

TEA HARVESTER

AM-120V

Instruction manual



OCHIAI CUTLERY MANUFACTURING CO.,LTD.

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▲ CAUTION

Please read this manual carefully before using the unit.
Store this manual carefully to enable reference at anytime.

(Specifications and other items shown in this manual may be revised without notice.)



OCHIAI CUTLERY MANUFACTURING CO.,LTD.

INTRODUCTION

Read this instruction manual before using the unit.

Thank you for purchasing our product. This manual describes the handling methods and precautions. Read this manual carefully and use this unit with thorough understanding. Keep this manual where you can reach as needed. In case of any doubts, please contact your Retailer. And enjoy your work!

IMPORTANT

- Do not use this unit if you do not have thorough understanding of the instructions in this manual.
- If you let other persons use this unit, be sure to hand them this manual along with the unit. If you transfer this unit to other persons, be sure also to hand them this manual along with the unit.
- When the instructions of this manual cannot be read due to damage etc., or when this manual is lost, order a new book through our sales representative.

ESCAPE CLAUSE

- Parts etc. in this unit may be changed for improvement without a prior notice. Please take note that the contents, pictures, illustrations, etc may be slightly different in such a case.

USE OF THIS UNIT

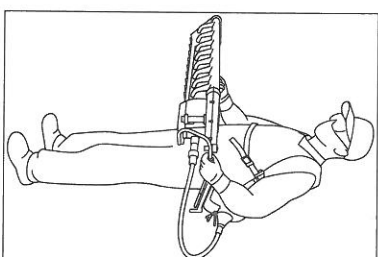
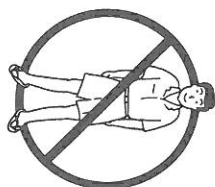
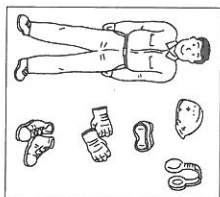
- Use this unit only for tea leaf picking. Do not use this unit for any other purposes.
- Do not use this unit if this unit is in poor maintenance. Do not modify this unit for other purposes other than tea leaf picking.

For Safety Operation

- ◆ Be sure to read the precautions written here for your safety operation.
- ◆ Be sure to follow the instructions written here. These are very important for your safety.
- ◆ The manual may include the description that does not suit your unit type.

(1) Requirements for operator

- If you need to let this unit used by someone who do not have knowledge for machine or someone who have never operated this unit, you must teach them well how to safely operate this unit and let them understand the instructions in the manual.
- Do not use this unit when you are tired. If you feel tired during operating this unit, stop operation and take a rest.
- Wear long sleeved shirts and pants. Do not wear outer clothes with wide-opened edges, short pants, long towels, scarves, and hang towels on your belt because these may get caught in the unit.
- Wear the strong shoes with grips on the bottom. Do not wear sandals during operation.
- Wear the thick and strong gloves.
- Wear a helmet or cap during operation.
- Do not operate the unit if you are: a person who cannot understand the instruction manual; a person who are drunk; a person who are not used to the operation; a person who cannot concentrate to the operation because of strain, ill, drug effects, or other reasons; a person who are pregnant; a person who did not have enough sleep; a person who are not confident with the operation of this unit.



(2) Fire hazards

- Do not use fire near the fuel. Do not smoke or use open fire near the fuel.
- Do not remove the fuel lid or perform refueling when the engine is rotating or hot. It may catch fire.
- Perform a refueling only after stopping the engine at the place there is no fire around. Close the fuel lid tight and wipe clean the spilled fuel.
- Do not perform operation above or around the burning garbage. The leaked fuel or oil may catch the fire, and cause a disaster.



(3) Cautions prior to operation

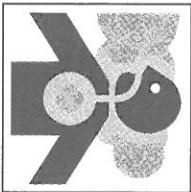
- Perform the check and maintenance, where you do not disturb traffic, and on the flat floor so the unit doesn't fall or move.
- Check before the operation, if the wiring cords are not in contact with other parts, if the sheath is not peeled off, or if the contacts are not loose.
- Check all repairs are completed including problems happened before.
- Check if the fuel pipe is not deteriorated or broken. It causes the leak of fuel.
- Check if the bolts etc. at each part are not loose.
- Check if the movements of the operating sections are appropriate.
- Do not use the unit if it makes unusual noise or if it has a part that need to be exchanged.
- When you load/unload the unit to/from a truck, turn off the engine of the truck, apply the parking brake, and apply the tire lock.
- When you transport the unit on the truck, fix the unit by its handlebar and frame securely to the truck bed with a strong rope.

(4) Cautions at starting

- Check if there is no person around. Take extra cautions for children. Do not perform the operation when children are around.
- Check the lever position of the unit and safety of the environment when you start the engine.
- Support the unit firmly so it does not fall when you pull the recoil starter.

(5) Cautions at operation

- Grab the handle tightly, and watch carefully where you are facing.
- Grab a handlebar firmly and keep your eyes on the path when you operate the unit.
- Do not let other people or animals step in within 5 m range of this unit.
- Be careful not to slip when you operate the unit during or after the rain.
- The exhaust gas is poisonous. The operation within a closed door etc. is basically prohibited. Take additional care for the ventilation if you must operate the unit in such a condition.
- Stop the engine when the blade catches a branch etc. before you remove it.
- Do not crawl your body or place your feet under the unit.
- When you stop the operation or move to another place, turn the engine off and put a blade cover on.
- Do not operate the unit on the unsteady ground.
- Do not hold the unit in an unreasonable or dangerous way.
- The engine becomes very hot. Do not touch the engine when you move to another place.







(6) Cautions at maintenance or repair

- Stop the engine when you perform cleaning or check of the unit.
- Contact our dealer or maintenance shop immediately for repair when there is a problem with the unit.
- Do not alter the unit without consulting us.

(7) Safety alert symbols and notations


The following safety notations are being used in the operating instructions. Read and understand the message in each notation and be alert to unsafe conditions and the possibility of personal injury.

 DANGER	DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	NOTICE is used to address practices not related to personal injury.
	This crossed circle symbol indicates that everything displayed is forbidden.

(8) Limitations and restrictions

The AM-120V has specifically been designed for tea leaf picking.

NOTICE	<ul style="list-style-type: none">• Do not use the unit to cut material with diameter over 3mm. This may cause damage to the blades and/or transmission.• Do not use the unit near ground level (e. g. for weeds and lawns). This may cause damage to the blades owing to soil, sand and pebbles. Stones thrown up by the unit may also cause (personal) damage.• Use the unit only for activities as outlined in the instruction manual. Other use is prohibited.
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 WARNING	<p>Switch the engine OFF before doing any the following.</p> <ul style="list-style-type: none">• Change, adjustment, oiling and cleaning of the blades, repair and maintenance.• Installation and change of the collection bag.
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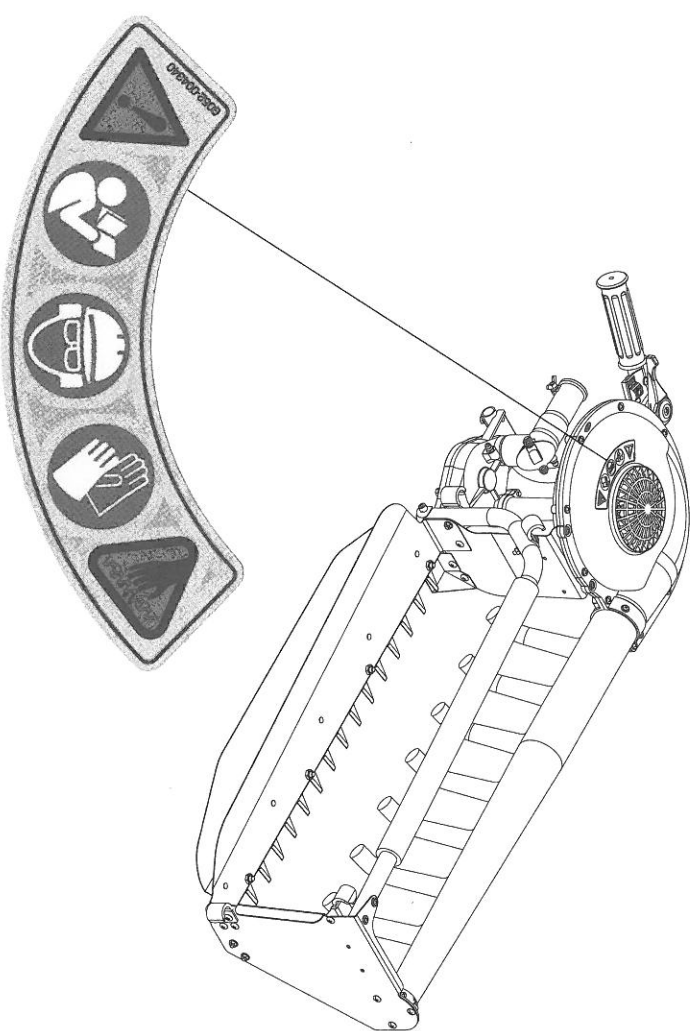
Warning pictograms

NOTICE	<p>Pictograms below have been fixed unto the unit in order to warn operators and bystanders. They are not allowed to be removed. Should a pictogram be off because of wastage of is it no longer legible, a new pictogram has to be fixed unto the unit.</p>
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PICTOGRAM	MEANING
	Read this instruction manual carefully.
	Wear eye, head and ear protectors when using this machine.
	(Vibration) muffling gloves obligatory.
	The exhaust gas is poisonous.
	Please note a fire.
	Please note the electroshock.
	Please note the hot section.
	Do not touch the blade.

(8) CAUTION label and WARNING label

- CAUTION labels and WARNING labels for safe operation are affixed on the unit. Read these labels carefully and operate the unit with a thorough understanding.
- Wipe clean the surface so the labels can be seen well.
- When the label is broken, order a new one through our dealer and replace it.
- When you replace the part that has a label, also replace the label with a new one. Be sure to affix the new label to the same spot.



Code	Name
G052-004340	Caution label

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[1] SPECIFICATIONS

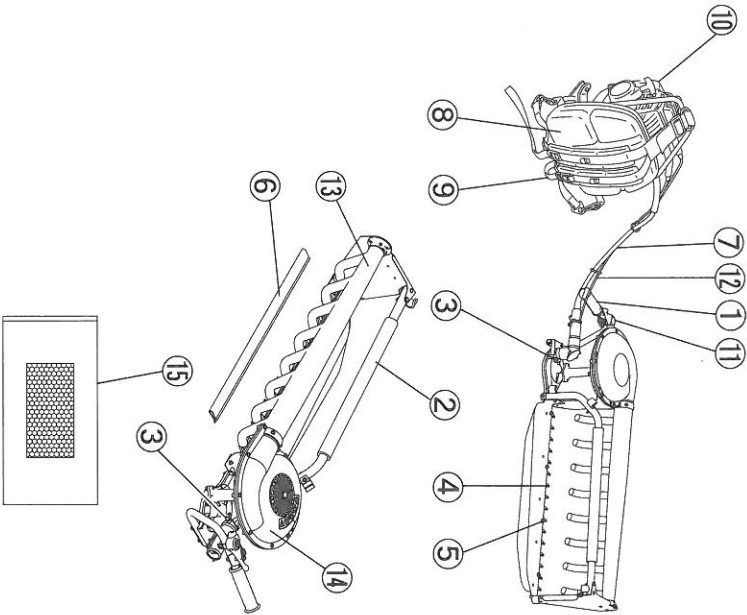
Itemize	Unit	
Name		Tea harvester
Model		AM-120V
Size		600
Weight	kg	4.2
Blade type		Straight clipper blade
Cutting width	mm	525

※The specification may be changed for improvement without a prior notice.

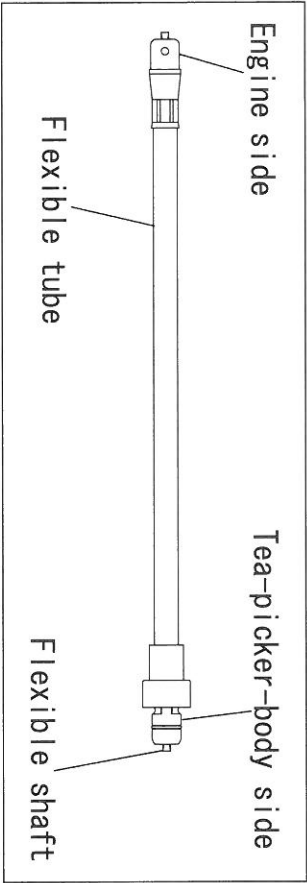
[2] MACHINE CONSTRUCTION AND NAME OF EACH SECTION

The name of each section of the product described in this manual is indicated below. Make sure you know the name of each section before using the product.


- ① Left handle
- ② Right handle
- ③ Grease nipple
- ④ Blade
- ⑤ Blade slide screw
- ⑥ Blade cover
- ⑦ Flexible shaft and tube
- ⑧ Back pad
- ⑨ Shoulder strap
- ⑩ Engine
- ⑪ Engine throttle lever
- ⑫ Throttle wire
- ⑬ Air duct
- ⑭ Blower
- ⑮ Collection bag



Flexible shaft and tube

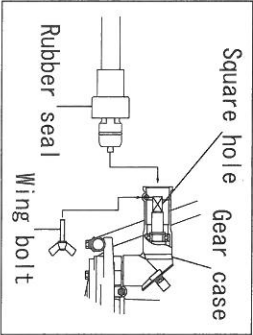



[3] PREPARING THE MACHINE FOR USE

 WARNING	<ul style="list-style-type: none">• Read this instruction manual carefully.• Stop the engine when installing the machine.• Turn the ignition switch to STOP.• On the flat floor so the unit doesn't fall or move.• Wear the protective items such as gloves for the operation in order to prevent an unwilling disaster.• Read the engine's instruction manual for further engine operation.• Wear the protective items such as gloves for the operation in order to prevent an unwilling disaster.
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3.1 Fitting the Flexible shaft

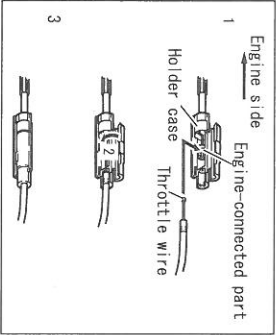
1. Place the AM-120V and the flexible tube on a flat surface.
2. Remove the wing bolt from the gear case on the tea-picker body.
3. Insert the end of the flexible shaft into the square hole in the gear case.
4. Push the end of the flexible shaft tube's fitting into the gear case.
5. Fit the rubber seal over the gear case.
6. Pull on the flexible tube to check that it does not fall off.



 CAUTION	Refit the wing bolt to hold the flexible shaft tube in position. Tighten the wing bolt securely to prevent it from coming free during machine operation.
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3.2 Fitting the Throttle wire

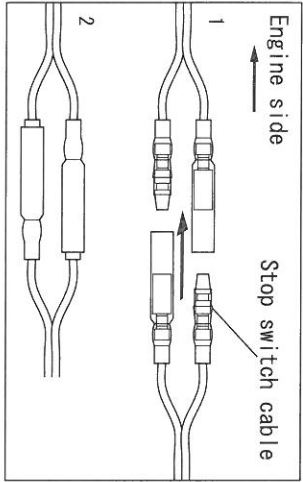
1. Open the holder case on the end of the engine-connected part of the throttle wire. Fit it with the throttle wire joint.
2. Fit the end of the tea-picker-body-connected part of the throttle wire into the socket and close the holder case.
3. Finished goods.



 CAUTION	Move the throttle lever in both directions and check that the throttle valve operates properly.
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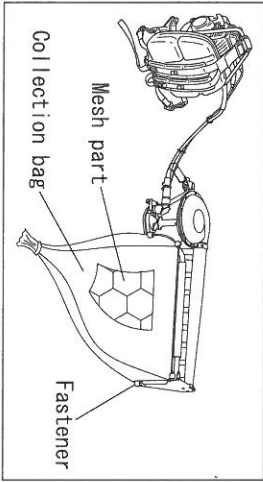
3.3 Fitting the Stop switch cable

1. Connect the part of the stop switch cable on the tea-picker-body to the part of the stop switch cable on the engine.
2. Finished goods.



3.4 Installation of collection bag

1. There are fasteners for collection bag attachment at the back of the unit. Place the collection bag with the mesh part above, then open the rubber edge side of the collection bag, and hook it to the fasteners on the unit.
2. Close tightly the opposite end of the collection bag so the picked leaves do not escape.



NOTICE	<ul style="list-style-type: none">• Adjust the attachment of the collection bag by the rubber string on the attachment side. The collection bag falls off during an operation if the attachment is too loose.• Collection bags without a mesh part cannot be used.
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[4] OPERATION PREPARATION
Inspections prior to operation



WARNING Perform the check and maintenance, where you do not disturb traffic, and on the flat floor so the unit doesn't fall or move. Performing inspection in an unstable location or with the engine running may cause an unexpected accident.

Routine checks and maintenance are necessary to ensure reliable and safe operation. Do not forget them.

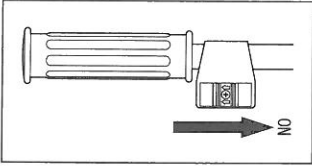
- Surrounding the unit Is the correct fuel used?
Is there a fuel leak?
Is the amount of oil as specified?
Is there any garbage or straw stuck to the unit?
- Lever operation Does the lever get stuck?
Does it move smoothly?
- Tightening Are any nuts, bolts, or such loose?
Is there any damaged housing or breakage?
- Wires and cables Are any wires or cables pinched?
- Engine start and stop Does the engine sound normal when it is started?
Does the engine stop switch work reliably?
- Cover interior Is there any debris such as leaves or twigs?
Clean it.
- Contact our dealer or maintenance shop immediately for repair when there is a problem with the unit.

NOTICE	Read the engine's instruction manual for further engine operation.
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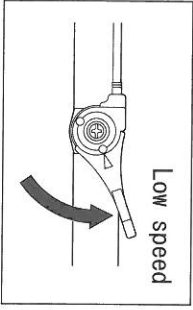
[5] OPERATION

5.1 Starting the Engine

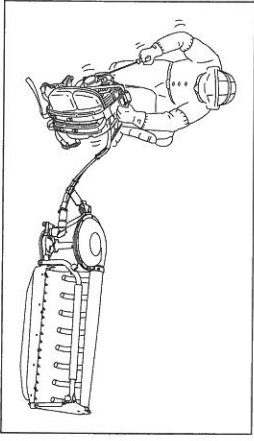
1. Remove the blade cover from the unit.
2. Place the unit on flat ground and check that the blade does not touch the ground or obstructions.
3. Turn the engine switch ON.



4. Shift the throttle lever Low speed position.



5. Check if there is no person around. Support the unit firmly so it does not fall when you pull the recoil starter.



NOTICE	Read the engine's instruction manual for further engine operation.
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5.2 How to use throttle lever

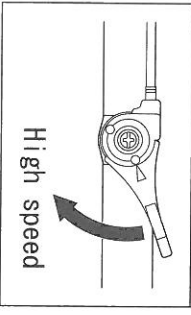


WARNING The blade does not stop immediately while the throttle lever is shifted to "Low speed" position.



CAUTION When pausing work or moving as the engine is started/stopped, shift the throttle lever to the low speed position in order to prevent injury.

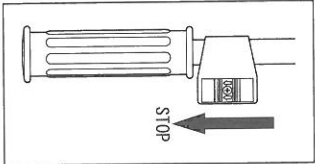
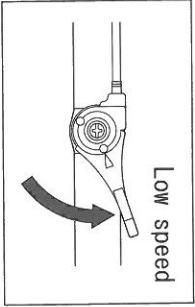
1. Start the engine.
2. Slowly move the throttle lever and set it so that the blade speed and air flow are appropriate.



5.3 Stopping the Engine

1. Set the throttle lever at Low speed position. Idle the engine (operate it at low speed).
2. Turn the engine switch to the STOP position.
3. In an emergency, immediately use the stop switch to turn the engine to the "STOP" position.

If the engine does not stop when you use the stop switch, then have the dealer check and repair your stop switch before you use the unit again.



[6] PICKING OPERATION

- Stop the engine when the blade catches a branch etc. before you remove it.
- If the blade jams with picked leaves, immediately stop the engine. Always wear gloves to remove the jammed leaves.
- Do not let other people or animals step in within 5 m range of this unit.
- Do not place your hands near the blade. There is a risk of cutting off your fingers.
- Wear the protections gloves goggles and ear protectors for the operation in order to prevent an unwilling disaster.
- Stop the engine before refueling the machine.
- Stop the engine immediately when you notice the abnormal behavior on the unit.
- When you stop the operation or move to another place, turn the engine off and put a blade cover on.



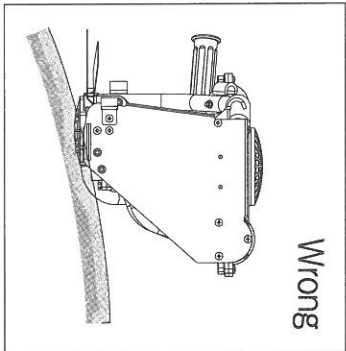
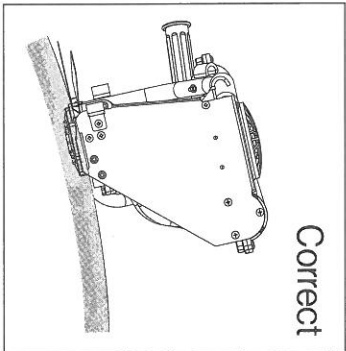
WARNING

NOTICE

- Do not use the unit for pruning or other cutting of foliage thicker than about 3 mm. It may break.
- If there are metal supports or nets in the field for picking, remove them before work.

6.1 Picking operation

1. Attach the Collection bag to the unit.
 2. Start the engine.
 3. Increase the engine speed to set the blade in motion.
 4. Push the unit forward to pick up leaves while watching the length of the cut object.
 5. Stop the engine before the housing bag gets filled. Remove the housing bag from the unit, then take the leaves out.
- Adjust the engine speed as low as possible, which allows a smooth stream of the picked leaves toward the Collection bag.
 - Move the blade of the unit along the shape of the object. (Facing the blade too sharply toward the object results in the bad shape and efficiency.)
 - Be sure not clip the same spot twice. (Clipping the same spot repeatedly increase the number of chopped leaves.)



6.2 Cautions at operation

1. Adjust the engine speed as low as possible, which allows a smooth stream of the picked leaves toward the housing bag.
2. If some object is stuck in the blade, stop the engine immediately. Be sure to wear gloves before you remove the stuck object.
3. This unit is designed for clipping the tea leaves. Do not use this unit for clipping those that may put too much pressure on the blade. It causes a severe damage on the blade.

6.3 Caution at moving or transportation

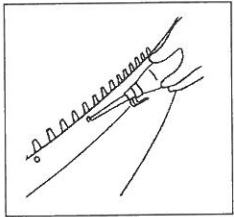


CAUTION

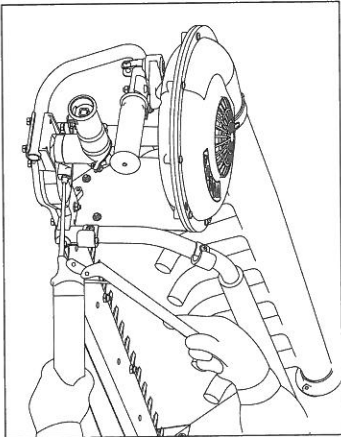
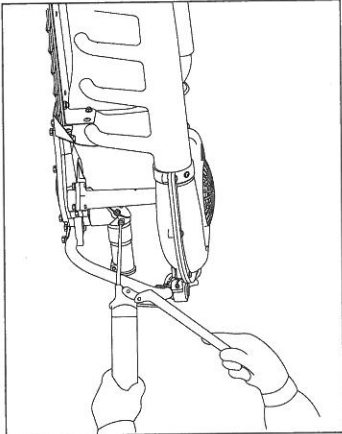
- Attach the blade cover to the blade when you move or transport the unit.
- Wear gloves before you attach the blade cover.
- When you transport the unit on the truck, fix the unit by its handlebar and frame securely to the truck with a strong rope.

6.4 Preventing breakdowns

1. Lubricate the blade every time you fuel the unit.



2. Apply grease through the grease nipple approximately every 15 hours of operation.



3. Take a short rest before and after fueling.

4. After every 25 hours of operation, withdraw the flexible shaft from the tube and apply grease to it.

5. Do not bend the flexible shaft and tube sharply while using the machine. (The tube and shaft could become damaged.)

[7] CHECK AND MAINTENANCE

Skipping checks and maintenance of the unit may cause an accident. Keeping the unit in its proper condition is important for safety. If a problem is found, promptly have the dealer repair the unit, and do not use it until repairs are complete.



WARNING

- When checking and maintaining the unit, stop the engine and wait for the engine to cool, and then remove the spark plug cap. Doing otherwise may cause accidents such as burns and sudden engine starting.
- When adjusting the unit, hold the machinery secure.
- Do not work with bare hands. Always wear gloves.
- If you have trouble adjusting the unit yourself, have the dealer do it for you.



CAUTION

Make sure not to get fingers or such caught. Always reinstall covers before using the unit. Fasten securely all nuts and bolts that were loosened.

7.1 Check and maintenance guidelines

		Before starting	After work, or daily	When refueling	50 hours	100 hours	150 hours	Annually	When broken	When damaged	As necessary
Blower	visual examination		○								○
	clean	○		○							
Air duct	adjust	○			○						
Throttle wire	adjust	○				○					
Loose bolts, etc. ※1	Tightening	○									○
	clean		○								
Blade	lubricate	○		○							
	adjust				○				○		○
Peeling wiring cords and sheaths	exchange									○	
CAUTION label and WARNING label	exchange									○	

※1 Except bolts for adjustment

To maintain the performance of the unit, regularly have it checked by the dealer and replace parts as necessary.

NOTICE

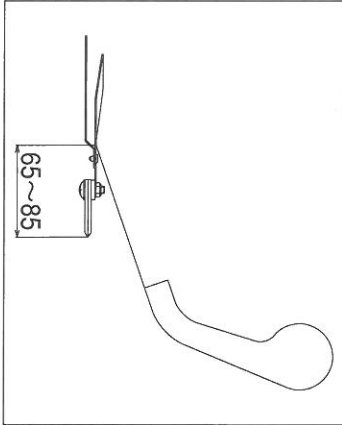
The above regular check table applies to normal work conditions. If the work environment is poor (e.g. extremely dusty), or if the daily work period is unusually long, shorten the intervals indicated in the table accordingly.

Cleaning of Blower

If dust is accumulated in fan inlet, blow capacity will be reduced. Put it off inside by removing fan cover in the bottom of Blower.

Adjustment of Air duct

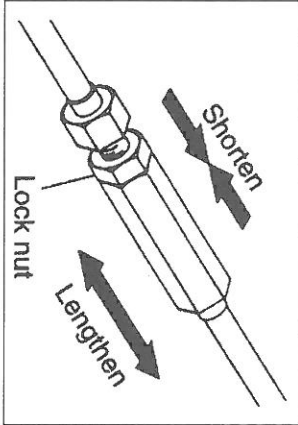
If the machine become clogged with tea leaves or it stops providing a clean cut, check whether the air duct is positioned correctly. Air duct must have correct direction. If the direction is changed by outer accident, correct it as the illustration. If blow duct is oppressed and left alone, its shape and the direction will be changed. Therefore, never oppress it.



NOTICE	<ul style="list-style-type: none">• Do not press the air duct. If the duct is left that way, it may deform permanently or its direction alters.• If you find any abnormality, ask your retailer or a service factory for repair.
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Adjustment of Throttle wire

If the engine stop or the clipper continues moving when the throttle lever is moved to the fully closed position, adjust the length of the throttle wire by turning the throttle wire adjuster as necessary.

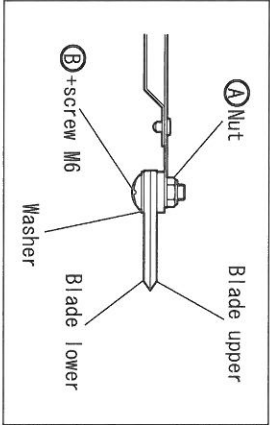


Clearance adjustment of blades

Blades are worn out by long time working. If plucked figure in plantation becomes bad, make adjustment as follows.

1. Loosen nut ①
2. Tighten ② lightly and turn back 1/2-3/4 by plus driver.
3. Tighten nut ①
4. After adjustment, coat lubricant oil Blades.
5. Start engine and drive blades for one minute at highest speed.
6. To check the temperature, touch nut immediately after engine stops.

If the temperature is moderate, clearance is in normal condition.
If the temperature is too high to touch nut, turn back a little and repeat article to adjust.



[8] LONG-TERM STORAGE

Wipe off the mud, dust, etc. on the unit with a dry cloth, put the unit in the container box, and then store it in the place at low humidity.

NOTICE	Read the engine's instruction manual for further engine operation.
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