

Robin

Brush Cutter

MODEL NB221(AU) / 251(AU)

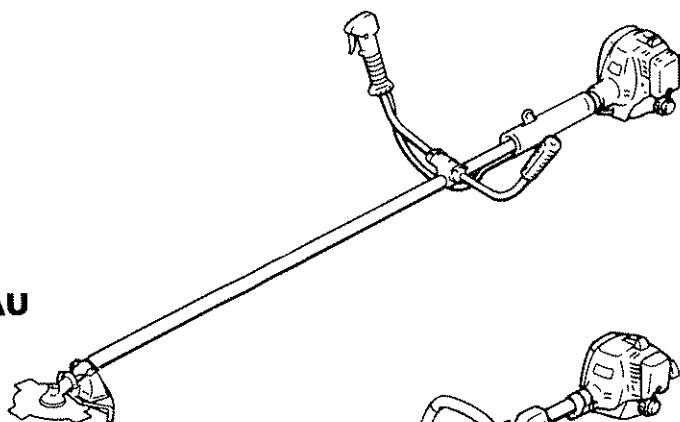
MODEL NB221(A) / 251(A)

String Trimmer

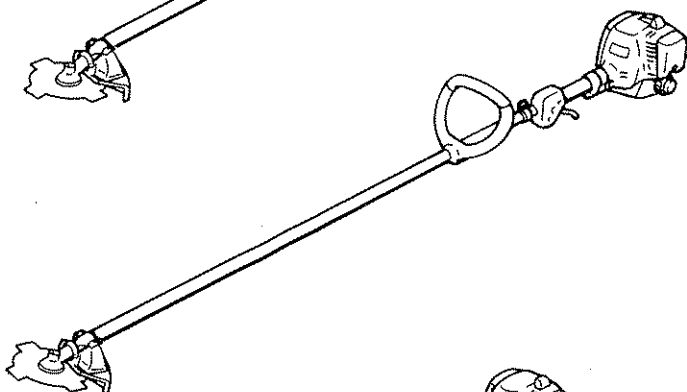
MODEL NBF251

INSTRUCTION MANUAL

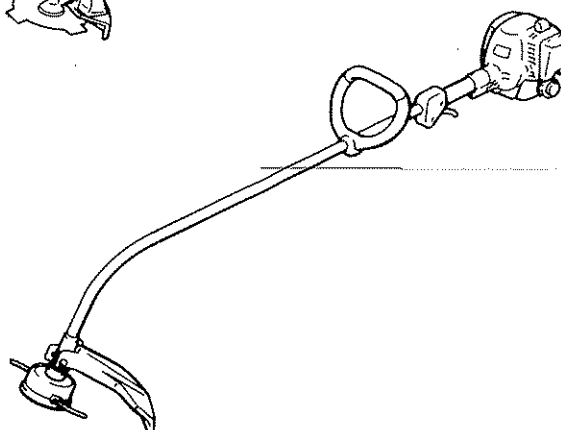
NB221AU / 251AU



NB221A / 251A



NBF251



FUJIROBIN INDUSTRIES LTD.
Tokyo-Japan

SPECIFICATIONS

| Model | NB221AU | NB251AU |
|---------------------------------|---|---------|
| Dimensions (mm) (L x W x H) | 1,725 x 580 x 360 (67-29/32" x 22-27/32" x 14-3/16") | |
| Weight (kg) | 4.2 (9.2 lbs) | |
| Revolution of cutter head (rpm) | 4,000 ~ 6,000 | |
| Gear ratio | 13/19 | |
| Clutch | Automatic centrifugal type | |
| Engine | | |
| Displacement (cc) | 21.7 | 24.5 |
| Power rating (ps) | 1.0 | 1.3 |
| Carburetor | All position diaphragm type | |
| Starting system | Recoil starter | |
| Ignition system | Solid state ignition | |
| Plug | NGK BM7A or equivalent | |
| Fuel tank (ℓ) | 0.5 (0.48 quarts) | |
| Fuel | Mixed gas (Gasoline: 2 Cycle Engine Oil = 24 : 1) | |

| Model | NB221A | NB251A |
|---------------------------------|---|--------|
| Dimensions (mm) (L x W x H) | 1,725 x 214 x 238 (67-29/32" x 8-7/16" x 9-3/8") | |
| Weight (kg) | 4.1 (9.0 lbs) | |
| Revolution of cutter head (rpm) | 4,000 ~ 6,000 | |
| Gear ratio | 13/19 | |
| Clutch | Automatic centrifugal type | |
| Engine | | |
| Displacement (cc) | 21.7 | 24.5 |
| Power rating (ps) | 1.0 | 1.3 |
| Carburetor | All position diaphragm type | |
| Starting system | Recoil starter | |
| Ignition system | Solid state ignition | |
| Plug | NGK BM7A or equivalent | |
| Fuel tank (ℓ) | 0.5 (0.48 quarts) | |
| Fuel | Mixed gas (Gasoline: 2 Cycle Engine Oil = 24 : 1) | |

| Model | NBF251 |
|---------------------------------|---|
| Dimensions (mm) (L x W x H) | 1,479 x 214 x 233 (58-7/32" x 8-7/16" x 9-3/16") |
| Weight (kg) | 4.2 (9.2 lbs) |
| Revolution of cutter head (rpm) | 6,000 ~ 7,000 |
| Clutch | Automatic centrifugal type |
| Engine | |
| Displacement (cc) | 24.5 |
| Power rating (ps) | 1.3 |
| Carburetor | All position diaphragm type |
| Starting system | Recoil starter |
| Ignition system | Solid state ignition |
| Plug | NGK BM7A or equivalent |
| Fuel tank (ℓ) | 0.5 (0.48 quarts) |
| Fuel | Mixed gas (Gasoline: 2 Cycle Engine Oil = 24 : 1) |

NOTE: • NBF251 is for use with nylon cutting heads only.
 NEVER install or use any metal cutter blade or metallic cutting line. Serious lacerations could result.
 • Specifications are subject to change without notice.

Thank you very much for your patronage in purchasing your Robin Brush Cutter/String trimmer. We are proud of and very confident in recommending our Robin Brush Cutter/String trimmer as a result of our long development and ample knowledge and experience. This booklet refers to the information which you should learn in order to take advantage of its outstanding performance. We wish for you to gain sufficient knowledge from this booklet before operating your Robin Brush Cutter / String trimmer and make the best use of it in the future. Basically, STRING TRIMMER is designed for trimming grass, weeds and low growth, non-wood ground cover. Always use the proper machine for the job.

SAFETY RULES AND PRECAUTIONS

Proper safety precautions must be observed. Like all power equipment this unit must be handled carefully. **DO NOT EXPOSE YOURSELF OR OTHERS TO DANGER.** Follow these general rules. Do not permit others to use this machine unless they are thoroughly responsible and have read, and understand the machine manual and are trained in its operation.

1. Always wear safety goggles for eye protection. Dress properly, do not wear loose clothing or jewelry that could become caught in moving parts of the unit. Safe, sturdy, nonskid footwear should always be worn. Long hair should be tied back. It is recommended that legs and feet be covered to protect from flying debris during operation.
2. Inspect the entire machine for loose parts (nuts, bolts, screws, etc.) and any damage. Repair or replace as necessary before using the machine.
3. **DO NOT USE** any attachment with this power head other than those recommended by the manufacturer of the engine. Serious injury to the user or bystanders or damage to the engine could result.
4. Keep the handles free of oil and fuel.
5. Always use the proper handle and shoulder strap when cutting.
6. Do not smoke while mixing fuel or filling tank.
7. Do not mix fuel in an enclosed room or near open flames. Assure adequate ventilation.
8. Always mix and store the fuel in a properly marked container that is approved by local codes and ordinances for such usage.
9. Never remove the fuel tank cap while the engine is running.
10. Never start or run the engine inside a closed room or building. Fumes from the exhaust contain dangerous carbon monoxide.
11. Never attempt to make engine adjustments while the unit is running and strapped to the operator. Always make engine adjustments with the unit resting on a flat, clear surface.
12. Do not use the unit if it is damaged or poorly adjusted. Never remove the machine's guard.
13. Inspect the area to be cut and remove all debris that could become entangled in Cutter Blade or nylon Cutting head. Also remove any objects that the unit may throw during cutting.
14. Keep children away. Onlookers should be kept at a safe distance from the work area, at least 50 feet.
15. Never leave the machine unattended.
16. Do not use this unit for any job other than those for which it is intended as described in this manual.
17. Do not overreach. Keep proper footing and balance at all times. Do not run unit while standing on a ladder or any other unstable footing location.
18. Keep hands and feet clear of the nylon cutting head while unit is in use.
19. Do not use this type of machine for sweeping away debris.
20. Do not use the unit when you are tired or under the influence of medications, drugs or alcohol.
21. Use Cutter Blade or nylon cutting head which is free of damage. If a stone or any other obstacle is hit, stop the engine and check the nylon cutting head. A broken or unbalanced Cutter Blade or nylon cutting head must never be used. Follow instruction for changing accessories.
22. Do not store in a closed area where fuel vapors can reach an open flame from hot water heaters, furnaces, etc. Store in a locked, well ventilated area only.

23. Use only replacement parts that are identical to original equipment parts when servicing the unit. These parts are available from your dealer. The use of any other accessory or attachment may create a potential hazard, injury to the user and damage to the machine.
24. Clean the machine completely, especially, the fuel tank cap, its surroundings, and the air cleaner.
25. When refueling, be sure to stop the engine and confirm that it is cooled down. Never refuel when the engine is running or hot. When gasoline spills, be sure to wipe it up completely and properly dispose of those materials before starting the engine.
26. Stay clear of other workers or bystanders.
27. Whenever approaching an operator of the machine, carefully call his attention and confirm that the operator stops the engine. Be careful not to startle or distract the operator causing an unsafe situation.
28. Never touch the nylon cutting head whenever the engine is running. If it is necessary to adjust the protector or nylon cutting head, be sure to stop the engine and confirm that Cutter Blade or nylon cutting head has stopped running.
29. The engine should be turned off when the machine is moved between work areas.
30. Be careful not to hit Cutter Blade or nylon cutting head against stones, or the ground. Unreasonably rough operation will shorten the life of the machine as well as create an unsafe environment for yourself and those around you.
31. Pay attention to loosening and overheating of parts. If there is any abnormality of the machine, stop operation immediately and check the machine carefully. If necessary, have the machine serviced by a qualified service facility. Never continue to operate a machine which may be malfunctioning.
32. In startup or during operation of the engine, never touch hot parts such as the muffler, the high-voltage wire or the spark plug.
33. For a while after the engine has stopped, the muffler is still hot. Never place the machine in any places where there are flammable materials (dry grass, etc.), combustible gasses or combustible liquids.
34. Pay special attention to operation in the rain or just after the rain as the ground may be slippery.
35. If you slip or fall to the ground or into a hole, release the throttle lever immediately.
36. Be careful not to drop the machine or hit it against obstacles.
37. Before proceeding to adjust or repair the machine, be sure to stop the engine and detach the spark plug cap from the spark plug.
38. When the machine is to be kept in storage for a long time, drain fuel from the fuel tank and carburetor, clean the parts, move the machine to a safe place and confirm that the engine is cooled down.
39. Make periodic inspections to always assure safe and efficient operation. If you need a careful inspection of your machine, please contact our agent or dealer.
40. Keep the machine well away from fire or sparks.
41. Warning: The cutter area is still dangerous while the machine is coasting to a stop.
42. Don't try to tackle a big job with an undersized machine.
43. Wear a dust mask in dusty work conditions.
44. Wear hearing protection during loud or extended periods of use.
45. Keep guards and protectors in place and in working order.
46. Never operate this machine while it is turned upside-down or when it is at an extreme angle.

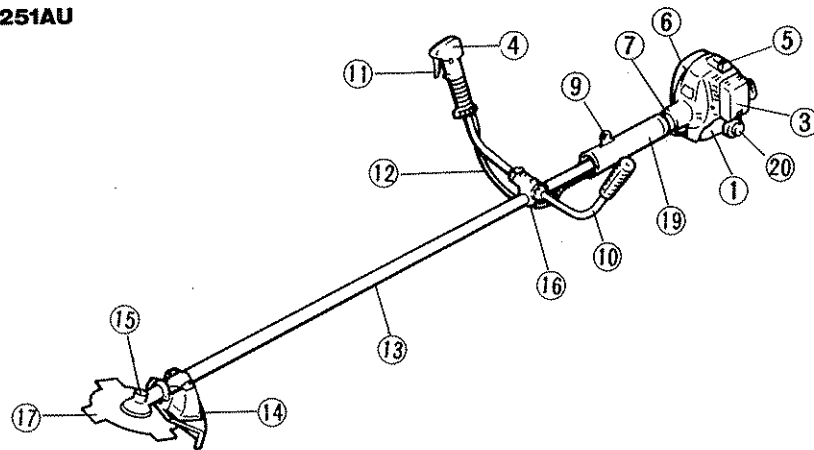
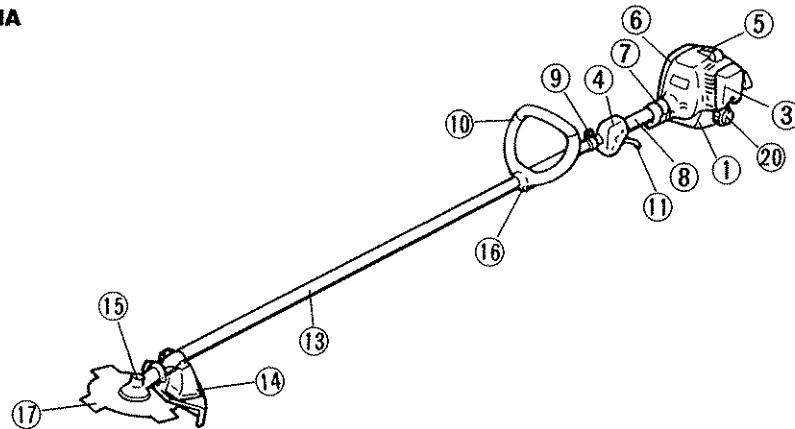
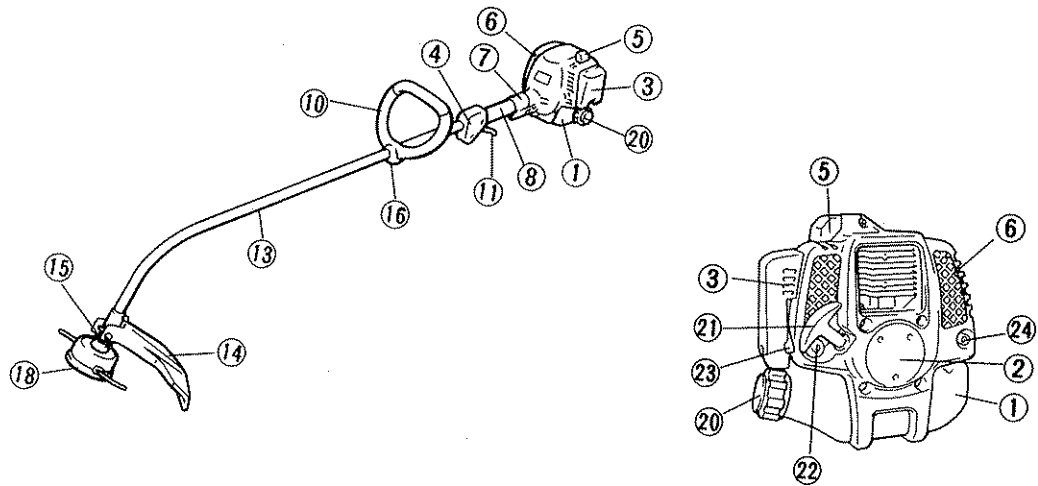
CAUTION!

CAUTION!

CAUTION!

WHEN MIXING GASOLINE WITH TWO CYCLE ENGINE OIL, USE ONLY GASOLINE WHICH CONTAINS NO ETHANOL OR METHANOL (TYPES OF ALCOHOL), THIS WILL HELP TO AVOID POSSIBLE DAMAGE TO ENGINE FUEL LINES AND OTHER ENGINE PARTS.

SAVE THESE INSTRUCTIONS.

NB221AU / 251AU

NB221A / 251A

NBF251


| ITEM NO. | DESCRIPTION | ITEM NO. | DESCRIPTION | ITEM NO. | DESCRIPTION |
|----------|----------------|----------|-----------------------|----------|--------------------|
| 1 | Fuel Tank | 9 | Hanger | 17 | Cutter Blade |
| 2 | Recoil Starter | 10 | Handle | 18 | Nylon Cutting Head |
| 3 | Air Cleaner | 11 | Throttle Lever | 19 | Waist Pad |
| 4 | ON-OFF Switch | 12 | Throttle Wire | 20 | Fuel Filler Cap |
| 5 | Spark Plug | 13 | Drive Shaft | 21 | Starter Knob |
| 6 | Muffler | 14 | Protector | 22 | Primer Pump |
| 7 | Holder Case | 15 | Gear Case / Head Case | 23 | Choke Lever |
| 8 | Rear Grip | 16 | Handle Joint | 24 | Exhaust Pipe |

ASSEMBLY INSTRUCTIONS

Assembly of engine and drive shaft

For NB221AU and NB251AU

1. Loosen the screws M5x18 and insert the drive shaft into the holder case. (Fig. 1)

(Note)

Always insert the drive shaft into the holder case fully (approx. 60 mm; 2-3/8"). If the inner shaft resists full insertion of the drive shaft, try to insert it again after slightly rotating the drive shaft or the support washer on the gear case to match the inner shaft to the hole inside the holder case.

2. After making sure that the drive shaft is installed fully and properly, tighten the screws M5x18 to secure the drive shaft.
3. Connection of throttle wire
 - 1) Connect the throttle wire as shown in Fig. 2 and firmly close the cable joint. (Fig. 2)
 - 2) Squeeze the throttle lever to make sure that the throttle wire moves smoothly.
4. Connect the switch cords to the two cords from the engine by inserting one into the other.
5. Wrap the waist pad around the drive shaft so that the hanger will protrude through the slit in the waist pad and the throttle wire and the cords will also be wrapped under the waist pad. (Fig. 3)
6. Insert the bullet connectors through the holes in the cover. (Fig. 4)

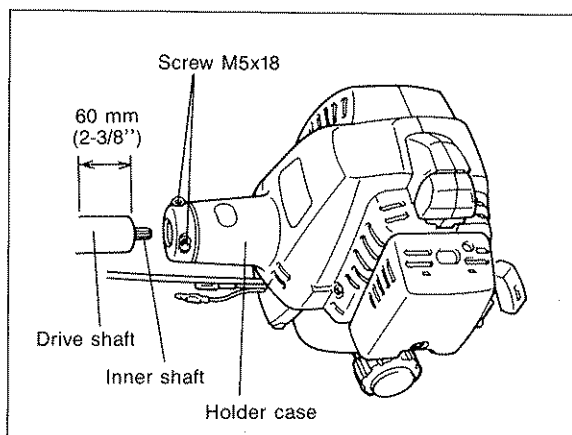


Fig. 1

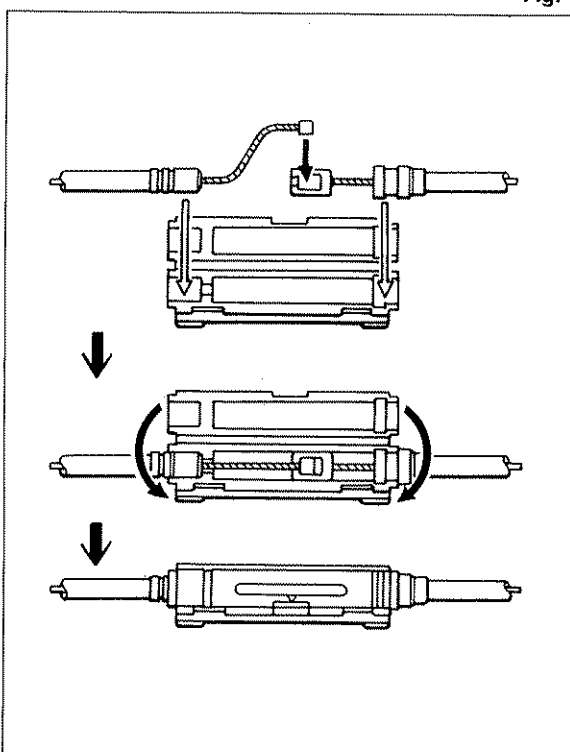


Fig. 2

For NB221A and NB251A

1. Insert the nipple of the throttle wire through the square hole in the grip until it fits into the square hole in the moving part which is inside the grip. It should move when the throttle lever is squeezed. (Fig. 6)

2. Loosen the screws M5x18 and insert the drive shaft into the holder case. (Fig. 1)

(Note)

- 1) Always insert the drive shaft into the holder case fully (approx. 60 mm; 2-3/8"). If the inner shaft resists full insertion of the drive shaft, try to insert it again after slightly rotating the drive shaft or the support washer on the gear case to match the inner shaft to the hole inside the holder case.

- 2) Be cautious not to allow the switch cords to be pinched between the holder case and the grip end.

3. After making sure that the drive shaft is installed fully and properly, tighten the screws M5x18 to secure the drive shaft.

(Note)

Squeeze the throttle lever to make sure that the throttle wire moves smoothly.

4. Connect the switch cords to the two cords from the engine by inserting one into the other.

5. Insert the bullet connectors through the holes in the cover. (Fig. 4)

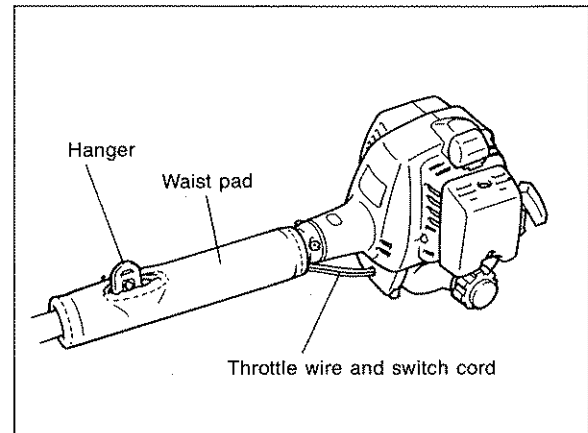


Fig. 3

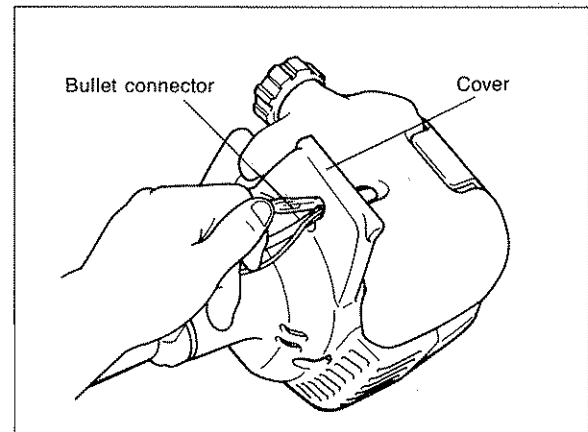


Fig. 4

For NBF25 I

1. Insert the nuts M5 into the hex holes in the holder case. Insert the screws M5x30 through the opposite holes and semi-tighten the screws M5x30. (Fig. 5)
2. Insert the nipple of the throttle wire through the square hole in the grip until it fits into the square hole in the moving part which is inside the grip. It should move when the throttle lever is squeezed. (Fig. 6)
3. Insert the drive shaft into the holder case fully until the grip end reaches the holder case while passing the throttle wire and the switch cords through the slot in the holder case. (Fig. 7)

(Note)

- 1) Match the square drive of the inner shaft to the square hole inside the holder case by slightly rotating the drive shaft or the support washer on the head case, and you can insert the drive shaft into the holder case smoothly.
- 2) Be cautious not to allow the switch cords to be pinched between the holder case and the grip end.
4. Match the hole in the holder case to the hole in the inner shaft and insert the screw M5x8 through the holes. Then tighten the screw M5x8 and the screws M5x30. (Fig. 8)

(Note)

Squeeze the throttle lever to make sure that the throttle wire moves smoothly.

5. Connect the switch cords to the two cords from the engine by inserting one into the other. Insert them through the holes in the cover. (Fig. 9)

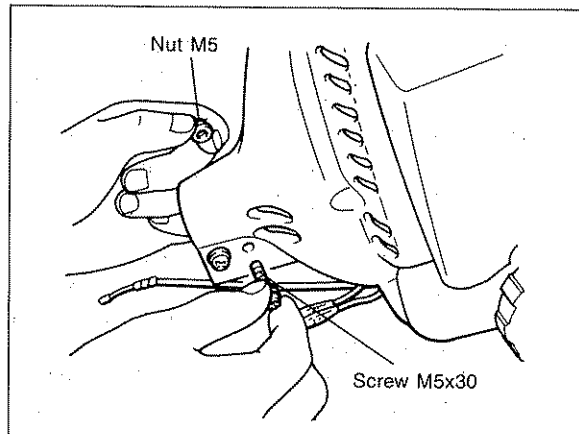


Fig. 5

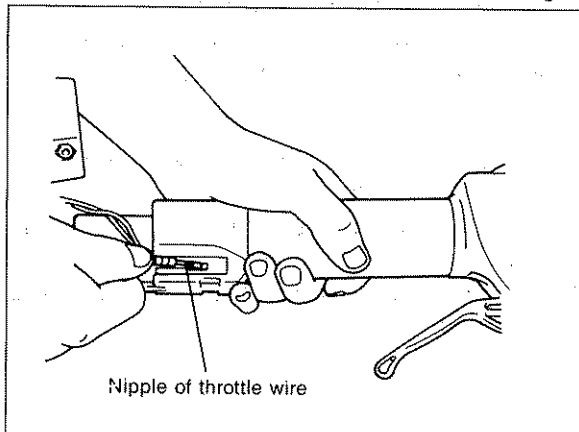


Fig. 6

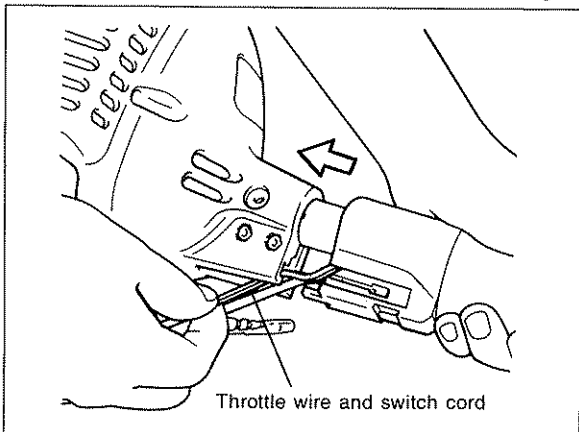


Fig. 7

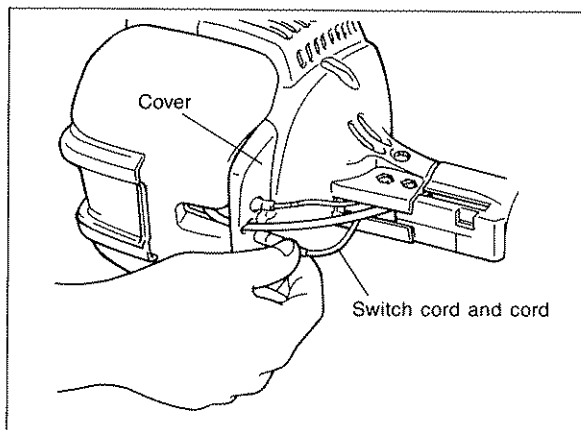


Fig. 9

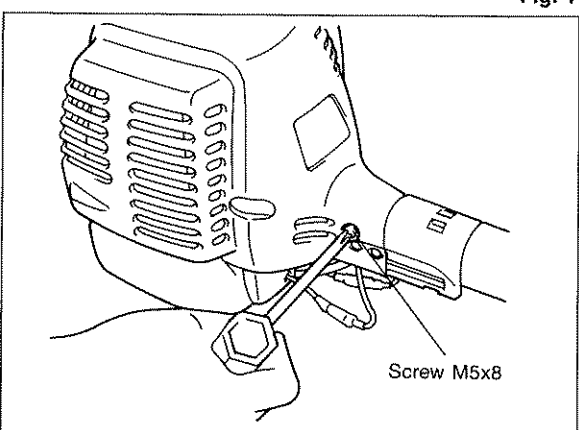


Fig. 8

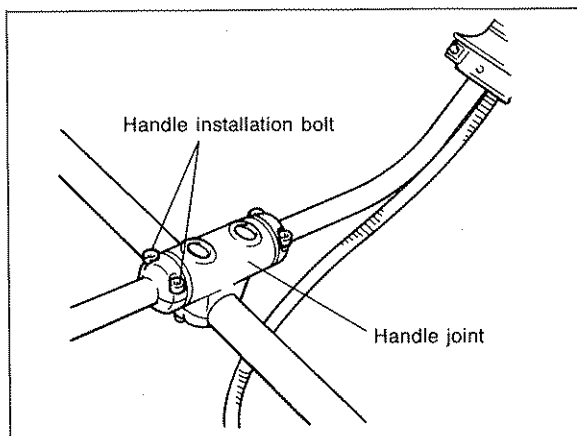


Fig. 10

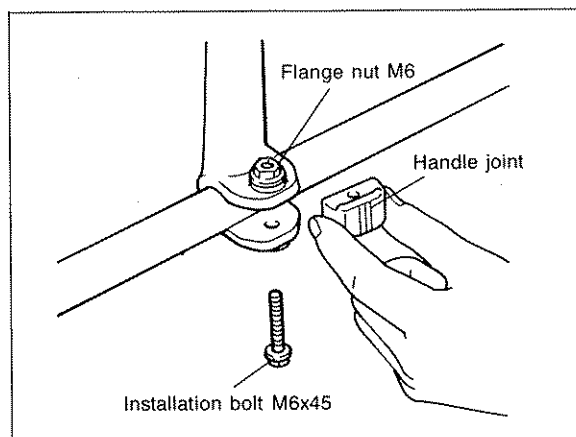


Fig. 11

Mounting of handle

For machines with anti-vibration U-handle (Fig. 10)

1. Loosen the handle installation bolts.
2. Insert the handle into the handle joint fully.
3. After making sure that the handle is installed properly, tighten the installation bolts to secure the handle.

For machines with loop handle (Fig. 11)

1. Attach the handle to the drive shaft.
2. Install the handle joint on the handle as shown in Fig. 10. Insert the installation bolt M6x45 through the holes in the handle. Semitighten the installation bolt M6x45.
3. Adjust the handle to the desired position and tighten the installation bolt M6x45.

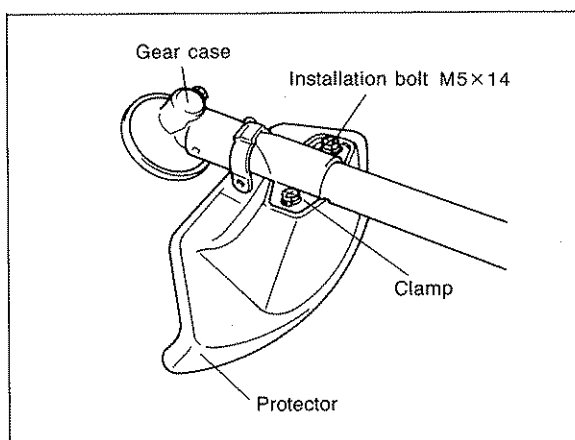


Fig. 12

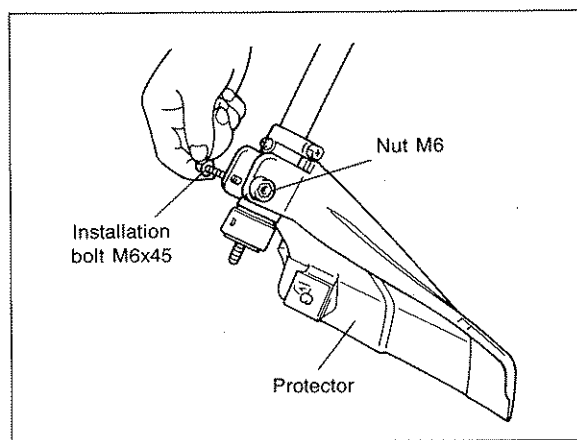


Fig. 13

Mounting of protector

For NB221AU / 251AU NB221A / 251A (Fig. 12)

Install the clamp on the drive shaft so that the projection of the clamp is inserted into the opening between the gear case and the drive shaft. Secure the protector with the installation bolts M5x14

For NBF251 (Fig. 13)

1. Attach the protector to the drive shaft.
 2. Insert the nut M6 into the hex hole in the protector.
 3. Secure the protector with the installation bolt M6x45.
- (Note)
Do not tighten the installation bolt M6x45 excessively.

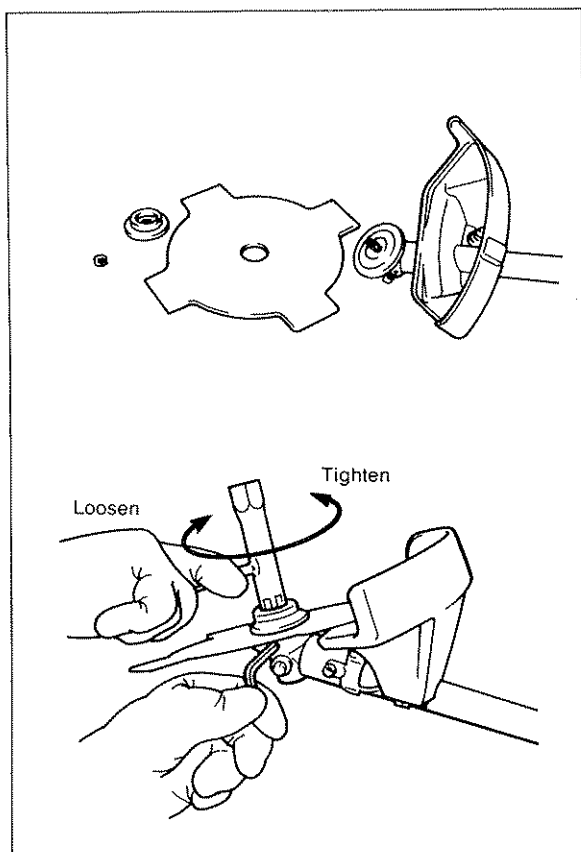


Fig. 14

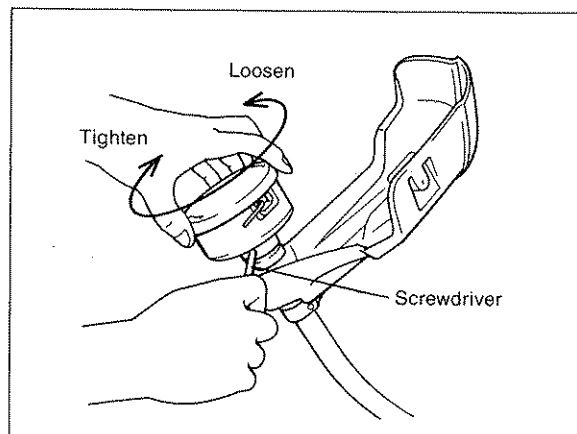


Fig. 15

Mounting of cutter blade or nylon cutting head

Turn the machine upside down, and you can replace the cutter blade or the nylon cutting head easily.

For NB221AU / 251AU, NB221A / 251A (Fig. 14)

1. Insert the hex wrench through the hole in the gear case and rotate the support washer until it is locked with the hex wrench (or the shaft is locked).
2. Loosen the nut (left-handed) with the socket wrench and remove the nut, and tightening washer.
3. When mounting the cutter blade (metal blade)
Mount the cutter blade onto the shaft so that the guide of the support washer fits in the arbor hole in the cutter blade. Install the tightening washer and secure the cutter blade with the nut.

(Note)

Always wear gloves when handling the cutter blade.

For NBF251(Fig. 15)

1. Insert the screwdriver provided through the hole in the head case and rotate the support washer until it is locked with the screwdriver (or the shaft is locked).
2. Screw the nylon cutting head onto the shaft.

PREPARING FOR OPERATION

Fuel and oil mixture

Inspect the fuel tank and fill with clean, fresh fuel of the proper mixture to assure the longer life of the tool. Use the following mixed gas.

Gasoline : 2 cycle engine oil = 24 : 1 or

WHEN MIXING GASOLINE WITH TWO CYCLE ENGINE OIL, USE ONLY GASOLINE WHICH CONTAINS NO ETHANOL OR METHANOL (TYPES OF ALCHOL), THIS WILL HELP TO AVOID POSSIBLE DAMAGE TO ENGINE FUEL LINES AND OTHER ENGINE PARTS.

DO NOT MIX GASOLINE AND OIL DIRECTLY IN THE ENGINE FUEL TANK.

IMPORTANT: Failure to follow proper fuel mix instructions may cause damage to the engine.

CAUTION:

1. When preparing fuel mixture, mix only the amount needed for the job you are to do. Do not use fuel mixture that has been stored longer than two months. Fuel mixture stored longer than this will cause hard starting and poor performance. If fuel mix has been stored longer than this time, it should be removed and filled with a fresh mixture.


2. Never fill the fuel tank to the very top.
3. Never add fuel to the tank in a closed unventilated area.
4. Do not add fuel to this unit close to an open fire or sparks.
5. Be sure to wipe off spilled fuel before attempting to start the engine.
6. Do not attempt to refuel a hot engine.

Check points before operation

1. Check for loose bolts, nuts and fittings.
2. Check the air cleaner for dirt. Clean the air filter of all dirt, etc. before operation.
3. Check to be sure that protector is securely in place.

ENGINE STARTING AND STOPPING PROCEDURES

Starting


1. When the engine is cold, left stopped for more than 5 minutes or when fuel is added to the engine:
 - 1) Push the stop switch to "START" position. (Fig. 16 and 17)
 - 2) Give a gentle push on the primer pump repeatedly (7 — 10 times) until fuel comes into the primer pump. (Fig. 18)
 - 3) Close the choke lever fully by moving it to the  position. (Fig. 18)
 - 4) Lock the throttle lever in the "start-up" position as follows.

For NB221AU / 251AU

Press the safety "lock-off" lever and squeeze the throttle lever fully. Then depress the lock button. Release the throttle lever while depressing the lock button. The throttle lever will now be locked in the "start-up" position. (Fig. 16)

For NB221A / 251A NBF251

Squeeze the throttle lever fully. Hook the lock fin to the notch in the throttle lever case while releasing the throttle lever. (Fig. 19)

- 5) Place the machine on the ground. Hold the drive shaft or grip with your left hand and give several strong pulls to the starter by your right hand.
- 6) After the engine is started, open the choke lever fully by moving it gradually to the  position.
- 7) Release the throttle lever fully.

(Note)

The throttle lever is unlocked when squeezing it slightly.

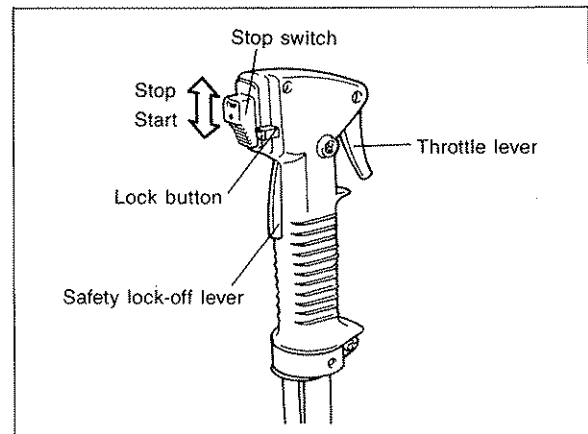


Fig. 16

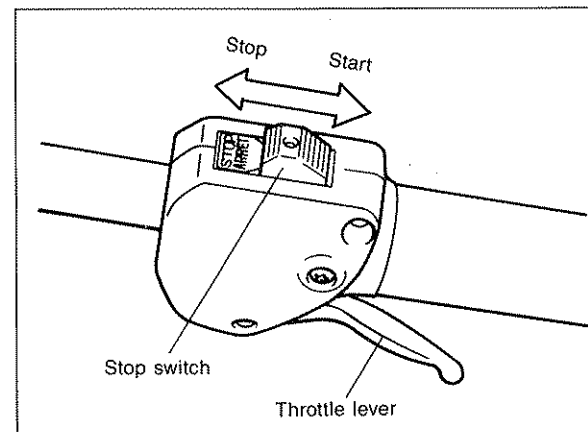


Fig. 17

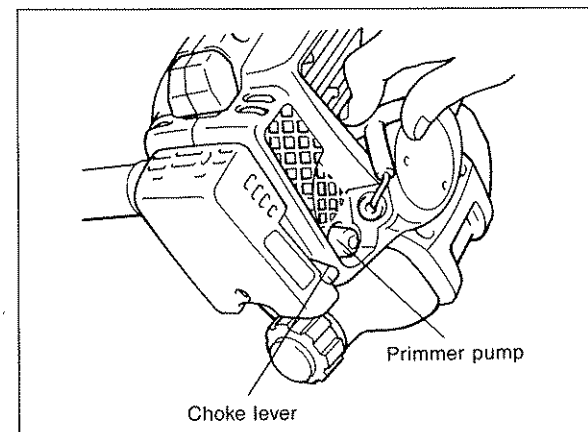


Fig. 18

2. Restarting immediately after the engine has stopped:

- 1) Push the stop switch to "START" position. (Fig. 16 and 17)
- 2) Give a gentle push on the primer pump repeatedly (7 — 10 times) until fuel comes into the primer pump. (Fig. 18)
- 3) Open the choke lever fully by moving it to the |♦| position. (Fig. 18)
- 4) Leave the throttle lever fully released.
- 5) Place the machine on the ground. Hold the drive shaft or grip with your left hand and give several strong pulls to the starter by your right hand.

CAUTION:

Never operate the engine at high rpm without load. With throttle lever fully squeezed and no load, the engine rpm will be very high which can have an adverse effect on the life of the engine.

Stopping

Release the throttle lever fully, and when the engine rpm has lowered, push the stop switch to "STOP" position. Engine will stop.

Idle adjustment

The nylon cutting head should not run when the throttle lever is fully released. If necessary, adjust the idle rpm using the idle adjusting screw. (Fig. 20)

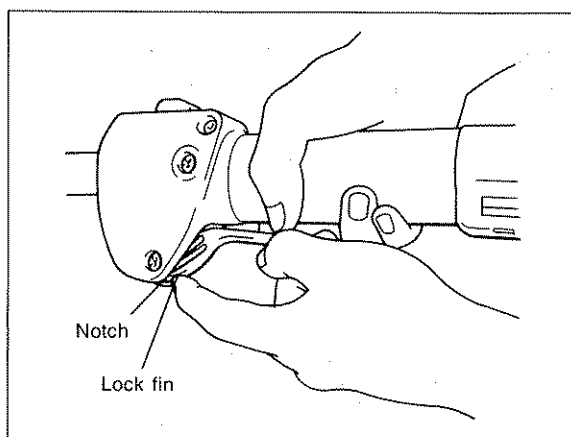


Fig. 19

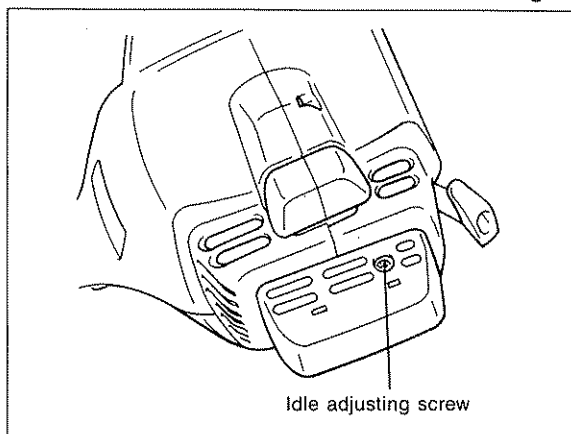


Fig. 20

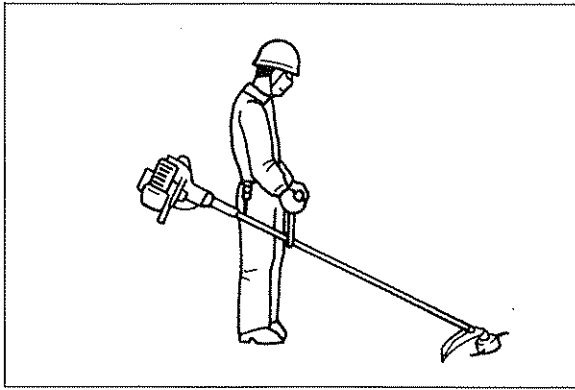


Fig. 21

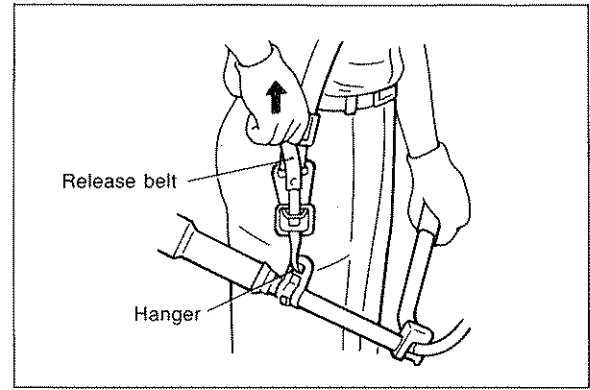


Fig. 22

CORRECT HANDLING OF MACHINE

Attachment and detachment of shoulder strap

(For NB221AU / 251AU / NB221A / 251A only)

1. Adjust the strap length so that Cutter Blade or nylon cutting head will be kept parallel with the ground. (Fig. 21)

2. Detachment

In an emergency, pull the release belt strongly upward, and you can detach the machine from you. Be extremely cautious to maintain control of the machine at this time. Do not allow the machine to be deflected toward you or anyone in the work vicinity. (Fig. 22)

WARNING:

Failure to maintain complete control of the machine at all times could result in serious bodily injury or DEATH.

Handling

1. Hang the machine on the right side of your body.
2. Squeeze the throttle lever, and the rotational speed will be increased. Release it, and the engine will run at idle (low speed). Use a rotational speed suitable for the grass being cut. If the rotational speed is excessively low, grass may become jammed in Cutter Blade or nylon cutting head.
3. During grass cutting, firmly hold the machine to permit easy, controlled handling.
4. Never strike or tap objects with Cutter Blade or nylon cutting head.

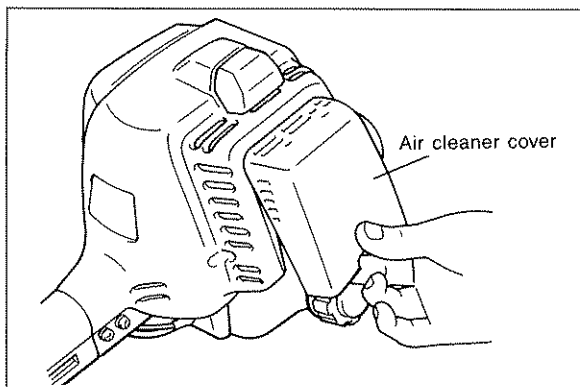


Fig. 23

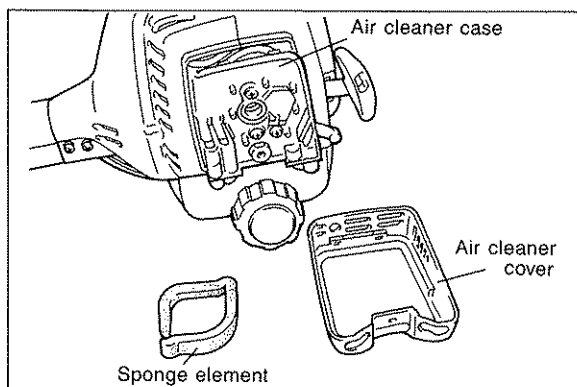


Fig. 24

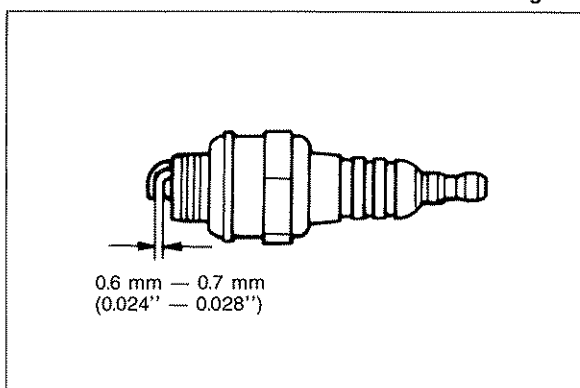


Fig. 25

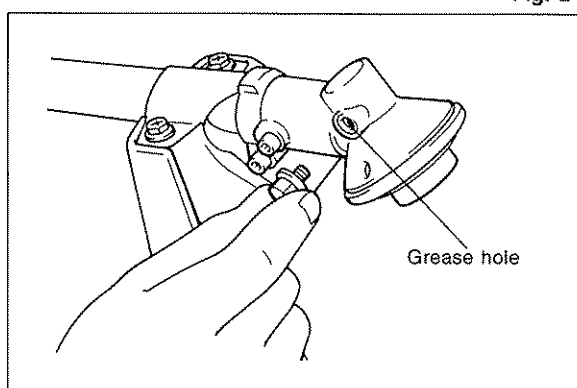


Fig. 26

DAILY CHECKUP AND MAINTENANCE

1. Before operation, check the machine for loose screws or missing parts. Pay particular attention to the tightness of Cutter Blade or nylon cutting head.
2. Before operation, always check for clogging of the cooling air passage and the cylinder fins. Clean them if necessary.
3. Cleaning of air cleaner
 - 1) Remove the air cleaner cover and clean the sponge element.
If there is excessive dust or dirt adhering to the air cleaner, clean it every day. A clogged air cleaner may make it difficult or impossible to start the engine or increase the engine rotational speed. (Fig. 23 and 24)
 - 2) Install the sponge element around the ribs of the air cleaner case.
4. Checkup of spark plug
The gap between the two electrodes of the spark plug should be 0.6 to 0.7 mm (0.024" — 0.028"). 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. (Fig. 25)
5. Supply of grease to gear case (For NB221AU / 251AU, NB221A / 251A)
Apply grease (Shell alvania No. 3 or equivalent) to the gear case through the grease hole every 30 hours. (Fig. 26)
6. Supply of grease to flexible shaft (For NBF251)
Pull the flexible shaft out of the drive shaft and apply grease (Shell alvania No. 2 or equivalent) to the flexible shaft every 10 hours.
7. Cleaning of muffler exhaust port
Check the muffler exhaust port every 50 hours. If the exhaust port is clogged with carbon, remove it by scrapping and tapping gently with a screwdriver or the like.

STORAGE

1. When storing the machine for a long time, drain fuel from the fuel tank and carburetor as follows:
Drain all fuel from the fuel tank. Give a gentle push on the primer pump repeatedly until all fuel is expelled out of the primer pump. Dispose of properly and in accordance with all local laws.
2. Remove the spark plug and add a few drops of oil into the spark plug hole. Then, pull the starter gently to assure that an oil film coats the engine inside, then tighten the spark plug.
3. Clear or blow dirt or dust from the machine and store the machine in a dry location.

AUTOMATIC TRIMMER HEAD (For NBF251)

Installation of automatic trimmer head

1. Lock the spindle of your String Trimmer.
2. Screw the automatic trimmer head by hand to the output spindle. (Fig. 27)

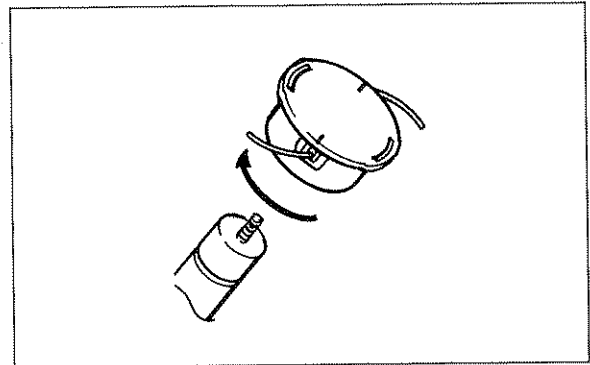


Fig. 27

Operation

1. Start the engine and operate full throttle control as per machine instruction manual.
2. The shaded portion (Fig. 28) of the cutting area indicates the effective cutting reach for mowing.

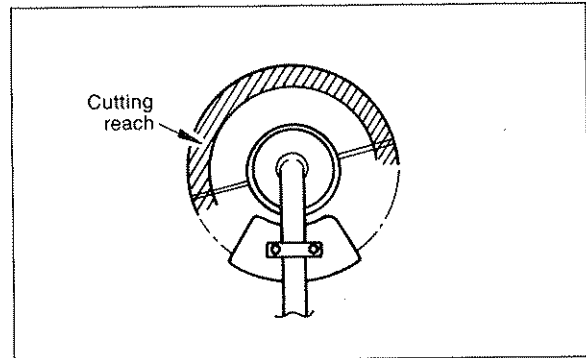


Fig. 28

Automatic adjustment of the nylon cord

The nylon cord is continuously self adjusted to a specific length. If this should not be the case release the throttle control unit the engine idles. Now open the throttle fully once more. (Fig. 29)

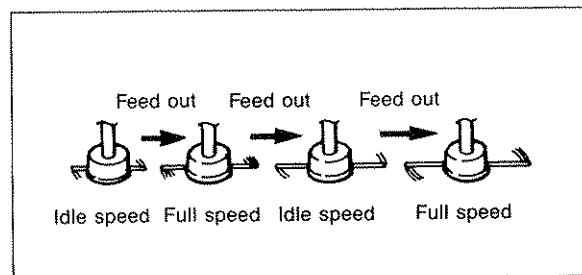


Fig. 29

Replacing the nylon cord

Warning; only attempt replacing the cord with the engine switched off and spark plug cap (H.T lead) disconnected (removed).

1. Press on the tabs (Fig. 30) in the side of the housing and remove the cover. Now remove the spool and only remaining part of nylon cord.

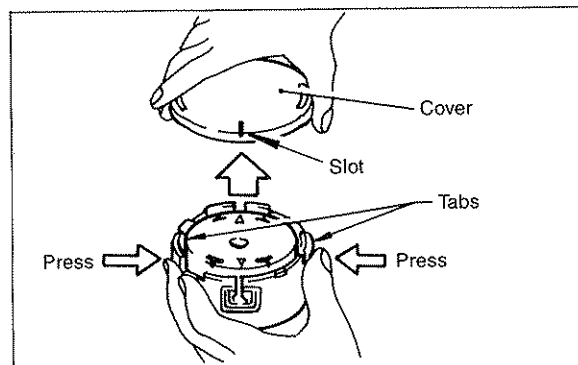


Fig. 30

2. Thread the new nylon cord through the opening in the middle of the spool (Fig. 31). Pull the nylon cord through this opening until the difference in length between both halves is only approximately 80 mm.

Attention;

The ends of the cord should be wound RH direction (as indicated on the trimmer head). (Fig. 32)

3. First pass the ends of the cord through the spool outlets. (Fig. 33)
4. Position the spool in the housing (Fig. 34) so that the markings (▲) on the spool point to the housing outlets. Now push the spool fully into the housing.
5. Take the ends of the cord from the outlets in the spool and thread them through the outlets in the housing (Fig. 35). Now replace the cover so that the slot in the underside of the cover and the opening in the housing line up.

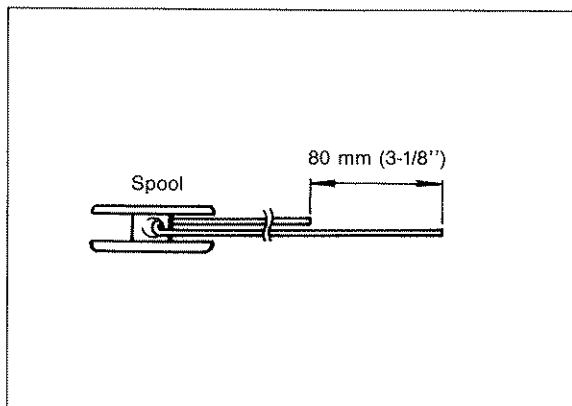


Fig. 31

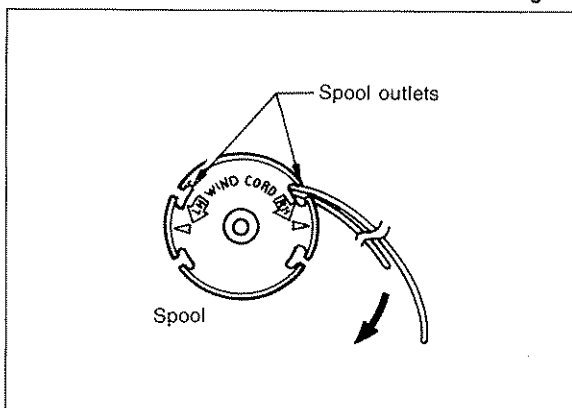


Fig. 32

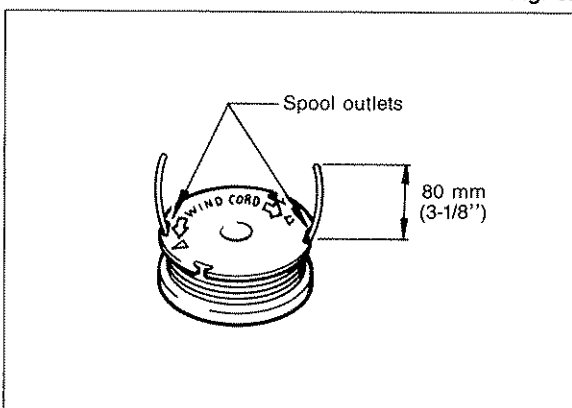


Fig. 33

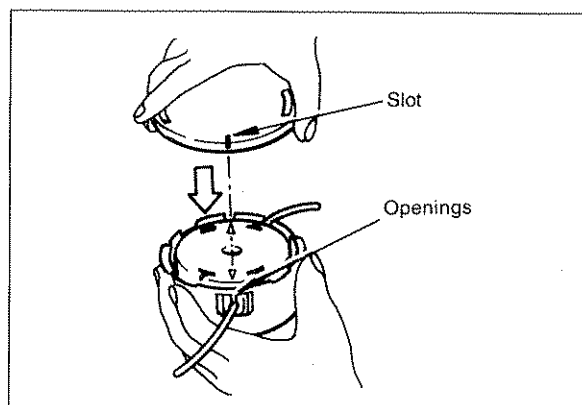


Fig. 35

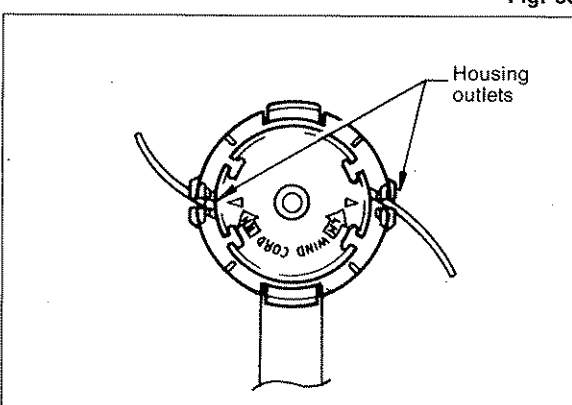
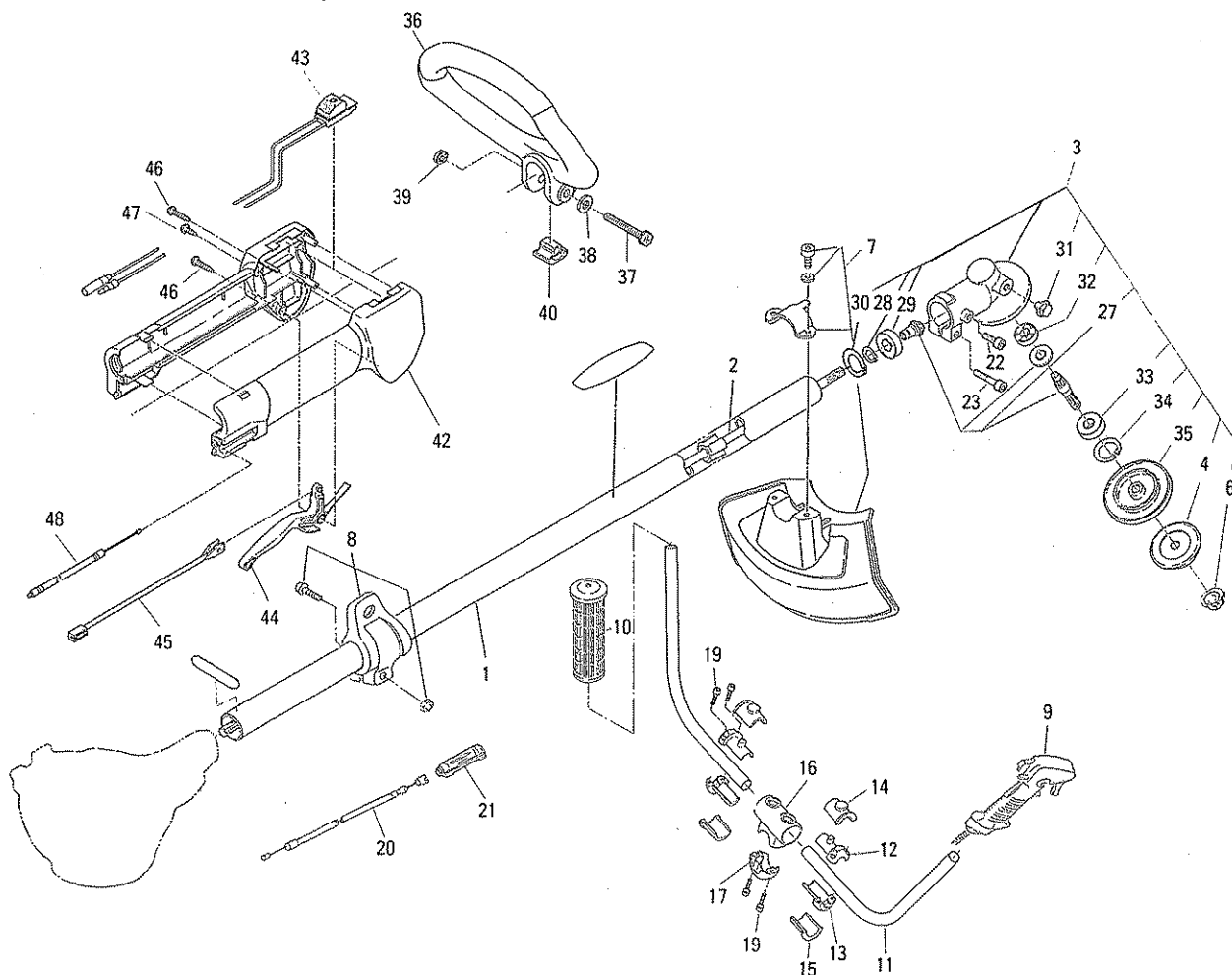


Fig. 34

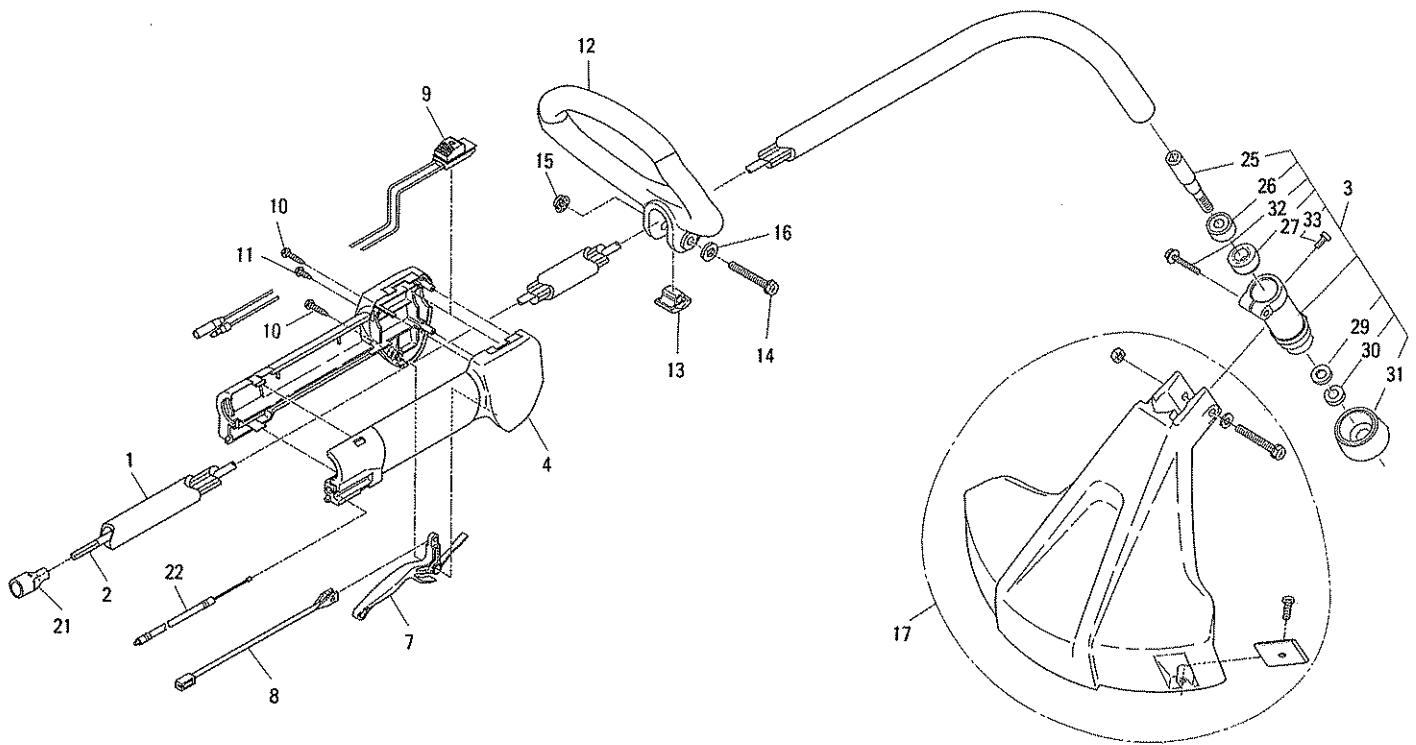


NB221AU/251AU NB221A/251A MACHINE BODY

REPLACEMENT PARTS LIST

| KEY No. | PART No. | QTY. | | DESCRIPTION |
|------------|----------------|------------------|----------------|---------------------|
| | | NB221AU 251AU | NB221A 251A | |
| 1 | 625 10280 01 | 1 | 1 | Pipe, Shaft compl. |
| 2 | 625 15063 01 | 1 | 1 | Shaft |
| 3 | 625 30140 00 | 1 | 1 | Case, Gear assy. |
| 4 | 625 85045 00 | 1 | 1 | Washer clamp. |
| 6 | 625 30110 21 | 1 | 1 | Nut |
| 7 | 625 80150 00 | 1 | 1 | Protector assy. |
| 8 | 625 40190 00-1 | 1 | 1 | Hanger assy. |
| 9 | 625 50480 01 | 1 | 1 | Control lever assy. |
| 10 | 625 45000 00 | 1 | 1 | Grip |
| 11 | 625 45028 02 | 2 | 2 | Handle |
| 12 | 625 45024 01 | 2 | 2 | Bracket, Handle 1 |
| 13 | 625 45025 01 | 2 | 2 | Bracket, Handle 2 |
| 14 | 625 45026 01 | 2 | 2 | Damper, Handle 1 |
| 15 | 625 45027 01 | 2 | 2 | Damper, Handle 2 |
| 16 | 625 45022 00 | 1 | 1 | Holder, Handle 1 |
| 17 | 625 45023 00 | 1 | 1 | Holder, Handle 2 |
| 19 | 011 90599 50 | 6 | 6 | Socket head bolt |
| 20 | 625 50520 01 | 1 | 1 | Control cable |
| 21 | 611 55037 00 | 1 | 1 | Case, Connector |
| 22 | 011 90599 00 | 1 | 1 | Socket head bolt |
| 23 | 011 90598 90 | 1 | 1 | Socket head bolt |
| 27 | 625 30130 00 | 1 | 1 | Gear set |
| 28 | 003 15090 00 | 1 | 1 | Snpring outer |

| KEY No. | PART No. | QTY. | | DESCRIPTION |
|------------|--------------|------------------|----------------|---------------------|
| | | NB221AU 251AU | NB221A 251A | |
| 29 | 621 25003 00 | 1 | 1 | Ball bearing |
| 30 | 003 14240 00 | 1 | 1 | Snpring, Inner |
| 31 | 625 30110 11 | 1 | 1 | Bolt, Oil |
| 32 | 621 35009 00 | 1 | 1 | Ball, Bearing |
| 33 | 625 35037 00 | 1 | 1 | Ball, Bearing |
| 34 | 003 14220 00 | 1 | 1 | Snpring, Inner |
| 35 | 625 85044 00 | 1 | 1 | Washer, Receive |
| 36 | 616 40050 01 | 1 | 1 | Handle compl. |
| 37 | 001 70064 50 | 1 | 1 | Bolt crossrecess |
| 38 | 003 11060 00 | 1 | 1 | Washer |
| 39 | 002 37060 00 | 1 | 1 | Flange nut |
| 40 | 616 45002 00 | 1 | 1 | Spacer |
| 42 | 616 50160 01 | 1 | 1 | Control lever assy. |
| 43 | 616 50090 01 | 1 | 1 | Switch compl. |
| 44 | 616 55006 01 | 1 | 1 | Lever |
| 45 | 616 55007 01 | 1 | 1 | Connector |
| 46 | 015 00499 20 | 2 | 2 | Tapping screw |
| 47 | 015 00499 10 | 1 | 1 | Tapping screw |
| 48 | 063 00399 00 | 1 | 1 | Control cable |
| 50 | 625 95147 00 | 1 | 1 | Label, Caution |

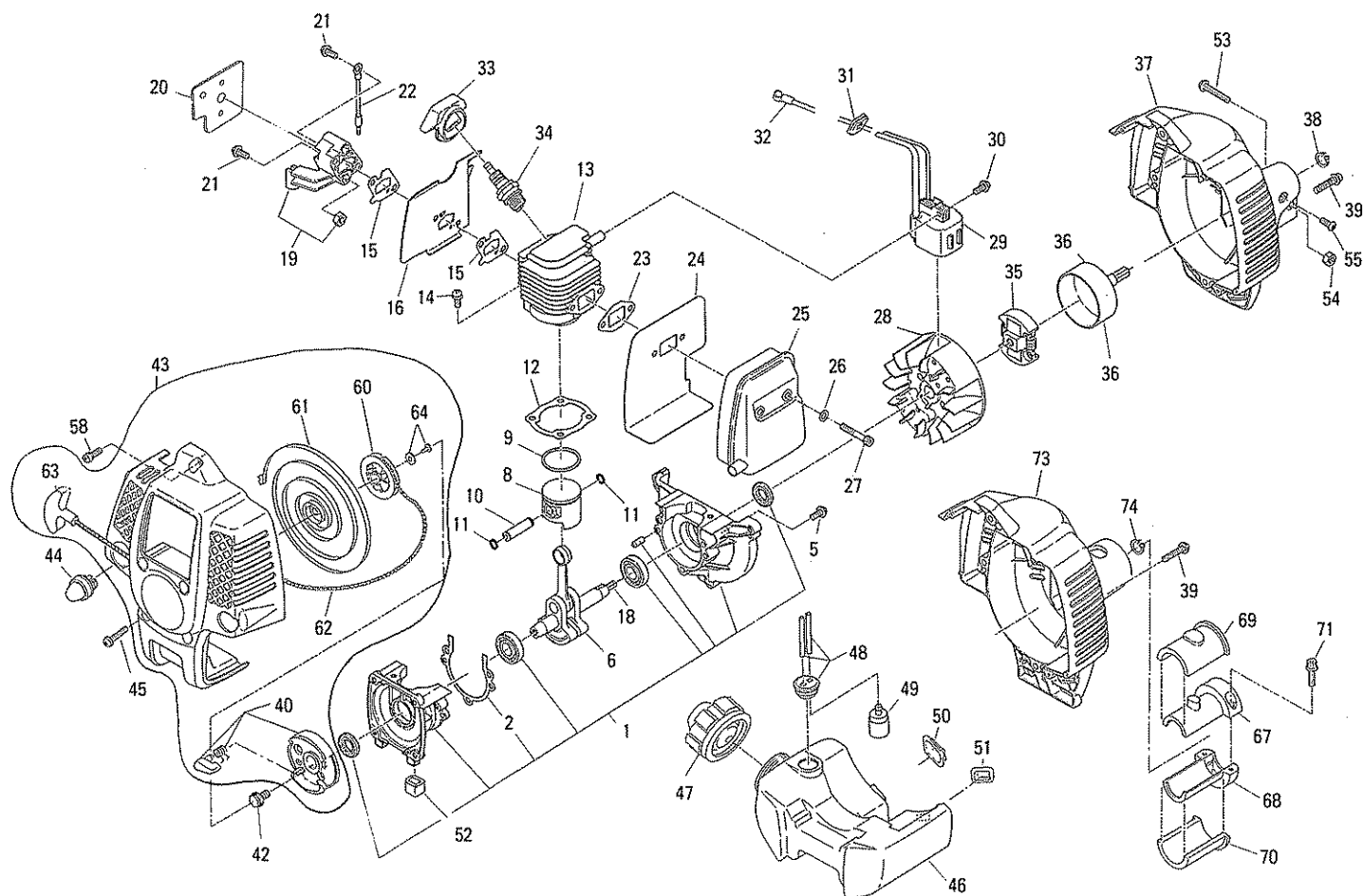


NBF251 MACHINE BODY

REPLACEMENT PARTS LIST

| KEY No. | PART No. | QTY. NBF251 | DESCRIPTION |
|---------|----------------|-------------|---------------------|
| 1 | 616 10060 00 | 1 | Pipe, Flexible unit |
| 2 | 616 10050 31 | 1 | Shaft, Flexible |
| 3 | 616 30020 02 | 1 | Case, Gear compl. |
| 4 | 616 50120 01 | 1 | Control lever assy. |
| 7 | 616 55006 01 | 1 | Lever |
| 8 | 616 55007 01-1 | 1 | Connector |
| 9 | 616 50090 01 | 1 | Switch compl. |
| 10 | 015 00499 20 | 2 | Tapping screw |
| 11 | 015 00499 10 | 1 | Tapping screw |
| 12 | 616 40030 01 | 1 | Handle compl. |
| 13 | 616 95002 00 | 1 | Spacer |
| 14 | 001 70064 50 | 1 | Bolt cross recess |
| 15 | 002 37060 00 | 1 | Flange nut |
| 16 | 003 11060 00 | 1 | Washer |
| 17 | 616 80060 00 | 1 | Protector assy. |

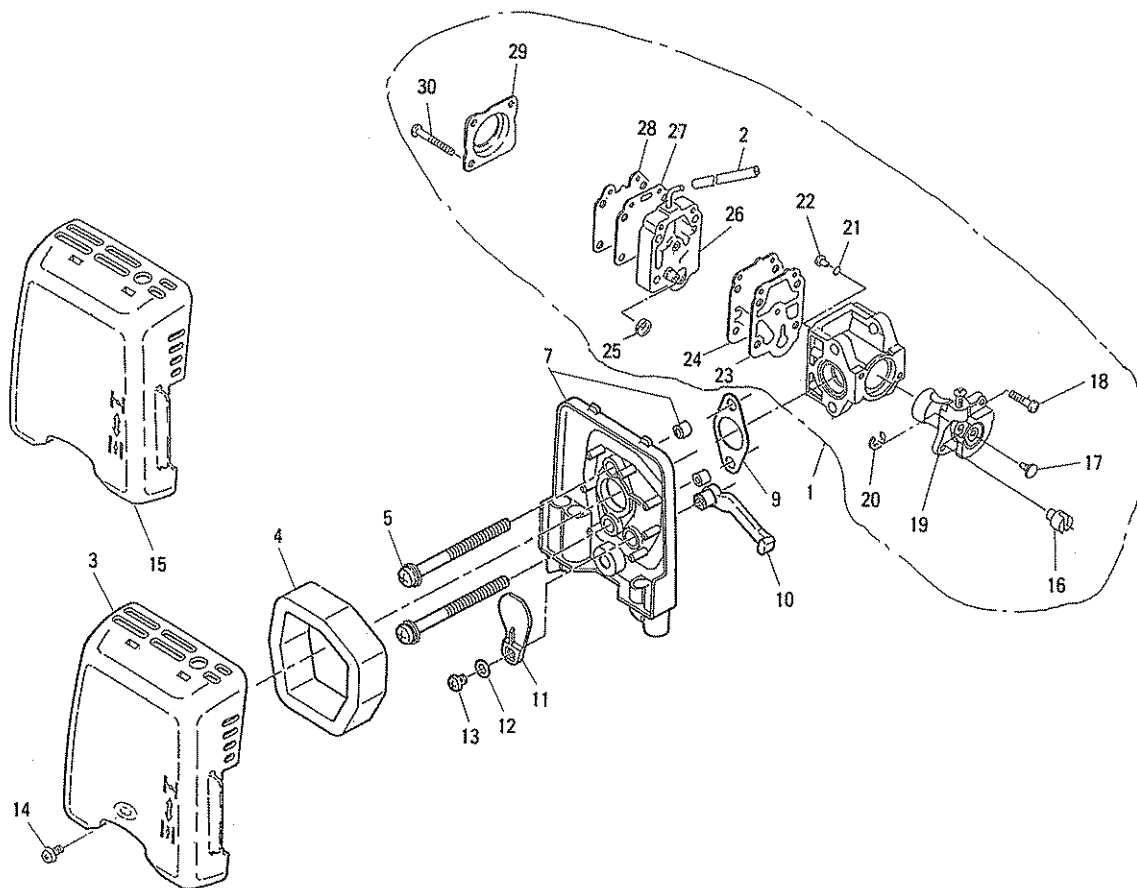
| KEY No. | PART No. | QTY. NBF251 | DESCRIPTION |
|---------|--------------|-------------|----------------|
| 21 | 616 10050 41 | 1 | Spacer |
| 22 | 063 00399 00 | 1 | Control cable |
| 25 | 616 30020 21 | 1 | Shaft, Cutter |
| 26 | 616 30020 41 | 1 | Bush, Metal |
| 27 | 616 30020 31 | 1 | Bearing |
| 29 | 616 30020 51 | 1 | Washer |
| 30 | 616 30020 61 | 1 | Spring washer |
| 31 | 616 85008 00 | 1 | Washer receive |
| 32 | 616 30021 21 | 1 | Bolt assy. |
| 33 | 004 01510 00 | 1 | Screw |



NB221/251 NBF251 ENGINE BODY

REPLACEMENT PARTS LIST

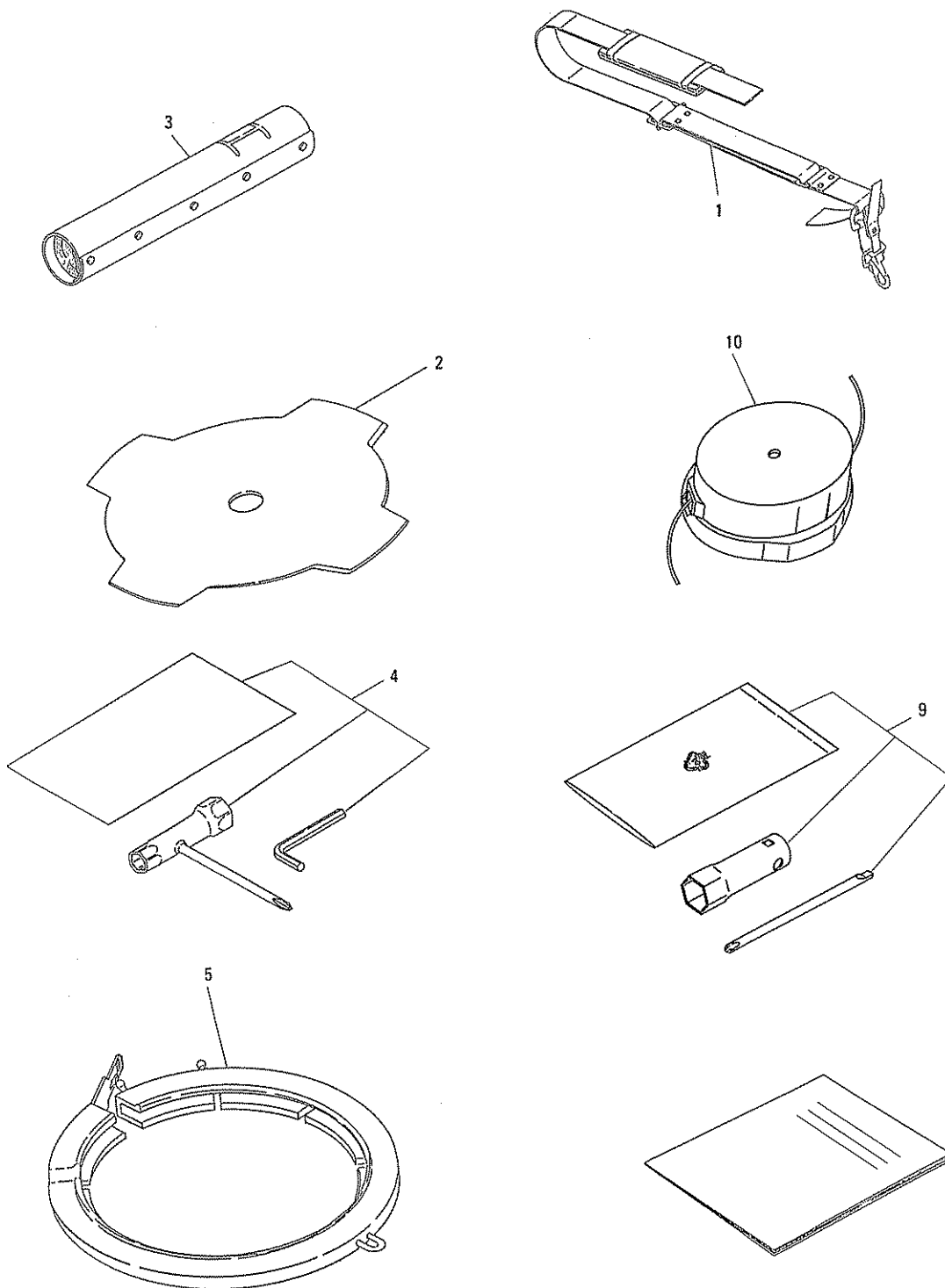
| KEY No. | PART No. | QTY. | DESCRIPTION | KEY No. | PART No. | QTY. | DESCRIPTION | KEY No. | PART No. | QTY. | DESCRIPTION |
|---------|--------------|--------------------|-----------------------|---------|--------------|--------------------|------------------------|---------|--------------|--------------------|---------------------|
| | | NB221 NB251 NBF251 | | | | NB221 NB251 NBF251 | | | | NB221 NB251 NBF251 | |
| 1 | 523 10110 00 | 1 | Crankcase compl. | 27 | 011 90596 50 | 2 | Socket head bolt | 51 | 503 65002 00 | 1 | Plate |
| 2 | 523 15022 02 | 1 | Gasket, Crankcase | 28 | 523 70340 11 | 1 | Flywheel | 52 | 521 65002 00 | 2 | Damper |
| | | | | | | | | 53 | 004 36053 00 | 2 | Screw assembly. |
| 5 | 014 00595 20 | | Screw | 29 | 523 70340 21 | 1 | Coil | 54 | 002 27050 00 | 2 | Nut |
| 6 | 523 20150 00 | 1 | Crankshaft compl. | 30 | 014 00499 20 | 2 | Screw assembly | 55 | 015 00599 50 | 1 | Tapping screw |
| | | | | 31 | 523 75032 02 | 1 | Grommet | | | | |
| 8 | 523 25019 02 | 1 | Piston | 32 | 065 40099 40 | 1 | Spring, Plug cap | 58 | 523 55046 00 | 1 | Tapping screw |
| | 521 25007 00 | 1 | Piston | 33 | 523 75033 01 | 1 | Cap, Plug | | | | |
| 9 | 524 25007 01 | 1 | Ring, Piston | | | | | 60 | 523 50240 12 | 1 | Reel |
| | 598 25000 00 | 1 | Ring, Piston | 34 | 065 01498 10 | 1 | PLug, Spark | | 521 50020 20 | 1 | Reel |
| 10 | 523 25026 00 | 1 | Pin, Piston | | | | | 61 | 523 50240 32 | 1 | Spiral spring |
| | 521 25008 01 | 1 | Pin, Piston | 35 | 616 20050 02 | 1 | Clutch assy. | | 521 50020 30 | 1 | Spiral spring |
| 11 | 056 50899 70 | 2 | Clip | 36 | 625 20140 02 | 1 | Drum clutch compl. | 62 | 523 50240 22 | 1 | Starter rope |
| 12 | 523 15023 03 | 1 | Gasket, Cylinder | | 616 20040 02 | 1 | Drum clutch compl. | | 521 50020 60 | 1 | Starter rope |
| 13 | 523 15018 02 | 1 | Cylinder | 37 | 523 50320 00 | 1 | Cover, Engine compl. | 63 | 521 50021 10 | 1 | Starter knob |
| | 521 15012 00 | 1 | Cylinder | | | | | | 522 50040 20 | 1 | Starter knob |
| 14 | 011 90597 30 | 2 | Socket head bolt | 38 | 003 15100 00 | 1 | Snapping outer | 64 | 542 50030 10 | 1 | Set screw |
| | 014 00597 00 | 2 | Screw assembly | 39 | 014 00595 10 | 3 | Screw | | | | |
| 15 | 523 35039 02 | 2 | Gasket, Insulator | 40 | 523 50250 01 | 1 | Pully | | | | |
| 16 | 523 35052 01 | 1 | Insulator, Carburetor | | 521 50030 02 | 1 | Pully | 67 | 625 15068 01 | 1 | Bracket, Pipe 1 |
| | 523 35040 01 | 1 | Insulator, Carburetor | 42 | 523 55047 00 | 1 | Bolt assy. | | 625 15069 01 | 1 | Bracket, Pipe 2 |
| 18 | 010 50649 70 | 1 | Stud | 43 | 523 50230 02 | 1 | Starter, Rewind compl. | 69 | 625 15066 01 | 1 | Damper, Pipe 1 |
| | | | | | 523 50300 00 | 1 | Starter, Rewind compl. | | 625 15067 01 | 1 | Damper, Pipe 2 |
| 19 | 523 30380 01 | 1 | Insulator compl. | 44 | 523 65043 00 | 1 | Pump | 71 | 011 90599 50 | 2 | Socket head bolt |
| 20 | 523 35041 03 | 1 | Gasket, Insulator | 45 | 004 36051 80 | 4 | Screw assembly | | | | |
| 21 | 014 00595 00 | 2 | Screw | 46 | 523 65041 01 | 1 | Tank, Fuel | 73 | 523 50260 02 | 1 | Cover engine compl. |
| 22 | 616 55012 00 | 1 | Wire | 47 | 531 60020 03 | 1 | Cap, Fuel tank assy. | | 003 15120 00 | | Snapping outer |
| 23 | 523 35043 02 | 1 | Gasket, Muffler | 48 | 523 60480 02 | 1 | Tube | | | | |
| 24 | 523 35053 01 | 1 | Insulator, Muffler | | | | | 49 | 523 65039 00 | 1 | Filter |
| | 523 35044 02 | 1 | Insulator, Muffler | | | | | 50 | 503 65003 00 | 1 | Plate |
| 25 | 523 30410 01 | 1 | Muffler, Exhaust | | | | | | | | |
| | 523 30370 03 | 1 | Muffler, Exhaust | | | | | | | | |
| 26 | 003 10050 00 | 2 | Washer | | | | | | | | |



NB221/251 NBF251 AIR CLEANER

REPLACEMENT PARTS LIST

| KEY No. | PART No. | QTY. | | | DESCRIPTION |
|------------|--------------|-------|-------|--------|--------------------------|
| | | NB221 | NB251 | NBF251 | |
| 1 | 523 60470 04 | 1 | 1 | 1 | Carburetor |
| 2 | 523 65046 01 | 1 | 1 | 1 | Tube |
| 3 | 523 35055 03 | 1 | 1 | 1 | Case, Air cleaner |
| 4 | 523 35047 00 | 1 | 1 | 1 | Element, Air cleaner |
| 5 | 004 36056 50 | 2 | 2 | 2 | Screw assembly |
| 7 | 523 35057 01 | 1 | 1 | 1 | Plate, Cleaner |
| | 523 35045 02 | 1 | 1 | 1 | |
| 9 | 523 35042 00 | 1 | 1 | 1 | Gasket, Carburetor |
| 10 | 523 35048 01 | 1 | 1 | 1 | Lever, Choke |
| 11 | 523 35050 02 | 1 | 1 | 1 | Plate, Choke |
| 12 | 003 11040 00 | 1 | 1 | 1 | Washer |
| 13 | 015 00499 80 | 1 | 1 | 1 | Screw |
| 14 | 004 36051 40 | 1 | 1 | 1 | Screw assembly |
| 15 | 523 35046 02 | 1 | 1 | 1 | Case, Air cleaner |
| 16 | 523 60180 40 | 1 | 1 | 1 | Swivel |
| 17 | 520 60081 10 | 1 | 1 | 1 | Plug |
| 18 | 520 60080 30 | 2 | 2 | 2 | Screw |
| 19 | 523 60470 22 | 1 | 1 | 1 | Valve assembly-throttle |
| 20 | 531 60051 20 | 1 | 1 | 1 | Ring-retaining |
| 21 | 524 60010 10 | 1 | 1 | 1 | Ring-"o" |
| 22 | 523 60290 10 | 1 | 1 | 1 | Jet |
| 23 | 524 60010 30 | 1 | 1 | 1 | Gasket-pump |
| 24 | 524 60010 40 | 1 | 1 | 1 | Diaphragm-pump |
| 25 | 501 60040 10 | 1 | 1 | 1 | Screen-inlet |
| 26 | 523 60470 12 | 1 | 1 | 1 | Body assembly-pump |
| 27 | 501 60041 30 | 1 | 1 | 1 | Gasket-met'g diaphragm |
| 28 | 531 60052 50 | 1 | 1 | 1 | Diaphragm assembly-met'g |
| 29 | 531 60050 30 | 1 | 1 | 1 | Cover, Primer pump |
| 30 | 521 60020 20 | 4 | 4 | 4 | Screw |



NB221/251 NBF251 STANDARD PARTS

REPLACEMENT PARTS LIST

| KEY No. | PART No. | QTY. | DESCRIPTION |
|------------|--------------|----------------------------------|---------------|
| | | NB221AU/251AU NB221A/251A NBF251 | |
| 1 | 620 70030 02 | | Band assy. |
| 2 | 620 85012 00 | | Cutter |
| 3 | 625 75001 00 | | Cushion |
| 4 | 611 90190 00 | | Tool |
| 5 | 641 85007 00 | | Cover, Cutter |
| 9 | 616 90190 00 | | Tool |
| 10 | 616 80050 01 | | Cutter assy. |

LIMITED TWO YEAR WARRANTY

Carswell Import & Marketing Associates, Inc. (hereafter CIMA), sales agent for FujiRobin Industries, Ltd. warrants each new Robin brush cutter for twenty-four (24) months according to the following terms.

This warranty extends to the original retail purchaser only and commences on the date of original retail purchase.

Any part of Robin string trimmer / brush cutter supplied by CIMA and found in the reasonable judgment of an Authorized Robin Service Center to be defective in material or workmanship will be repaired by an Authorized Robin Service Dealer without charge for parts and labor.

The Robin string trimmer / brush cutter including any defective part must be returned to an Authorized Robin Service Dealer within the warranty period. The expense of delivering the Robin string trimmer / brush cutter to the dealer for warranty work and the expense of returning it back to the owner after repair or replacement will be paid for by the owner.

CIMA's responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Robin string trimmer / brush cutter. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work should be performed by an Authorized Robin Service Dealer.

This warranty is limited to ninety (90) days from the date of original retail purchase for any Robin string trimmer / brush cutter that is used for rental or commercial purposes, or any other income-producing purpose.

This warranty does not cover any Robin string trimmer / brush cutter that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Robin Operator's Manual. The warranty does not apply to any damage to the Robin string trimmer / brush cutter that is the result of improper maintenance or to any Robin string trimmer / brush cutter or parts that have not been assembled or installed as specified in the Robin Operator's Manual. The warranty does not cover any Robin string trimmer / brush cutter that has been altered or modified so as to adversely affect the product's operation, performance or durability or that has been altered or modified so as to change its intended use. In addition, the warranty does not extend to repairs made necessary by normal wear, or by the use of parts or accessories which are either incompatible with the Robin string trimmer / brush cutter or adversely affect its operation, performance or durability.

Robin reserves the right to change or improve the design of any Robin string trimmer / brush cutter without assuming any obligation to modify any brush cutter previously manufactured.

ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE TWENTY FOUR (24) MONTHS WARRANTY PERIOD OR NINETY (90) DAYS FOR STRING TRIMMER / BRUSH CUTTERS USED FOR ANY INCOME-PRODUCING PURPOSE. ACCORDINGLY, ANY SUCH IMPLIED WARRANTIES INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE DISCLAIMED IN THEIR ENTIRETY AFTER THE EXPIRATION OF THE APPROPRIATE TWENTY-FOUR (24) MONTHS OR NINETY (90) DAYS WARRANTY PERIOD.

CIMA'S OBLIGATION UNDER THIS WARRANTY, IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS, AND CIMA DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

CIMA ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, EXPENSE FOR GASOLINE, EXPENSE OF RETURNING THE ROBIN STRING TRIMMER / BRUSH CUTTER TO AUTHORIZED SERVICE DEALER AND EXPENSE OF DELIVERING IT BACK TO THE OWNER, MECHANIC'S TRAVEL TIME, TELEPHONE OR TELEGRAM CHARGES, RENTAL OF A LIKE PRODUCT DURING THE TIME WARRANTY SERVICE IS BEING PERFORMED, TRAVEL, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF THE STRING TRIMMER BRUSH CUTTER, LOSS OF TIME, OR INCONVENIENCE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to Robin string trimmer / brush cutter sold by CIMA in the United States. To validate this warranty original purchaser must complete the attached Warranty Registration Form and return it within ten (10) days of purchase.

CARSWELL IMPORT
AND MARKETING ASSOCIATES, INC.
WINSTON-SALEM, NORTH CAROLINA 27115

FujiRobin Industries, Ltd.
Tokyo, Japan

WARRANTY SERVICE

Warranty service can be performed by an Authorized Robin Service Dealer regardless of whether the consumer purchased the Robin product originally from that dealer. However, we recommend you first contact the original dealer who sold you the product. Remember, it is your responsibility to deliver your Robin product along with proof of purchase to the dealer within the warranty period, and all work must be performed by an Authorized Robin Service Dealer.

Example of Parts and Service not covered by Warranty

Normal service requirements occurring during the warranty period such as carburetor or ignition adjustment.

Normal service over and above repair or replacement of defective parts.

Repair or maintenance service due to normal wear, improper maintenance, misuse, neglect, negligence, accident, also alterations or modifications which adversely affect product's performance, durability, or change their intended use.

Repairs or maintenance made necessary due to use of parts or accessories which are not compatible with Robin products or adversely affect its operation, performance, or durability.

Products not operated or maintained in accordance with the Instruction Manual.

Normal cleaning, lubrication, adjustments, or replacement of such items as spark plugs, filters, ignition points, etc.

Expense of delivering the product to an Authorized Service Dealer or of returning such products, or mechanics travel time, or cost of any rental of a like product during the period warranty service is being performed.

Warranty applies only to original retail purchaser.

Owner's Obligation and Responsibility —

It is the responsibility of the owner to provide for normal maintenance service and replacement of service items and to maintain all components in proper adjustment. These are not considered defects in material or workmanship. Individual operation and application determine the need for normal maintenance service.

Robin Warranty Registration

Owner's Name _____

Address _____

City _____ State _____ Zip _____

Dealer's Name _____

Address _____

City _____ State _____ Zip _____

Date of Purchase _____

Model No. _____ Serial No. _____

This Registration Form must be completed and returned within ten (10) days of purchase.

(Detach and Mail)

From _____

PLACE
STAMP
HERE

CIM CARSWELL IMPORT &
MARKETING ASSOCIATES, INC.
P.O. Box 4169, Winston-Salem, N.C. 27115



FUJI ROBIN INDUSTRIES LTD.