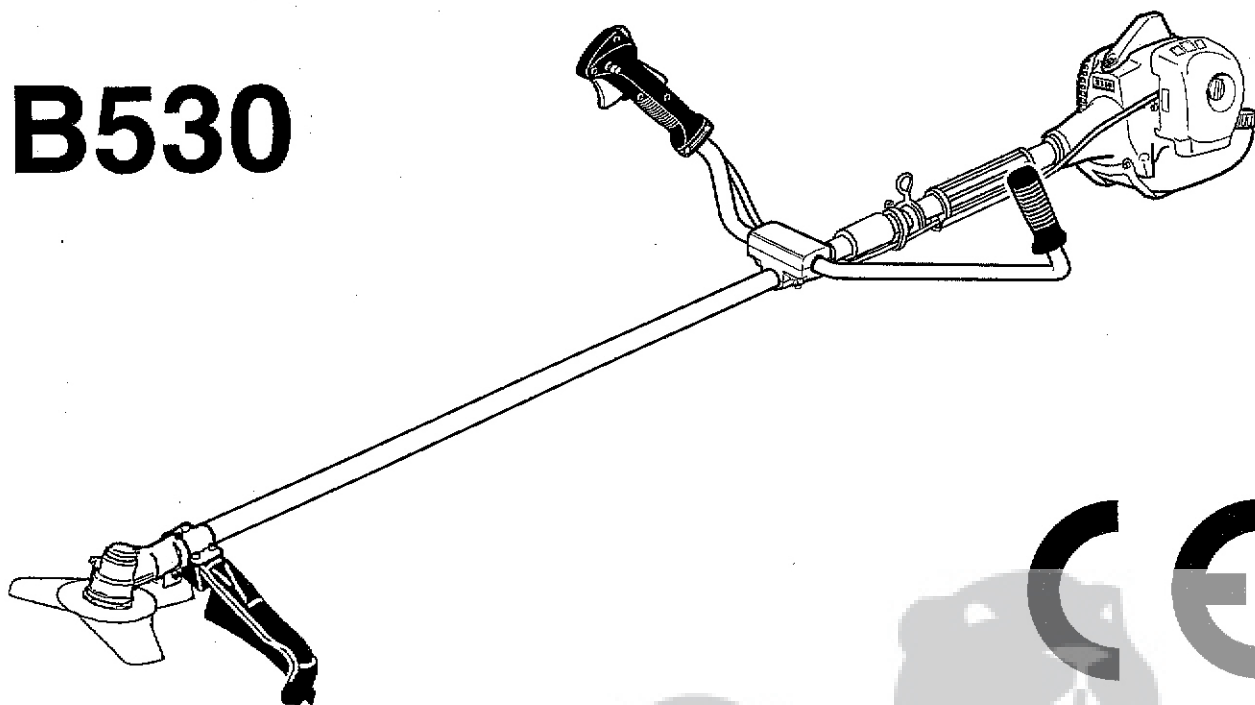


ISO 9001
CERTIFIED

shindaiwa

INSTRUCTION MANUAL

B530



WARNING!

- ◆ Read this manual and familiarize yourself with its contents.
- ◆ This machine is designed for cutting grass, weed and bushes. Do not use this machine for other purposes.
- ◆ Minimize the risk of injury to yourself and others.
- ◆ Do not operate or service this machine unless you clearly understand this manual.
- ◆ Keep this manual at a particular place so that you can reread it whenever you have a question about its use.

Introduction

The Shindaiwa B530 Brushcutter has been designed and built to deliver superior performance and reliability without compromise to quality, comfort, or durability.

Shindaiwa high performance engines represent the leading edge of 2-cycle engine technology, delivering exceptionally high power from remarkably low displacement and weight. As an owner/operator, you'll soon discover for yourself why Shindaiwa is simply in a class by itself!

IMPORTANT!

The information contained in this manual describes machines available at the time of publication. While every attempt has been made to give you the very latest information about your Shindaiwa product, there may be some differences between your machine and the machine described in this manual. Shindaiwa reserves the right to make changes to products *without prior notification, and without obligation to make alterations to machines previously manufactured.*



WARNING!

The engine exhaust from this product contains chemicals which may cause cancer, birth defects or other reproductive harm.

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Attention Statements



WARNING!

A statement preceded by a triangular Attention Symbol and the word "WARNING!" contains information that should be acted upon to prevent bodily injury.

CAUTION!

A statement preceded by the word "CAUTION!" contains information that should be acted upon to avoid damaging the machine.

IMPORTANT!

A statement preceded by the word "IMPORTANT!" is one that possesses special significance.

IMPORTANT!

The operational procedures described in this manual are intended to help you get the most from your machine, and to protect you and others from harm. These procedures are guidelines for safe operation under most conditions, and are not intended to replace any safety rules and/or laws that may be in force in your area. If you have questions regarding your B530 brushcutter, or if you do not understand something in this manual, your Shindaiwa dealer will be glad to assist you. You may also contact Shindaiwa at the address printed on the back of this manual.

Warning Labels

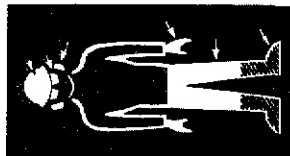
Warning labels stuck to the machine mean as follows.



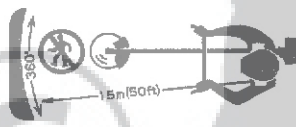
READ AND FOLLOW THE OPERATOR'S MANUAL. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY.



WEAR HEAD, EYE AND HEARING PROTECTION DURING THE OPERATION OF THIS MACHINE.



WEAR NON-SLIP GLOVES, LONG TROUSERS AND NON-SKID BOOTS DURING THE OPERATION OF THIS MACHINE.



MAKE SURE NO ONE IS WITHIN 15 METERS (50 FEET) OF AN OPERATING ATTACHMENT.



BEWARE OF THROWN OBJECTS.



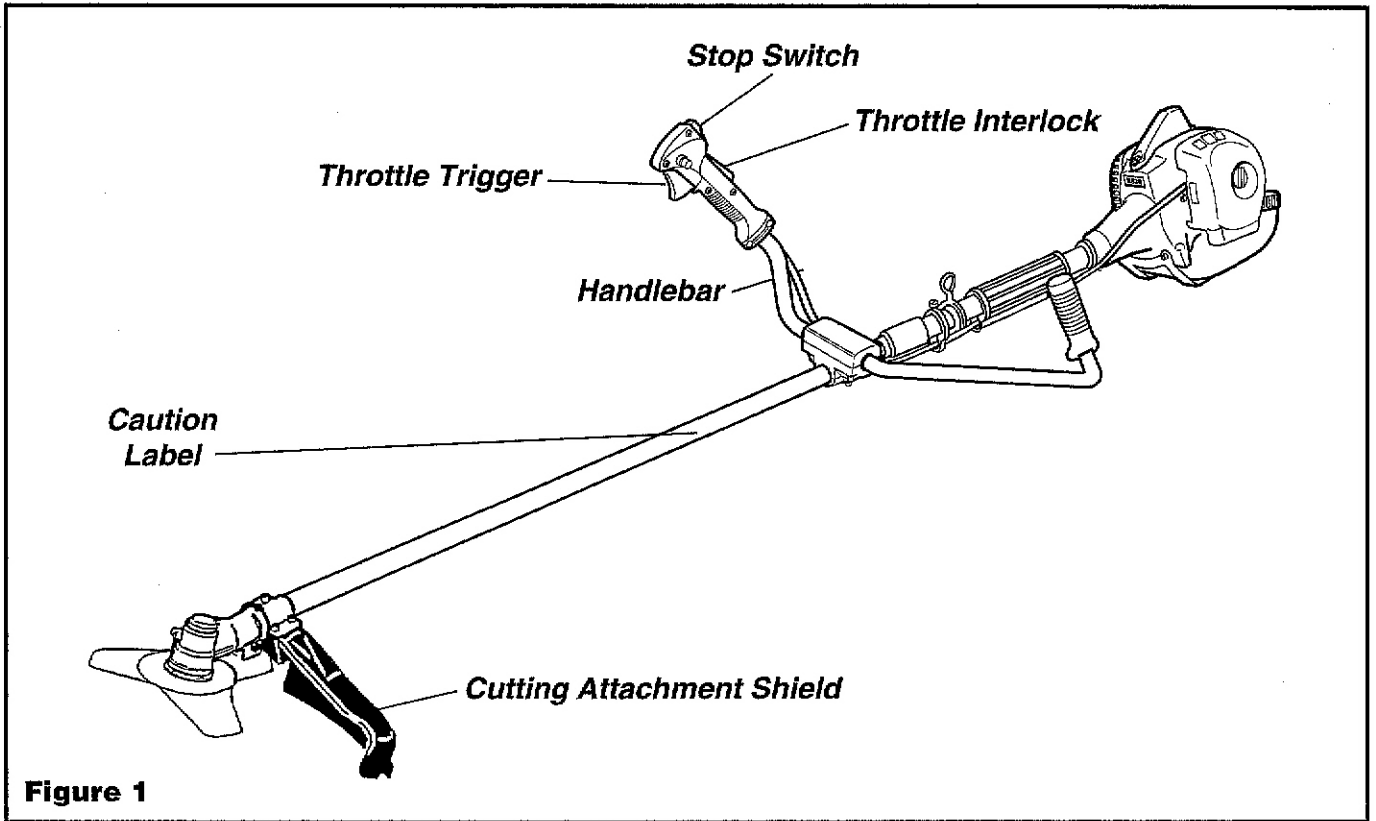
MAX
8500min⁻¹

THE MAXIMUM SPEED OF THE CUTTING ATTACHMENT SHAFT IN min⁻¹

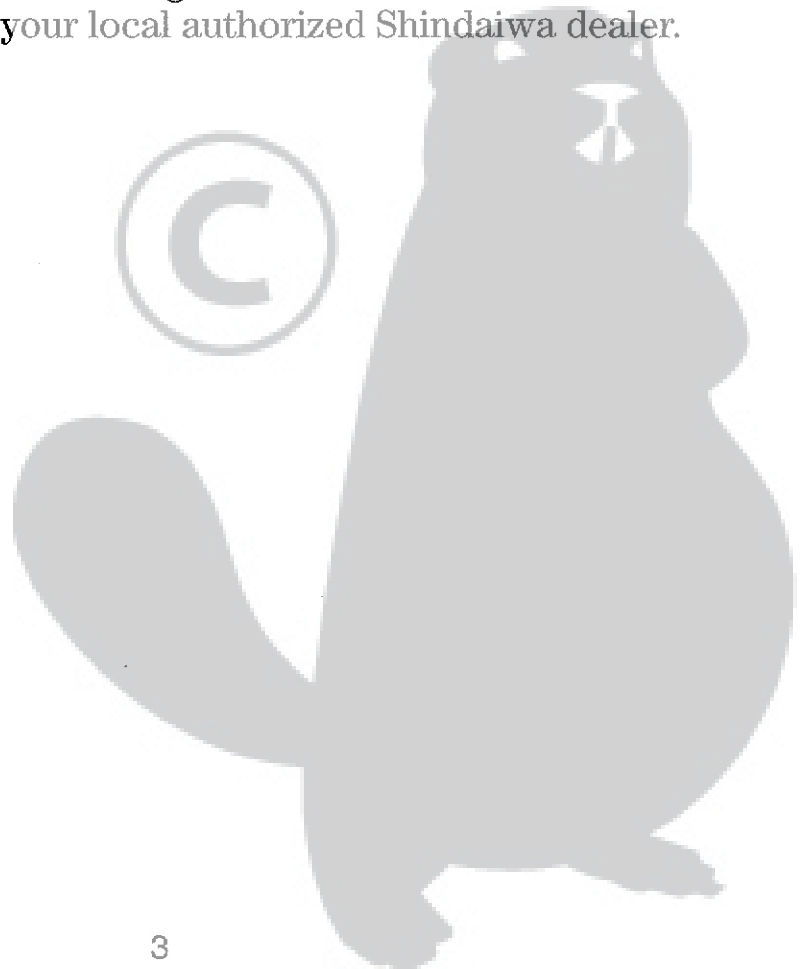


SOUND POWER LEVEL (MEASURED IN ACCORDANCE WITH 2000/14/EC)

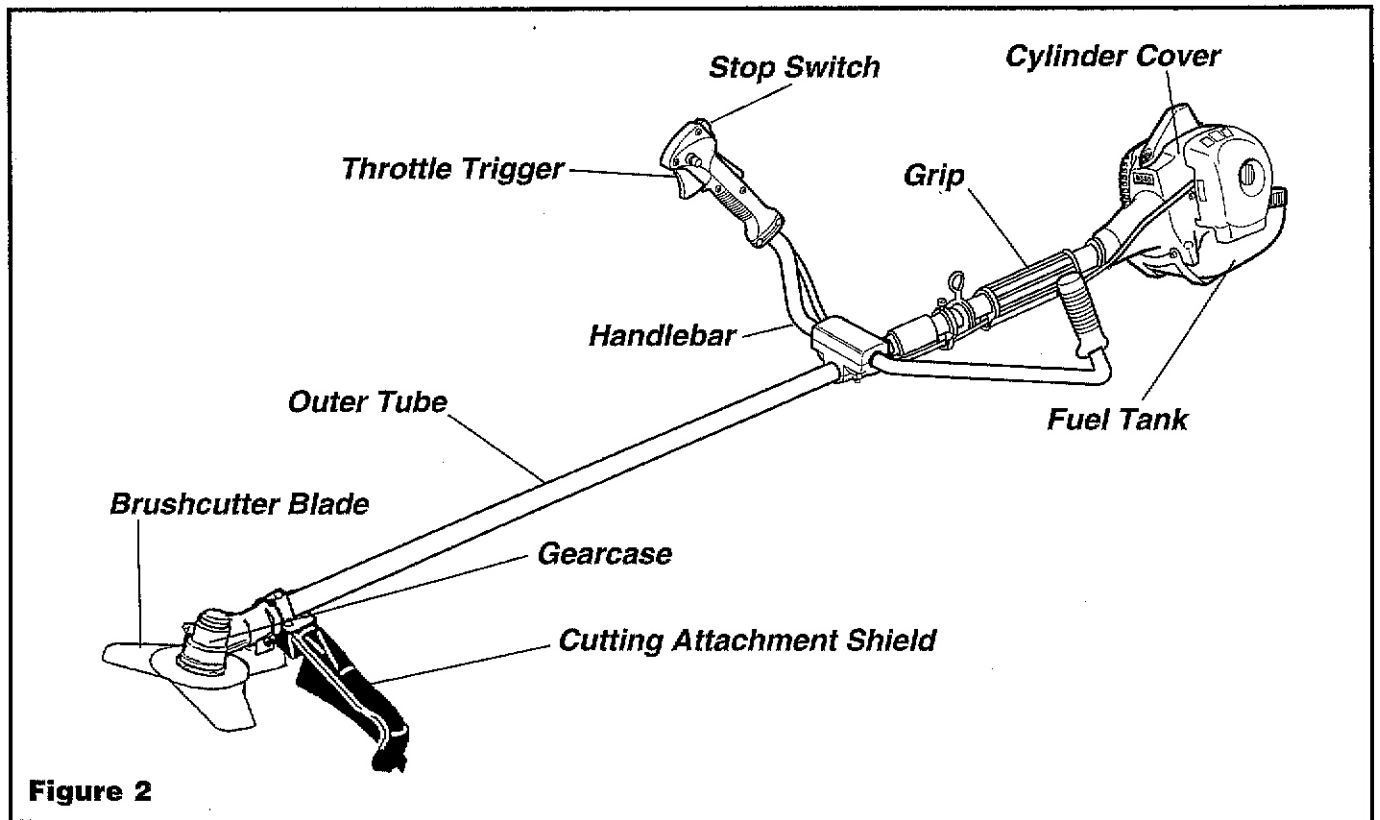
Safety Equipment and Labels



Caution, Danger, Warning, and Operation Information Labels:
Make sure all information labels are undamaged and readable.
Immediately replace damaged or missing information labels.
New labels are available from your local authorized Shindaiwa dealer.



Product Description



WARNING!

Do not make unauthorized modifications or alterations to this machine or any of its components. Shindaiwa must authorize alterations and modifications, in writing. Unauthorized modifications or alterations may alter the machine operation and could jeopardize personal safety during operation.

IMPORTANT!

Use only factory authorized Shindaiwa parts and accessories with your Shindaiwa machine.

Using figure 2 as a guide, familiarize yourself with your machine and its various components. Understanding your machine helps ensure top performance, longer service life, and safer operation.

Technical Specifications

Model Name	B530	
Engine Model	Shindaiwa SB530	
Engine Type	2-cycle, vertical-cylinder, air-cooled	
Displacement	53.2 cm ³	
Bore × Stroke	44 mm × 35 mm	
Engine Speed at Idling	2,500 min ⁻¹	
Maximum Engine Speed	11,000 min ⁻¹	
Engine Speed at Max Power Output	7,500 min ⁻¹	
Maximum Power Output	1.9 kW	
Ignition	Electronic Ignition System	
Spark Plug	NGK, BMR6A	
Starting Method	Recoil	
Stopping Method	Slide switch	
Air Cleaner Type	Semi-wet	
Fuel/Oil Ratio	25 : 1	
Fuel Tank Capacity	1,200 cm ³	
Carburetor Type	TK, DPW12-2A, Diaphragm	
Dry Weight without cutting attachment and guard	9.6 kg	
Dimensions	1,840 × 575 × 455 mm	
Sound Pressure Level*	92 dB(A) note.1	
Sound Power Level*	109 dB(A) note.2	
Vibration Level*	Idling [left/right]	3.0 / 4.4 m/s ² note.3
	Racing [left/right]	5.8 / 5.3 m/s ² note.3
Handle Type	Bicycle Handlebar	

* Sound Pressure Level: in accordance with EN ISO 11806 and EN 27917

* Sound Power Level: in accordance with EN ISO 11806 and ISO 10884

* Vibration Level: in accordance with EN ISO 11806 and ISO 7916

note1: Measured by Shindaiwa with 3-tooth blade equipped.

Sound pressure level on trimmer head use are as follows.

98 dB(A)

note2: Measured by Shindaiwa with 3-tooth blade equipped.

Sound power level on trimmer head use are as follows.

109 dB(A)

note3: Measured by Shindaiwa with 3-tooth blade equipped.

Vibration level on trimmer head use are as follows.

Idling (left/right) : 5.2 / 2.9 m/s²

Racing (left/right) : 5.6 / 3.6 m/s²

Prior to Assembly

Before assembling this product, make sure you have all the components required for a complete unit.

- Engine assembly (powerhead)
- Outer tube assembly
- Cutting attachment shield
- Double shoulder harness
- Blade protector
- Hip protector
- Tool kit, which includes 3mm, 4mm, and 5mm "L" type hexagonal wrenches, 8mm/10mm open-end wrench and combination spark plug/ tool holder wrench.

- Components required for assembly (cable ties, throttle cable connector, and throttle cable sleeve).

Carefully inspect all components for damage.

Included Accessories: Cutting attachment shield, double shoulder harness, and tool kit.

IMPORTANT!

The terms "left," "left-hand," and "LH"; "right," "right-hand," and "RH"; "front" and "rear" refer to directions as viewed by the operator during normal operation of this product.

Powerhead Assembly Instructions

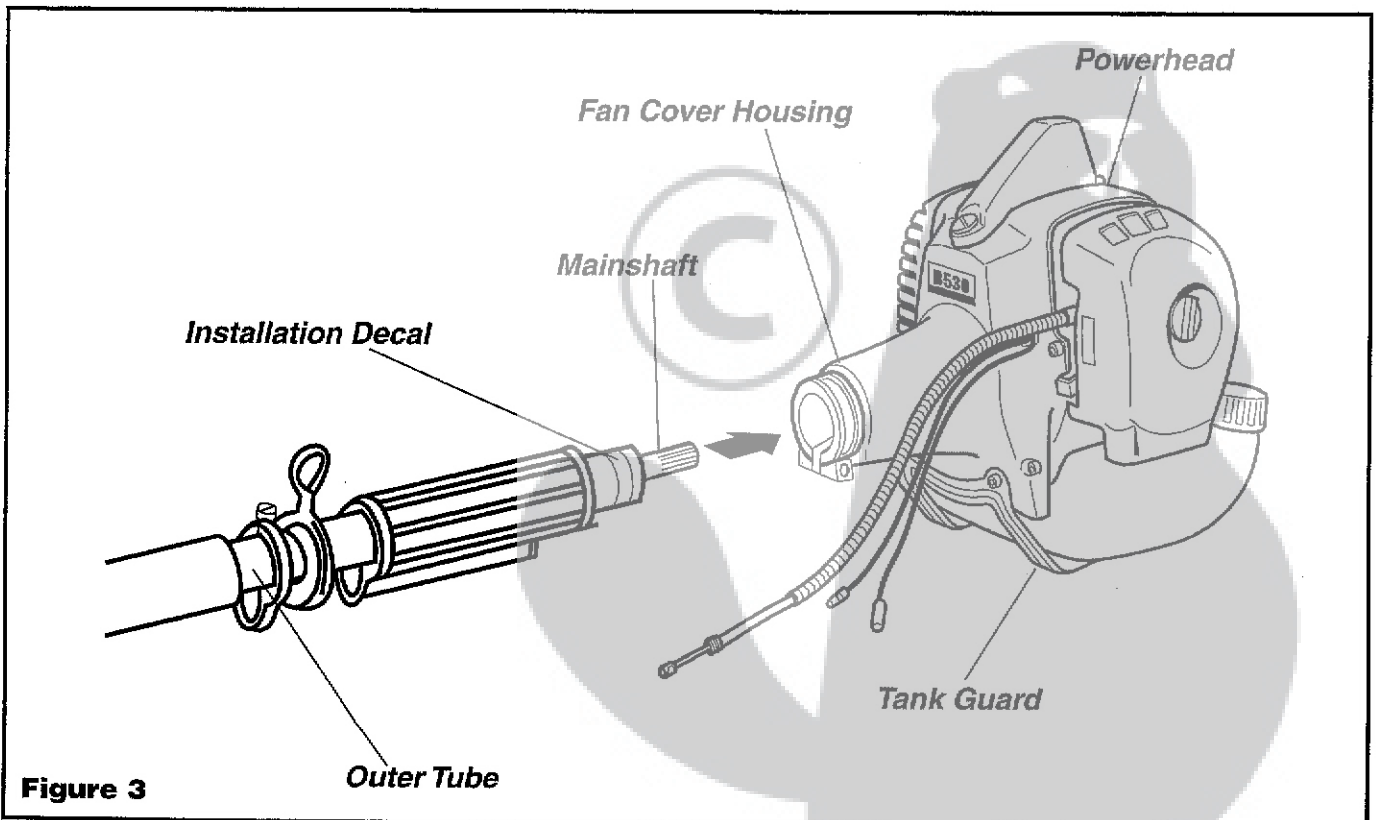
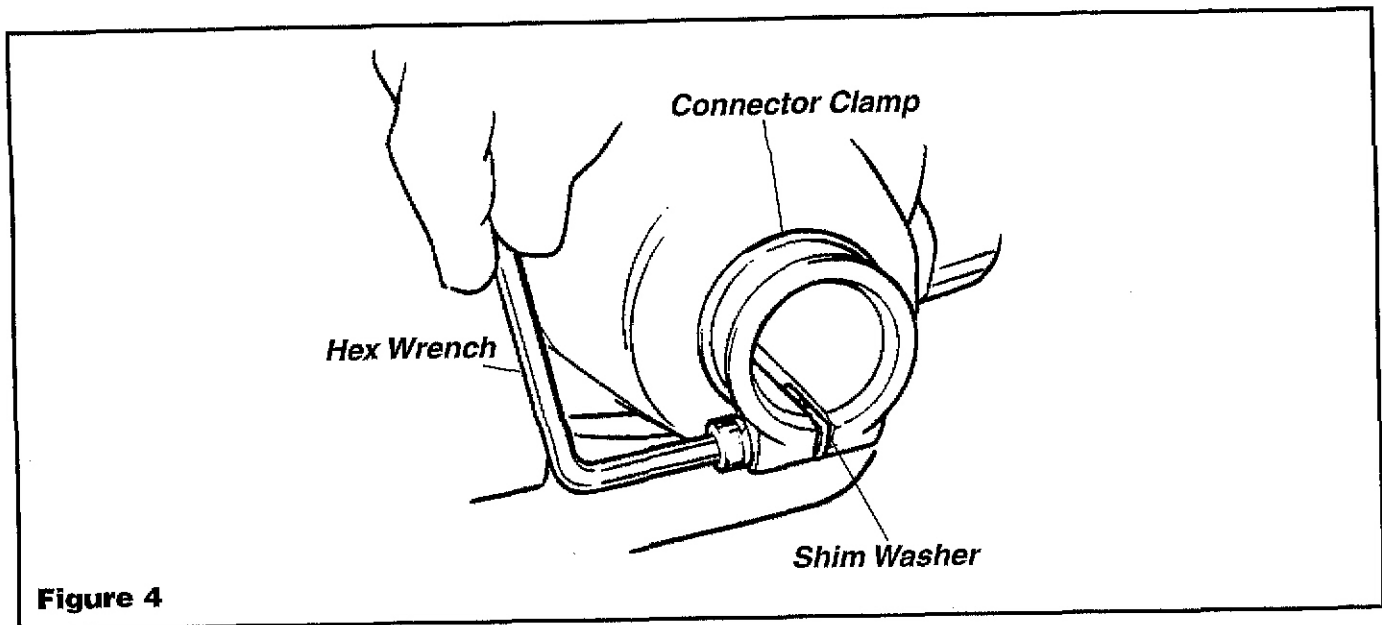


Figure 3



Install Mainshaft and Outer Tube. See figure 3.

1. Place the powerhead on a flat surface, resting on its stand.
2. Loosen the 6mm socket head cap screw on the powerhead union clamp. Verify that the D-shaped shim washer is positioned as shown in Figure 4.
3. Insert the shaft tube assembly into the powerhead connector clamp. Make sure the powerhead connector clamp aligns with the outer tube "Insert up-to here" decal. See Figure 3.
4. If necessary, rotate the outer tube assembly until the gearcase output shaft is pointing down, opposite to the spark plug.
5. Tighten the union clamp screw securely.

CAUTION!

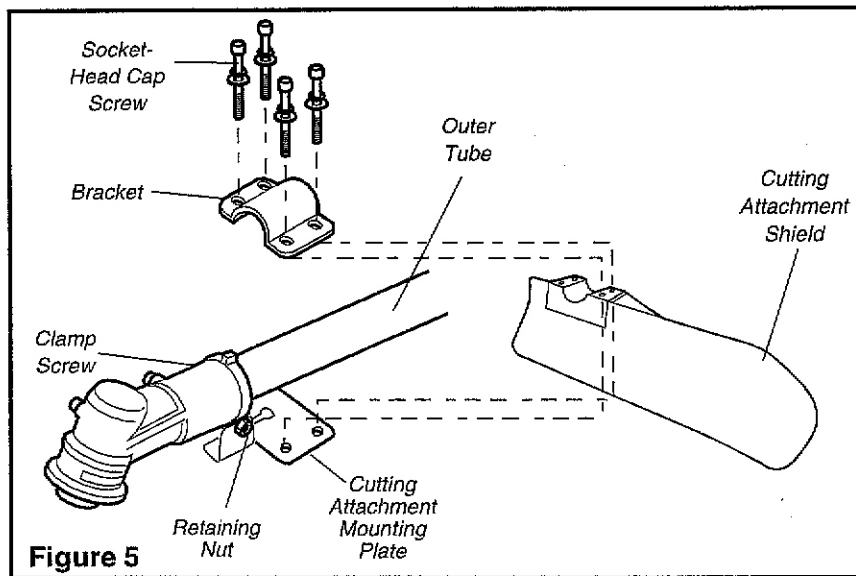
Do not remove the D-shaped shim washer! The shim washer prevents damage from overtightening the tube clamp screw.

CAUTION!

Do not force the outer tube into the powerhead! Forcing the outer tube into the powerhead may damage the splines on the mainshaft and/or clutch drum shaft. If installation proves difficult, rotate the powerhead or mainshaft until you feel the mainshaft splines slide into the clutch drum shaft.

Assembly and Adjustments

Cutting Attachment Shield



NOTE:

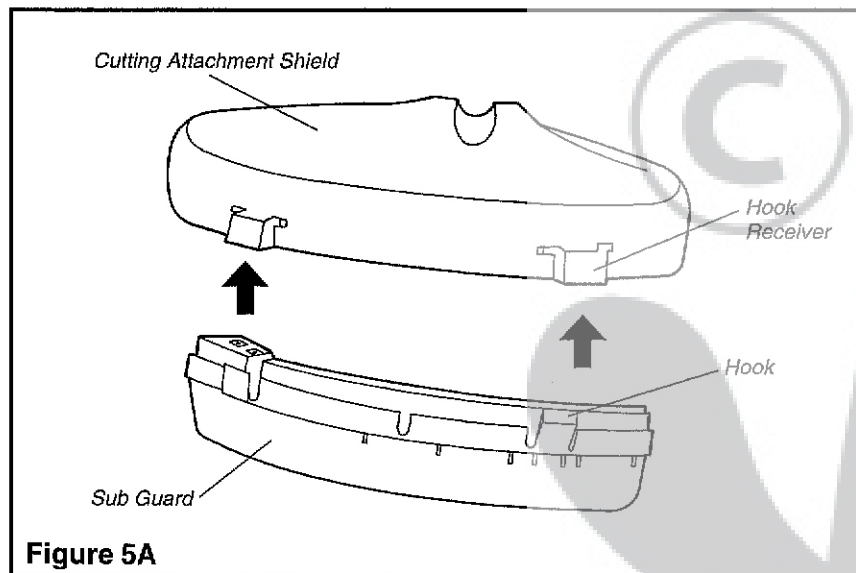
It may be necessary to loosen the retaining nut and clamp screw to adjust cutting attachment shield mounting plate.

CAUTION!
Make sure the clamp screw and retaining nut is securely tightened before tightening the four socket head cap screws.

Install the Cutting Attachment Shield.

1. Insert the cutting attachment shield between the outer tube and the cutting attachment mounting plate. See Figure 5.
2. Fit the two shims and the bracket over the outer tube and loosely install the four socket-head screws. See Figure 5.

WARNING!
NEVER operate the B530 without the cutting attachment shield installed and tightly secured!



NOTE:

Make sure the edge of cutting attachment shield is aligned with the groove of the sub guard.

CAUTION!
Make sure the sub guard is completely hooked at the hook receiver.

WARNING!
NEVER use this machine without sub guard when using a trimmer head

Install Sub Guard

1. Install the sub guard. See Figure 5A.

Throttle Cable Installation

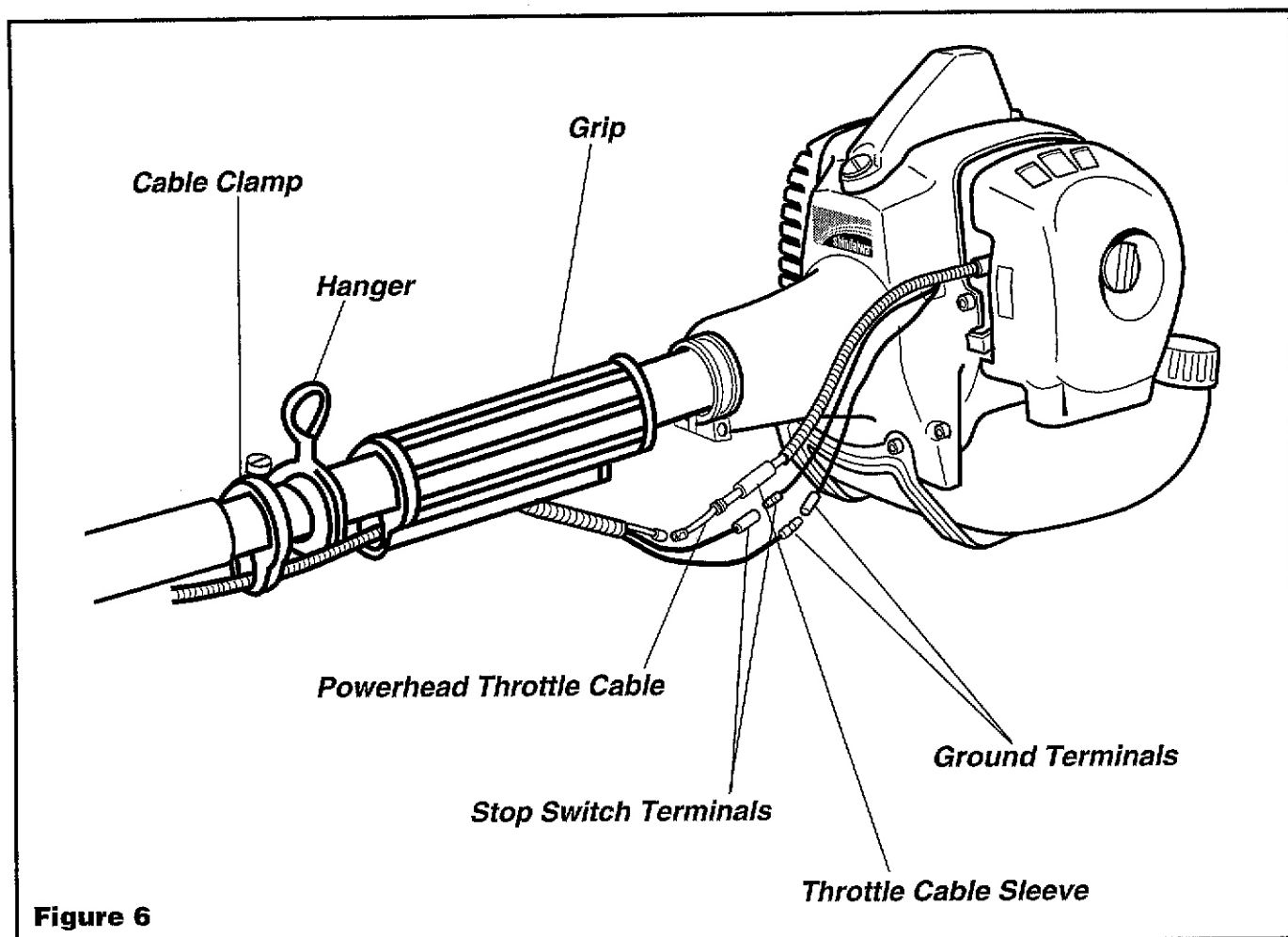


Figure 6

1. Slide throttle cable and terminal wires through the cable clamp and grip. See Figure 6.
2. Install the throttle cable sleeve on the powerhead throttle cable. See Figure 6.
3. Connect the powerhead and the throttle cable ends. See Figure 7.

IMPORTANT!

Make sure the metal end of the powerhead throttle cable jacket fits in the grooved end of the cable connector.

4. Center the throttle cable sleeve over the connected cable ends and place the assembly in the throttle cable connector. See Figure 8.

5. Using hand pressure, close the throttle cable connector. See Figure 8.

IMPORTANT!

For steps 6 through 9, refer to figure 9.

6. Secure each end of the throttle connector with a cable tie. See Figure 9.
7. Connect the powerhead and stop switch wire terminals.
8. Connect the stop switch ground wire and the powerhead ground wire terminals.
9. Slide throttle cable and connected terminal wires into grip by gently pulling on throttle cable housing. See Figure 9.

Connecting Throttle Cable Ends

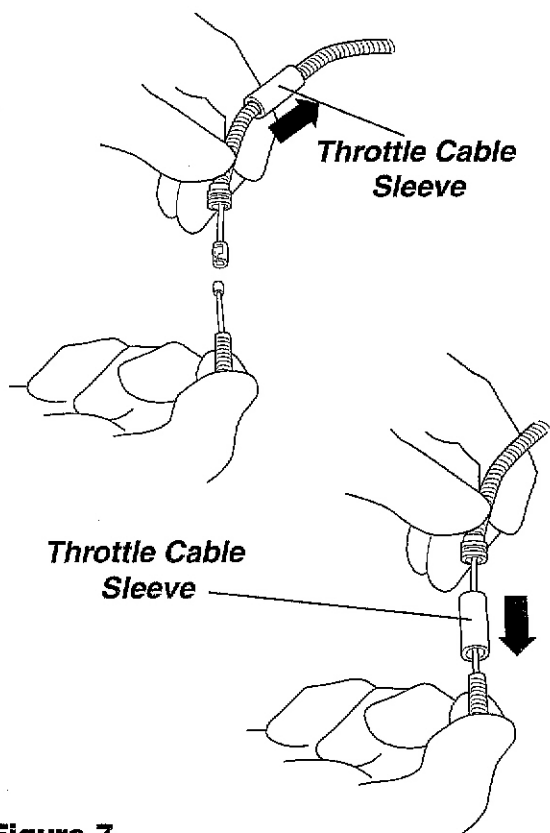


Figure 7

Installing the Connector

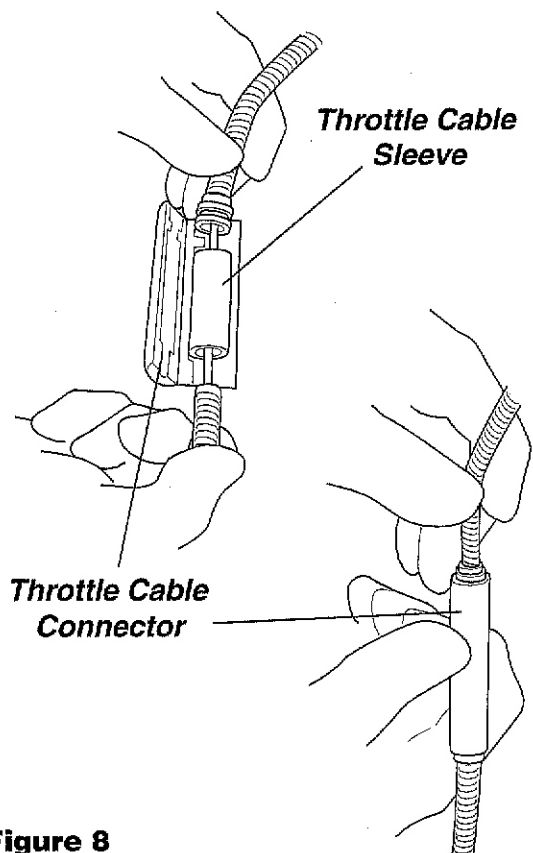


Figure 8

Throttle Cable Housing

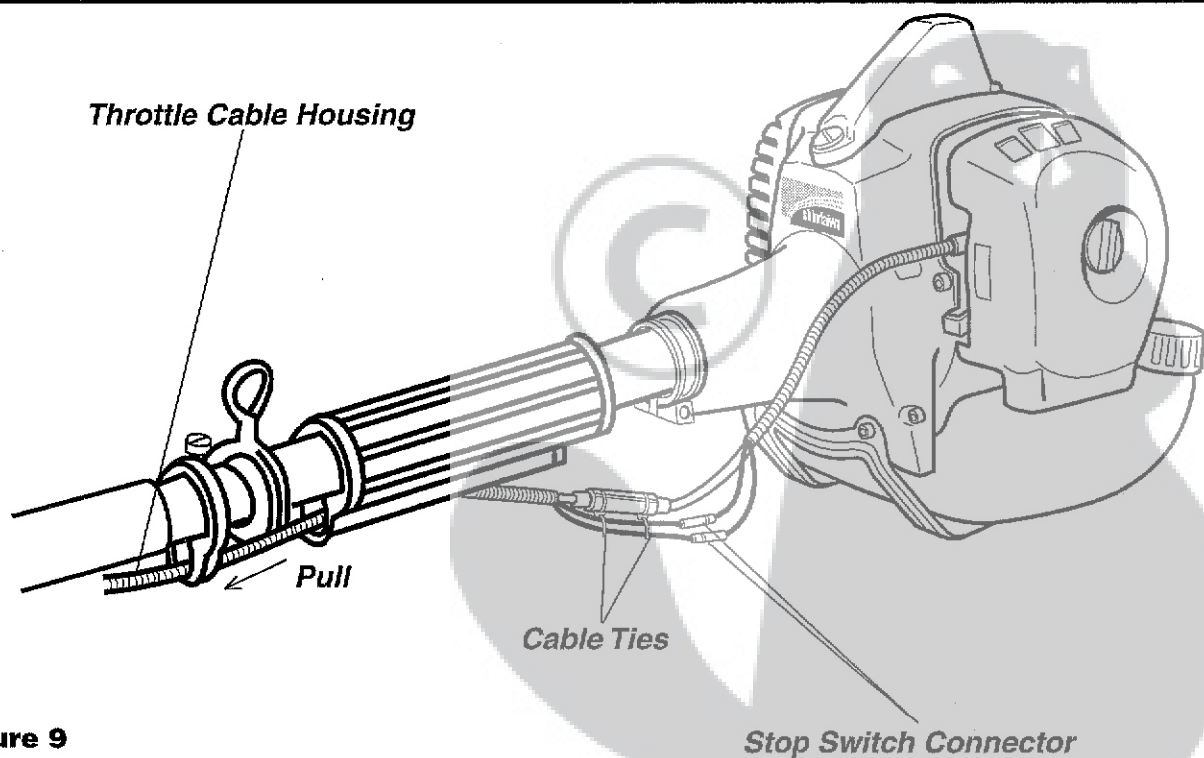
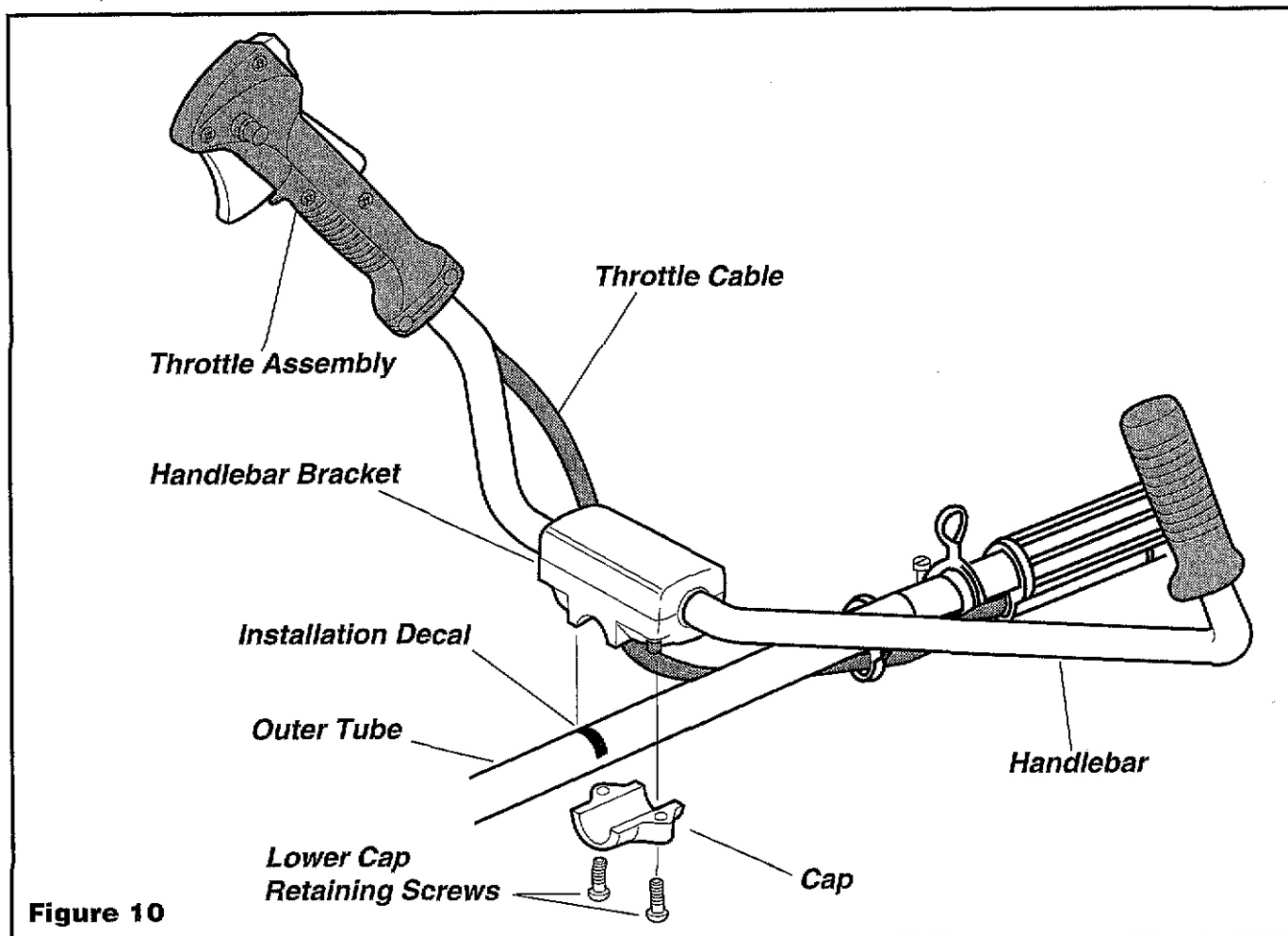


Figure 9

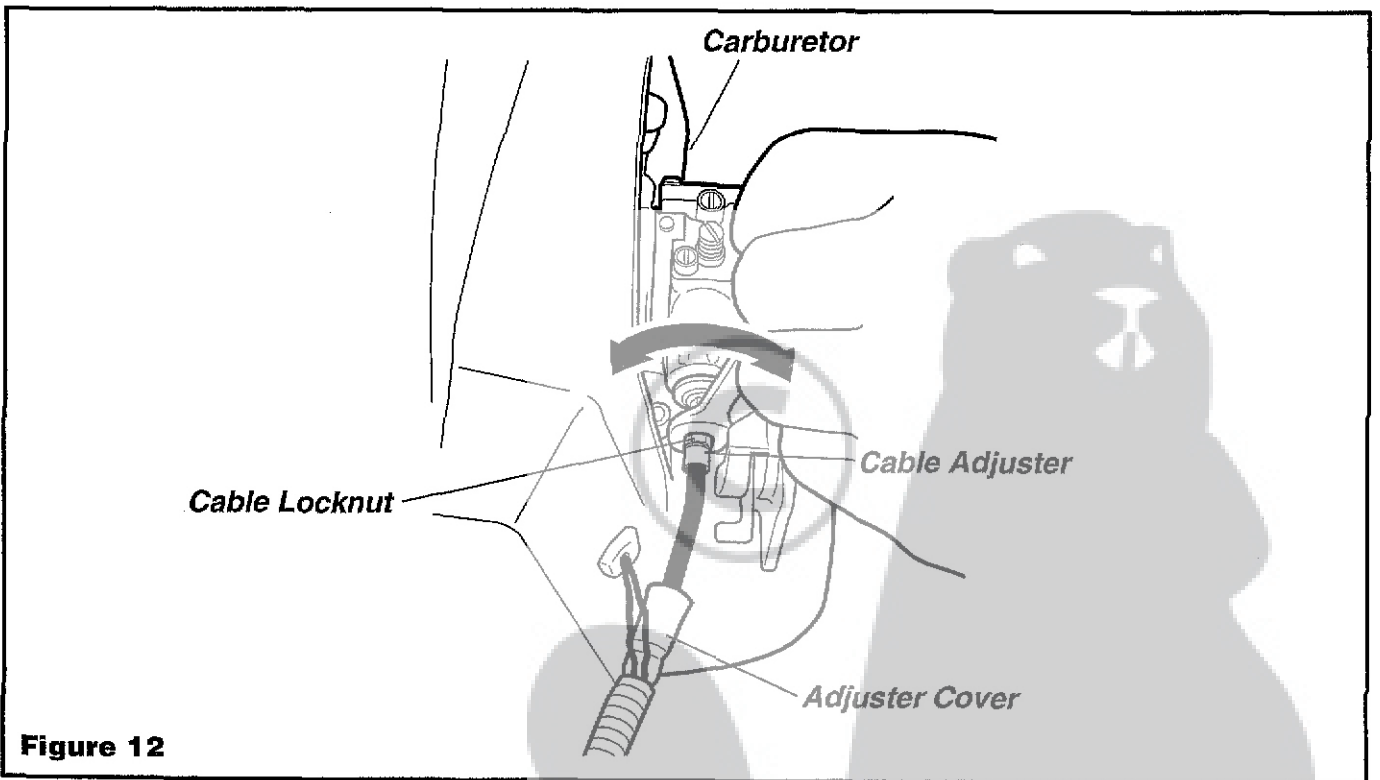
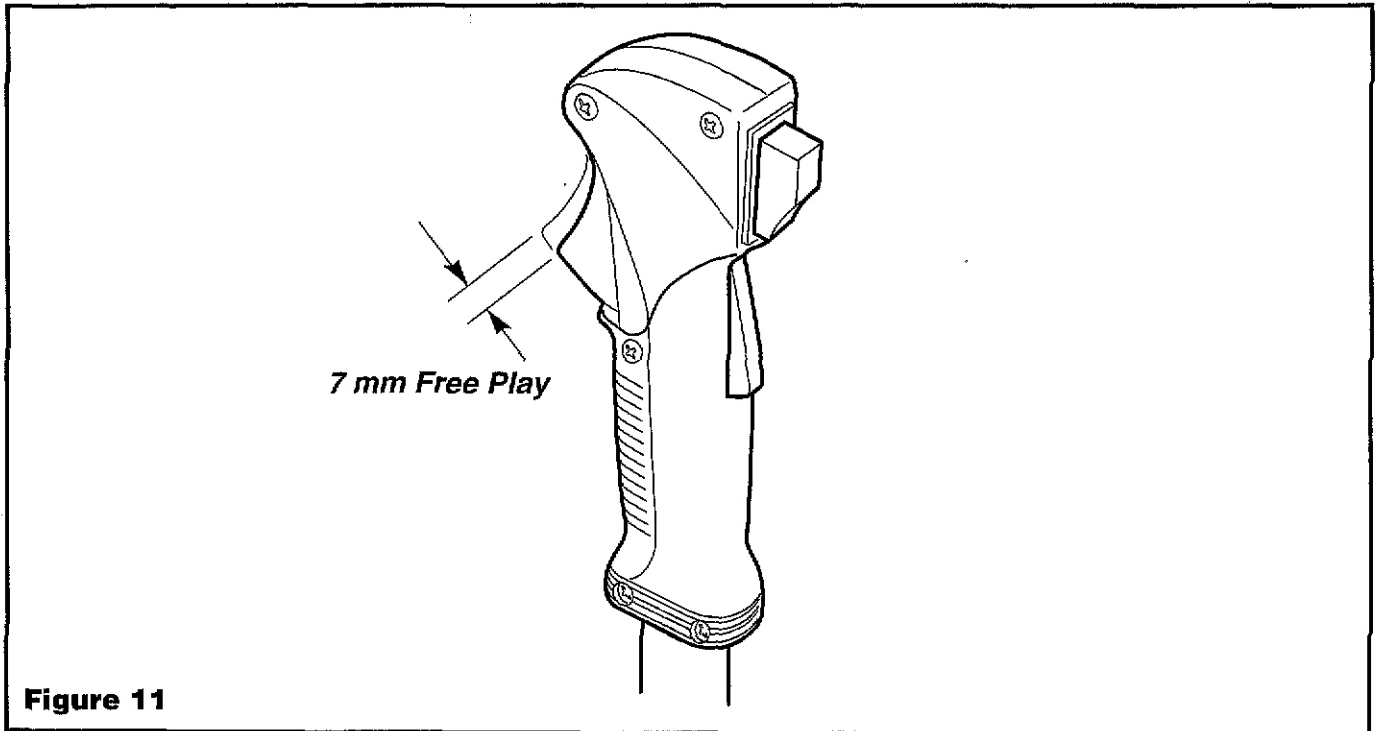
Handlebar Installation



1. Remove the 4mm retaining screws and lower cap from the handlebar bracket. See Figure 10.
2. Mount the handlebar on the outer tube and align it with the "Attach

- Handle On This Line" decal.
3. Reinstall the lower cap and retaining bolts. Tighten the retaining screws evenly.

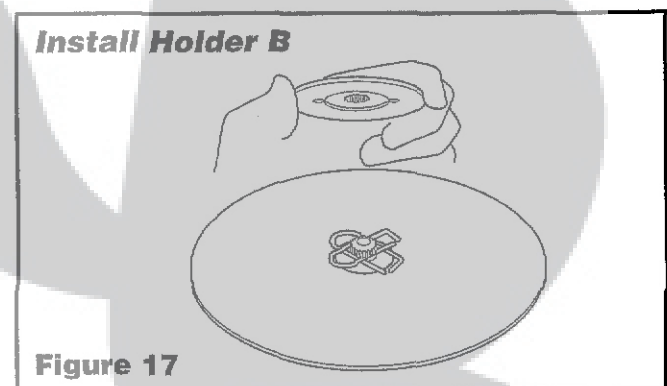
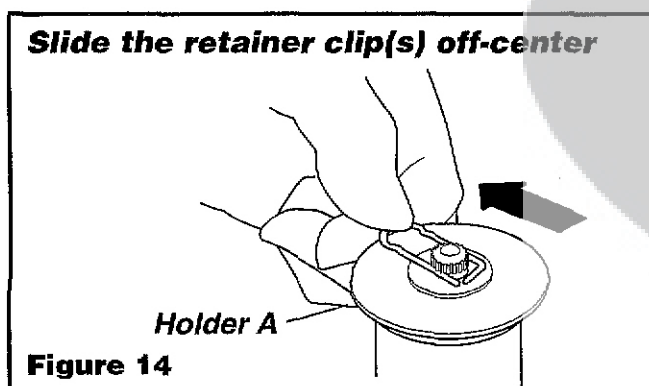
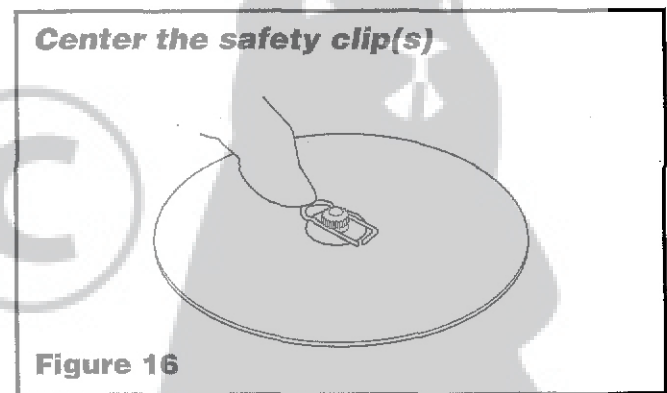
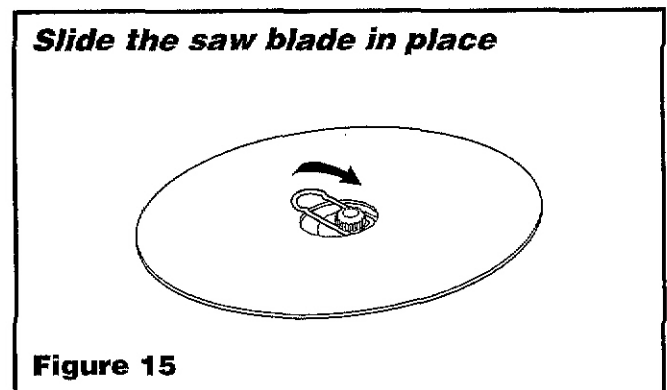
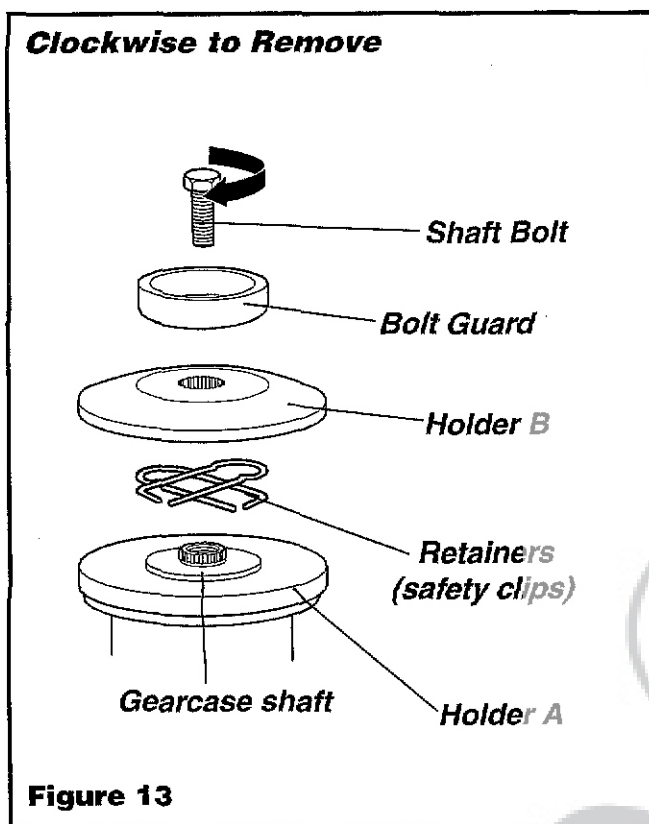
Adjust the Throttle



1. Test throttle control for smooth operation. If stiffness or binding are noted, the cause must be identified and corrected before the brushcutter can be placed in service.
2. Check the throttle control lever "free play" clearance. "Free play" should be approximately 7 mm in the idle position. See Figure 11. If necessary, the "free play" clearance can be adjusted as

- follows: (refer to Figure 12)
- a. Slide the adjuster cover forward to expose the cable adjuster.
 - b. Loosen the cable lock nut.
 - c. Thread or unthread the cable adjuster until the throttle control lever has approximately 7 mm of "free play" clearance.
 - d. Tighten the cable lock nut.
 - e. Slide the adjuster cover over the cable adjuster.

Blade Installation



Tighten the assembly

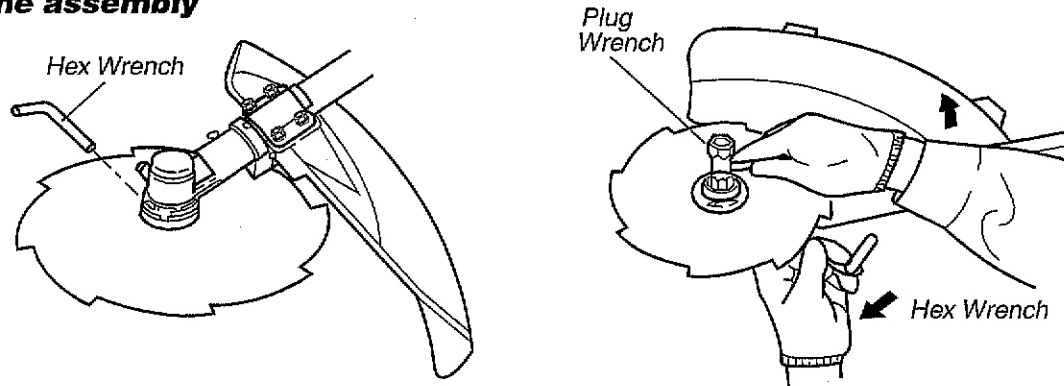


Figure 18

IMPORTANT!

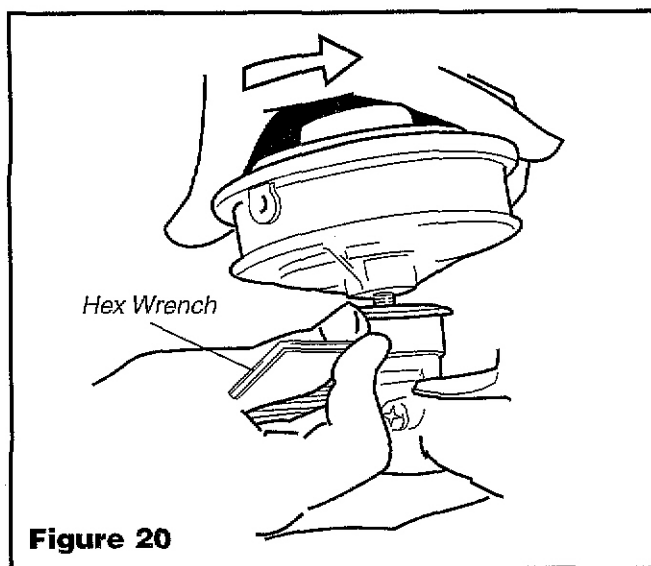
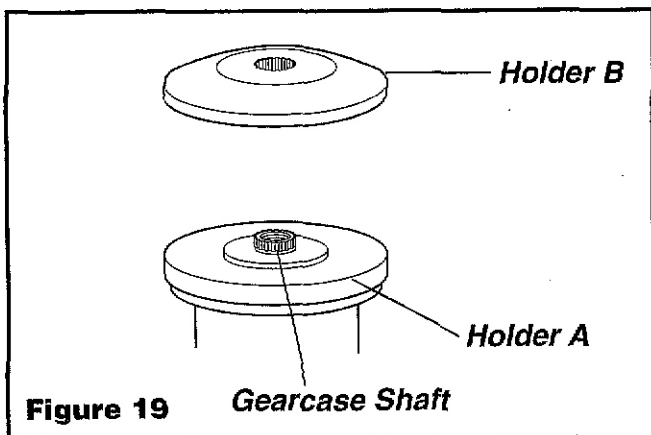
This brushcutter gearcase is equipped to handle 2 ~ 4 mm thick blades. For 2 mm thick blades, 2 safety retainer clips must be used. For 4 mm thick blades, 1 safety retainer clip must be used. Holder A, blade retainer clip(s), Holder B, shaft bolt, and bolt guard must be installed.

The shaft bolt has left-hand threads and is removed by turning clockwise. See Figure 13.

1. Position the brushcutter with the head of the shaft bolt facing up.
2. Remove the shaft bolt, bolt guard and holder B. See Figure 13.
3. Slide the retainer clip(s) off center. See Figure 14.
4. Install the blade and center it on Holder A. See Figure 15.
5. Center the retainer clip(s) to retain the blade on Holder A. See Figure 16.
6. Install Holder B. The retainer clip(s) must fit in the recess of Holder B. Each holder must be flush with the blade surface. See Figure 17.
7. Install the bolt guard and shaft bolt.
8. Rotate the holder A until the hole in its skirt aligns with the hole in the gearcase. Insert the hex wrench through the hole (to prevent the shaft from turning).
9. Holding the hex wrench with one hand, tighten the bolt (turn counter-clockwise) securely using the small end of the plug wrench.
10. Remove the hex wrench.

The brushcutter should be fully assembled.

Install the Trimmer Head (optional)



3. Re-install Holder B on the output shaft.
4. Rotate the holder until the hole in the holder aligns with the notch on the gearcase flange. Using the hex wrench, lock the gearcase as shown.
5. While holding the holder with the hex wrench, thread the trimmer head onto the gear-shaft and install securely using hand pressure. Turn counter clockwise to install.
6. Remove the hex wrench.

The brushcutter can now be used as a grass trimmer.

To install a trimmer head

1. Position the brushcutter with the head of the shaft bolt facing up.
2. Remove the shaft bolt, bolt guard, Holder B and the retainer clip(s) from the output shaft. See Figure 19.

IMPORTANT!

The shaft bolt, bolt guard, and retainer clips are not used with a trimmer head cutting attachment. Save these parts for future blade installation.

Install the Stabilizer (optional)

Tighten the Bearing Shaft

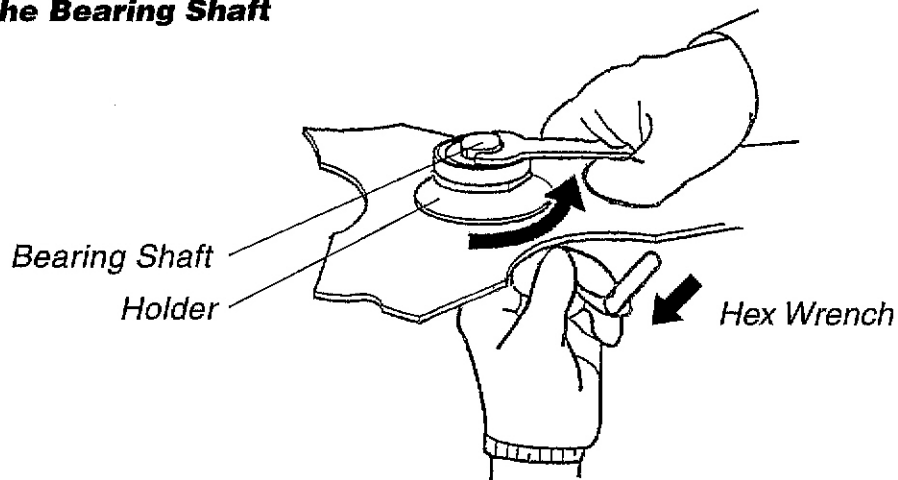


Figure 21

Tighten the Bolts evenly

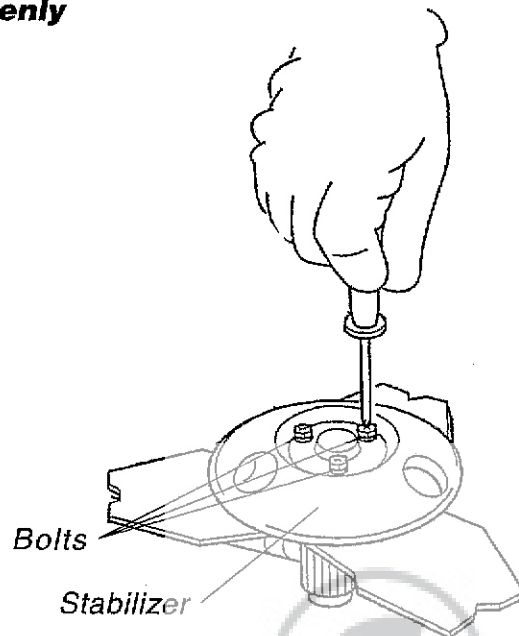


Figure 22

To install a stabilizer

1. Position the brushcutter with the head of the shaft bolt facing up.
2. Remove the shaft bolt and bolt guard from the output shaft.
3. Lock Holder A with the hex wrench and thread the bearing shaft on the output shaft hand tight turning counterclockwise. Then, tighten the bearing shaft with the open end wrench securely. See Figure 21.
4. Remove the hex wrench and the open end wrench.
5. Install the stabilizer to the holder

with the 3 bolts securely. See Figure 22.

IMPORTANT!

The shaft bolt and bolt guard are not used with a stabilizer. Save these parts for future use without a stabilizer.

Fuel

CAUTION!

Some types of gasoline contain alcohol an oxygenate. Oxygenated gasoline may cause increased operating temperatures. Under certain conditions, alcohol-based gasoline may also reduce the lubricating qualities of some 2-cycle mixing oil. Never use any type of gasoline containing more than 10% alcohol by volume! Generic oils and some outboard oils may not be intended for use in high-performance 2-cycle engines, and should never be used in your Shindaiwa engine.

IMPORTANT!

This engine is certified to operate on a 25:1 mixture consisting of unleaded gasoline and 2-cycle mixing oil only. Mix only enough fuel for your immediate needs! If fuel must be stored longer than 30 days, it should first be treated with a stabilizer such as StaBil™.

- Mix fuel by combining unleaded gasoline with Shindaiwa 2-cycle Mixing Oil at a ratio of 25:1 (1000 cm³ of gasoline mixed with 40 cm³ of 2-cycle mixing oil).
- Use only fresh, clean, unleaded gasoline with an octane rating of 87 or higher.

Filling the Fuel Tank



WARNING!

Minimize the risk of fire!

- Stop the engine before refueling!
- Always allow the engine to cool before refueling!
- Wipe all spilled fuel and move the brushcutter at least 3 meters from the fueling point and source before restarting!
- Never smoke or light any fires near the brushcutter or fuel source!
- Never place any flammable material near the engine muffler!
- Never operate the engine without the muffler in good working condition.

1. Place the brushcutter on a flat, level surface.
2. Clear any dirt or other debris from around the fuel filler cap.
3. Remove the fuel cap, and fill the tank with clean, fresh fuel.
4. Reinstall the fuel filler cap and tighten firmly.

Starting Procedures

Control Positions (cold engine)

1. Under normal conditions this machine can be started without setting the throttle control to “fast idle” position. However, if machine is difficult to start then set the engine control to “fast idle” as follows: (refer to Figure 23):
 - a. Depress and hold throttle control lockout lever A and throttle control lever B.
 - b. Depress throttle control lock button C and while holding throttle control lever lock button C in, release throttle control lever B and lockout lever A.
 - c. Release throttle control lever lock button C.

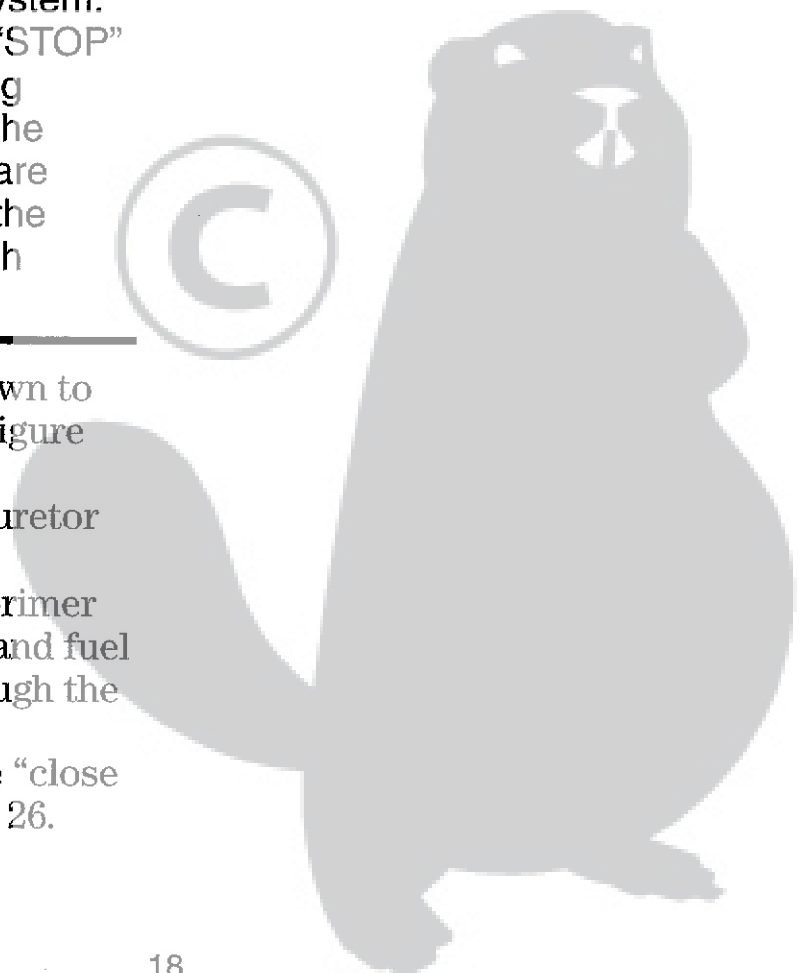
IMPORTANT!

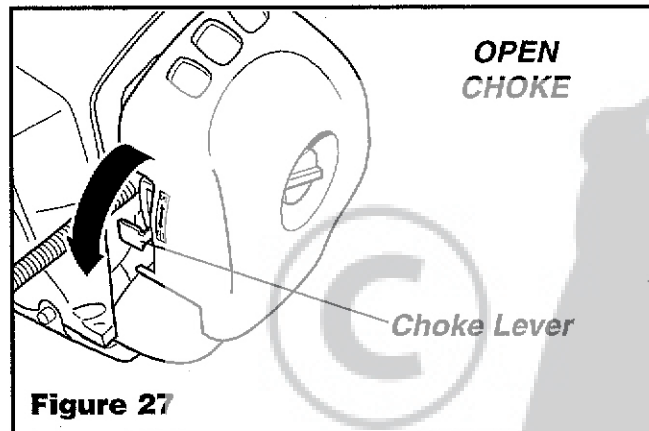
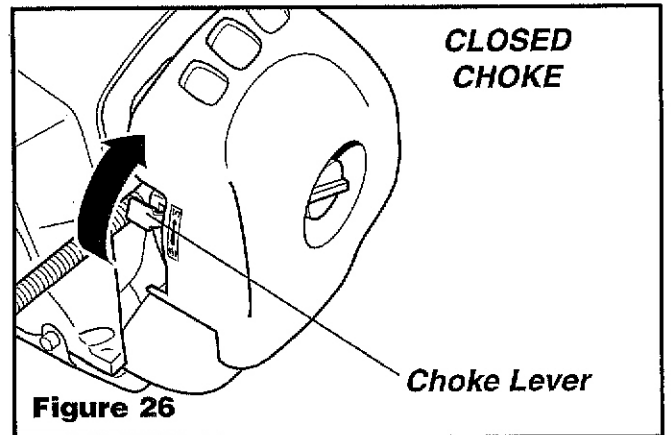
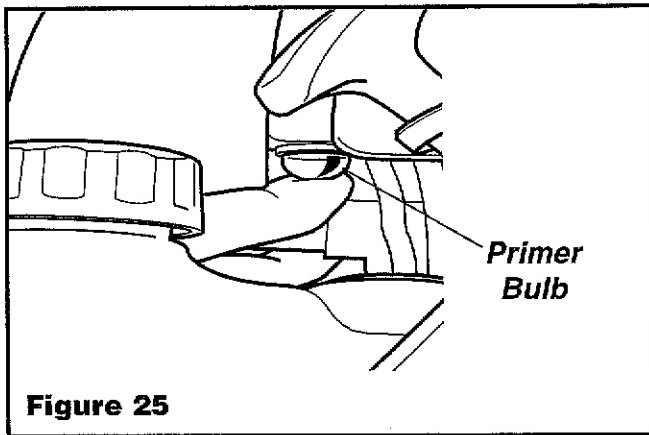
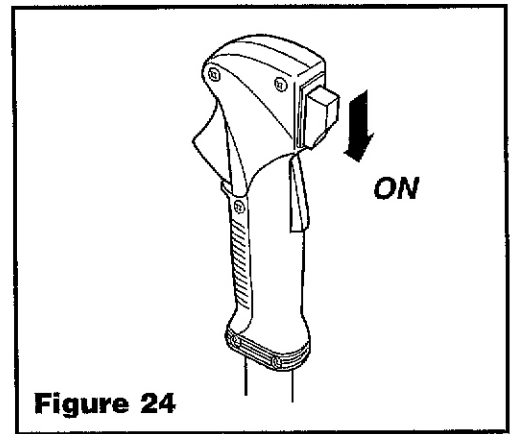
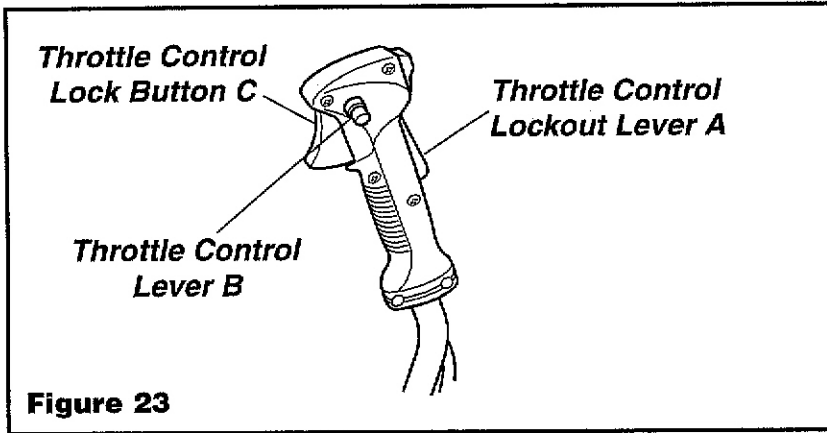
A two-position ignition switch mounted on the throttle control body controls the engine ignition system. This switch button is labeled “STOP” and has a white arrow pointing towards the STOP position. The letter “I” (ON) and “O” (OFF) are embossed on the left side of the throttle handle, near the switch button.

2. Slide the ignition switch down to the “I” (ON) position. See Figure 24.
3. Purge the air from the carburetor fuel system by repeatedly depressing the carburetor primer bulb until resistance is felt and fuel flows back to the tank through the return tube. See Figure 25.
4. Move the choke lever to the “close choke” position. See Figure 26.

Control Positions (warm engine)

1. Set the throttle control as described in Step 1 from above.
2. Slide the ignition switch to the “I” (ON) position. See Figure 24.
3. Move choke lever down to the “open choke” position. See Figure 27.





Cranking the Engine



WARNING!

Before starting the engine, make sure children, bystanders, and pets and/or any other objects are well clear of the cutting attachment! The cutting attachment will rotate when the engine is started with the throttle control set in the “fast idle” position.

CAUTION!

Never operate the brushcutter without a cutting attachment installed!

1. Place the unit firmly on the ground.
2. Hold the outer tube firmly with your left hand and grasp the starter handle with your right hand.
3. Pull the starter cord out slowly until you feel the starter engage. See Figure 28.
4. Pull the starter handle outward rapidly to start the engine. Make sure the cutting attachment is clear of obstructions!

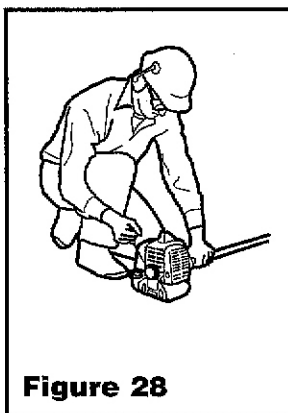


Figure 28

IMPORTANT!

The recoil starter can provide long-lasting trouble free operation by following these recommendations:

- Always engage the starter before attempting to start the engine.
- Never pull the cord to its maximum limit.
- Always allow the cord to rewind slowly into the starter.



WARNING!

The cutting attachment will rotate when the machine is started and will rotate faster as engine speed is increased.

When the engine starts or attempts to start—

1. Move the choke lever down to the “open choke” position. See Figure 27.
2. If the engine stalls, repeat the applicable starting procedure for a warm or cold engine.
3. When the engine starts, clear excess fuel from the combustion chamber by revving the engine a few times. Operation of the throttle control lever will automatically disengage the “fast-idle” lock and return the engine to idle.

If the engine does not start—

Repeat the applicable starting procedures for a warm or cold engine. If the engine fails to start, refer to the “Starting a Flooded Engine” section on the next page.

Make sure the cutting attachment is clear of obstructions!

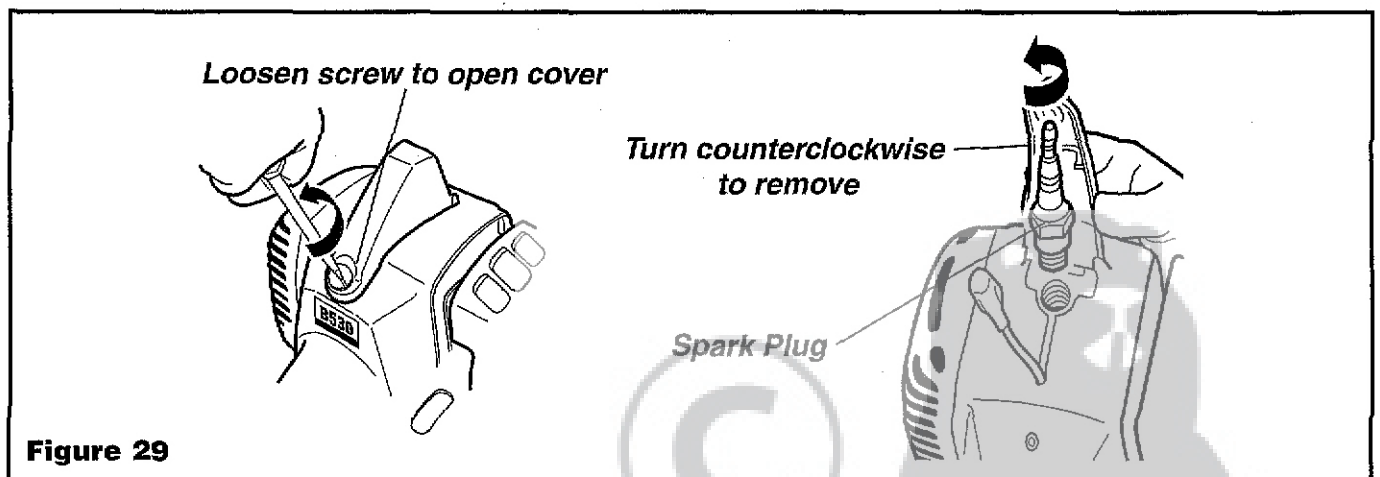
Starting a Flooded Engine

1. Slide the ignition switch button to the STOP position.
2. Disconnect the spark plug wire, and remove the spark plug. See Figure 29.
3. If the spark plug electrodes and ceramic insulator are fouled or soaked with fuel, clean or replace the plug. For spark plug specifications and gapping procedure, refer to page 31.
4. Open the choke.
5. Hold the throttle control lever depressed and crank the engine several times to clear excess fuel from the combustion chamber.

CAUTION!

Incorrect spark plug installation may cause serious engine damage!

6. Reinstall the spark plug finger tight and tighten it firmly with the spark plug wrench provided in the tool kit. If a torque wrench is available, torque the spark plug to 16.7-18.6 N·m.
7. Repeat the “warm engine” starting procedure.
8. If the engine fails to start, consult the troubleshooting guide provided on page 35.



Stopping the Engine



WARNING!

The cutting attachment may continue to rotate after the engine has stopped!

1. Allow the engine to idle for two or three minutes to stabilize temperatures.
2. Slide the ignition switch button to the STOP position. See Figure 30.

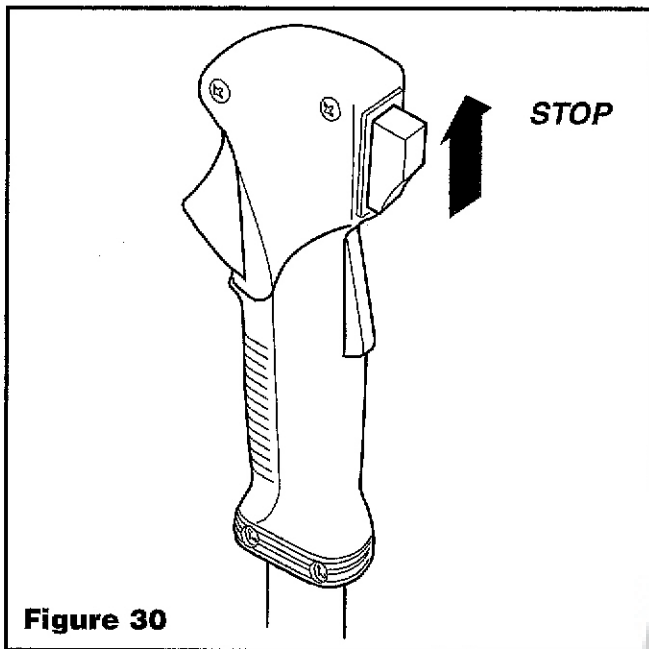


Figure 30

Carburetor Adjustments



WARNING!

The cutting attachment must NEVER rotate at engine idle speeds!

The engine should return to normal idle speed whenever the throttle control lever is released. Idle speed is adjusted to permit the clutch mechanism to disengage power to the cutting attachment whenever the engine is idling at the specified setting. To adjust the idle speed:

1. Start the engine, and allow it to idle 2-3 minutes to warm up.
2. If the cutting attachment rotates while the engine is idling, turn the idle adjustment screw counter-clockwise until the cutting attachment stops rotating. See Figure 31.
3. If a tachometer is available, adjust engine idle speed to $2500 \text{ min}^{-1} \pm 250 \text{ min}^{-1}$. If a tachometer is not available, adjust engine idle speed until the cutting attachment stops rotating.

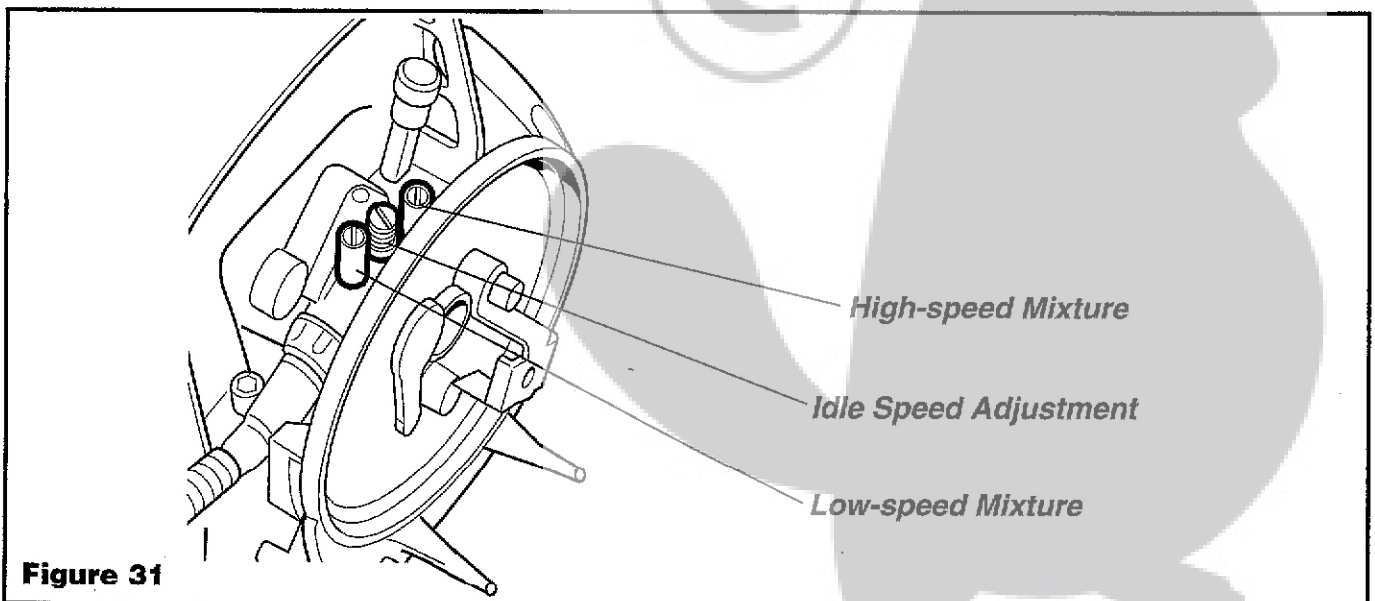


Figure 31

Fuel Mixture Adjustments

CAUTION!

Do not over-tighten carburetor screws. Over-tightening the carburetor adjustment screws may damage the screw seat and/or carburetor's internal seat surface.

Carburetor Adjustment

This B530 Brushcutter is equipped with an adjustable carburetor. On this unit, the carburetor fuel mixture setting may be readjusted as follows.

CAUTION!

The engine may be damaged if carburetor is adjusted incorrectly. A lean (air-rich) mixture setting can result in an engine seizure!

- L = Low Speed Mixture from closed: 0-1/2 turns
- H = High Speed Mixture from closed: $2 \pm 1/4$ turns

The high-speed mixture screw must be adjusted so maximum engine speed does not exceed 11,000 min^{-1} without a load. See Figure 31.

Double Shoulder Harness

Adjust the double shoulder harness straps so the shoulder pads rest comfortably on the shoulders and the cutting path of the blade is parallel to the ground. Make sure all hooks and adjusting devices are secure. See Figure 32.

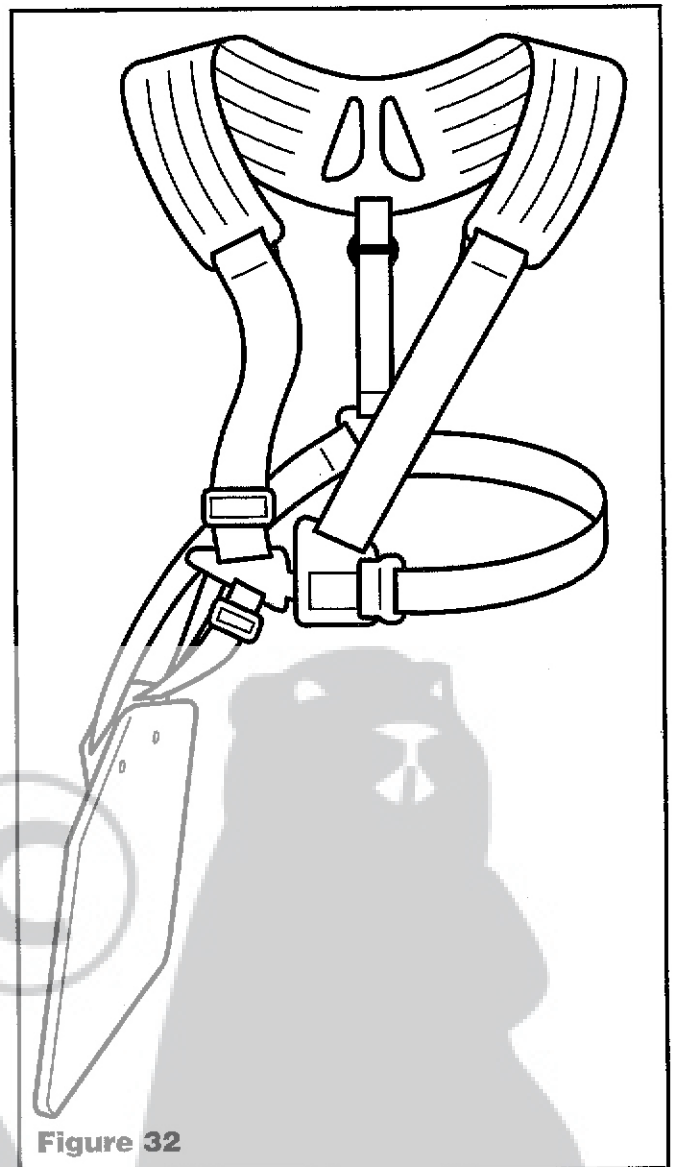


Figure 32



WARNING!

NEVER operate the unit with the cutting attachment shield and/or other protection devices removed!

ALWAYS make sure the cutting attachment is properly installed and firmly tightened before operation.

NEVER use a cracked or warped cutting attachment.

ALWAYS make sure the cutting attachment fits properly into the appropriate cutter holder. If a properly installed attachment vibrates, replace the attachment with a new one and re-check.

ALWAYS stop the engine immediately and check for damage if you strike a foreign object or if the cutting attachment becomes entangled.

NEVER cut with dull blades. Use a blade that is sharp and in good condition.

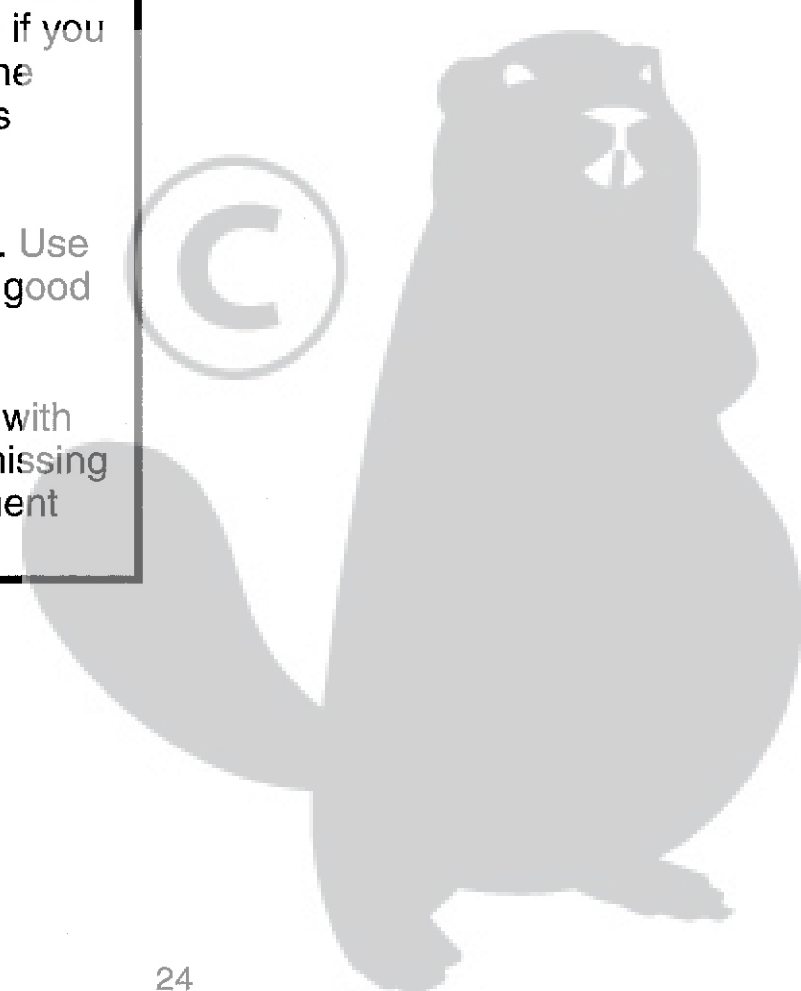
NEVER operate a machine with loose, worn, damaged, or missing fasteners or cutting attachment holders.

Improper maintenance, use of nonconforming replacement components, or the removal of safety devices could result in serious injury.

When transporting, make sure the engine is not running and the blade is covered with the blade cover.

NEVER run the engine indoors —make sure there is always good ventilation. Fumes from engine exhaust can cause serious injury or death.

NEVER allow the engine to run at high speeds without a load. Over-revving without a load could damage the engine.



The Properly Equipped Operator



WARNING!

ALWAYS GUARD AGAINST FLYING DEBRIS! Protective devices and the cutting attachment shield do not guarantee protection against flying objects.

Do not operate this tool if you are tired, ill or under the influence of alcohol, drugs, or medication.

Always wear hearing protection and a broad-brimmed hat or helmet. A helmet is required when using a blade-equipped brushcutter to clear small trees.

Prolonged exposure to excessive noise is fatiguing and could lead to impaired hearing.

Always wear a harness when operating the unit. It adds comfort and helps ensure safety by limiting movement fore and aft. When the harness is adjusted properly, the unit should balance with the cutting attachment parallel to the ground.

Always protect yourself from hazards such as thorny brush and flying debris by wearing gloves and close fitting clothing that covers arms and legs. Never wear shorts. Don't wear loose clothing or items such as jewelry that could get caught in machinery or underbrush. Secure long hair so it is above shoulder level.

Always keep a proper footing and do not overreach—maintain your balance at all times during operation.

Always wear appropriate footwear such as non-skid boots or shoes. Never work barefooted or wear open-toed shoes or sandals!

Always wear eye protection.

Always make sure the handlebar is installed in accordance with manufacturer's instruction to provide maximum protection from contacting the blade.

Long-term exposure to vibration can damage your hands.

Always operate with both hands gripping the handgrip firmly.

Always keep away from a rotating blade or trimming line at all times. Never lift a rotating cutting attachment above waist-high.

Always make sure the cutting attachment shield is securely fastened to the brushcutter. Do not operate the unit if the cutting attachment shield is missing, loose, or broken.

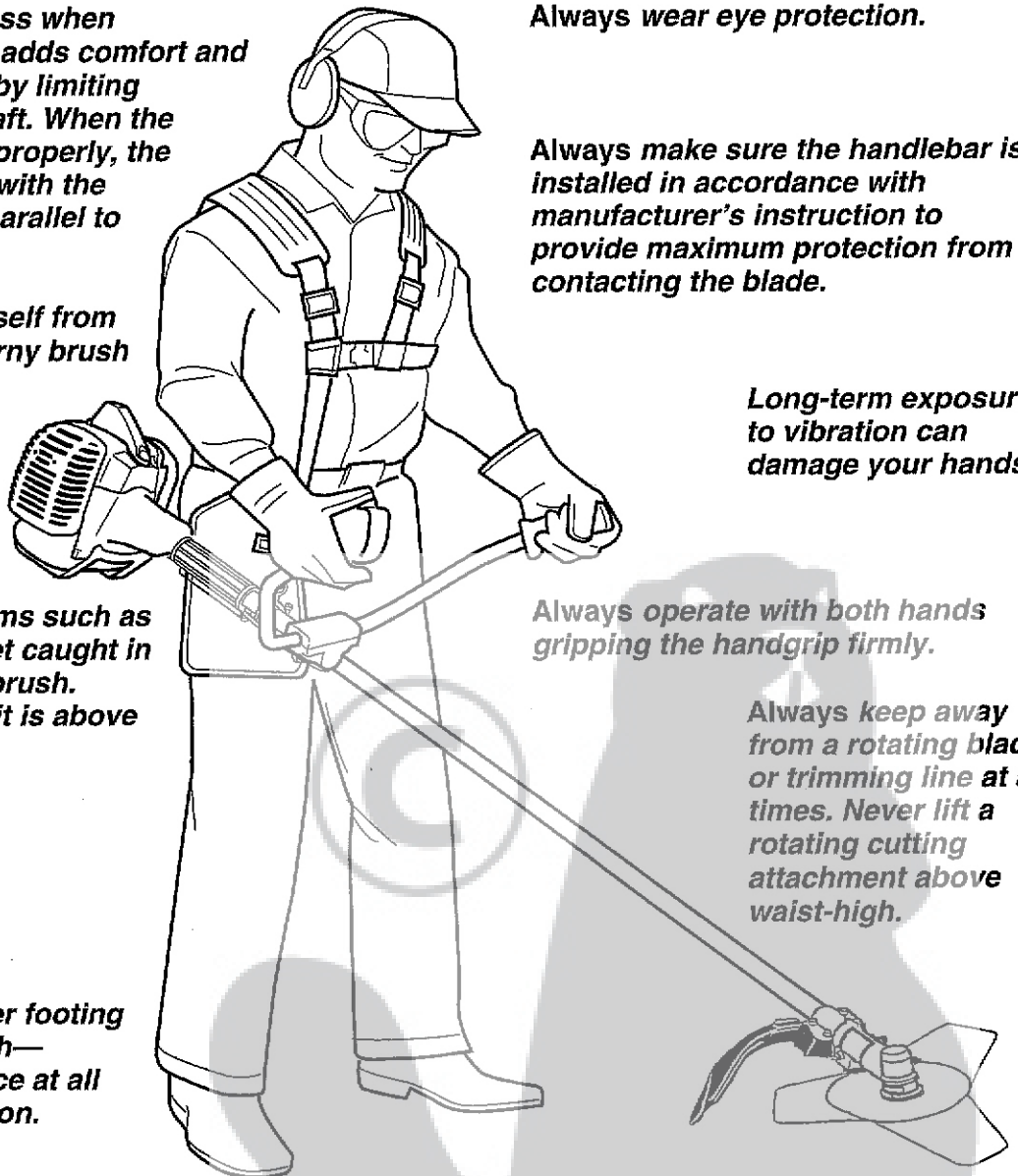


Figure 33

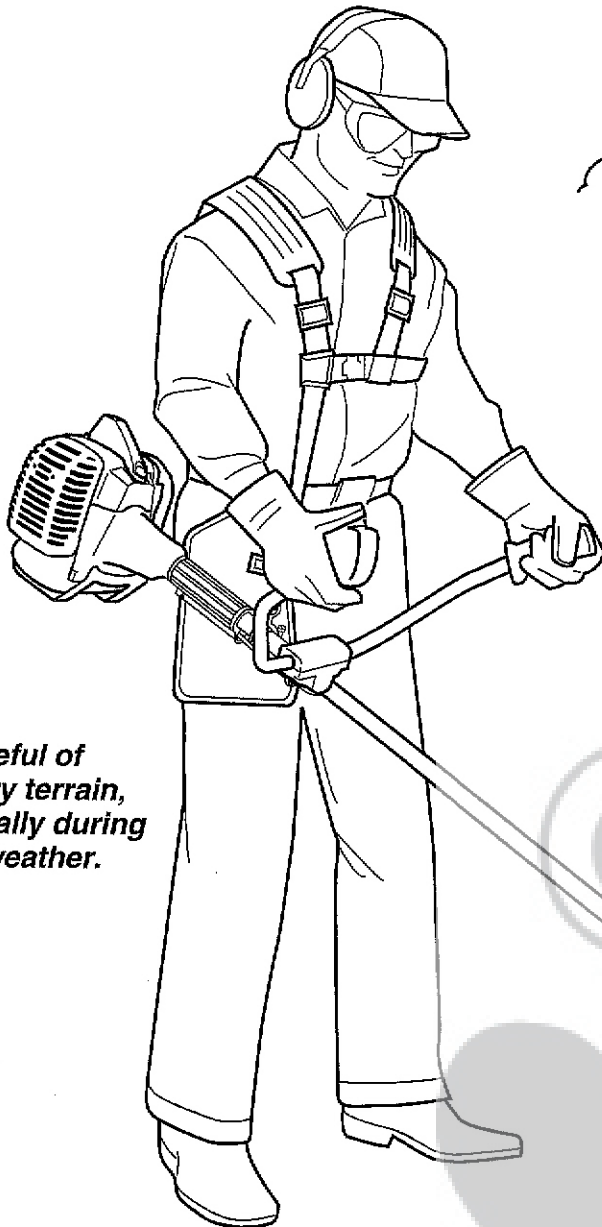
Be Aware of the Working Environment

Always avoid long-term operation in very hot or very cold weather.

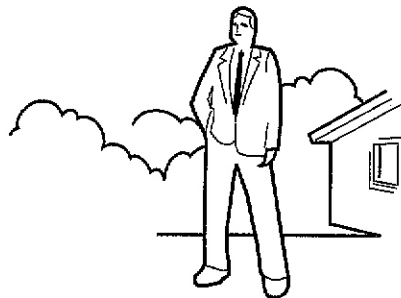
Always inspect the cutting site thoroughly and remove all objects that could be thrown or get entangled in the cutting attachment. Note the location of large rocks, stumps, and other fixed objects to avoid hitting them.

Always keep children, bystanders, and pets outside a 15 meters. This will reduce the risk of being struck by flying debris. Bystanders should be encouraged to wear eye protection. Stop immediately if a child, person or pet comes within a 15 meters radius.

Always beware of a coasting blade. A coasting blade can injure while it continues to spin after the throttle control lever is released or after the engine has stopped.



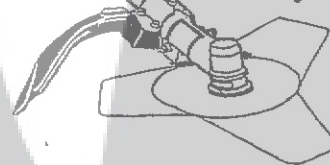
Be careful of slippery terrain, especially during rainy weather.



15 METERS
(50 FEET)



Always make sure the cutting attachment shield is installed correctly.



Always be alert for objects and debris that could be thrown from the rotating cutting attachment or bounced from a hard surface.

If contact is made with a hard object, stop the engine and inspect the cutting attachment for damage immediately.

Figure 34

Using a Brushcutter Equipped with a Blade

A blade-equipped brushcutter is a professional tool that demands the utmost attention. Observing the following important guidelines will help ensure safe and effective performance from your brushcutter.



WARNING!

- Your brushcutter is equipped with a barrier-type handlebar, a double shoulder harness, and a cutting attachment shield. These items must be installed and adjusted according to the instructions in this manual before using the unit with a blade or a trimmer head cutting attachment.
- A unit equipped with a blade can throw or get entangled in loose objects. Before operating, inspect the area thoroughly. Remove all objects, such as rocks, broken glass, nails, wire, or string. Note the location of large rocks, stumps, and other fixed objects to avoid hitting them.
- Make sure children, bystanders, and pets are at least outside a 15 meters radius. If a child, person, or pet comes into the 15 meters radius, stop the engine immediately.
- Beware of the dangers of blade thrust! Blade thrust can occur when the top or right cutting zone of the blade strikes a fixed object. Blade thrust can be violent enough to cause the unit and/or operator to be propelled in any direction, and possibly lose control of the unit. A violent blade thrust poses an extreme risk to anyone and anything nearby.
- Do not overreach! Do not raise the cutting attachment above waist level. Assume a safe and comfortable position before starting, and maintain your balance at all times.
- STOP the machine immediately if it suddenly begins to vibrate or shake. Inspect it for loose, broken, missing, or improperly installed parts or attachments.

Barrier Type Handlebar

The barrier type handlebar helps prevent the operator from moving forward or the cutting attachment from moving rearward to prevent inadvertent bodily contact with the blade. The handlebar must be installed in accordance with the instruction provided in this manual.

Always keep the handlebar securely in place on the unit!

Double Shoulder Harness

The double shoulder harness provided with the unit affords additional protection against blade thrust. Additionally, a double shoulder harness provides support

and comfort to help ensure safe and efficient operation. Before operating the brushcutter, make sure the harness is adjusted correctly to the operator. The double shoulder harness is equipped with a quick release mechanism to assure that the unit can be released quickly from the operator in the event of emergency.



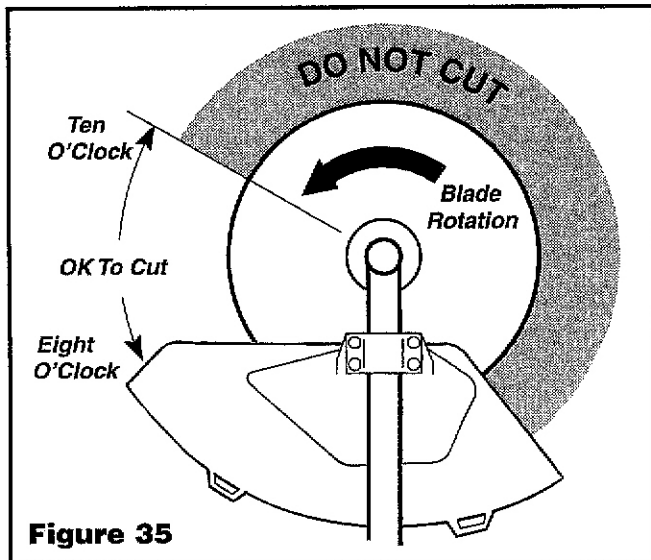
WARNING!

- When cutting small trees with a blade, feed the blade slowly—never strike or “slam” the spinning blade against the tree trunk.
 - **DO NOT** use 2-tooth (lawnmower type) cutting blades. Use only Shindaiwa approved blades with your Shindaiwa brushcutter.
 - Using a blade not authorized by Shindaiwa may result in serious injury.
- Avoid blade thrust by keeping the blade in view during operation. Watch your cut at all times. Cut **ONLY** small trees and/or branches with the left side of the blade between the 8 o'clock and 10 o'clock positions as shown in Figure 35. Avoid cutting with any other part of the blade. When cutting brush, sweep the blade from right to left, always keeping the blade well in front. It is recommended that the blade be tilted down slightly to help keep debris from accumulating on the edge of the blade.
 - Blade thrust will occur without warning if the blade snags, stalls,

or binds in the cut. A dull blade is more likely to thrust than a sharp one because a sharp blade tends to bite into the cut while a dull blade tends to bounce away.

- When using a blade, stay away from fences and buildings. Watch for stakes, wires, and other objects that can cause kick-out or that can wrap around the blade.
- **DO NOT** overreach. Move to a comfortable position before starting a cut, and maintain your balance at all times.
- Keep the engine at maximum throttle during the cut. Apply just enough feed pressure to maintain engine speed without wasting fuel or causing unnecessary wear. Avoid extended operation at low speeds to prevent clutch slippage. Excessive clutch slippage will cause premature wear of clutch components.
- If the blade strikes a solid object or if abnormal vibration develops, stop cutting immediately, stop the engine, and inspect the blade. If the blade is bent, warped, cracked, broken or damaged in any way, replace it with a sharp blade.
- Small trees usually can be felled with a single cut. Use the 8 o'clock-to- 10 o'clock cutting zones of the blade to avoid blade thrust. The fall of the tree can be directed by sloping the cut. The tree will usually fall towards the high side of the stump. Cutting down larger trees may require several cuts.
- If the blade snags or binds in a cut, **STOP** the engine before proceeding to clear the blade from the cut.

Trimming/Mowing Grass Using A Trimmer Head



Engine Operating Speeds

Operate the machine at full throttle while cutting. Best results are obtained by releasing the throttle when swinging back after completing a cut.

- To prevent possible engine damage, do not allow the brushcutter to run at high speeds without a load.
- Avoid operating the engine below the recommended operational speed range. Doing so can lead to rapid clutch wear. In addition, slow-speed operation may cause grass and debris to wrap around the cutting attachment.

CAUTION!

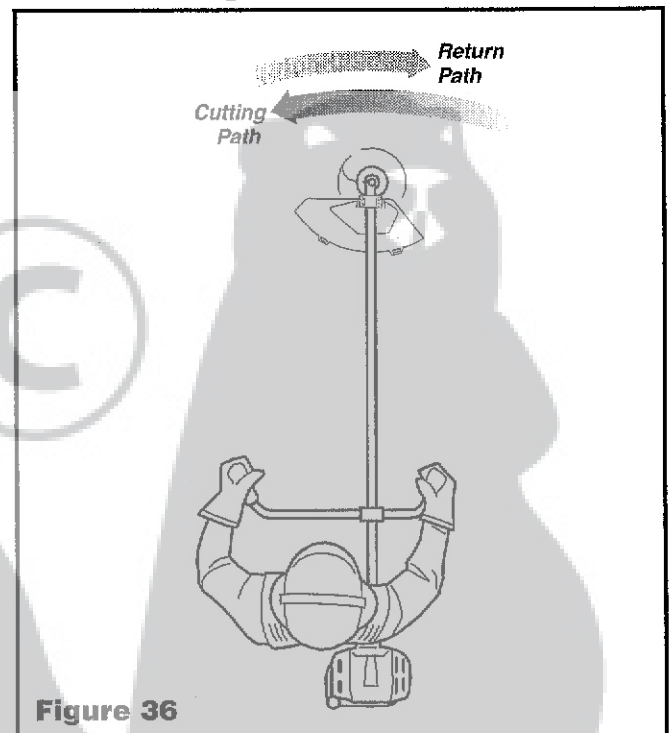
Do not push the rotating trimmer line into trees, wire fences or any material that could entangle or break line.

Your Shindaiwa B530 brushcutter can be equipped with the recommended Shindaiwa trimmer head.

CAUTION!

Operation at low speed may cause premature clutch failure.

For best cutting performance and extending trimmer line life, follow these recommended procedures when using a string-type cutting head. See Figure 36.



- Cut from right to left, with the trimmer head angled slightly towards the cut.
- Use full throttle when cutting, then release the throttle momentarily before beginning the next cut.
- Cut only with the tip of the trimmer line.

Edging

Tilt the handle about 100 degrees to the right (from horizontal) and move forward, holding the B530 vertical. See Figure 37.

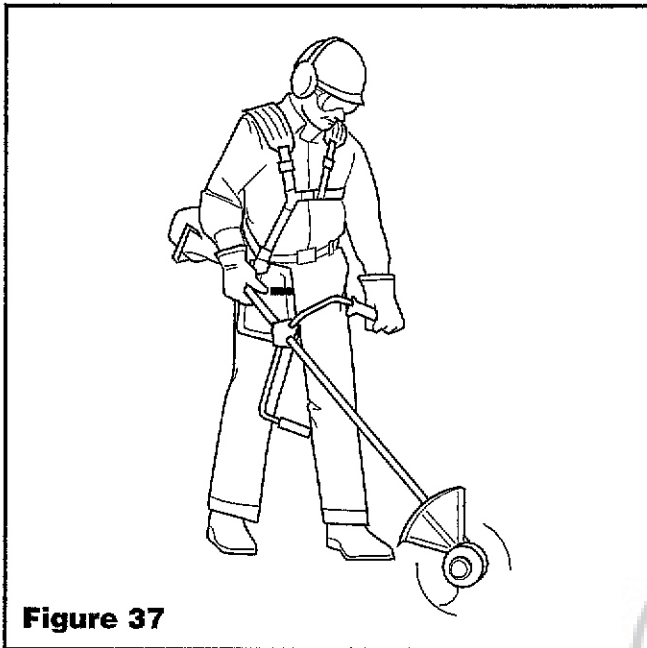


Figure 37

Muffler



WARNING!

Never operate this machine with a damaged or missing muffler! Operating with missing or damaged exhaust components is a fire hazard, and may also damage your hearing.

Daily Maintenance

- Remove dirt or debris from the engine and muffler, check the cooling fins and air cleaner for clogging, and clean them as necessary. Check and clean the cooling system (air intake grills, flywheel fins, cylinder fins, and air filter). Dirt build-up in these areas could cause engine overheating, induce premature wear, or create a fire hazard.
- Check for loose or missing bolts or components. Make sure the cutting attachment is securely fastened.
- Check the machine for fuel or grease leaks.

Periodic Maintenance



WARNING!

Before performing any service and maintenance or repair work on the machine, make sure that the switch button is in the STOP position and the engine and the cutting attachment are completely stopped. Always disconnect the spark plug lead.

Blades



WARNING!

- Never repair a damaged blade by welding, straightening, or by modifying its shape. An altered blade may break during operation, resulting in serious personal injury.
- DO NOT use 2-tooth (lawnmower type) cutting blades. Use only blades approved by Shindaiwa for use with your brushcutter.
- Operating the machine with a blade or attachment not authorized for use for this unit can result in serious injury to the operator and/or bystanders.
- Keep blades sharp and check blade condition frequently. If cutting performance changes suddenly, stop the engine and check the blade for cracks or other damage. Replace the damaged blade immediately!

10-hour Maintenance

Every 10-hours of operation (more frequently in dusty or dirty conditions):

CAUTION!

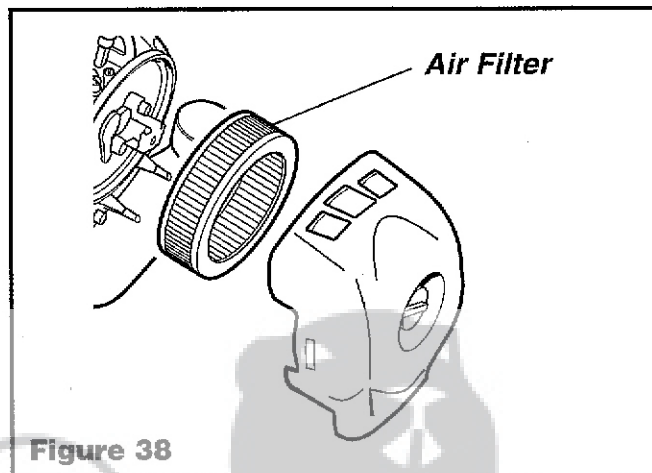
Do not operate the machine if the air cleaner assembly or element is dirty, damaged, or if the element is wet or water-soaked. Operating the engine with an air cleaner in any of these conditions will cause premature wear of internal components.

1. Inspect the filter. If the element is damaged or distorted, replace it with a new one.

IMPORTANT!

The B530 uses a special high capacity dry-type air filter element. The filter should not be cleaned with a liquid cleaner and must NEVER be oiled!

2. Tap filter gently on a hard surface to dislodge debris from element or use compressed air from the inside to blow debris from the air filter element.



10/15-hour Maintenance

Spark Plug

Keep the spark plug and wire connections tight and clean.

CAUTION!

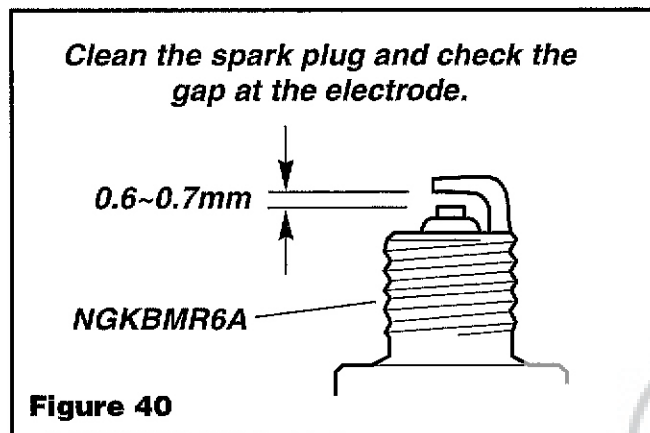
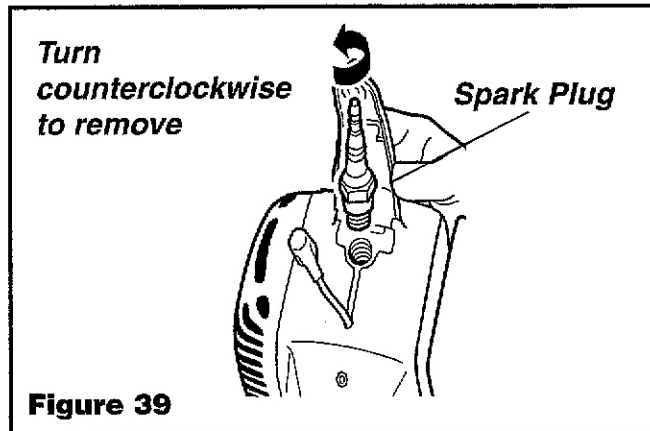
Before removing the spark plug, clean the area around the plug to prevent dirt and dust from getting into the engine's internal parts.

Every 10 to 15 hours of operation:

- Remove and clean the spark plug.

Check the spark plug electrode gap. If needed, gap plug to 0.6~0.7mm. See Figure 39 & 40.

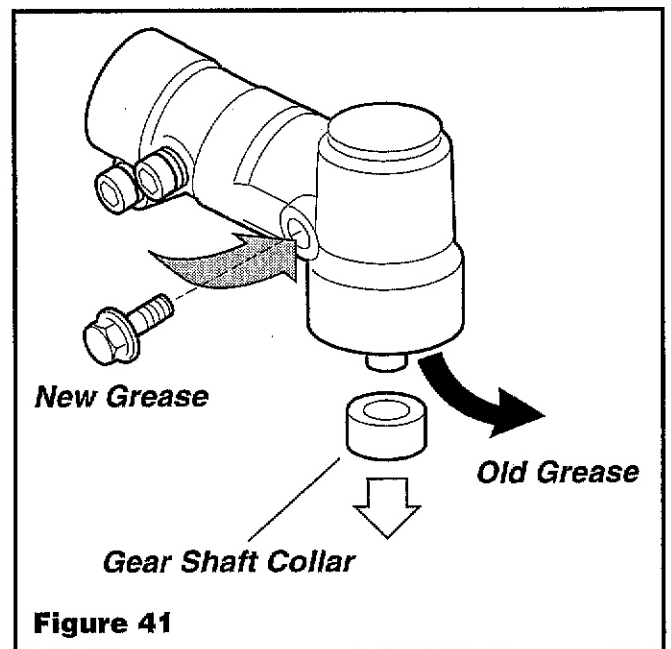
- Clean the spark plug and check the gap between the electrodes.
- If the plug must be replaced, use an NGK BMR6A.



50-hour Maintenance

(perform more frequently in dusty or dirty conditions)

- Remove and clean the cylinder cover and clean all grass and dirt deposits from the cylinder fins surface.
- Remove the cutting attachment and the gear shaft collar, and force new grease into the gearcase until the old grease has been pushed out. See Figure 41. Use only lithium-base grease.



Storage

Short Term Storage

(Less than 30 days)

- Clean the air filter.
- Clean cylinder fins, flywheel fins, and muffler surfaces.
- Clean cooling air intake grill.
- Clean debris from gearcase and outer tube exterior surfaces.
- Lubricate gearcase as outlined in page 32 of this manual.
- Drain fuel tank.
- Cover engine and store unit in a clean, dry place.

Long Term Storage

(More than 30 days)

CAUTION!

Never store this unit for more than 30 days with fuel remaining in the tank, fuel lines or carburetor! Storing with fuel remaining in the fuel tank, fuel lines and carburetor may cause gum deposits in the fuel system.

IMPORTANT!

All units to be stored, for 30 days or longer, with fuel remaining in the fuel tank, hose, and carburetor and fuel system should be conditioned with a fuel stabilizer such as STA-BIL™.

Whenever the machine is going to be stored for 30 days and longer, prepare the unit for storage as follows:

- Drain all fuel from fuel tank and allow unit to run until all the fuel in the carburetor is spent.
- Remove the spark plug and pour about 7g of oil into the cylinder through the spark plug hole. Crank the engine over slowly two or three times so oil will coat the cylinder wall and piston rings.
- Reinstall the spark plug.
- Repair damaged or faulty components as necessary.
- Service air filter as outlined in page 31.
- Clean all external parts thoroughly and apply a light coating of oil to all metal surfaces.
- Cover the engine and store the brushcutter in a clean, dry place.
- Cover the blade with the blade cover.

Recommended Blades

Make sure to use the following recommended Shindaiwa blades with this machine.

PART NUMBER

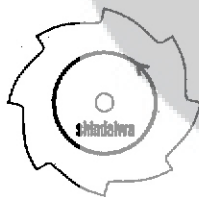
60903-98310

8-TOOTH BLADE

INNER BORE: 25.4 mm

DIAMETER: 255.0 mm

THICKNESS: 2.0 mm



PART NUMBER

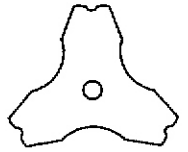
72430-92142

3-TOOTH BLADE

INNER BORE: 25.4 mm

DIAMETER: 255.0 mm

THICKNESS: 2.2 mm



Recommended Trimmer Head

PART NUMBER

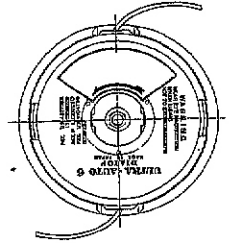
78820-01000

TYPE: AUTOMATIC

CUTTING LINE: NYLON

LINE DIAMETER:

3.0 mm



BLADE Sharpening

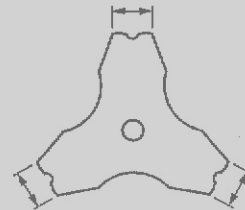
With a file or a grinder, file a blade as follows.



WARNING!

Sharpen only the cutting teeth of a blade. DO NOT alter the contour of the blade in any way. In order to keep the blade in balance, all cutting edges must be sharpened equally. DO NOT file the tips of the teeth too sharp.

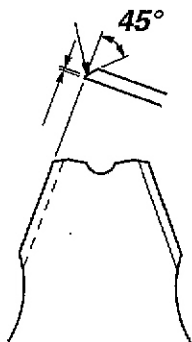
Make sure the width of the 3 sides is all the same.



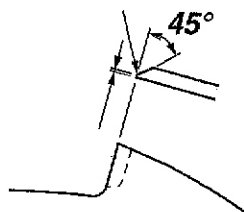
The sharpening angle should be 45° approx.

Do not file the tips of the blade too sharp. Leave 0.2~0.5 mm unsharpened.

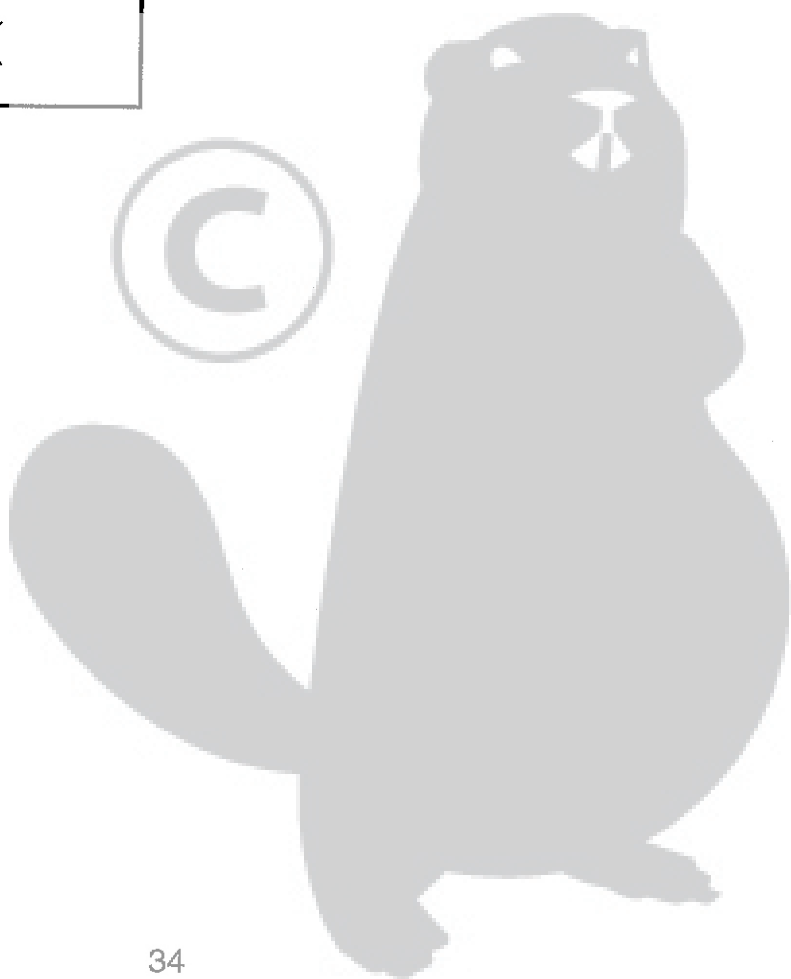
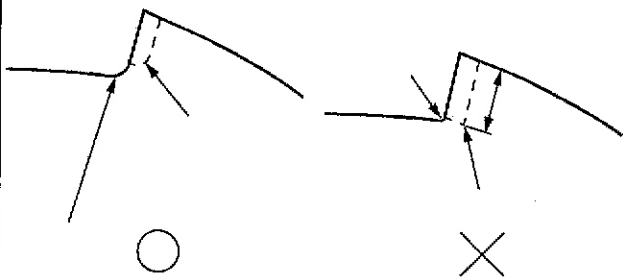
0.2~0.5 mm



0.2~0.5 mm



The bottom of each tooth must remain unsharpened.



Troubleshooting Guide / Engine Does Not Start

What to Check

Does the engine crank?

NO →

Possible Cause

Faulty recoil starter.
Fluid in the crankcase.
Internal engine damage.

Remedy

Consult with an authorized servicing dealer.

YES ↓

Engine has compression?

NO →

Loose spark plug.
Worn cylinder, piston, and/or rings.

Tighten and re-test.

Consult with an authorized servicing dealer.

YES ↓

Fuel tank has fresh fuel?

NO →

Refill with fresh fuel of the correct fuel mixture. (25:1)

Re-start.

YES ↓

Is fuel visible and flowing through the return line when primed?

NO →

Check fuel filter and/or tank vent.
Clean or replace as required.

Re-start.

YES ↓

Is there spark at the spark plug wire terminal?

NO →

The ignition switch is in STOP position.
Faulty ignition ground.

Move switch to ON position and re-start.

Consult with an authorized servicing dealer.

YES ↓

Check the spark plug.

→

If the spark plug electrode is wet, excess fuel may be in the cylinder.

Crank the engine with the plug removed, reinstall the plug, and re-start. See page 21, Starting a Flooded Engine.

Check for a fouled spark plug.

Clean and re-gap the plug to 0.6~0.7mm.
Re-start.

Spark plug may be faulty or is the wrong size. (Heat range, etc.)

Replace the plug with a NGK BMR6A. Re-start.

Troubleshooting Guide / Low Power Output

What to Check

Possible Cause

Remedy

Is the engine overheating?

Wrong cutting attachment/tech-nique.

Review cutting technique. See pages 25 through 30.

Lean fuel mixture.

Adjust carburetor, see page 22.

Improper Fuel/Oil Ratio.

Re-fill with fresh fuel mixture (gasoline and 2-cycle Mixing oil-25:1 ratio).

Air intake area, fan, fan cover, cylinder fins dirty or damaged.

Clean, repair, or replace as necessary.

Heavy carbon depos-its on the piston or in the muffler.

Consult with an authorized servicing dealer.

Engine is rough at all speeds. May also have black smoke and/or un-burned fuel at the exhaust.

Dirty/clogged air filter.

Service the air filter (page 31).

Loose/damaged faulty spark plug.

Tighten or replace spark plug.

Air leakage in fuel system/clogged fuel line.

Repair or replace filter and/or fuel line.

Water in the fuel.

Replace the fuel mixture.

Piston seizure.

Consult with an authorized servicing dealer.

Faulty carburetor.

Consult with an authorized servicing dealer.

Engine is knocking.

Overheating condi-tion.

Consult with an authorized servicing dealer.

Improper fuel.

Check fuel octane rating; check for presence of alcohol in the fuel. Refuel as necessary.

Heavy carbon depos-its in the combustion chamber.

Consult with an authorized servicing dealer.

Troubleshooting Guide / Additional Problems

Symptom	Possible Cause	Remedy
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Poor acceleration.</div>	Dirty/Clogged air filter.	Clean the air filter.
	Dirty/Clogged fuel filter.	Replace the fuel filter elements.
	Carburetor mixture too lean.	Adjust carburetor. See page 22.
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Engine stops abruptly.</div>	Idle speed set too low.	Adjust: idle speed to 2500 min ⁻¹ (±250)
	Switch turned off. Switch in the STOP position?	Slide switch button to the start "I" position.
	Fuel tank empty.	Fill fuel tank.
	Dirty/Clogged fuel filter.	Replace fuel filter.
	Water in the fuel.	Drain; clean tank, and fill with clean fuel.
	Faulty spark plug or loose terminal.	Clean and or replace spark plug, repair/tighten the terminal.
	Ignition coil faulty.	Consult with an authorized servicing dealer.
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Engine difficult to stop or will not stop.</div>	Piston seizure.	Consult with an authorized servicing dealer.
	Bad ground connection.	Test/replace as required/clean ground connection.
	Overheating due to incorrect spark plug.	Install correct spark plug: NGK BMR6A
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Cutting attachment rotates at engine idle.</div>	Air intake grilles plugged.	Check air intake grilles. Idle engine until cool.
	Engine idle too high.	Adjust engine idle speed. Consult with an authorized servicing dealer.

European Distributors List

Ref. No.	Country	Name	Address	Tel No.	Fax No.
1	France	Yvan Beal	21, avenue De l'Agriculture, B.P.16 - Zone Industrielle du Brezet, 63014 Clermont-Ferrand Cedex 1	(33) 04 73 91 93 51	(33) 04 73 90 23 11
2	Italy	Fercad S.P.A.	Via Retrone, 49, 36077 - Altavilla Vicentina, Vicenza	(39) 0444 220811	(39) 0444 348986
3	Germany	Iseki Maschinen GmbH	Rudolf-Diesel-Str. 4, 40670 Meerbusch	(49) 02159 5205 0	(49) 02159 520512
4	England	PLM Power Products Ltd.	Unit 5-6, The Shires Industrial Estate, Essington Close, Birmingham Road, Lichfield, Staffs, WS14 9AZ	(44) 01543 414477	(44) 01543 414541
5	Ireland	Danfay Ltd.	61D Sallynoggin Road, Dun Laoghaire, Co. Dublin	(353) 1 2859177	(353) 1 2858810
6	Holland	Matracom Int. B.V.	Hogelandseweg 51, 6545 AB Nijmegen	(31) 024 373 1990	(31) 024 373 1765
7	Belgium	Intergarden Import N.V.	Brechtsebaan 284-B 2900 Schoten	(32) 03 652 02 61	(32) 03 652 02 40
8	Switzerland	Solo Motorgeraete AG	Seuzachstrasse 26, CH-8413 Neftenbach	(41) 52 315 1221	(41) 52 315 1004
9	Portugal	Joaquim Verdasca Junior Heads Lda	Apartado 11-2490, Ourem	(351) 249 544540	(351) 249 544361
10	Greece	Technellas S.A.	92, Athinon Avenue, 104 42 Athens	(30) 1 5193 110	(30) 1 5193 114
11	Finland	Tuonti Jarvela KY	Itkonniemenkatu 11, PB1234 70501 Kuopio	(358) 17 2652 845	(358) 17 2652 801
12	Turkey	Taral Tarim Makina VeAletleri Sanayi A.S.	Gumussuyu Caddesi Hastane Yolu No.1 34020 Topkapi-Maltepe, Istanbul	(90) 212 567 95 50	(90) 212 674 06 79

Declaration of Conformity

DECLARATION OF CONFORMITY

We hereby declare the Shindaiwa Engine Brushcutter,
Model B530 (B530/CE,B530/YB,T530/CE)

meets the following respective requirements.

Council Directives:

89/336/EEC as amended

98/37/EC as amended

2000/14/EC as amended

Standard taken:

EN 292 parts 1&2

ISO 11806

CISPR 12

Measured sound power level: 112dB(A)

Guaranteed sound power level: 113dB(A)

Technical documentaiton is kept by:

K. Maeda DIV. Manager

Engineering Research and Development DIV.

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