORTANT

An incorrect adjustment may cause damage to your unit. If the engine does not run well after adjusting the carburettor, please contact the shop where you purchased the product.

IDLE ADJUSTMENT SCREW (F17)

This is the screw to adjust the engine rotation when the throttle lever is set to the lowest speed position. If you turn right (clockwise) rotation increases, and left (counter-clockwise) decreases. In case the blade continues to rotate or the engine stops when you return the throttle lever completely to the original position, please readjust.

- (1) Idle adjustment screw
- (2) High
- (3) Low



MAINTENANCE BEFORE STORAGE

- (1) Brush off dirt from the machine, check for damage on each part. If you find abnormalities, repair them before the next use.
- (2) Extract fuel from the tank, and loosen the drain screw of the float cabin to extract fuel, turn on the engine, and leave it running until it stops naturally.
- (3) Remove the spark plug and put in 1-2cc of 2-cycle oil in the engine. Draw the starter rope 2-3 times, set the plug back, and stop it at the contraction position.
- (4) Apply anti-rust oil to the metal parts such as the throttle wire, put the cover on the blade, and keep it indoors to avoid damp.

9. Troubleshooting

Problem	Problem cause	Corrective action
The engine will not start	<ul style="list-style-type: none"> 1. Empty tank 2. The engine is flooded 3. Fouled plug (carbon residues on electrodes) too big a distance between the electrodes. 4. Fouled carburettor or carburettor jets. 5. Damaged plug connection or ignition cable. 6. Ignition spark missing. 	<ul style="list-style-type: none"> 1. Fill up the tank 2. Close the throttle, try starting several times, remove the ignition plug if necessary and dry it. 3. Clean the plug, check the thermal value and replace it if necessary. Set to 0.6-0.7mm. 4. Clean the carburettor, blow it off. 5. Replace. 6. Check short-circuit knob, the cable ignition module and replace if necessary.

		Adjust the gap (0.3-0.4mm)
Hard to start	<ol style="list-style-type: none"> 1. Throttle control not set properly. 2. Dirty air filter 3. Bad spark plug or improper gap 4. Stale or dirty fuel 5. Loose spark plug wire 6. Carburettor out of adjustment 	<ol style="list-style-type: none"> 1. Place throttle control in "Fast" position. 2. Clean or replace air filter. 3. Replace spark plug or adjust gap. 4. Drain fuel tank and carburettor, fill with fresh fuel. 5. Make sure plug wire is seated properly on plug. 6. Make necessary adjustments.
When idling, the engine is too fast	<ol style="list-style-type: none"> 1. Cold engine. 	<ol style="list-style-type: none"> 1. Heat up slowly, turn down the choke if necessary.
The engine will not stop	<ol style="list-style-type: none"> 1. The plug is pale grey with marks of white-hot (melting drops) 2. Carbon residue in the ignition area. 	<ol style="list-style-type: none"> 1. Fit in the plug of higher thermal value. 2. Clean the cylinder head, piston bottom and...
Excessive bounce/Difficult Handling	<ol style="list-style-type: none"> 1. Ground too dry and hard. 2. Wheels and depth stake incorrectly adjusted. 	<ol style="list-style-type: none"> 1. Moisten ground or wait for more favourable soil conditions. 2. Adjust wheels and depth stake.

DISPOSAL:

- Dispose of all packaging, paper, cartons and plastic, plastic bags in accordance with your local recycling regulations.
- At the end of the product's lifespan please dispose of it at an authorised household WEEE waste recycling centre.

