

Tea Harvester

# V8-World

Instruction manual



MANUFACTURING: OCHIAI CUTLERY MFG. CO., LTD.

**OCHIAI CUTLERY MANUFACTURING CO., LTD.**

58 NISHIKATA KIKUGAWA-CITY, SHIZUOKA-PREF, 439-0037 JAPAN  
PHONE: 0537-36-2161 ~8 FAX: 0537-35-4643  
Home page <http://www.ochiai-1.co.jp/> E-mail [info@ochiai-1.co.jp](mailto:info@ochiai-1.co.jp)

## 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

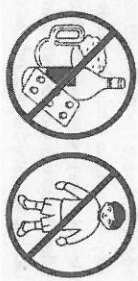
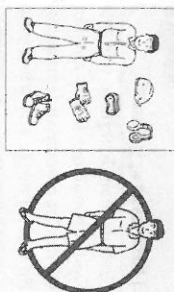
- Use this unit only for tealaf picking. Do not use this unit for any other purposes.
- Do not use this unit if this unit is in poor maintenance. Do not modify this unit for other purposes other than tealaf picking.

## 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 Describes a condition in which failure to follow the instructions or heed warning will most likely result in serious personal injury or death.
	WARNING Describes a condition in which failure to follow the instructions could result in severe personal injury.
	CAUTION Identifies safe operating practices or indicates unsafe conditions that could result in personal injury.
IMPORTANT	Indicates specific procedures or information that is required to prevent damage to the machine or attachment.

**(8) Limitations and restrictions**

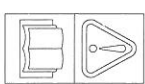
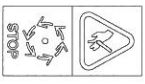
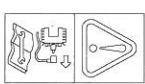




The V8-World has specifically been designed for tealaf picking.

IMPORTANT	<ul style="list-style-type: none"><li>• Do not use the unit to cut material with diameter over 3mm. This may cause damage to the blades and/or transmission.</li><li>• 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.</li><li>• Use the unit only for activities as outlined in the instruction manual. Other use is prohibited.</li></ul>		
-----------	--	--	--

	WARNING Switch the engine OFF before doing any the following. <ul style="list-style-type: none"><li>• Change, adjustment, oiling and cleaning of the blades, repair and maintenance.</li><li>• Installation and change of the collection bag.</li></ul>		
---	--	--	--

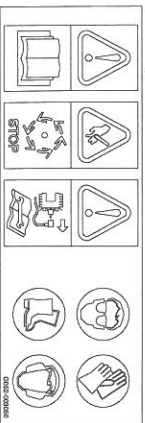
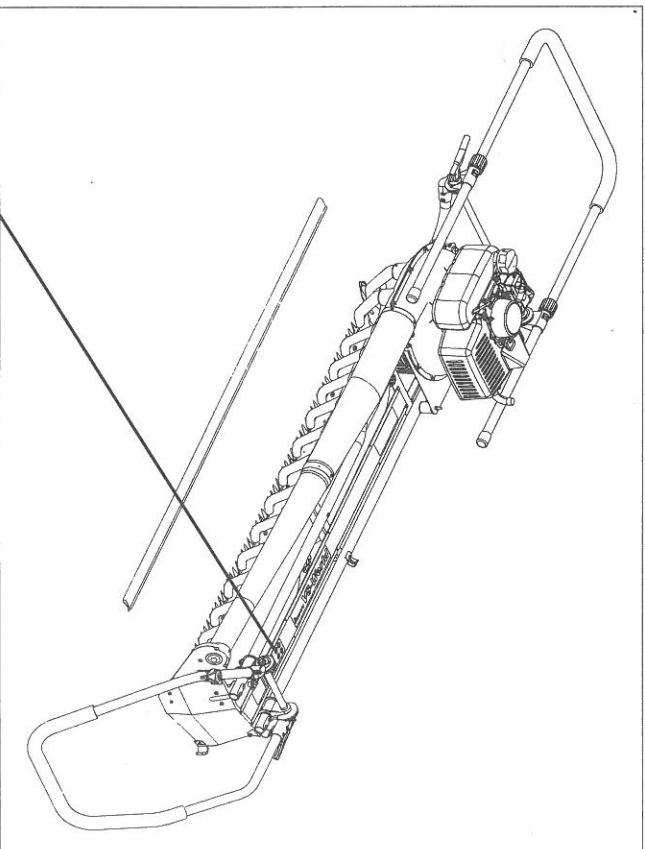
**Warning pictograms**

IMPORTANT	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.		
-----------	---	--	--

PICTGRAM	MEANING	PICTGRAM	MEANING
	Attention! Read the user manual before operation.		Attention! Danger of being cut by rotating blades. Wear protective gloves.
	Attention! Loosen sparking plug before maintenance.		Safety goggles obligatory.
	(Vibration) muffling gloves obligatory.		Safety shoes obligatory.
	Hearing protection device obligatory.		

(9) 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.

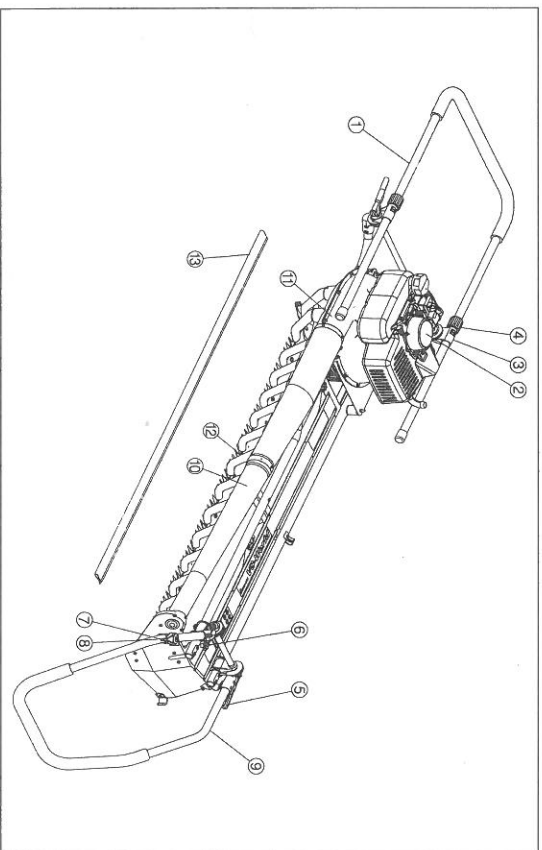


Code	Name
G052-003050	Caution label

## CONTENTS

1. MACHINE CONSTRUCTION AND NAME OF EACH SECTION .....	7
2. DRIVE OF ENGINE .....	9
3. WAY OF OPERATION .....	10
4. MAINTENANCE AND CHECKING .....	12
5. CAUTION IN HANDLING .....	14
6. LONG PRESERVATION .....	14
7. PROBLEMS ON PLUCKING MACHINE .....	15
8. PROBLEMS ON ENGINE .....	16
9. SPECIFICATIONS .....	16

# 1. MACHINE CONSTRUCTION AND NAME OF EACH SECTION

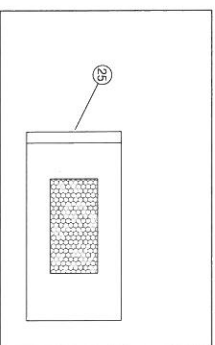
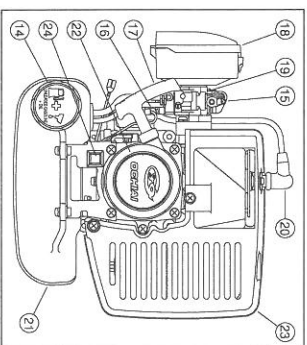


## 1.1 Main Unit

- ① U Handle Assy
- ② Engine
- ③ Slide fixture
- ④ Handle nut
- ⑤ Handle lever
- ⑥ Clutch lever
- ⑦ Engine switch
- ⑧ Throttle lever (UPPER)
- ⑨ Throttle lever (LOWER)
- ⑩ Handle
- ⑪ Blow duct
- ⑫ Fan case
- ⑬ Blade
- ⑭ Blade cover

## 1.2 Engine

- ⑭ Fuel tank cap
- ⑮ Choke lever
- ⑯ Primer button
- ⑰ Starter knob
- ⑱ Air cleaner
- ⑲ Carburetor
- ⑳ Spark plug cap
- ㉑ Fuel tank
- ㉒ Recoil starter
- ㉓ Muffler (Muffler cover)
- ㉔ Engine switch



## 1.3 Accessories

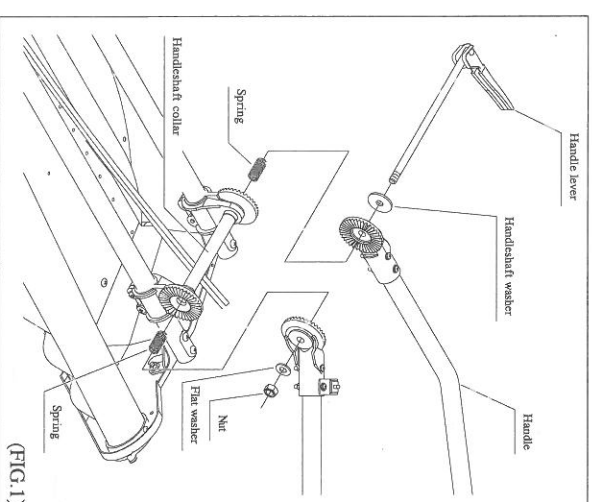
- ㉕ Collection bag
- Instruction manual (for this unit)
- Engine tool
- Instruction manual (for engine)

## 1.4 Handle ⑨ Installation

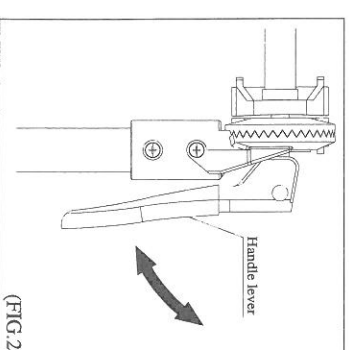
The Handle ⑨ is not installed to the 1600-size of the V8-World. Install the Handle ⑨ before use.

	<b>WARNING</b>
Stop the engine when installing the Handle. Failure to do so can cause severe injury or death.	
	<b>WARNING</b>
Wear the protective items such as gloves for the operation in order to prevent an unwilling disaster.	
	<b>CAUTION</b>
Do not operate the Handle with the unit floating. It can cause the unit to fall down and result in personal injury or damage to the unit.	

- (1) Assemble the components into the Handle as shown in the right figure. (See FIG.1)
- (2) Tighten the Nut four or five turns to secure the Handle with the Nut. Hold the Handle lever securely so that it will not turn when tightening the Nut.
- (3) Check that the Handle lever can be moved in the arrow directions. (See FIG.2)



(FIG.1)



(FIG.2)

## 2. DRIVE OF ENGINE

### 2.1 Fuel

Use the lubricated gasoline. Mixture ratio of the gasoline to lubricating oil is 25 (gasoline): 2 (oil). Use the lubricated gasoline with the mixture ratio 20 (gasoline): 1 (oil) for the first 10 operation hours after the purchase.



**DANGER**

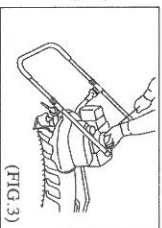
Follow the instruction of "Fire hazards" in "For Safety Operation" when you perform the fueling.

**CAUTION**

- Use exclusive mix oil for 2 cycles engine.
- Pay attention to put no dust into fuel tank.
- Pay attention not to spill the fuel.

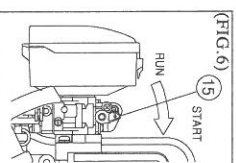
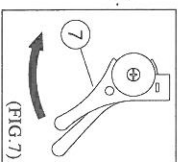
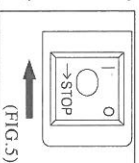
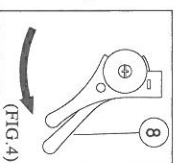
### 2.2 Cautions at Starting the Engine.

- (1) Check if there is no person around.
- (2) When you start the engine, direct the blade<sup>⑫</sup> toward your opposite, hold the unit with one hand to make it stable, then pull the starter knob<sup>⑪</sup>. (See FIG. 3).



### 2.3 Starting the Engine

- (1) Remove the blade cover<sup>⑬</sup> from the unit.
- (2) Set the throttle lever<sup>⑧</sup> at the slow speed position. (See FIG. 4).
- (3) Repeat pressing the priming button<sup>⑯</sup> with finger until it stops at the top [10 times or more]
- (4) Turn the engine switch<sup>⑥</sup> to the "1" position. (See FIG. 5).
- (5) Rotate the choke lever<sup>⑮</sup> to the "START" position. (See FIG. 6). If you restart the engine immediately after the engine stops, shift the choke lever to "RUN" position.
- (6) Hold the unit firmly, then pull the starter knob<sup>⑪</sup> mightily.
- (7) Please note that the choke lever<sup>⑮</sup> will return to "Run" position automatically when the throttle lever is operated and the throttle is opened. Run the engine for approximately 2 or 3 minutes at moderate speed before applying full speed.

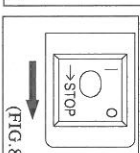
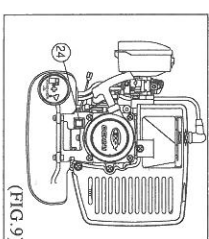


### 2.4 Motion of blade

When clutch lever<sup>⑦</sup> is drawn, blade<sup>⑫</sup> moves. (See FIG. 7). When it turned back, blade stops.

### 2.5 Way of stop

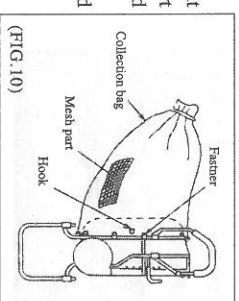
- (1) Set the throttle lever<sup>⑧</sup> at the slow speed position. (See FIG. 4).
- (2) Turn the engine switch<sup>⑥</sup> to the "O" position. (See FIG. 8).
- (3) In case of the engine switch<sup>⑥</sup>, keep pressing the push button till the engine stops completely. (See FIG. 9).
- (3) When there is no subsequent work, drain the fuel from the fuel tank and restart the engine to use up the fuel remaining in the carburetor.



## 3. WAY OF OPERATION

### 3.1 Installation of collection bag

- (1) There are fasteners and a hook for collection bag<sup>⑳</sup> 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. (See FIG. 10).



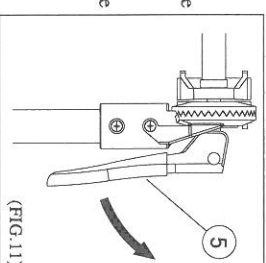
**IMPORTANT**

- 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.

### 3.2 Adjusting handles

#### 3.2.1 Height Adjustment of handle<sup>⑨</sup>

- (1) The height adjustment of handle<sup>⑨</sup> can be obtained by moving the handle lever<sup>⑤</sup> in the direction shown by an arrow. (See FIG. 11).
- (2) Adjust the handle<sup>⑨</sup> to your desired height.
- (3) Return the handle lever<sup>⑤</sup> to the original position. Ensure that the handle<sup>⑨</sup> is fixed.



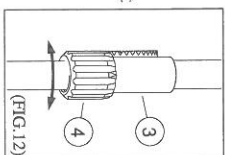
**CAUTION**

Do not operate the handle lever<sup>⑤</sup> with the unit floating. It can cause the unit to fall down and result in personal injury or damage to the unit.



### 3.2.1 Usage of Sliding adjuster

- (1) Release by turning the knob clockwise or counterclockwise.
- (2) U Handle Assy① to your desired height and position.
- (3) Fix by turning the knob clockwise or counterclockwise. (See FIG. 12). Ensure that the U Handle Assy① is fixed.

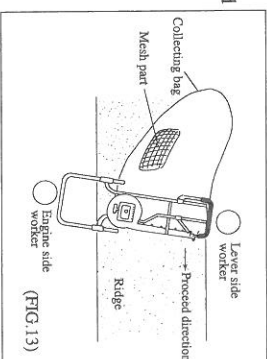


**CAUTION**

Ensure that the knob is securely tightened.  
It can cause the unit to fall down and result in personal injury or damage to the unit.

### 3.3 Working condition

The worker in the engine side had better proceed slightly behind the worker in the lever side. (See FIG. 13).



**WARNING**

- Do not let other people or animals step in within 5 m range of this unit.
- Wear the protective items such as gloves for the operation in order to prevent an unwilling disaster.

**CAUTION**

- Due to the noise from the machine, you will have difficulty hearing ambient sound clearly.
- Stop the engine immediately when you notice the abnormal behavior on the unit.

**IMPORTANT**

Generally speaking, high speed drive can get a high capacity and good figure after plucking. But high speed drive consumes more fuel and decreases machine life. Therefore, avoid high speed drive as possible as you can.

**Note:** Do not allow cuttings to gather around the fan casing or its plastic mesh. This can lead to ingestion of cuttings, clogging the cooling air to the engine and engine seizure!

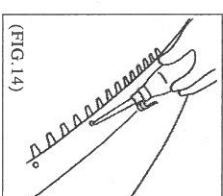
If cuttings do gather at plastic mesh, stop the power head and clear cuttings away immediately! The rubber bung at the left hand end of the air distribution tube can be removed, engine started and revved to blow out any residue in the tube. If you are satisfied there is no clogging in the fan casing or distribution tube, refit bung and carry on harvesting.

## 4. MAINTENANCE AND CHECKING

### 4.1 Way of oiling

#### 4.1.1 Oiling to blades

Blades need lubricant as they move with high speed. (See FIG. 14).  
Lubricate the blade every time you fuel the unit.



**WARNING**

Do not place your hands near the blade.  
There is a risk of cutting off your fingers.  
Wear the protective items such as gloves for the operation in order to prevent an unwilling disaster.

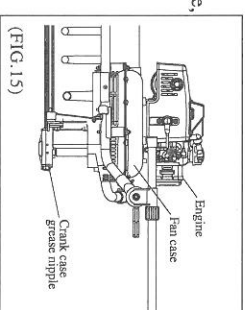
**CAUTION**

Start working after wiping off protruded and scattered oil.

#### 4.1.2 Greasing to crank case

Greasing is done by grease pump. (By taking off the grease nipple, greasing can be done with tube only.) (See FIG. 15).  
Greasing interval and quantity are as follows.

Interval: Every 20 hours  
Quantity: Until appearing old grease near the blade in front of crank case.



**IMPORTANT**

- Use Ochiai's original grease without fail.
- There is the case that the other grease lack lubricant ability remarkably.
- Please order Ochiai's grease.

### 4.2 Clearance adjustment of blades

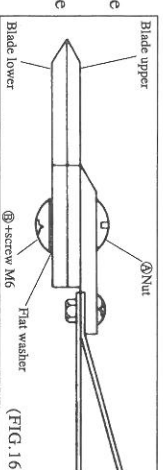
Blades are worn out by long time working. (See FIG. 16).

If plucked figure in plantation becomes bad, make adjustment as follows.

- (1) Loosen nut ①
- (2) Tighten② lightly and turn back 1/2-3/4 by plus driver.
- (3) Tighten nut ②

- (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 nut③ immediately after engine stops.

If the temperature is moderate, clearance is in normal condition.  
If the temperature is too high to touch nut③, turn back ③ a little and repeat article (5) to adjust.





- Stop the engine first, and then make an adjustment on the blade.
- Hold the unit securely when you operate the unit.
- Do not operate the unit with bare hands.

#### IMPORTANT

- If dust can be found in the long holes which exist in the circumference of blades, wipe it out completely.
- If you find any abnormality, ask your retailer or a service factory for repair.

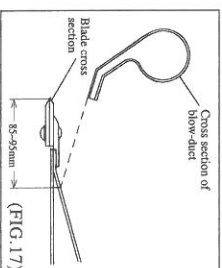
#### 4.3 Blow duct

Blow duct<sup>⑩</sup> must have correct direction. (See FIG. 17).

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.



#### IMPORTANT

- 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.

#### 4.4 Cleaning of blow line

##### 4.4.1 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 fan case<sup>⑪</sup>.

##### 4.4.2 Cleaning of blow duct<sup>⑩</sup>

As narrow section of blow duct is apt to have easily dust inside, put it off by removing white rubber cap in the duct end.

#### 4.5 Clearance adjustment of blades

- (1) Check for damage on each section of the engine, loosened screws and fuel leakage.
- (2) If an abnormality is found, stop cutter operation, and contact the outlet from which the cutter was purchased. When replacing parts, they must be replaced with those designated by Ochiai.
- (3) Remove the air cleaner cover and clear away clogged leaves and twigs.
- (4) Remove the air cleaner element, wash it with composite fuel, squeeze it firmly, and then put it back in its original place.
- (5) Remove the plug and clean the electrodes with a brush.



Follow the instruction of "Fire hazards" in "For Safety Operation" when you perform the check and maintenance of the engine.



Do not perform the check and maintenance of the engine while the engine is hot. Otherwise you may get burned.

#### IMPORTANT

If you find any abnormality, ask your retailer or a service factory for repair.

## 5. CAUTION IN HANDLING

- Do not a heavy shock during transportation.
  - Do not leave it alone stocked with thinner and gasoline as rubber and plastic section in machine is easy to be damaged by them.
  - This machine is designed only for tealeaf picking. Never use for the other purpose.
  - Caution during engine working.
    - Do not put hands or clothes close by the air inlet.
    - Even if clutch lever turns back, never touch blades, pulley, drive belt etc...
    - Do not touch spark plug cap<sup>⑫</sup> or lead wire connector.
    - As engine cylinder and muffler etc. have high temperature, never touch them.
- (Note that they do not cool down in a short time.)
- Do not add fuel during driving.

## 6. LONG PRESERVATION



#### DANGER

Follow the instruction of "Fire hazards" in "For Safety Operation" when you perform the check and maintenance of the unit.



#### CAUTION

Attach the blade cover when you do not use the unit.

#### 6.1 Engine side

If you do not use the engine<sup>②</sup> for more than a month, follow the procedure below to remove the fuel so as not to cause a start-up malfunction or running malfunction due to fuel alteration, and then store it in the place at low humidity.

- (1) Drain the fuel from the tank<sup>②</sup> through the fuel inlet. Remove the fuel from the carburetor by pressing the primer button<sup>⑬</sup>.
- (2) Remove the ignition plug, inject about 2 ml of engine oil, then pull the starter knob<sup>⑭</sup> of the recoil starter<sup>⑮</sup> gently for 2 or 3 times, and then fix the ignition plug by tightening.
- (3) Pull the s tarter knob<sup>⑭</sup> slowly, then stop pulling when you feel heavy (at the compression point), and then leave the tarter knob<sup>⑭</sup> at that position.

#### 6.2 Unit side

- (1) Adjust articles 4.1.1, 4.1.2, 4.4, 4.5.
- (2) Confirm all screw if they have no looseness.
- (3) 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.



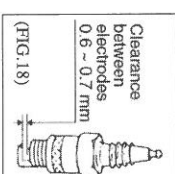
## 7. PROBLEMS ON PLUCKING MACHINE

Conditions	Causes	Procedures
Plucked style is not good.	1. Slow movement of blade 2. Clearance between upper and lower blade is wider.	1. Engine speed up. 2. Adjustment of 4.2.
Capacity is not enough. Leaf stops up inside machine.	3. Direction of blow duct is not correct. 1. Less blow capacity. 2. Direction of blow duct is not correct. 3. Dust accumulates in blow line. 4. Bottom frame surface becomes dirty.	3. Adjustment of 4.3. 1. Engine power up. 2. Adjustment of 4.3. 3. Adjustment of 4.4 4. Clean up with wet cloth.
Slow movement of blade.	1. Lack of lubricant on blades. 2. Lack of lubricant inside crank case. 3. Dust between blades or long holes. 4. Blade clearance is too tight.	1. Do oiling 4.1.1. 2. In case of slightly lack, do oiling 4.1.2. 3. Remove dust. 4. Adjustment of 4.2.
Problem of clutch on, off.	1. Clutch cable is away from fixture. 2. Lack of clutch adjustment. 3. Drive belt is released from right position. 4. Damage of drive belt.	1. Fix cable. 2. Adjust by screw in the middle of cable. 3. Put drive belt in right position. 4. Replace with new drive belt.

## 8. PROBLEMS ON ENGINE

In case of problem on engine, confirm the following adjustment.

- (1) Fuel  
New fuel, dust free fuel has correct mix ratio.
- (2) Fuel piping and carburetor
  - No damage in fuel pipe.
  - No leakage from fuel pipe.
  - Clean carburetor inside.
- (3) Spark plug  
No dust on plug.  
Clearance between electrodes is 0.6-0.7mm. (See FIG. 18).
- (4) Electric wiring outside of engine.  
No breakage on lead wire connection plug.
- (5) Abnormal on stop button.  
Confirm by starting engine after putting of connecting plug of stop button.  
(In this case, do not touch lead wire plug in engine side.)



**IMPORTANT**  
Adjustment inside carburetor has been made before shipment.  
Do not adjust by yourself.

## 9. SPECIFICATIONS

Model	V8-World (1210)	V8-World (1400)	V8-World (1600)
Clipping width	1,210mm	1,420mm	1,630mm
Clipping speed	1,700c.p.m	1,700c.p.m	1,700c.p.m
Machine length	490mm	490mm	490mm
Machine width(minimum)	1,580mm	2,070mm	2,280mm
Machine width(maximum)	2,450mm	2,960mm	3,170mm
Machine height	500mm	500mm	500mm
Weight	13.3kg	17.0kg	18.1kg
Engine	2 stroke cycle gasoline engine (41.5cc)		

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

