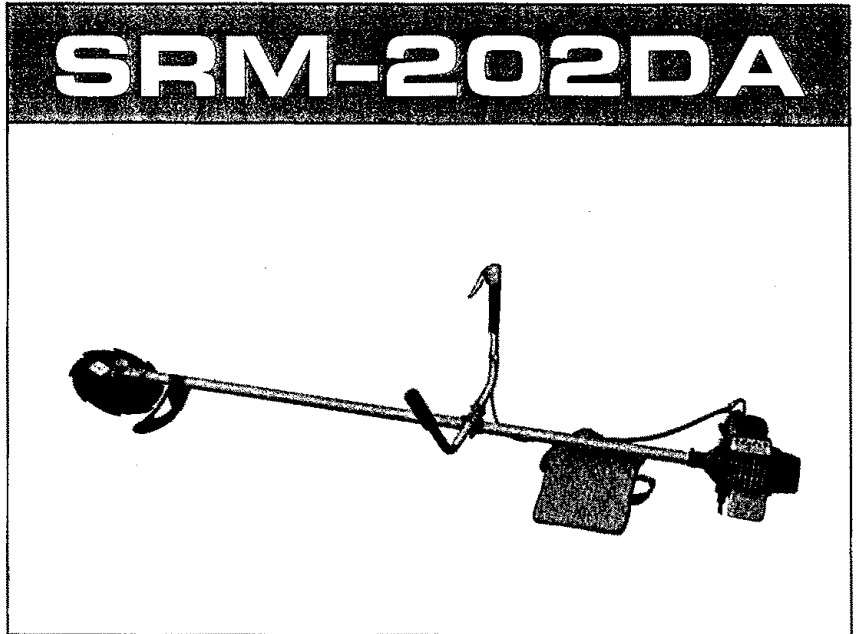


# KIORITZ POWER SCYTHE

## OPERATOR'S MANUAL

**SRM-202DA**



### **CAUTION**

Read Rules for Safe Operation  
and Instructions Carefully

## **RULES FOR SAFETY OPERATION**

**CAREFULLY READ THE MANUAL** and acquaint yourself well with how to operate the scythe efficiently and **SAFELY**.

1. Never operate the scythe when you are fatigued.
2. Never allow a person mentally ill, under influence of alcoholic drinks or drugs, or too young in age, to operate the scythe.
3. Use safety footwear, snug-fitting cloths, eye, hearing and head protection devices.
4. Before starting the engine, move the scythe at least 10 feet (approx. 3m) away from the fueling spot.
5. Fueling, refueling or fuel system checking should not be done when smoking or near the open fire.
6. The engine should not be started in a not-well ventilated room, as poisonous carbonmonoxide is emitted.
7. Do not allow any other persons or animals to be present near the soythe when starting or cutting with it. The work area has to be cleared beforehand.
8. When two or more operators should work together simultaneously, do keep a safety distance between them.
9. Always keep footing secure and balanced when cutting. Keep a firm grip of the rod and handle at all times.
10. Before starting up the engine, make sure that the cutter blade is not contacting anything.
11. Use only the cutter blade designated by the manufacturer for this model. Make sure that the cutter is correctly fixed according to the instruction manual. Blade has to be well leveled and sharpened, teeth bottom must be well rounded.  
Levelling should not be adjusted while engine is in motion. When crack is noticed on the cutter blade, never use it, but replace with the new one.
12. Do not operate the scythe without guard plate. The cutter blade should be detached or fully covered during transportation.
13. Do not use the scythe if the muffler is defective or missing.
14. Do not use the scythe when electric system causes spark outside the cylinder. Spark plug should be checked from time to time, however, by keeping distance from the hole of the cylinder to avoid burning of the fuel evaporated from cylinder.
15. In cutting a shrub under tension, be alert for spring back so that you are not whipped when tension is released.
16. Watch out for kickback motion of the blade caused when hit a hard article on the ground, to avoid a most serions injury on your legs or loins.
17. Always stop the engine completely before putting it down on the ground or carrying it from one place to another as well as when fueling, refueling or adjusting fuel systems.
18. The scythe, as well as fuel, should not be stored in a dwelling house.
19. Adjustment or servicing of the scythe, other than said in the instruction manual, should be performed by competent serviceman. Contact servicement of the nearest dealers or distributors for KIORITZ Scythes.

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## 1. PREFACE

We are very proud indeed to count you as another user of Kioritz scythe.

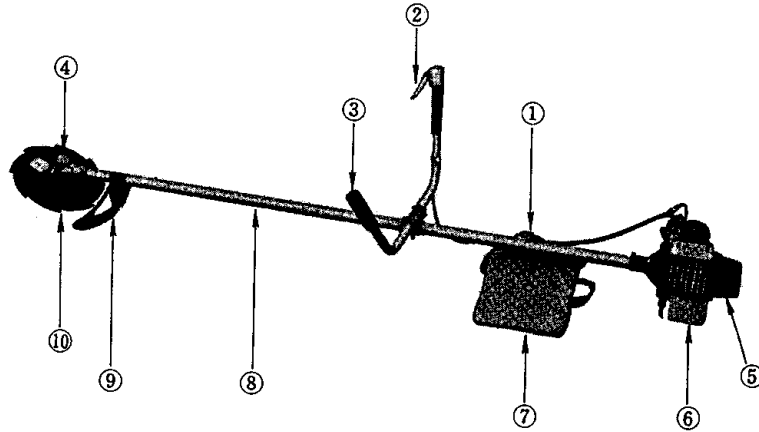
This scythe is designed to be small in size and light in weight with minimum vibration, and best suited for such many different applications as mowing in orchards, cutting pasture, and cutting bushes and small plants, cutting grass on the footpath between the rice paddies etc.

This instruction manual provides you with informations and instructions on handling, assembling procedures, operation, maintenance etc. of the scythe.

Please read the booklet carefully and acquaint yourself thoroughly with the machine before you start to use the machine. It will help you keep your scythe always in the first class conditions.

## 2. PARTS DESIGNATION

- |                   |                  |
|-------------------|------------------|
| 1. Hanging hook   | 6. Fuel tank     |
| 2. Throttle lever | 7. Shawl band    |
| 3. U-handle       | 8. Operating rod |
| 4. Gear case      | 9. Safety guard  |
| 5. Recoil starter | 10. Cutter       |



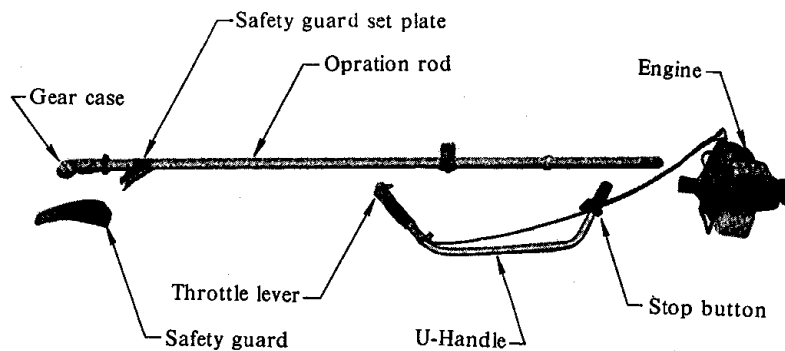
## 3. SPECIFICATION & PERFORMANCE

Dimensions:	L x W x H	cm	175 x 60 x 35
Weight:	Dry	kg	4.7 (excluding U-handle, shawl band, Guard plate and Cutter)
	Total	kg	6.3 (excluding Shawl band and Cutter)
Engine:	Type		Air-cooled, 2-cycle, single cylinder.
	Displacement	cc	20.9
	Max revolution	rpm	8,500
	Carburetor		Walbro diaphragm type (Model WA-21)
	Ignition		Flywheel-magneto type
	Spark plug		NGK BM-6A
	Starter		Recoil starter
Fuel:	Clutch		Automatic centrifugal clutch.
	Mixing Ratio		20 parts (gasoline): 1 part (motor oil for 2-cycle air-cooled engine)
	Tank capacity	liter	0.5
Cutter:	Operation		by U-handle
	Reduction gear		ratio 1 : 1
	Cutter		10 inch circular saw or 10 inch 8-blades disc saw.
	Cutter Protector		Guard plate.
	Vibration insulator		Built in at operating rod joint.

## 4. ASSEMBLING

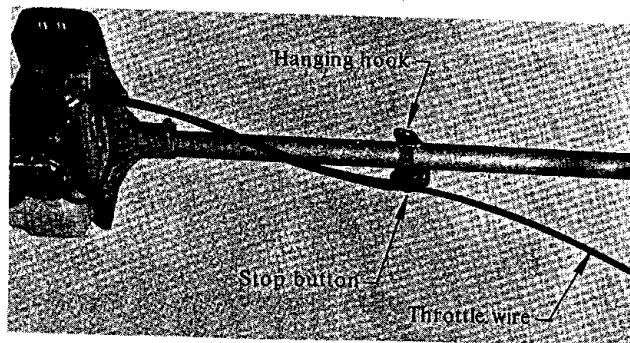
Carton "A" contains engine: Carton "B" contains Operating rod, U-handle etc. in disassembled condition.

Assemble these components in the following manner:



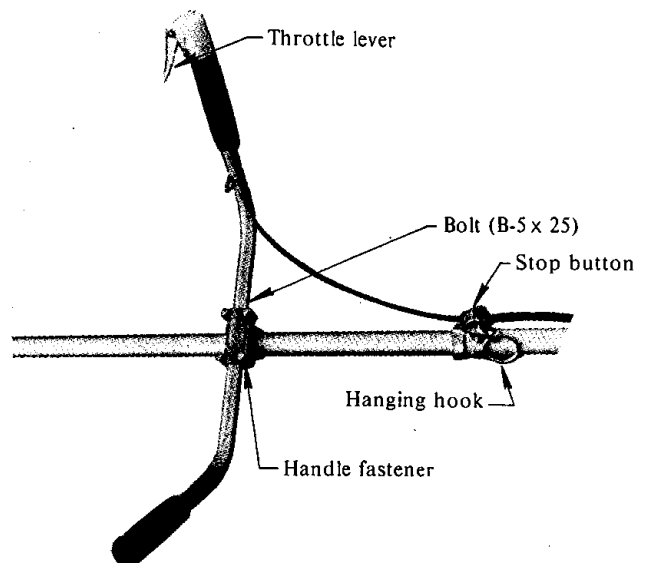
### 4-1. Engine and Cutter

- Loosen slightly two bolts on the neck of engine unit wherein the operating rod is to be inserted.
- Insert the operating rod of the cutter into the neck of engine unit. Make sure that the splines of the driving shaft in the operating rod completely engages with the driving shaft. In this case, the driving shaft should be inserted as far as the line marked by a plate on the rod.
- Tighten the right and left bolts evenly to fasten the operating rod.



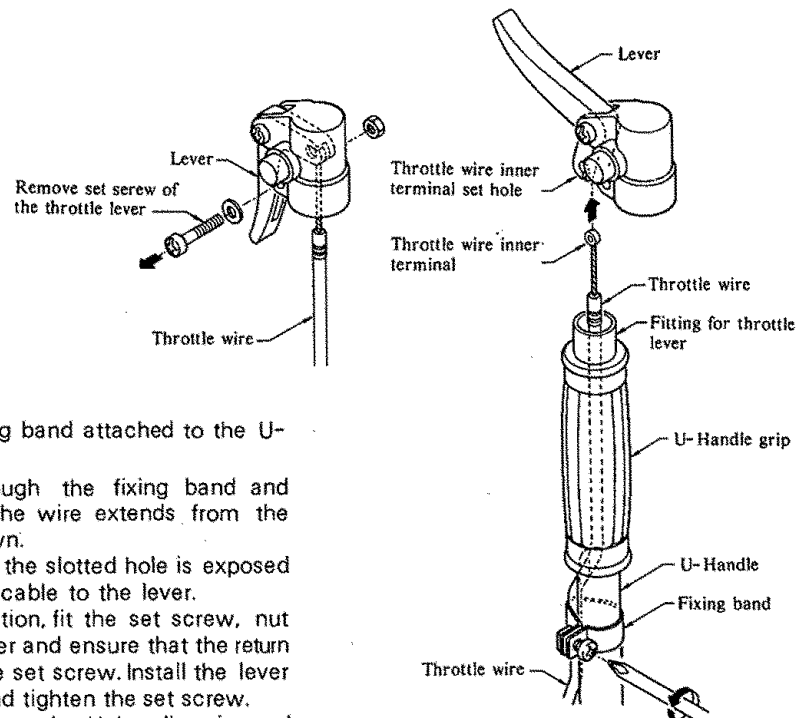
### 4-2. U-Handle

- Fix the U-handle to the handle fastener provided on the operating rod. Install the U-handle at an angle permitting easy control and manipulation of the scythe and tighten four bolts (B-5 x 25) evenly.
- Adjust the position of the handle fastener in accordance with the height of individual operators.

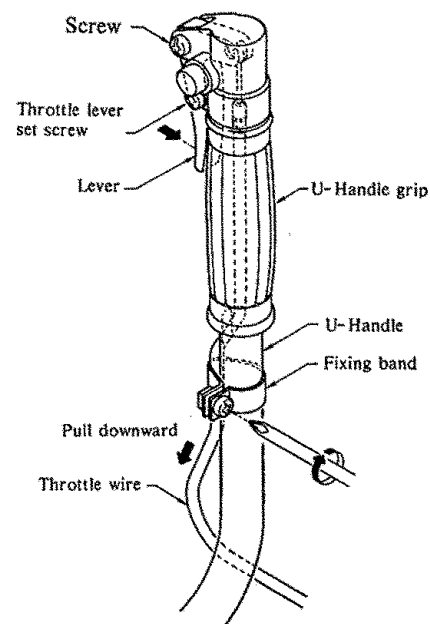


### 4-3 Throttle Lever

- (1) Remove set screw of the throttle lever and pull out the throttle wire.

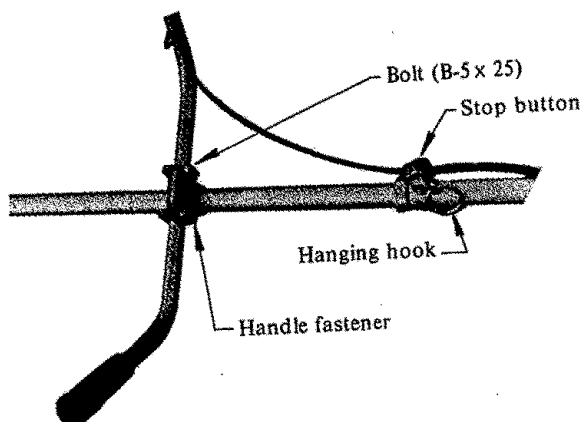


- (2) Loosen the throttle wire fixing band attached to the U-handle.
- (3) Feed the throttle wire through the fixing band and into the elongated slot until the wire extends from the end of the U-handle as shown.
- (4) Raise the throttle lever until the slotted hole is exposed and attach the throttle inner cable to the lever.
- (5) With the lever in raised position, fit the set screw, nut and washer. Depress the lever and ensure that the return spring is anchored against the set screw. Install the lever assembly on the U-handle and tighten the set screw. Grasp the lever until it touches the U-handle grip, and pull the outer cable through the fixing band to remove the slack. Then tighten the fixing band.
- (6) Test for satisfactory function of lever. Make certain that the cutter does not run while the lever is at idling position. Further, make certain that the cutter revolves in enough speed while the lever is fully squeezed.



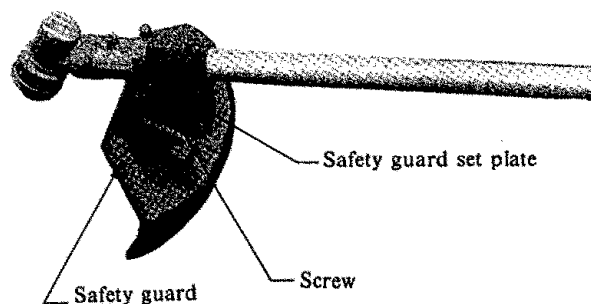
### 4-4. Stop Button

Insert the fitting of the stop button installed on the throttle wire into the hanging hook, and fasten together.



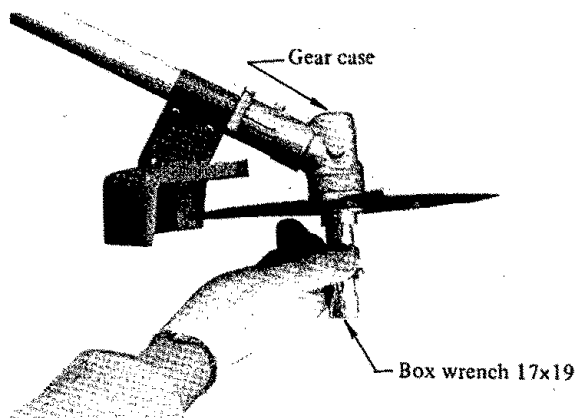
#### 4-5. Safety Guard

Fix the guard plate to the guard set plate, using four screws.



#### 4-6. Cutter

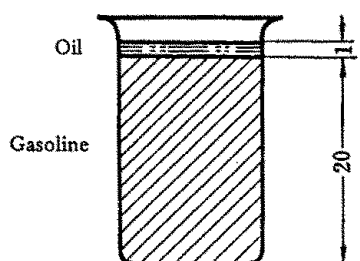
- Insert a fitting tool for preventing the disc saw from turning into the hole provided in the fitting plate (A) and the gear case.
- Align the cutter to the hole in the disc saw recipient fitting, hold the disc saw with the retaining fitting plates and tighten with a left-hand threaded nut.
- To prevent the nut from loosening, insert a split cotter pin into the hole in the end of the shaft and bend the cotter pin.



### 5. OPERATION

#### 5-1. Preoperational Checkup

- Before starting the machine, make sure that all the screws, bolts and nuts are not loose.
- Fuel.
  - Fuel is a mixture of gasoline and motor oil for 2 cycle air cooled engines.
  - Fuel consists of 20 parts gasoline and 1 part motor oil for 2 cycle air cooled engines.
  - Always use fuel at the ratio of 20 parts gasoline and 1 part motor oil for 2 cycle air cooled engines.



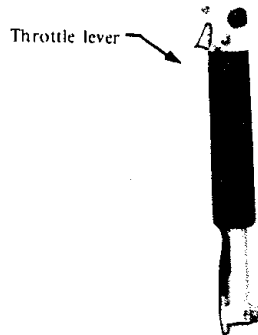
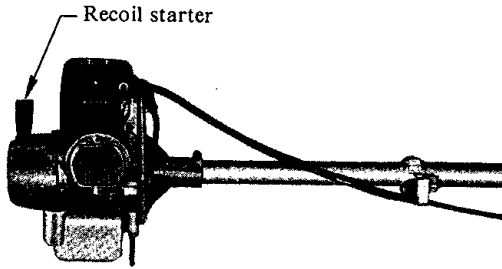
Reference table for gasoline-oil mixing (in liter)

(Gasoline)	(l)	(oil) (l)	(Gasoline)	(l)	(oil) (l)
1.0	—	0.05	6.0	—	0.30
2.0	—	0.10	7.0	—	0.35
3.0	—	0.15	8.0	—	0.40
4.0	—	0.20	9.0	—	0.45
5.0	—	0.25	10.0	—	0.50

## 5-2 Starting

As this scythe is equipped with a diaphragm carburetor, start the engine in the following manners:

- 1) To start a cold engine —
  - (a) Grasp the throttle trigger fully, and lock the throttle trigger with throttle lock button.
  - (b) Pull the choke button fully (totally closed).
  - (c) Pull the recoil starter two or three times. Take care not to pull the starter rope up to its full length. Upon hearing the first explosive roar, push back the choke button (totally open).
  - (d) Pull the starter rope until the engine fires.
  - (e) Upon starting the engine, grasp the throttle trigger again and loosen it to the idling position.
  - (f) Warm up the engine at idling speed for 3–5 minutes.



- 2) To start a warm engine —
  - (a) Keep the throttle trigger at idling position.
  - (b) Leave the choke button fully depressed (totally open).
  - (c) Pull the starter rope until the engine fires.
- 3) Follow the procedure for starting a cold engine after the engine has been left stopped for half an hour or more.
- 4) In starting the engine by pulling the choke button, be sure to push back the button as soon as the first explosive roar is heard.

## 5-3. Steps to be Taken During Operation

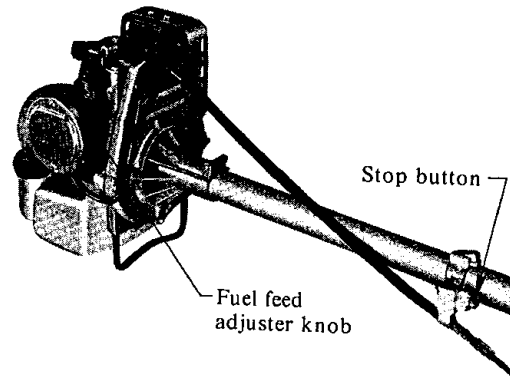
- 1) When it is started up, idle the engine for 3–5 minutes for warming up.
- 2) After idling, gradually open the throttle valve and the cutter starts to run as the engine revolution reaches about 3,400 rpm.
- 3) The engine keeps on running even when the cutter is stopped to turn owing to an excessive load. In such event, remove the load and allow time for the cutter to reach the specified revolution before resuming the job. In the event that the cutter gets stuck in cutting bush or shrub, unload the cutter after lowering the throttle lever, and resume the work by turning the throttle lever back to its original position.

## 5-4. Fuel Feed Adjuster

Normally do not adjust the fuel adjusting needle valve, as the needle has been adjusted at an optimum position at the time of shipment.

To adjust the carburetor, proceed as follows:

- \* Low-speed needle valve (L) . . . . .  $1 \pm 1/4$  turn
  - \* High-speed needle valve (H) . . . . .  $1 \pm 1/4$  turn
- Turn the corresponding adjusting screw lightly clockwise to fully closed position and return the screw by the number of turns indicated above.



Lower the throttle lever (close throttle valve so much as the cutter stops to turn) and idle the engine for 3–5 minutes to cool it off. Then, stop the engine by depressing the stop button.

Stop button and the engine are connected by a grounding lead wire, to ensure the functioning of the stop button. In case if the stop button doesn't work properly, make check-up of the grounding wire connecting.



## 6. HOW TO PUT ON SHAWL BAND

- 1) Put on the shoulder pad in such a manner that the waist pad comes around the right waist and the shoulder pad rests on the left shoulder.
- 2) Tighten the waist belt.
- 3) Hand the metal hanger to the hanging hook.
- 4) Holding the U-handle, adjust the shoulder pad and the waist belt to your most convenient position.



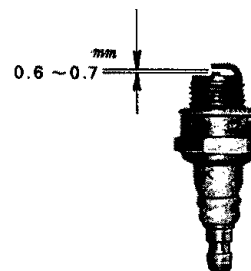
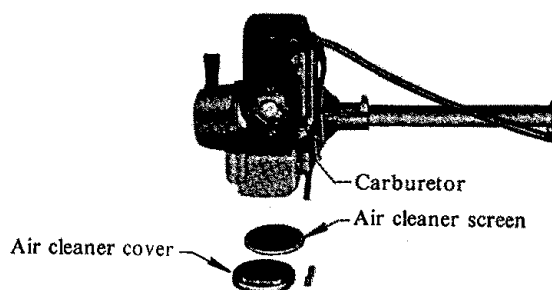
## 7. CAUTIONS DURING OPERATION

- 1) Move the turning cutter along the ground surface, using caution not to hit tree stumps, rocks or to cut into ground.
- 2) In operating the scythe for very long hours, watch the gear for temperature behavior and buildup. If it becomes too hot to touch by hands, stop work, check the gear case. Refill lubricating oil before restarting.
- 3) It is also necessary during operation over a long period of time to interrupt the work from time to time in order to check on loose screws and loose cutters.
- 4) During operation, use caution not to bump the scythe against a tree or a rock, because the operating rod can bend and make the scythe no longer usable.

## 8. CHECKUP AND MAINTENANCE

### 8-1. Care and Maintenance

- 1) Cleaning of air cleaner Remove the air cleaner screen and clean it if dirty. In particular, in operating in a dusty place, it needs to be cleaned every day.
- 2) Spark Plug  
The spark plug gap is set at 0.6–0.7 mm. Adjust the clearance if it becomes small or too large. If the plug is dirty with deposited carbon, take out and clean the plug, and then put it back in position.

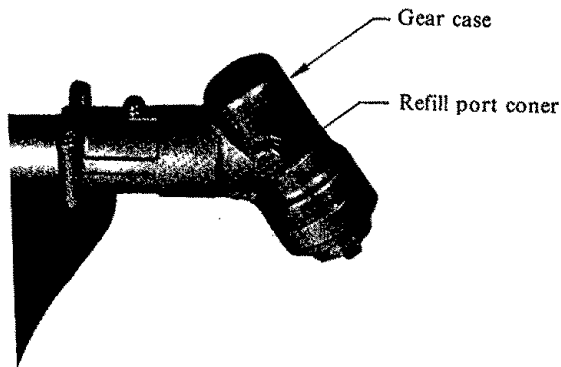


- 3) Carburetor  
When rotation is unstable, adjust the fuel adjusting needle valve a little to stabilize rotation.

- 4) Cylinder fins  
Clogged fins will result in poor engine cooling. Remove dirt and dust from between the fins to let cooling air pass easily.

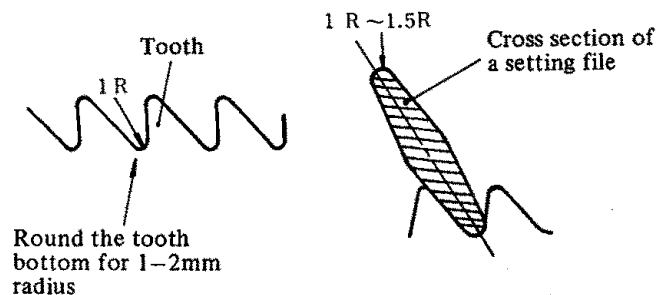
- 5) Gear Case  
After 50 or so hours of operation, refill lubricating oil by removing the refill port cover.

- 6) Screws, bolts and nuts  
Before putting the scythe in operation, check the screws, bolts and nuts for looseness and damages, particularly the set nuts of the cutter.



## 8-2. Sharpening of Cutters

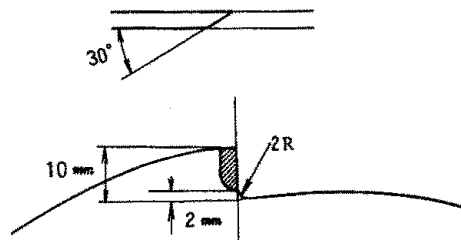
- 1) Setting can be performed efficiently by use of a circular saw setter. If it is not available, use a setting file or a saw setting machine. The work can be carried out with ease.



- 2) Sharpening of 8-blade cutter

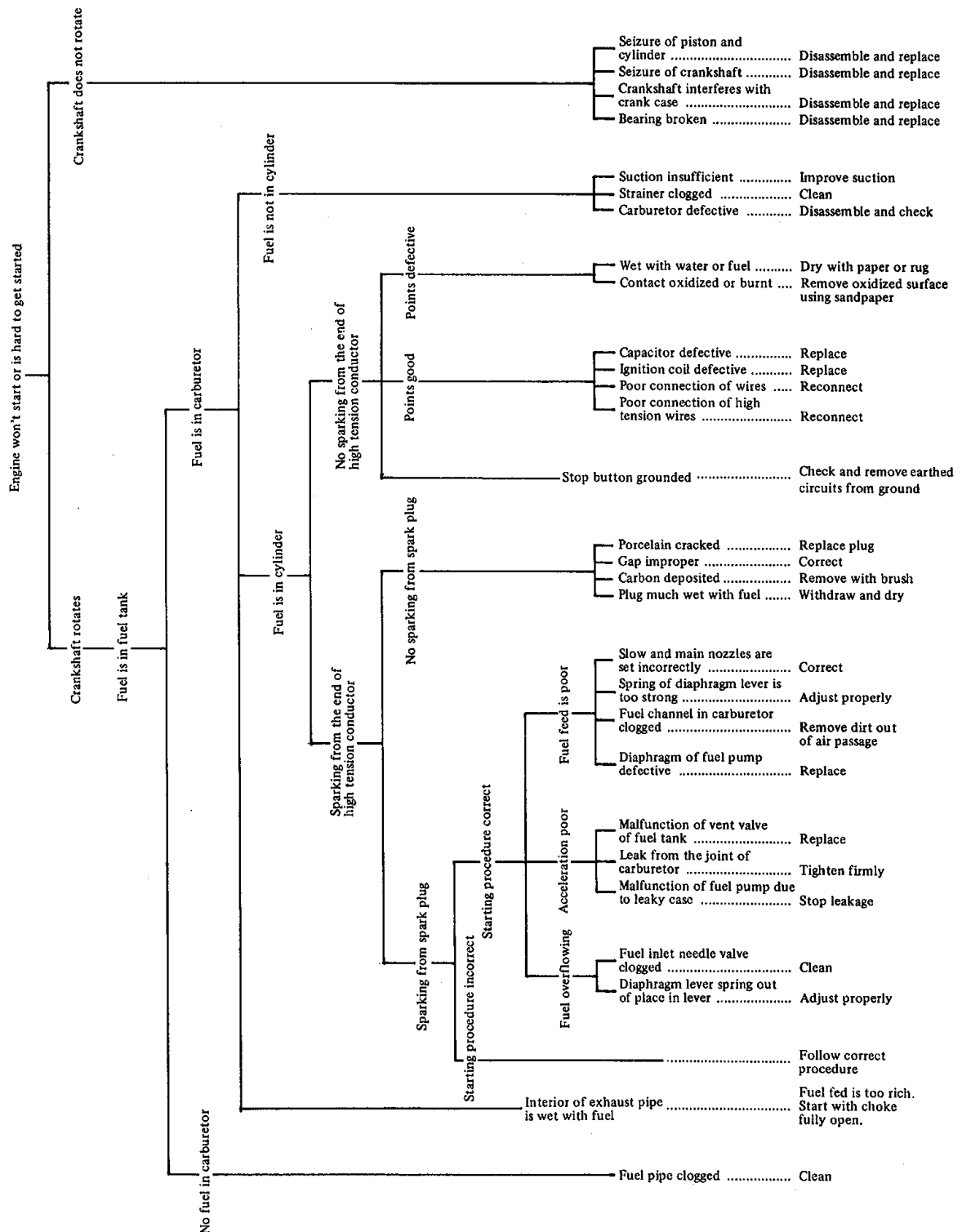
In sharpening the blades, please follow the instructions below:

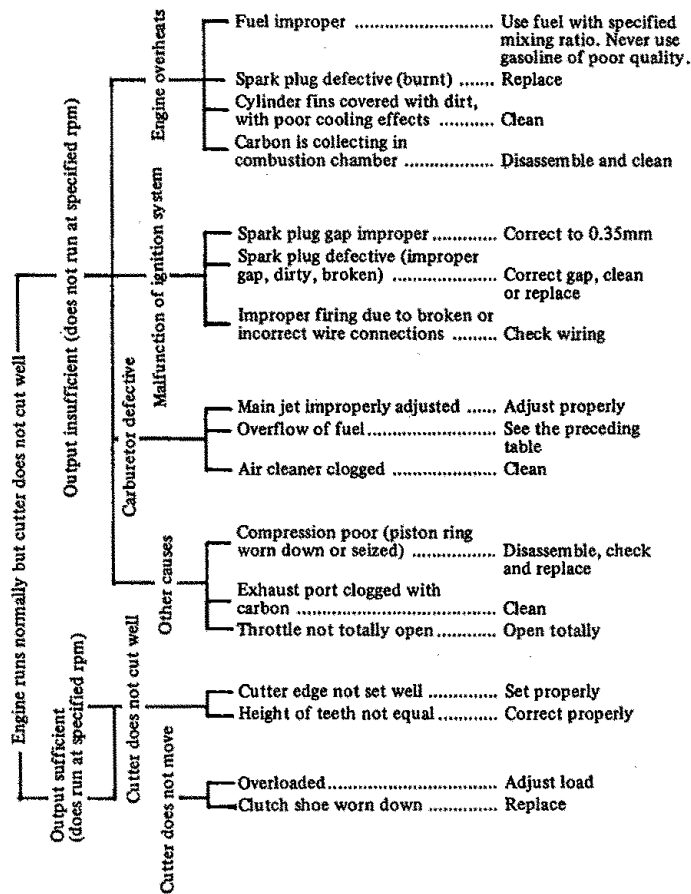
- Round the tooth bottom without fail, otherwise crack can develop starting from there.
- The length of the cutting edge must be about 10 mm from the base of the tooth, but the rounded 2 mm part is not to be sharpened.
- In sharpening the edge by use of a grinder, do not cool the cutter abruptly by immersing it in water.
- Sharpen each blade equally so as to retain the dynamic balance of the cutter.



## 9. TROUBLE SHOOTING

In case of trouble with your scythe, before disassembling the machine, locate the cause of the trouble by referring to the following table:





## 10. CARE FOR LONG-TERM STORAGE

- (1) For long-term storage of your scythe, clean thoroughly, repair all parts requiring repair, and apply oil thinly on to metal surfaces for rust prevention.
- (2) Empty the fuel tank. Pull the recoil starter several times to discharge fuel remaining in the carburetor.
- (3) Drop a small amount of engine oil through the spark plug hole. Pull the recoil starter two or three times and stop the piston at the compression position.
- (4) Place the scythe at a dry place and cover it for dustproofing.