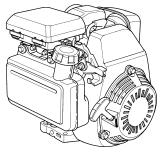


# GC190



# WARNING:

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

31Z1A000 00X31-Z1A-0000





Â

# CONTENTS

INTRODUCTION1
SAFETY MESSAGES1
COMPONENT & CONTROL
LOCATION
IS YOUR ENGINE
READY TO GO2
<b>OPERATION</b>
Safe Operating
Precautions
Type 1 Operation2
Type 2 Operation
Type 3 Operation
Oil Alert <sup>®</sup> System
SERVICING YOUR ENGINE 4
The Importance of
Maintenance4
Maintenance Safety4
Safety Precautions
Maintenance Schedule
Refueling
Fuel Recommendations5
ENGINE OIL
Recommended Oil
Oil Level Check
AIR CLEANER
Inspection
Cleaning
Spark Plug
Spark Arrester6

**HELPFUL TIPS &** SUGGESTIONS.....7 Storing Your Engine .....7 Transporting .....8 TAKING CARE OF UNEXPECTED PROBLEMS......8 TECHNICAL & CONSUMER INFORMATION .....8 Serial Number Location and Type Location .....8 High Altitude Operation .....8 Oxygenated Fuels .....9 Emission Control System Information.....9 Air Index......10 Specifications .....10 Tuneup Specifications ..... 10 Quick Reference Information . 10 Wiring Diagram .....10 **CONSUMER INFORMATION ... 11** Honda Publications.....11 Distributor's Limited Warranty.....11 Emission Control System Warranty.....11 Distributor/Dealer Locator Customer Service 

# INTRODUCTION

Thank you for purchasing a Honda engine. We want to help you to get the best results from your new engine and to operate it safely. This manual contains information on how to do that; please read it carefully before operating the engine. If a problem should arise, or if you have any questions about your engine, consult an authorized Honda servicing dealer.

All information in this publication is based on the latest product information available at the time of printing. American Honda Motor Co., Inc. reserves the right to make changes at any time without notice and without incurring any obligation. No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the engine and should remain with the engine if resold.

Review the instructions provided with the equipment powered by this engine for any additional information regarding engine startup, shutdown, operation, adjustments or any special maintenance instructions.

# SAFETY MESSAGES

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

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

These signal words mean:

Â	DANGER	You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.
Â	WARNING	You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.
Â	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

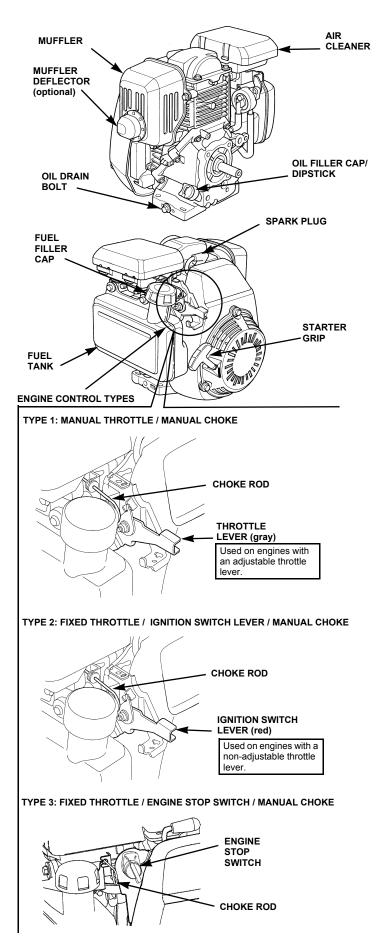
Your engine or other property can be damaged if you don't follow instructions.

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

## SAFETY INFORMATION

- Understand the operation of all controls and learn how to stop the engine quickly in case of emergency. Make sure the operator receives adequate instruction before operating the equipment.
- Your engine's exhaust contains poisonous carbon monoxide. Do not run the engine without adequate ventilation, and never run the engine indoors.
- The engine and exhaust become very hot during operation. Keep the engine at least 3 feet (1 meter) away from buildings and other equipment during operation. Keep flammable materials away, and do not place anything on the engine while it is running.

# **COMPONENT & CONTROL LOCATION**



# **BEFORE OPERATION CHECKS**

# IS YOUR ENGINE READY TO GO?

For your safety, and to maximize the service life of your equipment, it is very important to take a few moments before you operate the engine to check its condition. Be sure to take care of any problem you find, or have your servicing dealer correct it, before you operate the engine.

# A WARNING

Improperly maintaining this engine, or failure to correct a problem before operation, can cause a malfunction in which you can be seriously hurt or killed.

Always perform a preoperation inspection before each operation, and correct any problem.

Before beginning your preoperation checks, be sure the engine is level and the throttle lever (ignition switch lever or engine stop switch) is in the STOP position.

Always check the following items before you start the engine:

- 1. Fuel level (see page 5).
- 2. Oil level (see page 5).

The Oil Alert<sup>®</sup> system (applicable engine types) will automatically stop the engine before the oil level falls below safe limits. However, to avoid the inconvenience of an unexpected shutdown, always check the engine oil level before startup.

- 3. Air cleaner (see page 6).
- 4. General inspection: Check for fluid leaks and loose or damaged parts.
- 5. Check the equipment powered by this engine.

Review the instructions provided with the equipment powered by this engine for any precautions and procedures that should be followed before engine startup.

# OPERATION

## SAFE OPERATING PRECAUTIONS

Before operating the engine for the first time, please review the SAFETY INFORMATION section on page 1 and the BEFORE OPERATION CHECKS above.

# A WARNING

Carbon monoxide gas is toxic. Breathing it can cause unconsciousness and even kill you.

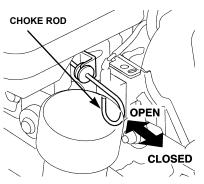
Avoid any areas or actions that expose you to carbon monoxide.

Review the instructions provided with the equipment powered by this engine for any safety precautions that should be observed with engine startup, shutdown or operation.

## TYPE 1: MANUAL THROTTLE / MANUAL CHOKE

#### Starting A Cold Engine

1. Pull the choke rod to the CLOSED position.



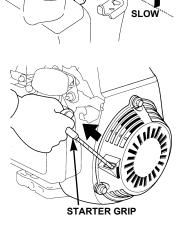
2. Move the throttle lever (gray) away from the SLOW position, about 1/3 of the way toward the FAST position.

Some engine applications use a remotely-mounted throttle control rather than the engine-mounted throttle lever shown here.

3. Pull the starter grip lightly until resistance is felt, then pull briskly.



Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.



FAST

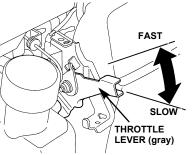
4. If the choke rod was pulled to the CLOSED position to start the engine, push it to the OPEN position as soon as the engine warms up enough to run smoothly.

THROTTLE

LEVER (gray)

### **Throttle Setting**

Position the throttle control lever (gray) for the desired engine speed. For best engine performance, it is recommended the engine be operated with the throttle in the FAST (or high) position.



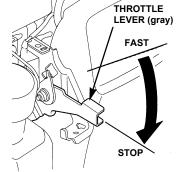
#### Starting a Warm Engine

If the engine has run out of fuel, pull the choke rod to the CLOSED position after refueling. If the engine has not run out of fuel, leave the choke rod in the OPEN position.

- 1. Place the throttle lever in the FAST position.
- 2. Pull the starter grip lightly until you feel resistance, then pull briskly.

#### Stopping The Engine

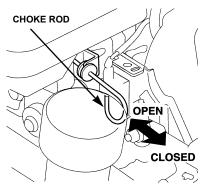
- 1. Move the throttle lever (gray) to the SLOW position.
- 2. Allow the engine to idle for a few seconds, then move the throttle lever to the STOP position.



## TYPE 2: FIXED THROTTLE / IGNITION SWITCH LEVER / MANUAL CHOKE

#### Starting A Cold Engine

1. Pull the choke rod to the CLOSED position.



ON

**IGNITION SWITCH** 

LEVER (red)

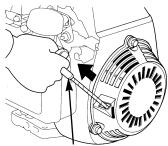
2. Move the ignition switch lever (red) to the ON position.

Some engine applications use a remotely-mounted ignition switch rather than the enginemounted ignition switch lever shown here.

 Pull the starter grip lightly until resistance is felt, then pull briskly.

# NOTICE

Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.



STARTER GRIP

- 4. If the choke rod was pulled to the CLOSED position to start the engine, push it to the OPEN position as soon as the engine warms up enough to run smoothly.
- 5. The engine speed is preset on this type.

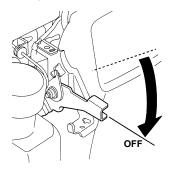
#### Starting a Warm Engine

If the engine has run out of fuel, pull the choke rod to the CLOSED position after refueling. If the engine has not run out of fuel, leave the choke rod in the OPEN position.

- 1. Pull the starter grip lightly until you feel resistance, then pull briskly.
- 2. If the choke was pulled to the CLOSED position to start, push it to the OPEN position as soon as the engine starts.

#### Stopping The Engine

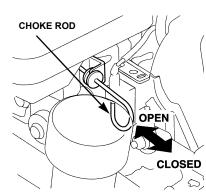
Move the ignition switch lever (red) to the OFF position.



#### TYPE 3: FIXED THROTTLE / ENGINE STOP SWITCH / MANUAL CHOKE

#### Starting A Cold Engine

1. Pull the choke rod to the CLOSED position.



ON

OFF

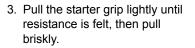
ENGINE

SWITCH

STOP

2. Move the engine stop switch to the ON position.

Some engine applications use a remotely-mounted ignition switch rather than the engine-mounted engine stop switch shown here.





Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.

- If the choke rod was pulled to the CLOSED position to start the engine, push it to the OPEN position as soon as the engine warms up enough to run smoothly.
- 5. The engine speed is preset on this type.

#### Starting a Warm Engine

If the engine has run out of fuel, pull the choke rod to the CLOSED position after refueling. If the engine has not run out of fuel, leave the choke rod in the OPEN position.

- 1. Pull the starter grip lightly until you feel resistance, then pull briskly.
- 2. If the choke was pulled to the CLOSED position to start, push it to the OPEN position as soon as the engine starts.

#### **Stopping The Engine**

Move the engine stop switch to the OFF position.

## OIL ALERT® SYSTEM

The Oil Alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase can fall below a safe limit, the Oil Alert system will automatically stop the engine [the throttle lever (ignition switch lever) will remain in a run position].

If the engine stops and will not restart, check the engine oil level (page 5) before troubleshooting in other areas.

# SERVICING YOUR ENGINE

## THE IMPORTANCE OF MAINTENANCE

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

# A 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 engine, 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 engine 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.

# A 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 this 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 an authorized Honda servicing dealer knows your engine 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 and replacement.



STARTER GRIP

## MAINTENANCE SCHEDULE

REGULAR SERVICE PERIOD (4)		Before Each	First Month		Every 6 Months		Every Two	Page
		Use	or 5 Hrs	or 25 Hrs	or 50 Hrs	or 100 Hrs	Years or 250	Ū
ITEM Perform at every indicated month or operating hour interval, whichever comes first.			5 115	20 115	50 115		Hrs	
Engine oil	Check	0						5
	Change		0		O (2)			5
Air filter	Check	0						
	Clean			0 (1)				6
	Replace						0	
Spark plug	Check-adjust					0		6
	Replace						0	0
Spark arrester	Clean					0		6
Idle speed	Check-adjust					O(3)		Shop manual
Fuel tank and filter	Clean					O(3)		Shop manual
Fuel tube	Check	Every 2 years (Replace if necessary) (3)		Shop manual				
Valve clearance	Check-adjust					O(3)		Shop manual
Combustion chamber	mbustion chamber Clean After every 250 hours (3)			—				

- (1) Service more frequently when used in dusty areas.
- (2) Change engine oil every 25 hours when used under heavy load or in high ambient temperatures.
- (3) These items should be serviced by an authorized Honda servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to the Honda shop manual for service procedures.
- (4) For commercial use, log hours of operation to determine proper maintenance intervals.

#### REFUELING

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 plug deposits and extends exhaust system life.

# A WARNING

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

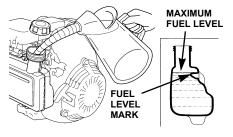
- Stop engine and keep heat, sparks, and flame away.
- · Refuel only outdoors.
- Wipe up spills immediately.

# NOTICE

Fuel can damage paint and some types of plastic. Be careful not to spill fuel when filling your fuel tank. Damage caused by spilled fuel is not covered under the Distributor's Limited Warranty (see page 11).

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

- 1. Remove the fuel tank cap.
- 2. Add fuel to the bottom of the fuel level limit in the neck of the fuel tank. Do not overfill. Wipe up spilled fuel before starting the engine.

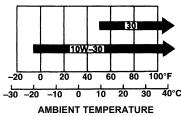


Fuel tank capacity: 0.53 gal (2.0 *l*)

# ENGINE OIL

#### **Recommended Oil**

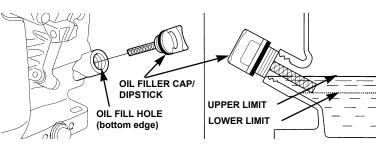
Use 4-stroke motor oil that meets or exceeds the requirements for API service classification SH, SJ, or equivalent. Always check the API service label on the oil container to be sure it includes the letters SH, SJ, or equivalent.



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

#### **Oil Level Check**

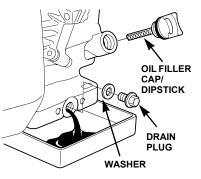
- 1. Check the oil with the engine stopped and level.
- 2. Remove the oil filler cap/dipstick and wipe it clean.
- 3. Insert the oil filler cap/dipstick into the oil filler neck as shown, but do not screw it in, then remove it to check the oil level.
- 4. If the oil level is near or below the lower limit mark on the dipstick, remove the oil filler cap/dipstick, and fill with the recommended oil to the upper limit mark (bottom edge of the oil fill hole). Do not overfill.
- 5. Reinstall the oil filler cap/dipstick.



## Oil Change

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

- Place a suitable container next to the engine to catch the used oil
- Remove the oil filler cap/ dipstick and the oil drain plug.
- Allow the used oil to drain completely, then reinstall the drain plug and washer. Tighten the drain plug securely.



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

4. With the engine in a level position, fill to the upper limit mark (bottom edge of the oil fill hole) on the dipstick with the recommended oil (see page 5).

#### Engine Oil Capacity: 0.61 qt (0.58 ℓ)

#### NOTICE

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

5. Reinstall the oil filler cap/dipstick securely.

#### **AIR CLEANER**

A dirty air cleaner will restrict air flow to the carburetor and cause poor engine performance. Inspect the filter each time the engine is operated. You will need to clean the filter more frequently if you operate the engine in very dusty areas.

## NOTICE

Operating the engine without an air filter, or with a damaged filter, will allow dirt to enter the engine, causing rapid engine wear. This type of damage is not covered under the Distributor's Limited Warranty (see page 11).

AIR

CLEANER

COVER

AIR

DUCT

BODY

#### Inspection

- 1. Press the latch tabs on the top of the air cleaner cover, and remove the cover. Check the filter to be sure it is clean and in good condition.
- 2. Reinstall the filter and air cleaner cover.

#### Cleaning

 Tap the filter several times on a hard surface to remove dirt, or blow compressed air [not exceeding 30 psi (207 kPa, 2.1 kg/cm<sup>2</sup>)] through the filter from the clean side that faces the engine. Never try to brush off dirt. Brushing will force dirt into the fibers.

TABS

AIR CLEANER

Wipe dirt from the air cleaner body and cover using a moist rag. Be careful to prevent dirt from entering the air duct that leads to the carburetor.

## SPARK PLUG

#### **Recommended Spark Plug: NGK BPR6ES**

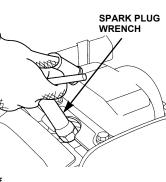
The recommended spark plug is the correct heat range for normal engine operating temperatures.

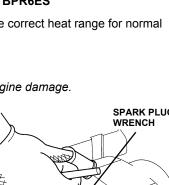
#### NOTICE

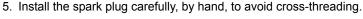
Incorrect spark plugs can cause engine damage.

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

- Disconnect the cap from the spark plug, and remove any dirt from the spark plug area.
- 2. Use the proper size spark plug wrench to remove the spark plug.
- Inspect the spark plug. Replace it if damaged, badly fouled, if the sealing washer is in poor condition, or if the electrode is worn.
   0.028 ~ 0.031 in (0.70 ~ 0.80 mm)
- Measure the electrode gap with a suitable gauge. The correct gap is 0.028 - 0.031 in (0.70 - 0.80 mm). If adjustment is needed, correct the gap by carefully bending the side electrode.







- 6. After the spark plug is seated, tighten with the proper size spark plug wrench to compress the washer.
- 7. When installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer.
- 8. When reinstalling the original spark plug, tighten 1/8 1/4 turn after the spark plug seats to compress the washer.

## NOTICE

LATCH TABS

FILTER

A loose spark plug can become very hot and can damage the engine. Overtightening the spark plug can damage the threads in the cylinder head.

9. Attach the spark plug cap to the spark plug.

### SPARK ARRESTER (optional equipment)

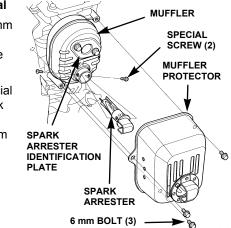
In some areas, it is illegal to operate an engine without a USDA (United States Department of Agriculture)-qualified spark arrester. Check local laws and regulations. A USDA-qualified spark arrester is available from an authorized Honda servicing dealer.

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

If the engine has been running, the muffler will be hot. Allow it to cool before servicing the spark arrester.

#### Spark Arrester Removal

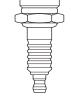
- 1. Remove the three 6 mm bolts from the muffler protector, and remove the muffler protector.
- 2. Remove the two special screws from the spark arrester, and remove the spark arrester from the muffler.



# Spark Arrester Cleaning & Inspection

- 1. Use a brush to remove carbon deposits from the spark arrester screen. Be careful not to damage the screen. Replace the spark arrester if it has breaks or holes.
- 2. Install the spark arrester in the reverse order of removal.





# **HELPFUL TIPS & SUGGESTIONS**

## STORING YOUR ENGINE

#### **Storage Preparation**

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

#### Cleaning

If the engine has been running, allow it to cool for at least half an hour before cleaning. Clean all exterior surfaces, touch up any damaged paint, and coat other areas that may rust with a light film of oil.

## NOTICE

Using a garden hose or pressure washing equipment can force water into the air cleaner or muffler opening. Water in the air cleaner will soak the air filter, and water that passes through the air filter or muffler can enter the cylinder, causing damage.

#### Fuel

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

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

Fuel system damage or engine performance problems resulting from neglected storage preparation are not covered under *the Distributor's Limited Warranty* (see page 11).

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

# ADDING A GASOLINE STABILIZER TO EXTEND FUEL STORAGE LIFE

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

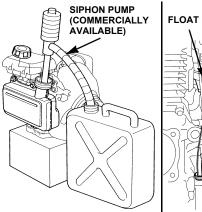
- 1. Add gasoline stabilizer following the manufacturer's instructions.
- 2. After adding a gasoline stabilizer, run the engine outdoors for 10 minutes to be sure that treated gasoline has replaced the untreated gasoline in the carburetor.
- 3. Stop the engine.

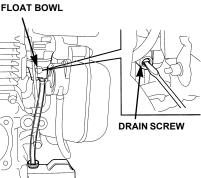
# DRAINING THE FUEL TANK AND CARBURETOR

# A WARNING

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

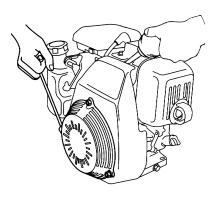
- Stop engine and keep heat, sparks, and flame away.
- · Refuel only outdoors.
- Wipe up spills immediately.
- 1. Use a siphon pump (commercially available) and siphon the fuel out of the fuel tank into an approved gasoline container.
- 2. Place an approved gasoline container below the carburetor, and use a funnel to avoid spilling fuel.
- Loosen the carburetor drain screw. and drain the carburetor into an approved gasoline container. After draining is completed, tighten the carburetor drain screw.





#### Engine Oil

- 1. Change the engine oil (see page 5).
- 2. Remove the spark plug (see page 6).
- Pour a tablespoon (5 10 cc) of clean engine oil into the cylinder.
- 4. Pull the recoil starter several times to distribute the oil.
- 5. Reinstall the spark plug.



#### **Storage Precautions**

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

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

Keep the engine level in storage. Tilting can cause fuel or oil leakage.

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

#### **Removal From Storage**

Check your engine as described in the *BEFORE OPERATION CHECKS* section of this manual (see page 2).

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

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

#### TRANSPORTING

Keep the engine level when transporting to reduce the possibility of fuel leakage.

TAKING CARE OF UNEXPECTED PROBLEMS

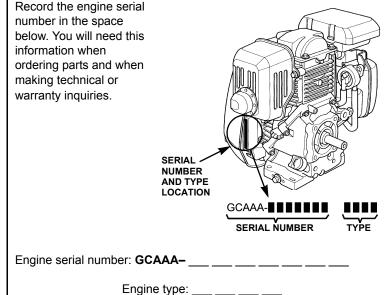
#### ENGINE WILL NOT Possible Cause Correction START 1. Check control positions Choke open. Pull the choke to the **CLOSED** position unless the engine is warm. Ignition switch OFF. Move the throttle lever to the SLOW or FAST position (p.3). Move the ignition switch lever to the ON position (p. 3). Move the engine stop switch to the ON position (p. 4). Fill with the recommended 2. Check engine oil level. Engine oil level low (Oil Alert models). oil to the proper level (p. 5). 3. Check fuel. Out of fuel. Refuel. Bad fuel; engine stored Drain the fuel tank and without treating or draining carburetor (p. 7). Refuel gasoline, of refueled with bad with fresh gasoline. gasoline. Spark plug faulty, fouled, or Replace the spark plug 4. Remove and inspect improperly gapped. (p. 6). spark plug. Spark plug wet with fuel Dry and reinstall spark (flooded engine). plug. Start engine with throttle lever in FAST position (choke in OPEN position). 5. Take engine to an Fuel filter clogged, carburetor Replace or repair faulty authorized Honda malfunction, ignition components as necessary. servicing dealer, or refer malfunction, valves stuck, to shop manual. etc

ENGINE LACKS POWER	Possible Cause	Correction
1. Check air filter	Filter clogged.	Clean or replace the filter (p. 6).
2. Check fuel.	Bad fuel; engine stored without treating or draining gasoline, of refueled with bad gasoline.	Drain the fuel tank and carburetor (p. 7). Refuel with fresh gasoline.
3. Take engine to an authorized Honda servicing dealer, or refer to shop manual.	Fuel filter clogged, carburetor malfunction, ignition malfunction, valves stuck, etc.	Replace or repair faulty components as necessary.

# **TECHNICAL & CONSUMER INFORMATION**

## **TECHNICAL INFORMATION**

#### Serial Number Location



### **Carburetor Modifications for High Altitude Operation**

At high altitude, the standard carburetor air-fuel mixture will be too rich. Performance will decrease, and fuel consumption will increase. A very rich mixture will also foul the spark plug and cause hard starting. Operation at an altitude that differs from that at which this engine was certified, for extended periods of time, may increase emissions.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate your trimmer at altitudes above 5,000 feet (1,500 meters), have your servicing dealer perform this carburetor modification. This engine, when operated at high altitude with the carburetor modifications for high altitude use, will meet each emission standard throughout its useful life.

Even with carburetor modification, engine horsepower will decrease about 3.5% for each 1,000-foot (300-meter) 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 5,000 feet (1,500 meters) with a modified carburetor may cause the engine to overheat and result in serious engine damage. For use at low altitudes, have your servicing dealer return the carburetor to original factory specifications.

## **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 oxygenated fuel, be sure it is unleaded and meets the minimum octane rating requirements.

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 *the Distributor's Limited Warranty* (see page 11).

#### **Emission Control System Information**

#### 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 5. 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.

#### Air Index

An Air Index Information hang tag/label is applied to engines certified to an emission durability time period in accordance with the requirements of the California Air Resources Board.

The bar graph is intended to provide you, our customer, the ability to compare the emissions performance of available engines. The lower the Air Index, the less pollution.

The durability description is intended to provide you with information relating the engine's emission durability period. The descriptive term indicates the useful life period for the engine's emission control system. See your *Emission Control System Warranty* (page 11) for additional information.

Descriptive Term	Applicable to Emissions Durability Period
Moderate	50 hours (0–65 cc) 125 hours (greater than 65 cc)
Intermediate	125 hours (0–65 cc) 250 hours (greater than 65 cc)
Extended	300 hours (0–65 cc) 500 hours (greater than 65 cc)

The Air Index Information hang tag/label must remain on the engine until it is sold. Remove the hang tag before operating the engine.

## Specifications

Length x Width x Height	13.6 x 14.5 x 13.0 in (345 x 369 x 331 mm)
Dry weight	29 lb (13.2 kg)
Engine type	4-stroke, overhead cam, single cylinder
Displacement [Bore x Stroke]	11.4 cu-in (187 cm <sup>3</sup> ) [2.7 x 2.0 in (69 x 50 mm)]
Max. output	6.0 bhp (4.4 kW, 6.0 PS) at 3,600 rpm
Max. torque	8.9 ft-lb (12.1 N•m, 1.23 kg/m) at 2,500 rpm
Fuel consumption	0.51 lb/hph (313 g/kWh, 230 g/PSh)
Cooling system	Forced air
Ignition system	Transistorized magneto
PTO shaft rotation	Counterclockwise

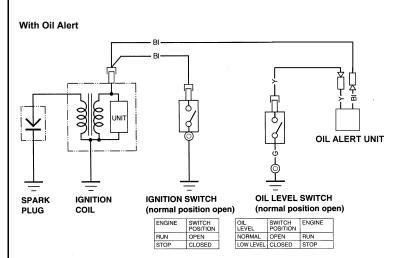
#### **Tuneup Specifications**

ITEM	SPECIFICATION	MAINTENANCE
Valve clearance (cold)	IN: 0.15 ± 0.04 mm EX: 0.20 ± 0.04 mm	See your authorized Honda dealer
Other specifications	No other adjustments needed.	

## **Quick Reference Information**

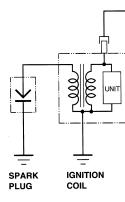
Fuel	Туре	Unleaded gasoline with a pump octane rating of 86 or higher (page 5).
	Capacity	0.53 US gal (2.0 ℓ)
Engine Oil	Туре	SAE 10W-30, API SH or SJ, for general use. Refer to page 5.
	Capacity	0.61 US qt (0.58 ℓ)
Carburetor	Idle Speed	1,400 ± 150 rpm
Spark plug	Туре	BPR6ES (NGK)
	Gap	0.028 – 0.031 in (0.7 – 0.8 mm)
		Refer to page 6.
Maintenance	Before each use	Check engine oil level. Refer to page 5. Check air filter. Refer to page 6.
	First 5 hours	Change engine oil. Refer to page 5.
	Subsequent	Refer to the maintenance schedule on page 5.

# Wiring Diagram



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#### Without Oil Alert





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IGNITION SWITCH (normal position open)

#### **CONSUMER INFORMATION**

#### **Honda Publications**

These publications will give you additional information for maintaining and repairing your engine. You may order them from an authorized Honda engine servicing dealer.

Shop Manual	This manual covers complete maintenance and overhaul procedures. It is intended to be used by a skilled technician.
Parts Catalog	This manual provides complete, illustrated parts lists.

#### **Distributor's Limited Warranty**

PRODUCTS COVERED BY THIS WARRANTY:		LENGTH OF WARRANTY: (FROM DATE OF ORIGINAL PURCHASE)		
PRODUCT APPLICATIONS		NONCOMMERCIAL/ NONRENTAL	COMMERCIAL/ RENTAL	
GC & GCV Series Engines	All	24 months	3 months (1)	

1. Honda GC and GCV general purpose engines are not covered by this warranty when installed on concession type vehicles.

#### To Qualify for this Warranty:

The Honda general purpose engine must be purchased from a Honda general purpose engine dealer or distributor authorized to sell that product in the United States, Puerto Rico, or the U.S. Virgin Islands. This limited warranty applies to first retail purchaser and each subsequent owner during the applicable warranty time period.

#### What American Honda Will Repair or Replace Under Warranty:

American Honda will repair or replace, at its option, any part that is proven to be defective in material or workmanship under normal use during the applicable warranty time period. Warranty repairs and replacements will be made without charge for parts or labor. Anything replaced under warranty becomes the property of American Honda Motor Company, Inc. All parts replaced under warranty will be considered as part of the original product and any warranty on those parts will expire coincident with the original product warranty.

#### To Obtain Warranty Service:

You must take your Honda general purpose engine, or the equipment in which it is installed, together with proof of original retail purchase date, at your expense, to a Honda engine dealer or distributor authorized to sell that product in the United States, Puerto Rico, or the U.S. Virgin Islands, during their normal business hours. Many Honda engine dealers and distributors are listed in the yellow pages of the telephone directory under gasoline engines, lawn & garden equipment & supplies, etc.

If you are unable to obtain warranty service, or are dissatisfied with the warranty service you receive, take the following steps: First, contact the owner of the dealership or distributor involved; normally this should resolve the problem. However, if you should require further assistance, write or call the Power Equipment Customer Relations Department of American Honda Motor Co., Inc. Refer to page 12 for contact information.

#### Exclusions:

THIS WARRANTY DOES NOT EXTEND TO PARTS AFFECTED OR DAMAGED BY THE PRODUCT IN WHICH THE ENGINE IS INSTALLED, OR BY ACCIDENT AND/OR COLLISION, MISUSE, NEGLECT, PARTS WORN BEYOND SERVICE LIMITS DUE TO NORMAL WEAR/NORMAL SERVICE LIFE, PARTS AFFECTED OR DAMAGED BY THE CONVERSION TO OR USE OF FUEL OTHER THAN THE FUEL(S) WHICH THE ENGINE IS ORIGINALLY MANUFACTURED TO USE, POOR OPERATION RELATED TO FUEL CONTAMINATION OR FUEL QUALITY, PARTS DAMAGED BY FUEL CONTAMINATION, THE INCORPORATION OF, OR USE OF, UNSUITABLE ATTACHMENTS OR PARTS, THE UNAUTHORIZED ALTERATION OF ANY PART OR ANY CAUSES OTHER THAN DEFECTS IN MATERIAL OR WORKMANSHIP OF THE ENGINE. USE OF THE HONDA GENERAL PURPOSE ENGINE FOR RACING OR COMPETITION WILL VOID THIS WARRANTY.

#### Disclaimer of Consequential Damage and Limitation of Implied Warranties:

AMERICAN HONDA DISCLAIMS ANY RESPONSIBILITY FOR LOSS OF TIME OR USE OF THE ENGINE, OR THE EQUIPMENT IN WHICH THE ENGINE IS INSTALLED, TRANSPORTATION, COMMERCIAL LOSS, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGE. ANY IMPLIED WARRANTIES ARE LIMITED TO THE DURATION OF THIS WRITTEN LIMITED WARRANTY. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions and limitations may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### **Emission Control System Warranty**

Your new Honda Power Equipment engine complies with both the U.S. EPA and State of California emission regulations. American Honda provides the same emission warranty coverage for engines sold in all 50 states.

#### Your Warranty Rights And Obligations:

#### California

The California Air Resources Board and American Honda Motor Co., Inc. are pleased to explain the emission control system warranty on your Honda Power Equipment engine. In California, new utility and lawn and garden equipment engines must be designed, built and equipped to meet the State's stringent anti-smog standards.

#### Other States

In other areas of the United States your engine must be designed, built, and equipped to meet the <u>U.S. EPA emission standards</u> for spark-ignited engines at or below 19 kilowatts.

#### All States

American Honda Motor Co., Inc. must warrant the emission control system on your power equipment engine for the period of time listed below provided there has been no abuse, neglect or improper maintenance of your power equipment engine. Where a warrantable condition exists, American Honda Motor Co., Inc. will repair your power equipment engine at no cost to you including diagnosis, parts and labor.

Your emission control system may include such parts as the carburetor or fuel injection system, the ignition system, and catalytic converter. Also included may be hoses, connectors and other emission-related assemblies.

#### Manufacturer's Warranty Coverage:

The 1995 and later power equipment engines are warranted for two years. If any emissionrelated part on your engine is defective, the part will be repaired or replaced by American Honda Motor Co., Inc.

#### **Owner's Warranty Responsibility:**

As the power equipment engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. American Honda Motor Co., Inc. recommends that you retain all receipts covering maintenance on your power equipment engine, but American Honda Motor Co., Inc. cannot deny warranty coverage solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the power equipment engine owner, you should however be aware that American Honda Motor Co., Inc. may deny you warranty coverage if your power equipment engine or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.

You are responsible for presenting your power equipment engine to a Honda Power Equipment dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should write or call the Honda Power Equipment Customer Relations Department. Refer to page 12 for contact information.

#### Warranty Coverage:

Honda power equipment engines manufactured after January 1, 1995 and sold in the State of California, and U.S. EPA certified engines manufactured on or after September 1, 1996 and sold in all of the United States, are covered by this warranty for a period of two years from the date of delivery to the original retail purchaser. This warranty is transferable to each subsequent purchaser for the duration of the warranty period.

Warranty repairs will be made without charge for diagnosis, parts or labor. All defective parts replaced under this warranty become the property of American Honda Motor Co., Inc. A list of warranted parts is on the reverse side of this warranty statement. Normal maintenance items, such as spark plugs and filters, that are on the warranted parts list are warranted up to their required replacement interval only.

American Honda Motor Co., Inc. is also liable for damages to other engine components caused by a failure of any warranted part during the warranty period.

Only Honda approved replacement parts may be used in the performance of any warranty repairs and must be provided without charge to the owner. The use of replacement parts not equivalent to the original parts may impair the effectiveness of your engine emission control system. If such a replacement part is used in the repair or maintenance of your engine, and an authorized Honda dealer determines it is defective or causes a failure of a warranted part, your claim for repair of your engine may be denied. If the part in question is not related to the reason your engine requires repair, your claim will not be denied.

#### To Obtain Warranty Service:

You must take your Honda Power Equipment engine or the product on which it is installed, along with your warranty registration card or other proof of original purchase date, at your expense, to any Honda Power Equipment dealer who is authorized by American Honda Motor Co., Inc. to sell and service that Honda product during his normal business hours. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the engine was not properly maintained and used.

If you are unable to obtain warranty service, or are dissatisfied with the warranty service you received, contact the owner of the dealership involved. Normally this should resolve your problem. However, if you require further assistance, write or call the Power Equipment Customer Relations Department of American Honda Motor Co., Inc.

#### Exclusions:

FAILURES OTHER THAN THOSE RESULTING FROM DEFECTS IN MATERIAL OR WORKMANSHIP ARE NOT COVERED BY THIS WARRANTY. THIS WARRANTY DOES NOT EXTEND TO EMISSION CONTROL SYSTEMS OR PARTS WHICH ARE AFFECTED OR DAMAGED BY OWNER ABUSE, NEGLECT, IMPROPER MAINTENANCE, MISUSE, MISFUELING, IMPROPER STORAGE, ACCIDENT AND/OR COLLISION, THE INCORPORATION OF, OR ANY USE OF, ANY ADD-ON OR MODIFIED PARTS, UNSUITABLE ATTACHMENTS, OR THE UNAUTHORIZED ALTERATION OF ANY PART.

THIS WARRANTY DOES NOT COVER REPLACEMENT OF EXPENDABLE MAINTENANCE ITEMS MADE IN CONNECTION WITH REQUIRED MAINTENANCE SERVICES AFTER THE ITEM'S FIRST SCHEDULED REPLACEMENT AS LISTED IN THE MAINTENANCE SECTION OF THE PRODUCT OWNER'S MANUAL, SUCH AS: SPARK PLUGS AND FILTERS.

#### Disclaimer of Consequential Damage and Limitation of Implied Warranties:

AMERICAN HONDA MOTOR CO., INC. DISCLAIMS ANY RESPONSIBILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SUCH AS LOSS OF TIME OR THE USE OF THE POWER EQUIPMENT, OR ANY COMMERCIAL LOSS DUE TO THE FAILURE OF THE EQUIPMENT; AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. THIS WARRANTY IS APPLICABLE ONLY WHERE THE CALIFORNIA OR U.S. EPA EMISSION CONTROL SYSTEM WARRANTY REGULATION IS IN EFFECT.

#### **Emission Control System Warranty Parts:**

SYSTEMS COVERED BY THIS WARRANTY:	PARTS DESCRIPTION:	
Fuel Metering	Carburetor assembly, Fuel injection pump, Fuel injection nozzle, Fuel regulator	
Exhaust	Catalyst	
Air Induction	Air filter housing, Air filter element*, Crankcase breather tube	
Ignition	Flywheel magneto, Ignition pulse generator, Ignition coil assembly, Ignition control module, Spark plug cap, Spark plug*	
Miscellaneous Parts Tubing, fittings, seals, gaskets, and associated with these listed system		
* Covered up to the first required replacement only. See the Maintenance Schedule on page 5.		

#### **Distributor/Dealer Locator Information**

To find an Authorized Honda Engine Distributor/Dealer anywhere in the United States:

Call (800) 426-7701

or visit our website: www.honda-engines.com

#### Warranty Service Information

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

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

#### American Honda Motor Co., Inc.

Power Equipment Division Customer Service Office 4900 Marconi Drive Alpharetta, GA 30005-8847

Or telephone: (770) 497-6400, M-F, 8:30 am - 5:00 pm EST

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

- Engine model, type and serial number (see page 8)
- · Equipment manufacturer's name and model the engine is used on
- Name of the dealer who sold the engine to you
- · Name and address of the dealer who services your engine
- Date of purchase
- · Your name, address, and telephone number
- · A detailed description of the problem

<ul> <li>INTERNATIONAL WARRANTY INFORMATION FOR HONDA GENERAL PURPOSE ENGINES HONDA GENERAL PURPOSE ENGINES Honda warranty is applicable to particular Honda engine fitted on products manufactured by other firms. The basic warranty is subject to the following:</li> <li>Engine service may not be available if the engine model is not sold by local Honda dealers.</li> <li>The warranty conditions shall be in accordance with the conditions stipulated by Honda Distributor in the country where service is requested.</li> <li>Further service information may be obtained by consulting an authorized Honda engine dealer or the dealer selling the product on which the engine is installed.</li> <li>REOUIREMENT FOR OBTAINING WARRANTY SERVICE: Take your product to the dealer from which you purchased it when service is necessary. If the dealer judges that the Honda engine dealer view the Honda engine engine only to an authorized Honda engine engin</li></ul>	
<ul> <li>JAMINAN ANTARABANGSA HONDA ENJIN PELBAGAI-GUNA</li> <li>Jaminan terhadap Honda tertakluk hanya kepa- da enjin Honda yang dipasang ke atas barangan keluaran syarikat lain (OEM). Jaminan umum berdasarkan kepada perkara berkurt:</li> <li>Servis enjin titak boleh diperolehi jika tidak dijual oleh ejen Honda tempatan.</li> <li>Jaminan adalah menurut tatakerja yang diper- serujui oleh ejen Honda tempatan di mana sevis dikehendaki.</li> <li>Penerangan untuk servis lanjutan boleh didap- ati daripada ejen Honda tempatan di mana sevis dikehendaki.</li> <li>Penerangan untuk servis lanjutan boleh didap- ati daripada ejen Honda tempatan di mana servis dikehendaki.</li> <li>Penerangan untuk servis lanjutan boleh didap- di barangan tersebut. Jika didapati lanya perlu diperbaiki, sila bawa barangan tersebut kepada ejen Honda tempatan yang dijiktirat bersama- sama dokumen pembelian sebogai bukti.</li> </ul>	ホング汎用エンジン 保証修理のご案内 この廃証修理制度は、OEM製品(相先先プランド 製品)に搭載されたホンダ汎用エンジンにのみ適 用されます。基本的な考え方は、以下の通のです。 砂川販売市が取り扱っていない場合は、修理を 受けられないことがあります。 不保証修理に関する正おこてホングが完めてい 、保証修理に関する詳細につきましては、キンダ 汎用販売またはそのOEM製品をおけ、キンダ 汎用販品を調い上げになった戦品をお買い上げ になった設売でありのます。 の用読品をにお問い合わせください。 保証修理の受け方 OEM製品をお買い上げになった販売店に不能理 を受けてください。ホング出ンジンを修理する必 要求あるとり取り外して、製品購入時の額以 書またはレジートと共にホング汎用販売店にお待
<ul> <li>INFORMASI SERVIS GARANSI INTER- NASIONAL UNTUK PENOGUNAAN MESIN SERBA-GUNA HONDA MESIN SERBA-GUNA HONDA Servis garansi Honda berlaku untuk mesin- mesin produk Honda yang terpasang pada pro- duk yang diproduksi oleh perusahaan- perusa- haan lain. Servis garansi dapat diberikan den- gan syarat-syarat sebagal berlaku jika mesin-mesin bukan berasal dari dealer Honda yang diaku secara resmi.</li> <li>Servis mesin tidak berlaku jika mesin-mesin ketentuan yang ditetapkan oleh distrubutor Honda di negara dimana permintaan servis garansi diajukan.</li> <li>Informasi servis garansi lebih lanjut dapat diperoleh pada dealer mesin Honda yang resmi atau dealer yang menjual produk yang menggunakan mesin Honda.</li> <li>SYARAT UNTUK MEMPEROLEH SERVIS GARANSi.</li> <li>Bawalah produk yang anda miliki ke dealer dimana anda telah membelinya, jika mesin mesinnya saja ke dealer Honda yang resmi den- gan menunjukan bukti pembelian.</li> </ul>	معلومات عن الضمانة المولية لمركات هوننا للأغراض العامة يتم تطبيق ضمانة هوننا على محركات هوننا وخاصنا التي يتم تركيبها على النتيجات التي تم صنعها بواسطة شركات أخرى وتحضى الشمانية لل بلي يتم يم المرك بواسطة وكادة هوننا المعمد في الملك الذي تعتاج فيه الخدسة وكادة هوننا المعمد في الملك الذي تعتاج فيه الخدسة وتكاد هوننا المعمد في المواكل الذي يبيع الخدسة محركات هوننا المعمد أو لوكيل الذي يبيع الغذية محركات هوننا المعمد أو الموكل الذي يبيع الغذية محركات هوننا المعمد أو الموكل الذي يبيع الغذية محركات هوننا المعمد أو الموكل الذي يبيع الغذية الذي سوف بركب عليه الموك . متطلبات المصول على خدمة الغسانة أحضر محات المولي المحكيل الذي المهاز في حاجة الى أمملاح مع السنند الذي يثبت عملية الشراء.

<ul> <li>INFORMAZIONI SUILLA GARANZIA INTERNAZIONALE HONDA PER I MOTORI DI PRIMO IMPLANTO</li> <li>La garanzia Honda è applicable sui motori Honda per uso generico che equipaggiano macchine prodotte da altri costruttori. La garanzia è assoggettata alle seguenti regole:</li> <li>L'assistenza sul motore potrebbe non essere disponi- bile se quel determinato modello non viene venduto dal locale distributore Honda.</li> <li>Le condizioni di garanzia possono variare in accordo con le condizioni stipulate dal distributore Honda della nazione dove viene richiesto l'intervento.</li> <li>Informazioni più dettagliate possono essere ottenute richiedendole ad un centro assistenza autorizzato Honda oppure al rivenditore del prodotto sul quale il motore è montato.</li> <li>PROCEDURE PER OTTENERE INTERVENTI IN GARANZIA</li> <li>Qualora si riscontrasse la necessità di assistenza provvedere a portare il prodotto presso il rivenditore. Se il rivenditore ritiene che è il motore Honda che necessita di riparazioni in garamzia, portare il motore insieme ad un documento che ne attesti la data di vendita.</li> </ul>	ย่าวสารการประกันคุณภาพของ เครื่องยนต่อเนกประสงค์ รายละเอียดการประกันองออนด่า ซึ่งใช้โดยเฉพาะกันผลิต ภัณฑ์ที่ผลิตจากบริษัทยืน ๆ ซึ่งพื้นฐานการรับประกันมีดังนี้ • การบริการเครื่องยนต์อไม่เป็นผล กำเครื่องยนต์รุนนั้นไม่ได้ จำหน่ายในการรับประกัน จะต้องสอดคล้องกับเงื่อนไขของผู้แหน่ จำหน่ายในประเทน จะต้องสอดคล้องกับเงื่อนไขของผู้แหน่ จำหน่ายในประเทน จะต้องสอดคล้องกับเงื่อนไขของผู้แหน่ จำหน่ายในประเทน จะต้องสอดคล้องกับเงื่อนไขของผู้แหน่ จำหน่ายในประเทศ • สอบถานรายละเอียดได้จากร้านค้านก็ยนู่หน่าหน่ายชื่อนกา เมื่อจำเป็นสร้องยนต์กที่จำเป็นต้องขอน ก็ให้น้ำเฉพาะ เตรื่องยนติไปยังศูนย์ของยอนดำที่จำเป็นต้องทาย เดืองขนติไปยังศูนย์ของยอนดำ หว้อมหลักฐานการซื้อธาย เตรื่องยนติไปยังศูนย์ของยอนดำ หว้อมหลักฐานการซื้อธาย
<ul> <li>INTERNATIONALE GARANTIE INFOR- MATIE VOOR HONDA STATIONAIRE MOTOREN</li> <li>Honda fabrieksgarantie is van toepassing op bepaalde Honda motoren, welke zijn gemonteerd op een, door een andere firma geproducered produkt. De garantie is mede afhankelijk van het volgende:</li> <li>Voor motoren die niet verkocht zijn door lokale Honda dealers bestaat de kans dat service niet kan worden verleend.</li> <li>De garantievoorwaarden zijn dezelfde als welke worden gehanteerd door de Honda vertegen- woordiger in het land waar de service en garantie kan worden verleende moda sta- tionaire motoren dealer of bij een erkende Honda sta- tionaire motoren dealer of bij een erkende Honda motor, naar het bedrijf van oordeel is dat de Honda motor gerepareerd dient te worden, moet de losse motor der reparatie worden angeboden bij een erkende Honda stationaire motoren dealer, tezamen met een bewijs van aankoop.</li> </ul>	有关国际保修本田通用发动机的介绍 本保修制度适用于装配在其它厂家产品中的本田发动 机。其基本方针如下: *如果基本方针如下: *如果基地的本田发动机经销店不经错该种机型的本 田发动机,则可能无法接受保修。 *关于保修的详细情况,请惠询本田发动机经销店或 购买配套产品的经销店。 被受保修方法: 请在购买配套产品的经销店。 请在购买配套产品的经销店。 请在购买配套产品的经销店。 详有购买配套产品的经销店该受保修。经销店认为需 要修理时,从配套产品工和方动机经销店接受保修。 产品时的发票,送到本田发动机经销店接受保修。
INFORMATIONEN ZUR INFORMATIONEN ZUR INTERNATIONALEN GARANTIE FÜR HONDA-INDUSTRIEMOTOREN Für Honda-Industriemotoren, die Erzeugnissen von Erstaus- rüstern als Antriebsaggregt dienen, können Graantieleis- tungen im Rahmen der 'Honda-Garantie' in Anspruch genommen werden. Dabei ist folgendes zu beachten: • Wird der jeweilige Motorentyp nicht auch von den örtlichen Honda-Händlern vertrieben, ist der antspre- chende Kundendienst möglicherweise nicht gewährleis- tet. • Im Garantiefell richten sich die Garantieleistungen nach den Garantiefell nichten sich die Garantieleistungen nach den Händler inzunblen, der das mit dem Honda-Industrie- motor ausgerüstet Erzeugnis vertreibt. WICHTIG FÜR DIE INANSPRUCHNAHME VON GARANTIELEISTUNGEN: Benötigt Ihr Gerät technischen Service, so bringen Sie es zu dem Händler, von dem Sie das Gerät eingebaute Honda- Industriemotor repariert werden muß, so bringen Sie das derä Händler fest, daß der in das Gerät eingebaute Honda- Industriemotor repariert werden muß, so bringen Sie das derä eingebaute Wonda- lietweiligen Kaufdokumente volfegen.	<ul> <li>INFORMAÇÃO SOBRE GARANTIA INFERNACIONAL PARA MOTORES HONDA PARA USO GERAL</li> <li>A garantia HONDA é aplicável para motores Honda montados em produtos fabricados por outras firmas. Esta garantia está sujeita aos seguintes princípios:</li> <li>A assistência a estes motores não será possível se o modelo não for vendido pelos agentes locais Honda.</li> <li>As condições estipuladas pelo distribuidor Honda do país onde o serviço será requerido.</li> <li>Para mais informações, consulte um agente autor- izado Honda ou um agente que venda o produto no qual o motor está instalado.</li> <li>PARA OBTER O SERVIÇO EM GARANTIA: Leve o seu produto ao revendedor onde o comprou, quando precisar de assistência técnica. Se o revendedor considerar que o motor HONDA precisa de reparação, leve-o somente a um agente autoriza- do HONDA acompanhado com a prova de comprou.</li> </ul>
<ul> <li>INFORMATIONS SUR LA GARANTIE INTERNATIONALE DES MOTEURS A USAGE GENERAL HONDA La garantie HONDA est applicable aux moteurs HONDA montés sur des machines fabriquées par d'autres construc- teurs. La garantie de base répond aux points suivants:</li> <li>Le service après-vente du moteur pourra ne pas être possi- ble pour tout type de moteur qui ne serait pas commer- cialisé par la filiale ou l'importateur HONDA local.</li> <li>Les conditions de garantie qui seront appliquées seront celles du distributeur HONDA dans le pays où le service est demandé.</li> <li>Pour de plus amples informations, consulter un concession- naire HONDA moteurs ou le fabricant du matériel équipé de ce moteur HONDA.</li> <li>DEMANDE D'OBTENTION D'UNE GARANTIE: En cas de problème, anneez votre machine chez votre reven- deur qui estimera si une intervention sous garantie est moteur ne pourra être faite que par un concessionnaire officiel HONDA après présentation de la facture d'achat.</li> </ul>	<ul> <li>INFORMACIÓN SOBRE LA GARANTÍA INTERNACIONAL DE LOS MOTORES HONDA DE USO GENERAL</li> <li>Las condiciones de garantía para los motores monta- dos en máquinas fabricadas por otras firmas, están sujetas a las siguientes normas:</li> <li>El servicio de un motor puede verse afectado, si éste no es comercializado por el Distribuidor de Honda del país donde sea solicitado.</li> <li>Las condiciones de garantía serán las que tenga establecidas el Distribuidor de Honda del país donde sea solicitado.</li> <li>Para más información sobre el servicio, consulte al Distribuidor autorizado de motores Honda, o al Distribuidor de la máquina que haya montado el motor.</li> <li>REQUISITOS PARA OBTENER SERVICIO EN GARANTÍA:</li> <li>Cuando sea necesario reparar la máquina llévela al distribuidor donde la compró. Si éste considera que el motor debe ser revisado, llevelo a un Distribuidor de motores Honda autorizado junto con la tarjeta de garantía o la factura de compra.</li> </ul>