

HONDA

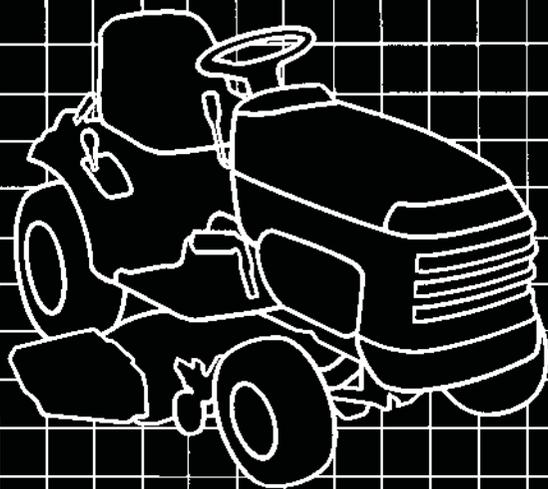
Power

Equipment

Owner's Manual

LAWN TRACTOR

H4518H



**WARNING:**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Thank you for purchasing a Honda lawn tractor.

This manual describes operation and maintenance of the Honda H4518H lawn tractor, type SA. All information in this publication is based on the latest product information available at the time of printing.

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

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This manual is considered a permanent part of the lawn tractor and it must stay with the lawn tractor if resold.

READ THIS OWNER'S MANUAL CAREFULLY. Pay special attention to these symbols and any instructions that follow:

CALIFORNIA PROPOSITION 65 WARNING:

Engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, and other reproductive harm.

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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 tractor. 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 tractor 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 tractor, other property, or the environment.

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1. SAFETY INFORMATION

SAFETY LABEL LOCATIONS

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

⚠ WARNING

LAWN TRACTORS CAN BE HAZARDOUS IF OPERATED IMPROPERLY. TO AVOID SERIOUS INJURY, READ ALL SAFETY INSTRUCTIONS CAREFULLY.

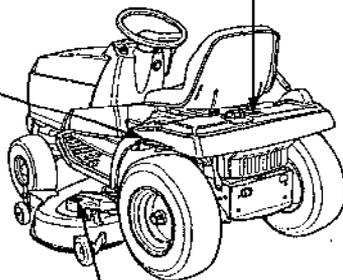
- READ OWNER'S MANUAL BEFORE OPERATION. THE OWNER'S MANUAL HAS IMPORTANT SAFETY AND OPERATION INFORMATION.
- LEARN THE LOCATION AND FUNCTION OF ALL CONTROLS. IN AN EMERGENCY YOU SHOULD BE ABLE TO OPERATE THEM QUICKLY.
- DO NOT ALLOW CHILDREN TO OPERATE OR PLAY WITH THE TRACTOR OR ITS CONTROLS.
- THE MOWER BLADE IS SHARP. BE SURE BLADE AND ENGINE ARE STOPPED COMPLETELY BEFORE PLACING HANDS OR FEET NEAR THE BLADE.
- THROWN OBJECTS CAN CAUSE INJURY. BEFORE MOWING, REMOVE ALL DEBRIS FROM THE AREA, BE SURE GUARDS ARE IN PLACE, AND KEEP CHILDREN AND PETS AWAY.
- EXCEEDING THE MAXIMUM SAFE OPERATING ANGLE MAY CAUSE THE TRACTOR TO TIP-OVER. REDUCE SPEED WHEN TURNING OR OPERATING ON SLOPES.



10° MAX
10 DEGREES (17% GRADE)
711-000

⚠ WARNING

GASOLINE IS FLAMMABLE. STOP ENGINE, AVOID HEAT, SPARKS, AND OPEN FLAME WHEN REFUELING.



⚠ DANGER

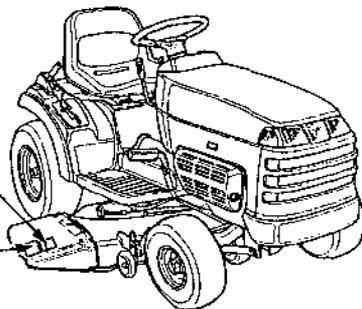


ROTATING BLADE. KEEP HANDS AND FEET AWAY FROM MOWER AND DISCHARGE GUARD WHILE BLADE IS TURNING.

⚠ DANGER



ROTATING BLADE. KEEP HANDS AND FEET AWAY FROM MOWER AND DISCHARGE GUARD WHILE BLADE IS TURNING.



⚠ DANGER



THROWN OBJECTS
OBJECTS THROWN BY THE MOWER CAN CAUSE INJURY OR DEATH. CLEAR LAWN OF ALL DEBRIS. BE SURE DISCHARGE GUARD OR CHUTE ARE IN PLACE. KEEP PEOPLE AND PETS AWAY.

LAWN TRACTOR SAFETY

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

Operator Responsibility

- Keep the lawn tractor in good operating condition. Operating a lawn tractor in poor, or questionable condition could result in serious injury.
- Be sure all safety devices are in working order and warning labels are in place, these items are installed for your safety.
- Know how to stop the engine and blades quickly in case of emergency. Understand the use of all controls.
- Allowing anyone, to operate this lawn tractor without proper instruction may result in injury.
- Allowing passengers to ride on the tractor or any of its attachments may cause the tractor to tip over.
- Wear sturdy, full coverage footwear. Operating this lawn tractor barefoot, or with open toe shoes or sandals increases your risk of injury.
- Dress sensibly. Loose clothing may get caught in moving parts, increasing your risk of injury.
- Be alert. Operating this lawn tractor when you are tired, ill or under the influence of alcohol or drugs may result in serious injury.
- Keep all persons and pets away from the mowing area.

Child Safety

Serious injury or death can occur if a child falls off the tractor or runs into the tractor's path and is run over by the machine.

- Allowing children to ride as passengers on the lawn tractor can be dangerous.
- Keep children indoors and supervised at all times when any outdoor power equipment is being used nearby. Young children move quickly and are attracted to the tractor and the mowing activity especially if they have been given rides before.
- Never assume that children will remain where you last saw them. Be alert, and turn the mower off if children enter the area. Use extreme care when backing up, and when approaching corners, shrubs, trees, and other obstructions that might hide children from sight.
- Children should never be allowed to operate the lawn tractor, even under adult supervision.

Blade Hazard

The blades are sharp, and they turn at high speed. Accidental contact can cause serious injury.

- Keep your hands and feet away from the mower deck while the engine is running.
- Stop the engine, disengage the Power Take Off (PTO) clutch and remove the key *before inspection or maintenance* of the deck or blades.
- Disconnect the spark plug caps to prevent any possibility of accidental starting. Wear heavy gloves to protect your hands from the blades when cleaning out the mower deck, or when inspecting or replacing the blades.

Thrown Object Hazard

Objects hit by the blades can be thrown from the tractor with great force, and may cause serious injury.

- Before mowing, clear the mowing area of sticks, stones, dog bones, and other litter and loose objects. Mow only in daylight, or in well-lit areas at night, so you can see and avoid objects in the grass.
- Before operating the tractor, be sure the side discharge guard is down, or that the optional grass catcher bags and discharge chute are in place.
- Disengage the Power Take Off (PTO) lever to stop the blades before crossing a gravel driveway or any other area with loose stones.
- Always inspect the mower for damage after striking a foreign object. Repair or replace any damaged parts before continued use.
- Broken pieces thrown from a worn or damaged blade can cause serious injury. Always inspect the blades before using the tractor.

Fire and Burn Hazard

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

- Refuel in a well ventilated area with the engine stopped.
- Allow the engine to cool before refueling. Fuel vapor or spilled fuel may ignite.
- Dry grass and leaves may ignite if they are allowed to accumulate around the engine, the exhaust system, or on top of the deck (especially around the pulleys).
- It is illegal in some areas to operate an engine without a USDA qualified spark arrester. Periodic maintenance is required to keep it functioning as designed.

The engine and exhaust system become very hot during operation and remain hot for a while after stopping. Contact with hot engine components can cause burn injuries and can ignite some materials.

- Avoid touching a hot engine or exhaust system.
- Allow the engine to cool before performing maintenance or storing the lawn tractor indoors.

Carbon Monoxide Poisoning Hazard

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

- If you run the engine in an area that is confined, or even partially enclosed, the air you breathe could contain a dangerous amount of exhaust gas. To keep exhaust gas from building up, provide adequate ventilation.

Towing Hazard

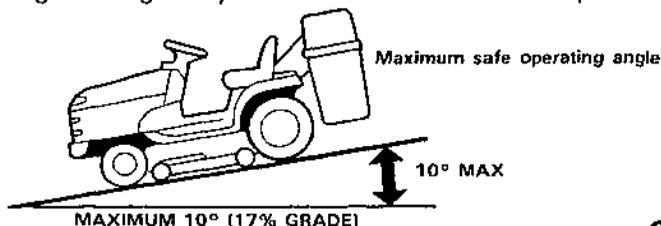
Towing trailers, garden carts, etc. will affect the stability of the tractor. Use the proper type of hitch, and never exceed the recommended load limit and tongue weight. Refer to the recommendations on pages 48 and 49 of this manual.

Operating on Slopes

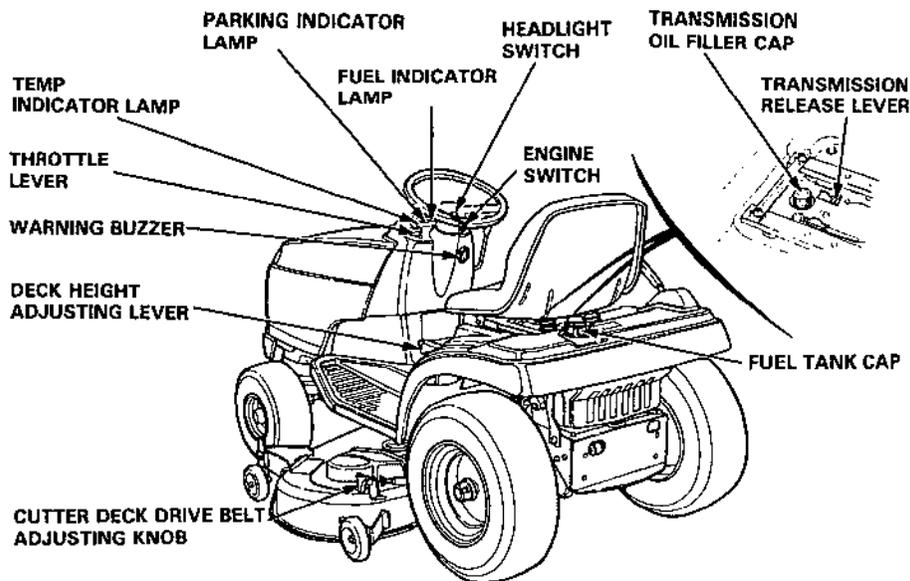
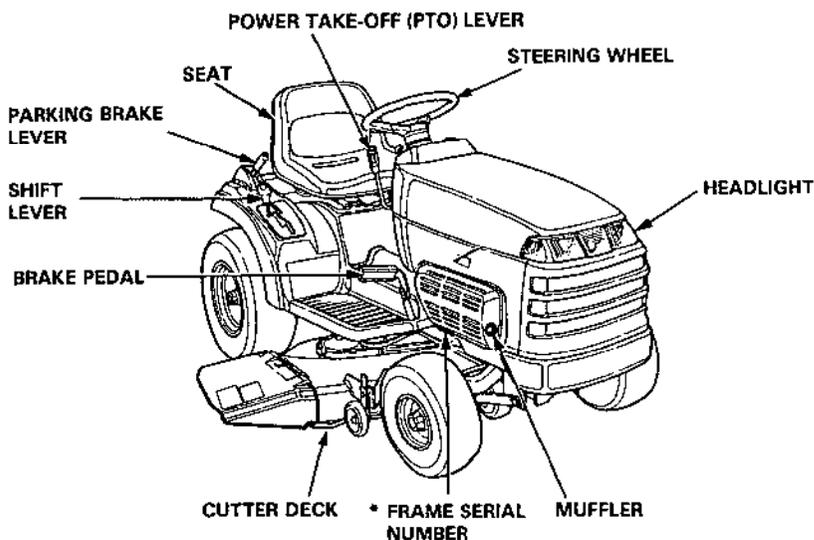
This lawn tractor is intended for use on relatively flat terrain. Operating the lawn tractor on slopes exceeding 10 degrees (17% grade) could cause the mower to tip over.

NOTE: If you feel that you cannot accurately judge the angle of the grade to be mowed, we suggest that you obtain an inclinometer. These slope gauges are available at most hardware stores.

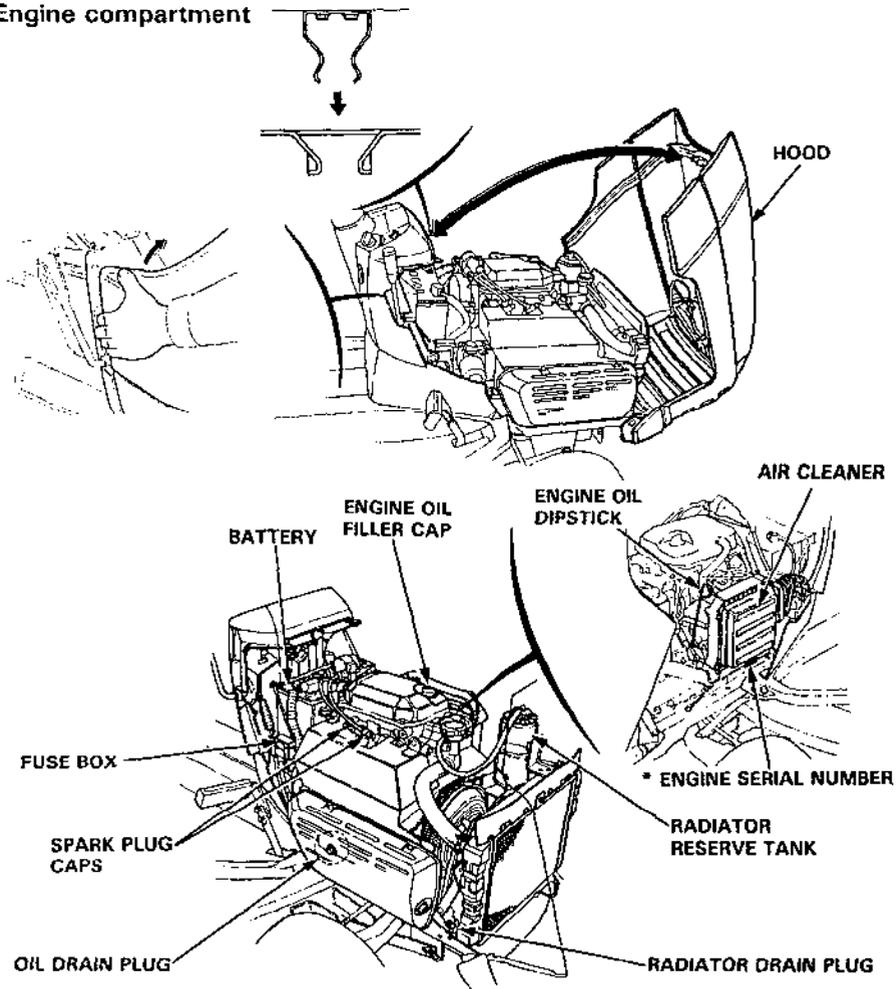
- When mowing on slopes, empty the grass bags when they are half full. The weight of full grass bags may cause the lawn tractor to tip over.



2. COMPONENT IDENTIFICATION



Engine compartment



* Record the frame and engine serial numbers for your reference. Refer to the serial numbers when ordering parts, and when making technical or warranty inquiries (see page 84).

Frame serial number: _____

Engine serial number: _____

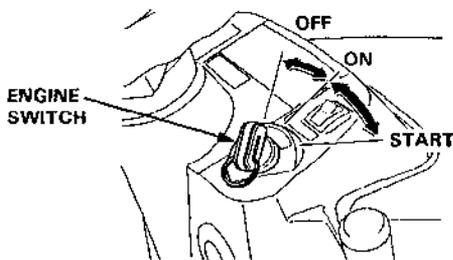
3. CONTROLS

Engine Switch

▲ WARNING Always remove the key from the engine switch whenever the lawn tractor is unattended to prevent children or unauthorized persons from starting the engine.

This lawn tractor is equipped with an automotive type ignition switch, which controls all the electrical circuits. The switch is located on the right-hand side of the control panel.

Key positions: "START" to start the engine
"ON" to run the engine after starting
"OFF" to stop the engine.

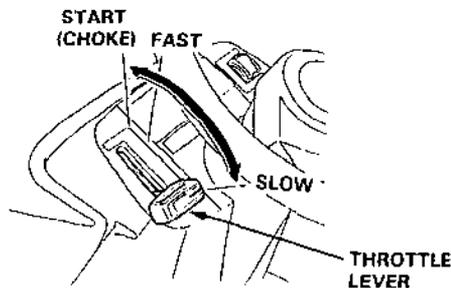


NOTICE Do not leave the engine switch "ON" (key in "ON" position) when the engine is not running as the battery will discharge.

NOTE: The starter motor will not operate unless the shift lever is in NEUTRAL, the PTO lever is in the OFF (disengaged) position, and either the parking brake is applied or the operator is sitting on the seat.

Throttle Lever

The throttle lever controls engine speed from SLOW (idle) to FAST (max speed). START (CHOKE) is for starting a cold engine.



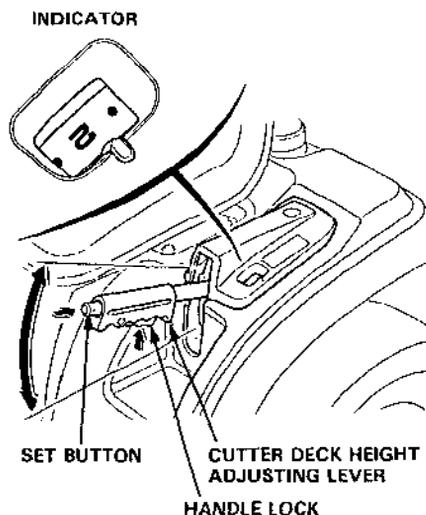
Cutter Deck Height Adjusting Lever

This lever is used to raise and lower the cutter deck. To adjust the cutting height, squeeze the handle lock and then press in and hold the set button. Raise or lower the lever until the desired cutting height appears on the indicator. At that point, release the set button and the handle lock. Be sure the handle lock returns to its normal position when released.

Cutting height: 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0 in (Approx.)

NOTICE

- To avoid damage to the cutter deck, always raise it fully when driving the lawn tractor to and from the mowing area; this provides maximum ground clearance.
- To avoid damaging or disabling the handle locking mechanism, never attempt to screw the adjusting lever's set button in or out.



Shift Lever

Use the shift lever to change the forward/reverse speed of the lawn tractor and/or to shift the transmission into NEUTRAL (STOP).

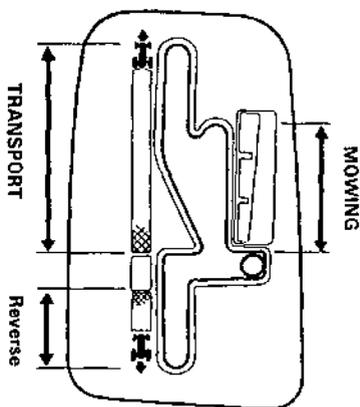
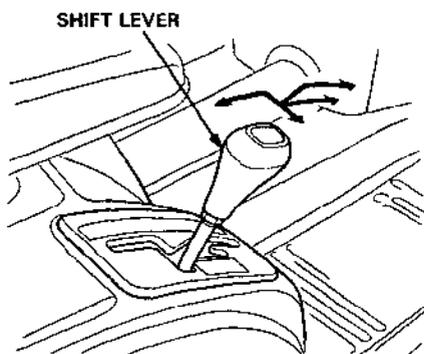
To drive the lawn tractor forward, release the parking brake and slowly move the shift lever from NEUTRAL to forward direction. To drive in reverse, slowly move the shift lever rearward.

NOTE: The shift lever is interconnected with the brake pedal. The shift lever returns to NEUTRAL when the brake pedal is fully depressed to bring the lawn tractor to a complete stop.

Be sure that the shift lever is in the mowing range whenever mowing.

Mowing in the transport range is not recommended as this will affect cut quality. Transport range should only be used to drive to and from the mowing area.

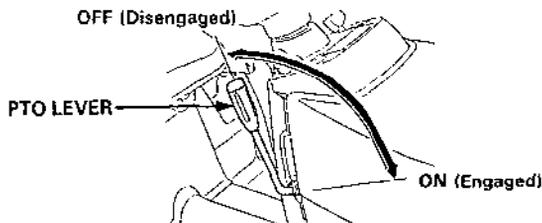
NOTE: An interlock switch prevents the engine from starting unless the shift lever is in the N (neutral) position.



Power Take-Off (PTO) Lever

This lever engages and disengages the power take-off clutch to drive the blades.

Lever positions: ON (Engaged)..... Blades turn
OFF (Disengaged).... Blades stop

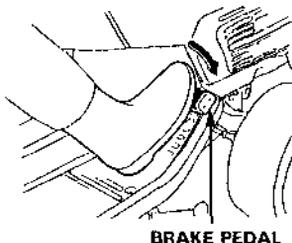
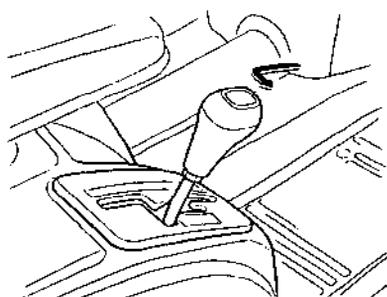


NOTE: An interlock switch prevents the engine from starting unless the PTO lever is in the OFF position.

Brake Pedal

The brake pedal and the shift lever are interconnected. When the brake pedal is fully depressed, the lawn tractor will stop and the shift lever will return to NEUTRAL. If the brake pedal is depressed half-way and then released, the lawn tractor will continue at a slower speed.

NOTICE Driving the lawn tractor with the brake pedal partly depressed can damage the brake linings.



BRAKE PEDAL

Parking Brake Lever and Warning Buzzer

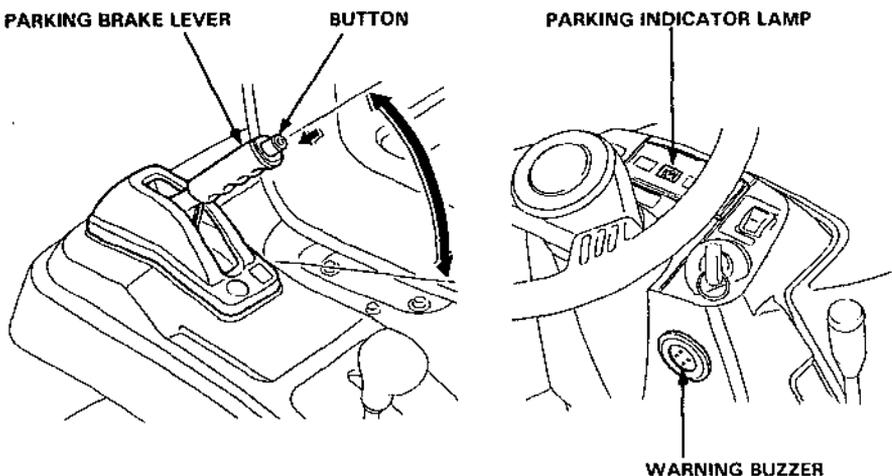
This lever is used to set the brake when the lawn tractor is parked. To apply the parking brake, pull up on the lever. The parking indicator lamp on the control panel will be ON when the engine switch is ON.

To release the parking brake, pull the lever up slightly and press the set button, lower the lever while holding in the button.

A warning buzzer will sound if the seated operator moves the shift lever out of the neutral position while the parking brake is set, and the engine switch is in the "ON" position. Releasing the parking brake lever will stop the buzzer.

A delayed engine cutoff is interlinked with the parking brake warning buzzer. This feature prevents the lawn tractor from being operated while the parking brake is set. The engine will stop a few seconds after the warning buzzer begins to sound unless the parking brake is released.

NOTICE When washing the lawn tractor, do not spray water directly into the warning buzzer holes.



Transmission Release Lever

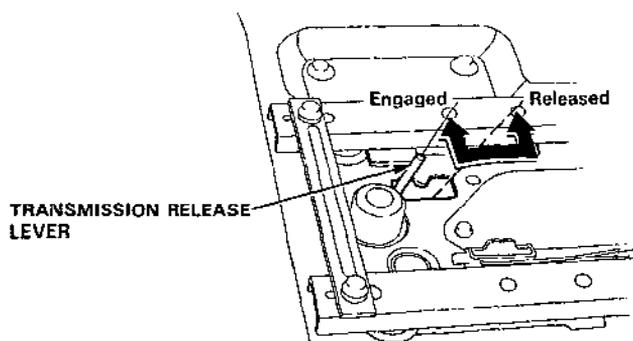
This lever is used when it becomes necessary to push the lawn tractor by hand.

WARNING Operating the transmission release lever while on a slope or hill, could result in a loss of control causing serious injury or equipment damage.

NOTICE Operating the transmission release lever while the engine is running can damage the transmission.

To operate the transmission release lever:

1. Stop the engine and apply the parking brake.
2. Place the shift lever in the NEUTRAL position.
3. Move the transmission release lever to the released position.



4. Release the parking brake carefully.

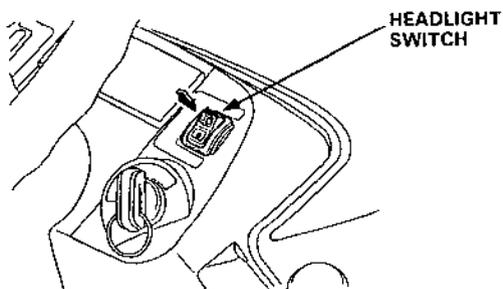
NOTICE Towing or pushing the lawn tractor with another vehicle will damage the transmission.

If the lawn tractor becomes inoperable due to transmission failure, trailering the tractor to the place of repair is recommended.

Headlight Switch

The headlight switch turns the headlights ON and OFF.

NOTICE Poor visibility increases the risk of striking hidden objects. Reduce speed when operating the tractor in low light conditions.



4. PRE-OPERATION CHECKS

Follow the procedures below and check all of the following items before each use:

1. Park the lawn tractor on a level surface.
2. Place the shift lever in the neutral position and set the parking brake.
3. Disconnect the spark plug caps and remove the key to prevent accidental engine start-up.

⚠ WARNING If the engine is started accidentally while you are performing the pre-operation checks, moving parts may cause serious injury.

OPENING/CLOSING THE HOOD

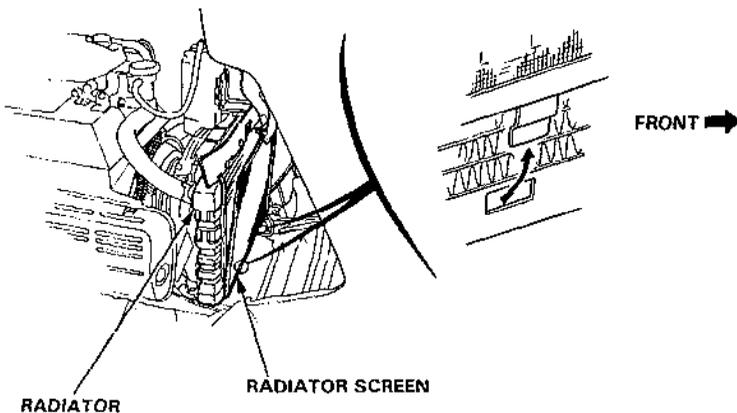
To open, pull up at the grip area until the hood stops at the fully open position.

NOTICE If the hood is opened while the hydraulic lift arms are raised, the hood can strike the arms. To avoid damaging the hood, do not attempt to fully open it, unless the hydraulic lift arms are lowered.

To close, slowly lower the hood until it seats in the spring clips.

RADIATOR SCREEN

⚠ CAUTION If the engine has been running, the radiator will be very hot; allow it to cool before proceeding.



ENGINE OIL

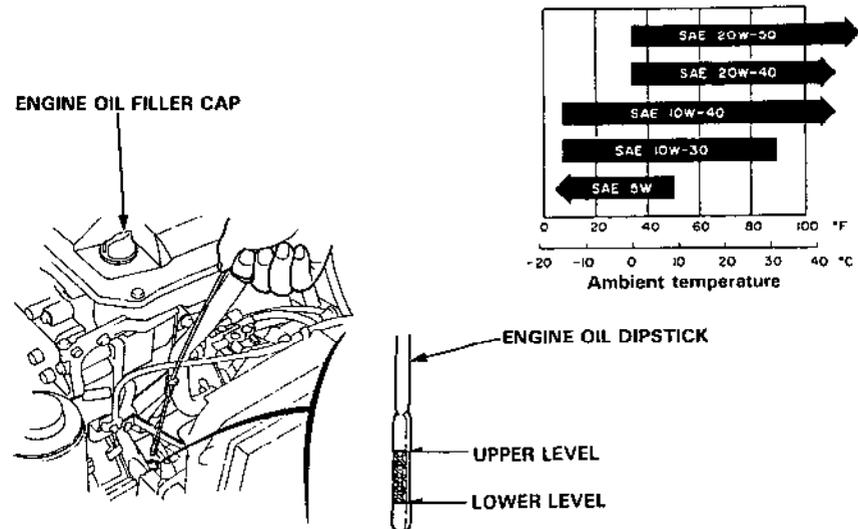
NOTICE Running the engine with low oil level will cause serious engine damage.

1. Place the lawn tractor on a level surface.
2. Open the engine hood, wipe dust and dirt from around the dipstick. Remove the dipstick and wipe it clean.
3. Reinsert it all the way down, then pull it out and read the level.
4. If the level is low, add the recommended oil to the upper mark on the dipstick. Do not overfill.

Use 4-stroke motor oil that meets or exceeds the requirements for API service classification SF or SG. Always check the API SERVICE label on the oil container to be sure it includes the letters SG or SF.

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

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



FUEL

Fuel Level/Refueling

Remove the fuel tank cap and check the fuel level. Refill the tank if the level is low.

If the low fuel indicator lamp glows, it means you have about 1.0 l (0.26 US gal) or less remaining and should refuel.

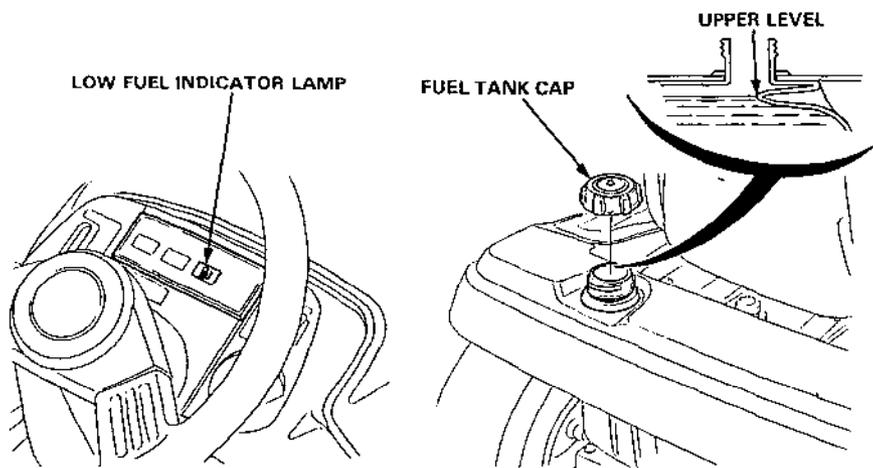
Fuel tank capacity: 9.0 l (2.38 US gal, 1.98 Imp gal)

▲ WARNING

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

- Refuel in a well ventilated area with the engine stopped. Keep flames and sparks away, and do not smoke in the area.
- Gasoline vapors or spilled gasoline may ignite.
- Refuel carefully to avoid spilling gasoline. Avoid overfilling the fuel tank (there should be no gas in the filler neck). After refueling, tighten the fuel tank cap securely. If any gasoline was spilled, make sure the area is dry before starting the engine.
- After use, park the lawn tractor on a level surface. Be sure the storage area is well ventilated, do not allow flames or sparks in the storage area.

After refueling, be sure to tighten the fuel tank cap firmly.



Fuel Recommendation

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

This engine is certified to operate on unleaded gasoline.

Unleaded gasoline produces fewer engine and spark plugs deposits and extends exhaust system life.

Never use stale or contaminated gasoline or 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 tractor 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 considered 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.

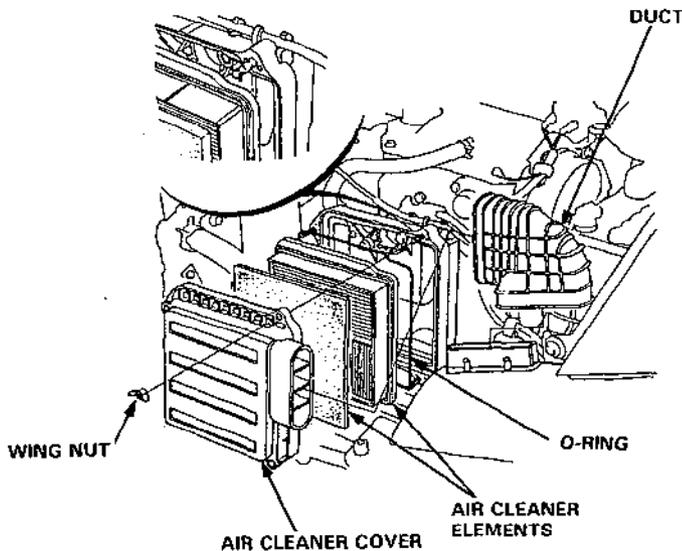
Fuel system damage or performance problems resulting from the use of an oxygenated fuel containing more than the percentages of oxygenates mentioned above are not covered under warranty.

AIR CLEANER

Check that the air cleaner elements are clean and in good condition. A dirty air cleaner will restrict air flow to the carburetor, reducing engine performance. A damaged air cleaner will allow dirt to enter the engine, causing rapid engine wear.

1. Open the hood and remove the wing nuts to remove the air cleaner cover and air cleaner elements.
2. Inspect the air cleaner elements. Clean or replace the elements if necessary. If the air cleaner elements need cleaning, follow the procedure described on page 58.
3. Reinstall the air cleaner elements and air cleaner cover. Tighten the wing nuts securely. Reinstall the plastic duct.

NOTICE Operating the engine without an air cleaner will cause rapid engine wear.



COOLANT

Coolant Level

Check the coolant level in the reserve tank when the engine is at normal operating temperature. It should be between the MAX and MIN marks.

If the coolant level is near the MIN mark, add coolant to bring it up to the MAX mark.

If there is no coolant in the reserve tank, the cooling system should be checked for leaks and repaired if necessary. Coolant must then be added to the radiator and reserve tank.

⚠ WARNING The coolant is hot and under pressure and severe scalding could result. Never remove the radiator cap when the engine is hot.

Wait until the engine is cool, then turn the radiator cap counterclockwise until it stops. DO NOT PRESS DOWN WHILE TURNING THE CAP. After any remaining pressure has been relieved, remove the cap by pressing down and again turning it counterclockwise.

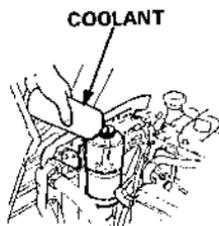
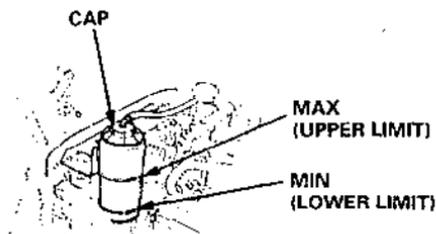
Add enough coolant to fill the radiator, and reinstall the cap. Fill the reserve tank once the engine reaches normal operating temperature.

Coolant Recommendation

Use high quality ethylene glycol antifreeze that is specifically formulated for use in aluminum engines. Mix the antifreeze with low-mineral drinking water or distilled water.

A 50/50 mixture of ethylene glycol antifreeze and water is recommended for most temperatures and provides good corrosion protection. A higher concentration of antifreeze decreases cooling efficiency and is recommended only if additional protection against freezing is needed. A concentration of less than 40% antifreeze will not provide proper corrosion protection.

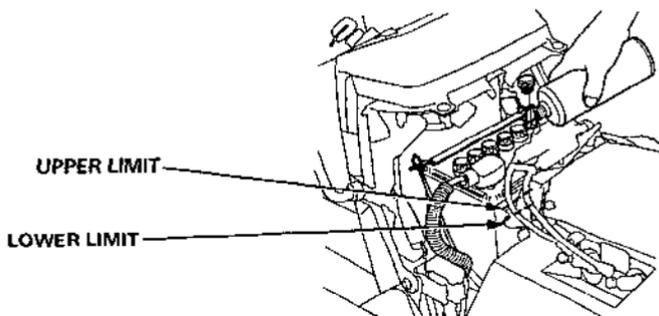
NOTICE The use of unsuitable antifreeze, hard water, or salt water may cause corrosion damage that will shorten the life of the engine.



BATTERY ELECTROLYTE

Open the hood, and check the battery electrolyte level.

The electrolyte level must be kept between the UPPER and LOWER limit marks. If the electrolyte level is near the LOWER mark, remove the battery filler caps and carefully add distilled water to each cell until the liquid reaches the upper limit line (see page 61).



⚠ WARNING Batteries produce explosive gases. Flames or sparks can cause an explosion, causing serious injury or blindness. Keep flames and sparks away and provide adequate ventilation when charging.

- **CHEMICAL HAZARD:** Battery electrolyte contains sulfuric acid. Contact with eyes or skin, even through clothing, may cause severe burns. Wear a faceshield and protective clothing.

ANTIDOTE: If electrolyte gets into your eyes, flush thoroughly with warm water for at least 15 minutes and call a physician immediately.

- **POISON:** Electrolyte is poison.

ANTIDOTE

— External: Flush thoroughly with water.

— Internal: Drink large quantities of water or milk.

Follow with milk of magnesia or vegetable oil, and call a physician immediately.

- **KEEP OUT OF REACH OF CHILDREN.**

TRANSMISSION OIL INSPECTION

Check the transmission fluid with the lawn tractor parked on level ground and the transmission at ambient temperature.

NOTE: HST fluid changes its volume with changes of temperature. The dip stick is calibrated for HST fluid temperatures between 32°F (0°C) and 68°F (20°C). Within this temperature range, the oil level should be between the upper and lower marks on the dip stick.

If the fluid temperature is below 32°F, the dip stick may not reach the transmission fluid. To measure the level, start the engine and warm the transmission fluid.

If the fluid temperature is above 68°F, the level may be above the upper mark on the dip stick. This is normal and does not indicate a problem.

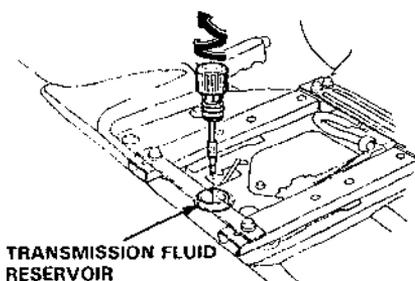
Remove the oil filler cap with a twisting motion. Wipe the dip stick and completely reinstall the filler cap. Remove the filler cap again with a twisting motion and be sure the fluid level is between the upper and lower marks on the dip stick. If the level is below the lower mark and the fluid temperature is between 32° and 68°F, add transmission fluid until it reaches the upper mark. Do not overfill.

Required transmission fluid:

HONDA HYDROSTATIC TRANSMISSION FLUID ONLY

NOTICE

The use of any other type of hydrostatic fluid or transmission fluid will drastically reduce the transmission's performance. To avoid damaging the transmission, use only **HONDA HYDROSTATIC TRANSMISSION FLUID**.



TRANSMISSION FLUID RESERVOIR

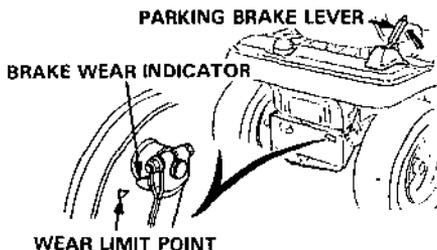
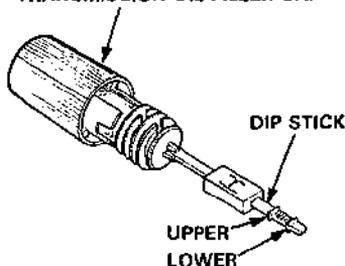
BRAKE WEAR INDICATOR

Inspect brake lining condition every time the lawn tractor is used.

Firmly set the parking brake. Check the position of the brake wear indicator. If the indicator is near the wear limit, take the lawn tractor to an authorized Honda lawn tractor dealer for repair.

WARNING Do not operate the lawn tractor if the brake lining is at or past the wear limit.

TRANSMISSION OIL FILLER CAP



WEAR LIMIT POINT

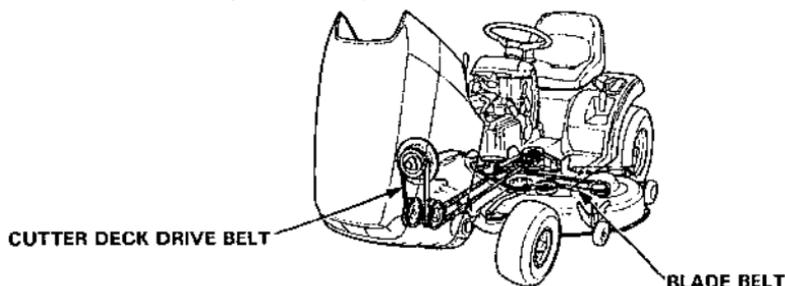
CUTTER DECK

Prior to using the mower, be sure to check that dirt, mud, and grass have not built up in the deck. For cleaning, refer to page 77.

CUTTER DECK DRIVE BELT AND BLADE BELT

• Inspection

1. Lower the deck as far as it will go with the deck height adjusting lever, and raise the hood.
2. Inspect the belts for damage or excessive wear. If the belts are damaged or excessively worn, replace them as described on pages 66 – 69.



• Cutter deck drive belt tension

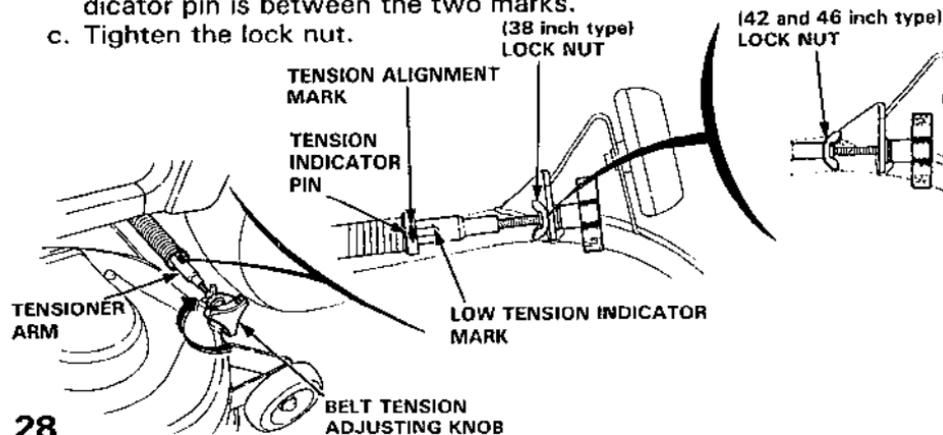
1. Lower the deck as far as it will go with the deck height adjusting lever.
2. Check belt tension by looking at the location of the tension indicator pin on the tensioner arm. The tension is OK as long as the pin is between the tension alignment mark and the low tension indicator mark.

If the pin is not between the marks, follow the steps below:

- a. Loosen the lock nut.
- b. Turn the belt tension adjusting knob until the pin aligns with the tension alignment mark.

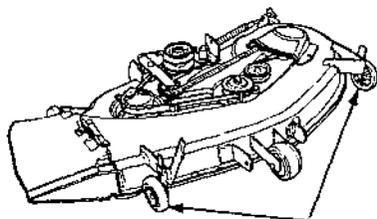
NOTE: It is not necessary to replace the drive belt if the tension indicator pin is between the two marks.

- c. Tighten the lock nut.

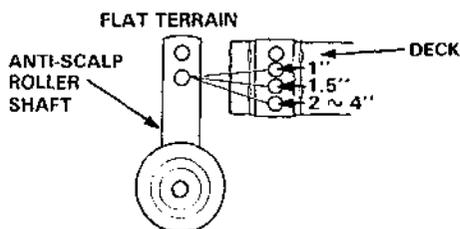


ANTI-SCALP ROLLER ADJUSTMENT

The anti-scalp rollers help to prevent the blades from gouging or "scalping" high spots. The deck is designed to "float", and it is important to set the anti-scalp rollers correctly. The setting depends on the type of terrain being mowed and the cut height.

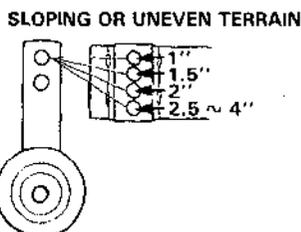


ANTI-SCALP ROLLERS



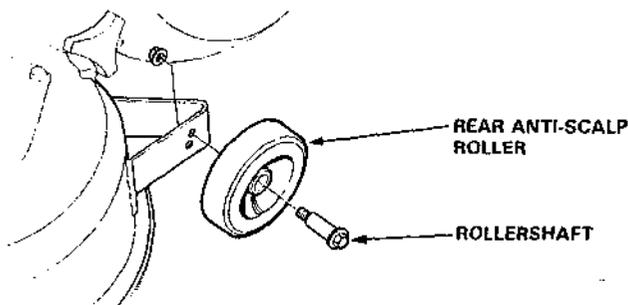
For flat terrain, use the lower hole in the anti-scalp roller shaft. Align the hole with the hole on the deck that corresponds to the selected cutting height as shown.

NOTE: Use the lower three mounting holes only.



For sloping or uneven terrain, use the upper hole in the anti-scalp roller shaft. Align the hole with the mounting hole that corresponds to the selected cutting height as shown.

If the cut height is set at 1 inch, move both rear anti-scalp roller shafts to the upper holes as shown. Tighten the nuts securely.



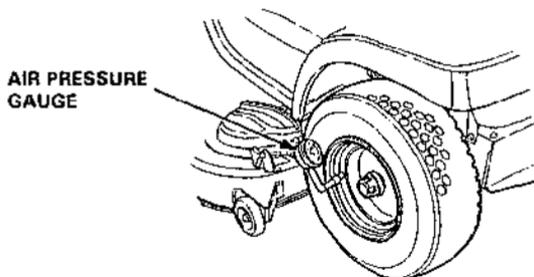
TIRES

NOTICE Overinflation can cause premature tire failure.
Inflate the tires to manufacturer's recommended tire pressure.

Check the tire pressure with an air pressure gauge.

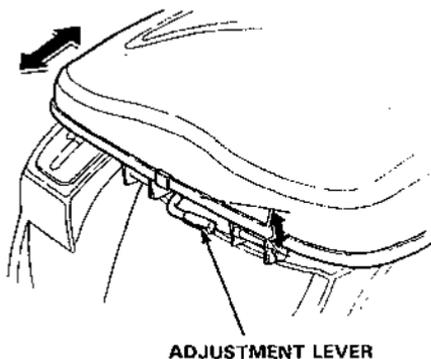
Pressure: Front.....98 kPa (1.0 kg/cm², 14.2 psi)

Rear78 kPa (0.8 kg/cm², 11.4 psi)



SEAT ADJUSTMENT

Adjust the seat position by pulling up on the adjustment lever under the front edge of the seat cushion, and sliding the seat to the desired position. Release the lever and make sure the seat is locked in position by moving it back and forth.

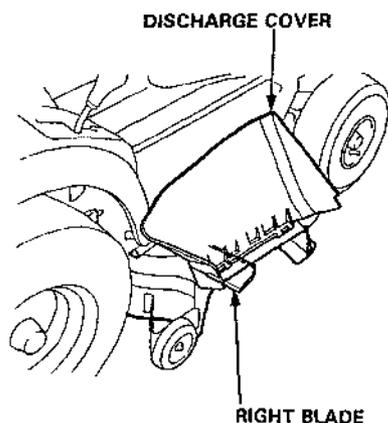
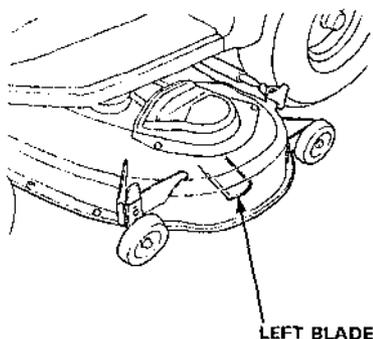


BLADE

Before each use, inspect the blades for damage or excessive wear.

⚠ WARNING To avoid injury:

- Remove the ignition key and remove the spark plug caps to prevent accidental starting.
 - Wear heavy gloves to protect your hands from the blades.
1. Set the parking brake, and move the PTO lever to the OFF (disengaged) position.
 2. Raise the deck height adjusting lever as high as it will go.
 3. Inspect the blades for cracks, bending and wear:
 - 38 inch deck
 - a. The right blade can be seen through the discharge opening; the left blade can be seen under the left side of the deck.
 - b. Rotate the blades 180° and inspect the other sides.
 - 42 and 46 inch deck
 - a. The right and center blades can be seen through the discharge opening; the left blade can be seen under the left front edge of the deck.
 - b. Rotate the blades 180° and inspect the other sides.



4. If either of the blades shows signs of damage or excessive wear, remove the cutter deck, and thoroughly inspect the blades (see cutter deck removal instructions on page 64). Dull blades can be sharpened, but blades that are worn out, bent, cracked, or otherwise damaged must be replaced. If the blades need sharpening or replacement, take the tractor to your authorized Honda lawn tractor dealer. Or, if you have the proper tools, you can remove and install the blades yourself (see blade removal and installation instructions on pages 70–71).

38 inch type



NORMAL



EXCESSIVELY
WORN



BENT



CRACKED

42 and 46 inch type



NORMAL



EXCESSIVELY
WORN



BENT

WARNING Broken pieces thrown from a worn or damaged blade can cause serious injury. Always inspect the blades before using the lawn tractor.

NOTICE

- Use genuine Honda replacement blades, or equivalent.
- To reduce the possibility of weakening the blades, or causing imbalance or poor cutting performance, sharpening should be performed by an authorized Honda lawn tractor dealer.

SAFETY SWITCH

Before performing these inspections, remove the spark plug cap, and sit on the seat or set the parking brake.

1. PTO switch inspection

- With the shift lever in the N (Neutral) position, set the PTO lever in the ON (Engaged) position.
- Check that the starter motor does not turn when the engine switch is turned to the START position.
- Return the PTO lever to the OFF (Disengaged) position.

2. Neutral switch inspection

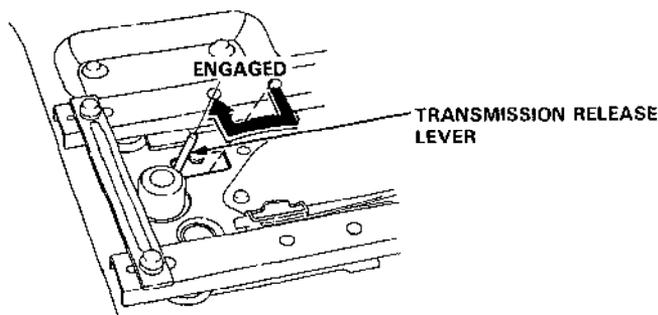
- With the PTO lever in the OFF (Disengaged) position, set the shift lever in the mowing range.
- Check that the starter motor does not turn when the engine switch is turned to the START position.
- Return the shift lever to the N (Neutral) position.

5. OPERATION

STARTING THE ENGINE

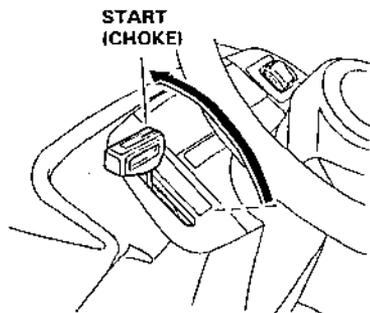
⚠ WARNING Exhaust contains poisonous carbon monoxide gas that may cause loss of consciousness and lead to death. Never run the engine in an enclosed area. Be sure to provide adequate ventilation.

NOTE: Before starting the engine, make sure that the transmission release lever under the seat is in the ENGAGED position.

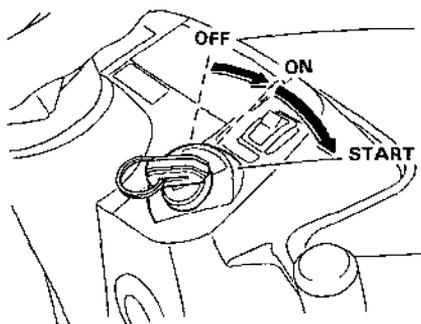


1. Sit on the seat and adjust the seat position (see page 30). Check that the parking brake lever is set, the transmission is in neutral, and the PTO lever is in the OFF (disengaged) position.
2. Move the throttle lever to the START (CHOKE) position.

NOTE: When the engine is warm or the air temperature is high, move the throttle to SLOW.



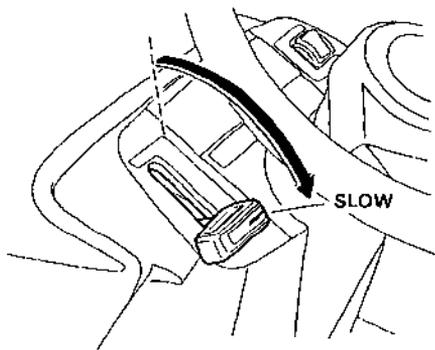
-
3. Turn the engine switch to **START**. (5 second maximum) and release the key when the engine starts.



NOTICE Running the starter motor for more than 5 seconds can damage the motor.

If the engine fails to start, release the engine switch key, and wait at least 10 seconds before operating the starter motor again.

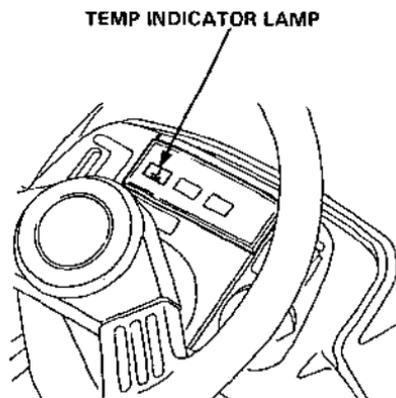
4. After the engine warms up, move the throttle lever to the **SLOW** position.



To help prevent engine damage caused by overheating, this lawn tractor is equipped with a TEMP INDICATOR LAMP. If the temp indicator lamp comes on and the warning buzzer sounds, stop the engine immediately, check the coolant level (p. 25) and clean the radiator screen thoroughly. (see p. 19)

WARNING To prevent accidental start-up, remove the engine switch key before cleaning the radiator screen.

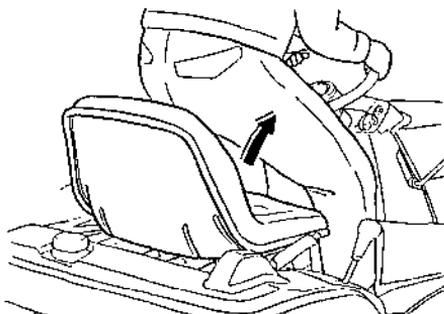
NOTICE Continuing to operate the Lawn Tractor while it is overheated can lead to severe engine damage.



• Seat Safety Switch Operation Check

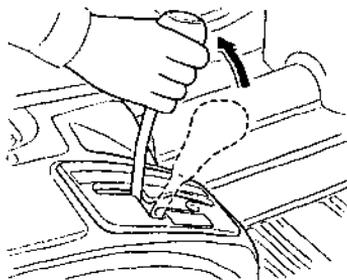
The seat safety switch automatically stops the engine if the operator's weight is off the seat when the following interlocks are actuated:

1. While parked on a level surface, move the PTO lever to ON (Engaged).
Rise off the seat — the engine should stop immediately.
2. Return the PTO lever to OFF (Disengaged) and restart the engine.
Release the parking brake and place the shift lever in the slow mowing range.
While driving slowly, rise off the seat — the engine should stop immediately.
3. Move the shift lever back to NEUTRAL and set the park brake. Start the engine and release the park brake. Rise up off the seat — the engine should stop.



• Parking Brake System Inspection

1. Set the parking brake.
2. Start the engine.
3. Move shift lever from right-hand position "N" (Neutral) to left-hand plate. Then make sure that the warning buzzer sounds, and the engine stops after a few seconds.
4. Return the transmission lever to "N" (Neutral) and turn engine switch to OFF.



If the inspection is abnormal, contact an authorized Honda lawn tractor dealer.

MOWING

Before operating this lawn tractor you should read and understand the SAFETY INSTRUCTIONS on pages 6 - 9.

▲ WARNING

- Rotating blades and thrown objects can cause severe personal injury. Always stop the engine before clearing the discharge chute or removing the grass bags.
- Unseen hazards may cause loss of control or damage to the lawn tractor. Look for and avoid rocks, roots, holes, and hidden hazards in the terrain.
- Operating the lawn tractor near the edge of a ditch or an embankment could cause it to tip or roll over.
- Certain maneuvers can cause the lawn tractor to tip or roll over on sloping surfaces; avoid sharp turns, rapid acceleration, and sudden stops. Also, avoid backing down slopes.
- Decomposing grass creates heat, and may become a fire hazard. Always empty the grass bags before storing the tractor.

When mowing tall grass, make a first pass with the deck fully raised (4); this will help to expose any hidden obstacles. When you are sure that the area is completely cleared, mow again at the desired height.

NOTICE If the lawn tractor should accidentally get caught on an unseen object (rock, root, hole, etc.), do not attempt to ride over the obstruction or turn the steering wheel to free the mower. These actions can damage the steering mechanism or the deck.

Mowing Tips

- For best results mow when the grass is dry, and the ground is slightly damp to control dust.
- Wet grass will clog the deck and the discharge chute; this will cause poor cut quality.
- If dust is a problem, water the lawn the day before you mow.

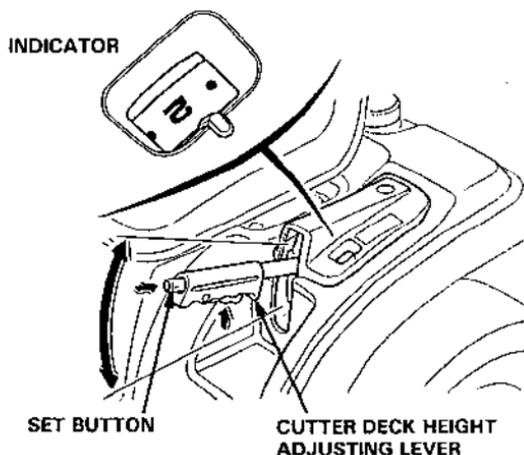
-
- To avoid leaving uncut grass, engage the PTO before shifting the transmission from neutral to the desired mowing speed.
 - For best cut quality and overall performance, set the throttle in the FAST position and select the proper mowing speed with the shift lever. Mowing at low or medium throttle settings will affect blade performance and cut quality.
 - For best results, select a good mowing speed and stay at that speed. Rapid speed changes while mowing will affect cut quality.
 - Do not move the shift lever into the TRANSPORT range while mowing as this will affect cut quality. Use the TRANSPORT range only for driving the lawn mower to and from the mowing area.
 - When cutting thick, lush or uneven grass, raise the deck, reduce mowing speed and increase the overlap width (See page 43).
 - For best results, and to reduce the load on the engine, mow grass before it reaches 6 inches in length.
 - If it is necessary to mow grass that is more than 6 inches long, reduce ground speed, and mow twice: once with the deck raised as high as it will go (4), and then a second time with the deck set at the desired height.
 - When trimming, reduce mowing speed, and mow counterclockwise around trees, posts, flower beds, sprinklers, etc.
 - If the cut is uneven or the cut quality is not acceptable, inspect the condition of the blades and the deck. If these parts are OK, a deck adjustment may be required. Your authorized Honda lawn tractor dealer has the expertise to make any necessary adjustments.
 - Refer to page 44 for important information about mowing on sloping surfaces.

STARTING THE LAWN TRACTOR

▲ WARNING Be sure the mowing area is clear of people, pets and other obstacles before mowing.

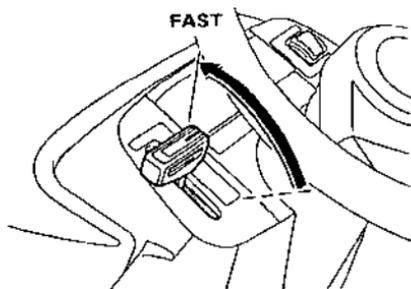
1. Set the cutter deck height adjusting lever to the desired cutting height.

NOTE: Be sure that the anti-scalp rollers are in correct position for the selected cutting height and terrain (See page 29).



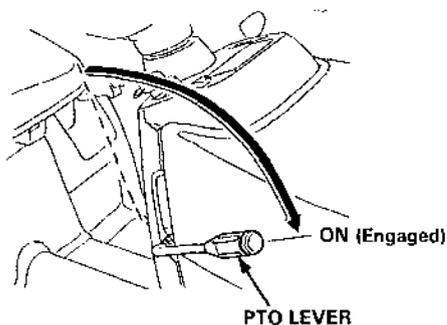
2. Move the throttle lever to the FAST position.

NOTE: For best cut quality, and performance, always mow with the throttle lever in the FAST position.
Use the shift lever to select the desired ground speed range.



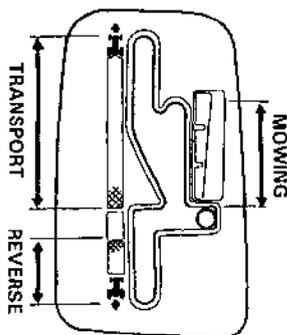
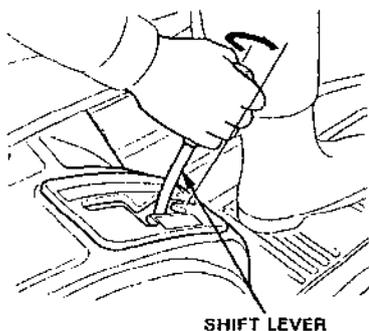
3. Move the PTO lever to the ON (Engaged) position.

NOTICE To avoid premature wear to the PTO clutch and brake system, always engage and disengage the PTO lever with a quick, smooth motion.



4. Move the shift lever to select the desired ground speed position.

When operating the lawn tractor on rough or uneven terrain, select a ground speed that will give you safe ground speed while the engine is running at full throttle.

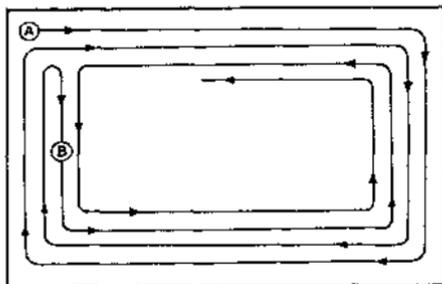


CUTTING PATTERNS

These cutting patterns are only recommended for a flat, level lawn surface.

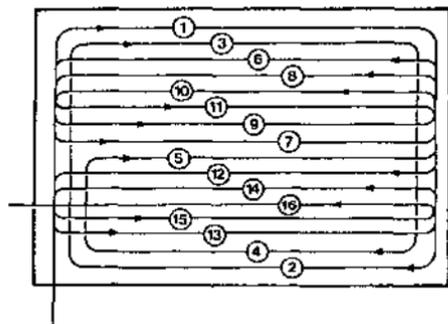
- In a small area

First make 2 or 3 turns in a clockwise direction; then turn around and continue cutting in the reverse direction.



- In a large area

The first round of cuts is the key to making a neat finish. First, make 2 or 3 turns in a clockwise direction. As you reach the center of the area, turn to the right and continue cutting in the reverse direction until you have finished the upper half of the area. Cut the grass in the remaining half in a counterclockwise direction.

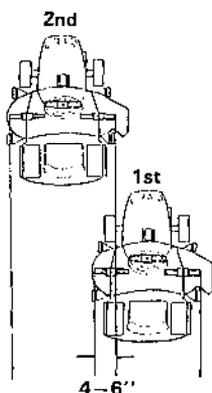


- Mowing unsquare areas

If your mowing area is not square or four-sided, divide the area into several blocks so you can mow in a neat mowing pattern.

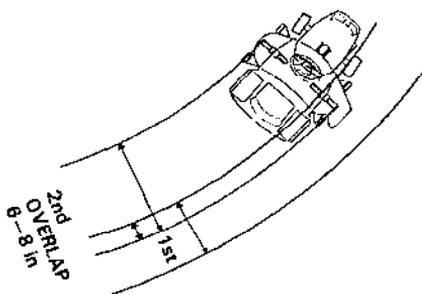
- Overlapping on straightaways.

Be sure that each mowing lane overlaps sufficiently. The recommended overlap width is between 4–6 in., or approximately the width of one of the mower's front tires.



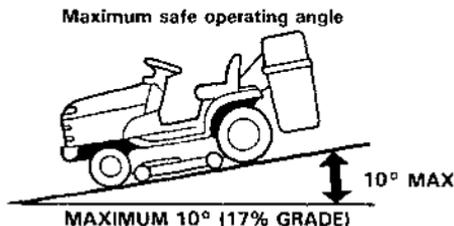
- Overlapping in curves and turns

When cutting in curves and turns, shift to a slower speed and be sure to overlap the previous cut by 6–8 in., or approximately the width of one of the mower's rear tires.



OPERATION ON HILLS

This lawn tractor is intended for use on relatively flat terrain. Operating on slopes exceeding 10° (17% grade) could cause the tractor to tip over.



NOTE: If you feel that you cannot accurately judge the angle of a grade, we suggest that you obtain an inclinometer. These slope gauges are available at many hardware stores.

Mowing on Hills:

- Reduce speed and exercise extreme caution.
- Always drive up and down the face of the grade. Never turn around on or drive across the face of the grade; this may cause the tractor to tip over.
- Empty grass bags when they are half full. The weight of full bags could cause the tractor to tip over.

Stopping on Hills:

If possible, avoid stopping while driving uphill. If it is necessary to stop on a hill, follow the procedures below:

1. Push the brake pedal to the floor; the shift lever will return to the NEUTRAL position.
2. Move the PTO lever to the OFF (disengaged) position.
3. Set the parking brake.

Starting on Hills:

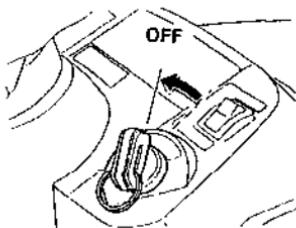
It is important to follow the uphill starting procedure carefully to avoid tipping the lawn tractor over.

1. Release the parking brake.
2. Slowly move the shift lever to the desired speed range.

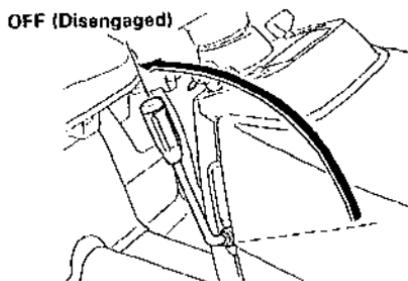
⚠ WARNING Moving the shift lever too quickly while starting uphill may cause the lawn tractor to tip over backwards. Always move the shift lever slowly and gradually.

STOPPING THE ENGINE

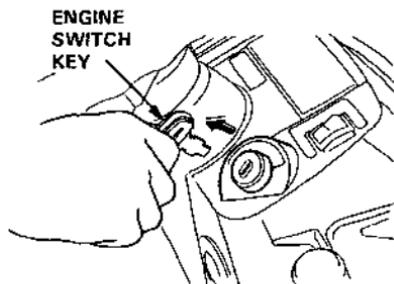
- In an emergency:
 - (1) Turn the engine switch OFF and depress the foot brake.
 - (2) Set the parking brake.



- In normal use:
 - (1) Move the PTO lever to OFF (Disengaged).



- (2) Move the shift lever to the Neutral slot.
- (3) Set the parking brake.
- (4) Turn the engine switch OFF.
- (5) Remove the engine switch key.



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 fuel mixture may also foul the spark plugs and cause hard starting.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate your engine at altitudes above 1,800 meters (6,000 feet), have your dealer perform this carburetor modification.

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

NOTICE When the carburetor has been 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 a modified carburetor may cause the engine to overheat and result in serious engine damage. For use at low altitudes, have your dealer return the carburetor to original factory specifications.

6. TRANSPORTING

CAUTION The engine and exhaust system become hot during operation and remain hot for a while after stopping. Touching hot engine or exhaust system can cause serious burns and can ignite some materials.

Avoid touching the engine or exhaust system for at least 15 minutes after the engine has stopped. Allow the engine to cool before transporting the lawn tractor.

NOTICE Towing the lawn tractor behind another vehicle or using it to push another vehicle can damage the lawn tractor.

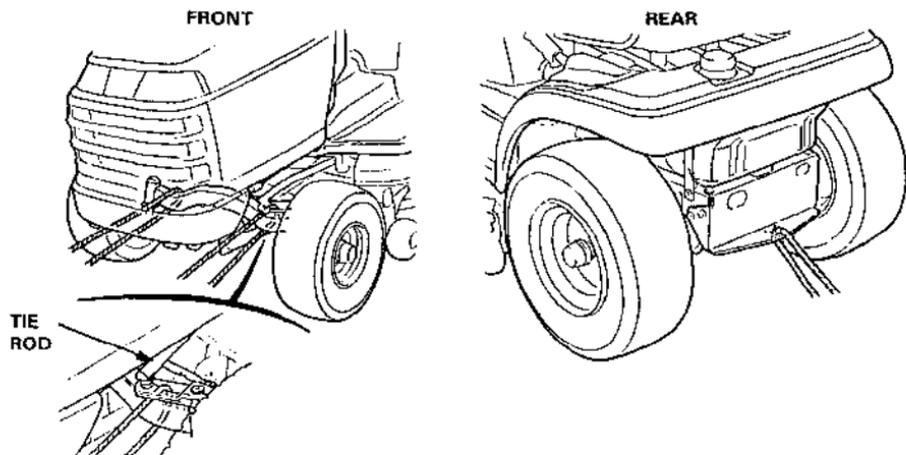
Transport the lawn tractor on a flat, level trailer or in a pickup truck. To avoid gasoline spillage, keep the lawn tractor level while transporting.

WARNING Gasoline is extremely flammable, and gasoline vapor can explode, causing injury or death.

Set the parking brake, and then tie the tractor down securely.

Tie-down hooks should be on or near the floor. Use the tie-down points shown below.

NOTICE To avoid damaging the steering tie rods, be careful not to put the ropes around or near them when securing the front end.



TOWING

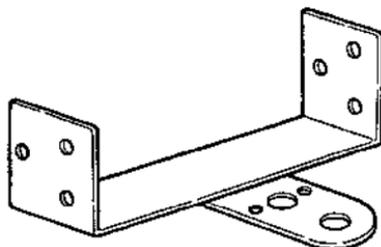
Trailer Safety

⚠ WARNING

- Avoid sudden starts and stops while towing. The additional weight of the trailer or attachment could cause loss of control resulting in an accident.
- Never allow anyone to ride in the trailer.
- Failure to use the proper type of trailer hitch could cause the tractor to overturn resulting in severe personal injury.
- The weight of a trailer increases stopping distances; use extra care, especially when operating on a slope.
- To avoid loss of control, use extra care when towing a trailer on a wet or rough surface.
- This tractor is intended for use on relatively flat terrain. Towing a trailer on slopes exceeding 10° (17% grade) could cause the tractor and/or the trailer to tip over.
- Use rear wheel weights when towing a trailer on grades. Failure to use wheel weights could reduce braking power.
- Reduce speed when towing on slopes. Use the MOWING speed range only.
- Avoid sharp turns when towing a trailer on a slope. If the trailer's load is unbalanced, the trailer and/or tractor may overturn.

Optional Trailer Hitch

An optional draw bar hitch is available from your authorized Honda lawn tractor dealer. This hitch is specifically designed for your lawn tractor. Using a ball-type hitch or attaching a trailer directly to the tractor's hitch plate could damage the tractor or make it unstable.



OPTIONAL TRAILER HITCH

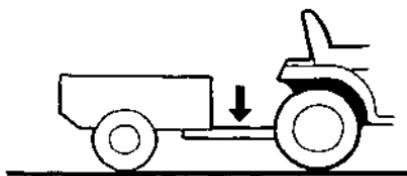
Maximum Towing Weight:



- On flat terrain: 227 kg (500 lb)
- On grades (10° or less) 127 kg (280 lb)

▲ WARNING Exceeding the maximum towing weight could lead to a loss of control and cause an accident resulting in severe personal injury.

Maximum Tongue Weight: 20 kg ± 9 kg (44 lb ± 20 lb)



NOTE: Tongue weight is the downward weight that the trailer exerts on the trailer hitch.

▲ WARNING To avoid loss of control, the load in the trailer must be balanced so as to provide the correct tongue weight; otherwise, the tractor could overturn.

7. MAINTENANCE

THE IMPORTANCE OF MAINTENANCE

Good maintenance is essential for safe, economical, and trouble-free operation. It will also help reduce air pollution.

▲ WARNING

Improper maintenance, or failure to correct a problem before operation, can cause a malfunction in which you can be seriously hurt or killed.

Always follow the inspection and maintenance recommendations and schedules in this owner's manual.

To help you properly care for your lawn tractor, the following pages include a maintenance schedule, routine inspection procedures, and simple maintenance procedures using basic hand tools. Other service tasks that are more difficult, or require special tools, are best handled by professionals and are normally performed by a Honda technician or other qualified mechanic.

The maintenance schedule applies to normal operating conditions. If you operate your lawn tractor under severe conditions, such as sustained high-load or high-temperature operation, or use in unusually wet or dusty conditions, consult your servicing dealer for recommendations applicable to your individual needs and use.

Maintenance, replacement, or repair of the emission control devices and systems may be performed by any engine repair establishment or individual, using parts that are "certified" to EPA standards.

MAINTENANCE SAFETY

Some of the most important safety precautions follow. However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task.

▲ WARNING

Failure to properly follow maintenance instructions and precautions can cause you to be seriously hurt or killed.

Always follow the procedures and precautions in the owner's manual.

Safety precautions

- Make sure the engine is off before you begin any maintenance or repairs. This will eliminate several potential hazards:
 - **Carbon monoxide poisoning from engine exhaust.**
Be sure there is adequate ventilation whenever you operate the engine.
 - **Burns from hot parts.**
Let the engine and exhaust system cool before touching.
 - **Injury from moving parts.**
Do not run the engine unless instructed to do so.
- Read the instructions before you begin, and make sure you have the tools and skills required.
- To reduce the possibility of fire or explosion, be careful when working around gasoline. Use only a nonflammable solvent, not gasoline, to clean parts. Keep cigarettes, sparks, and flames away from all fuel-related parts.

Remember that your servicing dealer knows your lawn tractor best and is fully equipped to maintain and repair it.

To ensure the best quality and reliability, use only new, genuine Honda parts or their equivalents for repair or replacement.

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 when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.

Honda utilizes lean carburetor settings and other systems to reduce the emissions of carbon monoxide, oxides of nitrogen, and hydrocarbons.

The U.S. and California Clean Air Acts

EPA and California regulations require all manufacturers to furnish written instructions describing the operation and maintenance of emission control systems.

The following instructions and procedures must be followed in order to keep the emissions from your Honda engine within the emission standards.

Tampering and Altering

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

- Removal or alteration of any part of the intake, fuel, 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 servicing dealer.

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

Replacement Parts

The emission control systems on your Honda engine were designed, built, and certified to conform with EPA and California emission regulations. We recommend the use of genuine Honda parts whenever you have maintenance done. These original-design replacement parts are manufactured to the same standards as the original parts, so you can be confident of their performance. The use of replacement parts that are not of the original design and quality may impair the effectiveness of your emission control system.

A manufacturer of an aftermarket part assumes the responsibility that the part will not adversely affect emission performance. The manufacturer or rebuilder of the part must certify that use of the part will not result in a failure of the engine to comply with emission regulations.

Maintenance

Follow the maintenance schedule on page 54. 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 SCHEDULE

ITEM	REGULAR SERVICE PERIOD (3)		EACH USE	FIRST 3MONTHS OR 20HRS	EVERY 6MONTHS OR 50HRS	EVERY YEAR OR 100HRS	EVERY 3YEARS OR 300HRS	EVERY 5YEARS OR 500HRS
	Perform at every indicated month or operating hour interval, whichever comes first.							
• Engine oil	Check level		○					
	Change			○		○		
• Engine oil filter	Replace						○ or 200hr	
• Air cleaner	Check		○					
	Clean				○(1)			
	Replace						○(1)	
• Radiator screen	Clean		○					
• Radiator coolant	Check		○					
	Change	Every 2 years (2)						
Radiator core	Clean					○		
Battery electrolyte	Check level		○					
	Check level and gravity				○(2)			
• Idle speed	Check-Readjust						○(2)	
• Spark plug	Check-Readjust					○		
	Replace						○	
Spark arrester (optional part)	Clean					○		
• Fuel filter	Change	Every 200hrs or Every 2 years						
Fuel tank	Clean						○(2)	
• Fuel line	Check (Replace if necessary)	Every 2 years (2)						
• Valve clearance	Check-Readjust						○(2)	
Throttle cable	Check-Readjust					○(2)		
Interlock system operation • Seat switch • Parking switch • PTO switch • Neutral switch	Check		○					
Parking brake indicator lamp and buzzer operation	Check		○		○(2)			
Brake pedal free play	Check		○					
	Readjust					○(2)		
Parking brake operation	Check		○					
	Readjust						○(2)	
Brake wear indicator	Check		○					

REGULAR SERVICE PERIOD (3)		EACH USE	FIRST 3MONTHS OR 20HRS	EVERY 6MONTHS OR 50HRS	EVERY YEAR OR 100HRS	EVERY 3YEARS OR 300HRS	EVERY 5YEARS OR 500HRS
ITEM	Perform at every indicated month or operating hour interval, whichever comes first.						
	Brake and PTO clutch (fastener tightness) Check		○(2)		○(2)		
	PTO clutch cable Check-Adjust		○(2)		○(2)		
	PTO clutch Check				○(2)		
	Transmission oil	Check level			○		
		Change					○(2)
	Shift lever Check-Readjust		○(2)	○(2)			
	Blade bolt tightness Check		○(2)	○(2)			
	Blade condition Check	○					
	Deck belt and blade belt Check	○					
	Grass bag (optional parts) Clean	○					
	Tire pressure Check	○					
	Front axle Grease				○(2)		

NOTE: • Emission related items.

(*) Replace the paper element only.

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

(2) These items should be serviced by an authorized Honda tractor 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.

(4) Check the nuts daily for the first 20 hours of operation, and retighten if necessary.

ENGINE OIL CHANGE

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

▲ CAUTION Used motor oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods.

Although this is unlikely, unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

1. Open the engine hood.
2. Remove the oil filler cap and drain bolt, and drain the oil into a suitable container. Be careful to avoid spilling oil on the frame.

NOTE:

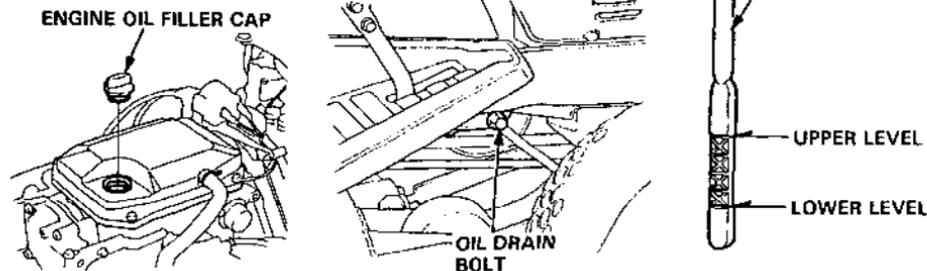
- To remove the drain bolt, turn the steering wheel to the extreme left and remove the bolt from the right side.
- Take care not to spill the engine oil on the cutter deck drive belt.

3. Retighten the drain plug securely.
4. Refill to the upper level mark on the dipstick with the recommended oil (see page 20). Tighten the oil filler cap securely.

ENGINE OIL REFILL CAPACITY

Without oil filter change: 2.0 l (2.1 US qt)

With oil filter change: 2.3 l (2.4 US qt)



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

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 or recycling center for reclamation. Do not throw it in the trash, pour it on the ground or down a drain.

OIL FILTER CHANGE

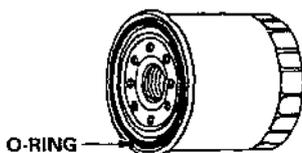
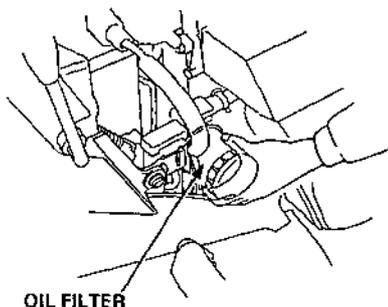
1. Drain the engine oil, and retighten the drain bolt securely (see page 56).
2. Remove the oil filter, and drain the oil into a suitable container. Discard the used oil filter.
3. Clean the filter mounting base, and coat the gasket of the new oil filter with clean engine oil.

NOTICE Use only a genuine Honda oil filter or a filter of equivalent quality specified for your model. Using the wrong Honda filter, or a non-Honda filter which is not of equivalent quality, may cause engine damage.

4. Screw on the new oil filter by hand, until the gasket contacts the filter mounting base, then use an oil filter wrench to tighten the filter an additional $7/8$ turn.

OIL FILTER TIGHTENING TORQUE: 22 N·m (2.2 kg·m, 16 ft·lb).

5. Refill the crankcase with the specified amount of the recommended oil (see pages 20 & 56). Reinstall the oil filter cap/dipstick.
6. Start the engine and check for oil filter leaks.
7. Stop the engine, and check the oil level as described on page 20. If necessary, add oil to the upper limit mark on the dipstick.



AIR CLEANER SERVICE

A dirty air cleaner will restrict air flow to the carburetor. If you operate the lawn tractor in very dusty areas, clean the air cleaner more often than specified in the MAINTENANCE SCHEDULE.

Operating the engine without the air cleaner will cause rapid engine wear.

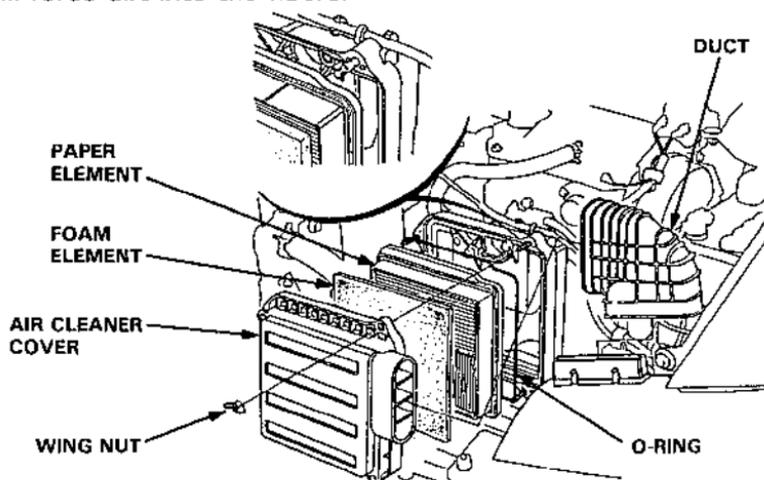
1. Open the engine hood.
2. Remove the wing nuts and remove the air cleaner cover. Remove the elements and separate them. Carefully check both elements for holes or tears and replace if damaged.

NOTE: Be sure to remove the foam element from the air cleaner cover so that you can inspect both sides.

3. Foam element: Clean in warm, soapy water, rinse, and dry thoroughly. Or, clean in nonflammable solvent and dry.
Dip the element in clean engine oil, then squeeze out all excess oil. The engine will smoke when started if too much oil is left in the foam.

⚠ WARNING Using gasoline or flammable solvent to clean the filter element can cause a fire or explosion. Use only soapy water or nonflammable solvent.

4. Paper element: Tap the element several times on a hard surface to remove loose dirt, or blow low pressure (30 psi or less) compressed air through the filter from the inside. Do not try to brush off dirt. Brushing will force dirt into the fibers.



SPARK PLUG SERVICE

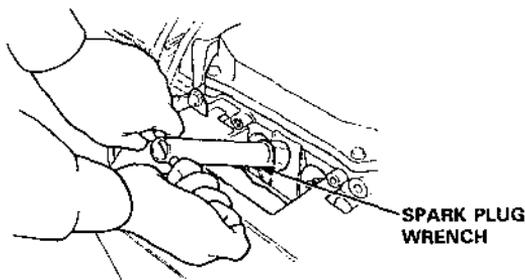
Recommended spark plug: **BPR5ES-11 (NGK)**
W16EPR-U11 (DENSO)

WARNING Touching a hot engine or exhaust system can cause serious burns. Let the engine cool before performing maintenance.

NOTICE Spark plugs of the wrong heat range can cause engine damage.

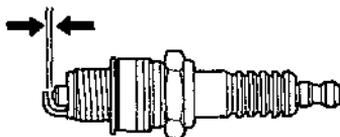
For good performance, the spark plugs must be properly gapped and free of deposits.

1. Open the engine hood and remove the spark plug caps.
2. Clean any dirt from around the spark plug bases.
3. Use a spark plug wrench to remove the spark plugs.

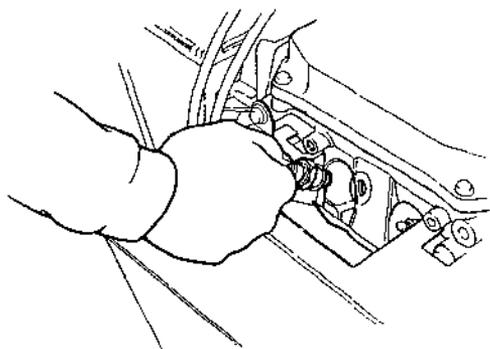


4. Visually inspect the spark plugs. Discard the spark plugs if there is apparent wear, or if the insulators are cracked or chipped. Clean the spark plugs with a wire brush if they are to be reused.
5. Measure the plug gaps with a feeler gauge. The gaps should be 1.0–1.1 mm (0.039–0.043 in). Correct as necessary by carefully bending the side electrode.

1.0–1.1 mm
(0.039–0.043 in)



-
6. Install the spark plugs carefully, by hand, to avoid cross-threading.



7. After each spark plug is seated, tighten with a spark plug wrench to compress the washer.

NOTICE Loose spark plugs can get hot enough to damage the engine. Overtightening may damage the threads.

NOTE: If installing new spark plugs, tighten $1/2$ turn after the spark plugs seat to compress the washers. If reinstalling used spark plugs, tighten $1/8 - 1/4$ turn after the spark plugs seat to compress the washers.

BATTERY SERVICE

Battery Refilling

If the lawn tractor is operated with insufficient battery electrolyte, sulfation and battery plate damage will occur.

If rapid loss of electrolyte is experienced, or if your battery seems to be weak, causing slow starting or other electrical problems, see your authorized Honda lawn tractor dealer.

Open the engine hood and check the electrolyte level in each battery cell. Fill the battery with distilled water to the upper limit line. Never overfill the battery.

⚠ WARNING Batteries produce explosive gases: If ignited, an explosion can cause serious injury or blindness. Provide adequate ventilation when charging.

- **CHEMICAL HAZARD:** Battery electrolyte contains sulfuric acid. Contact with eyes or skin, even through clothing, may cause severe burns. Wear a faceshield and protective clothing.

- Keep flames and sparks away, and do not smoke in the area.

ANTIDOTE: If electrolyte gets into your eyes, flush thoroughly with warm water for at least 15 minutes and call a physician immediately.

- **POISON:** Electrolyte is poison.

ANTIDOTE

- External: Flush thoroughly with water.

- Internal: Drink large quantities of water or milk.

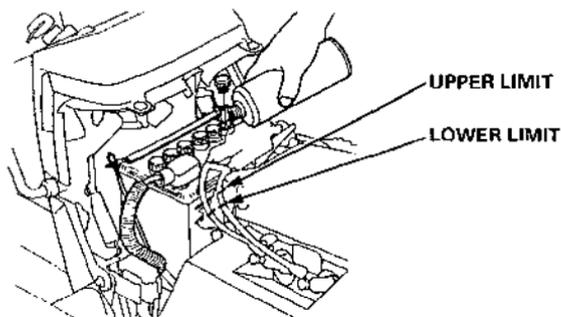
Follow with milk of magnesia or vegetable oil, and call a physician immediately.

- **KEEP OUT OF REACH OF CHILDREN.**

NOTE: Use distilled water in the battery.

- Tap water will shorten the service life of the battery.

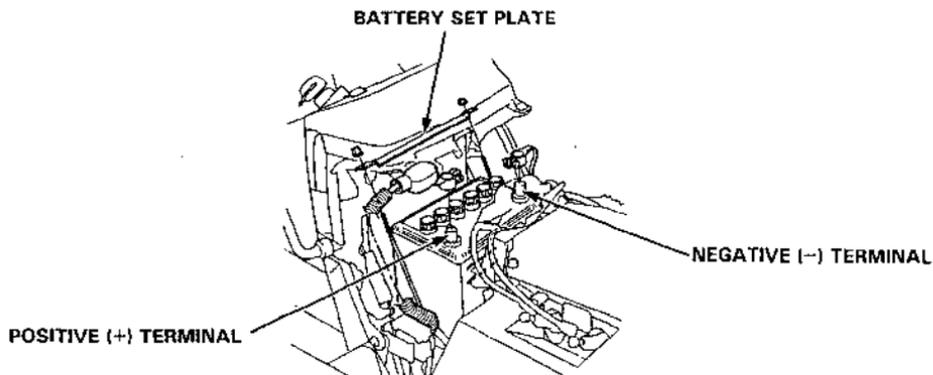
- Overfilling may cause electrolyte overflow and corrosion. Wash off any spilled electrolyte immediately.



Battery Cleaning

If the battery terminals are contaminated or corroded, remove the battery and clean the terminals.

1. Remove the battery set plate.
2. Disconnect the battery cable at the battery negative (-) terminal, then at the battery positive (+) terminal.



3. Remove the battery and clean the battery terminals and battery cable terminals with a wire brush or sand paper. Clean the battery with a solution of baking soda and warm water, taking care not to get the solution or water in the battery cells. Dry the battery thoroughly.
4. Connect the battery positive (+) cable to the battery positive (+) terminal, then the battery negative (-) cable to the battery negative (-) terminal. Tighten the bolts and nuts securely.
5. Coat the battery terminals with grease.
6. Reinstall the battery set plate.

CAUTION When disconnecting the battery cable, be sure to disconnect at the battery negative (-) terminal first. To connect, connect at the positive (+) terminal first, then at the negative (-) terminal. Never disconnect the battery cable in the reverse order, or it causes a short circuit when a tool contacts the terminals.

WHEEL REMOVAL

▲WARNING

- Do not attempt to remove a wheel unless the lawn tractor is on firm and level ground.
- Do not attempt to remove or replace a tire unless you have the equipment and knowledge to do so properly.

Block the wheels securely.

Front Wheel

1. Remove the cotter pin and loosen the 19 mm nut one turn.
2. Jack up the front of the lawn tractor and remove the 19 mm nut, washer, and front wheel.
3. Install the front wheel in the reverse order of removal.
4. Tighten the 19 mm nut to the lower specified torque.

FRONT WHEEL NUT TORQUE: 54 – 63 N·m (5.5 – 6.5 kg-m, 40 – 47 ft-lb)

5. Align the nut to the next possible cotter pin hole while tightening the nut just beyond the lower specified torque. Install a new cotter pin and bend the ends as shown.

Rear Wheel

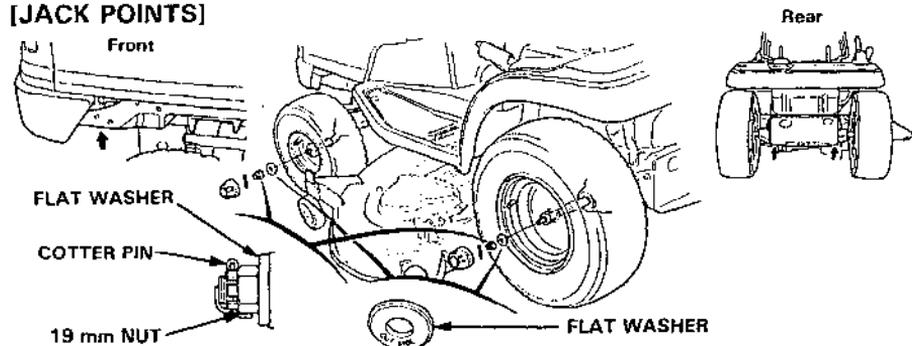
1. Remove the cotter pin and loosen the 19 mm nut one turn.
2. Jack up the rear of the lawn tractor and remove the 19 mm nut, washer, and rear wheel.
3. Apply a thin coat of grease to the axle (splined portion) before installing the rear wheel.
4. Install the rear wheel in the reverse order of removal.
5. Tighten the 19 mm nut to the lower specified torque.

REAR WHEEL NUT TORQUE: 54 – 63 N·m (5.5 – 6.5 kg-m, 40 – 47 ft-lb)

6. Align the nut to the next possible cotter pin hole while tightening the nut just beyond the lower specified torque. Install a new cotter pin and bend the ends as shown.

NOTE: Do not align the cotter pin holes in a position where the wheel nut torque is less than the specified torque.

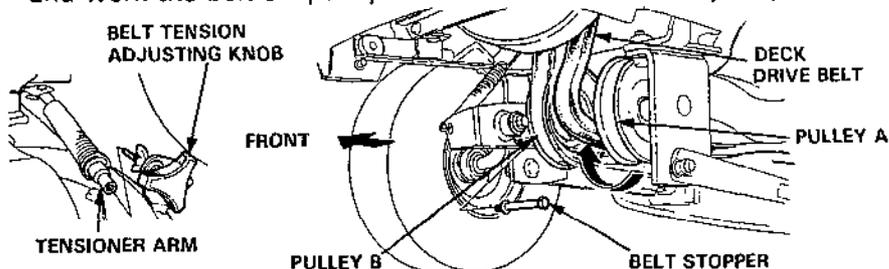
[JACK POINTS]



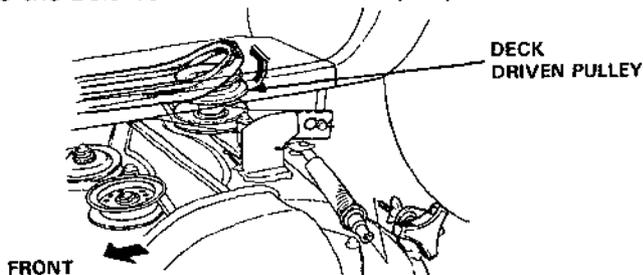
CUTTER DECK

Cutter Deck Removal

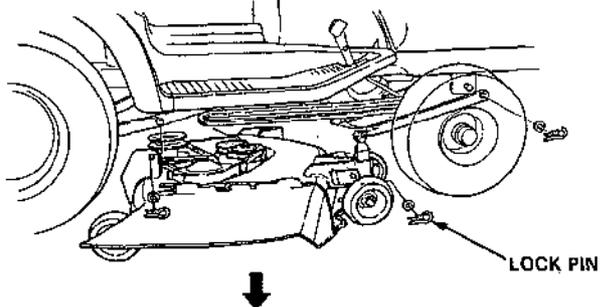
1. Lower the mower deck and remove the belt tension adjusting knob from the tensioner arm.
2. At the front of the tractor, remove the belt stopper and raise pulley B, and work the belt off pulley A. Remove the belt from pulley B.



3. Remove the belt from the deck driven pulley.



4. Remove the six gold-colored lock pins (three on each side).

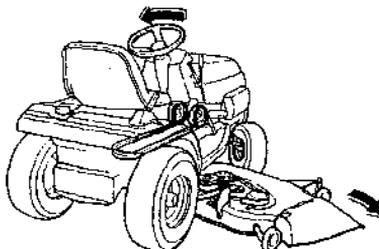


5. Support the front of the deck, remove the front deck links, and lower the deck.
6. Support the rear of the deck and remove the deck from the rear deck lift links.

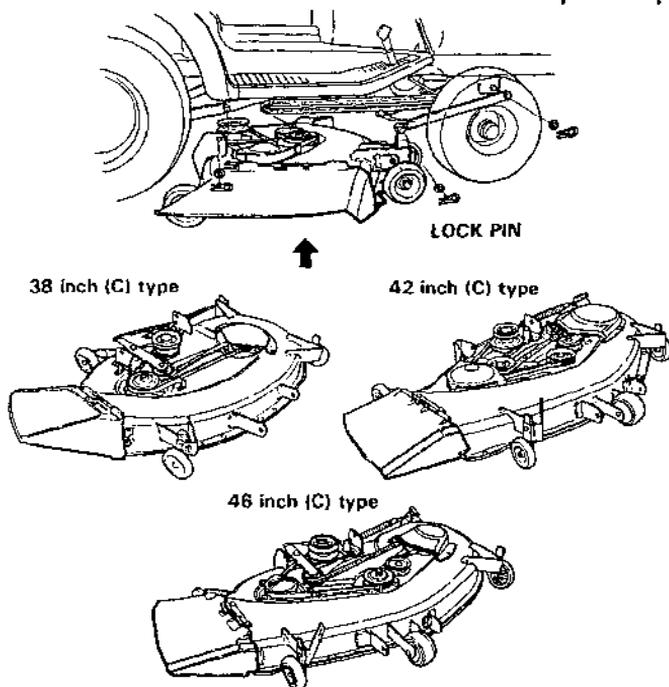
7. Firmly hold the cutter deck height adjusting lever, press the handle lock and set button, and allow the lever to move to the highest position.

CAUTION When the mower cutter deck is removed, the return spring will cause the deck height adjusting lever to snap upward when the released button is pressed. Hold the lever firmly and carefully return it to the UPPER position.

8. Turn the steering wheel all the way to the left and carefully remove the deck from the right side of the tractor.



9. Installation is the reverse of removal.
- After installing the belt and adjusting the belt tension, start the engine and shift the PTO lever into ON and OFF to be sure that it operates properly.



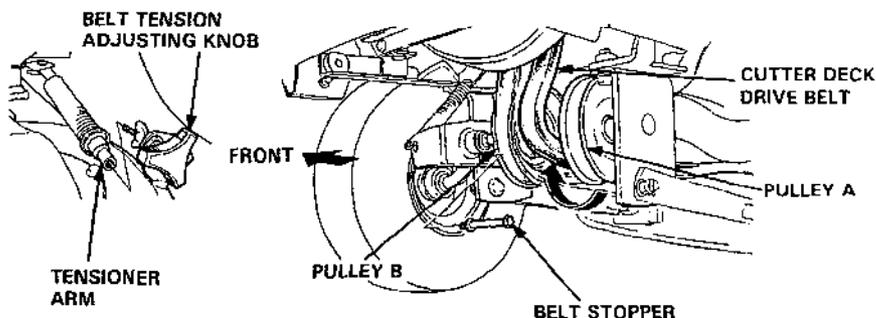
Cutter Deck Drive Belt Replacement

▲WARNING Never attempt to change drive belts while the engine is running. Remove the engine key from the ignition and disconnect the spark plug caps to prevent accidental start up.

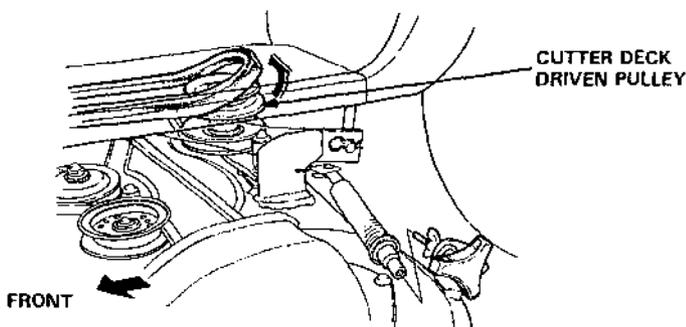
▲CAUTION

- Wear heavy gloves to protect your hands when replacing belts or when working with the cutter blades.
- If the tractor has been running, the engine, muffler and radiator will be very hot. Allow them to cool before proceeding.

1. Lower the cutter deck.
2. Remove the belt tension adjusting knob from the tensioner arm.
3. Remove the belt stopper and raise pulley B, and work the belt off pulley A. Remove the belt from pulley B.



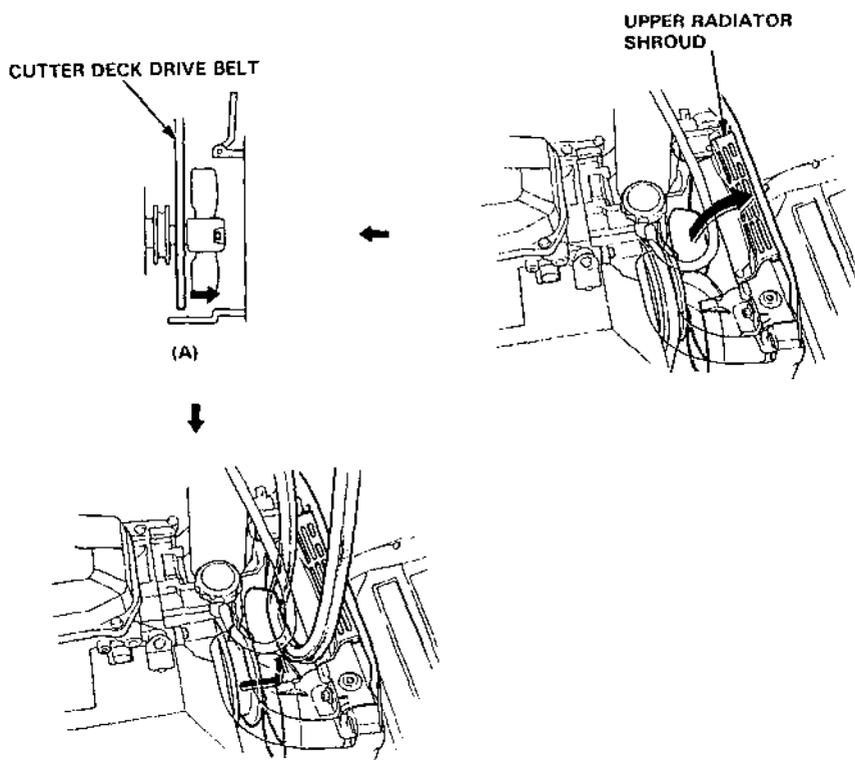
4. Remove the belt from the cutter deck driven pulley.



5. Open the hood.
6. Open the upper radiator shroud.
7. Remove the belt through the top by first lifting the belt up, and then sliding it sideways toward the radiator as shown in Fig. (A).
8. Installation sequence is essentially the reverse order of removal. See Page 28 for belt tension adjustment.

NOTE: Be careful not to damage the screen.

- After installing the belt and adjusting the belt tension, start the engine and shift the PTO lever into ON and OFF to be sure that it operates properly.



Blade Belt Replacement

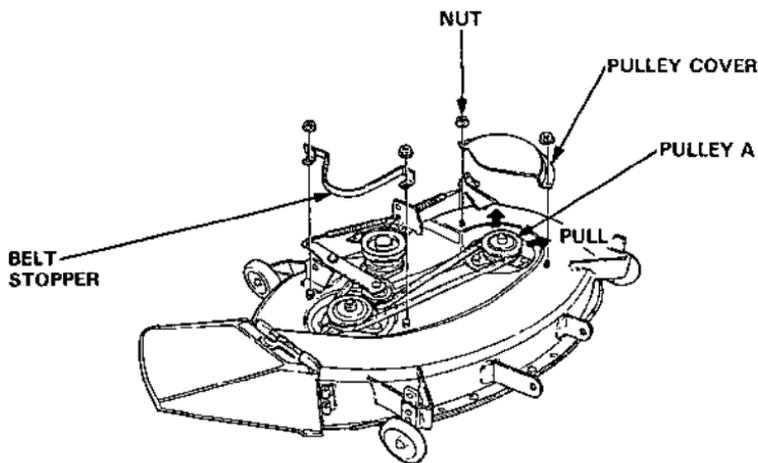
38 inch deck.

1. Lower the cutter deck, remove the cutter deck. See page 64.
2. Remove the nuts and then remove the belt stopper and pulley cover.
3. Pull the belt off pulley A, hold the belt securely and slowly release the tensioner pulley.

CAUTION Wear heavy gloves to protect your hands when replacing the blade belt, and don't put your hands between the pulleys.

4. Remove the belt from the other pulleys, and replace the belt.

38 inch type

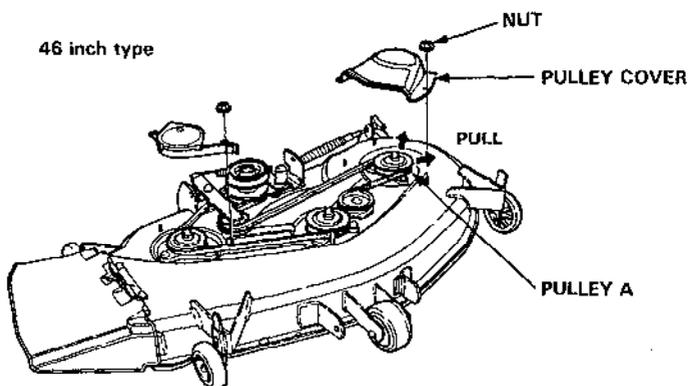
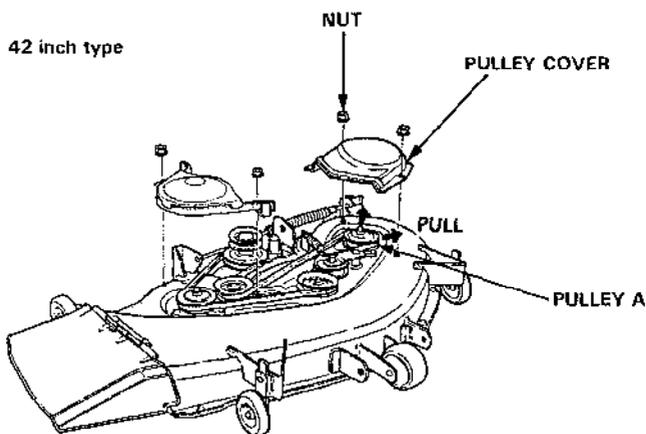


42 and 46 inch cutter deck

1. Lower the cutter deck, Remove the cutter deck. See page 64.
2. Remove the nuts and then remove the pulley covers.
3. Pull the belt off pulley A, hold the belt securely and slowly release the tensioner pulley.

CAUTION Wear heavy gloves to protect your hands when replacing the blade belt, and don't put your hands between the pulleys.

4. Remove the belt from the other pulleys, and replace the belt.



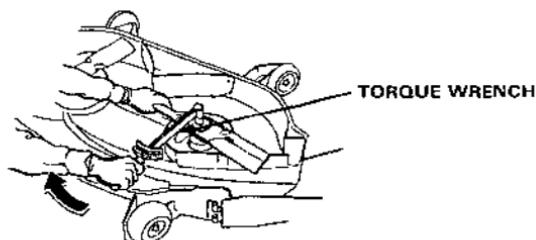
Blade Bolt Tightness Blade Replacement

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

■ Blade bolt tightness

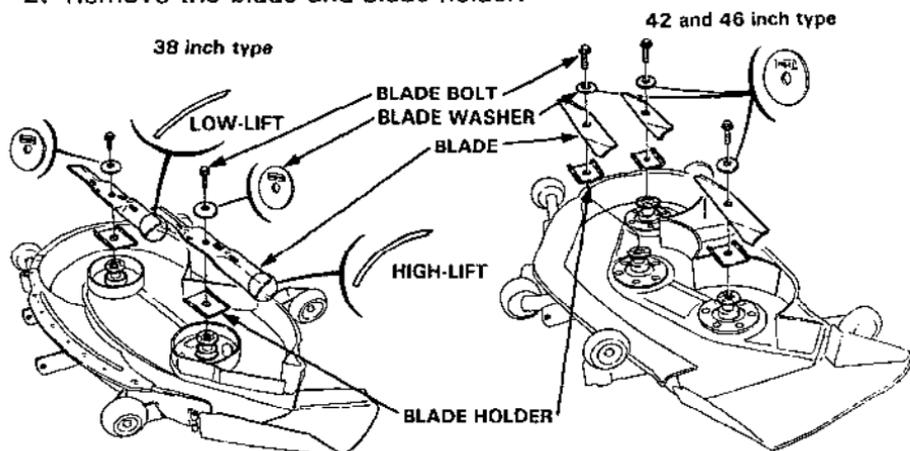
1. Remove the deck from the lawn tractor (see pages 64 – 65).
2. Turn the deck upside down.
3. Clean dirt and grass from the blade and the inside of the cutter deck.
4. Hold the blade firmly, and use a torque wrench to check that the blade bolt is properly tightened.

Blade bolt torque: 58 N·m (6.0 kg·m, 43 ft·lb)



Blade Removal

1. Hold the blade firmly, and remove the blade bolt and the washer.
2. Remove the blade and blade holder.



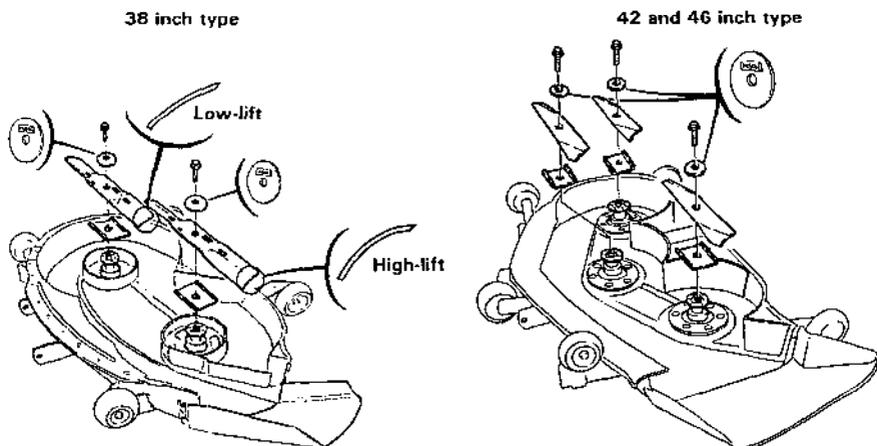
Blade Installation

NOTICE Use a genuine Honda replacement blade or equivalent.

1. Clean dirt and grass from the blade, blade holder, and the inside of the cutter deck.
2. Install the blade holder, blade, washer, and blade bolts.

38 inch cutter deck only:

NOTE: Right and left blades are not interchangeable. Be sure to install the high-lift blade on the right (discharge side) and the low-lift blade on the left sides, as shown.



Be sure the blade is properly aligned with the blade holder before tightening the blade bolt. Do not allow the blade to overlap the edge of the holder.

- Install the blades with the lift section of the blade toward the cutter deck as shown.
 - Install the washer with the side marked "INSIDE" facing the blade.
 - The blade bolt and washer are specially designed for this application and must not be replaced with any other bolt or washer.
3. Hold the blade firmly, and tighten the blade bolt to a torque value of 58 N·m (6.0 kg·m, 43 ft·lb).

SPARK ARRESTER MAINTENANCE (optional part)

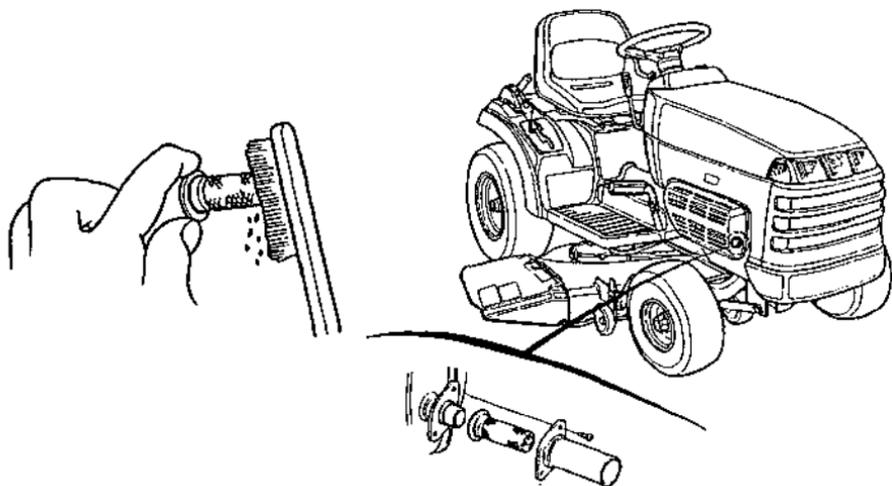
You can purchase an optional, USDA-qualified spark arrester for this product from your authorized Honda Power Equipment dealer. Spark arresters are required in some areas; check local laws and regulations before operating this Honda product.

▲ WARNING The muffler becomes very hot during operation and remains hot for a while after the engine stops. Do not touch the muffler while it is hot. Allow it to cool before proceeding.

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

1. Remove the four 6 mm bolts and remove the muffler protector.
2. Remove the two 5 mm screws from the exhaust pipe tip. Remove the exhaust pipe tip and spark arrester (be careful not to damage the spark arrester screen).
3. Use a wire brush to remove carbon deposits from the spark arrester screen.

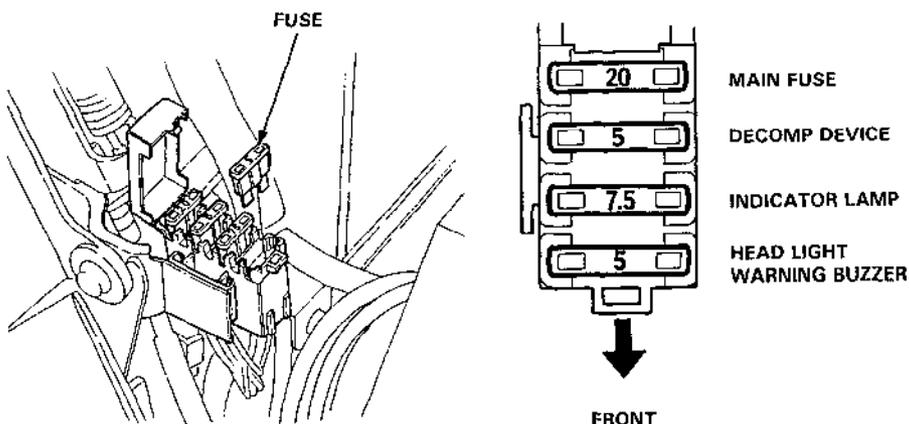
NOTE: Inspect the spark arrester screen for holes or tears. Replace it if it is damaged.



FUSE REPLACEMENT

The fuse box is located near the down side of the battery positive terminal. When frequent fuse failure occurs, it usually indicates a short circuit or an overload in the electrical system. See your authorized Honda lawn tractor dealer for repair.

To replace fuse, pull the old fuse out of the clips with your finger. Push a new fuse into the clips.



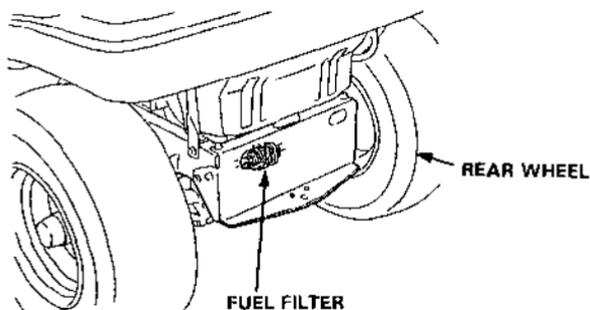
CAUTION Never use fuse with a different rating from that specified. Serious damage to the electrical system or a fire may result.

Turn the engine switch OFF and remove the key before checking or replacing fuses to prevent accidental short-circuiting.

FUEL FILTER CHANGE

Remove the fuel filter by pulling it out of its clip under the fuel tank and visually inspect it through the opening in the hitch plate. Replace the filter if it is contaminated with dirt or water.

NOTE: Drain the gas tank before disconnecting the fuel lines from the fuel filter. See page 75.

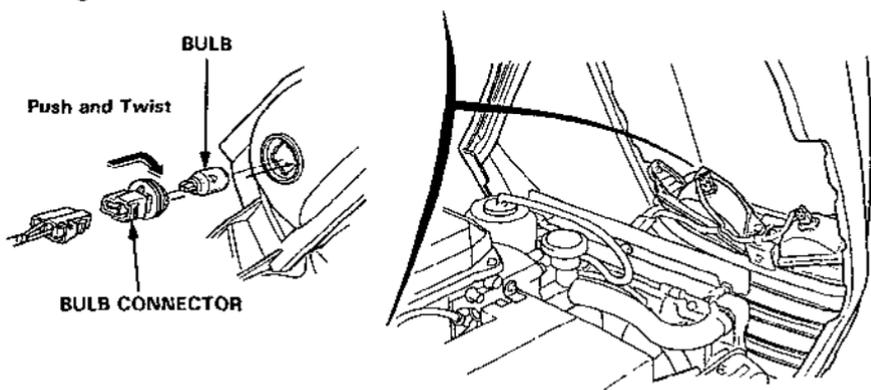


HEADLIGHT BULB REPLACEMENT

Open the engine hood, turn up the bulb connector.

Push and twist the bulb connector counterclockwise, then remove the connector and bulb.

Install the bulb, and then align the tab on the bulb connector with the cutout in the headlight case. Turn the bulb connector clockwise while pushing it in.



8. LONG TERM STORAGE

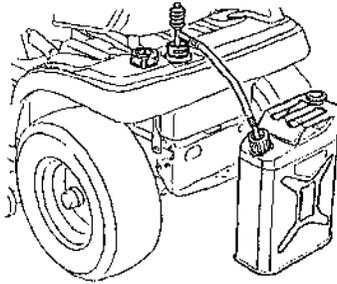
PREPARATION FOR STORAGE

The engine becomes very hot during operation and remains hot for a while after stopping. Allow the engine to cool before storing.

⚠ WARNING Contact with a hot engine or exhaust system can cause serious burns or fires. Let the engine cool before storing.

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

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

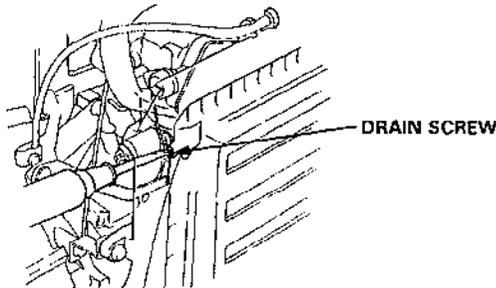


Loosen the carburetor drain screw, and drain the fuel into an approved gasoline container. After draining tighten the drain screw securely.

⚠ WARNING Gasoline is extremely flammable, and gasoline vapor can explode, causing serious injury or death. Use extreme care when handling gasoline.

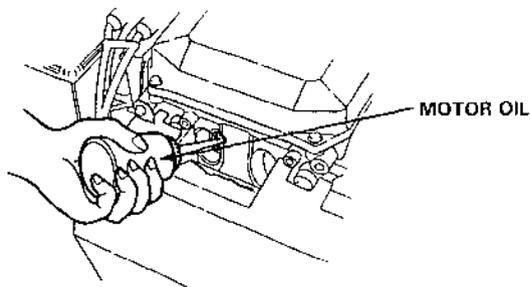
Keep flames and sparks away, and do not smoke in the area.

NOTE: If gasoline is not drained before storage, fuel system damage may result.

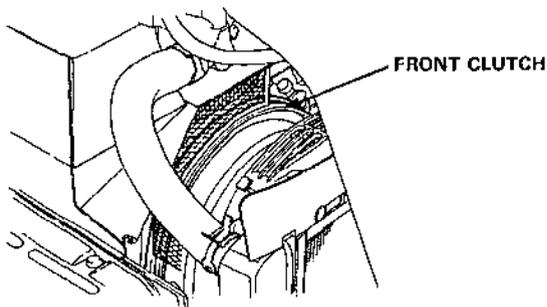


2. Change the engine oil (see page 56).

NOTE: If the lawn tractor will be stored for longer than 3 months, remove the spark plugs and pour three tablespoons (approximately 1 oz.) of clean motor oil into each cylinder.



Place the PTO (Power Take-off) lever in the ON position. Turn the front clutch several rotations by hand, then return the PTO lever to the OFF position. Reinstall the spark plugs.



CAUTION Be sure to wear heavy-duty gloves when turning the front clutch. If the lawn tractor has been running, the engine will be very hot. Allow it to cool before proceeding.

3. Remove the battery and store in a cool, dry place. Recharge it once a month.

-
4. If equipped with the optional grass catcher, be sure to empty and clean the bags before storage.
 5. Remove the cutter deck (see pages 64 — 65).
 6. Turn the cutter deck upside down. Clean the underside of the deck with water, and dry thoroughly.
 7. For longer service and greater efficiency, keep the underside of the mower housing clean and free of accumulated grass clippings by washing it down with a hose after use and/or cleaning it with a wire brush and scraper. Remove any rust and apply a rust-resistant paint. Cleaning and rust prevention are especially important before seasonal storage.
 8. Reinstall the cutter deck by reversing the removal procedure.
 9. Store the lawn tractor on a level surface in a dry, dust-free area with the parking brake lever set.
 10. Cover the lawn tractor to keep out dust.
 11. Check tire air pressure regularly during storage and inflate if necessary.

REMOVAL FROM STORAGE

1. Check the battery electrolyte level (see p. 26). Fully charge the battery, and install it in the tractor.
2. Remove the spark plugs and check that they are clean and properly gapped (see p. 59).
Turn the engine a few revolutions by hand without the spark plugs.
3. Thread the spark plugs in as far as possible by hand, then tighten them 1/8 to 1/4 turn further with the plug wrench.
4. Check the engine oil level (see p. 20).
5. Check the coolant level (see p. 25).
6. Fill the fuel tank, and start the engine by following the starting instructions (see p. 34).

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

9. TROUBLESHOOTING

Engine fails to start;

1. No fuel. → Add fuel.
2. Shift lever in gear. → Position shift lever in NEUTRAL.
3. PTO lever engaged. → PTO lever in DISENGAGE.
4. Parking brake not set. → Set the parking brake.
5. Seat switch is not depressed. → Sit in seat.
6. Spark plug faulty or improperly gapped. → Regap plug or replace (see pages 59 - 60).
7. Spark plug wire loose or disconnected. → Check spark plug wire.
8. Fuel not reaching carburetor. → See your authorized HONDA lawn tractor dealer.
9. Discharged battery or loose terminal. → Charge battery or retighten terminal. (see page 61).
10. Blown fuse → Replace (see page 73).

Lawn tractor does not move or drives slowly with the shift lever set in the transport range.

1. Transmission release lever released. → Move to the engaged position.
2. Lawn tractor does not drive or drives slowly. → See your authorized Honda lawn tractor dealer.

Engine loses power;

1. Dirty air cleaner elements. → Clean or replace elements (see page 58).
2. Spark plug faulty or improperly gapped. → Regap plug or replace. (see page 59).
3. Engine overloaded. → Shift to lower speed.

Engine overheats;

1. Radiator screen plugged. → Clean radiator screen (see page 19).
2. Engine overloaded. → Shift to lower speed.
3. Low engine oil level. → Fill with recommended oil (see page 20).
4. Spark plug improperly gapped. → Regap plug or replace.
5. Lack of radiator coolant. → Fill with recommended coolant (see p. 25).

Oil consumption

1. Incorrect oil viscosity → Use specified viscosity oil. (see page 20)
2. Oil leaks → Check for oil leaks from drain bolt. (see page 56)
3. Worn piston ring, etc. → See your authorized Honda lawn tractor dealer.
4. Oil level too high → Don't overfill

Excessive vibration;

1. Loose blade or engine mounting hardware → Retighten blade bolts or engine mounting hardware.
2. Blade damaged or out of balance → Replace blade.
3. Belt damaged → Replace belt.
4. Each pulley damaged or pulleys not aligned → See your authorized Honda lawn tractor dealer.

Battery will not charge;

1. Dead cell in battery. → Replace battery.
2. Loose electrical connections or broken wire. → Check connections and wires.

Parking brake warning buzzer does not operate

1. Blown fuse → Replace fuse.
2. Faulty buzzer → See your authorized Honda lawn tractor dealer.

Steering is too heavy

1. Insufficient tire air pressure → Correct tire air pressure. (see page 30)

Mower steers one side

1. Incorrect steering system alignments → See your authorized Honda lawn tractor dealer.
2. Tire air pressure uneven. → Correct tire air pressure. (see page 30)
3. Loose fasteners of steering system → See your authorized Honda lawn tractor dealer.

Uneven mowing;

1. Lawn tractor speed too fast → Shift to lower speed.
2. Grass accumulation inside deck. → Clean inside deck (see page 77).
3. Dull blade. → Replace blade or see your authorized Honda lawn tractor dealer.
4. Tires improperly inflated. → Check tire inflation (see page 30).
5. Mower not level. → Check cutter deck mounting.
See your authorized lawn tractor dealer.
6. Wrong cutter deck height. → Change to proper height.
7. Chute clogged (if equipped with optional grass bag). → Empty grass bag and chute.
8. Lawn wet → Allow to dry before cutting.
9. Cutter deck set too low. → Set cutter deck high.
10. Not overlapping cut enough to compensate for grass conditions. → See page 43.
11. Throttle setting too low. → Set to FAST.

Clogged cutter deck discharge chute.

1. Wrong blade. → Use a genuine Honda blade or equivalent.
2. Deck too low. → Raise deck and adjust deck height properly.
3. Engine overloaded. → Operate at full throttle. Use lower speed range. Set cutter deck higher than desired height for first pass, then cut to desired height on second pass.
4. Wet lawn → Mow when lawn is dry.
5. Lawn too tall → Set cutter deck higher than desired height for first pass, then cut to desired height on second pass.
6. Low engine rpm → Open throttle fully.
7. Grass bags full (Optional part). → Empty grass bags.
8. Blades install upside down → Check blade installation (see page 71)

Blade does not rotate or stop.

1. Blade belt and drive belt worn or broken. → Replace with new belt (see page 66 – 68).
2. PTO lever malfunction → See your authorized Honda lawn tractor dealer.

Scalping

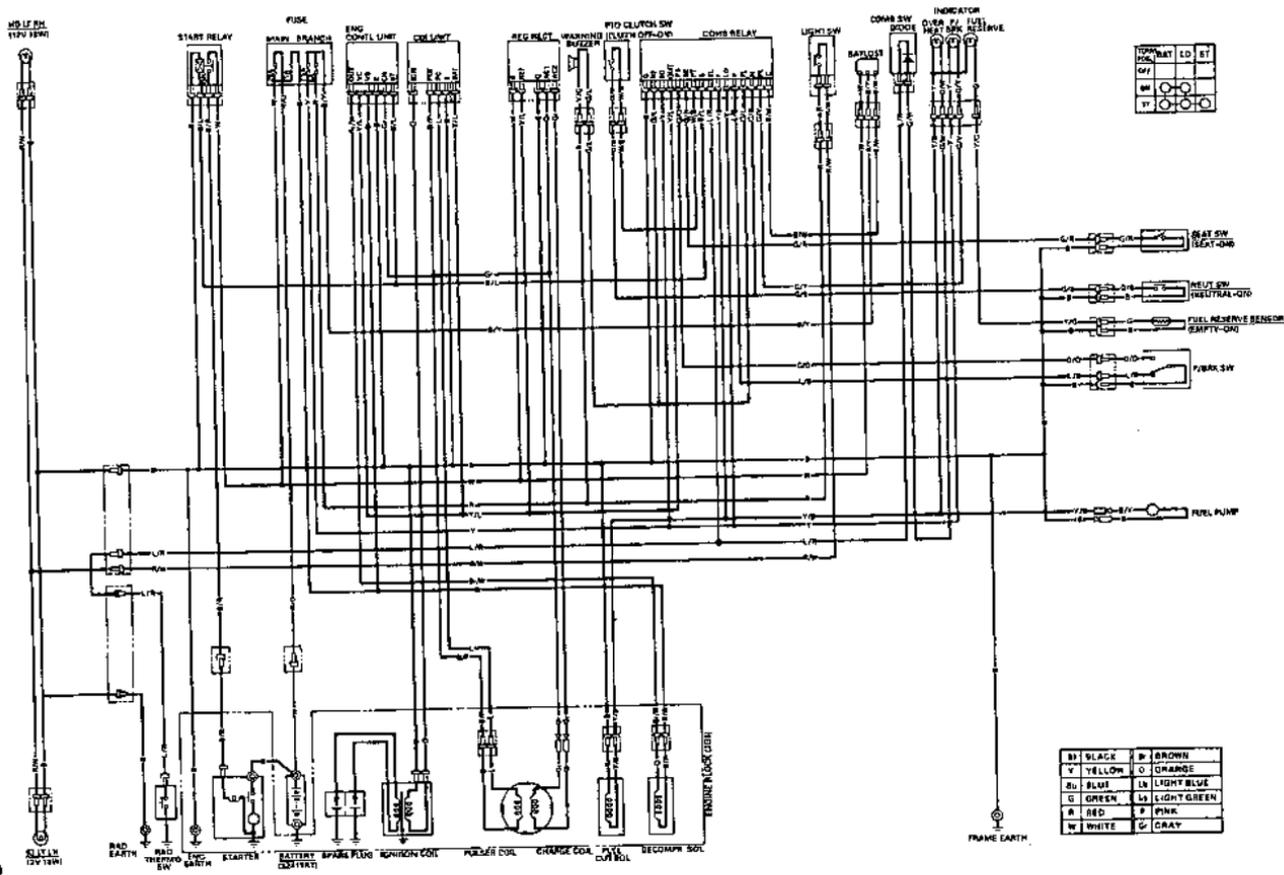
1. Anti-scalp rollers not adjusted properly. → Adjust anti-scalp rollers. (see page 29).
2. Cutting height too low → Raise cutter deck height.
3. Turning speed fast → Lower turning speed.
4. Uneven surface → Change cutting pattern.
5. Rough and uneven surface → Adjust with height adjuster. (see page 38).

Mowing load is too heavy and lowers the mower speed.

1. Low engine rpm → Open throttle fully.
2. Mower speed too fast → Lower mower speed.
3. Mower catches wood block, stone, etc. → Remove any foreign objects.

10. SPECIFICATIONS

MODEL	H4518H
Power products description code	MZAT
ENGINE	
Model	GX640
Type	OHC Twin cylinder
Displacement	635 cm ³ (38.7 cu in)
Bore and stroke	76 x 70 mm (3.0 x 2.8 in)
Ignition timing	22° BTDC
Ignition system	C.D.I.
Cooling system	Liquid cooled
Coolant	2.7 ℓ (2.9 US qt)
Engine oil capacity	2.0 ℓ (2.1 US qt)
Spark plug	BPR5ES-11 (NGK), W16EPR-U11 (DENSO)
FRAME	
Dimensions	38 inch type
Length x Width x Height	1,815 x 1,270 x 1,052 mm (71.5 x 50.0 x 41.4 in)
	42 inch type
	1,815 x 1,460 x 1,052 mm (71.5 x 57.5 x 41.4 in)
	46 inch type
	1,815 x 1,530 x 1,052 mm (71.5 x 60.2 x 41.4 in)
Wheel tread	
Front	730 mm (28.7 in)
Rear	750 mm (29.5 in)
Wheel base	1,190 mm (46.9 in)
Cutting width	38 inch type 965 mm (38 in)
	42 inch type 1,060 mm (42 in)
	46 inch type 1,168 mm (46 in)
Cutting height	1, 1 ¹ / ₂ , 2, 2 ¹ / ₂ , 3, 3 ¹ / ₂ , 4, in
Dry weight	38 inch type 290 kg (639.5 lb)
	42 inch type 302 kg (665.9 lb)
	46 inch type 304 kg (670.3 lb)
Tire size	Front 98 kPa (1.0 kg/cm ² , 14.2 psi)
	Rear 78 kPa (0.8 kg/cm ² , 11.4 psi)
Air pressure	Front 1.0 kg/cm ² Rear 0.8 kg/cm ²
Transmission	Oil pressure-type variable-speed transmission
Travel speed (2,950 rpm)	Mowing range: 5.1 km/h (3.2 miles/h)
	Transport range: 7.6 km/h (4.7 miles/h)
	Reverse range: 3.4 km/h (2.1 miles/h)
Fuel tank capacity	9.0 ℓ (2.38 US gal, 1.98 Imp gal)
Battery	12V30AH



12. WARRANTY 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 Relations Office. You can write to:

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

Or telephone: (770) 497-6400

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

- Model and serial number (see page 11)
- Name of dealer who sold the lawn tractor to you
- Name and address of dealer who services your lawn tractor
- 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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MEMO

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HONDA
HONDA MOTOR CO., LTD. TOKYO, JAPAN

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