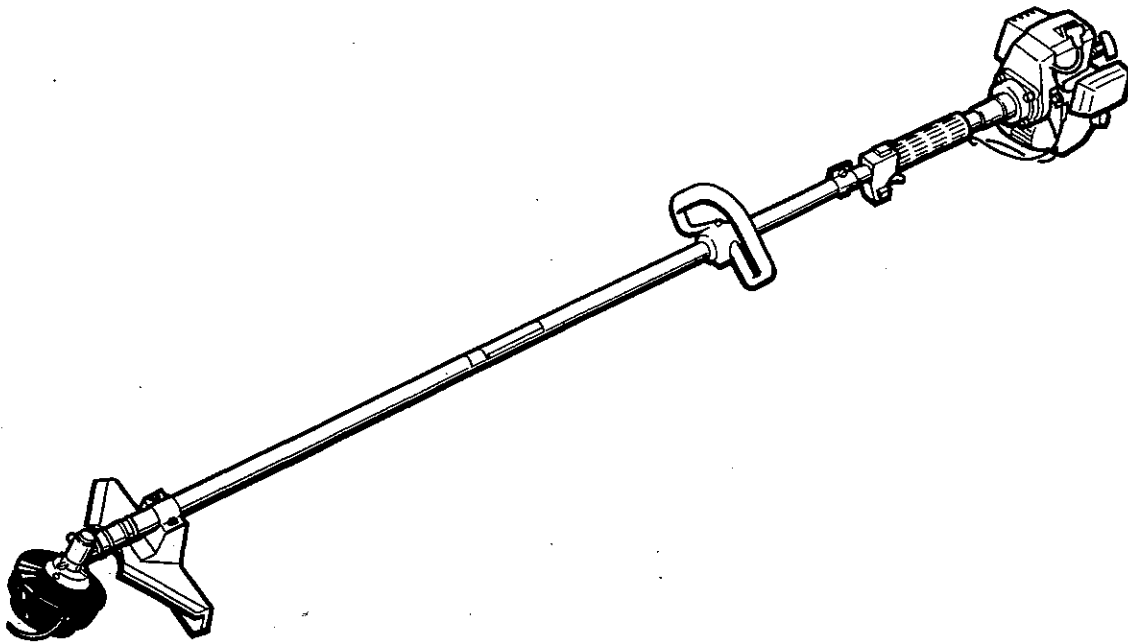


BRUSH CUTTER

MODEL BC184
BC184C

INSTRUCTION MANUAL



 **MARUYAMA U.S., INC.**

IMPORTANT SAFETY INSTRUCTIONS

Safe Operation Practices for Brush Cutter

TRAINING

1. Read the Operating and Service Instruction Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment.
2. Never allow children to operate trimmer.
3. Keep area of operation clear of all persons, particularly small children and pets.
4. Regard your unit as a piece of power equipment and teach this regard to all who operate the equipment.

PREPARATION

1. Thoroughly inspect the area where trimmer is to be used, and remove all stones, sticks, wire, bones and other foreign objects which might be picked up and thrown.
2. Do Not operate trimmer when barefoot or wearing open sandals. Always wear substantial foot wear, ear guards, safety glasses, and pants or slacks that cover your legs when operating trimmer.
3. Check the fuel before starting the engine. Do Not fill the fuel tank indoors, when the engine is running, while smoking, or while the engine is still hot. Replace fuel cap securely and wipe up spilled fuel. Dispose of gas saturated rags properly, in a well ventilated area to avoid possibility of spontaneous combustion. Never use fuel as a cleaner.
4. Do Not use trimmer unless line guard is properly in place.
5. Use only in daylight or in good artificial light.
6. Never operate equipment in wet grass. Always be sure of your footing: keep a firm hold on the handle and walk, never run.
7. Do Not attempt to fill fuel tank from fuel container unless the container spout or funnel fits **INSIDE** the fuel tank filler neck. The use of too large a spout or funnel, or no funnel, may result in spilled fuel, creating highly flammable vapors. This could result in fire and/or explosion, causing severe bodily injury.

OPERATION

1. Start the engine carefully. Keep hands and feet well away from cutting line.

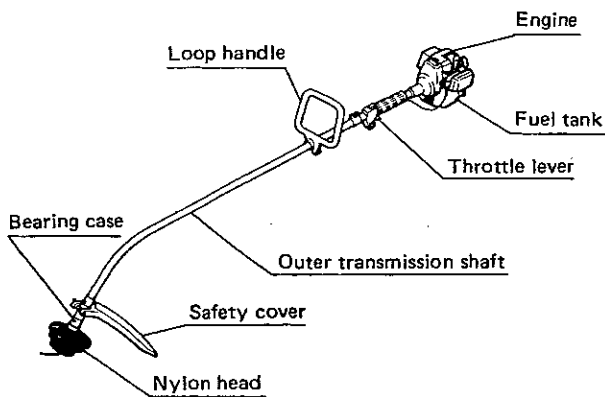
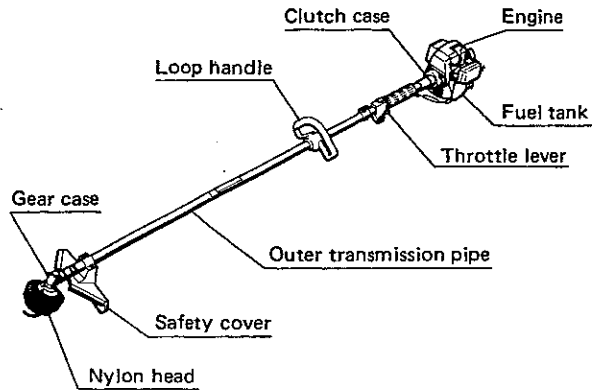
2. Do Not change engine governor setting or overspeed engine.
3. Never direct discharge of any material toward bystanders, nor allow anyone near machine while it is in operation.
4. After striking a foreign object, stop the engine and inspect trimmer for damage; repair damage before starting engine.
5. If trimmer should start to vibrate abnormally, stop the engine and check for the cause. Vibration is generally a warning of trouble.
6. Stop the engine whenever you leave the trimmer, and when making repairs or inspections.
7. When repairing or inspecting, make certain all moving parts have stopped. Disconnect spark plug wire and keep wire away from plug to prevent accidental starting.
8. Do Not run engine indoors.
9. Shut engine off and wait until line comes to a complete stop before removing grass that may clog guard.
10. Watch out for traffic when working near roadways.
11. Stay alert for uneven sidewalks holes in terrain or other hidden hazards when operating.

MAINTENANCE AND STORAGE

1. Keep all nuts, bolts and screws tight to be sure equipment is in safe working condition.
2. Never store trimmer with fuel in the tank in a building where fumes may reach an open flame or spark. Be sure engine has cooled before storing in any enclosure.
3. To reduce fire hazard, keep engine free of grass, leaves or excessive grease.
4. After operating engine, never touch exhaust muffler until it has cooled completely.
5. Keep trimmer in good operating condition and keep safety devices in place.

1. FEATURES:

1. The repulser, a simple device to prevent the cut material from becoming entangled in the gear case, assures the operator of safe and uninterrupted operation.
2. The standard safety nylon heads cut so cleanly that the cut material is not scattered.
3. Our direct coupling system results in a minimum loss of power.
4. The safety cover attached to the Nylon Head protects the operator and bystanders from debris.



2. SPECIFICATIONS

MODEL NAME	BC184	BC184C
Length (in./cm)	74.0/188	63.0/160
Width (in./cm)	10.2/26	10.6/27
Dry weight (lbs.)	12.6	10.6
Engine Type-2 stroke/air cooled	TG 18	TG18
Displacement (c.c.)	18.4	18.4
Electronic Ignition	Standard	Standard
Diaphragm Carburetor	Standard	Standard
Fuel Tank Capacity (oz./l.)	13.9/0.4	13.9/0.4
Handle Design	Loop	Loop
Easy Access Kill Switch	Standard	Standard

3. ACCESSORIES

MODEL NAME	BC184	BC184C
Nylon cutter ass'y	1	1
Tool bag	1	1
Box spanner (13x19xø)	1	1
Double ended wrench (8x10)	1	—
Handle (φ3.5 x 170L)	1	—
Handle (φ3.5 x 100)	—	1
Instruction manual	1	1

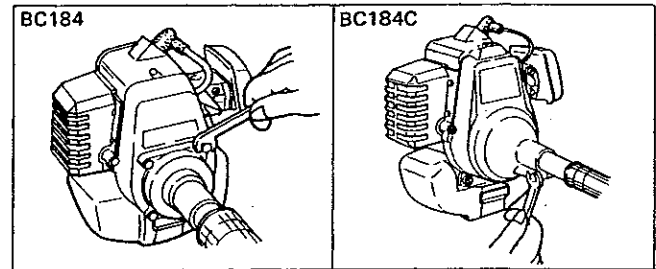
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4. HOW TO OPERATE

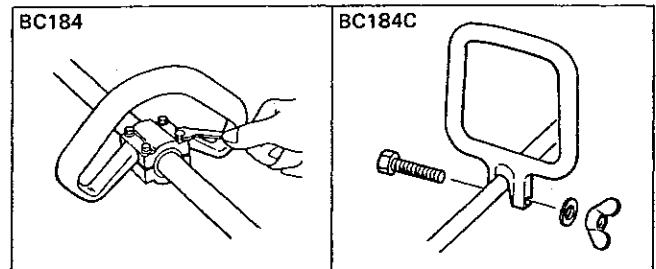
4-1 How to Assemble

1) Main Body

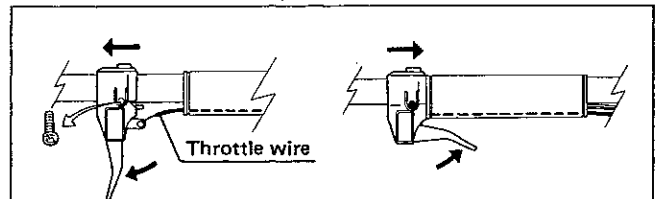
- a) Fit the engine to the clutch case of the main body (BC184).
- b) Insert the transmission shaft assembly into the engine clutch housing to a depth of approximately 42mm (1.65 in.) (BC184C).



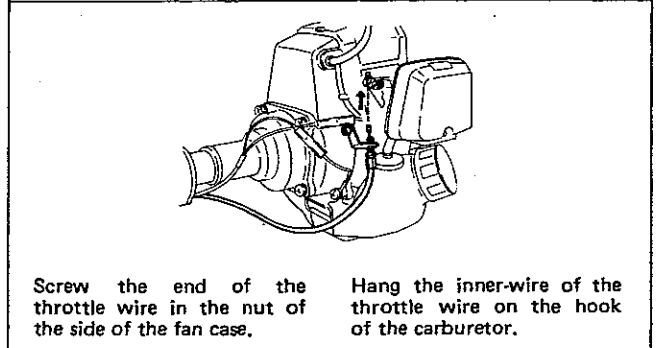
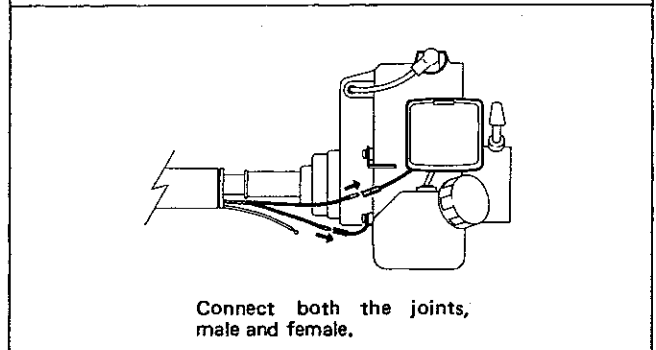
- c) Fix the handle on the shaft, tighten it securely.



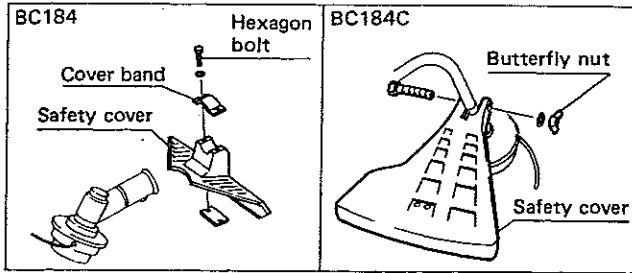
- d) Fit the throttle lever onto the shaft.



1. Loosen the bolt and move the throttle lever away from the knob.
2. Remove the bolt.
3. Move the lever down so as to let the hook appear.
4. Hang the throttle wire on the hook and replace the lever.
5. Move the throttle lever to the grip.
6. Tighten the bolt.

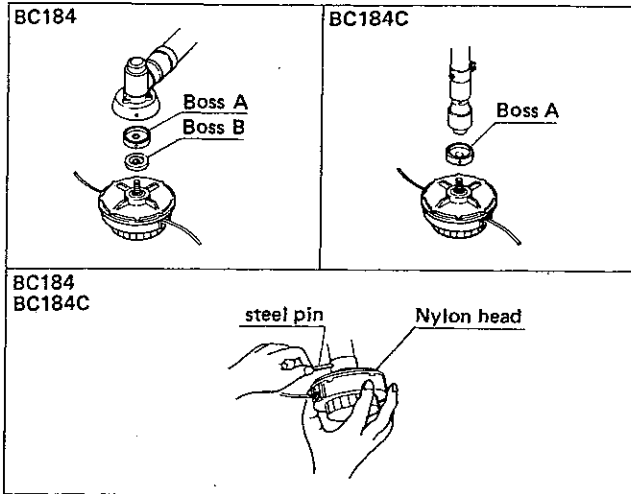


e) Fit the safety cover to the shaft tightly.



2) How to fit up the Nylon head

Now with Boss located on shaft, screw on nylon head assembly. Use steel pin as described to finally tighten.



3) How to wear the hanging strap

- Position the hanging strap from your left shoulder to your right waist.
- If there is a waist belt attached, wear the belt securely around your waist.
- The position of hanging strap may affect the ease of operation. For safety and efficiency, adjust the position of hanging strap according to your physique.



4-2 Preliminaries before operation

1) Garments:

- To protect your head, ears and eyes wear a protective cap, ear guards and safety glasses which can protect you from branches, pebbles, stones, fallen rocks, noise, etc.
- To protect your feet, wear shoes which can protect you from slipping in the field.
- Wear close fitting clothes with no loose sleeves and cuffs.

2) Inspection of machine (preparation for starting engine)

- Check that every screw is securely tightened and enough oil and grease is applied.
- Examine the nylon for damage.
- Fit the nylon head securely.
- Be sure to fit the safety cover.
- Do not run the engine before it is coupled to the main body.

3) Other Safety Hints:

- Do not smoke when you add fuel or oil.
- Use genuine parts such as nylon head, plug, etc. If incorrect parts are used they may shorten the life of the machine and cause accidents.
- Do not modify the machine.

4) During the job:

- Start the engine in a stable place to prevent it from turning over.
- When you start the engine on the ground, be sure to face the nylon head upward or not allow the nylon head to touch the ground. If the nylon head touches the ground, it could blow up pebbles or sand – which is very dangerous.
- Watch your step before starting. Look out for by-standers.
- When you move the machine from one working area to another, stop the engine completely.
- In raising the speed of the engine, gradually open the throttle. If opened briskly the machine will be swung in the direction of the nylon head rotation which may cause an accident.
- Removing the grass with the engine running could suddenly engage the clutch and motor.

4-3 Operation

- Hang the main body onto the hanging strap.
- The length of the hanging strap may affect the ease of operation. Adjust it according to your physique or the job.
- Adjust the speed of the engine with the throttle lever.
- Make sure that the nylon head will stop when the engine speed is reduced.
- The technique of operation is to control your direction by your waist, not by your hands. The hands are only holding the handles.
- Do not use the nylon head roughly to chop down objects as it is very dangerous.
- The nylon head must be run at a normal speed. Too much low speed or excessive loading in cutting the grass by force will stop the nylon head frequently. Such frequent stoppage of the nylon head will cause the clutch to overheat.

NOTE: Non-fog goggles are recommended for use at all times during cutter operation.

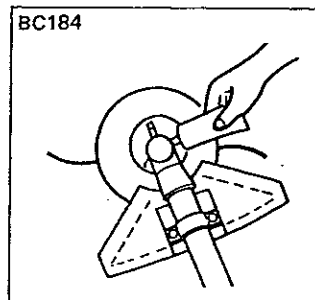
5. Maintenance and check

1) Daily care

- Examine the nylon head. The cord length outside the rotor head should be 3.4–4.7 in. (10–12 cm). Feed cord by loosening the bottom plate (Note! left hand threaded) and pull out line to the correct length. Tighten the bottom plate.
- Examine every bolt, screw and nut to ensure they are tightened securely;

2) Monthly care

- Wash and clean the air cleaner.
- BC184..... Grease the gear case every 50 hours' use.



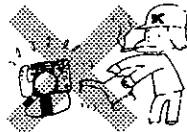
ENGINE



TG18

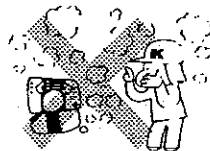
1. FOR MAXIMUM SAFETY, OBSERVE THE FOLLOWING PRECAUTIONS:

- When using the engine with a cutter, always make sure nobody is near the blade before starting up. Take care that the blades do not come in contact with the ground, trees, or any other obstructions.
- To eliminate any risk of fire, don't fail to stop the engine before charging fuel in the fuel-tank, and make sure there are no naked flames, such as lighted cigarettes, etc. nearby. Check fuel leak before beginning operations.

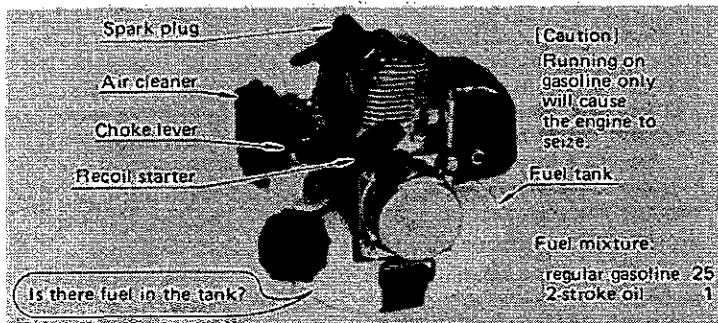


To avoid getting electric shock, don't touch the high-tension cable or the spark plug cap while the engine is running.

- To avoid exhaust gas poisoning, don't use the engine indoors or in such badly ventilated places as pits and the like.

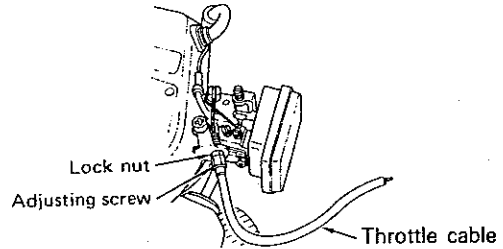


2. PRE-OPERATION CHECK:

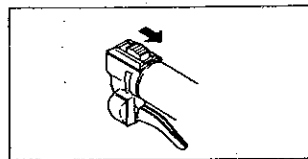


3. ADJUSTMENT OF THROTTLE CABLES:

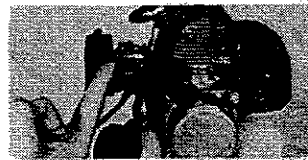
- When setting the engine to working machines (cutter, etc.), adjust the throttle cable in the following manners:
 1. Be sure to fix the throttle lever and the throttle cable to the stipulated positions.
 2. Position the adjusting screw at the upper part so that the outer wire of the throttle cable can have a play of 0.5mm to 1.0mm (0.019in. to 0.03in.). Fix the adjusting screw with the lock nut.



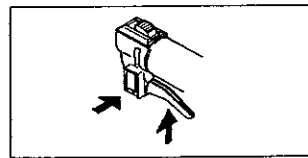
4. STARTING:



- Stop switch ON.



- Use the lever to fully close the choke. (In an intense hot weather or when the engine is still warm, use the half choke or none at all.)



- Open the throttle lever halfway and lock it by the button.

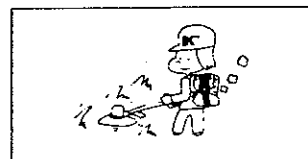


- Give the starter a rapid and vigorous pull until the engine fires. [CAUTION] Don't pull the starter rope all the way. Rewind the rope slowly.



- After the engine fires, open the choke fully. Then give the starter a rapid pull again with choke opened. When the engine started with the choke fully closed, gradually open the choke to the full-open position observing the engine condition.

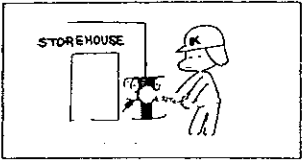
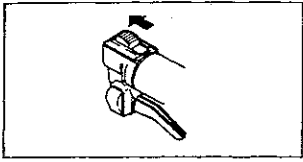
- After making a three-minute warming-up operation observing the engine condition, locate the throttle lever position at the desired speed.



- Safe operation

5. STOPPING:

- Put the throttle lever to the slow position.
- Stop switch OFF.



- When the engine is not used for a long time, drain the fuel from the fuel tank. Then start the engine and make it run until all the fuels in the carburetor are used up to stop the engine.
[CAUTION]
At the moment, don't give a high speed operation to the engine.

[CAUTION]

- (1) In failure of engine start, don't try to pull the starter so often with the choke closed because this will cause the fuel to flood into the cylinder and make starting more difficult.
- (2) Whenever possible, try to top up the fuel before dry running. This will make it easy to restart the engine.
- (3) After starting, operate the throttle lever by varying the engine speeds a few times. This is to draw out the remaining air in the carburetor. If air remains therein, it may cause the engine speed to drop or the engine to stop.
- (4) Don't try to increase the speed immediately after the engine starts. Give a three-minute warming up.

3. ADJUSTMENT OF CARBURETOR:

- Don't tamper with the L and H needles unnecessarily because the carburetor was adjusted before shipment so that fuel is fed optimumly. In case of poor revolution, optimum condition can be gained if re-adjustment is made in the following manners:
The adjustment shall be made after a short warming-up operation followed by the engine start.

1. Idling adjustment:

Fully close the throttle lever and adjust the idling adjusting screw so that the engine runs smoothly without rotating, for instance, an attached knife or stopping the engine.
(The reference idling speed is 3,200 rpm.)

2. Fuel adjustment:

(1) L needle adjustment:

Fully close the throttle lever and adjust the L needle so that the engine runs smoothly.

(A rough guide of L needle adjustment is a range of returning 5/8 to 1-5/8 turns from the full close position.)

Adjust the idling speed according to Para. 4.1 if the idling speed changes.

(2) H needle adjustment:

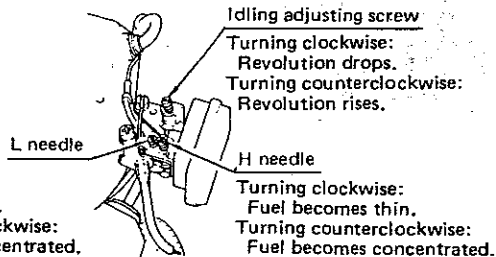
Fully open the throttle lever and adjust the H needle so that the engine runs smoothly.

(A rough guide of H needle adjustment is a range of returning 1/2 to 1-1/2 turns from the full-close position.)

(3) On completion of L and H needle adjustment, rapidly accelerate slowly accelerate several times and be sure that the engine follows smoothly.

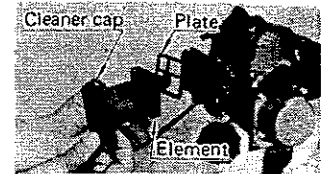
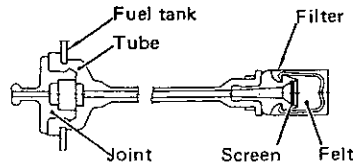
[CAUTION]

Whenever the carburetor needs adjustment, consult your dealer.



7. MAINTENANCE AT EVERY 20-HOUR OPERATION:

- Cleaning filter
Removal:
(1) Remove the joint.
(2) Disconnect the tube from the tank.
(3) Remove the filter from the tube.
How to Wash:
(1) Wash the felt and metal strainer by clean gasoline.
[NOTE]
Replace the filter every about 100 operation hours because the felt and screen may be clogged in the course of time, resulting in poor operation of the engine.
- Air Cleaning
Wash the element by gasoline and soak it in a fuel mixture (gasoline 25 : 1 two stroke oil) and wring it.
[CAUTION]
When used at dusty locations, clean the element every day or every ten-hour operation.



8. MAINTENANCE AT EVERY 50-HOUR OPERATION:

- Remove carbon on piston top and cylinder exhaust ports, and in combustion chamber and muffler tail shaft. (Consult your dealer for details.)
- Tighten bolts and nuts.
- Clean and adjust spark plug.
Gap: 0.6 to 0.7 mm
Plug: NGK BM6A

9. LONG-TIME LAYING-UP:

- Remove all fuel from the fuel tank and carburetor. (After draining the fuel from the fuel tank, run the engine until all remaining fuel in the carburetor is used up to stop the engine.)
- Remove the spark plug, pour in about 3cc of new engine oil through the plug hole, pull the recoil starter several times, and replace the spark plug.
- Pull the recoil starter until the piston is felt coming on its compression stroke; i.e. both intake and exhaust ports have come closed.
- Store it in a clean and dry place.
- Wipe the surface with oil-immersed cloths.

Spark plug hole



10. SPECIFICATIONS:

TG 18	
Type:	Air-cooled, 2-stroke single cylinder, gasoline engine
Displacement	18.4 cc
Rotating direction	Counterclockwise, viewing the output shaft (clutch)
Dry weight	2.4Kg / 5.3 lbs.

The above items are subject to change without notice.