

Floating Head Greens Mower

Owner's Operating Manual



Serial No. LM101: 10001-

"Required reading"

Read this manual and the Owner's Manual for the engine before using the machine.



Regulations

California Proposition65

(For California, USA)

♠ WARNING:

This product can expose you to chemicals including Carbon Monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

318yi8-006E

California Proposition65 001

CALIFORNIA SPARK ARRESTER

(For California, USA)



Operation of this equipment may create sparks that can start fires around dry vegetation.

A spark arrester may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

The engine of this machine is equipped with a spark arrester.

In some areas there are local, state, or federal regulations requiring that a spark arrester be used on the engine of this machine.

Greeting

Thank you for purchasing the Baroness machine. This manual explains proper handling, adjustment, and inspection of your machine. Prior to use, carefully read this manual to thoroughly understand the contents for safe and correct operation.

We hope you will use the machine safely, and take advantage of its best performance.

Introduction

Read this manual carefully to ensure that you thoroughly understand how to properly operate and maintain this machine, and to avoid causing injury to yourself or others.

The operator is responsible for operating the machine properly and safely.

Do not perform maintenance on the machine other than that described in this manual.

Be sure to also read the Owner's Manual for the engine, battery, etc.

Maintenance should only be performed by a certified specialist.

If you have any questions concerning maintenance or genuine parts, please contact your local Baroness dealer or Kyoeisha.

When making inquiries about this machine, please specify the machine's model designation and serial number.

When loaning or transferring this machine, please also provide this manual together with the machine.

Kyoeisha Co., Ltd.



The information described in this manual is subject to change for improvement without prior notice. When replacing parts, be sure to use genuine Baroness parts or parts designated by Kyoeisha. Note that the Baroness product warranty may not apply to defects caused by the use of parts from other companies.

Warning Symbols

This manual uses the following warning symbols for handling precautions that are important for your safety.



Warning symbol

696cq5-001

This symbol indicates the articles regarding "Danger," "Warning," or "Caution."

Those articles describe important safety precautions and so read them carefully to understand completely before operating the machine.

Failure to adequately follow these safety precautions may cause an accident.



This symbol indicates that serious injury or death will occur if the warning is ignored.



This symbol indicates that serious injury or death may occur if the warning is ignored.



This symbol indicates that injury or damage to property may occur if the warning is ignored.

Important

This symbol indicates precautions on the mechanism of the machine.

Purpose

This machine is intended for cutting turf grass at golf courses.

Do not use this machine in any way other than its intended purpose, and do not modify the machine.

Operating this machine for other purposes and modifying it may be very dangerous and may cause damage to the machine.

LM101

Introduction

Contents

Safety	Page 1-1
Safe Operating Practices	Page 1-2
Disposal	Page 2-1
Recycle and Waste Disposal	Page 2-2
Product Overview	Page 3-1
Specifications Names of Each Section Safety Signs and Instruction Signs	Page 3-3 Page 3-4
Handling Instructions	Page 4-1
Preparation for Use Inspection Before Use Tightening torques Adjustment Before Operating Procedure to Start / Stop Engine Operation of Each Section Instruments Travel of Machine Cutting Work Transporting	Page 4-3 Page 4-12 Page 4-18 Page 4-20 Page 4-26 Page 4-26
Maintenance	Page 5-1
Maintenance Precautions Maintenance Schedule Greasing Maintenance (Mower) Maintenance (Main Body) Long-Term Storage	Page 5-4 Page 5-7 Page 5-11 Page 5-23
Troubleshooting Procedures of Aftercut Appearance	Page 5-26

LM101

Contents

Safety

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	4	_	
	(1	١
٠	4	Ξ	
	(7	3
(0	r	j

S	Safe Operating Practices	Page	1-2
	Training	.Page	1-2
	Preparation	Page	1-2
	Operation	Page	1-3
	Maintenance and storage	Page	1-4

Safety

Failure to adequately follow these safety precautions may cause an accident resulting in injury or death.

▲ Danger

This machine is designed to ensure safe operation and has been tested and inspected thoroughly before shipment from the factory. The machine is equipped with safety devices to prevent accidents.

However, whether the machine demonstrates its original performance level depends on the manner in which it is operated and handled, as well as the manner in which it is managed on a daily basis.

Inappropriate use or management of the machine may result in injury or death. Observe the following safety instructions to ensure safe operation.

Safe Operating Practices

Training

- 1. Read this manual and other training material carefully.
 - Be familiar with the controls, safety signs, and the proper use of the equipment.
- 2. If the operator or mechanic can not read English it is the owner's responsibility to explain this manual to them.
- 3. All operators and mechanics should seek and obtain professional and practical instruction.
 - The owner is responsible for training the users.
- Never allow people unfamiliar with these instructions to use or service the machine. Local regulations may restrict the age of the operator.
- The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people, or property.
- Keep in mind that the owner, operator, and mechanic are responsible for accidents or hazards occurring to other people or their property.
- 7. You can find additional safety information where needed throughout this manual.
- 8. Determine the left and right sides of the machine from the normal operating position.

Preparation

- Evaluate the terrain to determine what accessories and attachments are needed to properly and safety perform the job. Only use accessories and attachments approved by the manufacturer.
- While operating, always wear substantial footwear, long trousers, hard hat, safety glasses, and ear protection. Long hair, loose clothing, or jewelry may get tangled in moving parts.
 - Do not operate the equipment when barefoot or wearing open sandals.
- Inspect the area where the equipment is to be used and remove all objects such as rocks, toys and wire which can be thrown by the machine.
- 4. Keep children out of the operating area and under the watchful care of a responsible adult other than the operator.
- 5. Exercise care in the handling of fuel.



Warning-Fuel is highly flammable. Take the following precautions.

- [1] Store fuel in containers specifically designed for this purpose.
- [2] Add fuel before starting the engine. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot.
- [3] Refuel outdoors only and do not smoke while refueling.
- [4] If fuel is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated.
- [5] Replace all fuel tanks and container caps securely.
- 6. Check that operator's presence controls, safety switches and shields are attached and functioning properly.
 - Do not operate unless they are functioning properly.
- 7. If the brake operation is faulty or the parking brake lever has noticeable play, be sure to adjust or repair them before operating the machine.
- 8. Replace faulty mufflers.

Operation

- 1. Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- 2. Only operate in good light, keeping away from holes and hidden hazards.
- 3. Before attempting to start the engine, disengage all attachments, shift into neutral, and engage the parking brake.
- 4. Start the engine or switch on the motor carefully according to this manual and with feet well away from the blade(s).
- 5. Avoid operating the equipment in wet grass, where feasible.
- 6. Always be sure of your footing on slopes.
- 7. Walk, never run.
- 8. Remember there is no such thing as a safe slope.
 - Travel on grass slopes requires particular care.
 - To guard against overturning:
 - [1] Do not mow excessively steep slopes.
 - [2] Do not stop or start suddenly when going up or downhill.
 - [3] Engage clutch slowly, always keep machine in gear, especially when traveling downhill.
 - [4] Machine speeds should be kept low on slopes and during tight turns.
- 9. Use extra care while operating machine with a grass catcher or other attachments. They can affect the stability of the machine.
- 10. Never operate the machine with damaged guards, shields, or without safety protective devices in place.
 - Be sure all interlocks are attached, adjusted and functioning properly.
- Do not change the engine governor settings or overspeed the engine.
 Operating the engine at excessive speed may increase the hazard of personal injury.
- 12. Pay attention not to touch hot parts.
- 13. Do the following before leaving the operator's position.
 - [1] Stop on level ground.
 - [2] Disengage the cutting unit and traction drive:
 - [3] Set the parking brake;
 - [4] Stop the engine.

- 14. Stop the engine in the following conditions.
 - [1] Before refueling.
 - [2] Before removing the grass catcher/catchers.
 - [3] Before making height adjustment unless adjustment can be made from the operator's position.
 - [4] Before cleaning blockages.
 - [5] Before checking, cleaning, or working the machine.
 - [6] Whenever you leave the machine.
 - [7] After striking a foreign object or if an abnormal vibration occurs. Inspect the machine for damage and make repairs before restarting and operating the equipment.
- 15. Keep hands and feet away from the cutting units and the rotating parts.
- 16. Never pick up or carry a lawnmower while the engine is running.
- 17. Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- 18. Never operate while people, especially children, or pets are nearby.
- 19. Slow down and use caution when making turns and crossing roads and sidewalks.
- 20. Stop the blades rotating before crossing surfaces other than grass.
- 21. Disengage drive to attachments when transporting or not in use.
- 22. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the machine while in operation.
- 23. Do not operate the machine under the influence of alcohol or drugs.
- 24. Take care when loading or unloading the machine into a trailer or a truck.

 Load or unload the machine in a flat and safe place.
 - Before loading or unloading, set the parking brake on the truck or trailer, stop the engine, and chock the wheels.

Safety

When transporting the machine on a truck or a trailer, set the parking brake, stop the engine, and fasten the machine to the truck with a rope or other suitable restraining device that has sufficient strength.

When using a running board, select one with sufficient strength, length, and width and that will not cause the machine to slip.

- 25. Close the fuel valve before transporting the machine.
- 26. Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- 27. Do not take your eyes off the road ahead. Do not operate the machine with no hands.
- 28. Reduce the throttle setting during engine run-out and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of operation.
- 29. Do not operate the machine when there is the risk of lightning.

Maintenance and storage

- Disengage drives on level ground, disengage the cutting unit, set parking brake, stop engine and disconnect spark plug wire. Wait for all movement to stop before adjusting, cleaning or repairing.
- To reduce the fire hazard, keep the engine, silencer/muffler, compartment fuel storage area, cutting unit and drives free of grass, leaves, or excessive grease. Clean up oil or fuel spillage.
- 3. Allow the engine to cool before storing in any enclosure.
- 4. Only cover the machine with a sheet after hot parts have sufficiently cooled down.
- 5. Never store the equipment with fuel in the tank inside a building where fumes may reach an open flame or spark.
- If the engine is provided with a shut-off valve, shut off valve while storing or transporting.
- 7. Do not store fuel near flames.
- 8. Never allow untrained personnel to service machine.
- 9. Allow the engine/muffler to cool before checking/maintenance.
- Appropriately manage and correctly use the tools necessary for servicing or adjusting the machine.

- 11. Use jack stands to support components when required.
- 12. Carefully release pressure from components with stored energy.
- 13. Make sure that parts such as wires are not touching each other and that their covers have not come off.
- 14. Use care when checking the cylinders/reels and bed knives.
 - [1] Wear gloves and use caution when servicing them.
 - [2] Be careful during adjustment of the machine to prevent entrapment of the fingers between moving blades and fixed parts of the machine.
- 15. Keep hands and feet away from moving parts.If possible, do not make adjustments with the engine running.
- 16. Keep all parts in good working condition and all hardware tightened. Replace all worn or damaged decals.
- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- 18. Check the grass catcher frequently for wear or deterioration.
- 19. If the fuel tank has to be drained, do this outdoors.

Disposal

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Recycle and Waste Disposal	Page 2-2
About Recycle	Page 2-2
About the Waste disposal	Page 2-2

Disposal

Recycle and Waste Disposal

About Recycle

Recycling battery etc. is recommended for environmental conservation and economical use of resources.

It may be required by local laws.

About the Waste disposal

Make sure that waste generated when servicing or repairing the machine is disposed of in accordance with local regulations. (e.g. waste oil, antifreeze, rubber products, and wires etc.)

Specifications	Page 3-2
Specifications	Page 3-2
Sound pressure level	Page 3-3
Sound power level	Page 3-3
Vibration level	Page 3-3
Names of Each Section	Page 3-3
Serial Number Plate	Page 3-3
Specification Decal	Page 3-4
Noise Emission Decal	Page 3-4
Year of Manufacture Decal	Page 3-4
Safety Signs and Instruction Signs	Page 3-4
About Safety Signs and Instruction Signs	Page 3-4
Positions of Safety Decals and Instruction Decals	Page 3-4
Explanation about Safety Decals and Instruction Decals	Page 3-5

Product Overview

Specifications

Specifications

Model			LM101	
	Total length	with grass catcher	61.02 in	155 cm
Dimensions	Total width	without traveling wheel	37.01 in	94 cm
	Total height	Steering handle	43.70 in	111 cm
	Total w	eight (empty fuel tank)	251.32 lb	114 kg
	Grass	catcher*1	7.28 lb	3.3 kg
Weight	Groom	er ^{*1}	7.94 lb	3.6 kg
	Traveli machin	ng wheel (for one ne)*1	15.21 lb	6.9 kg
Minimum tur	ning rad	dius	-	
	Model		HONDA GX120	
Engine	Туре		Gasoline air-cooled engine (OHV) four-stroke single-cylinder	
Engine	Total d	isplacement	7.20 cu.in.	118 cm ³ (0.118 L)
	Maxim	um output	2.6 kW (3.5 PS)/3,600 rpm	
Fuel tank ca	pacity		Gasoline 0.53 U.S.gals	Gasoline 2.0 dm ³ (2.0 L)
Fuel consum	nption		237.57 g/PS · h (rated output)	323 g/kW • h (rated output)
Engine oil ca	apacity		0.15 U.S.gals	0.56 dm ³ (0.56 L)
Operating w	idth (Mo	owing width)	22.92 in	55.7 cm
Operating he	eight (M	lowing height)	0.118 - 0.551 in [0.118 - 0.492 in]*2	3.0 - 14.0 mm [3.0 - 12.5 mm] ^{*2}
Blades			9 • 11	9 • 11
Drive	Traveli	ng	Mechanical	
Diive	Mowing	9	Mechanical	
Speed (HST)		-	
Speed (Mechanical))	2.92 mph (@3,000 rpm)	4.7 km/h (@3,000 rpm)
Efficiency			0.52 acres/hour	2,094 m ² /h
,			(2.92 mph x mowing width x 0.8)	(4.7 km/h x mowing width x 0.8)
Maximum inclination for operation		n for operation	-	
Tire size			4.10/3.50-6	_
Tire pneuma	tic pres	sure	17.40 psi	120 kPa (1.2 kgf/cm ²)
Battery			-	

The factory default maximum engine rpm is 3,100 rpm.

The value in the brackets [] is the mowing height of the machine equipped with a groomer.

Page 3-2 Specifications

^{*1:} Total weight includes *1 parts.

^{*2:} The indicated lowest mowing height is for general application. It may be adjusted according to the state of green and the bed knife to be installed.

Sound pressure level

Sound pressure level

This machine was confirmed to have a continuous A-weighted sound pressure level of 84 dB by measuring identical machines in accordance with the procedure specified in ISO5395-1:2013.

Sound power level

Sound power level

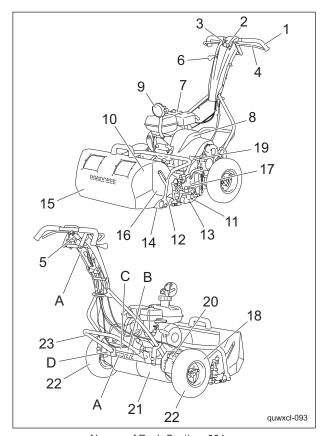
This machine was confirmed to have a sound power level of 98 dB by measuring identical machines in accordance with the procedure specified in directive 2000/14/EC.

Vibration level

Hand-arm vibration

This machine was confirmed not to exceed a vibration level of 2.5 m/s² to hands and arms by measuring identical machines in accordance with the procedure specified in ISO 5395-1:2013.

Names of Each Section

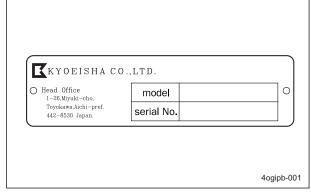


Names of Each Section_001

1 Handle 2 Throttle lever 3 Engine switch 4 Main clutch lever 5 Safety lock switch 6 Brake lever 7 Engine 8 Engine clutch cover 9 Light 10 Reel cutter 11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal D Year of Manufacture Decal		
3 Engine switch 4 Main clutch lever 5 Safety lock switch 6 Brake lever 7 Engine 8 Engine clutch cover 9 Light 10 Reel cutter 11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	1	Handle
4 Main clutch lever 5 Safety lock switch 6 Brake lever 7 Engine 8 Engine clutch cover 9 Light 10 Reel cutter 11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	2	Throttle lever
5 Safety lock switch 6 Brake lever 7 Engine 8 Engine clutch cover 9 Light 10 Reel cutter 11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	3	Engine switch
6 Brake lever 7 Engine 8 Engine clutch cover 9 Light 10 Reel cutter 11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	4	Main clutch lever
7 Engine 8 Engine clutch cover 9 Light 10 Reel cutter 11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	5	Safety lock switch
8 Engine clutch cover 9 Light 10 Reel cutter 11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	6	Brake lever
9 Light 10 Reel cutter 11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	7	Engine
10 Reel cutter 11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	8	Engine clutch cover
11 Bed knife 12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	9	Light
12 Front roller 13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	10	Reel cutter
13 Rear roller 14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	11	Bed knife
14 Grass catcher roller 15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	12	Front roller
15 Grass catcher 16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	13	Rear roller
16 Groomer 17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	14	Grass catcher roller
17 Groomer clutch lever 18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	15	Grass catcher
18 FOC (High/Low Clip) selector lever 19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	16	Groomer
19 Unit clutch cover 20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	17	Groomer clutch lever
20 Drum clutch cover 21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	18	FOC (High/Low Clip) selector lever
21 Drum 22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	19	Unit clutch cover
22 Traveling tires 23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	20	Drum clutch cover
23 Stand A Serial number plate B Specification Decal C Noise Emission Decal	21	Drum
A Serial number plate B Specification Decal C Noise Emission Decal	22	Traveling tires
B Specification Decal C Noise Emission Decal	23	Stand
C Noise Emission Decal	A	Serial number plate
	В	Specification Decal
D Year of Manufacture Decal	С	Noise Emission Decal
	D	Year of Manufacture Decal

Serial Number Plate

The serial number plate indicates the model and serial number of the machine.



Serial Number Plate_001

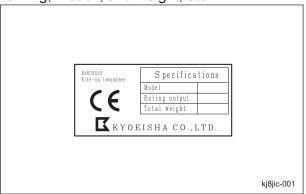
Names of Each Section Page 3-3

Product Overview

Specification Decal

(For Europe)

The Specification decal indicates the CE marking, model, and weight, etc.

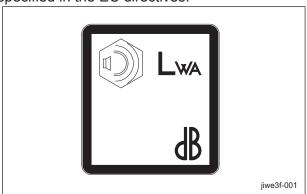


Specification Decal_001

Noise Emission Decal

(For Europe)

The noise emission decal indicates the sound power level determined by measuring identical machines in accordance with the procedure specified in the EC directives.

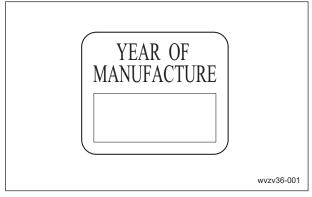


Noise Emission Decal_001

Year of Manufacture Decal

(For Europe)

The year of manufacture decal indicates the year when this machine was manufactured.



Year of Manufacture Decal_001

Safety Signs and Instruction Signs

About Safety Signs and Instruction Signs

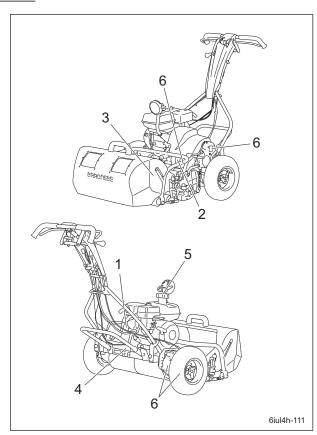
Important

Safety decals and instruction decals are attached to this machine.

Make sure that they are preserved in their entirety. If they are damaged, become dirty, or peel off, replace them with new ones.

Part numbers for decals that need to be replaced are listed in the parts catalog. Order them from a Baroness dealer or Kyoeisha.

<u>Positions of Safety Decals and Instruction</u> Decals



Positions of Safety Decals and Instruction Decals_001

Explanation about Safety Decals and Instruction Decals

K4205002150 1 DECAL, CAUTION HANDLING 1. Use lead-free gasoline. 2. 2 **Marning** Read the Owner's Operating Manual. 3. 3 1 **A** Caution Flying objects - Be sure that people around the machine keep a safe distance away. 4. 4 **Marning** May cut your hand or leg - When the blades are rotating, keep away from the machine. qigqnx-118 K4205001760 DECAL, CAUTION PTO **⚠** Warning 2 May catch your arm - Keep away from PTO moving parts during the engine running. qigqnx-126 K4205001600 DECAL, CAUTION TO MUTILATION 3 Warning May cut your hand or leg - Stop the cutter rotation

and engine. Otherwise you may get injured.

qigqnx-010

Product Overview



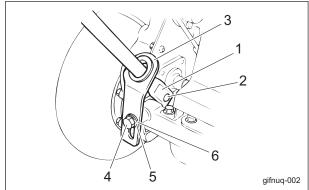
Preparation for Use	Page 4-2
Installing the Handle	Page 4-2
Connection of Engine Switch Cord	Page 4-2
Installing the Stand	Page 4-2
Confirmation of the Operation	Page 4-3
Inspection Before Use	Page 4-3
Reel Cutter (Cutting Cylinder) and	5
Bed Knife (Bottom Blade)	
Air Cleaner	_
Drum	_
Tire	_
Brake	_
Wire Engine	_
Engine Oil	_
Fuel	_
Oil Leakage	_
Grass Catcher	
Tightening torques	
	•
Standard tightening torques	Dago / 8
Standard tightening torques Principal tightening torques	_
	Page 4-10
Principal tightening torques	Page 4-10
Principal tightening torques Adjustment Before Operating	Page 4-10 Page 4-12 Page 4-12
Principal tightening torques Adjustment Before Operating	Page 4-10Page 4-12 Page 4-12 Page 4-12
Principal tightening torques	Page 4-10Page 4-12 Page 4-12 Page 4-12 Page 4-13
Adjustment Before Operating	Page 4-10Page 4-12Page 4-12Page 4-13Page 4-16
Adjustment Before Operating	Page 4-10Page 4-12Page 4-12Page 4-13Page 4-16Page 4-18
Adjustment Before Operating	Page 4-10 Page 4-12 Page 4-12 Page 4-13 Page 4-16 Page 4-18 Page 4-18
Adjustment Before Operating	Page 4-10 Page 4-12 Page 4-12 Page 4-13 Page 4-16 Page 4-18 Page 4-18 Page 4-20
Adjustment Before Operating	Page 4-10 Page 4-12 Page 4-12 Page 4-13 Page 4-16 Page 4-18 Page 4-18 Page 4-20
Adjustment Before Operating	Page 4-10 Page 4-12 Page 4-12 Page 4-13 Page 4-16 Page 4-18 Page 4-18 Page 4-20 Page 4-20
Adjustment Before Operating	Page 4-10 Page 4-12 Page 4-12 Page 4-13 Page 4-16 Page 4-18 Page 4-18 Page 4-20 Page 4-20 Page 4-20
Adjustment Before Operating	Page 4-10 Page 4-12 Page 4-12 Page 4-13 Page 4-16 Page 4-18 Page 4-20 Page 4-20 Page 4-20 Page 4-20 Page 4-20 Page 4-20
Adjustment Before Operating	Page 4-10 Page 4-12 Page 4-12 Page 4-13 Page 4-16 Page 4-18 Page 4-18 Page 4-20
Adjustment Before Operating	Page 4-10 Page 4-12 Page 4-12 Page 4-13 Page 4-16 Page 4-18 Page 4-18 Page 4-20 Page 4-23 Page 4-23

Safety Lock Switch	Page 4-24
Main Clutch Lever	Page 4-24
Drum Clutch Lever	Page 4-24
Unit Clutch Lever	Page 4-25
FOC (High/Low Clip) Selector Lever	Page 4-25
Engine Clutch Cover	Page 4-25
Groomer Clutch Lever	Page 4-26
Instruments	Page 4-26
Hour Meter	Page 4-26
Travel of Machine	Page 4-26
Traveling Procedure	Page 4-26
Cutting Work	Page 4-27
Cutting Work	Page 4-27
Removing/Installing Traveling Tires	Page 4-27
Removing/Installing Grass Catcher	Page 4-28
Transporting	Page 4-29
Transporting Procedure	Page 4-29

Preparation for Use

Installing the Handle

- 1. Put the handle pin on the left frame into the hole at the left-side lower edge of the handle.
- 2. While pressing the right-side lower edge of the handle inward, put the handle pin of the right frame into the hole.
- Secure the lower edges (slotted section of the handle adjusters) of the right and left sides of the handle to the rear frame stay from the back with the bolts, conical spring washers, and washers.



Installing the Handle_001

1	Lower edge of handle
2	Handle pin
3	Handle adjuster
4	Bolt
5	Conical spring washer
6	Washer

Connection of Engine Switch Cord

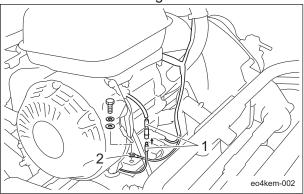
Important

When the connection of the engine switch cord is incomplete, the engine will not stop even if the engine switch is operated.
Check that the cord is correctly connected.

When assembling the handle, check the connection of the engine switch cord. There are two connections - plug and crimp terminal.

1. The plug is connected to the plug connected to the engine.

2. The crimp terminal is secured to the engine crankcase with a hexagon bolt.

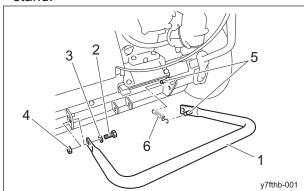


Connection of Engine Switch Cord_001

1	Plug
2	Crimp terminal

Installing the Stand

- 1. With the inside projection side set to the right, temporarily secure the left side of the stand to the frame with the bolt, washer (inside), and nut (outside).
- 2. Put the spring on the projection of the frame and the projection at the right edge of the stand.



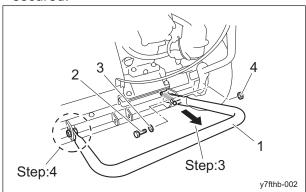
Installing the Stand_001

1	Stand
2	Bolt
3	Washer
4	Nut
5	Projection
6	Spring

3. While pulling the right side of the stand backward, make alignment with the hole in the frame, and secure the stand with the bolt, washer (inside), and nut (outside).

Page 4-2 Preparation for Use

4. Tighten the bolt, washer, and nut at the left side of the stand that were temporarily secured.



Installing the Stand_002

1	Stand
2	Bolt
3	Washer
4	Nut

Confirmation of the Operation

- 1. Check that the brake operates completely.
- 2. Check that the engine clutch operates completely.
- 3. If necessary, make adjustment.

Inspection Before Use

Be sure to perform an inspection before you start using the machine so that you will be able to take advantage of its optimum performance for a long period of time.

Reel Cutter (Cutting Cylinder) and Bed Knife (Bottom Blade)

Inspection of Reel Cutter (Cutting Cylinder) and Bed Knife (Bottom Blade)

The reel cutter (cutting cylinder) and bed knife (bottom blade) may become dull due to frequent use, objects crushed during mowing, or damage caused during transportation. Inspect the reel cutter (cutting cylinder) and bed knife (bottom blade), and if necessary, adjust the blade engagement, perform back lapping, or resharpen or replace the reel cutter (cutting cylinder) and the bed knife (bottom blade).

1. Check to see whether or not the edge of the reel cutter (cutting cylinder) and the bed knife (bottom blade) are too blunt to cut.

- 2. Make sure that the reel cutter (cutting cylinder) and the bed knife (bottom blade) are not cracked.
- 3. Check to see how much the reel cutter (cutting cylinder) and the bed knife (bottom blade) are worn.
- Make sure that the reel cutter (cutting cylinder) and the bed knife (bottom blade) have not changed color due to heat from grinding.
- 5. Check to see whether or not the second edge face (relief) remains at the point of reel cutter (cutting cylinder).
- 6. Make sure that the welding between the reel cutter (cutting cylinder) and the disc has not come off.

Air Cleaner

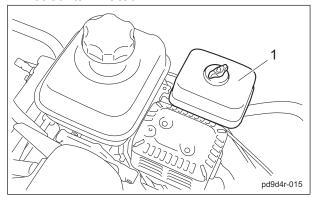
Inspection of Air Cleaner

For details on handling the engine, please refer to the Engine's Owner's Manual.

The air cleaner is a component that removes dirt from the intake air to prevent wear of the cylinder liners and piston rings so that the engine will always operate smoothly.

A contaminated air cleaner element may cause malfunction of the engine.

- 1. Make sure that there is no damage to the air cleaner.
- 2. Make sure that the air cleaner element is not contaminated.



Inspection of Air Cleaner_001

Air cleaner

Cleaning of Air Cleaner

For details on handling the engine, please refer to the Engine's Owner's Manual.

A contaminated air cleaner elements may cause malfunction of the engine.

To maximize the life of the engine, clean the air cleaner properly.

- 1. Remove the wing screw, and then remove the cover.
- 2. Remove the screw, and then remove the air cleaner elements.
- 3. Remove the urethane element from the paper element.

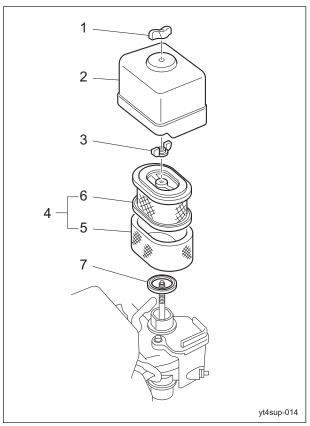
Important

When cleaning the paper element, do not use petroleum solvents.

Important

Replace the air cleaner elements when it gets damaged or dirty.

- 4. Clean the urethane element with white kerosene and then soak it in the engine oil and wring out.
- 5. Remove dirt and dust from the paper element with blowing air or patting.
- 6. Assemble the paper and urethane elements.
- 7. Attach the air cleaner elements with the screw.
- 8. Set the cover, and then secure it firmly with the wing screw.



Cleaning of Air Cleaner 001

1	Wing screw
2	Cover
3	Screw
4	Air cleaner element
5	Urethane element
6	Paper element
7	Gasket

Drum

Inspection of Drum

- Make sure that the drum is not cracked or damaged.
- 2. Make sure that there is no abrasion or adhesion of the drum.
- 3. Make sure that there is no play in the fit of the drum and the bearing.

Page 4-4 Inspection Before Use

Tire

Inspection of Tires

- 1. Check the pneumatic pressure of the tires.
- 2. Make sure that there are no cracks, damage or abnormal wear.

	Tire size	Pneumatic pressure	
Tire for	4.10/3.50-6	120 kPa (1.2 kgf/	
traveling	4.10/3.30-6	cm ²)	

Brake

Inspection of Brake

- 1. Pull up the brake lever and make sure that the brake can operate completely.
- 2. Pull the brake lever up to the top and make sure that it can lock the brake lever.
- 3. Make sure that the brake is not applied even slightly after releasing the brake lever.

Wire

Inspection of Wire

- 1. Make sure that the wire is not cracked or damaged.
- 2. If the wire is cracked or damaged, replace it with a new one immediately.

Engine

Inspection of Engine-Associated Parts

For details on handling the engine, please refer to the Engine's Owner's Manual.

- Check the fuel system parts for loosened or cracked joints and leakage. Replace the parts if necessary.
- 2. Blow compressed air to clean any grass or flammable materials that may be attached on or around the muffler.

Engine Oil

Inspection of Engine Oil

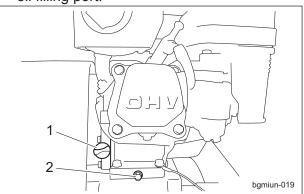
For details on handling the engine, please refer to the Engine's Owner's Manual.

Important

Screw the oil level gauge firmly.

1. Stop the engine, wait for 10 to 20 minutes for the engine to cool down, and then check the oil level.

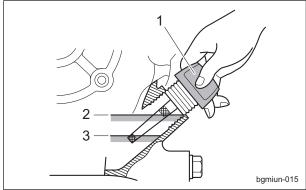
Position the machine so that the engine will be level, then check the engine oil level without screwing the oil level gauge into the oil filling port.



Inspection of Engine Oil_001

1	Oil level gauge (Oil filling port)
2	Drain plug

3. The appropriate engine oil level should be between the upper and lower limit lines on the gauge.



Inspection of Engine Oil_002

- 1-	
1	Oil level gauge
2	Upper limit
3	Lower limit

4. Screw the oil level gauge firmly.

Supply of Engine Oil

For details on handling the engine, please refer to the Engine's Owner's Manual.

Important

Do not supply too much engine oil. Otherwise, the engine may be damaged.

Important

Do not mix different types of engine oil.

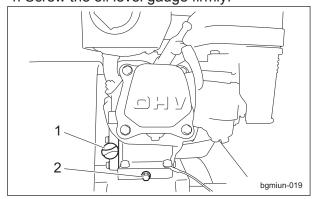
Important

Be sure to use engine oil that is classified as API Service Grade SE or higher, with an SAE Viscosity that is appropriate for the operating environment (ambient temperature).

Important

Screw the oil level gauge firmly.

- 1. Remove the oil level gauge.
- 2. Through the oil filling port, supply new engine oil until the engine oil reaches a level in the upper limit lines on the oil level gauge.
- 3. Position the machine so that the engine will be level, then check the engine oil level without screwing the oil level gauge into the oil filling port.
- 4. Screw the oil level gauge firmly.



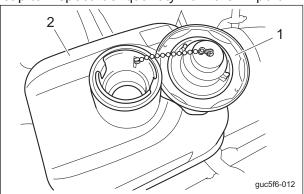
Supply of Engine Oil_001

1	Oil level gauge (Oil filling port)
2	Drain plug

Fuel

Inspection of Fuel Quantity

Level the machine and then remove the tank cap to inspect fuel quantity from the fill port.



Inspection of Fuel Quantity_001

1	Tank cap	
2	Fuel tank	

Fuel Supply



Caution

Do not supply fuel above FULL level of the fuel gauge.

If you supply too much fuel, it might overflow from the fuel cap when you travel or work on a slope.



Caution

Keep fire away while refueling. Do not smoke while refueling.



A Caution

Supply fuel after the engine is stopped and has well cooled down.

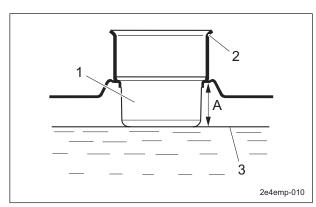


Caution

Pay attention not to touch hot parts.

Inspect the fuel quantity and put fuel (gasoline) if insufficient.

The fuel tank capacity is approximately 2.0 dm³ (2.0 L).



Fuel Supply_001

1	Fuel strainer	
2	Filling opening	
3	Maximum limit of fueling	
Α	2.5 cm (0.98 in)	

Oil Leakage

Inspection of Oil Leakage

After approximately 50 hours of operation, some joints may be loosened and oil and grease may leak.

Be sure to retighten the parts.

Check the bottom of the machine for oil and grease leakage.

Grass Catcher

Inspection of Grass Catcher

The grass catcher may no longer correctly collect grass clippings due to its wear, damage, deformation, etc., caused by frequent use.

- 1. Make sure that there is no wear or deterioration of the grass catcher.
- 2. Make sure that there is no damage to the grass catcher.
- 3. Make sure that there is no interference to moving parts due to deformation of the grass catcher.

Tightening torques

Standard tightening torques

Bolts and Nuts

Important

A number of bolts are used in each part of this machine.

Be sure to re-tighten the bolts and nuts, because they may be loosened at the earlier stage of the use

As to the bolts and nuts without any special instruction, tighten them in appropriate tightening torque with proper tool.

Too much tightening may cause the looseness or damage of the screw.

The strength of tightening is determined by types of screws, strength, the friction of thread face or base face and others.

The table below is for the galvanized or parkerized bolts.

In case that the strength of internal thread is weak, it is not applied.

Do not use rusty or sand attached "screw."

Otherwise, it may cause insufficient tightening even if you apply the specified tightening torque.

The friction of the screw face becomes higher and the tightening torque is canceled out by the friction, therefore sufficient tightening cannot be applied.

If "screw" is wet by water or oil, do not tighten it with normal tightening torque.

If the screw is wet, the torque coefficient will get smaller and it may result in too much tightening.

Too much tightening may cause looseness by the screw stretched or result in damage.

Do not use a bolt experienced too much burden.

Using the impact wrench requires the skill.

Do exercise as much as possible for steady tightening.

	General bolt						
	Strength classification 4.8						
Nominal diameter	M 4 T (4.8) tib3yb-001						
	N-m	kgf-cm	lb-in				
M5	3 - 5	30.59 - 50.99	26.55 - 44.26				
M6	7 - 9	71.38 - 91.77	61.96 - 79.66				
M8	14 - 19	142.76 - 193.74	123.91 - 168.17				
M10	29 - 38	295.71 - 387.49	256.68 - 336.34				
M12	52 - 67	530.24 - 683.20	460.25 - 593.02				
M14	70 - 94	713.79 - 958.52	619.57 - 831.99				
M16	88 - 112	897.34 - 1142.06	778.89 - 991.31				
M18	116 - 144	1,182.85 - 1,468.37	1,026.72 - 1,274.54				
M20	147 - 183	1,498.96 - 1,866.05	1,301.10 - 1,619.73				
M22	295	3,008.12	2,611.05				
M24	370	3,772.89	3,274.87				
M27	550	5,608.35	4,868.05				
M30	740	7,545.78	6,549.74				

Page 4-8 Tightening torques

			Heat-ti	eated bolt				
	Strength classification 8.8				Strength classification 10.9			
Nominal diameter	8 8 T (8.8) tib3yb-002			11 (11T) (10.9) tib3yb-003				
	N-m	kgf-cm	lb-in	N-m	kgf-cm	lb-in		
M5	5 - 7	50.99 - 71.38	44.26 - 61.96	7 - 10	71.38 - 101.97	61.96 - 88.51		
M6	8 - 11	81.58 - 112.17	70.81 - 97.36	14 - 18	142.76 - 183.55	123.91 - 159.32		
M8	23 - 29	234.53 - 295.71	203.57 - 256.68	28 - 38	285.52 - 387.49	247.83 - 336.34		
M10	45 - 57	458.87 - 581.23	398.30 - 504.51	58 - 76	591.43 - 774.97	513.36 - 672.68		
M12	67 - 85	683.20 - 866.75	593.02 - 752.34	104 - 134	1,060.49 - 1,366.40	920.50 - 1186.03		
M14	106 - 134	1,080.88 - 1,366.40	938.21 - 1,186.03	140 - 188	1,427.58 - 1,917.04	1,239.14 - 1,663.99		
M16	152 - 188	1,549.94 - 1,917.04	1,345.35 - 1,663.99	210 - 260	2,141.37 - 2,651.22	1,858.71 - 2,301.26		
M18	200 - 240	2,039.40 - 2,447.28	1,770.20 - 2,124.24	280 - 340	2,855.16 - 3,466.98	2,478.28 - 3,009.34		
M20	245 - 295	2,498.27 - 3,008.12	2,168.50 - 2,611.05	370 - 450	3,772.89 - 4,588.65	3,274.87 - 3,982.95		
M22	-	-	-	530	5,404.41	4,691.03		
M24	-	-	-	670	6,831.99	5,930.17		
M27	-	-	-	1,000	10,197.00	8,851.00		
M30	-	-	-	1,340	14,628.78	11,860.34		

Note:

The same values are applied to "fine screw thread."

Tightening torques Page 4-9

Principal tightening torques

Tightening Torque by Model

LM101

Tighten the following bolts and nuts at the torque specified in the table.

For thread locking adhesive, apply a middle strength thread locker (ThreeBond 1322 or equivalent anaerobic sealant).

	Code Part name		Tightening torque			Thread
Location		Part name	N-m	kgf-cm	lb-in	locking adhesive
	K0160000132	NUT, SMALL P1.5 M20-10	7 (Reference values)	71.38 (Reference values)	61.96 (Reference values)	_
	K0160000082	NUT, SMALL P1.5 M20-8	45 (Reference values)	458.87 (Reference values)	398.30 (Reference values)	-
Mower	LM54G0132Z0	BOLT, SUS MOUNTING MOWER (LH)	29 - 38 (Reference values)	295.71 - 387.49 (Reference values)	256.68 - 336.34 (Reference values)	-
	BOLT, SUS LM54G0133Z0 MOUNTING (RH)	MOUNTING MOWER	29 - 38 (Reference values)	295.71 - 387.49 (Reference values)	256.68 - 336.34 (Reference values)	-
	K0071000222	SCREW, HT + FLAT HEAD M6-12	7 - 9	71.38 - 91.77	61.96 - 79.66	-
Clutch	K0013060251	BOLT, HT M6-25	14 (Reference values)	142.76 (Reference values)	123.91 (Reference values)	-
Frame	K001A080201	BOLT, W/HEXAGON HOLE, M8-20	14 - 19	142.76 - 193.74	123.91 - 168.17	-
Handle	K0010100252	BOLT, HT M10-25	29 - 38	295.71 - 387.49	256.68 - 336.34	-
	LM54GS-1231A0	SCREW	18 (Reference values)	183.55 (Reference values)	159.32 (Reference values)	-
Martine II.	K0185160003	NUT, LEFT-HANDED P1.5 M16-3	45 (Reference values)	458.87 (Reference values)	398.30 (Reference values)	-
Vertical brush	K0160000302	NUT, SPECIAL P1 M17 (Blade fixation side)	5 - 10	50.99 - 101.97	44.26 - 88.51	-
	K0160000302	NUT, SPECIAL P1 M17 (Lock side)	45 (Reference values)	458.87 (Reference values)	398.30 (Reference values)	-
Vertical	K6083000143	PIN, STEPPED FOR FIXING (RH) CASE	6	61.18	53.11	-

Page 4-10 Tightening torques

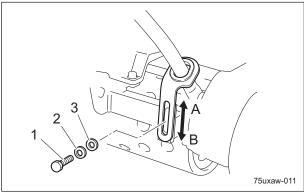
			Tightening torque			Thread
Location	Code	Part name	N-m	kgf-cm	lb-in	locking adhesive
Vertical	LM54GAS1230Z3	BOLT, CLAMPING CASE (LH)	6	61.18	53.11	-

Tightening torques Page 4-11

Adjustment Before Operating

Adjustment of Handle

The height of the handle can be adjusted according to the operator's working position. Move the handle adjusters supporting the handle up or down and fix them with the bolts.



Adjustment of Handle_001

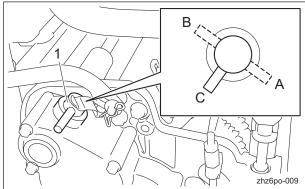
1	Bolt
2	Conical spring washer
3	Washer
Α	High
В	Low

Adjustment of Blade Engagement



When checking the sharpness of the blades with newspaper, be sure to stop the engine and protect your hands with gloves etc. Pay attention not to let the reel cutter (cutting cylinder) catch your gloves. Otherwise, you may injure your hand or fingers.

- 1. Stop the engine.
- 2. Set the FOC (High/Low Clip) selector lever to the "Stop" position.



Adjustment of Blade Engagement_001

1	FOC (High/Low Clip) selector lever	
Α	High clip	
В	Low clip	
С	Stop	

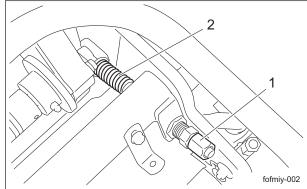
- 3. Adjust the engagement between the reel cutter (cutting cylinder) and the bed knife (bottom blade) so that newspaper (one piece) will be cut cleanly by the edge of both blades when the blades in their entirety come slightly into contact with each other via the cutter adjustment nuts.
- 4. Insert a strip of newspaper into the space between the reel cutter (cutting cylinder) and the bed knife (bottom blade) at an angle of 90 degrees.

Then, rotate the reel cutter (cutting cylinder) counter-clockwise (when you face the mower unit from the left) to check the sharpness of the blades.

Check the sharpness of the entire range (three or four points from left edge to right) of the reel cutter (cutting cylinder).

- If a gap is created between edges:
 Loosen (rotate counter-clockwise) the cutter adjustment nut to apply more contact pressure between the reel cutter (cutting cylinder) and the bed knife (bottom blade).
- - Tighten (rotate clockwise) the cutter adjustment nut to reduce the contact pressure between the reel cutter (cutting cylinder) and the bed knife (bottom blade).
- If the sharpness is not improved by the adjustment:

Perform back lapping to the reel cutter (cutting cylinder).



Adjustment of Blade Engagement_002

1	Cutter adjustment nut	
2	Spring	

Adjustment of Cutting Height

Adjust the cutting height to fit your cutting work.

Important

This applies the set cutting height that differs from the actual cutting height.

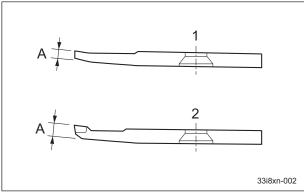
Cutting Height and Thickness of Bed Knife (Bottom Blade)

Important

The recommended minimum cutting heights are based on those of common greens. They may vary according to the green conditions and machine specifications. If the green undulation is hard, set it a little bit higher in order not to damage the green surface.

Minimum cutting height is recommended for each thickness of blade as follows.

Type of blade	Thickness of blade (mm/inch)	Recommended minimum cutting height (mm/inch)	Code	Part name	Remarks
	1.5	3.0	K2511000270	1.5 Bed knife (bottom blade) 55G	Standard
Standard blade	2.0	3.5	K2511000280	2 Bed knife (bottom blade) 55G	
	2.5	4.0	K2511000050	2.5 Bed knife (bottom blade) 55G	
Tipped blade	3.0	4.5	K2510000060	3 Bed knife (bottom blade) 62.5-559	
	5.0	7.0	K2510000160	5 Bed knife (bottom blade) 62.5-559	



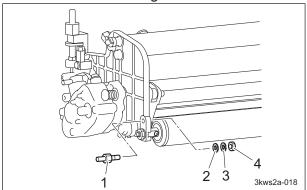
Cutting Height and Thickness of Bed Knife (Bottom Blade)_001

1	Standard blade
2	Tipped blade
Α	Thickness of blade

Adjustment of Rear Roller

You can adjust the rear roller by 3 stages. Adjust the rear roller in a position that suits your work requirements.

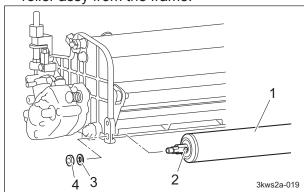
1. Remove nuts A, washers A, S washers A and bolts A on the right and left sides.



Adjustment of Rear Roller_001

1	Bolt A
2	Washer A
3	S washer A
4	Nut A

2. Remove washers B and nuts B on the right and left sides, and then remove the rear roller assy from the frame.



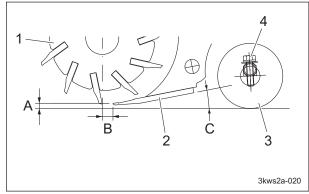
Adjustment of Rear Roller_002

1	Rear roller assy
2	Bolt B
3	Washer B
4	Nut B

To obtain desired cutting position, determine the direction of bolt B and install the rear roller assy.

Cutting position

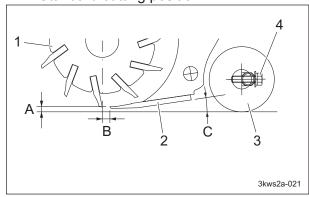
 Aggressive cutting position
 Long distance of offset and large angle of bed knife



Adjustment of Rear Roller_003

1	Reel cutter
2	Bed knife
3	Rear roller assy
4	Bolt B
Α	Cutting height
В	Offset distance
С	Bed knife angle

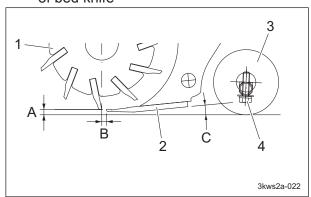
· Standard cutting position



Adjustment of Rear Roller_004

1	Reel cutter
2	Bed knife
3	Rear roller assy
4	Bolt B
Α	Cutting height
В	Offset distance
С	Bed knife angle

Less aggressive cutting position
 Short distance of offset and small angle of bed knife

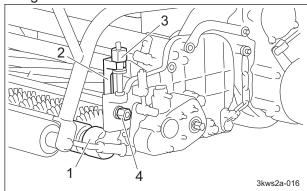


Adjustment of Rear Roller 005

1	Reel cutter
2	Bed knife
3	Rear roller assy
4	Bolt B
Α	Cutting height
В	Offset distance
С	Bed knife angle

Adjustment of Front Roller

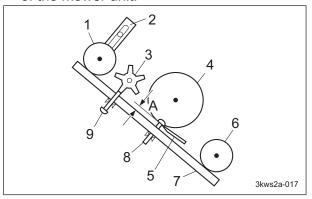
- Set the slide caliper to the required cutting height, adjust the neck position of the cutting height setting screw of the cutting height gauge and securely lock with a wingnut.
- 2. Loosen the nut fixing the roller bracket of right and left.



Adjustment of Front Roller_001

1	Front roller
2	Roller bracket
3	Roller adjuster
4	Nut

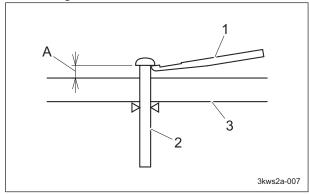
3. Set the cutting height gauge to the front roller and rear roller at the right and left end of the mower unit.



Adjustment of Front Roller 002

1	Front roller
2	Roller bracket
3	Front groomer
4	Reel cutter (Cutting cylinder)
5	Rear roller
6	Bed knife (Bottom blade)
7	Cutting height gauge
8	Small screw for cutting height setting
9	Small screw for groomer setting
А	Cutting height

4. Adjust the front roller up and down by the roller adjuster to determine the position of the front roller, in order not to have a gap with the neck position of the cutting height setting screw of the cutting height gauge, at the edge of the bed knife.



Adjustment of Front Roller_003

1	Bed knife (Bottom blade)
2	Small screw for cutting height setting
3	Cutting height gauge
Α	Cutting height

5. Repeat the same process at the opposite side for the adjustment of cutting height.

- 6. Tighten the nuts that secure the right and left roller brackets to secure them firmly.
- 7. Again, make sure that the cutting height is at the required position by applying the cutting height gauge to the front roller and the rear roller at each edge of right and left of the mower unit.

Adjustment of Groomer

Note:

Depending on the specifications, this function may not be available.

Important

Adjust the front groomer according to the condition of the green before use.

Important

Set the grooming height more than 0.0 mm from the ground.

If the groomer blades are set deeper than the ground surface, the groomer shaft may break.

Important

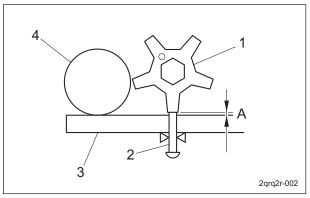
The front groomer, when it is put too low, may apply an excessive load to the engine and transmission section and cause malfunction or failure.

Important

When using the grooming brush, adjust the height so that it will be equal to the cutting height.

The brush will be worn easily when the height is too low.

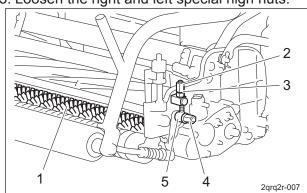
 Set the slide caliper to the required operating height, adjust the end of the small screw for groomer setting of the cutting height gauge and securely lock with a wing nut.



Adjustment of Groomer_001

1	Dethatching blade
2	Small screw for groomer setting
3	Cutting height gauge
4	Front roller
Α	Operating height

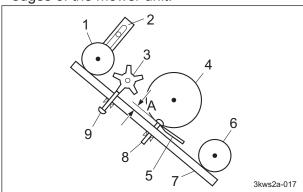
- 2. Loosen the nuts B fixing the right and left groomer adjustment screws.
- 3. Loosen the right and left special high nuts.



Adjustment of Groomer_002

1	Front groomer
2	High nut
3	Nut A
4	Nut B
5	Groomer adjustment screw

4. Apply the cutting height gauge to the front roller and the rear roller at the right and left edges of the mower unit.



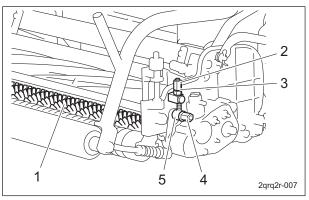
Adjustment of Groomer 003

Front roller
Roller bracket
Front groomer
Reel Cutter (Cutting Cylinder)
Bed knife (Bottom blade)
Rear roller
Cutting height gauge
Small screw for cutting height setting
Small screw for groomer setting
Operation height

Important

Adjust the position so that the small screw for groomer setting can contact the dethatching blades.

- 5. Adjust the nuts A up and down so that the right and left sides can be parallel.
- 6. Repeat the same process at the opposite side for the adjustment of grooming height.
- 7. Tighten the nuts B that secure the right and left groomer adjustment screws.
- 8. Tighten the right and left high nuts.
- Reconfirm that the grooming height is at the required position by applying the cutting height gauge to the front roller and the rear roller at the right and left edges of the mower unit.



Adjustment of Groomer_004

1	Front groomer
2	High nut
3	Nut A
4	Nut B
5	Groomer adjustment screw

Note:

In the case that the front groomer is not used, you do not have to change the set grooming height.

Loosen the nuts fixing the right and left groomer adjustment screws, lift the groomer and tighten the right and left nuts to raise the front groomer so that it cannot contact the lawn.

Next time the groomer is used, loosen the right and left nuts, lower the groomer and tighten the nuts so that it can return to the grooming height set previously.

Procedure to Start / Stop Engine

Start / Stop of Engine

Procedure to Start Engine

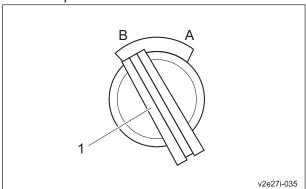


Before starting the engine, make sure that there are no other people or obstacles around the machine.



Make sure that the engine clutch cover is installed in the prescribed position.

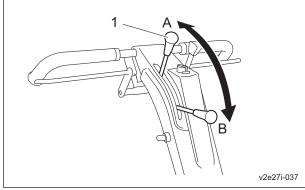
 Make sure that the engine switch is in the "OFF" position.



Procedure to Start Engine_001

	1	Engine switch
	Α	ON
	В	OFF

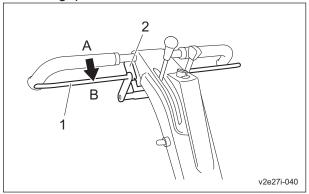
2. Make sure that the brake is locked.



Procedure to Start Engine_002

	1	Brake lever
	Α	Lock
	В	Unlock

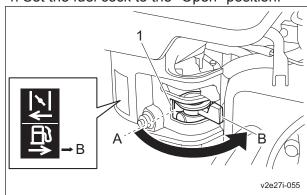
3. Don't grip the main clutch lever.



Procedure to Start Engine_003

1	Main clutch lever
2	Safety lock switch
Α	ON
В	OFF

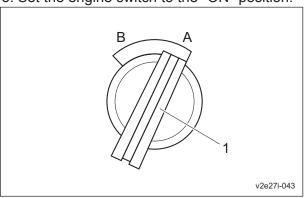
4. Set the fuel cock to the "Open" position.



Procedure to Start Engine_004

1	Fuel cock
Α	Close
В	Open

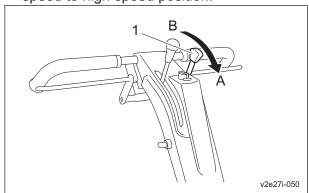
5. Set the engine switch to the "ON" position.



Procedure to Start Engine_005

1	Engine switch
Α	ON
В	OFF

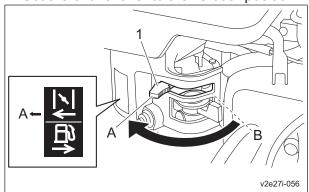
6. Shift the throttle lever halfway from low speed to high speed position.



Procedure to Start Engine_006

1	Throttle lever
Α	High speed
В	Low speed

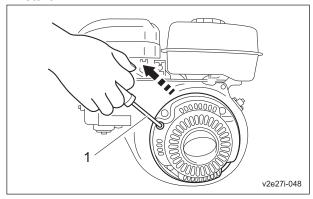
7. Set the choke lever to the "Close" position.



Procedure to Start Engine_007

1	Choke lever
Α	Close
В	Open

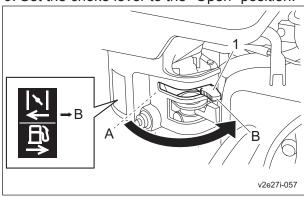
8. Pull the recoil starter, and the engine will start.



Procedure to Start Engine_008

1	Recoil starter
	1 COOII Starter

9. Set the choke lever to the "Open" position.

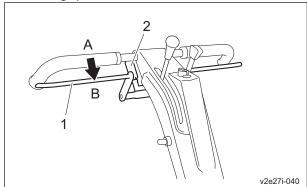


Procedure to Start Engine_009

1	Choke lever
Α	Close
В	Open

Procedure to Stop Engine

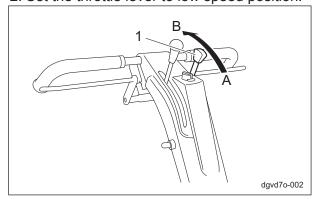
1. Don't grip the main clutch lever.



Procedure to Stop Engine_001

1	Main clutch lever	
2	Safety lock switch	
Α	ON	
В	OFF	

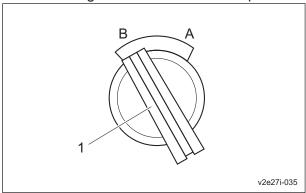
2. Set the throttle lever to low speed position.



Procedure to Stop Engine_002

1	Throttle lever
Α	High speed
В	Low speed

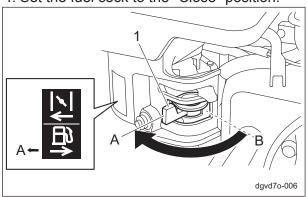
3. Set the engine switch to the "OFF" position.



Procedure to Stop Engine_003

1	Engine switch
Α	ON
В	OFF

4. Set the fuel cock to the "Close" position.



Procedure to Stop Engine_004

1	Fuel cock
Α	Close
В	Open

Operation of Each Section

Precautions for Operating the Machine



Under any circumstances drive the machine at such a speed that you can stop it immediately for emergencies.

Cautions before Leaving the Machine



Park the machine on a flat place. Do not park the machine on a slope.

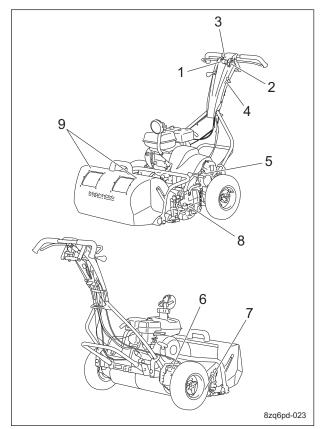


Check that the engine has stopped.



Make sure that the brake lever is locked.

<u>Description about Operation Decals</u>



Description about Operation Decals_001

1	Engine switch mark
2	Decal, accelerator
3	Decal, brake
4	Decal, light switch
5	Sticker, ON/OFF A (Unit clutch)
6	Sticker, ON/OFF A (Drum clutch)
7	Sticker, reel rotation
8	Decal, groomer indication
9	Decal, alignment 10300 (Set of 2pcs)

1	- ENGINE SWITCH MARK It illustrates the positions of the engine switch.	OFF ON 8zq6pd-006
2	- DECAL, ACCELERATOR It illustrates Low/High of the engine rotation speed. HIGH:High Speed LOW:Low Speed	HIGH
3	K4209001200 DECAL, BRAKE It illustrates the locking position for the parking brake.	6n6oux-092
4	K4203001610 DECAL, LIGHT SWITCH Note: Depending on the specifications, this function may not be available. It illustrates ON/OFF of the light.	1 2 6n6oux-086
5	K4203001140 STICKER, ON/OFF A It shows ON/OFF of the unit clutch.	ON OFF 8zq6pd-011

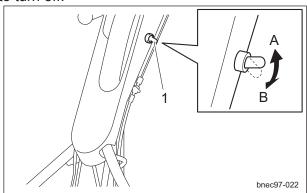
6	K4203001140 STICKER, ON/OFF A It shows ON/OFF of the drum clutch.	ON ↑ OFF 8zq6pd-011
7	K4203001690 STICKER, REEL ROTATION It illustrates High / Low clip of the reel cutter rotation speed. Low: Low Clip High: High Clip	High Stop Low
8	K4203001120 DECAL, GROOMER INDICATION Note: Depending on the specifications, this function may not be available. It illustrates the changeover of rotational direction of the groomer. Normal: Normal rotation Reverse: Reverse rotation	Normal Stop Reverse
9	K4209001230 DECAL, ALIGNMENT 10300 (SET OF 2PCS) Note: Depending on the specifications, this function may not be available. Affix the decal in indicative positions for operational support.	8zq6pd-012

Light Switch

Note:

Depending on the specifications, this function may not be available.

The light switch is located in the handle panel. Flip up the switch to turn on the light, and down to turn off.

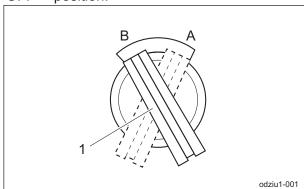


Light Switch_001

	1	Light switch
	Α	ON
	В	OFF

Engine Switch

The engine switch is located in the handle. To start the engine, set the engine switch to the "ON" position, and to stop it, set to the "OFF" position.



Engine Switch_001

1	Engine switch
Α	ON
В	OFF

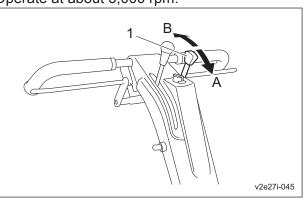
Throttle Lever

The throttle lever is located in the handle and enables you to adjust the engine rpm. Move the throttle lever toward the "High speed" position to increase the engine rpm, and toward the "Low speed" position to reduce the rpm.

Note:

The factory default engine rpm (maximum) is set to 3,100 rpm.

Operate at about 3,000 rpm.



Throttle Lever_001

1	Throttle lever
Α	High speed
В	Low speed

Brake Lever



Avoid quick operation.

Carefully and slowly operate the machine.

The brake lever is located in the handle.

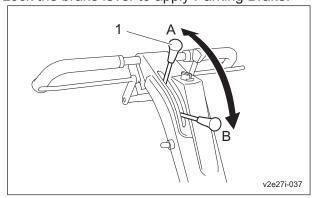
Pull up the brake lever to activate braking and the travel of the machine is stopped.

Pull the brake lever up to the top and the brake lever is locked with brake applied.

Push down the brake lever to release the brake.

Note:

Lock the brake lever to apply Parking Brake.



Brake Lever_001

1	Brake lever
Α	Lock
В	Unlock

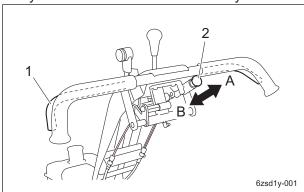
Safety Lock Switch

The safety lock switch is located in the handle.

Important

While the main clutch is in the "OFF" position, the safety lock is activated.

Grip the main clutch lever while pushing the safety lock switch to unlock the safety lock.



Safety Lock Switch_001

1	Main clutch lever
2	Safety lock switch
Α	Lock
В	Unlock

Main Clutch Lever



A Caution

Avoid quick operation.

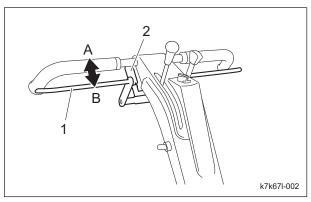
Carefully and slowly operate the machine.

Important

The main clutch is not activated unless the safety lock released.

The main clutch lever is located in the handle. Unlock the safety lock and then grip the main clutch lever to traveling forward with rotating the reel cutter.

Release the main clutch lever from the hands to stop the machine traveling and the reel cutter rotating.



Main Clutch Lever 001

		_
	1	Main clutch lever
	2	Safety lock switch
	А	ON
	В	OFF

Drum Clutch Lever



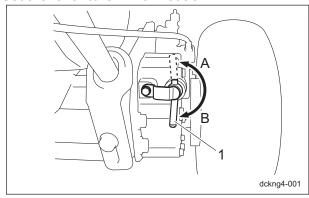
▲ Caution

Operate and set the lever to the proper position in accordance with the purpose when the main clutch lever set to the OFF position.

The drum clutch lever is located at the rear of the right frame side.

Set the lever to ON to activate the drum and the traveling wheels.

Set the lever to OFF for neutral.



Drum Clutch Lever_001

1	Drum clutch lever
Α	ON
В	OFF

Note:

The machine can be moved easily with the lever OFF when the engine stopped.

Unit Clutch Lever



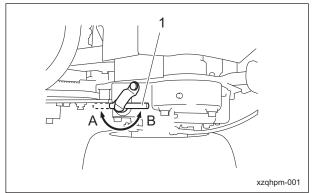
A Caution

Operate and set the lever to the proper position in accordance with the purpose when the main clutch lever set to the OFF position.

The unit clutch lever is located above the left frame.

Set the lever to the ON position and the power is transmitted from the transmission case to the unit

Set the lever to the OFF position and the power from the transmission case to the unit is cut off.



Unit Clutch Lever_001

1	Unit clutch lever
Α	ON
В	OFF

Note:

Set the lever to the OFF position when traveling.

FOC (High/Low Clip) Selector Lever



▲ Caution

Operate and set the lever to the proper position in accordance with the purpose when the main clutch lever set to the OFF position.

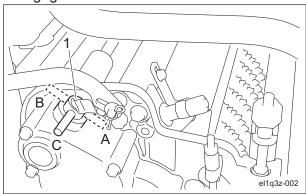
The FOC (High/Low Clip) selector lever is in the right side of the unit.

There are three changeover positions. When the lever is shifted to "High clip", the reel cutter (cutting cylinder) rotates faster, and the clip pitch (cutting interval) becomes shorter. This is suitable for the work in good turf condition.

When the lever is shifted to "Low clip", the reel cutter (cutting cylinder) rotates slower compared to "High clip" and the clip pitch becomes longer.

This is suitable for the work when the turf condition is not so good.

When the lever is shifted to "Stop", the drive transmission for the reel rotation gear is disengaged.

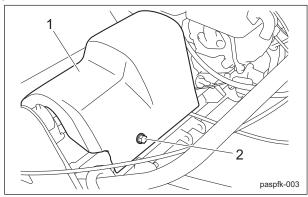


FOC (High/Low Clip) Selector Lever_001

1	FOC (High/Low clip) Selector Lever
Α	High clip
В	Low clip
С	Stop

Engine Clutch Cover

The engine clutch cover is on the left side of the engine, covering the engine clutch. The engine clutch cover can be opened and closed with the fastening bolt taken off and put on.



Engine Clutch Cover 001

	-
1	Engine Clutch Cover
2	Fastening bolt

Groomer Clutch Lever

Note:

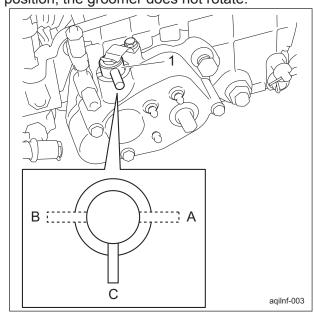
Depending on the specifications, this function may not be available.



Operate and set the lever to the proper position in accordance with the purpose when the main clutch lever set to the OFF position.

The groomer clutch lever is in the left side of the unit.

There are three changeover positions. When the lever is in the "Normal rotation" position, the groomer rotates in the same direction as the blade reel cylinder. When the lever is in the "Reverse rotation" position, the groomer rotates in the opposite direction of the blade reel cylinder. When the lever is in the "Rotation stop" position, the groomer does not rotate.



Groomer Clutch Lever_001

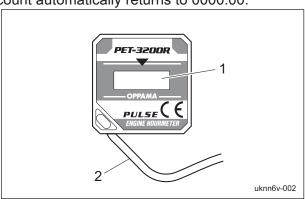
1	Groomer clutch lever
Α	Normal rotation
В	Reverse rotation
С	Rotation stop

Instruments

Hour Meter

The hour meter is located in the operation panel, and indicates the accumulated operation time of the engine.

It accumulates time up to 9999:59 and then the count automatically returns to 0000:00.



Hour Meter 001

1	Hour meter
2	Antenna lead wire

Travel of Machine

Traveling Procedure



A Caution

Do not start to move or stop the machine abruptly.

- 1. Install traveling tires.
- 2. Flip up the stand.
- 3. Set the drum clutch lever to "ON" position.
- 4. Start the engine.
- 5. Release the brake.
- 6. Release the safety lock and grip the main clutch lever slowly.
- 7. The machine can start traveling.

Page 4-26 Instruments

Cutting Work

Cutting Work



Do not operate on a steep slope.



Do not start to move or stop the machine abruptly.



Be sure to operate at an appropriate speed for the mowing site.

For mowing on an undulated surface, mow with lowered cutting speed.

Important

Be sure to attach the grass catcher. Discharge the clippings at the right time during operation.

- 1. Remove the traveling tires.
- 2. Flip up the stand.
- 3. Install the grass catcher.
- 4. Move the FOC (High/Low Clip) selector lever to the desired position.
- 5. Move the drum clutch lever to the "ON" position.
- 6. Move the groomer clutch lever to the desired position.
- 7. Move the Unit clutch lever to the "ON" position.
- 8. Start the engine.
- 9. Release the brake.
- 10. Release the safety lock and grip the main clutch lever slowly to start mowing.

Note:

The factory default maximum engine rotation speed is set to 3,100 rpm.

Operate at about 3,000 rpm.

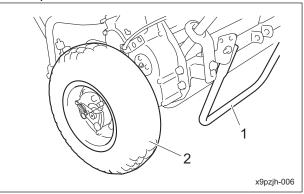
Removing/Installing Traveling Tires

Important

Remove the traveling tires before cutting work.

Traveling tires are used to travel.
Removing Traveling Tires:

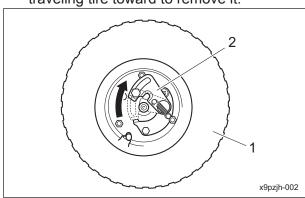
- 1. Stop the engine.
- 2. Flip down the stand.



Removing/Installing Traveling Tires_001

1	Stand
2	Traveling tire

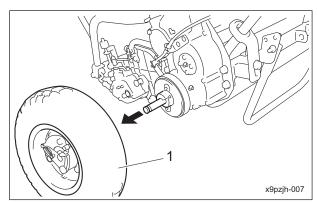
3. While holding the lever of the wheel mount plate to the release position, pull the traveling tire toward to remove it.



Removing/Installing Traveling Tires_002

1	Traveling tire
2	Wheel mount plate

Cutting Work Page 4-27



Removing/Installing Traveling Tires_003

1 Traveling tire

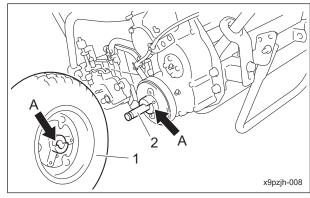
4. Repeat the same process for removing the opposite traveling tire.

Installing Traveling Tires:

Important

The drum shaft and the traveling tires have mating parts each other.

Make sure of their shapes to install the traveling tires.

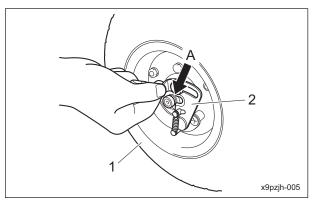


Removing/Installing Traveling Tires_004

1	Traveling tire
2	Drum shaft
Α	Mating parts

Important

Make sure that the wheel mount plate is grooved on the drum shaft.
Otherwise the tires may come off.



Removing/Installing Traveling Tires_005

1	Traveling tire
2	Wheel mount plate
Α	Groove

When installing traveling tires, follow the reverse procedure to removing.

Removing/Installing Grass Catcher



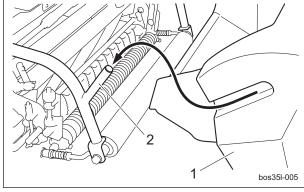
Stop the engine before removing/installing the grass catcher.

Removing Grass Catcher:

Lift up the grass catcher and remove it from the grass catcher fitting bars.

Installing Grass Catcher:

Insert the grass catcher fitting bars into the slots of the grass catcher.



Removing/Installing Grass Catcher_001

1	Grass catcher
2	Grass catcher fitting bar

Page 4-28 Cutting Work

Transporting

Transporting Procedure



A Caution

When loading and unloading the machine, wear non-slip shoes and travel slowly.

Important

When securing the machine with a rope, do not tie the rope to the engine.

Important

When securing the machine with a rope, be careful not to bend any wires.

Be extremely careful when loading the machine into a truck or a trailer.

Before loading or unloading, stop the truck or trailer on a level surface in a safe location, apply the parking brake, stop the engine, and then chock the wheels.

Before loading into a truck or a trailer for transportation, apply the parking brake of the machine, stop its engine, and then secure the machine with rope or any other sufficiently strong restraining device.

When using a loading ramp, select one of sufficient length, width and strength, and that will not allow the machine to slip off.

Transporting Page 4-29

Page 4-30 Transporting

Maintenance Precautions	Page 5-2
Position of mower during maintenance	Page 5-2
Maintenance Schedule	Page 5-4
Specified Values	Page 5-6
Greasing	Page 5-7
About GreasingGreasing Points	
Maintenance (Mower)	Page 5-11
Adjustment of Cutter Adjustment Spring Adjusting CAM Back Lapping of Reel Cutter	
(Cutting Cylinder)	Page 5-12
Sharpening of Reel Cutter (Cutting Cylinder)	Page 5-14
Replacement of Reel Cutter (Cutting Cylinder)	Page 5-15
Replacement of Bed Knife (Bottom Blade)	Page 5-17
Removing/Installing The Bed Knife Base	Page 5-17
Removing/Installing The Bed Knife	
Maintenance (Main Body)	. Page 5-23
Adjustment of Brake Adjustment of Engine Clutch Change of Air Cleaner Replacement of Engine Oil	Page 5-23 Page 5-24
Long-Term Storage	Page 5-25
Before Long-Term Storage	Page 5-25
Troubleshooting Procedures of Aftercut Appearance	. Page 5-26
Scalping Angled Mismatch Overlap Marks Blade does not cut	Page 5-26 Page 5-27 Page 5-28

Maintenance Precautions



Caution

First, learn well the maintenance operations you plan to perform.

Important

Use tools appropriate for each maintenance operation.

Important

For the safe and best performance of your machine, use Baroness genuine parts for replacement and accessories.

Please note that our product warranty may be void if you use non-genuine parts for replacement or accessories.

Position of mower during maintenance

Important

If the mower handle is left leaned on the ground for a long time during maintenance engine oil may enter the engine combustion chamber and cause the engine to run improperly.

Be careful not to keep this position long and ensure sufficient time for any oil to drain back by returning to upright position for ten minutes before starting.

Important

An attitude of the machine tilting toward the handle side at a large angle may cause the engine malfunction.

Note:

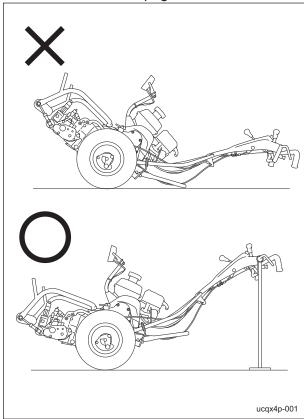
The attitude of the machine tilting toward the handle side at a large angle is a state where the engine tilts more than 30 degrees from the upright position.

· For maintenance of the machine fitted with the traveling wheels: Use the maintenance stand to prevent from the engine malfunction.

▲ Caution

Pay attention to the machine standing up with the maintenance stand lifted up when large power is added to the mower unit of the machine tilting toward the handle side.

- 1. Park the machine on a level place.
- 2. Tilt it slowly toward the handle side and pass the main clutch lever through the pipe of the maintenance stand.
- 3. Set the handle so that the maintenance stand can stand upright.



Position of mower during maintenance_001

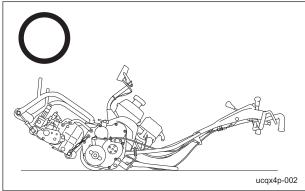
Maintenance stand

Page 5-2 Maintenance Precautions • For maintenance of the machine without the traveling wheels:



The engine malfunction does not occur even when the machine tilting toward the handle side with the stand touching the ground. Pay attention to the machine standing up depending on the unbalanced state owing to the adjusted position of the handle height.

- 1. Park the machine on a level place.
- 2. Tilt it slowly toward the handle side and set it so that the stand can touch the ground.



Position of mower during maintenance_002

Maintenance Schedule

LM101

Follow the maintenance schedule below.

O · · · Inspect, adjust, supply, clean

• · · Replace (first time)

△ · · · Replace

		Maintenance Item	Before Work	After Work	Every 10 hrs.	Every 20 hrs.	Every 25 hrs.	Every 50 hrs.	Every 100 hrs.	Every 300 hrs.	Every 500 hrs.	Every year	Every 2 years	When Required	Remarks
	*2	Check tightening bolts and nuts	0												
	*2	Check fuel level	0												
		Check fuel and oil leaks	0												
	*2	Check engine oil level	0												
	*2	Check air cleaner		0											
		Clean engine and circumference of the muffler cover		0											
	*2	Change engine oil				•			Δ						20 hours first change
	*2	Check spark plug							0						
	*2	Clean spark arrester							0						
	*2	Clean sediment cup							0						
	*1	Clean fuel tank & filter							0						
Engine	*1	Check idling speed								0		0			Check every 300 hours or every year whichever comes earlier
Eng	*1	Check valve clearance								0		0			Check every 300 hours or every year whichever comes earlier
	*2	Replace air cleaner								Δ		Δ			Paper filter element: Replace every 300 hours or every year whichever comes earlier Foam filter element: Replace as necessary
	*2	Replace spark plug								Δ		Δ			Replace every 300 hours or every year whichever comes earlier
	*1	Remove carbon in combustion chamber									0				
	*1	Check fuel hoses and clamp bands											0	Δ	
Main body		Check tire pressures and condition	0												Refer to "Inspection of Tires"
ain		Check damaged parts	0												
Σ		Check tightening bolts and nuts	0												

Page 5-4 Maintenance Schedule

	Maintenance Item	Before Work	After Work	Every 10 hrs.	Every 20 hrs.	Every 25 hrs.	Every 50 hrs.	Every 100 hrs.	Every 300 hrs.	Every 500 hrs.	Every year	Every 2 years	When Required	Remarks
	Check main clutch lever actuation	0												
	Check brake function	0												Refer to "Inspection of Brake""Adjustment of Brake"
	Check work lamp illumination	0												
	Adjust handle position	0												Refer to "Adjustment of Handle"
	Check safety lock of main clutch	0												
	Check cover condition	0												
	Clean machine exterior		0											
dy	Grease and Lubricate all moving parts			0										Refer to "Greasing Points" (A points)
Main body	Grease and Lubricate all moving parts						0							Refer to "Greasing Points" (B points)
2	Adjust engine clutch spring												0	Refer to "Adjustment of Engine Clutch"
	Check brake wire							0					Δ	Refer to "Inspection of Wire"
	Check electrical wiring condition (Damage, defacement and joint looseness)										0			
	Adjust engine clutch gap												0	Refer to "Adjustment of Engine Clutch"
	Check throttle wire												0	Refer to "Inspection of Wire"
	Check main clutch wire												0	Refer to "Inspection of Wire"
	Check blade condition (Reel cutter and Bedknife)	0												Refer to "Inspection of Reel Cutter (Cutting Cylinder) and Bed Knife (Bottom Blade)"
	Check cover condition	0												
ب	Check roller condition	0												
uni	Check groomer condition	0												
Mower unit	Engage blades	0												Refer to "Adjustment of Blade Engagement"
	Check mowing height	0												Refer to "Adjustment of Cutting Height"
	Adjust groomer	0												Refer to "Adjustment of Groomer"
	Check damaged parts	0												
	Check tightening bolts and nuts	0												

Maintenance Schedule Page 5-5

	Maintenance Item		After Work	Every 10 hrs.	Every 20 hrs.	Every 25 hrs.	Every 50 hrs.	Every 100 hrs.	Every 300 hrs.	Every 500 hrs.	Every year	Every 2 years	When Required	Remarks
	Clean mower unit		0											
	Grease			0										Refer to "Greasing Points" (A points)
	Grease						0							Refer to "Greasing Points" (B points)
	Clean and Grease Bedknife Eccentric Bushes												0	
	Replace bearings inside gearcase										Δ			
	Replace front/rear roller bearings										Δ			
Mower unit	Replace grass catcher roller bearings										Δ			
Wer	Replace oil seals inside gearcase										Δ			
ΜÓ	Replace front/rear roller oil seals										Δ			
	Replace grass catcher roller oil seals										Δ			
	Replace grease inside gearcase										Δ			
	Adjust cutter adjustment spring												0	Refer to "Adjustment of Cutter Adjustment Spring"
	Backlap blades												0	Refer to "Back Lapping of Reel Cutter (Cutting Cylinder)"
	Regrind blades (Reel cutter and Bed knife)												0	Regrind/Replace blades as and when required

- \cdot *1: Consult your local Baroness Dealer for this service.
- · *2: Refer to the Engine's Owner's Manual.
- $\boldsymbol{\cdot}$ The values for consumables are not guaranteed.

Specified Values

Fuel tank capacity	2.0 dm ³ (2.0 L)	Gasoline
Engine oil capacity	0.56 dm ³ (0.56 L)	SAE30 (API Service Grade SE or higher)
Engine plug	-	NGK BPR4ES
Tire pneumatic pressure	120 kPa (1.2 kgf/cm ²)	4.10/3.50 - 6
Cutter adjustment spring	43.0 mm (1.69 in)	Total length of spring
Reel cutter shaft bearing preload spring	11.5 mm (0.453 in)	Total length of spring
Reel cutter rotation torque	0.8 - 1.0 N · m (8 - 10 kgf · cm)	
Engine clutch	0.5 - 1.0 mm (0.020 - 0.039 in)	Gap between engine clutch and clutch facing
Operation distance of clutch plate	1.0 - 2.0 mm (0.039 - 0.079 in)	

Page 5-6 Maintenance Schedule

Engine clutch spring	61.0 mm (2.40 in)	Total length of spring
----------------------	-------------------	------------------------

Greasing

About Greasing

Since there may be adhesion or damage due to lack of grease on moving parts, they must be greased.

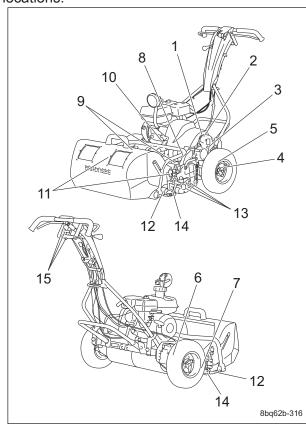
Add urea-based No. 2 grease in accordance with the Maintenance Schedule.

Other locations where the specified grease or lubricant is used are indicated in "Greasing Points".

Add grease using the specified grease or lubricant.

Greasing Points

Grease nipples are installed in the following locations.

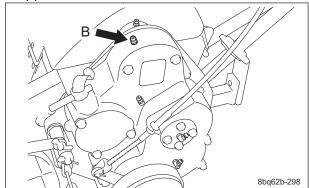


Greasing Points_001

Location	No. of greasing	Greasing
	points	period
Upper side of left frame cover	1	В
Mower #1 shaft	1	В
_eft frame #2 shaft	1	А
_eft frame #4 shaft	1	А
Differential gear	1	А
Right frame #2 shaft	1	A
Right gear case	1	А
Transmission gear case	1	А
Transmission shaft	2	А
Arm mounting hitch fulcrum	1	В
Reel housing	2	А
Front roller	2	В
Groomer gear case	3	А
Groomer shaft	2	В
Handle	3	В
\	Mower #1 shaft Left frame #2 shaft Left frame #4 shaft Differential gear Right frame #2 shaft Right gear case Transmission gear case Transmission shaft Arm mounting hitch fulcrum Reel housing Front roller Groomer gear case Groomer shaft	Mower #1 shaft 1 Left frame #2 shaft 1 Left frame #4 shaft 1 Differential gear 1 Right frame #2 shaft 1 Right gear case 1 Transmission gear case 1 Transmission shaft 2 Arm mounting hitch fulcrum 1 Reel housing 2 Front roller 2 Groomer gear case 3 Groomer shaft 2

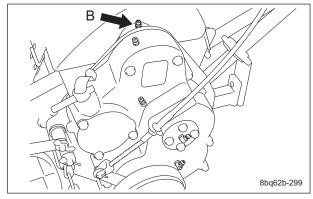
Add grease to A every 10 hours, and B every 50 hours.

1. Upper side of left frame cover



Greasing Points_002

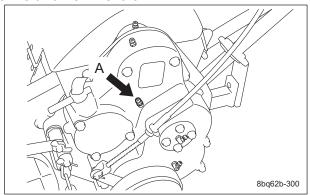
2. Mower #1 shaft



Greasing Points_003

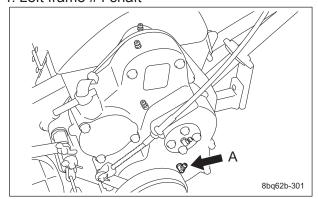
Greasing Page 5-7

3. Left frame #2 shaft



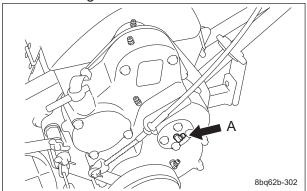
Greasing Points_004

4. Left frame #4 shaft



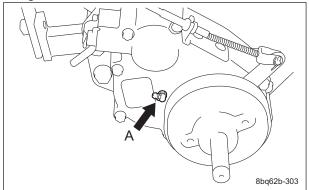
Greasing Points_005

5. Differential gear



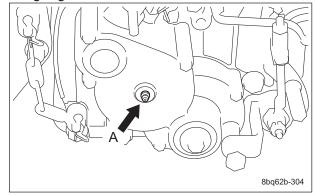
Greasing Points_006

6. Right frame #2 shaft



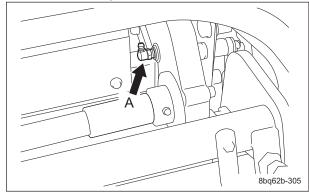
Greasing Points_007

7. Right gear case



Greasing Points_008

8. Transmission gear case

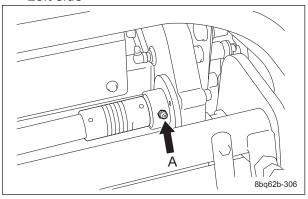


Greasing Points_009

9. Transmission shaft

There are one location each on the right and left.

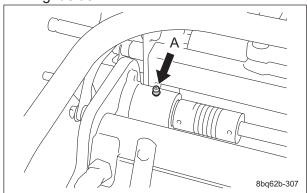
Left side



Greasing Points_010

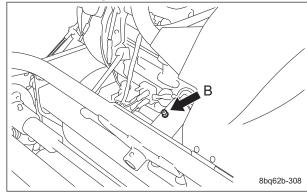
Page 5-8 Greasing

Right side



Greasing Points_011

10. Arm mounting hitch fulcrum

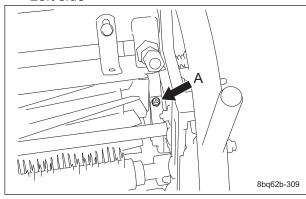


Greasing Points_012

11. Reel housing

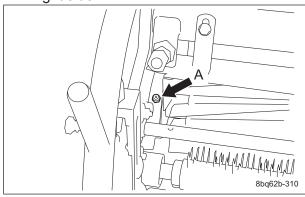
There are one location each on the right and left.

Left side



Greasing Points_013

Right side

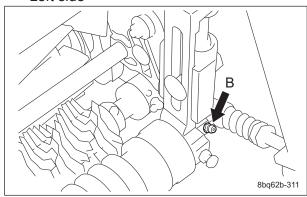


Greasing Points_014

12. Front roller

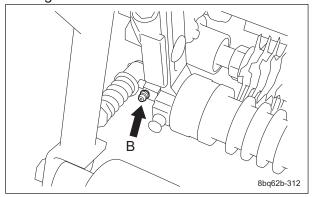
There are one location each on the right and left.

Left side



Greasing Points_015

Right side



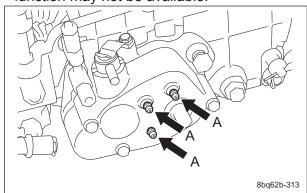
Greasing Points_016

Greasing Page 5-9

13. Groomer gear case

Note:

Depending on the specifications, this function may not be available.



Greasing Points_017

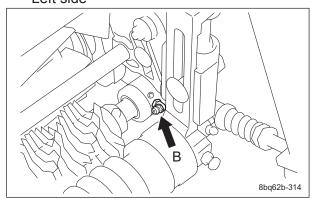
14. Groomer shaft

Note:

Depending on the specifications, this function may not be available.

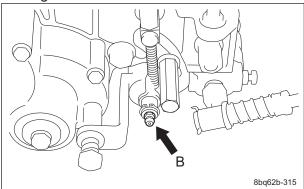
There are one location each on the right and left.

Left side



Greasing Points_018

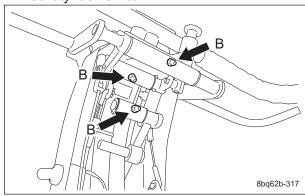
Right side



Greasing Points_019

15. Handle

- · Main clutch lever
- · Brake lever
- · Safety lock switch



Greasing Points_020

Page 5-10 Greasing

Maintenance (Mower)

Adjustment of Cutter Adjustment Spring



A Caution

Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.

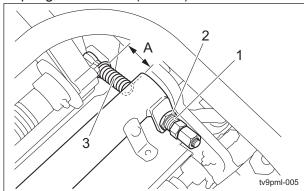


A Caution

When handling the reel cutter (cutting cylinder) and the bed knife (bottom blade), wear gloves to protect your hands. Pay attention not to let the reel cutter (cutting cylinder) catch your gloves. Otherwise, you may injure your hand or fingers.

If the diameter of the reel cutter (cutting cylinder) becomes smaller, adjust the cutter adjustment spring.

- 1. Adjust the blade engagement.
- 2. Loosen the spring adjusting screw and the nut, and then adjust the length of the coil spring to 43.0 mm (1.69 in).



Adjustment of Cutter Adjustment Spring_001

1	Spring adjusting screw
2	Nut
3	Spring
Α	43.0 mm (1.69 in)

Adjusting CAM

Turn the cam bush on both sides of the bottom blade, and the blade can be raised and lowered respectively by maximum 0.3 mm (0.012 in).

The above method is used when the edges of the reel cutter (cutting cylinder) and the bed knife (bottom blade) are not in parallel. Check for the gap between the reel cutter (cutting cylinder) and the bed knife (bottom blade)

When the gap appears on the left side.

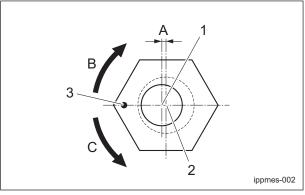
- 1. Loosen the locknut and turn the left cam bush clockwise to eliminate only the gap distance.
 - When you raise the bed knife (bottom blade) by 0.1 mm (0.004 in), turn the left cam bush clockwise 30 degrees.
- 2. Once the adjustment completed, tighten the locknut securely.

When the gap appears on the right side.

- 1. Loosen the locknut and turn the right cam bush anticlockwise to eliminate only the gap distance.
- 2. Once the adjustment completed, tighten the locknut securely.

The figure below shows the situation when you see from the left side.

The right side is mirror reversed.



Adjusting CAM_001

1	Center of cutter pin			
2 Center of cam bush				
3	Punch mark			
Α	0.3 mm (0.012 in)			
В	Raising the bed knife			
С	Lowering the bed knife.			

Back Lapping of Reel Cutter (Cutting Cylinder)

Back lapping is work similar to sharpening a cooking knife. If the edges of the reel cutter (cutting cylinder) and the bed knife (bottom blade) become blunt and make cutting difficult, both the reel cutter (cutting cylinder) and the bed knife (bottom blade) should be simultaneously sharpened by reversing the reel cutter (cutting cylinder) with an abrasive paste applied.

However, back lapping is a temporary measure and would not restore the sharpness completely.

If the edges of the reel cutter (cutting cylinder) and the bed knife (bottom blade) become blunt and make cutting difficult, follow the steps below to perform back lapping.



During back lapping, the reel cutter (cutting cylinder) rotates.

Keep hands and feet away from moving parts.

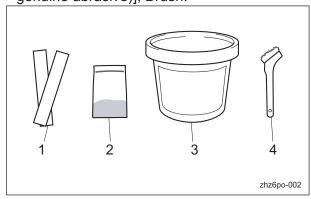


Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.



Do not perform back lapping with any other persons.

 Have the following items ready: Strips of newspaper, Abrasive [Back lapping powder mixed with oil; or gel compound (Baroness genuine abrasive)], Brush.



Back Lapping of Reel Cutter (Cutting Cylinder)_001

1	Newspaper
2	Back lapping powder
3	Gel compound
4	Brush

Note:

The mixing ratio for the abrasive, in volume, is one part back lapping powder (#200 - #400) to three or four parts oil.

2. Have a lapping machine or the lapping handle ready.

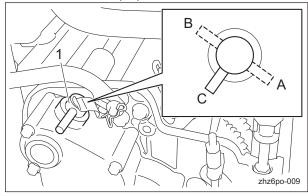
▲ Caution

When handling the reel cutter (cutting cylinder) and the bed knife (bottom blade), wear gloves to protect your hands. Pay attention not to let the reel cutter (cutting cylinder) catch your gloves. Otherwise, you may injure your hand or fingers.

Important

Check the sharpness of the blade by checking the blade engagement after cutting grass.

- 3. Stop the engine.
- 4. Shift the the FOC (High/Low Clip) selector lever to the "Stop" position.

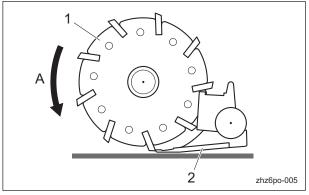


Back Lapping of Reel Cutter (Cutting Cylinder)_002

1	FOC (High/Low clip) Selector Lever
Α	High clip
В	Low clip
С	Stop

Page 5-12 Maintenance (Mower)

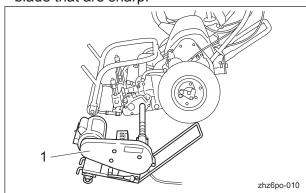
5. Insert one or two strips of newspaper into the space between the reel cutter (cutting cylinder) and the bed knife (bottom blade) at an angle of 90 degrees. Then, rotate the reel cutter (cutting cylinder) counter-clockwise (when you face the mower unit from the left) by hand to check the sharpness of the blades.



Back Lapping of Reel Cutter (Cutting Cylinder)_003

1	Reel cutter
2	Bed knife
Α	Rotation direction

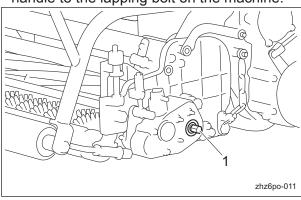
- 6. Check the sharpness of the entire range (three or four points from the left edge to the right one) of the reel cutter (cutting cylinder).
- 7. Using a piece of chalk, mark locations on the blade that are sharp.



Back Lapping of Reel Cutter (Cutting Cylinder)_004

Lapping machine

8. Connect the lapping machine or the lapping handle to the lapping bolt on the machine.



Back Lapping of Reel Cutter (Cutting Cylinder)_005

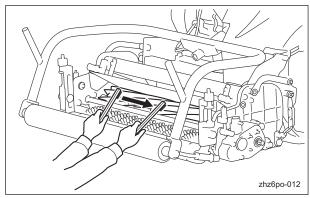
9. Rotate the reel cutter (cutting cylinder) clockwise (when you face the mower unit from the left).

Lapping bolt

- · Turn on the lapping machine.
- · Or rotate the lapping handle.

Important

The right side of the reel cutter (when you face the mower unit from the front) is inclined to wear earlier than the left side. Accordingly be sure to move the brush from the left to the right to apply the abrasive.



Back Lapping of Reel Cutter (Cutting Cylinder)_006

- 10. Apply the abrasive evenly with the brush on the top side of reel cutter (cutting cylinder) where the newspaper was cut well or of chalk-marked locations. (Never apply to blunt areas.)
- 11. Rotate the reel cutter for a while and stop its rotation when the sound of contact is lost.
 - Turn off the lapping machine.
 - · Or stop rotating the lapping handle.
- 12. Disconnect the lapping machine or the lapping handle (accessory tool).

- 13. Wash off or wipe off with a cloth, etc., the abrasive from the reel cutter (cutting cylinder), and then check it for sharpness.
- 14. Repeat steps 5 to 13 until the entire range (three or four points from the left edge to the right one) of the reel cutter (cutting cylinder) is uniformly sharpened.
- 15. Finally, apply abrasive to the entire blade width of the reel cutter (cutting cylinder) and perform final back lapping.

Important

Pay attention not to pour water over the engine and electric components when cleaning.

- 16. Wash out the abrasive with a washer etc.
- 17. While checking the blade for sharpness, adjust blade engagement.

Sharpening of Reel Cutter (Cutting Cylinder)



Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.



Wear gloves when touching edged tools to avoid cutting your hands.

The sharpening of the reel cutter (cutting cylinder) consists in maintaining its roundness and creating a relief (second edge face). This work should be performed if the sharpness cannot be restored, even after back lapping, or if the relief (second edge face) has worn away.

Sharpen the reel cutter (cutting cylinder) when the sharpness cannot be restored, even after back lapping, or when the relief (second edge face) has worn away, there is full contact or back lapping takes too much time.

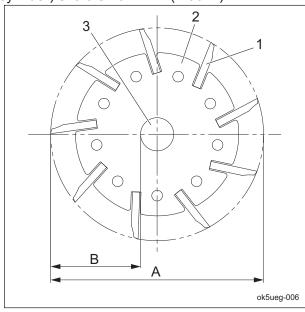
In addition, if the reel cutter (cutting cylinder) becomes worn and its shape conical, perform cylindrical grinding to return it to a cylindrical shape.

For sharpening the reel cutter (cutting cylinder), contact your dealer or Baroness. If the outer diameter of the reel cutter (cutting cylinder) after sharpening is more than the usage limit, the reel cutter (cutting cylinder) can be sharpened.

Ne	ew	Usag	e limit
Dimension A (Outer diameter of reel cutter (cutting cylinder))	Dimension B (Distance from blade edge to outer edge of reel cutter (cutting cylinder) shaft)	Dimension A (Outer diameter of reel cutter (cutting cylinder))	Dimension B (Distance from blade edge to outer edge of reel cutter (cutting cylinder) shaft)
101 mm	37.8 mm	93 mm	33.8 mm
(3.98 in)	(1.49 in)	(3.66 in)	(1.33 in)

Note:

The outer diameter of the reel cutter (cutting cylinder) shaft is 25.4 mm (1.00 in).



Sharpening of Reel Cutter (Cutting Cylinder)_001

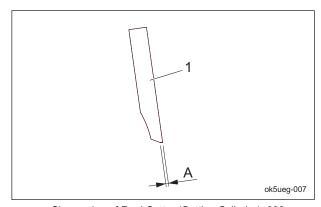
1	Reel cutter (cutting cylinder) blade
2	Reel cutter (cutting cylinder) disc
3	Reel cutter (cutting cylinder) shaft
А	Outer diameter of reel cutter (cutting cylinder)
В	Distance from blade edge to outer edge of reel cutter (cutting cylinder) shaft

Page 5-14

Sharpening is necessary when the reel cutter (cutting cylinder) reaches a condition described below.

 When the sharpening width (length of contacting surface of bed knife (bottom blade)) for the outer diameter of the reel cutter (cutting cylinder) is greater than the usage limit.

Outer diameter of reel cutter (cutting cylinder) (new part)	Usage limit of sharpening width for outer diameter of reel cutter (cutting cylinder)
101 mm (3.98 in)	2.5 mm (0.10 in) (factory-recommended)



Sharpening of Reel Cutter (Cutting Cylinder)_002

1	Reel cutter (cutting cylinder) blade
ΙΔ	Sharpening width for outer diameter of
	reel cutter (cutting cylinder)

- 2. When the edges become blunt or the blade edge cannot be formed with back lapping
- When the reel cutter (cutting cylinder) becomes worn and its shape conical, or when blade engagement adjustment cannot be performed

Replacement of Reel Cutter (Cutting Cylinder)



Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.

▲ Caution

Wear gloves when touching edged tools to avoid cutting your hands.

The criteria for replacing the reel cutter (cutting cylinder) are described below.

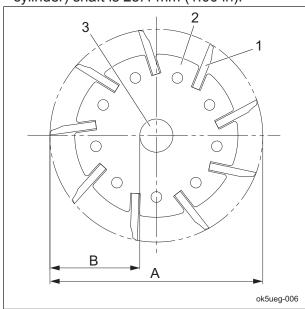
However, these criteria are only a reference and do not guarantee performance like that of a new reel cutter (cutting cylinder).

1. When the outer diameter of the reel cutter (cutting cylinder) is less than the usage limit

New		Usage limit	
Dimension A (Outer diameter of reel cutter (cutting cylinder))	Dimension B (Distance from blade edge to outer edge of reel cutter (cutting cylinder) shaft)	Dimension A (Outer diameter of reel cutter (cutting cylinder))	Dimension B (Distance from blade edge to outer edge of reel cutter (cutting cylinder) shaft)
101 mm	37.8 mm	93 mm	33.8 mm
(3.98 in)	(1.49 in)	(3.66 in)	(1.33 in)

Note:

The outer diameter of the reel cutter (cutting cylinder) shaft is 25.4 mm (1.00 in).



Replacement of Reel Cutter (Cutting Cylinder)_001

•••			
	1	Reel cutter (cutting cylinder) blade	
	2	Reel cutter (cutting cylinder) disc	
	3	Reel cutter (cutting cylinder) shaft	
	Α	Outer diameter of reel cutter (cutting cylinder)	
	В	Distance from blade edge to outer edge of reel cutter (cutting cylinder) shaft	

Installing The Reel Cutter



▲ Caution

Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.



A Caution

When handling the reel cutter (cutting cylinder) and the bed knife (bottom blade), wear gloves to protect your hands. Pay attention not to let the reel cutter (cutting cylinder) catch your gloves. Otherwise, you may injure your hand or fingers.

Important

See the list in Tightening torques. Note that the Baroness product warranty may not apply to defects caused by incorrect or overtorque tightening etc.

Follow the instruction below to replace the reel cutter bearing and oil seal on both sides.

Important

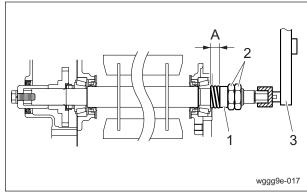
Use Bearing 30204JRP6.

- 1. Fill up the bearings and oil seals with grease (Excelite EP No.2).
- 2. Attach the reel cutter (cutting cylinder) to the frame.
- 3. Tighten the nut completely and temporarily, and then loosen it until the spring length reaches 11.5 mm(0.453 in)and lock it. Note:

A certain preload will be applied by the spring pressure.

4. Measure the rotational torque of the blade reel cylinder with a torque wrench. The specified value should be 0.8 to 1.0 N m (8 to 10 kgf cm).

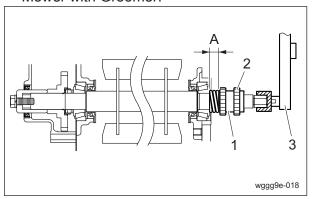
Mower without Groomer:



Installing The Reel Cutter_001

1	Collar
2	Nut
3	Torque wrench
Α	11.5 mm (0.453 in)

Mower with Groomer:



Installing The Reel Cutter 002

	_
1	Reel gear
2	Gear nut
3	Torque Wrench
Α	11.5 mm (0.453 in)

Page 5-16 Maintenance (Mower)

Replacement of Bed Knife (Bottom Blade)

▲ Caution

Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.



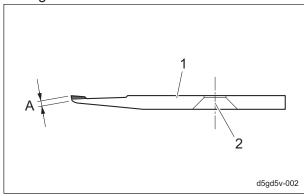
Wear gloves when touching edged tools to avoid cutting your hands.

The criteria for replacing the bed knife (bottom blade) are described below.

However, these criteria are only a reference and do not guarantee performance like that of a new bed knife (bottom blade).

- 1. When the reel cutter (cutting cylinder) is ground
- 2. When the reel cutter (cutting cylinder) is replaced
- 3. When the bed knife (bottom blade) is worn Standard blade

Replace the bed knife (bottom blade) before it no longer has a front face.



Replacement of Bed Knife (Bottom Blade)_001

1	Bed knife (bottom blade)
2	Mounting hole
Α	Front face

Removing/Installing The Bed Knife Base

Removal of Bed Knife Base



A Caution

Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.

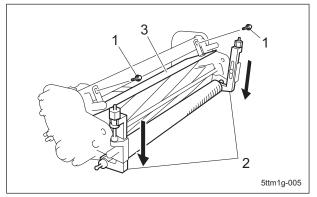


Caution

While operations are performed with the front of the machine raised, there is a danger of it

Securely support the machine.

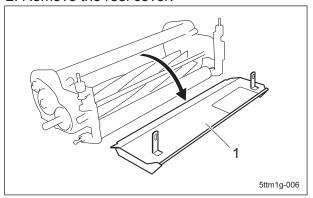
1. Lower the roller bracket so that it does not contact the reel cover, and then remove the bolts.



Removal of Bed Knife Base 001

· · · · · · · · · · · · · · · · · · ·	
1	Bolt
2	Roller bracket
3	Reel cover

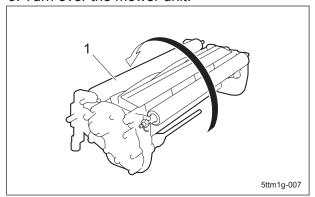
2. Remove the reel cover.



Removal of Bed Knife Base 002

	-
1	Reel cover

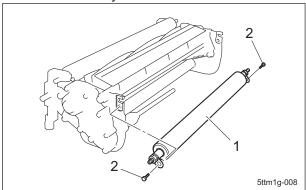
3. Turn over the mower unit.



Removal of Bed Knife Base_003

1 Mower unit

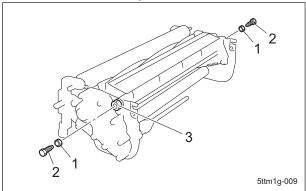
4. Remove the bolts, and then remove the rear roller Assy.



Removal of Bed Knife Base_004

1	Rear roller Assy
2	Bolt

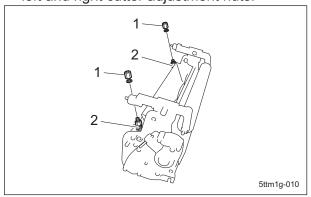
5. Loosen the left and right lock nuts, and then remove the cutter pins.



Removal of Bed Knife Base 005

1	Lock nut
2	Cutter pin
3	Cam bush

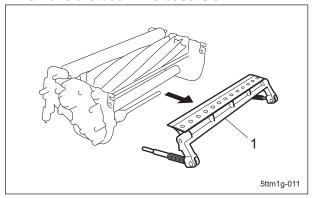
6. Stand up the mower unit so that the roller bracket is at the top, and then remove the left and right cutter adjustment nuts.



Removal of Bed Knife Base 006

1	Cutter adjustment nut
2	Cutter adjustment bolt

7. Place down the mower unit, and then remove the bed knife base COMP.



Removal of Bed Knife Base_007

1 Bed knife base COMP

Page 5-18 Maintenance (Mower)

Installation of Bed Knife Base



▲ Caution

Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.



▲ Caution

When handling the reel cutter (cutting cylinder) or bed knife (bottom blade), wear gloves to protect your hands.

Pay attention not to let the reel cutter (cutting cylinder) catch your gloves. Otherwise, you may injure your hand or fingers.



A Caution

While operations are performed with the front of the machine raised, there is a danger of it falling.

Securely support the machine.

Important

Refer to the Tightening Torque table. Note that the Baroness product warranty may not apply to defects caused by incorrect or overtorque tightening, etc.

Important

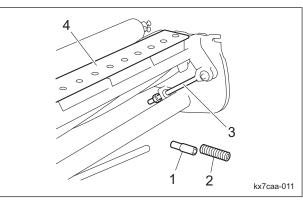
Make sure that there is no binding at the cam bushes in the frame of the mower unit.

Important

Install the bed knife base COMP parallel to the mower unit.

During installation, be careful not to twist both arms.

1. Remove the collar and compression spring from each (left and right) adjustment bolt, and then temporarily install the bed knife base COMP onto the mower unit.



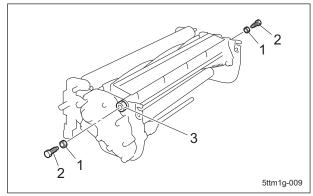
Installation of Bed Knife Base 001

1	Collar
2	Compression spring
3	Cutter adjustment bolt
4	Bed knife base COMP

2. Temporarily install the left and right cutter pins.

Note:

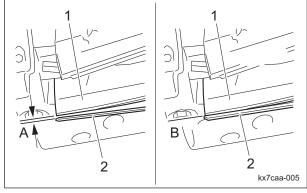
At this time, tighten the lock nuts to the heads of the cutter pins, but do not allow the lock nuts to contact the cam bushes.



Installation of Bed Knife Base_002

1	Lock nut
2	Cutter pin
3	Cam bush

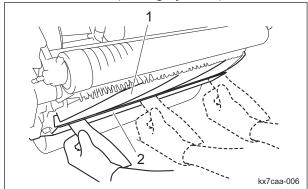
3. Make sure that the bed knife (bottom blade) contacts the reel cutter (cutting cylinder).



Installation of Bed Knife Base 003

1	Reel cutter (cutting cylinder)
2	Bed knife (bottom blade)
3	Gap
4	No gap

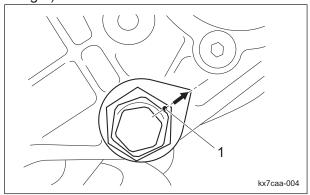
4. Insert one or two strips of newspaper into the space between the reel cutter (cutting cylinder) and the bed knife (bottom blade) at an angle of 90 degrees. Then, rotate the reel cutter (cutting cylinder) counterclockwise (as seen from the left side of the mower unit) by hand to check the sharpness of the entire range (three or four points from the left edge to the right one) of the reel cutter (cutting cylinder).



Installation of Bed Knife Base_004

1	Reel cutter (cutting cylinder)
2	Bed knife (bottom blade)

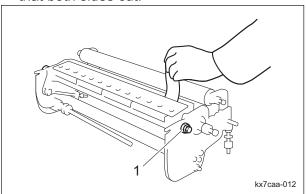
5. Align the punch mark on each (left and right) cam bush with the travel direction.



Installation of Bed Knife Base 005

	1	Punch mark
--	---	------------

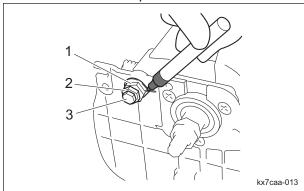
6. Adjust the positions of the cam bushes so that both sides cut.



Installation of Bed Knife Base_006

1	Cam bush
1	Cam bush

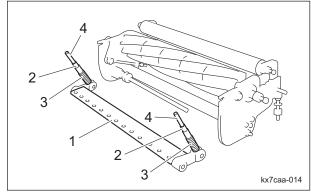
7. Use a marker, etc., to place a mark on the mower unit frame at the position of the punch mark on the cam bush, and then remove the cutter pin.



Installation of Bed Knife Base_007

1	Cam bush
2	Lock nut
3	Cutter pin

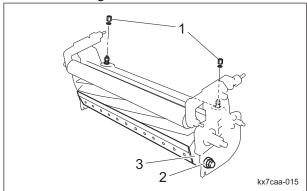
8. Remove the bed knife base COMP from the mower unit, and then install the collars and compression springs onto the left and right adjustment bolts.



Installation of Bed Knife Base_008

1	Bed knife base COMP
2	Collar
3	Compression spring
4	Cutter adjustment bolt

- 9. Install the bed knife base COMP onto the mower unit.
- Install the left and right cutter adjustment nuts, and then evenly tighten them until the positions of the bed knife base and cam bush are aligned.



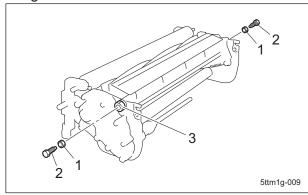
Installation of Bed Knife Base_009

1	Cutter adjustment nut
2	Cam bush
3	Bed knife base

Important

Make sure that the cam bush does not move from the marked position.

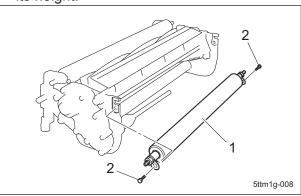
11. Install the left and right cutter pins, and then tighten the lock nuts.



Installation of Bed Knife Base_010

1	Lock nut
2	Cutter pin
3	Cam bush

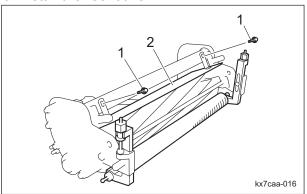
12. Install the rear roller Assy, and then adjust its height.



Installation of Bed Knife Base_011

1	Rear roller Assy
2	Bolt

13. Install the reel cover.



Installation of Bed Knife Base_012

1	Bolt
2	Reel cover

Removing/Installing The Bed Knife

Removing The Bed Knife



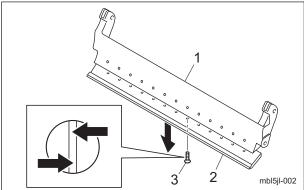
Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.



Raising the front part of the machine for servicing operation may create a falling hazard.

Support the machine securely.

- 1. Remove the bed knife base COMP.
- 2. Place the bed knife base COMP on a stable workbench.
- 3. Remove the bed knife by loosening the screw with a hammer driver or punch.



Removing The Bed Knife_001

	1	Bed knife base
	2	Bed knife
	3	Screw

Installing The Bed Knife



Both the reel cutter (cutting cylinder) and the bed knife (bottom blade) are edged tools. Handle them carefully, since they could cut your hands and feet.

▲ Caution

Raising the front part of the machine for servicing operation may create a falling hazard.

Support the machine securely.

Important

See the list in Tightening torques. Note that the Baroness product warranty may not apply to defects caused by incorrect or overtorque tightening etc.

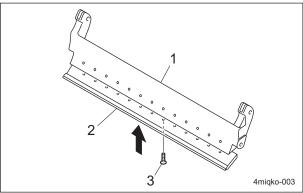
Important

Be sure not to scratch the bed knife base surface where the bed knife shall be mounted. Remove rust and dust.

Important

Replace the old screws with new ones.

1. Tighten the screws uniformly with a hammer driver.

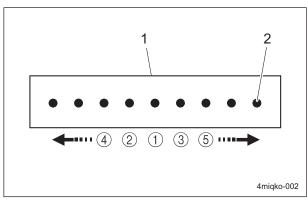


Installing The Bed Knife_001

1	Bed knife base
2	Bed knife
3	Screw

Note:

First, tighten the screw at the center. Then, follow the numerical order, first to the right and then to the left, as shown below.



Installing The Bed Knife 002

1	Bed knife
2	Screw

Maintenance (Main Body)

Adjustment of Brake



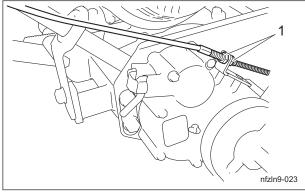
If the brake wire is cut, the machine will be unable to stop. This would be extremely dangerous.

If the brake wire is cracked or damaged, replace it with a new one immediately.



If the brake is not sufficiently effective when it has been applied, adjust the brake wire.

1. Adjust the brake by use of the brake wire adjusting nut.



Adjustment of Brake 001

Adjusting nut

2. Follow the same steps to adjust the belts on the brake on the opposite side.

Caution

It would be extremely dangerous and may result in an unexpected accident if the left and right brakes are not equally effective.

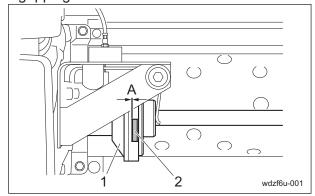
- 3. Make sure that the left and right brakes are equally effective.
- 4. Make sure that the brake shoe does not touch the brake drum.

Avoid the brake always being engaged. Note:

The brake shoe may touch the brake drum if you hear a rubbing sound or the drum feels heavy when rotating the drum.

Adjustment of Engine Clutch

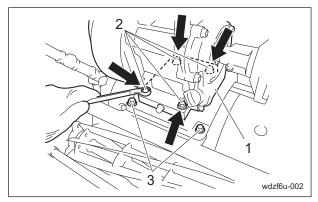
When reinstalling the engine: Adjust the clearance between the engine clutch and clutch facing so that it will be approx. 0.5 - 1.0 mm (0.020 - 0.039 in) when gripping the main clutch lever.



Adjustment of Engine Clutch_001

1	Engine clutch
2	Clutch facing
Α	0.5 - 1.0 mm (0.020 - 0.039 in)

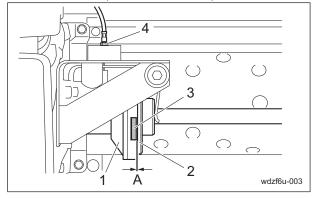
- 1. Loosen the 4 bolts securing the engine.
- 2. Insert a thickness gauge (accessory tool) from the front and rear of the clearance. make adjustment so that the front and rear clearances will be the same distance, and then retighten the bolts A.



Adjustment of Engine Clutch 002

1	Engine
2	Bolt A
3	Bolt B

When adjusting the clutch wire: Make adjustment so that the operation distance of the clutch plate between gripping and releasing the main clutch lever will be 1.0 - 2.0 mm (0.039 - 0.079 in).



Adjustment of Engine Clutch_003

1	Engine clutch
2	Clutch plate
3	Clutch facing
4	Clutch wire adjusting nut
Α	1.0 - 2.0 mm (0.039 - 0.079 in)

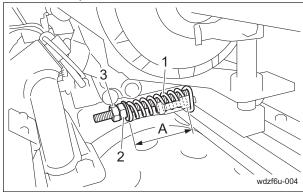
When adjusting the clutch spring:

Make adjustment so that the total length of the spring will be 61.0 mm (2.40 in) when the main clutch lever set in the ON position. Note:

The factory default setting of the spring total length is 61.0 mm (2.40 in).

The longer the spring is set, the lighter clutch handling is provided. The shorter, the heavier.

1. Loosen the lock nut and adjust the spring total length with the spring adjustment nut. 2. Confirm that there is no engine clutch slipping when the main clutch lever set in the ON position.



Adjustment of Engine Clutch 004

1	Clutch spring
2	Spring adjustment nut
3	Lock nut
Α	61.0 mm (2.40 in)

Change of Air Cleaner

For details on handling the engine, please refer to the Engine's Owner's Manual.

A contaminated air cleaner element may cause malfunction of the engine.

To maximize the life of the engine, replace the air cleaner element at the appropriate times.

- 1. The timing for replacing the air cleaner element is described below.
 - [1] Replace the air cleaner element in accordance with the Maintenance Schedule.
 - [2] If it is significantly contaminated, replace it, even if the hours of operation do not exceed the specified time.
- 2. Replace the air cleaner element in the same manner as cleaning the air cleaner. "Cleaning of Air Cleaner" (Page 4-4)

Replacement of Engine Oil

For details on handling the engine, please refer to the Engine's Owner's Manual.



Be careful with hot oil, which could cause burns if it contacts your skin.

Important

When you replace the engine oil, be sure to drain it into a bowl and discard it in accordance with local laws and regulations.

Important

Be sure to use engine oil that is classified as API Service Grade SE or higher, with an SAE Viscosity that is appropriate for the operating environment (ambient temperature).

Important

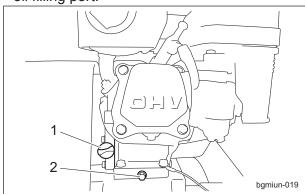
Screw the oil level gauge firmly.

Replace the engine oil more frequently if the engine oil is contaminated, and especially if you use the machine in dusty areas or operate the engine at high loads or in high temperatures.

- 1. Move the machine onto a level surface, stop the engine.
- 2. Remove the drain plug while the engine oil is warm, and then drain the engine oil into a bowl.
- 3. Replace the drain plug in the engine.
- 4. Remove the oil level gauge.
- 5. Through the oil filling port, supply new engine oil.

The engine oil quantity is approximately 0.56 dm³ (0.56 L).

Position the machine so that the engine will be level, then check the engine oil level without screwing the oil level gauge into the oil filling port.



Replacement of Engine Oil_001

1	Oil level gauge (Oil filling port)
2	Drain plug

- 7. After checking the oil level with the oil level gauge, add more engine oil if it is insufficient.
- 8. Securely tighten the oil level gauge.

Long-Term Storage

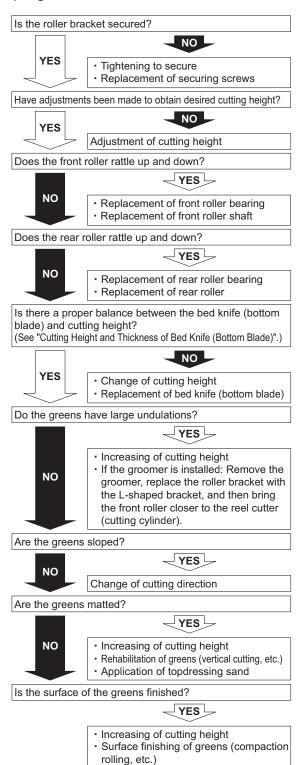
Before Long-Term Storage

- Remove any dirt, grass, debris, or oil stains completely.
- Supply oil and apply grease to appropriate parts.

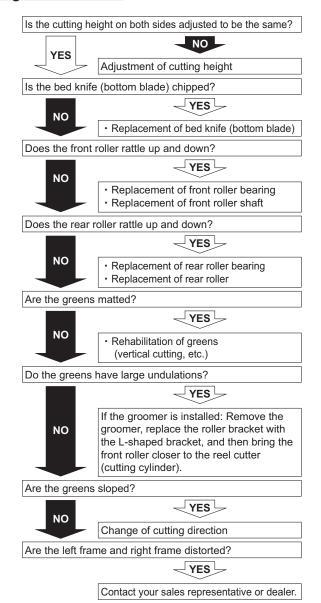
Long-Term Storage Page 5-25

Troubleshooting Procedures of Aftercut Appearance

Scalping



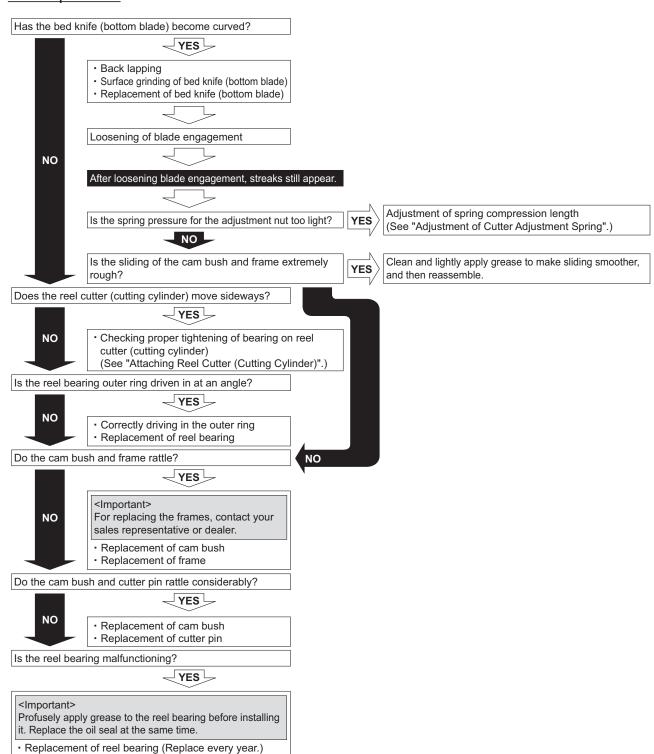
Angled Mismatch



7x9s4e-002E

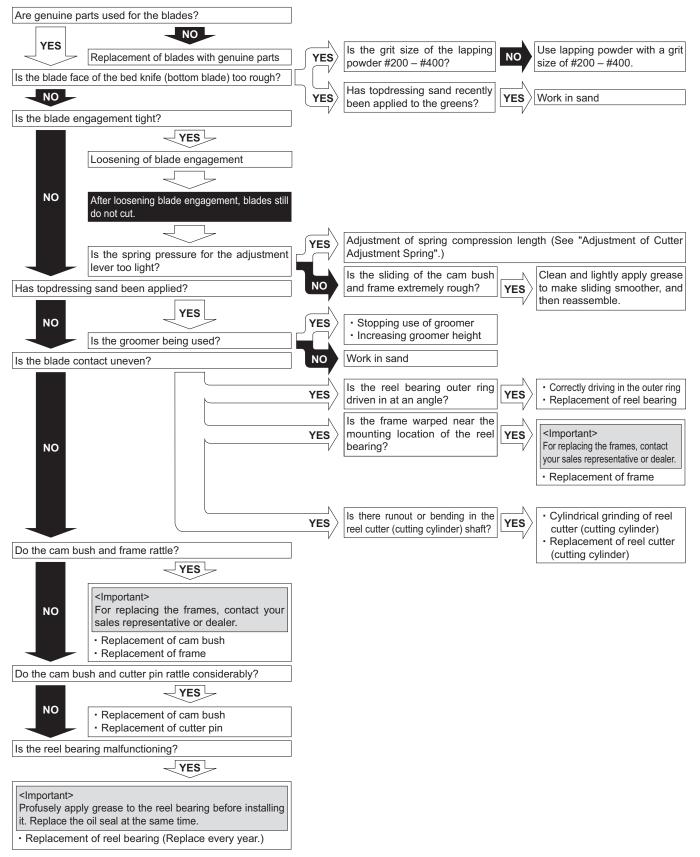
Angled Mismatch_001

Overlap Marks



or58dr-003E

Blade does not cut



t3iz9v-002E

Uneven Blade Engagement

The unevenness is a difference of tightening torque between the left and right cutter adjustment nuts, or blade engagement on only one side, which cannot be adjusted. Promptly resolve the issue in order to maintain the optimum performance of the machine.

Cause of unevenness	Measure to resolve
symmetrical wear of eel cutter (cutting	Cylindrical grinding of reel cutter (cutting cylinder)
cylinder)	Replacement of reel cutter (cutting cylinder)
Asymmetrical wear of	Surface grinding of bed knife (bottom blade)
ed knife (bottom blade)	Replacement of bed knife (bottom blade)
Distortion of frames	Rearrange frames in parallel

Important

Depending on the extent of the symptoms, they may not be resolved.

Important

Performing temporary measures may cause the symptoms to progress, resulting in cutting issues.

Temporary measures:

- Adjustment with cam bushes "Adjusting CAM" (Page 5-11)
- Adjustment of spring pressure "Adjustment of Cutter Adjustment Spring" (Page 5-11)

BRRONESS.

EU Declaration of Conformity

dB

dB

Product Identification

Product: Make: Type: Version(s):

Lawnmower BARONESS LM101 Not Applicable 10026

Starting Serial No. :

Measured Sound Power Level: Guaranteed Sound Power Level: Manufacturer Name:

LWA 96.58 LWA

Kvoeisha Co., Ltd.

Address:

1-26 Miyuki-cho, Toyokawa, Aichi-pref., Japan

Conforms to the following Directives 2006/42/EC

Machinery (MD)

2014/30/EU 2000/14/FC

Electromagnetic compatability (EMC) Noise emissions from outdoor equipment We has been designed and manufactured using the following specifications

ISO 12100 : 2010 (2006/42/EC) ISO 5395-1: 2013 (2006/42/EC) ISO 5395-2: 2013 (2006/42/EC) ISO 14982:1998 (2014/30/EU)

Technical Documentation

Keeper's Name: Keeper's Address Kvoeisha Co., Ltd.

1-26 Miyuki-cho, Toyokawa, Aichi-pref., Japan

Compiler of the technical file (2006/42/EC)

Name:

Kvoeisha U.K.Ltd.

Address: Conformity assessment procedures Unit 5 Hatch Industrial Park Grewell Road, Basingstke Hampshire RG24 7NG, the United Kingdom

Internal production control: Module A (2006/42/EC) EC-type examination: Module B (2014/30/EU)

Internal control of production with assessment of technical documentation and periodical checking (2000/14/EC)

Involved Notified Body (2000/14/EC)

Name:

SNCH

Address:

11. Route de Sandweiler 5230 Sandweiler Luxembourg SNCH*2000/14*2005/88*3238*00/TCLM101-00

Certificate / Technical Documentation No. :

Place: Japan

Date: 12 April 2018 (12 / 4 / 2018)

Signature Name :

emiya kaneho Kimiya Kaneko Position: Quality Dept. Manager

(fr)

Déclaration de conformité UE

Identification du produit

Produit: Fabriquant: Type:

Tondeuse à gazon **BARONESS** LM101 ĠB

Version(s): Numéro de série de début :

10026

96.58 LwA

Niveau de puissance acoustique mesuré : Niveau de puissance acoustique garanti :

LwA

dB

Fabricant Nom:

Kyoeisha Co., Ltd.

Adresse:

1-26, Miyuki-cho, Toyokawa, préfecture d'Aichi, Japon

Conforme aux directives suivantes : 2006/42/CE

2014/30/UE

Machine (MD)

2000/14/CE

Compatibilité électromagnétique (CEM) Émissions sonores de l'équipement de plein air

Conception et fabrication en respect des spécifications suivantes

ISO 12100 : 2010 (2006/42/CE) ISO 5395-1: 2013 (2006/42/CE) ISO 5395-2: 2013 (2006/42/CE) ISO 14982 :1998 (2014/30/UE)

Fiche technique Marque:

Adresse de la marque :

Kyoeisha Co., Ltd.

1-26, Miyuki-cho, Toyokawa, préfecture d'Aichi, Japon

Compilateur de la fiche technique (2006/42/CE)

Adresse

Unit 5 Hatch Industrial Park Greywell Road, Basingstoke Hampshire RG24 7NG, Royaume-Uni

Procédures d'évaluation de la conformité

Contrôle de production interne : module A (2006/42/CE)

Examen de type CE : module B (2014/30/UE)

Contrôle interne de la production avec évaluation de la fiche technique et vérification périodique (2000/14/CE)

Organisme notifié impliqué (2000/14/CE)

11, Route de Sandweiler 5230 Sandweiler, Luxembourg

Nº de certificat/Documentation technique :

SNCH*2000/14*2005/88*3238*00/TCLM101-00

Declaración de conformidad de la UE

Identificación del producto

Producto: Marca:

Cortacésped **BARONESS** LM101 GB

10026

N.º de serie inicial:

Nivel de potencia sonora medido: Nivel de potencia sonora garantizado: Fabricante

LWA 96.58 dΒ LWA 98 dB Kvoeisha Co., Ltd.

Nombre: Dirección:

1-26 Miyuki-cho, Toyokawa, Aichi-pref., Japón

Cumple las siguientes Directivas

2006/42/CE

Tipo: Versión:

Maquinaria (MD)

2014/30/UE Compatibilidad electromagnética (EMC)

2000/14/CE Emisiones sonoras de máquinas de uso al aire libre

Se ha diseñado y fabricado utilizando las siguientes especificaciones

ISO 12100: 2010 (2006/42/CE) ISO 5395-1: 2013 (2006/42/CE) ISO 5395-2: 2013 (2006/42/CE) ISO 14982 : 1998 (2014/30/UE) Documentación técnica

Nombre del responsable:

Kvoeisha Co., Ltd.

Dirección del responsable: Compilador del archivo técnico (2006/42/CE) 1-26 Miyuki-cho, Toyokawa, Aichi-pref., Japón

Nombre:

Kvoeisha U.K. Ltd.

Unit 5 Hatch Industrial Park Greywell Road, Basingstoke Hampshire RG24 7NG, Reino Unido

Dirección: Procedimientos de evaluación de conformidad

Control de fabricación interno: Módulo A (2006/42/CE)

Examen de tipo CE: Módulo B (2014/30/UE)

Control interno de fabricación con evaluación de documentación técnica y comprobaciones periódicas (2000/14/CE)

Organismo notificado implicado (2000/14/CE)

Nombre:

Dirección: Certificado/Documentación técnica n.º: 11, Route de Sandweiler 5230 Sandweiler Luxemburgo SNCH*2000/14*2005/88*3238*00/TCLM101-00

(de)

EU-Konformitätserklärung

Produktbeschreibung

Produkt: Marke: Modell: Version(en):

Rasenmäher BARONESS LM101 GB 10026

Startseriennummer: Gemessener Schallleistungspegel: Garantierter Schallleistungspegel:

I WA 96.58 dB I WA 98 dB

Hersteller Name: Adresse:

Kyoeisha Co., Ltd. 1-26 Miyuki-cho, Toyokawa, Aichi-pref., Japan

Entspricht den folgenden Richtlinien

2006/42/EG

Maschinenrichtlinie

2014/30/EU

Elektromagnetische Verträglichkeit (EMV)

2000/14/EG Geräuschemission von im Freien betriebenen Geräten Unter Anwendung der folgenden Bestimmungen entwickelt und hergestellt

ISO 12100 : 2010 (2006/42/EG) ISO 5395-1: 2013 (2006/42/EG) ISO 5395-2: 2013 (2006/42/EG) ISO 14982 :1998 (2014/30/EU)

Technische Dokumentation

Name des Halters Adresse des Halters Kyoeisha Co., Ltd.

1-26 Miyuki-cho, Toyokawa, Aichi-pref., Japan

Technische Unterlagen erstellt von (2006/42/EG)

Name: Adresse: Kyoeisha U.K.Ltd.

Unit 5 Hatch Industrial Park Grewell Road, Basingstoke Hampshire RG24 7NG, Großbritannien

Konformitätsbewertungsverfahren

Interne Produktionskontrolle: Modul A (2006/42/EG) EG-Baumusterprüfung : Modul B (2014/30/EU)

Interne Produktionskontrolle mit Bewertung der technischen Unterlagen und regelmäßiger Überprüfung (2000/14/EG)

Beteiligte benannte Stelle (2000/14/EG)

Name:

Adresse: 11, Route de Sandweiler 5230 Sandweiler Luxemburg Bescheinigung/Technische Dokumentation Nr.: SNCH*2000/14*2005/88*3238*00/TCLM101-00

EU-försäkran om överensstämmelse

Produktidentifikation

Produkt: Märke:

Gräsklippare BARONESS LM101 Not Applicable 10026

Typ: Version(er): Serienummer startar på:

Uppmätt ljudeffektnivå: Garanterad ljudeffektnivå:

96.58 dB LwA LwA dΒ

Tillverkare Namn:

Adress:

Kyoeisha Co., Ltd. 1-26 Miyuki-cho, Toyokawa, Aichi-pref., Japan

Uppfyller följande direktiv

2006/42/EG

Maskindirektivet

2014/30/EU 2000/14/EG

Elektromagnetisk kompabilitet (EMC) Bulleremission från utomhusutrustning

Följande kravspecifikationer har följts vid konstruktion och tillverkning ISO 12100 : 2010 (2006/42/EG)

ISO 5395-1 : 2013 (2006/42/EG) ISO 5395-2 : 2013 (2006/42/EG) ISO 14982: 1998 (2014/30/EU)

Teknisk dokumentation

Innehavarens namn:

Kyoeisha Co., Ltd.

Innehavarens adress:

1-26 Miyuki-cho, Toyokawa, Aichi-pref., Japan

Den tekniska filen(2006/42/EG) har tagits fram av

Namn:

Kyoeisha U.K.Ltd.

Adress: Unit 5 Hatch Industrial Park Grewell Road, Basingstoke Hampshire RG24 7NG, Storbritannien Förfarande för bedömning av överensstämmelse

Intern produktionskontroll: Modul A (2006/42/EG)

EG-typprovning: Modul B (2014/30/EU)

Intern kontroll av produktion med fastställande av teknisk dokumentation och periodiska kontroller (2000/14/EG) Anmält organ (2000/14/EG)

Namn:

SNCH

Adress: Certifikat/Teknisk dokumentation nummer:

11, Route de Sandweiler 5230 Sandweiler Luxembourg SNCH*2000/14*2005/88*3238*00/TCLM101-00



