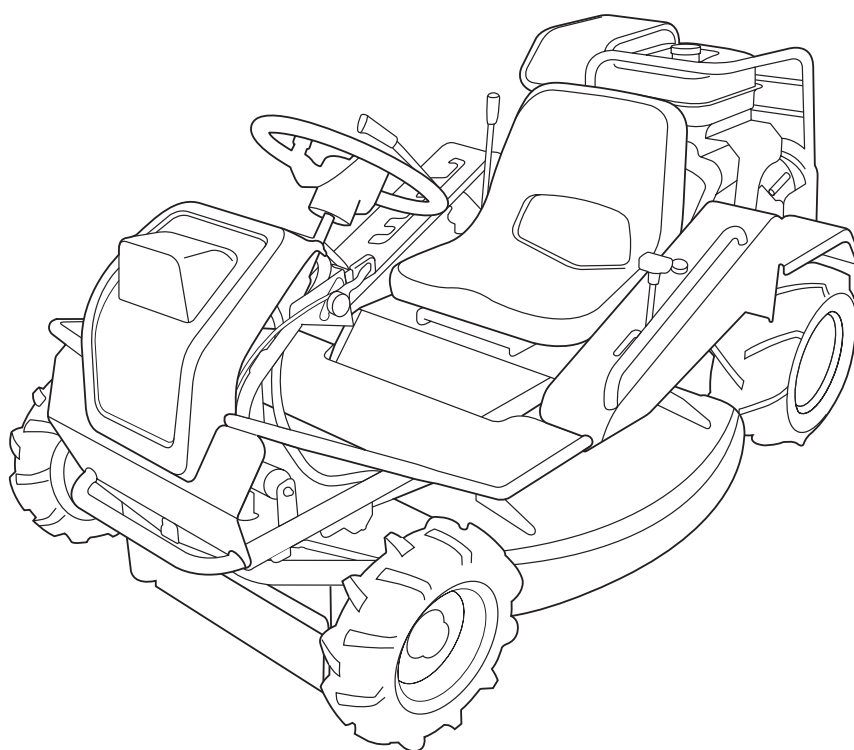


Ride-on Brushcutter

CM141 • CM142

Operator's Manual



⚠ WARNING!

Read this manual completely before operating or maintaining this machine.
Failure to follow safety precautions could result in serious injury or death.
Keep this manual for future reference by you and by all those who operate
and maintain this machine.

5343 5204 001 01

Original Instructions
(in English)

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Ukiha-shi, Fukuoka, Japan 839-1396

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Authorized Dealer

Notice to Users and Maintenance Personnel

Thank you for purchasing this machine.

This manual provides information needed for safe and effective use of this machine to those who operate or maintain machine. Make sure to read and understand the manual thoroughly before operating this product. Also make sure to read the separate operator's manual for engine.

WARNING!

- **This machine can be very dangerous if the safety precautions in this manual and on the labels attached to this machine are not followed. Read and understand this manual and safety labels on machine thoroughly before using this machine. Always follow the instructions and safety precautions, or serious injury or death could result.**
- **This machine should only be used for its intended purpose: cutting grass and bushes. Any other use could be dangerous.**
- **This machine may not be operated on public road or what is considered to be public road. It is the sole responsibility of the operator to consult the local regulations.**
- **Do not modify this machine, or do not operate this machine with the safety covers removed or open. A serious accident could result.**

CAUTION!

- **Store this manual in a safe, accessible place for easy reference.**

Notice to Owner

CAUTION!

- Be sure that everyone who uses this machine, including those who rent or lease this machine, receives a copy of this Operator's Manual and understands the importance of reading and following the information in this manual.

Warning Terms Used in this Manual

In this manual, the following four warning terms are used to signal the four levels of hazard (or seriousness of possible accidents). Read and understand what they mean and always follow the instructions in this manual.

Warning Term	Definition
 DANGER!	Indicates an imminently hazardous situation which will result in death or serious injury if the user does not follow the procedures or the instructions.
 WARNING!	Indicates a potentially hazardous situation which could result in death or serious injury if the user does not follow the procedures or the instructions.
 CAUTION!	Indicates a potentially hazardous situation which could result in minor to moderate injury or damage to the machine if the user does not follow the procedures or the instructions.
<u>NOTE</u>	Indicates important information which needs particular attention.

Warranty and After-Sales Service

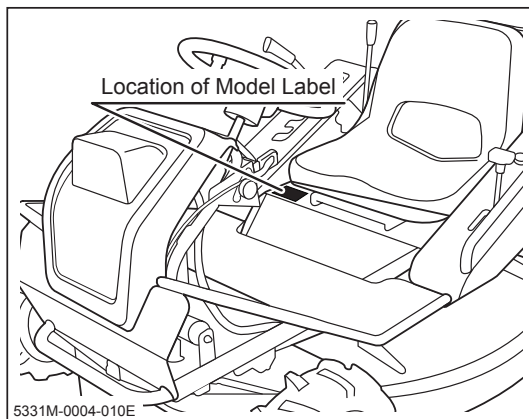
Warranty

CHIKUSUI CANYCOM, INC. guarantees this product, based on the terms of warranty. A copy of this warranty is reproduced in the back of this manual.

After-Sales Service

Consult your local CANYCOM dealer or our company's sales department regarding service orders or any questions or problems that may arise when using this machine. Please make sure to have the product name, serial number, and the make and type of engine handy at the time of contact. The model and serial number can be found on the model label as shown below, and the make and type of the engine can be found in Chapter 3 "**Specifications**" of this manual (Page13).

Location of Model Label



Model Label



Availability of Spare Parts

The replacement or repair parts for this product shall remain available for seven years after the production of this type of machine is discontinued.

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Warranty

Warranty Certificate is attached at the end of this manual.

* Have the warranty certificate signed after you have received and fully understood the instructions for handling this machine and received the receipt.

Appendix

- Operator's Manual for the Engine

* Be sure to read and understand it together with this manual .

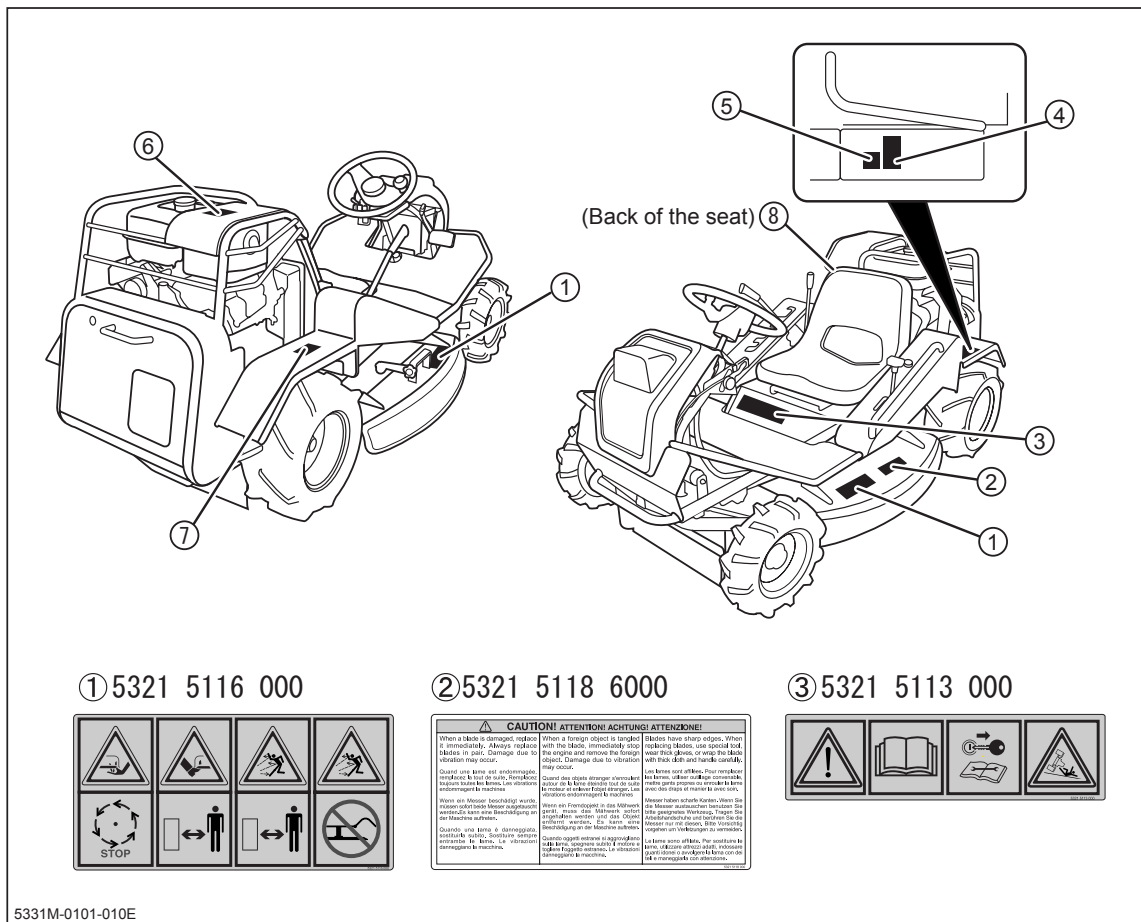
Safety

1

Safety Labels

The safety labels shown below and on the next page are attached to the machine. See the illustration below for the location and the illustrations below and on the next page for the content of each label on the machine.

- **Locate all the warning labels attached to this machine. Read and follow the instructions and precautions in them. Failure to do so could result in serious injury or death to the operator or bystanders.**
- **Keep the labels clean and legible. Do not use solvents or gasoline to clean the labels.**
- **Replace these labels immediately if they have been removed, have fallen off or become illegible. Use the part number, on the label or shown in this manual, to order a replacement label from your CANYCOM representative.**



⑧ 5305 5317 002

CAUTION ATTENTION VORSICHT CAUTELA PRECAUCIÓN

To avoid fire

1. Supply fuel only after engine and muffler have cooled.
2. Fill tank to upper fuel limit.
3. After operating machine on slopes, always refuel to level below upper fuel limit.
4. After operating, clean inside of engine cover with air jet to remove dried grass.

Pour éviter des incendies

1. Mettre du carburant uniquement quand le moteur et le silencieux sont froids.
2. Remplir le réservoir jusqu'au niveau supérieur.
3. Lorsqu'on travaille sur des pentes, refaire le plein du carburant.
4. Après utilisation, bien nettoyer le couvercle du moteur avec de l'air pulsé afin d'extraire l'herbe sèche.

Um die Gefahr von Feuer zu vermeiden

1. Betanken Sie das Gerät erst, nachdem Motor und Auspuff abgekühlt sind.
2. Füllen Sie den Tank bis zum oberen Limit.
3. Falls Sie die Maschine an steilem Gelände betreiben, stellen Sie sicher, daß sich immer genügend Benzin im Tank befindet und füllen Sie falls nötig regelmäßig nach.
4. Nach Gebrauch des Gerätes reinigen Sie die Innenseite der Motorabdeckung möglichst mit Druckluft um getrocknetes Gras zu entfernen.

Per evitare incendi

1. Effettuare il rifornimento solo quando il motore e la marmitta sono freddi.
2. Riempire il serbatoio fino al livello superiore.
3. Quando si deve operare in pendenza rifornire sempre di carburante al di sotto del limite superiore.
4. Dopo aver utilizzato la macchina, per rimuovere i residui di erba secca dal motore, pulirlo con aria compressa.

Para evitar incendios

1. Poner combustible cuando el motor y el silenciador estén fríos.
2. Llenar el depósito hasta el límite superior.
3. Cuando se deba de operar en pendientes, llenar el depósito por debajo del límite superior.
4. Después de operar con la máquina, limpiar la tapa del motor con aire a presión para sacar la hierba seca.

⑤ 5321 5113 000



⑥ 5321 5113 000



⑦ 5321 5113 000



5331M-0101-010E

Safety Mechanisms

This product is equipped with the following safety mechanisms.

Start Interlock Mechanism

Engine can be started only when depressing brake pedal (or parking brake is engaged) and cutting rotary clutch in [OFF] position. This is to prevent unintended movement of machine or cutting blade when starting engine.

Automatic Blade Stopping Mechanism

Engine stops if operator is not seated while cutting blade is rotating. This is to reduce the possibility of accident related to moving blade when machine is turned over.

Automatic Vehicle Stopping Mechanism

When machine is operated by drive lever, depressing brake pedal returns drive lever to [● (neutral)] position and machine stops.

Safety Precautions

This section contains safety precautions to follow when operating and maintaining the machine. Read and understand the precautions in this section as well as throughout this manual and follow them when operating or maintaining the machine. Failure to follow safety precautions could result in property damage, serious injury or death to the operator or bystanders.

Training

All operators and mechanics should receive practical instructions from their employer or renter. Such instructions should cover the following issues:

- **It is essential to familiarize yourself with the controls, safety labels and the proper use of the machine.**
- **Never allow people unfamiliar with these instructions to operate or service the machine. Do not let anyone under 18 years of age to operate this machine. Local regulations may restrict the minimum age for operating the machine. Consult your local authority.**
- **The operator is responsible for the accidents or hazards caused to other people or their property.**
- **This machine has a riding capacity for one person only. Do not carry passengers other than the operator.**
- **Observe the weight limit of this machine: 120kg.**
- **Always keep in mind that care and concentration is required when working with ride-on machines.**
- **Loss of control on a slope cannot be regained by the application of the brake. The main reasons for loss of control are:**
 - **insufficient grip of tires.**
 - **excessive speed.**
 - **misjudging of the ground conditions, especially slopes.**

1

Safety

Preparation

⚠ WARNING!

- Fuel is highly flammable. See Checking and Filling Fuel, page 15, for important safety information on handling fuel.

- Always wear protective footwear, long trousers, hardhat, safety glasses and ear protection when operating or servicing the machine. Proper clothing will minimize the chance of injury. Do not operate the equipment if you have long hair, loose clothing, or jewelry; all of which may get tangled in moving parts. Do not operate the machine barefoot or with open sandals.
- Prepare beforehand the working rules and procedures such as signaling and traffic control for the work place. Following such rules will reduce the risk of accidents.
- Never handle fuel or grease, service the engine, or recharge the battery in the presence of fire or spark.
- Perform the daily pre-startup inspection (see Preparation, pages 15) before starting the machine. Repair or replace damaged parts before starting the machine.

Operation

This machine is intended for cutting grass and bushes. Any other use may pose hazard or cause damage to the machine.

This machine is intended for daytime use only. Do not use this machine at night, under insufficient illumination, or in the dark area.

The stability of the machine is affected by the speed, rate of steering, terrain and the operator's weight. Always pay close attention to these factors or a loss of control or tip over could occur, resulting in property damage, serious injury or death.

General Driving

- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can accumulate.
- Do not touch the engine, muffler or exhaust pipe while the engine is running or soon after it has stopped. These areas will be very hot and can cause burns.
- Do not operate the machine under the influence of alcohol or drugs. Do not operate the machine when you are tired, ill, or not feeling well.
- Always check for obstacles before operating on new terrain. This includes overhead obstacles such as the branches of a tree.
- Before starting the engine and moving the machine, scan around your surroundings and make sure all persons and other vehicles are a safe distance away from the machine.
- On a slippery surface, travel slowly and exercise caution to reduce the chance of skidding or sliding out of control. Never operate on ice.
- Always make certain that there is no obstacle or a person behind the machine when backing up. After confirming that it is safe to back up, move slowly and avoid sharp turns.
- To reduce the risk of tip over, pay special attention when encountering an obstacle or a slope, or when braking on a slope or during a turn. See Driving on a Slope on page 8.
- Never attempt to drive over a large obstacle such as rock or fallen tree.
- Always travel slowly and use extra caution when operating on unfamiliar terrain. Be alert when traveling on changing terrain.
- Never operate on terrain that you are not comfortable with. Avoid terrain that is so rough, slippery or loose that you feel like you could tip over.
- Do not operate the machine near the edge of a cliff, an overhang or a slide area. Pay special attention after heavy rain or earthquake.

1

Safety

- Do not make sudden maneuvers. A sudden start, stop, or turn can make the machine lose control and could cause a tip over. Be especially cautious when traveling on soft or wet ground.
- Drive at a safe speed, taking into account the surface gradient, surface conditions and load.

Driving on a Slope

⚠ WARNING!

- Never use on a slope steeper than 15 degrees.
 - Driving on a slope can be dangerous. It can result in a tip over and cause serious injury or death. Take the following precautions.
- Always follow proper procedures for driving on a slope as described in this manual.
 - Driving on a slope in a wrong manner can cause a loss of control or a vehicle tip over. Check the terrain carefully before attempting to drive on a slope.
 - Never drive on a slope that you are not comfortable with. Avoid a slope that is so rough, slippery, or loose that you feel like you could tip over.
 - When driving up a slope, proceed at a steady rate of speed and throttle position.
 - Never move the throttle lever, the drive lever, or the steering wheel suddenly.
 - If the engine stalls or loses traction during a climb and cannot make it to the top of the slope, do not try to turn the machine around. Carefully back down slowly, straight down the slope.
 - Drive straight up or down slopes. Avoid sharp turn on a slope.
 - When going over the top of a slope, go slow; an obstacle, a sharp drop, or another vehicle or person could be on the other side of the crest.

Safety

1

- Avoid driving the machine across a slope.
- When driving down a slope, drive slowly. Use the engine speed to help keep the machine speed low.

Cutting

When conducting cutting operation, take the following precautions.

- Always follow the proper procedures for cutting as described in this manual.
- Shut off the work site. Post signs to inform that cutting operation is under way. Close off the site with rope if necessary to keep people, especially children, off the work site.
- Pay attention to the surrounding area. Rotating cutting blade throws stones, rocks and debris. This may cause property damage, injury, or death. Always cut grass with cutting blade shield closed to prevent objects from being thrown out.
- Drive forward when cutting. This best prevents the cutting blades from throwing stones, rocks, or debris.
- Pay attention to obstacles. This includes overhead obstacles such as the branches of a tree. Always inspect condition of poorly visible grassy terrain before starting operation. Other wise you may fall off from such as terrace cliff and cause injury.
- Do not perform cutting operation at night, under insufficient illumination or in the dark area. It is difficult to see through grass or bush in these lighting conditions.

Parking

- Park the machine on a flat, level and stable surface. Never park on a slope steeper than 10 degrees. Avoid parking on a slope less than 10 degrees. If parking on a slope less than 10 degrees is absolutely unavoidable, apply the parking brake and block the wheels at the lower end of the machine.
 - Park the machine facing uphill
 - Do not park sideways on a slope.
- Never park on an instable surface. Do not park near the edge of a cliff.

1

Safety

- Observe all the previous precautions for driving, driving on a slope and cutting.
- Whenever you park the machine, apply the parking brake and stop the engine. Remove the key whenever you leave the machine unattended to prevent unauthorized use or accidental starting.
- Gasoline is extremely flammable and can be explosive. When parking the machine indoors, make certain that the building is well ventilated and that the machine is not close to any source of flame or spark, including appliances with pilot lights.

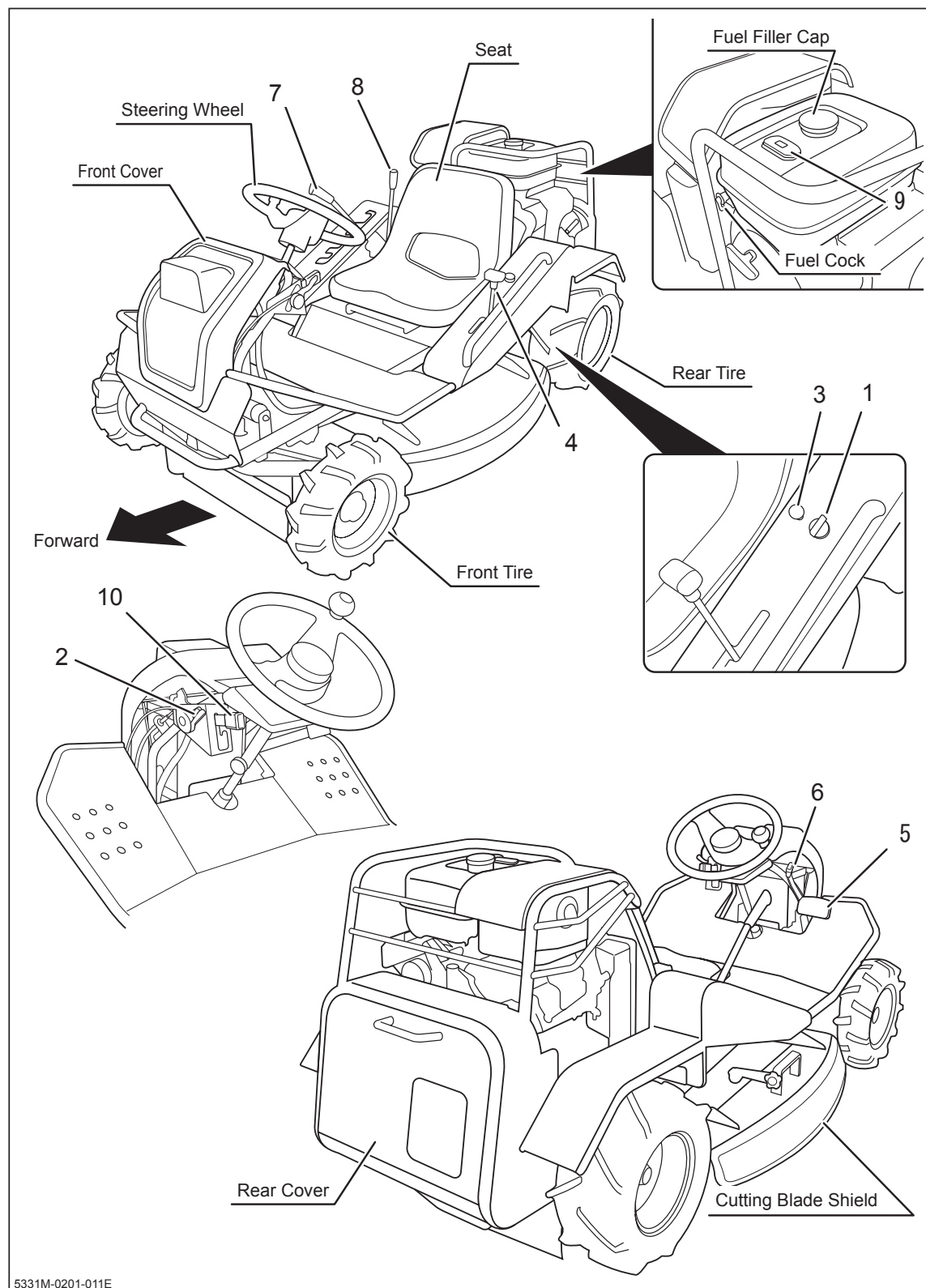
Servicing

- Do not service the machine when the engine is running. If it is absolutely necessary to run the engine while servicing, pay attention to the moving parts.
- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can accumulate.
- Make sure all hydraulic line connectors are tight and all hydraulic hoses and lines are in good condition and leak-free.
- Keep your body and hands away from pinhole leaks or nozzles that eject hydraulic fluid under high pressure. Use paper or cardboard, not your hands, to search for leaks. Hydraulic fluid escaping under pressure can have sufficient force to penetrate the skin and cause serious injury.
- Check all fuel lines on a regular basis for tightness and wear. Tighten or repair them as needed.
- If the engine must be running to perform a service, keep hands, feet, clothing and any part of the body away from any moving part, especially the cooling fan and the belts at the side of the engine.
- Do not touch the engine, muffler, or exhaust pipe while the engine is running or soon after it has stopped. These areas will be very hot and can cause burns.
- The engine must be shut off before checking or adding oil.

Controls and Components

2

Name and Function of Controls



2 Controls and Components

- 1 **Main Switch** Main switch is used to start or stop engine.
- 2 **Throttle Lever** Throttle lever is used to control engine speed.
- 3 **Choke Knob** Pulling choke knob closes choke valve to help start engine in cold weather. Push knob back to open choke valve once engine starts.
- 4 **Drive Lever** Drive lever is used to control the traveling direction and speed of machine. Machine moves forward when lever is tilted forward and backward when lever is tilted backward. Angle of drive lever determines the speed.
- 5 **Brake Pedal** Brake pedal is used to stop machine. When brake pedal is depressed, drive lever returns to neutral position and brake is engaged.
- 6 **Parking Brake Lock Lever** Parking brake lock lever is used when parking machine securely. Pulling parking lock lever while brake pedal is depressed locks brake pedal.
- 7 **Cutting Height Adjust Lever** Cutting height adjust lever is used to adjust the cutting height. There are 5 steps on CM141 and any height between 0 and 80mm without steps on CM142.
- 8 **Cutting Rotary Clutch Lever** Cutting rotary clutch lever is used to start or stop rotating cutting rotary.
- 9 **Fuel Gauge** Fuel gauge indicates the amount of fuel in fuel tank.
- 10 **Differential Lock Lever (Diff. Lock Model)** ... Differential lock lever is used to lock differential when rear wheels slip. Tilting differential lock lever to [ON] position locks differential.

Specifications

3

Product Specifications

⚠ CAUTION!

· Use this product properly after understanding its specifications thoroughly.

Model and Type				CM141		CM142	
Machine Mass			kg	275			
Mowing Rate			m²/h	4500			
Dimensions	Overall Length		mm	1820			
	Overall Width		mm	970			
	Overall Height		mm	835			
	Wheelbase		mm	1230			
	Tread	Front	mm	820			
		Rear	mm	755			
	Ground Clearance		mm	100			
Engine	Model			Robin EX40DS			
	Type			Air-cooled, 4-cycle single cylinder, OHC Gasoline			
	Cylinder (Bore×Stroke)		mm	89X65			
	Displacement		cm³	404			
	Maximum Output		kw(PS)/rpm	10.3 (14)/3600			
	Maximum Torque		N•m(kgf•m)/rpm	27 (2.7)			
	Starter System			Electric, Recoil			
	Fuel			Automotive Unleaded Gasoline			
	Fuel Consumption		g/kW•h(g/PS•h)	400(297)			
	Fuel Tank Capacity		L	15.5			
	Ignition			Contactless Magneto			
	Spark Plug			NGK BR6HS			
Electrical	Battery Type			40B19R			
	Battery Capacity		V/AH	12/28			
Performance	Speed		km/h	0~10.0			
	Minimum Turning Radius		m	1.9			
	Gradeability		Degrees	15			
	Stability Angle	Left	Degrees	30			
		Right	Degrees	30			

3

Specifications

Model and Type			CM141	CM142
Drive Train	Main Transmission		HST (Continuously Variable)	
	Drive Train		2WD	
	Tires	Front	AGR 3.50-7 (2PR)	
		Rear	16X7.00-8 (2PR)	
	Steering		Rack and Pinion, Round Steering Wheel	
	Brakes		Internally Expanding	
Cutting System	Cutting Width		mm	915
	Cutting Height		mm	0~65 (5 steps) 0~80 (stepless)
	Blade Type		Free Knife & Stepped Stay	
	Number of Blades		2	
	Blade Drive Train		Shaft Drive	

*These specifications are subject to change without notice.

Contents of Tool Bag

No.	Content	Quantitiy	Note
1	Operator's Manual	1	This Manual
2	Operator's Manual for the Engine	1	
3	Engine Service Tool	1	for Servicing Engine
4	Plate	1	for pushing
5	Quick Reference Guide	1	
6	Key	2	for Rear Cover

Option

Type	Product Name	Note
Grass Catcher	Sweeper 38	With model-specific hitch* ¹

*¹ Specify the one for CM141/142 when ordering.

Operation

4

Preparation

Pre-start up Inspection

⚠ WARNING!

- Always perform a pre-startup inspection. If machine needs repair, service it before use.
- Fire hazard: clean machine of cut grass and similar materials. Cut grass that is accumulated on the machine can catch fire.

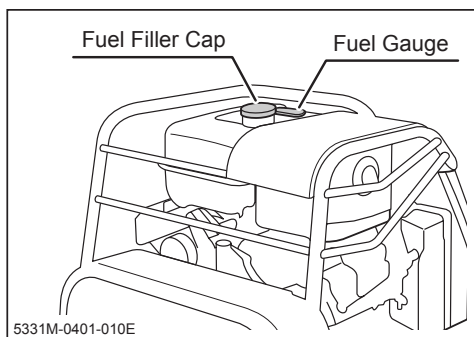
Always perform an inspection before use.

Refer to the **Maintenance Schedule** (page 31) for the inspection schedule and procedure.

Checking and Filling Fuel

⚠ WARNING!

- Keep fire and spark away when handling fuel.
- Always stop engine before refueling.
- Do not fill beyond the limit (bottom of the filler filter) so that fuel will not overflow. In case fuel is spilt, wipe out immediately.



1. Check fuel gauge. If fuel level is low, fill fuel.
2. Open fuel filler cap and fill fuel.
3. Put fuel filler cap back in place and close it securely.

NOTE

- Fuel : Automotive Unleaded Gasoline
- Fuel Tank Capacity : 7.0L

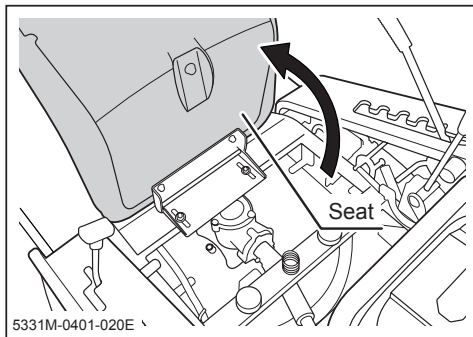
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Operation

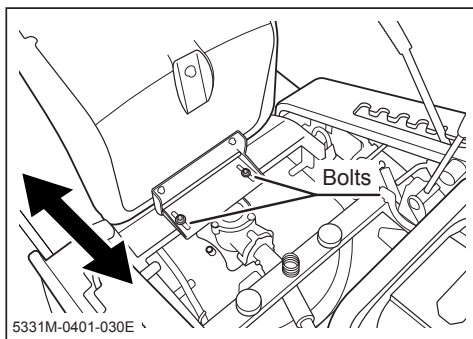
Adjusting Seating Position

⚠ CAUTION!

- Beware of pinch points when adjusting seating position.
- After adjusting seat, try moving seat back and forth and up and down to make sure it is securely locked in its position.



1. Lift seat up.



2. Loosen bolts and slide seat forward or backward to adjust.
3. Tighten bolts firmly after adjusting seat.

Operation

4

Driving

Starting

⚠ WARNING!

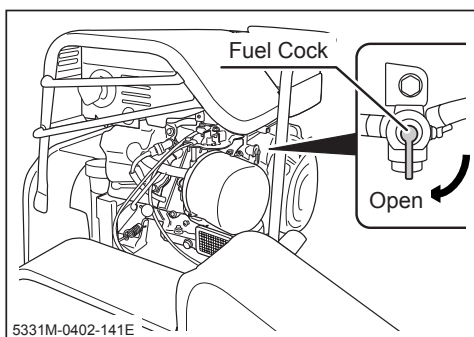
- Always start and run engine in a well ventilated place.
- Always stay on seat when starting engine. Never attempt to start engine away from machine. Run over accident may result.

⚠ CAUTION!

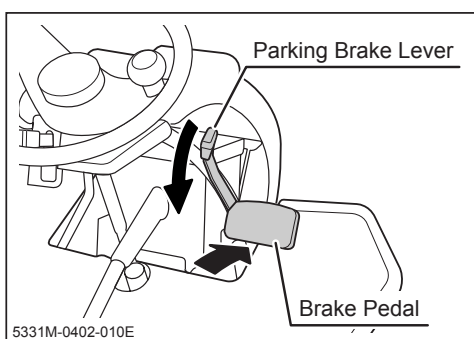
- Do not turn main switch to [ (start)] position when engine is running. Starter motor and/or engine may be damaged.
- Do not turn the starter for more than 5 seconds. If the engine does not start, turn main switch back to [ (off)] position and wait for 10 seconds or more before attempting to start again.
- Do not use this machine in temperatures above 40°C or below -15°C. This machine cannot perform adequately in these temperature ranges. Using this machine under such conditions may result in an accident or cause damage to machine.
- In the winter or cold climate, warm up engine thoroughly before driving machine. A cold engine delivers poor performance, which may result in an accident. It also causes excessive wear.
- Do not use this machine in dusty places such as desert. Dust may clog air cleaner or enter engine, which may result in loss of performance and an accident. It also causes excessive wear.
- Do not use this machine in the altitude above 1500m (4920ft.) in its original configuration. This machine cannot perform adequately above that altitude. Using this machine under such conditions may result in an accident or cause damage to machine. If you need to use this machine above that altitude, contact your CANYCOM representative.

4

Operation



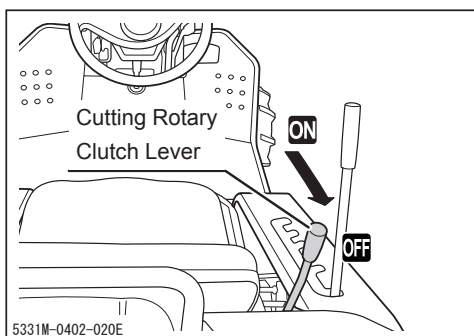
1. Open fuel cock.



2. Make certain brake pedal is depressed and locked. If it is not, depress brake pedal and pull lock lever to lock it.

NOTE

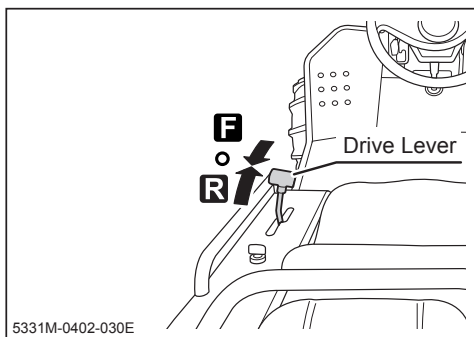
- **Safety feature: engine cannot be started unless brake pedal is depressed.**



3. Make sure cutting rotary clutch lever is in [OFF] position.

NOTE

- **Safety feature: engine cannot be started unless cutting rotary clutch lever is in [OFF] position.**



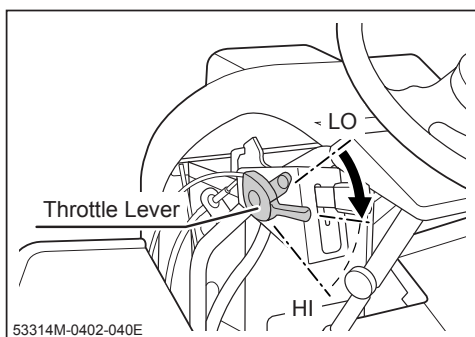
4. Make certain drive lever is in [O(neutral)] position.

NOTE

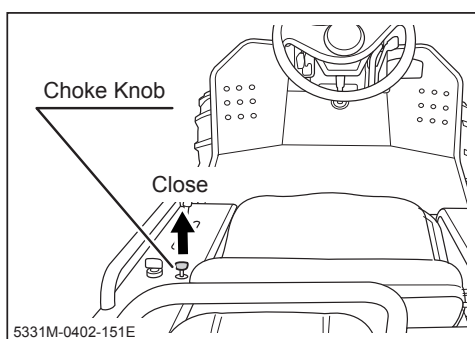
- **Drive lever returns to [O(neutral)] when brake pedal is fully depressed.**

Operation

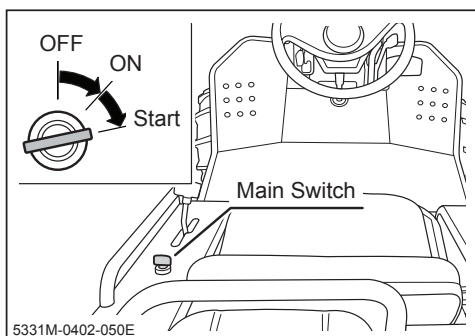
4



5. Move throttle lever slightly toward [HI (fast)] position.



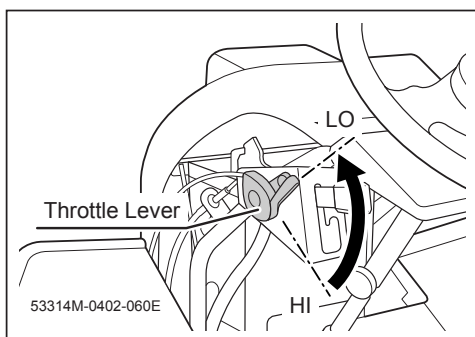
6. Move choke lever to [Close] position.



7. Insert ignition key into main switch.
8. Turn key to [⌚ (start)] position to start engine. Release key immediately after engine starts. Key automatically returns to [| (ON)] position.

NOTE

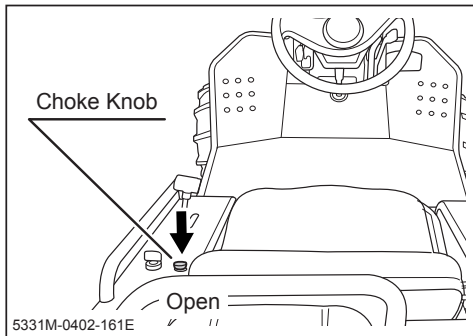
- Avoid frequent starting. Once engine starts, run it for a while to charge battery.



9. Move throttle lever to [LO (slow)] position.

4

Operation



10. Move choke lever back to [Open] position.
11. Run engine without load for about 2 minutes to warm up.

NOTE

- Drive machine gently in the first week (40 to 50 hours) of operation after purchase for breaking-in.

Driving

⚠ WARNING!

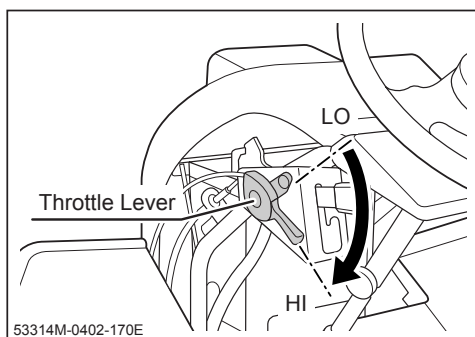
- Do not allow bystanders to come near machine when driving.
- Always make certain of the safety of your surroundings before driving; start slow.
- Always make certain of the safety of your surroundings before turning
- Do not make sudden starts, acceleration, change of speed, change of direction, or stop. Do not turn at speed. Avoid sudden maneuvers; this may cause the operator to fall or to be thrown, or machine to tip over.
- Do not turn the key to [○ (off)] position while traveling.

⚠ CAUTION!

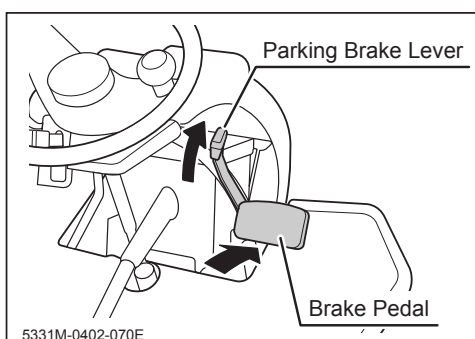
- Do not operate drive pedal or drive lever when brake is locked with parking brake lock lever. It can wear out brake.

Operation

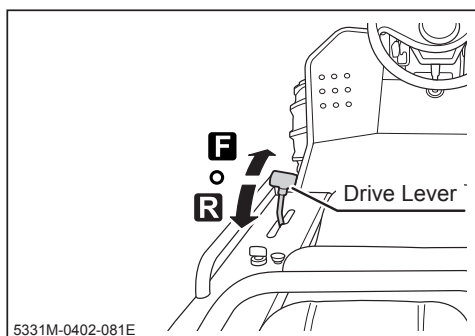
4



1. Make certain of the safety of your surroundings.
2. Move the throttle lever toward [HI (fast)] position to increase engine speed.



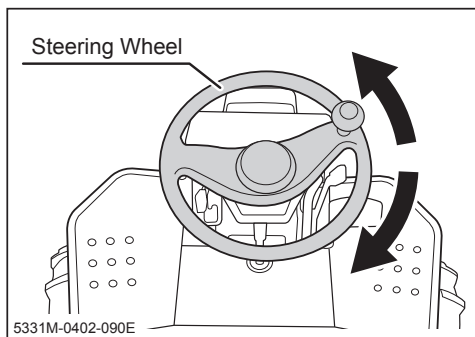
3. Depress brake pedal to release brake pedal lock.



4. Move drive lever gradually forward or backward to move in the corresponding direction.

NOTE

- Speed can be adjusted continuously by the position of drive lever.



5. Turn steering wheel to turn.

4

Operation

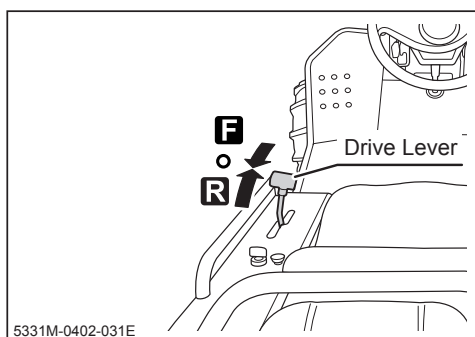
Stopping

⚠ WARNING!

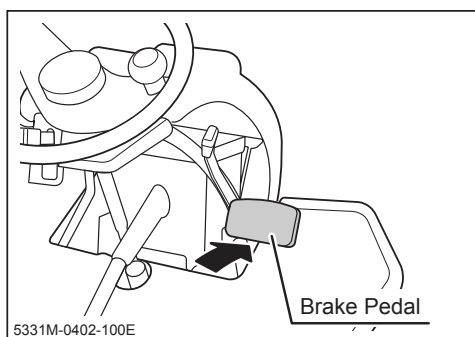
- Always park on a firm, level place. Never park on a potentially dangerous place.

⚠ CAUTION!

- Do not hold drive lever in a position other than neutral and depress brake pedal simultaneously. HST may be damaged.



1. Gradually return drive lever to [O (neutral)] to slow down.
2. Release hand off drive lever.



3. Depress brake pedal to stop machine completely.

NOTE

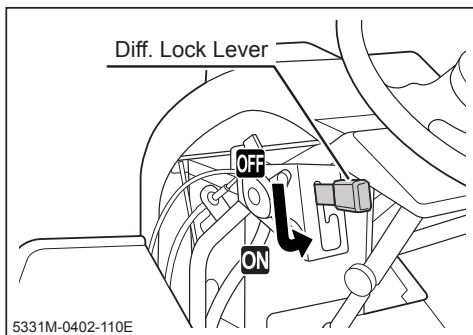
- When brake pedal is depressed, drive lever returns to [O (neutral)].

Locking Differential (Differential Lock Model Only)

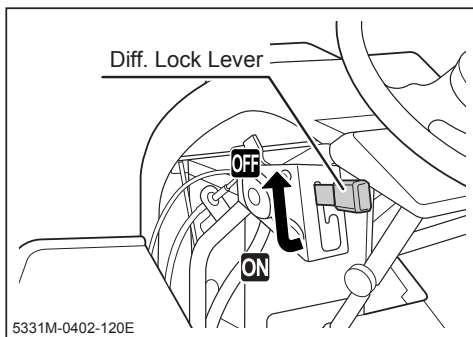
Differential can be locked to minimize slipping on slippery surface.

⚠ CAUTION!

- Always stop machine to operate differential lock lever. Operating differential lock lever while machine is in motion can damage differential.
- Keep differential lock in [OFF] position under normal running condition. Differential may be damaged.
- Do not turn machine when differential lock is in [ON] position.



1. Move differential lock lever to [ON] position.
2. Drive slowly out of the slippery area.



3. Once machine is out of the slippery area, stop and move differential lock lever to [OFF] position.

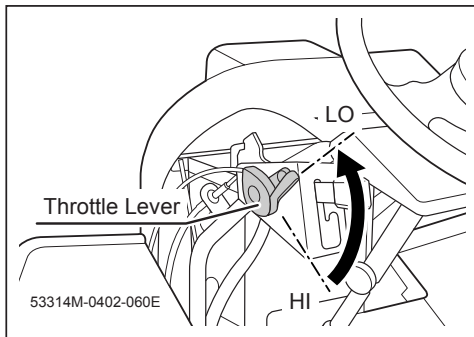
4

Operation

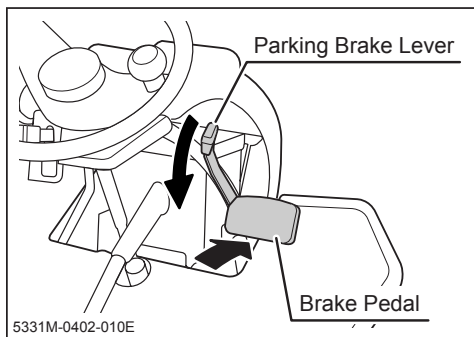
Parking

⚠ WARNING!

- Always park on a firm, level place. Never park on a potentially dangerous place.
- Avoid parking on a slope. Never park on a slope with an incline of 10 degrees or steeper. If it is absolutely necessary to park machine on a slope less than 10 degrees, make certain to apply parking brake firmly and block wheels with chocks.
- Do not park near flammables.
- Always apply parking brake and remove key from main switch when parking.



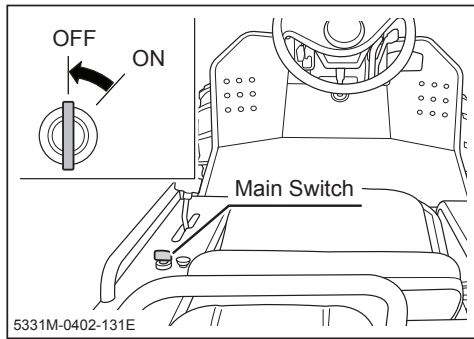
1. Stop machine.
2. Move throttle lever toward [LO (slow)] to slow engine speed.



3. Depress brake pedal and pull brake lock lever to lock brake pedal in depressed position.

Operation

4



4. Turn main switch to [○ (off)] to stop engine.
Remove ignition key.

4

Operation

Working

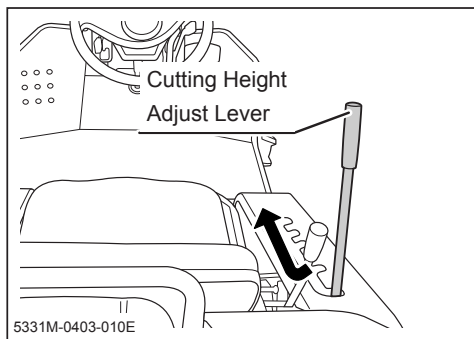
Inspecting Cutting Blade

Inspect cutting blade before work. Refer to **Cutting Blades** (page 49) for inspection procedure.

Adjusting Cutting Height

NOTE

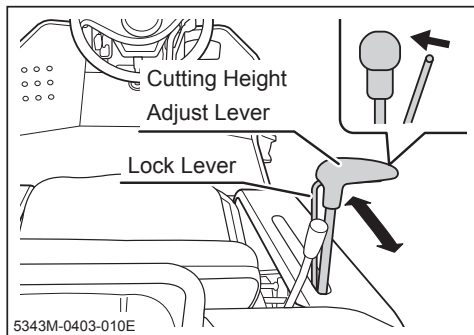
- Cutting rotary clutch cannot be engaged when cutting height adjust lever is in transport position.
- Cutting Height indicated on the side of the adjust lever is for reference purpose only; actual cutting height may vary due to the condition of ground or brush, and other factors.



Adjusting Cutting Height (CM141)

1. Move cutting height adjust lever to a desired position.

Cutting Height Adjust Lever Position	Indication of Cutting Height
Transport	For Transport
5	65 mm
4	50 mm
3	35 mm
2	20 mm
1	0 mm



Adjusting Cutting Height (CM142)

1. Pull lock lever to unlock cutting height adjust lever.
2. With lock lever pulled, move cutting height adjust lever to a desired height.
3. Release lock lever to lock cutting height adjust lever.

NOTE

- Cutting height: 0-80mm.

Operation

4

Cutting

DANGER!

- Never place any part of body under cutting blade shield.

WARNING!

- Do not allow bystanders to come near machine when cutting.
- Rotating cutting blades can throw stones or debris and cause injuries and damages to nearby people, animals, crops, buildings, automobiles, etc. Pay attention to the safety of surroundings and plan ahead when cutting.
- Never attempt to cut with cutting blade shield open.
- When cutting, drive forward. Machine is intended to cut brush while moving forward, and this best prevents stones and debris from being thrown.
- Turn cutting rotary clutch to [ON] only when cutting. Keep it in [OFF] position all the other times.
- Never attempt to cut brush on the edge of a ditch or bank. Shoulder of the ditch or bank may collapse. Pay special attention after heavy rain or earthquake.
- Inspect the work site beforehand; inspect terrain and locate holes, drops, or obstacles. Also inspect overhead obstacles such as the branches of a tree. Pay special attention when working near these areas.

CAUTION!

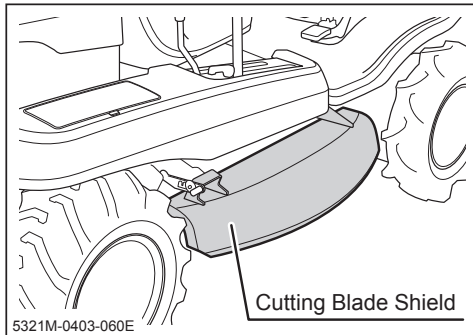
- Do not use this machine on an incline steeper than 15 degrees.
- Do not turn on an incline.

4

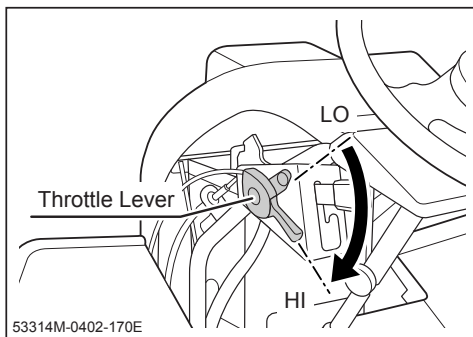
Operation

⚠ CAUTION!

- Wash cutting blade (page 58) after every use.
- Do not work on a slippery surface.
- When working in a dusty area, clean air cleaner element twice a day. Dirty air cleaner element results in poor starting, poor performance, or short life.
- When a cutting blade is broken, replace it and the other blade with a new pair. A broken blade causes excessive vibration, which damages machine.
- When something is tangled to cutting blade, stop engine immediately and remove the tangled object. Such object causes excessive vibration, which damages machine.



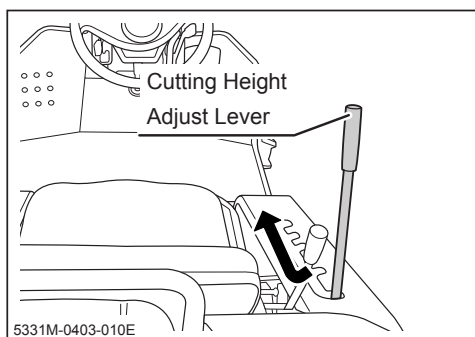
1. Make sure cutting blade shields on both sides are closed.



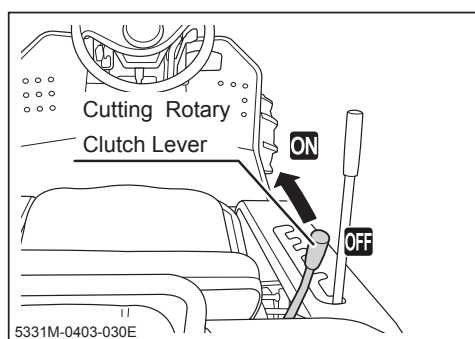
2. Turn throttle lever to [Hi (fast)] position to raise engine speed.

Operation

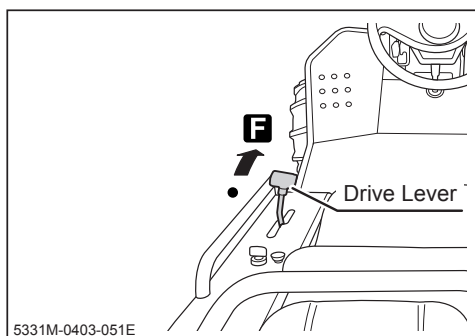
4



3. Move cutting height adjust lever to a desired height.



4. Move rotary clutch lever to [ON] to start cutting blade.



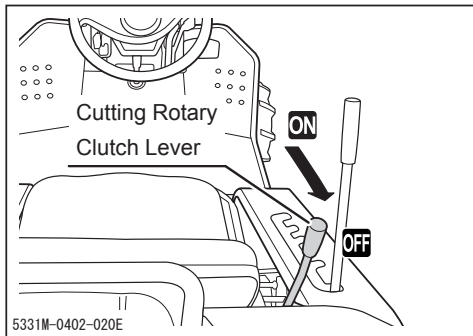
5. Drive machine forward to cut.

NOTE

- When cutting with this machine for the first time, start on a flat surface. Drive slowly and in an overlapping pattern.
- If load to cutting blade is high, drive slowly, or cut twice.
- Safety feature: engine stops automatically if operator leaves seat while cutting blade is rotating.

4

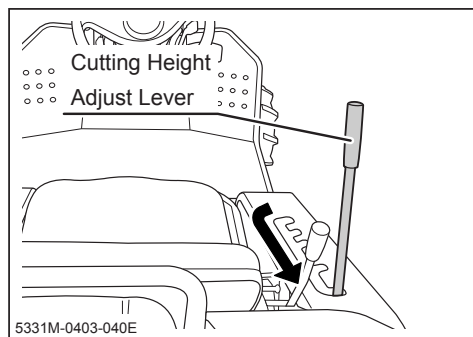
Operation



6. Move cutting rotary clutch lever to [OFF] to stop cutting blade.

NOTE

- Moving cutting rotary clutch lever to [OFF] applies brake on cutting blade to stop.



7. Move cutting height adjust lever to [Transport].

Maintenance

5

Maintenance Schedule

CAUTION!

- Follow the scheduled maintenance as described below and in the following pages. Failure to do so may result in mechanical or property damage, injury or death.

Engine

Daily Inspection

- Engine Oil - to be clean and at the correct level.
- Air Cleaner Element - to be clean and free of damage.
- Leaks - No fuel or oil leaks to be found.
- Bolts, Nuts, Fasteners - not to be loose or missing.
- Sound, Vibration - No abnormal noise or excessive vibration.

Scheduled Maintenance

Items	Frequency
Clean and check fastenrs	Every 8 hours (daily) (clean more frequently in dusty place)
Check and fill oil	Every 8 hours (daily) (clean more frequently in dusty place)
Clean air cleaner element	Every 8 hours (daily) (clean more frequently in dusty place)
Change oil	First time:20 hours. Every 100 afterward
Clean spark plugs	Every 100 hours
Replace fuel strainer	Every 200 hours
Replace air cleaner element	Every 200 hours (contact Canycom representative for placement)
Check and adjust spark plug gap	Every 200 hours (contact Canycom representative for placement)
Check and adjust tappets	Every 300 hours (do more frequently in dusty place)
Remove carbon deposit from cylinder head	Every 500 hours (do more frequently in dusty place)
Clean carburator	Every 500 hours (clean more frequently in dusty place)
Perform valve lapping	Every 500 hours (clean more frequently in dusty place)
Replace fuel hose	Every two years
Overhaul	1000 hours (contact Canycom representative for overhaul)

5

Maintenance

Chassis

- Perform a pre-startup inspection (PSI) before each use, a monthly inspection once a month, and a yearly inspection once a year.
- Some maintenance procedures described below may require special knowledge or tools and instruments. Contact your CANYCOM representative to perform such procedures.

Item		Description	Schedule			Note
			PSI	Mon	Year	
Drive Train	Tires	Tires shall be inflated to the specified pressure.	√	√	√	Page 44
		Tires and wheels shall be free of crack, damage, or uneven wear.		√	√	
		Wheel bolts shall not be loose or missing.	√	√	√	
		Wheel bearings do not exhibit excessive play and no irregular noise or overheating shall be observed.		√	√	
	Transmission	Irregular noise or overheating shall not be observed when moving forward or backward.		√	√	
		There shall not be oil leaks in or around transmission.		√	√	
	HST	HST shall perform normally.	√	√	√	
		Hydraulic fluid shall be filled to a proper level and shall be clean and free of dirt or contamination.		√	√	Page 46
		Lever shall not be loose or have excessive play.		√	√	
	V-belt	Belt tension shall be properly adjusted.		√	√	
		Belt shall be free of damage or excessive wear.		√	√	
	Brake	Brake shall work properly.	√	√	√	Page 48
	Parking Brake	Parking brake shall be able to hold the machine on a 15-degree slope.		√	√	
	Steering Wheel	Turn steering wheel right and left; front wheels shall turn accordingly.		√	√	
	Rods, Links, and Wires	Rods, links, and wires in linkage shall be free of deformation or damage.		√	√	
Connections shall be free of looseness, excessive play, or missing cotter pins.			√	√		

Maintenance

5

Item		Description	Schedule			Note
			PSI	Mon	Year	
Body, Chassis, Safety Devices	Chassis, Frame	Shall be free of cracks, deformation, or corrosion.		√	√	
		Fastening bolts or nuts shall not be loose or missing.	√	√	√	
	Body Panels	Shall be free of cracks, deformation, or corrosion.		√	√	
		Doors and lids shall open, close, and lock properly.		√	√	
		Fastening bolts or nuts shall not be loose or missing.	√	√	√	
	Labels	Warning labels and instruction plates shall be clean, legible, and free of damage.	√	√	√	
Cutting System	Cutting System	Blades shall be free of cracks or damage.	√	√	√	Page 49
		Blade mounting pins and stay shall be free of cracks or damage.	√	√	√	Page 49
		Cutting blade shield shall be free of cracks or damage.	√	√	√	
		Skirt on cutting blade shield shall be free of cracks or damage, and shall not be missing.	√	√	√	
		Belt tension shall be properly adjusted.	√	√	√	Page 52
		Belt shall be free of damage or excessive wear.	√	√	√	Page 52
		When activated, cutting blade brake shall stop cutting Rotary.	√	√	√	Page 53
		Greasing points shall be properly greased.		√	√	Page 35
Electric System	Charging System	Charging system shall charge battery.			√	
	Battery	Battery fluid (electrolyte) shall be of proper level.		√	√	Page 53
		Terminals shall be free of looseness or excessive corrosion.		√	√	
	Wiring	Connections shall not be loose.		√	√	
		Wiring shall be free of damages.		√	√	

5

Maintenance

List of Fluids and Lubricants

Item	Schedule	Grade	Cap.
Fuel	As needed.	Automotive Unleaded Gasoline	7.0 L
Engine Oil	Fill Inspect daily. Fill as needed. Change Initially - After 20 hours of use. Every 100 hours afterwards.	Gasoline Engine Oil API rating: SE or better. SAE rating: 10W-30	1.2L
Transmission Oil	Change Initially - After 50 hours of use. Every 500 hours afterwards.	Gear Oil API rating: GL-4 or 5 SAE rating: 80	1.4L
HST Fluid	As needed.	Gasoline Engine Oil API rating: SE or better. SAE rating: 20W-50	1.1L
Cutting Rotary Gearbox Oil	As needed.	Gear Oil API rating: GL-4 or 5 SAE rating: 80	0.25L
Battery Electrolyte	Fill Inspect every 50 hours and fill when necessary.	Distilled Water	-

*1 indicate the capacity including the oil filter cartridge.

Maintenance

5

Greasing Points

⚠ CAUTION!

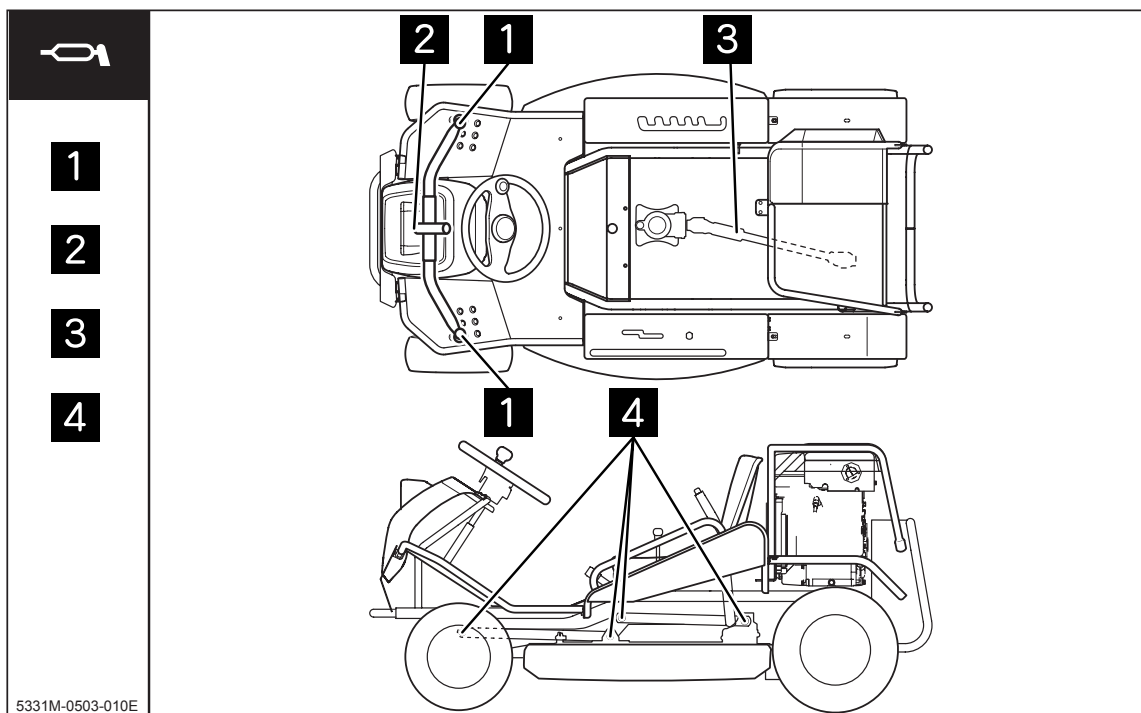
- Grease regularly. Insufficient greasing may result in seizure or rusting, affecting smooth operation of machine.

NOTE

- When using a manual grease pump, push handle five to six times. When handle becomes heavy, stop pushing.
- When using a pneumatic grease pump, charge for two to three seconds.

Greasing Points

Location	Schedule	Grade
1 Knuckles, front axle	Every 6 Months	Chassis Grease
2 Center pivot, front axle	Every 6 Months	Chassis Grease
3 Cutting rotary drive shaft	Every 6 Months	Chassis Grease
4 Cutting rotary link pivots	Every 6 Months	Chassis Grease



5

Maintenance

List of Consumables and Spares

⚠ CAUTION!

- When replacing consumable or spare, always use CANYCOM genuine part.
- Using non-genuine parts may void warranty.

Item	Part No.	Schedule	Qty.
Engine			
Air Cleaner Element	ZR20B32610H7	Every 200 hours or seasonally.	1
Spark Plug (NGK BR-6HS)	ZR0650140150	Clean: every 100 hours. Replace if defective.	1
Wire (Throttle)	53310105000	Replace if defective.	1
Fuel System			
Hose (Carburator Fuel Cock)	ZR0851062090	Every 2 years.	1
Hose (Fuel Cock - Fuel Tank)	ZRX851061491	Every 2 years.	1
Drive Train			
V-belt SB-38(W400) (Drive)	08521300038	Replace if defective.	1
Tire AGR 3.50-7(Front)	53042204000	Replace if defective or reaches the wear limit.	2
Tire 16X7.00-8 (Rear)	53042301100	Replace if defective or reaches the wear limit.	2
Tire Tube (Front)	53042205000	Replace if defective.	2
Tire Tube (Rear)	42012543000	Replace if defective.	2
Brake Lining (Set)	73069901000	Replace if defective. (Replace in pairs)	1
Wire (Brake)	53313305000	Replace if defective.	1
Wire (Differential Lock) * ¹	53313402000	Replace if defective.	1
Cooling Fan	73061137000	Replace if defective.	1
Cutting System			
Blade Set (lai)	Z3214206010	Replace if defective.	1
Pin for Blade * ²	53314208000	Replace if defective.	2
Wave Washer * ²	53314207000	Replace if defective.	2
Rubber Plate (Blade Shield, Rear)	53314125000	Replace if defective.	1
Rubber Plate (Blade Shield, Rear Left)	53314124000	Replace if defective.	1
V-belt SGLB35 (Cutting Rotary)	08521600035	Replace if defective.	2
Brake Lining (Cutting Rotary)	73059901000	Replace if defective.	1
Wire (Cutting Rotary Clutch)	53312415000	Replace if defective.	1
Cutting Blade Stay	53314203000	Replace if defective.	1

Maintenance

5

Item	Part No.	Schedule	Qty.
Electrical System			
Battery 40B19R	37053901000	Replace if defective.	1
Fuse, 15A (Green, Main)	09801003002	Replace if defective.	1

*1 Differential Lock Model

*2 Included within set of blades (lai)

5

Maintenance

Removing and Installing Body Panels

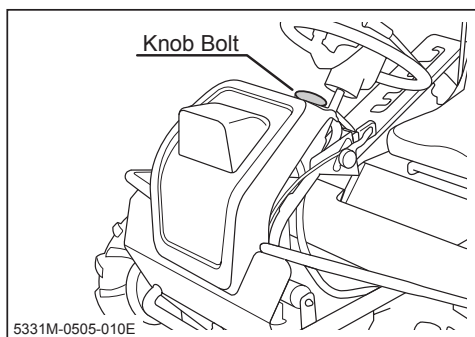
⚠ WARNING!

- Always stop engine and remove key when removing body panels

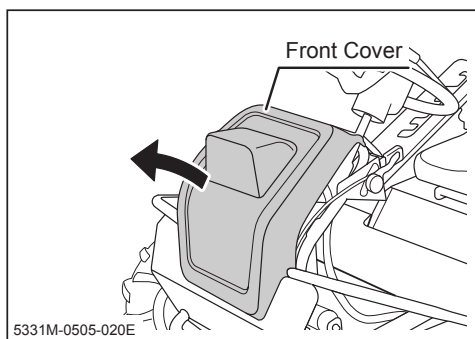
⚠ CAUTION!

- Cut or pinch hazard exists when removing or installing body panels; beware of sharp edges and pinch points.
- Make certain to reinstall panels after removing for repairs or inspection.

Front Cover

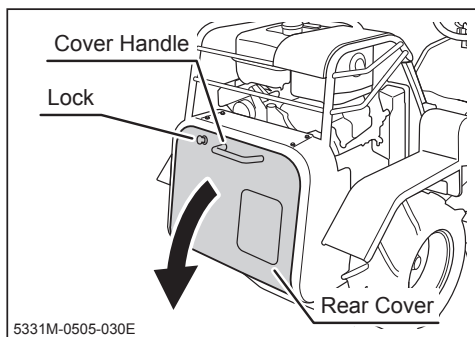


1. Remove knob bolt.

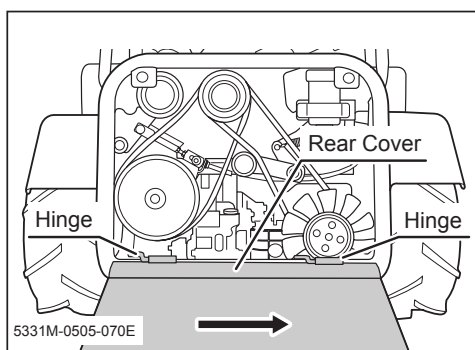


2. Remove front cover.

Rear Cover

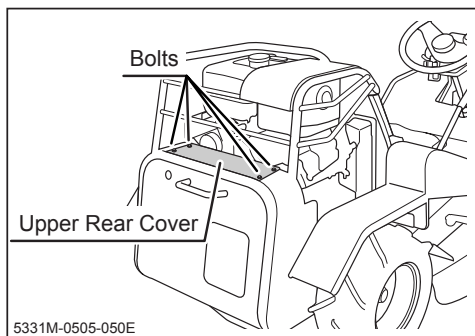


1. Insert key for engine cover into lock and unlock.
2. Pull cover handle to open rear cover.
3. Close cover and lock. Remove key from lock. Check if cover is locked firmly by pressing cover handle.



3. Rear cover panel can be removed by sliding toward right when it is open.

Upper Rear Cover

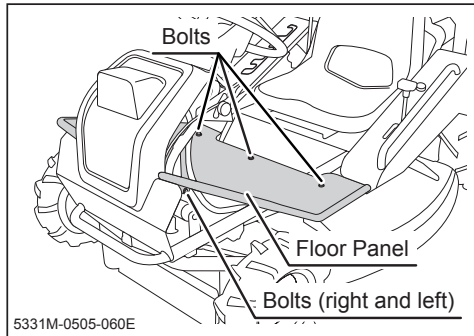


1. Remove 4 bolts.
2. Remove upper rear cover.

5

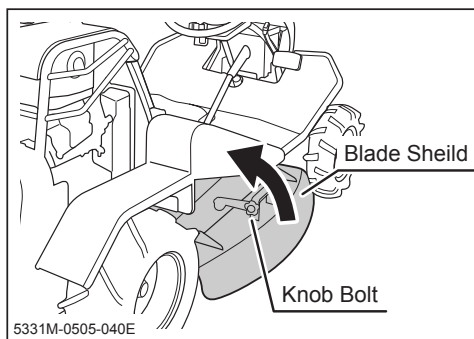
Maintenance

Floor Panel



1. Remove 4 bolts.
2. Remove upper rear cover.

Cutting Blade Shield



1. Loosen knob bolt and lift blade shield.
2. Tighten knob bolt and fix blade shield firmly.

NOTE

- Blade shield can not fully opened when cutting height adjust lever is in [Transport] position. Set cutting height adjust lever to [3] or lower to fully open the blade shield.

Maintenance

5

Engine

⚠ WARNING!

- Always stop engine and remove ignition key before servicing.
- An engine that has been running is very hot. Allow engine to cool before servicing, or severe burns may result.
- Keep fire away from machine when servicing.

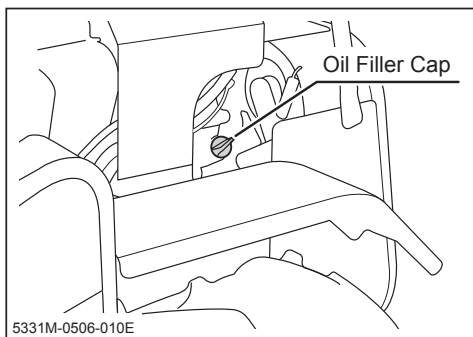
Engine Oil

⚠ CAUTION!

- Make certain to fill engine with correct grade of oil to the specified level. Insufficient amount or wrong grade of oil reduces performance and may cause permanent damage to engine.
- Dispose of the drained oil properly.

NOTE

- To obtain correct reading, check oil level before starting, or wait about 10 minutes after stopping engine to allow oil to drain back to oil pan.
- Always check oil level on a level surface.
- Oil to Use: Page 34.
- Oil Capacity: Page 34.

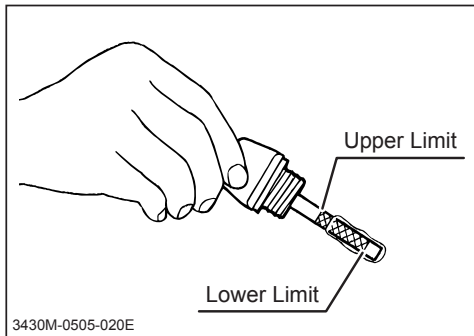


Inspecting

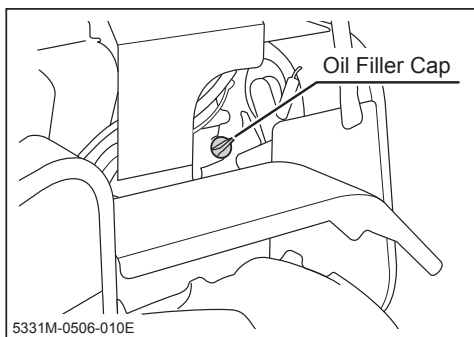
1. Park machine on a level surface.
2. Remove oil filler cap and wipe it clean.
3. Insert oil filler cap and pull it out.

5

Maintenance

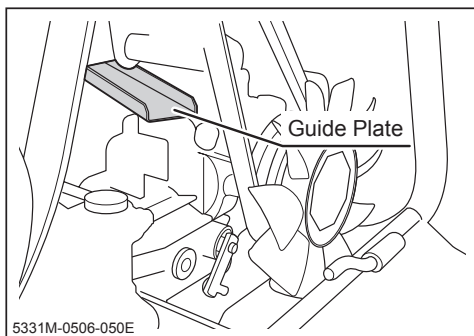


4. Visually inspect oil level. Make sure oil level is between upper and lower limits. If it is below lower limit, add oil.
5. Visually inspect condition of oil. If it is too dirty or viscosity is not normal, change oil.
6. Put oil gauge back in place.



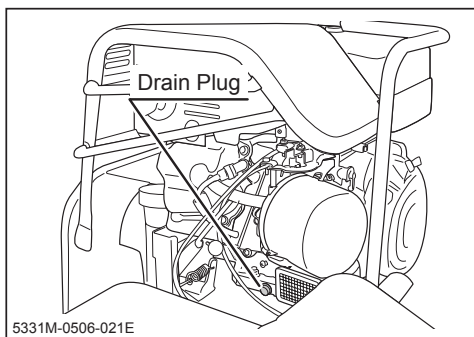
Filling

1. Remove oil filler cap.
2. Fill specified amount of correct oil into filler.
3. Check oil level. Make sure oil level is between upper and lower limits.
4. Put oil filler cap back in place.



Changing

1. Have an appropriate oil drain pan.
2. Open rear cover and place oil drain pan under the guide plate.
3. Remove oil filler cap.

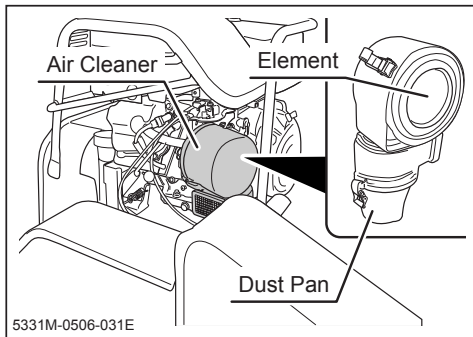


4. Remove drain plug and drain oil.
5. Put drain plug back in place.
6. Fill specified amount of correct oil into filler.
7. Check oil level. Make sure oil level is between upper and lower limits.
8. Put oil filler cap back in place.
9. Close rear cover.

Air Cleaner

⚠ CAUTION!

- Clean air cleaner element daily. Dirty air cleaner element causes poor starting, reduces engine performance and shortens engine life.
- Replace air cleaner element if damaged.

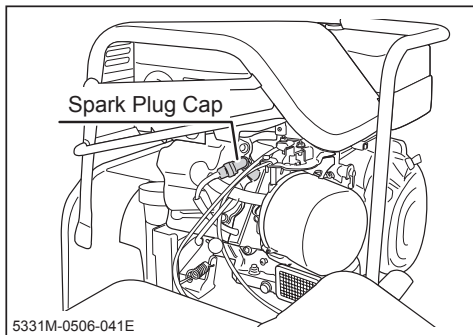


1. Follow the instructions in **Operator's Manual for the engine** to inspect, clean or change air cleaner element.

Spark Plugs

⚠ CAUTION!

- Never pull ignition cable when removing a spark plug cap. Conductor in the cable may be severed or damaged.
- If a spark plug is damaged, replace it with a new one.



1. Remove spark plug cap.
2. Remove spark plug with contained **Engine Tool** or appropriate plug wrench.
3. Follow the instructions in **Operator's Manual for the engine** to inspect, clean, or change spark plugs.
4. Put spark plug back in place.
5. Put spark plug cap back in place.

5

Maintenance

Drive Train

⚠ WARNING!

- Stop engine and remove ignition key before servicing drive train.
- Allow machine to cool off before servicing. Engine and its ancillaries are very hot after operation and may pose a burn hazard.

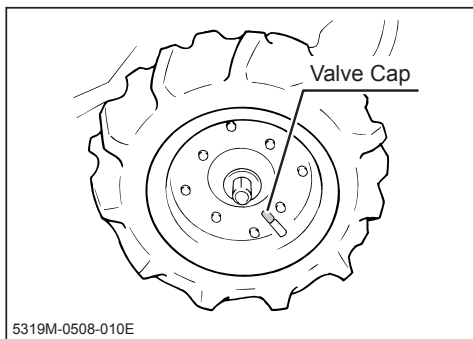
⚠ CAUTION!

- Dispose of drained oil properly.

Tires

⚠ CAUTION!

- Inflate tires to the specified pressure. Under- or over-inflation causes uneven wear or other damages to tires.



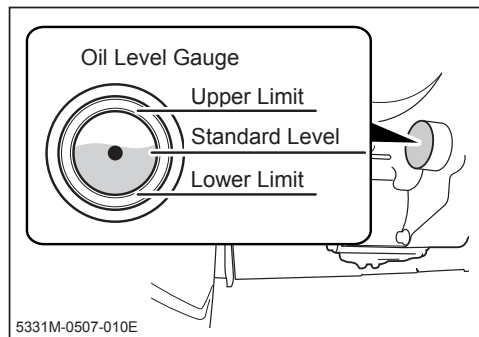
1. Park machine on a level ground.
2. Remove valve cap.
3. Check tire air pressure. If different from the specified values, adjust pressure.
4. Put valve cap back in place.

	Tire Size	Pressure KPa(kgf/cm ²)
Front Wheel	AGR 3.50-7 (2PR)	110 (1.1)
Rear Wheel	16×7.00-8 (2PR)	130 (1.3)

Transmission Oil

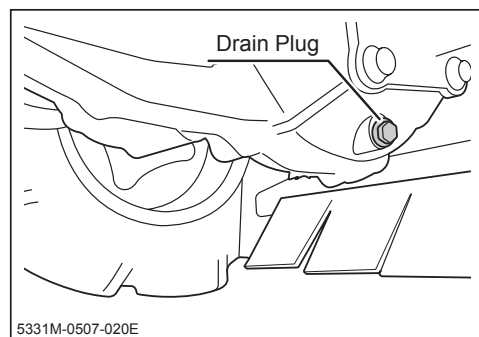
NOTE

- Oil to Use: Page 34.
- Oil Capacity: Page 34.



Inspecting

1. Park machine on a level ground.
2. Visually inspect amount and condition of oil.
3. Check if oil level is between upper and lower limits. Fill oil if needed.
4. Change oil if oil is too dirty.



Changing

1. Park machine on a level ground.
2. Have an appropriate oil drain pan.
3. Open rear cover.
4. Remove oil plug.
5. Remove drain plug and drain oil.
6. Put drain plug back in place.
7. Fill specified amount of correct oil into filler.
8. Put filler cap back in place.
9. Close rear cover.

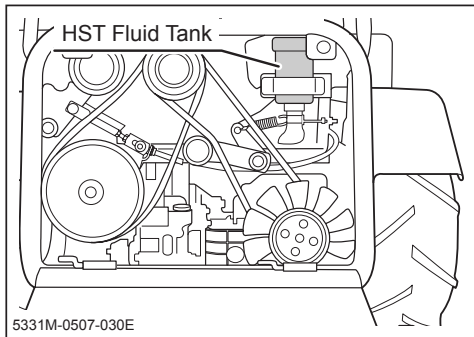
5

Maintenance

HST (Hydrostatic Transmission) Fluid

NOTE

- To obtain correct reading, check HST fluid level before starting, or wait until HST fluid cools off sufficiently. Hot HST fluid expands in volume and does not provide correct reading.
- It is enough if oil level is on [MIN] when oil is sufficiently cool.
- Do not fill fluid more than [MAX] level. Fluid may expand and overflow from the tank.
- Oil to Use: Page 34.
- Oil Capacity: Page 34.

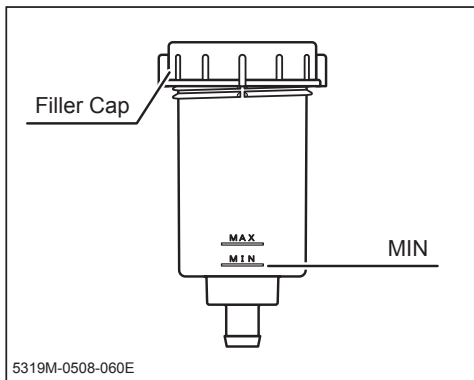


Inspecting

1. Park machine on level ground.
2. Open rear cover.
3. Visually inspect fluid level. Make sure fluid level is between upper and lower limits. If it is below [MIN] limit, add fluid.
4. Visually inspect condition of fluid. If it is too dirty or viscosity is not normal, change fluid.
5. Close rear cover.

Filling

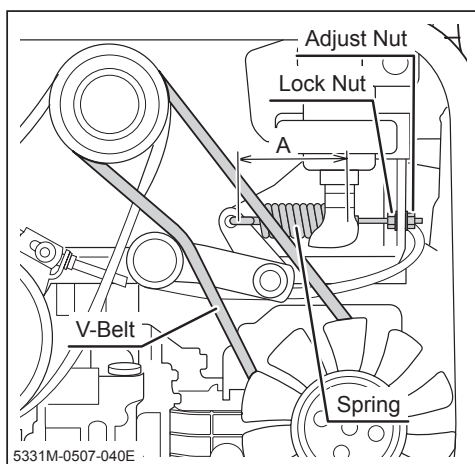
1. Open rear cover and remove upper rear cover.
2. Remove HST fluid filler cap.
3. Fill HST fluid to [MIN] level.
4. Put filler cap back in place and screw it securely.
5. Install upper rear cover and close rear cover.



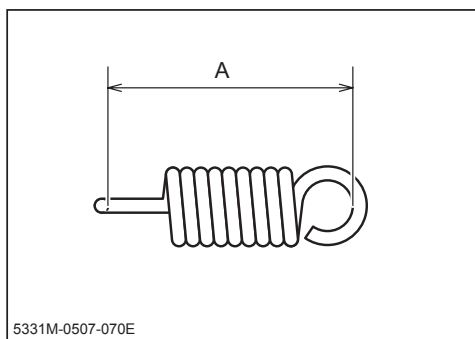
Drive Belt

⚠ CAUTION!

- Adjust belt tension properly. Improperly tensioned belt may reduce performance and its service life.



1. Remove upper rear cover.
2. Check V-belt tension. Inspect that the length A of spring is within the range of 69 mm to 70mm. If it is out of this range, adjust spring with adjust nut.
3. Visually inspect belt. Replace belt if it is damaged. For replacement, contact your CANYCOM representative.
4. Install upper rear cover back in place.



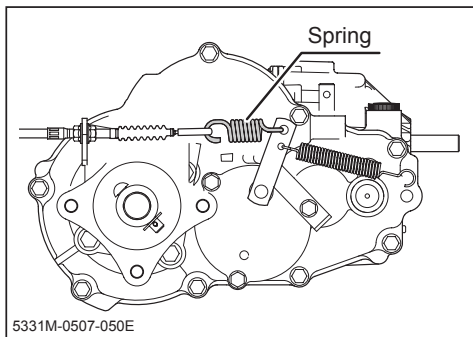
5

Maintenance

Parking Brake

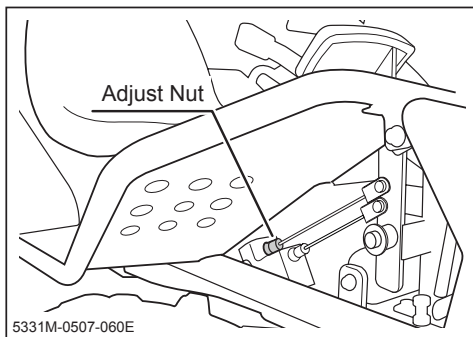
⚠ WARNING!

- Always keep brake adjusted for maximum performance. Improperly adjusted brakes may result in property damage, serious injury, or death.



Brake

1. Lock brake pedal with parking brake lock lever.
2. Remove floor panel.
3. Inspect that the stretch of spring is 3mm. If it is not, adjust it with adjust nut.



Maintenance

5

Cutting System

⚠ WARNING!

- Stop engine and remove ignition key when servicing.
- Allow machine to cool off before servicing. Engine and its ancillaries are very hot after operation and may pose a burn hazard.

Cutting Blades

⚠ WARNING!

- When a blade is damaged, replace it and the other blade immediately. Always replace blades in pair. Damage due to vibration may occur.
- When replacing blades, replace pins for blades and wave washers with new ones. Blades may be thrown out due to worn pins.
- Always check wear of cutting rotor stay. Replace cutting rotor stay if it wears beyond wear limit, damaged or deformed. Cutting rotor stay may break and thrown out blade.

⚠ CAUTION!

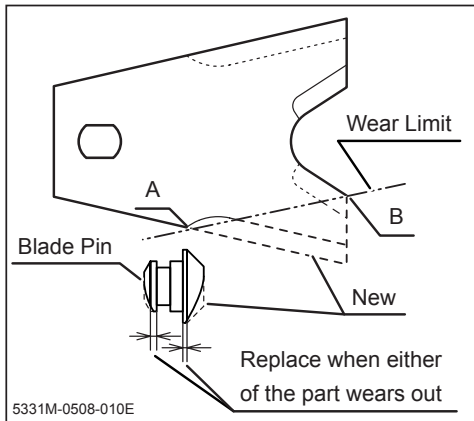
- Blades and cutting rotor stay may become sharp due to wear and cause injury such as cut on hands. When replacing blades, wear thick gloves and handle carefully.
- Do not apply force when removing blade. Blade can move unexpectedly and cause injury. When it is difficult to remove blade from stay, remove foreign object around stay, wash blades and rotate blade to remove.

NOTE

- Washing cutting system: Page 58
- Wash blades after use.

5

Maintenance



Inspecting

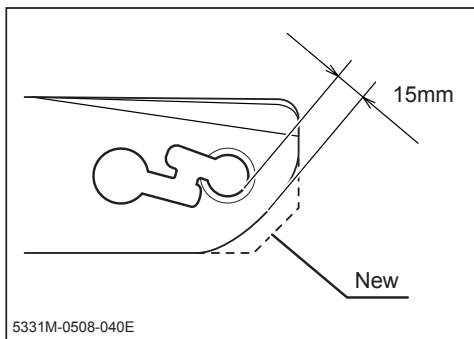
1. Open cutting blade shield.
2. Visually inspect blades and pin for wear and damage. If blades are worn normally, turn them over and use. Replace if both edges are worn. If blades or pin are worn excessively, deformed, damaged, or missing, replace them with new components.

NOTE

• Wear Limit

Blade: Up to line connecting A and B.

Blade pin: Up to either of the shoulder.

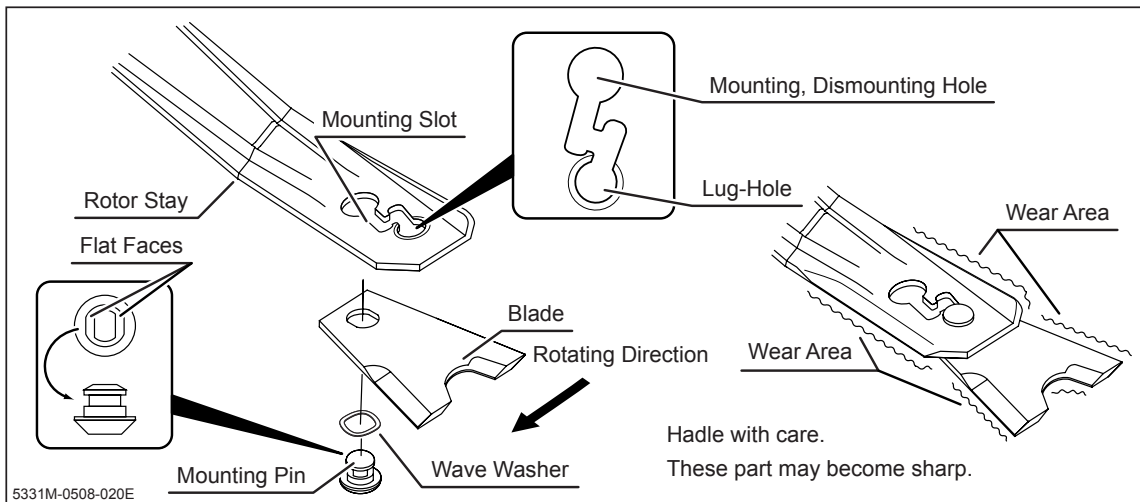


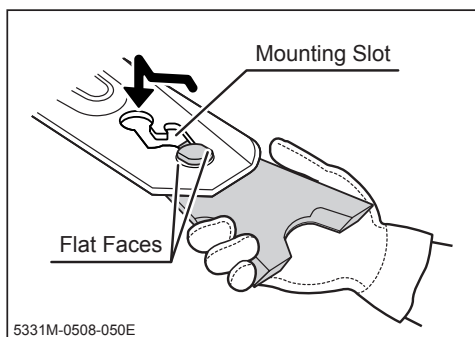
3. Inspect cutting rotor stay. If blades or pin are worn excessively, deformed or damaged, replace with a new component.
4. Close blade shield.

NOTE

• **Wear Limit:** Up to the solid line in the left figure (should have more than 15mm clearance between edge of rotor stay and mounting slot.)

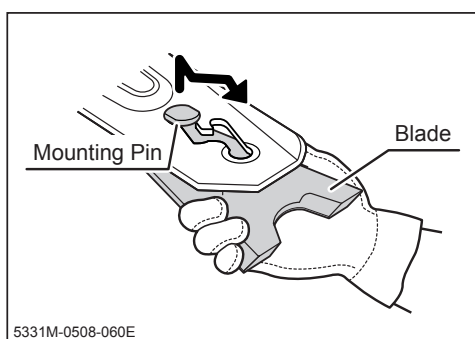
• **Contact your CANYCOM representative for replacement of rotor stay.**





Replacing

1. Open cutting blade shield.
2. Noting the direction of the flat faces on mounting pin, shift blade along mounting slot to remove blade.
3. Install new mounting pin to blade and shift blade along mounting slot, noting the direction of the flat faces.



NOTE

- Always put thick gloves on and be cautious when handling blade because both edges of rotor stay can get sharp by wear.
- Wear Limit: See page 50
- If it is difficult to remove blade, wash. (page 58)

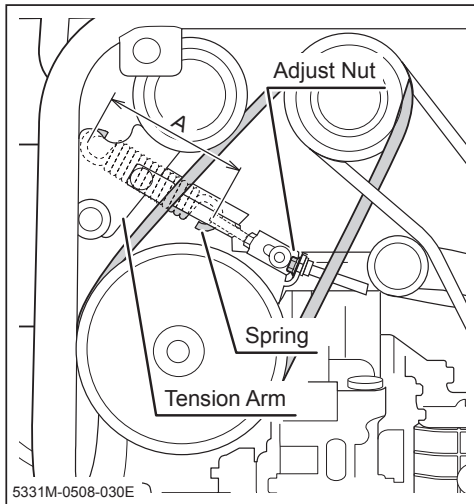
5

Maintenance

Cutting Rotary Drive Belt

⚠ CAUTION!

- Adjust belt tension properly. Improperly tensioned belt may reduce performance and its service life.



1. Open rear cover.
2. Move cutting height adjust lever to [5] position on CM141 or [80] on CM142.
3. Move cutting rotary clutch lever to [ON].
4. Check V-belt tension. Inspect that the length A of spring is within the range of 112 mm to 113mm. If it is out of this range, adjust spring with adjust nut.
5. Visually inspect belt. Replace belt if it is damaged. For replacement, contact your CANYCOM representative.
6. Move cutting rotary clutch lever to [OFF].
7. Move cutting height adjust lever to [Transport].
8. Close rear cover.

Cutting Rotary Brake

DANGER!

- **Never place any part of body under cutting blade shield when cutting blade is rotating.**

WARNING!

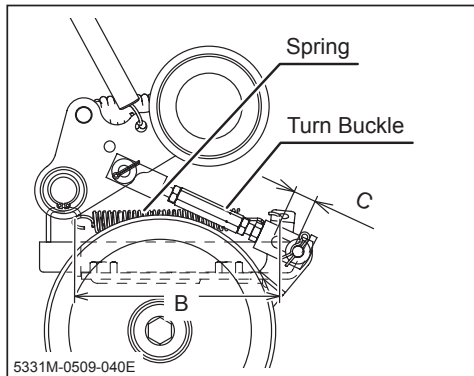
- **Do not allow bystanders to come near machine when inspecting cutting rotary brake.**
- **Always ride on machine when inspecting.**
- **Never attempt to check the performance of cutting rotary brake with cutting blade shield open. Stones or rocks can be thrown and cause damage to surrounding properties or persons.**
- **Inspect cutting rotary brake whenever the performance of it seems inadequate.**

Inspecting

1. Start engine.
2. Turn throttle lever to [HI (fast)] to raise engine speed.
3. Move cutting height adjust lever to [5] position on CM141 or [80] on CM142.
4. Turn cutting rotary clutch lever to [ON] to rotate cutting blade.
5. Move cutting rotary clutch lever to [OFF] to observe if cutting blade stops within 5 seconds. If it takes more than 5 seconds to stop, adjust cutting rotary brake.
6. Move cutting height adjust lever to [Transport].
7. Turn throttle lever to [Low (slow)] to reduce engine speed.
8. Park machine and stop engine.

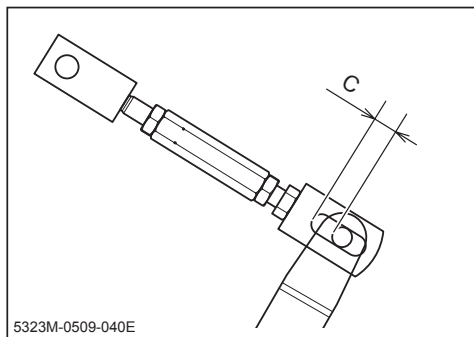
5

Maintenance



Adjusttting

1. Remove upper rear cover and rear cover.
2. Adjust the play C with turn buckle so that it is approximately 5mm when clutch lever is in [OFF] position.
4. Install upper rear cover rear cover back in place.
5. Check if cutting blade stops within 5 seconds again. If it does not, consult with your CANYCOM representative.



Maintenance

5

Electrical System

⚠ WARNING!

- Always stop engine and remove ignition key when servicing electrical system.
- Never attempt to service electrical system with wet hands. Never touch electrical terminals. There is a risk of electric shock.

Battery

⚠ WARNING!

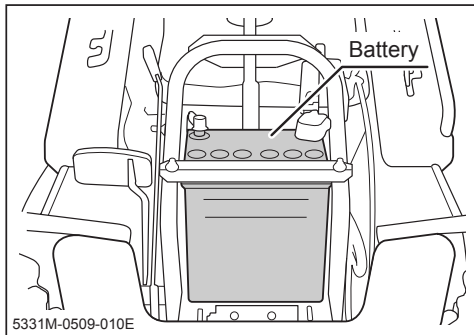
- Never charge battery when the fluid level is below "LOWER" level line. Charging battery with insufficient fluid may shorten battery life or cause an explosion.
- Battery fluid (diluted sulfuric acid) is corrosive and causes severe burns. Be extremely cautious when handling battery fluid. If battery fluid is spilled on clothes, immediately rinse with plenty of water. If spilled on skin or in an eye, immediately rinse with plenty of water and promptly consult a physician.
- Explosion hazard. Keep open flame or spark away from battery. Hydrogen gas generated during charging is extremely explosive.
- Always remove battery from machine before charging. Failure to do so causes damage to electrical components and wiring.
- Always disconnect (-) terminal first, and connect (+) terminal first. Disconnecting or connecting in the opposite order may cause a short circuit.
- When installing battery, make certain to connect (+) and (-) terminals to their original positions. Avoid contact between terminals and other surrounding parts.
- Use wet cloth to clean battery. Dry cloth may generate static electricity, which may cause explosion.

5

Maintenance

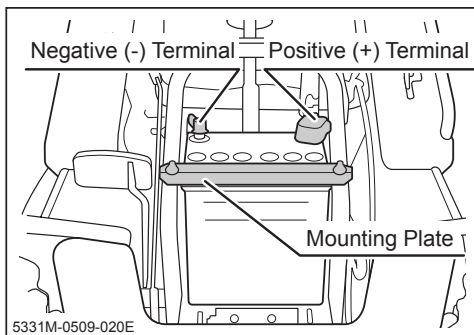
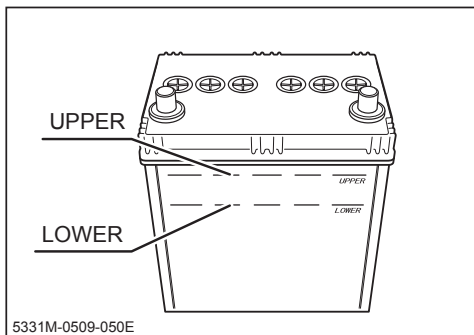
⚠ CAUTION!

- Never fill battery fluid beyond "UPPER" level line. Battery fluid may spill and cause damage to machine or injury to person.
- Follow battery charger user's manual when charging.



Inspecting

1. Park machine on level ground.
2. Remove front cover.
3. Visually inspect that battery fluid level is between "UPPER" level and "LOWER" level lines.
4. If fluid level is near or below "LOWER" level line, fill.
5. Install front cover back in place.

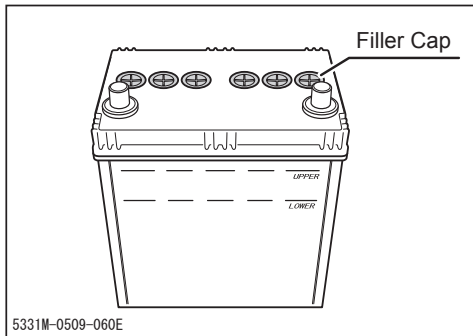


Filling

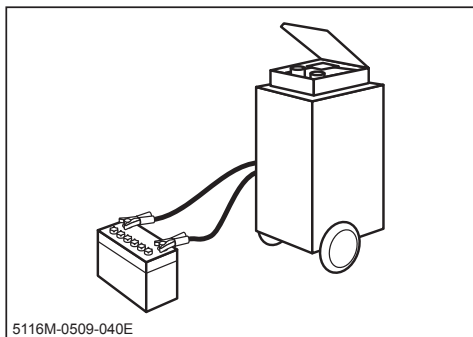
1. Remove front cover.
2. Remove negative (-) cable from battery.
3. Remove positive (+) cable from battery.
4. Remove mounting plate and remove battery from machine.

Maintenance

5



5. Remove filler caps.
6. Fill distilled water to "UPPER" level line.
7. Put filler caps back in place.
8. Install battery back in place.
9. Install positive (+) cable.
10. Install negative (-) cable.
11. Install mounting plate back in place.
12. Install front cover back in place.



Charging

1. Remove front cover.
2. Remove battery from machine.
3. Follow instructions in battery charger operator's manual to charge battery.
4. When charge is complete, install battery to machine.
5. Install front cover back in place.

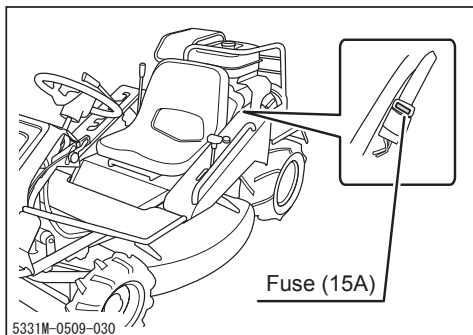
Fuse

⚠ CAUTION!

- If a fuse blows, investigate the cause before replacing.
- Always replace a fuse with one of the correct rating.

NOTE

- Main Fuse: 15A.
- Replacement Fuse: Page 35.



1. Remove fuse and visually inspect. If it is blown, replace it with new one of the same rating.
2. Install fuse back in place.

5

Maintenance

After Use Care

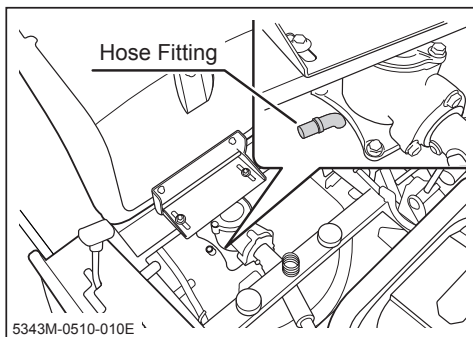
Cutting System

⚠ DANGER!

- Never place any part of body under cutting blade shield when cutting blade is rotating.

⚠ WARNING!

- Do not allow bystanders to come near machine when cutting blade is rotating.
- Always ride on machine when rotating cutting blade.
- Never attempt to rotate cutting blade with cutting blade shield open. Stones or rocks can be thrown and cause damage to surrounding properties or persons.
- Turn cutting rotary clutch to [ON] only when cleaning. Keep it in [OFF] position all the other times.



1. Park machine.
2. Set cutting height to 3 or 4 on CM141 or about [50] on CM142.
3. Flip seat.
4. Connect hose to hose fitting on mower deck. Run water through hose.
5. Lower seat, ride and start engine.
6. Turn throttle lever to [HI (fast)] to raise engine speed.
7. Move cutting rotary clutch lever to [ON] to rotate cutting blade to clean.
8. When cleaning is done, move cutting rotary clutch lever to [OFF] to stop cutting blade.
9. Turn throttle lever to [LO (slow)] to slow engine speed.
10. Stop engine.
11. Stop running water, flip seat, and remove hose.
12. Lower seat.
12. Move cutting height adjust lever to [Transport].

NOTE

- Do not set cutting height too low. It may hit ground
- Work on level ground without any stones.
- Use hose with 15mm or 18mm of inner diameter.

After Normal Use

⚠ WARNING!

- Fire hazard; clean machine of cut grass and similar material after use. Cut grass that is accumulated on the machine can catch fire.

⚠ CAUTION!

- Do not wash engine or control panel with running water; water may enter inside and cause rust or damage.

1. Clean machine; wash off dirt, mud, and remove grass and other foreign materials after use.
2. If machine is to be left outside, cover machine with protective, water-proof covering after it is cooled off.

5

Maintenance

After Cold Weather Use

⚠ WARNING!

- Fire hazard; clean machine of cut grass and similar material after use. Cut grass that is accumulated on the machine can catch fire.

⚠ CAUTION!

- Do not wash engine or control panel with running water; water may enter inside and cause rust or damage.
- Clean machine after use; dirt or foreign objects may freeze and cause damage.
- Do not attempt to move machine when it becomes inoperable due to freezing

1. Clean machine; wash off dirt, mud, and remove grass and other foreign materials after use.
2. Park machine on a paved or firm, dry surface, or on a bed of lumber.
3. If machine is to be left outside, cover machine with protective, water-proof covering after it is cooled off.

Maintenance

5

Storage

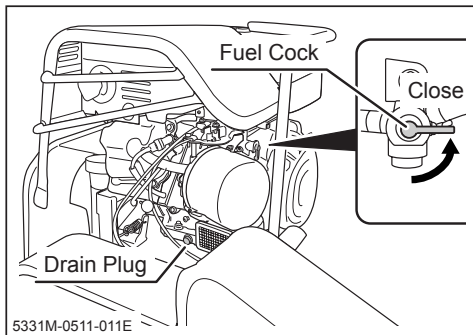
⚠ WARNING!

- Fire hazard; do not store machine where there is a possibility of ignition.

⚠ CAUTION!

- Do not wash engine or control panel with running water; water may enter inside and cause rust or damage.
- Clean machine before storage; dirt or foreign objects may freeze and cause damage.
- Do not store machine in a humid, dusty, or hot place.

1. Park machine.
2. Clean machine; wash off dirt, mud, and remove grass and other foreign materials after use.
3. Check machine according to **Maintenance Schedule** (Page 31). If a problem is found, repair.
4. Wipe clean steel parts with oiled cloth and grease specified grease points.
5. Change engine oil.
6. Clean air cleaner element.



7. Turn fuel cock to [Close] and open drain plug to drain fuel from carburator.
8. Inflate tires to a pressure slightly higher than the specified value. Chock front and back of front wheels.
9. Remove battery from machine. Inspect, fill, and charge battery.
10. Cover machine with protective, water-proof covering after machine is cooled off.

NOTE

- Battery discharges even when it is not in use. A battery may hold charge for a few months, but it is a good practice to charge battery before it goes flat; it will extend battery life.
- Refer to Operation Manual for the engine, for detailed instructions on preparing engine for storage.

6

Troubleshooting

Troubleshooting

- If any malfunction or abnormal condition is found, immediately stop using the machine and take an appropriate measure according to the Troubleshooting chart below. If the malfunction or abnormal condition is not listed in the chart, or the suggested measure does not solve the problem, consult with your CANYCOM representative.
- Some corrective measures listed below require special knowledge and/or equipment. Please contact your CANYCOM representative in such a case.

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Engine	Engine does not start, or is difficult to start	Out of fuel.	→Fill fuel.	Page 15
		Fuel cock is closed.	→Open fuel cock.	Page 18
		Bad fuel.	→Change fuel	
		Excessive fuel in the engine.	→Wait a while and try starting again.	
		Battery capacity is insufficient.	→Add battery fluid. →Charge battery. →Replace battery.	Page 56 Page 57
		Battery cable is disconnected.	→Connect the battery cable.	
		Insufficient or wrong oil.	→Fill or change oil.	Page 41
		Dirty or damaged spark plug.	→Clean or replace the spark plug.	Page 43
		Other (other than the above).	→Follow the instructions in "Starting" to restart. If problem persists, please contact your CANYCOM representative.	Page 17
	Engine stalls.	Out of fuel.	→Fill fuel.	Page 15
	Engine stops abruptly.	Out of fuel	→Fill fuel.	Page 15
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Idling is not stable.	Insufficient intake air (clogged air cleaner).	→Clean or replace the air cleaner.	Page 43
		Other (other than the above).	→Please contact your CANYCOM representative.	

Troubleshooting

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Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Engine	Poor power or acceleration	Bad fuel	→Change fuel.	
		Insufficient intake air (clogged air cleaner).	→Clean or replace the air cleaner.	Page 43
		Loose drive belt.	→Adjust.	Page 47
		Excessive load	→Reduce load. (by adjusting cutting height)	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Irregular noise or vibration from or around the engine		→Please contact your CANYCOM representative.	
	Excessive oil consumption		→Please contact your CANYCOM representative.	
	Engine overheats	Insufficient amount of engine oil.	→Fill oil.	Page 41
		Rotating screen or cooling fins are clogged or blocked.	→Clean.	
	Excessive fuel consumption	Clogged air cleaner.	→Clean or replace the air cleaner.	Page 43
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Black smoke comes out of exhaust	Choke is not fully open.	→Open the choke fully.	
		Clogged air cleaner.	→Clean or replace the air cleaner.	Page 43
		Other (other than the above).	→Please contact your CANYCOM representative.	
	White or blue smoke comes out of exhaust	Bad fuel.	→Change fuel.	
		Engine oil level is too high.	→Adjust the oil level.	Page 41
		Improper engine oil.	→Change oil.	Page 41
		Other (other than the above).	→Please contact your CANYCOM representative.	

6

Troubleshooting

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Drive Train	Machine does not move when drive lever is operated.	Insufficient or deteriorated HST fluid.	→Add or change fluid.	Page 46
		Parking brake is applied	→Release the parking brake.	
		V-belt is loose.	→Adjust V-belt.	Page 47
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Machine moves when drive lever is in neutral position.	HST is out of neutral.	→Please contact your CANYCOM representative.	
	Machine does not turn smoothly.	Tires are not properly inflated.	→Adjust tire pressure.	Page 44
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Machine does not run straight.	Tie-rod is not properly adjusted.	→Please contact your CANYCOM representative.	
Brake	Brake or parking brake does not work well, or machine pulls to one side when braked.	Brake is not properly adjusted.	→Adjust.	Page 48
		Brake is wet with water.	→Apply brake a few times to dry.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
Chassis	Machine vibrates abnormally.	Improperly inflated tires.	→Adjust tire pressure.	Page 44
		Other (other than the above).	→Please contact your CANYCOM representative.	

Troubleshooting

6

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Cutting System	Cutting blade does not rotate	Cutting rotary drive belt is severed.	→Replace.	
	Cutting blade does not stop	Inappropriate adjusted Brake		
		Brake lining is worn.	→Replace.	
	Cutting rotary drive belt slips.	Belt is loose.	→Adjust belt tension.	Page 52
		Belt is worn.	→Replace.	Page 52
		Cut grass or vines accumulate in the cutting blade shield.	→Clean.	Page 58
	Abnormal vibration occurs when cutting blade is rotated.	Cutting blade is damaged or lost.	→Replace cutting blades.	Page 49
		Foreign object is caught by cutting blade.	→Remove or clean foreign object.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Cut grass is not discharged properly.	Grass is wet.	→Cut when grass is dry.	
		Grass is too long.	→Cut in several steps at different heights.	
		Cutting height is too low.	→Raise cutting height.	
		Engine speed is too low.	→Raise engine speed.	
		Driving speed is too high.	→Drive slow.	
	Some grass is left uncut.	Grass is too long.	→Cut in several steps at different heights.	
		Engine speed is too low.	→Raise engine speed.	
		Driving speed is too high.	→Drive slow.	
		Cutting blade is damaged or worn.	→Replace.	
		Cut grass or vines accumulate in the cutting blade shield.	→Clean.	Page 58

6

Troubleshooting

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Cutting System	Cutting blade cuts into ground.	Cutting height is too low.	→Raise cutting height.	
		Work site has undulations.	→Raise cutting height.	
		Cutting blade (knives or stay) is bent.	→Replace.	
	Cutter load is too high.	Engine speed is too low.	→Raise engine speed.	
		Driving speed is too high.	→Drive slow.	
		Cut grass or vines are tangled to cutting blade axle.	→Untangle.	

Transporting

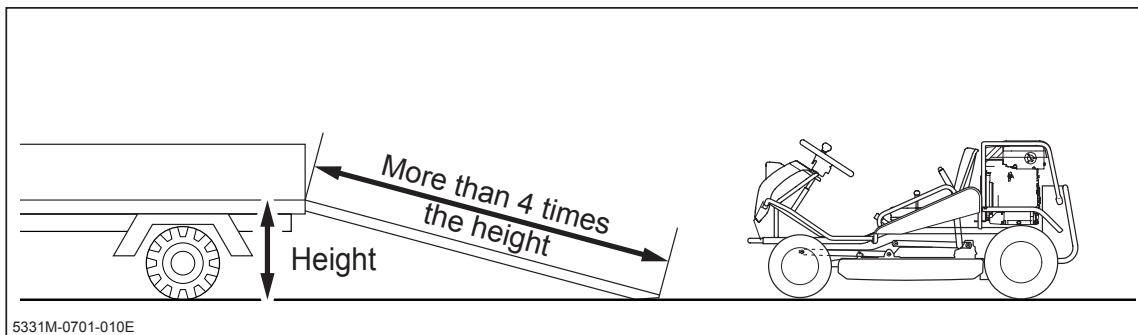
7

Hauling

Loading and Unloading

⚠ WARNING!

- Park transporter (truck) on a level ground and apply parking brake. Always use chocks to secure wheels.
- Do not allow bystandars to come close to machine or transporter when loading or unloading machine.
- Use only the loading ramps with sufficient strength (to withstand the combined weight of machine and operator), width (more than twice the width of tire.), and length (more than 4 times the height of loading deck of transporter), and have anti-slip ramp surfaces.
- Secure the hooks of loading ramps firmly and flush with loading deck.
- Move slowly forward when loading onto, and move slowly backward when unloading off of transporter. Pay special care when going over the joint between loading deck and ramps; machine may tip.
- Do not turn on loading ramps. Machine may fall.
- Tie down machine securely. Make sure machine does not move around.



1. Park the transporter on a level ground and apply parking brake. Secure wheels with chocks.
2. Place loading ramps. Secure hooks of ramps firmly and flush with loading deck.

7

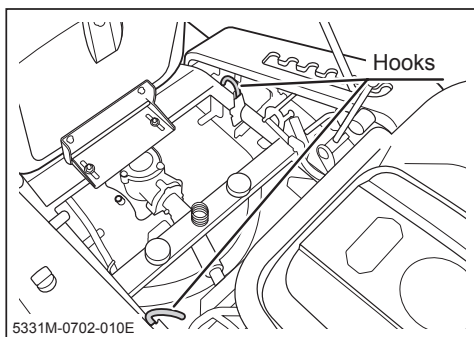
Transporting

3. Turn throttle lever to [Low], set cutting height adjuster lever to [Transport], and drive machine slowly forward onto loading deck.
4. Park machine according to the instructions in **"Parking"** (Page 24). Tie machine with rope or tie-down belts and secure it onto loading deck of transporter securely.

Hoisting

⚠ WARNING!

- Licence or certification is required to operate a crane. Check your local regulations.
- Use hoisting sling of sufficient strength. Always use the slings of the same length when more than one is used.
- Pay special attention to the center of gravity and the balance of machine when hoisting.

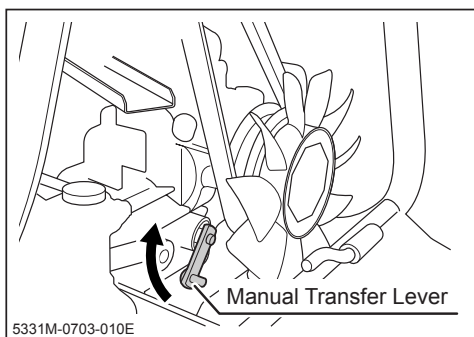


1. Lift seat.
2. Attach hoisting slings to 2 lift hooks and hoist machine.

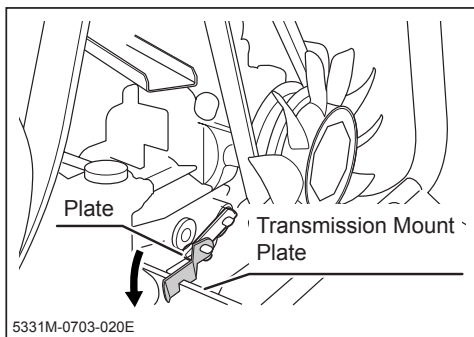
Manual Transfer Lever

⚠ WARNING!

- Do not use manual transfer lever except in an emergency situation. Always stop engine and remove ignition key before push machine by hand.
- Always push machine by two persons, one to operate steering wheel and the other to operate manual transfer lever.
- Never push machine on a slope because it is dangerous.



1. Remove rear cover.
2. Pull manual transfer lever up.
3. Put attached plate onto a pin on manual transfer lever.



4. Hook a slot of plate on transmission mount plate.
5. Push machine.
6. Remove plate from manual transfer lever after pushing machine and close rear cover.

NOISE LEVEL

Model	Engine		LwA
Type	Type	Speed rpm	
CM141/CM142	Robin EX40DS	3600 rpm	100 dB (A)

NOISE LEVEL evaluated based on factory standard.

VIBRATION

Model	Engine Rated revolution	Vibration			
		Mower Blade Clutch	Steering wheel (side)	Steering wheel (cen- ter)	Seat
CM141/CM142	3600 rpm	ON	27.5 m/s ²	20.6 m/s ²	4.0 m/s ²
		OFF	19.6 m/s ²	16.7 m/s ²	10.8 m/s ²

VIBRATION evaluated based on factory standard.