

2. SUMMARY

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3. SAFETY MESSAGES

Your safety and the safety of others is very important. We have provided important safety messages in this manual. 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 and one of three words: WARNING, CAUTION or NOTE.

These words mean:



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.

4. DAMAGE PREVENTION MESSAGES

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

This word means:



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

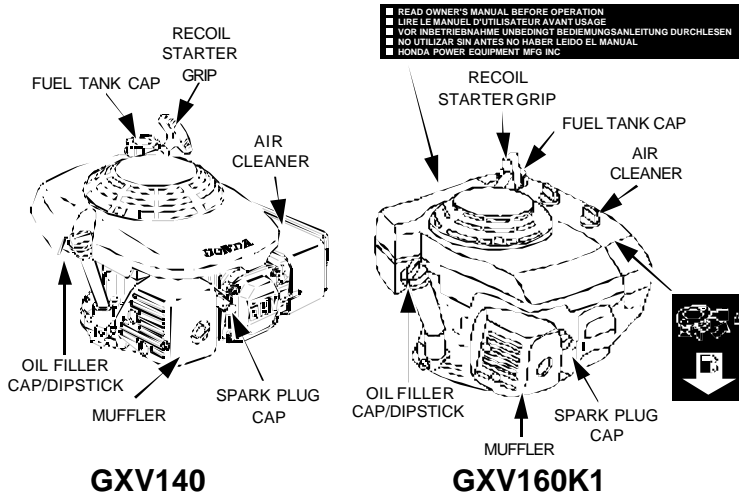
The purpose of these messages is to help prevent damage to your engine, other property or the environment.

5. 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 1 meter (3 feet) away from buildings and other equipment during operation. Keep flammable materials away and do not place anything on the engine while it is running.

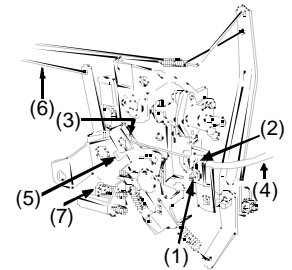
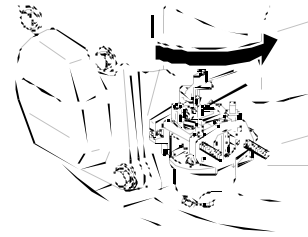
6. COMPONENT IDENTIFICATION AND SAFETY INFORMATION



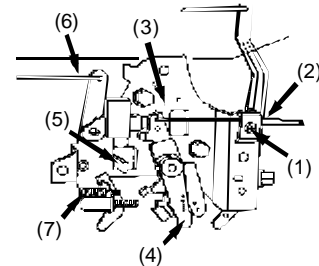
7. THROTTLE CABLE CONNECTION

The throttle lever is provided with hole for attaching the throttle cable.

1. Remove the screw (1) and the cable holder (2).
2. Hook the cable end into the throttle lever, as shown (3).
3. Move the throttle cable control into the fast (or high) throttle position.
4. Move the throttle lever by pulling the throttle cable until the throttle lever (4) just contacts the choke arm (5). Install the cable holder (1) securing the throttle cable and tighten it securely.
5. Move the throttle control to the choke position and verify that the engine choke rod (6) moves the carburetor choke arm fully closed. If necessary, adjust screw (7) so it just contacts the choke arm.



GXV140



GXV160K1

8. FLYWHEEL BRAKE (Models equipped)

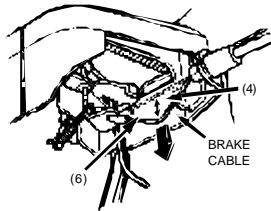
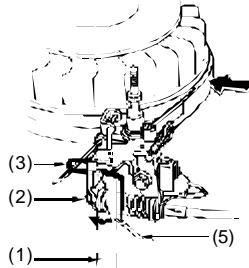
operation inspection

1. Release the flywheel brake lever (located on equipment) and verify that there is a strong resistance when pulling on the recoil starter. Also, verify that the governor arm (1) is moved to the idle (slow) position and there is freeplay in the brake cable head (2) (GXV140) or the cable deflects (6) 10 - 15 mm from centerline as shown (4) when the cable is new (GXV160K1).

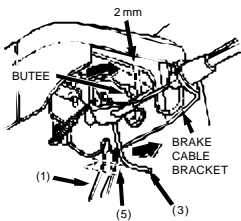
2. Engage the flywheel brake lever to release the flywheel brake and verify that there is clearance (5) between the governor arm and the throttle return rod (3) when the throttle is in the fast (or high) position.

CAUTION :

- If necessary, the adjustment of the flywheel brake system should be made by an authorized Honda dealer.



GXV160K1



GXV160K1

9. PRE-OPERATION CHECKS

Always check the following items before you start the engine:

1. Fuel level (see page 16).
2. Oil level (see page 18).
3. Air cleaner (see page 20).
4. General inspection: check for fluid leaks and loose or damaged parts.

⚠ WARNING:

Read your equipment user's instruction before operating the engine

10. OPERATION

Starting

1. Turn the fuel shut-off valve:
GXV160K1: Turn the fuel valve to the ON position.
GXV140: The fuel cock opens automatically.
2. Place the throttle lever :
Move the throttle control to the choke position. Do not use the choke when the engine is warm. Move the throttle control slightly past the idle position.
3. Flywheel brake model:
Move the flywheel brake (located on equipment) to release the flywheel brake.
4. Pull the starter grip lightly until resistance is felt, then pull briskly.

NOTE

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

5. If the choke was used to start the engine, move the throttle to the fast (or high) position as soon as the engine warms up enough to run smoothly without use of the choke.

Flywheel brake model: Continue to hold the flywheel brake lever (located on equipment).

The engine will stop if you release the flywheel brake lever.

Throttle lever

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

CAUTION:

- For safety reasons, the maximum operating speed must be adjusted with a special tool. Please consult your authorized Honda dealer for this operation.

2. Using a tachometer, check the engine speed. If you can't obtain the top no load engine speed specified, consult your Honda dealer.

Stopping

Model without flywheel brake:

1. Move the throttle control to the stop position. The fuel cock will automatically turn off.

Flywheel brake model:

1. Move the throttle control to the slow position.

2. Release the flywheel brake lever (located on equipment) to stop the engine.

When the engine stopped, the fuel cock will automatically turn off (GXV140) or turn the fuel valve to the OFF position if you do not intend to restart the engine soon (GXV160K1).

NOTE

Check that the engine stops. If not, check the cable installation procedures included in chapter 6 & 7.

High altitude operation

High altitude performance can be improved by installing a smaller diameter main jet in the carburetor. If you normally operate the engine at altitudes higher than 1,800 meters (6,000 feet) above sea level, consult your dealer about main jet replacement.

Even with suitable carburetor jetting, engine horsepower will decrease about 3.5% for each 300 meter (1,000 foot) increase in altitude. The effect of altitude on horsepower will be greater than this without suitable carburetor jetting.

An engine with high altitude carburetor jetting must never be operated at low altitudes, because the engine may overheat and be damaged. For low altitude use, reinstall the standard carburetor main jet.

11. MAINTENANCE

The importance of maintenance

A well maintained engine is essential for safe, economical and trouble-free operation. It will also help reduce pollution.

To help you correctly care for your engine, the following pages include a maintenance schedule and maintenance procedures for regularly scheduled maintenance.

These procedures are based on the assumption that the engine will be operated in a relatively clean environment. Operation in unusually wet or dusty conditions will require more frequent service than specified in the maintenance schedule.

Consult your authorized Honda engine dealer for recommendations applicable to your individual needs and use.

WARNING:

Correctly maintaining this engine, or failing 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.

Maintenance safety

This section includes instructions on some important maintenance tasks. You can perform some of these tasks with basic hand tools if you have the necessary mechanical skills.

Other tasks that are more difficult and require special tools are best performed by professionals. Internal engine repair should normally be handled only by a Honda technician or other qualified mechanic.

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

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

Safety precautions

WARNING:

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

- 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 authorized Honda 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 for repair and replacement.

If you have the tools and skills required for additional maintenance jobs, you can purchase an official Honda Shop Manual from your dealer.

Emission control system

Source of emissions

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

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

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

Replacement parts

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

Maintenance

Follow the maintenance schedule on page 14. 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.

CORRECT MAINTENANCE IS THE OWNER'S RESPONSIBILITY.

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 or exhaust systems.
- Altering or defeating the governor linkage or speed-adjusting mechanism to cause the engine to operate outside its design parameters.

Problems that may affect emissions

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

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

Maintenance Schedule

REGULAR SERVICE PERIOD (3)		Each use	1st month or 20 hours	Every 3 months or 50 hours	Every 6 months or 100 hours	Every year or 100 hours	See page	
Item: perform at every indicated month or operating hour interval, whichever comes first								
• Engine oil	Check level						18	
	Change						19	
• Air cleaner	Check						20	
	Clean/Replace *			(1)			21	
Flywheel brake operation	Check						7	
Flywheel brake pad	Check/Adjust		(2)		(2)		-	
• Spark plug	Clean/Adjust						22	
	Replace						22	
Spark arrester (optional part)	Clean						24	
• Idle Speed	Check/Adjust					(2)	23	
• Valve clearance	Check/Adjust					(2)	-	
• Fuel tank and filter	Clean					(2)	-	
• Fuel line	Check		Every 2 years (2) (Replace if necessary)					

- Emission related items.

* It is possible to replace the paper element only.

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

(2) These items should be serviced by an authorized Honda dealer, unless the owner has the correct tools and is mechanically proficient. Refer to the Honda shop manual for service procedures.

(3) For commercial use, log hours of operation to determine correct maintenance intervals.

Fuel

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.

⚠ WARNING:

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

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

NOTE

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

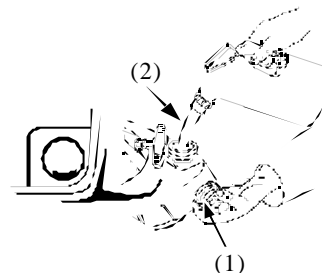
Never use stale or contaminated gasoline or oil/gasoline mixture. Avoid getting dirt or water in the fuel tank.

Adding fuel

1. Remove the fuel tank cap (1).

2. Add fuel to the bottom of the fuel level gauge in the neck of the fuel tank (2).

Do not overfill. Wipe up spilled fuel before starting the engine.



Fuel tank capacity :

1.0 l (GXV140)

2.0 l (GXV160K1)

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 regions 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 regions require this information to be posted on the pump.

The following are the 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.

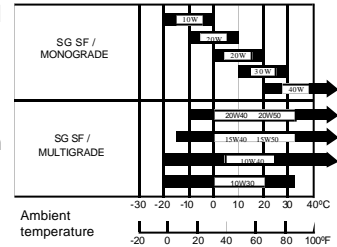
Fuel system damage or performance problems resulting from the use of an oxygenated fuel containing more than the percentages of oxygenates mentioned above are not covered under this warranty.

Engine Oil

Recommended oil

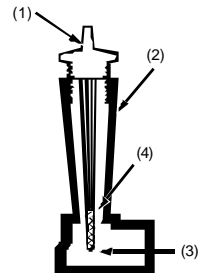
Recommended oil for general, all temperature use: SAE 10W-30, API certified SG, SF.

Other viscosities shown in the following chart may be used when the average temperature in your area is within the indicated range.



Oil Level Check

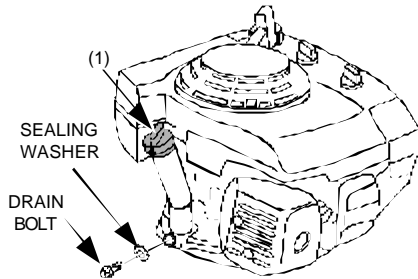
1. Check the oil level with the engine stopped and level.
2. Remove the oil filler cap/dipstick (1) and wipe it clean.
3. Insert the oil filler cap/dipstick into the oil filler neck (2) as shown, but do not screw it in, then remove it to check the oil level.
4. If the oil level is near or below the lower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



Oil Change

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

1. Tilt the machine of its side.
2. Place a receptable under the casing filler tube hole.
3. Remove the oil filler cap (1).
4. Fill up to "high" level using the recommended oil.
5. Screw the filler cap fully on to avoid the risk of leaks.



Engine oil capacity:

0.6 l (0.63 US qt) for GXV140.

0.65 l (0.69 US qt) for GX160K1.

Please dispose of used motor oil and the oil containers in a manner that is compatible with the environment. We suggest you take used oil in a sealed container to your local service station for reclamation.

Do not throw it in the trash or pour it on the ground.

Air Cleaner

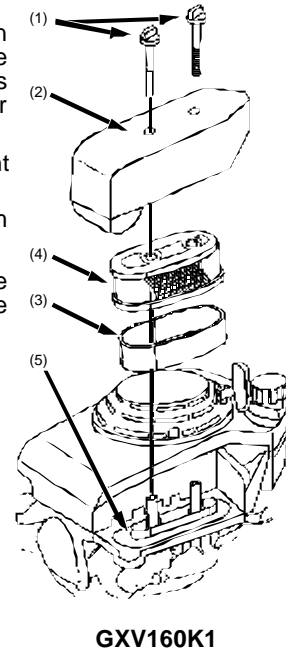
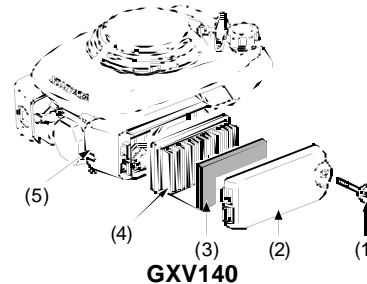
A dirty air cleaner will restrict air flow to the carburetor and cause poor engine performance. Inspect the filter elements each time the engine is operated. You will need to clean the filter elements more frequently than usual if you operate the engine in very dusty areas.

NOTE

Operating the engine without air filters, or with damaged filters, will allow dirt to enter the engine, causing rapid engine wear. This type of damage is not covered under warranty.

Inspection

1. Remove the wing bolt (1). Then remove the air cleaner cover (2). Be careful to prevent dirt and debris from falling into the air cleaner base (5).
2. Remove the foam filter (3) element from the air cleaner cover.
3. Remove the paper element (4) from the air cleaner base (5).
4. Inspect the filter elements. Replace damaged filters. Clean or replace dirty filters.



Cleaning

1.Remove the air cleaner cover and foam filter element, as described in the **inspection** procedure.

2.Remove the paper element from the air cleaner base.

3.Paper element:

Tap the element several times on a hard surface to remove excess dirt, or blow compressed air [not exceeding 207 kPa (30 psi)] through the filter from the wire screen side. Never try to brush off dirt; brushing will force dirt into the fibers. Replace the paper element if it is excessively dirty.

4.Foam element

Clean in warm, soapy water or nonflammable solvent, rinse and dry thoroughly. Do not use gasoline as a cleaning solvent, because that would create a risk of fire or explosion.

For GXV160K1 only:

Dip the element in clean engine oil, then squeeze out all excess oil.

NOTE

Excess oil will restrict air flow through the foam filter and may transfer to the paper filter, soaking and clogging it. (GXV160K1)

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

6.Reinstall the air cleaner elements, and make sure both elements are correctly positioned. Install the air cleaner cover and tighten the wing bolt securely (1for GXV140, 2 for GXV160K1).

Spark Plug

Recommended Spark Plugs:

NGK: BPR5ES - NIPPONDENSO Co., Ltd.: W16EPR-U

The recommended spark plug is the correct heat range for normal engine operating temperatures. The engine can be damaged if a spark plug with an incorrect heat range is used.

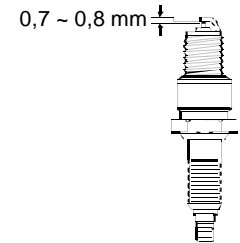
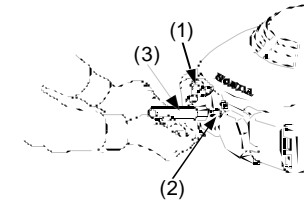
For good performance, the spark plug must be correctly gapped and free of deposits.

1.Disconnect the cap (1) from the spark plug (2), and remove any dirt from the spark plug area.

2.Use the correct size plug wrench (3) to remove the spark plug.

3.Inspect the spark plug. Replace it if damaged, badly fouled, if the sealing washer is in poor condition, or if the electrode is worn. If the spark plug is to be reused, clean it with a wire brush.

4.Measure the electrode gap with a suitable gauge. The correct gap is 0.7 - 0.8 mm (0.028 - 0.031 in). If adjustment is needed, correct the gap by carefully bending the side electrode.



5. Install the spark plug carefully, by hand, to avoid cross-threading. After the spark plug is seated, tighten with the correct size spark plug wrench to compress the washer. When installing a new spark plug, tighten $\frac{1}{2}$ turn after the spark plug seats to compress the washer. When reinstalling the original spark plug, tighten $\frac{1}{8}$ - $\frac{1}{4}$ turn after the spark plug seats to compress the washer.

NOTE

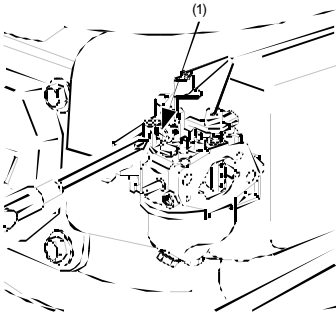
A loose spark plug can become very hot and can damage the engine. Overtightening the spark plug can damage the threads in the cylinder head.

6. Attach the spark plug cap to the spark plug.

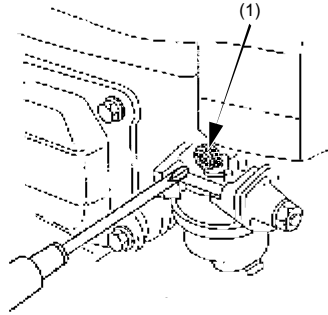
Carburetor

Idle speed

1. Start the engine outdoors, and let it warm up to normal operating temperature.
2. Move the throttle control to the slowest position.
3. Using a screwdriver, turn the throttle stop screw (1) to obtain the standard idle speed.



GXV140



GXV160K1

Standard Idle Speed: 2.100 ± 150 rpm

Spark Arrester (optional equipment)

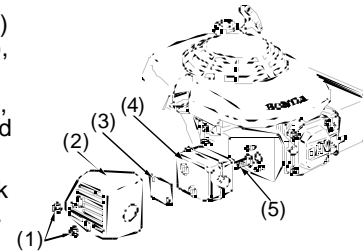
In some areas, it is illegal to use an engine without a spark arrester.

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.

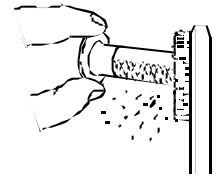
Removal

1. Remove the two bolts (1) from the muffler shield (2), using a 10 wrench.
2. Remove the muffler shield (2), identification plate (3) and muffler (4).
3. Remove the spark arrester (5) from the muffler.



Cleaning and 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 has holes.
2. Install the spark arrester in the reverse order of removal.



12. TRANSPORTING

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

Turn the fuel valve to OFF position (GXV160K1).

Throttle lever to stop position (GXV140).

13. STORAGE

Storage Preparation

Correct storage preparation is essential for keeping your engine troublefree 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

- 1.Clean all exterior surfaces.
- 2.Wash the engine with a garden hose or other low pressure equipment. If the engine has been running, allow it to cool for at least half an hour before spraying water on it. Never spray water on a hot engine.
- 3.Start the engine, and let it run until it reaches normal operating temperature to evaporate any remaining water.
- 4.Stop the engine, and allow it to cool.

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 warranty.

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:

- 1.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.
- 2.Add gasoline stabilizer following manufacturers instructions.
- 3.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.
- 4.Stop the engine and turn the fuel valve to the OFF position.

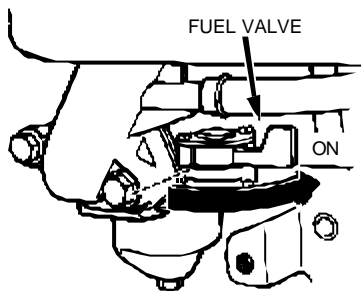
Draining the fuel tank and carburetor

WARNING:

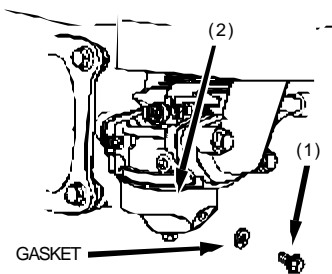
Gasoline is highly flammable and explosive and you can be burnt or seriously injured when refueling.

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

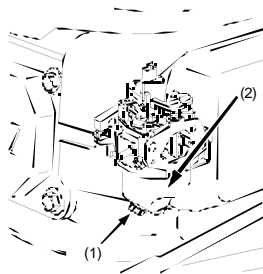
1. Remove the carburetor drain bolt (1) with a 10 mm wrench, and drain the carburetor bowl fuel (2) into an approved gasoline container.



2. Move the throttle lever to fast position. This will allow the fuel tank to drain through the carburetor bowl (2).
3. After draining the carburetor and fuel tank, tighten drain bolt securely.



GXV160K1



GXV140

Engine oil

1. Change the engine oil (see page 19).
2. Remove the spark plug (see page 22), and pour a tablespoon (5 - 10 cc) of clean engine oil into the cylinder. Using the recoil, crank the engine a few revolutions to distribute the oil in the cylinder, then reinstall the spark plug.

Storage

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 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.

If there is gasoline in the fuel tank, leave the throttle lever in the OFF position (GXV140).

Leave the fuel valve in the OFF position (GXV160K1).

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

1. Check your engine as described in the **pre-operation checks** section of this manual (See page 7).
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.
3. If the cylinder was coated with oil during storage preparation, the engine will smoke briefly at startup. This is normal.

14. TROUBLESHOOTING

ENGINE WILL NOT START	POSSIBLE CAUSE	CORRECTION
1. Check throttle lever position.	Throttle lever is wrong position.	Move throttle lever to the choke position unless engine is warm (p.7).
2. Check fuel.	Out of fuel.	Refuel (p.16).
	Fuel valve OFF.	Move throttle lever to the high position (GXV140). Turn the fuel valve ON (GXV160K1).
	Bad fuel; engine stored without treating or draining gasoline or refueled with bad gasoline.	Drain fuel tank and carburetor (p.27) Refuel with fresh gasoline (p.16).
3. Remove and inspect spark plug.	Spark plug faulty, fouled or incorrectly gapped.	Clean, gap or replace spark plug (p.22).
	Spark plug wet with fuel (flooded engine).	Dry and reinstall spark plug. Start engine with throttle lever in FAST position.
4. Take the Honda engine to a Honda engine dealer or refer to shop manual.	Fuel filter clogged, carburetor malfunction, ignition malfunction, compression problem.	Replace or repair faulty components as necessary.

LOSS OF POWER	POSSIBLE CAUSE	CORRECTION
1. Check air filters.	Air filters clogged.	Clean or replace air filters (p. 20).
2. Check fuel.	Bad fuel; engine stored without treating or draining gasoline of refueled with bad gasoline.	Drain fuel tank and carburetor (p.27) Refuel with fresh gasoline (p.16).
3. Check throttle lever position.	Throttle lever in wrong position.	Position the throttle lever in fast (or high) position.
4. Take the Honda engine to a Honda engine dealer or refer to shop manual.	Fuel filter clogged, carburetor malfunction, ignition malfunction compression problem.	Replace or repair faulty components as necessary.

15. GENERAL SPECIFICATIONS

DIMENSIONS		GXV140		
		A21	A11	
Length x Width x Height	mm (in.)	400 x 355 x 323 (15.7 x 13.9 x 12.9)		
Dry weight kg	kg (lb)	13.0 (28.3)		
Engine type		4-stroke, overhead valve, single cylinder		
Displacement	(cc)	135		
Bore x Stroke	(mm)	64 x 42		
Maximum output		4.5 hp (3,600 rpm)		
Maximum torque		0.92 kg.m (2,500 rpm)		
Fuel consumption	(g/PSh)	340		
Cooling system		Forced air		
Ignition system		CDI		
Lubrication system		Forced splash		
PTO	shaft direction	Counterclockwise		
	∅	(mm)	22.2	
	ℓ	(mm)	50.8	69.1
Starter				
Flywheel brake				

DIMENSIONS		GXV160K1										
		A1S	A15	N1C	N15	MC	N45	N55	N65	N1F	N5C	N1E5
Length x Width x Height	mm (in.)	415 x 359 x 354 (16.3 x 14.1 x 13.9)										
Dry weight kg	kg (lb)	14.6 (29.54)	14.8 (29.94)	14.5 (29.33)			15.5 (31.36)			17.5 (34.39)		
Engine type		4-stroke, overhead valve, single cylinder										
Displacement	(cc)	163										
Bore x Stroke	(mm)	68 x 45										
Maximum output		5.5 hp (3,600 rpm)										
Maximum torque		1.05 kg.m (2,500 rpm)										
Fuel consumption	(g/PSH)	327										
Cooling system		Forced air										
Ignition system		CDI							Transistorised magneto			
Lubrication system		Forced splash										
PTO	shaft direction	Counterclockwise										
	∅ (mm)	22.2			25.4			22	22.2	25.4	22.2	
	ℓ (mm)	80.9					46.6	69.7	80.9	46.6	80.9	
Starter		•									•	
Flywheel brake			•									

16. TUNEUP SPECIFICATIONS

ITEM	PECIFICATION	PAGE
Spark plug gap	0.7 - 0.8 mm (0.028 - 0.031 in)	22
Carburetor idle speed	2,100 ± 150 rpm	23
Valve clearance	IN 0.15 ± 0.02 mm cold EX 0.20 ± 0.02 mm cold	See your authorized Honda engine dealer

17. INTERNATIONAL WARRANTY INFORMATION FOR Honda GENERAL PURPOSE ENGINES

Honda warranty is applicable to particular Honda engines fitted on products manufactured by other firms.

The basic warranty is subject to the following:

Engine service may not be available if the engine model is not sold by local Honda dealers.

The warranty conditions shall be in accordance with the conditions stipulated by the Honda distributor in the country where service is requested.

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.

Requirement for obtaining warranty service

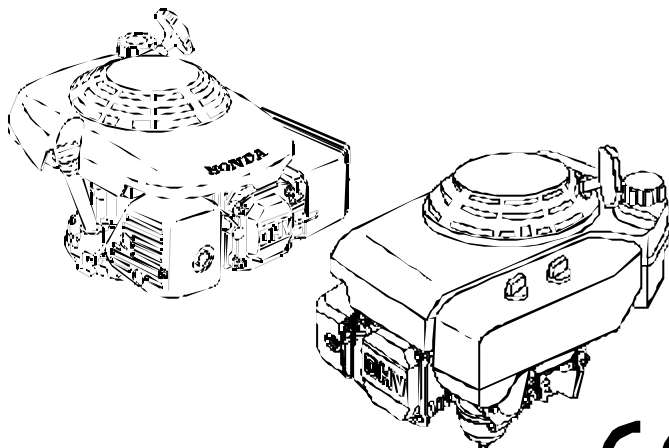
Take your product to the dealer from which you purchase it when service is necessary. If the dealer judges that the Honda engine requires repair, bring the engine only to an authorized Honda engine dealer together with a proof of purchase.

HONDA

ENGINES

OWNER'S MANUAL

GXV140 GXV160K1



Honda Europe Power Equipment S.A. 2001

1. INTRODUCTION

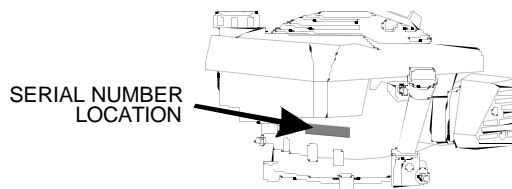
Thank you for purchasing a Honda engine. We want to help you to get the best results from your new engine and to operate it safely.

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 dealer.

All information in this publication is based on the latest product information available at the time of printing. Illustrations are based on the GXV140 A21 and GXV160K1 A15 models. Honda Europe Power Equipment S.A. 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.

Record the engine model identification code and serial number in the space below. You will need this information when ordering parts and when making technical or warranty inquiries. This information is located on the crankcase, below the fuel tank.



Model identification code: _____

Serial Number: _____



NO OIL IN THE ENGINE. FILL-IN WITH OIL BEFORE PUTING INTO SERVICE (See p. 18)