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# Honda UM536/UM616

## OWNER'S MANUAL



ECOLOGY CONSCIOUS TECHNOLOGY

The “e-SPEC” mark symbolizes environmentally responsible technologies applied to Honda power equipment, which contains our wish to “preserve nature for generations to come”.

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Thank you for purchasing a Honda weed mower.

This manual covers the operation and maintenance of the Honda WEED MOWER UM536/UM616.

Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation.

No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the weed mower and should remain with it if it is resold.

Pay special attention to statements preceded by the following words;

**⚠ WARNING** Indicates a strong possibility of severe personal injury or death if instructions are not followed.

**CAUTION:** Indicates a possibility of personal injury or equipment damage if instructions are not followed.

**NOTE:** Gives helpful information.

If a problem should arise, or if you have any questions about the weed mower, consult an authorized Honda dealer.

Honda weed mowers are designed to give safe and dependable service if operated according to instructions.

**⚠ WARNING**

**Operating a weed mower requires special effort to ensure the safety of the operator and the safety of others. Read and understand this Owner's Manual before operating the weed mower; failure to do so could result in personal injury or equipment damage.**

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- **The illustrations may vary according to the type.**

# 1. SAFETY INSTRUCTIONS

## ⚠ WARNING

### To ensure safe operation

For your safety and safety of others, pay special attention to these precautions:



- Honda weed mower is designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the weed mower. Failure to do so could result in personal injury or equipment damage.



- The rotating blade are sharp and turns at high speed. Accidental contact can cause serious injury.
- Keep your hands and feet away from the blade while engine is running.
- Stop the engine and disengage the blade clutch before inspection or maintenance of blade.



- Keep all persons and pets away from the weed mower area.



- Disconnect the spark plug cap to prevent any possibility of accidental starting. Wear heavy gloves to protect your hands from the blade when cleaning the blade or when inspecting or replacing the blade.



- **Do not operate the weed mower with the foot guard bar removed.**

## ⚠ WARNING

### To ensure safe operation

### Operator Responsibility

- Any part from the machine is a potential source of danger if the machine is used in abnormal conditions or if the maintenance is not done correctly.
- Read the owner's manual carefully. Be familiar with the controls and proper use of the equipment. Know how to engine rapidly.
- Use the weed mower for the purpose it is intended for, that is mowing. Any other use could be dangerous or damage the equipment.
- Never allow children or people unfamiliar with this owner's manual to use the weed mower. Local regulations may restrict the age of the operator.
- Never mow while:
  - people, especially children or pets are nearby.
  - user is under medication or has swallowed substances known to affect judgement or reactions.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
- While mowing, always wear substantial footwear, long trousers and eye protection. Do not operate the equipment when barefoot or wearing open sandals.
- Before using always visually inspect the machine, especially to see that the blade, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
- Mow only in daylight or in good artificial light.
- Avoid operating the equipment in wet grass, where feasible.
- While mowing, always keep the safety distance to the blade, which is provided by the handle length.
- Walk, never run. Do not let yourself be pulled by the weed mower.
- Always be sure of your footing on slopes. Mow across the face of slopes, never up and down.

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**⚠ WARNING****To ensure safe operation****Operator Responsibility**

- Exercise extreme caution when changing direction on slopes.
- Use extreme caution when pulling the weed mower towards you.
- Stop the blade if the weed mower has to be tilted for transportation when crossing surfaces other than grass, and when transporting the weed mower to and from the area to be mowed.
- Never operate the weed mower with defective guard or housings, or without safety devices such as deflectors.
- Do not change the engine governor settings or overspeed the engine.
- Disengage all blade and drive clutches before starting the engine.
- Start the engine carefully according to instructions and with feet well away from the blade.
- Do not tilt the weed mower when starting the engine. Start the weed mower on a level surface, free of high grass or obstacles.
- Keep hands and feet away from the rotating parts. Do not start the engine when standing in front of the discharge opening.
- Never pick up or carry a weed mower while the engine is running.
- Stop the engine and disconnect the spark plug cap in the following cases:
  - Before any operation under the cutter housing or the protector.
  - Before checking, cleaning or working on the weed mower.
  - After striking a foreign object. Inspect the weed mower for damage and make repairs before restarting and operating the weed mower again.
  - If weed mower starts to vibrate abnormally. Check immediately the cause of the vibration and perform the necessary repair.
- Stop the engine in the following cases:
  - Whenever you leave the weed mower unattended.
  - Before refuelling.
- Stop the blade or the engine in the following case:
  - Before adjusting the cutting height.
- Move the fuel valve to the OFF position when not using the mower.
- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition. Regular maintenance is an essential aid to user's safety and retaining a high level of performance.

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**⚠ WARNING****To ensure safe operation****Operator Responsibility**

- Do not use the machine with worn or damaged parts. Parts must be replaced, not repaired. Replace worn or damaged parts with Honda genuine parts. Blades must always bear the mark Honda and the reference number. Non equivalent quality parts may damage the machine and be prejudicial to your safety.
- Wear thick gloves when removing or installing the blade.
- Always make sure the blade is balanced correctly.
- When a climbing plant or any other foreign object has been entangled in the rear wheel, immediately release the drive clutch lever and stop the engine. Then remove the climbing plant or the foreign object.  
Operating the weed mower without removing the climbing plant or foreign object could result in a damaged transmission and/or ratchet.
- Do not raise the weed mower by the foot guard bar.
- Do not step on the foot guard bar.

**Child Safety**

- Always keep children indoors and supervised when power equipment is being used nearby. Young children move quickly and are attracted especially to the weed mower and mowing activity.
- Never assume children will remain where you last saw them. Be alert and turn the weed mower off if children enter the area.
- Children should never be allowed to operate the weed mower, even under adult supervision.

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**▲ WARNING****To ensure safe operation****Thrown Object Hazard**

Objects hit by the rotating blade can be thrown from the weed mower with great force, and may cause serious injury.

- Thoroughly inspect the area where the equipment is to be used and remove all objects which may be thrown by the machine (stones, branches, wires, bones, etc...).
- Always inspect the weed mower for damage after striking a foreign object.  
Repair or replace any damaged parts before continued use.
- Pieces thrown from a worn or damaged blade can cause serious injury. Always inspect the blade before using the weed mower.

**Fire and Burn Hazard**

Gasoline is extremely flammable, and gasoline vapor can explode. Use extreme care when handling gasoline. Keep gasoline out of reach of children.

- Store fuel in containers specifically designed for this purpose.
- Refuel outdoors only, and do not smoke while refuelling or handling fuel.
- Add fuel before starting the engine. Never remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot.
- If gasoline is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until gasoline vapors have dissipated.
- Tighten all fuel tanks and container caps securely.



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**▲WARNING****To ensure safe operation**

- Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame, spark or high temperature source.
- Allow the engine to cool before storing in any enclosure.
- To prevent a fire hazard, keep the weed mower clean and free of grass, leaves or excessive grease. Pay special attention to the engine, muffler, upper cutter deck surfaces and the belt and pulley areas. Also pay attention to gasoline storage areas. Do not leave containers of vegetable matter in or near a building.
- If the fuel tank has to be drained, this should be done outdoors, with a cold engine.

**Carbon Monoxide Poisoning Hazard**

Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.

- If you run the engine in an area that is confined or even partially enclosed, the air you breathe could contain a dangerous amount of exhaust gas. To keep exhaust gas from building up, provide adequate ventilation.
- Replace faulty muffler.
- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.

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**⚠ WARNING****To ensure safe operation****Operation on Slope**

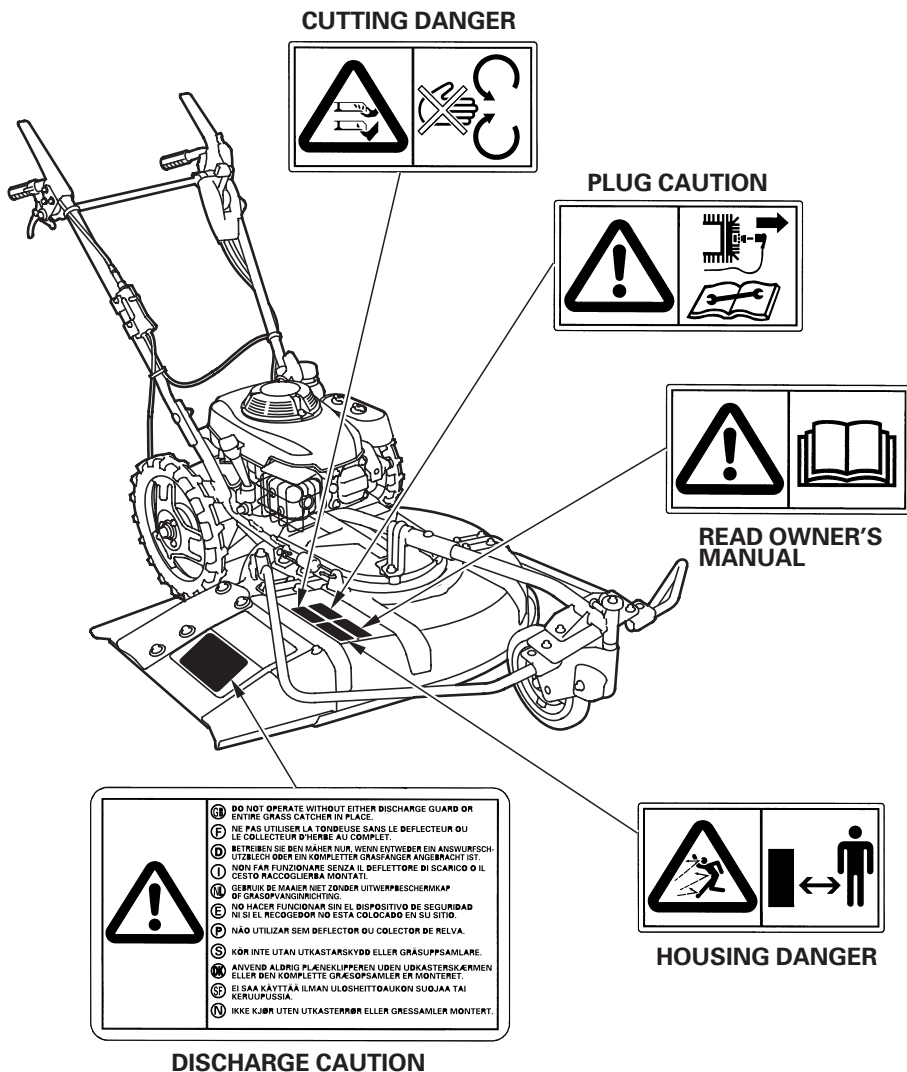
- When mowing on slopes, keep the fuel tank less than half full to minimize fuel spillage.
- Mow across the slope (At equally spaced intervals) rather than up and down it.
- Be very careful when changing the direction of the weed mower on a slope.
- Do not mow slopes of more than 20°.

Before starting the engine, check that the weed mower is not damaged and in good condition. For your safety and the safety of others, exercise extreme care when using the weed mower up or down hill.


## 2. SAFETY LABEL LOCATIONS

Your weed mower must be used with care. Therefore, decals have been placed on the machine, to remind you pictorially of main precautions to take during use. Their meaning is explained below. (see page 3 ).

These decals are considered as a part of the weed mower. Should one become detached or unreadable, contact your Honda dealer for its replacement.





 **L<sub>WA</sub>**  
**98** dB

CE [ ] kW [ ] min-1 [ ]

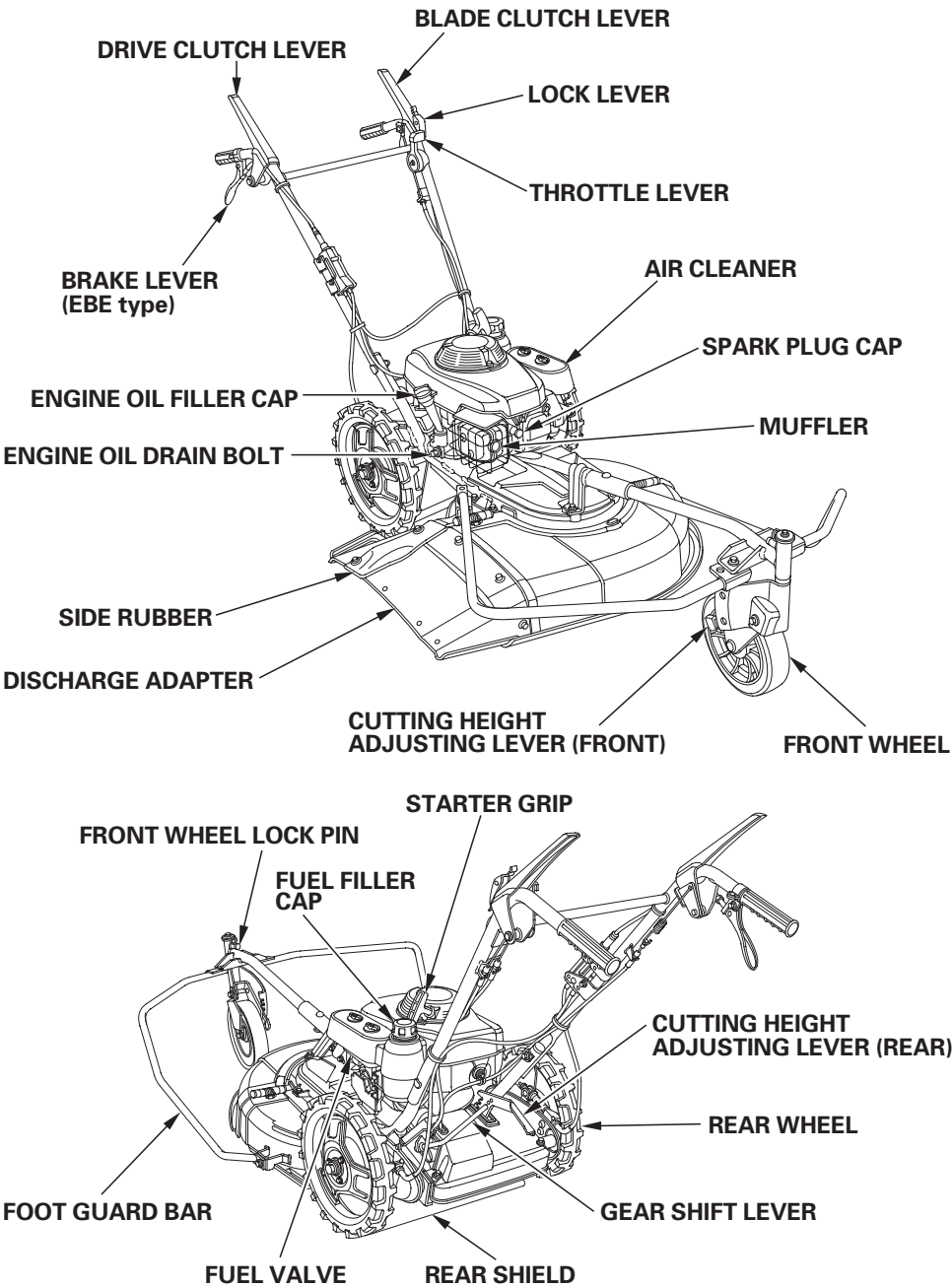
- **Frame serial number**

- **Machine mass**

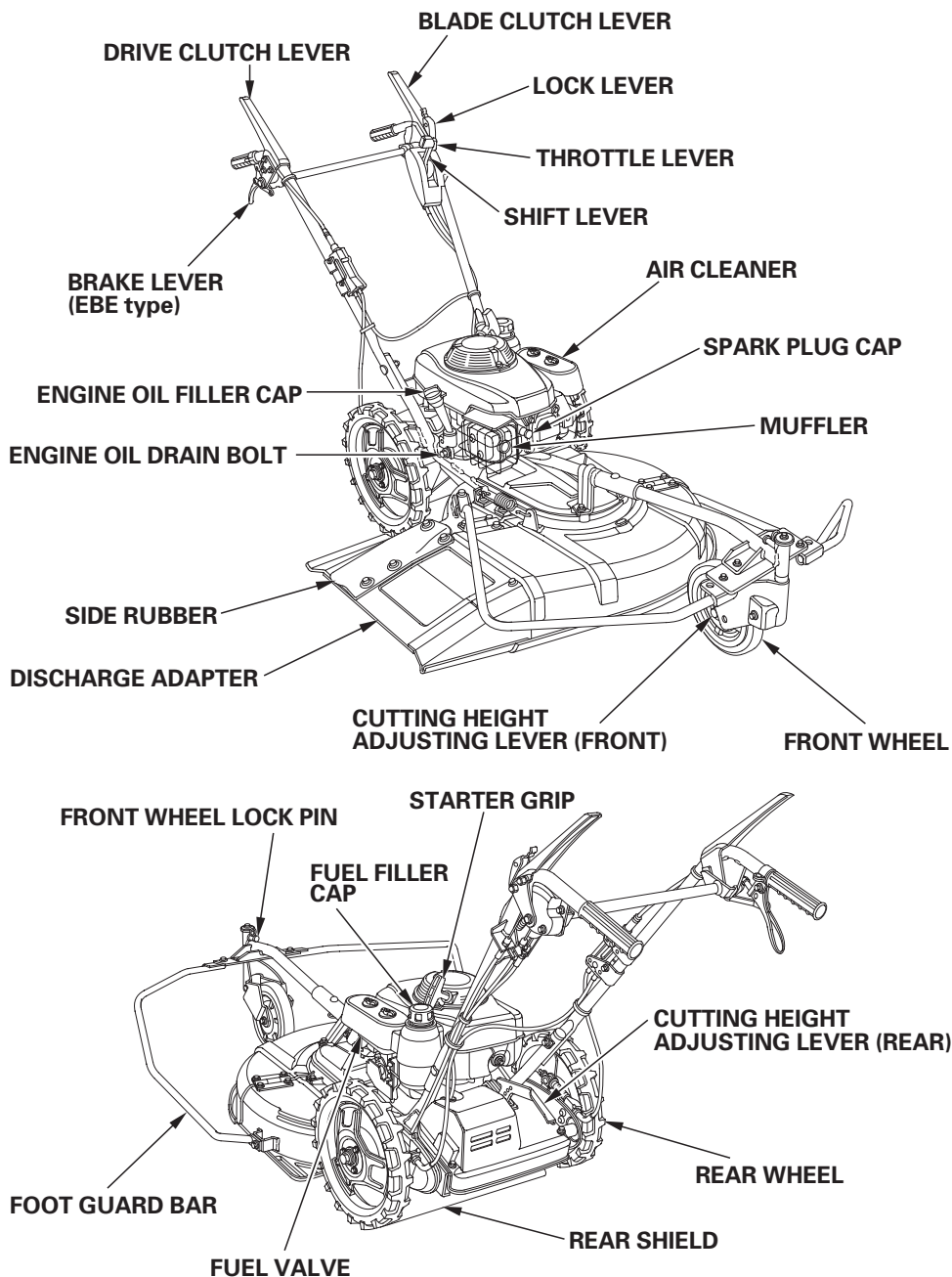
### Discussion

# 3. COMPONENT IDENTIFICATION

UM536:



## UM616:



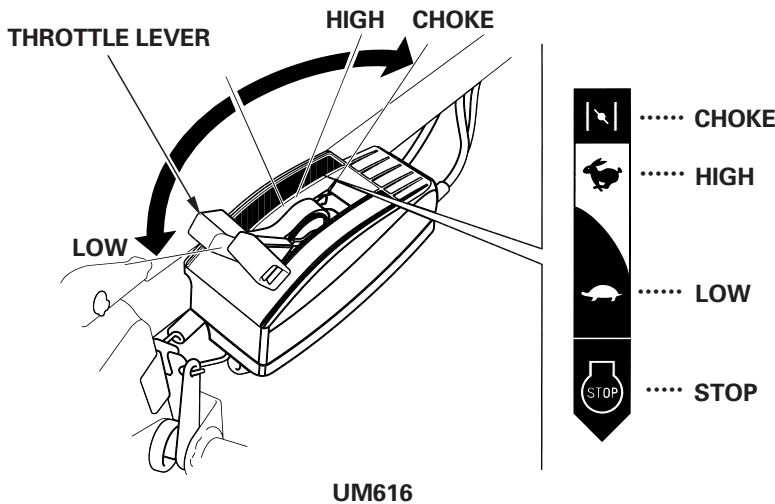
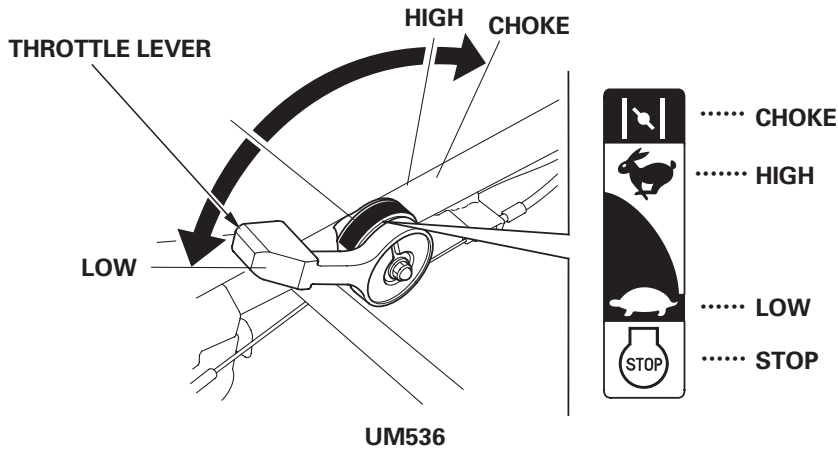
# 4. CONTROLS

## 1. Throttle lever (Engine speed)

The throttle lever controls engine speed from LOW (idle) to HIGH (max. speed).

Use when starting the engine, while operating the weed mower, or when stopping the engine.

CHOKE is for starting a cold engine.



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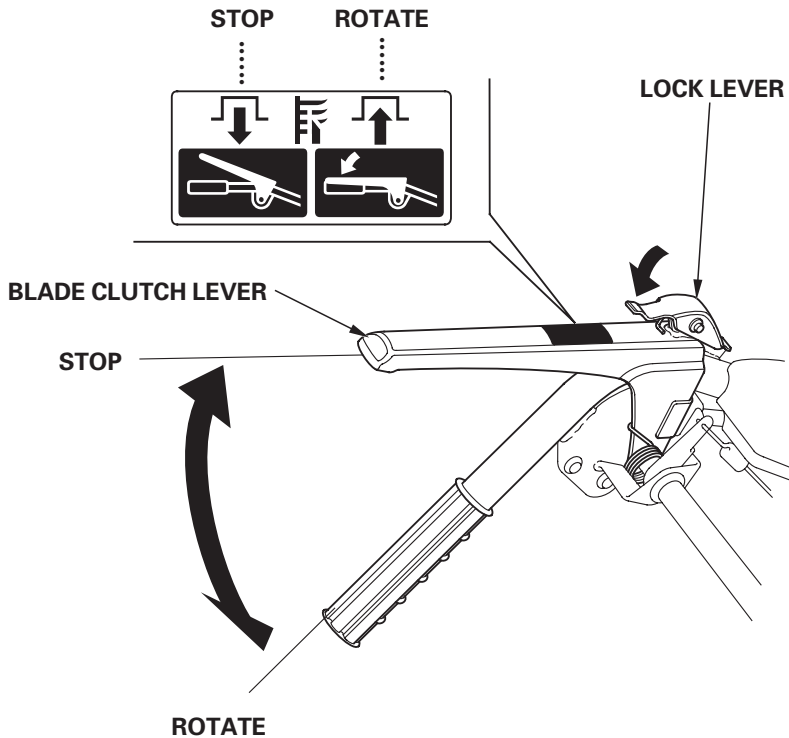
## 2. Blade clutch lever

The blade clutch lever is operated in two ways:

- The blade will start to rotate when the blade clutch lever is squeezed while squeezing the lock lever (yellow mark).
- Releasing the clutch lever will cause the blade to stop rotating, allowing the lock lever to return to the LOCK position automatically.

(UM616)

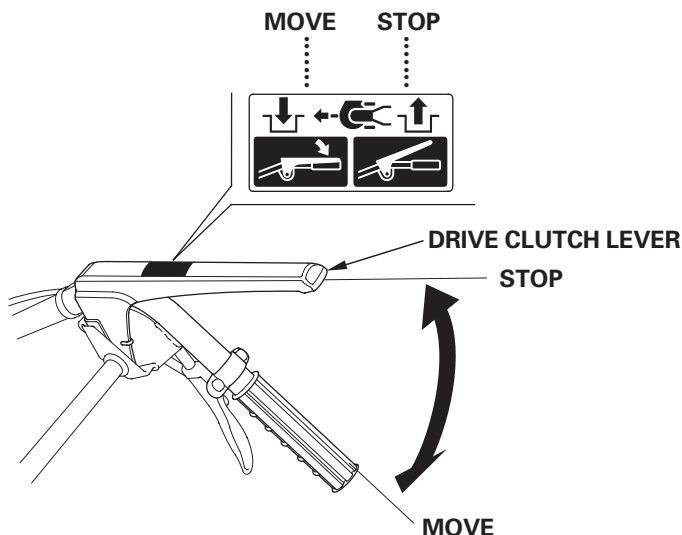
When the drive clutch lever is gripped, the blade clutch lever is locked up. If the blade clutch lever is operated single, it is disengaged when the hand is removed from it.





### 3. Drive clutch lever

The mower will start to move when the drive clutch lever is squeezed and will stop when the lever is released.

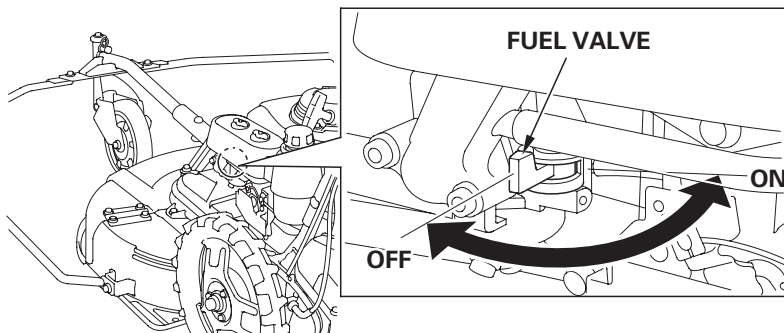


### 4. Fuel valve

The fuel valve is used to open or close the fuel passage from the fuel tank to the carburetor. Always move the lever completely to either the ON or OFF position.

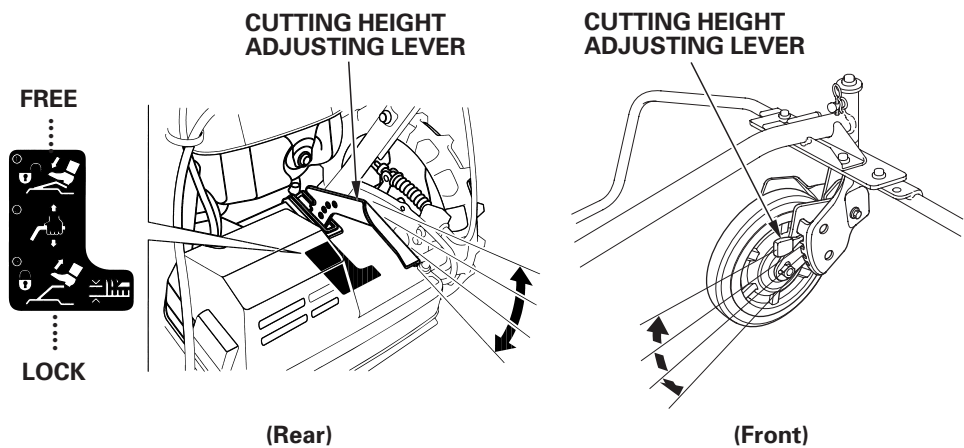
#### CAUTION:

When transporting or storing the weed mower, put the valve in the OFF position to prevent any possibility of fuel leakage.



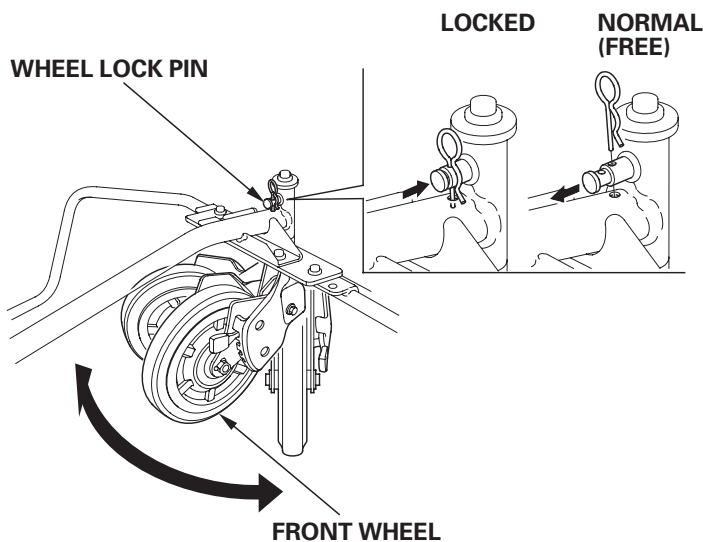
## 5. Cutting height adjusting levers

Cutting height can be adjusted in 4 stages by changing the height of the front and rear wheels. Adjust the cutting height by operating these levers before mowing.



## 6. Front wheel lock pin

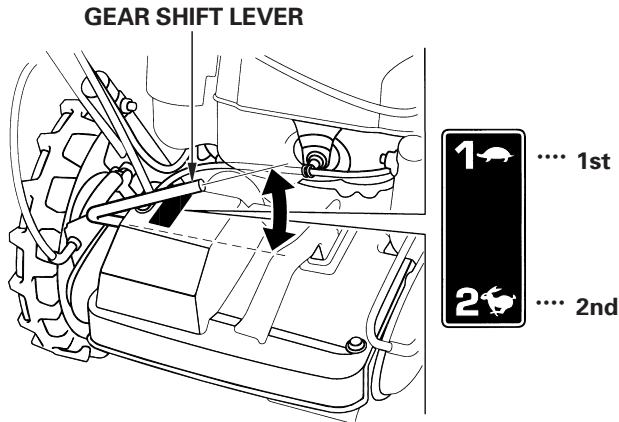
This pin is used to lock the front wheel when mowing on slopes. (see page 35 )



## 7. Gear shift lever (UM536)

This lever is used to change mower speed in forward. It has two positions.

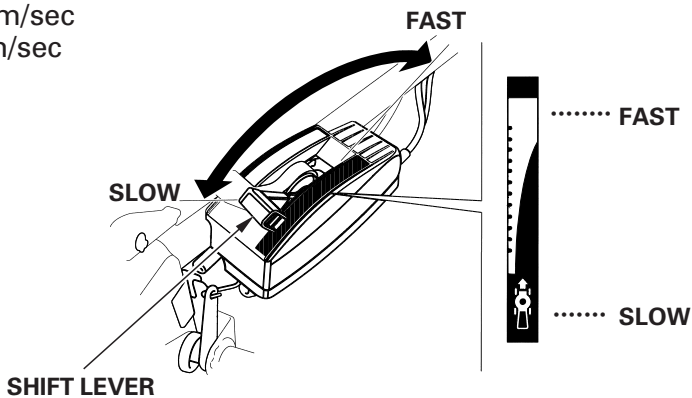
- 1st: 0.5 m/sec
- 2nd: 0.8 m/sec



## 8. Shift lever (UM616)

The shift lever controls the mower's maximum drive speed. Move the shift lever to select the pace at which you normally mow in open areas. If you wish to momentarily slow the mower during operation, partially release the drive clutch lever, then resume your normal speed by squeezing the drive clutch lever. It is not necessary to move the shift lever for momentary speed reduction.

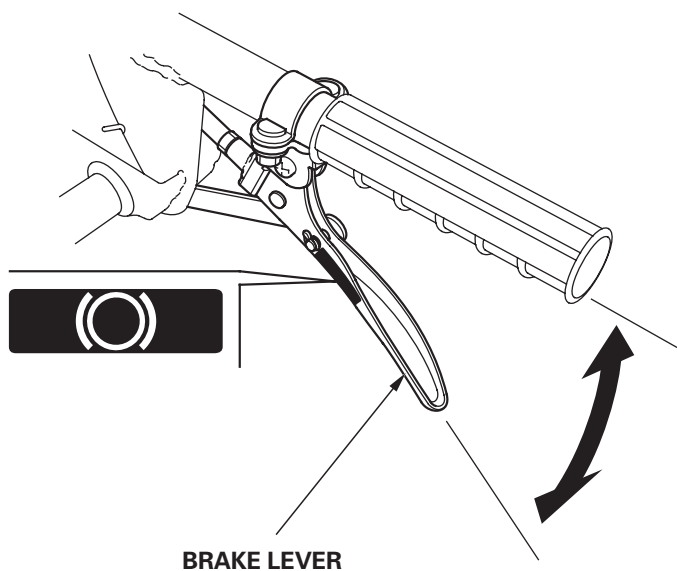
- SLOW: 0.4 m/sec
- FAST: 1.0 m/sec



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# 9. Brake lever (EBE type)

The brake is provided to aid in changing direction or adjusting speed when mowing up and down the face of the grade or driving down a slope.



# 5. PRE-OPERATION CHECKS

For safe and efficient mowing, always make a pre-operation inspection before operating:

**⚠ WARNING**

**Perform a pre-operation inspection on a firm, level surface with the engine stopped and spark plug cap removed from the spark plug.**

**1. Check the engine oil level**

**CAUTION:**  
**Running the engine with low oil level will cause serious engine damage.**

- a. Place the weed mower on a level surface.
- b. Remove the oil filler cap and wipe the dipstick clean.
- c. Insert the dipstick into the oil filler neck, but do not screw it in.
- d. Check the oil level shown on the dipstick. If near the lower level, fill to the upper level with the recommended oil.

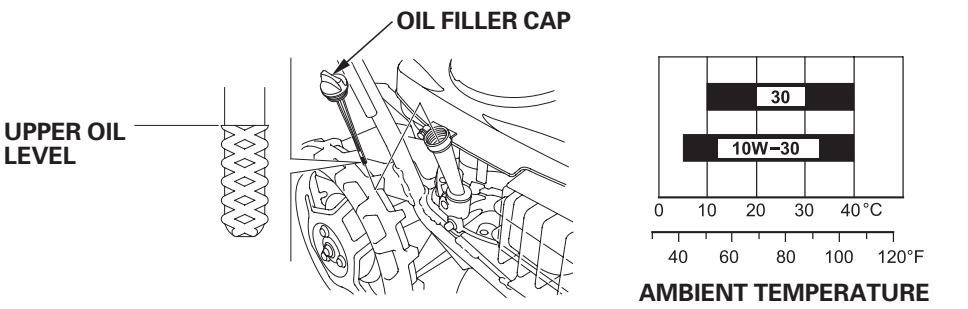
**Recommended oil**

Use 4-stroke motor oil that meets or exceeds the requirements for API service classification SE or later (or equivalent). Always check the API service label on the oil container to be sure it includes the letters SE or later (or equivalent).

SAE 10W-30 is recommended for general use. Other viscosities shown in the chart may be used when the average temperature in your area is within the indicated range.

**CAUTION:**  
**Using nondetergent oil or 2-stroke engine oil could shorten the engine's service life.**

**ENGINE OIL CAPACITY:** 0.65 ℓ (0.69 US qt , 0.57 Imp qt)



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## 2. Check the fuel level

Remove the fuel tank cap and check that the fuel tank is filled to the upper limit of fuel level. If the level is low, fill up the fuel tank to the upper level.

Use automotive unleaded gasoline with a Research Octane Number of 91 or higher (a Pump Octane Number of 86 or higher).

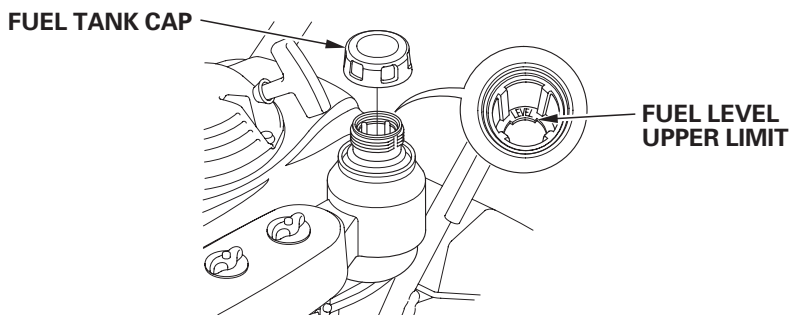
Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt or water in the fuel tank.

### **▲WARNING**

- **Gasoline is extremely flammable and is explosive under certain conditions.**
- **Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.**
- **Do not overfill the fuel tank (there should be no fuel above the fuel level upper limit mark). After refueling, make sure the tank cap is closed properly and securely.**
- **Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.**
- **Avoid repeated or prolonged contact with skin or breathing of vapor. KEEP OUT OF REACH OF CHILDREN.**

### **CAUTION:**

Gasoline substitutes are not recommended; they may be harmful to fuel system components.



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**NOTE:**

Gasoline spoils very quickly depending on factors such as light exposure, temperature and time.

In worst cases, gasoline can be contaminated within 30 days.

Using contaminated gasoline can seriously damage the engine (carburetor clogged, valve stuck).

Such damage due to spoiled fuel is disallowed from coverage by the warranty.

To avoid this please strictly follow these recommendations:

- Only use specified gasoline (see page 21 ).
- Use fresh and clean gasoline.
- To slow deterioration, keep gasoline in a certified fuel container.
- If long storage (more than 30 days) is foreseen, drain fuel tank and carburetor (see page 55 ).

### **Gasolines containing alcohol**

If you decide to use a gasoline containing alcohol (gasohol), be sure it's octane rating is at least as high as that recommended by Honda. There are two types of "gasohol": one containing ethanol, and the other containing methanol. Do not use gasohol that contains more than 10% ethanol. Do not use gasoline containing methanol (methyl or wood alcohol) that does not also contain cosolvents and corrosion inhibitors for methanol. Never use gasoline containing more than 5% methanol, even if it has cosolvents and corrosion inhibitors.

**NOTE:**

- Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol is not covered under the warranty. Honda cannot endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.
- Before buying fuel from an unfamiliar station, try to find out if the fuel contains alcohol, if it does, confirm the type and percentage of alcohol used. If you notice any undesirable operating symptoms while using a gasoline that contains alcohol, or one that you think contains alcohol, switch to a gasoline that you know does not contain alcohol.

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### 3. Check the air cleaner elements

#### **CAUTION:**

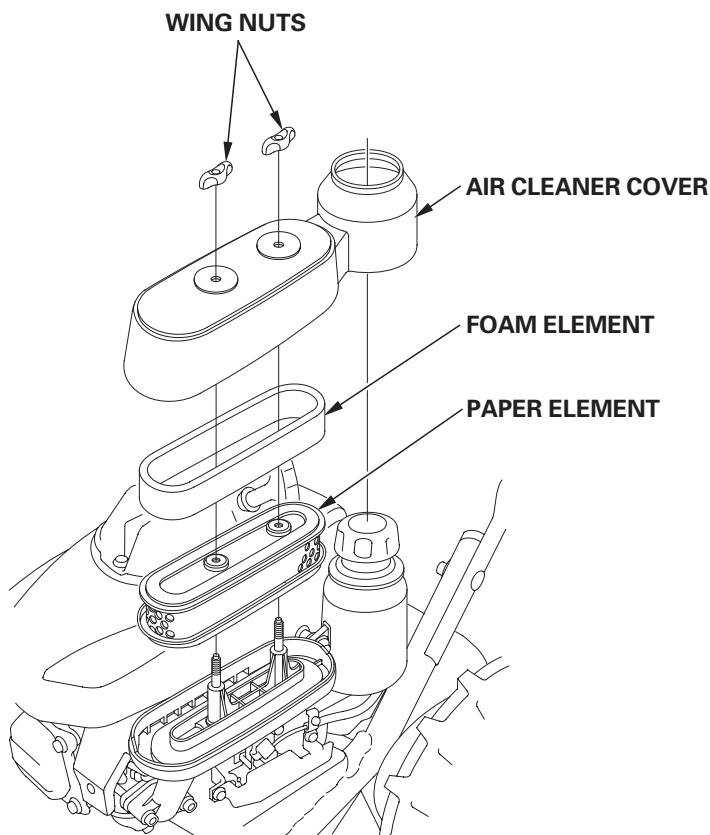
**Never run the engine without the air cleaner; rapid engine wear will result.**

1. Remove the wing nuts to remove the air cleaner cover.
2. Remove the air cleaner elements.

If the elements are dirty, follow the cleaning procedure described on page 44.

#### **CAUTION:**

**After servicing the air cleaner elements, reinstall the air cleaner cover securely. Failure to tighten the cover securely may cause the cover to come out of position or some sort of engine malfunction.**





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## 4. Check the cutting blade

Before each use, check the cutter blade for damage or excessive wear.

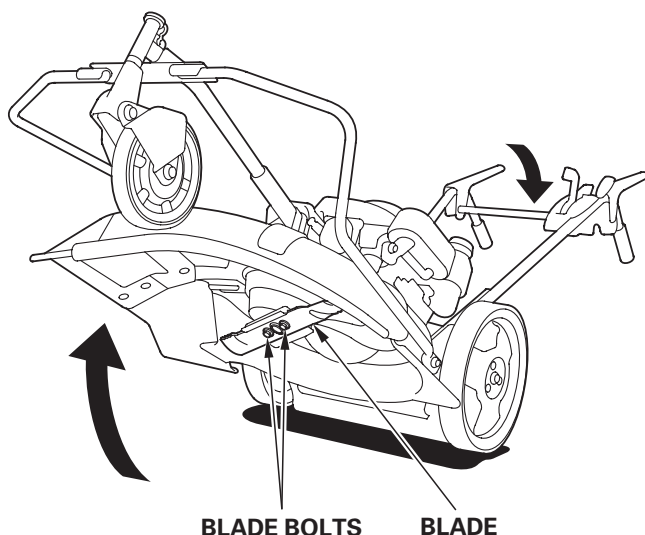
### **⚠ WARNING**

**To avoid severe personal injury, disconnect the spark plug cap to prevent accidental starting, and wear heavy gloves to protect your hands from the cutter blade.**

1. Stop the engine and set the fuel valve in the OFF position.
2. Remove the spark plug cap from the spark plug.
3. Set the rear cutting height adjusting lever in the HIGHEST position, then tilt the mower backward.

### **CAUTION:**

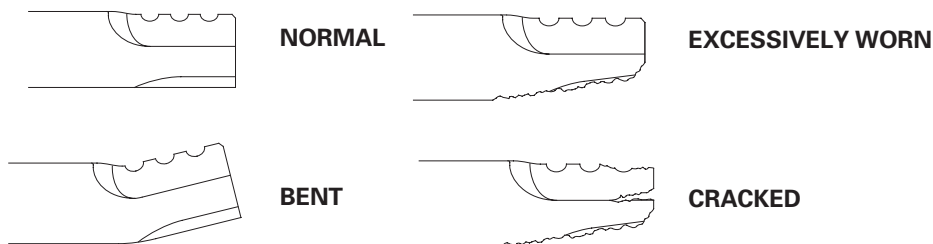
- Perform this operation with two people, with one person holding the handle securely.
- Do not leave the mower tilted for an extended period of time, or the engine may not be started easily.



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4. Inspect the blade for signs of wear or damage.

A dull blade can be sharpened, but a blade that is worn out, bent, cracked, or otherwise damaged must be replaced. If the blade needs sharpening or replacement, take the cutter deck to your authorized Honda weed mower dealer. Or, if you have the proper tools, you can remove and install the blades yourself. (see blade removal and installation instructions on pages 45, 46).



**⚠ WARNING**

**Severe personal injury can result if a piece of blade breaks off and is thrown from under the cutter deck.**

- **Never operate the weed mower with a worn or damaged blade.**
- **Never operate the weed mower with a blade that is cracked or notched at the base of its upturned rear edge.**

**CAUTION:**

- **Use a genuine Honda replacement blade, or equivalent.**
- **To reduce the possibility of weakening the blade, or causing imbalance or poor cutting performance, sharpening should be performed by an authorized Honda weed mower dealer.**

**NOTE:**

Blade wear will be accelerated when operating the mower in conditions where sand or loose soil are present. Frequent blade inspection should be performed when a mower is operated under these conditions.

5. Check that the blade bolts are properly tightened.

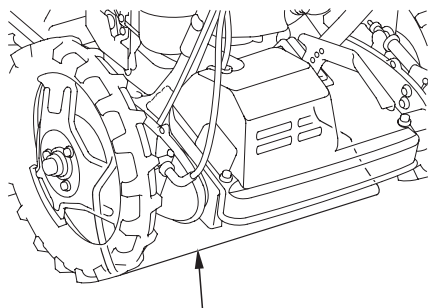
**Blade bolt torque:** 54 N·m (5.5 kgf·m , 40 lbf·ft)

## 5. Check all protectors and guards

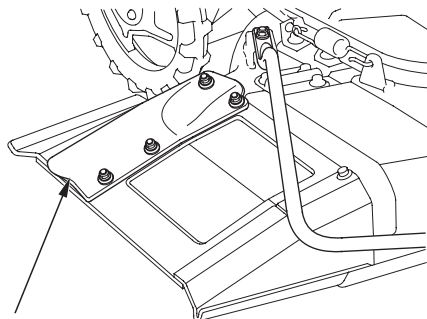
1. Inspect the protectors and guards to be sure that they are correctly installed and are not damaged. If a protector or guard is damaged, replace it before using the weed mower.

### **⚠ WARNING**

**Never use the weed mower without its protector. Stones or other foreign objects thrown outward by the cutting blades could cause personal injury or property damage.**



**REAR SHIELD**

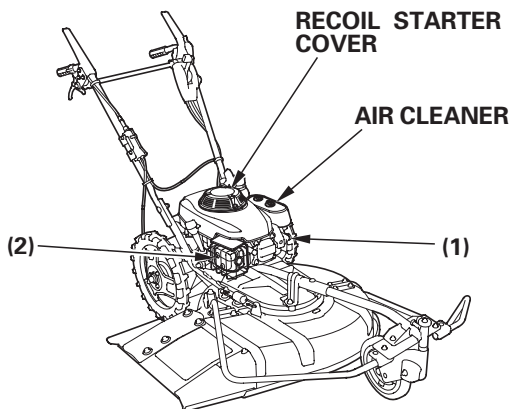


**SIDE PROTECTOR**

## 6. Inspect and clean as necessary

Inspect the weed mower (particularly the specified portions shown below) to see if cut grass or dirt is adhering to it. If the weed mower is dirty, clean it thoroughly.

- (1) Carburetor and control mechanism
- (2) Vicinity of muffler and exhaust port

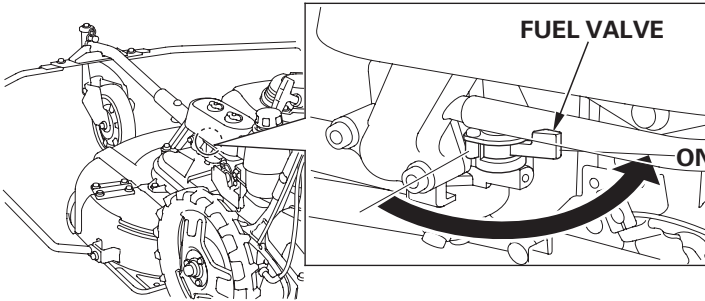


## 6. STARTING THE ENGINE

### ⚠ WARNING

Exhaust gas contains poisonous carbon monoxide. Never run the engine in an enclosed area. Be sure to provide adequate ventilation.

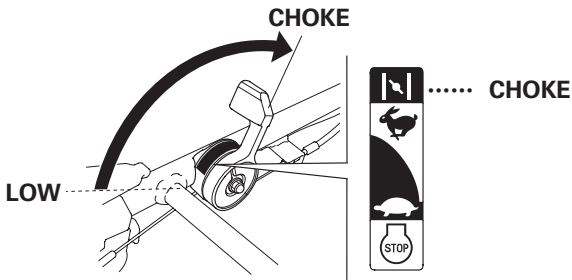
1. Be sure the blade clutch lever and drive clutch lever are released.
2. Turn the fuel valve ON.



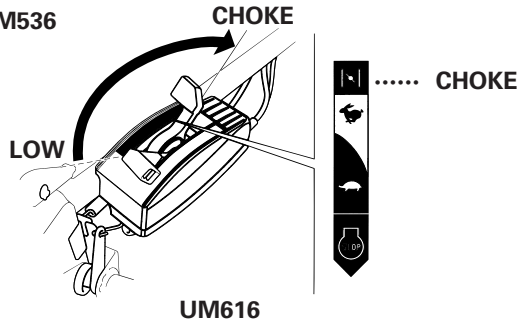
3. Move the throttle lever to the CHOKE position.

### NOTE:

When the engine is warm or the air temperature is high, move the throttle lever to LOW.

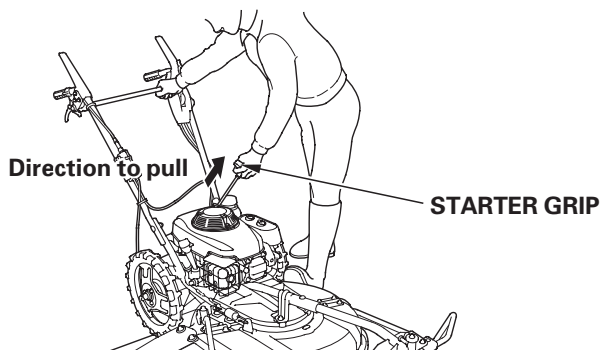


UM536



UM616

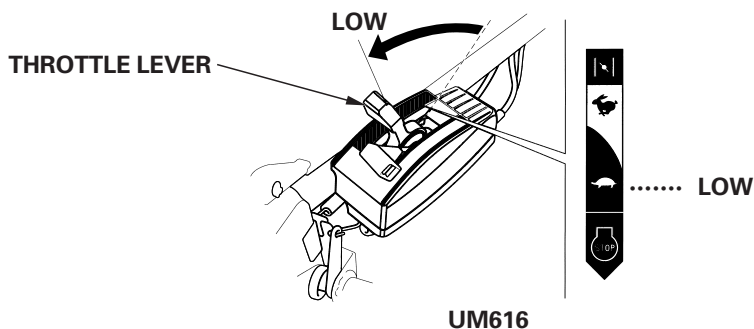
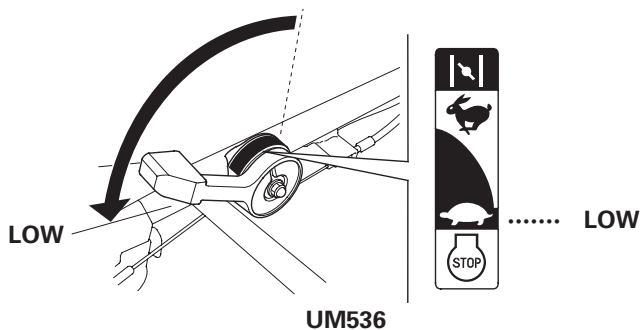
4. Pull the starter grip lightly until you feel resistance, then pull briskly in the direction of the arrow as shown below.



**CAUTION:**

Don't allow the rope to snap back; return it gently by hand. Otherwise, the starting mechanism might be damaged. While the engine is in operation, don't pull the starter grip or damage may result.

5. As the engine warms up, move the throttle lever to the LOW position.



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## High altitude operation

At high altitude, the standard carburetor air-fuel mixture will be excessively rich. Performance will decrease, and fuel consumption will increase.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate the rotary mower at altitude higher than 1,500 m (5,000 feet) above sea level, have your authorized Honda dealer perform these carburetor modifications.

Even with suitable carburetor jetting, engine horsepower will decrease approximately 3.5 % for each 300 m (1,000 foot) increase in altitude. The effect of altitude on horsepower will be greater than this if no carburetor modification is made.

### **CAUTION:**

**Operation of the rotary mower at an altitude lower than the carburetor is jetted for may result in reduced performance, overheating, and serious engine damage caused by an excessively lean air/fuel mixture.**

## 7. OPERATION

---

### 1. Cutting height adjustment.

#### CAUTION:

- **Before adjustment, be sure to stop the engine.**
- **Before moving the weed mower from one place to another, stop the engine and raise the cutting height to the highest position.**

Cutting height can be adjusted in 4 stages by operating the front and rear cutting height adjusting levers; 15 mm, 30 mm, 50 mm and 75 mm. (Cutting height is subject to change according to the condition of the ground surface.)

#### NOTE:

Adjust the front and rear cutting height adjusting levers to the same position. Failure to adjust the levers to the same position can result in loss of control or uneven finish of cutting.

#### CAUTION:

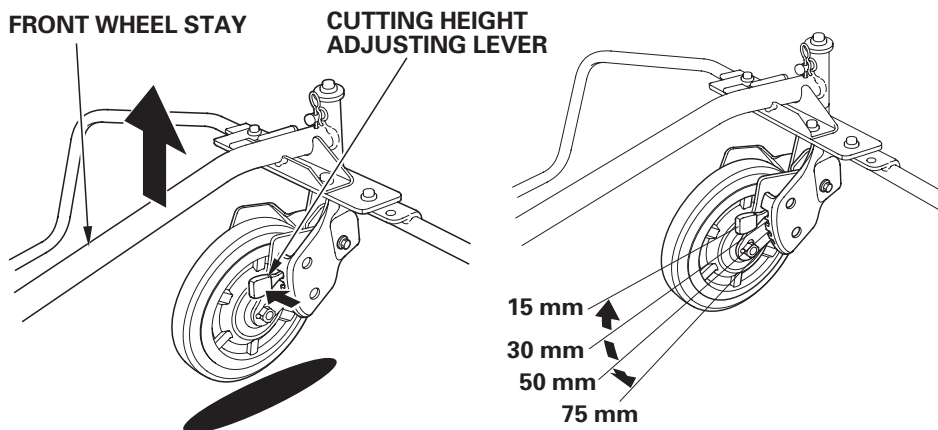
**Stop the engine before adjusting the cutting height.**

#### Front wheel:

Raise the front wheel slightly off the ground by pulling up on the front wheel stay to support weight of the mower, before setting the cutting height adjusting lever to the desired position.

#### CAUTION:

**The front part of the mower will be snapped back to the lowest position by the weight of the mower on the wheel if the weight is not supported, resulting in personal injury.**

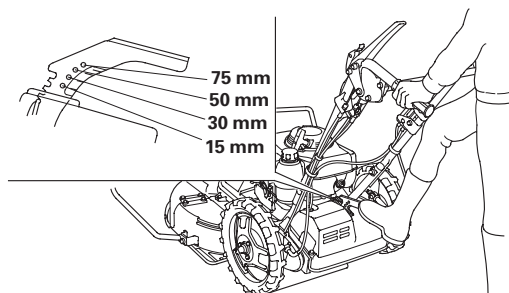


## Rear wheels:

Move the handle up or down until the correct cutting height is obtained while pressing down on the cutting height adjusting lever fully.

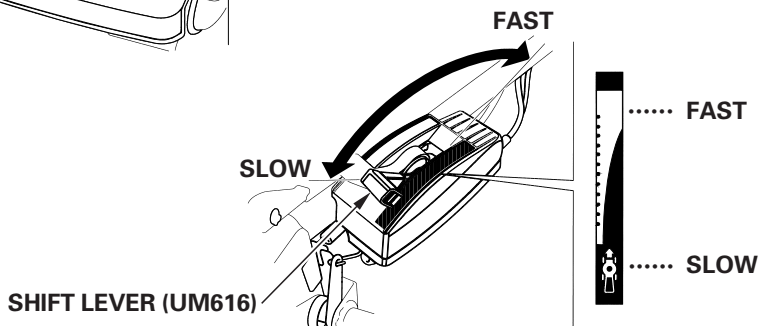
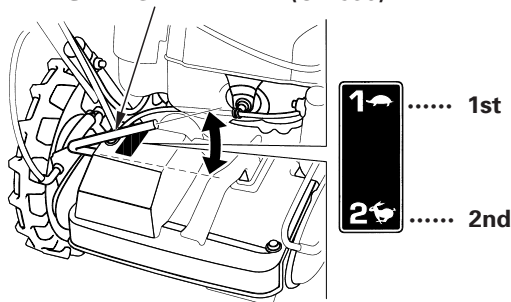
## CAUTION:

- Be sure to hold the handle with both hands when operating the cutting height adjusting lever. The rear of the mower will be snapped back to the lowest position if the handle is not held by hand.
- Do not perform this operation on slopes or on loose or uneven surfaces.



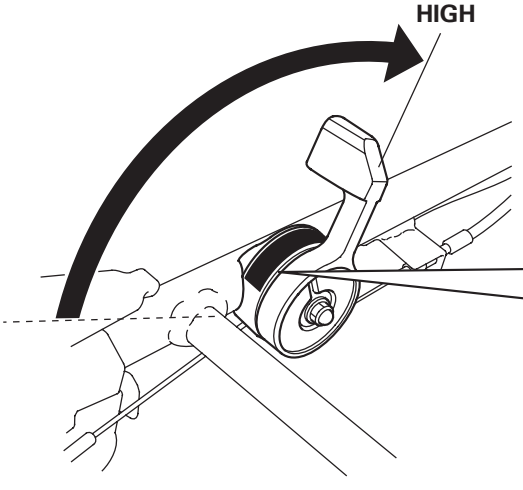
2. Move the shift lever to the desired shift lever position.

## GEAR SHIFT LEVER (UM536)

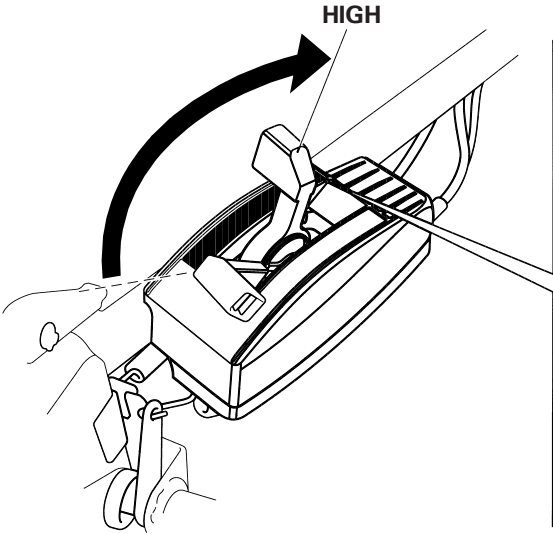




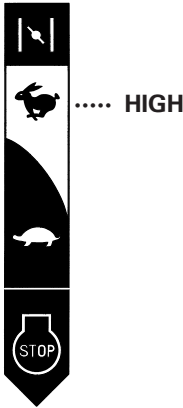
3. Move the throttle lever to the HIGH position.



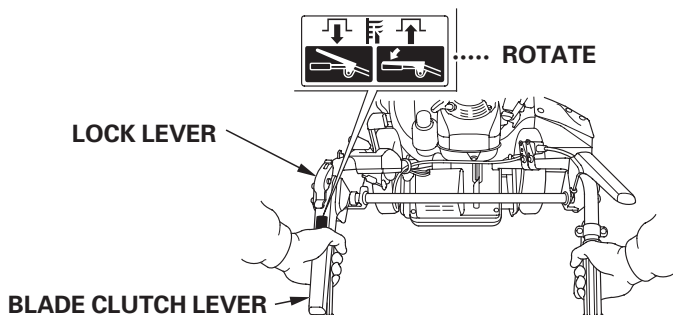
UM536



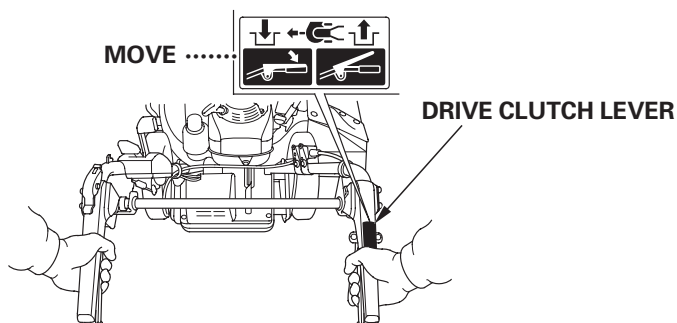
UM616



4. Unlock the lock lever then squeeze the blade clutch lever.



5. Squeeze the drive clutch lever.

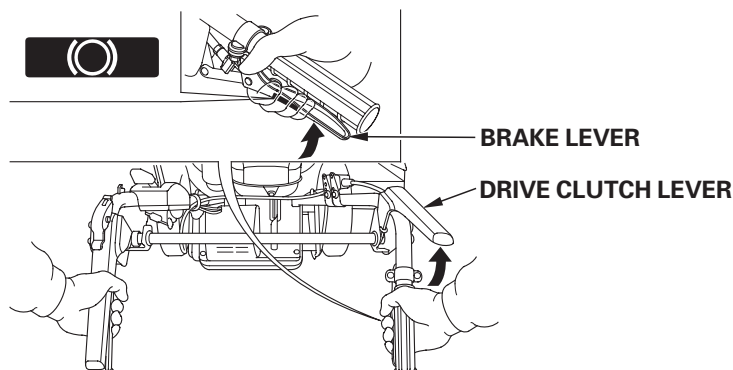


**NOTE:**

- By squeezing the drive clutch lever, the blade clutch lever will be fixed and you can operate it without holding the blade clutch lever with your right hand. The blade and mower will stop moving when the drive clutch lever is released. (UM616)
- To move the machine without engaging the cutting blade mechanism, squeeze the drive clutch lever only. Do this when moving the machine to and from the area to be moved.
- To use the cutting blades without engaging the drive mechanism, squeeze the blade clutch only. Do this if you wish to maneuver the machine manually while mowing.
- To propel the machine and mow at the same time, squeeze the blade clutch lever, let the blade come up to speed, and then squeeze the drive clutch lever.
- When running the mower in one hand, do not walk along with your body stepped out of the right side of the weed mower.

6. To stop the blades and drive wheels, release both clutch levers.

- 
7. To stop the mower on a down slope, release the drive clutch lever and squeeze the brake lever (EBE type only).



**NOTE:**

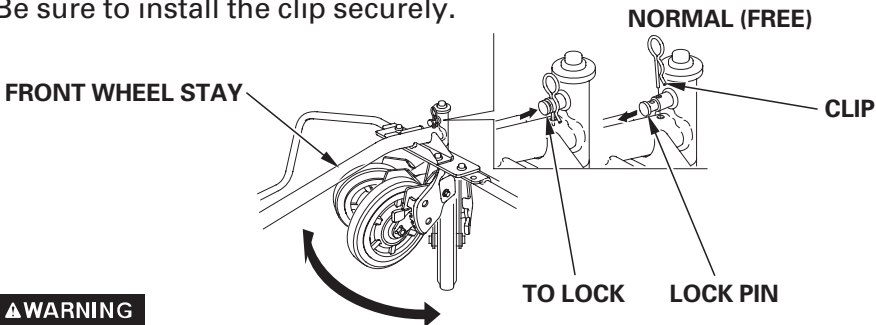
- Be sure to disengage the drive clutch before applying the brake. Damage to the transmission mechanism could result if the brake and drive clutch levers are operated simultaneously. On EBE type the driver clutch will be disengaged automatically when the brake lever is operated. Should the drive clutch be disengaged automatically, release the drive clutch lever once, then squeeze it, to drive again.
- Severe damage to the transmission mechanism would result if the mower is started with the brake lever applied.
- Be sure to disengage the drive clutch before the mower starts to go down a slope. Then adjust speed by operating the brake lever carefully.

### On slopes

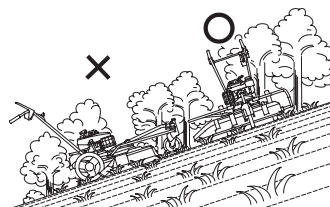
When mowing on a slope, be sure to lock the front wheel securely with the wheel lock pin so that it cannot move from side to side. To ease mowing on a slope, it is recommended to equip an optional brake system (EE type) or to use a mower that is equipped with the system as standard (EBE type).

To lock the wheel:

Position the front wheel so it is right beneath the wheel stays. Remove the clip and press the lock pin into place. If difficulty is encountered in inserting the lock pin, move the wheel right or left to align the pin hole. Be sure to install the clip securely.



- When mowing on a slope, cut across the slope (at equally spaced intervals) rather than up and down it.
- Be very careful when changing the direction of the weed mower on a slope.
- Do not use the weed mower on a slope of more than 20°.
- Always reduce speed on a slope.
- On an ascending slope, it may happen that the mower does not go back, due to locking of wheels, even if the drive clutch lever is released. In this case, unlock the wheels by slightly pressing the mower forward. If you are not careful doing this, the mower may move abruptly causing you danger.



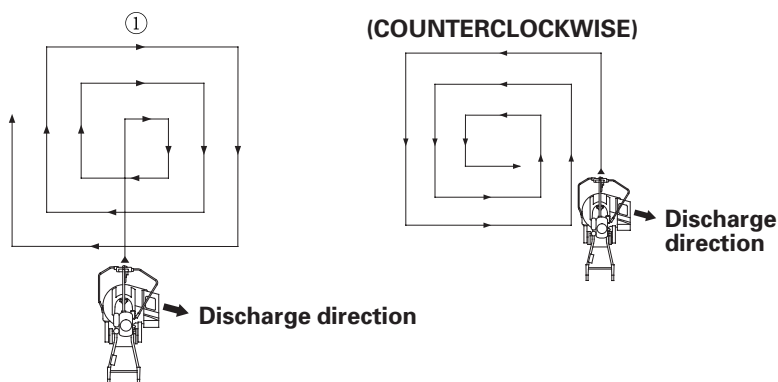
- When mowing on an uneven surface, always reduce the ground speed, grip the mower's handles firmly and watch your step.

## <Cutting pattern>

In order to discharge the cuttings as efficiently as possible, use one of the following recommended patterns.

### ① (CLOCKWISE)\*

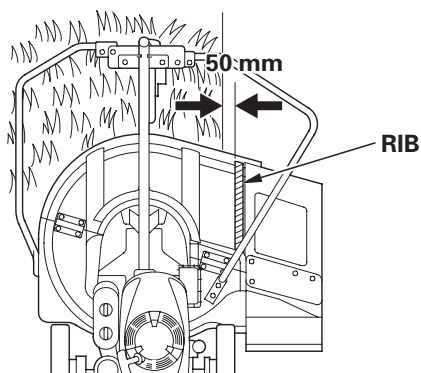
- \* When using this pattern, the mower will begin to discharge the cuttings more efficiently after it has cleared the central area.



When mowing under a tree, or near a fence or hedge, only grip the blade clutch lever and push the mower by hand.

## <Cutting width>

The mower will cut well up to a point 50 mm from the rid on the housing. Use this point as a guideline for lining up the mower with the area you want to cut thoroughly.



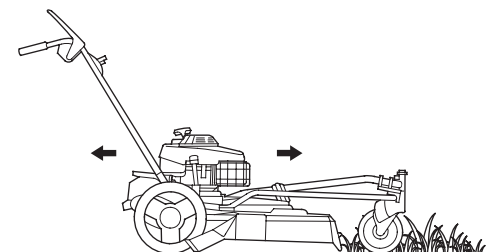
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**NOTE:**

When mowing, it is important to keep the blade turning rapidly. Be sure to take the type of grass and the nature of the terrain into account when selecting engine speed and transmission settings.

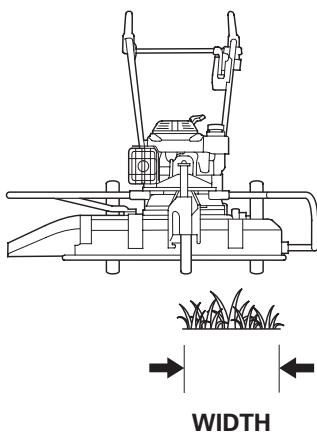
If the engine slows down while mowing, use one of the following procedures.

- Release the drive clutch lever, and wait for the engine to regain operating speed before proceeding.

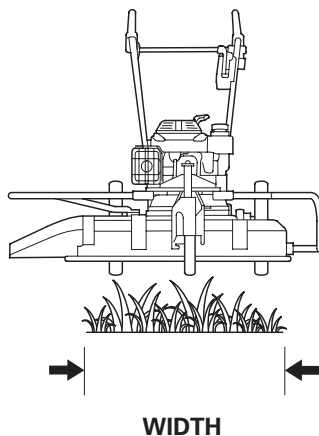


- Push the mower by hand at a speed that will not cause the engine to slow down.
- Reduce the width of the cutting path.

**Example      Half cutting width**



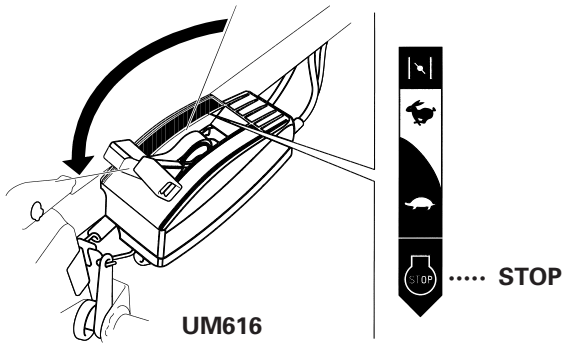
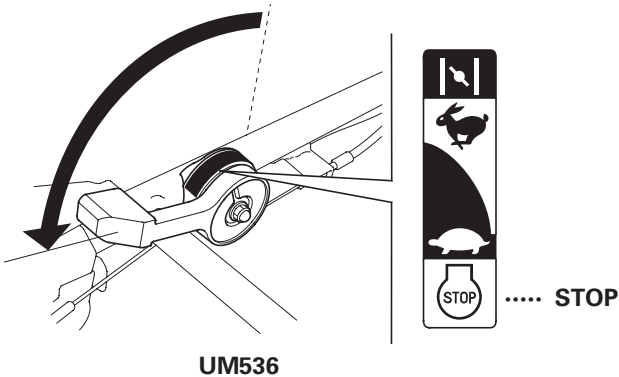
**Full cutting width**



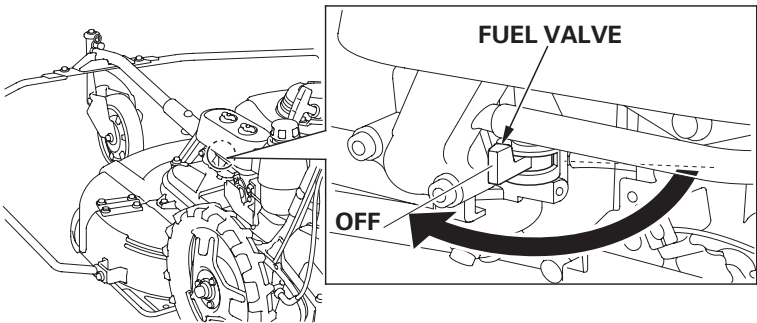
- Increase the cutting height (See page 30 – 31).

# 9. STOPPING THE ENGINE

- 1. Release both clutch levers.
- 2. Move the throttle lever to STOP.



- 3. Move the fuel valve to the OFF position.



### **⚠ WARNING**

**Before performing any maintenance, stop the engine and remove the spark plug cap to be certain the engine will not start accidentally.**

### **CAUTION:**

**Use only genuine Honda parts or their equivalent for maintenance or repair. Replacement parts which are not of equivalent quality may damage the mower.**

Periodic inspection and adjustment of the Honda UM536/UM616 are essential if high level performance is to be maintained. Regular maintenance will also help to extend service life. The required service intervals and the kind of maintenance to be performed are described in the chart on the following page.

For longer service and efficiency, keep the underside of the mower housing clean and free of accumulated grass clippings by washing it down with a hose after use and/or cleaning it with a wire brush and scraper.



# Maintenance schedule

REGULAR SERVICE PERIOD (3) ITEM Perform at every indicated month or operating hour interval, whichever comes first.		Each Use	First Month or 20 Hrs.	Every 3 Months or 50 Hrs.	Every 6 Months or 100 Hrs.	Every Year or 200 Hrs.
Engine oil	Check level	○				
	Change		○		○	
Transmission oil (UM616)	Check level					○ (2)
	Change	Every 1000 hrs. (2)				
Air cleaner	Check	○				
	Clean			○ (1)		
	Replace					○
Blade and blade holder bolt tightness check blade condition	Check	○				
Side protector rubber	Check	○				
Side rubber & discharge adaptor	Check	○				
Rear protector rubber	Check	○				
Outer surface under housing	Clean	○				
Blade belt	Check-adjust				○ (2)	
Blade clutch cable	Check-adjust				○	
Drive clutch cable (UM536)	Check-adjust				○	
Shift cable (UM616)	Check-adjust		○		○	
Throttle cable	Check-adjust				○ (2)	
Brake cable (Brake type)	Check-adjust		○		○	
Drive clutch lever cancel system (Brake type)	Check-adjust				○ (2)	
Brake drum and brake shoe lining wear (Brake type)	Check					○ (2)
Spark plug	Check-adjust				○	
	Replace					○
Spark arrester (optional parts)	Clean				○	
Idle speed	Check-adjust					○ (2)
Valve clearance	Check-adjust					○ (2)
Combustion chamber	Clean	After every 250 hrs. (2)				
Fuel tank & filter	Clean					○ (2)
Fuel line	Check	Every 2 years (Replace if necessary)(2)				

- (1)Service more frequently when used in dusty areas.
- (2)These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to Honda shop manual for service procedures.
- (3)For commercial use, log hours of operation to determine proper maintenance intervals.

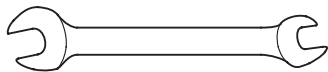
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# Tool kit

The tools supplied are necessary for performing some periodic maintenance, simple adjustments and repairs.



**SPARK PLUG WRENCH**



**10 × 12 mm WRENCH**

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## 1. Engine oil change

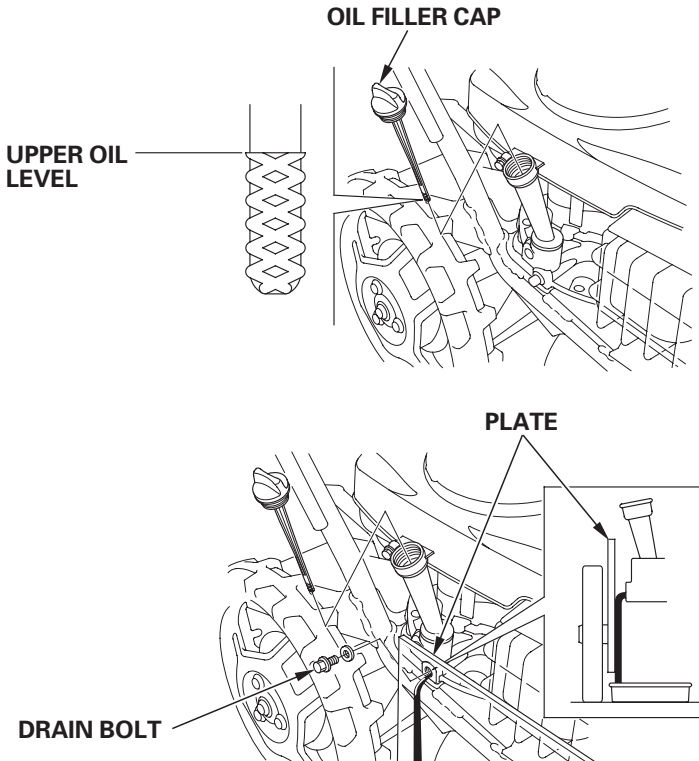
### NOTE:

- Drain the oil while the engine is still warm to assure rapid and complete draining.
- Before draining the oil, set the cutting height adjusting levers in the highest position. Do not let the oil spill onto the rubber tires. Cover the tires with a rag or wooden plate if necessary.

1. Remove the oil filler cap and the drain bolt, and drain the oil into a suitable container.
2. Retighten the drain bolt securely.
3. Refill to the upper level mark on the dipstick with the recommended oil (see page 20 ). Tighten the oil filler cap securely.

**ENGINE OIL CAPACITY:** 0.65 ℓ (0.69 US qt , 0.57 Imp qt)

Wash your hands with soap and water after handling used oil.



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**NOTE:**

Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station for reclamation. Do not throw it in the trash or pour it on the ground.

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## 2. Air cleaner service

A dirty air cleaner will restrict air flow to the carburetor. To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the mower in extremely dusty areas.

### **⚠ WARNING**

**Never use gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.**

### **CAUTION:**

**Never run the engine without the air cleaner. Rapid engine wear will result.**

#### Inspection:

Remove the elements from their holder. Separate the foam and paper elements of the engine side filter.

Carefully check the elements for holes or tears and replace if damaged.

#### Cleaning:

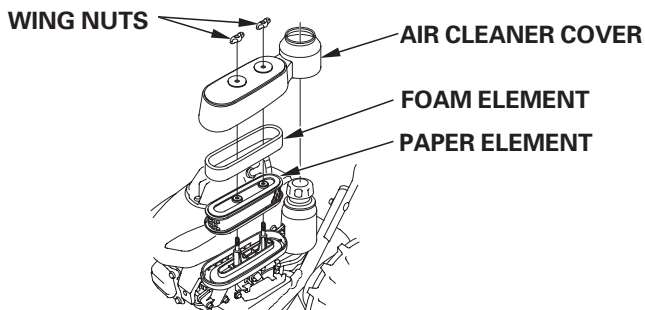
##### Foam element

Clean in warm soapy water, rinse and allow to dry thoroughly. Or clean in high flashpoint solvent and allow to dry. Dip the element in clean engine oil and squeeze out all the excess. The engine will smoke during initial startup if too much oil is left in the foam.

##### Paper element

Tap the element lightly several times on a hard surface to remove excess dirt, or blow compressed air through the filter from the inside out. Never try to brush the dirt off; brushing will force dirt into the fibers.

If you cannot unclog the element with the above procedure, replace it.



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### 3. Blade replacement

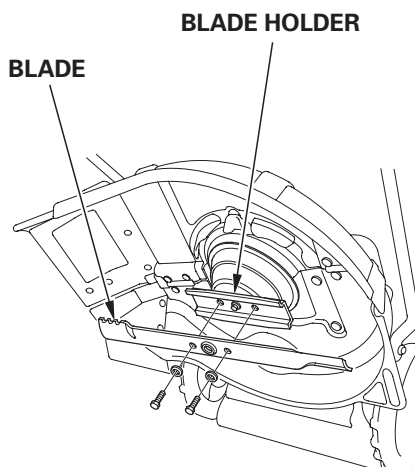
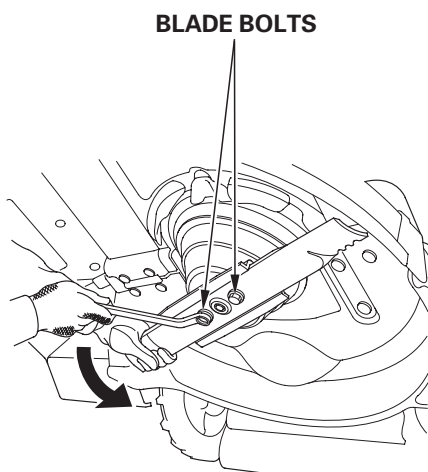
#### **⚠ WARNING**

To avoid severe personal injury, disconnect the spark plug cap to prevent accidental starting, and wear heavy gloves to protect your hands from the cutter blade.

#### **Removal:**

1. Tilt the mower backward (see page 24 ).
2. Hold the blade firmly, and remove the two blade bolts.
3. Remove the blade.

The illustrations show the mower with the blade bolt positions and with the bolts removed.

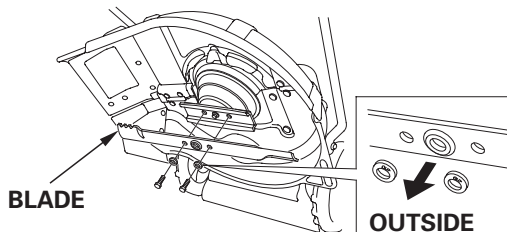


## Installation:

### CAUTION:

**Use a genuine Honda replacement blade or equivalent.**

1. Clean dirt and grass from the blade, blade holder, and the inside of the mower deck.
2. Install the blade as described below.



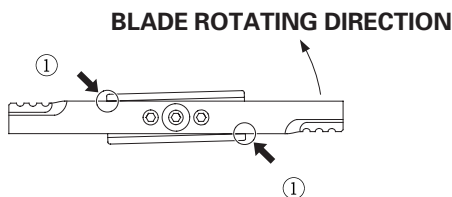
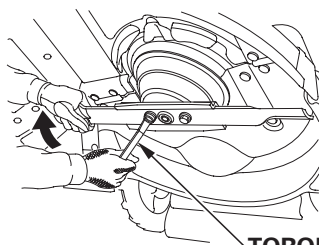
### CAUTION:

**The blade bolts are specially designed for this application and must not be replaced with any other bolts.**

3. Hold the end of the blade by hand, tighten the blade bolts to the specified torque.

**Blade bolt torque:** 54 N·m (5.5 kgf·m , 40 lbf·ft)

- (1) (There should be no clearance between the blade and blade holder at the ① points indicated by arrows)



4. After installing the blade, check that it does not interfere with the housing. If the blade contacts the housing, consult your authorized Honda mower dealer.

### ⚠ WARNING

**A bent blade can be the cause of serious personal injury or accident.**

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## 4. Spark plug service

**Recommended spark plug:** BPR5ES (NGK)  
W16EPR-U (DENSO)

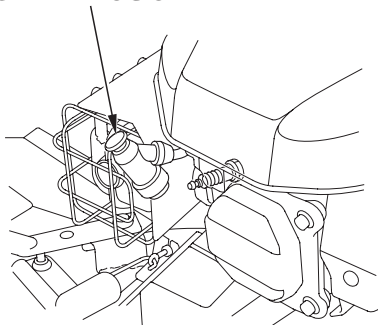
To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

### **⚠ WARNING**

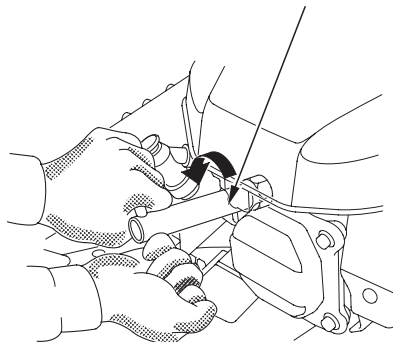
**If the engine has been running, the muffler will be very hot, be careful not to touch the muffler.**

1. Remove the spark plug cap.
2. Clean any dirt from around the spark plug base.
3. Use a spark plug wrench to remove the spark plug.

**SPARK PLUG CAP**



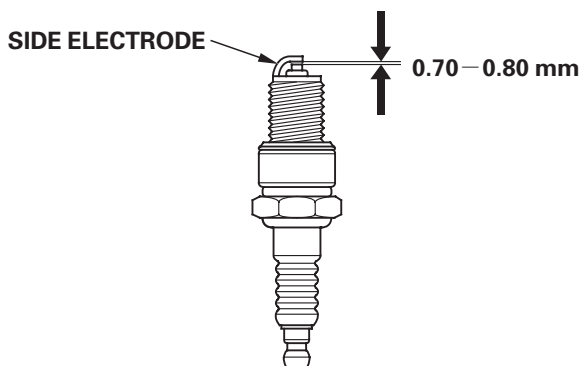
**SPARK PLUG WRENCH**



4. Visually inspect the spark plug. Discard it if there is apparent wear or the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.



- 
5. Measure the plug gap with a feeler gauge.  
Correct as necessary by carefully bending the side electrode.  
The gap should be: 0.70–0.80 mm (0.028–0.031 in)



6. Thread the plug in by hand to prevent cross threading.
7. After a new spark plug has been seated by hand, it should be tightened 1/2 turn with a wrench to compress its washer.  
If a used plug is being reinstalled, it should only require 1/8 to 1/4 turn after being seated.

**CAUTION:**

- **The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the engine.**
- **Never use a spark plug with an improper heat range.**

## 5. Blade clutch cable check and adjustment

The blade drive belt will slip on the pulleys, or the blade clutch will not be disengaged (the blades will not be stopped even if the clutch is disengaged) if the blade clutch cable is not adjusted properly.

### CAUTION:

**Adjust the cable when the lock lever is not returned to the LOCK position completely. Premature belt life will result due to slippage when the weed mower is operated with the lock lever not returned to the LOCK position completely.**

(Inspection and adjustment)

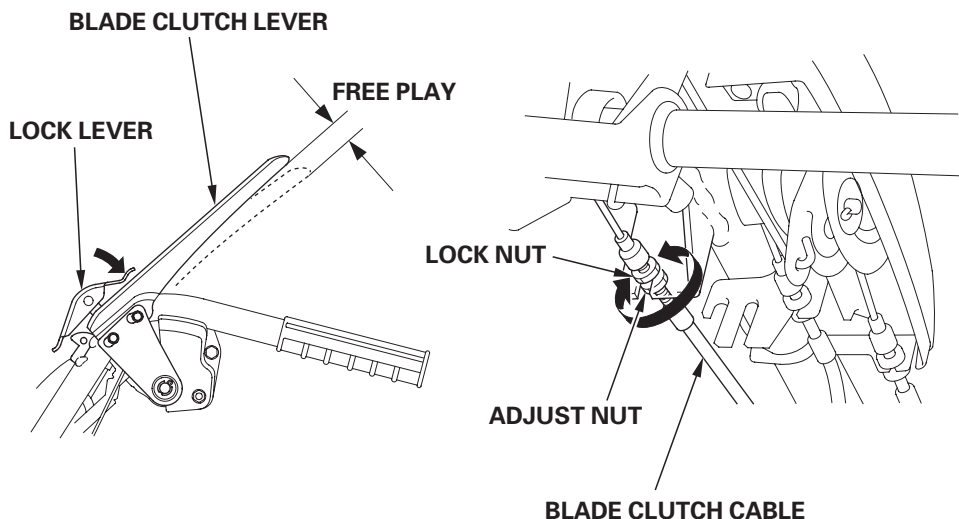
Inspect the blade clutch cable and adjust as necessary every 100 hours of operation.

(Inspection)

Check the blade clutch lever free play at the tip of the lever. The correct free play is: 5.0—10.0 mm (0.20—0.39 in)

(Adjustment)

1. Loosen the lock nut and turn the adjust nut in or out until the correct free play is obtained.
2. Tighten the lock nut securely.



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## 6. Drive clutch cable check and adjustment (UM536)

The drive clutch will slip or will not be disengaged if the clutch cable is not adjusted properly.

(Inspection and adjustment)

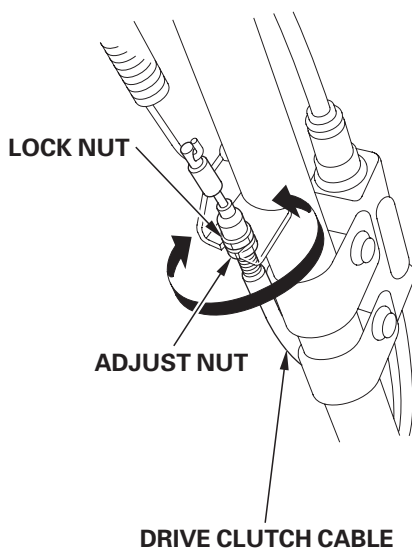
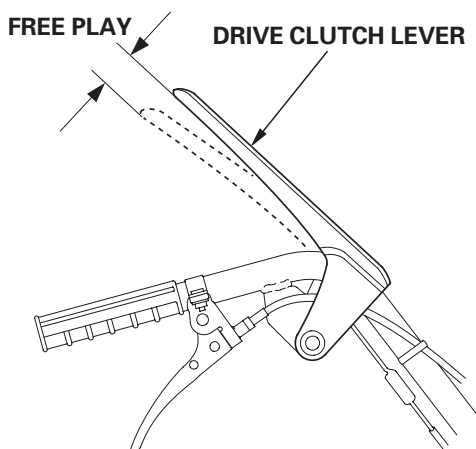
Inspect the drive clutch cable and adjust as necessary every 100 hours of operation.

(Inspection)

Check the drive clutch lever free play at the tip of the clutch lever. It should be: 5.0—10.0 mm (0.20—0.39 in)

(Adjustment)

1. Loosen the lock nut and turn the adjust nut in or out until the correct free play is obtained.
2. Tighten the lock nut securely.



## 7. Brake cable check and adjustment (EBE type)

The proper brake adjustment should always be maintained.

(Inspection and adjustment)

The brake lever should be inspected and adjusted when the first 20 hours of operation time has passed. Thereafter, it should be inspected every 100 hours.

(Inspection)

Perform this check on a dry, paved surface. Pull the handle cross bar horizontally toward the rear with your left hand (do not raise the front wheel off the ground), then squeeze the brake lever gradually until the rear wheels lock. Measure the distance “L” at the point where the wheels lock. The measurement from the tip of the brake lever to the handle should be above:

35.0 mm (1.38 in)

Adjustment is necessary if distance is below:

35.0 mm (1.38 in)

(Adjustment)

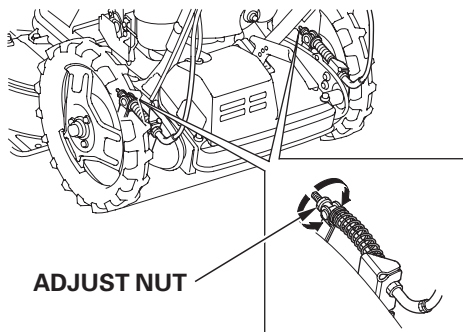
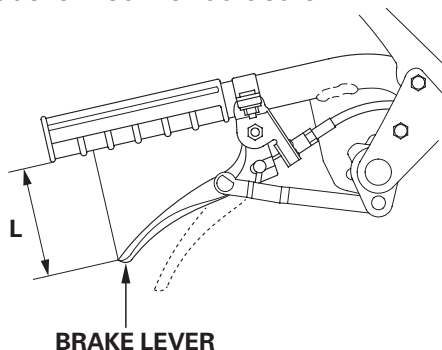
Make adjustments by turning the adjusting nuts on both brake arms equally.

**Distance (L):** 50.0—60.0 mm (1.97—2.36 in)

Apply the brake several times and check for free rotation after the brake lever is released.

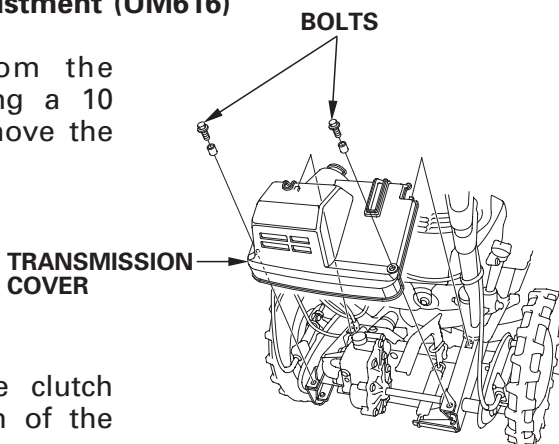
**NOTE:**

If proper adjustment cannot be obtained by this method, see your authorized Honda dealer.



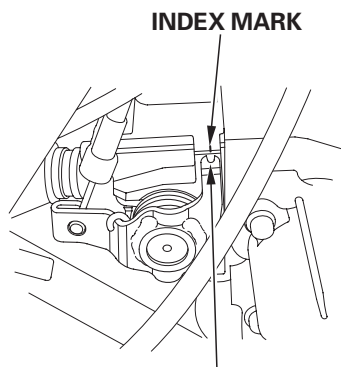
## 8. Shift cable check and adjustment (UM616)

1. Remove the bolts from the transmission cover, using a 10 mm socket wrench. Remove the transmission cover.



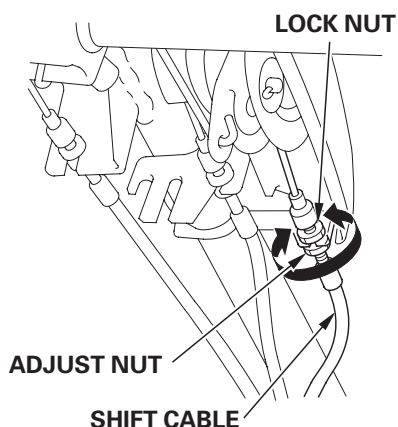
2. While holding the drive clutch lever, check the position of the transmission arm.

The notch on the transmission arm should align with the index mark on the transmission case.



3. If adjustment is necessary, loosen the shift cable lock nut with a 10 mm wrench, and move the adjust nut up or down as required. Tighten the lock nut, and recheck transmission arm alignment.

4. After the transmission arm is precisely aligned, start the engine and operate the drive clutch lever. Check to be sure the drive clutch lever operates properly. If the drive clutch lever does not operate properly after the cable is correctly adjusted, take the mower to an authorized Honda weed mower dealer for repair.



## 9. Spark arrester maintenance (Optional parts)

### **⚠ WARNING**

- It is illegal in some areas to operate an engine without a spark arrester. Check local laws and regulations before operating. An optional spark arrester is available from Honda dealers.
- If the mower has been running, the muffler will be very hot. Allow it to cool before proceeding.

### **CAUTION:**

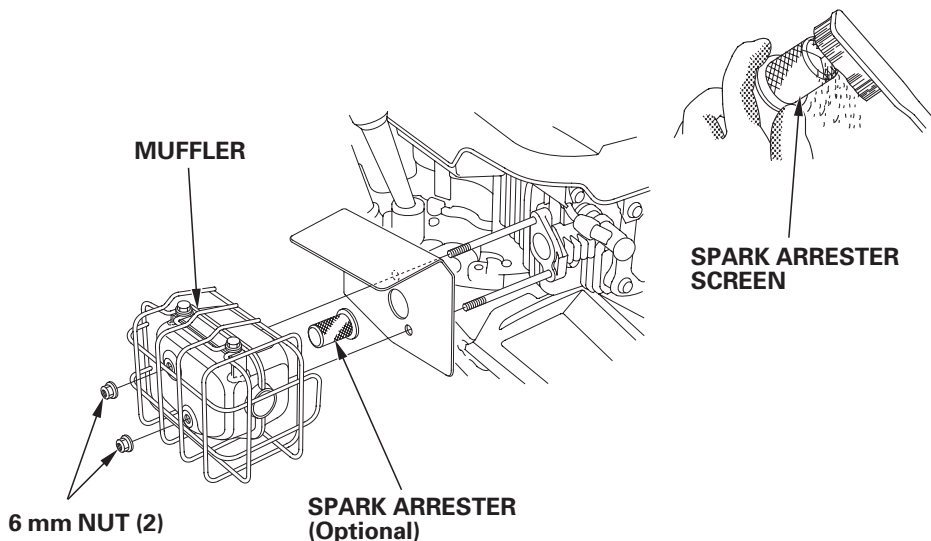
The spark arrester must be serviced every 100 hours to maintain its efficiency.

1. Remove the two 6 mm nuts and remove the muffler.
2. Remove the spark arrester from the muffler.

### **CAUTION:**

Be careful not to damage the spark arrester screen.

3. Check for carbon deposits around the exhaust port and the spark arrester, and clean if necessary.
4. Install the spark arrester in the muffler.
5. Install the muffler then tighten the two 6 mm nuts securely.



## 11. TRANSPORTING/STORAGE

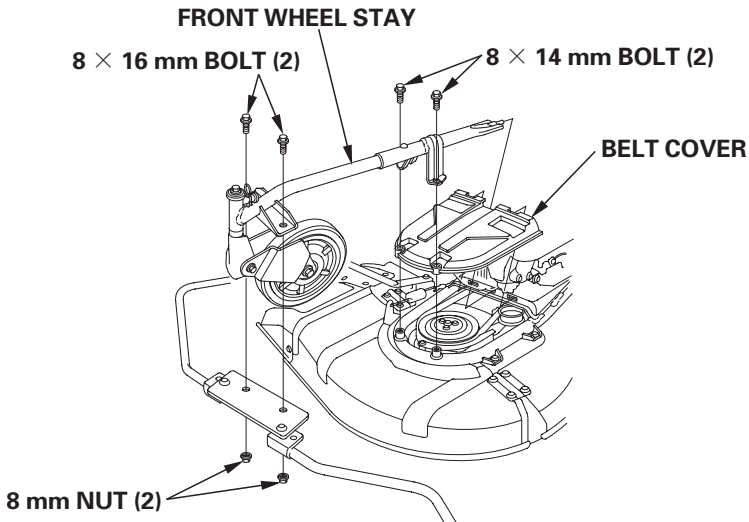
### Transporting

To prevent fire hazard, turn the fuel valve to OFF and drain fuel from the fuel tank before loading the weed mower on a trailer for transportation.

Cleaning of parts behind belt cover.

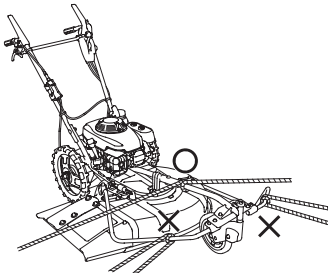
When the mower is to be stored or left standing for an extended period of time, remove the belt cover and clean the parts behind the cover as follows:

- 1. Remove the two  $8 \times 14$  mm bolts, two  $8 \times 16$  bolts and 8 mm nuts securing the front wheel stay, and remove the stay and belt cover.
- 2. Clean off the dirt and grass from the brake, driven pulley, tensioner roller and belt.



### NOTE:

Do not attach a rope to the foot guard bar to secure it to the trailer or truck bed for transportation.



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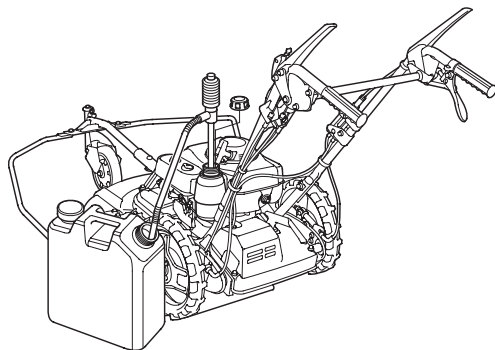
## Preparation for storage

### CAUTION:

If the weed mower has been running, the engine and muffler will be very hot; allow them to cool before proceeding.

The following steps should be taken to protect the weed mower whenever it will be stored for longer than 30 days.

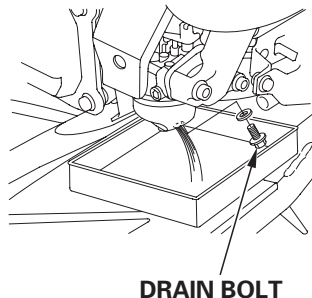
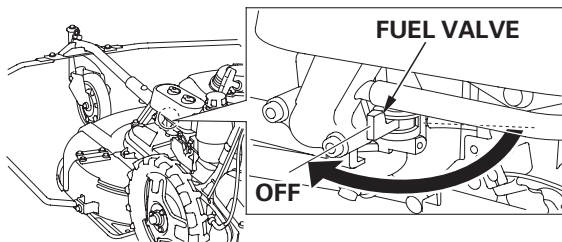
1. Drain all gasoline from the fuel tank into an approved gasoline container.



Turn the fuel valve ON, loosen the carburetor drain bolt, and drain the fuel into an approved gasoline container. After draining, tighten the drain bolt securely. Turn the fuel valve OFF.

### ⚠ WARNING

Gasoline is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in the area.





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2. Change the engine oil (see page 42 ).

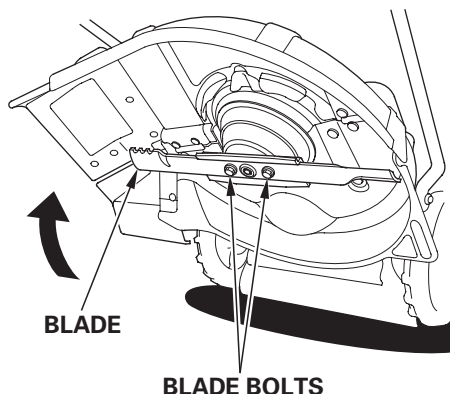
**NOTE:**

If the weed mower will be stored for longer than 3 months, remove the spark plug and pour three tablespoons (approximately 1 oz.) of clean motor oil into the cylinder. Pull the recoil starter rope gently to distribute the oil, and then reinstall the spark plug.

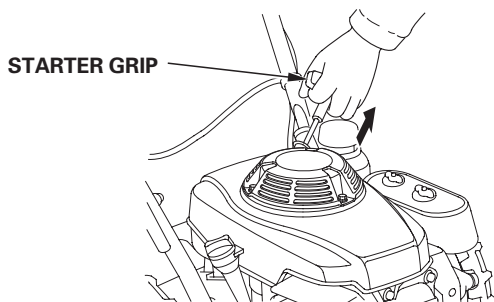
3. Clean the air cleaner (see page 44 ).

4. Clean the cutting blades and the various other parts of the weed mower, then check nuts and bolts, etc., for tightness. Coat the cutting blade with engine oil.

5. If the paint has come off the inside of the blade cover, remove rust from such portions, and apply a coating of rust prevention.



6. Pull the starter grip until resistance is felt.



7. Place a cover over the weed mower or store it in a well-ventilated location with a roof.

## 12. TROUBLESHOOTING

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### Engine fails to start:

1. No fuel. —————> Add fuel.
2. Spark plug faulty or —————> Regap plug or replace (see p. 47 ).  
improperly gapped.
3. Spark plug cap loose or —————> Check spark plug cap.  
disconnected.
4. Fuel not reaching —————> Check the position of the fuel valve  
carburetor. (see p. 27 ). If that's not the problem,  
see your authorized Honda dealer.

### Engine loses power:

1. Spark plug faulty or —————> Regap plug or replace. (see p. 47 ).  
improperly gapped.
2. Engine overloaded. —————> Shift to lower speed.

### Engine overheats:

1. Low engine oil level. —————> Fill with recommended oil  
(see p. 20 ).
2. Spark plug improperly —————> Regap plug or replace (see p. 47 ).  
gapped.

### Erratic operation:

1. Dirty fuel. —————> See your authorized Honda dealer.
2. Dirty air cleaner elements. —————> Clean air cleaner elements.  
(see p. 44 ).
3. Spark plug faulty or —————> Regap plug or replace (see p. 47 ).  
improperly gapped.

### Excessive vibration:

1. Loose blade or engine —————> Retighten blade bolts or engine  
mounting hardware. mounting hardware.
2. Blade damaged. —————> Replace blade as a set.

### Uneven mowing:

1. Dull blades. —————> See your authorized Honda dealer.

### Blade does not rotate or stop:

1. Blade belt worn or broken. —————> See your authorized Honda dealer.

## 13. SPECIFICATIONS

MODEL	UM536	UM616
Power equipment description code	KZAG	KZAH
ENGINE	GXV160	
Type	4-stroke, overhead valve, 1 cylinder	
Displacement	163 cm <sup>3</sup> (9.9 cu-in)	
Bore and stroke	68.0 × 45.0 mm (2.7 × 1.8 in)	
Ignition timing	20° BTDC	
Ignition system	Transistor magneto	
Engine oil capacity	0.65 ℓ (0.69 US qt , 0.57 Imp qt)	
Fuel tank capacity	1.6 ℓ (0.42 US gal , 0.35 Imp gal)	
Spark plug	BPR5ES (NGK) , W16EPR-U (DENSO)	

### Frame

MODEL	UM536		UM616	
TYPE	EE	EBE	EE	EBE
Dimensions				
Length	1,770 mm (69.7 in)		1,780 mm (70.1 in)	
Width	860 mm (33.9 in)		970 mm (38.2 in)	
Height	1,080 mm (42.5 in)		1,080 mm (42.5 in)	
Dry mass [Dry weight]	62 kg (137 lbs)	66 kg (146 lbs)	72 kg (159 lbs)	76 kg (168 lbs)
Cutting width	530 mm (20.9 in)		610 mm (24.0 in)	
Cutting height	15–75 mm (0.6–3.0 in) (4 positions)		15–75 mm (0.6–3.0 in) (4 positions)	
Shift lever	Direct change		Remote change	
Blade belt	SB-42		SB-40	
Travel speed	1st (0.5 m/sec), 2nd (0.8 m/sec)		Slow (0.4 m/sec) ~ Fast (1.0 m/sec)	

### Sound pressure levels

MODEL	UM536	UM616
Sound Pressure Level (L <sub>PA</sub> ) Tested by EN836 (At 3,600 rpm)	85 dB	85 dB
Guaranteed sound power level (L <sub>WA</sub> ) Tested by 2000/14/EC (At 3,600 rpm)	98 dB	98 dB

### Vibration

Tested by EN836 (At 3,600 rpm)	5.3 m/s <sup>2</sup>	5.0 m/s <sup>2</sup>
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### NOTE:

Specifications are subject to change without notice.

## 14. MAJOR Honda DISTRIBUTOR ADDRESSES

### For European

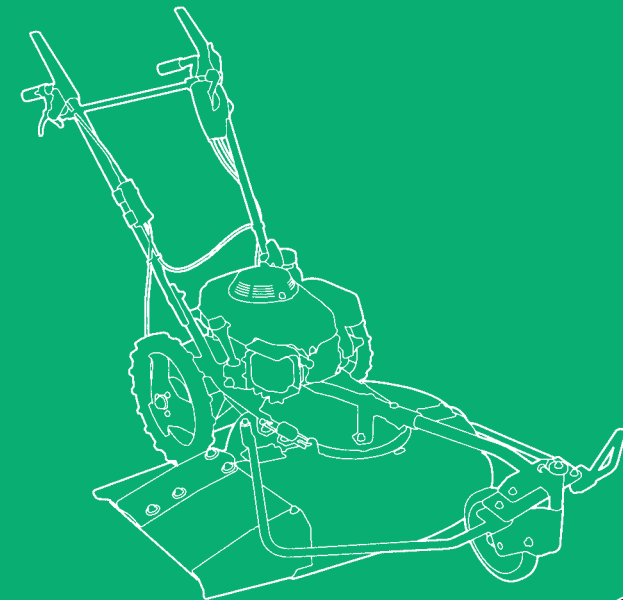
NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
Honda (U.K.) Limited	470 London Road, Slough, Berkshire, SL38QY, United Kingdom	Tel: 01753-590-590 Fax: 01753-590-000
Honda Europe Power Equipment S.A.	Pole 45 Rue des Chataigniers 45140 Ormes France	Tel: 2-38-65-06-00 Fax: 2-38-65-06-02
Honda Motor Europe (North) GmbH.	Sprendlinger, Landstraße 166 D-63069 Offenbach/Main Germany	Tel: 069-83-09-0 Fax: 069-83-09-519
Honda Belgium H.V.	Wijngaardveld 1, 9300 Aalst Belgium	Tel: 053-725-111 Fax: 053-725-100
Honda Italia Industriale S.P.A.	Via della Cecchignola, 5/7 00143 ROMA	Tel: 06-54928-1 Fax: 06-54928-400
Honda (Suisse) S.A.	Route des Moulières 10 Case Postale Ch 1214 Vernier-Geneve, Switzerland	Tel: 022-341-22-00 Fax: 022-341-09-72
Honda Nederland B.V.	Nikkelstraat 17 2984 AM Ridderkerk Netherlands	Tel: 0180-491777 Fax: 0180-491889
Honda Austria G.M.B.H.	Honda Strasse 1 A-2351 Wiener Neudorf Austria	Tel: 223-66-900 Fax: 223-66-4130
Honda Power Equipment Sweden AB	Västkustvägen 17 202 15 Malmö, Sweden	Tel: 040-600 23 00 Fax: 040-600 23 19
Honda Produtos De Força, Portugal, S.A.	Lugar da Abrunheira S. Pedro de Penaferrim 2710 Sintra, Portugal	Tel: 351-1-9150374 Fax: 351-1-9111021
Berema A/S	Berghagan 5, Langhus Box 454, 1401 Ski Norway	Tel: 64-86-05-00 Fax: 64-86-05-49

## For European (continued)

NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
OY Brandt AB	Tuupakantie 4 SF-01740, Vantaa Finland	Tel: 90-895-501 Fax: 90-878-5276
TIMA PRODUCTS A/S	Tårnfalkevej 16, Postboks 511 DK 2650 Hvidovre Denmark	Tel: 31-49-17-00 Fax: 36-77-16-30
Greens	Polig. Industrial Congost 08530, La Garriga (Barcelona), Spain	Tel: 93-871-84-50 Fax: 93-871-81-80
Automocion Canarias S.A. (AUCASA)	Apartado de Correos, num 206 Santa Cruz de Tenerife Canary Islands	Tel: 922-61-13-50 Fax: 922-61-13-44
The Associated Motors Company Ltd.	148, Rue D'Argens, Msida Malta	Tel: 356-333001 Fax: 356-340473
Two Wheels Ltd.	Crosslands Business Park, Ballymount Road, Dublin 12, Ireland	Tel: 4602111 Fax: 4566539
General Automotive Co., S.A.	P.O. Box 1200, 101 73 Athens Greece	Tel: 346-5321 Fax: 346-7329
BG Technik s.r.o.	Radlická 117/520 158 01 Praha 5 Czech Republic	Tel: 2-5694 573 Fax: 2-5694 571
Aries Power Equipment Ltd.	01-493 Warszawa, ul Wroclawska 25a Poland	Tel: 22-685 17 06 Fax: 22-685 16 03
MO.TOR.PEDO Ltd.	2040 Buda-rs, Kamaraerdei-t 3. Hungary	Tel: 23-444-971 Fax: 23-444-972



# WEED MOWER UM536·UM616



36VD8626  
00X36-VD8-6260



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## OWNER'S MANUAL MANUEL DE L'UTILISATEUR BEDIENUNGSANLEITUNG MANUAL DE EXPLICACIONES