

Ride-on Brushcutter

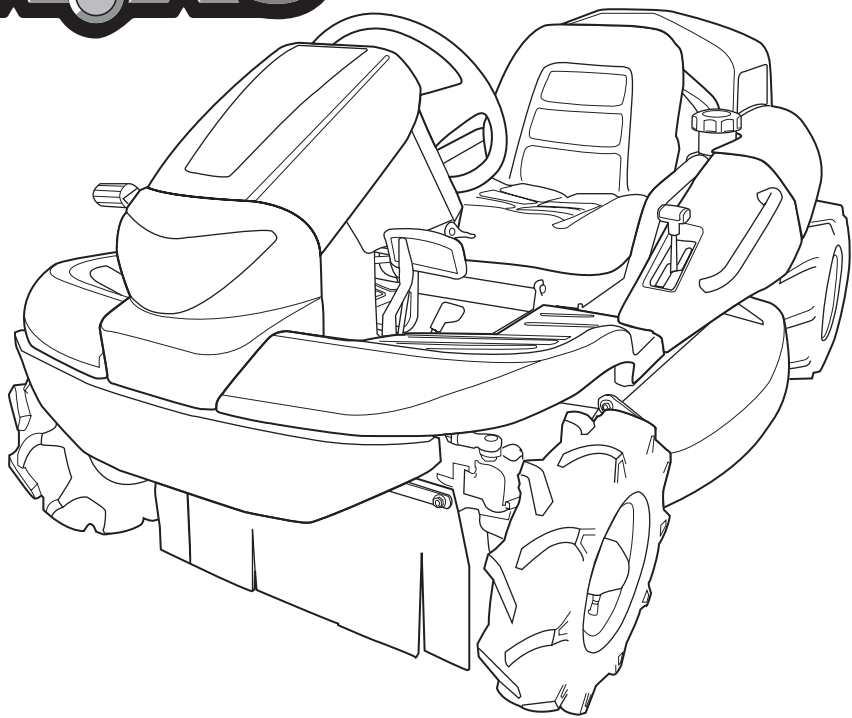
**CMX 227/ CM226/ CMX186/ CM185**

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# Operator's Manual

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**F1MAÇAO**



## **⚠ 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.

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# CHIKUSUI CANYCOM, INC.

<http://www.canycom.co.jp/>

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Authorized Dealer

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## 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.**
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## 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
 <b>DANGER!</b>	Indicates an imminently hazardous situation which will result in death or serious injury if the user does not follow the procedures or the instructions.
 <b>WARNING!</b>	Indicates a potentially hazardous situation which could result in death or serious injury if the user does not follow the procedures or the instructions.
 <b>CAUTION!</b>	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.

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# Warranty and After-Sales Service

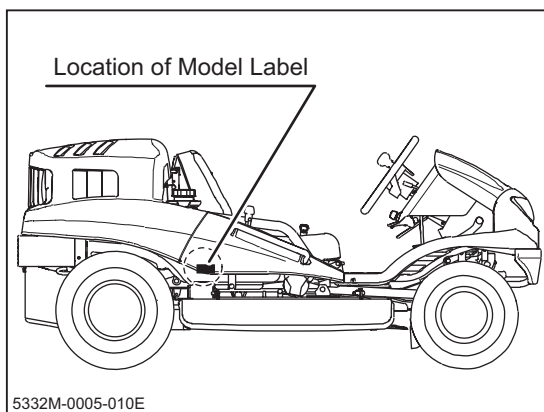
## Warranty

CHIKUSUI CANYCOM, INC. guarantees this product, based on the terms of warranty.

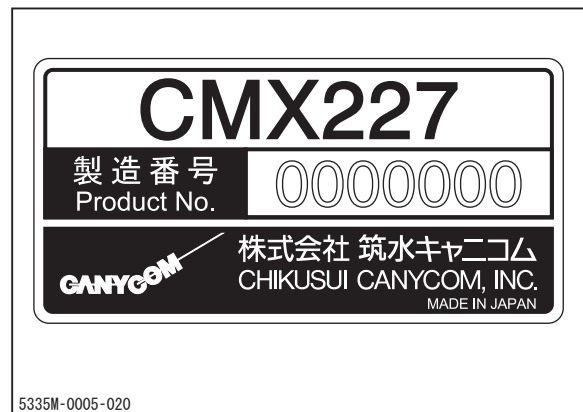
## After-Sales Service

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 (Page15).

### 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.

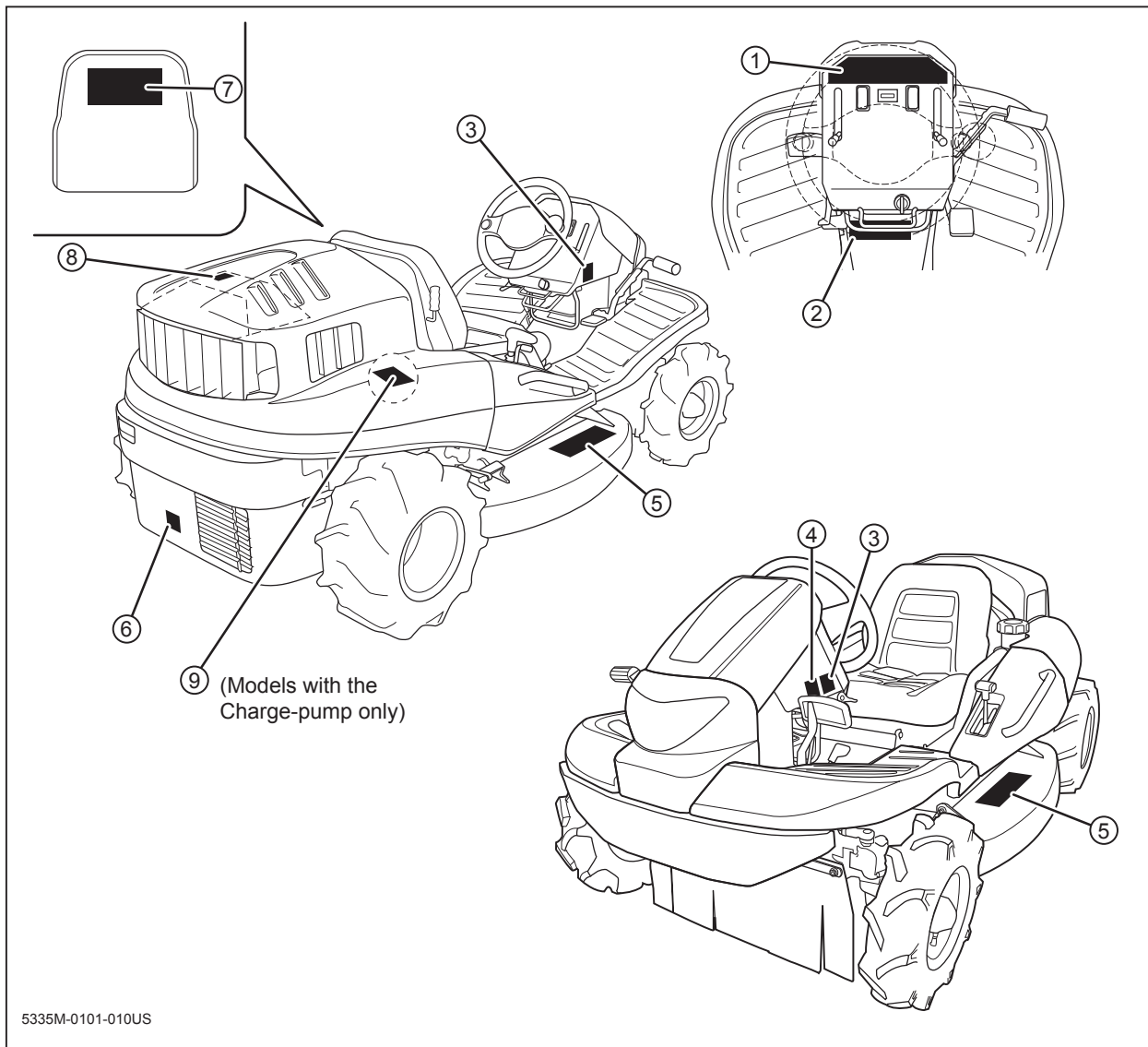
## Appendix

- Operator's Manual for the Engine
  - \* Be sure to read and understand it together with this manual .
-


## Safety Labels

The safety labels shown on the next page are attached to the machine. See the illustration below for the location and the illustration 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.





① 5335 5503 000

<p><b>⚠ WARNING</b></p> <p>- Engage cutting blade clutch only when cutting. Keep it disengaged all the other times.</p> <p><b>⚠ CAUTION</b></p> <p>- Use 2WD mode under normal condition.</p> <p>- Stop before shifting between 2WD and AWD modes.</p> <p>- Do not hold the drive lever and press the brake pedal at the same time.</p>	 <p><b>Head lamp</b></p>
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③ 5335 5506 000

<p><b>⚠ WARNING</b></p> 
<p>Crush hazard. Keep hands and fingers away from the shearing edges on the handle post.</p>



② 5335 5504 000

<p><b>L</b></p>	<p><b>⚠ WARNING</b></p> <p>- Start engine in a well ventilated place. Always scan around and ride on the machine when starting.</p> <p>- Do not allow persons to come near the machine when traveling or cutting.</p> <p>- Drive forward when cutting.</p> <p>- Check the safety of the surroundings when traveling or cutting. Do not start, turn, accelerate, or stop suddenly.</p> <p>- Check holes, ditches, and obstacles before traveling or cutting.</p>	<p><b>ON</b></p> 
<p><b>N</b></p>		<p><b>OFF</b></p> 
<p><b>H</b></p>		


④ 5335 5507 000

<p><b>⚠ WARNING</b></p> 	<p><b>⚠ WARNING</b></p> 
<p>Always stop engine and remove ignition key before servicing.</p>	<p>Read operator's manual completely before operating or maintaining this machine.</p>

⑤ 5335 5509 000

<p><b>⚠ DANGER</b></p> 	<p><b>⚠ WARNING</b></p> 
<p>Keep hands and feet away from blade cover. Do NOT operate while blade cover is open. Rotating blades can cause serious injury or death.</p>	<p>Keep blade cover closed during operation. Thrown objects or blade contact can cause serious injury or death.</p>
<p><b>⚠ WARNING</b></p> <p>- When a blade is broken, replace it immediately. Always replace blades in pairs. Always replace blade pins and wave washers also. Vibration may occur.</p> <p>- When blade stay is worn beyond limit, has a crack or is deformed, contact your CANYCOM representative to have it replaced immediately. Blade stay can break and fly off.</p> <p>- When something gets tangled to the blades, stop engine and untangle. Damage due to vibration may occur.</p> <p>- Always wear thick protective gloves and handle carefully when handling blades. Blades or blade stay may become sharp due to wear.</p>	

⑥ 5335 5511 000

<p><b>L WA</b></p> <p><b>100dB</b></p>	<p><b>⚠ WARNING</b></p>  <p>Moving parts hazard. Stop engine when servicing engine.</p>																								
<table border="1"> <tr> <td>Rated Output</td> <td>CMX227/CM226</td> <td>16.4kW</td> </tr> <tr> <td></td> <td>CMX186/CM185</td> <td>13.4kW</td> </tr> <tr> <td rowspan="2">Operating mass</td> <td>435kg(CMX227) 415kg(CM226)</td> <td></td> </tr> <tr> <td>415kg(CMX186) 410kg(CM185)</td> <td></td> </tr> <tr> <td rowspan="2">Gross mass</td> <td>435kg(CMX227) 415kg(CM226)</td> <td></td> </tr> <tr> <td>415kg(CMX186) 410kg(CM185)</td> <td></td> </tr> <tr> <td rowspan="2">Gradeability</td> <td>CMX227/CMX186</td> <td>25°</td> </tr> <tr> <td>CM226/CM185</td> <td>15°</td> </tr> <tr> <td rowspan="2">Stability Angle</td> <td>Right/Left</td> <td>30°/30°</td> </tr> </table>	Rated Output	CMX227/CM226	16.4kW		CMX186/CM185	13.4kW	Operating mass	435kg(CMX227) 415kg(CM226)		415kg(CMX186) 410kg(CM185)		Gross mass	435kg(CMX227) 415kg(CM226)		415kg(CMX186) 410kg(CM185)		Gradeability	CMX227/CMX186	25°	CM226/CM185	15°	Stability Angle	Right/Left	30°/30°	<p><b>CANYCOM</b></p> <p>CHIKUSUI CANYCOM, INC.</p> <p>90-1 Fukumasu, Yoshii-machi, Ukiha-City, Fukuoka 839-1396, Japan</p> <p>5335 5511 000</p>
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⑦ 5335 5508 000

<p><b>⚠ WARNING</b></p> <p>- Keep fire away when refueling. Always stop engine and let engine and muffler cool down before refueling. Fill up to the upper limit (top of filter inside filler).</p> <p>- Fill below the upper limit when working on an incline</p> <p>- Check the incline before traveling or cutting. Do not use machine on an incline steeper than its maximum gradeability. On an incline less than the max. gradeability or an undulating ground, drive slow. Max. Gradeability AWD Model:25° / 2WD Model:15°</p>																
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⑧ 5332 5127 000

<p><b>⚠ WARNING</b></p> 
<p>ⓐ CHECK FOR LEAKAGE FROM HOSES AND FITTINGS.</p> <p>ⓑ SHUT OFF FUEL VALVE WHEN ENGINE IS NOT IN USE.</p>

⑨ 3677 5043 001

<p><b>⚠ WARNING!</b></p> 
<p>Hot surfaces. Do NOT touch.</p>

## Safety Mechanisms

This product is equipped with the following safety mechanisms.

### Start Interlock Mechanism

Engine can be started only when parking brake is in [ (P) (engaged)] position 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.

## 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.

## Preparation

### **WARNING!**

- Fuel is highly flammable. See Checking and Filling Fuel, page 17, 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 17) 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.

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.
- 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 25 degrees for the CMX227 and the CMX186, and 15 degrees for the CM226 and CM185.
  - 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, the drive pedal 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 turning 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.
  - Avoid driving the machine across a slope.
  - Before driving down a slope, stop and shift auxiliary transmission to [L (low)] position. 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 of the cutting operation. 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.
- 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.

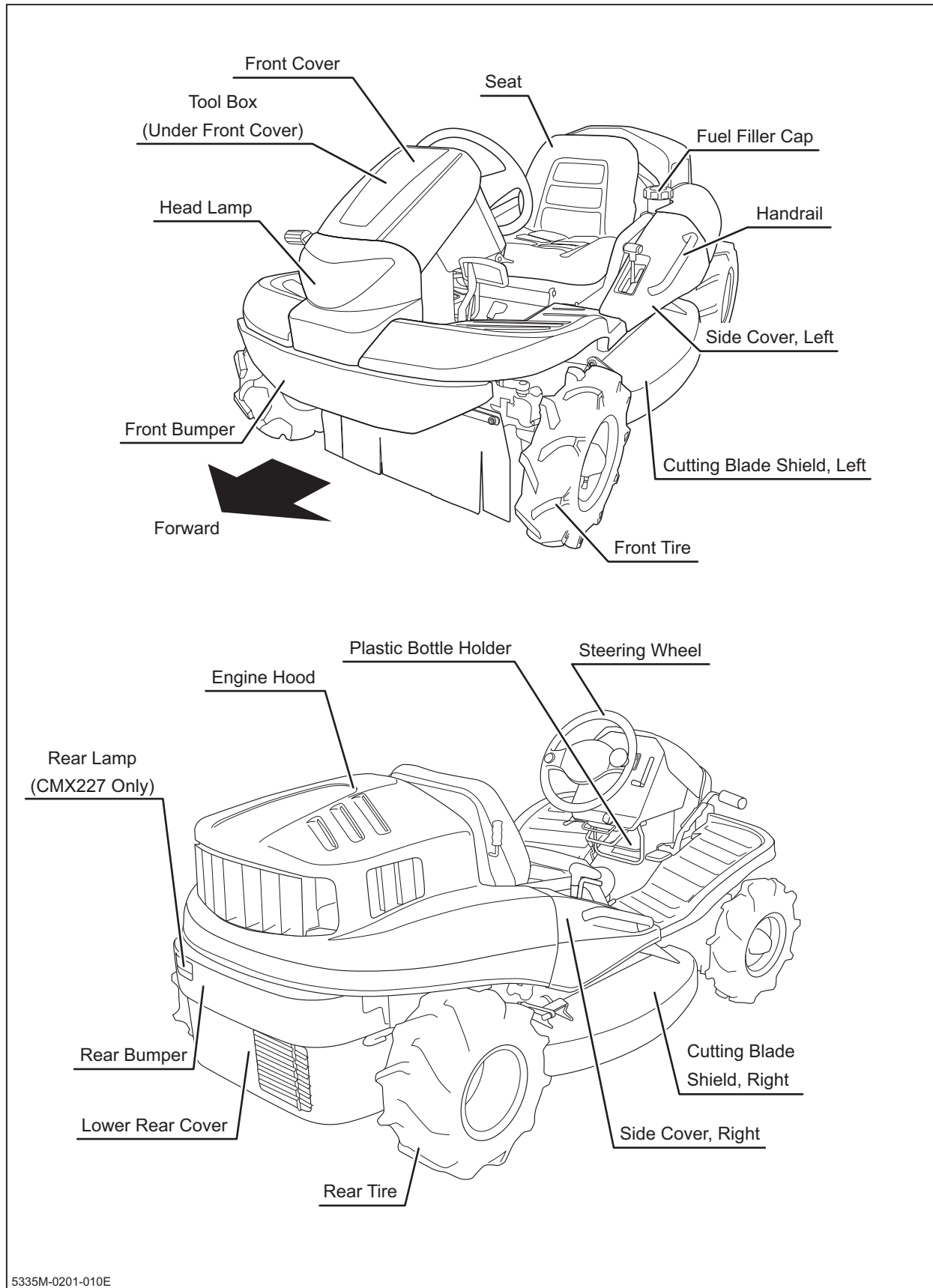
## Parking

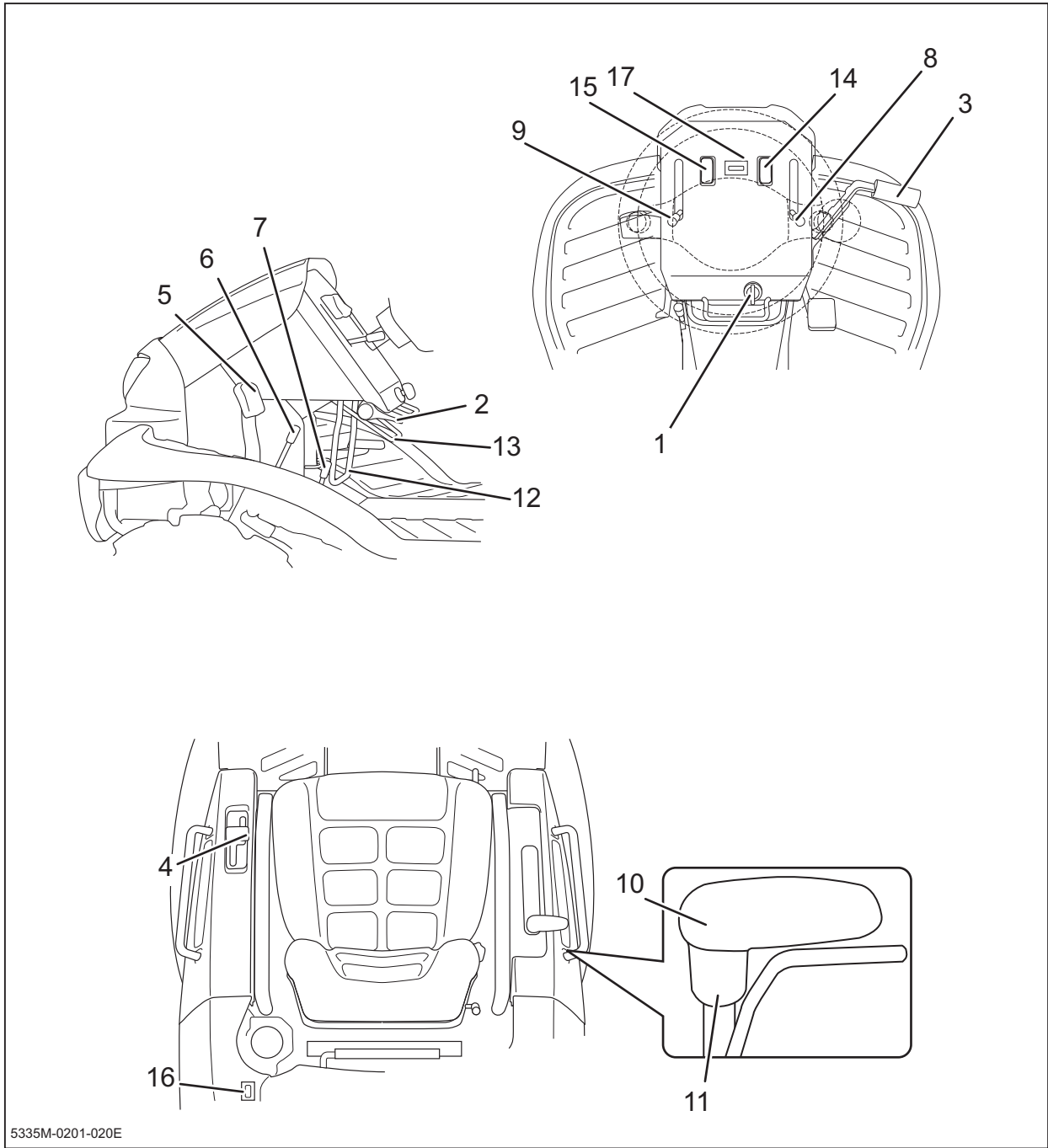
- Park the machine on a flat, level and stable surface. Never park on a slope steeper than 10 degrees. Avoid parking on a slope less than 10 degrees. If parking on a slope less than 10 degrees is absolutely unavoidable, apply the parking brake and block the wheels at the lower end of the machine.
  - 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.
- Observe all the previous precautions for driving, driving on a slope, loading .
- 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 back 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.

## Name and Function of Controls





5335M-0201-020E

- 
- 1 **Main Switch** . . . . . Main switch is used to start or stop engine.
  - 2 **Throttle Lever** . . . . . Throttle lever is used to control engine speed.
  - 3 **Drive Pedal** . . . . . Drive pedal is used to control the traveling direction and speed of the machine. Machine moves forward when the front of drive pedal is depressed and backward when the rear of drive pedal is depressed. Angle of drive pedal determines the speed.
  - 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. (On the right lever model, this lever is on the right -hand side. See illustration.)
  - 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. (On the right lever model, this lever is on the right -hand side. See illustration.)
  - 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. (On the right lever model, this lever is on the right -hand side. See illustration.)
  - 7 **Auxiliary Transmission Shift Lever** . . . . . Auxiliary transmission shift lever is used to shift auxiliary transmission to change the speed of the machine.
  - 8 **2WD/AWD Shift Lever** . . . . . 2WD/AWD shift lever is used to switch between 2WD (on CMX227and CMX186) (rear-wheel drive) and AWD (all-wheel drive) modes.
  - 9 **Differential Lock Lever** . . . . . Differential lock lever is used to lock differential when rear wheels slip. Tilting differential lock lever to [ON] position locks differential.

## 2

# Controls and Components

---

- 10 Cutting Height Adjust Lever** . . . . . Cutting height adjust lever is used to adjust the cutting height. Grab and hold cutting height adjust lock and move cutting height adjust lever back or forth to adjust cutting height.
- 11 Cutting Height Adjust Lock** . . . . .
- 12 Cutting Rotary Clutch Lever** . . . . . Cutting rotary clutch lever is used to start or stop rotating cutting rotary.
- 13 Tilt Lever** . . . . . Tilt lever is used to adjust the angle of steering wheel.
- 14 Head Lamp Switch** . . . . . Head lamp switch is used to turn on or off head lamp. When main switch is on, head lamp switch illuminates.
- 15 Tail Lamp Switch** . . . . . Tail lamp switch is used to turn on or off tail lamp. When main switch is on, head lamp switch illuminates.  
(CMX227 Only)
- 16 Fuel Gauge** . . . . . Fuel gauge indicates the amount of fuel in fuel tank.
- 17 Hour Meter** . . . . . Hour meter indicates the cumulative total operating time of the machine in 0.1 hour increments.

## Product Specifications

⚠ CAUTION!
· Use this product properly after understanding its specifications thoroughly.

Model and Type			CMX227	CM226	CXM186	CM185	
Machine Mass		kg (lbs)	345 (760)	325 (715)	325 (715)	320 (705)	
Mowing Rate		m <sup>2</sup> /h (acre/h)	7300 (1.80) <sup>*1</sup>		7000 (1.73) <sup>*1</sup>		
Dimensions	Overall Length		mm (in)	1947 (76.7) [1997 (78.6)] <sup>*2</sup>		1947 (76.7)	
	Overall Width		mm (in)	1020 (40.2)			
	Overall Height		mm (in)	860 (33.9) [905 (35.6)] <sup>*3</sup>		840 (33.1)	
	Wheelbase		mm (in)	1300 (51.2)			
	Tread	Front	mm (in)	860 (33.9)			
		Rear	mm (in)	800 (31.5)			
	Ground Clearance		mm (in)	130 (5.1)		110 (4.3)	
Engine	Model			Robin EH65DS		Robin EH63DS	
	Type			Air-cooled 4-cycle V-twin Gasoline			
	Cylinder (Bore×Stroke)		mm (in)	80X65 (3.15X2.56)			
	Displacement		cm <sup>3</sup> (cu.in)	653 (39.8)			
	Maximum Output		kw(PS)/rpm	16.4(22)/3600		13.4(18.3)/3600	
	Maximum Torque		N•m(lbs•ft)/rpm	45.6(33.6)/3600		43.3(31.9)	
	Starter System			Electric			
	Fuel			Automotive Unleaded Gasoline			
	Fuel Consumption		g/kW•h(oz/PS•h)	310 (8.11)			
	Fuel Tank Capacity		L (US gal)	20 (5.3)			
	Ignition			Contactless Magneto			
	Spark Plug			NGK BPR5ES			
Electrical	Battery Type			38B19R			
	Battery Capacity		V/Ah	12/28			
Performance	Speed	High	km/h (mph)	0 to 13.8 (0 to 8.6)		0 to 12.8 (0 to 8)	
		Low	km/h (mph)	0 to 7.7 (0 to 4.8)		0 to 7.2 (0 to 4.5)	
	Minimum Turning Radius		m (ft)	1.8 (5.9)			
	Gradeability		Degrees	25	15	25	15
	Stability Angle	Left	Degrees	30			
		Right	Degrees	30			

\*1 Estimated at the maximum speed with the auxiliary transmission in Low position (7.5km/h)

\*2 [ ] indicates the Step Bumper model

\*3 [ ] indicates the Extra Seat model



Model and Type			CMX227	CM226	CMX186	CM185
Drive Train	Main Transmission		HST (Continuously Variable)			
	Auxiliary Transmission		Constant Mesh			
	Tires	Left	AGR 4.00-7 (2PR)		AGR 3.50-7 (2PR)	
		Right	17X8.00-8 (4PR)		16X7.00-8 (4PR)	
	Steering		mm	Rack and Pinion Round Steering Wheel		
	Brakes			Internally Expanding		
Cutting System	Cutting Width		mm (in)	975 (38.4)		
	Cutting Height		mm (in)	0~150 (0~5.90, 21 Steps)	0~130 (5.11, 21 Steps)	
	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	Quantity	Note
1	Operator's Manual	1	This Manual
2	Operator's Manual for the Engine	1	
4	Engine Service Tool	1	for Servicing Engine

## Preparation

### Pre-start up Inspection

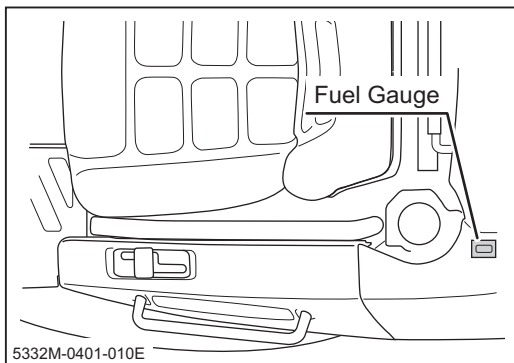
Always perform an inspection before use.

Refer to the **Maintenance Schedule** (page 40) for the inspection schedule and procedure.

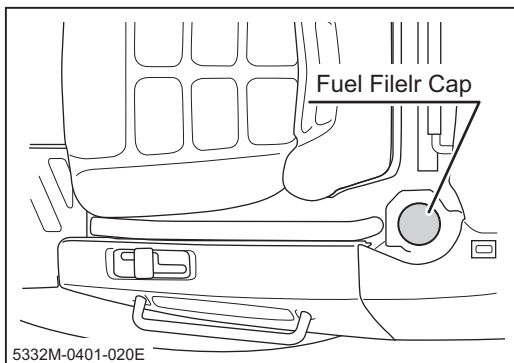
### Checking and Filling Fuel

#### **⚠ 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.

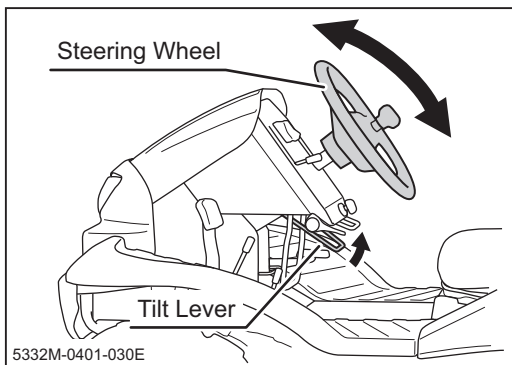
#### **NOTE**

- **Fuel : Automotive Unleaded Gasoline**
- **Fuel Tank Capacity : 20L(5.3 US gal)**

## Adjusting Steering Wheel

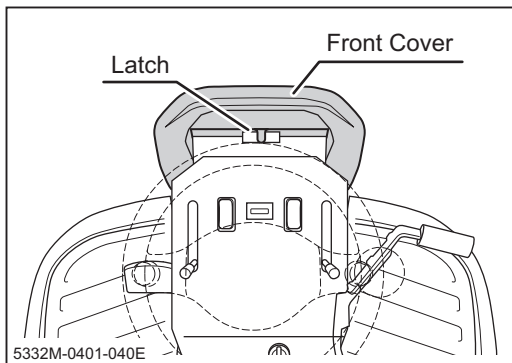
### ⚠ CAUTION!

- After adjusting steering wheel, try moving steering wheel back and forth and up and down to make sure it is securely locked in its position.



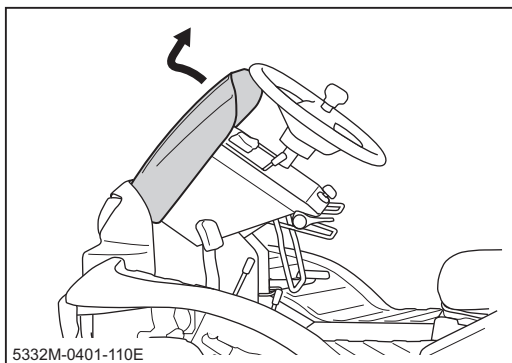
### Adjusting Angle (Tilting)

1. Pull up tilt lever to adjust steering wheel angle.
2. There are five positions for steering wheel angle.
3. After adjusting angle, return tilt lever to lock steering wheel securely.



### Adjusting Height

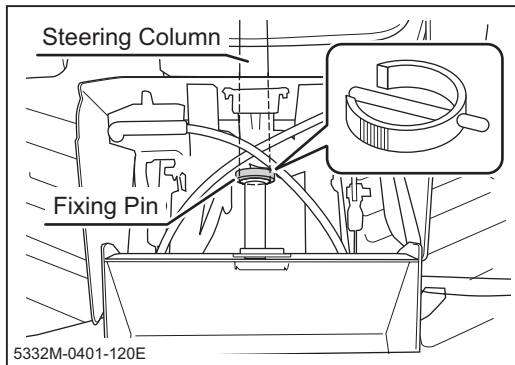
1. Pull top edge of front cover to unlock latch.



2. Pull out front cover.

### NOTE

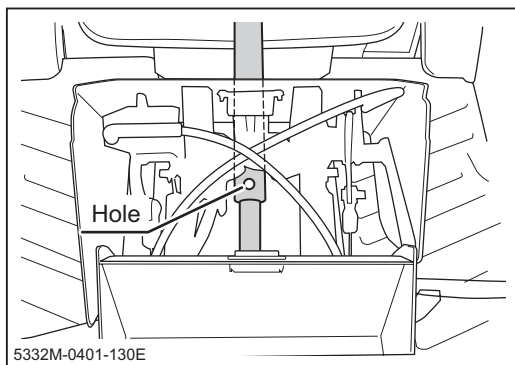
- Inside of the front cover is made as tool box. Use this box to store items such as tools or substitute cutting blades.



3. Remove fixing pin from steering column in the front of machine.

## NOTE

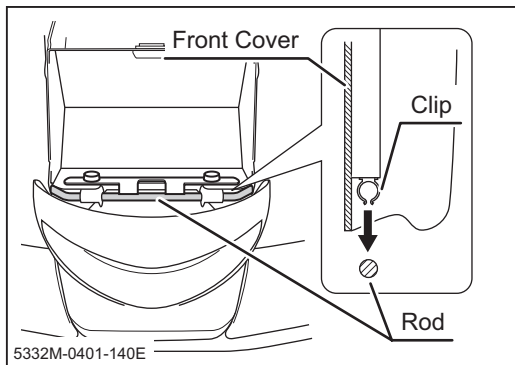
- If fixing pin is in the difficult direction to remove, steer the steering wheel to change direction of the pin so that the pin can be easily removed.



4. Adjust steering wheel height in preferred position. Line up holes on steering shafts and insert pin.

## NOTE

- Move steering wheel up and down to check if the steering wheel is fixed securely.



5. Raise steering wheel angle.
6. Fit clip on back side of front cover into the rod.
7. Latch top edge of the front cover.

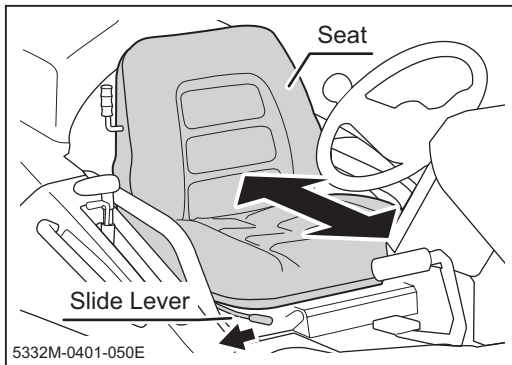
## NOTE

- Pay attention not to catch the front cover by the plate on both sides when installing front cover.

## Adjusting Seating Position

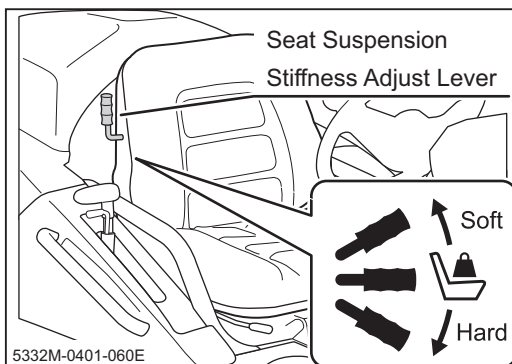
### ⚠ CAUTION!

- 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.



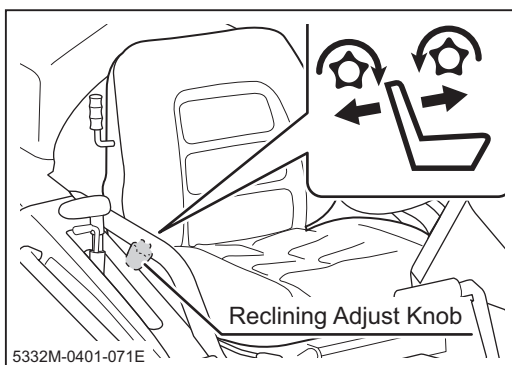
### Sliding seat

1. Pull slide lever to the right to slide seat forward or backward.
2. When seat is in a desired position, release slide lever and lock seat securely.



### Adjusting Stiffness

1. Move seat suspension stiffness adjust lever to adjust desired seat stiffness.

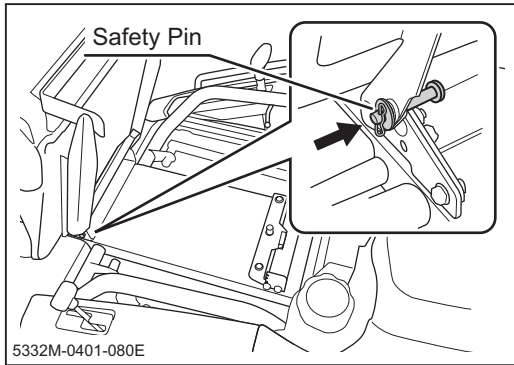


### Adjusting Reclining Angle

1. Rotate reclining adjust knob on the right of seat to adjust reclining angle of the seat.

### NOTE

- Do not adjust seat position to the end and recline the seat. The seat may contact with rear cover. This may activate seat switch and stop engine. Adjust seat in the range of not contacting with rear cover.

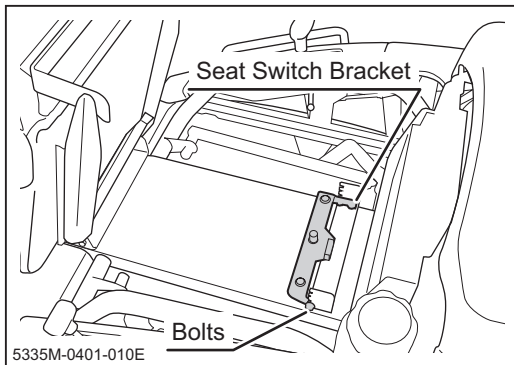


## Adjusting Height (Rear Part)

1. Slide seat to the rear-most position.
2. Pull up seat and push safety pin toward inside to hold seat lifted.

### NOTE

- Move seat and to check if the seat is locked securely.
- Height can be adjusted in 4 levels.



3. Remove 2 bolts fixing seat switch bracket.
4. Move seat switch bracket into desired position and fix with bolts firmly.
5. Pull safety pin back and lower the seat.

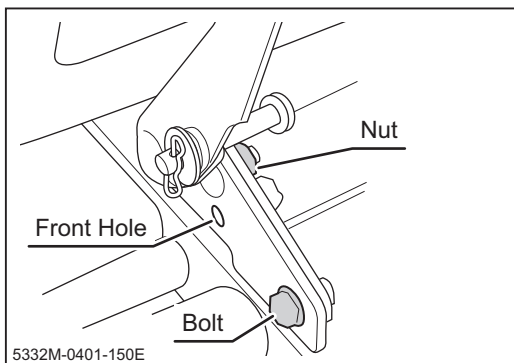
## Adjusting Height (Front Part)

If the seat height is not high enough with the rear part of seat in the highest position, adjust height of front the part of seat.

1. Pull up seat and push safety pin toward inside to hold seat lift up.
2. Adjust seat switch bracket in the highest position.

### NOTE

- Seat switch bracket need to be in the highest position when adjusting height of front part of seat.

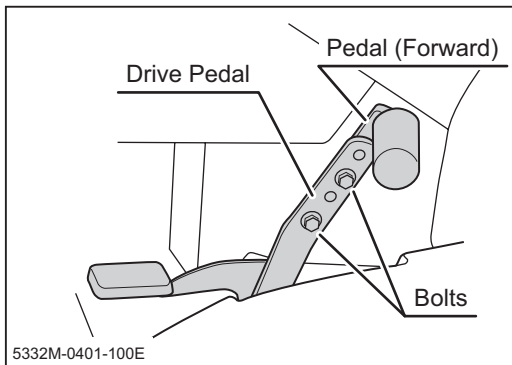


3. Loosen nut (left and right) fixing hinge of seat.
4. Remove bolts on both sides.
5. Move seat so that front hole lines up with bolt hole and fix with bolt on both sides.
6. Tighten nuts.
7. Pull safety pin back and lower the seat.

## Adjusting Drive Pedal

### ⚠ CAUTION!

- Always check if the drive pedal is fixed firmly after adjusting.



1. Remove two bolts fixing forward pedal with drive pedal.
2. Adjust the pedal (forward) into the desired position and fix with bolts.

### NOTE

- Drive pedal can be adjusted in 3 positions and angle.




## Driving

### Starting

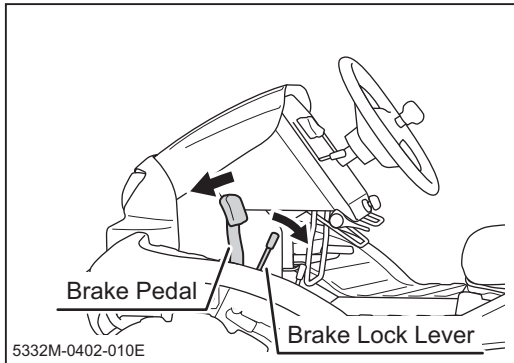
### ⚠ WARNING!

- 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.
- Position throttle lever to [  (slow)] when starting.
- 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.
- If engine does not start after starting procedure is performed several times, turn off main switch and wait for 5 to 10 minutes and try again.
- Do not use this machine in temperatures above 40°C (104°F) or below -15°C (19°F). 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.

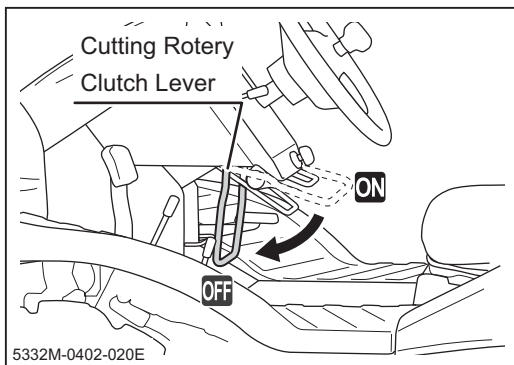




1. Make certain brake pedal is depressed and locked. If it is not, depress brake pedal and pull lock lever to lock it.

**NOTE**

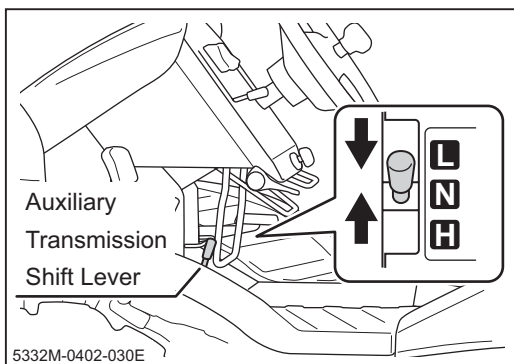
- **Safety feature: engine cannot be started unless brake pedal is depressed.**



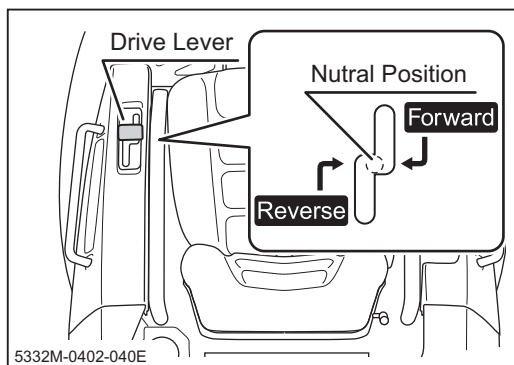
2. Make sure cutting rotary clutch lever is in [OFF] position.

**NOTE**

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



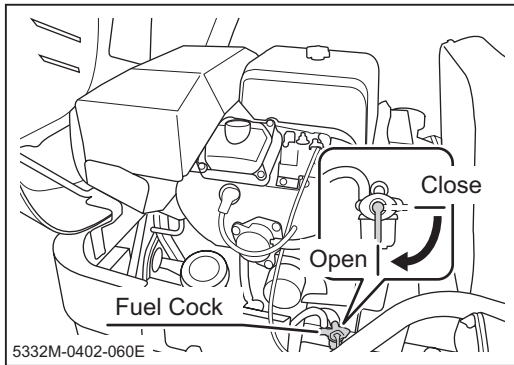
3. Make certain auxiliary transmission shift lever is in [N (neutral)] position.



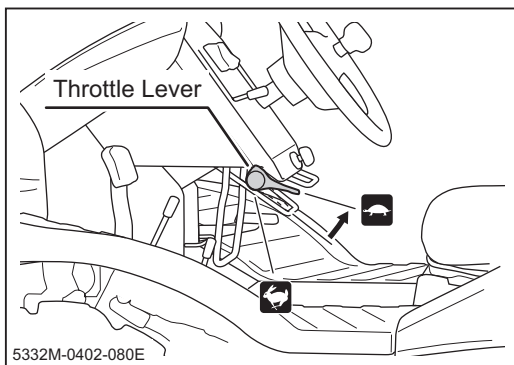
4. Make certain drive lever is in neutral position.



**NOTE**

- **Drive lever returns to neutral position when brake pedal is fully depressed.**




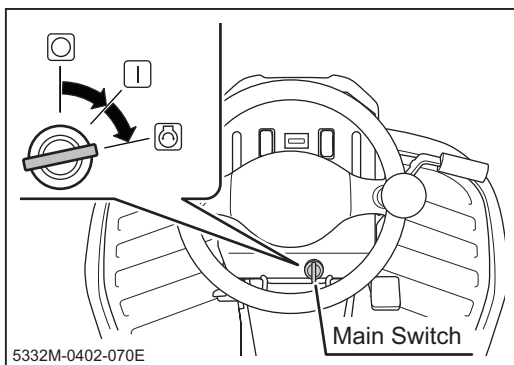
5. Open engine hood (see page 51). Open fuel cock.




6. Make sure throttle lever is in the [  (slow)] position. In the cold weather below 10 degrees celsius when engine revolution is not stable, position throttle lever 1/3 toward the [  (fast)] position.

## NOTE

- This machine is equipped with the auto-choke system and may start more easily with throttle lever in the [  (slow)] 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.
9. Run engine without load for about 5 minutes to warm up.

## NOTE

- Avoid frequent starting. Once engine starts, run it for a while to charge battery.
- Drive machine gently in the first week (40 to 50 hours) of operation after purchase for breaking-in.

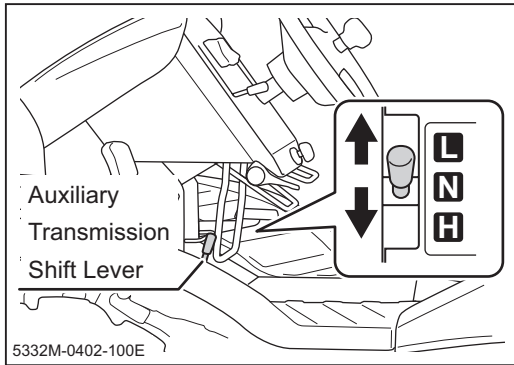
## Driving

### **⚠ WARNING!**

- 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.
- 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 operate drive pedal and drive lever simultaneously.
- Do not turn the key to [○ (off)] position while traveling.

### **⚠ CAUTION!**

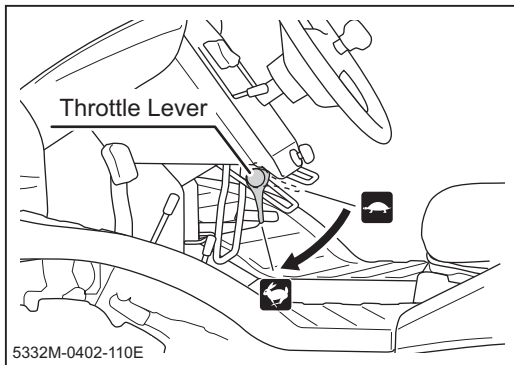
- Do not operate drive pedal or drive lever when brake is locked with parking brake lock lever. It can wear out brake.




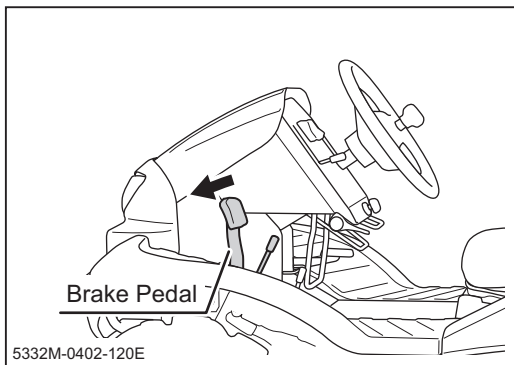
1. Make certain of the safety of your surroundings.
2. Move auxiliary transmission shift lever to either [H (high speed)] or [L (low speed)] position.

## NOTE

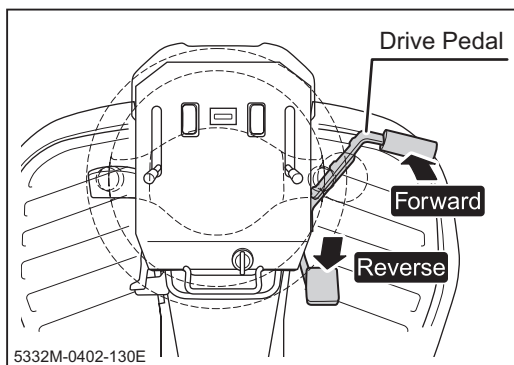
- See Specifications (page 15) for the speed range in either gear position.



3. Move the throttle lever toward [  (fast)] position to increase engine speed.



4. Depress brake pedal to release brake pedal lock.

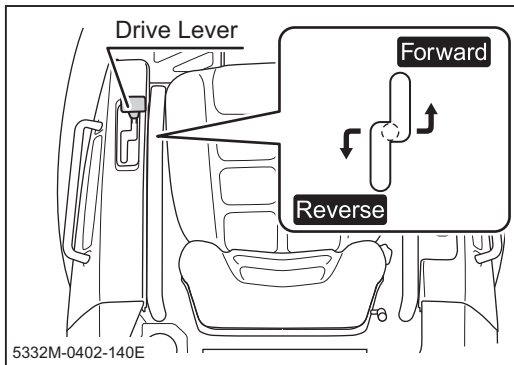


## Driving with Drive Pedal

5. Depress gradually the forward or reverse side of drive pedal to move in the corresponding direction.

## NOTE

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

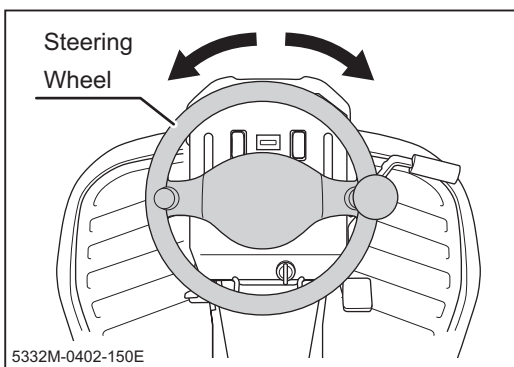


### Driving with Drive Lever

5. 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.



6. Turn steering wheel to turn.

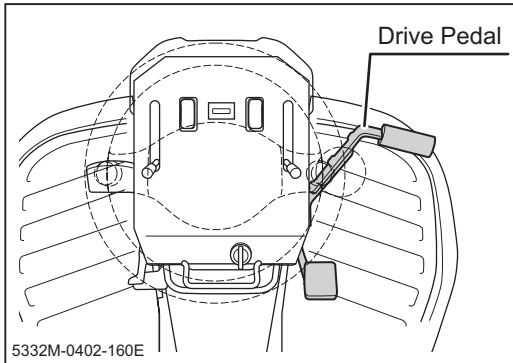
## Stopping

### ⚠ WARNING!

- Do not make a sudden stop. Operator may be thrown off, or machine may skid or tip over.
- Always park on a firm, level place. Never park on a potentially dangerous place.

### ⚠ CAUTION!

- Do not hold drive lever and depress brake pedal at the same time. Or, do not depress drive and brake pedals at the same time. HST may be damage.

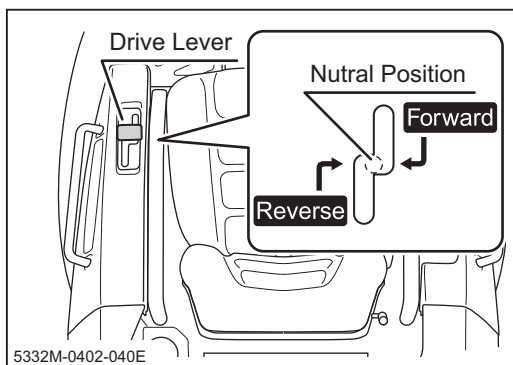


## When Driving with Drive Pedal

1. Gradually return drive pedal to slow down.
2. Take foot off drive pedal.

## NOTE

- Drive pedal automatically returns to neutral when released.



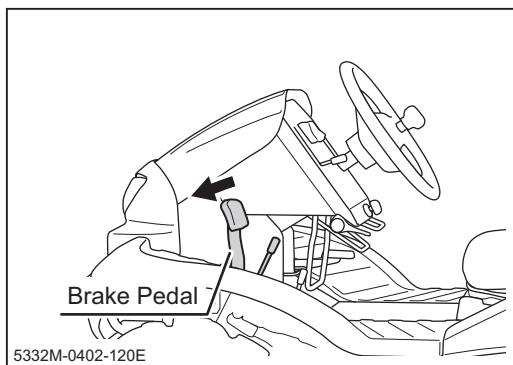
## When Driving with Drive Lever

1. Gradually return drive lever to neutral position to slow down.
2. Release hand off drive lever.

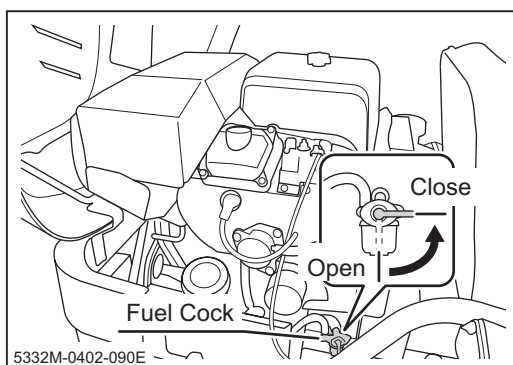
3. Depress brake pedal to stop machine completely.

## NOTE

- When brake pedal is depressed, drive lever returns to neutral position.



4. Open engine hood and close fuel cock. Close engine hood.



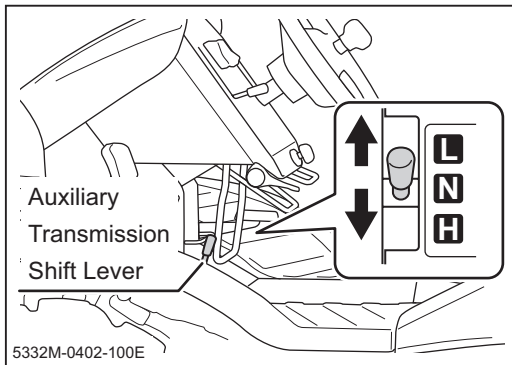
## Shifting

**⚠ WARNING!**

- Always shift gears firmly. When transmission is not firmly shifted, it may jump out of gear, resulting in loss of control of machine.

**⚠ CAUTION!**

- Always stop machine to shift gears. Shifting gears while machine is in motion can damage transmission.



1. Stop machine.
2. Move auxiliary transmission shift lever to [H (high speed)] or [L (low speed)] position firmly.

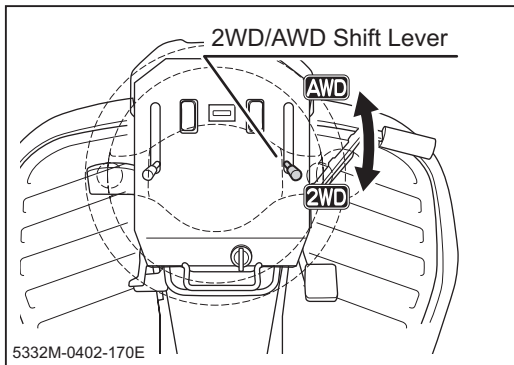
**NOTE**

- See Specifications (page 15) for the speed range in either gear position.

## Shifting Between 2WD and AWD (CMX227 and CMX186)

**⚠ CAUTION!**

- Always stop machine to shift between 2WD or AWD (all-wheel-drive) modes. Shifting gears while machine is in motion can damage transmission.
- Use 2WD mode under normal condition.
- Pay attention to the minimum turning radius in AWD mode. In AWD mode, minimum turning radius is greater than that in 2WD mode.



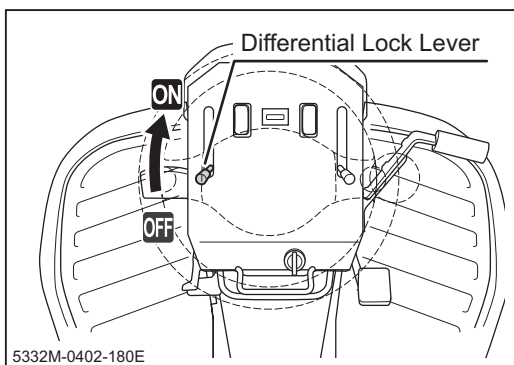
1. Stop machine.
2. Move 2WD/AWD shift lever to [2WD] or [AWD] position firmly.

## Locking Differential

Differential can be locked to minimize slipping o slippery surface.

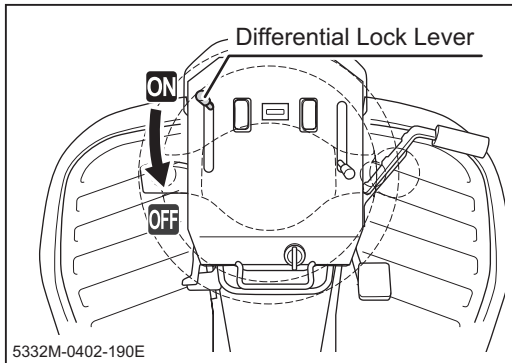
### **⚠ CAUTION!**

- 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. Move auxiliary transmission shift lever to [L (low speed)] position.
3. Drive slowly out of the slippery area.



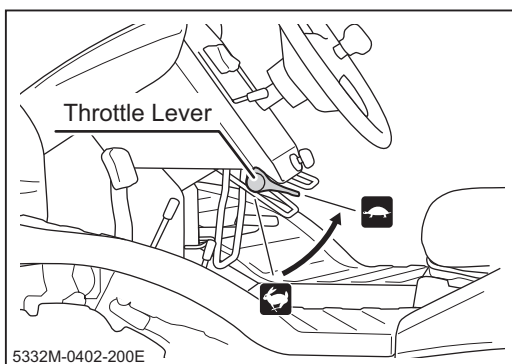



- Once machine is out of the slippery area, stop and move differential lock lever to [OFF] position.

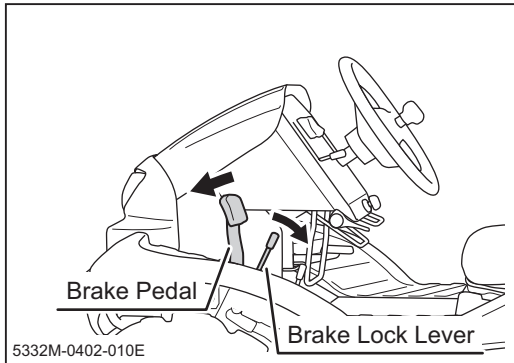
## Parking

### ⚠ WARNING!

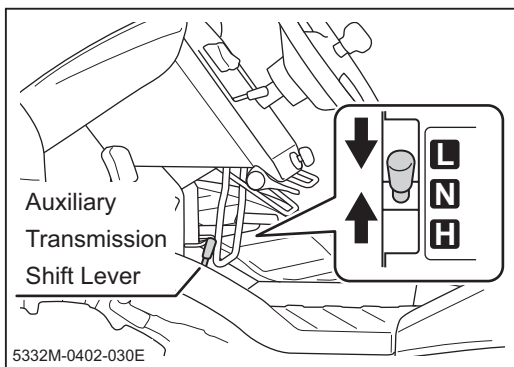
- Always park on a firm, level place. Never park on a potentially dangerous place.
- Avoid parking on a slope. Never park on a slope with an incline of 10 degrees or steeper. If it is absolutely necessary to park machine on a slope less than 10 degrees, make certain to apply parking brake firmly and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



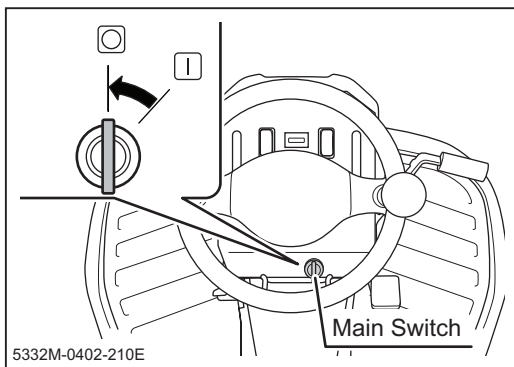
- Stop machine.
- Move throttle lever toward [  ] to slow engine speed.



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



4. Move auxiliary transmission shift lever to [N (neutral)] position.



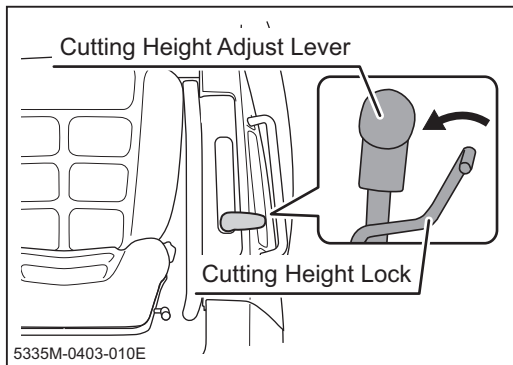
5. Turn main switch to [O (off)] to stop engine. Remove ignition key.

## Working

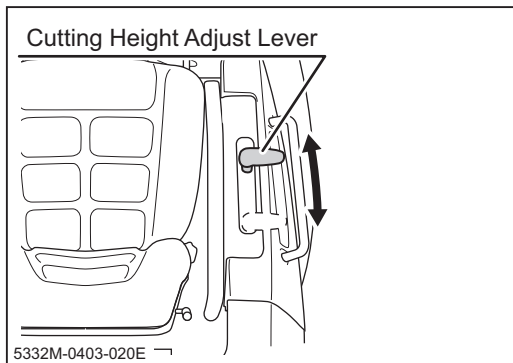
### Inspecting Cutting Blade

Inspect cutting blade before work. Refer to **Cutting Blades** (page 65) for inspection procedure.

### Adjusting Cutting Height



1. Grab cutting height lock to unlock cutting height adjust lever.



2. With lock button pulled up, move cutting height adjust lever to a desired position.
3. Release lock to lock cutting height adjust lever.

#### NOTE

- Cutting Height Range: 0 - 150mm (0 - 5.90in, CMX227, CM226)  
0 - 130mm (0 - 5.11in, CMX186, CM185)
- 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.

## Cutting

### **DANGER!**

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

### **WARNING!**

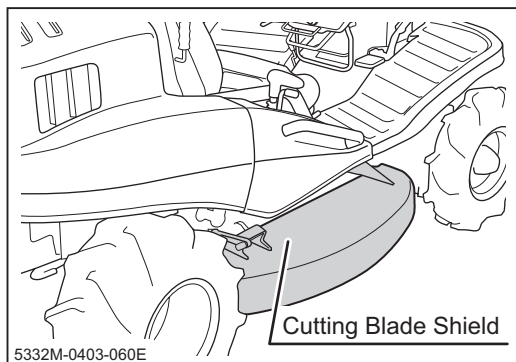
- Always wear protective footwear, long trousers, hardhat, safety glasses and ear protection when operating or servicing the machine. Proper clothing will minimize the chance of injury. Do not operate the equipment if you have long hair, loose clothing, or jewelry; all of which may get tangled in moving parts. Do not operate the machine barefoot or with open sandals.
- 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.

## **⚠ WARNING!**

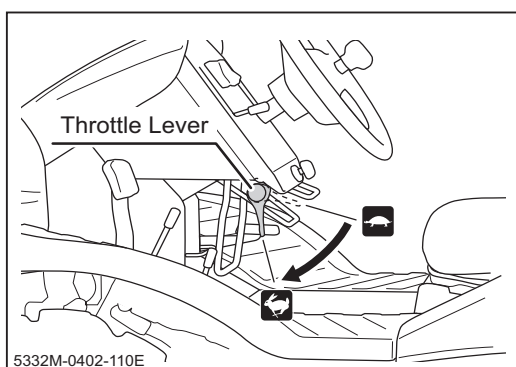
- **Inspect the work site beforehand; inspect terrain and locate holes, drops, or obstacles. Also inspect overhead obstacles such as the branches of a tree. Pay special attention when working near these areas.**
- **Do not use this machine on an incline steeper than 25 degrees for the CMX 227/CMX186 or 15 degrees for the CM226/CM185.**
- **Always stay on machine when working.**
- **Make sure air intake for cooling is not clogged or blocked. If it is clogged or blocked, it causes overheating, resulting in damages to machine.**


## **⚠ CAUTION!**

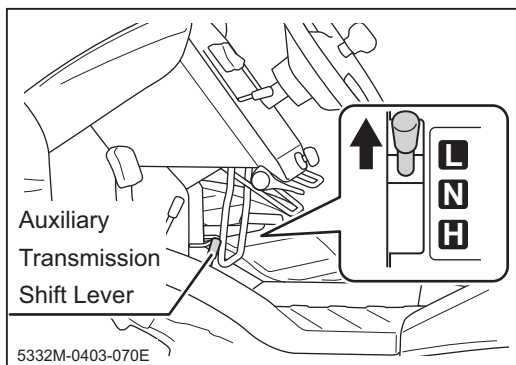
- **When working in a dusty area, clean air cleaner element twice a day. Dirty air cleaner element results in poor starting, poor performance, or short life.**
- **When a cutting blade is broken, replace it and the other blade with a new pair. A broken blade causes excessive vibration, which damages machine.**
- **When something is tangled to cutting blade, stop engine immediately and remove the tangled object. Such object causes excessive vibration, which damages machine.**
- **Always clean cutting blades and cutting blade stay after every use ( see page 75). Remained foreign object may solidified or corrode and make cutting blades hard to remove.**



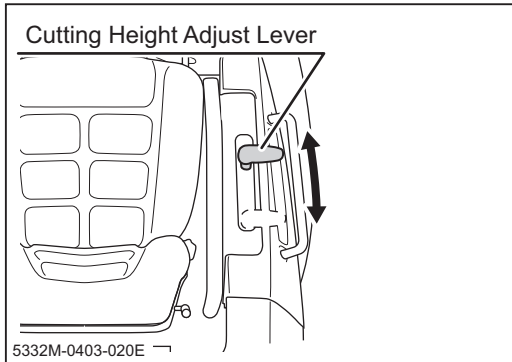
1. Make sure cutting blade shield is closed.



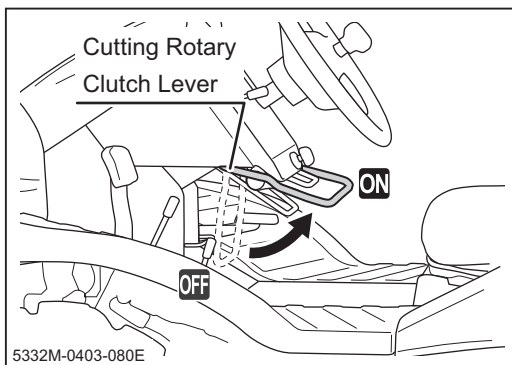
2. Turn throttle lever to [  (fast)] position to raise engine speed.



3. Move auxiliary transmission shift lever to [L (low speed)].



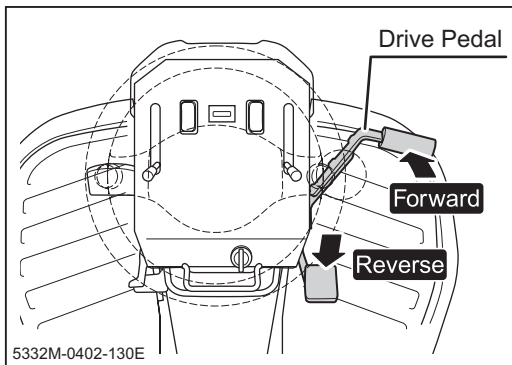
4. Move cutting height adjust lever to a desired height.



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

**NOTE**

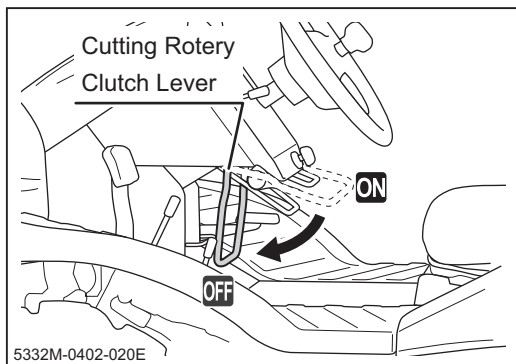
- Safety feature: engine stops automatically if operator leaves seat while cutting blade is rotating.



6. Drive machine forward to cut.

**NOTE**

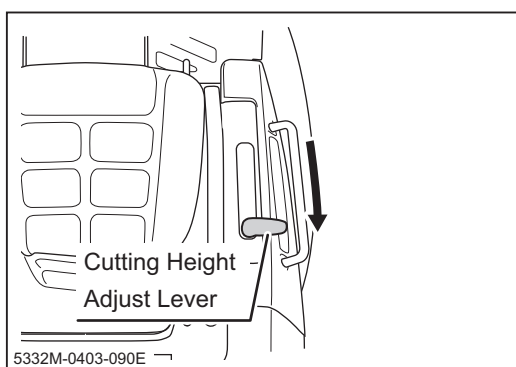
- When cutting with this machine for the first time, start on a flat surface. Drive slowly and in an overlapping pattern.
- If load to cutting blade is high, drive slowly, or cut twice.



7. 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.



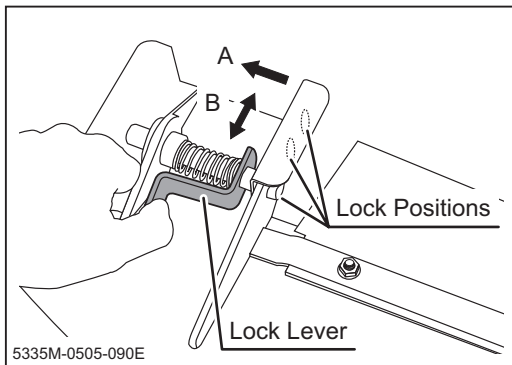
8. Move cutting height adjust lever to the highest position.



## Adjusting Cutting Blade Shield

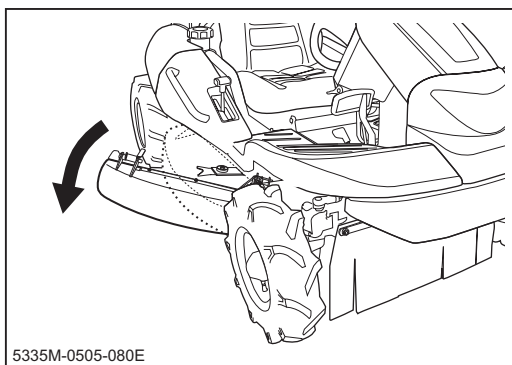
### **⚠ WARNING!**

- Always stop engine when adjusting cutting blade shield. It may cause serious injury if you open cutting blade shield when blades are rotating.
- Never attempt to work if cutting blade is unlocked. Also never attempt to work if cutting blade shield is open upward. Thrown stones or debris may cause injuries to nearby people.



### Opening shield to the side

1. Squeeze lock lever as shown (A).
2. Keep lock lever squeezed and move shield (B) to one of three lock positions.
3. Release lock lever at the selected lock position so that the pin on lock lever positively fits into the hole at lock position.



## Maintenance Schedule

### **⚠️ WARNING!**

- Follow the scheduled maintenance as described below. 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 50 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)
Replace oil filter	First time:50 hours. Every 200 afterward (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 Oil pan	Every 500 hours (clean 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)

**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		
<b>Drive Train</b>	<b>Tires</b>	Tires shall be inflated to the specified pressure.	√	√	√	Page 59
		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.		√	√	
	<b>Transmission</b>	Irregular noise or overheating shall not be observed when moving forward or backward.		√	√	
		There shall not be oil leaks in or around transmission.		√	√	
	<b>Auxiliary Transmission</b>	Transmission can be shifted to either position positively and performs normally.		√	√	
		Lever shall not be loose or have excessive play.		√	√	
	<b>Front Axle</b>	Irregular noise or overheating shall not be observed when traveling.		√	√	
		There shall not be oil leaks in or around front differential case or knuckles.		√	√	
	<b>HST</b>	HST shall perform normally.	√	√	√	
		Hydraulic fluid shall be filled to a proper level and shall be clean and free of dirt or contamination.		√	√	Page 61
Lever or pedal shall not be loose or have excessive play.			√	√		

	Item	Description	Schedule			Note
			PSI	Mon	Year	
Drive Train	V-belt	Belt tension shall be properly adjusted.		√	√	
		Belt shall be free of damage or excessive wear.		√	√	
	Brake	Brake shall work properly.	√	√	√	Page 64
	Parking Brake	Parking brake shall be able to hold the machine on a 20-degree slope.		√	√	
	Steering	Turn steering wheel right and left; front wheels shall turn accordingly.		√	√	
		Steering can be adjusted in 5 positions and locked securely.		√	√	
	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.		√	√	
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 67
		Blade mounting pins and wave washers shall be free of cracks or damage.	√	√	√	Page 67
		Cutting blade shield shall be free of cracks or damage.	√	√	√	
		Skirts on cutting blade shield shall be free of cracks or damage, and shall not be missing.	√	√	√	
		Belt tension shall be properly adjusted.	√	√	√	Page 70
		Belt shall be free of damage or excessive wear.	√	√	√	Page 70
		When activated, cutting blade brake shall stop cutting rotary.	√	√	√	Page 70
		Greasing points shall be properly greased.		√	√	Page 46, 47

Item	Description	Schedule			Note	
		PSI	Mon	Year		
<b>Electrical System</b>	<b>Charging System</b>	Charging system shall charge battery.			√	
	<b>Battery</b>	Battery fluid (electrolyte) shall be of proper level.		√	√	Page 73
		Terminals shall be free of looseness or excessive corrosion.		√	√	
	<b>Head Lamp Tail Lamp *1</b>	Head and tail lamps shall work.	√	√	√	
		Lamp lens shall be free of cracks or chipping and water shall not be in the lamp.		√	√	
	<b>Wiring</b>	Connections shall not be loose.		√	√	
		Wiring shall be free of damages.		√	√	

\*1 CMX227 only.

## List of Fluids and Lubricants

Item	Schedule	Grade	Cap.
Fuel	As needed.	Automotive Unleaded Gasoline	20 L (5.3 US gal)
Engine Oil	Fill Inspect daily. Fill as needed. Change Initially - After 20 hours of use. Every 50 hours afterwards.	Gasoline Engine Oil API rating: SE or better. SAE rating: 10W-30	1.4L (1.48 US qt)
Transmission Oil	Change Initially - After 50 hours of use. Every 500 hours afterwards.	Gear Oil API rating: GL-4 or 5 SAE rating: 80	0.9L (0.95 US qt)
Front Axle Oil*1	As needed.	Gear Oil API rating: GL-4 or 5 SAE rating: 80	0.7L (0.74 US qt)
HST Fluid	As needed.	Gasoline Engine Oil API rating: SE or better. SAE rating: 20W-50	4.0L*2 (4.23 US qt) 1.1L*3 (1.16 US qt)
Cutting Rotary Gearbox Oil	As needed.	Gear Oil API rating: GL-4 or 5 SAE rating: 80	0.15L (0.16 US qt)
Battery Electrolyte	Fill Inspect every 50 hours and fill when necessary.	Distilled Water	-

\*1 CMX227 and CMX186 only, \*2 Models with Charge-Pump, \*3 Models without Charge-Pump

### Greasing Points

**⚠ CAUTION!**

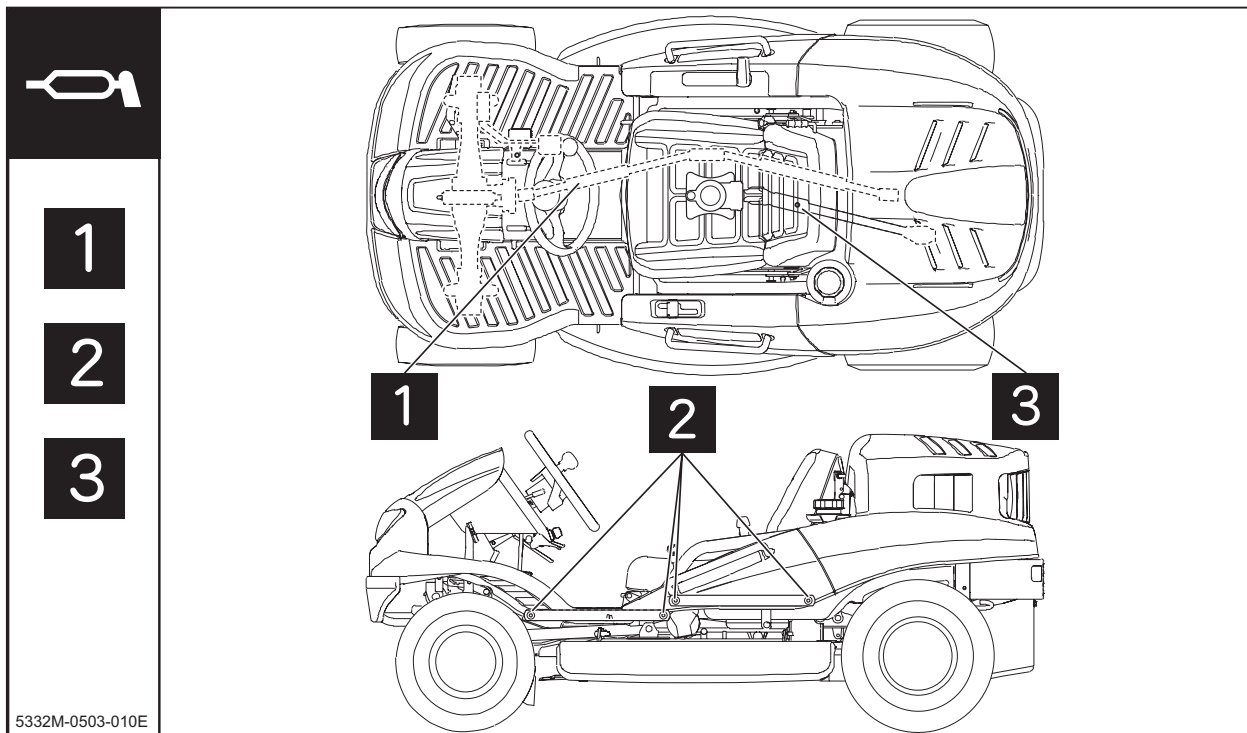
- Grease regularly. Insufficient greasing may result in seizure or rusting, affecting smooth operation of machine.

**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.
- Set cutting rotary height to the lowest to grease link pivots.

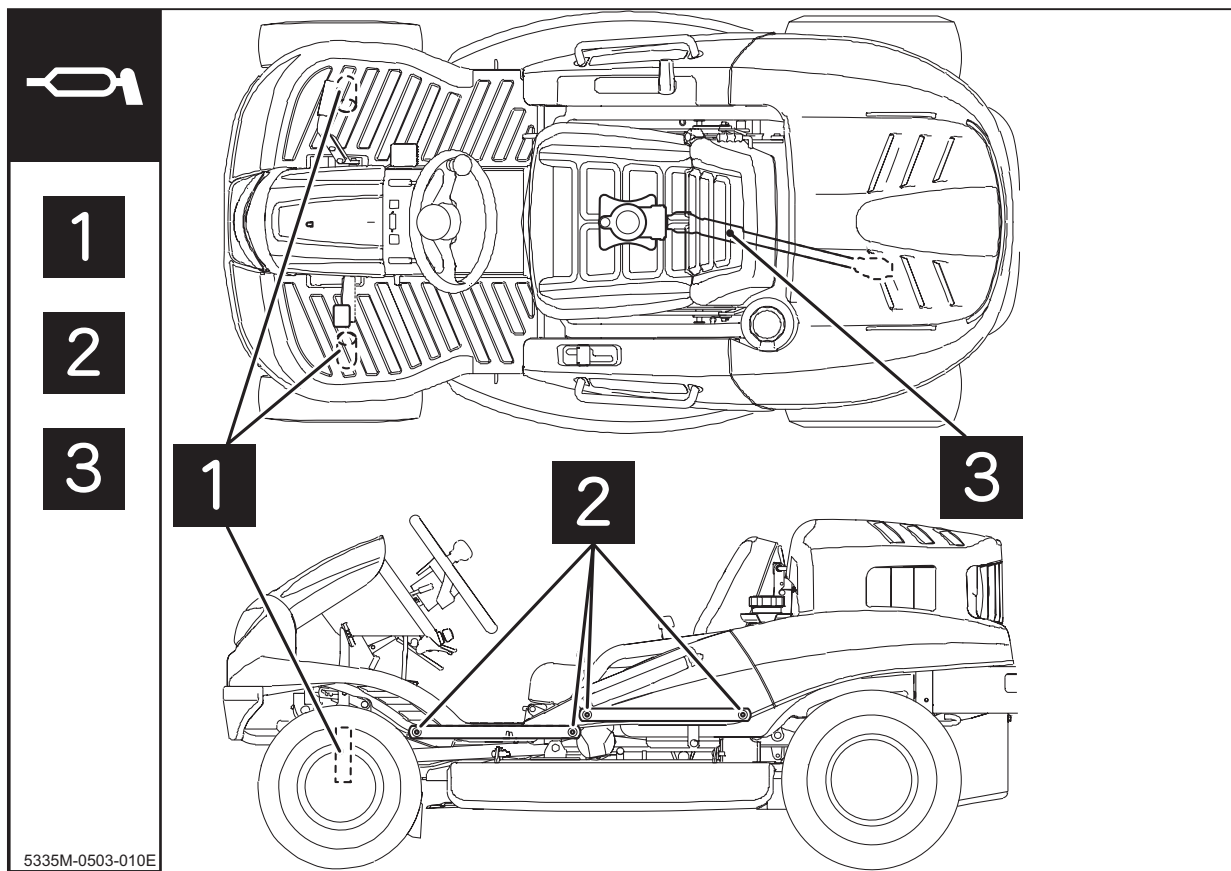
### Greasing Points (CMX 227 / CMX 186)

Location	Schedule	Grade
1 Propeller shaft	Every 6 Months	Chassis Grease
2 Cutting rotary link pivots	Every 6 Months	Chassis Grease
3 Cutting rotary drive shaft	Every 6 Months	Chassis Grease



## Greasing Points (CM 226 / CM 185)

Location	Schedule	Grade
1 Front knuckles	Every 6 Months	Chassis Grease
2 Cutting rotary link pivots	Every 6 Months	Chassis Grease
3 Cutting rotary drive shaft	Every 6 Months	Chassis Grease





## List of Consumables and Spares

### ⚠ CAUTION!

- When replacing consumable or spare, always use CANYCOM genuine parts. Using non-CANYCOM parts may reduce machine's performance or service life. Note that it may also void warranty and certification for relevant standards.

Item	Part No.	Schedule	Qty.
<b>Engine</b>			
Oil Filter Cartridge	248-65801-00	Initially 50 hrs. After - Every 200 hrs. Replace if defective.	1
Air Cleaner Element	263-32610-A1	Every 200 hrs or seasonally.	1
Spark Plug (NGK BPR5ES)	065-01402-80	Clean: every 50 hrs. Replace if defective.	2
Wire (Throttle)	53320101100	Replace if defective.	1
<b>Fuel System</b>			
Hose (Carburator - Fuel Pump)	263-68006-B3	Every 2 years.	1
Hose (Fuel Pump - Fuel Filter)	263-68007-B3	Every 2 years.	1
Hose (Fuel Filter - Fuel Cock)	53320316000	Every 2 years.	1
Hose(Fuel Cock - Fuel Tank)	53320315000	Every 2 years.	1
<b>Drive Train</b>			
V-belt (HST)	08521300036	Replace if defective.	1
Tire (Front)*1, *2	53322202000	Replace if defective or reaches the wear limit.	2
Tire (Front)*3	53042204000	Replace if defective or reaches the wear limit.	2
Tire (Rear)*1, *2	53322302000	Replace if defective or reaches the wear limit.	2
Tire (Rear)*3	53042301100	Replace if defective or reaches the wear limit.	2
Tire Tube (Front)*1, *2	53042205000	Replace if defective.	2
Tire Tube (Front)*3	53042205000	Replace if defective.	2
Tire Tube (Rear)*1, *2	53322303000	Replace if defective.	2
Tire Tube (Rear)*3	42012543000	Replace if defective.	2
Brake Lining (Rear)	73019901000	Replace if defective. (Replace in pairs)	2
Brake Lining (Front)	73069901000	Replace if defective. (Replace in pairs)	2
Wire (Rear Brake)	53323305000	Replace if defective.	1
Wire (Front Brake)	53323306000	Replace if defective.	1

\*1: CMX227, \*2: CM 226, \*3: CMX186, CM185

Item	Part No.	Schedule	Qty.
<b>Drive Train</b>			
Wire (Differential Lock)	53323402000	Replace if defective.	1
Wire (AWD)*1	53323452000	Replace if defective.	1
Cooling Fan	53352023000	Replace if defective.	1
<b>Cutting System</b>			
Blade Set (Iai)	Z3324202010	Replace if defective.	1
Rubber Plate (Front Skirt, Center)*1	53322114000	Replace if defective.	1
Rubber Plate (Front Skirt, Center)*2	53332109000	Replace if defective.	1
Rubber Plate (Front Skirt, Center)*3	53382114000	Replace if defective.	1
Rubber Plate (Front Skirt, Center)*4	53342109000	Replace if defective.	1
Rubber Plate (Front Skirt, Sides)*1	53322113000	Replace if defective.	2
Rubber Plate (Front Skirt, Sides)*2	53332108000	Replace if defective.	2
Rubber Plate (Front Skirt, Sides)*3	53382113000	Replace if defective.	2
Rubber Plate (Front Skirt, Sides)*4	53342108000	Replace if defective.	2
Rubber Plate (Front Diff.-Blade Shield)*1, *3	53352111000	Replace if defective.	1
Rubber Plate (Front Diff.-Blade Shield)*2, *4	53362114000	Replace if defective.	1
Rubber Plate (Front Axle, Rear Right)*1	53212118000	Replace if defective.	1
Rubber Plate (Front Axle, Rear Right)*2, *4	53332112000	Replace if defective.	1
Rubber Plate (Front Wheel, Inside)*1, *3	53322116000	Replace if defective.	1
Rubber Plate (Front Wheel, Inside)*2, *4	53062121000	Replace if defective.	1
Rubber Plate (Front Wheel, Rear Inside)*2, *4	53232132000	Replace if defective.	1
Rubber Plate (Blade Shield, Rear)	53324113000	Replace if defective.	1
Rubber Plate (Blade Shield, Rear Left)	53324114000	Replace if defective.	1
V-Belt (Cutting Rotary)	08521600037	Replace if defective.	2
Brake Lining (Cutting Rotary)	53104301000	Replace if defective.	2
Wire (Cutting Rotary Clutch)	53322408000	Replace if defective.	1
Free Lock (Cutting Height Adjuster)	53324068000	Replace if defective.	1
Cutting Blade Stay	53324201000	Replace if defective.	1

\*1: CMX227, \*2: CM 226, \*3: CMX186, \*4: CM185

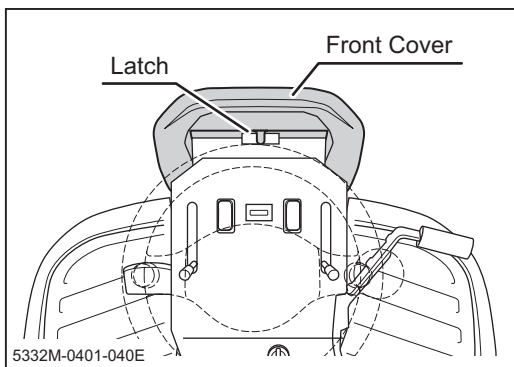
Item	Part No.	Schedule	Qty.
<b>Electrical System</b>			
Battery	37053901000	Replace if defective.	1
Fuse, 30A (Green, Main)	09801003002	Replace if defective.	1
Fuse 10A (Red, Lights)	09801001002	Replace if defective.	1
Light Bulb (Head Lamp)	53320203100	Replace if defective.	1
Light Bulb (Tail Lamp)*1	09808121502	Replace if defective.	1

## Removing and Installing Body Panels

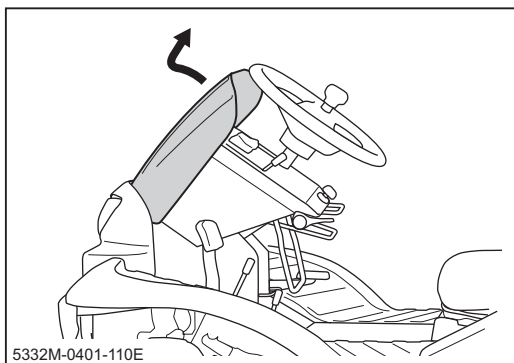
### ⚠ CAUTION!

- 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



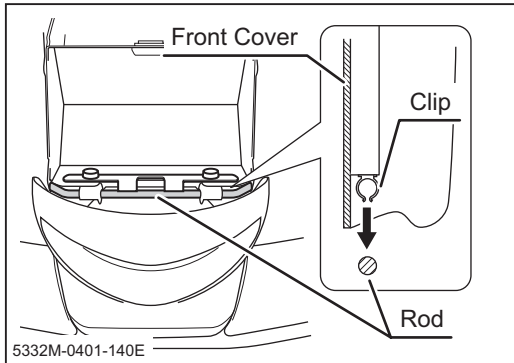
1. Pull top side of front cover to unlock latch.



2. Pull up front cover.

#### NOTE

- Tool box is provided under the front cover. Use this tool box to store tools or substitute cutting blades.

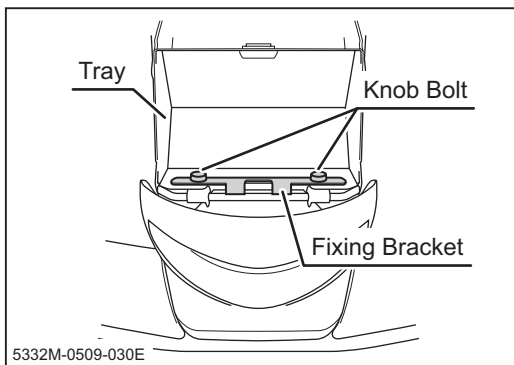


3. Raise steering wheel to the maximum angle and fit clip on the back of front cover to rods.
4. Fit upper part of front cover.

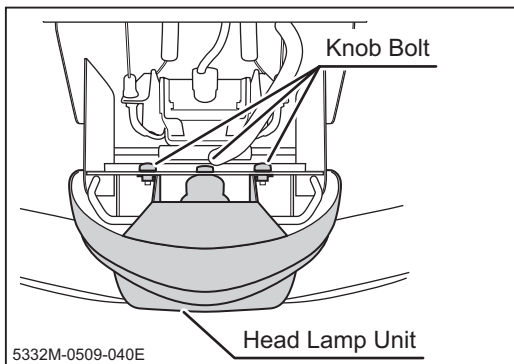
## NOTE

- Beware not to catch front cover by the plates on both sides when you installing front cover.

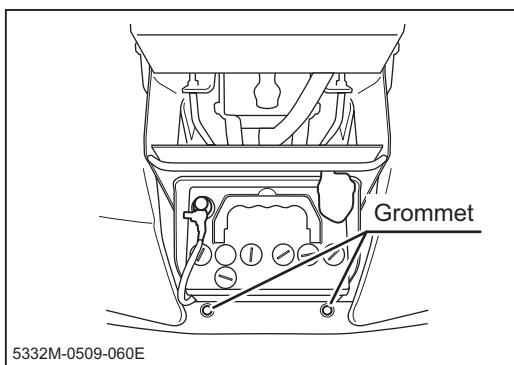
## Head Lamp



1. Remove front cover.
2. Remove 2 knob bolts fixing the tray.
3. Remove fixing bracket and lift tray.

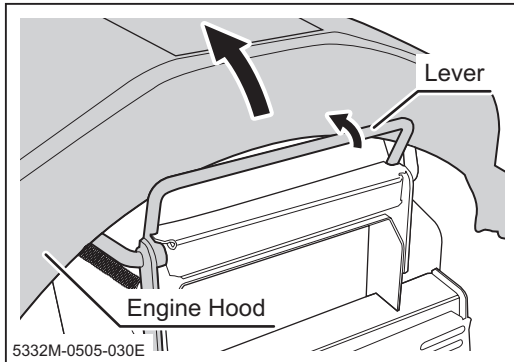


4. Remove 3 knob bolts fixing head lamp unit to remove head lamp unit.



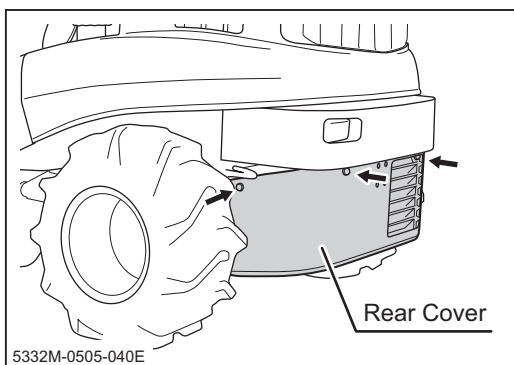
5. Insert projections at the bottom of head lamp unit into holes of grommet on bumper and install adversely.

## Engine Hood



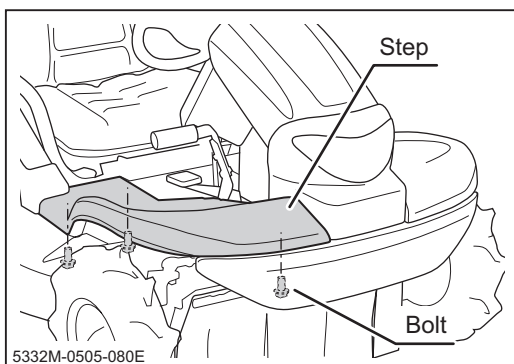
1. Pull lever and open engine hood.

## Lower Rear Cover



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

## Step

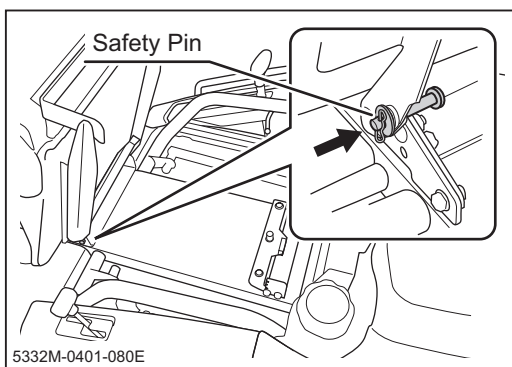


1. Remove 3 bolts fixing step.
2. Remove step.
3. Remove step on the other side in the same way.

## Seat Bracket

### ⚠ CAUTION!

- Always slide seat to the rear-most position when lifting seat. If seat is not in the rear-most position, slide lever may interfere with step, preventing seat to be lifted to the holding position.



1. Slide seat to the rear-most position.
2. Lift seat and push safety pin toward inside to hold seat.

### NOTE

- Move seat and check if the seat is held in place firmly.

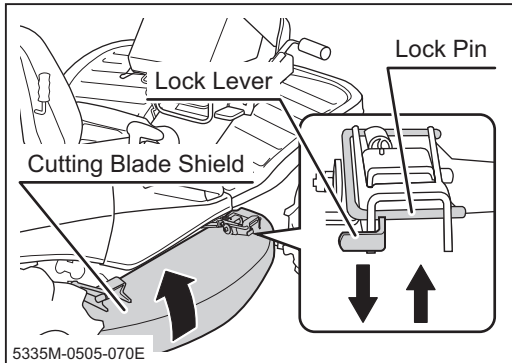
## Cutting Blade Shield

### ⚠ DANGER!

- Stop engine before opening cutting blade shield. Opening shield when cutting blade is moving may result in injury or death.

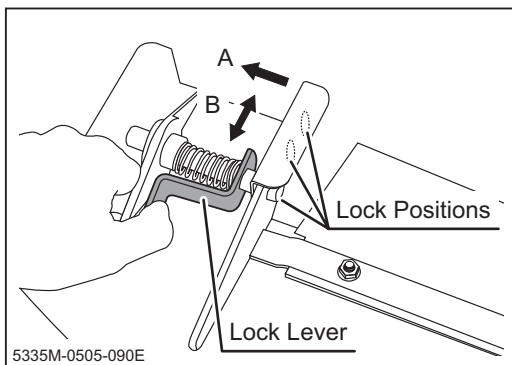
### ⚠ WARNING!

- Make sure cutting blade shield is securely locked in the lowest position and does not open to the side. Loose shield may allow objects to be thrown, resulting in injury to the operator or by-standers or in property damage.



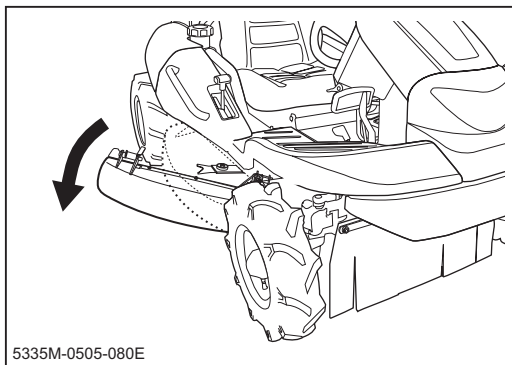
### Flipping up shield

1. Push lock pin to unlock shield.
2. Pull up lock lever and move shield up or down to one of three positions.
3. Press down lock lever to lock shield. Lock pin will also return to lock position automatically.



### Opening shield to the side

1. Squeeze lock lever as shown (A).
2. Keep lock lever squeezed and move shield to one of three lock positions (B).
3. Release lock lever at the selected lock position so that the pin on lock lever positively fits into the hole at lock position.



## 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 and spark away when servicing.

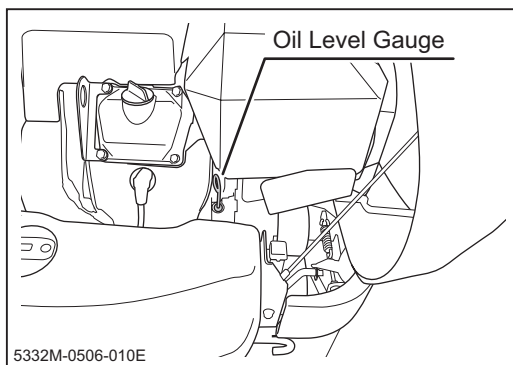
## Engine Oil

### **⚠ 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**

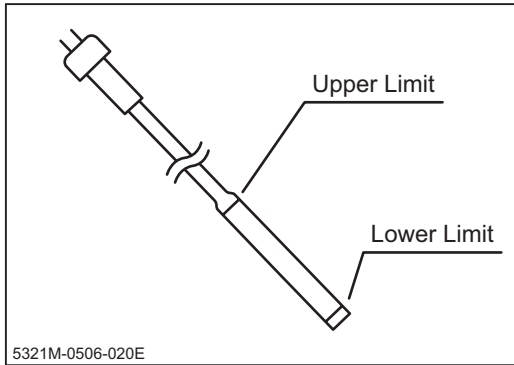
- To obtain correct reading, check oil level before starting, or wait about 10 minutes after stopping engine to allow oil to drain back to oil pan.
- Always check oil level on a level surface.
- Oil to use and capacity: Page 45.



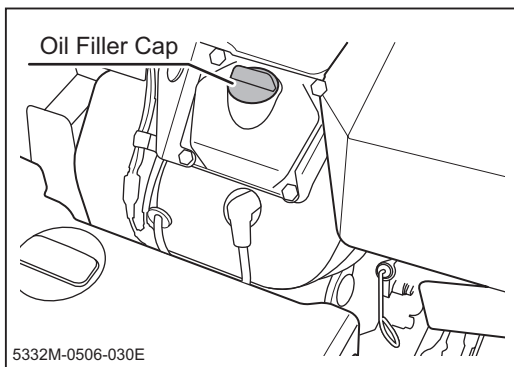
### **Inspecting**

1. Park machine on a level surface.
2. Open engine hood.
3. Pull out dipstick and wipe it clean.
4. Insert dipstick fully and pull it out.



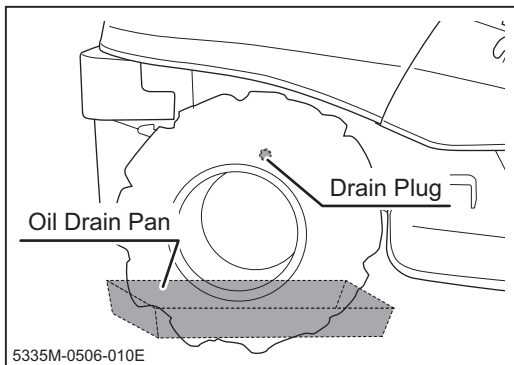


5. Visually inspect oil level. Make sure oil level is between upper and lower limits. If it is below lower limit, add oil.
6. Visually inspect condition of oil. If it is too dirty or viscosity is not normal, change oil.
7. Put dipstick back in place.
8. Close engine hood.



### Filling

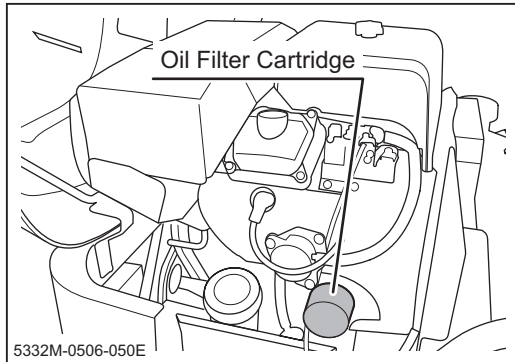
1. Open engine hood.
2. Remove oil filler cap.
3. Fill specified amount of correct oil into filler.
4. Check oil level. Make sure oil level is between upper and lower limits.
5. Put oil filler cap back in place.
6. Close engine hood.



### Changing

1. Have an appropriate oil drain pan.
2. Open engine hood.
3. Remove oil filler cap.
4. Remove drain plug to drain oil.
5. Put drain plug back in place.
6. Fill oil.
7. Check oil level and to make sure oil level is appropriate.
8. Put oil filler cap back in place.
9. Close engine hood.

## Oil Filter Cartridge

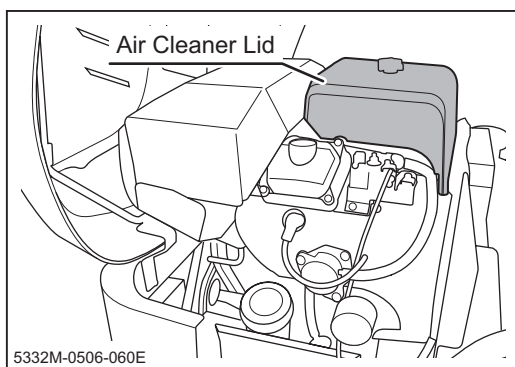


1. Open engine hood.
2. Follow the instructions in **Operator's Manual for the engine** to change oil filter cartridge.
3. Close engine hood.

## 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.

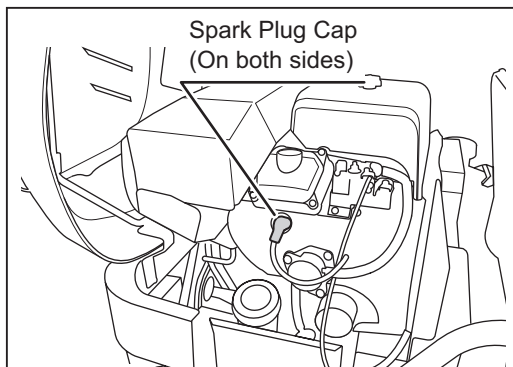


1. Open engine hood.
2. Follow the instructions in **Operator's Manual for the engine** to inspect, clean or change air cleaner element.
3. Close engine hood.

## 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. Open engine hood.
2. Follow the instructions in **Operator's Manual for the engine** to inspect, clean, or change spark plugs.
3. Close engine hood.

## Drive Train

### ⚠ WARNING!

- Stop engine and remove ignition key when 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!

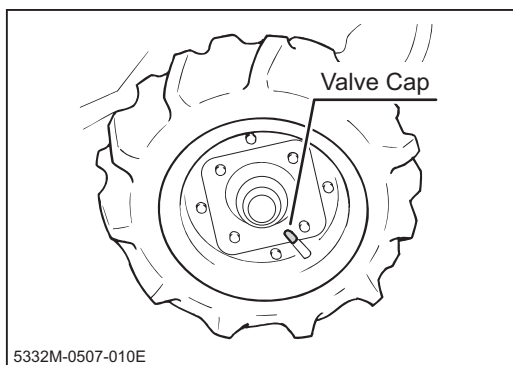
- Dispose of drained oil properly.

## Tires

### ⚠ CAUTION!

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

	Tire Size	Pressure KPa(psi)
<b>CMX227 / CM226</b>		
Front Wheel	AGR 4.00-7 (2PR)	120 (17.4)
Rear Wheel	17×8.00-8 (4PR)	240 (34.8)
<b>CMX186 / CM185</b>		
Front Wheel	AGR 3.50-7 (2PR)	110 (16.0)
Rear Wheel	16×7.00-8 (2PR)	110 (16.0)

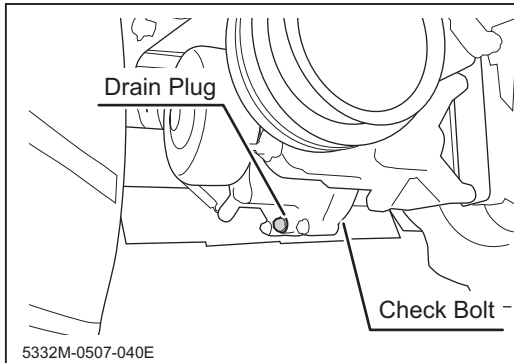


1. Park machine on a level ground.
2. Remove valve cap.
3. Check tire air pressure. If different from the specified values, adjust pressure.
4. Put valve cap back in place.

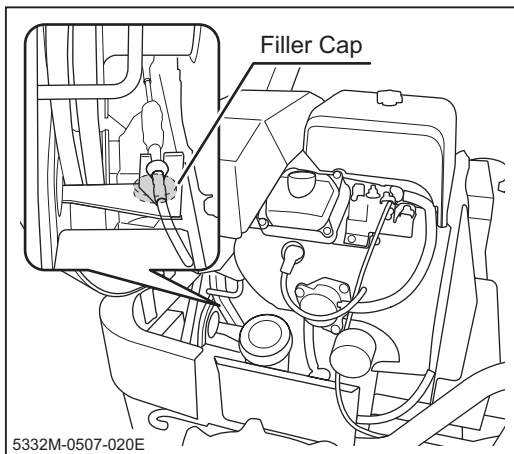
## Transmission Oil

### NOTE

- Oil to use and capacity: Page 45.



1. Park machine on a level ground.
2. Have an appropriate oil drain pan.
3. Remove transmission oil drain plug to drain oil.
4. Install drain plug back in place.

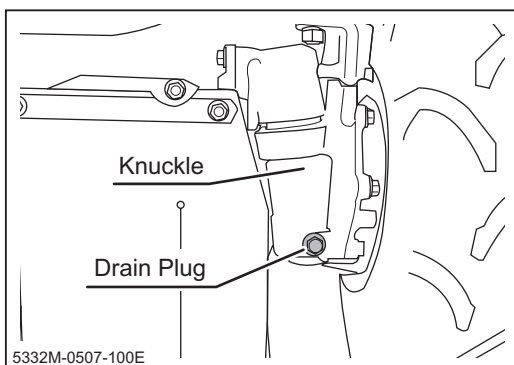


5. Open engine hood.
6. Remove transmission oil filler cap.
7. Remove check bolt.
8. Fill specified amount of correct oil into filler, up to check bolt hole.
9. Put check bolt back in place.
10. Put filler plug back in place.
11. Close engine hood.

## Front Axle Oil (CMX227 / CMX186)

### NOTE

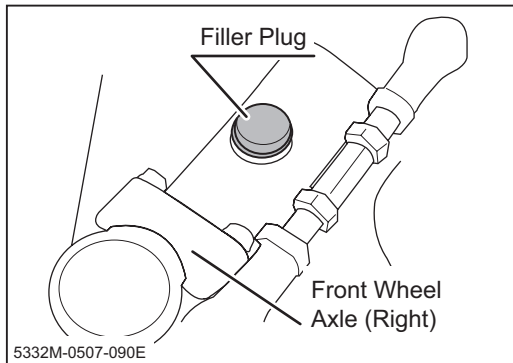
- Oil to use and capacity: Page 45.



1. Park machine on a level ground.
2. Have an appropriate oil drain pan.
3. Remove drain plug on the left front knuckle to drain oil.
4. Remove drain plug on the right front knuckle to drain oil as well.

## NOTE

- Drain plug for the right front knuckle is on the back side of the front axle.



5. Install both drain plugs back in place.
6. Remove right front step.
7. Remove oil filler cap.
8. Fill specified amount of oil into filler.
9. Install filler plug back in place.
10. Install right front step.

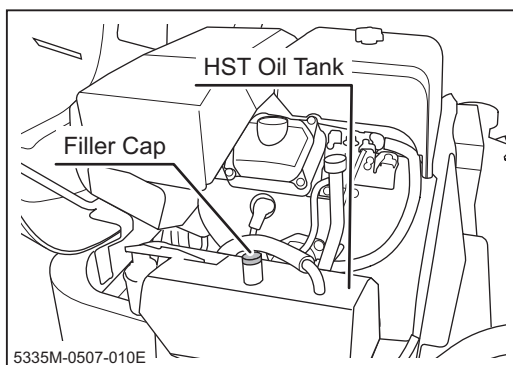
## HST (Hydrostatic Transmission) Fluid (Models with Charge-Pump)

### ⚠ CAUTION!

- HSt is a precision mechanism. Small particles in 10µm order can cause terminal damage to HST. When working on HST, work in a clean, dust-free environment, and clean the surrounding areas if HST. Pay maximum care to avoid dust or particules to contaminate HST fluid or system.

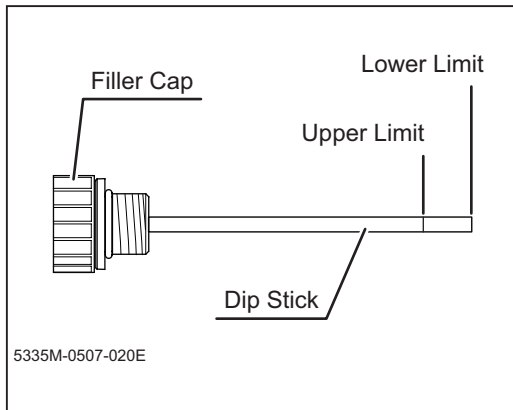
## NOTE

- To obtain correct reading, check HST fluid (oil) level before starting, or wait until HST fluid cools off sufficiently. Hot HST fluid expands in volume and does not provide correct reading.
- Fluid to use and capacity: Page 45.
- Change HST fluid every 500 hours of use or 1 year, whichever comes first.



### Inspecting

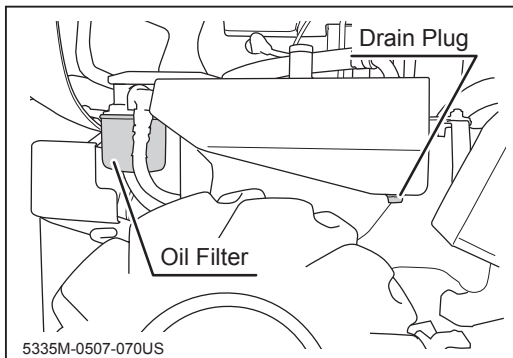
1. Park machine on the level ground.
2. Open engine hood.
3. Unscrew and remove filler cap.



4. Wipe dip stick with clean cloth. Reinstall filler cap and screw it fully.
5. Unscrew and remove filler cap again. Visually inspect that fluid level is between the upper and lower limits on dip stick. If it is below the lower limit, fill fluid.
6. Reinstall filler cap and screw it fully.
7. Close engine hood.

### Filling

1. Open engine hood.
2. Remove filler cap.
3. Fill specified HST fluid into filler so that fluid level is between upper and lower limits on dipstick.
4. Reinstall filler cap back in place and screw it securely.
5. Close engine hood.



### Changing

1. Open engine hood.
2. Have an appropriate oil drain pan.
3. Remove filler cap.
4. Remove drain plug to drain fluid.

### NOTE

- Due to the system configuration, HST fluid cannot be fully drained.
- Do not move drive lever or pedal when HST fluid is drained. Moving lever or pedal may let air in the hydraulic system, necessitating bleeding.

5. Remove oil filter.
6. Apply a coat of fresh HST fluid onto the gasket on a new oil filter and install it.

## NOTE

- **When installing a new oil filter, first tighten it until the gasket touches the filter base. Then, turn it 2/3 of a turn further.**
7. Reinstall drain plug.
  8. Fill HST fluid to the specified level.
  9. Reinstall filler cap back in place and screw it securely.
  10. Run engine for a while. Stop engine and check fluid level.
  11. Run engine again and move drive lever or pedal back and forth several times.
  12. Check fluid level again. Fill as necessary.
  13. Repeat 10 through 12 until fluid level does not change.
  14. Check for leaks.
  15. For the first several uses after changing HST fluid, check fluid level every 10 to 30 minutes and fill fluid as necessary.

## HST Fluid (Models without Charge-Pump)

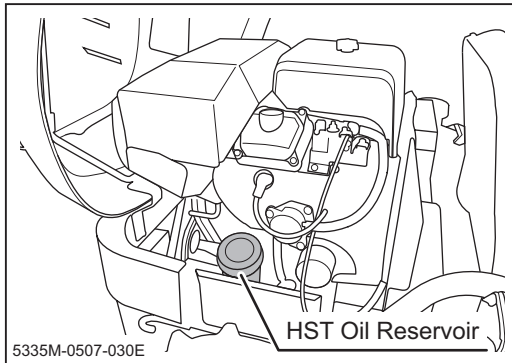
### **⚠ CAUTION!**

- **HSt is a precision mechanism. Small particles in 10µm order can cause terminal damage to HST. When working on HST, work in a clean, dust-free environment, and clean the surrounding areas if HST. Pay maximum care to avoid dust or particules to contaminate HST fluid or system.**

## NOTE

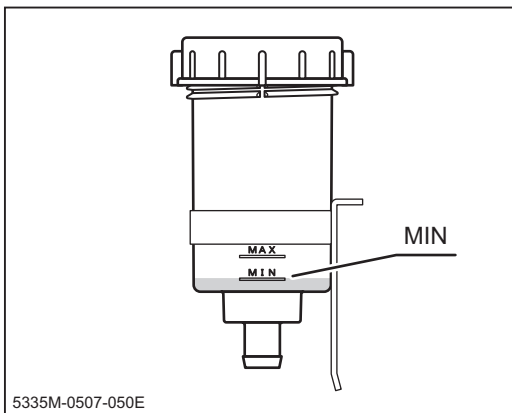
- **To obtain correct reading, check HST fluid (oil) level before starting, or wait until HST fluid cools off sufficiently. Hot HST fluid expands in volume and does not provide correct reading.**
- **When fluid is sufficiently cooled and is at the [MIN] level, its amount is sufficient.**
- **Do not exceed beyond [MAX] level. HST fluid may expand and overflow.**
- **Fluid to use and capacity: Page 45.**
- **Change HST fluid every 300 hours of use.**





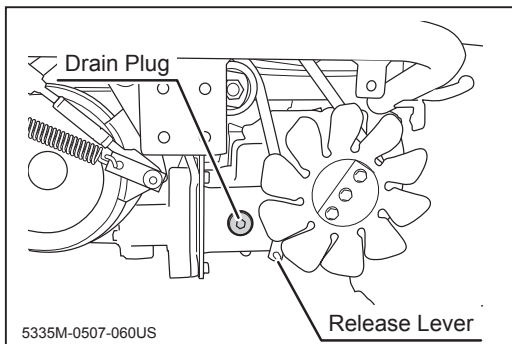
### Inspecting

1. Park machine on the level ground.
2. Open engine hood.
3. Visually inspect that oil level is between [MIN] and [MAX] lines on oil reservoir. If it is below [MIN], fill fluid.
4. Close engine hood.



### Filling

1. Open engine hood.
2. Remove cap on HST oil reservoir.
3. Fill specified HST fluid into reservoir so that oil level is above [MIN] line on reservoir.
4. Reinstall cap back in place and screw it securely.
5. Close engine hood.



### Changing

1. Open engine hood.
2. Remove lower rear cover.
3. Have an appropriate oil drain pan.
4. Remove reservoir cap.
5. Remove drain plug to drain fluid.

### NOTE

- Due to the system configuration, HST fluid cannot be fully drained.
- Do not move drive lever or pedal when HST fluid is drained. Moving lever or pedal may let air in the hydraulic system, necessitating bleeding.

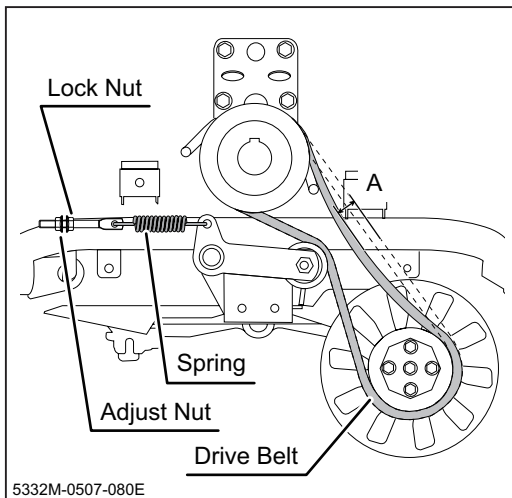
6. reinstall drain plug.
7. Fill HST fluid to the specified level.
8. Reinstall reservoir cap back in place.
9. Reinstall lower rear cover and close engine hood.

10. Run engine for a while. Stop engine and check fluid level.
11. Run engine again and move drive lever or pedal back and forth several times.
12. Check fluid level again. Fill as necessary.
13. Repeat 10 through 12 until fluid level does not change.
14. Check for leaks.
15. For the first several uses after changing HST fluid, check fluid level every 10 to 30 minutes and fill fluid as necessary.

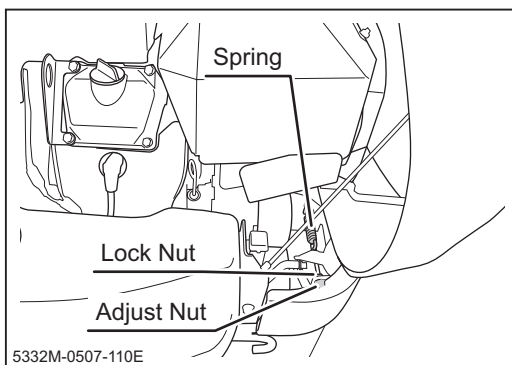
## Drive Belt

### **⚠ CAUTION!**

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



1. Open engine hood.
2. Check V-belt tension. Push V-belt by finger and check that deflection at center point A is in the range of 10 to 20 mm (0.39 to 0.79 in). If it is out of this range, adjust with adjust nut.
3. Visually inspect belt. Replace belt if it is damaged. For replacement, contact your CANYCOM representative.
4. Close engine hood.

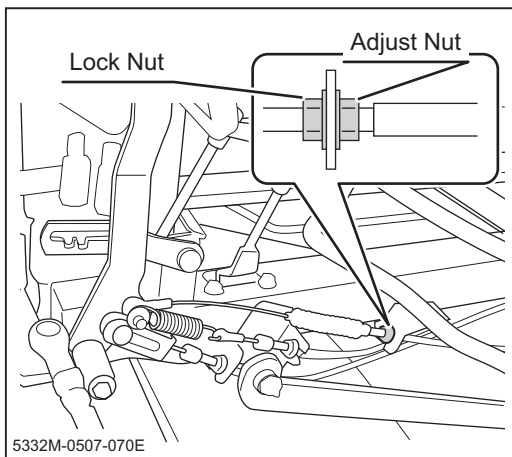


## Parking Brake

### ⚠ WARNING!

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

1. Park machine on level ground.
2. Remove left step.

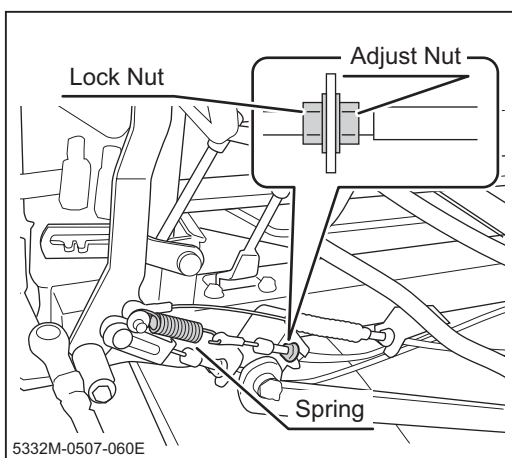


### Rear Brake

3. Loosen lock nut
4. Adjust with adjust nut when brak peddal is free so that the brake does not drag.
5. Adjust brake so that the brake works and the brake pedal locks securely when brake pedal is locked
6. Tighten lock nut.

### NOTE

- If brake does not work even the brake pedal is locked, the brake shoe is worn out. Please contact your CANYCOM representative for replacement.



### Front Brake (CMX227/CMX186)

7. Lock brake pedal and Inspect that the strech of spring is between 5 and 8mm (0.20 and 0.31 in). If it is not within this range, adjust it with adjust nut.
8. Tighten lock nut after adjustment
9. Install left step back in place.

## 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.

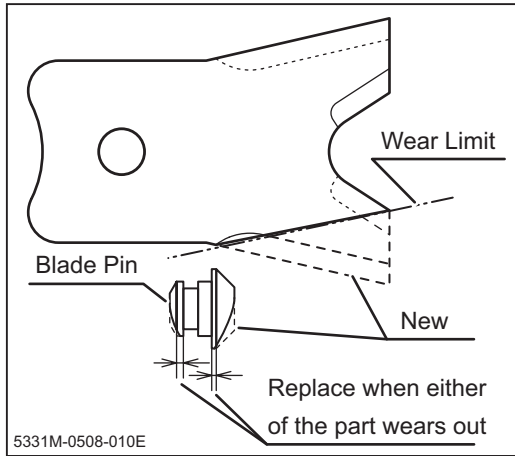
## Cutting Blades

### **⚠ 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, always replace both blades. Replace blade pins and wave washers also.
- When a foreign object is tangled with the blade, immediately stop the engine and remove the foreign object. Damage due to vibration may occur.
- When replacing blades, inspect blade stay. If stay is worn beyond wear limit, damaged or deformed, replace it immediately. Contact your CANYCOM representative.

### **⚠ CAUTION!**

- Blades and blade stay can become sharp due to wear. When handling blade or blade stay, always wear thick gloves and handle carefully. Injury may occur.
- When replacing a blade, do not force it to remove. Blade can move suddenly, causing injury. When it is difficult to remove, clean blade and remove foreign object. Turn blade back and forth to remove.



### Inspecting

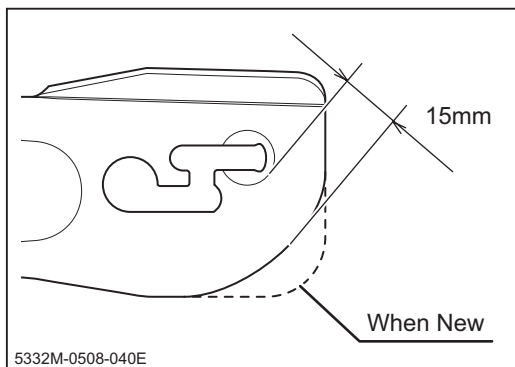
1. Open cutting blade shield.
2. Visually inspect blades and pin for wear and damage. If blades are worn normally, turn them over and use. Replace if both edges are worn. If blades or pin are worn excessively, deformed, damaged, or missing, replace them with new components.

### NOTE

• **Wear Limit**

**Blade:** Up to line connecting outer edge and inner edge.

**Blade Pin:** Up to either of the shoulder.

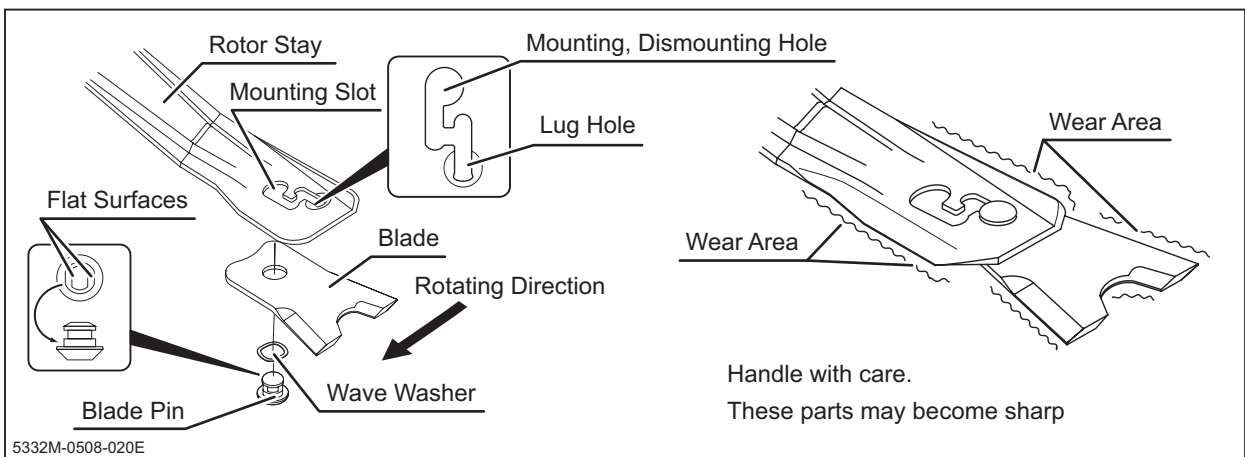


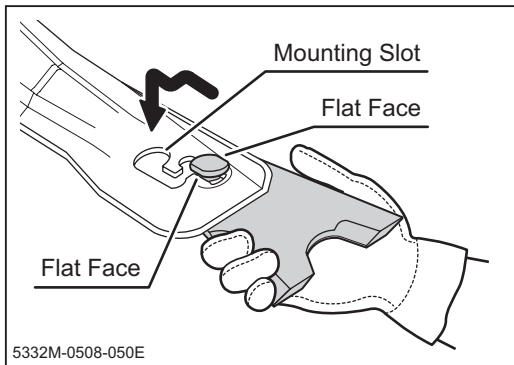
3. Inspect cutting rotor stay. If stay is worn excessively, deformed or damaged, replace with a new component.
4. Close blade shield.

### 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.)

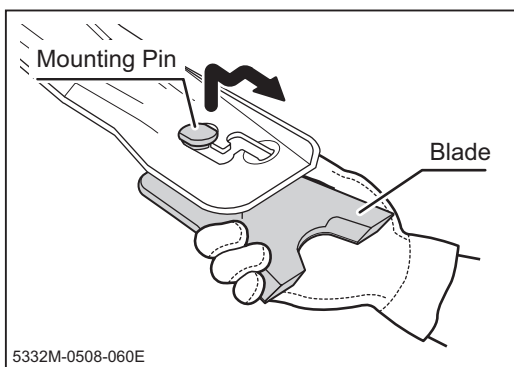
• **Contact your CANYCOM representative for replacement of rotor stay.**





## Replacing

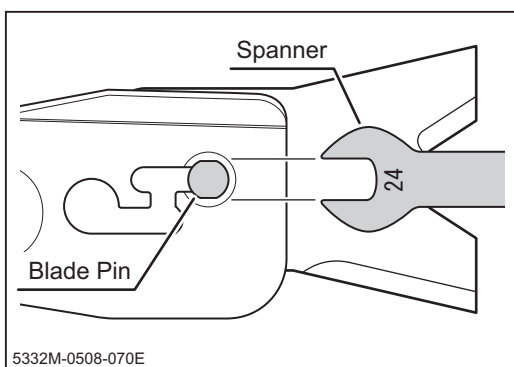
1. Open cutting blade shield.
2. Noting the direction of the flat faces on mounting pin, shift blade along mounting slot to remove blade.



3. Install new mounting pin and wave washer 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 66
- If dirt or grass enters into mounting slot, making removal of blade difficult, remove dirt or grass with a screw driver before removing blade.
- If it is difficult to remove blade, use 24mm spanner to remove



### Cutting Rotary Drive Belt and 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.
- Ride on machine when testing cutting rotary brake.
- 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.

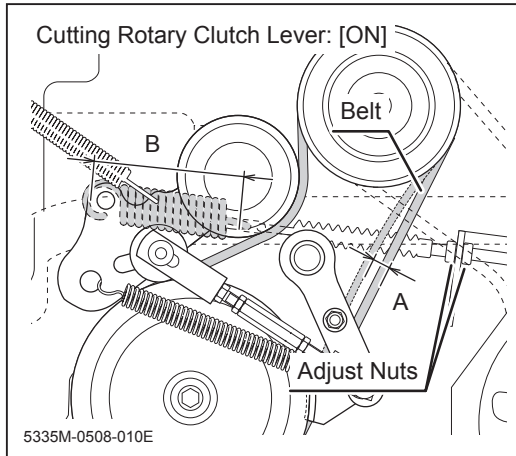
#### **CAUTION!**

- Adjust belt tension properly. Improperly tensioned belt may reduce performance and its service life.
- Always adjust cutting rotary brake after adjusting cutting rotary drive belt.

#### **NOTE**

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- The V-belt stretches (breaks in) when it is new. Inspect and adjust the V-belt after the first day's (4 hours') use.
- For a longer service life, inspect and adjust (as necessary) the V-belt as the daily pre-start up checks.



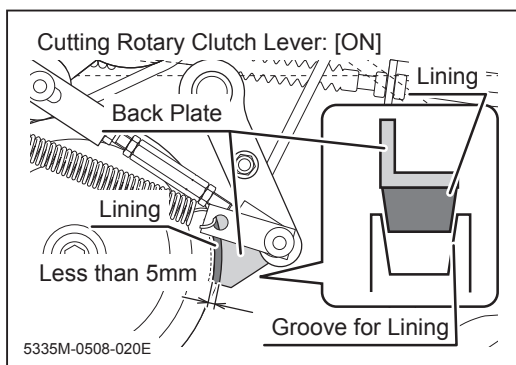
	Deflection A	Spring Length (inside hooks) B
<b>CMX227</b> <b>CM226</b> <b>CMX186</b> <b>CM185</b>	10-15mm (0.39 - 0.59in)	112-113mm (4.41 - 4.45in)

## Inspecting and Adjusting

1. Remove engine hood, lower rear cover and rear bumper.
2. Turn cutting rotary clutch lever to [ON].
3. Inspect the condition of V-belt to be free of damages or wear. Replace if damaged or worn. Contact your CANYCOM representative for replacement.
4. Inspect the V-belt tension. Push the middle of V-belt to see if the amount of deflection (slack) A to be within the range specified in the table on the left.
5. If the tension is not correct (deflection is not within the range), adjust it with adjust nuts.

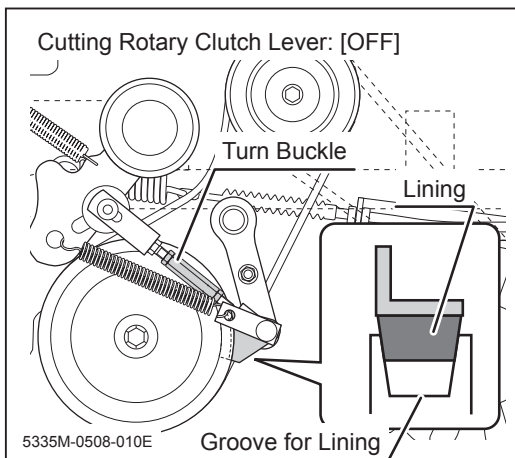
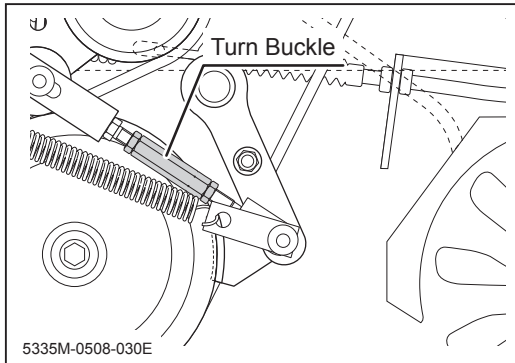
## NOTE

- If the V-belt's deflection cannot be adjusted within the specified range, it needs to be replaced. Contact your CANYCOM representative for replacement.




6. Make sure brake lining is not touching groove on pulley for lining. Also make sure the gap between the edge of pulley and lining back plate to be less than 5mm (0.20 in).





7. Adjust turn buckle if lining is touching groove or back plate and the edge of pulley is more than 5mm (0.20 in).
8. Turn cutting rotary clutch lever to [OFF].
9. Make sure lining is firmly in contact with groove on pulley.
10. Jiggle turn buckle to make sure it has a little play.
11. If lining is not firmly in contact with pulley or turn buckle is too tight to jiggle, re-adjust.
12. Turn cutting rotary clutch lever to [ON] and [OFF] about 5 times and repeat the checks 4 and the following. Re-adjust if necessary.
13. Install engine hood, rear bumper, and lower rear cover.

### Inspecting the Blade Brake

1. Start engine.
2. Turn throttle lever to [  (fast)] to raise engine speed.
3. Move cutting height adjust lever to [6] for CMX227 and CM226, or to [5 1/8] for CMX186 and CM185.
4. Move cutting rotary clutch lever to [ON] to rotate cutting blade.
5. Move cutting rotary clutch lever to [OFF] to observe if cutting blade stops. If it does not stop (if it keeps turning by inertia), adjust cutting rotary brake. To see if cutting rotary is running or not, observe the rotating sound of cutting blade, or open engine hood to observe the rotation of cutting blade V-belt. Avoid observing cutting blade directly.

## Electrical System

### **⚠ WARNING!**

- Always stop engine and remove ignition key when servicing electrical system.
- Shock hazard. Do not handle electrical components with wet hands.

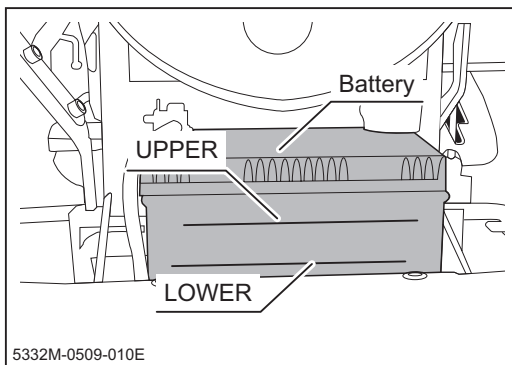
## Battery

### **⚠ 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. • Never fill battery fluid beyond "upper level" line. Battery fluid may spill and cause damage to machine or injury to person.
- 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.
- Do not touch terminals. Electric shock may occur.

**⚠ CAUTION!**

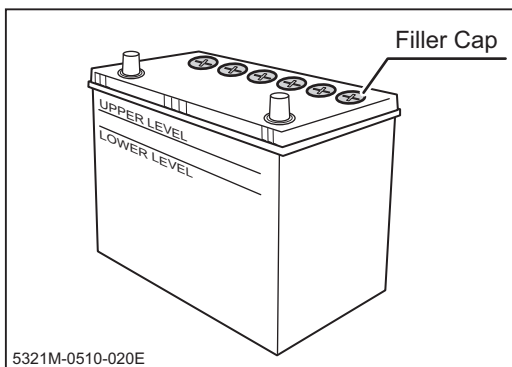
- Always remove battery from machine before charging. Failure to do so causes damage to electrical components and wiring.
- Follow battery charger user's manual when charging.

**Inspecting**

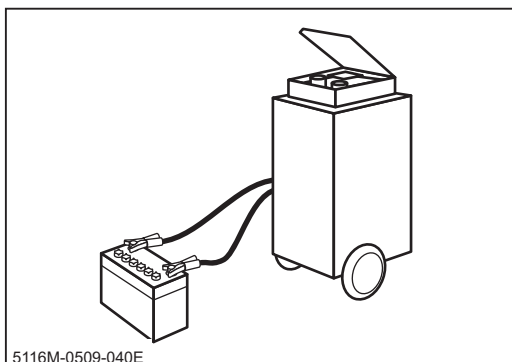
1. Park machine on level ground.
2. Remove front cover.
3. Visually inspect that battery fluid level is between "UPPER" level and "LOWER" level lines.
4. If fluid level is near or below "LOWER" level line, fill.
5. Install front cover back in place.

**NOTE**

- Instruction of removing head lamp and battery is indicated back of the front cover.

**Filling**

1. Remove front cover.
2. Remove battery.
3. Remove filler cap.
4. Fill distilled water to "UPPER LEVEL" line.
5. Install filler cap.
6. Install battery.
7. Install front cover.

**Charging**

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

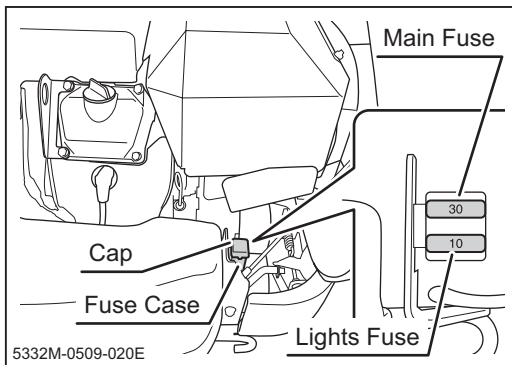
## Fuses

### **⚠ CAUTION!**

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

### NOTE

- Main Fuse: 30A. Lights Fuse: 10A
- Replacement Fuse: Page 49.



1. Open engine hood.
2. Open fuse case cap. Remove fuse and visually inspect. If it is blown, replace it with new one of the same rating.
3. Install fuse.
4. Install fuse case cap.
5. Close engine hood.

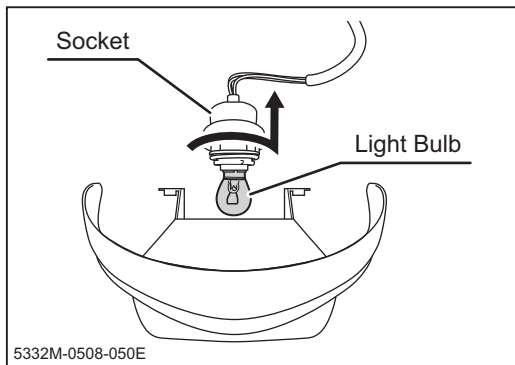
## Light Bulbs

### **⚠ CAUTION!**

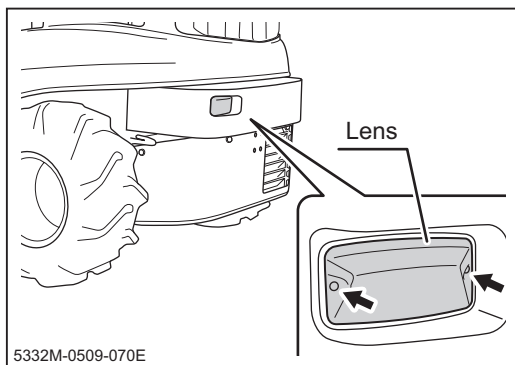
- When light bulb is burnt out, replace it with a new bulb.
- When replacing, always use a bulb of the correct rating. Wrong bulb may cause malfunction or damage in electrical system.
- Do not touch bulb when it is hot. It may cause burns.
- Do not touch the glass part of light bulb directly with fingers. It may reduce service life.

**NOTE**

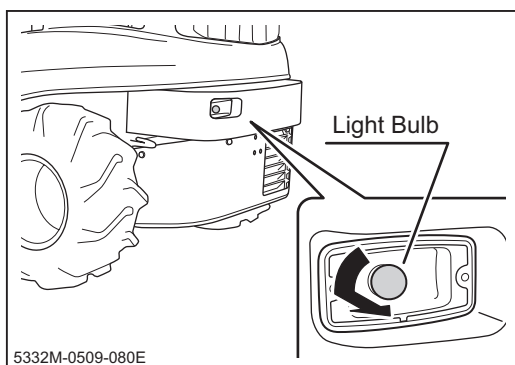
- Light Bulbs to use: Page 48.

**Head Lamp**

1. Remove front cover and head lamp unit.
2. Turn socket to remove.
3. Replace with new light bulb.
4. Install socket.
5. Install head lamp and front cover.

**Rear Lamp (CMX227)**

1. Remove 2 screws and remove lens.



2. Replace with a new light bulb.
3. Install lens back in place.

## After Use Care

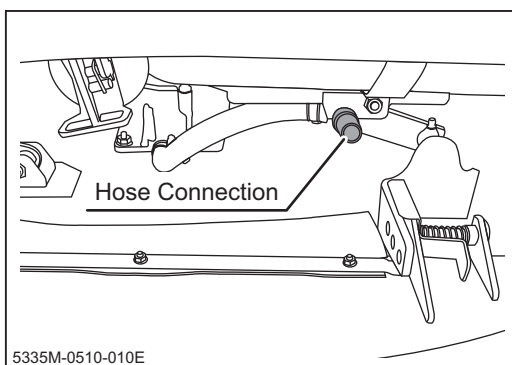
### Cutting System

#### **⚠ 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 stay on machine when performing this operation
- Never attempt to clean cutting system 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 about 50mm.
3. Connect hose to hose connection. Run water through hose.
4. Start engine.
5. Turn throttle lever to [🏎️ (fast)] to raise engine speed.
6. Move cutting rotary clutch lever to [ON] to rotate cutting blade to clean.
7. When cleaning is done, move cutting rotary clutch lever to [OFF] to stop cutting blade.
8. Move cutting height adjust lever to [6] for CMX227 and CM226, [5 1/8] for CMX186 and CM 185.
9. Turn throttle lever to [🐢 (slow)] to lower engine speed.
10. Stop machine and remove hose.

#### **NOTE**

- Do not set cutting height too low. It may hit ground.

### 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.**
- **Clean cooling air intake in front of the engine. If cooling air intake is clogged or blocked, it causes overheating, resulting in damages to the machine.**

#### **⚠ CAUTION!**

- **Do not wash engine or control panel with running water; water may enter inside and cause rust or damage.**
- **Always clean cutting blades and blade pins after use. Dirt or foreign matters may solidify or corrode blades and make it difficult to remove them.**

1. Clean machine; wash off dirt, mud, and remove grass and other foreign materials after use.
2. Clean cutting system. (See page 77)
3. Check if cutting blades can be rotate after removing foreign objects such as mud.
4. If machine is to be left outside, cover machine with protective, water-proof covering after it is cooled off.

## 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.



## 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 41). 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. Drain fuel from carburetor and fuel tank.
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**

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- 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.

## 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 17
		Excessive fuel in the engine.	→Wait a while and try starting again.	
		Battery capacity is insufficient.	→Add battery fluid. →Charge battery. →Replace battery.	Page 73 Page 73
		Battery cable is disconnected.	→Connect the battery cable.	
		Insufficient or wrong oil.	→Fill or change oil.	Page 55
		Dirty or damaged spark plug.	→Clean or replace the spark plug.	Page 58
		Other (other than the above).	→Follow the instructions in "Starting" to restart. If problem persists, please contact your CANYCOM representative.	Page 22
	Engine stalls.	Out of fuel.	→Fill fuel.	Page 17
	Engine stops abruptly.	Out of fuel	→Fill fuel.	Page 17
		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 57
		Other (other than the above).	→Please contact your CANYCOM representative.	

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 57
		Loose drive belt.	→Adjust	Page 65
		Excessive load	→Reduce load.	
		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 55
		Rotating screen or cooling fins are clogged or blocked.	→Clean.	
	Excessive fuel consumption	Clogged air cleaner.	→Clean or replace the air cleaner.	Page 57
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Black smoke comes out of exhaust	Clogged air cleaner.	→Clean or replace the air cleaner.	Page 57
		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 55
		Wrong engine oil.	→Change oil.	Page 55
Other (other than the above).		→Please contact your CANYCOM representative.		

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Drive Train	Machine does not move when drive lever or pedal is operated.	Insufficient or deteriorated HST fluid.	→Add or change fluid.	Page 61
		Parking brake is applied	→Release the parking brake.	
		V-belt is loose.	→Adjust V-belt.	Page 65
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Machine moves when drive lever or pedal is in neutral position.	HST is out of neutral.	→Please contact your CANYCOM representative.	
	Transmission jumps out of gear.	Transmission is not positively shifted.	→Shift firmly.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Machine does not turn smoothly.	Tires are not properly inflated.	→Adjust tire pressure.	Page 59
		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.	
Other (other than the above).		→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 proerly adjusted.	→Adjust.	Page 66
		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 59
		Other (other than the above).	→Please contact your CANYCOM representative.	

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Electrical System	Head lamp does not illuminate properly.	Blown bulb.	→Replace bulb.	Page 75
		Blown fuse.	→Replace fuse.	Page 75
		Other (other than the above).	→Please contact your CANYCOM representative.	
Cutting System	Cutting blade does not rotate	Cutting rotary drive belt is severed.	→Replace.	
	Cutting blade does not stop	Brake lining is worn.	→Replace.	
	Cutting rotary drive belt slips.	Belt is loose.	→Adjust belt tension.	Page 70
		Belt is worn.	→Replace.	Page 70
		Cut grass or vines accumulate in the cutting blade shield.	→Clean.	Page 77
	Abnormal vibration occurs when cutting blade is rotated..	Cutting blade is damaged or lost.	→Replace cutting blades.	Page 67
		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 77	

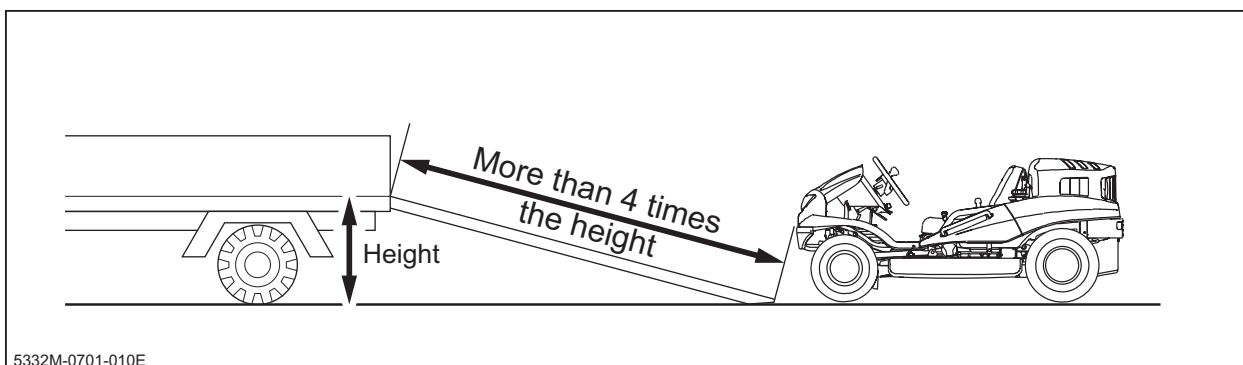
Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Cutting System	Cutting blade cuts into ground.	Cutting height is too low.	→Raise cutting height.	
		Machine turns too fast.	→Turn slowly.	
		Work site has undulations.	→Raise cutting height.	
		Cutting blade (knives or stay) is bent.	→Replace.	
	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.	

## Hauling

### Loading and Unloading

#### **⚠️ WARNING!**

- Park transporter (truck) on a level ground. Always apply parking brake and use chocks to secure wheels.
- Do not allow bystandars to come close to machine or transporter when loading or unloading machine.
- Use only 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.



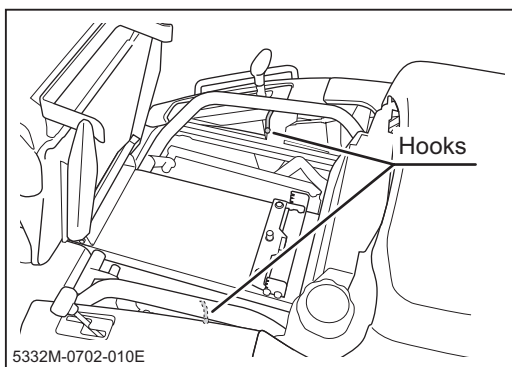
1. Park the transporter on a level ground. Apply parking brake and secure wheels with chocks.

2. Place loading ramps. Secure hooks of ramps firmly and flush with loading deck.
3. Shift auxiliary transmission shift lever to [Low] and drive machine slowly forward onto loading deck. Set cutting height adjust lever to [6] for CMX227, CM226, and [5 1/8] for CMX186, CM185. Pay attention not to hit loading lamp or loading deck when loading on a transporter.
4. Park machine according to the instructions in "**Parking**" (Page 32). 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.



## NOISE LEVEL

Model	Engine		LwA
	Type	Speed rpm	
CMX227 / CM226	Robin EH65DS	3300 rpm	100 dB (A)
CMX186 / CM185	Robin EH63DS	3300 rpm	100 dB (A)

NOISE LEVEL evaluated based on factory standard.

## VIBRATION

Model	Engine Rated revolution	Vibration			
		Mower Blade Clutch	Steering wheel (top)	Steering wheel (bottom)	Seat
CMX227 / CM226	3000 rpm	ON	22 m/s <sup>2</sup>	20 m/s <sup>2</sup>	2.5 m/s <sup>2</sup>
		OFF	13m/s <sup>2</sup>	18 m/s <sup>2</sup>	2.3 m/s <sup>2</sup>
CMX186 / CM185	3000 rpm	ON	19m/s <sup>2</sup>	16m/s <sup>2</sup>	3.0m/s <sup>2</sup>
		OFF	11m/s <sup>2</sup>	16m/s <sup>2</sup>	2.6m/s <sup>2</sup>

VIBRATION evaluated based on factory standard.