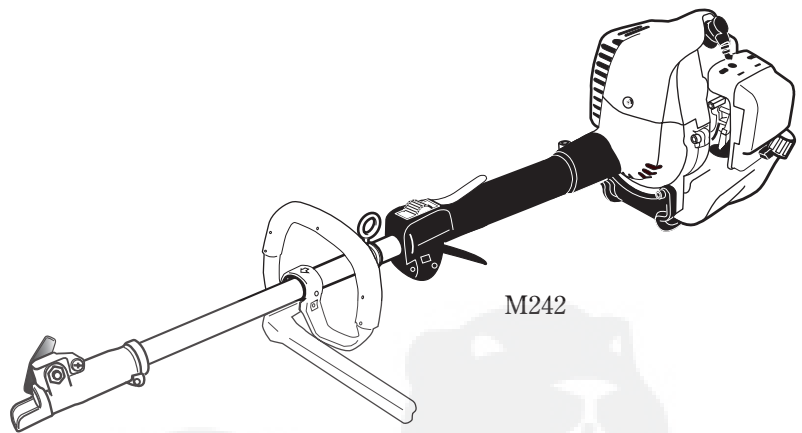


English ..... 1  
Français ..... FR\_1  
Italiano ..... IT\_1

# SHINDAIWA OWNER'S/OPERATOR'S MANUAL

## M242S MULTIPURPOSE TOOL CARRIER



### WARNING!

- Read this manual and the manuals provided with the Shindaiwa Splitboom Attachment series and familiarize yourself with its contents.
- Minimize the risk of injury to yourself and others.
- Always wear eye and hearing protection when operating this machine.
- Do not operate or service this machine unless you clearly understand this manual.
- This machine is designed for cutting grass, weeds, and brush. Use only for designated purpose.
- Keep this manual available at all times so that you can reference it whenever you have a question about the use of this unit.

# shindaiwa

Part Number 65041-94310 Rev 03/2009

## Introduction

The Shindaiwa 242 series of hand-held power equipment is designed and built to deliver superior performance and reliability without compromise to quality, comfort, safety or durability.

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

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

### IMPORTANT!

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



### WARNING!

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

## Contents

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### IMPORTANT!

The operational procedures described in this manual are intended to help you get the most from this unit 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 Shindaiwa hand held power equipment, or if you do not understand something in this manual, contact Shindaiwa Inc. at the address printed on the back of this Manual.

## Attention Statements

Throughout this manual are special "attention statements".



### 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.

### NOTE:

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

### IMPORTANT!

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

## Operational and warning labels



Attachments for this unit operate 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 this unit!



Wear heavy duty, non-slip gloves.



The blades / cutting attachments are SHARP! Handle with care.



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



Safety tip shoes or boots with non-slip sole should be worn.



Be aware of the danger of falling debris.



This product conducts electricity. Keep the product and/or operator a minimum distance of 15 feet (4.5 meters) away from electrical sources and power lines.



Sound Power Level (measured in accordance with 2000/14/EC)



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.



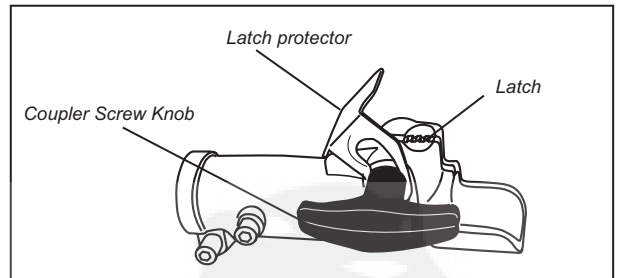
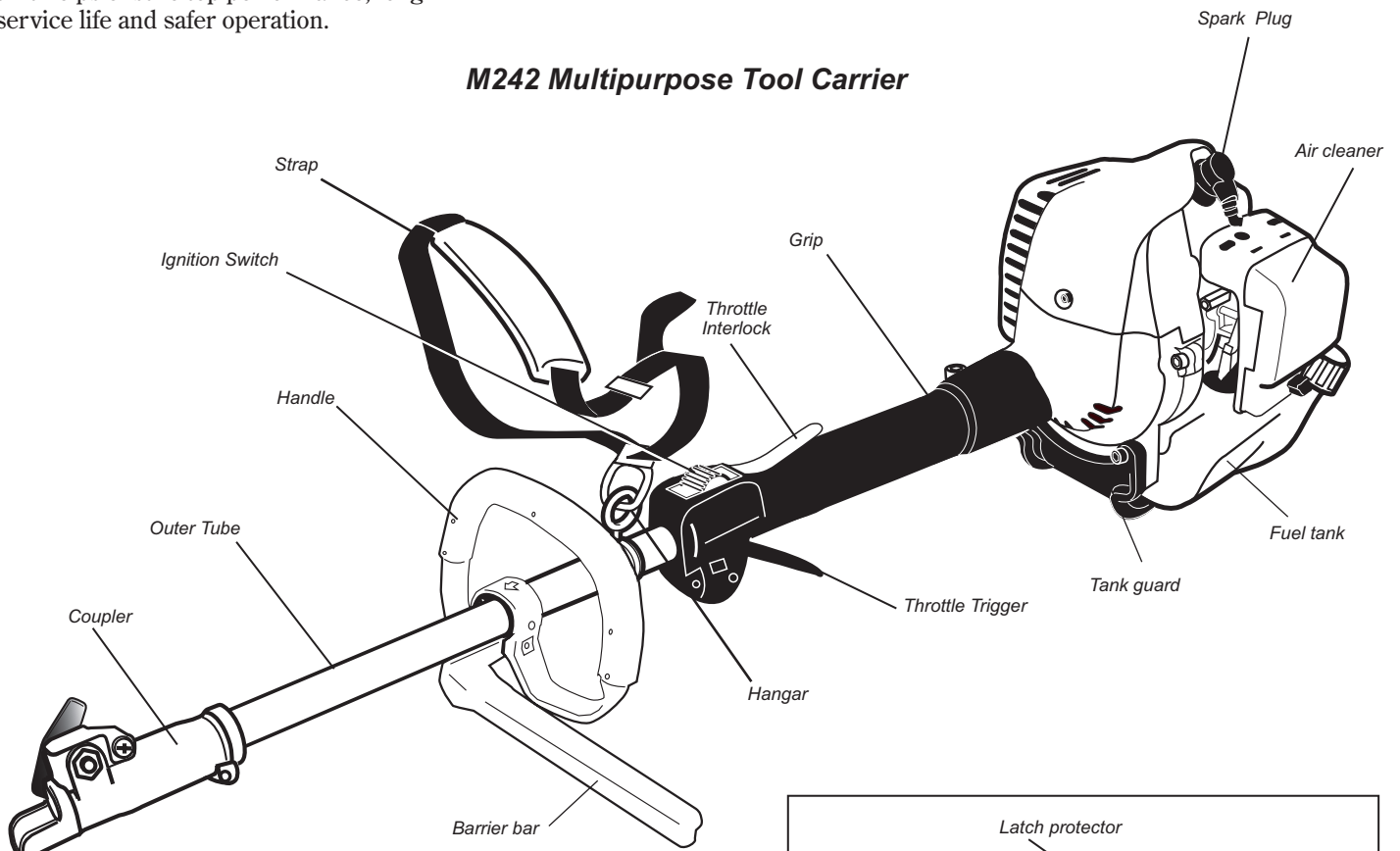
Keep bystanders at least 50 feet (15 meters) away from the operating trimmer to reduce the risk of being struck by falling objects or thrown debris.



## Product Description

Using the accompanying illustration as a guide, familiarize yourself with this unit and its various components. Understanding your unit helps ensure top performance, long service life and safer operation.

### M242 Multipurpose Tool Carrier



# Specifications

Engine Name	M242/EC2
Engine model	SF242EC2
Engine type	2-cycle catalystr
Dry weight (less attachments)	4.5 kg
Dimensions (L xHxW)	1038 mm x 213 mm x 250 mm
Displacement	23.9 cc
Bore x stroke	34 x 27 mm
Engine Speed at Maximum Power Output	min <sup>-1</sup>
Maximum power output	0.8 kW @ 8000 min <sup>-1</sup> (rpm)
Engine speed at idling	min <sup>-1</sup>
Maximum engine speed	min <sup>-1</sup>
Fuel tank capacity	620 cm <sup>3</sup>
Fuel/oil ratio	50:1 with ISO-L-EGD or JASO FC class 2-cycle mixing oil*
Carburetor	Walbro WYK diaphragm-type
Ignition	One-piece electronic transistor-controlled
Spark plug	NGK BPMR6A
Spark plug torque value	17–19 N·m
Air filter	Non-reversible foam filter element
Starting method	Recoil
Stopping method	Slide switch
Cooling system	Forced air
Transmission type	Automatic, centrifugal clutch with bevel gear

Specifications are subject to change without notice.

\*Shindaiwa One engine oil meets or exceeds these specifications and is recommended for all Shindaiwa products.

## With Shindaiwa SBA-TX24 Splitboom Attachment

Sound Pressure Level *	(average data between at Idling and at WOT) Note 1	dB (A)
Sound Power Level **	(average data between at Idling and at WOT) Note 1	dB (A)
Vibration Level**	(Idling [Front/Rear]) Note 1	/ m/s <sup>2</sup>
	(WOT [Front/Rear])	/ m/s <sup>2</sup>
Sound Pressure Level *	(average data between at Idling and at WOT) Note 2	dB (A)
Sound Power Level **	(average data between at Idling and at WOT) Note 2	dB (A)
Vibration Level***	(Idling [Front/Rear]) Note 2	/ m/s <sup>2</sup>
	(WOT [Front/Rear]) Note 2	/ m/s <sup>2</sup>

Specifications are subject to change without notice.

\*Sound Pressure Level: In accordance with EN ISO 11806 and ISO 22868 (average data between Idling and a WOT)

\*\*Sound Power Level: In accordance with EN ISO 11806 and ISO 22868 (average data between at Idling and at WOT)  
\*\*\*Vibration Level: In accordance with EN ISO 11806 and ISO

22867.

Note 1: 8-tooth blade equipped  
Note 2: Trimmer head equipped

## With Shindaiwa SBA-P24 Splitboom Attachment (254 mm Guide Bar Equipped)

Sound Pressure Level *	(Idling)	dB (A)
	(WOT)	dB (A)
Sound Power Level **	(Idling)	dB (A)
	(WOT)	dB (A)
Vibration Level***	(Idling [Front/Rear])	/ m/s <sup>2</sup>
	(WOT [Front/Rear])	/ m/s <sup>2</sup>

Specifications are subject to change without notice.

\*Sound Pressure Level: In accordance with ISO 11680-1

\*\*Sound Power Level: In accordance with ISO 11680-1

\*\*\*Vibration Level: In accordance with ISO11680-1

## With Shindaiwa SBA-AH2422 Splitboom Attachment

Sound Pressure Level *	(Idling)	dB (A)
	(WOT)	dB (A)
Sound Power Level **	(Idling)	dB (A)
	(WOT)	dB (A)
Vibrati Level***	(Idling [Front/Rear])	/ m/s <sup>2</sup>
	(WOT [Front/Rear])	/ m/s <sup>2</sup>

Specifications are subject to change without notice.

\*Sound Pressure Level: In accordance with ISO 11680-1

\*\*Sound Power Level: In accordance with ISO 11680-1

\*\*\*Vibration Level: In accordance with ISO11680-1

# Assembly and adjustments

## Prior to assembly

This Shindaiwa Multipurpose Tool Carrier comes fully assembled. You only need attach the accessory tool of your choice to the powerhead.

Your Multipurpose tool carrier includes:

- Shoulder strap

- Kit containing this owner's/operator's manual and tool kit for routine maintenance. Tool kits vary by model and may include a hex wrench, and a spark plug/screwdriver combination wrench.



### WARNING!

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

### 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.

## Assembling tube sections

1. Place powerhead/lower tube assembly on a clean, flat surface so that both assemblies fit end to end. The powerhead/lower tube assembly should be facing positioned with the locking hole in the tube end facing up.

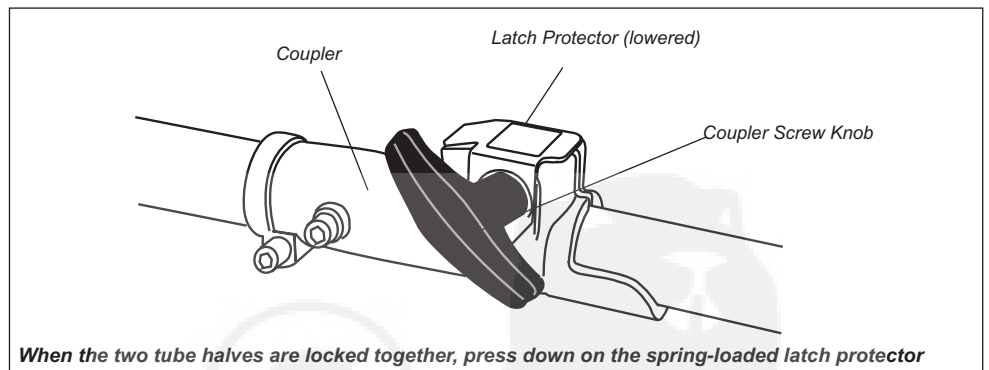
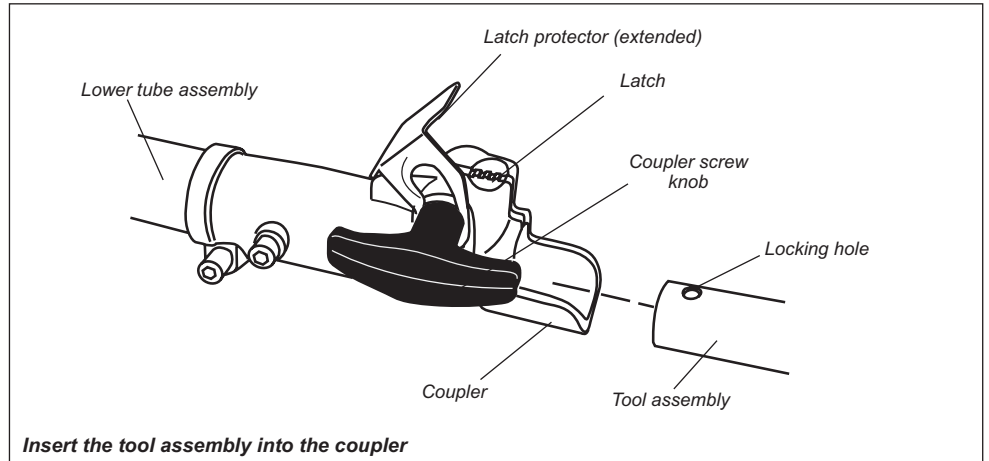
### CAUTION!

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

2. Slip off the protective plastic cover(s) from the ends of the tube(s), and loosen the coupler screw knob.
3. Insert the tool assembly into the coupler, with the tool decal facing up, until the line of the decal is flush with the end of the coupler.
4. Twist the tool assembly back and forth until you are sure it snaps in place by the coupler latch.
5. When the two tube halves are locked together, press down on the spring-loaded latch protector and tighten the coupler screw knob.

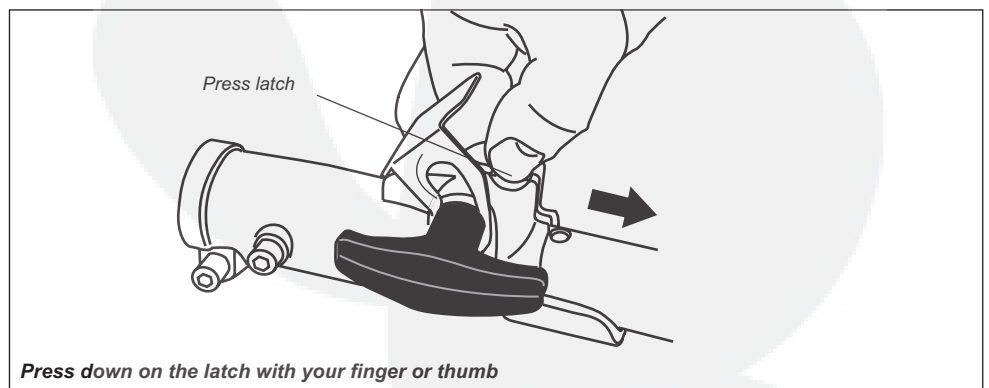
### CAUTION!

Verify that there is no gap between the latch protector and coupler.



## Disassembling the tube sections

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.
3. Pull the upper tube assembly out of the coupler.

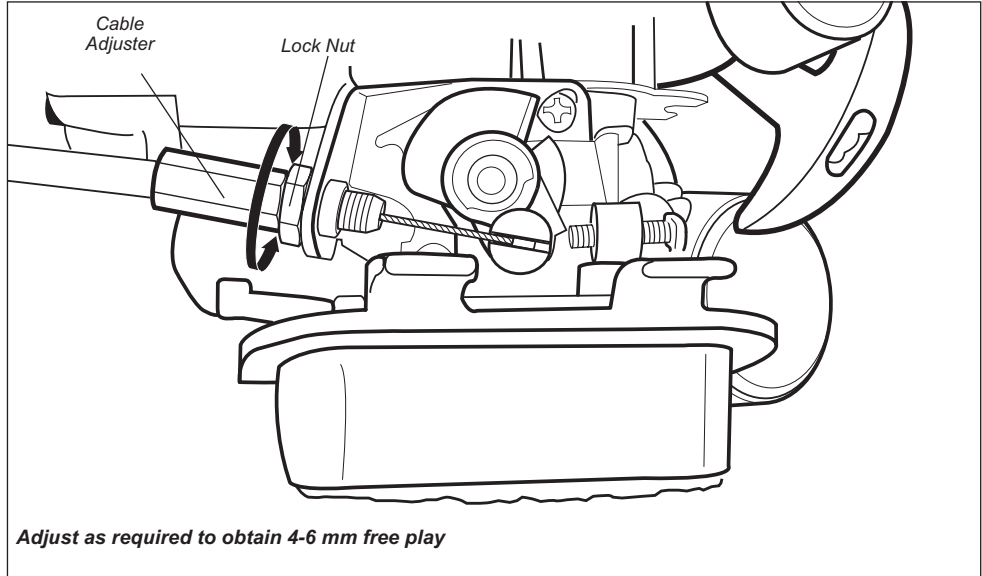
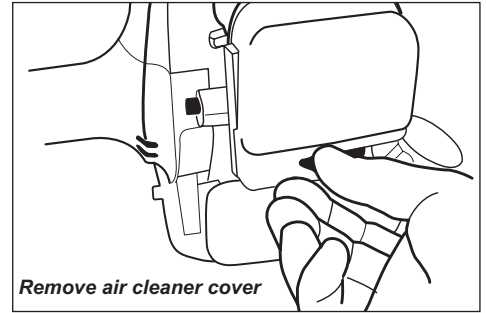
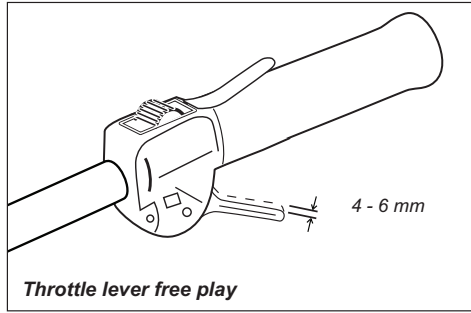


## Assembly and adjustments (continued)

### Throttle lever free play

The throttle lever free play should be approximately 4 - 6 mm. Make sure that the throttle lever operates smoothly without binding. If it becomes necessary to adjust the lever free play, follow the procedures and illustrations that follow.

1. Loosen the air cleaner cover knobs and remove the air cleaner cover.
2. Loosen the lock nut on the cable adjuster.
3. Turn the cable adjuster in or out as required to obtain proper free play 4-6 mm (3/16-1/4 inch).
4. Tighten the locknut.
5. Reinstall the air cleaner cover.



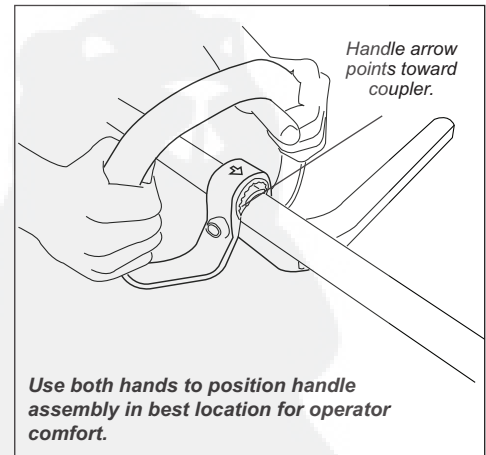
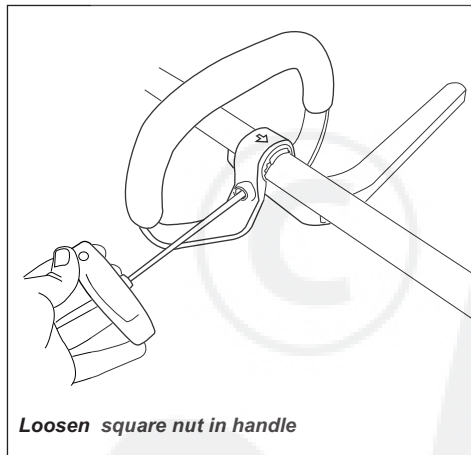
### Adjusting the handle

Your Shindaiwa Multi-Purpose Tool Carrier comes with the handle installed. It can be re-adjusted for operator comfort in the following manner.

1. Place the unit on a clean, flat surface.
2. With a hex wrench, loosen the square nut as shown.
3. Slide handle assembly to desired position.

#### NOTE

Moving the handle may require two hands and rocking motions, as the handle and clamp fit tightly to the outer tube.



## Mixing fuel

### CAUTION

Never use any type of gasoline containing more than 10% alcohol by volume! Some types of gasoline contain alcohol as 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 oils.

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.

### CAUTION

This engine is designed to operate on a 50:1 mixture consisting of unleaded gasoline and ISO-L-EGD or JASO FD class 2-cycle mixing oil only. Use of non-approved mixing oils can lead to excessive carbon deposits.

- Use only fresh, clean unleaded gasoline with a pump octane of 87 or higher.
- Mix all fuel with a 2-cycle air-cooled mixing oil that meets or exceeds ISO-L-EGD and/or JASO FD classified oils at 50:1 gasoline/oil ratio.


### CAUTION!


Mix and pour fuel outdoors where there are no sparks and flames.

### Examples of 50:1 mixing quantities

Gasoline liters	2-cycle mixing oil milliliters
2.5 - L	50 mL
5 - L	100 mL
10 - L	200 mL
20 - L	400 mL

### IMPORTANT!

Mix only enough fuel for your immediate needs! If fuel must be stored longer than 30 days and  oil with fuel stabilizer is not used, it should first be treated with a fuel stabilizer such as STA-BIL™.

 Oil is a registered JASO FD classified oil and also meets or exceeds ISO-L-EGD performance requirements. Shindaiwa One is recommended for use in all Shindaiwa low emissions engines. Shindaiwa One also includes a fuel stabilizer.

## Filling the fuel tank



### WARNING!

#### Minimize the Risk of Fire

- **NEVER** smoke or light fires near the engine.
  - **ALWAYS** stop the engine and allow it to cool before refueling.
  - **ALWAYS** Wipe all spilled fuel and move at least 3 meters (10 feet) from the fueling point and source before starting.
  - **NEVER** place flammable material close to the engine muffler.
  - **NEVER** operate the engine without the muffler and spark arrester screen in place and in good working condition.
- **FUEL IS HIGHLY FLAMMABLE.**
  - **ALWAYS** store gasoline in a container approved for flammable liquids.
  - **ALWAYS** inspect the unit for fuel leaks before each use. During each refill, check that no fuel leaks from around the fuel cap and/or fuel tank. If fuel leaks are evident, stop using the unit immediately. Fuel leaks must be repaired before using the unit.
  - **ALWAYS** move the unit at least 3 meters (10 feet) away from a fuel storage area or other readily flammable materials before starting the engine.

1. Place the unit on a flat, level surface.
2. Clear any dirt or other debris from around the fuel filler cap.

### CAUTION!

Slowly remove the fuel cap only after stopping the engine

3. Remove the fuel cap, and fill the tank with clean, fresh fuel.
4. Reinstall the fuel filler cap and tighten firmly.
5. Wipe away any spilled fuel before starting engine.



# Starting the Engine

## IMPORTANT!

Engine ignition is controlled by a two position switch mounted on the throttle housing labeled, "I" for ON or START and "O" for OFF or STOP.

### WARNING!

Keep all parts of your body away from the rotating cutting attachment and hot surfaces.

### WARNING!

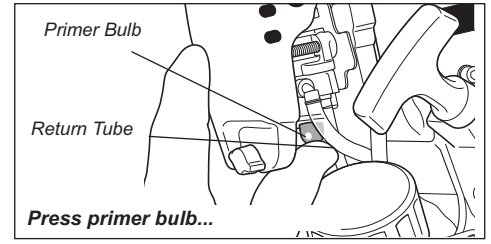
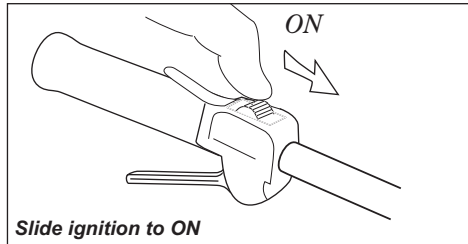
Never start the engine from the operating position.

### WARNING!

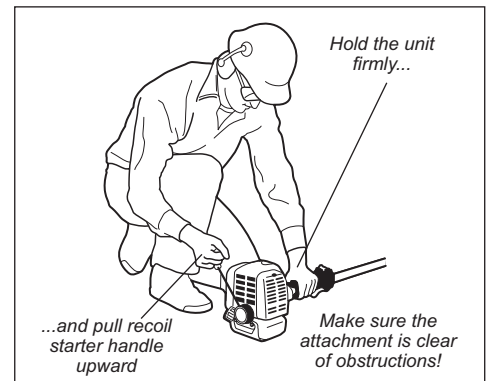
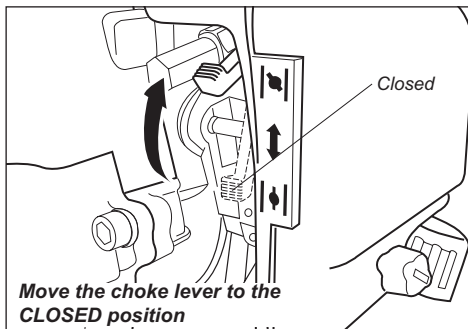
The cutting attachment may rotate when the engine is started!

### WARNING!

Never start the engine without the tool assembly and cutting attachments installed to the engine. Failure to do so could damage the engine and increase unexpected risk to the operator and any bystander.



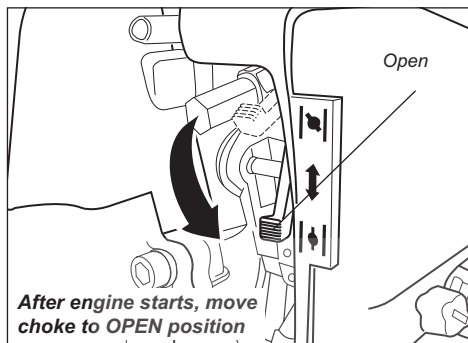
1. Slide the ignition switch to the "I" position.
2. Press the primer bulb until fuel can be seen flowing in the transparent return tube.
3. Set the choke lever to the CLOSED position if engine is cold.
4. While holding the outer tube firmly with left hand. Use your other hand to slowly pull the recoil starter handle until resistance is felt, then pull quickly to start the engine.



## IMPORTANT!

The primer system only pushes fuel through the carburetor. Repeatedly pressing the primer bulb will not flood the engine with fuel.

5. When the engine starts, slowly move the choke lever to the "OPEN" position. If the engine stops after the initial start, close the choke and restart.



## IMPORTANT!

If the engine fails to start after several attempts with the choke in the closed position, the engine may be flooded with fuel. If flooding is suspected, see the section "Starting a Flooded Engine" for more information

### CAUTION!

Do not pull the recoil starter to the end of the rope travel. Pulling the recoil starter to the end of the rope travel can damage the starter.

## When the engine starts

- After the engine starts, allow the engine to warm up at idle for 2 or 3 minutes before operating the machine.

- After the engine is warm, pick up the unit and clip on the strap or harness if so equipped. See the section "Operation: Shoulder Strap" for instructions.

- Advancing the throttle makes the cutting attachment rotate faster; releasing the throttle makes the attachment stop running. If the cutting attachment continues to rotate refer to "Engine Idle Adjustment" for engine idle adjustment procedures.

## Starting a warm engine

Starting a warm engine involves all of the steps of starting a cold engine, EXCEPT:

- Do not press the primer bulb.
- The choke should be in the OPEN (I) position.

If the engine does not start, follow the cold engine starting procedure.

## Starting the Engine (continued)

### Starting a flooded engine

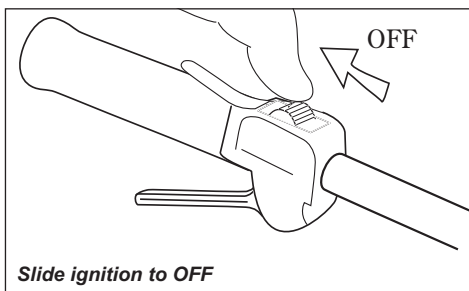
1. Slide the ignition switch button to the STOP position.
2. Disconnect the spark plug wire, and remove the spark plug.
3. If the spark plug electrodes and ceramic insulator are fouled or soaked with fuel, clean or replace the plug. For spark plug specifications and gapping procedure, refer to the "Maintenance" section.
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.
6. Reinstall the spark plug finger tight and tighten it firmly with the spark plug wrench provided in the tool kit.
7. Repeat the warm engine starting procedure.
8. If the engine fails to start, consult the troubleshooting guide provided.

#### CAUTION!

Incorrect spark plug installation may cause serious engine damage!

## Stopping the Engine

Idle the engine briefly before stopping (about 2 minutes), then slide the ignition switch to the "O" (Engine OFF) position.



#### IMPORTANT

When the unit is turned off make sure the cutting attachment has stopped before the unit is set down.

## Adjusting Engine Idle

The engine must return to idle speed whenever the throttle lever is released. Idle speed is adjustable, and must be set low enough to permit the engine clutch to disengage the cutting attachment.

### Idle Speed Adjustment



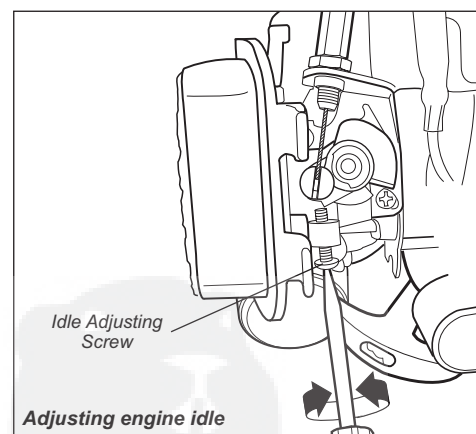
#### WARNING!

The cutting attachment must NEVER rotate at engine idle! If the idle speed cannot be adjusted by the procedure described here, return the trimmer to your Shindaiwa dealer for inspection.

1. Place the unit on the ground, then start the engine, and then allow it to idle 2-3 minutes until warm.
2. If the attachment rotates when the engine is at idle, reduce the idle speed by turning the idle adjustment screw counter-clockwise.
3. If a tachometer is available, the engine idle speed should be final adjusted to the settings recommended in the Specifications section.

#### NOTE

Carburetor fuel mixture adjustments are preset at factory and cannot be serviced in the field.



## Checking Unit Condition

NEVER operate the unit with the cutting attachment shield or other protective devices removed!

Use only authorized Shindaiwa parts and accessories with your Shindaiwa trimmer. Do not make modifications to this unit without written approval from Shindaiwa, Inc.

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.

The cutting attachment may be moving during carburetor adjustments. Wear your protective equipment and observe all safety instructions.

ALWAYS make sure the cutting attachment fits properly into the appropriate attachment 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 unit becomes tangled. Do not operate with broken or damaged equipment.



#### WARNING!

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

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

NEVER operate a unit with worn or damaged fasteners or attachment holders.

When transporting, make sure the engine is not running and blades are covered with blade covers.

## Operation

### Checking Unit Condition

**NEVER** operate the unit with the cutting attachment shield or other protective devices removed!

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

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



#### WARNING!

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

### Shoulder Strap



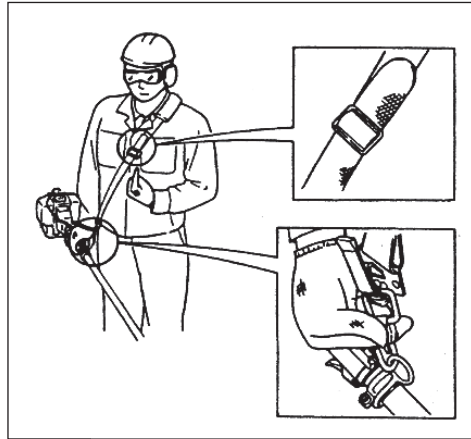
#### WARNING!

Always wear a shoulder strap when operating this unit with a blade. A shoulder strap is also recommended when using trimmer line.

1. Hook the strap hook to the hanger on the outer tube.
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.

#### IMPORTANT!

Adjust the shoulder strap or harness so the shoulder pad rests comfortably on the off-side shoulder and the cutting path of the cutting attachment is parallel to the ground. Make sure all hooks and adjustment devices are secure.

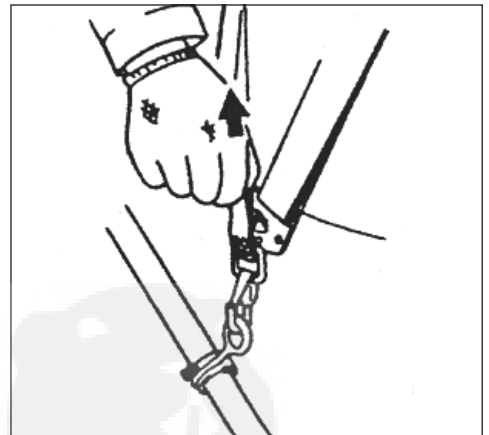


#### NOTE:

Using a shoulder strap with a brushcutter allows you to maintain proper control of the unit and reduces fatigue during extended operation.

### Emergency Release

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



# Maintenance

## General maintenance

### IMPORTANT!

MAINTENANCE, REPLACEMENT OR REPAIR OF EMISSION CONTROL DEVICES AND SYSTEMS MAY BE PERFORMED BY ANY REPAIR ESTABLISHMENT OR INDIVIDUAL; HOWEVER, WARRANTY REPAIRS MUST BE PERFORMED BY A DEALER OR SERVICE CENTER AUTHORIZED BY SHINDAIWA INC. THE USE OF PARTS THAT ARE NOT EQUIVALENT IN PERFORMANCE AND DURABILITY TO AUTHORIZED PARTS MAY IMPAIR THE EFFECTIVENESS OF THE EMISSION CONTROL SYSTEM AND MAY HAVE A BEARING ON THE OUTCOME OF A WARRANTY CLAIM.

### NOTE:

Using non-standard replacement parts could invalidate your Shindaiwa warranty.

## Daily maintenance

**Prior to each work day, perform the following:**

- Remove all dirt and debris from the engine, check the cooling fins and air cleaner for clogging, and clean as necessary.
- Check the entire unit for leaking fuel or grease.
- Check for loose or missing screws or components.

**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.

### Muffler

This unit must never be operated with a faulty or missing spark arrester or muffler. Make sure the muffler is well secured and in good condition. A worn or damaged muffler is a fire hazard and may also cause hearing loss.

**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.

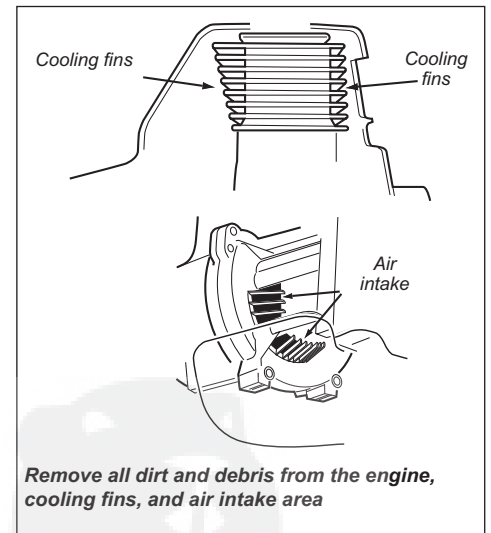
### Spark Plug

Keep the spark plug and wire connections tight and clean.

### Fasteners

Make sure nuts, bolts, and screws (except carburetor adjusting screws) are tight.

- Make sure nuts, bolts, and screws (except carburetor idle speed adjusting screws) are tight.
- 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.

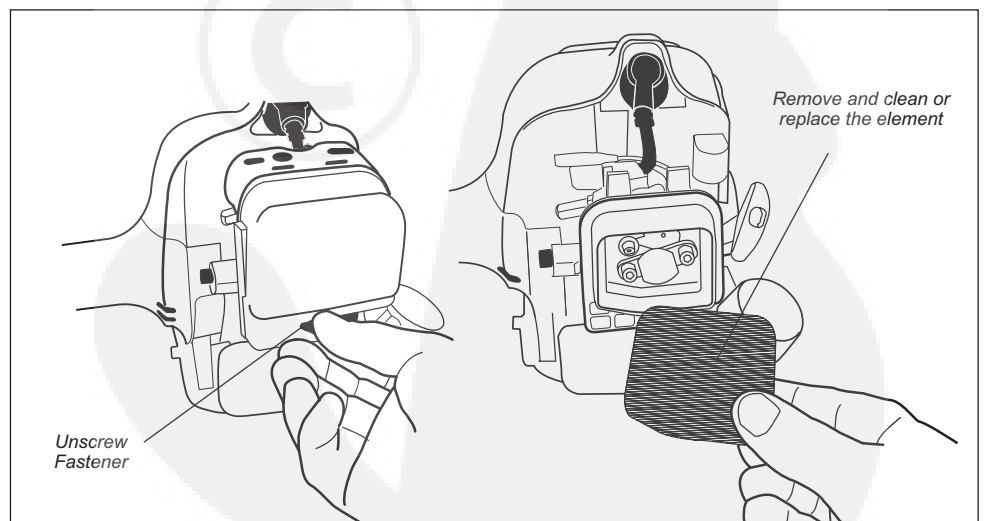


## 10-hour maintenance

**Perform more frequently in dusty or dirty conditions.**

Remove the air cleaner filter. Clean or replace as necessary. To clean filter wash it thoroughly in soap and water. Let it dry before reinstalling the filter.

**CAUTION!** Do not operate the unit if the air cleaner or filter is damaged, or if the filter is wet or water soaked.



## Maintenance (continued)

### 10/15 hour maintenance

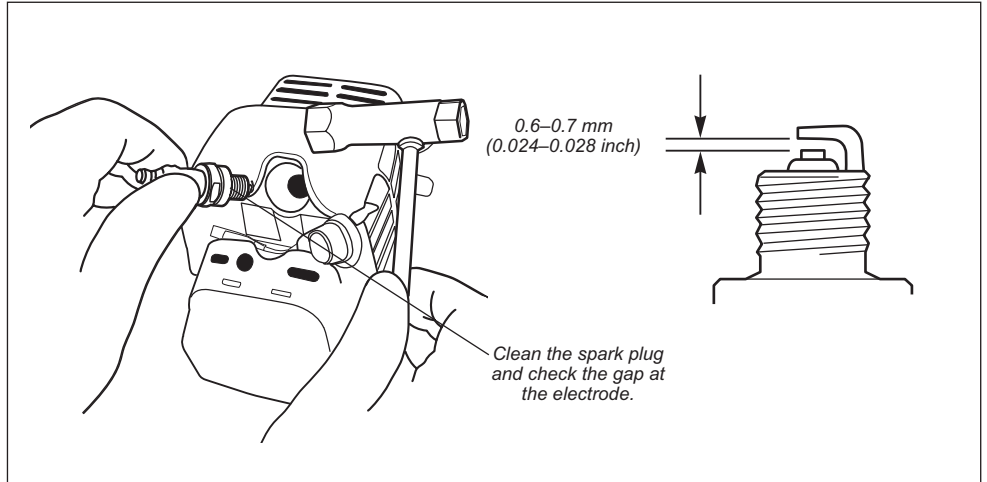
Every 10 to 15 hours of operation:

Remove and clean the spark plug. Adjust the spark plug electrode gap to 0.6 - 0.7 mm (0.024 - 0.028 inch). If the spark plug must be replaced, use only the an NGK BPMR6A or equivalent resistor type spark plug of the correct heat range

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

**NOTE**

The NGK BPMR6A also meets the requirements for electro magnetic compliance (EMC).



### 50 hour maintenance

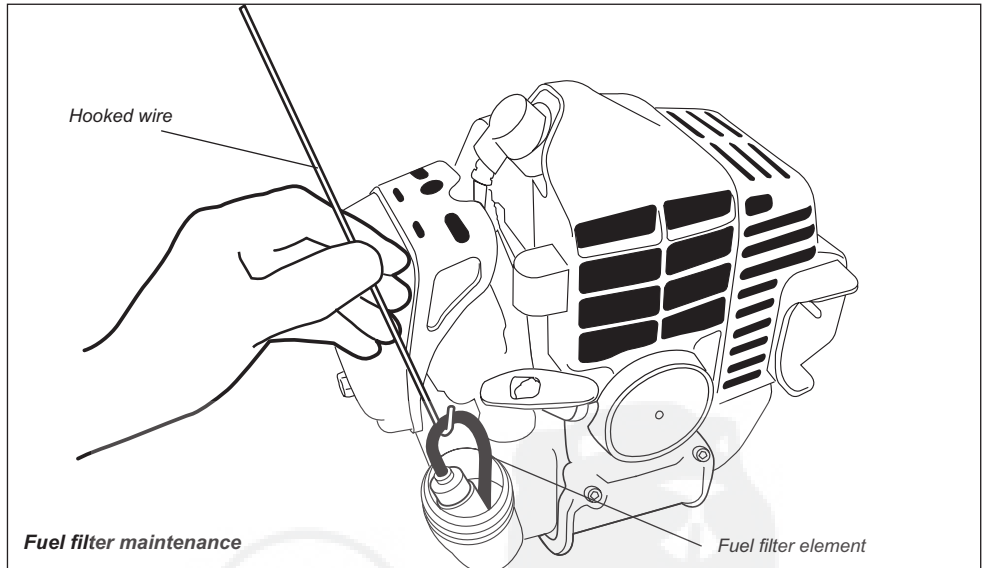
Every 50 hours of operation; more frequently in dusty conditions:

- Remove and clean the cylinder cover and clean dirt and debris from the cylinder cooling fins.

#### Remove and replace the fuel filter element.

- Use a hooked wire to extract the fuel filter from inside the fuel tank. Inspect the fuel filter element. If it shows signs of contamination, replace with a genuine Shindaiwa replacement fuel filter element.

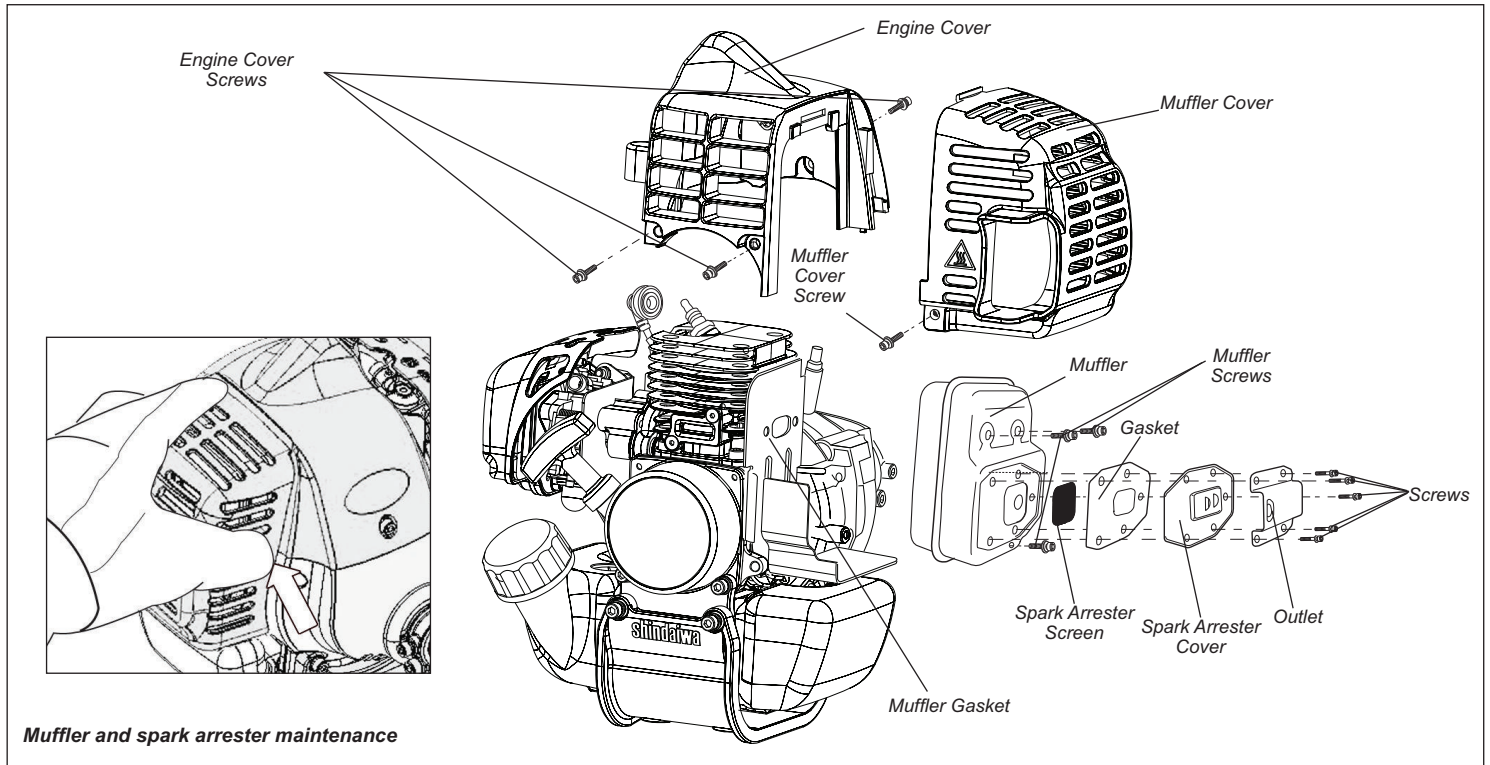
**CAUTION!**  
Make sure you do not pierce the fuel line with the end of the hooked wire. The line is delicate and can be damaged easily.



Before reinstalling the new filter element, inspect the condition of all the fuel system components (fuel pick-up line, fuel return line, tank vent line, tank vent, fuel cap and fuel tank). If damage, splitting or deterioration is noted, the unit should be removed from service until it can be inspected or repaired by a Shindaiwa-trained service technician.

## Maintenance (continued)

### 135 hour maintenance



Muffer and spark arrester maintenance

Every 135 hours of operation, remove and clean the muffer.

#### **WARNING!**

Never operate the unit with a damage or missing muffer or spark arrester! Operating with a missing or damaged spark arrester is a fire hazard and could also damage your hearing.

If the engine becomes sluggish and low on power, check and clean the spark arrester screen.

1. Remove the spark plug boot.
2. With a 4mm hex wrench remove the 1 muffer cover and 3 engine cover screws and the engine cover. The muffer cover is attached to the engine cover at the top and front by tabs. To remove push inward at arrow area while pulling outward. See insert image.
3. With a Phillips type screwdriver remove the 5 screws holding the spark arrester screen and cover to the muffer.
4. Remove the screen and clean it with a stiff bristle brush.

5. Remove the 3 muffer bolts and the muffer.
6. Inspect the cylinder exhaust port for any carbon buildup.
7. Gently tap the muffer on a wood surface to dislodge any loose carbon.
8. Reassemble the spark arrester, muffer and engine cover in the reverse order of disassembly.

#### **IMPORTANT!**


If you note excessive carbon buildup, consult with an authorized Shindaiwa servicing dealer.

## 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.
- Drain all the fuel from the carburetor and the fuel tank.

#### **IMPORTANT!**

All stored fuels should be stabilized with a fuel stabilizer such as STA-BIL, if  oil with fuel stabilizer is not used.

#### **CAUTION**

Gasoline stored in the carburetor for extended periods can cause hard starting, and could also lead to increased service and maintenance costs.

- Remove remaining fuel from the fuel lines and carburetor with the fuel drained from the fuel tank. To do so:
  1. Prime the primer bulb until no more fuel is passing through.
  2. Start and run the engine until it stops running.
  3. Repeat steps 1 and 2 until the engine will no longer start.
- Remove the spark plug and pour about 7.4 mL (1/4 oz.) of 2-cycle mixing oil into the cylinder through the spark plug hole. Slowly pull the recoil starter 2 or 3 times so oil will evenly coat the interior of the engine. Reinstall the spark plug.

- Before storing the unit, repair or replace any worn or damaged parts.
- Remove the air cleaner element from the carburetor and clean it thoroughly with soap and water, let dry and reassemble the element.
- Store the unit in a clean, dust-free area.

What To Check	Possible Cause	Remedy
<p>Does the engine crank?</p> <p>YES</p>	<p>NO → Faulty recoil starter. Fluid in the crankcase. Internal damage.</p>	<p>Consult with an authorized servicing dealer.</p>
<p>Good compression?</p> <p>YES</p>	<p>NO → Loose spark plug. Excess wear on cylinder, piston, rings.</p>	<p>Tighten and re-test. Consult with an authorized servicing dealer.</p>
<p>Does the tank contain fresh fuel of the proper grade?</p> <p>YES</p>	<p>NO → Fuel incorrect, stale, or contaminated; mixture incorrect.</p>	<p>Refill with fresh, clean unleaded gasoline with a pump octane of 87 or higher mixed with a 2-cycle mixing oil that meets or exceeds ISO-L-EGD and/or JASO FD classified oils at 50:1 gasoline/oil ratio.</p>
<p>Is fuel visible and moving in the return line when priming?</p> <p>YES</p>	<p>NO → Check for clogged fuel filter and/or vent. Primer pump functioning incorrectly.</p>	<p>Replace fuel filter or vent as required. Restart. Consult with an authorized servicing dealer.</p>
<p>Is there spark at the spark plug wire terminal?</p> <p>YES</p>	<p>NO → The ignition switch is in "O" (OFF) position. Shorted ignition ground. Faulty ignition unit.</p>	<p>Move switch to "I" (ON) position and restart. Consult with an authorized servicing dealer.</p>
<p>Check the spark plug.</p>	<p>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.</p>	<p>Crank the engine with the plug removed, reinstall the plug, and restart. Clean and regap the plug to 0.6 mm - 0.7 mm (0.025 - 0.028 in.) Restart. Replace the spark plug. Check the "Specifications" section for the correct plug for your unit. Restart.</p>

## Troubleshooting Guide (continued)

### LOW POWER

What To Check	Possible Cause	Remedy
<p><b>Is the engine overheating?</b></p>	<p>Operator is overworking the unit.</p> <p>Carburetor mixture is too lean.</p> <p>Improper fuel ratio.</p> <p>Fan, fan cover, cylinder fins dirty or damaged</p> <p>Carbon deposits on the piston or in the muffler.</p>	<p>Operate at slower rate.</p> <p>Consult with an authorized servicing dealer.</p> <p>Refill with fresh, clean unleaded gasoline with a pump octane of 87 or higher mixed with a 2-cycle mixing oil that meets or exceeds ISO-L-EGD and/or JASO FD classified oils at 50:1 gasoline/oil ratio.</p> <p>Clean, repair or replace as necessary.</p> <p>Consult with an authorized servicing dealer</p>
<p><b>Engine is rough at all speeds. May also have black smoke and/or unburned fuel at the exhaust.</b></p>	<p>Clogged air cleaner element.</p> <p>Loose or damaged spark plug.</p> <p>Air leakage or clogged fuel line.</p> <p>Water in the fuel.</p> <p>Piston seizure.</p> <p>Faulty carburetor and/or diaphragm</p>	<p>Clean or replace the air filter</p> <p>Tighten or replace the spark plug. Restart. Check the Specifications page in this manual for the correct spark plug for this unit.</p> <p>Repair or replace fuel filter and/or fuel line.</p> <p>Refill with fresh fuel/oil mixture.</p> <p>Consult with an authorized servicing dealer.</p>
<p><b>Engine is knocking.</b></p>	<p>Overheating condition.</p> <p>Improper fuel.</p> <p>Carbon deposits in the combustion chamber.</p>	<p>Consult with an authorized servicing dealer.</p> <p>Check fuel octane rating; check for presence of alcohol in the fuel. Refuel as necessary.</p> <p>Consult with an authorized servicing dealer.</p>



## Troubleshooting Guide (continued)

### ADDITIONAL PROBLEMS

What To Check	Possible Cause	Remedy
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>Poor acceleration.</b> </div>	<ul style="list-style-type: none"> <li>Clogged air filter.</li> <li>Clogged fuel filter.</li> <li>Lean fuel/air mixture.</li> <li>Idle speed set too low.</li> </ul>	<ul style="list-style-type: none"> <li>Clean or replace the air filter.</li> <li>Replace the fuel filter.</li> <li>Consult with an authorized servicing dealer.</li> <li>Adjust idle. Check Specifications page for correct idle speed.</li> </ul>
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>Engine stops abruptly.</b> </div>	<ul style="list-style-type: none"> <li>Switch turned off.</li> <li>Fuel tank empty.</li> <li>Clogged fuel filter.</li> <li>Water in the fuel.</li> <li>Shorted spark plug or loose terminal.</li> <li>Ignition failure.</li> <li>Piston seizure.</li> </ul>	<ul style="list-style-type: none"> <li>Reset the switch and re-start.</li> <li>Refuel. See Fuel section of manual.</li> <li>Replace fuel filter.</li> <li>Drain; replace with clean fuel. See Fuel section of manual.</li> <li>Clean or replace spark plug. Check the Specifications page in this manual for the proper spark plug for your unit. Tighten the terminal.</li> <li>Replace the ignition unit.</li> <li>Consult with an authorized servicing dealer</li> </ul>
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>Engine difficult to shut off.</b> </div>	<ul style="list-style-type: none"> <li>Ground (stop) wire is disconnected or switch is defective</li> <li>Overheating due to incorrect spark plug</li> <li>Overheated engine.</li> </ul>	<ul style="list-style-type: none"> <li>Test and replace as required.</li> <li>Idle engine until cool. Replace the spark plug. Check the Specifications page in this manual for the proper spark plug for your unit.</li> <li>Idle engine until cool.</li> </ul>
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>Cutting attachment moves at engine idle.</b> </div>	<ul style="list-style-type: none"> <li>Engine idle too high.</li> <li>Broken clutch spring or worn clutch spring boss.</li> <li>Loose attachment holder.</li> </ul>	<ul style="list-style-type: none"> <li>Adjust idle. Check Specifications page for correct idle speed.</li> <li>Replace spring/shoes as required.</li> <li>Inspect and re-tighten holders securely.</li> </ul>
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>Attachment will not move.</b> </div>	<ul style="list-style-type: none"> <li>Shaft not installed in powerhead or gearcase.</li> <li>Broken shaft.</li> <li>Damaged gearcase.</li> </ul>	<ul style="list-style-type: none"> <li>Inspect and reinstall as required.</li> <li>Consult with a authorized servicing dealer.</li> </ul>
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>Excessive vibration.</b> </div>	<ul style="list-style-type: none"> <li>Warped or damaged attachment.</li> <li>Loose gearcase.</li> <li>Bent main shaft/worn or damaged bushings.</li> </ul>	<ul style="list-style-type: none"> <li>Inspect and replace attachment as required.</li> <li>Tighten gearcase securely.</li> <li>Inspect and replace as necessary.</li> </ul>
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>Engine will not idle down.</b> </div>	<ul style="list-style-type: none"> <li>Engine idle is set too high.</li> <li>Engine has air leak.</li> </ul>	<ul style="list-style-type: none"> <li>Adjust idle. Check Specifications page for correct idle speed.</li> <li>Consult with a authorized servicing dealer.</li> </ul>

## Declaration of Conformity

# DECLARATION OF CONFORMITY

We hereby declare the Shindaiwa Pole Pruner, Model SBA-P24 (SBA-P24/EU with M242/EC2), meets the following respective requirements.

Council Directives:	Standard taken:
2004/108/EC as amended	ISO 12100 - 1&2
98/37/EC as amended	ISO 11806
2000/14/EC as amended	CISPR 12
2004/26/EC as amended	

**Measured sound power level: 107 dB(A)**

**Guaranteed sound power level: 108 dB(A)**

Authorized representative in the European Community:

Mr. Phil Williams

Worldwide Corporate Advisors LLP

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Tel: +44 20 3008 8910, Fax: +44 20 3008 8911

Technical documentation is kept by:

K. Maeda DIV. Manager

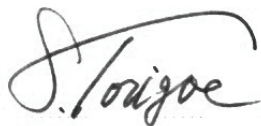
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20 November, 2008



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## Declaration of Conformity

# DECLARATION OF CONFORMITY

We hereby declare the Shindaiwa Brushcutter, Model SBA-TX24 (SBA-TX24/EU with M242/EC2), meets the following respective requirements

Council Directives:	Standard taken:
2004/108/EC as amended	ISO 12100 - 1&2
98/37/EC as amended	ISO 11806
2000/14/EC as amended	CISPR 12
2004/26/EC as amended	

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## Declaration of Conformity

# DECLARATION OF CONFORMITY

We hereby declare the Shindaiwa Articulated Hedge trimmer, Model SBA-AH2422 (SBA-AH2422/EU with M242/EC2), meets the following respective requirements

Council Directives:	Standard taken:
2004/108/EC as amended	ISO 12100 - 1&2
98/37/EC as amended	ISO 11806
2000/14/EC as amended	CISPR 12
2004/26/EC as amended	

**Measured sound power level: 107 dB(A)**

**Guaranteed sound power level: 108 dB(A)**

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