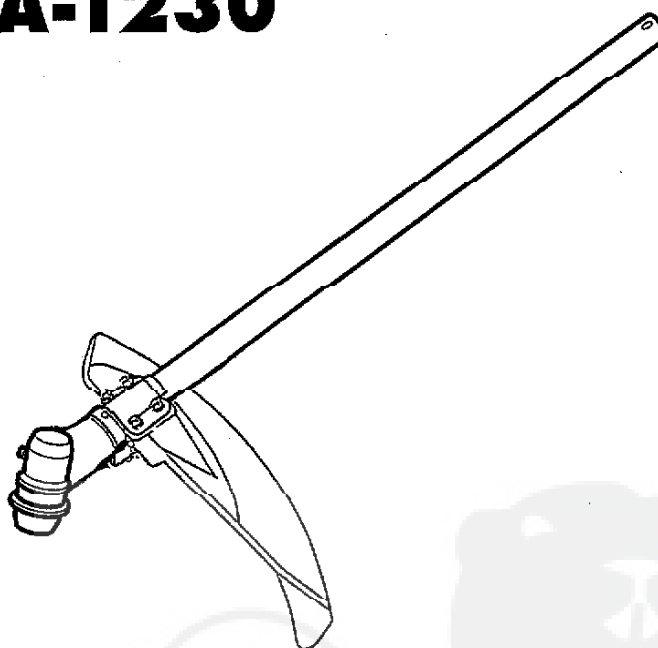


**ISO 9001**  
CERTIFIED

# shindaiwa

**SHINDAIWA OWNER'S MANUAL**

## **SPLITBOOM ATTACHMENT SBA-T230**



CE



### **WARNING!**

Read this manual and the manual provided with Shindaiwa 230PH Multipurpose Engine and familiarize yourself with its contents.

This machine is designed for cutting grass, weed and bushes with Shindaiwa 230PH Multipurpose Engine.

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 Splitboom Attachment SBA-T230 has been designed and built to deliver superior performance and reliability without compromise to quality, comfort, safety or durability.

As an owner/operator, you'll soon discover for yourself why Shindaiwa is simply in a class by itself!

### **IMPORTANT!**

The information contained in these instructions describes machines available at the time of publication.


Shindaiwa reserves the right to make changes to products without prior notice, and without obligation to make alterations to machines previously manufactured.

## Contents

	PAGE
Attention Statements .....	3
Safety Labels .....	4
Operating Precautions .....	5
The Properly Equipped Operator .....	6
General Safety Instructions .....	7
Be Aware of the Working Environment .....	8
Product Description and Specifications .....	9
Assembly .....	10
Installing a Tool Attachment .....	15
Checking Unit Condition/to wear the Strap .	16
Operation .....	17
Cutting Grass with a Trimmer Head .....	18
Recommended Blades/Trimmer Head .....	19
Blade Sharpening .....	20
Maintenance .....	21
Storage .....	22
Troubleshooting Guide .....	23
European Distributors List .....	27

## Attention Statements

Throughout this manual are special “attention statements”.

 **WARNING!**  
 A statement preceded by the triangular attention symbol and the word “WARNING” contains information that should be acted upon to prevent serious bodily injury.

**CAUTION!**  
 A statement preceded by the word “CAUTION” contains information that should be acted upon to prevent mechanical damage.

**IMPORTANT!**  
 A statement preceded by the word “IMPORTANT” is one that possesses special significance.

**NOTE:**  
 A statement preceded by the word “NOTE” contains information that is handy to know and may make your job easier.

**IMPORTANT!**  
 The operational procedures described in this manual are intended to help you get the most from your machine as well as 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 tool, 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 Shindaiwa products mean as follows.



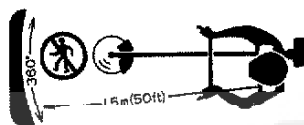
**READ AND FOLLOW THE OPERATOR'S MANUAL. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY.**



**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 OF AN OPERATING ATTACHMENT.**



**BEWARE OF THROWN OBJECTS.**

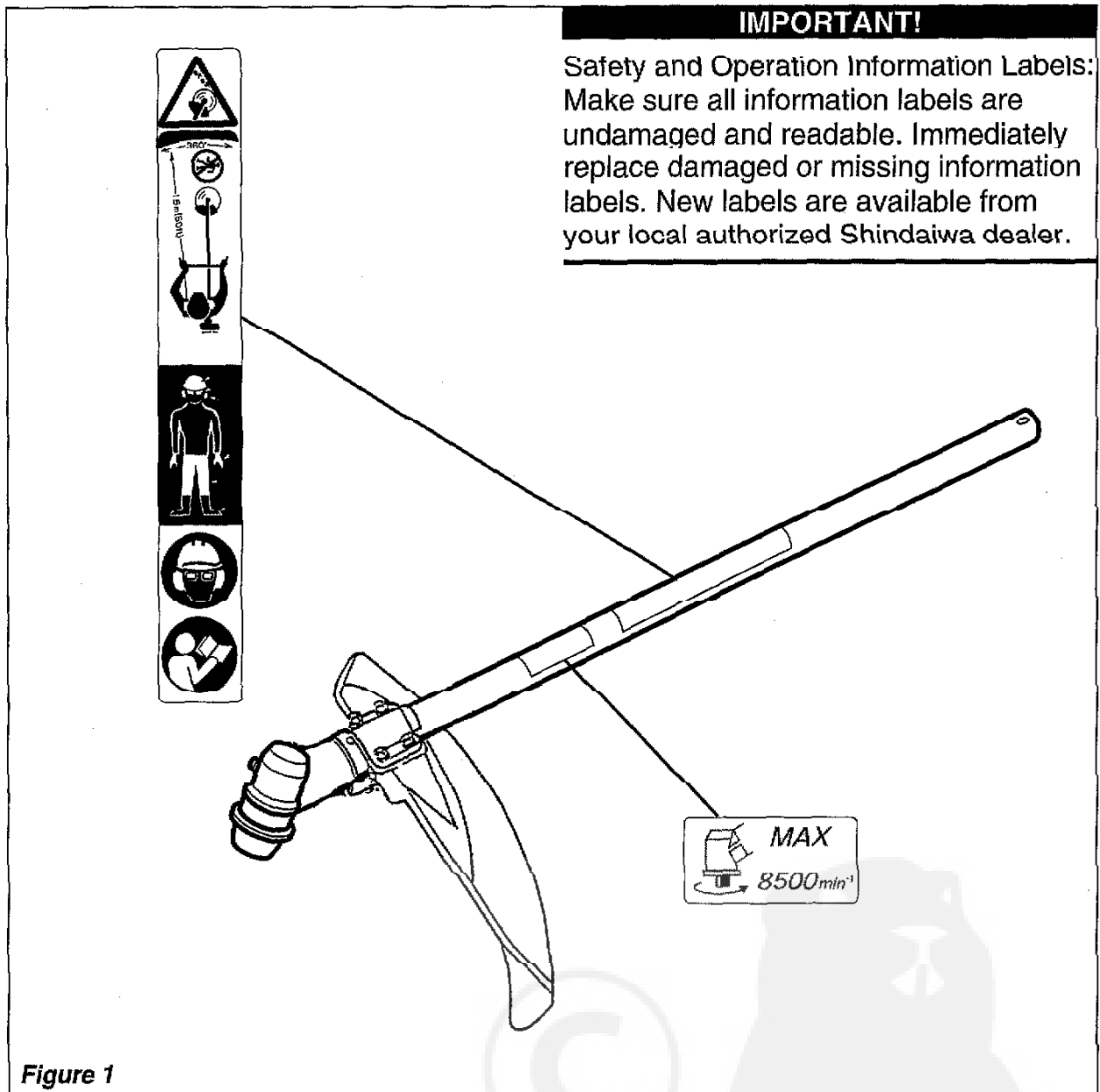


**MAX**

**8500<sub>min</sub><sup>-1</sup>**

**THE MAXIMUM SPEED OF THE CUTTING ATTACHMENT SHAFT IN min<sup>-1</sup>**

## Safety Labels



## Operating Precautions



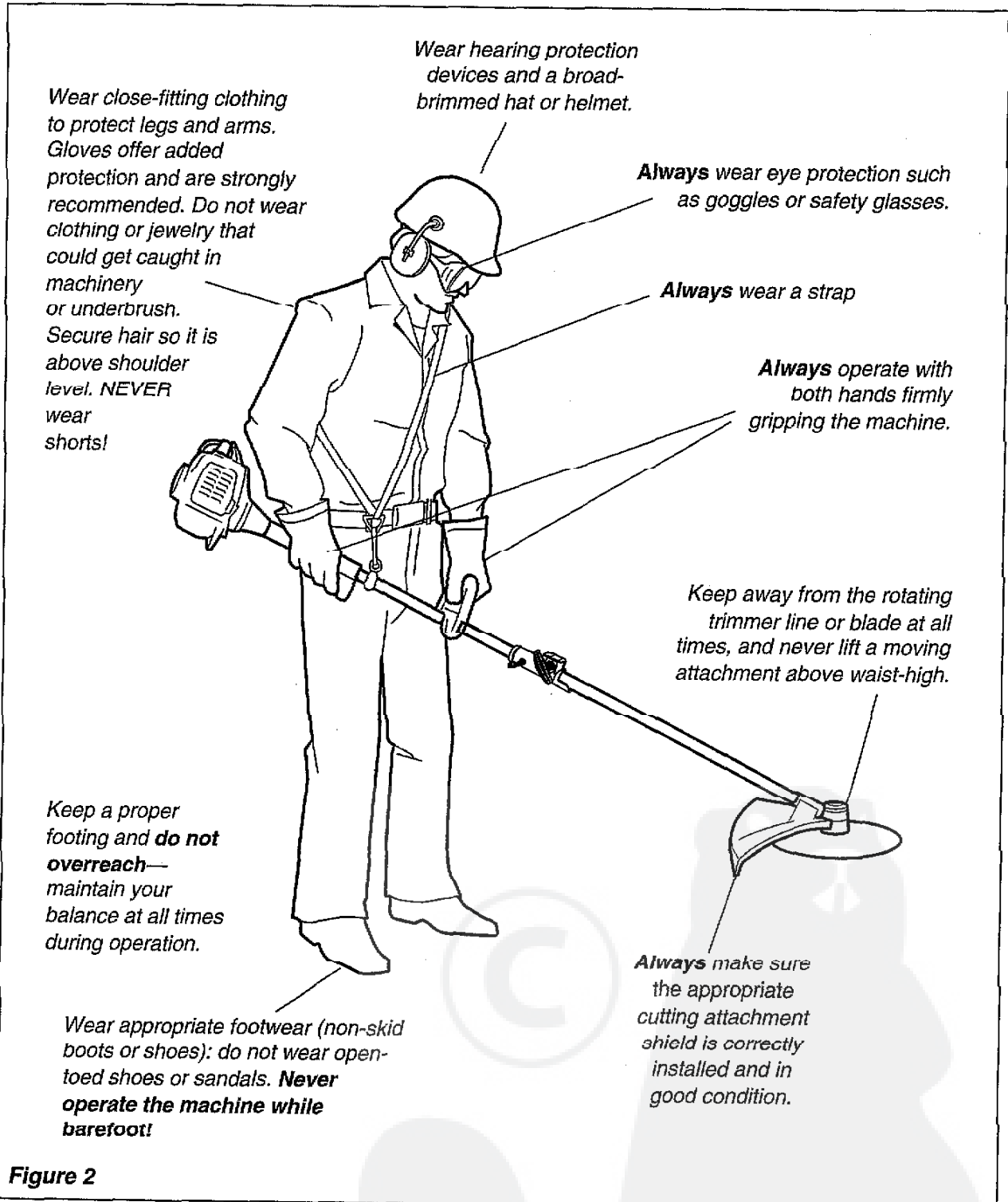
### WARNING!

- This Shindaiwa Splitboom Attachment is specifically designed for use on the Shindaiwa Multipurpose Engine. Installation and/or use on any other model, brand or type of power tool is not approved by Shindaiwa. Attempts to use on non-approved models can damage the equipment and cause accidents, serious injury or death. Never permit a person without training or instruction to operate this machine.
- Always make sure the Splitboom Attachment is properly installed and firmly tightened before operation.
- Never use a cracked or warped cutting attachment: replace it with a serviceable one and make sure it fits properly.
- Never smoke or light fires near the engine. Fuel is very flammable and fire could lead to serious personal injury or property damage.
- Make sure of no fuel leaking from Fuel tank, Fuel cap, Fuel pipe and Carburetor and other parts which fuel may leak. Repair the machine if fuel leaking, make sure no leaking again.
- Make sure there are no missing or loose fasteners, and that the stop switch and throttle controls are working properly.
- Secure the machine during transportation to prevent leakage of fuel, damage or injury.
- Make sure there is always good ventilation when operating this machine. Fumes from engine exhaust can cause serious injury or death. **Never run the engine indoors!**
- Before starting the engine, make sure the cutting attachment is not contacting anything.
- Always stop the engine immediately and check for damage if you strike a foreign object or if the machine becomes tangled. Do not operate with broken or damaged equipment.
- Stop the machine immediately if it suddenly begins to vibrate or shake. Inspect for broken, missing or improperly installed parts or attachments.
- Never transport the machine or set it down with the engine running. An engine that's running could be accidentally accelerated causing the cutting attachment to rotate.
- Make sure cutter safety guards are in place when transporting and storing the machine.
- Never operate this machine or any other power equipment if you are tired, ill, or under the influence of alcohol, drugs, or any substance that could affect your ability or judgement.

### CAUTION!

**Never** extend trimming line beyond the length specified for your unit.  
**Always** keep the unit as clean as practical. Keep it free of loose vegetation, mud, etc.

## The Properly Equipped Operator



### Work Safely

Trimmers run at very high speeds and can do serious damage or injury if they are misused or abused. *Never allow a person without training or instruction to operate your machine!*



### WARNING!

Never make unauthorized attachment installations.

## General Safety Instructions



### **WARNING!**

Never operate power equipment of any kind if you are tired or if you are under the influence of alcohol, drugs, or any other substance that could affect your ability or judgement.



### **WARNING! Minimize the Risk of Fire**

**Never** smoke or light fires near the trimmer.

**Always** stop the engine and allow it to cool before refueling. Avoid overfilling and wipe off any fuel that may have spilled.

**Always** move the unit to a place well away from a fuel storage area or other readily flammable materials before starting the engine. Use caution when handling fuel. Move the power tool at least 3 meters from the fueling point before starting the engine.

**Never** place flammable material close to the engine muffler.

**Never** operate the machine with the muffler removed.



### **WARNING!**

#### **Use Good Judgment**

**Always** wear eye protection to shield against thrown objects.

**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.

**Never** run the engine indoors!

Make sure there is always good ventilation. Fumes from engine exhaust can cause serious injury or death.

**Always** clear your work area of trash or hidden debris that could be thrown back at you or toward a bystander.

**Always** use the proper cutting tool for the job.

**Always** stop the machine immediately if it suddenly begins to vibrate or shake. Inspect for broken, missing or improperly installed parts or attachments.

**Always** hold the machine firmly with both hands when cutting or trimming, and maintain control at all times.

**Always** keep the handles clean.

**Always** disconnect the spark plug wire before performing any maintenance work.

## Be Aware of the Working Environment

Avoid long-term operation in very hot or very cold weather.

Make sure bystanders or observers outside the 15 meter "danger zone" wear eye protection.



Reduce the risk of bystanders being struck by flying debris. Make sure no one is within 15 meters—that's about 16 paces—of an operating attachment.

15m

Be extremely careful of slippery terrain, especially during rainy weather.

Always make sure the appropriate cutting attachment shield is correctly installed.

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

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

When operating in rocky terrain or near electric wires or fences, use extreme caution to avoid contacting such items with the cutting attachment.

**Figure 3**



# Product Description and Specifications

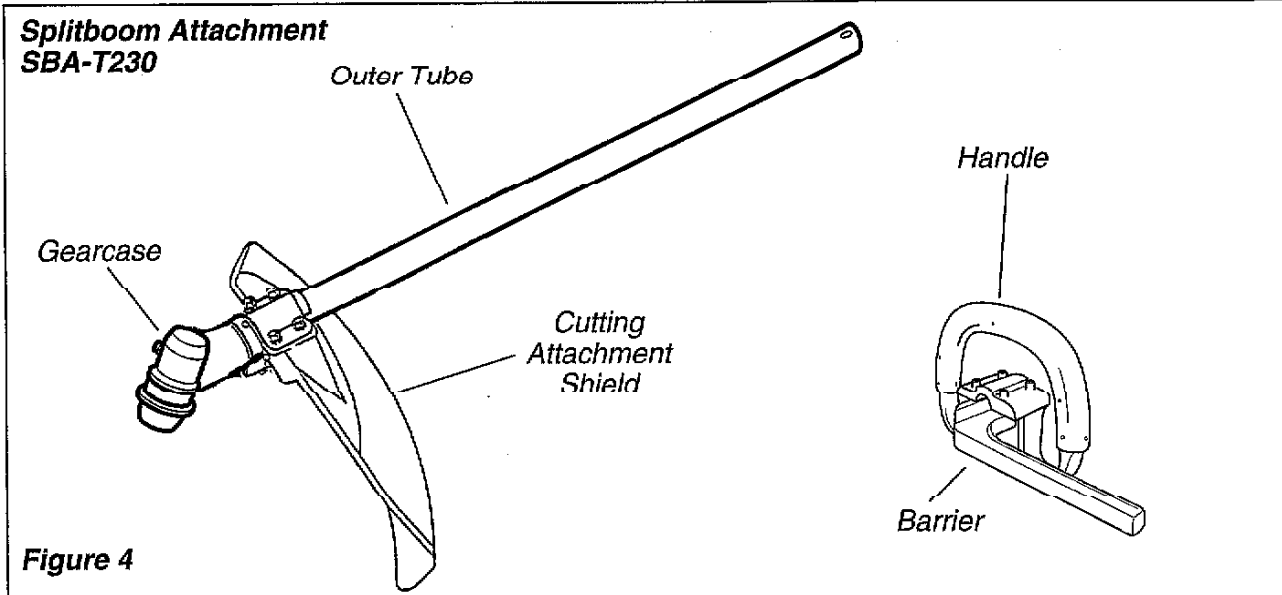



Figure 4

Using the accompanying illustrations as a guide, familiarize yourself with your machine and its various components. Understanding your machine helps ensure top performance, long service life, and safer operation. See Figure 4.



**WARNING!**  
Do not make unauthorized modifications or alterations to any of these units or their components.

## Splitboom Attachment SBA-T230 Specifications

Dry Weight SBA-T230(less cutting attachment) ..... 1.2 kg  
 Gearcase Lubrication ..... Lithium based grease  
 Gear Reduction ..... 1.286:1  
 Gearcase Arbor Size ..... 7mm Left-hand thread(female)  
 (With Shindaiwa 230PH Multipurpose Engine)

Sound Pressure Level*		96dB(A)
Sound Power Level*		109dB(A)
Vibration Level*	Idling [Front/Rear]	1.8/4.4m/s <sup>2</sup>
	Racing [Front/Rear]	6.4/7.0m/s <sup>2</sup>

\*Sound Pressure Level: in accordance with EN ISO 11806 and ISO 7917  
 \*Sound Power Level: in accordance with EN ISO 11806 and ISO 10884  
 \*Vibration Level: in accordance with EN ISO 11806 and ISO 7916

\*Specifications are subject to change without notice.

## Prior To Assembly

Before assembling, make sure you have all the components required for a complete unit:

- Outer Tube/Main Shaft Assembly
- Cutting Attachment Shield
- Front Handle
- Kit containing cutting attachment shield mounting bracket and hardware, gearcase tool holder, this owner's/operator's manual and a hex wrench and spanner wrench.

Carefully inspect all components for damaged.

**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.

## Assembly and Adjustments

### Cutting Attachment Shield

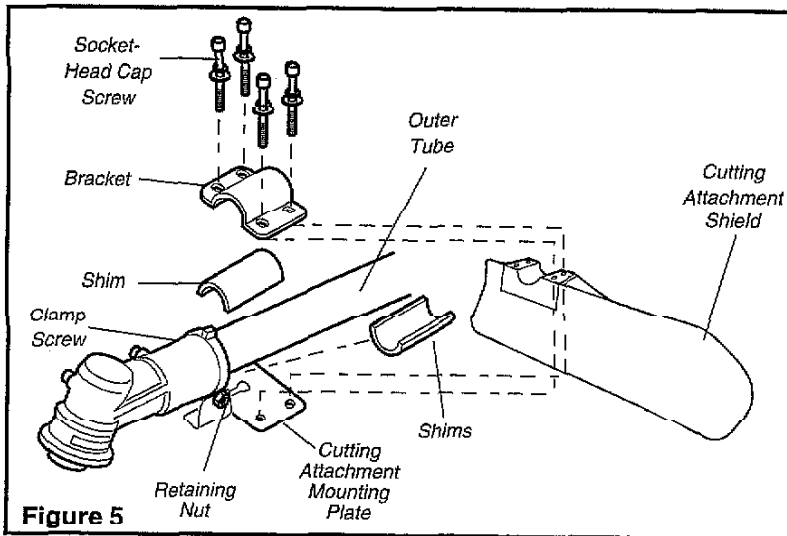


Figure 5

### 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.

#### 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.



#### WARNING!

NEVER operate the T2500 without the cutting attachment shield installed and tightly secured!

ASSEMBLY

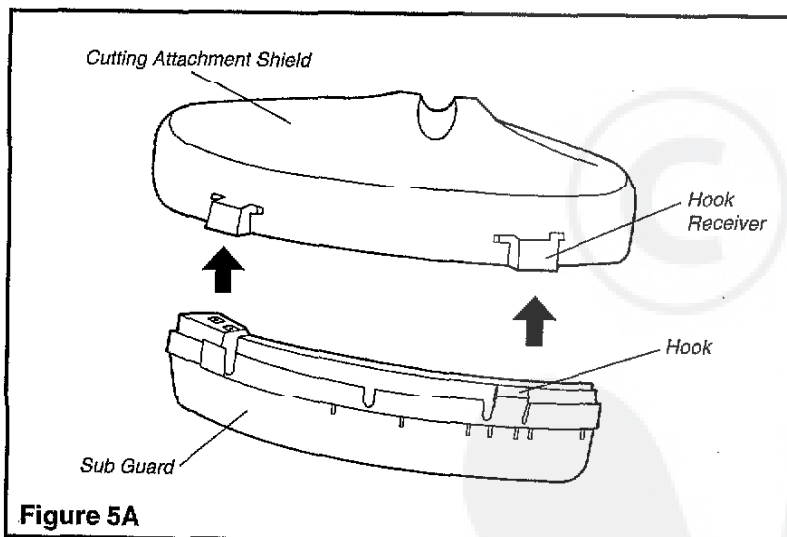


Figure 5A

### Install Sub Guard

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

#### NOTE:

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

#### CAUTION!

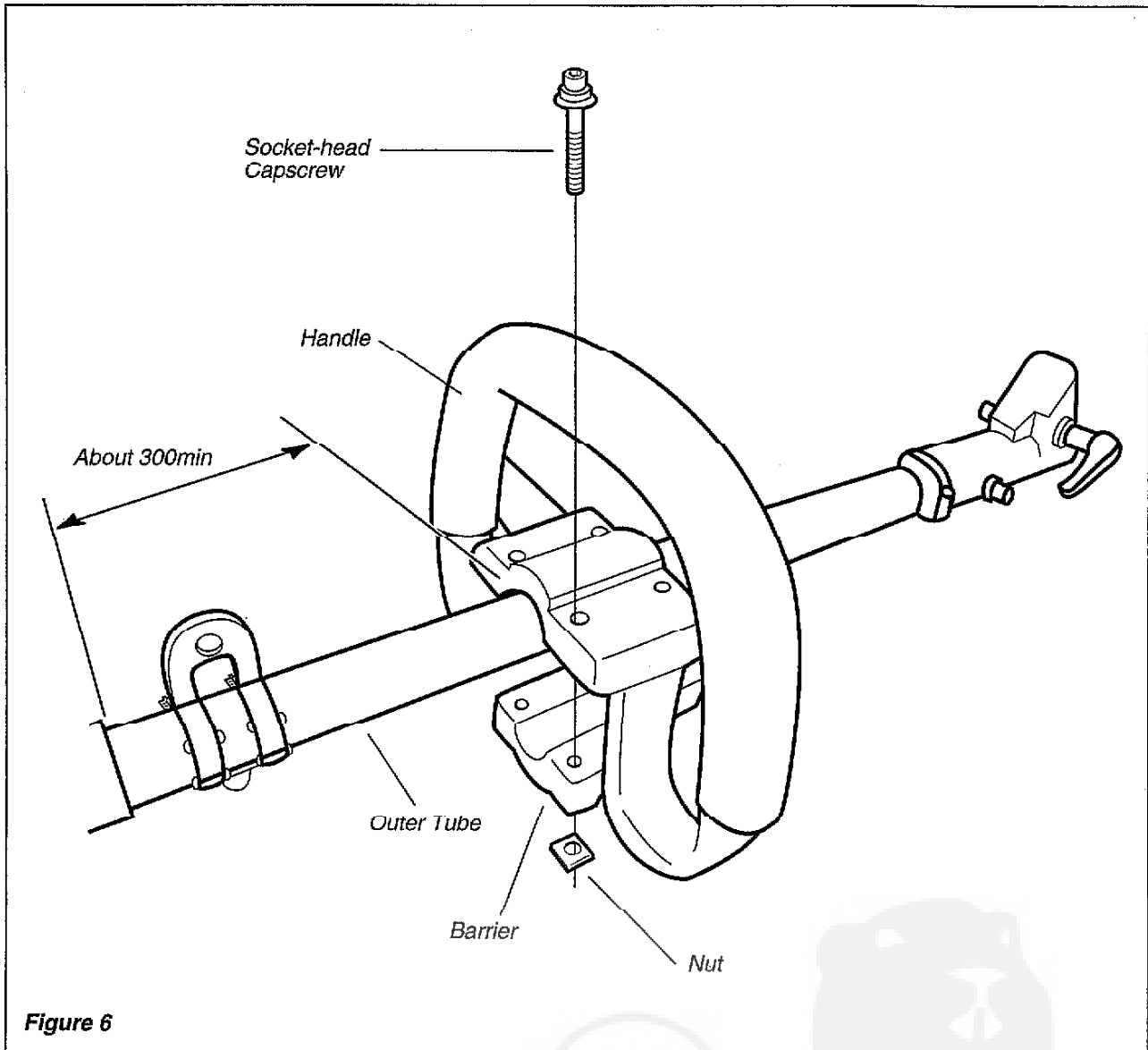
Make sure the sub guard is completely hooked at the hook receiver.



#### WARNING!

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

## Front Handle



### Connect the Handle to the Outer Tube of shindaiwa 230PH Multipurpose Engine.

Before assembling the handle, slide to remove the front rubber glip from the outer tube of Shindaiwa Multipurpose Engine.

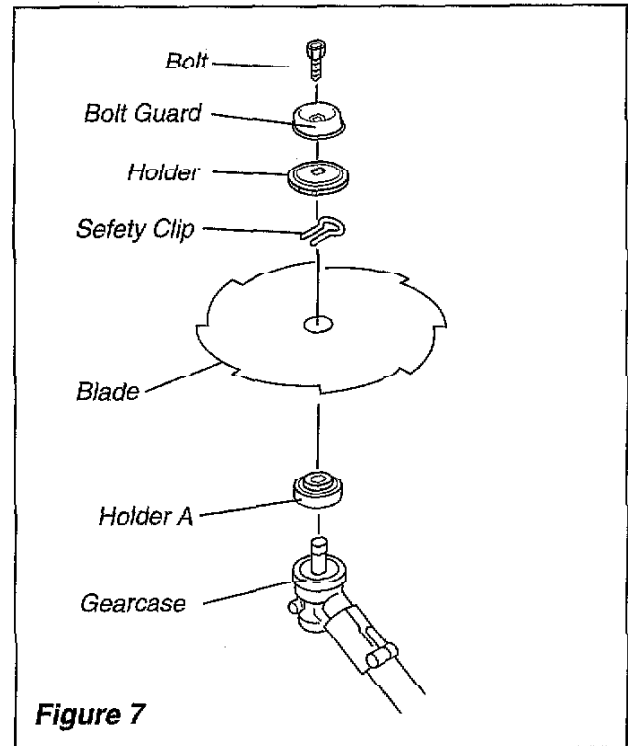
1. Position the handle on the outer tube as shown. See Figure 6.
2. Install the mounting barrier with the socket-head screws and nuts. Tighten the screws finger-tight ONLY at this time.
3. Locate the handle in the best position for operator comfort (usually about 300mm ahead of the throttle assembly).
4. Secure the handle by alternately tightening the four sockethead screws in a diagonal or "crisscross" fashion.

#### NOTE

The underside of the handle mounting barrier is recessed to receive the nuts.

## Saw Blade

1. Make sure the switch is off and the engine is stopped.
2. Wear gloves to protect your hands.
3. Turn the unit over so that the saw holder flange extending from the gear case is facing up.
4. Using the small end of the plug wrench, loosen the bolt (turn clockwise) and remove the bolt, bolt guard and holder.
5. Slide the safety clip as the illustration shows.





**WARNING!**

Never operate this machine without the safety clip in place.

6. Fit the blade over the safety clip and onto the holder A. Then, slide the safety clip back to the original position.



**WARNING!**

The blade must fit flat against the holder A. The blade's mounting hole must be centered over the raised boss of the holder A.

7. Put the holder and bolt guard back and tighten the bolt fingertight only at this time.

Make sure the blade is flat against the holder. The blade and the recess in the holder must face the blade and completely cover the safety clip.

8. Rotate the holder A until the hole in its skirt aligns with the hole in the gear case. Insert the hex wrench through both holes (to prevent the shaft from turning).
9. Holding the hex wrench and the blade with one hand, tighten the bolt (turn counter-clockwise) securely using the small end of the plug wrench.
10. Remove the hex wrench.



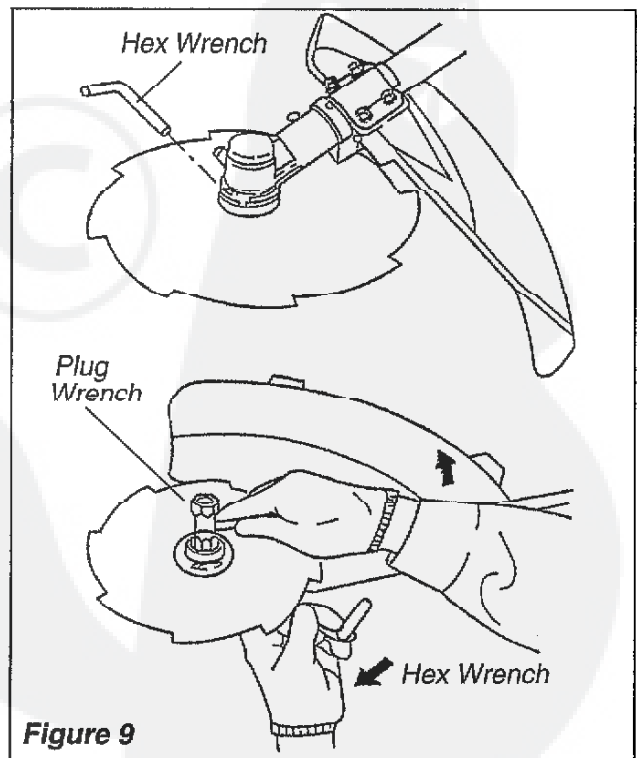
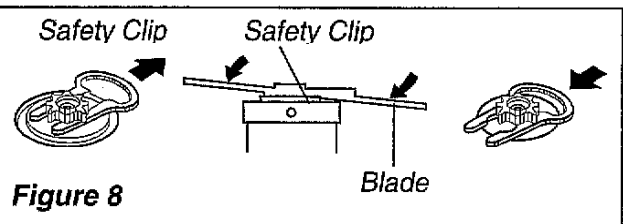
**WARNING!**

Before operating, make sure the blade is securely mounted. Turn the blade with your hand slightly and make sure the blade turns smoothly without wobbling.



**WARNING!**

Make sure the direction of the arrow indicated on the blade corresponds with the arrow indicated on the safety guard.

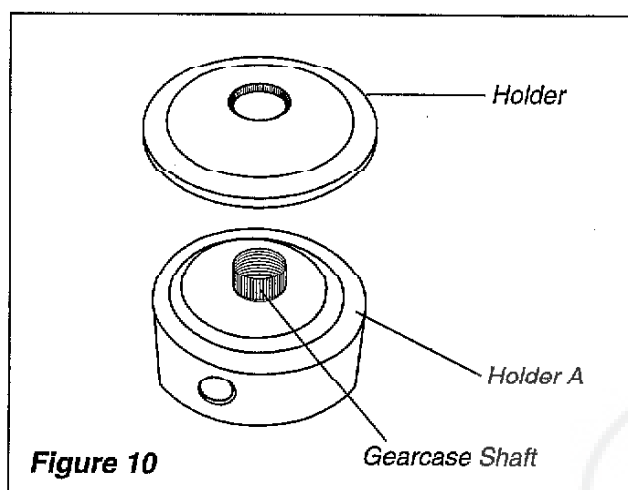


## Trimmer Head

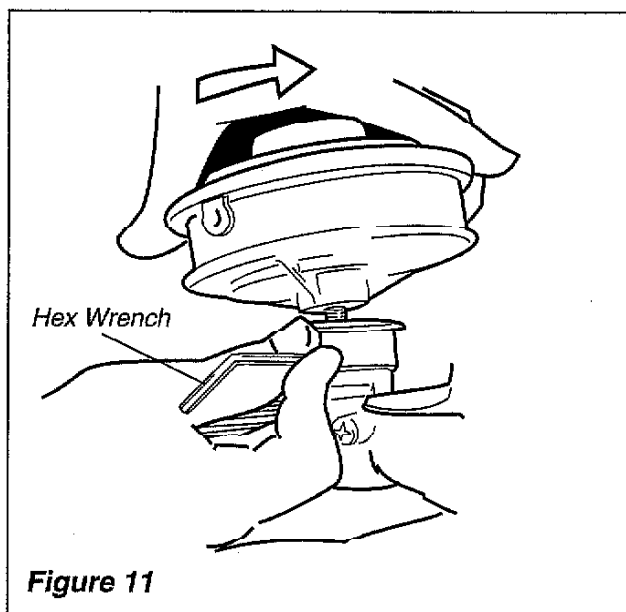
1. Make sure the switch is turned off and the engine is stopped.
2. Turn the unit over so the shaft from the gearcase is faces up.
3. Remove the shaft bolt, bolt guard, holder and the retainer clip(s) from the output shaft.

### 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.



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.

## Installing a Tool Attachment

1. Place the 230PH Multipurpose Engine and the Splitboom Attachment SBA-T230 on a clean, flat surface so that both assemblies fit end to end. The 230PH Multipurpose Engine should be facing up, and the Splitboom Attachment SBA-T230 should be positioned with the locking hole in the tube end facing up.

### CAUTION!

Keep the open ends of the tubes clean and free of debris!

2. Slip off the protective covers from the ends of both tubes, and loosen the coupler screw knob.
3. Insert the tube into the coupler, with the tool decal facing up, until the line of the decal is flush with the end of the coupler. Twist the tool back and forth until you are sure the coupler latch snaps in place. See Figure 12.

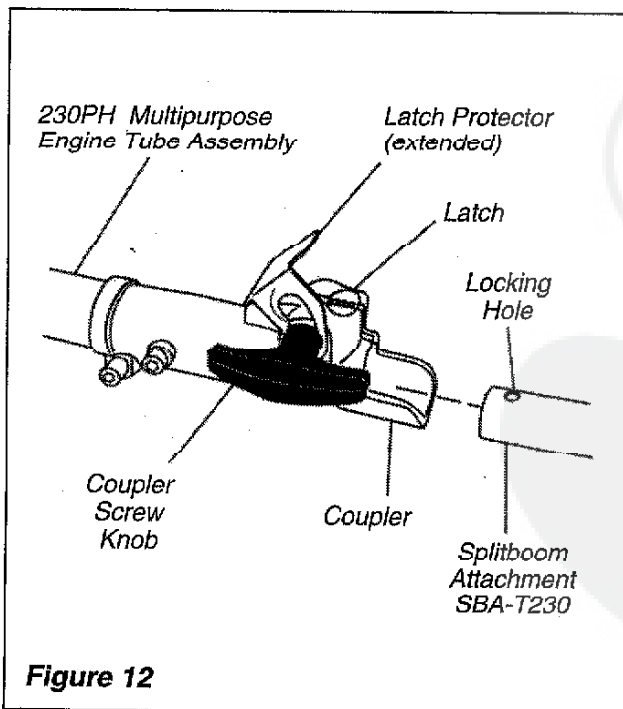


Figure 12

4. When the two tube halves are locked together, press down on the spring-loaded latch protector and tighten the coupler screw. See Figure 13.

### CAUTION!

Make sure no gap between the Latch protector and the Coupler.

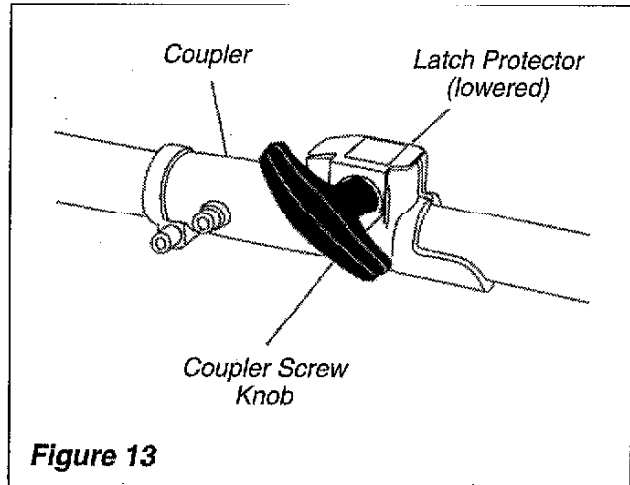


Figure 13

## Disassembling

1. With the unit on a clean, flat surface, loosen the coupler screw. The spring-loaded coupler protector should pop up.
2. Press down on the latch with your finger or thumb. This releases the coupler lock. See Figure 14.
3. Pull the tube out of the coupler.

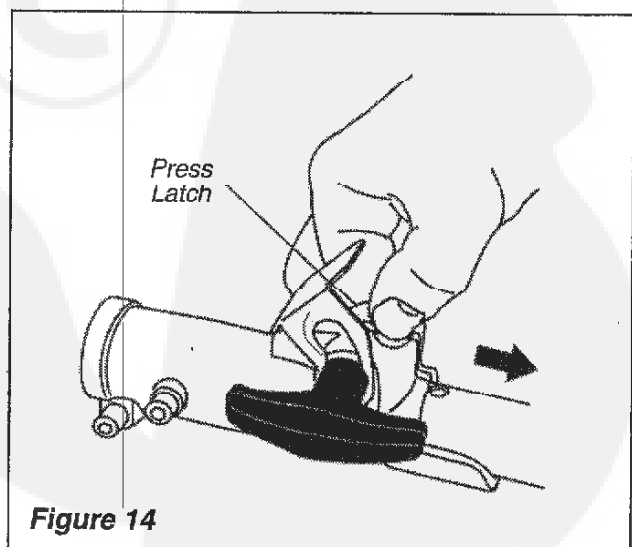


Figure 14

## Checking Unit Condition

**NEVER** operate the unit with the cutting attachment shield or other protective devices (ignition switch, etc.) removed!



### WARNING!

A cutting attachment shield or other protective device is no guarantee of protection against ricochet. **YOU MUST ALWAYS GUARD AGAINST FLYING DEBRIS!**

Use only authorized Shindaiwa parts and accessories with your Shindaiwa products. Do not make modifications to your machine without the written approval of Shindaiwa.

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

**NEVER** use a cracked or warped cutting attachment: replace it with a serviceable one.

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

**ALWAYS** stop the engine immediately and check for damage if you strike a foreign object or if the machine becomes tangled. Do not operate with broken or damaged equipment.

**NEVER** allow the engine to run at high RPM without a load. Doing so could damage the engine.

**NEVER** operate a machine with worn or damaged fasteners or attachment holders.

### NOTE:

A shoulder strap accessory must be required for use with Splitboom Attachment SBA-T230. A shoulder strap can increase operator comfort during extended periods of operation. See Figure 15.



Figure 15

## To Wear the Strap

- 1 Hook the strap hook to the hanger on the outer pipe.
- 2 Wear the strap so that the hook stays at your right hand side.
- 3 Adjust the length of the strap so that you can hold and operate the machine comfortably.

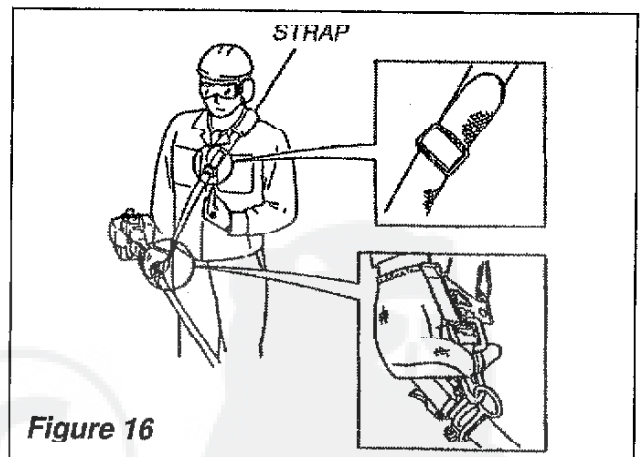


Figure 16

## Emergency Release

In case of emergency, strongly pull the white tab at the hook. The machine will be released from the strap.

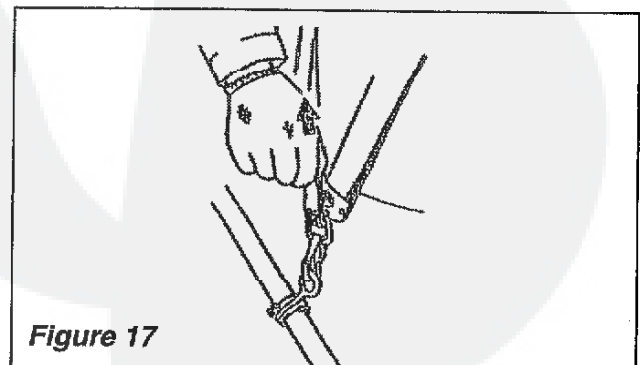


Figure 17



## Operation

1. After starting the engine, pull the throttle lever gradually. The engine speed increases and the blade will start rotating.
2. When the throttle lever is released, the engine goes back to idle speed automatically.
3. Operate the machine at full throttle while cutting. Best fuel efficiency is obtained by releasing the throttle when swinging back after cut.
4. The blade rotates counter-clockwise. For best performance and to minimize being stuck by debris, move the blade from right to left while advancing on your work.



### WARNING!

Position the blade so cuts are made between blade's 7 o'clock positions (as viewed from above). DO NOT cut between the 11 o'clock and 5 o'clock positions.



### WARNING!

KICK BACK and BLADE THRUST is a sudden sideway or backward motion of the machine. Such motion may occur when the blade touches jams or catches on an object such as a sapling tree or tree stump. BE CONSTANTLY ALERT FOR KICK BACK AND BLADE THRUST AND GUARD AGAINST ITS EFFECTS.



### WARNING!

DO NOT use 2-tooth blades with this machine.



### WARNING!

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

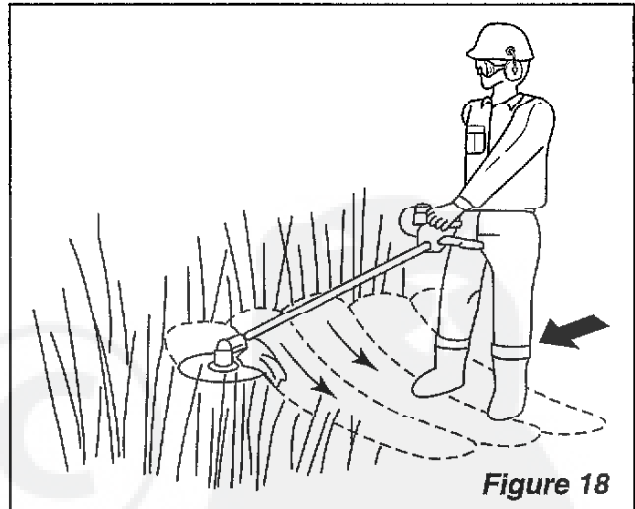


Figure 18

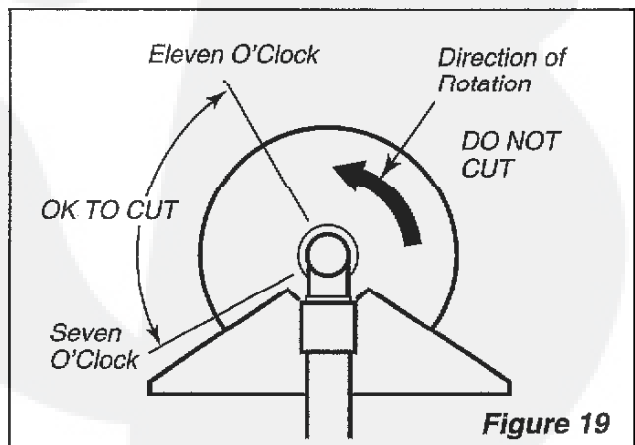


Figure 19

## Cutting Grass with a Trimmer Head

Your Shindaiwa Multipurpose Trimmer Tool may be equipped with one of several Shindaiwa trimmer head models, each with features for specific applications and/or operational requirements.

### NOTE:

For proper operation, always refer to the instructions accompanying the trimmer head being used. Available trimmer head styles include:

- **Fully automatic.** The trimmer head automatically indexes line during operation.
- **Semi-automatic.** Trimmer line is indexed when the operator taps the trimmer head on the ground during operation.
- **Manual.** The operator indexes line manually with the grass trimmer stopped.
- **Fixed.** The operator must stop the machine and add new lengths of trimmer line manually.
- **Flail.** This device, designed for clearing weeds and light brush, features three pivoting nylon blades.

### CAUTION!

Do not push the rotating trimmer line into trees, wire fences or any other solid objects that could tangle or break line ends.

### Engine Operating Speeds

Operate the machine at full throttle while cutting grass.

### CAUTION!

Operation at low RPM can lead to premature clutch failure.

## Trimming and Mowing Grass

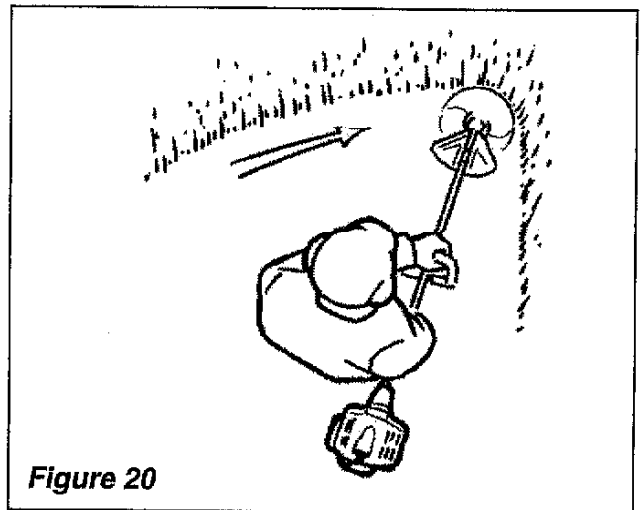


Figure 20

Hold the grass trimmer so the trimmer head is angled slightly into the area to be cut. To ensure maximum trimmer-line service life, cut only with the tip of the trimmer line. Cut grass by swinging the machine's trimmer head from left to right. Keep the trimmer head horizontal. See Figure 20.

## Edging

Tilt the handle about 100° to the left (from horizontal) and move forward, holding the trimmer vertically. See Figure 21.

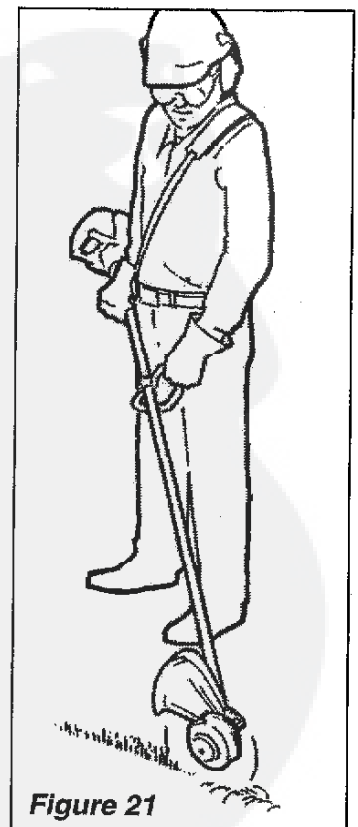


Figure 21



### **WARNING!**

Never strike or slam the spinning blade against the wood.



### **WARNING!**

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

## **Recommended Blades**

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

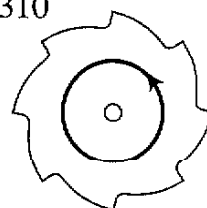
PART NUMBER:60903-98310

8-TOOTH BLADE

INNER BORE:25.4mm

DIAMETER:255.0mm

THICKNESS:2.0mm



PART NUMBER:72430-92142

3-TOOTH BLADE

INNER BORE:25.4mm

DIAMETER:255.0mm

THICKNESS:2.2mm



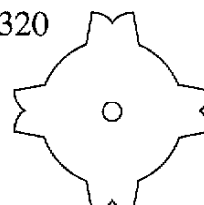
PART NUMBER:60903-98320

4-TOOTH BLADE

INNER BORE:25.4mm

DIAMETER:255.0mm

THICKNESS:2.0mm



### **WARNING!**

Never use the machine with unrecommended blade installed to prevent injury by loosening machine ballance.

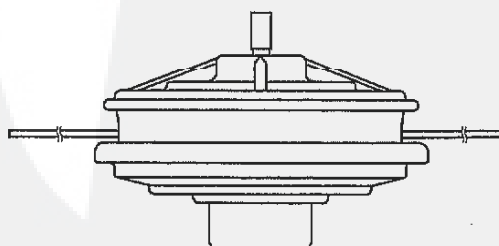
## **Recommended Trimmer Head**

PART NUMBER 67000-65010

TAP&FEED TRIMMER HEAD

BOLT DIAMETER:7mm

THREAD:LEFT PITCH:1.00mm



## 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 / 4 sides is all the same.

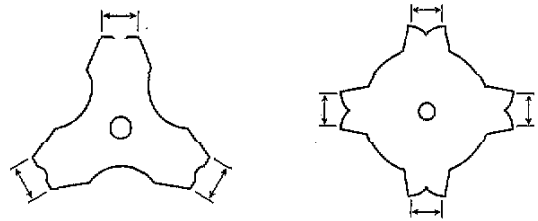


Figure 22

The sharpening angle should be 45° approx.  
Do not file the tips of the blade too sharp. Leave 0.2~0.5mm unsharpened.

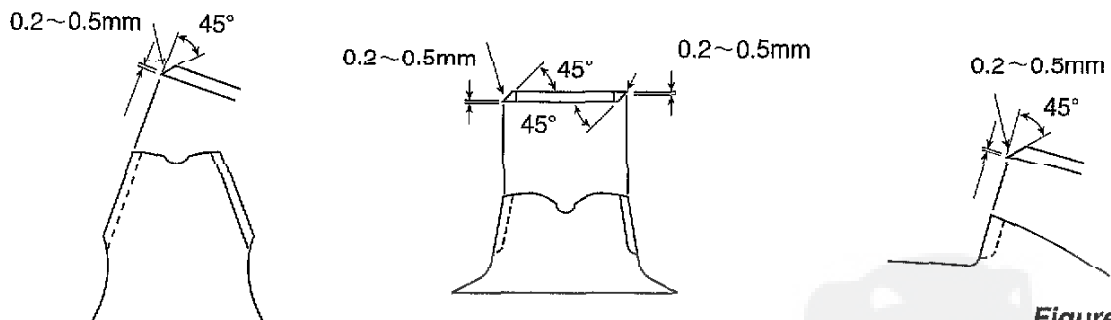


Figure 23

The bottom of each tooth must remain unsharpened.

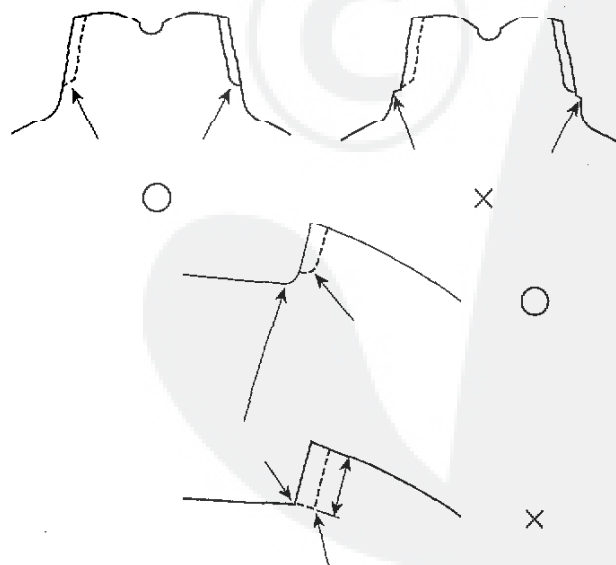


Figure 24

## Maintenance



### WARNING!

Before performing any maintenance, repair, or cleaning work on the unit, make sure the engine and cutting attachment are completely stopped. Disconnect the spark plug wire before performing service or maintenance work.



### WARNING!

Non-standard parts may not operate properly with your unit and may cause damage and lead to personal injury.

### IMPORTANT!

For detailed maintenance information about your Splitboom Attachment SBA-T230, consult the owner's manual that was provided with it. If it has been lost or misplaced, contact Shindaiwa for a replacement.

## Engine Maintenance

Prior to each work day, perform the following:

- Carefully remove any accumulations of dirt or debris from the muffler and fuel tank. Dirt buildup in these areas can lead to engine overheating, fire, or premature wear.
- Check for loose or missing screws or components.
- Check the entire machine for leaking fuel or grease.
- Make sure that nuts, bolts, and screws (except carburetor adjusting screws) are tight.

## Tool Maintenance

### Daily

Prior to each work day, perform the following:

- Check for loose or missing screws or components. Make sure the cutting attachment is securely fastened.
- Check the entire machine for leaking fuel or grease.

## 50-hour Maintenance

### Every 50 hours of operation

(more frequently in dusty or dirty conditions):

- Remove and clean the cylinder cover and clean grass and dirt from the cylinder fins.
- Remove the cutting attachment and the gear shaft collar, and press new grease into the gear case until the old grease has been pushed out. Use only lithium-base grease such as Shindaiwa Gear Case Lubricant or equivalent. See Figure 25.

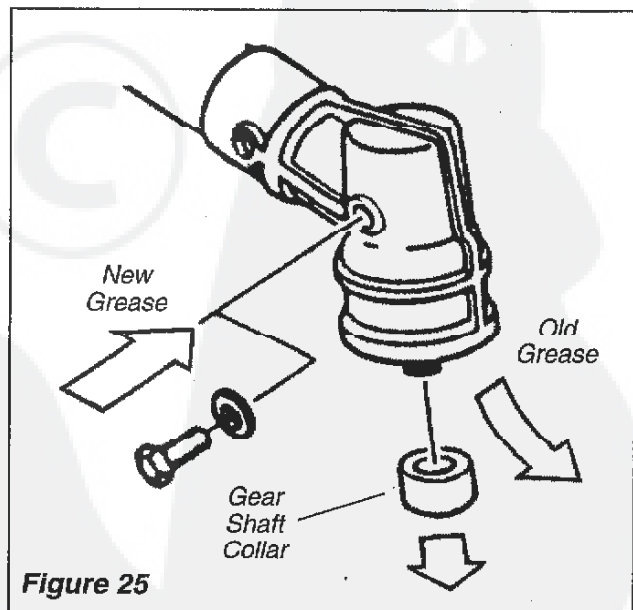


Figure 25

## 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.

- 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.
- 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.

#### 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 conditional 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.

# Troubleshooting Guide

## ENGINE DOES NOT START

What to check	Possible cause	Remedy
Does the engine crank? <b>YES</b> ↓	<b>NO</b> → Faulty recoil starter. Fluid in the crankcase. Internal damage.	Consult with an authorized servicing dealer.
Good compression? <b>YES</b> ↓	<b>NO</b> → Loose spark plug. Excess wear on cylinder, piston, rings	Tighten and re-test. Consult with an authorized servicing dealer.
Does the tank contain fresh fuel of the proper grade? <b>YES</b> ↓	<b>NO</b> → Fuel incorrect, stale, or contaminated; mixture incorrect.	Refill with fresh fuel of the correct mixture (gasoline and Sindaiwa 2-cycle Mixing Oil at 25:1 ratio)
Is fuel visible and moving in the return line when priming? <b>YES</b> ↓	<b>NO</b> → Check for clogged fuel filter and/or vent.	Clean as required; restart.
Is there spark at the spark plug wire terminal? <b>YES</b> ↓	<b>NO</b> → The ignition switch is in "0" (OFF) position. Faulty ignition ground. Faulty transistor unit.	Move switch to "I" (On) position and re-start. Consult with an authorized servicing dealer.
Check the spark plug	<b>NO</b> → If the plug is wet, excess fuel may be in the cylinder.  The plug is fouled or improperly gapped.  The plug is damaged internally or of the wrong size.	Crank the engine with the plug removed, reinstall the spark plug, and re-start.  Clean and re gap the spark plug to 0.6~0.7mm. Re-start.  Replace the spark plug with a NGK BMR6A.

## Troubleshooting Guide (continued)

### LOW POWER OUTPUT

What to check	Possible cause	Remedy
Is the engine overheating?	Operator is overworking the machine.	Shorten trimmer line. Cut at a slower rate.
	Carburetor mixture is too lean.	Consult with an authorized servicing dealer.
	Improper fuel ratio.	Refill with fresh fuel of the correct mixture (gasoline and Shindaiwa 2-cycle Mixing Oil, 25:1 ratio).
	Fan, fan cover, cylinder fins dirty or damaged.	Clean, repair or replace as necessary.
	Carbon deposits 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 unburned fuel at the exhaust.	Clogged air cleaner element.	Service the air cleaner.
	Loose or damaged spark plug.	Tighten or replace.
	Air leakage or clogged fuel line.	Repair or replace fuel filter and/or fuel line.
	Water in the fuel.	Refill with fresh fuel of the correct mixture (gasoline and Shindaiwa 2-cycle Mixing Oil, 25:1 ratio).
	Piston seizure.	Consult with an authorized servicing dealer.
	Faulty carburetor and/or diaphragm.	Consult with an authorized servicing dealer.
Engine is knocking.	Overheating condition.	See above.
	Improper fuel.	Check fuel octane rating; check for presence of alcohol in the fuel. Refuel as necessary.
	Carbon deposits in the combustion chamber.	Consult with an authorized servicing dealer.



## Troubleshooting Guide (continued)

### ADDITIONAL PROBLEMS

Symptom	Possible cause	Remedy
Poor acceleration.	Clogged air cleaner element.	Clean the air cleaner element.
	Clogged fuel filter.	Replace the fuel filter.
	Carburetor mixture too lean.	Consult with an authorized servicing dealer.
	Idle speed set too low.	Adjust: 2,750 min <sup>-1</sup> ( ± 250)
Engine stops abruptly.	Switch turned off.	Reset the switch and re-start.
	Fuel tank empty.	Refuel.
	Clogged fuel filter.	Replace filter.
	Water in the fuel.	Drain; replace with clean fuel.
	Shorted spark plug or loose terminal.	Clean and replace spark plug, tighten the terminal.
	Ignition failure.	Consult with an authorized servicing dealer.
	Piston seizure.	Consult with an authorized servicing dealer.
Engine difficult to shut off.	Ground (stop) wire is disconnected, or switch is defective.	Test and replace as required.
	Overheating due to incorrect spark plug.	Replace spark plug with NGK BMR6A.
	Overheated engine.	Idle engine until cool.
Cutting attachment moves at engine idle.	Engine idle too high.	Set idle: 2,750 mn <sup>-1</sup> (±250)
	Broken clutch spring or worn clutch spring boss.	Replace spring/shoes as required, check idle speed.

## Troubleshooting Guide (continued)

### ADDITIONAL PROBLEMS

Symptom	Possible cause	Remedy
Excessive vibration.	Warped or damaged tool.	Inspect and repair tool as required.
	Loose coupler.	Tighten coupler securely.
	Bent main shaft/worn or damaged bushings.	Inspect and replace as necessary.
Cutting attachment will not move.	Shaft not installed in powerhead, coupler or gearcase.	Inspect and reinstall as required.
	Broken shaft.	Consult with an authorized servicing dealer.
	Damaged gearcase.	Consult with an authorized servicing dealer.



## European Distributors List

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3	Germany	Iseki Maschinen GmbH	Rudolf-Diesel-Str. 4, 40670 Meerbusch	(49) 02159 5205 0	(49) 02159 520512
4	England	PLMPower Products Ltd.	Unite 5-6, The Shires Indust- rial Estate, Essington Close, Birmingham Road, Lichfield, Staffs, WS14 9AZ	(44) 01543 414477	(44) 01543 414541
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