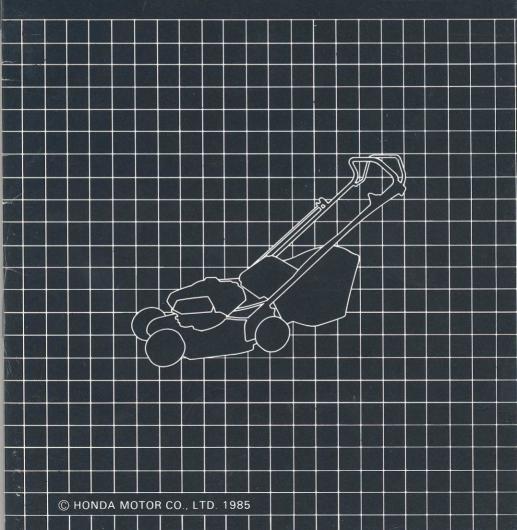
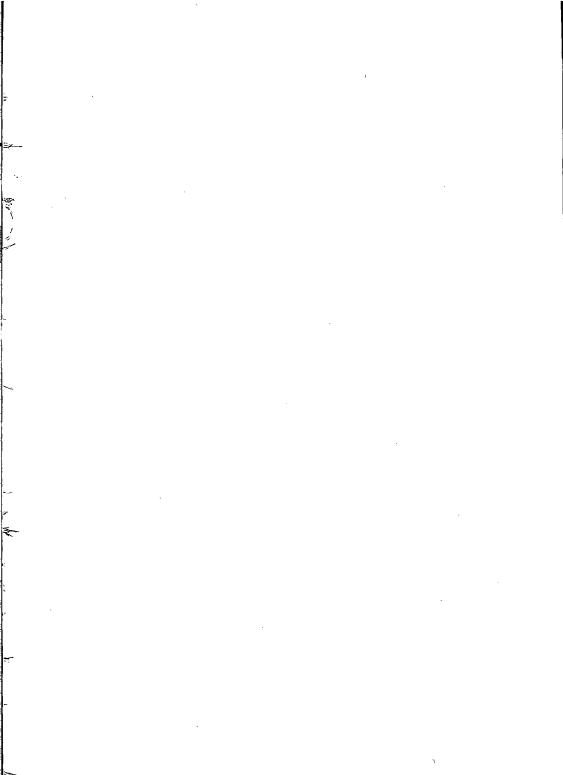
HONDA

Power

Equipment

Owner's Manual Rotary Mower HR173





Thank you for purchasing a Honda mower.

This manual covers operation and maintenance of Honda HR173 rotary mowers, type PDA (manually propelled, rear bag). Honda HR173 mowers meet CPSC blade safety requirements for walkbehind rotary power mowers.

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 mower and should remain with the mower if it is resold.

Pay special attention to statements preceded by the following words;

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

CAUTION: Indicates a possibility that equipment or property damage could result if instructions are not followed.

NOTE: Gives helpful information.

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

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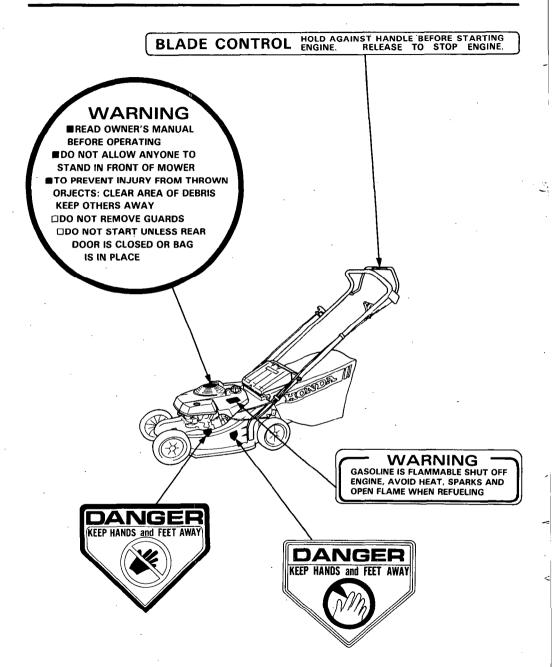
WARNING

- 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 the Owner's Manual before operating the mower. Failure to do so could result in personal injury or equipment damage.

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1. CAUTION LABEL LOCATIONS



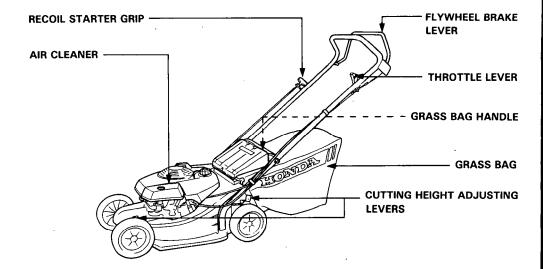


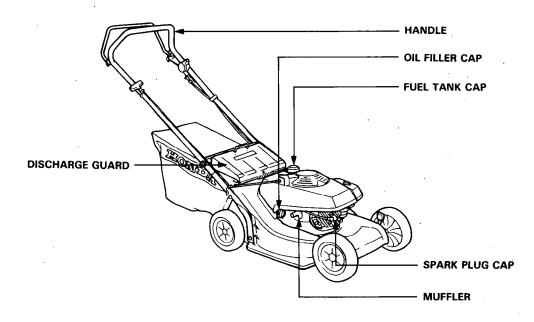
2. GENERAL SAFETY

WWARNING

- Know how to stop the engine quickly and understand operation of all the controls. Never permit anyone to operate the mower without proper instruction.
- 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 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 self-propelled mowers 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.
- Protect yourself by wearing long trousers and appropriate shoes. Don't wear loose fitting clothing or sandals when mowing.
- Keep children and pets away from the mower at all times.
- If the blade strikes a stone, sprinkler head, etc., be sure the blade, blade holderwasher, woodruff key, fasteners, crankshaft, etc. are in good condition before continuing to mow.
 Replace any damaged parts.

3. COMPONENT IDENTIFICATION





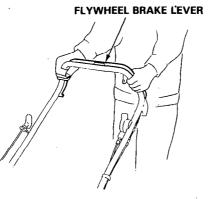
Throttle Lever

Throttle positions: START (CHOKE) HI LO



The flywheel brake lever must be moved forward and held against the handlebar to allow the engine to start and run. When the flywheel brake lever is released, the engine stops.

WARNING If the Brake System fails to stop the engine, turn off the fuel valve and allow the engine to stop completely. Take the mower to an authorized Honda dealer for service.



This mower may be used either with the grass bag or without the grass bag.

The following suggestions and rules are intended to help you operate your HR173 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.
- Control direction by the handle, not by foot pressure on the mower housing.
- Keep a firm hold on the handle and walk, never run, with the mower. Don't lag behind the machine or let it pull you.

CAUTION:

- Use extra care when mowing around objects to keep the blade from striking them. Never deliberately mow over any object.
- Stop the engine immediately if the blade hits an object or the mower starts to vibrate. Remove the spark plug cap (keep the wire away from the plug) and inspect for damage.

6. BEFORE YOU START THE MOWER

1. Check the engine oil level.

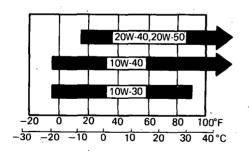
CAUTION:

- Engine oil is a major factor affecting engine performance and service life. Non-detergent oil and 2-stroke engine oil 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 manufacturers' 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.

- 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.



OIL FILLER CAP

2. Check the fuel level.

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 station 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.

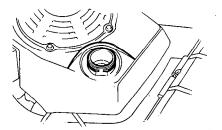
CAUTION: If "spark knock" or "pinging" occurs at a steady engine speed under normal load, change brands of gasoline. If spark knock or pinging persists, consult your authorized Honda dealer. Failure to do so is considered misuse, and damage caused by misuse is not covered by Honda's Limited Warranty.

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.

Fuel tank capacity: 0.9ℓ (0.24 US gal, 0.02 Imp gal)



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.

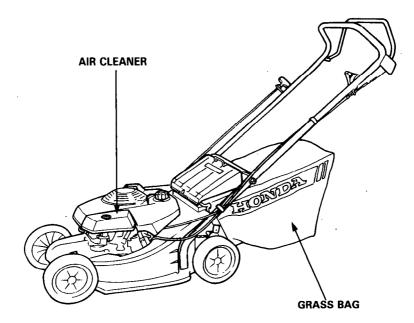
NOTE:

- 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 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 the bag is properly installed.
- 4. Check the blade bolt for tightness. Torque: 3.0-3.5 kg⋅m (21.7-25.3 ft-lb)

WARNING To be certain that the engine will not start accidentally, remove the spark plug cap before performing this inspection.

5. Check the air cleaner element and clean it if it is dirty (p.25).



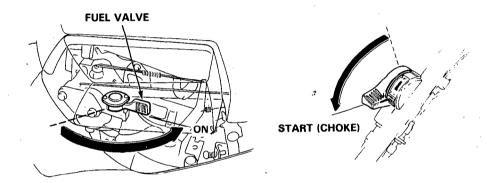
7. STARTING AND STOPPING THE ENGINE

Starting the Engine

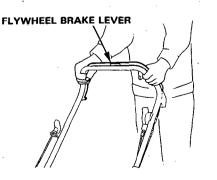
WWARNING Exhaust gas contains poisonous carbon monoxide. Never run the mower in an enclosed area. Be sure to provide adequate ventilation.

- 1. Turn the fuel valve ON.
- 2. Move the throttle lever to START(CHOKE).

NOTE: If the engine is warm or the air temperature is high, move the throttle to LO as soon as the engine starts.



3. Move the flywheel brake lever forward and hold it against the handlebar.

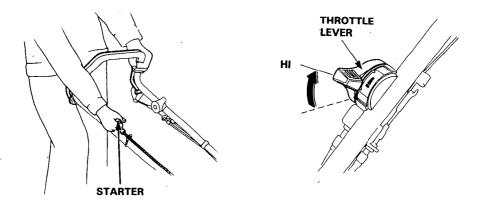


4. Pull the starter rope lightly until you feel resistance, then pull briskly.

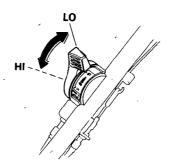
NOTE:

- The engine will start more easily if the cutting blade is not in contact with long, uncut grass.
- Do not allow the rope to snap back; return it by hand.

5. After the engine warms up, move the throttle lever to HI.



NOTE: The throttle lever may be moved anywhere between HI and LO to adjust engine speed during operation. However, the engine may stall if the lever is at LO when mowing starts.



Flooded Engine

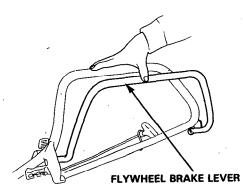
If the engine won't start after several pulls on the starter rope, the engine may be flooded.

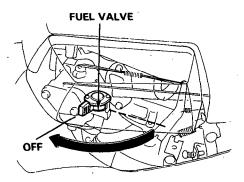
To clear a flooded engine:

- 1. Turn off the fuel valve.
- 2. Remove the spark plug and dry it. When reinstalling the plug, 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 flywheel brake lever.
- 2. 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.

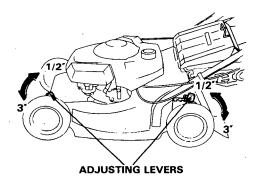
Even with suitable carburetor jetting, engine horsepower will decrease approximately 3.5% for each 1,000 foot increase in altitude. The affect of altitude on horsepower will be greater than this if no carburetor modification is made.

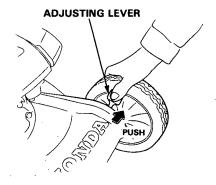
CAUTION: Operation of the mower at an altitude lower than the carburetor is jetted for may result in reduced performance, overheating, and serious engine damage caused by an excessively lean air/fuel mixture.

Cutting Height Adjustment

Seven settings are available: 1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 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 front and rear wheels to the same height.





Grass Bag

The bag is subject to wear under normal usage; check frequently for fraying and tears. Replace deteriorated bag only with Honda replacement bag 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 chuting and a wet bag will clog quickly.

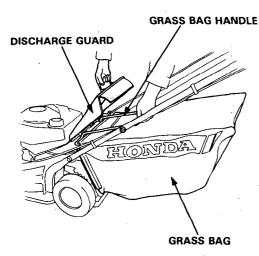
Removal

- 1. Stop the engine.
- 2. Raise the discharge guard. Grasp the bag handle. Remove and raise the front end of the grass bag.
- 3. Remove the bag.

Installation

Open the discharge guard and set the front end of the bag-frame onto the recesses.

NOTE: Be sure the bag is correctly positioned or grass will not shute properly.





8. TRANSPORTING/STORAGE

Transporting

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Turn the fuel valve OFF when transporting the mower.

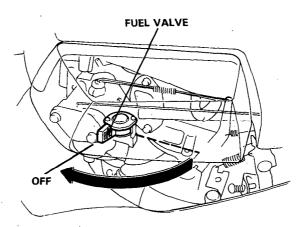
WARNING To avoid fuel and oil spillage do not tilt the unit; spilled fuel may ignite.

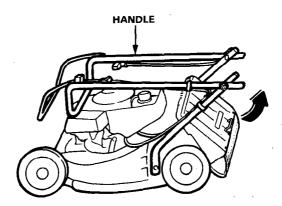
The handle may be folded for convenience:

1. Remove the grass bag.

2. Loosen the handle knobs and fold the handle as shown.

NOTE: After folding the handle, check that the cables are not kinked, twisted or pulled taught.





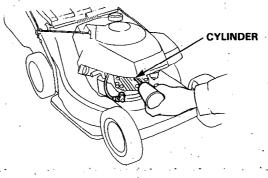
Preparation for Storage

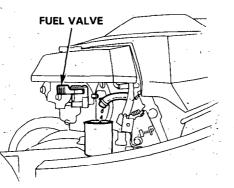
The following steps should be taken to protect the mower whenever it will be stored for longer than 30 days.

NOTE: If the mower will be stored for longer than a year, first 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 distrubute the oil.

Replace the plug.

1. Drain the fuel tank and Carburetor into a suitable gasoline container: A.Remove the fuel tube and drain the fuel tank.

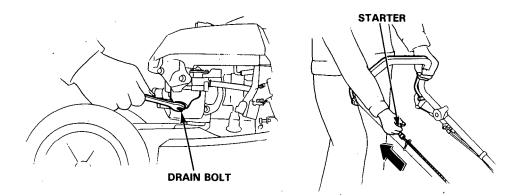




- B. Remove the drain bolt to drain the carburetor.
- C.Reinstall the drain bolt, connect the fuel tube and turn the fuel valve OFF.

Conditions. Do not smoke or allow flames or sparks in the area.

- 2. Change the engine oil (p. 24)
 - 3. Squeeze the flywheel brake lever against the handlebar and pull the starter rope until it becomes hard to pull. This closes the valves, and protects them from dust and 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

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- 1. Remove the spark plug; check that it is clean and properly gapped (p. 26). 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. \sim

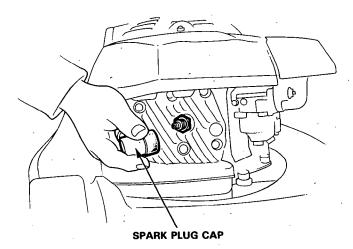
NOTE: If the cylinder was coated with oil, the engine will smoke at start up; this is normal.

9. MAINTENANCE

WARNING To prevent accidental start-up, shut off the engine and disconnect the spark plug cap before performing any maintenance.

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 HR173 is essential if high level performance is to be maintained. Regular maintenance will also help to extend service life. The required service intervals and the knd of maintenance to be performed are described in the chart on the following page.



MAINTENANCE SCHEDULE

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REGULAR SERVI		Each	First month	Every 3 months	Every 6 months	Every year					
operatin	at every indicated g hour interval er comes first.	Use	or 20 Hrs. (3)	or 50 Hrs. (3)	or 100 Hrs. (3)	or 300 Hrs. (3)					
Engine oil	Check level	0									
	Change		0		0						
	Check	0									
Air cleaner	Clean			0 (1)							
Grass bag	Clean	0									
Blade bolt tightness	Check	Ο.									
Flywheel brake cable	Adjust			O (2)							
Flywheel brake pad	Check			O (2)							
Blade holder washer and key	Check (Replace if necessary)				0 (2)						
Spark plug	Clean – Readjust				0						
Spark arrestor (optional part)	Clean				0						
Throttle cable	Adjust -					0					
Valve clearance	Check – Redjust					O (2)					
Combustion chamber and valves	Clean — Relap					O (2)					
Fuel tank and strainer	Clean					O (2)					
Fuel line	Check (Replace if necessary)	Every 3 years (2)									

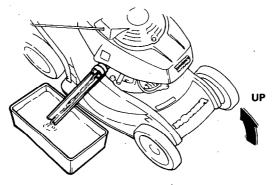
NOTE: (1) Service more frequently when used in dusty areas.

- (2) These items should be serviced by an authorized Honda dealer, 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.

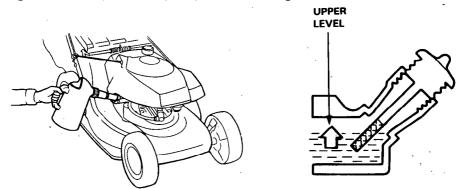
Engine Oil Change

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

- 1. Remove the filler cap.
- 2. Tilt the mower to drain the oil.



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



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. , V

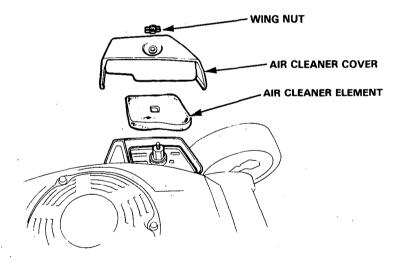
NOTE: Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station for reclamation. Do not throw it in the trash or pour it on the ground.

Air Cleaner Service

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A dirty air cleaner will restrict air flow to the carburetor. To prevent carburetor malfunction, service the air cleaner frequently.

- 1. Unscrew the wing nut, remove the air cleaner cover and remove the element.
- 2. Wash the element in a non-flammable or high flash point solvent and dry it thoroughly.
- 3. Soak the element in clean engine oil and squeeze out the excess oil.
- 4. Reinstall the air cleaner element and the cover.



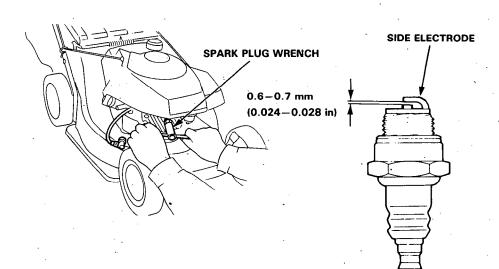
Spark Plug

Standard Plug: BMR-4A (NGK) W14MR-U (ND)

- 1. Disconnect the cap and remove the spark plug.
- 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 0.6-0.7 mm (0.024-0.028 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.

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- 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.
- 6. Replace the spark plug cap.



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. 21).
- 2. Tilt the mower so the carburetor side is up. Remove the blade bolt to remove the blade.

NOTE:

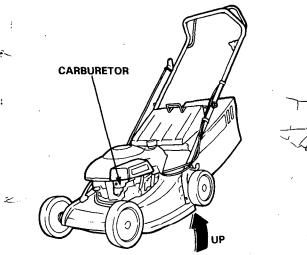
Never tilt the mower so the carburetor side is down. It will result in hard starting.

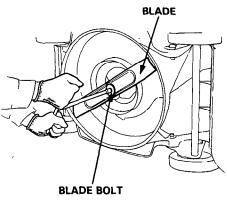
3. Sharpen the blade cutting edges with a file. File the top side only. Maintain the original bevel for a fine cutting edge. File both ends evenly to maintain blade balance.

NOTE:

Use only a genuine HONDA replacement blade or equivalent.

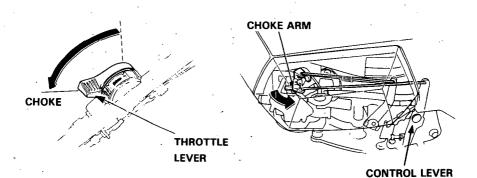
- 4. Clean away any dirt and grass from around the blade shaft.
- 5. Install the blade. Tighten the bolt securely. Torque: 3.0-3.5 kg m (21.7-25.3 ft-lb)





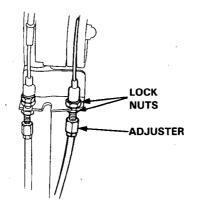
Throttle Cable Adjustment

1. When the throttle lever is moved to the START (CHOKE) position, the carburetor choke arm should move fully counterclockwise, to the limit of its travel. Push the control lever with your finger to check that the choke arm has moved fully counterclockwise.



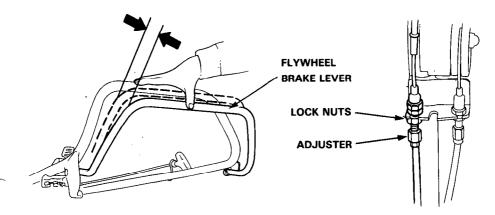
11 March

2. If adjustment is necessary, loosen the cable lock nuts, and move the adjuster up or down as required. Tighten the lock nuts, and recheck the carburetor choke arm positon.



Flywheel Brake Lever Free Play

- 1. Measure free play at the tip of the lever as shown, it should be less than 5 mm (3/16 in).
- 2. If adjustment is necessary, loosen the lock nuts and turn them to run the adjuster up or down as required. Tighten the lock nuts and recheck free play.
- 3. Start the engine and operate the brake lever. Check to be sure the engine is stopped when the lever is released.



less than 5 mm (3/16 in)

Spark Arrester Maintenance (Optional Part)

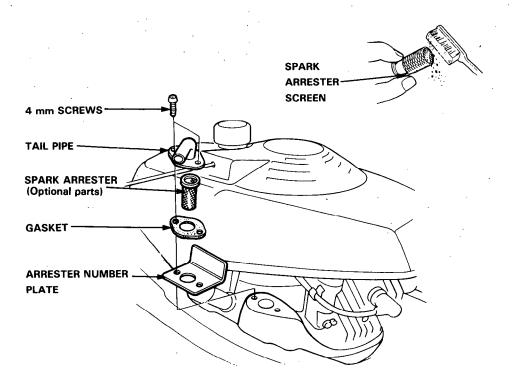
WWARNING If the mower has been running, the muffler will be very hot. Allow it to cool before proceeding.

- 1. Remove the two 4 mm screws and tail pipe, and then remove the spark arrester and the arrester number plate from the muffler.
- 2. Use a brush to remove carbon deposits from the spark arrester screen.

CAUTION: Be careful not to damage the spark arrester acreen.

NOTE: The spark arrester must be free of breaks and holes. Replace, if necessary.

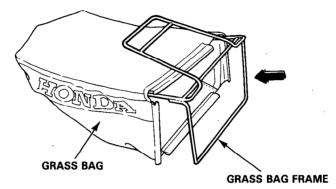
3. Install the arrester number plate, spark arrester and tail pipe on the muffler, and tighten two 4 mm screws securely.



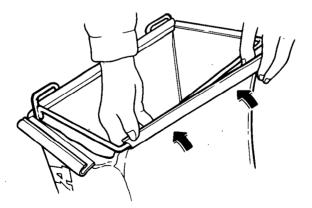
GRASS BAG ASSEMBLY

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1. Insert the bag frame into the grass bag as shown.



2. Hook the plastic edges of the grass bag onto the frame.



10. TROUBLESHOOTING

Engine will not start	 No fuel. Flywheel brake cable loose. Spark plug wire loose or disconnected. Spark plug faulty or improperly gap- ped (p. 26). Engine flooded (p. 16). Dirty air cleaner.
Hard starting or loss of power	 Dirt in gas tank. Dirty air cleaner. Water in gas tank or carburetor. Vent in gas cap and/or carburetor clogged.
Erratic operation	 Spark plug faulty or improperly gap- ped (p. 26). Dirty air cleaner.
Engine overheats	 Spark plug improperly gapped. Dirty air cleaner. Dirty cooling fins. Low oil level. Flywheel clogged by grass, etc.
Excessive vibration	 Loose blade or engine mounting hardware. Blade unbalanced.

11. SPECIFICATIONS

MODEL	HR173
POWER PRODUCTS DESCRIPTION CODE	MA2R
ENGINE	GV100K ₁
Engine type	Side valve, single-cylinder,
	forced air-cooled
	four-stoke gasoline engine.
Displacement/Bore and	
stroke	90 cm³ (5.5 cu in)/50 x 46 mm
	(2.0 x 1.8 in)
Ignition timing	20° BTDC
Ignition system	Transistorized magneto ignition
Engine oil capacity	0.4 ℓ (0.42 US qt, 0.35 imp qt)
Fuel tank capacity	0.9 ℓ (0.24 US gal, 0.20 imp gal)
Spark plug	BMR-4A (NGK) or W14MR-U (ND)
FRAME	
Dimensions	
Length x Width x Height	1410 x 470 x 990 mm
	(55.5 x 18.5 x 39.0 in)
Dry weight	22.5 kg (49.6 lb)
Grass bag capacity	42 l
Cutting width	420 mm (16.5 in)

NOTE: Specifications are subject to change without notice.

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12. 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 Division of American Honda Motor Co., Inc.

American Honda Motor Co., Inc. Power Equipment Division P.O. Box 100021 Duluth, Georgia 30136-9421 Telephone: (404) 497-6400

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.

Current customer service contact information:

United States, Puerto Rico, and U.S. Virgin Islands:

Honda Power Equipment dealership personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your dealer does not solve to your satisfaction, please discuss it with the dealership's management. The Service Manager or General Manager can help. Almost all problems are solved in this way.

If you are dissatisfied with the decision made by the dealership's management, contact the Honda Power Equipment Customer Relations Office. You can write:

American Honda Motor Co., Inc. Power Equipment Division Customer Relations Office 4900 Marconi Drive Alpharetta, GA 30005-8847

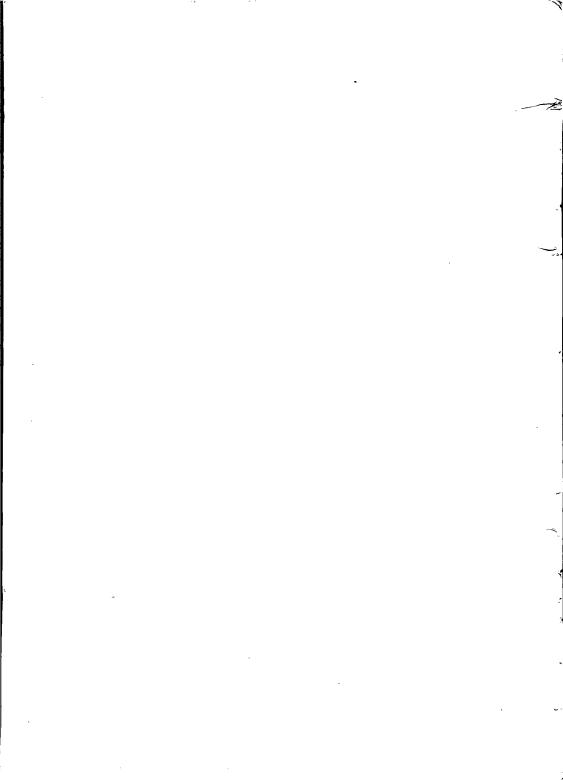
Or telephone: (770) 497-6400 M-F, 8:30 am - 7:00 pm EST

When you write or call, please provide the following information:

- Model and serial numbers
- Name of the dealer who sold the Honda power equipment to you
- Name and address of the dealer who services your equipment
- Date of purchase
- Your name, address, and telephone number
- A detailed description of the problem

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