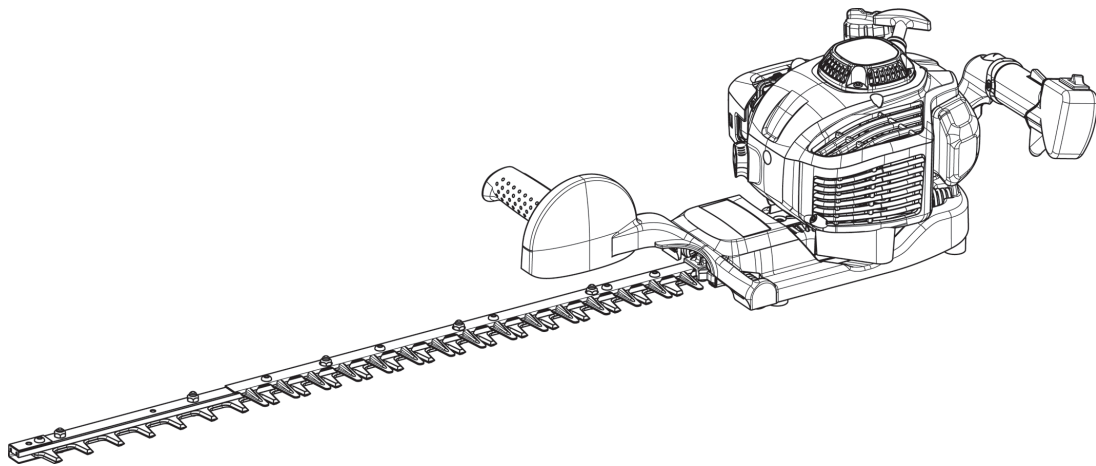




EH7500S

PETROL HEDGE TRIMMER

INSTRUCTION MANUAL



WARNING:

To reduce the RISK of injury, user must read and understand the instruction manual before using the Hedge Trimmer. Manufacturer reserves the right to change specifications without notice. Specifications may differ from country to country. Do only hand over the Hedge Trimmer together with this manual.

Thank you very much for selecting the MAKITA Hedge Trimmer. We are pleased to be able to offer you the MAKITA Hedge Trimmer which is the result of a long development program and many years of knowledge and experience.

The Hedge Trimmer models EH7500S combines the advantages of state-of-the-art technology with ergonomic design, they are light weight, handy, compact and represent professional equipment for a great variety of applications.

Please read, understand and follow this booklet which refers in detail to the various points that will demonstrate its outstanding performance. This will assist you to safely obtain the best possible results from your MAKITA Hedge Trimmer.



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SYMBOLS

It is very important to understand the following symbols when reading this instructions manual.

	WARNING/DANGER		Fuel and oil mixture
	Read, Understand and Follow Instruction Manual		Engine-Manual start
	Forbidden		Emergency stop
	No smoking		First Aid
	No open flame		Recycling
	Protective gloves must be worn		ON/START
	Keep the area of operation clear of all persons and pets		OFF/STOP
	Wear eye and ear protection		CE - mark

SAFETY INSTRUCTIONS

General Instructions

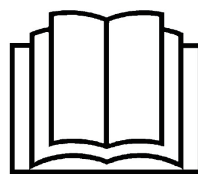
- THIS MACHINE CAN CAUSE SERIOUS INJURIES. Read the Instructions carefully for the correct handling, preparation, maintenance, starting and stopping of the machine. Be familiar with all controls and the proper use of the machine. (1)
- It is recommended only to loan the Hedge Trimmer to people who have proven to be experienced with Hedge Trimmers. Always hand over the instruction manual.
- First-time users should ask the dealer for basic instructions to familiarize themselves with the handling of an engine powered Hedge Trimmer.
- Children and young persons aged under 18 years must not be allowed to operate the Hedge Trimmer. Persons over the age of 16 years may however use the device for the purpose of being trained only while under the supervision of a qualified trainer.
- Use the Hedge Trimmer with the utmost care and attention.
- Operate the Hedge Trimmer only if you are in good physical condition. Perform all work calmly and carefully. The user has to accept liability for others.
- Never use the Hedge Trimmer after consumption of alcohol or drugs, or if feeling tired or ill. (2)

Intended use of the machine

- The Hedge Trimmer is only designed for the purpose of trimming bushes and hedges, and must not be used for any other purpose. Do Not abuse the Trimmer.

Personal protective equipment

- The clothing worn should be functional and appropriate, i.e. it should be tight-fitting but not cause hindrance. Do not wear jewelry or loose clothing which could become entangled with bushes or shrubs, or the machine.
- In order to avoid eye, hand or foot injuries as well as to protect your hearing, the following protective equipment and protective clothing must be used during operation of the Hedge Trimmer.
- During operation of the Hedge Trimmer always wear goggles or a visor to prevent eye injuries. (3)
- Wear adequate noise protection equipment to avoid hearing impairment, ear muffs, ear plugs, etc. (3)
- We strongly recommend that the user wears work overalls. (4)
- Special gloves made of thick leather are part of the prescribed equipment and must always be worn during operation of the Hedge Trimmer. (4)
- When using the Hedge Trimmer, always wear sturdy shoes with a non-slip sole. This protects against injuries and ensures a good footing. (4)



(1)



(2)



(3)



(4)

Starting up the Hedge Trimmer

- Please make sure that there are no children or other people within a working range of 15 meters (5), also pay attention to any animals in the working vicinity.
- Before operating, always check that the Hedge Trimmer is safe for operation:
- Check the security of the throttle lever. The throttle lever should be checked for smooth and easy action. Check for proper functioning of the throttle lever lock. Check for clean and dry handles and test the function of the I-O Switch. Keep handles free of oil and fuel.

Start the Hedge Trimmer only in accordance with the instructions.

Do not use any other methods for starting the engine (6)!

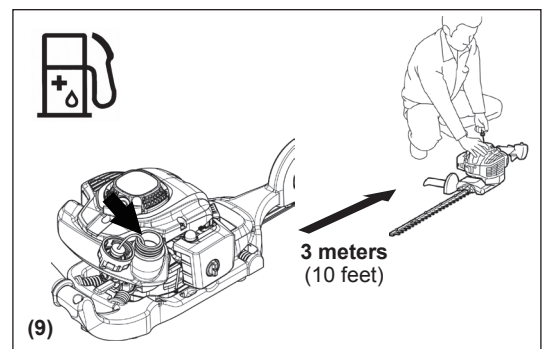
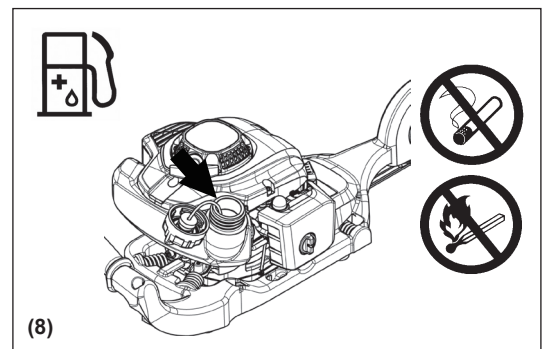
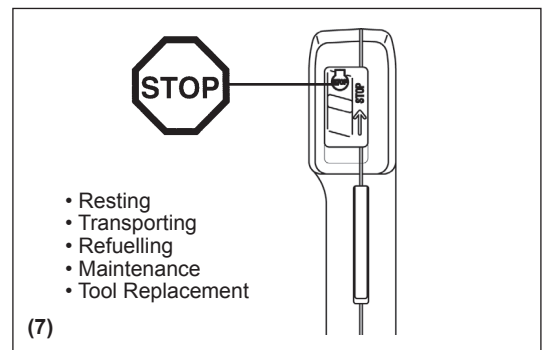
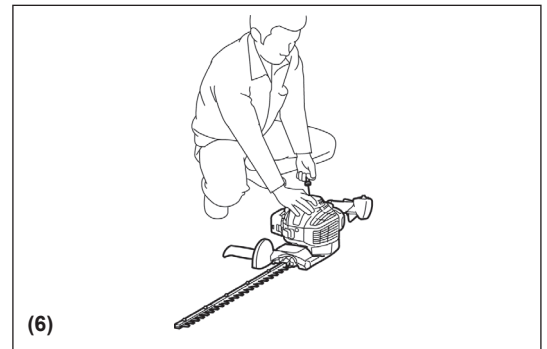
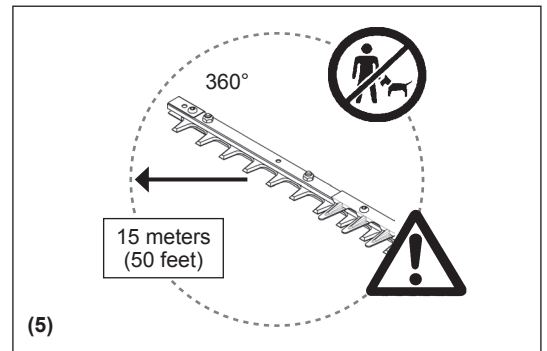
- Use the Hedge Trimmer only for applications specified.
- Start the Hedge Trimmer engine only after the entire assembly is done. Operation of the Hedge Trimmer is permitted only after all the appropriate accessories are attached!
- Before starting, make sure that the cutter blade will not contact any objects such as branches, stones, etc.
- The engine is to be stopped immediately if there are any engine problems.
- When working with the Hedge Trimmer, keep both hands on handles always wrap your fingers tightly around the handle, keeping the control handle cradled between your thumb and forefinger. Keep your hand in this position to have your machine under control at all times. Make sure your control handle is in good condition and free of moisture, pitch, oil or grease.

Always ensure a safe, well-balanced footing.

- Only use outdoors.
- Always be aware of your surroundings and stay alert for possible hazards that you may not hear due to the noise of the machine.
- Operate the Hedge Trimmer in such a manner as to avoid inhalation of the exhaust gases. Never run the engine in enclosed rooms (risk of suffocation and gas poisoning). Carbon monoxide is an odorless gas. Always ensure there is adequate ventilation.
- Stop the engine when resting and when leaving the Hedge Trimmer unattended. Place it in a safe location to prevent danger to others, setting fire to combustible materials or damage to the machine.
- Never lay down the hot Hedge Trimmer onto dry grass or onto any combustible materials.
- To reduce fire hazard keep engine and silencer free of debris, leaves, or excessive lubricant;
- Never operate the engine with a faulty exhaust muffler.
- Stop the engine during transport (7).
- Stop the engine or disconnect from mains before:
- Cleaning or when cleaning a blockage;
- Checking, maintenance or working on the machine.
- Position the Hedge Trimmer safely during car or truck transportation to avoid fuel leakage.
- When transporting the Hedge Trimmer ensure that the fuel tank is completely empty to avoid fuel leakage.
- When transporting or storing the machine always fit the cutting device guard.

Refuelling

- Stop the engine before refuelling (7), keep well away from open flame (8) and do not smoke.
- Do not attempt to refuel a hot or a running engine.
- Avoid skin contact with petroleum products. Do not inhale fuel vapor. Always wear protective gloves during refuelling. Change and clean protective clothing at regular intervals.
- Take care not to spill either fuel or oil in order to prevent soil contamination (environmental protection). Clean the Hedge Trimmer immediately after fuel has been spilt. Allow wet cloths to dry before disposing in proper, covered container to prevent spontaneous combustion.
- Avoid any fuel contact with your clothing. Change your clothing immediately if fuel has been spilled on it (danger hazard).
- Inspect the fuel cap at regular intervals making sure that it stays securely fastened.
- Carefully tighten the fuel tank cap. Change locations to start the engine (at least 3 meters away from the place of refuelling) (9).
- Never refuel in closed rooms. Fuel vapors accumulate at ground level (risk of explosions).
- Only transport and store fuel in approved containers. Make sure stored fuel is not accessible to children.
- When mixing gasoline with two-stroke engine oil, use only gasoline which contains no ethanol or methanol (types of alcohol). This will help to prevent damage to fuel lines and other engine parts.



Method of operation

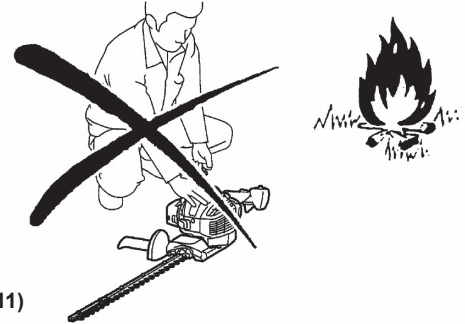
- Always use two hands to grip each handles during operation.
- Use the Hedge Trimmer only in good light and visibility. During cold seasons beware of slippery or wet areas, ice and snow (risk of slipping). Always ensure a safe footing.
- Never work on unstable surfaces or steep terrain.
- Never stand on a ladder and run the Hedge Trimmer.
- Never climb up into trees to perform cutting operation with the Hedge Trimmer.
- To reduce the risk of stumbling and loss of control, do not walk backward while operating the machine.
- Always stop the engine before cleaning or servicing the unit or replacing parts.
- Do not operate the machine with a damaged or excessively worn cutting device.



(10)

Maintenance instructions

- Be kind to the environment. Operate the Hedge Trimmer with as little noise and pollution as possible. In particular check the correct adjustment of the carburetor.
- Clean the Hedge Trimmer at regular intervals and check that all screws and nuts are securely tightened.
- Never service or store the Hedge Trimmer in the vicinity of open flames, sparks, etc. (11).
- Always store the Hedge Trimmer in a well-ventilated locked room and with an emptied fuel tank out of reach of children.
- Do not attempt to repair the machine unless you are qualified to do so.



(11)

Observe and follow all relevant accident prevention instructions issued by the trade associations safety board and by insurance companies.

Do not perform any modifications to the Hedge Trimmer as this will risk your safety.

The performance of maintenance or repair work by the user is limited to those activities as described in this instruction manual. All other work is to be done by Authorized Service Agents.

Use only genuine spare parts and accessories supplied by MAKITA authorized or factory service centers.

Use of non-approved accessories and tools means increased risk of accidents and injuries. MAKITA will not accept any liability for accidents or damage caused by the use of any non-approved accessories.

First aid

In case of an accident make sure that a well-stocked first-aid kit according to DIN 13164, is available in the vicinity of the cutting operations.

Immediately replace any item taken from the first aid kit.

When asking for help, please give the following information:

- Place of accident
- What happened
- Number of injured persons
- Extend of injuries
- Your name



Packaging

The MAKITA Hedge Trimmer is delivered in a protective cardboard box to prevent shipping damage. Cardboard is a basic raw material and is therefore consequently reusable or suitable for recycling (waste paper recycling).



EC-DECLARATION OF CONFORMITY

Petrol Hedge Trimmer: model EH7500S
(See TECHNICAL DATA for the specifications)

We declare under our sole responsibility that this product is in compliance with the following Directives, 2000/14/EC, 2006/42/EC.

The most important standards applied to properly meet the requirements of the above Directives were: ISO 10517.

Measured Sound Power: 102.7 dB (A)

Guarantee Sound Power: 105 dB (A)

These sound power levels were measured in accordance with Council Directive, 2000/14/EC.

Conformity assessment procedure: Annex V.

19. FEB. 2010



Tomoyasu Kato
Director

Responsible Manufacturer:

Makita Corporation.

3-11-8, Sumiyoshi-cho, Anjo, Aichi, JAPAN

Authorized Representative in Europe:

Makita International Europe Ltd.

Michigan Drive, Tongwell, Milton Keynes, Bucks MK15 8JD, ENGLAND

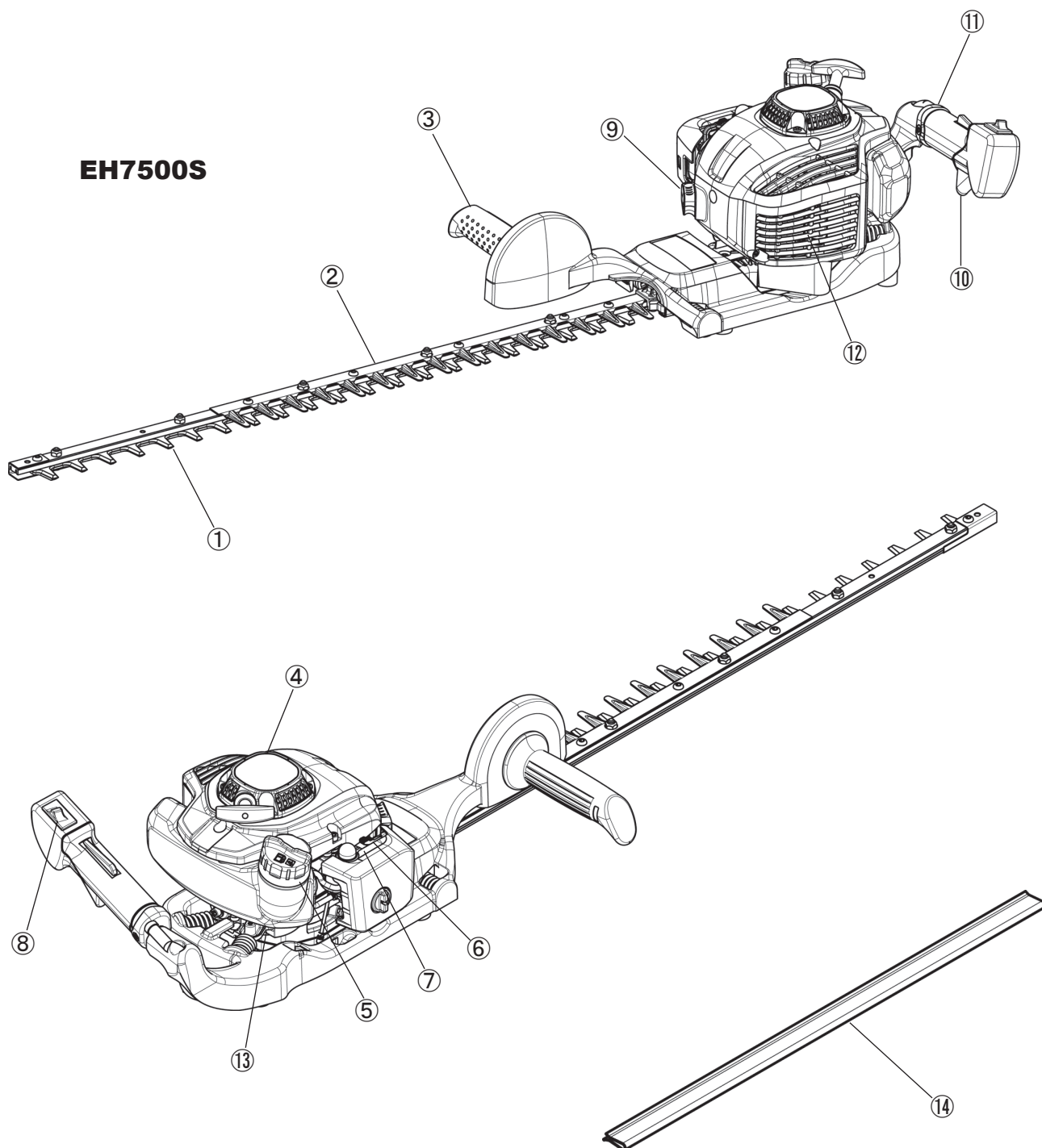
TECHNICAL DATA

Model				EH7500S	
Dimension (L x W x H)			mm	1,150 x 323 x 212	
Mass (without blade cover)			kg	4.7	
Volume (fuel tank)			L	0.4	
Engine displacement			cm ³	22.2	
Cutting length			mm	728	
Maximum engine performance			kW	0.68	
Stroke per minute			min ⁻¹	4,390	
Idling speed			min ⁻¹	3,000	
Clutch engagement speed			min ⁻¹	4,000	
Carburetor type			type	WALBRO WYL	
Ignition system			type	Solid state ignition	
Spark plug			type	NGK CMR6A	
Electrode gap			mm	0.7 - 0.8	
Vibration per ISO 10517	Right handle	a _{h_v eq}	m/s ²	3.2	
		Uncertainty K	m/s ²	0.25	
	Left handle	a _{h_v eq}	m/s ²	3.5	
		Uncertainty K	m/s ²	0.52	
Sound pressure level average according to ISO 10517			dBA	94.3	
Sound power level according to ISO 10517			dBA	101.8	
Mixture ratio (fuel: MAKITA 2-stroke engine oil)				50 : 1	
Gear ratio				9 : 43	

1) The data takes equally into account the idling and racing speed operating modes.

DESIGNATION OF PARTS

EH7500S



	DESIGNATION OF PARTS		DESIGNATION OF PARTS		DESIGNATION OF PARTS
1	Blade	7	Carburetor	13	Gearbox
2	Blunt extension	8	I-O Switch (ON-OFF)	14	Blade cover
3	Front handle	9	Spark plug		
4	Recoil starter	10	Throttle lever		
5	Fuel tank cap	11	Rear handle		
6	Choke lever	12	Muffler		

Fuel and oil mixture

- The engine of the Hedge Trimmer is a high-efficiency two-stroke engine. It is run with a mixture of fuel and two-stroke engine oil. The engine is designed for unleaded regular fuel with a min. -octane value of 91 ROZ. In case no such fuel is available, you can use fuel with a higher octane value. This will not damage the engine, but may cause poor operating behaviour. A similar situation will arise from the use of leaded fuel. To obtain optimum engine operation and to protect your health and the environment, only unleaded fuel should be used!
- For lubricating the engine use a two-stroke engine oil (quality grade: TSC-3), which is added to the fuel. The engine has been designed for use with MAKITA two-stroke engine oil and a mixture ratio of 50:1 only to protect the environment. In addition, a long service life and a reliable operation with a minimum emission of exhaust gases is guaranteed. It is absolutely essential to observe a mixture ratio of 50:1 (MAKITA 2-stroke engine oil), otherwise the reliable function of the Hedge Trimmer cannot be guaranteed.
- The correct mixture ratio:
Gasoline: Specified two-stroke engine oil = 50 : 1 or
Gasoline: Other manufacturer's two-stroke engine oil = 25 : 1 recommended

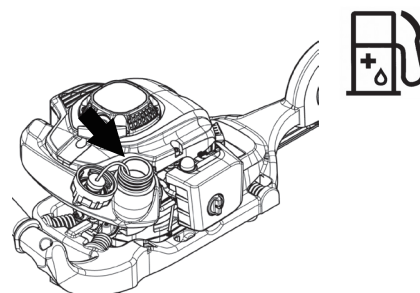
NOTE: For preparing the fuel-oil mixture, first mix the entire oil quantity with half of the fuel required. In an approved can which meets or exceeds all local code standards, then add the remaining fuel. Thoroughly shake the mixture before filling it into the Hedge Trimmer's tank. It is not wise to add more engine oil than specified to ensure safe operation. It will only result in a higher production of combustion residues which will pollute the environment and clog the exhaust channel in the cylinder as well as the muffler. In addition, the fuel consumption will rise and the performance will decrease.

Handling petroleum products

Utmost care is required when handling fuel. Fuel may contain substances similar to solvents. Refuel either in a well ventilated area or outdoors. Do not inhale fuel vapors, avoid any contact of fuel or oil with your skin. If your skin comes in contact with these substances repeatedly and for an extended period of time, it will desiccate. Various skin diseases may result. In addition, allergic reactions are known to occur. Eyes can be irritated by contact with oil, fuel etc. If oil, fuel, etc., comes into your eyes, immediately wash them with clear water. If your eyes are still irritated, see a doctor immediately!



Observe the Safety Instructions on page 4.



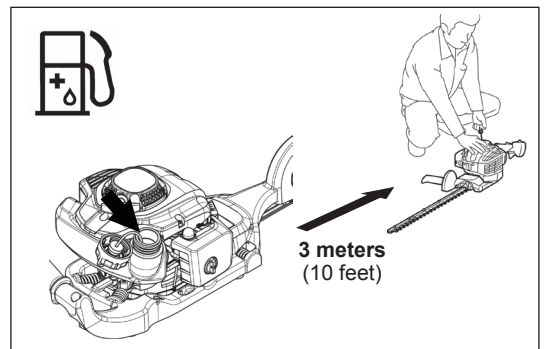
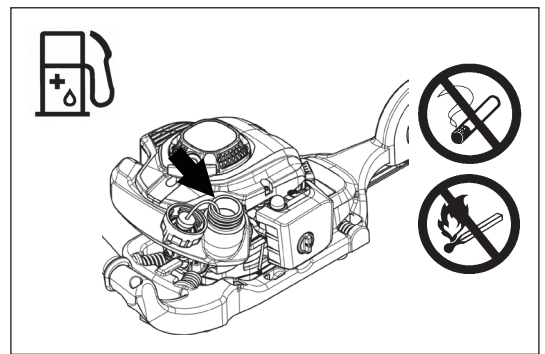
Gasoline		Oil	
		50:1	25:1
+			
50:1			
1,000 cm ³	(1 litter)	20 cm ³	40 cm ³
5,000 cm ³	(5 litter)	100 cm ³	200 cm ³
10,000 cm ³	(10 litter)	200 cm ³	400 cm ³

Refuelling

- The engine must be switched off.
- Stop the engine during refuelling, keep away from naked flames and do not smoke.
- Take care not to spill either fuel or oil in order to prevent soil contamination (environmental protection).
Clean the Hedge Trimmer immediately after fuel has been spilt.
- Do not spill any fuel onto the engine. Wipe up if necessary to avoid fire.
- Avoid any fuel contact with your clothing. Change your clothing instantly if fuel has been spilt on it (to prevent clothing catching fire).
- Inspect the fuel cap at regular intervals making sure that it can be securely fastened and does not leak.
- Carefully tighten the fuel tank cap. Change location to start the engine (at least 3 meters away from the place of refuelling.)
- Never refuel in enclosed rooms. Fuel vapours accumulate at ground level. (Risk of explosions.)
- Transport and store fuel only in approved containers. Make sure the fuel stored is not accessible to children.
- Thoroughly clean the area around the tank cap to prevent dirt from getting into the fuel tank.
- Unscrew the plug and fill the tank with fuel. Use a gauze funnel to filter the fuel.
- Tightly screw on the plug by hand only.
- Clean around the screw plug and the tank after refuelling.
- Always wipe up any spilt fuel to prevent a fire.

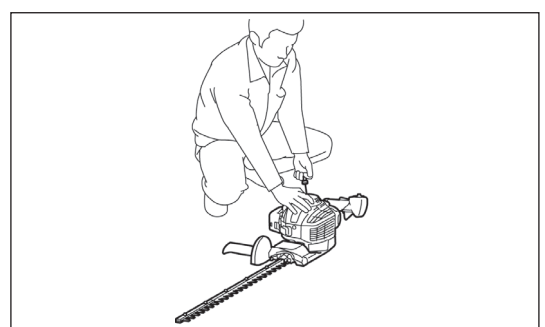
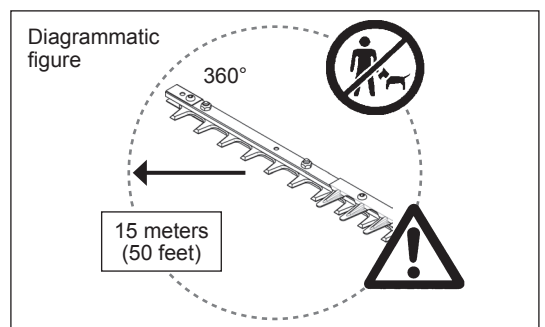
Storage of fuel

- Fuel cannot be stored for an unlimited period of time.
- Purchase only the quantity required for a 4 week operation period.
- Use approved fuel storage containers only.



PRECAUTIONS BEFORE STARTING

- Please make sure that there are no children or other people within a working range of 15 meters, also pay attention to any animals in the working vicinity.
- Before use always check that the Hedge Trimmer is safe for operation. Check the cutting device is not damaged, the control lever for easy action and check for proper function of the I-O Switch.
Rotation of the cutting device during idling speed is not allowed.
Check with your dealer for adjustment if in doubt. Check for clean and dry handles and test function of the I-O Switch.
- Start the Hedge Trimmer only in accordance with the instructions. Do not use any other methods for starting the engine. (See Starting)
- Start the Hedge Trimmer engine only after the entire assembly is done. Operation of the engine is only permitted after all the appropriate accessories are attached. Otherwise there is a risk of injury.
- Before starting, make sure that the cutting device has no contact with objects such as branches, stones, etc.
- Before trimming, inspect area for wires, cords, glass, or other foreign objects which could come in contact with the blade.
- Electrical shock. Be aware of any and all electric lines and electric fences. Check all areas for electrical lines before cutting.



STARTING THE MACHINE

Move at least 3 meters away from the place of refuelling. Place the Hedge Trimmer on a clean area of ground make sure that the cutting tool does not come into contact with the ground or any other objects.

Cold starting: (When the engine is cold or it has been stopped for more than 5 minutes or when fuel is added to the engine.)

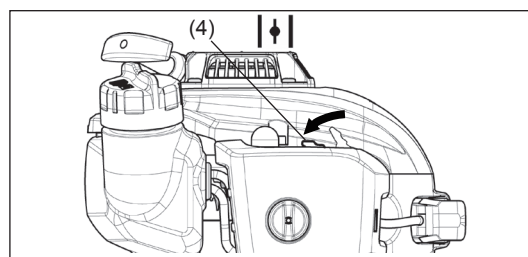
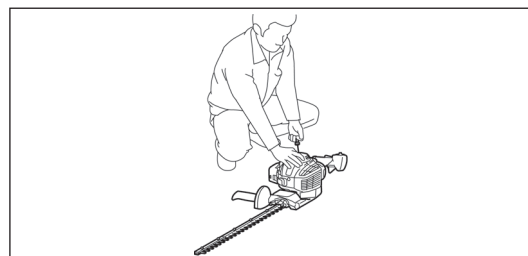
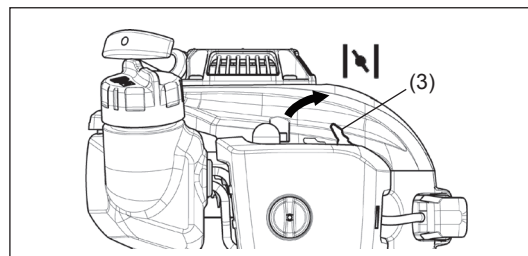
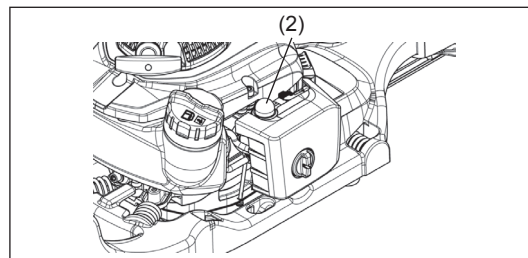
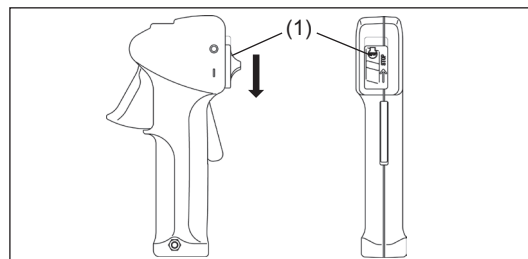
1. Push the I-O switch (1) to "I" position.
2. Give a gentle push on the primer pump (2) repeatedly (7 to 10 times) until fuel comes into the primer pump.
3. Move the choke lever (3) to position "I".
4. Hold the unit down firmly so you will not lose control while cranking the engine. If not held down properly, the engine could pull you off balance or swing the cutting blade into an obstruction or your body.
5. Pull the starter handle slowly for 10 to 15 cm, and check the location of pressure.
6. Pull strongly when pressurization can be felt and start the engine.
7. When the engine starts, return the choke lever (4) to "O".
8. Run the engine for approximately one minute at a moderate speed before applying full speed.

Note:

- If the starter handle is pulled repeatedly when the choke lever remains at "I" position, the engine will not start easily due to excessive fuel intake.
- In case of excessive fuel intake, remove the spark plug and pull the starter handle slowly to remove excess fuel. Also, dry the electrode section of the spark plug.

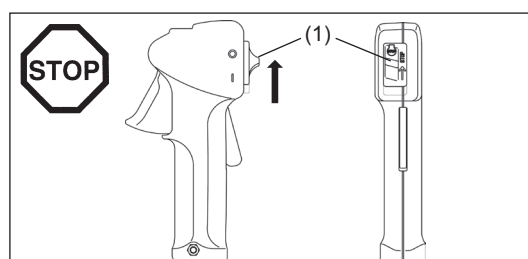
Hot starting: (Restarting immediately after the engine has stopped) When restarting a hot engine, first try the above procedure: 1, 2, 4, 5, 6. If the engine does not start, repeat above steps 1-8.

Note: Do not pull the starter rope to its full extent and do not allow the starter grip to be retracted without control, ensure that it is retracted slowly.



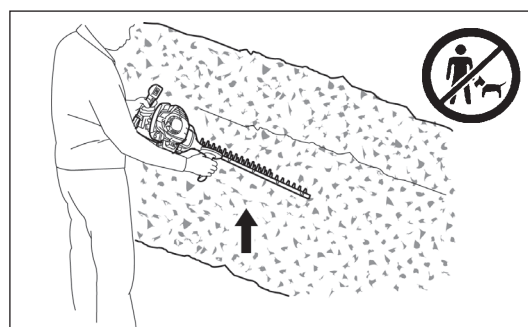
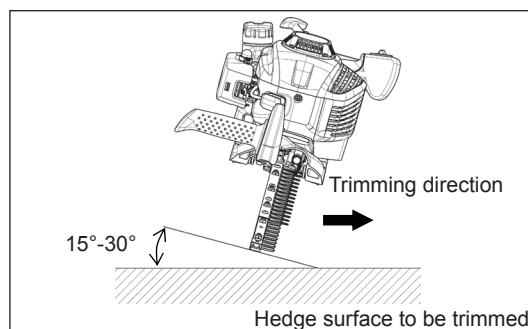
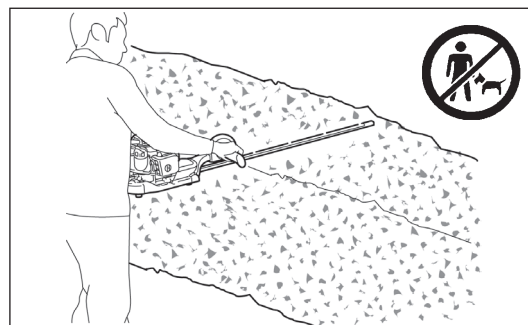
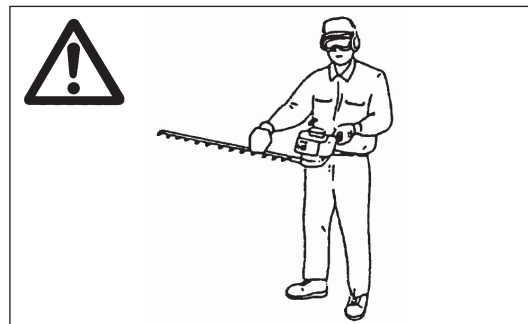
STOPPING THE MACHINE

1. Release the throttle lever completely.
2. Push the I-O switch (1) to "O" position, the engine rotation will become low and the engine will stop.



OPERATION OF THE MACHINE

- Never operate with a loose grip.
- Never touch the cutting device when starting the engine and during operation.
- Operate the Hedge Trimmer in such a manner as to avoid inhalation of the exhaust gases. Never run the engine in enclosed rooms (Risk of gas poisoning). Carbon monoxide is an odorless gas.
- All protective installations and guards supplied with the machine must be used during operation.
- Never operate the engine with a faulty exhaust muffler or if it is missing.
- Use the Hedge Trimmer only in good light and visibility.
- During the winter season beware of slippery or wet areas, ice and snow. (Risk of slipping.) Always ensure a safe footing.
- Never stand on a ladder and run the Hedge Trimmer. Keep both feet on the ground.
- Never climb up the trees with the Hedge Trimmer to perform cutting operation.
- Never work on unstable surfaces.
- Remove sand, stone, nails, wire, etc. found within the working area. Foreign objects may damage the cutting blades.
- Before commencing cutting, the cutting blades must have reached full working speed.
- Always hold the Hedge Trimmer firmly with both hands on the handles only.
- The right hand grips the front handle.
- This is the way to safely operate the machine.
- Use a firm grip with thumbs and fingers encircling the handles.
- When you release the throttle, it takes a few moments before the cutting blades stop.
- The Hedge Trimmer must not be used for cutting with fast idle. The cutting speed cannot be adjusted with the throttle control in fast idle position.
- When cutting a hedge, the machine should be held so that the blades form a 15-30° angle with the cutting line.
- If the Hedge Trimmer is used with circular movements against the edge of the hedge, the twigs will be thrown directly to the ground.
- Pay special attention when cutting hedges which are laid out along a wire-fence and have grown through the fence.
- The blade must not contact the fence, otherwise the blades may be destroyed.
- Do not use the Hedge Trimmer continuously for a long time. It is normal to take a break of 10 to 20 minutes after every 50 minutes operation.
- Should the cutting blades hit stones or other hard objects, immediately switch off the engine and inspect the cutting blades for damage. Replace damaged blades before re-commencing work.
- The engine must be switched off immediately in case of any engine problems.
- Operate the Hedge Trimmer with as little noise and contamination as possible. In particular check the correct setting of the carburetor and the fuel/oil ratio.
- Do Not attempt to remove jammed cut material when blades are running. Put unit down, turn it off, and remove necessary cuttings.



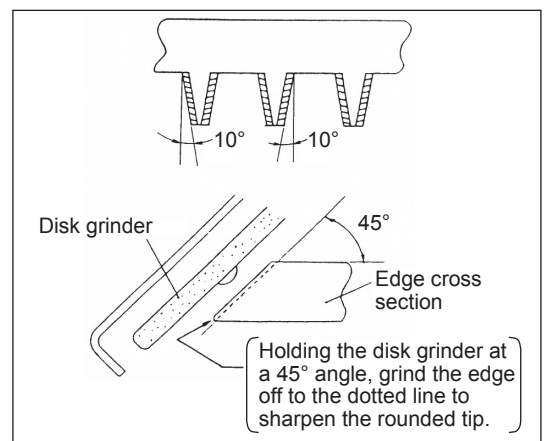
MAINTENANCE INSTRUCTIONS

- Turn off the engine and remove the spark plug connector when replacing or sharpening cutting tools, also when cleaning the cutter or cutting device or carrying out any maintenance.
- Never straighten or weld a damaged cutting blade.
- Inspect the cutting blades with the engine switched off at short, regular intervals for damage.
- (Detection of hairline cracks by means of tapping-noise test.) Beware the teeth are sharp.
- Clean the Hedge Trimmer at regular intervals and check that all screws and nuts are well tightened.
- Never service or store the Hedge Trimmer in the vicinity of naked flames to avoid fires.
- Always wear leather gloves when handling or sharpening the blades, as they are sharp.

Blade sharpening

If the edges are rounded and do not cut well any more, grind off only the shaded portions. Do not grind the contact surfaces (sliding surfaces) of the top and bottom edges.

- Before grinding, be sure to secure the blade firmly and switch off the engine and remove the spark plug cap.
- Wear gloves, protective glasses, etc.
- An edge ground too much at a time or ground many times will lose its hardened layer. It becomes rounded and dull very quickly in use.



Blade adjustment

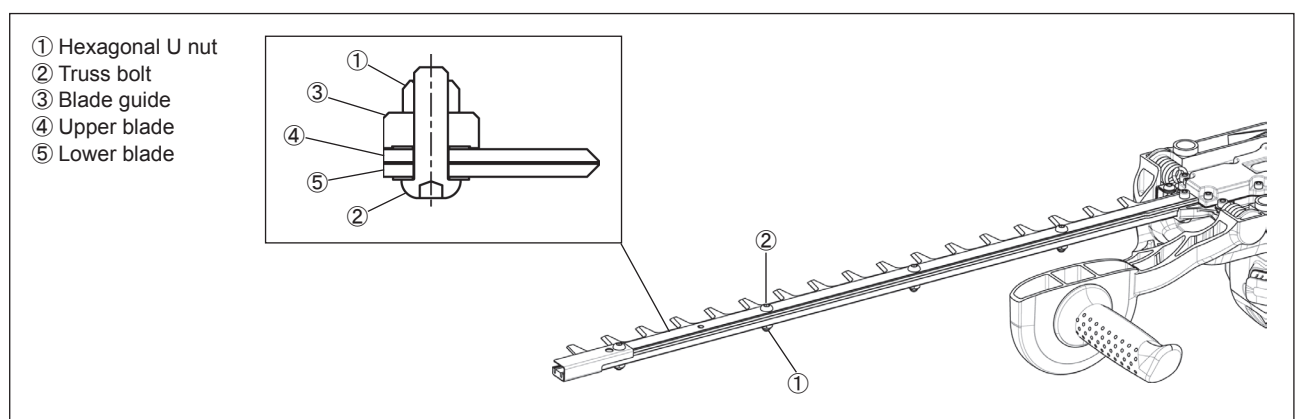
The blades will wear with long use. When you find that trimming is not as good as when the blades were new, adjust them as follows.

1. Turn nut ① loose.
2. Bolt ② in with the driver lightly till it stops turning, and then screw it back one quarter.
3. Turn nut ① tight, holding bolt ② at the same time with a Hex Wrench.
4. Lubricate the blades after adjustments above with light oil.
5. Start the engine and operate the engine throttle on and off for a minute.
6. Stop the engine and touch the blades with your hand. If they are warm enough for you to keep your hand on, then you have made the proper adjustment. If they are too hot for you to keep touching, give bolt ② a little more turnback and repeat 5 to see if they are properly adjusted.

NOTE: Never fail to stop the engine before making the adjustment.

The blades have a slot around screw ②. In case you find dust in the end of any of the slots, clean it.

NOTE: For enough time of blade stop (EN774), be sure to make the blade adjustment before operation.



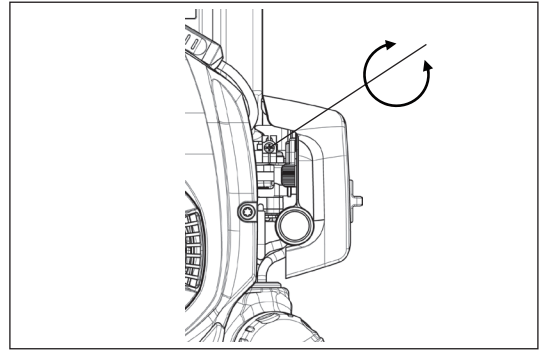
Checking and adjusting the idling speed

The cutting blade should not run when the control lever is fully released.

- Idle speed should be set to 3,000 min⁻¹.
- If necessary, correct it by means of the idle screw (the cutting blade must not run when the engine is on idle).
 - Clockwise: for faster rate of revolution
 - Counter-clockwise: for slower rate of revolution

Check that there is sufficient difference between idling and clutch engagement speed to ensure that the cutting tool is at a standstill while the engine is idling. (If necessary, reduce idling speed.) If the tool still continues to run under the idling conditions, consult your nearest authorized service agent.

- The clutch should engage at minimum 3,750 min⁻¹.
- Check the functioning of the I-O Switch, the lock-off lever, the control lever, and the lock button.



CLEANING OF AIR CLEANER



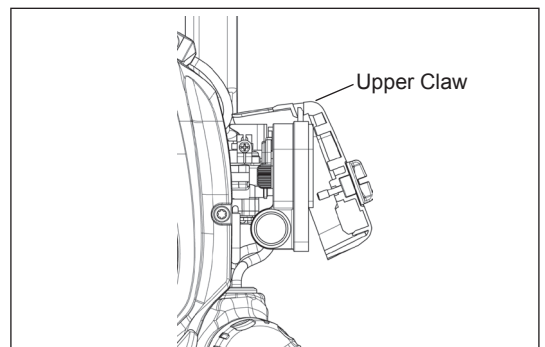
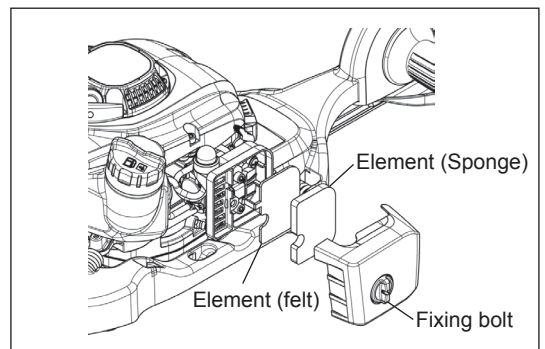
DANGER: INFLAMMABLES STRICTLY PROHIBITED

Interval of Cleaning and Inspection: Daily (every 10 operating hours)

- Turn the choke lever to the full close side, and keep the carburetor off from dust or dirt.
- Turn the air cleaner cover-fixing bolts.
- Pull the cover lower side and detach the air cleaner cover.
- If oil adheres to the element (sponge), squeeze it firmly.
- For heavy contamination:
 - 1) Remove the element (sponge), immerse it in warm water or in water-diluted neutral detergent, and dry it completely.
 - 2) Clean the element (felt) with gasoline, and dry it completely.
- Before attaching the element, be sure to dry it completely. Insufficient drying of the element may lead to difficult startup.
- Wipe out with waste cloth, oil adhering around the air cleaner.
- Immediately after cleaning is finished, attach the cleaner cover and tighten it with fixing bolts. (In remounting, first place the upper claw.)

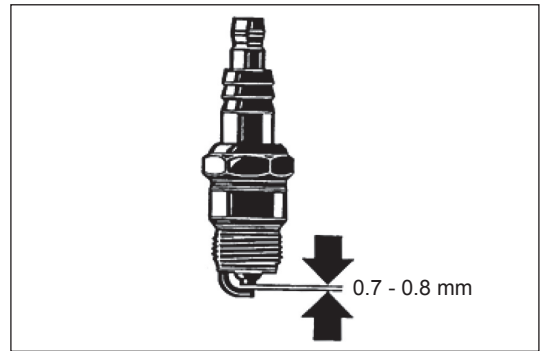
Points in Handling Air Cleaner Element

- Clean the element several times a day, if excessive dust adheres to it.
- If operation continues with the element remaining not cleared of oil, oil in the air cleaner may fall outside, resulting in oil contamination.



Checking the spark plug - Every 8 hours (Daily)

- Only use the supplied universal wrench to remove or to install the spark plug.
- The gap between the two electrodes of the spark plug should be 0.7 to 0.8 mm. If the gap is too wide or too narrow, adjust it. If the spark plug is clogged with carbon or fouled, clean it thoroughly or replace it. Use an exact replacement.



Supply of grease and lubricant

- Supply grease from the grease nipple every 50 operating hours. (Shell Alvania No. 3 or equivalent)

NOTE: Be sure to observe the specified time and amount of grease supply. If the grease supply is not made at the specified interval or if the amount of grease supplied is not sufficient, the machine may fall into a trouble because of lack of grease.

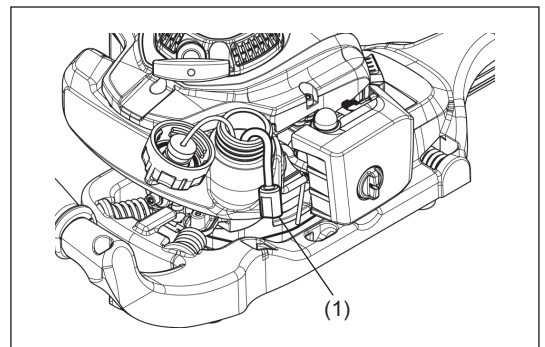
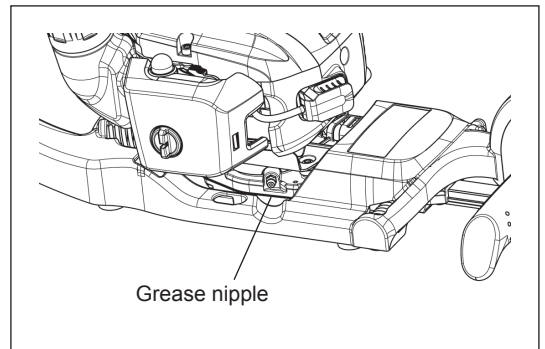
CLEANING OF FUEL FILTER

WARNING: INFLAMMABLES STRICTLY PROHIBITED

Interval of Cleaning and Inspection: Monthly (every 50 operating hours)

Suction head in the fuel tank

- The felt filter (1) of the suction head is used to filter the fuel required by the carburetor.
- A periodical visual inspection of the felt filter is to be conducted.
- For that purpose, open the tank cap, use a wire hook and pull out the suction head through the tank opening. Filters found to have hardened, been polluted or clogged up are to be replaced.
- Insufficient fuel supply can result in the admissible maximum speed being exceeded. It is therefore important to replace the felt filter at least quarterly to ensure satisfactory fuel supply to the carburetor.



REPLACEMENT OF FUEL PIPE

CAUTION: INFLAMMABLES STRICTLY PROHIBITED

Interval of Cleaning and Inspection: Daily (every 10 operating hours)

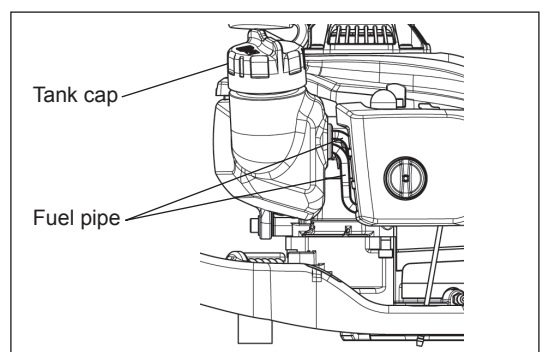
Replacement: Annually (every 200 operating hours)

Replace the fuel pipe every year, regardless of operating frequency. Fuel leakage may lead to fire.

If any leakage is detected during inspection, replace the oil pipe immediately.

REPLACEMENT OF TANK CAP

- If there is any flaw or damage on the tank cap, replace it.
- The tank cap is consumable, and therefore should be renewed every two to three years.



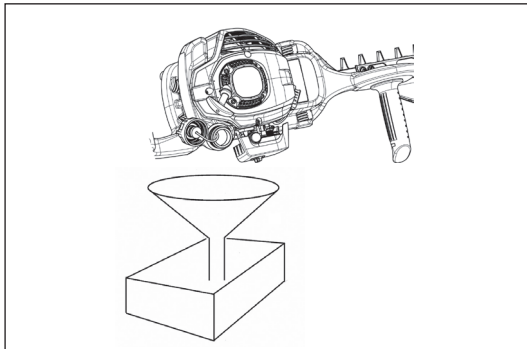
Any maintenance or adjustment work that is not included and described in this manual is to be performed by Authorized Service Agent only.

Daily checkup and maintenance

To ensure a long service life and to avoid any damage to the equipment, the following servicing operations should be performed at regular intervals.

- Before operation, check the machine for loose screws or missing parts. Pay particular attention to the tightness of the cutter blade screws.
- Before operation, always check for clogging of the cooling air passage and the cylinder fins. Clean them if necessary.
- Perform the following work daily after use:
 - Clean the Hedge Trimmer externally and inspect for damage.
 - Clean the air filter. When working under extremely dusty conditions, clean the filter several times a day.
 - Check the blades for damage and make sure they are firmly mounted.

STORAGE



- When keeping the machine in storage for a long time, drain fuel from the fuel tank and carburetor, as follows: Drain all fuel from the fuel tank.
- Remove the spark plug and add a few drops of oil into the spark plug hole. Then, pull the starter gently to confirm that oil film covers the engine inside and tighten the spark plug.
- Clear dirt or dust from the cutter blade and outside of engine, wipe them with a oil-immersed cloth and keep the machine at a place as dry as possible.

MAINTENANCE SCHEDULE

General	Engine assembly, screws and nuts	Visual inspection for damage and tightness Check for general condition and security
After each refuelling	Throttle lever I-O switch	Functional check Functional check
Daily	Air filter Cooling air duct Cutting tool Idling speed	To be cleaned To be cleaned Check for damage and sharpness Inspection (cutting tool must not move)
Every 50 hours	Gear case	Supply of grease
Weekly	Spark plug Muffler	Inspection, replace if necessary Check and if necessary clean the opening
Quarterly	Suction head Fuel tank	To be replaced To be cleaned
Shutting down procedure	Fuel tank Carburetor	Empty fuel tank Operate until engine runs out of fuel

FAULT LOCATION

Fault	System	Observation	Cause
Engine not starting or under difficulties	Ignition system	Ignition spark is present	Faulty fuel supply or compression system, mechanical defect
		No ignition spark	I-O switch operated, wiring fault or short circuit, spark plug or connector defective, ignition module faulty
	Fuel supply	Fuel tank filled	Incorrect choke position, carburetor defective, suction head (gas line filter) dirty, fuel supply line bent or interrupted
	Compression	Inside of engine	Cylinder bottom gasket defective, crankshaft seals damaged, cylinder or piston rings defective
		Outside of engine	Improper sealing of spark plug
	Mechanical fault	Starter not engaging	Broken starter spring, broken parts inside of the engine
Warm start problems		Tank filled Ignition spark existing	Carburetor contaminated, have it cleaned
Engine starts but dies immediately	Fuel supply	Tank filled	Incorrect idling adjustment, suction head or carburetor contaminated
			Fuel tank vent defective, fuel supply line interrupted, cable or I-O switch faulty
Insufficient performance	Several systems may simultaneously be affected	Engine idling	Air filter contaminated, carburetor contaminated, muffler clogged, exhaust duct in the cylinder clogged

Makita Corporation

Anjo, Aichi, Japan

www.makita.com

885070A224

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