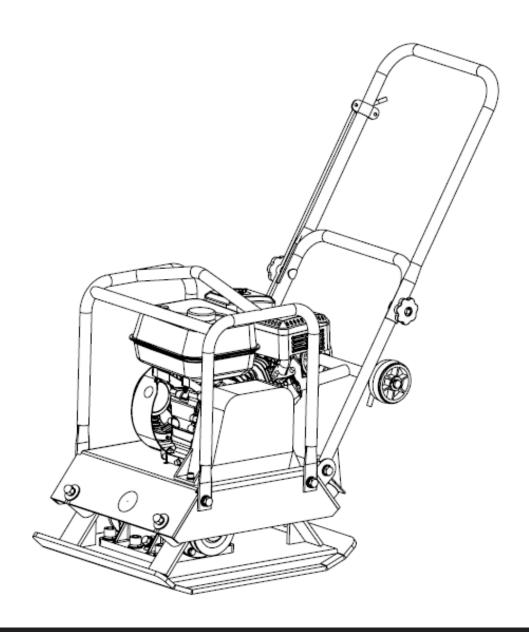


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# **USER'S MANUAL**



# COMPACTOR

MODEL: CEDZG88H-PRO, CEDZG90L-F



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#### **⚠ WARNING!**

To minimize the risk of injury, all operators, service technicians, and anyone else involved with the machine should read this manual carefully before operating, changing accessories, or performing maintenance. Please note that this manual cannot cover every possible situation that may arise during machine use. Therefore, all persons working on or near the machine must exercise extreme caution.

### **⚠ CAUTION!**

#### NO OIL IN THE ENGINE

Before starting the engine, top up the oil to the correct level.

#### **FOREWORD**

This manual contains the most important information about the machine, its design, functions, and use. Before starting work, read the manual thoroughly. Safe and proper use will ensure the best results.

All information contained in the manual is based on the latest product data as of the date of printing. Due to continuous machine improvement and changes, the manual may differ from the actual condition.

The manufacturer reserves the right to make changes to the product at any time. Product specifications are subject to change without notice. Copying or duplicating the manual or its components without the manufacturer's consent is prohibited.

This manual should be considered an integral part of the machine and should accompany it if transferred to a third party or resold.

Operating the machine in accordance with the manual and the messages contained therein is crucial to ensuring the long-term and safe operation of the machine and to meeting user expectations. Failure to read, understand, or follow the manual may result in serious injury and damage to the machine.

CEDRUS is not responsible for any printing errors in this manual that do not directly affect the use of the machine and only concern detailed technical or descriptive data. Machines are modernized during production, therefore some data contained in this manual may differ from actual data, which also does not affect the use of the machine.

The photos and illustrations contained in this manual are for illustrative purposes only, and the physical condition of the machine may differ from the actual condition.

⚠ Information marked in this way indicates actions the user should take to prevent situations that could lead to damage to the machine, property damage, serious injury to the user or others, and in extreme cases, even death.

Keep this manual for future reference.

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#### **SAFETY RULES**

#### General safety rules

Our company's goal is to provide equipment that allows the operator to work safely and efficiently. However, the key element in ensuring safety when operating any machine is the operator themselves. Caution, responsibility, and common sense are the most effective protection against accidents and injuries. While it is impossible to anticipate every possible hazard, this manual addresses the most important safety issues. Pay particular attention to "CAUTION," "WARNING," and "DANGER" signs on the machine and in the operator's manual. Before starting work, read the operator's manual thoroughly. It is also recommended to thoroughly understand the machine's operating principles—even if you have previously used similar equipment. Before using the machine for the first time, inspect the machine and familiarize yourself with its operating characteristics, capabilities, limitations, potential hazards, operation, and stopping procedures. The manufacturer is not liable for any damage resulting from failure to follow the instructions in the operator's manual.

#### **Application**

A compactor is a machine designed to compact soil and level surfaces by transferring vibrations generated by the engine to a vibrating plate. This effectively increases subsoil cohesion and creates a level and stable surface. The machine is primarily used for leveling and hardening soil and asphalt surfaces, as well as for preparatory and finishing work in road and landscape construction. Typical applications include:

- excavation compaction
- earthworks
- road maintenance

- paving works
- landscaping works
- hardening of driveways and paths

### **⚠** Warning against misuse and abuse

This compactor is designed for compacting surface layers of soil, sand, gravel, sediment, beach material, and asphalt. It is not suitable for applications beyond its intended use. The machine may have difficulty moving over ground with a high water content, especially in soft or wet soil (e.g., clay), and therefore its use in such conditions is not recommended. It should also not be used to level surfaces containing large stones, as its compaction force may be insufficient. This compactor is designed for work requiring shallow compaction. If deeper layers of soil require compaction, suitable, more powerful machines should be used, such as vibratory plates, more powerful vibratory compactors, or vibratory rollers. Using the machine for purposes other than its intended use may result in ineffective operation, equipment damage, or operator hazards.

#### Construction

The upper part of the machine consists of the drive unit, handle, belt guard, and safety catch, which are attached to the motor base. The motor base connects to the vibrating plate via rubber shock absorbers, providing vibration damping and increasing work comfort.

The lower part of the machine includes a vibrating plate and an exciter assembly, which houses the eccentric shaft. Power from the engine is transferred from a centrifugal clutch mounted on the engine output shaft to the eccentric shaft via a V-belt.

#### Power transmission

Power is provided by a single-cylinder, air-cooled engine equipped with a centrifugal clutch. A 2-stroke or 4-stroke gasoline engine, as well as a diesel engine, can be used.

The centrifugal clutch engages automatically when the appropriate engine speed is reached. Engine shaft rotation is transmitted from the clutch pulley to the exciter pulley via a V-belt. The exciter pulley drives an eccentric shaft located in the exciter housing. The vibrations generated by the eccentric shaft, combined with the machine's own weight, enable effective soil compaction.

#### **Engine**

The engine is started and stopped using the ON/OFF switch or the button located under the fuel tank. The engine speed is adjusted using the throttle lever located on the machine's handle. Honda engines are equipped with an oil level monitoring system that automatically stops the engine or prevents it from starting if the oil level in the crankcase is too low.

#### **Drive Belt**

The drive belt tension can be adjusted. To do this, loosen the four nuts securing the engine to the bottom plate, then adjust the set screws on the engine crankcase to obtain the proper belt tension. After adjustment, tighten the mounting nuts and set screws securely.

#### **Operational Safety**

⚠ CAUTION! This safety alert symbol alerts you to important safety messages in this manual and on the machine. If you see this symbol, read the accompanying message carefully, as it directly affects your safety.

It is recommended that you read this manual thoroughly to fully understand the operating characteristics and technical specifications of the compactor. Proper maintenance procedures will ensure long life and high performance of the machine.

This chapter presents basic safety rules related to the operation, maintenance, and adjustment of the compactor. The machine is designed to be robust and efficient and should be operated with due care and caution.

Improper use or inattention can result in serious injury, damage to the machine, or both. Following safety rules is mandatory at all times.

Before operating the machine, carefully read the manual. Whenever possible, operation should be performed by an experienced operator. Lack of experience poses a serious risk when operating any machine. A trial-and-error approach is not recommended – it can lead to accelerated wear and tear and lead to dangerous situations. The machine should not be left unattended during operation.

#### General safety rules

- ⚠ WARNING! Wear required personal protective equipment, such as a hard hat, shatter-resistant glasses, safety shoes with steel toes, and other protective equipment as necessary depending on the working conditions.
- ⚠ **WARNING!** Avoid wearing jewelry or loose clothing that could become entangled in controls or moving parts of the machine, which could result in serious injury.

#### Safe starting

⚠ WARNING! Start and operate the machine only in well-ventilated areas or outdoors. Inhaling exhaust fumes can lead to serious poisoning or even death.

#### Safe servicing

- ⚠ **WARNING!** Stop the engine before refueling. Smoking and working near open flames or sparks are prohibited, as there is a risk of fire or explosion.
- ⚠ WARNING! Stop the engine before performing maintenance or repairs contact with moving machine parts can result in serious injury.
- ⚠ **WARNING!** Allow the machine to cool completely before servicing contact with hot parts can cause serious burns.

#### **Engine**

For detailed information on engine operation and maintenance, refer to the included owner's manual.

#### **Emergency Shutdown**

Move the throttle lever to the "OFF" position and set the fuel shutoff switch to the "OFF" position.

#### **Normal Shutdown**

Quickly move the throttle lever from the "ON" position to the "OFF" position, then let the engine idle for 3-5 minutes. After the engine has cooled, turn the throttle lever to the "OFF" position and close the fuel valve.

#### **Hazards and Risks**

- Do not operate this machine without proper training.
- All operators must read, understand, and follow the instructions in this manual.
- Improper or careless operation can result in serious injury.
- Due to the weight of the machine, moving and positioning should be performed by two people with adequate strength, using the carrying handles, and using proper lifting techniques.
- Before starting, ensure that all safety guards are properly installed.
- Keep hands and feet away from rotating and moving parts—contact with them can cause serious injury.

- Before removing guards or making adjustments, set the engine switch to the "OFF" position and disconnect the spark plug wire.
- The machine should only be placed and operated on a firm, level surface to prevent tipping, sliding, or falling.
- Do not leave the machine running unattended.
- Before compacting, ensure that the trench walls are stable and do not pose a risk of collapse due to vibration.
- The work area must be free of active electrical lines, gas lines, water lines, and telecommunications lines—vibrations can damage them.
- Exercise caution during operation—prolonged exposure to vibration or repetitive movements can lead to limb injuries.
- Do not stand on the machine while it is running.
- Do not increase the maximum engine speed above 3600 rpm—this could result in injury or damage to the machine.
- Avoid touching the muffler while the engine is running—serious burns may result. Engine and machine repairs should only be performed by qualified personnel.

#### Fire and explosion hazards

- Fuel is highly flammable and can explode under certain conditions. Fuel should only be stored in approved, sealed containers.
- Do not refuel the machine while the engine is running or immediately after shutting it off, while the engine is still hot.
- Refueling is prohibited near sparks, open flames, or smoking areas.
- Avoid overfilling the tank and spilling fuel—spilled gasoline or its vapors can easily ignite. If fuel is spilled, dry the area thoroughly before restarting the engine.
- After refueling, make sure the fuel tank cap is tightly closed.

#### Chemical hazards

- Operating or refueling the engine in enclosed spaces without adequate ventilation is prohibited.
- Exhaust gases from internal combustion engines contain carbon monoxide (CO), which can lead to poisoning and even death in enclosed spaces.

#### Noise hazards

- Excessive noise can cause temporary or permanent hearing loss.
- Approved hearing protection is required in accordance with applicable occupational health and safety regulations.

#### **Protective clothing**

- Always wear hearing protection in enclosed spaces.
- When working in dusty environments, wear safety goggles and a dust mask.
- When working with hot bitumen, protective clothing and footwear are recommended.

#### Other threats

- Slips, trips, or falls are common causes of serious injury and even death.
- Exercise extreme caution on uneven, slippery, or unstable work surfaces.
- When working near unprotected openings or excavations, exercise extreme caution to avoid accidents.

#### **Precautions**

- Exercise extreme caution regarding the work area and ensure adequate ventilation. Do not operate the machine in enclosed spaces, tunnels, or other poorly ventilated areas, as exhaust gases contain highly toxic carbon monoxide. If operation in such conditions is unavoidable, ensure an effective exhaust system is installed outdoors.
- Avoid contact with hot machine components, such as the muffler and other hot parts—do not touch them with bare hands.
- When transporting the machine, take special precautions:
  - the fuel filler cap must be tightly closed,
  - the fuel valve must be closed at the source,
  - before transporting over long distances or on rough roads, it is recommended to empty the fuel tank.
- Before refueling, the engine must be turned off—without exceptions. Never refuel while the
  engine is running or still hot. Spilled or evaporating fuel may be ignited by sparks from the
  engine or a hot muffler. If fuel is spilled, wipe it up immediately before restarting the machine.
  Avoid spilling fuel.
- Keep flammable materials away from the exhaust outlet. Be especially careful near the
  exhaust outlet gasoline, matches, straw, and other flammable materials can ignite when
  exposed to high temperatures.

#### **OPERATION**

#### General work principles

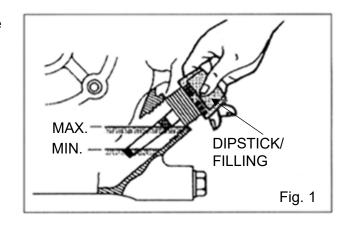
- The machine is best suited for compacting bituminous and granular materials, such as loose soils, gravel, sand, and their mixtures. Cohesive soils, such as silt or clay, require the use of a vibratory rammer, which applies impact force.
- Before compaction, the ground should be leveled and leveled, if possible.
- Proper soil moisture is crucial for effective compaction. Water acts as a lubricant, facilitating
  the movement of soil particles. Too little water prevents proper compaction, while too much
  water leads to the formation of liquid-filled voids, which weakens the soil's bearing capacity.
- Only use fresh, clean, unleaded gasoline to power the machine.
- The vibratory motion allows the machine to move on its own. The handle should be positioned on the opposite side from the vibration mechanism.
- The engine is started with a recoil starter. If the machine is equipped with an ON/OFF switch, first set it to the "ON" position.
- For detailed information on starting and operating the engine, refer to the separate manual supplied with the machine.

- Before starting work, set the engine speed to maximum using the hand throttle.
- The machine should be operated by holding the handle with both hands and maintaining control to control forward movement. If the machine is difficult to move forward or backward, adjust the red handle or nuts. Control is achieved by moving the handle to the right or left.
- Always maintain a stable stance during operation and start-up to avoid slipping and losing control of the machine.

#### Before starting work

- Ensure that all dirt, nuts, and other foreign objects are thoroughly removed before starting the
  machine. Pay particular attention to the underside of the worktop and the areas around the
  engine cooling air intake, carburetor, and air filter.
- Check all screws and nuts for proper tightening. Loose screws can damage the machine during operation.
- Check the V-belt tension. The correct play should be approximately 10–15 mm, measured at the center of the belt between the pulleys with firm pressure. Excessive play can reduce impact force or cause irregular vibration, leading to excessive component wear.
- Check the engine oil level. If the level is too low, top up according to the manufacturer's recommendations using SAE 5W30 or 10W30 oil.
- Remove the oil plug from the exciter assembly and check the oil level. The machine should be level. The correct level is at the edge of the filler hole. The exciter oil should be changed monthly or every 200 hours of operation.
- It is recommended to use hydraulic oil such as Dextron III, Mercon, EXXON (ESSO) NUTO H-32, or their equivalents.

NOTE! It is best to remove used oil when the machine is warm - then it flows more easily.



 Use regular unleaded gasoline for fuel. When refueling, use a fuel filter to prevent contaminants from entering the fuel system.

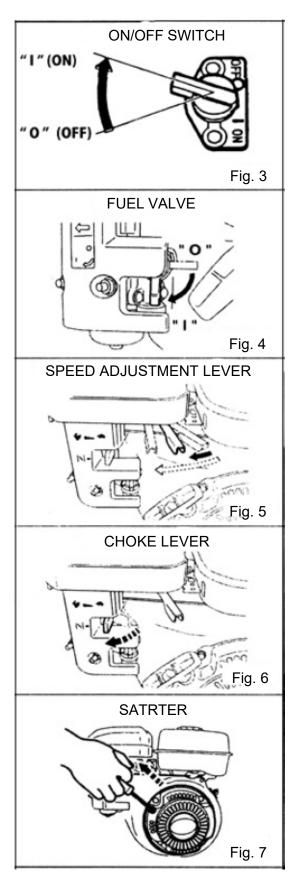
## **TECHNICAL DATA**

Model	CEDZG88H-PRO	CEDZG90L-F
Net/gross weight	88,5 kg / 92 kg	88,5 kg / 92 kg
Plate dimensions	55 cm x 44 cm	55 cm x 44 cm
Compaction force	15 N	15 N
Max. working speed	23 m/min	23 m/min
Frequency of vibrations	4200 vibrat./min	4200 vibrat./min
Depth of compaction	30 cm	30 cm
Reverse	No	No
Package dimensions	64 x 48 x 76 cm	64 x 48 x 76 cm
Engine model	Honda GX160	Loncin G200F
Engine power	3,6 kW / 3600 rpm	4,1 kW / 3600 rpm
Capacity	163 cm <sup>3</sup>	196 cm <sup>3</sup>
Starter	Recoil	Recoil
Oil sensor	Yes	Yes
Idle speed	1850±150 rpm	1850±150 rpm
Max. speed	3600 rpm	3600 rpm
Torque	7,5 Nm	12,4 Nm
Fuel tank capacity	3,1	3,6 I
Exciter capacity	350 ml	350 ml
Characteristics	Japanese NSK bearings with C4 internal clearance, Engine protection frame, Transport wheels and mat included, foldable handle	

#### **STARTING**

#### **Engine**

- Turn the switch clockwise to the "I" (ON) position. (Fig. 3)
- 2. Open the fuel valve. (Fig. 4)
- 3. Set the throttle 1/3 to 1/2 way toward the high speed position. (Fig. 5)
- 4. Close the choke. If the engine is warm or the ambient temperature is high, set the choke lever halfway or leave it fully open. If the engine is cold or the ambient temperature is low, close the choke lever fully. (Fig. 6)
- 5. Slowly pull the starter handle until resistance is felt this is the "compression" point. Then return the handle to its original position and pull briskly. Do not pull the cord all the way out. Once the engine starts, allow the handle to return to its original position, keeping it in your hand. (Fig. 7)



#### **OPERATION**

- 1. As the engine warms up, gradually move the choke lever to the open position. (Fig. 8)
- 2. Move the speed control lever from low to high. When the engine speed reaches approximately 2300–2600 rpm, the centrifugal clutch engages. Increasing the speed too slowly may cause clutch slippage. Do not move the speed control lever too slowly. (Fig. 9, 10)

#### Oil level sensor (optional)

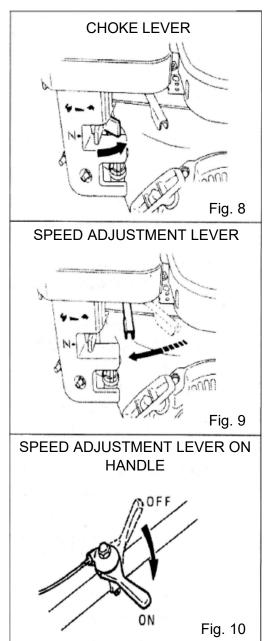
The oil level sensor protects the engine from damage caused by insufficient oil level in the oil pan. Before the oil level drops below a safe level, the system automatically shuts down the engine (the engine switch remains in the ON position).

# ⚠ NOTE! If the engine stops and cannot be restarted, check the engine oil level.

- When compacting asphalt, it is recommended to coat the underside of the vibrating plate with a thin layer of diesel fuel. This helps prevent the plate from sticking to the asphalt.
- When shutting down the exciter, quickly move the speed control lever from the high to the low position. Do not move the speed control lever slowly.

#### **TRANSPORT**

- The engine must be turned off during transport. Close the fuel tank cap securely and the fuel valve to prevent leaks.
  - The machine must be transported in the operating position; it must not be tilted sideways.
  - When transporting by vehicle, the machine must be secured to prevent it from moving or tipping over.
  - For long-distance or off-road transport, empty the fuel tank.



#### **TURNING OFF THE ENGINE**

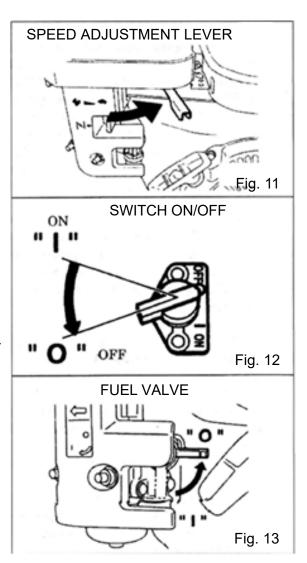
In an emergency, turn the engine off immediately by turning the switch to the OFF position. For normal shutdown, follow the procedure below:

- 1. Set the throttle lever to the low speed position and allow the engine to idle for 2–3 minutes before stopping. (Fig. 11)
- 2. Turn the ignition switch to the OFF position. (Fig. 12)
- 3. Close the fuel valve. (Fig. 13)

#### **MAINTENANCE**

#### **⚠ ATTENTION!**

- ⚠ Shut off the engine before refueling. Do not smoke or work nearby. Doing so could result in a fire or explosion caused by a spark or flame.
- Shut off the engine before performing any service or maintenance. Contact with moving parts can result in serious injury.
- Allow the machine and engine to cool before performing service or maintenance. Contact with hot parts can cause serious burns.



#### **Daily maintenance**

- Remove mud, dirt, and other debris from the machine.
- Clean the underside of the work surface.
- Check the condition of the air filter and clean it if necessary.
- Check the tightness of all nuts, bolts, and screws; tighten as necessary.

#### • Air filter (Fig. 14)

A dirty air filter causes difficult starting, reduced power, poor engine performance, and significantly shortens its service life. Keep the air filter clean. Remove the foam pre-filter and wash it in warm soapy water, avoiding oil. Lightly tap the cardboard insert on a flat surface or replace it if necessary, then reinstall it in the filter.

#### Two-element sponge filter version:

- 1. Remove the foam pre-filter and wash it in warm soapy water.
- Remove the foam main filter and wash it in kerosene or diesel fuel, soak it in a small amount of oil, and shake off the excess.
- 3. Remove the spark plug, clean it, and adjust the electrode gap to 0.6–0.7 mm (Fig. 15).
- 4. Drain the engine oil and replace it with new oil, according to specifications. (Fig. 16)

NOTE! For a new engine, the oil must be changed after the first 20 hours of operation. Before each start-up, top up the engine oil.

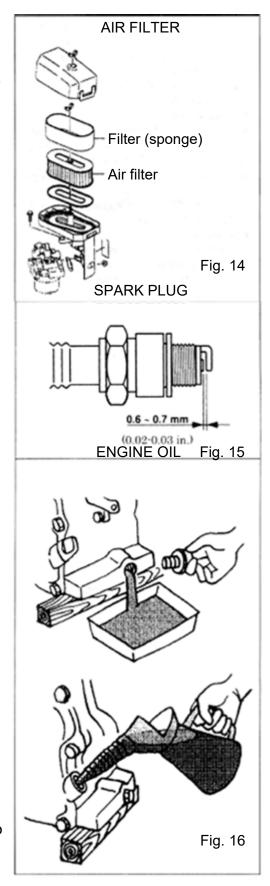
#### **Monthly Maintenance**

Change the oil in the exciter assembly.

#### **STORAGE**

If the compactor is to be stored for an extended period, after use:

- 1. Completely drain the fuel from the tank, fuel line, and carburetor.
- 2. Remove the spark plug and pour approximately 15-20 ml of fresh, clean engine oil into the cylinder. Crank the engine over by hand several times to coat the inside of the cylinder with oil.
- Clean the outside of the machine with an oil-soaked cloth.
   Then cover the machine and store it in a dry, dry place. Do not wash the machine or engine with pressurized water (e.g., a pressure washer).

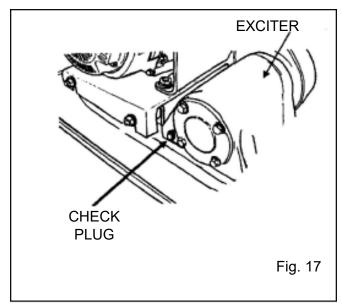


Check the engine crankcase oil level daily. Check the exciter assembly oil level weekly. Regularly inspect the rubber dampers for wear or damage. Clean the underside of the plate regularly to prevent material buildup.

#### **SERVICE**

The engine crankcase oil should be changed regularly to minimize wear. The air filter should be checked, cleaned, or replaced regularly, especially in dusty environments. The spark plug should also be checked, cleaned, or replaced regularly. Ensure all fasteners are tight, as the machine is subject to vibration. Check the V-belt for tension, wear, and proper routing. Adjust or replace as necessary.

- 1. 1. Place the compactor horizontally on a level surface. When checking the exciter assembly oil level, ensure the compactor is level.
- 2. 2. Check the exciter oil level by removing the check plug as shown in Figure 17. The oil level should reach the edge of the oil filler hole. Add hydraulic oil if necessary.
- 3. 3. Change the exciter oil after the first 60 hours of operation and then every 200 hours of operation. We recommend using a hydraulic oil such as Dextron III, Mercon, EXXON (ESSO) NUTO H-32, or equivalent.
- 4. 4. When changing the exciter oil, remove the check plug (Figure 17) and tilt the compactor to drain the oil. Note that oil drains more easily when hot.



# **TROUBLESHOOTING**

PROBLEM	POSSIBLE CAUSES AND SOLUTIONS
The engine won't start	<ul> <li>The ON/OFF switch is not in the "ON" position.</li> <li>There is no fuel or there is a problem with the fuel supply.</li> <li>The engine oil level is low (the oil sensor is preventing the engine from starting).</li> <li>The carburetor is dirty.</li> </ul>
The engine stalls	- No fuel or fuel supply problem.
Low engine power	- Dirty or clogged air filter.
Weak or no vibration	- The V-belt is loose, slipping or broken.
The machine has difficulty moving	- The bottom of the vibrating plate is dirty or covered with material, causing resistance.

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