



Starting A Cold Engine

Here are some suggestions to help start a cold engine.

Use fresh gasoline in the tank. Some modern unleaded gasolines start decomposing after a few months so use only fresh gasoline. Give the starting rope 2 or 3 fast pulls with the choke open. If the engine doesn't start, close the choke lever and try again.

If the engine doesn't start after repeated efforts and the engine is cold, take the air filter off, carefully pour about 1/2 teaspoon of gasoline into the carburettor through the air inlet and replace the air filter. Give the starting rope a number of fast pulls. The gasoline should enable the engine to run until regular carburetion takes over.

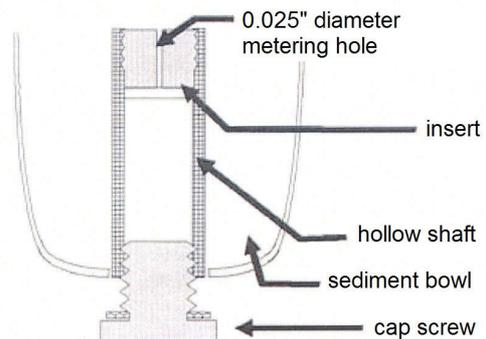
Alternately, remove the spark plug and pour about 1/2 teaspoon of gasoline into the cylinder through the spark plug hole. Replace the spark plug and try starting the engine again. Be extremely careful when using gasoline in this way and do not use on a hot engine.

- If engine does not sputter, then poor ignition may be the problem. Check the spark by removing the spark plug, placing it in the spark plug lead, and holding the spark end on a metal part of the engine while pulling the starting rope. Sparks should be visible jumping across the plug gap. If they are not, try replacing the spark plug.
- If the engine sputters and then dies, it indicates that the carburettor is not supplying fuel properly. It may be necessary to clean the metering hole in the carburettor as described below.

Starting A Stored Engine

Fandrich Cone Harvesters winterizes a Honda engine by shutting off the fuel, running the engine until it is starved of fuel in the system, squirting oil into the cylinder, and draining the fuel tank. Sometimes when the engine is left standing the evaporation of the remaining gas plugs the fuel metering hole, making the engine difficult to start.

Should the engine have difficulty starting after being in storage, the orifice in the carburettor bowl may need to be cleaned. This can be accomplished by removing the bowl and inserting a small diameter wire into the bottom of the vertical tube that the bowl covers. A wire has been attached to the engine beside the carburettor bowl for this purpose.



Bowl cross-section with metering hole

1. Remove the fuel bowl by unscrewing the machine screw (requires a 10mm wrench) located on the centre of the bottom of the bowl. (The machine screw on the side of the bowl is for draining the bowl).
2. Inside the shaft that held the machine screw is an insert containing the small fuel metering hole. The insert is about 1/4 inches in diameter and 1/2 inches long and can be unscrewed with a slotted screwdriver but this is rarely necessary.
3. The metering hole is about 0.025 inches in diameter and may be plugged. Poke a



0.025 inch diameter (or smaller) wire (often wire attaching parts tags or small welding wire will work) inside the hollow shaft and into the metering hole. The wire should move easily but with some resistance once it has entered the metering hole. It should only need to move about a centimetre within the hole.

4. Reassemble and start the engine.

If the engine will run only when choked, then the hole may have been only partially cleared. Repeat the procedure above.

Servicing Instructions

Check the engine oil level daily. The engine oil should be changed (with 10W30 oil) every 50 operating hours. Details can be found in the following figure.

The air filter should be checked for cleanliness and wear daily. Service instructions may be found on the following figure.





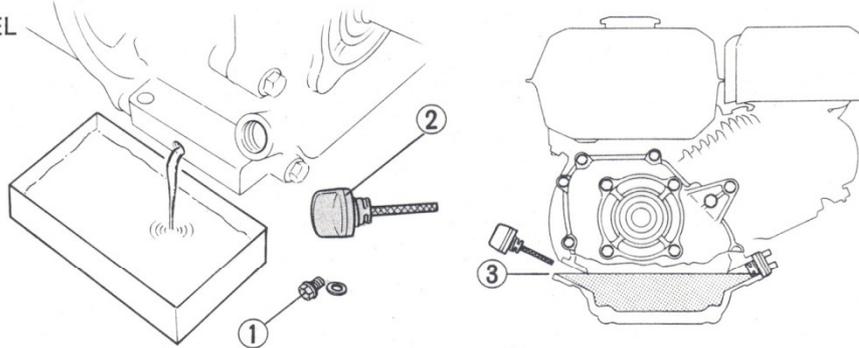
1. Changing oil

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

1. Remove the oil filler cap, and drain the oil.
2. Refill with the recommended oil (see page 12) and check the level.

OIL CAPACITY: 0.6 lit. (0.63 US qt, 0.53 Imp qt)

- (1) DRAIN PLUG
- (2) OIL FILLER CAP
- (3) LEVEL



Change oil every 50 hours with 10W30 oil.

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.

CAUTION: Never run the engine without the air cleaner. Rapid engine wear may result.

<Dry 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: Clean in warm soapy water, rinse and allow to dry thoroughly. Or clean in high flash-point solvent and allow to dry. Dip the element in clean engine oil and squeeze out all the excess. 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.

- (1) PAPER ELEMENT
- (2) FOAM ELEMENT

