HONDA Engine Model Number: GX160

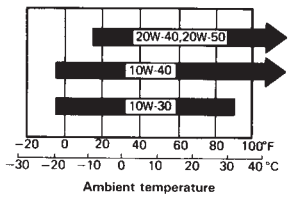
This information has been extracted out of the Honda engine operators manual No. 31ZH7600 00X31-ZH7-6001. For additional information see the complete Honda Manual.

1. ENGINE OIL

NOTICE

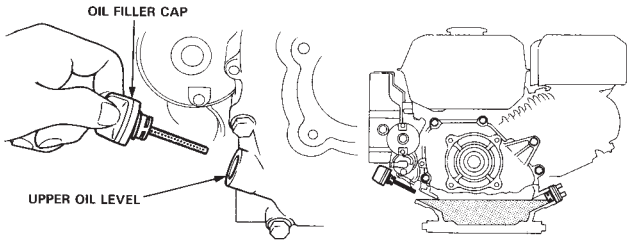
- **Engine oil is a major factor affecting engine performance and service life. Non-detergent oils and vegetable oils are not recommended.**
- **Be sure to check the engine on a level surface with the engine stopped.**

Use Honda 4-stroke oil or an equivalent high-detergent, premium quality motor oil certified to meet or exceed U.S. automobile manufacturer's requirements for Service Classification SG.SF/CC.CD. Motor oils classified SG.SF/CC.CD. will show this designation on the container.
SAE 10W-30 is recommended for general, all-temperature use.
Other viscosities shown in the chart may be used when the average temperature in your area is within the indicated range.



1. Remove the oil filler cap and wipe the dipstick clean.
2. Insert the dipstick into the oil filler neck but do not screw it in.
3. If the level is low, fill to the top of the oil filler neck with the recommended oil.

NOTICE **Running the engine with insufficient oil can cause serious engine damage.**



1. Oil change

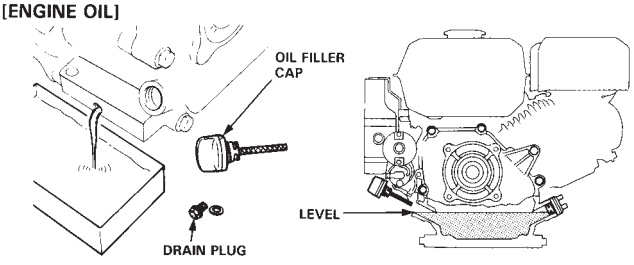
Drain the oil while the engine is still warm to assure rapid and complete draning.

1. Remove the oil filler cap and drain plug to drain the oil.
2. Install the drain plug and tighten it securely.
3. Refill with the recommended oil (see page 7) and check the oil level.
4. Install the oil filler cap.

ENGINE OIL CAPACITY: 0.6 ℓ (0.63 US qt, 0.53 Imp qt)

1/2 REDUCTION GEAR OIL CAPACITY: 500 cc (17 US oz, 14 Imp oz)

[ENGINE OIL]



4. FUEL

Your engine is designed to use any gasoline that has a pump octane number $\left(\frac{R+M}{2}\right)$ of 86 or higher, or that has a research octane number of 91 or higher. Gasoline pumps at service station normally display the pump octane number.
We recommend that you use unleaded fuel because it produces fewer engine and spark plug deposits and extends the life of exhaust system components.

Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt, dust or water in the fuel tank. Use of a lower octane gasoline can cause persistent ''pinging'' or heavy ''spark knock'' (a metallic rapping noise) which, if severe, can lead to engine damage.

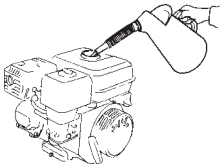
NOTICE **If ''spark knock'' or ''pinging'' occurs at a steady engine speed under normal load, change brands of gasoline. If spark knock or pinging persists, consult your authorized Honda dealer. Failure to do so is considered misuse, and damage caused by misuse is not covered by Honda's Limited Warranty.**

Occasionally you may experience light spark knock while operating under heavy loads. This is no cause for concern, it simply means your engine is operating efficiently.

⚠WARNING

- **Gasoline is extremely flammable and is explosive under certain conditions.**
- **Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.**
- **Do not overfill the fuel tank (there should be no fuel in the filler neck). After refueling, make sure the tank cap is closed properly and securely.**
- **Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.**
- **Avoid repeated or prolonged contact with skin or breathing of vapor. KEEP OUT OF REACH OF CHILDREN.**

Fuel tank capacity: GX120 : 2.5 ℓ (0.66 US Gal, 0.55 Imp Gal.)
GX160 : 3.6 ℓ (0.95 US Gal, 0.79 Imp Gal.)



Note: Generators equipped with WINCO long run tanks have a fuel capacity of 4.5 US Gal.

GASOLINES CONTAINING ALCOHOL

If you decide to use a gasoline containing alcohol (gasohol), be sure its octane rating is at least as high as that recommended by Honda. There are two types of ''gasohol'': one containing ethanol, and the other containing methanol. Do not use gasohol that contains more than 10% ethanol. Do not use gasoline containing methanol (methyl or wood alcohol) that does not also contain cosolvents and corrosion inhibitors for methanol. Never use gasoline containing more than 5% methanol, even if it has cosolvents and corrosion inhibitors.

NOTE:

- Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol is not covered under the warranty. Honda cannot endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.
- Before buying fuel from an unfamiliar station, try to find out if the fuel contains alcohol, if it does, confirm the type and percentage of alcohol used. If you notice any undesirable operating symptoms while using a gasoline that contains alcohol, or one that you think contains alcohol, switch to a gasoline that you know does not contain alcohol.

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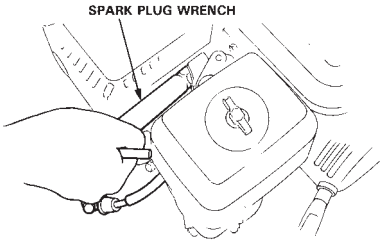
4. Spark plug service

Recommended spark plug: BPR6ES (NGK)
W20EPR-U (ND)

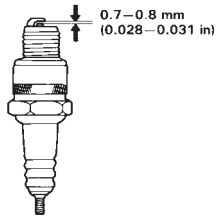
NOTICE **Never use a spark plug of incorrect heat range.**

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.
1. Remove the spark plug cap and use a spark plug wrench to remove the plug.

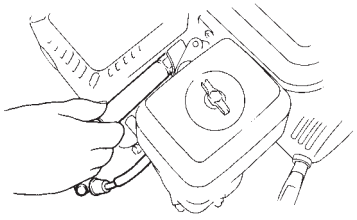
⚠WARNING **If the engine has been running, the muffler will be very hot. Be careful not to touch the muffler.**



2. Visually inspect the spark plug. Discard it if the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.
3. Measure the plug gap with a feeler gauge. The gap should be 0.7—0.8 mm (0.028—0.031 in). Correct as necessary by bending the side electrode.



4. Check that the spark plug washer is in good condition and thread the spark plug in by hand to prevent cross-threading.
5. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.



NOTE: When installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer. When reinstalling a used spark plug, tighten 1/8—1/4 turn after the spark plug seats to compress the washer.

NOTICE **The spark plug must be securely tightened. An improperly tightened spark plug can become very hot and may damage the engine.**

The purpose of the maintenance and adjustment schedule is to keep the engine in good operating condition. Inspect or service as scheduled in the table below.

⚠WARNING **Shut off the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated. The exhaust contains poisonous carbon monoxide gas.**

NOTICE **Use only genuine HONDA parts or their equivalent. The use of replacement parts which are not of equivalent quality may damage the engine.**

Maintenance Schedule

REGULAR SERVICE PERIOD / ITEM — Performed at every indicated month or operating hour interval, whichever comes first.		Each use	First month or 20 Hrs.	Every 3 months or 50 Hrs.	Every 6 months or 100 Hrs.	Every year or 300 Hrs.
Engine oil	Check level	O				
	Change		O		O	
Reduction gear oil (applicable models only)	Check level	O				
	Change		O			O
Air cleaner	Check	O				
	Clean			O(1)		
Sediment cup	Clean				O	
Spark plug	Check clean				O	
Spark arrester (optional part)	Clean				O	
Valve clearance	Check-Adjust					O(2)
Fuel tank and strainer	Clean					O(2)
Fuel line	Check (Replace if necessary)	Every 2 years (2)				

NOTE: (1) Service more frequently when used in dusty areas.
(2) These items should be serviced by an authorized Honda dealer, unless the owner has the proper tools and is mechanically proficient. See the Honda Shop Manual.

2. Air cleaner service

A dirty air cleaner will restrict air flow to the carburetor. To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the engine in extremely dusty areas.

⚠WARNING **Never use gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.**

NOTICE **Never run the engine without the air cleaner. Rapid engine wear will result.**

<Dual element type>

1. Remove the wing nut and the air cleaner cover. Remove the elements and separate them. Carefully check both elements for holes or tears and replace if damaged.
2. Foam element: Wash the element in a solution of household detergent and warm water, then rinse thoroughly, or wash in nonflammable or high flash point solvent. Allow the element to dry thoroughly.
   Soak the element in clean engine oil and squeeze out the excess oil. The engine will smoke during initial start-up if too much oil is left in the foam.
3. Paper element: Tap the element lightly several times on a hard surface to remove excess dirt, or blow compressed air through the filter from the inside out. Never try to brush the dirt off; brushing will force dirt into the fibers. Replace the paper element if it is excessively dirty.