

# SHINDAIWA OWNER'S/OPERATOR'S MANUAL

SBA-AH2422

# WARNING!

Minimize the risk of injury to yourself and others!

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

C E

Always wear eye and hearing protection when operating this unit. This machine is designed for trimming hedges with the Shindaiwa Multipurpose Engine.

Do not operate or service this machine unless you clearly understand this manual.

Keep this manual available at all times so that it may be referred to if questions arise regarding this unit's use.

Do not use this machine for other purposes.



Part Number 65016-94310 Rev. 02/05

# Introduction

The Shindaiwa AH2422 Splitboom Attachment is 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!

The 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 power tool, or if you do not understand something in this manual, your Shindaiwa dealer will be glad to assist you.

#### **IMPORTANT!**

The information contained in these instructions describes units available at the time of publication. While every attempt has been made to provide the latest information about your Shindaiwa product, there may be some differences between your AH2422 and what is described here. Shindaiwa Inc. reserves the right to make changes to products without prior notice and without obligation to make alterations to units previously manufactured.

# Contents

P	AGE
Attention Statements	2
Safety Precautions	3
Operating Precautions	4
Technical Specifications	6
Product Description	6
Installing Tool Attachment	7
Adjusting the Hedge Trimmer	
Cutter Assembly	7
Using the Hedge Trimmer	9

General Maintenance 10
Long Term Storage 11

Troubleshooting Guide ..... 11

# **Attention Statements**

Throughout this manual are special "attention statements" surrounded by boxes and preceded by the triangular Attention Symbol.

# DANGER!

A statement preceded by the triangular attention symbol and the word "DANGER" contains information that should be acted upon to prevent serious injury or death.

# 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.

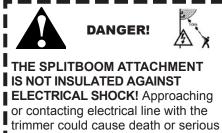
#### **IMPORTANT!**

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.

# **Safety Precautions**



injury. Keep the attachment at least 10 meters away from electrical lines or branches that contact electrical lines.

A splitboom attachment has the potential to do serious damage if misused, abused or mishandled. To reduce the risk of injury. vou must maintain control at all times, and observe all safety precautions during operation. Never permit a person without training or instruction to operate this tool!

#### NOTE:

For specific maintenance and safety information about the Shindaiwa Multipurpose Engine, consult the operator's/ owner's manual provided with that product. If it has been lost or misplaced, contact Shindaiwa Inc. at the telephone number provided on the back cover of this manual for a replacement.



#### WARNING!

Do not make unauthorized modifications to this unit.

# Warning Labels

#### Warning labels affixed to the machine are as follows:



Read and follow this manual, make sure anyone using this unit does likewise. Failure to do so could result in serious personal injury or machine failure. Keep this manual for future reference.



Always wear a hard hat to reduce the risk of head injuries during operation of this machine. In addition,

always wear eye and hearing protection. Shindaiwa recommends wearing a face shield as additional face and eye protection.



Wear nonslip heavy-duty work gloves to improve your grip on this unit. Wear sturdy footwear with nonslip soles to provide good footing. Steel-toe safety boots are recommended. Wear snug-fitting clothes that also

permit freedom of movement.



Never operate this tool 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.

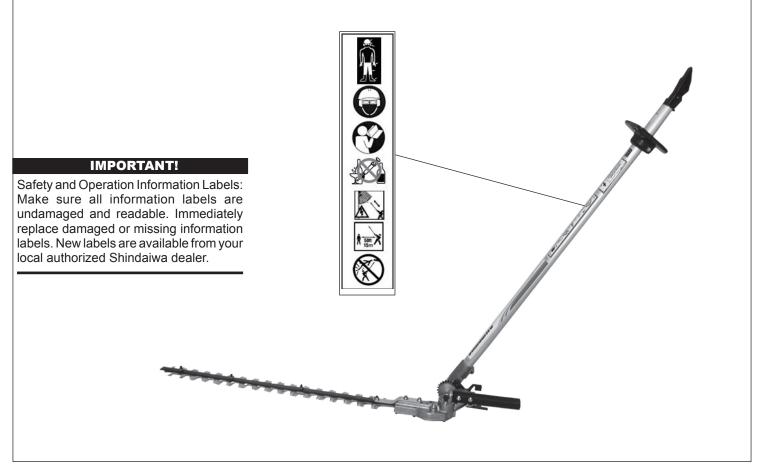


Keep bystanders at least 15 meters away from the operating trimmer to reduce the risk of being struck by falling objects or thrown debris.



Never cut off branches over your head. The cut-off branches may hit you and cause serious injury.

#### **Safety Labels**



# **Operating Precautions**

- This Shindaiwa Splitboom Attachment AH2422 is specifically designed for use with the Shindaiwa Multipurpose Engine. Installation and/or use of 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 unit.
- Always make sure the cutter attachment is properly installed and firmly tightened before operation.
- Never use a cracked or warped cutter or cutter bar: replace it with a serviceable part and make sure it fits properly.
- Always stop the engine immediately and check for damage if you strike a foreign object or if the unit becomes tangled. Do not operate with broken or damaged equipment.



#### WARNING!

- For the details of filling fuel, consult the owner's manual that was provided with the Shindaiwa Multipurpose Engine. If it has been misplaced contact your Shindaiwa Dealer for a replacement.
- 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 judgment.
- When cutting a branch that is under tension, be alert for spring-back so that you will not be struck by the moving branch.
- Stop the unit immediately if it suddenly begins to vibrate or shake. Inspect for broken, missing or improperly installed parts or attachments.
- Before starting the engine, make sure the cutter is not contacting anything.

- Make sure there is always good ventilation when operating the articulated hedge trimmer. Fumes from engine exhaust can cause serious injury or death. Never run the engine indoors!
- Make sure there are no missing or loose fasteners, and that the stop switch and throttle controls are working properly.
- If a cutter should bind fast in a cut, shut off the engine immediately. Push the branch or tree to ease the bind and free the cutter.
- Make sure the cutters are correctly adjusted before operating the articulated hedge trimmer (see page 11 for cutter adjustment procedures). Never attempt cutter adjustment with the engine running!
- Always ensure all handles and guards are attached and secure when using the machine.

# **Operating Precautions**

(Conitnued)

# WARNING!

- Never transport the articulated hedge trimmer nor set it down with the engine running. An engine that's running could be accidently accelerated causing the blades to oscillate.
- Make sure the cover is in place when transporting the articulated hedge trimmer.
- When carrying the articulated hedge trimmer by hand, the cutter attachment should be pointing backward with the cutter blade in the retracted or transporting position (see pages 7 and 8 for articulating adjustment procedures).



#### **CAUTION!**

- Always maintain the Splitboom Attachment AH2422 according to the this owner's manual and follow the recommended scheduled maintenance.
- Never modify or disable any of the hedge trimmer's safety devices.
- Always use genuine Shindaiwa parts and accessories when repairing or maintaining this unit.
- Do not make unauthorized modifications or substitutions to the articulated hedge trimmer.
- Never allow the engine to run at high RPM without a load. Doing so could damage the engine.
- When transporting the hedge trimmer in a vehicle, tie it down securely to prevent damage and fuel spillage.
- Always clear your work area of trash or hidden debris to help ensure good footing.
- Keep the cutters sharp and properly adjusted.
- Keep the articulated hedge trimmer as clean as possible. Keep it free of loose vegetation, mud, etc.

# **Operating the Articulated Hedge trimmer**

Always wear a hard hat to reduce the risk of head injuries during operation of this unit.

Secure long hair so it is above shoulder level.

gloves to improve your grip on the trimmer handle. Wear snug-fitting clothes that also permit freedom of movement. NEVER wear shorts!

Always wear eye and hearing protection. Shindaiwa recommends wearing a face shield as additional face and eye protection.

Always operate with

both hands firmly

gripping the unit.

Wear non-slip heavy-duty

Keep a proper footing and do not overreach-maintain your balance at all times during operation.

> Keep bystanders at least 15 meters away from the operating trimmer to reduce the risk of being struck by falling objects or thrown debris.

Wear sturdy footwear with nonslip soles to provide good footing. Steel-toed safety boots are recommended.

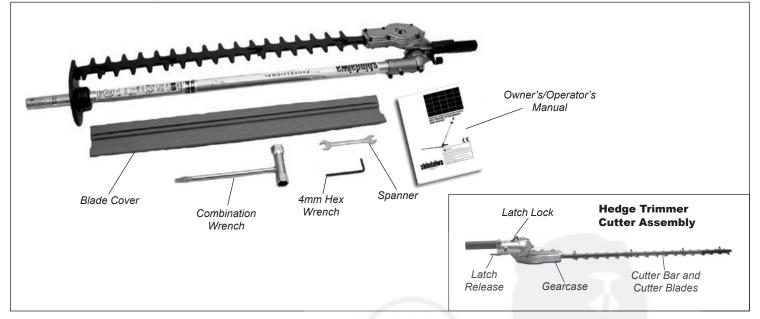
Always be aware of your surroundings and stay alert for possible hazards that you may not hear due to noise from the machine. Never allow children to use the machine. Avoid operating near bystanders.



# **Technical Specifications**

Model Name	
Dry Weight	2.2 kg
Length (folded in transportation position)	
Length (extended in cutting position)	
Blade Length	
Cutter Drive	Spur Gear
Gear Lubricant	Lithium-based Grease

#### **Product Description**



#### **Prior To Assmebly**

Using figure above as a guide, familiarize yourself with the Shindaiwa SBA-AH2422 articulated hedge trimmer and its various components. Understanding your unit helps ensure top performance, longer service life, and safer operation.

#### **Standard Equipment**

Tool kit containing:

A combination wrench with  $10 \ge 19$  mm sockets, flat blade screwdriver, 4mm hex wrench, and  $8 \ge 10$  mm spanner.

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

- Cutter Assembly
- Cutter Blade Cover
- Owner's/Operator's Manual
- Tool Kit for routine maintenance

Carefully inspect all components for damage.

#### **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.



Do not make unauthorized modifications or alterations to your articulating hedge trimmer or its components.

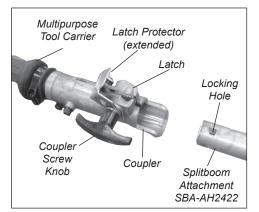
# **Installing Tool Attachment**

1. Place the Shindaiwa Multipurpose Engine and the Splitboom Attachment SBA-AH2422 on a clean, flat surface so that both assemblies fit end to end. The powerhead assembly should be facing up, and the Splitboom Attachment SBA-AH2422 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!

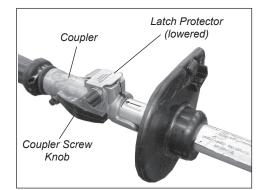
- 2. Slip off the protective cover from the end of the tool, and loosen the coupler screw knob.
- 3. Insert the tube into the coupler, with the tool decal facing up, until the line of the decal is flush with the end of the coupler. Twist the tool back and forth until you are sure it snaps in place by the coupler latch.



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

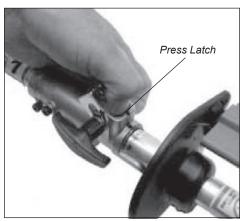
#### **CAUTION!**

Make sure there is no gap between the Latch Protector and the Coupler.



#### Disassembling The Pole Sections

- 1. Place 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.
- 3. Pull the tube out of the coupler.



#### Adjusting the Hedge Trimmer Cutter Assembly



# WARNING!

■ The cutter blades are very sharp. Do not grasp the blades with your hands. Do not brush the blades against your body.

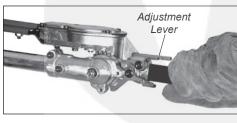
Never run the engine nor operate the articulated hedge trimmer when the cutter assembly is in the storage/ transport position.

#### **IMPORTANT!**

Always use gloves when working near the cutter assembly.

Position the hedge trimmer on a flat, level surface with the engine resting on the fuel tank guard. Make sure the cover is in place on the blade.

1. With your right hand, grasp the handle, located immediately behind the hand guard. With your left hand, grip the adjustment lever on the cutter assembly.



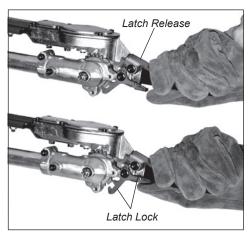
#### IMPORTANT!

The latch lock helps prevent inadvertent latch release.

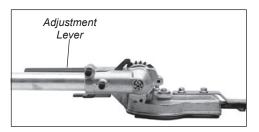
#### Adjusting the Hedge Trimmer Cutter Assembly

#### (continued)

2. With the index finger of your left hand, press the latch release. With your left thumb, press the latch lock.



3. While holding the latch lock down, pivot the cutter assembly using the adjustment lever until it is straight with the outer tube (pivot 180°).

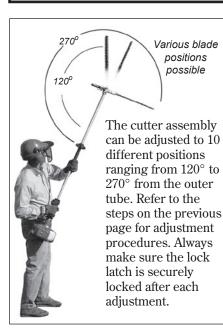


- 4. Release the latch lock and the latch release. Make sure the latch lock and the latch release return securely to a locking position.
- 5. Remove the cover from the cutter blade. The engine now may be started.

#### Adjusting the Hedge Trimmer Cutter Assembly for Desired Cutting Angles



Do not touch the cutter blades when the engine is running. The blades can oscillate even if the engine is idling.

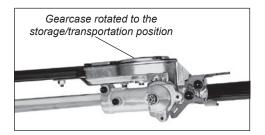


# Adjusting the Cutter Assembly for Storage or Transportation

# WARNING!

Never run the engine when adjusting the cutter assembly to the storage position.

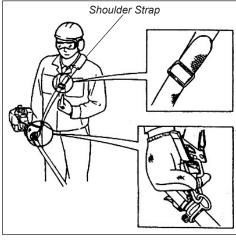
- 1. With the engine off, install the cover onto the blade.
- 2. Using the procedures described on the previous page, rotate the cutter assembly so it is parallel to the tube. Make sure the latch lock and the latch release return securely to a locking position.
- 3. Make sure the cover is in place on the cutters before storing or transporting.



#### Attaching The Shoulder Strap

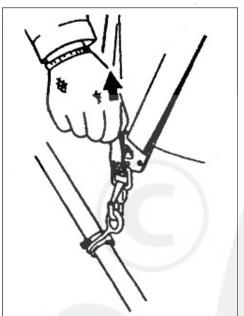
#### **To Wear the Shoulder Strap**

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



#### **Emergency Release**

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



# **Safety Operation**

This machine is designed especially for trimming hedge.

Never use this machine for any other purposes. Never try to cut stones, metals, plastics or any other hard objects. Using for other purposes than trimming hedge may damage the machine or cause serious injury.

#### **Preparations**

- Wear suitable protective clothing and equipment. See "Safety Precautions" section.
- Choose the best working position for safety against the falling objects (branches, etc.).
- Start the engine.
- Put on the strap.
- Rest when you feel fatigued.

Never stand directly underneath the branch you are cutting. Be aware of falling branches. Note that a branch may spring back at you after it hits the ground.

#### **Working Position**

Hold the control handle with your right hand, and the shaft with your left hand. Your left arm should be extended to the most comfortable position.

#### NOTE:

Rest when you feel fatigued.

# **Using the Hedge Trimmer**

#### Applications Preparations

Use lopping shears to cut out thick branches first.

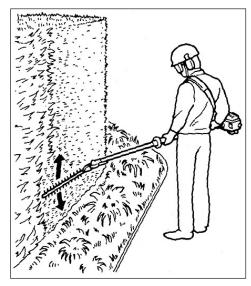
#### **Cutting Sequence**

If a radial cut is necessary, cut a little at a time in several passes.

#### Cutting Techniques Vertical Cut:

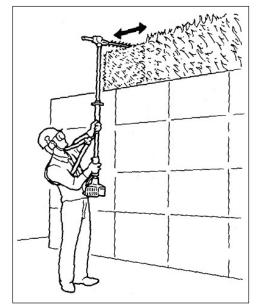
Swing the blade up and down in an arc as you move along the hedge - use both sides of the cutting blade.

Cutting without standing directly next to hedge, e.g. flower bed between operator and hedge.



**Overhead Cut** 

Hold the shaft upright with a  $90^{\circ}$  blade angle to cut an upper surface of a hedge.



#### **Horizontal Cut:**

Hold the cutting blade at an angle of  $0^{\circ}$  to  $10^{\circ}$  as you swing the hedge trimmer horizontally.

Swing the blade in an arc towards the outside of the hedge so that the cuttings are swept on to the ground.

Cutting without standing directly in front of the hedge, e.g. reaching over a flower bed.



Cutting close to ground from a standing position, e.g. low shrubs. See below.



# **General 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 accessories, cutting attachment, or replacement parts may not operate properly with your unit and may cause damage and lead to personal injury.



#### WARNING!

Always wear gloves when working around the cutter assembly.

#### **IMPORTANT!**

For detailed maintenance information about your Shindaiwa Multipurpose Engine, consult the owner's manual that was provided with it. If it has been misplaced, contact Shindaiwa for a replacement.

# **Daily Maintenance**

Prior to each work day, perform the following:

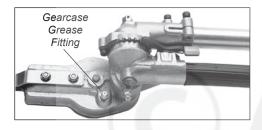
- Carefully remove any accumulations of dirt or debris from the muffler and fuel tank. Check cooling air intake area at base of crankcase. Remove all debris. Dirt build-up in these areas can lead to engine overheating, fire, or premature wear.
- Clean any debris or dirt from the cutting attachment.
- Lubricate the blades before use and after refueling. Check the cutters for damage or incorrect adjustment.
- Check for loose or missing screws or components. Make sure the cutter attachment is securely fastened.
- Check the entire unit for leaking fuel or grease.
- Make sure nuts, bolts, and screws (except carburetor idle speed adjusting screws) are tight.

# **10/15-Hour Maintenance**

■ Lubricate the cutter assembly gearcase by pumping one or two strokes of lithium-base grease into the grease fitting using a lever-type grease gun.

#### **CAUTION!**

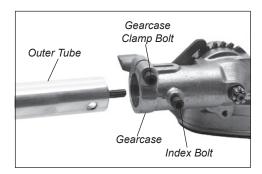
Over lubricating can cause the gearcase to operate sluggishly and can cause grease to leak out.



# **50-hour Maintenance**

# **Every 50 hours of operation** (more frequently in dusty or dirty conditions):

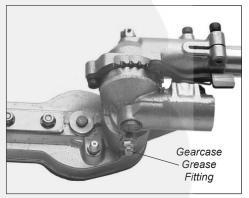
- Remove and clean the cylinder cover and clean dirt and debris from the cylinder cooling fins.
- Lubricate the gearcase. To perform this operation, first remove the gearcase from the outer tube as follows:



#### CAUTION!

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

- a. Loosen the gearcase clamp bolt.
- b. Remove the index bolt from the gearcase.
- c. Slide the gearcase out of the tube. Using a grease gun, pump lithiumbase grease (about 10 grams) into the grease fitting on the gearcase until you see old grease being purged from the gearcase. Purged grease will be visible in the outer tube cavity. Clean up excess grease, then reassemble the gearcase onto the outer tube. Make sure the index bolt fits into the hole on the outer tube. Securely tighten both bolts.



# **Cutter Blade Adjustment**



#### WARNING!

The cutter blades are very sharp! Always wear gloves when working around the cutter assembly.

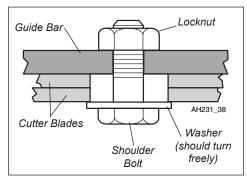
#### CAUTION!

Operating the trimmer with worn or improperly adjusted cutters will reduce cutter performance and may also damage your unit.

Cutter performance of your unit depends in great measure on cutter blade clearance. Properly adjusted blades will oscillate freely yet help prevent binding of cut material between blades. Adjust blades as follows:

- 1. Loosen all blade locknuts at least one full turn.
- 2. Tighten each blade shoulder bolt firmly, and then loosen the shoulder bolts 1/4 to 1/2 turn.
- 3. Working from the gearcase end, lock each bolt in place by firmly tightening its locknut while preventing the shoulder bolt from turning.

When shoulder bolt adjustment is correct, there should be a gap of 0.25–0.50 mm between the cutter blades and the flat washers, and the flat washer beneath each bolt head should turn freely.



# Long Term Storage

Whenever the unit will not be used for 30 days or longer, use the following procedures to prepare it for storage:

- Clean external parts thoroughly.
- Before storing the unit, repair or replace any worn or damaged parts.
- Store the unit in a clean, dust-free area.
- Lubricate gearcase.
- Cover the blade with the blade cover.

# **Troubleshooting Guide**

	Additional Problems	
Cutting attachment oscillates at engine idle.	Engine idle too high. Broken clutch spring or worn clutch spring boss. Loose attachment holder.	Set idle: 2,750 min <sup>-1</sup> .   Replace spring/shoes as   required, check idle speed.   Inspect and retighten holders securely.
Excessive Vibration	Warped or damaged attachment.	Inspect and replace attachment as required.
	Loose gearcase.	Tighten gearcase securely.
	Bent main shaft/worn or damaged bushings.	Inspect and replace as necessary.
Attachment will not rotate.	Shaft not installed in powerhead or gearcase.	Inspect and reinstalled as required.
	Broken shaft.	Return unit to dealer.
	Damaged gearcase.	Return unit to dealer.

# Shindaiwa

Shindaiwa Inc. 11975 SW Herman Rd. Tualatin, Oregon 97062 U.S.A. Telephone: 503 692-3070 Fax: 503 692-6696 www.shindaiwa.com

Shindaiwa Kogyo Co., Ltd. 6-2-11, Ozuka-Nishi, Asaminami-Ku, Hiroshima 731-3167, Japan Telephone: 81-82-849-2220 Fax: 81-82-849-2481

© 2005 Shindaiwa, Inc. Part Number 65016-94310. Revision 02/05

Shindaiwa is a registered trademark of Shindaiwa, Inc. Specifications subject to change without notice.