

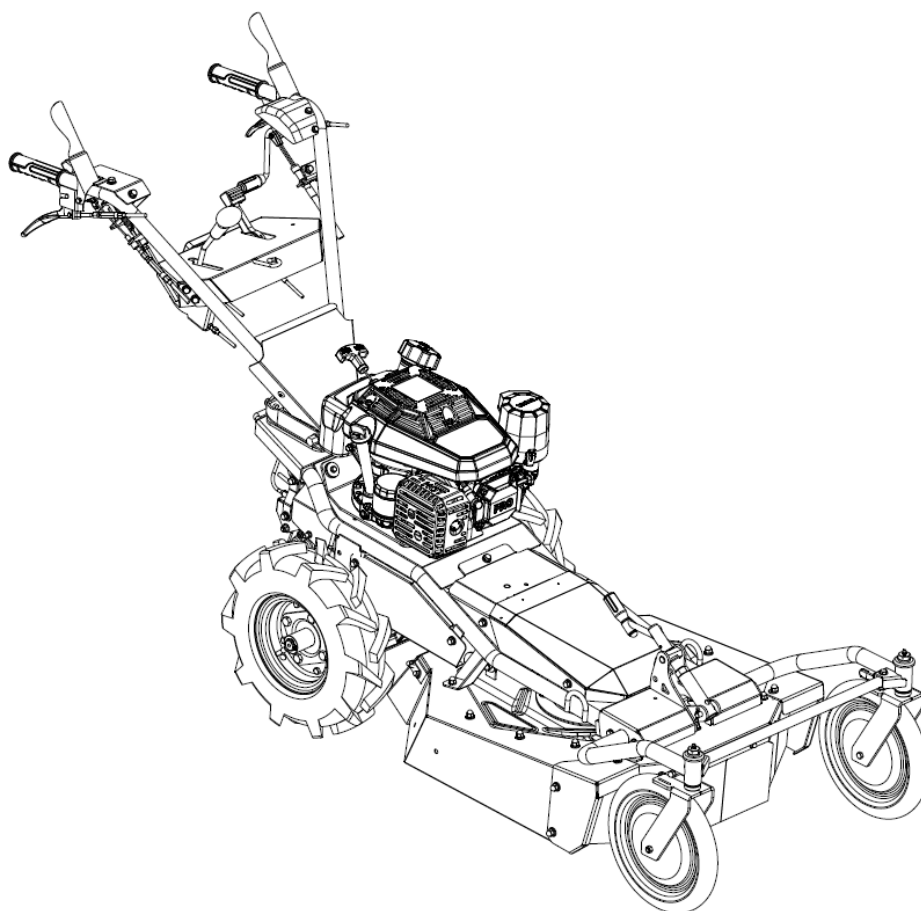
INSTRUCTION MANUAL

EN



OREC

Grassland walk behind mower
SR600



Read this instruction manual carefully before any use of the machine, keep it as a reference. For any question about this manual, please report to your OREC dealer or to the distributor of your country or to :<https://www.orec-jp.com>.

Update : November 2024

Only the English version of this manual can be used as a reference."

INTRODUCTION




About manual

- Read this manual before the use of the machine.
- If you are lending or transferring this machine, be sure to give this manual along with the machine.
- If this manual is lost or damaged, please order directly from the dealer.

Getting started

- ✓ Thank you for purchasing this product.
- ✓ This instruction manual explains the correct handling methods and simple maintenance methods to keep this product in the best condition and to work safely.
- ✓ Be sure to read this instruction manual carefully before use, fully understand the safe operation and correct handling methods, and use it for safe and efficient work.
- ✓ After reading, take it out and keep it in a safe place so that you can refer to it at any time. If it is lost or damaged, purchase it from the retailer or download it from the website.

Definitions and Symbols

Symbol	Definition
 DANGER	Indicates danger that causes serious injury or death if the right precaution is not taken.
 WARNING	Indicates risk that is likely to cause serious injury or death if the right precaution is not taken.
 CAUTION	Indicates risk that might cause injury if the right precaution is not taken or that might cause damage on the product.
TIP	Indicates useful hint for operation and maintenance of the product, and to avoid faulty operation.

All along this manual, the words DANGER, WARNING, and CAUTION are used with the “ safety/warning ” pictogram (triangle with an exclamation mark) in order to indicate a hazard for your safety.

Machine regulations

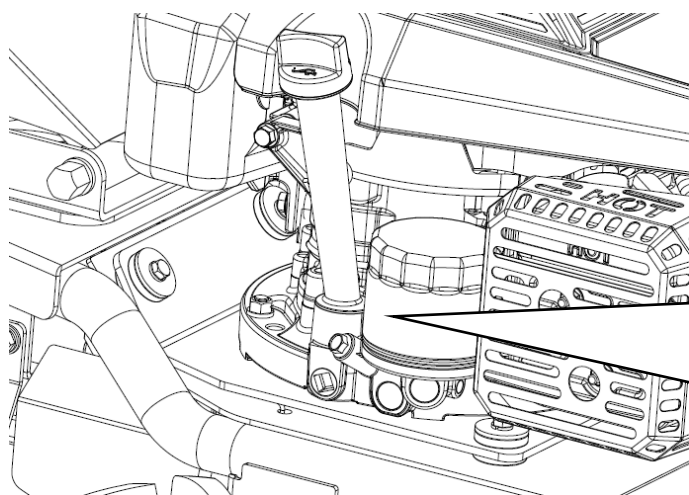
- 1) This product has been developed as a special machine exclusively for agricultural workers, so please do not use it for any other purpose (rental, etc. where the operator cannot be identified). It may not be covered by the warranty.
- 2) It may not be possible to cut grass such as ivy and vines that grow on the ground.
- 3) This machine has a seating capacity of 1 person. Also, you cannot drive on roads or places used for general traffic (farm roads, forest roads, public squares, etc.).
- 4) Even if you obtain a vehicle number, you cannot drive on public roads.

Important notice

- 1) Please note that due to changes in parts, etc. due to performance/durability improvements and other specification changes, the product specifications you have and the contents of this document may not match in part.
- 2) Please note that copying part or all of the contents of this book without permission is a copyright violation, except in cases stipulated by law.
- 3) This book uses photographs and illustrations to help you understand the explained parts, but parts other than the explained parts may be omitted from the display.
- 4) Only the English version of this manual can be used as a reference, and other languages are the translations.

Warranty/Contract/Disclaimer

- 1) Certificate of conformity and warranty information is mentioned at the end of this manual book. Please be sure to carefully read and understand the warranty terms and conditions.
- 2) If you do not understand even after reading this manual, do not operate the product without permission, but be sure to consult the dealer where you purchased the product (hereinafter referred to as dealer).
- 3) Regular inspections and maintenance are essential to continue using the product safely and efficiently.
- 4) Be sure to request regular inspection and maintenance from your dealer (charges apply) at least once a year as listed in the “MAINTENANCE CHART”.
- 5) Breakdowns and accidents caused by failure to perform these inspections and maintenance, use beyond specifications, modification, or failure to follow this manual are not covered by the warranty.
- 6) The supply period of repair parts for this product is 9 years after discontinuation of production. However, even within the supply period, we may consult with you regarding delivery dates, etc. for special parts.
- 7) If you have any questions or concerns regarding services, please contact your dealer. In that case, please refer to the section below to check the product model, serial number, and model name of the installed engine (engraved or affixed to the engine body) and contact the dealer.



OREC CO.,LTD. MADE IN JAPAN
548-22 HIYOSHI HIROKAWA-MACHI
YAME-GUN FUKUOKA JAPAN

YEAR _____

TYPE _____

SERIAL No. _____

POWER _____ KW

WEIGHT _____ KG

GRASSLAND MOWER



Instructions to the dealer

The assembly, the installation and the first application of the machine is under the OREC dealer's responsibility. Read the instruction manual as well as the safety measures. Check that all the before delivery and at delivery check points specified in the following lists have been verified and possibly modified before delivering the machine to its owner.

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1. INSPECTION BEFORE USE

1.1 Working conditions

WARNING

- 1) Do not operate this machine without fully understanding this manual. Also, this product is for one person only. Do not allow people other than the worker or animals to ride on the vehicle.
- 2) As a general rule, it should not be used by anyone other than the owner. If you have no choice but to lend the machine to someone else, explain how to use it, carefully read the instruction manuals for the machine and the engine (relevant products), and fully understand the handling methods and safety points before starting work.
- 3) Do not work if you are unable to operate normally due to overwork, illness, drugs, or other influences.
- 4) Individuals who are pregnant, too young to understand instructions, or untrained, should never operate this machine.
- 5) Always wear appropriate clothing; no loose or hanging clothes. Non-slip boots and protective gear are always recommended to prevent injury from rotating parts.
- 6) Use proper protection gear such as non-slip shoes, helmet or winter hat, shin guards, safety glasses, gloves and safety jacket depending on the product.
- 7) This product is not certified for the use in public roads, so please do not drive it on public roads.

1.2 Condition before use

Cautions before use

DANGER

Exhaust gas may cause gas poisoning. Do not operate or work in areas with insufficient ventilation such as indoors.

WARNING

- 1) Never modify this machine in a way that will impede safe work (cutting covers, installing non-genuine parts, using unspecified belts and oil, removing safety devices, etc.). We cannot be held responsible for any accidents or malfunctions caused by these modifications.
- 2) Please make sure that there are no people, animals, vehicles, equipment, buildings, or other tangible assets nearby. Also, be sure to check the safety of your surroundings, and do not approach dangerous areas such as obstacles in the field, side ditches, and weak road shoulders, or places that require caution.
- 3) Remove stones and other foreign objects in advance. If there are obstacles that cannot be removed, please set up caution signs or safety fences indicating areas where work is prohibited before starting work. Also, in such fields, for safety reasons, mow higher than usual in order to avoid the danger as the blade may chip or foreign objects such as stones may fly off.
- 4) Please remove any rocks, metals, or other objects that could generate sparks when the blade comes into contact with them beforehand. If you cannot remove it, please set up a conspicuous mark so that people do not approach it.
- 5) When mowing dry grass, check and clean the areas around the engine and exhaust pipe, which are subject to high temperatures, once every hour to ensure that no grass debris has accumulated.
- 6) Dry grass can catch fire due to natural combustion or external fire. When mowing dry grass, please appoint a work supervisor other than the worker to constantly monitor the work.
- 7) Please be especially careful when mowing when a dry weather advisory has been issued, and in some cases, avoid mowing.
- 8) To prevent falls, when driving over rivers, cliffs, or steps (road shoulders), please consider the risk of road shoulders collapsing and falling, and drive on sufficiently safe flat ground.
- 9) It is dangerous to use machine when it is dark or when visibility is poor. Do not use it when you cannot fully understand the surrounding situation.

CAUTION

- 1) Avoid using the machine in conditions where it will be exposed to large amounts of water, such as during rainy weather or in puddles.
- 2) Please be aware of other weather conditions, etc., and give due consideration to work decisions and equipment selection.

Inspection/checks before operation

WARNING

- 1) Before starting work, be sure to confirm that any repairs found after the previous work have been completed and never begin work until the repairs are complete.
- 2) It is extremely dangerous to operate the machine without safety covers, as well as standard safety devices and related parts. To prevent accidents, be sure to use these parts with them attached. If there is an abnormality, repair it and make sure it is in normal condition before starting work.
- 3) When the work clutch (knife clutch, etc.) is in the "off" position, check to see if the V-belt is firmly stopped. If it is moving at all, stop the engine and adjust the belt holder and wire.
- 4) A falling blade is dangerous. Tighten the knife set bolt and nut firmly. Also, replace the old one with a new one.
- 5) If there is a cover for blade replacement, it is dangerous to use machine with it open. Be sure to use machine with the cover closed.
- 6) Be sure to check the effectiveness of the parking brake every time. Improper brake adjustment can lead to serious accidents. Please check one or more of the following
 - (1) With Sub change lever in N position, the parking brake does not move even if two adults push the machine.
 - (2) The parking brake is applied on slope not more than 16.7 degree and it does not move.
- 7) Carefully remove any grass that is clogged around the cooling air inlet, the cylinder, or the area around the exhaust pipe, which gets particularly hot. This may cause engine seizure or fire. Also, be sure to clean not only the outside but also the inside. Also, please clean the inside of the air cleaner and any grass debris accumulated on the HST fan cover (applicable product) at the same time.

No open flames / Refueling

DANGER

- 1) Fires are strictly prohibited around the machine, including during work and refueling. There is a risk of ignition or burns. Never smoke, bonfire, or use open flames near the machine.
- 2) Please refuel after the engine has stopped and the muffler temperature has cooled down sufficiently.
- 3) If the fuel level is marked with an upper limit mark, please refuel below the mark (even less if using on a slope). If you have added too much fuel, remove it until it is below the mark. Also, be sure to wipe up any spilled fuel.
- 4) Do not perform this operation while your body is charged with static electricity. Vaporized gasoline may ignite, leading to burns and fire.

During operation

WARNING

- 1) For your safety, please drive with plenty of time and avoid sudden starts, stops, or sudden turns.
- 2) Please do not work in an awkward position and take a break every 1 to 2 hours depending on your physical condition.

- 3) To prevent people (especially children) and pets from entering the work area (within a 15m radius), please place signs indicating that grass mowing work is in progress, guard ropes, and netting to prevent scattering, and do not allow people (especially children) or pets to come within a 15m radius. If people or pets approach, immediately stop work and stop the engine.
- 4) Do not leave flammable or dangerous objects around while driving. Also, the exhaust muffler becomes hot. If you touch the machine while operating it or immediately after finishing work, you may get burned.
- 5) When working on a slope, please use it when the slope is 20 degree or less(refer to "SLOPE GUIDE"). Try to work horizontally (contour line direction) rather than vertically. When working in the vertical direction, there is a risk of the machine slipping down or the worker's feet slipping and getting caught in the machine.
- 6) Even if you take sufficient precautions to prevent slipping, do not work in slippery areas.

Operational notes

WARNING

- 1) When starting, set the blade clutch to the "off" position, set the gear shift lever to the "neutral(=N)" position, and apply the parking brake before starting.
- 2) Be very careful when turning on slopes, etc. You may lose your balance and fall, causing injury.
- 3) For your safety, do not make any unnecessary operations on the speed lever or clutch lever while on a slope. There is a risk of slipping or falling.
- 4) When driving reverse, make sure there are no people(especially children), animals, or obstacles, and be careful of ground to avoid getting caught between machines or falling off cliffs or steps.
- 5) When working around trees or against walls, be careful not to get your body or hands caught between the machine and the support of a greenhouse, tree branches, iron wire, etc., or to be bruised or pinched by the branches.
- 6) When turning, be especially careful where you step and avoid getting caught in the working parts (blades) and running parts (crawlers).
- 7) When switching the mowing direction, check the safety in the front and back directions before doing so.
- 8) Before operating the blade clutch, make sure that there are no people(including children) or animals, and be careful about safety.
- 9) Foreign objects may fly around during work. The front of the machine is particularly dangerous, so do not point the front of the machine at people, animals, equipment, etc.

Inspection, stopping and cleaning during work

WARNING

- 1) If you collide with (get caught in) a foreign object while working, immediately stop mowing and stop the engine. Also, be sure to check the blade, blade bracket, and covers for looseness, chips, or bends, and tighten, correct, or replace them as necessary.
- 2) Carefully remove any grass that is clogged around the cooling air inlet, the cylinder, or the area around the exhaust pipe, which gets particularly hot. This may cause engine seizure or fire. Also, be sure to clean not only the outside but also the inside. Also, clean the inside of the air cleaner and the grass debris that has accumulated on the HST fan cover at the same time.

CAUTION

- 1) When inspecting during work, be sure to stop the engine, wait until all parts have cooled down, and wear durable gloves such as leather gloves to protect your hands and safety goggles.
- 2) When leaving the machine, be sure to stop the engine. Also, be sure to stop on stable, flat ground.
- 3) When stopping the engine, please do the following for the applicable product:
 - (1) Apply the brakes.
 - (2) Remove the key.
 - (3) Close the fuel cock
- 4) Abnormal noises, odors, or heat generation during operation may cause a fire, so stop the engine immediately and have it inspected and repaired.
- 5) If you notice any abnormalities during other work, be sure to stop the engine before performing inspection.

Warning labels

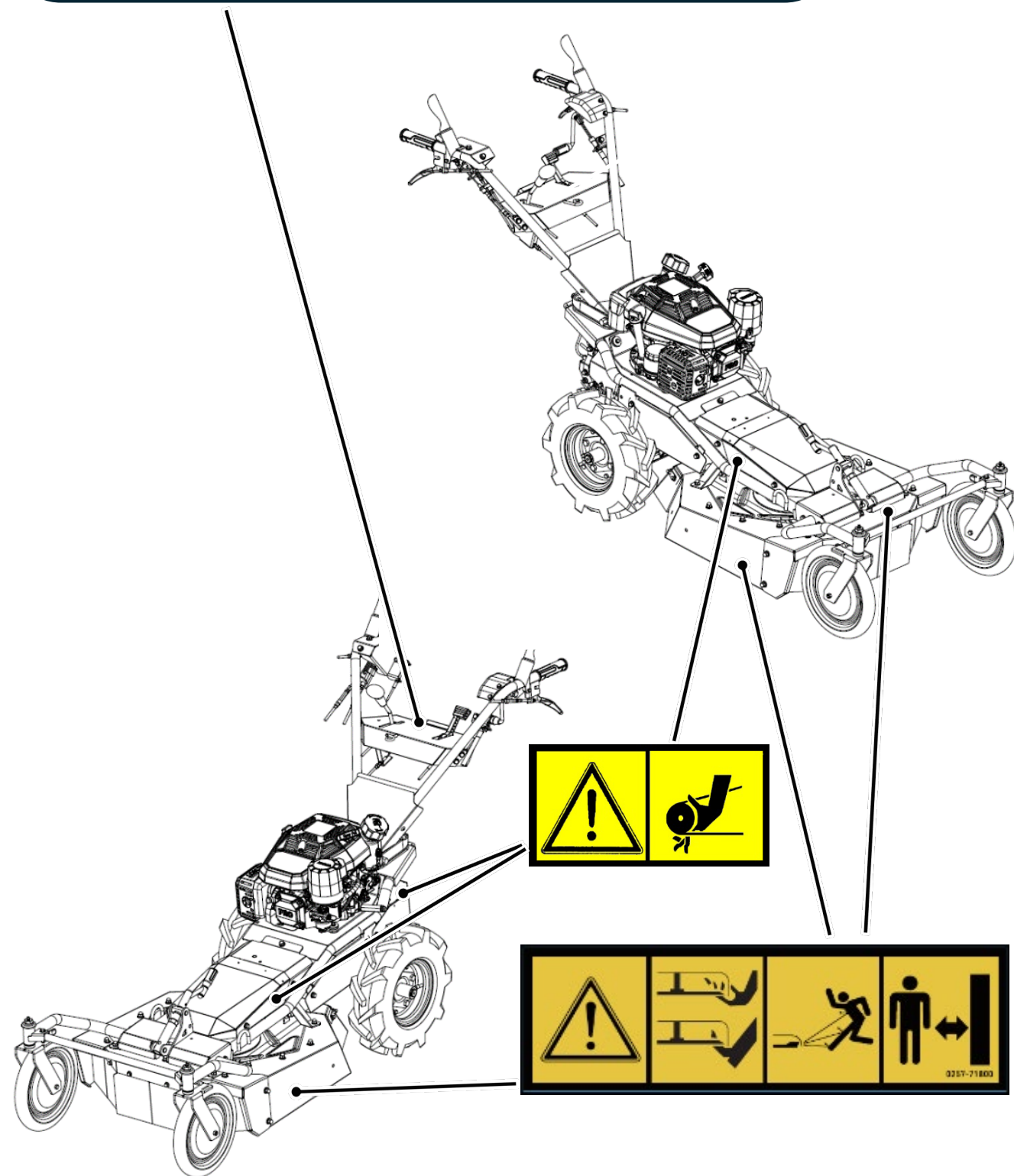
WARNING

- 1) Warning labels are carefully selected from among the important danger items listed in this section as being particularly important, and are affixed to the product. Please be sure to read, fully understand, and follow the instructions before use.
- 2) If the warning label becomes difficult to see, be sure to purchase the same one at the dealer and replace it so that it can be clearly identified at all times.

Label description of warning labels :

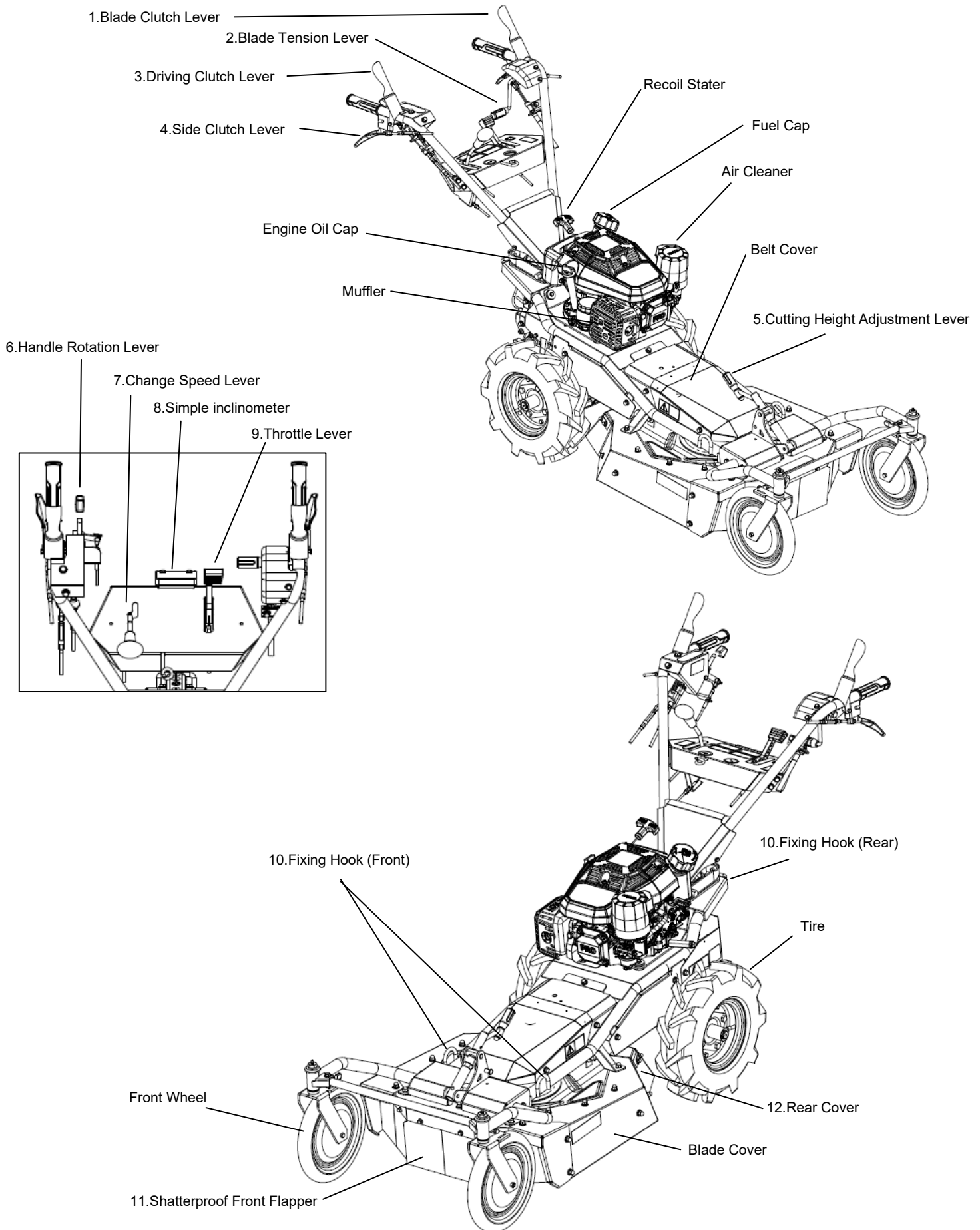
Note their location and replace them immediately in case of damage or when missing

 <p>Remove the spark plug wire before maintenance</p>	 <p>Beware of thrown objects</p>	 <p>Stay away from the machine</p>	 <p>Read owner's manual</p>
 <p>No hands under the mowing deck</p>	 <p>Beware of rotating parts under the shields</p>	 <p>Do not exceed 20° slope</p>	 <p>Always wear protective equipment against noise, dust</p>



2. MACHINE DESCRIPTION

2.1 MACHINE DESCRIPTION



2.2 FUNCTION OF EACH PARTS

2.2.1 BLADE CLUTCH LEVER

Lock the blade tension lever in the 'OFF' position in the normal position. Before operating the blade tension lever, the blade tension lever can be held together with the handle to put the blade tension lever in the 'ON' position.

If the blade clutch lever is released when the blade tension lever is in the 'IN' position, the blade tension lever is in the 'OFF' position.

2.2.2 BLADE TENSION LEVER

Interrupts the power from the engine to the blade. With the blade clutch lever held together with the handle, pulling up the blade clutch lever puts it in the 'ON' position and releasing the blade clutch lever puts it in the 'OFF' position.

In the 'OFF' position, the brake is applied and the blade stops briefly.

CAUTION

For safety reasons, always put the blade clutch in the "OFF" position when starting the engine or moving backward.

2.2.3 DRIVING CLUTCH LEVER

It interrupts the power from the engine to the transmission. A dead man's clutch lever is used, which is in the 'IN' position when the lever is held together with the handlebar and in the 'OFF' position when the lever is released.

2.2.4 SIDE CLUTCH LEVER

Used to change the direction of travel.

The machine turns in the direction in which the lever is held. (Hold right to turn to the right, left to turn to the left).

2.2.5 CUTTING HEIGHT ADJUST LEVER

Operates when adjusting the mowing height of the grass.

Turning the lever to the right lowers the mowing height (LOW) and turning it to the left raises it (HI)

CAUTION

If the mowing height is set too low, the following adverse effects may occur. If any of the following symptoms are observed, the mowing height is too low and should be increased.

- 1) **More stones and other foreign objects are scattered.**
- 2) **Mud is scraped off and scattered mud adheres to the inside of the knife cover, resulting in poor mowing grass discharge and unnecessary horsepower loss.**
- 3) **Premature wear and breakage of blades, loosening of mounting bolts and nuts, etc.**

2.2.6 HANDLE ROTATION LEVER

Used to adjust the handle height and left/right position according to the operator's physique or the working conditions. The handle height can be adjusted by pushing the lever downwards. (5 positions)

Push the lever to the right to adjust the left or right position of the handlebar. (2 positions each on the left and right and 1 in the centre, for a total of 5 positions)

2.2.7 CHANGE SPEED LEVER

Used to select the driving speed. The gearshift has three forward gears '1', '2' and '3' and one backwards gearshift 'R'.

CAUTION

Operate the change speed lever with the driving lever in the "OFF" position. Operating the change speed lever while the driving clutch lever is in "ON" position may damage the gears inside the transmission.

2.2.8 SIMPLE INCLINOMETER




When working on an slope, the ball of the simple inclinometer moves to show the angle as a reference. If you want to measure the angle more accurately, use a handheld angle meter or similar.

CAUTION

Work on slopes of more than 20° is dangerous; work on slopes of less than 20°.

2.2.9 THROTTLE LEVER

Starts or stop engine, and adjust increase or decrease RPM.

The levers are, from the front, 'STOP', , , .

2.2.10 FIXING HOOKS

Used to secure the unit with a rope or similar during transport.

2.2.11 SHATTERPROOF FRONT FLAPPER

Minimises scattering of stones and other foreign objects. Must be worn during work as it is extremely dangerous.

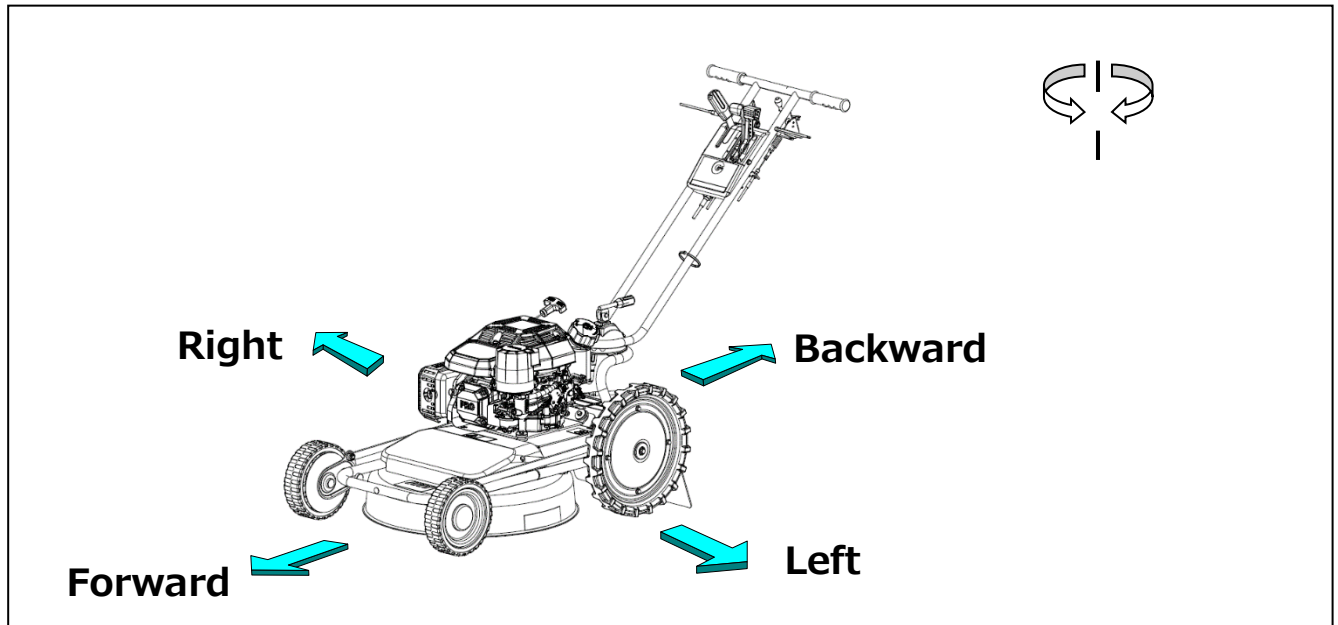
2.2.12 REAR COVER

Minimises scattering of stones and other foreign objects. Must be worn during work as it is extremely dangerous. Depending on the amount of grass in the blade cover, it opens and closes vertically to reduce the load on the engine.

2.3 MACHINE DIRECTION

The front, back, left, and right of the machine are indicated by the direction viewed from the operator as shown in the figure below.

"Forward" and "Backward" in the text are also expressed in terms of the direction viewed from the operator.



3. INSPECTION BEFORE USE

Before starting work, check "1.2 Before starting work" and be sure to perform a pre-start inspection in accordance with the "Pre-start Inspection Chart" and "7.1 Periodic Inspection Chart" below.

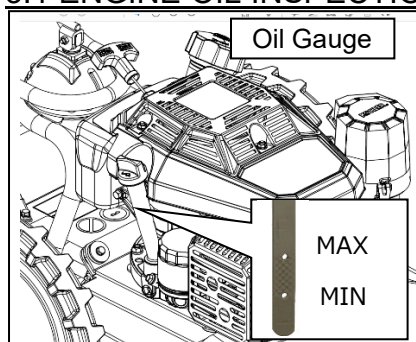
※If you have any questions or find anything unusual, be sure to consult the dealer where you purchased the product.

Pre-opening inspection sheet (summary from periodic inspection sheet)		
	Entry	Inspection details
ENGINE	(1)Engine Oil	Check "oil quantity and contamination" (see 3.1).
	(2) Air cleaner	Check and clean "Dirt" (see 5.2.1)
	(3)Main Engine	Check for "looseness" and "cracks"
	(4)Muffler	Check for and clean up "blockages".
	(5)Fuel tubes, fuel filters	Check for fuel leaks, deterioration, deformation, clogging, and cleaning.
MACHINE	(1)Blade	Inspection and maintenance
	(2)Brake	「1」 Loose or missing bolt or nut
	(3)Tire	「2」 Deformation, wear, interference
	(4)Function lever	「3」 Smooth operation or sticking
	(5)Cover	「4」 Remove foreign objects such as garbage, grass
	(6)HSToil	Check "oil quantity and contamination"

⚠ WARNING

- 1) Always stop the engine before performing any inspection, lubrication, adjustment, or maintenance.
- 2) When starting the engine and carrying out operation checks on the driving clutch lever etc., check the position of each lever and the safety of the surroundings before carrying out such checks.
- 3) Please also carefully read the warning symbols affixed to the machine.

3.1 ENGINE OIL INSPECTION

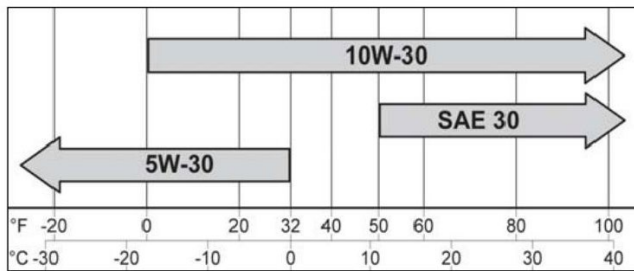


- 1)Level the machine and remove the oil gauge.
- 2)Insert it into the oil supply port and turn it 1/4 turn to confirm that there is oil between the upper and lower limits of the oil gauge.
(The oil supply plug also serves as the oil gauge.)
- 3) If the amount is low, replenish the oil so that it comes close to the upper limit. Refer to the gauge for the amount of oil to be lubricated.

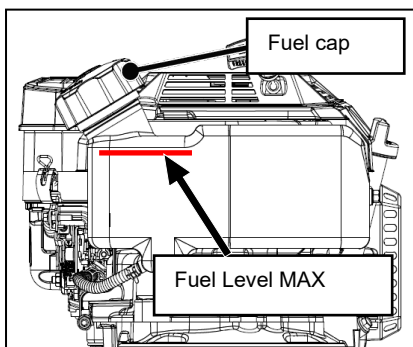
⚠ CAUTION

- 1) When checking the engine oil after the engine is running, wait "at least 5 minutes" after the engine is stopped to fully check the cooling condition of the muffler and engine itself.
- 2) A small amount of engine oil remains in the unit at the time of shipment.
*Be sure to check the amount of engine oil before starting the machine.
- 3) Use good quality, fresh engine oil of SE grade or higher, and use different types depending on the temperature.
- 4) After refilling, tighten the oil gauge securely. Loose tightening may cause engine oil to leak out.

「Recommended oil」



3.2 FUEL INSPECTION AND REFUELLING



- 1) Level the unit, remove the fuel cap, and inspect the amount of fuel from the fuel supply port.
- 2) If the fuel level is low, refer to the figure on the left and fill the tank below the upper limit of the specified oil level.
 〈Fuel used: Regular unleaded gasoline.〉
 〈Fuel tank capacity: See 6.1 Specifications〉
- 3) After refueling, tighten the fuel cap securely.
 ※For use on slopes, use even less than 2) (to a spill-proof amount).

⚠ DANGER

1) **Fires are strictly prohibited while working and refuelling.**

There is a risk of ignition or burns. Never use naked flames such as cigarettes, bonfires, etc. near the machine.

- 2) Refuel after the engine is stopped and the muffler temperature has cooled sufficiently.
- 3) If the oil level is marked with an upper limit, fill the oil level below the mark (even less if the oil level is on a slope). If you have overfilled the tank, remove the fuel until the level is below the mark. Be sure to wipe up any spilled fuel.
- 4) Do not perform the operation when your body is charged with static electricity. Vaporized gasoline may ignite and cause burns or fire.

⚠ WARNING

Fuelling should be performed on a flat, stable, well-ventilated surface.

⚠ CAUTION

- 1) When refuelling, do not allow dust, grass, rain, snow, or other foreign matter to enter the fuel tank. Failure to do so may cause engine malfunction.
- 2) Do not use anything other than regular unleaded gasoline. It may cause damage to the engine.
- 3) This engine is acceptable up to E10 (10% ethanol blend); E15, E20 and E85 fuels are not approved and should not be used.
- 4) Gasoline deteriorates naturally. If gasoline is not used for a month or more, replace it with new gasoline. Do not use gasoline stored in polyethylene tanks. It may cause malfunction.

4. OPERATION

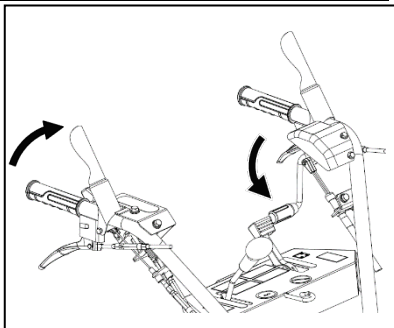
WARNING

※ 「1. Please read "1. Precautions for use" before operation.

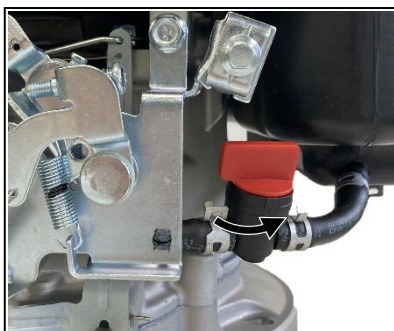
In particular, please read and understand "1.1 Working Conditions", "1.2 Before Operating" and "1.3 During Operation" carefully before operating and working on the equipment.

4.1 STARTING & STOPPING THE ENGINE

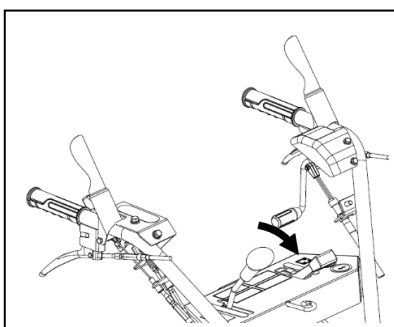
4.1.1 STARTING THE ENGINE



- 1) Both the driving clutch lever and blade clutch lever should be in the "OFF" position.



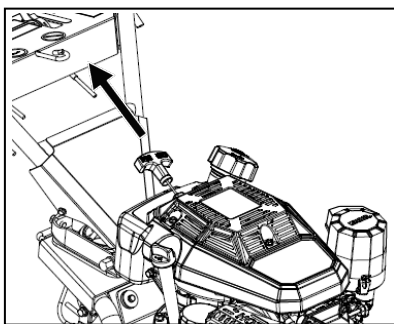
- 2) Turn the fuel cock to the "open (ON)" position.



- 3) Turn the throttle lever to the "N" position.

Note

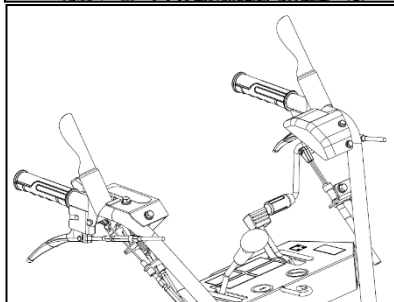
When the engine is warmed up, the throttle lever does not need to be operated.



- 4) Grasp the starter knob, pull it slowly and once back from the position where compression is felt, pull it vigorously. After starting the engine, slowly return the starter knob to its original position.


CAUTION

Make sure that there are no persons, protrusions or obstacles in the direction from which the recoil starter is pulled before starting it. Failure to do so may result in injury.

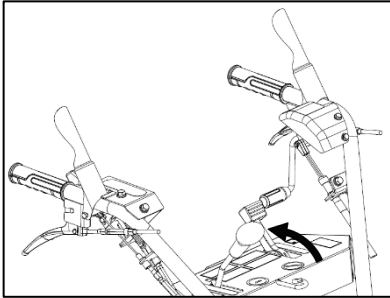


- 5) After starting the engine, allow the engine to warm up for a while (about 3 minutes) with the throttle lever in the "T" position. Warming up the engine will ensure that the oil is well distributed to all parts of the engine, thereby extending the life of the engine.

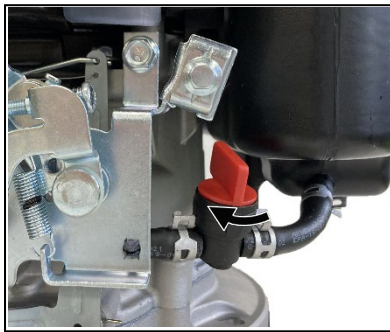
⚠ CAUTION

- 1) During the first week (3-4 hours) after the purchase of a new product, please operate the machine moderately to avoid overloading the machine as a break-in period.
- 2) Please note that using the throttle lever in the "  " position will adversely affect various engine parts and shorten the life of the engine.

4.1.2 STOPPING THE ENGINE



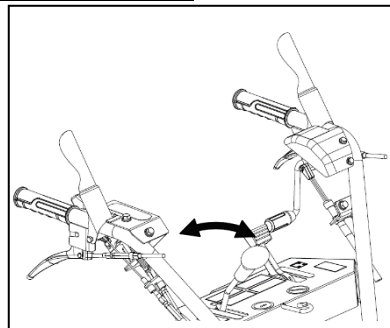
- 1) Turn the throttle lever to the "STOP" position to stop the engine.



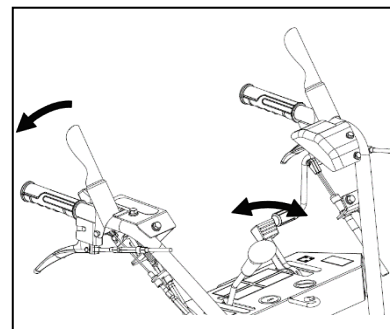
- 2) Finally, turn the fuel cock to the "closed (OFF)" position.



4.2 DRIVING, CHANGING SPEED, TURNING, STOPPING

4.2.1 DRIVING



- 1) Start the engine.
〈See 4.1.1 How to start the engine.〉
- 2) Check that the change speed lever is securely in place.。
〈See 4.2.2 How to change speed〉

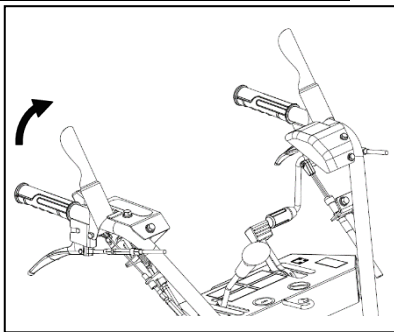


- 3) Set the throttle lever in the middle position between [] or [] and hold the driving clutch lever together with the handlebar.

⚠ WARNING

- 1) For safety, set the cutting height adjustment lever to the highest position when driving and be careful not to allow the blade to meet stones or other obstacles.
- 2) Do not leave the blade clutch lever in the 'in' position when travelling or turning. It is dangerous to be rolled in.

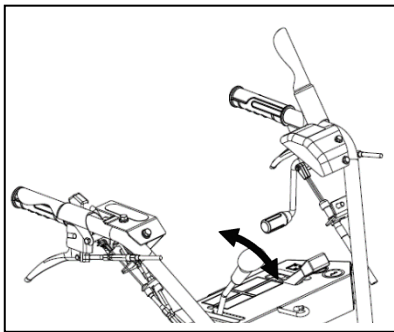
4.2.2 CHANGING SPEED



- 1) Remove your hand from the driving clutch lever and put it in the "OFF" position to stop the machine.

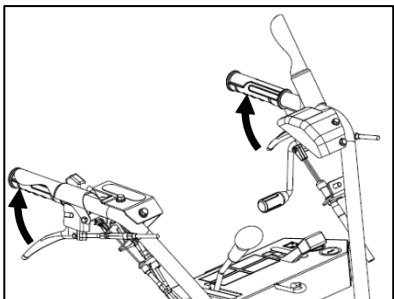
CAUTION

Repeatedly operating the change speed lever with the driving clutch lever in the "ON" position may cause a malfunction.



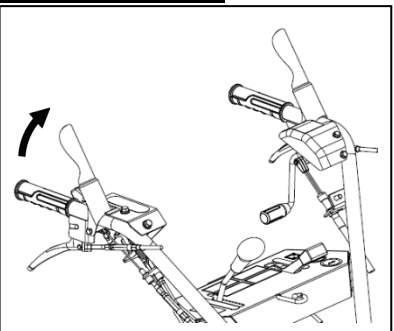
- 2) Operate the changing speed lever to ensure that it is in the required gearshift position of "[1]", "[2]", "[3]", and "R".

4.2.3 TURNING DIRECTION

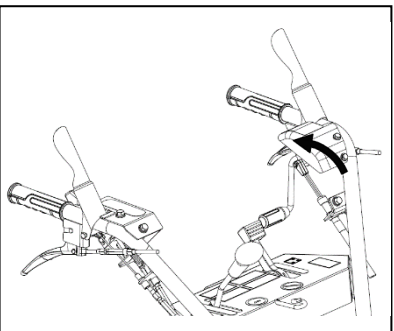


- 1) To change direction, hold the side clutch lever of the side you want to turn.
(Hold the right side clutch lever to turn right, hold the left side clutch lever to turn left).

4.2.4 STOPPING



- 1) Remove your hand from the driving clutch lever and put it in the "OFF" position to stop the machine.



- 2) Turn the throttle lever to the "STOP" position to stop the engine.
<See 4.1.2 How to stop the engine>

CAUTION

- 1) Park the machine on a flat, spacious area with no obstructions in the vicinity.
- 2) Always stop the engine before leaving the machine.

- 3) When the driving clutch lever is in the "OFF" position, the parking brake is effective regardless of the speed change lever position. If the brake is not working, adjust the brake wires or replace the parts as soon as possible.

4.3 HOW TO MOW WELL

⚠ WARNING

- 1) For safety reasons, always work with the standard covers and flappers installed. It is very dangerous to work with the covers and flappers removed. Foreign objects such as stones may scatter around the deck of the mowing, causing damage to the operator and others around him/her.
- 2) Always stop the engine before removing grass, wire, or other foreign matter that has become entangled in the Blade.
- 3) The covers attached to the machine are designed to minimize the scattering of foreign objects from the mowing section, but they do not completely prevent it. It is the operator's responsibility to remove any foreign objects (stumps, stones, wires, empty cans, and cuttings) from the field prior to operation.

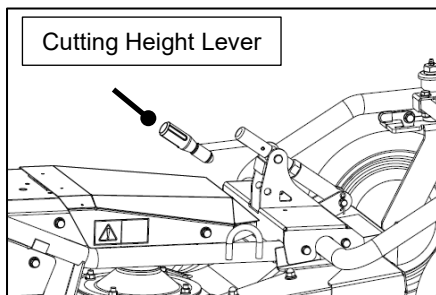
⚠ CAUTION

- 1) Wear long-sleeved jacket and long pants with hemmed sleeves, safety shoes, hat, helmet, shin guards, protective goggles (supplied with the product), etc. always.
- 2) Ensure that foreign objects such as stumps, stones, wire, empty cans and stick pieces are removed before work.
- 3) When working in fields where there are many stones and other foreign matter, please take extra care for safety by mowing high to prevent damage caused by scattering of these materials.
- 4) Stones and other foreign objects may scatter around the entire circumference of the mowing area. Please work with caution and keep away from people, vehicles, and buildings.
- 5) The engine muffler becomes hot during operation of the unit and may cause burns if accidentally touched. Never touch the muffler during operation or for approximately 10 minutes after operation is stopped.
- 6) Always work in a forward direction. Working backward is dangerous.

Note ;

- 1) When using the machine for the first time, select a flat area free of stones and other foreign objects, fix the angle adjustment lever in the horizontal position, and slowly mow straight so that the mowing marks overlap slightly.

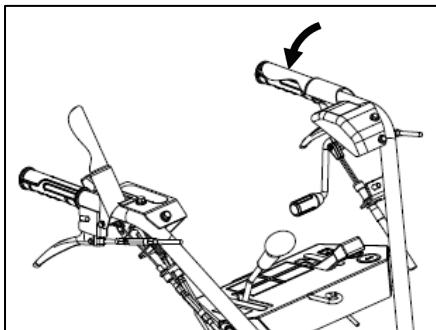
4.3.1 TECHNIQUE FOR MOWING




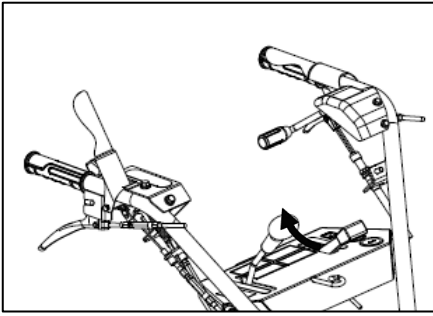
- 1) Adjust the mowing height by turning the mowing height adjustment lever according to the working conditions.

⚠ WARNING

- 1) Always stop the engine before adjusting the mowing height.
- 2) Mowing height should be matched to the highest part of the field. If it is too low, not only will the blade wear out or break prematurely due to friction with foreign matter and soil, but also accidents due to breakage may occur.



- 2) Start the engine. (See Section 4.1.1 "How to Start the Engine.")
- 3) Operate the change speed lever and shift the gear securely to the required gearshift position.
- 4) Turn the throttle lever to the high speed "  " position.
- 5) Hold the blade clutch lever with the handle.

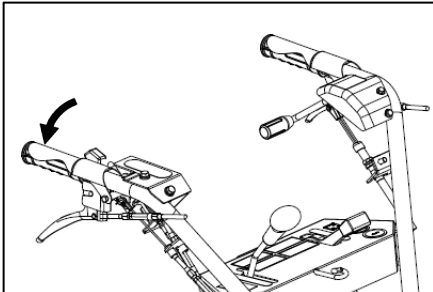


6) Pull the blade tension lever.

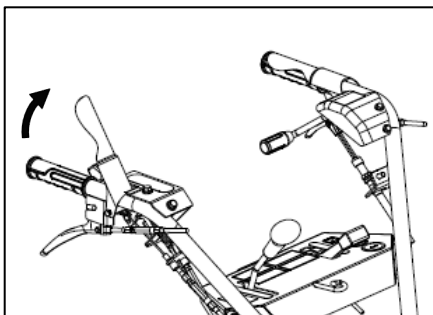


WARNING

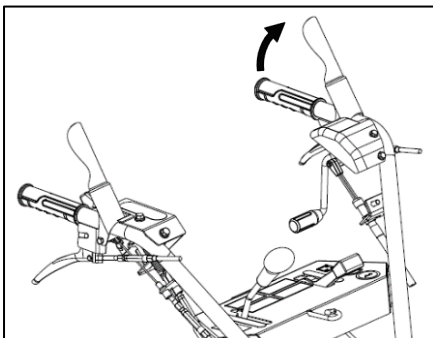
The Blade rotates at a high speed, so please be very careful!



7) To start and begin work, hold the driving clutch lever together with the handle.
(See Section 4.2.1 "How to Drive.")



8) To finish the work, first remove your hand from the driving clutch lever, turn it to the "OFF" position, and stop the machine.



9) Remove your hand from the blade clutch lever and place it in the "OFF" position to stop blade rotation.

10) Stop the engine.

(See Section 4.2.4 "How to stop the engine.")

Reference

When the blade tension lever is set to the "OFF" position, the brake is on and blade rotation stops in a few seconds (within 5 seconds).

4.3.2 MOWING ON SLOPES

- When working on a slope, work along the contour line from the valley side of the slope to the mountain side, moving sequentially to the mountain side. Turn as far as possible at both ends at a gentle angle of inclination and work towards the mountain side, turning towards the mountain side and drawing the figure ∞ .



WARNING

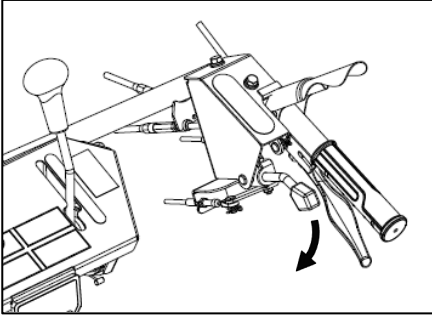
- 1) For safety reasons, do not work on slopes with a slope of 20° or more.
- 2) Always operate gear shifting on level ground. Shifting gears while working on an incline may cause the gear to slip out of gear when turning, which may result in a fall accident.
- 3) Do not hold both side clutch levers at the same time while working on a slope. Failure to do so may result in a fall accident.
- 4) Do not allow grass, leaves, or other debris to accumulate on the engine. If these items accumulate around the engine, they may cause overheating resulting in burning or fire. It may also cause reduced mowing performance and increased fuel consumption. Clean the machine frequently.
- 5) For safety reasons, start at the "[1]" position first, and after checking the safety of the surroundings, adjust the working speed to suit the working conditions.
- 6) Never kick grass or other objects into the rotary cover with your foot, as inside the blade cover during blade rotation is dangerous with blade rotating at high speed.

- 7) If an obstacle is hit during operation, stop the engine immediately, remove the ignition cap from the spark plug to prevent it from starting, and inspect it for damage. Repair any abnormality immediately. Unrepaired restarting may result in an unexpected accident.
- 8) For safety reasons, always stop the engine when leaving the machine.

Reference ;

If there is a large amount of grass and the engine frequently stops, reduce the working speed, increase the mowing height, or mow twice.

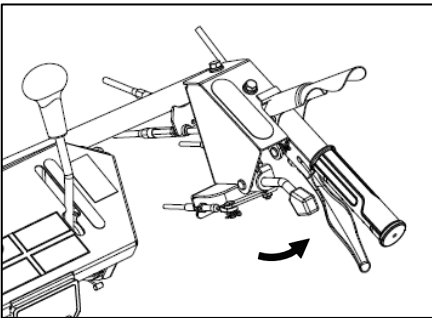
4.4 HANDLE POSITION



- The handle position can be adjusted up or down according to the operator's physique and working conditions. After adjusting, tilt the handle fixing lever down to fix it securely in place.

1) Handle Up/Down

The handle position can be adjusted in the vertical direction by pushing down the handle. (5 steps up and down)
Release the lever to fix the handle in that position.



2) Handle Right/Left

The handlebar position can be adjusted in the left/right direction by pushing the handlebar up/down left/right lever to the right. (2 steps each for left and right)
When the lever is released, the handle is fixed in that position.

WARNING

Always adjust the handle up/down and left/right after work has stopped.

4.5 LOADING/UNLOADING/TRANSPORTING

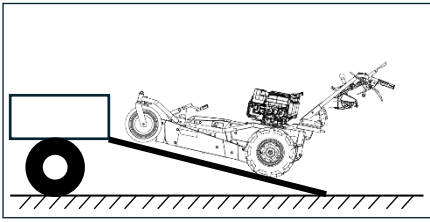
DANGER

- 1) Always stop the engine and turn the fuel cock to the "closed" position when transporting the machine. Fuel leaks may cause spilled fuel to ignite.
- 2) Also, do not tilt the unit more than necessary. Fuel may leak out.

WARNING

- 1) Use a vehicle appropriate for the product for transportation. (loading weight, cargo bed size, and interference)
- 2) Select a flat and safe place for the transport vehicle, stop the engine, pull the side brake, and fasten the wheels so that the vehicle will not start moving when it is loaded.
- 3) Adjust the height to a position where the blade/tine does not contact the bridge. Also, do the following for applicable models. (1) Set the work clutch to the "OFF" position. (2) Set the differential lock to the "ON" position.
- 4) Ensure that a strong bridge that meets the standards is applied at a loose gradient (15 degrees or less), engine speed is lowered, loading is done "forward" and unloading is done "backward" at low speed and slowly..
〈Do not disengage the driving (main) clutch on the bridge. Also, do not operate levers such as the side clutch (applicable product) or gearshift.〉
- 5) Be very careful when the machine crosses the border between the bridge and the truck bed, as the position of the center of gravity suddenly changes.
- 6) When transporting the product, secure it securely with a sturdy rope or other means. Also, be sure to drive safely.

4.5.1 HOW TO LOAD



- 1) Choose a flat area with no hazardous materials around.
- 2) Ensure that the bridge that meets the standard is applied at a loose slope (15 degrees or less) and at a width that matches the product.
- 3) Ensure that the wheels of the machine are positioned in the center of the bridge.
- 4) Lower the engine speed and put the work clutch in the "OFF" position.
- 5) For loading, use forward "[1]" and for unloading, use "R" at low speed and slowly.

Reference: Bridge Standards

Bridges must meet the standards and be of sufficient strength.

- Length: At least 3.5 times the height of the truck bed.
- Width ... The width must match the wheel width of the machine.
- Strength: Sufficient to support the total weight of the machine and the operator's body weight.
- Surface treated to prevent slipping.

5. INSPECTION, REPLACEMENT AND LUBRICATION

5.1 OIL INSPECTION

CAUTION

- 1) The machine is not lubricated with oil at the time of shipment. Before using the machine for the first time, be sure to lubricate the specified parts with the specified amount of oil.
- 2) Periodic oil changes are highly recommended to ensure that the machine is always used in the best possible condition.
- 3) Lubrication should be done gradually. If you try to lubricate the machine all at once, the oil will overflow from the lubrication port immediately without releasing the air. Make sure that the oil level is up to the lubrication port.
- 4) When checking, replacing, or lubricating the oil in each part, be sure to stop the machine in a flat, wide-open area after running the engine warm, and wait "about 5 minutes or more" for each part of the machine to cool down to the point where it is not hot to the touch before performing the work.

... If you work immediately after the engine is stopped ...

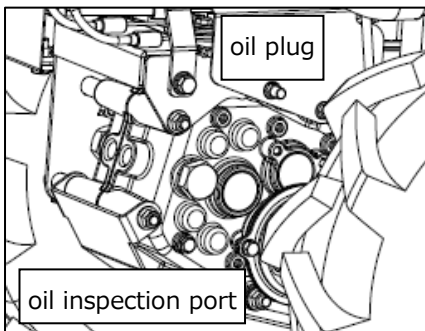
* The engine itself is quite hot and there is a risk of burns.

* Immediately after the engine is stopped, there is still oil in various parts and the exact amount of oil is not indicated.

■ Please dispose of waste oil properly after replacement in accordance with your local government's regulations ■

5.1.1 INSPECTION AND REFILLING of Transmission Oil

Inspection and refuelling.... Strictly adhere to the lubrication quantity.

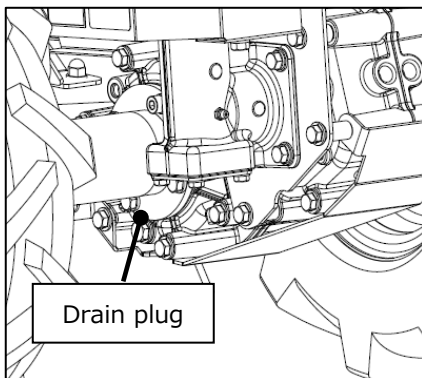


- 1) Remove the oil inspection port on the upper right-hand side of the transmission case,

If oil oozes out of the oil inspection port, there is approximately the specified amount of transmission oil.

- 2) Visually inspect the quantity and contamination of the oil, and if the oil is insufficient or contaminated, replenish or replace all the oil (see below).

Replacement...



- 1) Prepare a suitable container to receive the oil.
- 2) Remove the drain plug at the bottom left of the transmission case and drain the oil.

Reference ; Remove the oil supply plug at the same time to make it easier to drain the oil.

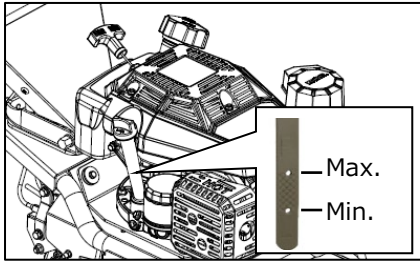
- 3) Lubricate the transmission with 1.6 litres of transmission oil (#90) after the drain plug has been securely fitted.

Replacement guideline

First time: after 20 hours; thereafter every 100 hours

5.1.2 INSPECTION AND REFILLING of Engine Oil

Inspection and refuelling

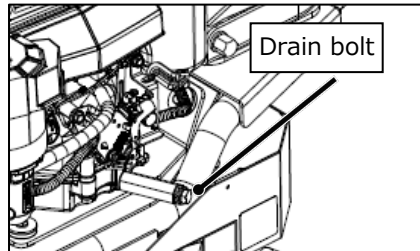


1) Before each operation, visually check the amount of engine oil and dirt with reference to <3.1 Engine oil inspection>, and if the amount is not as specified or if the oil is dirty, replenish or replace the entire amount (see below).

<refer to 3.1 3.1 ENGINE OIL INSPECTION>

*when the shipment, there are small amount of engine oil in the engine.

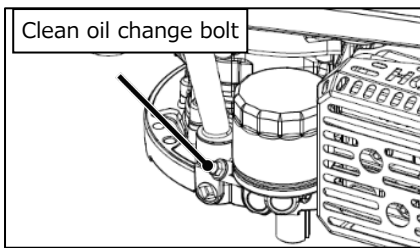
Replacement...



1) Prepare a suitable container to receive the oil.

2) Remove the drain bolt (oil drain plug) and clean oil change bolt and drain the oil in the crank case.

Reference ; Remove the oil supply plug at the same time to make it easier to drain the oil.



3) After the oil drain, tighten the drain bolt with torque of 25Nm.

4) Tighten the clean oil change bolt with torque of 14.7Nm

5) Lubricate the specified engine oil referring to <3.1 inspection of the engine oil.

Replacement guideline

First time: after 20 hours; thereafter every 100 hours

Reference ;

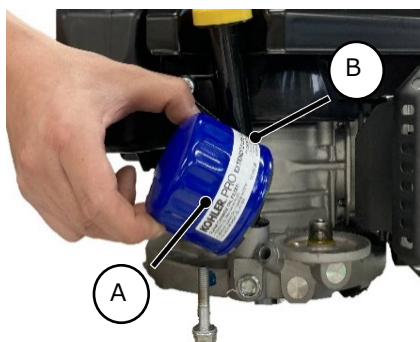
- 1) After oil change, securely install the removed drain bolt, and oil supply plug.
- 2) If the product is used continuously under high load or high temperature for a long period of time, replace it earlier than the above guideline (about half of the time).

5.1.3 OIL FILTER

⚠ CAUTION

When installing the oil filter, do not use tools, but do it by hand.

Oil filters should be changed once every two engine oil changes or every season.



After draining the engine oil, replace the oil filter according to the following procedure.

1) Turn filter A counterclockwise to remove it.

2) Tighten the drain bolt to a torque of 25 Nm.

3) Install the clean oil change bolt with a torque of 14.7 Nm.

4) Apply a thin layer of new engine oil to the gasket portion of the new filter with a fingertip.

5) Turn the filter clockwise and screw it in until the gasket first begins to contact the mounting surface B. Screw it in 3/4 of a turn further.

6) Fill the oil tank with new regulation oil.

7) After checking the amount of oil with the oil gauge, tighten the oil supply plug

securely.

<(See Section 5.1.1 "Engine Oil Inspection and Replacement.)>

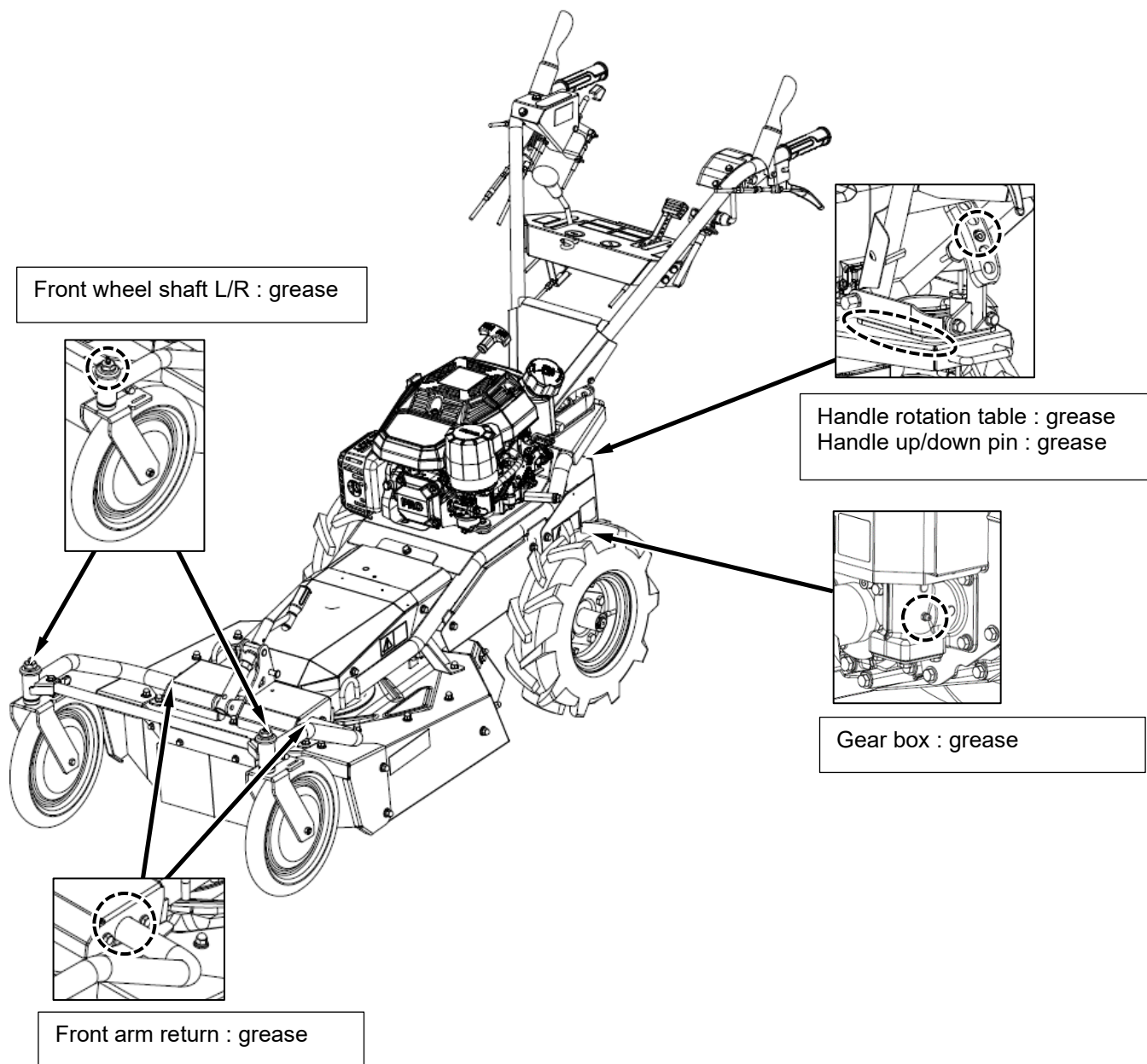
8) After running the engine at low speed for approximately 2 minutes, check for oil spills on the filter mounting surface.

9) Stop the engine, check the amount of oil again, and replenish it if it is insufficient.

5.1.3 LUBRICATION MOVING PARTS

CAUTION

- 1) Lubricate grease nipples with grease and other parts with engine oil (#30) as needed about every 30 hours. Failure to lubricate the grease may cause damage due to poor lubrication.
- 2) Gearbox grease deteriorates after prolonged use and loses its original performance.
 - * Replace the entire amount every two years or every 100 hours.



5.2 ENGINE MAINTENANCE

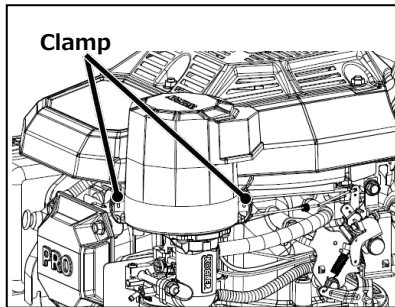
5.2.1 AIR FILTER CLEANING

⚠ WARNING

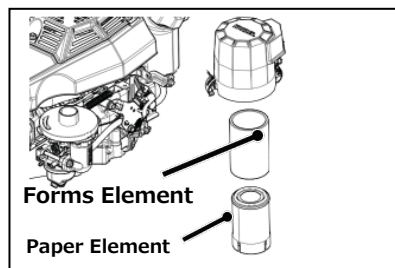
- Continued operation with air cleaner/recoil starter clogged with grass debris, etc., not only causes lack of power and high fuel consumption, but also increases exhaust gas temperature, which may cause fuel to ignite and cause a fire, which is very dangerous. Be sure to inspect and clean the equipment on a regular basis.

...Do not start the engine with the air cleaner removed. ...

Dust and dirt are sucked into the engine, causing engine trouble and unusual wear.



- 1) Release the clamps on the air cleaner cover and remove the cover.
- 2) The foam elements should be washed with neutral detergent, wrung out well, and dried.
- 3) The paper element is cleaned by blowing compressed air from the inside or by lightly tapping it.
- 4) Wipe off any dirt inside the case with a rag, etc., and assemble the case as before.

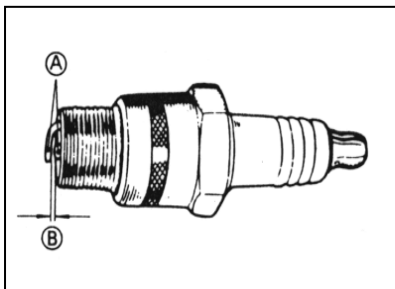


Air cleaner cleaning and replacement next period		
	Cleaning	Replacement
Form Element	Before every operation	Every 100Hours
Paper Element	Before every operation	Every 100Hours

Reference;

- 1) Do not pull or struggle the foam element strongly when cleaning. The element will tear and become unusable.
- 2) Keep in mind that the product should be cleaned frequently when used in a dusty or dusty work environment.

5.2.2 SPARK PLUG INSPECTION



- 1) Remove the spark plug with a plug wrench.
If there is carbon on the electrode part A, remove it with a wire brush, if there is any moisture, wipe it off.
- 2) If the central ceramic part is cracked or the electrode part is worn out, replace the spark plug with a new one.
- 3) Adjust the spark plug electrode gap B to 0.7-0.8 mm.

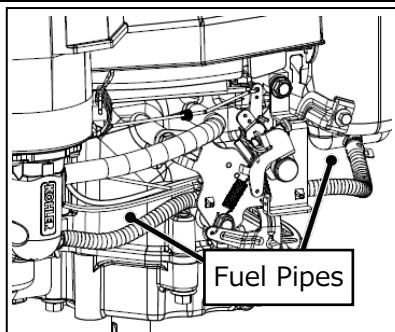
Reference ;

When tightening, screw in lightly by hand at first (until the gasket touches the seating surface) and then use a plug wrench with a torque of 27 Nm.

- Be careful not to use a plug wrench to tighten the threads from the beginning, as this may crush the threads.

<Refer to Spark Plug Standards...6.1 Specifications>

5.2.3 INSPECTION FUEL PIPES



⚠ DANGER

Do not work with cigarettes or naked flames.

- 1) Rubber products such as fuel lines deteriorate even when not in use. Along with the tightening band, replace it with a new one every three years or when damaged.
- 2) Always watch for loose or damaged pipes and tightening bands.

Reference ;

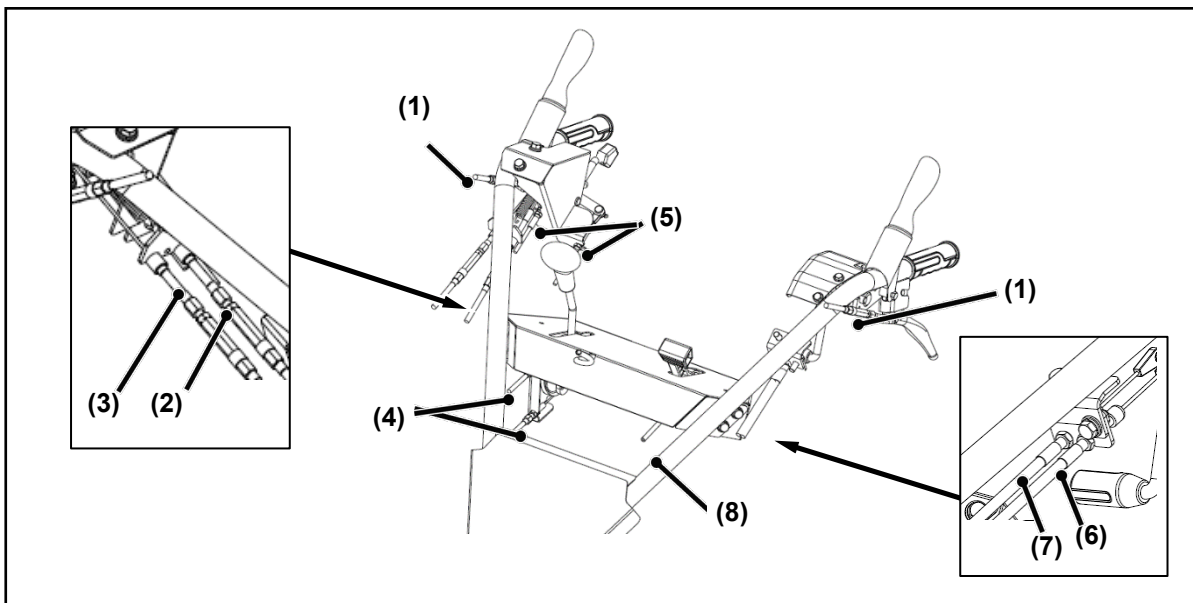
When replacing pipes, take care to prevent dust and dirt from entering the pipes.

5.3 INSPECTION AND ADJUSTMENT OF MACHINE

CAUTION

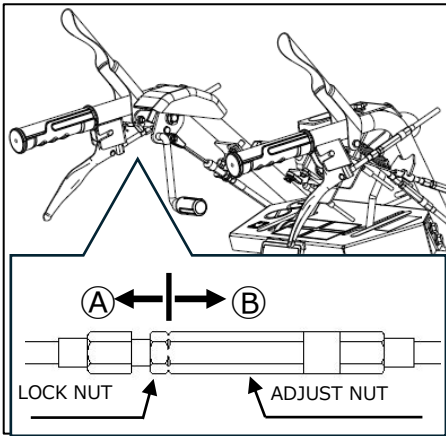
- 1) Always perform inspections and adjustments on a large, flat area with the engine stopped.
- 2) Make sure that each control lever operates properly. (at the beginning of each work).
- 3) Wires and belts will initially stretch, so readjust it after 2 to 3 hours of operation.
- 4) Wires and belts are consumables. If there is any abnormality, replace it with a new one.
(For size, see 6.1 Specifications.)
- 5) Work the unit slightly to check for abnormal noise or abnormal heat generation.
- 6) After adjustment, be sure to check the operation of both clutch levers "on" and "off".
- 7) Check each part's bolts and nuts for looseness and dropouts and tighten them securely.
- 8) Be sure to install all covers removed for adjustment as they were originally.
- 9) Avoid overwork for the first 2 to 3 hours to allow each part to fully acclimate.
 - 10) Do not forget to take care of the equipment after work and inspect it periodically.
(Refer to 7.1 Periodic Inspection Table)
- 11) Look around the entire machine and inspect each part for oil leaks.
 - If oil leakage is found, please consult your dealer.
 - Continued use of the unit with oil leakage is not only dangerous but also leads to damage to the unit.

5.3.1 BELT&WIRE ADJUSTMENT



- | | |
|------------------------------------|-------------------------|
| (1) side clutch wire | (2) driving clutch wire |
| (3) parking brake wire | (4) change wire |
| (5) handle up/down left/right wire | (6) blade tension wire |
| (7) blade brake wire | (8) throttle wire |

5.3.1.1 SIDE CLUTCH WIRE ADJUSTMENT



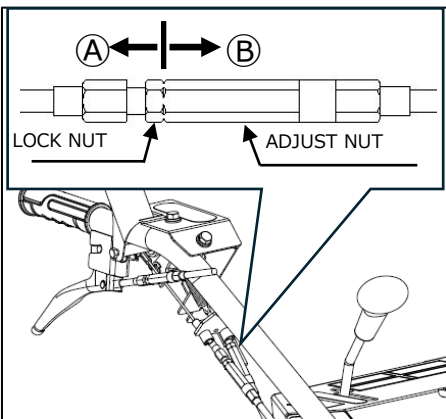
If the drive does not connect when the side clutch lever is returned,

...Turn the adjusting nut toward A....

If the drive is not disengaged when the side clutch lever is depressed,

...Turn the adjusting nut toward B....

5.3.1.2 DRIVING CLUTCH WIRE ADJUSTMENT



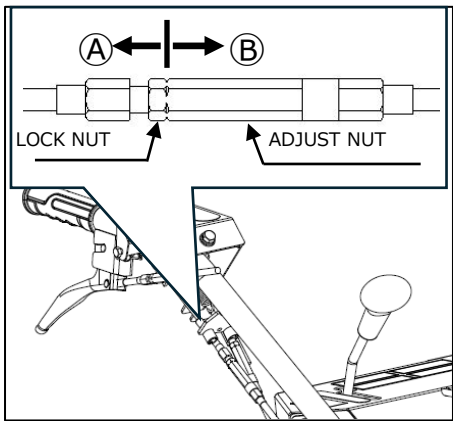
If the machine is difficult to stop with the driving clutch lever in the 'off' position,

...Turn the adjusting nut toward A....

If the machine stops under load even when the travel clutch lever is in the 'in' position,

...Turn the adjusting nut toward B....

5.3.1.3 PARKING BRAKE WIRE ADJUSTMENT



If the parking brake is still applied while driving,

...Turn the adjusting nut toward A....

If the parking brake does not work even when the driving clutch is in the 'OFF' position,

...Turn the adjusting nut toward B....

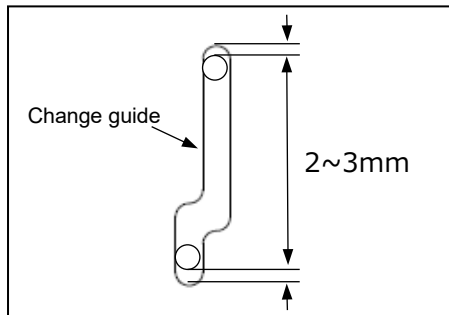
CAUTION

Failure to adjust the parking brake can be dangerous if the parking brake drags when driving or starts to move when parked on a slope.

5.3.1.4 CHANGE WIRE ADJUSTMENT

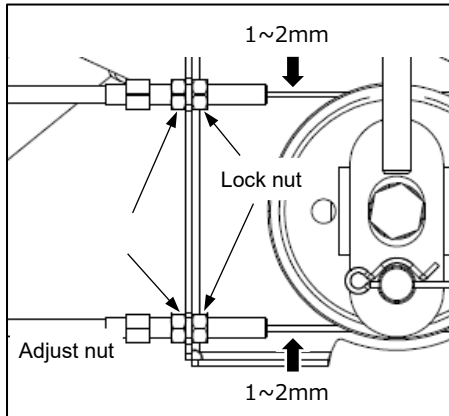
⚠ WARNING

This product uses a gearshift system by wire. The gearshift position may shift due to initial stretching of the wire. In this case, follow the instructions below to adjust the wire tension with the engine stopped. Continuing to work in this state may, in the worst case, cause the gear to shift out of gear during operation, resulting in a serious accident.



- (1) Adjust the change wire adjusting nut so that the play with the change guide when the change lever is in the forward '3' and backward 'R' positions is 2 to 3 mm at both ends.

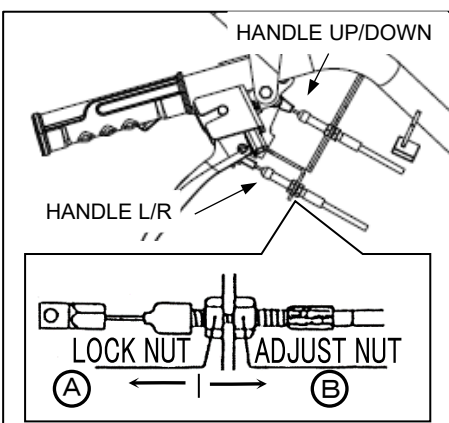
*The left and right wires should deflect 1 to 2 mm when you press the arrow part (bottom left diagram) with your finger and should never be over-tensioned.



- (2) Check that the gear is securely in gear at each gearshift position on the change guide.

- (3) Tighten the locknut securely.

5.3.1.5 HANDLE UP/DOWN AND LEFT/RIGHT WIRE ADJUSTMENT

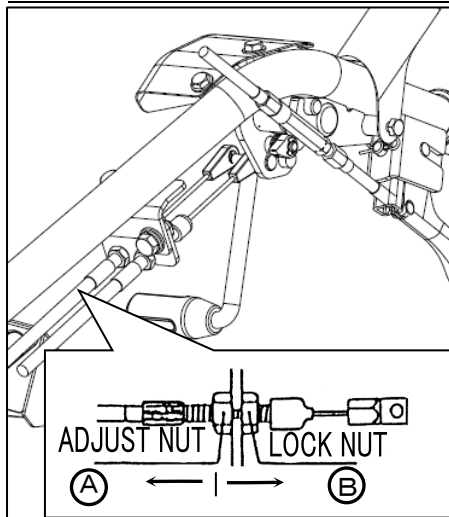


If the handle cannot be raised or lowered (left or right) by operating the lever, ...**Turn the adjusting nut toward A....**

If the handle moves up and down (left and right) under load without lever operation,

...**Turn the adjusting nut toward A....**

5.3.1.6 BLADE TENSION WIRE ADJUSTMENT



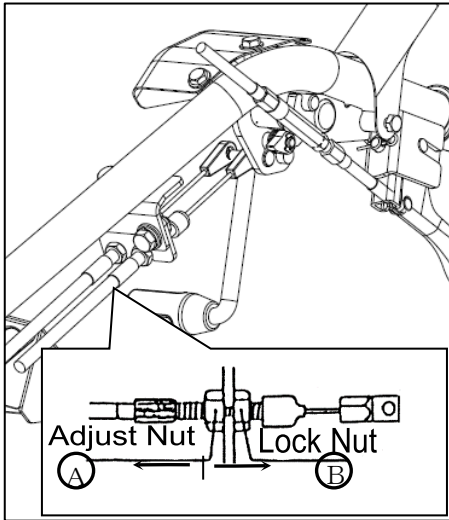
If the blade does not stop rotating even when the knife tension lever is in the 'off' position,

...**Turn the adjusting nut toward A...**

When the knife tension lever is in the 'in' position but the knife stops rotating when a load is applied,

...**Turn the adjusting nut toward B...**

5.3.1.7 BLADE BRAKE WIRE ADJUSTMENT



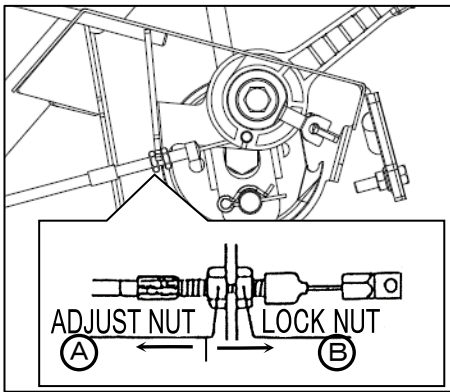
If the blade does not stop after a short time (5 seconds) when the blade tension lever is in the 'OFF' position,

...Turn the adjusting nut toward A...

If the blade tension lever is in the 'in' position and the blade does not rotate,

...Turn the adjusting nut toward B...

5.3.1.8 THROTTLE WIRE ADJUSTMENT

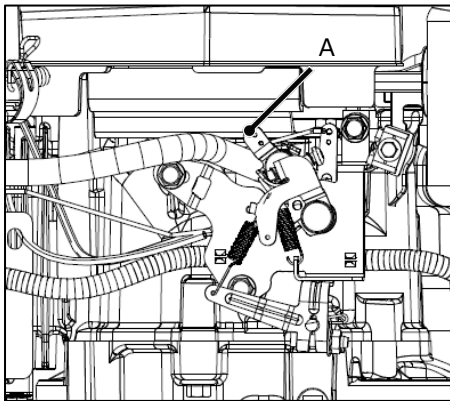


If the engine does not stop with the throttle lever in the 'STOP' position,

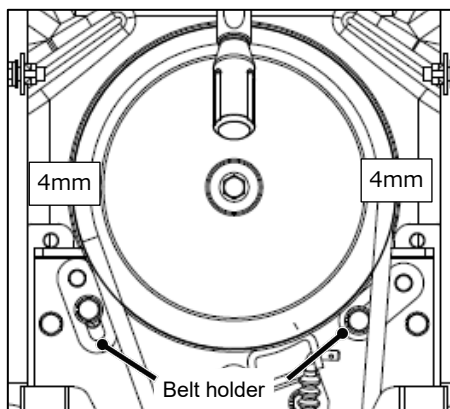
...Turn the adjusting nut toward A...

If the throttle lever is in the ' ' position and the throttle wire is not pulling lever A fully,

...Turn the adjusting nut toward B...



5.3.1.9 BLADE BELT HOLDER ADJUSTMENT



If the belt has been replaced, adjust the belt holder with reference to the diagram on the left.

Adjust the blade tension lever in the 'IN' position.

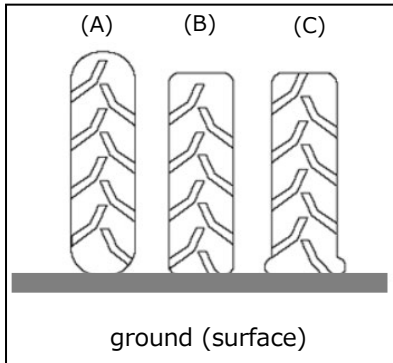
Belt holder adjustment

Adjust the belt presses so that the distance between them and the belt is approximately 4 mm each when the belt is tensioned.

⚠ CAUTION

- 1) After adjustment, ensure that the locknuts and mounting bolts are securely tightened.
- 2) Always install the cover removed for adjustment as it was originally.
- 3) After adjustment, be sure to check the operation of the clutch lever etc. 'on' and 'off' respectively.
- 4) The belt may have some initial elongation, so readjust the belt after 2 to 3 hours of operation from new.
- 5) The belt is a consumable item. If there is any abnormality, replace with a new one. Adjust after the first 20 hours and every 100 hours thereafter. <Belt size: see 6.1 Specifications>.

5.3.2 TYRE PRESSURE ADJUSTMENT



Adjust tyre pressure to 1.2 Kg/cm². If the air pressure is not equalised, the handlebars may be taken off during operation.

The guideline for judging from the appearance is shown on the left.

A: Insufficient C: Excessive
B: Correct

5.4 INAPECTION AND REPLACEMENT OF BLADE

■For safety reasons, please perform a pre-operational inspection of the blade.■

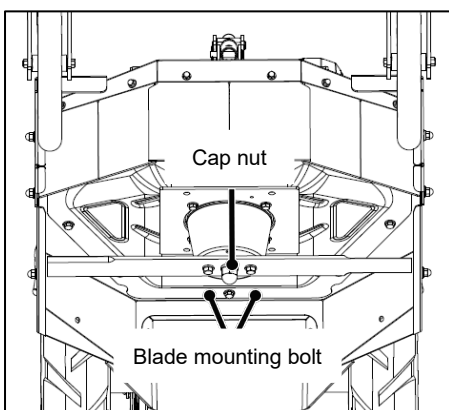
⚠ WARNING

- 1) This machine uses sharp blades. When removing and installing blades for inspection or replacement, wrap a rag around the blade edge and use sturdy gloves (leather gloves, etc.) and never touch the blades directly with bare hands. Failure to do so may result in injury.
- 2) When replacing blades, be sure to specify that the blades are genuine manufacturer's items. The use of an external blade is not only dangerous, but also will not be covered by warranty in the event of a malfunction or accident due to its use.
- 3) This operation must always be carried out by two persons, with the handle firmly supported to prevent the mowing unit from falling during the operation.
- 4) Inspect the blade before starting work to see if the blade or blade disc is bent or missing due to the blade hitting a curb, tree root, etc. during the previous operation, or if the blade or blade disc is worn out.
- 5) Continuing to work with a worn, cracked, bent, or missing knife may cause the blade to break off and eject during operation, resulting in serious personal injury or damage to the unit.

⚠ CAUTION

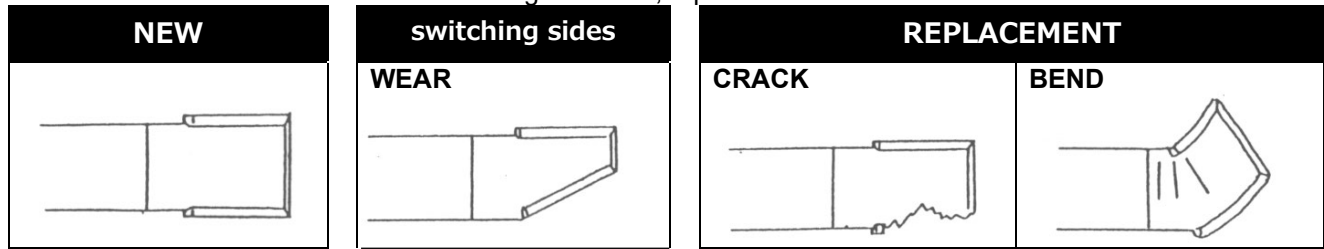
- 1) Replacement of blades should only be performed by persons with correct tools and maintenance skills.
- 2) Blade mounting bolts and cap nuts are also subject to wear. When replacing the blade, replace the blade mounting bolt and cap nut at the same time and never substitute other bolts or nuts.

5.4.1 BLADE REPLACEMENT



- 1) Stop the engine and remove the spark plug cap just to be sure.
- 2) Have another person push down on the handle of the machine and raise the mowing part to hold it during the operation.
- 3) Inspect blades for cracks, bends, and wear.
- 4) Inspect the condition of the blade mounting bolts and nuts.
 - * Bolt Tightening torque 50 N-m (510 kgf-cm)
 - * Nut Tightening torque 100 N-m (1020 kgf-cm)

*If it is in abnormal condition as shown in the figure below, replace it.



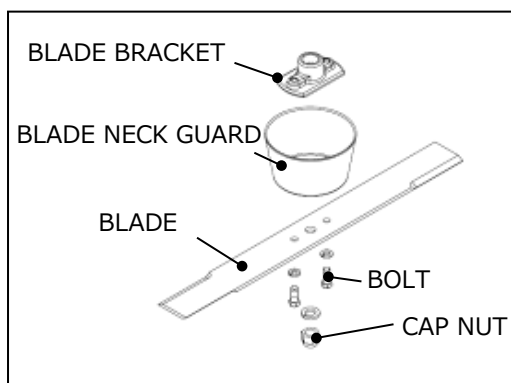
REFERENCE ;

- Use of the blade in dry soil or sand will cause rapid wear of the blade, so inspect the blade frequently.
- It is recommended that you purchase spare blades in advance and keep them on hand.

Knife Replacement guidelines

50 hours or annually, whichever comes first (even if bending, wear, and tear is not permitted).

5.4.2 HOW TO INSTALL THE BLADE



- 1) Remove the cap nut and bolt.
- 2) Replace the blade (turn it over) and replace the cap nut and bolt.
- 3) Install the blade, cap nut and bolt securely as they were.
 - * Bolt Tightening torque 50 N-m (510 kgf-cm)
 - * Nut Tightening torque 100 N-m (1020 kgf-cm)

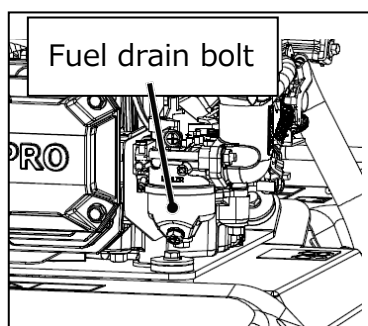
5.5 LONG-TERM STORAGE

5.5.1 BEFORE LONG-TERM STORAGE

If fuel is left in the fuel tank or carburettor for a long period of time, this can cause problems such as poor starting and loss of power.

! DANGER

- 1) **When draining fuel, do so in a well-ventilated area, being careful to avoid open flames such as cigarettes and naked flames, and handle drained fuel with care.**
 - 2) **Make sure that the engine and muffler are sufficiently cool before draining gasoline from the fuel tank or covering the machine.**
- 1) When the machine is not used for more than 30 days, drain the fuel from the fuel tank and carburetor to avoid starting failure or operation malfunction due to fuel deterioration.



1)Fuel in fuel tank

Remove it from the fuel supply with a pump, etc.

2)Fuel in carburetor

Remove the fuel drain bolt at the bottom of the carburetor and pull it out.

3)Always close the fuel cock for safety.

- 2) Clean each part carefully. In particular, clean off any mud or dust that has accumulated near the recoil starter, air cleaner, muffler, carburetor, and inside the belt cover with an air blower, etc. Rust should be removed from any rusted areas and anti-rust paint should be applied.
- 3) lubricate all parts and repair any defective parts.
- 4) Store the unit horizontally in a well-ventilated and dry place with a roof.
- 5) Cover the machine with a cover to keep it free from dust. During storage, check tyre pressures regularly and inflate as necessary. (*This machine cover is not included in the package.)

5.5.2 NOTES FOR NEXT USE

CAUTION

- 1) Use fresh fuel.
- 2) Perform a pre-work inspection.
- 3) Make sure that each control lever operates properly. (at the beginning of each work).
- 4) Check all bolts and nuts for looseness and dropouts.
- 5) Move the unit slightly to check for abnormal noise or abnormal heat generation.
- 6) Avoid overwork for the first 2 to 3 hours to allow each part to fully adjust.

6. CHART

Model		SR600
L x W x H(mm)		1195×680×1145
Cutting Width (mm)		600
Weight (kg)		118
Cutting Height (mm)		50~110
Blade		Straight Blades (both side)×1
Belt	Driving	LA27× 1
	Cutting	LB61× 1
Tire size		Front Wheel : large-diameter tires (φ300×40) ×2 Rear Wheel : Lugs Tires 400-7 (φ400) ×2
Handle		Up/Down : One-touch variable (5-step adjustment) Left/Right : One-touch variable (5-step adjustment)
Speed (km/h)	Forward	(1) 1.9 (2) 3.0 (3) 5.1 (straight ahead)
	Backward	(1) 1.9
Clutch system	Driving	Belt Tension
	Cutting	Belt Tension
Transmission oil(l)		1.6 (#90)
Grease for gear box (cc)		30 (#00)
E N G I N E	Brand	KOHLER
	Model	CV224-3011
	displacement (cc)	224
	Lubricating oil amount (l)	0.7
	Starting system	Recoil Starter
	Spark Plugs	KOHLER 1413214-S
	Fuel Tank Capacity(l)	1.2

※Specifications are for technical improvement and are subject to change without notice.

7. INSPECTION CHART

7.1 REGULAR INSPECTION SHEET







Lack of inspection or maintenance leads to accident or trouble of machine. In order to ensure the good performance and safe condition of machine, make inspection referring the table below.

About the frequency of maintenance, refer the indication D(daily), M(monthly), and Y(yearly).

Reference		Where to check	Check point	Parts	D	M	Y	
Brakes	Brake	Effect of parking brake	Scratch or weakness	Brake shoe	O	O	O	
		Brake rod joint	Deformation or rattle	Rod	O	O	O	
				Joint	O	O	O	
		U nut W nut	Looseness or loss	U nut	O	O	O	
				W nut	O	O	O	
	Split pin	Loss or damage	Split pin	O	O	O		
Cutting part	Cover	Condition of cover	Bend, clack or corrosion. Setting of flapper rubber.	Cover	O	O	O	
				Flapper		O	O	
	Rotating part	Blade, blade stay and setting	Curve or wear	Blade	O	O	O	
				Blade stay	O	O	O	
		Offset deck	Looseness, wear, and loss of bolt and nut	Bolt / nut	O	O	O	
				Wear or crack	Offset tire	O	O	O
			Open/close movement problem	Offset pedal	O	O	O	
			Deformation or breakage	Return spring	O	O	O	
	Blade brake	Performance of brake (to stop in 5 seconds)	Brake	O	O	O		
				O	O	O		
Engine	Engine body	Accelaration, exhaust, choke	Smoothness of accelataion, color of exhaust gas, smell, smoothness of clogging	Accelaration		O	O	
				Exhaust		O	O	
				Choke	O	O	O	
		Muffler, battery	Setting looseness, corrosion, charging status of battery	Muffler	O	O	O	
				Battery	O	O	O	
		Engine body	Engine setting looseness or clack	Setting		O	O	
	Oil	Air cleaner	Dirt, choke, damage	Air cleaner	O	O	O	
		Engine oil Oil filter	Quantity, quality, leak or mixing of obstacle, replacing period	Oil	O	O	O	
				Fltler	O	O	O	
			Engine oil : First 5h, later at every 50h, Filter : at every 100h					
		Fuel	Fuel hose, filter	Leak, deformation, and clogging	Fuel route	O	O	O
	Ingition	Spark plug	Clack on insulator, carbon between terminal	Plug		O	O	
		High voltage cord, plug cap	Degradation, clack and split on cap	Cord		O	O	
Cooling	Engine housing	Grass remain inside the housing or not	Inside cover	O	O	O		
Wire	Harness	Looseness or damage	Harness		O	O		
Trans-mission	Belt	Driving belt Blade belt	Tension, clack, damage or dirt	Driving	O	O	O	
				Blade	O	O	O	
	Trans-mission, HST	Transmission oil	Quantity, quality, leak mixing of obstacle(water, air)	Transmission oil	O	O	O	
		Transmission oil : first 20h and later each 100h						
		HST oil	Quantity, quality, leak mixing of obstacle(water, air)	HST oil	O	O	O	
HST oil(VG46) : First 20h and later each 200h or annually including replacement of oil filter.								
Moving part	Movement of lever and wire	Movement is smooth or not. Sticking and rusting	Diff-lock	O	O	O		
			Blade	O	O	O		
			Sub change	O	O	O		
Speed change	Speed lever	Proper movement, N position, and looseness	Lever	O	O	O		
Driving part	Tire	Proper air pressure, damage or wear	Tire	O	O	O		
	Setting	Looseness, wear, and loss of bolt and nut	Setting	O	O	O		
Handle	Setting	Looseness, wear, and loss of bolt and nut	Handle	O	O	O		
Meter	Hour meter	Indication of correct hour, proper displaying	Hour meter			O		
Label	Warning label/plate	Attachment of label, damage or dirt	Label			O		

7.2 ENGINE FAILURE AND HOW TO HANDLE

In case of engine trouble, refer to table below and take proper countermeasure.

Problem	Cause	Solution
Engine cannot be started	Throttle lever is not in 「  」 position.	Move the throttle lever in 「  」 position.
	Choke lever is not in “start” or “close” position.	Move the throttle lever in 「  」 when engine is cooled.
	Fuel does not run.	Check the fuel tank and remove the sinking stuff and water.
	Air or water is mixed in fuel running system.	Remove the stuff, check the hose band, and replace it to new one if necessary.
	Oil is stickly in cold weather and engine rotation is not smooth.	Select proper oil depending on temperature.
	Ignition coil or unit is not good.	Replace ignition coil or unit.
	Spark plug is not good.	Check the gap between terminal and adjust. Replace the spark plug.
Power is poor	Fuel is not enough.	Add the fuel.
	Air cleaner is clogged.	Clean the element.
	Fuel quality is bad.	Replace to good quality fuel.
	Choke is not fully open.	Move the throttle lever in 「  」 position.
	Cooling system is clogged.	Clearn around the recoil starter.
Engine stops	Fuel is not enough.	Add the fuel.
	Fuel cock is closed.	Open the fuel cock.
Exhaust gas is too black	Air cleaner element is clogged.	Clean the element.
	Fuel quality is bad.	Replace the fuel to new.
Black smoke comes out and power is lost	Air cleaner element is clogged.	Clean the element.
	Choke is not fully open.	Move the throttle lever in 「  」 position.
Blue-white smoke comes out from muffler	Engine oil is too much.	Reduce the engine oil to required level.
	Cylinder and piston ring are worn	*Replace the ring.
Engine rpm is not stable	Choke is not fully open.	Move the throttle lever in 「  」 position.
	Fuel quality is bad.	Replace to good quality fuel.
Engine stops later	Ignition coil is not good.	*Replace the ignition coil.
Exhaust gas badly smells	Fuel quality is bad.	Replace to good quality fuel.

If you have any questions or do not understand any points, please contact your dealer.

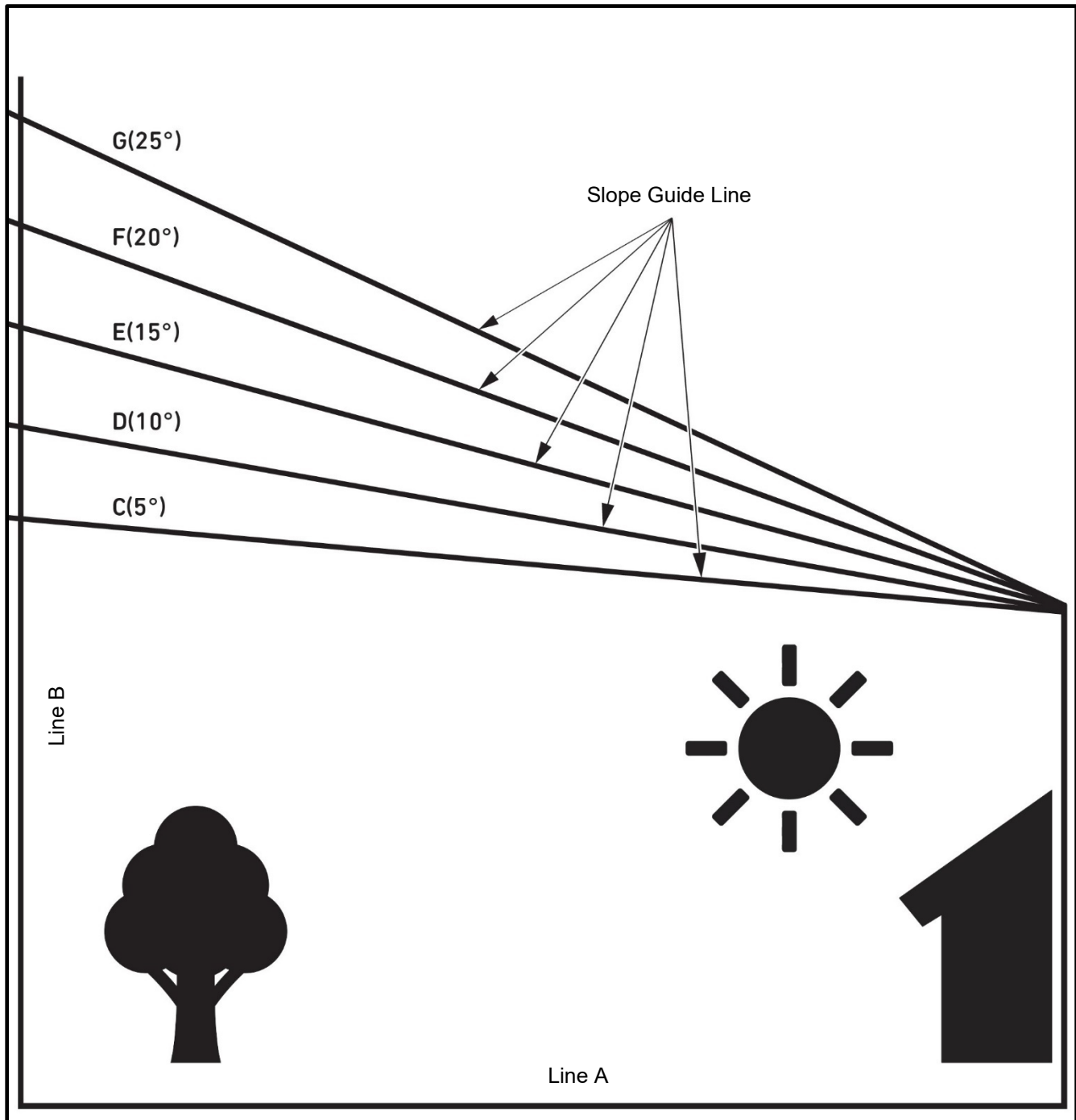
7.3 SELF-DIAGNOSIS TABLE

Problem	Cause	Solution
Cut grass is not discharged well.	Grass is wet.	Wait until grass get dry.
	Grass is tall.	Mow higher and cut twice.
	Cutting height is too low.	Raise the cutting height.
	Engine power is too low.	Increase the power to the max.
	Mowing speed is too fast.	Decrease the speed.
Grass is not fully cut	Mowing speed is too fast.	Decrease the speed.
	Engine power is too low.	Increase the power to the max.
	Blade is worn out or broken.	Replace the blade with a new one.
	Some grass is stuck inside of rotary cover.	Clean up and take out grass inside of the cover.
	Grass is tall.	Mow with higher cutting height first.
Cut into the ground	Cutting height is too low.	Raise the cutting height.
	Turning speed is too fast.	Turn slowly.
	The ground is wavy-shaped.	Change the direction of mowing.
	The ground is bumpy and has many ups and downs.	Raise the cutting height.
	Blade stay is bent or deformed.	Replace the blade to new one.
Blade slips	Belt tension is not enough.	Adjust the belt tension.
	Obstacle remains inside blade cover	Clean inside the blade cover.
	Grass remains on pulley	Clean the pulley.
	Belt is worn.	Replace the belt.
not shifting gears	The gearshift is out of position.	Adjust the change wire.
	Transmission is not good.	Fix the transmission.
There is big vibration	Blades are poorly balanced.	Replace all blades to new ones.
	Blade is damaged.	Replace the blade to new one.
	Grass remains around blade neck guard	Clean around the blade neck guard and replace it to new one.
	Blade shaft is bent.	Replace the blade shaft.
	Blade belt is broken.	Replace the belt to new one.
Mowing workload is heavy	Engine speed is low.	Increase engine speed.
	Mowing speed is too fast.	Decrease the speed.
	Some grass is stuck on/around blade shaft.	Clean up the blade.
	Grass is tall.	Mow twice with a higher cutting height.
	Cutting height is too low.	Raise cutting height.
Tires are slipping.	Deposition of foreign bodies in blades and blade cover.	Clean blades and the blade cover.
	The field is soft.	Suspend work until the field is dry.

If you have any questions or do not understand any points, please contact your dealer.

7.4 SLOPE GUIDE

The maximum slope angle you can safely operate the machine on is 10 degrees. Use this slope guide to determine the degree of slope before operating. Do not operate the machine on a slope greater than 10 degrees. Copy or cut this page and always bring it with machine.



- 1) Hold this paper in front of you. Make sure line A is horizontal.
- 2) Align line B to a vertical surface such as a pole, tree, building, etc.
- 3) Fold the paper along the slanted guideline (C, D, E, F or G).
- 4) Align the nearest slope guideline to the slope of the ground. This allows you to accurately estimate the slope of the ground to be mown.

8. LIMITED WARRANTY

Each new product manufactured by OREC is guaranteed under the cope of the following terms. The warranty applies to defective parts due to defect in assembling and construction or/and in material imputable to us. It is valid for following period for normal use of the machine :

Professional use : 1 year
Private use : 2 years

It does not apply to engines manufactured by other companies that also guarantee their materials and whose guarantee is supplied with the machine.

Warranty does not apply to consumable parts, such as blade(including blade bolt), belt, flapper, tire, oil filter and brake pad. In case of professional use to submit warranty, it is mandatory to attach the invoice from the dealer.

1. This guarantee is limited to the sole replacement of the defective parts for one year(in professional use) or for two years(in private use) commencing with the purchasing date of the machine. The guarantee is limited to the parts that are previously shown to and acknowledged by OREC.
2. User is requested to claim his dealer within 30 days from the date of trouble.
3. Each part concerned by a guarantee claim must be returned to OREC's in order to be inspected, repaired or replaced. The part(s) must be returned with freight prepaid and must be accompanied with a proof of the purchase(i.e. dealer's invoice). The part(s) must be packed with the greatest of care to ensure their protection.
- 3° The machine must not have been worn out, repaired or maintained by anyone without OREC's previous authorization. The machine must not have been damaged in a road accident, roughly handled or improperly used.

This guarantee does not compel OREC or its dealer to reimburse the labour costs or the carriage costs to the repairer.

NO OTHER GUARANTEE SHALL BE APPLIED TO THIS MACHINE EXCEPT THE LEGAL GUARANTEE. OREC SHALL NOT BE LIABLE FOR ANY DAMAGE OR COST INVOLVED BY THE MACHINE, FOR EXAMPLE:

1. HIRING COSTS
2. TURNOVER LOSSES
3. WORK DONE BY A REPLACING MACHINE

OREC DOES NOT TAKE ON ANY OTHER OBLIGATION AND DOES NOT AUTHORIZE ANYBODY TO TAKE ON ANY OTHER OBLIGATION THAN THOSE MENTIONED IN THE 3 PARAGRAPHS ABOVE.

To know the name of your dealer, contact our importer in following web site.

<https://technogreen-international.com/our-distributor/>

9. NOTES

10. EC CONFORMITY DECLARATION

Business name and address of manufacturer: OREC CO., LTD.
548-22 HIYOSHI HIROKAWA-MACHI
YAME-GUN FUKUOKA JAPAN

owner of the technical documents S.A.T. sarl – 257, chemin de Clermont
38489 Pont de Beauvoisin France

Designation : brush cutter
Mark : OREC
Type : SR600
Engine :

- Manufacturer : KOHLER
- type : CV224
- Power : 4,4 kW @3500rpm

Width of cut : 600 mm

Conforms to directives: 2000/14/EC, 2006/42/EC, 2014/30/UE

Conformity assessment : 2006/42/EC Annex VIII

Measured acoustic power level : 99,03 dB(A)

Granted acoustic power level : 100 dB(A)

Conformity assessment : 2000/14/EC Annex V

Notified body n°0088 : Lloyd's Register Quality Assurance
71 Fenchurch street London EC3S 4BS UK

Acoustic pressure level at operator's ears : 85 dB(A)

Harmonized standards used : EN 12733-2009, EN 12100-2010, EN ISO 14982-2009,
EN ISO 3744-2010, EN ISO 3746-2010, EN 1032-2003+A1-2008

made at : Fukuoka, October 1, 2023

Signed : Haruhiko Imamura
Function : Managing director



11. MEASUREMENT OF VIBRATIONS

Mark : OREC
Engine : CV224

Type : SR600

Accelerometer Position	
100mm from external side of handlebar(Left side)	1,87 m/s ²
100mm from external side of handlebar(Right side)	2,52 m/s ²

SERIAL NO.
MODEL

