

HONDA

Power

Equipment

Owner's Manual
Rotary Mower
HRM215PDA HRM215SDA



HONDA

Harmony

This owner's manual is considered a permanent part of the lawn mower and should remain with the mower if resold.

The information and specifications included in this publication were in effect at the time of approval for printing. Honda Power Equipment Mfg., Inc. reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation whatever.

Honda lawn mowers meet Consumer Product Safety Commission (CPSC) blade safety requirements for walk-behind rotary mowers.

Your mower is not equipped with a spark arrester, and it may be illegal to operate the mower in some areas. Check local laws and regulations. An optional spark arrester is available from authorized Honda lawn mower dealers.

Congratulations on your selection of a Honda lawn mower. We are certain you will be pleased with your purchase of one of the finest lawn mowers on the market.

We want to help you get the best results from your new mower and to operate it safely. This manual contains the information on how to do that; please read it carefully.

Keep this owner's manual handy, so you can refer to it any time, and make sure the manual stays with the lawn mower if you sell it.

We suggest you read the warranty policy to fully understand its coverage and your responsibilities of ownership. The warranty policy is a separate document that should have been given to you by your dealer.

When your mower needs scheduled maintenance, keep in mind that your Honda lawn mower dealer is specially trained in servicing Honda mowers and is supported by the parts and service divisions of American Honda. Your Honda dealer is dedicated to your satisfaction and will be pleased to answer your questions and concerns.

Best Wishes,
Power Equipment Division
American Honda Motor Co., Inc.

Safety Messages

Your safety and the safety of others is very important. We have provided important safety messages in this manual and on the lawn mower. Please read these messages carefully.

A safety message alerts you to potential hazards that can hurt you and others. Each safety message is preceded by a safety alert symbol  and one of three words: DANGER, WARNING, or CAUTION.

These mean:

 **DANGER**

You **WILL** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

 **WARNING**

You **CAN** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

 **CAUTION**

You **CAN** be **HURT** if you don't follow instructions.

Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury.

Damage Prevention Messages

You will also see other important messages that are preceded by the word NOTICE.

This word means:

NOTICE

Your lawn mower or other property can be damaged if you don't follow instructions.

The purpose of these messages is to help prevent damage to your lawn mower, other property, or the environment.

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MOWER SAFETY

This section explains what you need to know to operate your mower safely.

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Safety Information

Most accidents with walk-behind mowers can be prevented if you follow all instructions in this manual and on the mower. The most common hazards, according to accident statistics, are discussed below, along with the best way to protect yourself and others.

Avoid Rotating Blades

Rotating blades can cause serious cuts and even amputate fingers, hands, toes, or feet. Keep away from the mower deck whenever the engine is running. If you need to work around the deck to clear grass accumulation, adjust the cutting height, or for any other reason, always shut off the engine. Disconnect the spark plug cap from the spark plug. Wear heavy gloves when you need to clean the mower deck or handle the blades.

Clear Mowing Area

Mower blades can throw rocks and other objects with enough force to cause serious injury. Before mowing, carefully inspect the area and remove all sticks, stones, pieces of wire, and other loose objects. Never run the engine over gravel.

Keep Shields in Place

Guards and shields are designed to protect you from being hit by thrown objects and from touching hot engine parts and moving components. For your safety and the safety of others, keep all shields in place when the engine is running.

Refuel with Care

Gasoline is extremely flammable and gasoline vapor can explode. Refuel only outdoors, in a well-ventilated area, with the engine OFF. If the engine has been running, allow it to cool. Never smoke near gasoline, and keep other flames and sparks away. Always store gasoline in an approved container.

Wear Protective Clothing

Wearing protective clothing will reduce your risk of injury. Long pants and eye protection reduce the risk of injuries from thrown objects. Sturdy shoes with aggressive soles will help protect your feet and give you better traction on slopes or uneven ground.

Turn Engine Off When Not Mowing

If you need to leave the mower for any reason, even just to inspect the lawn ahead, always turn the engine off.

Important Message to Parents

YOUR CHILDREN'S SAFETY IS VERY IMPORTANT to Honda. That's why we urge you to read this message before letting your youngster operate this lawn mower. Lawn mowers are tools, not toys. As with any equipment, bad judgments can result in serious injuries. You can help prevent accidents by making good decisions about if, when, and how your youngster operates this equipment.

The first question you'll need to ask is whether your youngster is capable of operating this mower safely. Remember, young people vary widely, and **AGE IS NOT THE ONLY FACTOR**.

Physically, a youngster must be **LARGE ENOUGH AND STRONG ENOUGH** to easily start the mower and control its direction. The youngster also needs enough size, strength, and coordination to comfortably reach and operate the controls.

Another, tougher question you need to ask is if your youngster has enough **MATURITY AND RESPONSIBILITY** to safely operate this mower. Does the young person think through problems and come to logical solutions? Be honest! Anyone who takes unnecessary risks and doesn't obey rules should not operate this lawn mower.

If you decide that your son or daughter can handle the mower safely, **CAREFULLY READ THE OWNER'S MANUAL** with your youngster. Make sure you both understand all instructions and safety information. Also, be sure your youngster wears sturdy shoes and other protective clothing when operating or handling the mower.

SUPERVISION is also very important. Walk with your youngster during the first few minutes of mowing. Even after the youngster has become confident with the mower, do not let the young person use the mower without good adult supervision. An adult should also be present during refueling and maintenance. In fact, it's up to parents to make sure that the mower is properly maintained and kept in safe operating condition.

By always placing safety first, your youngster will acquire useful skills and a sense of accomplishment. And you'll both get the best results from your lawn mower.

Safety Label Locations

The labels shown here contain important safety information. Please read them carefully. These labels are considered permanent parts of your mower. So if a label comes off or becomes hard to read, contact your dealer for a replacement.

⚠ WARNING

MOWER BLADE CAN CUT OFF HANDS OR FEET

- Stop the engine before opening rear door.
- Always keep feet away from mower deck.

THROWN OBJECTS CAN CAUSE SERIOUS INJURY, BLINDNESS, OR PROPERTY DAMAGE.

- Inspect area and remove debris before mowing.
- Keep children and others away.
- Wear eye protection.
- Follow all instructions in your Owner's Manual carefully.

⚠ WARNING

Gasoline is highly flammable and explosive and you can be burned or seriously injured.

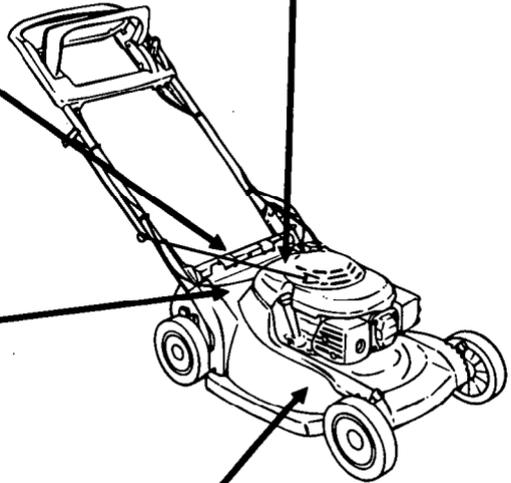
When refueling:

- Keep heat, sparks, and open flame away.
- Fill fuel tank only outdoors.
- Wipe up spills before starting engine.



⚠ CAUTION

HOT MUFFLER CAN BURN YOU.
Stay away if engine has been running.



MOWER SAFETY

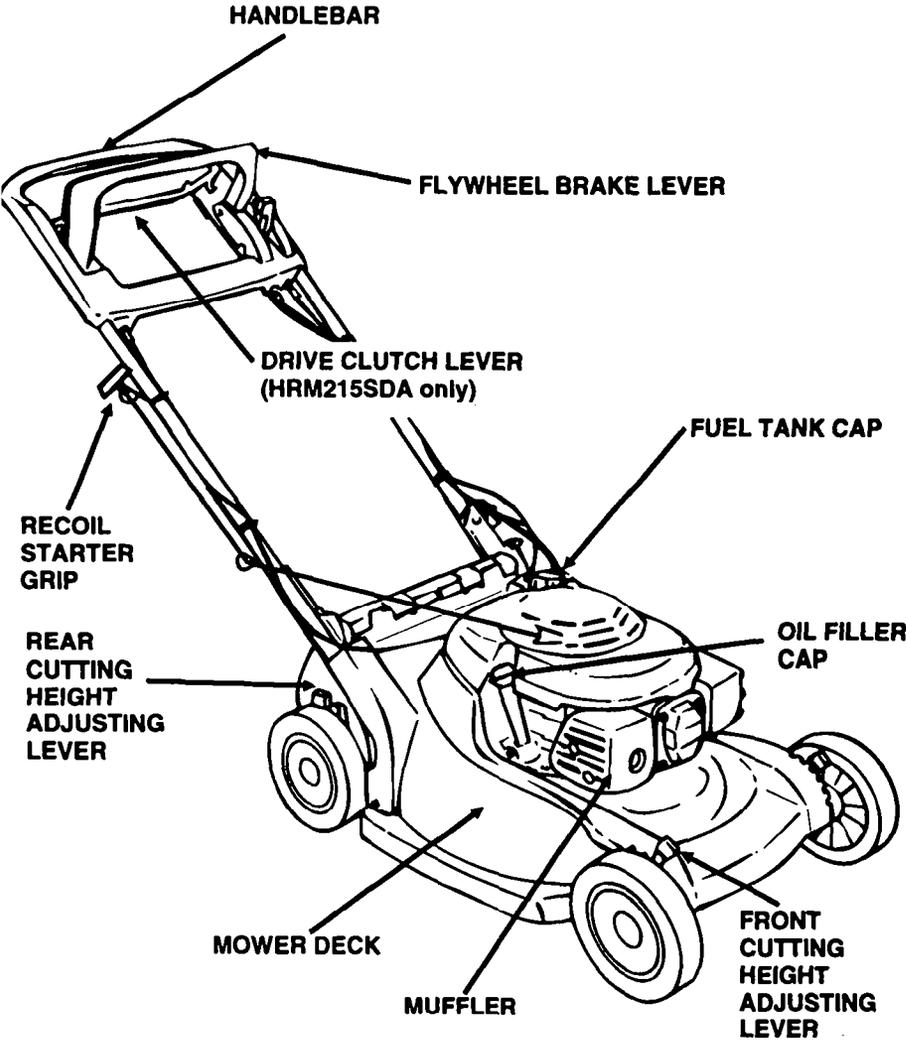
CONTROLS

This section shows the locations of controls and other important parts of your mower, and it tells you how the controls work.

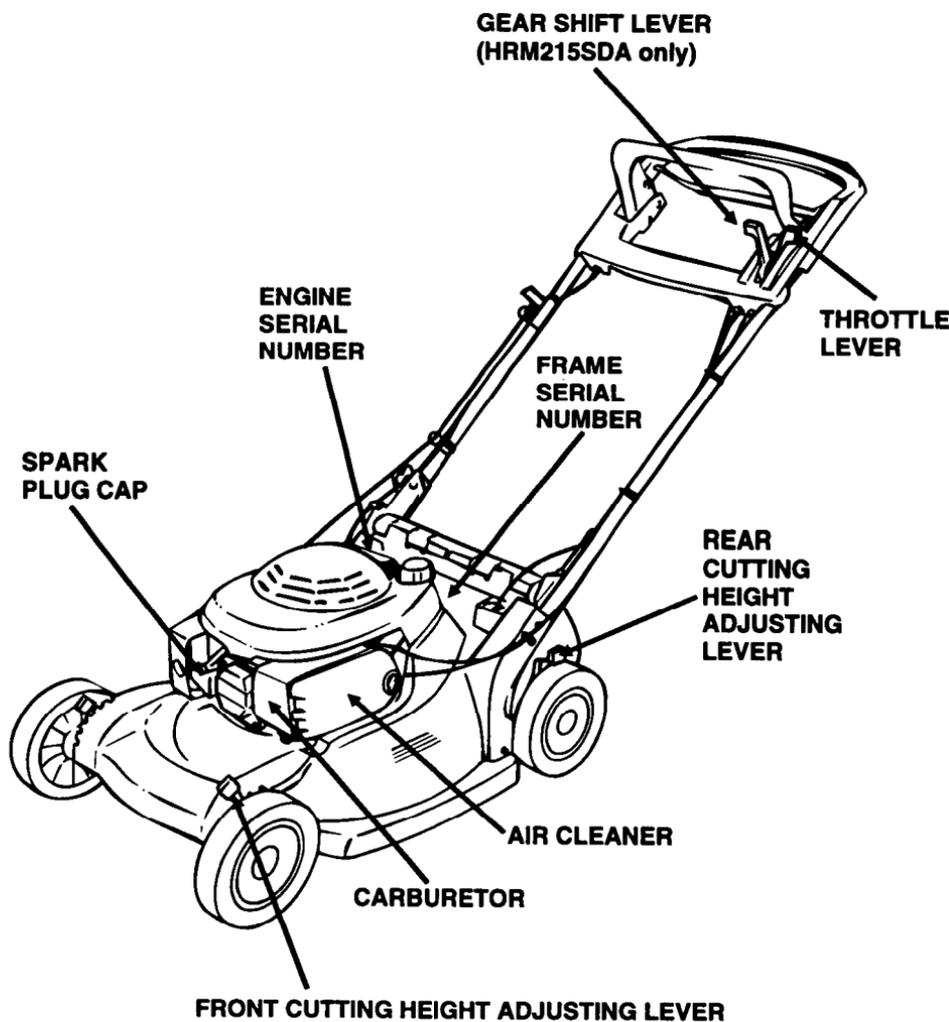
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CONTROLS

Component Identification



HRM215PDA: Manually propelled
HRM215SDA: Self-propelled



Record the frame and engine serial numbers in the space below. You will need these serial numbers when ordering parts and when making technical or warranty inquiries.

Frame serial number: _____

Engine serial number: _____

CONTROLS

Controls

Throttle Lever

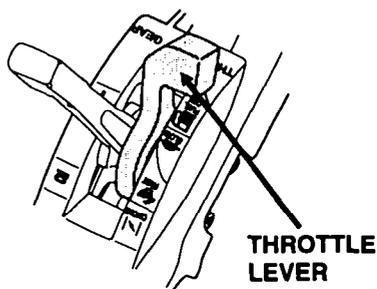
FUEL

OFF – Closes the fuel valve.

SLOW – For idling the engine.

FAST – For restarting a warm engine and for mowing.

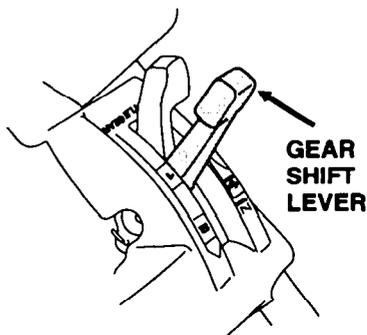
CHOKE – For starting a cold engine.



Gear Shift Lever (HRM215SDA)

1 (slow) – For mowing thick grass or maneuvering in small areas.

2 (fast) – For maximum self-propelled speed in large, open areas.



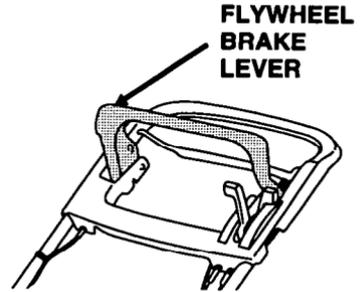
To avoid incomplete gear engagement, move the gear shift lever all the way forward or all the way back. You can shift gears without releasing the drive clutch lever, but the transmission may not shift smoothly if the mower is pulling hard. For smoother operation, release the drive clutch lever before shifting gears.

Flywheel Brake Lever

This lever is connected to the engine flywheel brake and the ignition switch. The engine will not start and run unless this lever is pulled back.

To start the engine, pull this lever back, and hold it against the handlebar while operating the recoil starter. Continue to hold the lever against the handlebar while mowing.

To stop the engine and blade, release the lever.



Drive Clutch Lever (HRM215SDA)

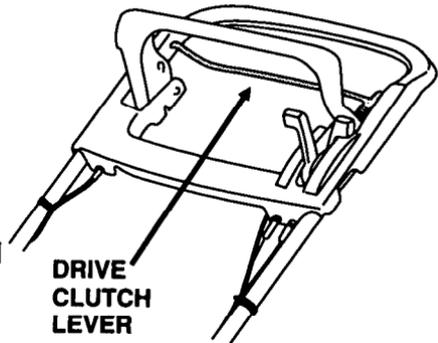
The drive clutch lever engages and disengages the transmission that drives the rear wheels.

To propel the mower, move the drive clutch lever up and hold it against the handlebar.

Release the drive clutch lever to stop the mower.

Operate the drive clutch lever with a quick and complete motion, so the drive clutch is always either fully engaged or released. This will help to extend the service life of the clutch mechanism.

Always release the drive clutch lever before starting the engine. If the drive clutch is engaged, the mower will move forward when you operate the starter.

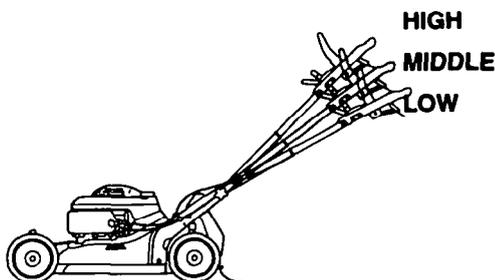


Handlebar

The handlebar is adjustable to a high, middle, or low position. Select the height that provides the most comfortable operating position.

Adjusting Height

1. Loosen the handlebar locking knobs.
2. Spread the lower ends of the handlebar to release the locating pins.
3. Move the handlebar up or down, so the locating pins engage other holes on the handlebar mounting brackets.
4. Tighten the handlebar locking knobs securely.

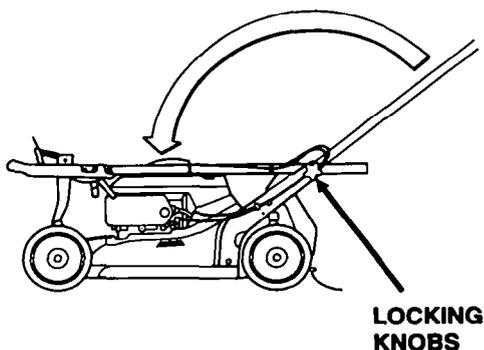


Folding

The handlebar can be folded for compact storage or transport.

1. Loosen the handlebar locking knobs.
2. Spread the lower ends of the handlebar struts to release the locating pins.
3. Fold the handlebar forward, over the top of the mower.

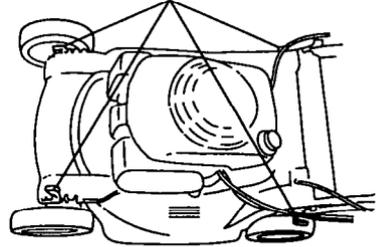
When folding the handlebar, be careful to avoid kinking or pinching the control cables.



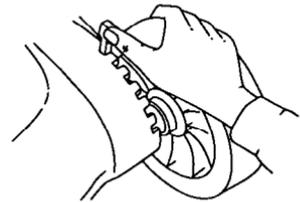
Cutting Height Adjustment Levers

There are six settings to choose from, as shown in the illustration. The cutting height figures are approximate, as the actual height of cut grass will vary with lawn and soil conditions.

ADJUSTMENT LEVERS



To adjust cutting height, pull each adjustment lever toward the wheel, and move it into another notch. Set all four adjustment levers to the same cutting height position.



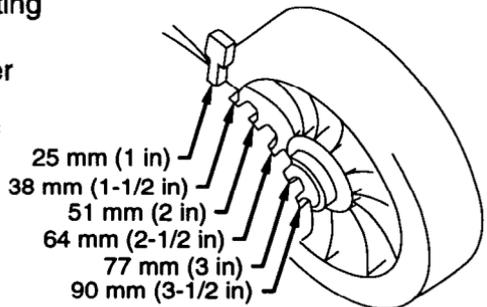
⚠ WARNING

The blades spin while the engine is running.

Spinning blades can cut you severely and can amputate fingers and toes.

Stop the engine before placing your hand near the mower deck.

If you are not sure what cutting height to select, check the appearance of the lawn after mowing a small area, then readjust the cutting height if necessary.



CONTROLS

BEFORE MOWING

This section explains how to fuel and check your mower to be sure it is ready, and it tells you how to prepare your lawn and yourself before you begin mowing.

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BEFORE MOWING

Check Your Lawn

For your safety and for the safety of others, always inspect the area before mowing.

Objects

Anything which can be picked up by the blades and thrown is a potential hazard to you and others. Look for things like stones, sticks, bones, and wire. Remove them from the mowing area.

People and Pets

People and animals near the mowing area can move into your path or into a position where they could be struck by thrown objects. Clear the area of people and pets, especially children. Their safety is your responsibility.

Lawn

Check the length and condition of the grass, so you will know what cutting height and mowing speed to use.

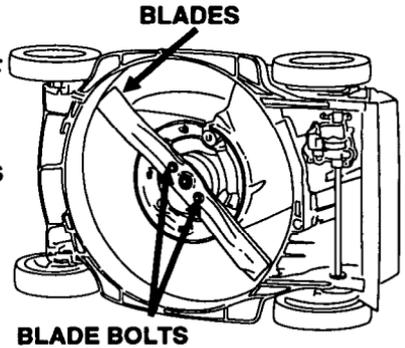
Avoid mowing wet grass. Not only will wet grass clog your mower deck and collect in clumps on the lawn, it also gives poor traction, increasing your risk of losing your footing.

Check Your Mower

Blades

With the throttle in the FUEL OFF position and the spark plug cap disconnected, tilt the mower to the right, so the carburetor side is up. This will help to prevent fuel leakage and hard starting.

Inspect the blades for wear and damage.

**NORMAL****EXCESSIVELY WORN****BENT****CRACKED**

Dull blades can be sharpened, but blades that are worn out, bent, cracked, or otherwise damaged must be replaced. Worn or damaged blades can break, causing blade pieces to be thrown from the mower.

When a blade needs sharpening or replacement take the lawn mower to an authorized Honda lawn mower dealer. Or, if you have a torque wrench, you can remove and install the blades yourself (see pages 51 - 52).

BEFORE MOWING

Engine Oil

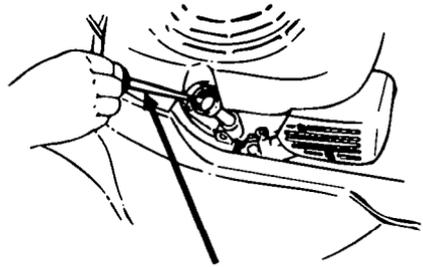
Check the engine oil level with the engine stopped and the mower on a level surface.

NOTICE

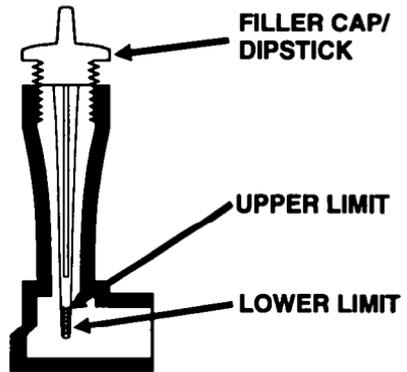
Running the engine with a low oil level can cause engine damage.

1. Remove the oil filler cap, and wipe the dipstick clean.
2. Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.
3. If the oil level is low, add oil to reach the upper limit mark on the dipstick. Do not overfill.

See pages 40 and 41 for details.



FILLER CAP/DIPSTICK



FILLER CAP/
DIPSTICK

UPPER LIMIT

LOWER LIMIT

Fuel

Fuel tank capacity: 1.0 / (0.26 US gal)

The engine on this lawnmower is designed to operate on unleaded (or low leaded) gasoline. Unleaded gasoline produces fewer engine and spark plug deposits and extends exhaust system life.

Refuel in a well-ventilated area before starting the engine. If the engine has been running, allow it to cool. Remove the tank cap and check the fuel level. Refill the tank if the fuel level is low. Refuel carefully to avoid spilling fuel. Do not overfill; there should be no fuel in the filler neck. After refueling, tighten the fuel tank cap securely.

⚠ WARNING

Gasoline is highly flammable and explosive.

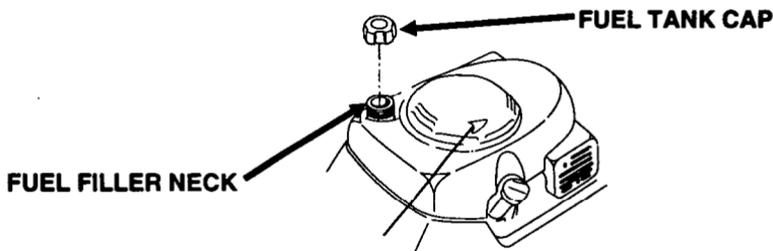
You can be burned or seriously injured.

When refueling:

- Stop the engine and keep heat, sparks and flames away.
- Refuel only outside.
- Wipe up spills immediately.

Never refuel the mower inside a building where fumes may reach flames or sparks. Keep gasoline away from appliance pilot lights, barbecue, electric appliances, power tools, etc.

Spilled fuel is not only a fire hazard, it causes environmental damage. Wipe up spills immediately. Dispose of gasoline properly.



BEFORE MOWING

NOTICE

Fuel can damage paint and some types of plastic. Be careful not to spill fuel when filling your fuel tank. Damage caused by spilled fuel is not covered under warranty.

Fuel Recommendations

Use gasoline with a pump octane rating of 86 or higher.

We recommend unleaded fuel because it produces fewer engine and spark plug deposits and extends exhaust system life.

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

Occasionally you may hear light “spark knock” or “pinging” (metallic rapping noise) while operating under heavy loads. This is no cause for concern.

If spark knock or pinging occurs at a steady engine speed, under normal load, change brands of gasoline. If spark knock or pinging persists, see an authorized Honda lawn mower dealer.

NOTICE

Running the engine with persistent spark knock or pinging can cause engine damage.

Running the engine with persistent spark knock or pinging is misuse, and the Distributor’s Limited Warranty does not cover parts damaged by misuse.

Oxygenated Fuels

Some conventional gasolines are being blended with alcohol or an ether compound. These gasolines are collectively referred to as oxygenated fuels. To meet clean air standards, some areas of the United States and Canada use oxygenated fuels to help reduce emissions.

If you use an oxygenated fuel, be sure it is unleaded and meets the minimum octane rating requirement.

Before using an oxygenated fuel, try to confirm the fuel's contents. Some states/provinces require this information to be posted on the pump.

The following are the EPA approved percentages of oxygenates:

- | | |
|-----------------|--|
| ETHANOL | (ethyl or grain alcohol) 10% by volume
You may use gasoline containing up to 10% ethanol by volume. Gasoline containing ethanol may be marketed under the name "Gasohol". |
| MTBE | (Methyl Tertiary Butyl Ether) 15% by volume
You may use gasoline containing up to 15% MTBE by volume. |
| METHANOL | (methyl or wood alcohol) 5% by volume
You may use gasoline containing up to 5% methanol by volume, as long as it also contains cosolvents and corrosion inhibitors to protect the fuel system. Gasoline containing more than 5% methanol by volume may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of your fuel system. |

If you notice any undesirable operating symptoms, try another service station, or switch to another brand of gasoline.

Fuel system damage or performance problems resulting from the use of an oxygenated fuel containing more than the percentages of oxygenates mentioned above are not covered under warranty.

BEFORE MOWING

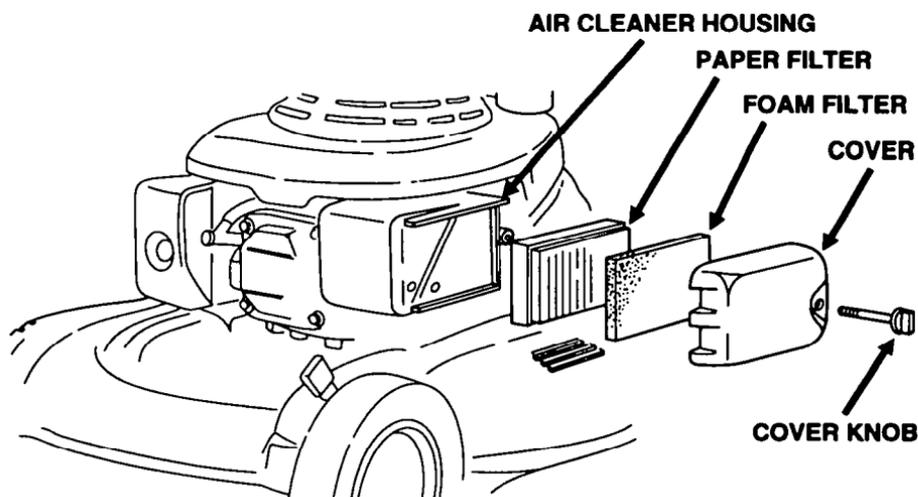
Air Cleaner

Check that the air filters are clean and in good condition. Dirty air filters restrict air flow to the carburetor, reducing engine performance.

NOTICE

Operating the engine without filters, or with damaged filters, allows dirt to enter the engine, causing rapid engine wear. This type of damage is not covered by the Distributor's Limited Warranty.

1. Unscrew and remove the air cleaner cover knob, then remove the cover.
2. Inspect the paper filter. Remove and inspect the foam filter. Replace damaged filters. Clean or replace dirty filters. See page 42 for cleaning instructions.
3. Reinstall the filters and cover. Tighten the cover knob securely.



ARE YOU Ready to Mow?

Just in case you have missed a hidden object in your lawn, be sure to wear protective clothing. Long pants and eye protection can lower your risk of injury from thrown objects. Wear footwear that protects your feet and won't let you slip if you mow on slopes or uneven ground.

MOWING

This section tells you how to operate the mower safely and effectively.

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Starting the Engine

Because of the risk of carbon monoxide poisoning, it makes good sense to start the mower outside, or at least in an open area with good ventilation. Before starting, make sure the discharge guard is closed. The blades turn when you operate the starter, so it is easiest to start the engine in a clear or mowed area where the blades can turn freely.

1. **STARTING A COLD ENGINE:**

Move the throttle lever to the **CHOKE** position.

STARTING A WARM ENGINE:

Move the throttle lever to the **FAST** position.

2. Pull back on the flywheel brake lever and hold it against the handlebar.

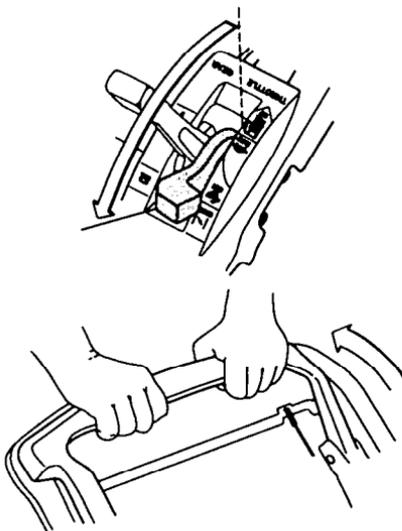
3. **HRM215SDA:** Release the drive clutch lever. If the drive clutch lever is engaged, the mower will move forward when you operate the starter.

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

Keep your hands and feet away from the mower deck at all times when starting and running the engine.

Continue holding the flywheel brake lever against the handlebar; the engine stops if the lever is released.

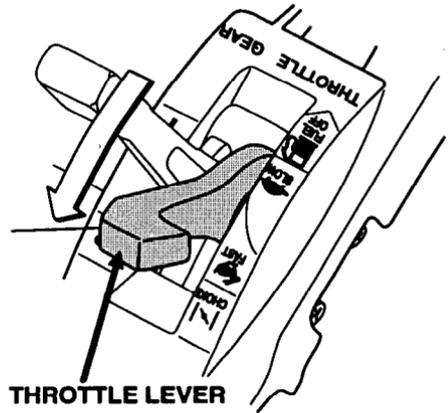
5. When the engine warms up, move the throttle lever away from the **CHOKE** position. Set the lever at **FAST** to mow or at **SLOW** to idle.



Operating the Controls for Mowing

Throttle Lever

Blade speed is as important as sharpness. When the blade rotates at high speed, it creates a strong fan action that lifts and cuts grass more efficiently. Always mow with the throttle lever in the FAST position, but do not try to increase the preset engine speed.



Drive Clutch Lever (HRM215SDA)

To propel the mower, move the drive clutch lever up and hold it against the handlebar.

Release the drive clutch lever to stop the mower drive.

Operate the drive clutch lever with a quick and complete motion, so the drive clutch is always either fully engaged or released. This helps to extend the service life of the clutch mechanism.

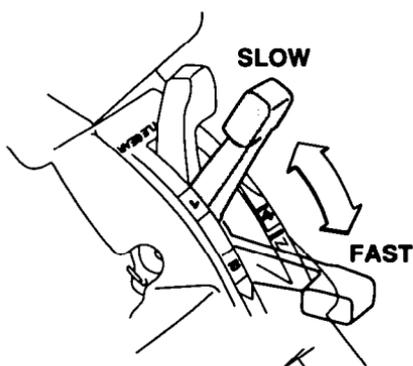


MOWING

Gear Shift Lever (HRM215SDA)

- 1 (slow)—For mowing thick grass or maneuvering in small areas.
- 2 (fast) — For maximum self-propelled speed in large, open areas.

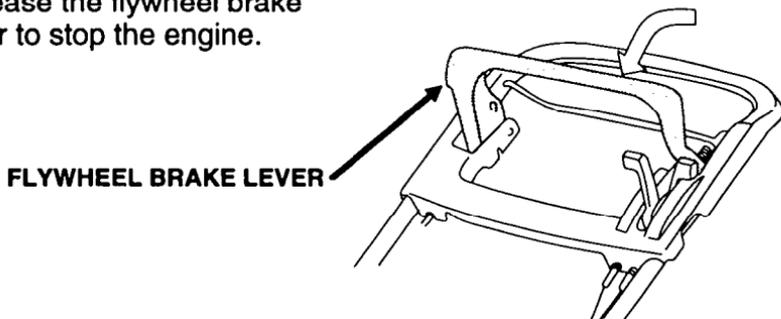
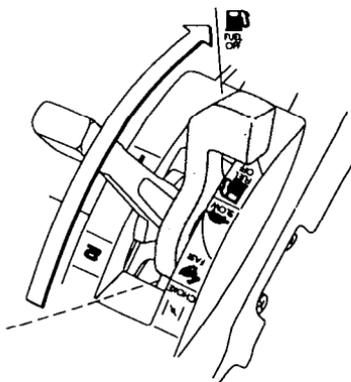
To avoid incomplete gear engagement, move the shift lever all the way forward or all the way back.



You can shift gears without releasing the drive clutch lever (page 25), but the transmission may not shift smoothly if the mower is pulling hard. For smoother operation, release the drive clutch lever before shifting gears.

Stopping the Engine

1. Release the drive clutch lever (HRM215SDA).
2. Move the throttle lever to the FUEL OFF position. This turns the fuel valve off.
3. Release the flywheel brake lever to stop the engine.



Safe Mowing Practices

For your safety, keep all four wheels on the ground, and be careful to avoid losing your footing and your control of the mower. Keep a firm grip on the handlebar, and walk, never run, with the mower. Be very careful when mowing uneven or rough ground.

If stuck, do not kick or shove the mower with your foot. Use the handlebar to control the mower.

Slopes

Mow across slopes, not up and down. Avoid steep slopes (more than 20°), and be careful when changing direction. Mowing on a slope when the grass is damp or wet could cause you to slip, fall, and lose control of the mower.



MAXIMUM SLOPE: 20°

Obstacles

Use the side of the mower to cut close to large obstacles, such as fences or walls.

Release the drive clutch lever to disengage the drive when mowing around trees and other obstacles. Push the mower around obstacles for better directional control. Be careful when mowing over obstacles embedded in the lawn, such as sprinkler heads, paving, edging, etc. Avoid anything that sticks up above the surface of the lawn.

WARNING

Worn, cracked or damaged blades can break, and pieces of damaged blades can become dangerous projectiles.

Thrown objects can cause serious injury.

Inspect the blades regularly, and do not operate the mower with worn or damaged blades.

Be careful to avoid losing your balance and slipping.

If the blades hit something, or if the mower starts to vibrate, stop the engine immediately and check for damage. Striking objects may damage the blades, bend the crankshaft, and/or break the mower deck or other components. Vibration usually indicates serious trouble.

The Distributor's Limited Warranty does not cover parts damaged by accident or collision.

Gravel and Loose Objects

The best way to prevent potential injury from thrown objects is to release the flywheel brake lever to stop the blades before reaching areas with gravel, loose stones, or landscaping material.

Mowing & Mulching Tips

When to Mow

Most grasses should be mowed when they have grown 1/2 to 1 inch above their recommended height.

For best mulching results, mow the lawn frequently, cutting off less than one inch of grass each time. In growing season, you will probably need to mow the lawn twice a week.



Cutting Height

Consult a local nursery or lawn and garden center for cutting height recommendations and advice about specific types of grasses and growing conditions in your area.

If you look closely, you'll see that most grass has stems and leaves. If you cut off the leaves, you'll scalp the lawn. Let the grass recover between mowings. Your mower will work better, and your lawn will look better.



**LONG
ENOUGH**



TOO SHORT

If your grass gets too tall, cut it once at the highest cutting height setting, then mow again in 2 or 3 days. Don't take off more than one third of total grass height in any one mowing, or brown patches may develop.

Cutting height adjustment is explained on page 13.

MOWING

Cutting Width

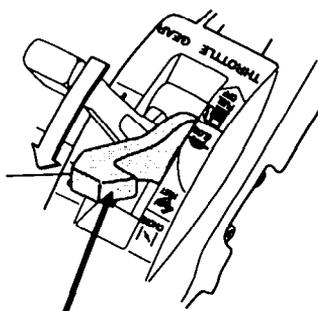
For an even lawn finish, overlap each mowing swath by a few inches. If the grass is very tall or thick, use more overlap and a narrower mowing swath.



Blade Speed

The blades must spin very fast to cut properly. Always use the FAST throttle setting, and keep the engine running at maximum rpm.

If engine speed drops, that means the blades are trying to cut too much grass. Mow a narrower swath, move the mower more slowly, or raise the cutting height.



THROTTLE LEVER

Blade Sharpness

Sharp blades cut cleanly. Dull blades tear the grass, leaving shredded ends that turn brown.

When your blades don't cut cleanly anymore, have them sharpened or replaced (see page 51).

Dry Grass

If the ground is too dry, mowing will stir up a lot of dust. Besides being unpleasant to work in, too much dust will clog the carburetor air filter.

If dust is a problem, water your lawn the day before mowing. Mow when the grass is dry to your touch, but the soil is still moist.

Wet Grass

Wet grass is slippery and can make you lose your footing. Also, wet grass clippings will clog the mower deck and collect in clumps on the lawn. Always wait for wet grass to dry before mowing.

Fallen Leaves

If you want to mulch fallen leaves into your lawn, don't let the leaf cover get too deep before you begin. For best results, start mulching while grass still shows through the leaf cover.

If the Mower Deck Clogs

Before clearing a clogged mower deck, stop the engine, move the throttle lever to the FUEL OFF position and disconnect the spark plug cap. Tilt the mower so the carburetor side is up.

Clear a clogged deck with a stick, not your hands.

MOWING

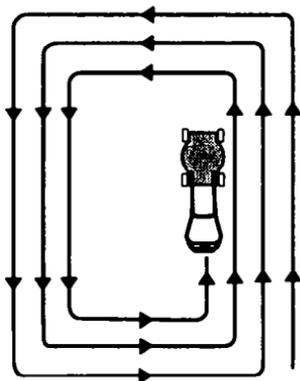
Mowing Patterns

Your Honda mower will work most efficiently if you use the following mowing patterns as much as possible. Mower deck and equipment design, and the direction in which the blades rotate, cause these mowing patterns to give the best results.

MULCHING

Mulching requires the mulching blades and mulching plug that are standard equipment on HRM215 mowers.

Use a counterclockwise mowing pattern. If the lawn has an irregular shape, or many obstacles, divide it into sections where you can use counterclockwise mowing patterns.

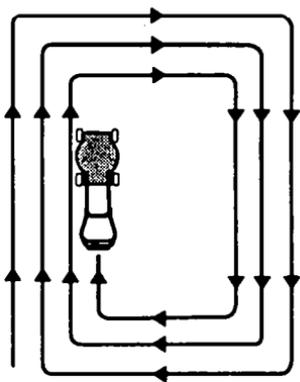


MULCHING PATTERN

BAGGING

Bagging requires the grass bag that is optional for HRM215 mowers.

Use a clockwise mowing pattern. This will give the best bagging performance, leaving the least amount of clippings on the lawn.



BAGGING & SIDE-DISCHARGE PATTERN

SIDE-DISCHARGE MOWING

A side-discharge chute is optional equipment for HRM215 mowers.

Use a clockwise mowing pattern, starting at the outer edges of the lawn and working toward the center. This will prevent clippings from piling up in the path of the mower.

TRANSPORTING THE MOWER

This section explains how to load and carry your mower safely.

Before Loading _____ 34

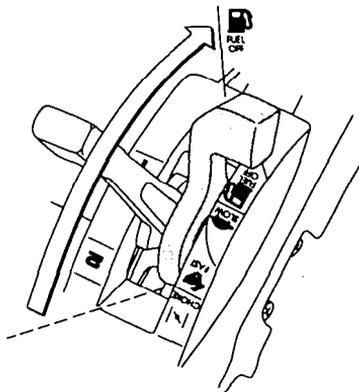
Loading and unloading _____ 34

TRANSPORTING THE MOWER

Before Loading

If the engine has been running, allow it to cool for at least 15 minutes before loading the mower on the transport vehicle.

Be sure the throttle is in the FUEL OFF position to prevent carburetor flooding and reduce the possibility of fuel leakage.



Loading and Unloading

If a suitable loading ramp is not available, two people should lift the mower on and off the transport vehicle while holding the mower level.

Position the mower so all four wheels are on the bed of the transport vehicle. Tie the mower down with rope or straps, and block the wheels. Keep the tie-down rope or straps away from the controls, adjustment levers, cables, and the carburetor.

The handlebar can be folded so the mower will take up less space.

If unloading the HRM215SDA (self-propelled) backward down a loading ramp, avoid touching the drive clutch lever. Engaging the drive clutch, while rolling backward down a ramp, can damage the drive system.

MAINTENANCE & ADJUSTMENTS

This section explains when and how to perform routine inspection, service, and adjustments for do-it-yourself maintenance.

More difficult maintenance tasks should be done by your dealer. Your dealer is best equipped and staffed to provide the level of service and safety you and your mower deserve.

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Emission Controls System _____	37
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Maintenance Precautions

Periodic maintenance and adjustments are necessary to keep your mower in good operating condition. Service and inspect according to the MAINTENANCE SCHEDULE.

⚠ WARNING

If you do not follow these safety precautions, you can be seriously hurt or killed.

Carefully read and follow all safety instructions.

Always disconnect the spark plug cap before performing any maintenance.

The engine and exhaust system become hot enough to burn you and may cause a fire if flammable materials are nearby. Allow the engine to cool for at least 15 minutes before maintenance or indoor storage.

Gasoline is highly flammable and explosive. Refuel outdoors with the engine stopped. Wipe up spills immediately. Never use gasoline to clean parts.

To prevent carbon monoxide poisoning, stop the engine before making any inspection or repair. If you must run the engine, do it outdoors or provide adequate ventilation. If you start feeling drowsy, stop the engine immediately and get fresh air.

Use genuine Honda parts or their exact equivalent for maintenance and repair. Lower quality parts may damage the mower or reduce its performance.

Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working order.

Wear heavy gloves to protect your hands when working on the mower, especially when you work on or near the blades.

Emission Control System

Source of emissions

The combustion process produces carbon monoxide, oxides of nitrogen, and hydrocarbons. Control of hydrocarbons and oxides of nitrogen is very important because, under certain conditions, they react to form photochemical smog. Carbon monoxide is an odorless, colorless gas which is poisonous. While it does not contribute directly to the formation of smog, it is deadly.

American Honda Motor Co., Inc. uses lean carburetor settings and other systems to reduce the emissions of carbon monoxide, oxides of nitrogen, and hydrocarbons.

Proper Maintenance is the Owner's Responsibility

Replacement parts

Honda recommends only the use of new, genuine Honda parts or their equivalent. The use of other replacement parts which are not of equivalent quality may impair the effectiveness of your emission control system.

Maintenance

Follow the maintenance schedule on page 39. Remember that this schedule is based on the assumption that your machine will be used for its designed purpose. Sustained high-load or high-temperature operation, or use in unusually wet or dusty conditions, will require more frequent service.

MAINTENANCE & ADJUSTMENTS

Tampering and altering

Tampering with or altering the emission control system may increase emissions beyond the design limit. Among those acts that constitute tampering are:

- Removal or alteration of any part of the intake or exhaust systems.
- Altering or defeating the governor linkage or speed-adjusting mechanism to cause the engine to operate outside its design parameters.

Problems that may affect emissions

If you are aware of any of the following symptoms, have your engine inspected and repaired by your authorized Honda engine dealer.

- Hard starting or stalling after starting
- Rough idle.
- Misfiring or backfiring under load.
- Afterburning (backfiring).
- Black exhaust smoke or high fuel consumption.

Maintenance Schedule

Item: Perform at indicated interval		Service Interval				
		Each Use	First 20 hours	Every 50 hours	Every 100 hours	Every 300 hours
Blade condition and blade bolt tightness	Check	•				
Engine Oil	Check	•				
	Change		•		•	
Air cleaner	Check	•				
	Clean			•*		
Spark plug	Check & clean				•	
Spark arrester (optional part)	Check				•	
Flywheel brake lever cable	Adjust		•		•	
Flywheel brake pad	Check & Adjust		•**		•**	
Drive clutch cable (HRM215SDA)	Adjust		•		•	
Throttle cable	Adjust		•**		•**	
Shift cable (HRM215SDA)	Adjust		•		•	
Valve clearance	Adjust					•**
Fuel tank	Clean					•**
Fuel line	Replace	Every 2 years**				

* Service more frequently when used in dusty areas.

** These items should be serviced by an authorized Honda lawn mower dealer, unless you have the proper tools and are mechanically proficient. Refer to the Honda shop manual.

Tuneup Specifications

ITEM	SPECIFICATION	PAGE
Spark plug gap	.70-.80 mm (0.028-0.031 in.)	44
Carburetor idle speed	2,000 ±150 rpm	46
Valve clearance	IN 0.10 ± 0.03 mm cold EX 0.13 ± 0.03 mm cold	See your Honda lawnmower dealer
Other specifications	No other adjustments needed	

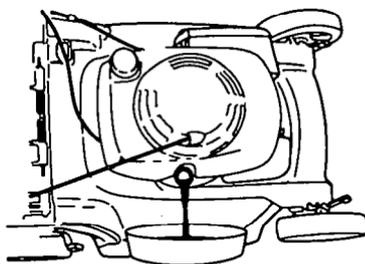
MAINTENANCE & ADJUSTMENTS

Engine Maintenance

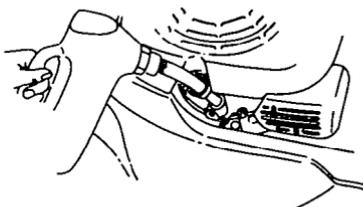
Engine Oil Change

Drain the used oil while the engine is warm. Warm oil drains quickly and completely.

1. Place a suitable container next to the mower to catch the used oil.
2. Wipe the oil filler area clean, then remove the oil filler cap/dipstick.
3. With the throttle lever in the FUEL OFF position to reduce the possibility of fuel leakage, tilt the mower on its right side. The used oil will drain through the filler neck. Allow the oil to drain completely.



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



4. Fill with the recommended oil. Do not overfill; measure the oil level as shown on the next page.

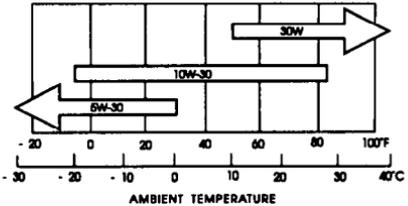
**Engine oil capacity: 0.6 l
(0.63 US qt).**

Use high-detergent, premium quality 4-stroke engine oil, certified to meet or exceed U.S. automobile manufacturers' requirements for API Service Classification SG, SF.

NOTICE

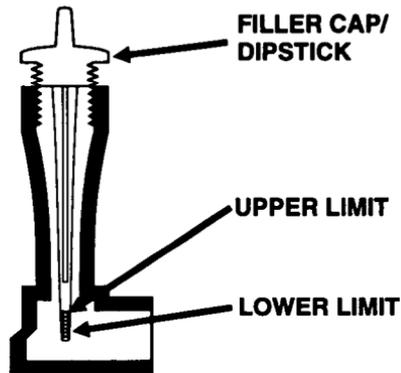
Using nondetergent oil can shorten the engine's service life, and using 2-stroke oil can damage the engine.

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



5. After changing the engine oil, and before starting the engine, check the oil level with the mower on a level surface:

- Wipe the dipstick clean.
- Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.
- If the oil level is low, add oil to reach the upper limit mark on the dipstick. Do not overfill.



NOTICE

Running the engine with a low oil level can cause engine damage.

- Screw in the filler cap/dipstick securely.

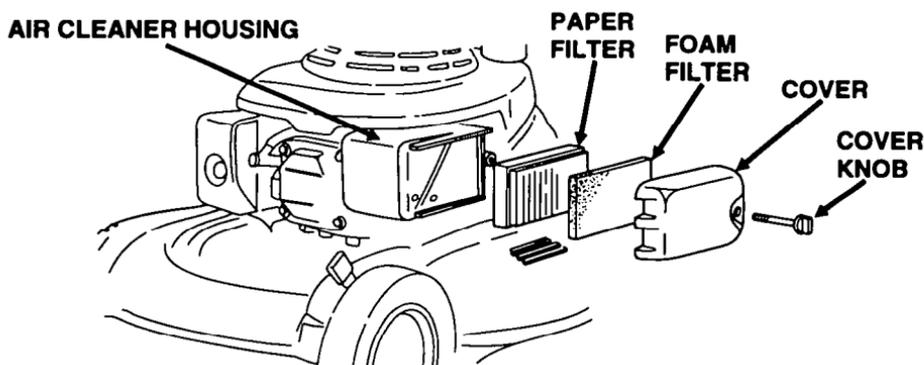
MAINTENANCE & ADJUSTMENTS

Air Cleaner Service

Dirty air filters will restrict air flow to the carburetor, reducing engine performance. If you operate the mower in very dusty areas, clean the air filters more often than specified in the MAINTENANCE SCHEDULE.

NOTICE

Operating the engine without air filters, or damaged filters, will allow dirt to enter the engine, causing rapid engine wear. This type of damage is not covered by the Distributor's Limited Warranty.



1. Unscrew and remove the air cleaner cover knob, then remove the air cleaner cover.
2. Remove the paper filter from the air cleaner housing. Remove the foam filter from the cover.
3. Inspect the filters, and replace them if they are damaged.
4. Clean the filters.

Paper filter: Tap the filter several times on a hard surface to remove dirt, or blow compressed air [not exceeding 207 kPa (30 psi)] through the filter from the inside. Never try to brush off dirt; brushing will force dirt into the fibers.

Foam filter: Clean in warm soapy water, rinse, and allow to dry thoroughly. Or clean in nonflammable solvent and allow to dry. Dip the filter in clean engine oil and squeeze out all excess oil.

NOTICE

Excess oil will restrict air flow through the foam filter and may transfer to the paper filter, soaking and clogging it.

5. Wipe dirt from the inside of the air cleaner housing and cover, using a moist rag. Be careful to prevent dirt from entering the air duct that leads to the carburetor.
6. Reinstall the filters and cover. Tighten the cover knob securely.

Spark Plug Service

Recommended Spark Plugs	Regular	Resistor*
NGK	BP5ES	BPR5ES
ND	W16WP-U	W16EPR-U
CHAMPION	N12Y	RN12Y

* Resistor spark plugs reduce interference with radio and TV reception.

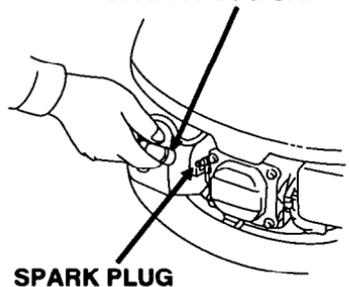
NOTICE

An incorrect spark plug can cause engine damage.

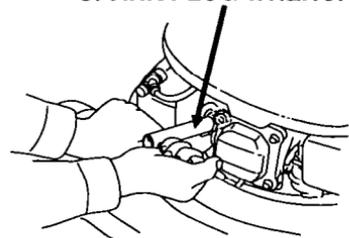
For good performance, the spark plug must be properly gapped and free of deposits.

1. Disconnect the spark plug cap, and remove any dirt from around the spark plug area.
2. Remove the spark plug with a 21 mm (13/16 in) spark plug wrench.
3. Inspect the spark plug. Replace it if the electrodes are worn, or if the insulator is cracked or chipped. Clean the spark plug with a wire brush if you are going to reuse it.

SPARK PLUG CAP



SPARK PLUG WRENCH



MAINTENANCE & ADJUSTMENTS

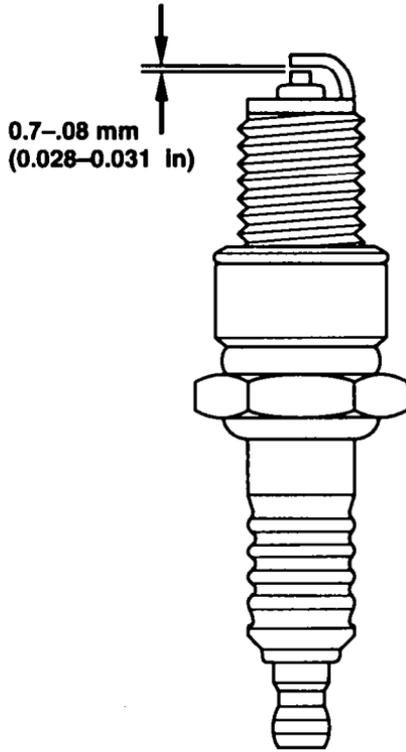
4. Measure the spark plug electrode gap with a suitable gauge. The gap should be 0.7 – 0.8 mm (0.028 – 0.031 in). Correct the gap, if necessary, by carefully bending the side electrode.

5. Install the spark plug carefully, by hand, to avoid cross-threading.

6. After the spark plug seats, tighten with a 21 mm (13/16 in) spark plug wrench to compress the washer.

If reinstalling the old spark plug, tighten 1/8 to 1/4 turn after the spark plug seats.

If installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer.



NOTICE

A loose spark plug can overheat and damage the engine. Overtightening the spark plug can damage the threads in the cylinder head.

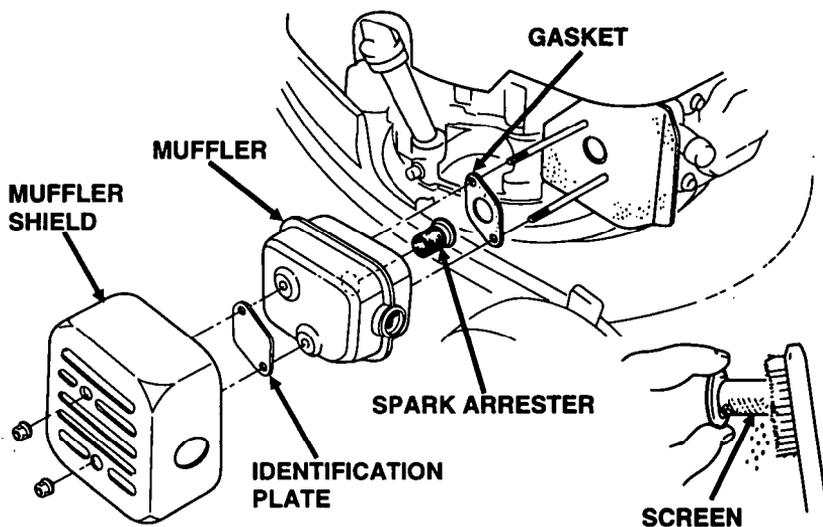
7. Install the spark plug cap on the spark plug.

Spark Arrester Service (optional equipment)

In some areas, it is illegal to operate an engine without a spark arrester. Check local laws and regulations. A spark arrester is available from authorized Honda lawn mower dealers.

The spark arrester must be serviced every 100 hours to keep it functioning as designed.

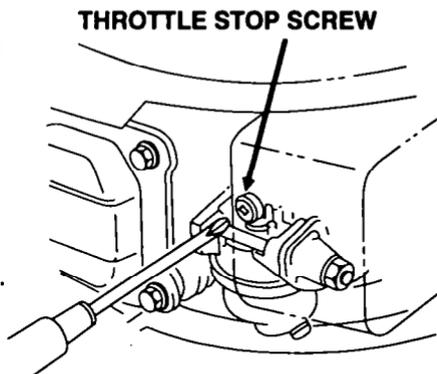
1. Remove the two nuts from the muffler shield, using a 10 mm wrench.
2. Remove the muffler shield, identification plate, muffler, and gasket.
3. Remove the spark arrester from the muffler.
4. Check for carbon deposits on the spark arrester and the exhaust port. Brush carbon deposits away. Be careful to avoid damaging the spark arrester screen.
5. Install the spark arrester in the muffler.
6. Install the muffler components on the engine, and tighten the two nuts securely.



Carburetor Adjustment

1. Start the engine outdoors, and allow it to warm up to normal operating temperature.
2. Set the throttle lever in the SLOW position.
3. Turn the throttle stop screw to obtain the standard idle speed.

Standard idle speed:
2,000 ± 150 rpm



Carburetor Modification for High Altitude Operation

At high altitude, the standard carburetor air-fuel mixture will be too rich. Performance will decrease, and fuel consumption will increase. A very rich mixture will also foul the spark plug and cause hard starting.

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 mower at altitudes higher than 1,800 meters (6,000 feet) above sea level, have an authorized Honda lawn mower dealer perform this carburetor modification.

Even with carburetor modification, engine horsepower will decrease about 3.5% for each 300 meter (1,000 foot) increase in altitude. The effect of altitude on horsepower will be greater than this if no carburetor modification is made. A reduction in engine horsepower will reduce mowing performance.

NOTICE

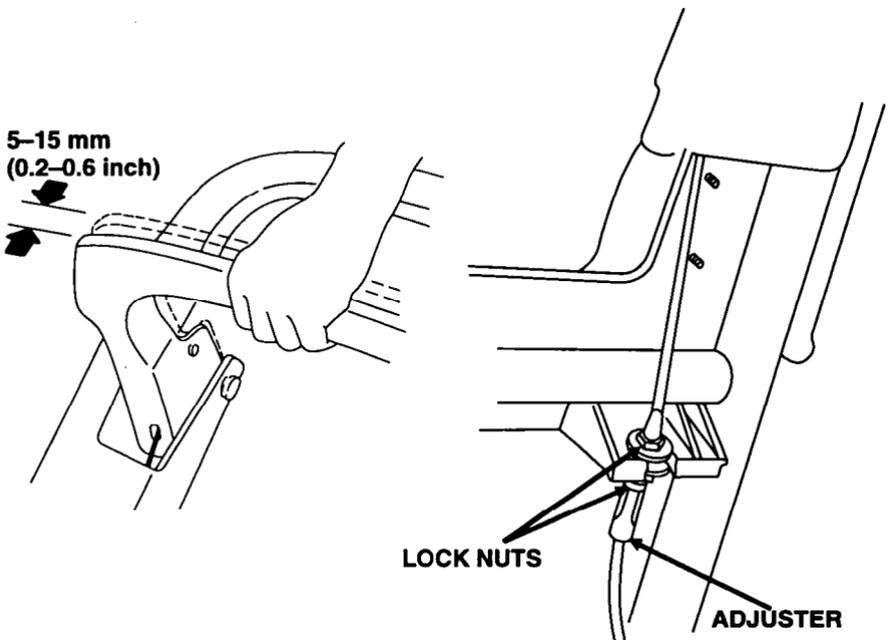
When the carburetor is modified for high altitude operation, the air-fuel mixture will be too lean for low altitude use. Operation at altitudes below 1,800 meters (6,000 feet), with high altitude carburetor modifications, may cause the engine to overheat and result in serious engine damage. For low altitude use, reinstall the standard main fuel jet.

Control Cable Adjustments

Flywheel Brake Cable Adjustment

Measure free play at the top of the lever. Free play should be 5–15 mm (0.2–0.6 inch). If adjustment is necessary:

1. Loosen the locknuts with a 10 mm wrench, and move the adjuster up or down as required.
2. Tighten the locknuts and recheck free play.
3. Start the engine outdoors. Move the throttle to FAST. Release the flywheel brake lever; the engine should stop quickly. If the flywheel brake does not operate properly with the correct cable adjustment, take the mower to an authorized Honda Lawn Mower dealer for repair.

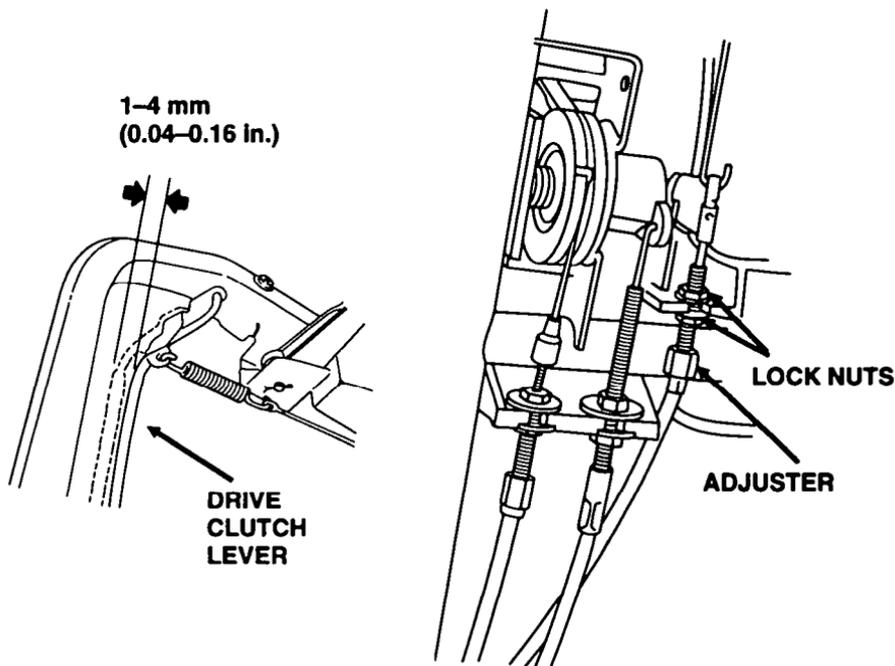


MAINTENANCE & ADJUSTMENTS

Drive Clutch Cable Adjustment (HRM215SDA)

Measure free play at the edge of the lever, as shown. Free play should be 1 – 4 mm (1/16 – 3/16 in). If adjustment is necessary:

1. Loosen the locknuts with a 10 mm wrench and move the adjuster up or down as required.
2. Tighten the locknuts and recheck free play.
3. Start the engine outdoors, and operate the drive clutch lever. Check to be sure the drive clutch engages and releases properly.
4. If the drive clutch does not operate properly, with correct cable adjustment, repair may be needed. Take the mower to an authorized Honda lawn mower dealer.



Throttle Cable Adjustment

Throttle cable adjustment is necessary if the throttle lever does not operate the choke properly.

You can inspect choke operation by observing the movement of the choke arm, which is located on top of the carburetor.

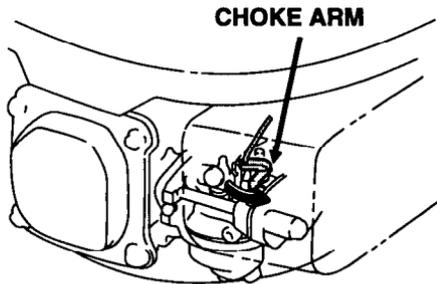
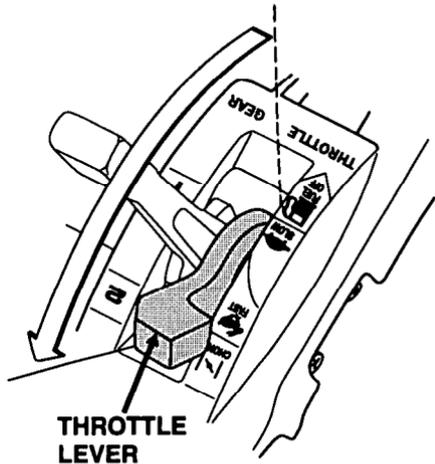
1. Move the throttle lever to the **CHOKE** position. The choke arm should move counterclockwise, until it contacts the stop post on the carburetor.

Push the choke arm with your finger to verify that it has moved as far as it will go.

2. Move the throttle lever to the **FAST** position. The choke arm should move clockwise, until it contacts the stop post on the carburetor.

Push the choke arm with your finger to verify that it has moved as far as it will go.

3. If the choke arm does not move all the way to its stop, in either direction, take the mower to an authorized Honda lawn mower dealer. Throttle cable adjustment involves related control plate adjustments.

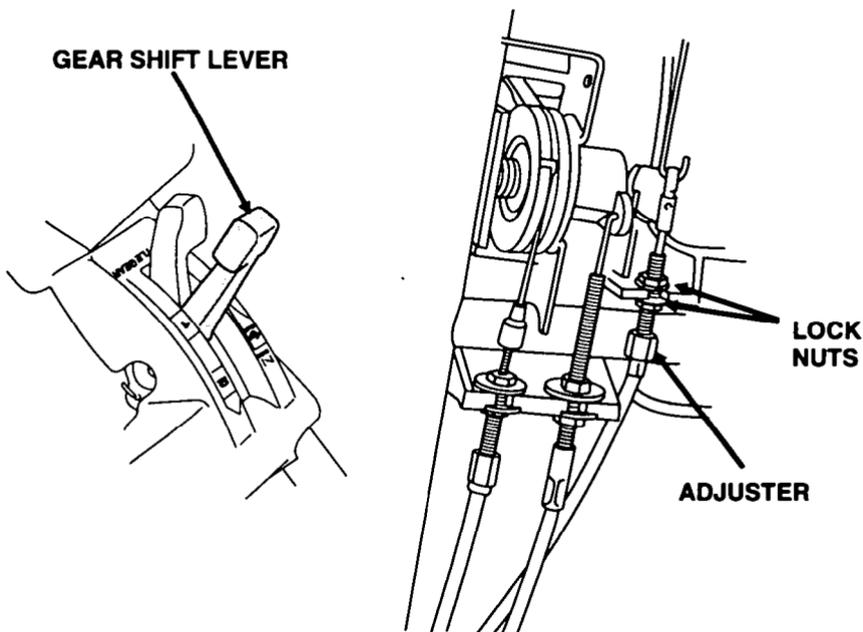


MAINTENANCE & ADJUSTMENTS

Gear Shift Cable Adjustment (HRM215SDA)

With the transmission in 1st gear, pull the gear shift lever all the way back and release it; the lever should be approximately centered on the number "1" on the lever cover. Verify the transmission shifts smoothly and completely into both gears. If adjustment is necessary:

1. Loosen the locknuts with a 10 mm wrench and move the adjuster up or down as required.
2. Tighten the locknuts and recheck lever alignment.
3. Verify that the lever operates smoothly.
4. Start the engine and verify that the shift lever engages 1st and 2nd gear by engaging the drive clutch lever. Readjust if necessary.



Blade Removal and Installation

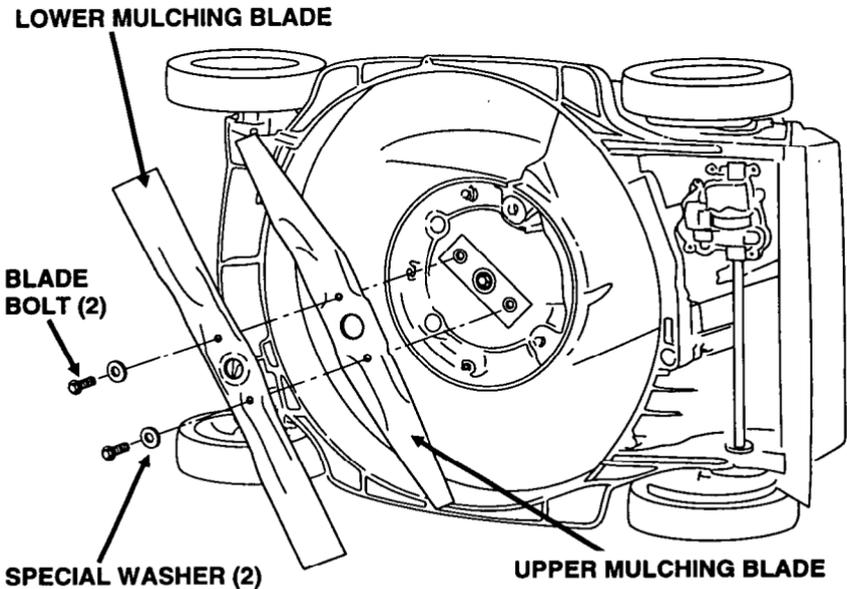
If you remove the blades for sharpening or replacement, you will need a torque wrench for installation. Wear heavy gloves to protect your hands.

BLADE SHARPENING: To avoid weakening the blades, or causing imbalance or poor cutting, the blades should be sharpened by trained staff at an authorized Honda lawn mower dealer.

BLADE REPLACEMENT: Use genuine Honda replacement blades or their equivalent.

Blade Removal

1. With the throttle in the FUEL OFF position and the spark plug cap disconnected, tilt the mower to the right side, so the carburetor side is up. This will help to prevent fuel leakage and hard starting due to carburetor flooding.
2. Remove the two blade bolts with a 14 mm socket wrench. Use a wooden block to prevent the blades from turning when removing the bolts.
3. Remove the blades from the mower.



MAINTENANCE & ADJUSTMENTS

Blade Installation

1. Clean dirt and grass from around the blade mounting area.
2. Install the blades using the two blade bolts and special washers as shown.

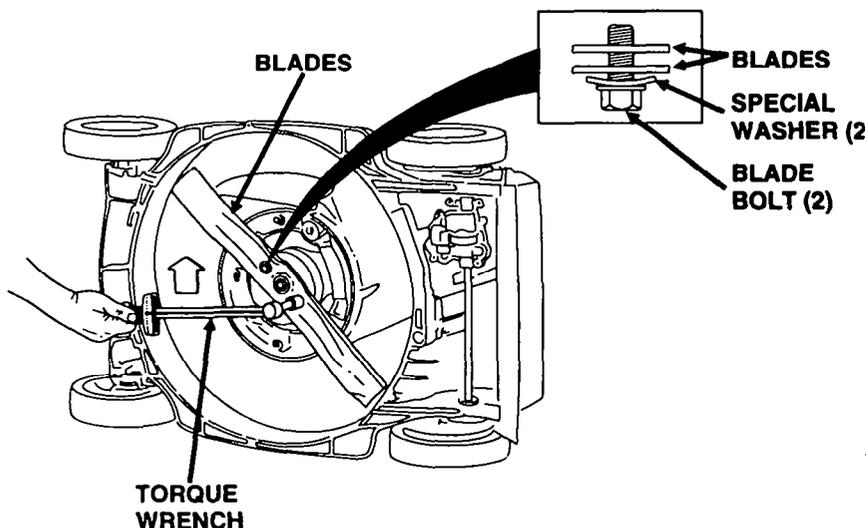
Be sure to install the special washers with the concave side toward the blades and the convex side toward the bolts.

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

3. Tighten the blade bolts with a torque wrench. Use a wooden block to prevent the blades from turning when tightening the bolts.

Blade bolt torque: 49–59 N·m (36–43 ft·lb)

If you do not have a torque wrench, have an authorized Honda lawn mower dealer tighten the blade bolts before you use the mower. If the blade bolts are overtightened, they could break. If the blade bolts are not tightened enough, they could loosen or come out. In either case, it would be possible for the blades to fly off while you are operating the mower.



TROUBLESHOOTING

This section shows what to check if you have a problem with your mower.

Engine Problems _____	54
<i>Engine will not start</i>	<i>54</i>
<i>Loss of power</i>	<i>54</i>
Vibration Problems _____	55
Mowing/Mulching Problems _____	55

TROUBLESHOOTING

Engine Problems

ENGINE WILL NOT START	POSSIBLE CAUSE	CORRECTION
1. Check throttle lever position.	Throttle lever in wrong position.	Move throttle lever to CHOKE position unless engine is warm (p. 24).
2. Check fuel.	Out of fuel. Bad fuel; mower stored without treating or draining gasoline, or refueled with bad gasoline.	Refuel (p. 19). Drain fuel tank and carburetor (p. 61). Refuel with fresh gasoline (p. 19).
3. Remove and inspect spark plug.	Spark plug faulty, fouled, or improperly gapped. Spark plug wet with fuel (flooded engine).	Clean, gap, or replace spark plug (p. 43). Dry and reinstall spark plug. Start engine with throttle lever in FAST position.
4. Take mower to Honda lawn mower dealer, or refer to shop manual.	Fuel filter clogged, carburetor malfunction, ignition malfunction, valves stuck, etc.	Take mower to Honda lawn mower dealer, or refer to shop manual.

LOSS OF POWER	POSSIBLE CAUSE	CORRECTION
1. Check under mower deck.	Mower deck clogged.	Clean out mower deck (p. 31).
2. Check air filters.	Air filters clogged.	Clean or replace air filters (p. 42).
3. Check fuel.	Bad fuel; mower stored without treating or draining gasoline, or refueled with bad gasoline.	Drain fuel tank and carburetor (p. 61). Refuel with fresh gasoline (p. 19).
4. Check vent inside fuel tank cap.	Fuel tank cap vent clogged.	Clean fuel tank cap vent.
5. Take mower to Honda lawn mower dealer, or refer to shop manual.	Fuel filter clogged, carburetor malfunction, ignition malfunction, valves stuck, etc.	Take mower to Honda lawn mower dealer, or refer to shop manual.

Vibration Problems

EXCESSIVE VIBRATION	POSSIBLE CAUSE	CORRECTION
1. Check mower deck and blades.	Grass and debris lodged under mower deck. Blades loose, bent, damaged, or unbalanced by improper sharpening.	Tighten loose blade bolts. Replace damaged blades (p. 52).
2. Take mower to Honda lawn mower dealer for repair.	Mechanical damage, such as a bent crankshaft.	Take mower to Honda lawn mower dealer, or refer to shop manual.

Mowing/Mulching/Bagging Problems

POOR CUT QUALITY OR POOR MULCHING/ PERFORMANCE	POSSIBLE CAUSE	CORRECTION
1. Check that the throttle lever is in the FAST position.	Engine speed is too slow to cut well.	Move throttle lever to the FAST position (p. 25).
2. Reduce forward speed.	Mower is moving too fast for lawn conditions.	Shift to slow speed (HRM215SDA: (p. 26), or push slower.
3. Check cutting height adjustment levers.	Adjustment levers set at different positions.	Set all levers at the same cutting height position (p. 13).
4. Check mower deck and blades.	Mower deck clogged. Blades dull, worn or damaged.	Clean out the mower deck (p. 31). Sharpen or replace blades if necessary. (p. 51).

STORAGE

This section explains how to protect your mower from rust and corrosion, and ensure that it will start easily when you want to use it again.

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Storage Preparation

Proper storage preparation is essential for keeping your lawn mower trouble free and looking good. The following steps will help to keep rust and corrosion from impairing your mower's function and appearance, and will make the engine easier to start when you use the mower again.

Cleaning

Clean all surfaces of the mower, including the underside of the mower deck. Wear heavy gloves to protect your hands from the blades.

Before cleaning the underside of the mower deck, be sure the throttle is in the FUEL OFF position. Rest the mower on its right side, so the carburetor side is up. This will help to prevent fuel leakage and hard starting due to carburetor flooding.

- 1. Wash the mower with a garden hose or other low pressure equipment.**
- 2. If the mower has been running, allow the engine to cool for at least half an hour before spraying water on it. Never spray water on a hot engine. Cooling the engine too quickly can cause damage.**
- 3. Try to keep water away from controls, cable ends, wheel hubs, transmission and all other places that are difficult to dry if water enters as water may promote rust.**
- 4. After washing, set the mower in an upright position again, remove as much standing water as possible with a dry cloth, start the engine outdoors, and let it run until it reaches normal operating temperature to evaporate any water remaining on the engine.**
- 5. Stop the engine, and allow it to cool.**
- 6. After the mower is clean and dry, touch up any damaged paint, and coat other areas that may rust with a light film of oil. Lubricate all control cable cores with a silicone spray lubricant.**

Fuel

Gasoline will oxidize and deteriorate in storage. Old gasoline will cause hard starting, and it leaves gum deposits that clog the fuel system. If the gasoline in your mower deteriorates during storage, you may need to have the carburetor and other fuel system components, serviced or replaced.

The length of time that gasoline can be left in your fuel tank and carburetor without causing functional problems will vary with such factors as gasoline blend, your storage temperatures, and whether the fuel tank is partially or completely filled. The air in a partially filled fuel tank promotes fuel deterioration. Very warm storage temperatures accelerate fuel deterioration. Fuel deterioration problems may occur within a few months, or even less if the gasoline was not fresh when you filled the fuel tank.

The Distributor's Limited Warranty does not cover fuel system damage or engine performance problems resulting from neglected storage preparation.

You can extend fuel storage life by adding a gasoline stabilizer that is formulated for that purpose, or you can avoid fuel deterioration problems by draining the fuel tank and carburetor.

STORAGE

Adding a gasoline stabilizer to extend fuel storage life:

When adding a gasoline stabilizer, fill the fuel tank with fresh gasoline. If only partially filled, air in the tank will promote fuel deterioration during storage. If you keep a container of gasoline for refueling, be sure that it contains only fresh gasoline.

⚠ WARNING

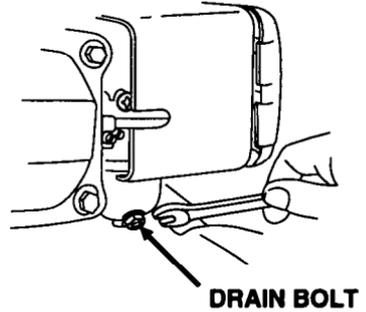
Gasoline is highly flammable and explosive, and you can be burned or seriously injured when refueling.

- Stop engine and keep heat sparks, and flame away.
- Refuel only outdoors
- Wipe up spills immediately.

1. Add gasoline stabilizer following manufacture's instructions.
2. After adding a gasoline stabilizer, run the engine outdoors for 10 minutes to be sure that treated gasoline has replaced the untreated gasoline in the carburetor.
3. Stop the engine, and move the throttle to the FUEL OFF position.

Draining the Fuel Tank and Carburetor

1. Remove the carburetor drain bolt with a 10 mm wrench, and drain the carburetor bowl fuel into an approved container.

**⚠ WARNING**

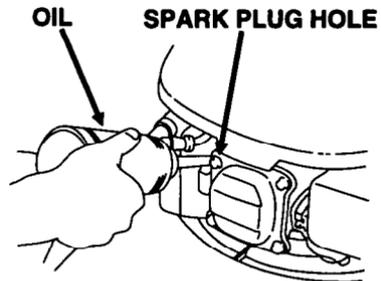
Gasoline is highly flammable and explosive, and you can be burned or seriously injured when refueling.

- Stop engine and keep heat, sparks, and flame away.
- Refuel only outdoors
- Wipe up spills immediately.

2. Move the throttle to the FAST position. This will allow fuel in the fuel tank to drain through the carburetor bowl.
3. Reinstall the drain bolt.

Engine Oil

1. Change the engine oil (see page 40).
2. Remove the spark plug (see page 40). Pour a tablespoon (5 - 10 cc) of clean engine oil into the cylinder. Pull the starter rope several times to distribute the oil in the cylinder. Reinstall the spark plug.



STORAGE

Storage

If your mower will be stored with gasoline in the fuel tank and carburetor, it is important to reduce the hazard of gasoline vapor ignition. Select a well-ventilated storage area away from any appliance that operates with a flame, such as a furnace, water heater, or clothes dryer. Also avoid any area with a spark-producing electric motor, or where power tools are operated.

If possible, avoid storage areas with high humidity, because that promotes rust and corrosion.

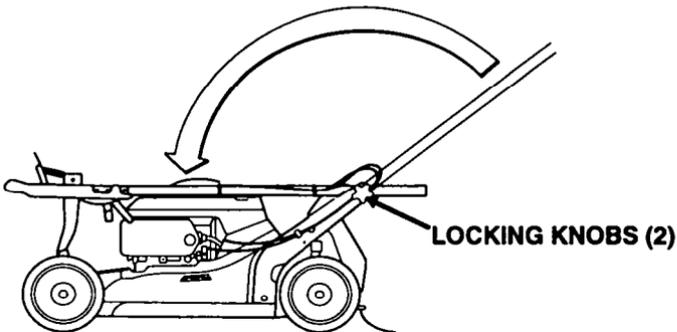
Unless all fuel has been drained from the fuel tank, leave the throttle in the FUEL OFF position to reduce the possibility of fuel leakage.

Place the mower with its wheels on a level surface. Tilting can cause fuel or oil leakage.

The handlebar can be folded for compact storage:

1. Loosen the handlebar locking knobs.
2. Spread the lower ends of the handlebar struts to release the locking pins.
3. Fold the handlebar forward, over the top of the mower.

When folding the handlebar, be careful to avoid kinking or pinching the control cables.



With the engine and exhaust system cool, cover the mower to keep out dust. A hot engine and exhaust system can ignite or melt some materials. Do not use sheet plastic as a dust cover. A nonporous cover will trap moisture around the mower, promoting rust and corrosion.

Removal From Storage

Check your mower as described in the **BEFORE MOWING** chapter of this manual.

If the fuel was drained during storage preparation, fill the tank with fresh gasoline. If you keep a container of gasoline for refueling, be sure that it contains only fresh gasoline. Gasoline oxidizes and deteriorates over time, causing hard starting.

If the cylinder was coated with oil during storage preparation, the engine will smoke briefly at startup. This is normal.

SPECIFICATIONS

This section gives dimensions, capacities, and other technical information.

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SPECIFICATIONS

Mower Models

HRM215PDA: Manually propelled, mulching blades, and mulching plug
HRM215SDA: Self-propelled, mulching blades, and mulching plug

Dimensions and General Specifications

Overall Length	Handlebar high: 1505 mm (59 ¹ / ₄ in) Handlebar mid: 1580 mm (62 ³ / ₁₆ in) Handlebar low: 1635 mm (64 ³ / ₈ in) Handlebar folded: 1062 mm (41 ¹³ / ₁₆ in)
Overall Height with cutting height adjusted to 64 mm (2 ¹ / ₂ in)	Handlebar high: 1040 mm (40 ¹⁵ / ₁₆ in) Handlebar mid: 985 mm (38 ¹³ / ₁₆ in) Handlebar low: 925 mm (36 ⁷ / ₁₆ in) Handlebar folded: 483 mm (19 in)
Width at Mower Deck	580 mm (22 ¹³ / ₁₆ in)
Cutting Width	530 mm (21 in)
Cutting Height	25 mm (1 in), 38 mm (1 ¹ / ₂ in), 51 mm (2 in), 64 mm (2 ¹ / ₂ in), 77 mm (3 in), 90 mm (3 ¹ / ₂ in)
Dry Weight	HRM215PDA: 40.0 kg (88.2 lb) HRM215SDA: 43.0 kg (94.8 lb)

Engine

Engine Model	GXV140
Engine Type	4-stroke, overhead-valve, single cylinder, forced air-cooled
Displacement	135 cc (8.2 cu in)
Bore and Stroke	64 x 42 mm (2.52 x 1.65 in)
Compression Ratio	8:1
Maximum power	3.7 kW, (5.0 bhp) at 3,600 rpm
Maximum Torque	10.3 N·m , (7.6 ft·lb) at 2,700 rpm
Maximum Governed Speed	3,100 ± 150 rpm
Ignition System	CDI
Spark Plug	Regular: NGK BP5ES, ND W16EP-U, Champion N12Y Resistor: NGK BPR5ES, ND W16EPR-U, Champion RN12Y
Spark Plug Gap	0.7 - 0.8 mm (0.028 - 0.031 in)
Fuel	Use regular gasoline with a pump octane rating of 86 or higher (p. 20). Unleaded gasoline is recommended.
Fuel Tank Capacity	1.0 l (0.26 US gal, 0.22 Imp gal)
Engine Oil	SAE 10W - 30 is recommended for general, all-temperature use (p. 40)
Engine Oil Capacity	0.6 l (0.63 US qt)

Transmission (HRM215SDA)

Transmission Type	2-speed, manual shift
Maximum Self-propelled Speeds	1 (slow): 2.9 km/h (1.8 mph) 2 (fast): 4.7 km/h (2.9 mph)

SPECIFICATIONS

INDEX & ADDITIONAL INFORMATION

This section contains an index, lists additional Honda publications, and tells you how to contact us if you have a question or a warranty repair problem.

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Honda Publications

These publications will give you additional information for maintaining and repairing your mower. You may order them from your Honda lawn mower dealer.

Shop Manual

This manual covers complete maintenance and overhaul procedures. It is intended to be used by a skilled technician.

Parts Catalog

This manual provides complete, illustrated parts lists.

Customer Service Information

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 Service Office. You can write:

American Honda Motor Co., Inc.
Honda Power Equipment Division
Customer Service Office
4475 River Green Parkway
Duluth, GA 30136-2565

Or telephone: (404) 497-6400

When you write or call, please give us this information:

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

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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