

HONDA

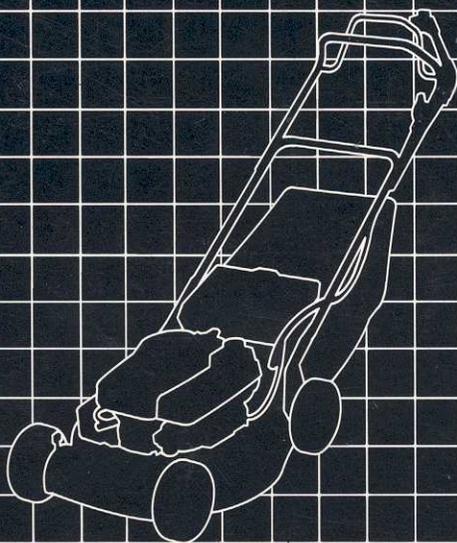
Power

Equipment

Owner's Manual

Rotary Mower

HRA216



Thank you for purchasing a Honda mower.

This manual covers operation and maintenance of the Honda HRA216 rotary mower. All information in this publication is based on the latest product information available at the time of printing.

Honda HRA216 mowers meet CPSC blade safety requirements for walk-behind rotary power mowers. Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation.

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This manual should be considered a permanent part of the mower and remain with the mower when sold.

Pay special attention to statements preceded by the following words:

⚠ DANGER: Indicates severe personal injury or loss of life will result if instructions are not followed.

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

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

NOTE: Gives helpful information.

⚠ WARNING

- Honda rotary mowers are designed to give safe and dependable service if operated according to instructions and intended use: mowing (cutting) grass, and bagging cut grass when equipped with the grass bag. Any other use could be dangerous.
- Read and understand this Owner's Manual before operating the mower. Failure to do so could result in personal injury or equipment damage.
- "It is illegal in some areas to operate an engine without a USDA—qualified spark arrester. Check local laws and regulations before operating. An optional spark arrester is available from your authorized HONDA lawn mower dealer."

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

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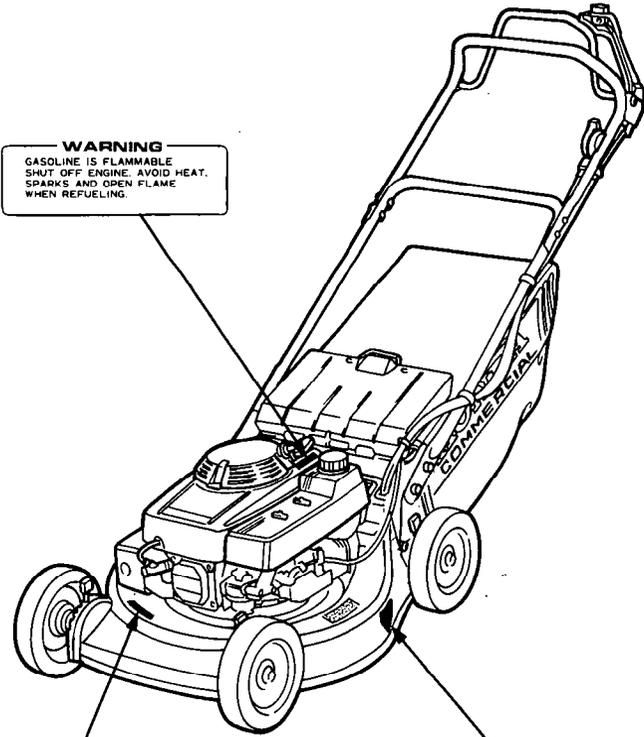
1. SAFETY INSTRUCTIONS

WARNING

To ensure safe operation—

- Know how to stop the engine quickly and understand the operation of all the controls. Never permit anyone to operate the mower without proper instruction.
- Do not allow children to operate the mower. Keep children and pets away from the area of operation.
- The rear shield is for your protection; keep it in place at all times.
- The blade is sharp and dangerous. Never put your hands or feet under the mower. Never carry the mower, or tilt the mower to expose the blade while the engine is running. If you find it necessary to work on the blade or mower, stop the engine and remove the spark plug cap.
- Never stand in front of a self-propelled mower when the engine is running. Someone may accidentally engage the drive clutch.
- Clear the lawn of sticks, stones, or debris before mowing. Mow only in cleared areas in daylight or good artificial light.
- Stop the engine immediately if the blade hits an object or if the mower starts to vibrate. Remove the spark plug cap to be certain the engine will not start accidentally, and inspect the mower for damage. Replace any damaged parts before continuing to mow.
- Protect yourself by wearing long trousers and appropriate shoes. Don't wear loose fitting clothing or sandals when mowing.
- Never operate without the grass bag.
- Never run the engine in an enclosed or confined area. Exhaust contains poisonous carbon monoxide gas; exposure may cause loss of consciousness and may lead to death.
- 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 where the mower is refueled or where gasoline is stored.
- Do not overfill the fuel tank. Make sure that the filler cap is closed securely.
- Be careful not to spill fuel when refueling. Fuel vapor or spilled fuel may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- The muffler becomes very hot during operation and remains hot for a while after the engine stops. Be careful not to touch the muffler while it is hot. Let the engine cool before storing the mower indoors.
- To reduce the hazard of fire, never leave grass clippings or leaves in the bag when the mower is stored. Never leave containers of clippings in or near buildings.

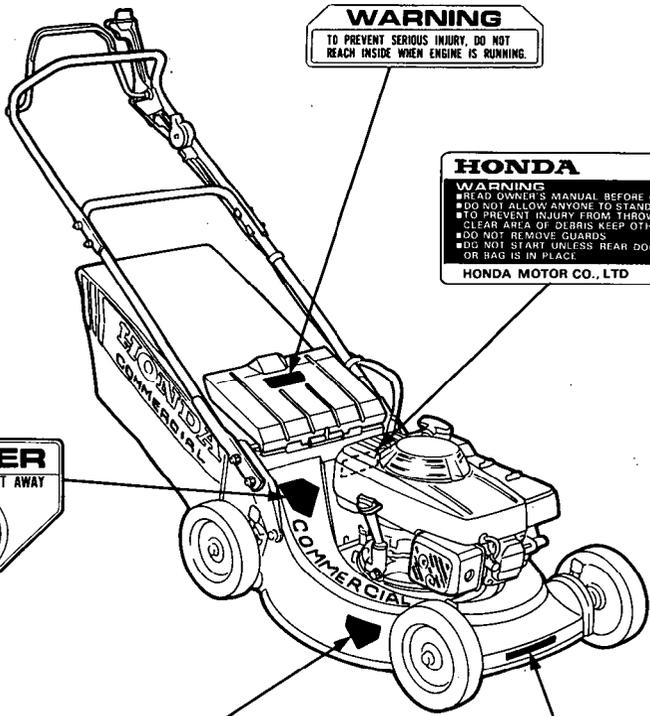
WARNING LABEL LOCATIONS



WARNING
GASOLINE IS FLAMMABLE.
SHUT OFF ENGINE. AVOID HEAT,
SPARKS AND OPEN FLAME
WHEN REFUELING.

WARNING
DISCONNECT THE SPARK PLUG CAP,
BEFORE WORKING ON THE BLADE OR MOWER.





WARNING
TO PREVENT SERIOUS INJURY, DO NOT REACH INSIDE WHEN ENGINE IS RUNNING.

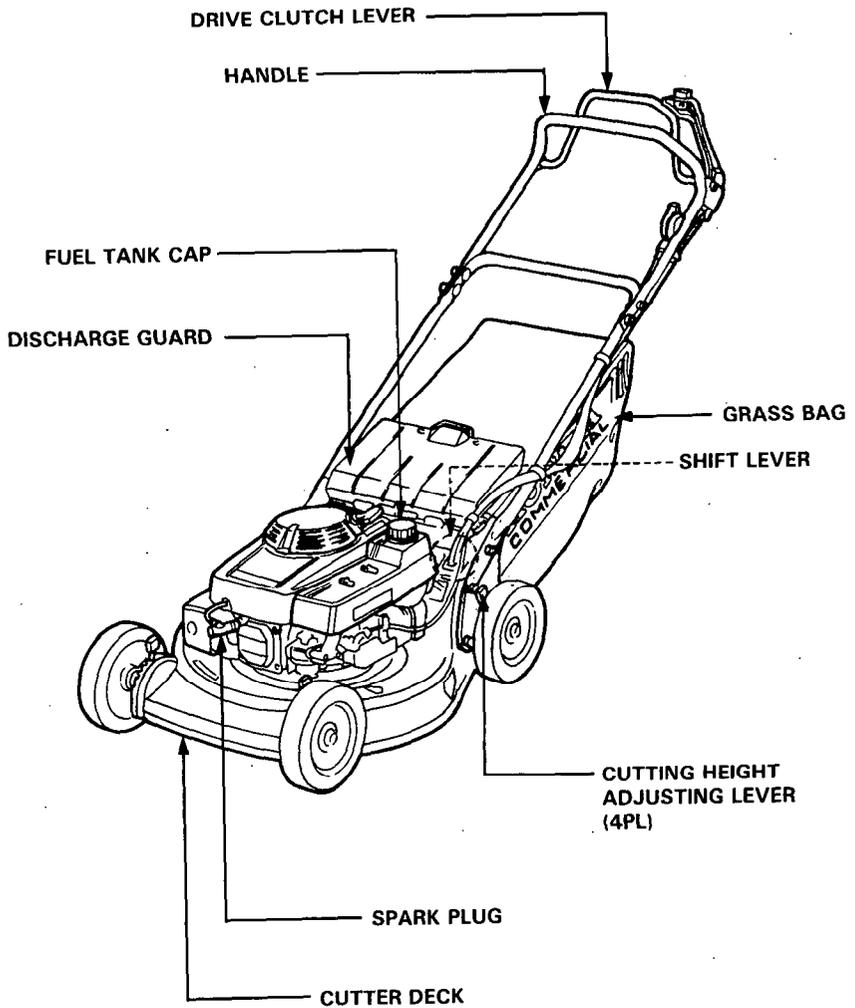
HONDA
WARNING
■ READ OWNER'S MANUAL BEFORE OPERATING
■ DO NOT ALLOW ANYONE TO STAND IN FRONT OF MOWER
■ TO PREVENT INJURY FROM THROWN OBJECTS, CLEAR AREA OF DEBRIS, KEEP OTHERS AWAY
■ DO NOT REMOVE GUARDS
■ DO NOT START UNLESS REAR DOOR IS CLOSED OR BAG IS IN PLACE
HONDA MOTOR CO., LTD

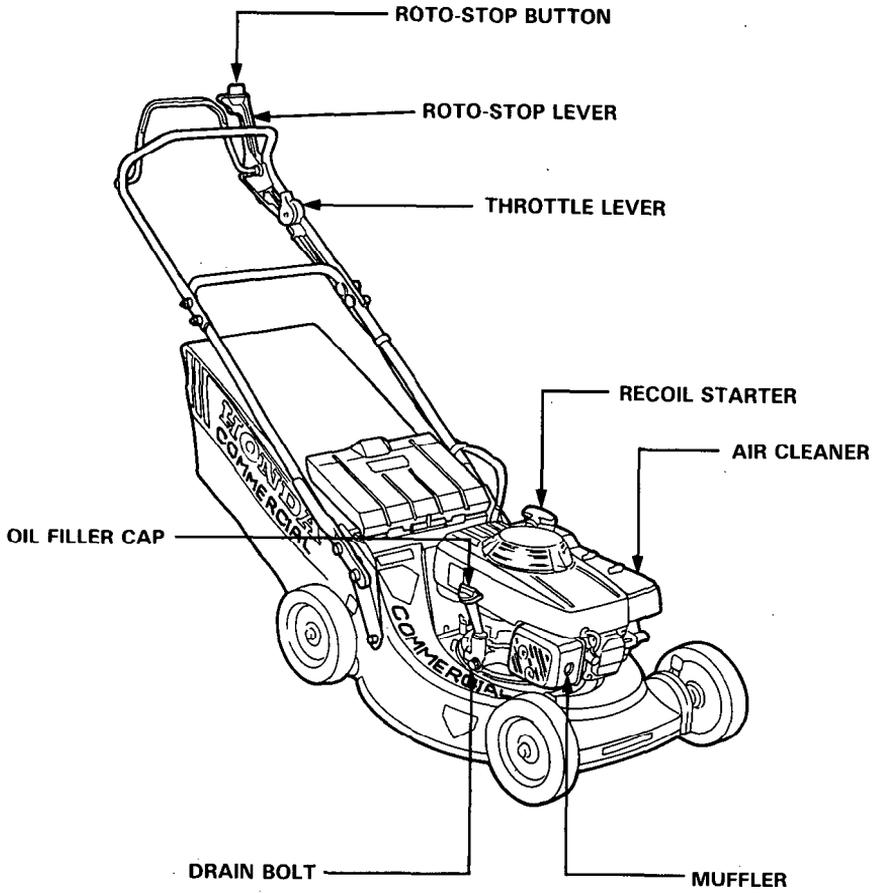
DANGER
KEEP HANDS and FEET AWAY

DANGER
KEEP HANDS and FEET AWAY

DANGER:KEEP HANDS and FEET AWAY

2. COMPONENT IDENTIFICATION

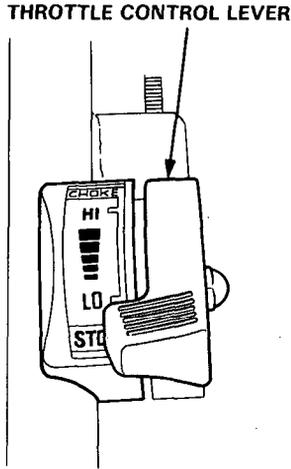




3. CONTROLS

Throttle Control Lever

Throttle positions: CHOKE
HI
LO
STOP

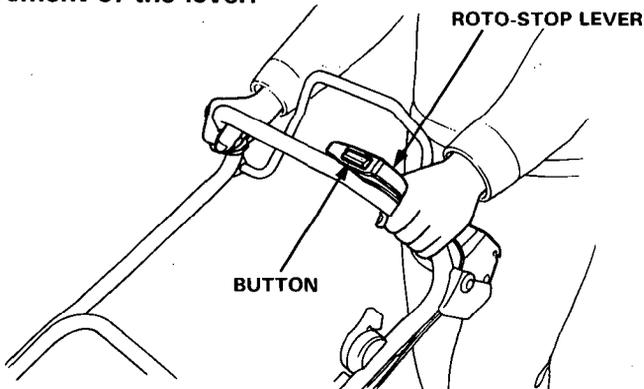


ROTO-STOP Lever

To put the cutting blade into operation, press the button on top of the ROTO-STOP lever and push the lever forward, holding it against the handlebar.

The blade will stop when the ROTO-STOP lever is released.

CAUTION: To prevent damage to the ROTO-STOP system, it is essential that ROTO-STOP engagement/disengagement be carried out with a single, sharp movement of the lever.

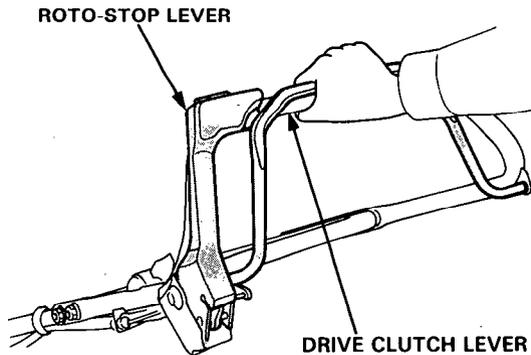


Drive Clutch Lever

To propel the mower, push the drive clutch lever forward and hold it against the handlebar. Release the lever to disengage the drive.

To propel the mower and operate the cutting blade simultaneously, push the button on top of the ROTO-STOP lever and push the ROTO-STOP lever forward, then push the drive lever forward; the drive clutch lever will hold the ROTO-STOP lever forward, as shown.

When the drive clutch lever is used to hold the ROTO-STOP forward, releasing the drive clutch lever also releases the ROTO-STOP lever.

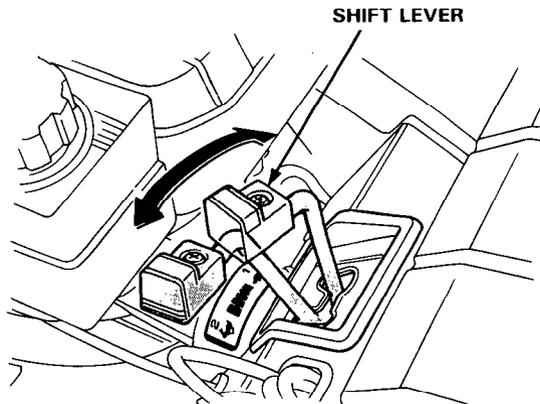


Shift Lever

Move the shift lever to select slow or fast drive speed.

Position 1: Slow, 1.2 m/sec (3.9 ft/sec)

Position 2: Fast, 1.65 m/sec (5.4 ft/sec)



4. PRE-OPERATION CHECKS

1. Check the engine oil level.

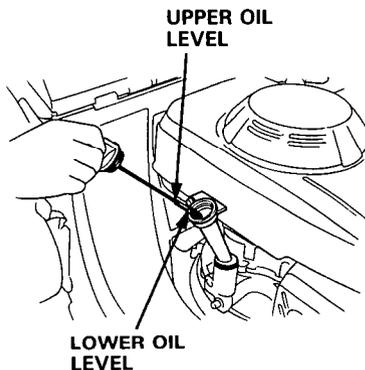
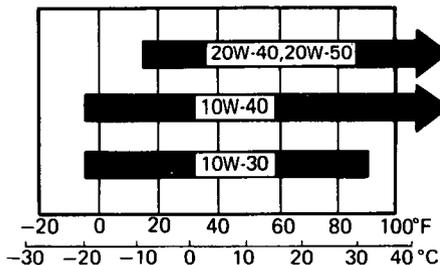
CAUTION:

- Engine oil is a major factor affecting engine performance and service life. Non-detergent and 2-stroke engine oils are not recommended.
- Running the engine with insufficient oil can cause serious engine damage.

Use Honda-4-stroke, or an equivalent high detergent, premium quality motor oil certified to meet or exceed U.S. automobile manufacturer's requirements for service classification SE or SF (Motor oils classified SE or SF will show this designation on the container).

SAE 10W-40 is recommended for general, all temperature use. If single viscosity oil is used, select the appropriate viscosity for the average temperature in your area.

- a. Place the 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.



2. Check the fuel level.

Remove the fuel cap and check the fuel level. Refill the tank if the fuel level is low. Do not fill the fuel tank above the level mark.

Your engine is designed to use any gasoline that has a pump octane number $\left(\frac{R+M}{2}\right)$ of 86 or higher, or that has a research octane number of 91 or higher. Gasoline pumps at service stations normally display the pump octane number.

We recommend that you use unleaded fuel because it produces fewer engine and spark plug deposits and extends the life of exhaust system components.

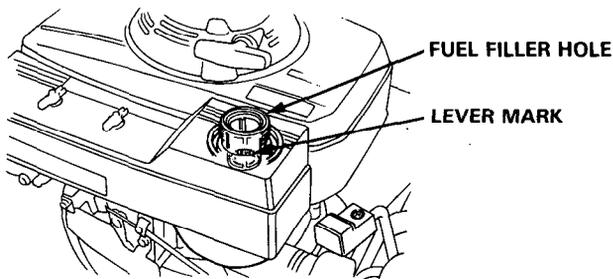
Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt, dust or water in the fuel tank. Use of a lower octane gasoline can cause persistent "pinging" or heavy "spark knock" (a metallic rapping noise) which, if severe, can lead to engine damage.

CAUTION: If "spark knock" or "pinging" occurs at a steady engine speed under normal load, change brands of gasoline. If spark knock or pinging persists, consult your authorized Honda dealer. Failure to do so is considered misuse, and damage caused by misuse is not covered by Honda's Limited Warranty.

Occasionally you may experience light spark knock while operating under heavy loads. This is no cause for concern, it simply means your engine is operating efficiently.

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 in the filler neck). 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.**



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.

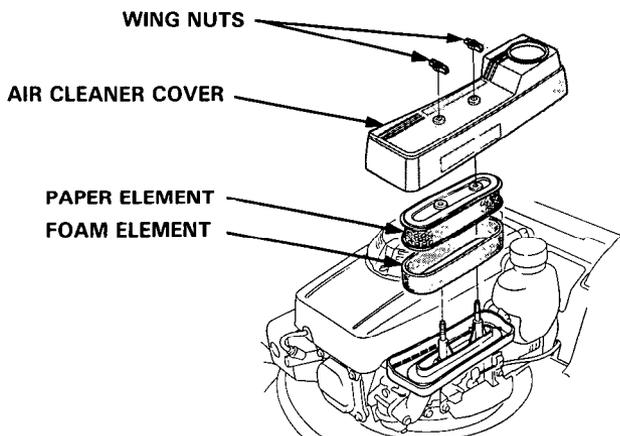
NOTE:

- 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.

3. Check the air cleaner.

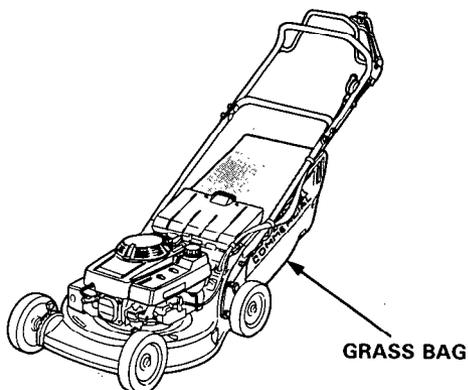
CAUTION: Never run the engine without the air cleaner; rapid engine wear will result.

1. Check the air cleaner element to see if it is dirty.
2. If the element is dirty, follow the cleaning procedure described on page 29.



4. Check the grass bag.

Check the grass bag for fraying, tears and clogged mesh. Wash the bag with water if necessary, and let it dry thoroughly. Grass will not chute properly without adequate ventilation through the bag. Make sure that the bag is properly installed (See page 21).

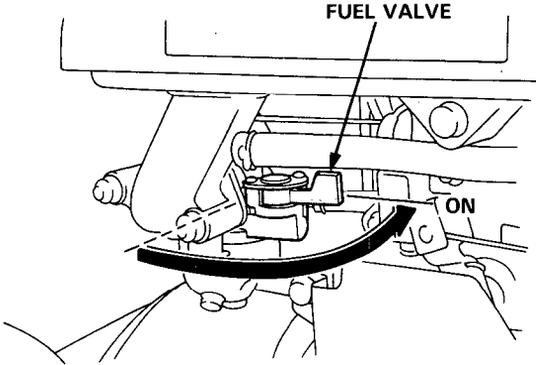


5. OPERATION

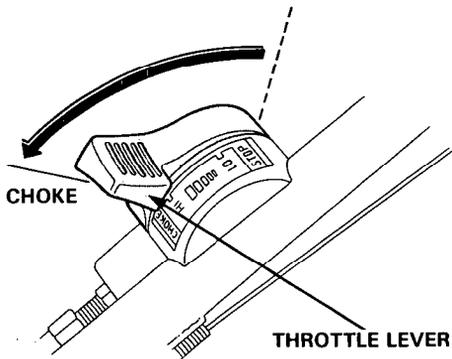
Starting the Engine

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

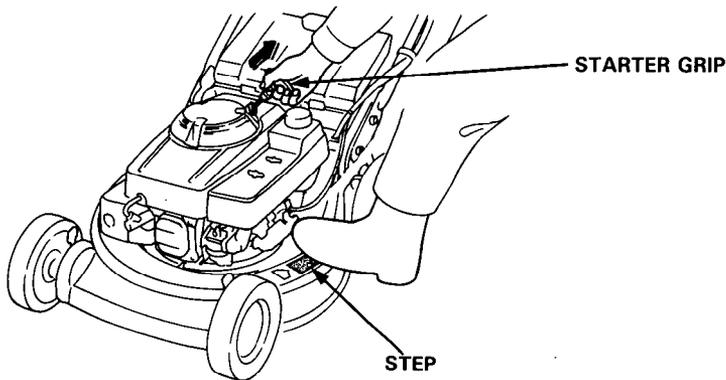
1. Turn the fuel valve ON.



2. Move the throttle lever to CHOKE.



3. Place your foot on the STEP of the mower housing.
4. Pull the starter grip lightly until you feel resistance, then pull briskly.



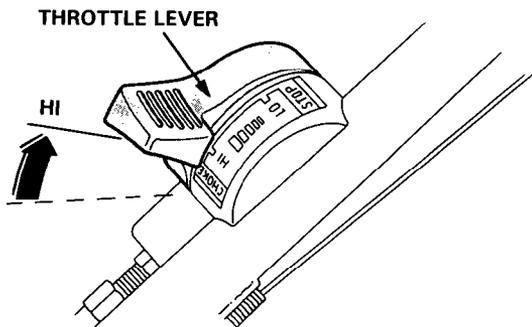
CAUTION: Don't allow the rope to snap back; return it gently by hand. Otherwise, the starting mechanism might be damaged. While the engine is in operation, don't pull the starter grip or damage may result.

5. After the engine warms up, move the throttle lever to HI. Push the ROTO-STOP lever forward to put the cutting blade into operation.

NOTE: If the engine is warm or the air temperature is high, move the throttle lever away from the choke position as soon as the engine starts.

Select shift lever position 1 (slow) or 2 (fast), and push the drive clutch lever forward to propel the mower.

NOTE: Use higher throttle settings to maintain engine speed when cutting heavy grass.



Mowing

This MOWER should be used with the grass bag.

The following suggestions and rules are intended to help you operate your Honda HRA216 under the safest conditions possible. Be alert and exercise the same care using the mower as you would using any other power tool.

WARNING

- **Be especially careful when mowing uneven or rough ground. The mower may tilt, exposing the blade, and hidden objects could be thrown by the blade. Keep all four wheels on the ground.**
- **Mow across slopes. Do not mow excessively steep slopes.**

CAUTION: Use extra care when mowing around objects to keep the blade from striking them. Never deliberately mow over any object.

NOTE: Do not use the drive clutch when maneuvering around trees, etc.

Release the clutch and push the mower for better directional control.

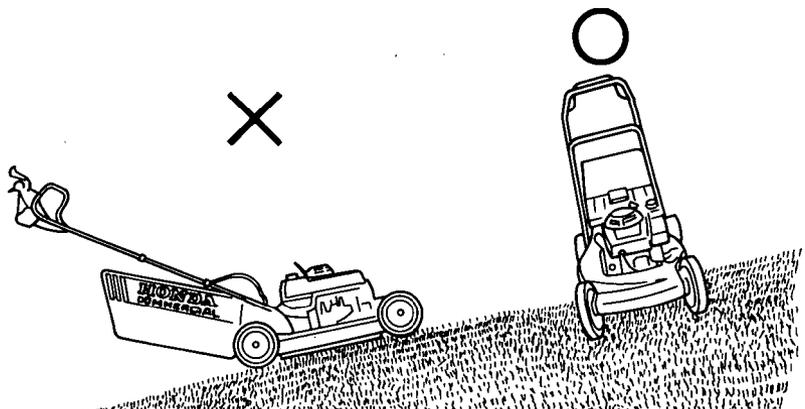
Control Systems

CAUTION:

- **Be sure to squeeze the roto-stop lever and drive clutch lever securely. Never squeeze them halfway.**
- **Be sure to securely move the shift lever by hand.**

WARNING

- 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 mower on a slope.
- Do not use the mower on a slope of more than 20°.
- Always set the gear shift lever in 1st while mowing on a slope.



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

Flooded Engine

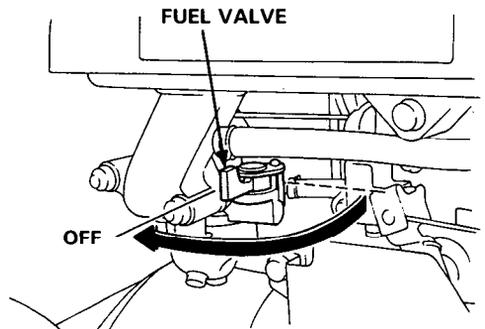
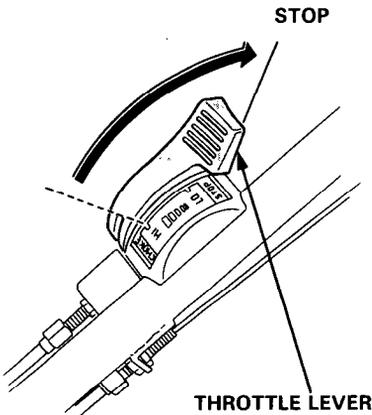
If the engine won't start after several pulls on the starter rope, the engine may be flooded.

To clear a flooded engine:

1. Move the throttle lever to STOP and turn off the fuel valve.
2. Remove the spark plug and dry it. When reinstalling the plugs, thread it in by hand until it seats. Then tighten it an additional $1/8 - 1/4$ turn with the spark plug wrench to compress the washer.
3. Move the throttle to HI, turn on the fuel valve and repeat steps 3–5 under "Starting the Engine".

Stopping the Engine

1. Release the drive clutch and/or ROTO-STOP lever.
2. Move the throttle lever to STOP and turn off the fuel valve.



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 installing a smaller diameter main fuel jet in the carburetor and readjusting the pilot screw. If you always operate the rotary mower at altitudes higher than 6,000 feet above sea level, have your authorized Honda Rotary Mower dealer perform these carburetor modifications.

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

CAUTION: Operation of the 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.

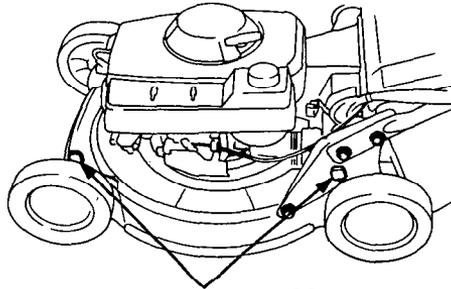
Cutting Height Adjustment

Five settings are available: 1", 1-1/2", 2", 2-1/2" and 3".

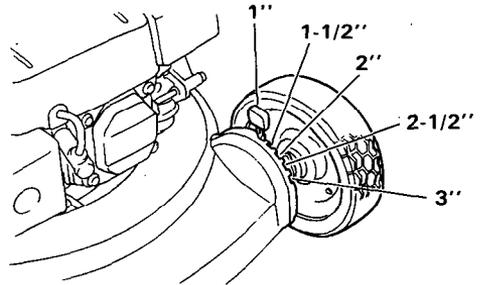
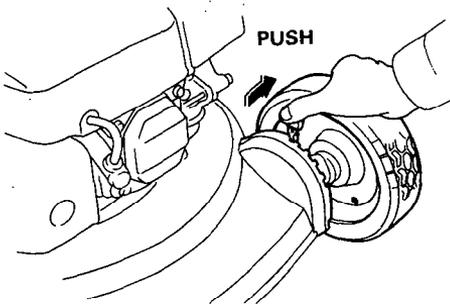
1. Stop the engine.
2. Push the front and rear adjusting levers toward the wheels and move them up or down to raise or lower cutting height. Adjust all four wheels to the same height.

WARNING Be careful not to touch the muffler when adjusting the right front wheel height.

The muffler becomes very hot during operation and will stay hot for a while after the engine is stopped.



ADJUSTING LEVERS



Grass Bag

The bag is subject to wear under normal usage; check frequently for fraying and tears. Replace deteriorated bags only with Honda replacement bags or their equivalent. When the bag needs cleaning wash it with water and make sure it is dry before using it.

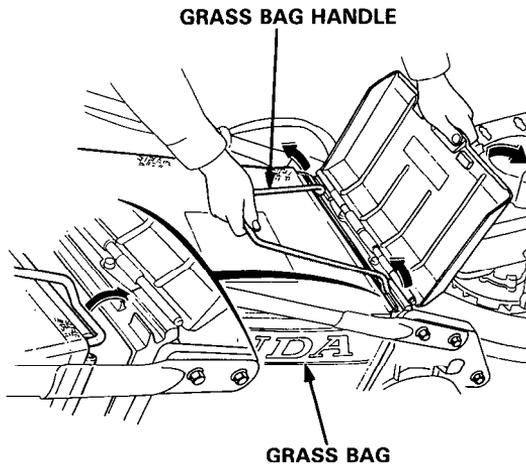
Clogged mesh will result in poor grass cutting and a wet bag will clog quickly.

Removal

1. Stop the engine.
2. Raise the discharge guard, grasp the grass bag handle, and lift the bag to unhook it from the mower.

Installation

Raise the discharge guard and hook the grass bag frame over the retaining tabs on the mower.

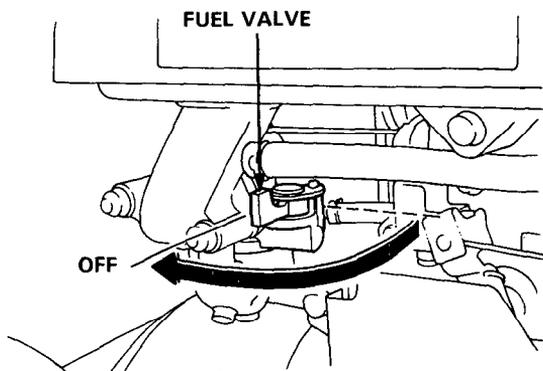


6. TRANSPORTING/STORAGE

Transporting

Turn the fuel valve OFF when transporting the mower.

WARNING To avoid fuel and oil spillage do not tilt the unit; spilled fuel may ignite.

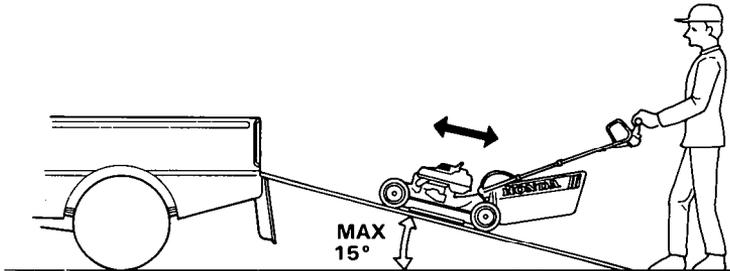


1. Remove the grass bag (p. 21).
2. Move the shift lever to the 2nd position.

Loading

CAUTION:

- To prevent loss of control and possible damage to the mower, do not use the drive system to propel the mower up or down a loading ramp.
- To prevent damage to the drive system, do not engage the drive clutch while the mower is rolling backward.
- Transport the mower in its normal horizontal position, with the 4 wheels on the bed of the truck.
- Use a loading ramp or work with another person while loading or unloading.
- Set the loading ramp so that its inclination is less than 15°.



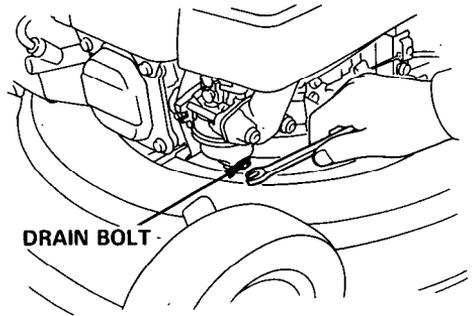
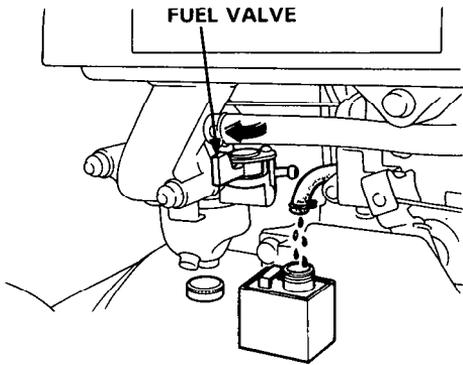
- To transport the mower, secure it with a rope and place wheel blocks under the wheels.
- Keep tie-down ropes away from the following components: Roto-stop lever: throttle control base: fuel tank: shift lever: cutting height adjusting levers: all control cables.

Preparation for Storage

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

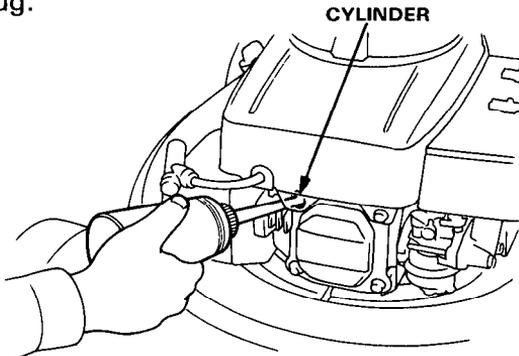
1. Drain the fuel tank and carburetor into a suitable gasoline container:
 - A. Disconnect the fuel line from the carburetor and drain the fuel tank.
 - B. Loosen the carburetor drain bolt to drain the carburetor.
 - C. Retighten the drain bolt, connect the fuel tube and turn the fuel valve OFF.

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

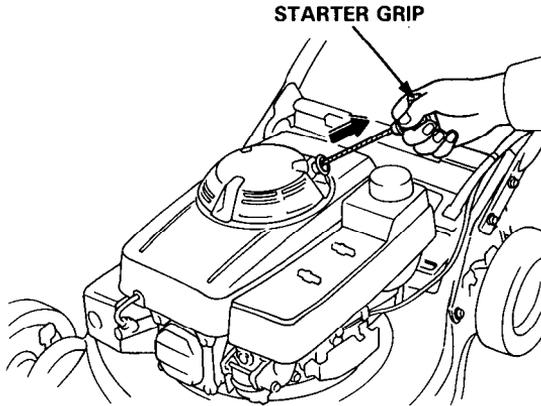


2. Change the engine oil (See page 28).

NOTE: If the mower will be stored for longer than 3 months, remove the spark plug and pour three tablespoonsful of clean motor oil into the cylinder. Pull the starter rope slowly two or three times to distribute the oil. Replace the plug.



-
3. Pull the starter grip until resistance is felt. This closes the valves and helps to protect the combustion chamber from corrosion.



4. Coat areas that may rust with a light film of oil. Cover the mower and store it on a level surface in a dry, dust free area.

Removal from Storage

1. Remove the spark plug; check that it is clean and properly gapped (p. 32). Pull the starter rope several times.
2. Thread the spark plug in as far as possible by hand, then use the plug wrench to tighten 1/8 to 1/4 turn further.
3. Check the engine oil level and condition.
4. Fill the fuel tank and start the engine.

NOTE: If the cylinder was coated with oil, the engine will smoke briefly at start up; this is normal.

7. MAINTENANCE

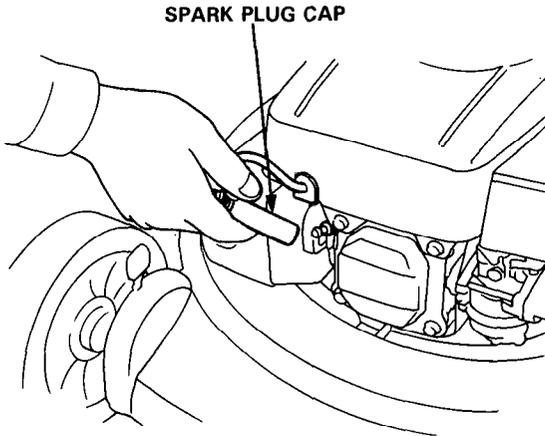


WARNING Before performing any maintenance, stop the engine and remove the spark plug cap to be certain the engine will not start accidentally.

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 HRA216 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 greater 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

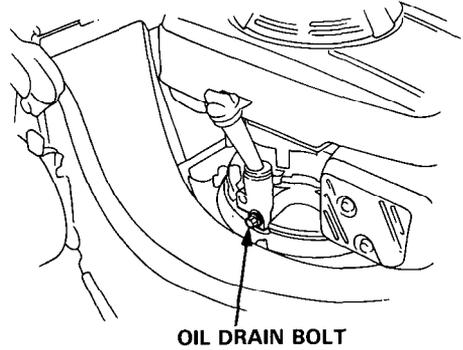
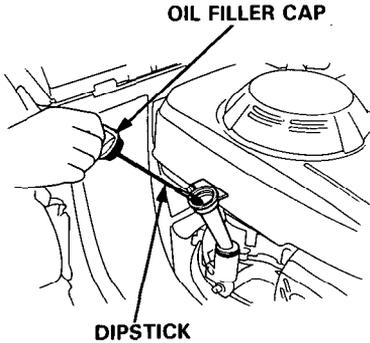
REGULAR SERVICE PERIOD (3)		EACH USE	FIRST 20 HRS	EVERY 50 HRS	EVERY 100 HRS	EVERY 300 HRS
ITEM	Perform at every indicated operating hour interval.					
Engine oil	Check level	○				
	Change		○		○	
Air cleaner	Check	○				
	Clean			○ (1)		
Grass bag	Clean	○				
Blade bolt tightness and Blade condition	Check	○				
Spark plug	Check-Clean				○	
Spark arrester (optional part)	Clean				○	
ROTO-STOP cable	Check-Adjust	○				
ROTO-STOP	Check				○ (2)	
Throttle cable	Adjust-Adjust					○
Drive clutch cable	Adjust-Adjust	○				
Valve clearance	Check-Adjust					○ (2)
Fuel tank and filter	Clean					○ (2)
Fuel line	Check (Replace if necessary)	Every 3 years (2)				

- NOTE: (1) Service more frequently when used in dusty areas.
 (2) These items should be serviced by an authorized lawn mower, unless the owner has the proper tools and is mechanically proficient.
 See the Honda Shop Manual.
 (3) For professional commercial use, log hours of operation to determine proper maintenance intervals.

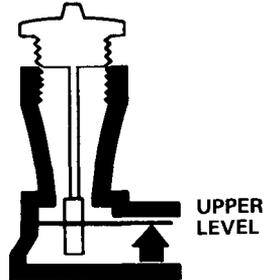
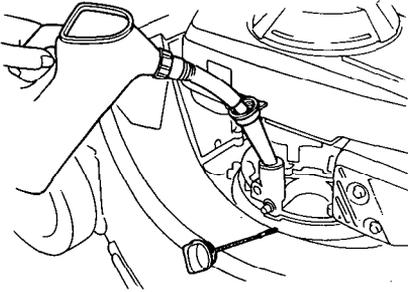
Engine Oil Change

Drain the oil while the engine is still warm to assure rapid and complete draining.

1. Remove the filler cap.
2. Tilt the mower up onto its right side and drain the oil from the filler opening.



3. Refill to the "Upper" level mark with the recommended oil (see p. 10). Tighten the cap securely to prevent leakage.

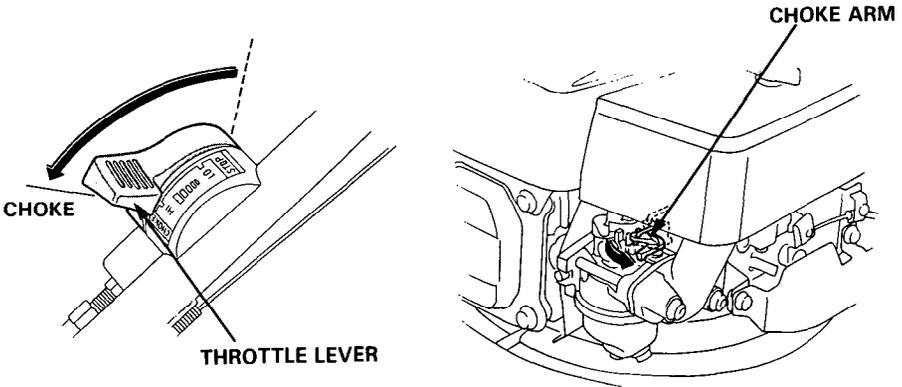


CAUTION: Used motor oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

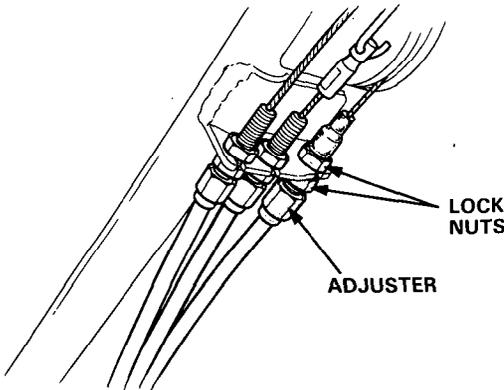
NOTE: Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station for reclamation. Do not throw it in the trash or pour it on the ground.

Throttle Control Cable Adjustment

1. With the throttle lever in the CHOKE position, the carburetor choke arm should move all the way to the right as far as it will go. Push the choke arm with your finger to check whether it is all the way to the right.



2. If adjustment is necessary, loosen the control cable lock nuts and move the adjuster up or down as required. Tighten the lock nuts and recheck the carburetor choke arm position.
3. Start the engine, and make sure the engine stops when the throttle lever is moved to the STOP position. Readjust the cable if necessary.



Spark Plug

**Standard Plug: BP5ES, BPR5ES (NGK)
W16EP-U, W16EPR-U (ND)**

CAUTION: Use only the recommended spark plugs or their equivalent. Spark plugs which have an improper heat range may cause engine damage.

1. Disconnect the cap and remove the spark plug.

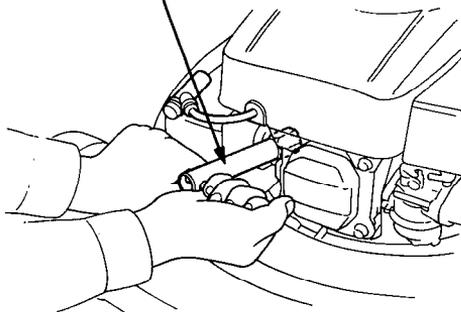
WARNING If the engine has been running, the muffler will be very hot. Be careful not to touch the muffler.

2. Visually inspect the plug. Discard the plug if it is heavily deposited or if the insulator is cracked or chipped.
3. Measure the plug gap with a wire-type feeler gauge; it should be 0.7–0.8 mm (0.028–0.031 in.). If adjustment is necessary, bend the side electrode carefully.
4. Make sure the sealing washer is in good condition, then thread the spark plug in by hand until it seats.
5. Use the wrench to tighten a new plug 1/2 turn further to compress the washer. If you are reusing the plug, it should only take 1/8–1/4 turn after the plug seats.

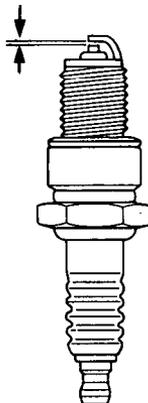
CAUTION: The spark plug must be securely tightened. An improperly tightened spark plug can become very hot and may damage the engine.

6. Replace the spark plug cap.

SPARK PLUG WRENCH

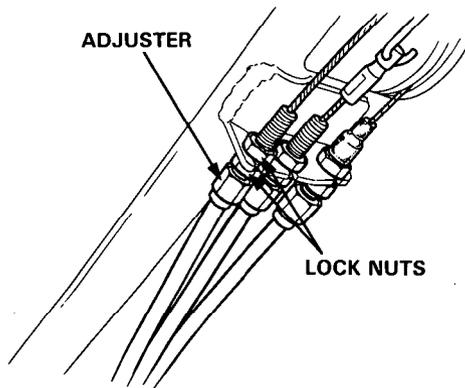
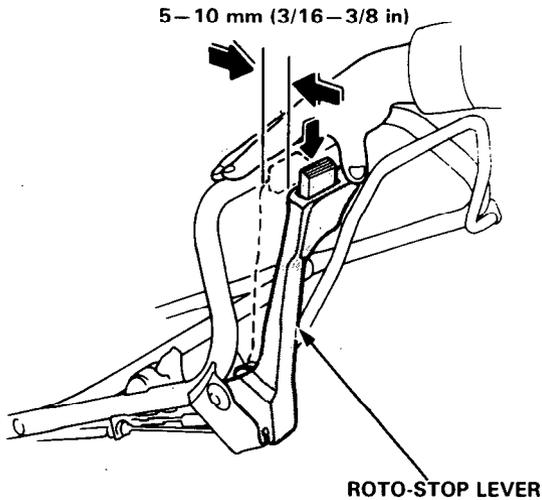


0.7–0.8 mm
(0.028–0.031 in.)



ROTO-STOP Lever Free Play

1. Measure free play at the tip of the lever with the button pushed down; it should be between 5–10 mm (3/16–3/8 in).
2. If adjustment is necessary, loosen the lock nuts and move the adjuster up or down as required. Tighten the lock nuts and recheck free play.
3. Start the engine and operate the ROTO-STOP lever. Check to be sure the blade stops when the lever is released.



Spark Arrester Maintenance (Optional Part)

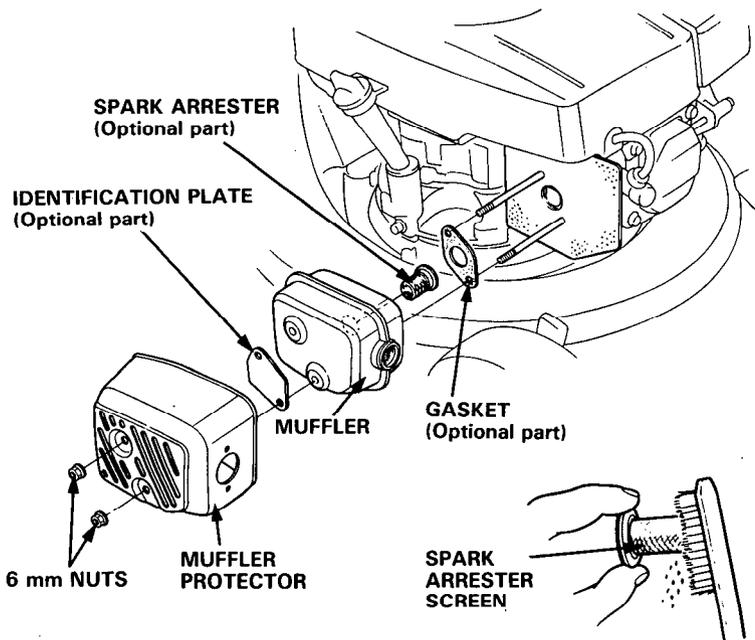
WARNING

- 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 lawnmower dealers.
- If the mower has been running, the muffler will be very hot. Allow it to cool before proceeding.

1. Remove the two 6 mm nuts and remove the muffler protector, identification plate, muffler and gasket.
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 spark arrester in the muffler.
5. Install gasket, muffler, identification plate, muffler protector, then tighten the two 6 mm nuts securely.



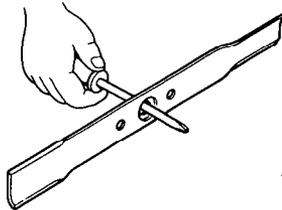
Blade Removal and Sharpening

WARNING

- Wear heavy gloves to protect your hands.
 - Disconnect the spark plug cap to prevent accidental start-up.
1. Turn the fuel valve OFF, and drain the carburetor (see p. 24).
 2. Tilt the mower so the carburetor side is up.
Remove the blade bolts to remove the blade.

NOTE: Never tilt the mower so the carburetor side is down, or hard starting will result.

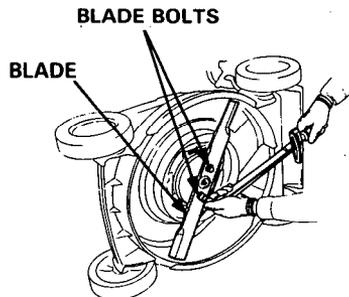
3. Sharpen the blade cutting edges with a file. File the top side only. Maintain the original bevel for a fine cutting edge. File both ends evenly to maintain blade balance.
4. After sharpening, test the blade's balance using a screwdriver as shown. If either side dips slightly below horizontal, file that side. Replace the blade if it dips excessively.



CAUTION

- Blade balance is critical to proper mower performance. Replace any blade that is damaged or out of balance.
 - Use only a genuine HONDA replacement blade or equivalent.
5. Clean away any dirt and grass from around the blade shaft.
 6. Install the blade and tighten the blade bolts to the specified torque.
Torque: 5.0–6.0 kg-m (36.2–43.4 ft lb)

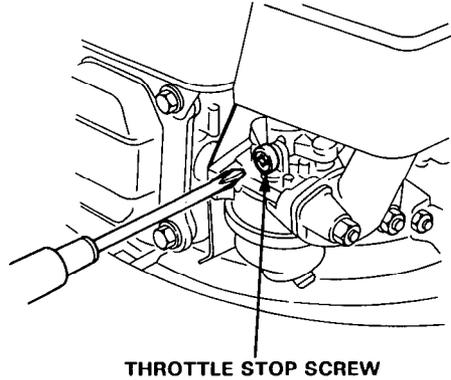
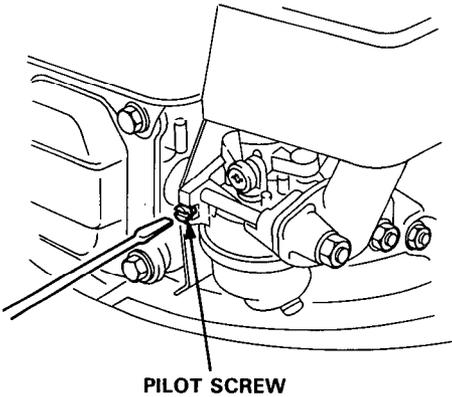
NOTE: As viewed from below, the blade turns counterclockwise; install the blade so its cutting edges face this direction of rotation.



Carburetor Adjustment

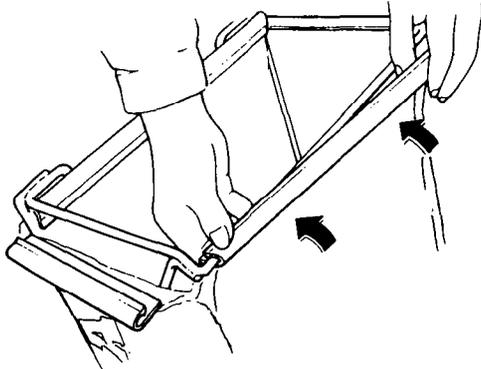
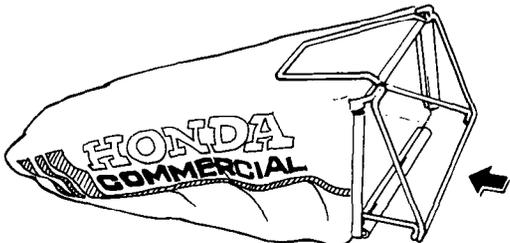
1. Start the engine and allow it to warm up to normal operating temperature.
2. Place the throttle lever in the LO position.
3. Turn the pilot screw in or out to the setting that produces the highest idle rpm. The correct setting will usually be approximately 2 turns out from the fully closed position.
4. After the pilot screw is correctly adjusted, turn the throttle stop screw to obtain the standard idle speed.

Standard idle speed: 1,700 \pm 150 rpm



Grass Bag Assembly

1. Insert the bag frame into the grass bag as shown.
2. Hook the plastic edges of the grass bag onto the frame.



8. TROUBLESHOOTING

TROUBLESHOOTING

- | | |
|--------------------------------|---|
| Engine will not start | <ol style="list-style-type: none">1. No fuel.2. Throttle lever in STOP position.3. Spark plug wire loose or disconnected.4. Spark plug faulty or improperly gapped (p. 30).5. Engine flooded (p. 18).6. Dirty air cleaner (p. 29). |
| Hard starting or loss of power | <ol style="list-style-type: none">1. Dirt in gas tank.2. Dirty air cleaner (p. 29).3. Water in gas tank or carburetor.4. Vent in gas cap and/or carburetor clogged. |
| Erratic operation | <ol style="list-style-type: none">1. Spark plug faulty or improperly gapped (p. 30).2. Dirty air cleaner (p. 29). |
| Engine overheats | <ol style="list-style-type: none">1. Spark plug improperly gapped (p. 30).2. Dirty air cleaner (p. 29).3. Dirty cooling fins.4. Low oil level (p. 10).5. Starter pulley clogged by grass, etc. |
| Excessive vibration | <ol style="list-style-type: none">1. Loose blade or engine mounting hardware.2. Blade unbalanced. |

9. SPECIFICATIONS

MODEL	HRA216
Power equipment description code	MACR
ENGINE	GXV160
Type	4-stroke, overhead valve, 1 cylinder
Displacement	163 cm ³ (9.9 cu. in)
Bore and stroke	68 x 45 mm (2.7 x 1.8 in)
Ignition timing	20° BTDC
Ignition system	Transistorized magneto ignition
Engine oil capacity	0.65 ℓ (0.687 US qt, 0.572 Imp qt)
Fuel tank capacity	2.0 ℓ (0.53 US gal, 0.44 Imp gal)
Spark plug	BP5ES·BPR5ES (NGK), W16EP-U·W16EPR-U (ND)

FRAME

Dimensions Length x Width x Height	1,670 x 565 x 1,035 mm (65.7 x 22.2 x 40.7 in)
Cutting width	530 mm (20.9 in)
Cutting height adjustment	1"–3.0" 5 positions
Dry weight	53 kg (116.8 lb)
Grass bag capacity	73 ℓ (19.3 US gal, 16.1 Imp gal)

NOTE: Specifications are subject to change without notice.

10. WARRANTY SERVICE

Owner Satisfaction

Your satisfaction and goodwill are important to your dealer and to us. All Honda warranty details are explained in the Distributor's Limited Warranty. Normally, any problems concerning the product will be handled by your dealer's service department. If you have a warranty problem that has not been handled to your satisfaction, we suggest you take the following action:

- Discuss your problem with a member of dealership management. Often complaints can be quickly resolved at that level. If the problem has already been reviewed with the Service Manager, contact the owner of the dealership or the General Manager.
- If your problem still has not been resolved to your satisfaction, contact the Power Equipment Customer Relations Department of American Honda Motor Co., Inc.

American Honda Motor Co., Inc.
Power Equipment Customer Relations Department
P.O. Box 50
Gardena, California 90247-0805
Telephone: (213) 604-2400

We will need the following information in order to assist you:

- Your name, address, and telephone number
- Product model and serial number
- Date of purchase
- Dealer name and address
- Nature of the problem

After reviewing all the facts involved, you will be advised of what action can be taken. Please bear in mind that your problem will likely be resolved at the dealership, using the dealer's facilities, equipment, and personnel, so it is very important that your initial contact be with the dealer.

Your purchase of a Honda product is greatly appreciated by both your dealer and American Honda Motor Co., Inc. We want to assist you in every way possible to assure your complete satisfaction with your purchase.





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HONDA MOTOR CO., LTD. TOKYO, JAPAN

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