

# USER'S MANUAL



## TAMPING RAMMER

MODEL: CEDST77H-PRO

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## **WARNING!**

To reduce the risk of injury, all operators and service personnel must read and understand this manual before operating, changing accessories, or performing maintenance on powered equipment. This manual cannot cover every possible situation. All users, maintenance personnel, and those working near the equipment must exercise extreme caution.

## **CAUTION!**

### **NO OIL IN THE ENGINE**

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



## FOREWORD

This user manual contains the most important information about the device, 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 device improvement and changes, the manual may differ from the actual device.


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

This manual should be considered an integral part of the device and should be included with the device if transferred to a third party or resold.

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

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

The photos and illustrations contained in this manual are for illustrative purposes only, and the physical condition of the device 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 device, property damage, serious injury to the user or others, and in extreme cases, even death.

Please keep the instructions for later use.

*Version 11.06.25 developed by:*

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## SAFETY SYMBOLS AND WARNINGS

### FOR YOUR OWN SAFETY AND THE SAFETY OF OTHERS!

Always follow safety rules when operating this device. Ignoring warnings and operating instructions may result in injury to the operator or bystanders.



**WARNING!** This manual has been prepared to ensure safe and efficient operation of the vibratory foot. For information on safe engine operation, refer to the engine manual. Before using the vibratory foot, ensure the user has read and understood the entire manual.

The following three warning messages indicate potential hazards that could result in injury to the operator or anyone nearby. These messages indicate the level of risk involved in operating the device and are preceded by one of three words: **DANGER, WARNING, or CAUTION.**

**⚠ DANGER!** Failure to follow these instructions will result in death or serious injury.

**⚠ WARNING!** Failure to follow these instructions may result in death or serious injury.

**⚠ CAUTION!** Failure to follow these instructions may result in personal injury.

### Hazard symbols

Potential hazards associated with operating the vibratory foot are identified by hazard symbols that appear throughout this manual. These symbols are used in conjunction with safety symbols.

#### **⚠ WARNING! Danger of exhaust poisoning**

Engine exhaust contains poisonous carbon monoxide. This gas is colorless and odorless, and inhaling it can be fatal. NEVER use the device in enclosed or poorly ventilated spaces where air cannot circulate freely.



#### **⚠ WARNING! Fuel explosion hazard**

Gasoline is highly flammable and its vapors can cause an explosion if ignited.

- DO NOT start the engine near spilled fuel or flammable liquids.
- DO NOT fill the fuel tank while the engine is running or hot.
- DO NOT overfill the tank – spilled fuel may ignite on contact with hot engine parts or sparks from the ignition system.
- Store fuel only in approved containers, in well-ventilated areas, away from flames and sparks.



#### **⚠ WARNING! Burn hazard**

Engine components become very hot. To avoid burns, DO NOT touch these parts while the engine is running or immediately after it has been turned off. NEVER operate the unit without its thermal or heat shields.



#### **⚠ WARNING! Respiratory hazard**

ALWAYS use approved respiratory protection when required.



**⚠ WARNING! Danger from rotating parts**

NEVER use this appliance without guards and covers in place. Keep fingers, hands, hair, and clothing away from all moving parts to prevent injury.

**⚠ CAUTION! Accidental Startup Hazard**

**⚠ ALWAYS** turn the ON/OFF switch to the OFF position when the device is not in use.

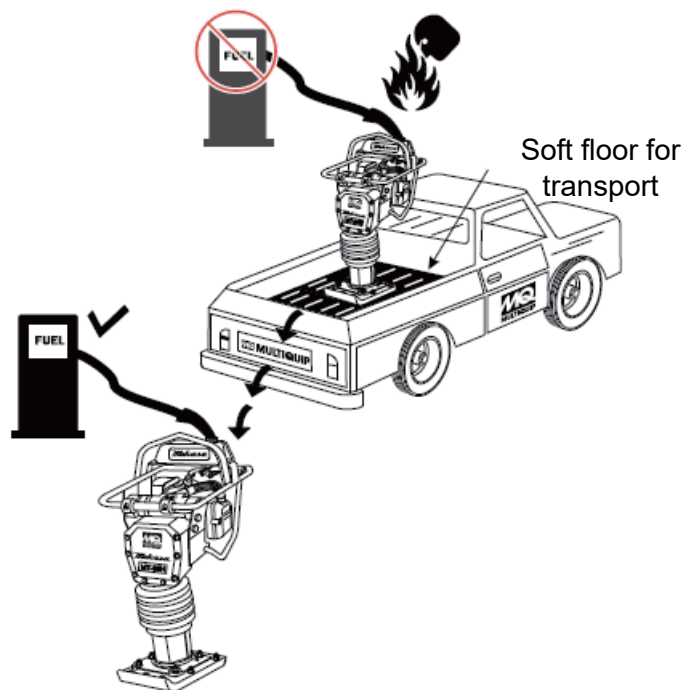
**⚠ CAUTION! Eye and Hearing Hazard**

**⚠ ALWAYS** wear approved eye and hearing protection.

**⚠ CAUTION! Equipment Damage Hazard**

Additional important messages are provided throughout this manual to prevent damage to the vibrating foot, other objects, or the surrounding area.

**⚠ DANGER! Hazard during refueling**



**⚠ DANGER! Read these instructions**

Failure to follow the instructions in this manual may result in serious injury or even death! This device should only be operated by trained and qualified personnel! Intended for industrial use.

# SAFETY FEATURES

## General

- **DO NOT** operate or service this device until you have read this entire manual.
- This device should not be operated by anyone under the age of 18.
- **NEVER** use this device without appropriate work clothes, impact-resistant safety glasses, steel-toed footwear, and other required personal protective equipment.



- **NEVER** use the machine if you feel unwell due to fatigue, illness, or medication.
- **NEVER** operate the machine under the influence of alcohol or drugs.
- **ALWAYS** wear appropriate respiratory, hearing, and eye protection when operating the vibratory foot.
- Replace rating plates and information and warning labels as necessary if they become illegible.
- The manufacturer is not responsible for accidents resulting from modifications to the machine.
- **NEVER** use accessories or attachments that are not recommended for the machine – this could result in damage to the machine and/or injury to the operator.
- **NEVER** touch a hot exhaust manifold, muffler, or cylinder. Allow these components to cool before servicing.
- Allow the engine to cool before refueling or performing maintenance. Contact with hot components can result in serious burns.
- The engine requires free flow of cooling air. **NEVER** use the machine in confined or narrow spaces where airflow is restricted – this can result in serious damage to the machine or personal injury. Remember that the engine emits deadly carbon monoxide (CO).
- **ALWAYS** refuel in a well-ventilated area, away from flames and sparks.
- **ALWAYS** use extreme caution when working with flammable liquids. When refueling, turn off the engine and allow it to cool.
- **NEVER** use the machine in explosive atmospheres or near flammable materials – this can cause an explosion or fire, resulting in serious injury or death.
- **DO NOT** smoke near the machine. Fuel vapors can ignite, especially if fuel is spilled on a hot engine.
- Filling the tank right up to the filler neck is dangerous as it can cause fuel spillage.
- **Always** turn off the engine when the machine is left unattended.
- The machine should be maintained in safe operating condition at all times.
- **ALWAYS** turn off the engine before servicing and adding fuel and oil.
- **NEVER** run the engine without an air filter – this can cause serious engine damage.

- **ALWAYS** clean the air filter regularly to prevent carburetor failure.
- **ALWAYS** check the unit for loose screws or nuts before starting.
- **ALWAYS** ensure the operator is familiar with safe operation and proper working techniques.
- **ALWAYS** store the unit properly when not in use – in a dry, clean place, out of the reach of children.
- **DO NOT** operate the unit unless all guards and safety devices are properly installed.
- Exercise extreme caution during service work.
- Do not allow inexperienced or unauthorized persons to access the unit.
- Unauthorized modifications to the unit will void the warranty.
- **NEVER** pour or spray water on the engine.
- Before starting, test the engine ON/OFF switch. Its function is to stop the engine.
- For technical questions about the engine or information on recommended use, refer to the engine manufacturer's owner's manual.

## Transport

- **ALWAYS** turn off the engine before transporting the machine.
- The fuel cap should be securely tightened and the fuel valve should be closed to prevent leaks.
- If transporting the vibratory foot over long distances or on rough surfaces, drain the fuel tank. • When transporting the foot on the truck bed, always secure it with straps or other securing devices.
- Always transport in the working/upright position. Transporting at an angle or in a horizontal position may cause oil leakage and subsequent damage to the engine or transmission.

## Maintenance

- **NEVER** lubricate components or perform service work while the machine is running.
- **ALWAYS** allow the machine to cool down sufficiently before performing maintenance.
- Keep the machine in good working order.
- Repair damage immediately, and always replace damaged parts.
- Hazardous waste must be disposed of in accordance with applicable regulations. Examples of potentially hazardous waste include used engine oil, fuel, and fuel filters.
- **DO NOT** use wooden or plastic containers for hazardous waste disposal.

## Emergency situations

- **ALWAYS** know the location of the nearest fire extinguisher and first aid kit.

- In case of emergency, know the location of the nearest telephone or have a cell phone on the construction site. It is also recommended to have the contact numbers of the appropriate emergency services, such as ambulance services, the emergency doctor, or the fire department. This information may be essential in the event of an emergency.



## TECHNICAL SPECIFICATION

<b>Model</b>	CEDST77H-PRO
Net/Gross Weight	77 kg / 82 kg
Plate dimensions	34,5 × 28,5 cm
Compaction force	13,7 N
Stroke height	8,5 cm
Vibration frequency	640–680 beats/min
Carton dimensions	76 × 40 × 118 cm
<b>Engine</b>	
Model	Honda GXR120
Power	2,7 kW / 3600 rpm
Capacity	121 cm <sup>3</sup>
Starter	Recoil
Oil sensor	No
Idle speed	1850 ± 150 rpm
Maximum rotational speed	3600 rpm
Torque	7,5 Nm
Fuel tank capacity	1,8 l
Other features	<ul style="list-style-type: none"> <li>• German-made air spring</li> <li>• Hour meter</li> <li>• Transport wheels included</li> <li>• Dual air filter</li> <li>• Safety switch</li> <li>• Engine protection frame</li> <li>• Foot-mounted handle</li> </ul>



## MACHINE DESCRIPTION

A vibratory foot is a powerful compaction tool capable of exerting enormous force through repeated impacts on the ground surface. It is used for compacting soil on roads, embankments, and reservoirs, as well as for backfilling trenches for gas, water, and cable lines. Rotational motion is converted into impact force. Proper use and maintenance are essential for optimal performance. The vibratory foot is equipped with an air-cooled, four-stroke combustion engine. Power is transferred by increasing the engine speed, which engages a centrifugal clutch. Before operating the vibratory foot, it is important to identify and understand the functions of the various controls. The diagram shows the layout of the controls and components on the vibratory foot. The functions of each are described below:

1. **Switch** – Used to start and stop the engine. The switch must be in the "ON" position to start the engine.

2. **Throttle Lever** – Used to control the engine speed and the vibration intensity of the vibratory foot.

3. **Fuel Valve** – Provides fuel flow from the tank to the engine. To start fuel flow, move the fuel shut-off valve down.

4. **Fuel Tank/Cap** – Made of plastic, the tank is resistant to rust and corrosion. Removing the cap allows you to refill the fuel tank.

5. **Handle** – To operate the vibratory foot, firmly grip the handle on both sides.

6. **Hour Meter** – Used to count the machine's operating hours.

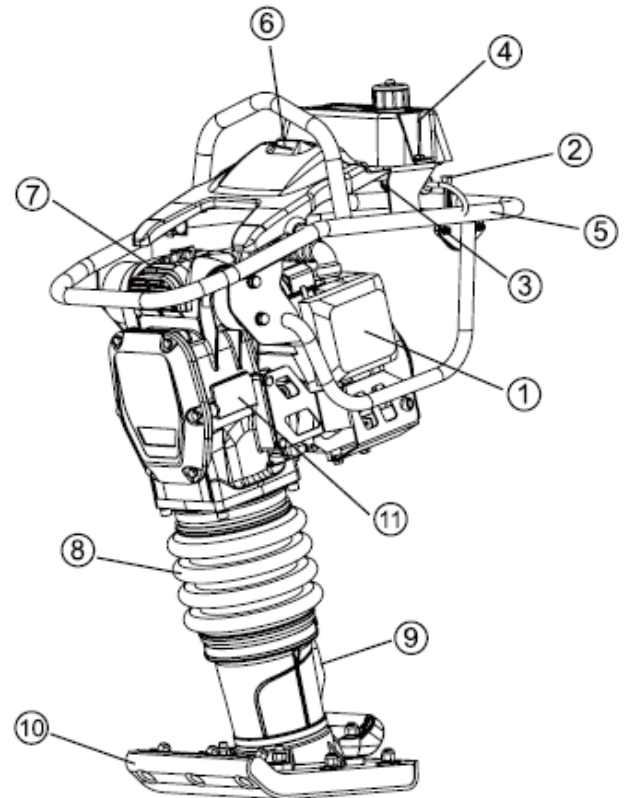
7. **Air Pre-Cleaner** – Pre-cleans dirt and other contaminants before they enter the engine.

8. **Cover (Bellows)**

9. **Oil Level Gauge** – Indicates the oil level in the tank.

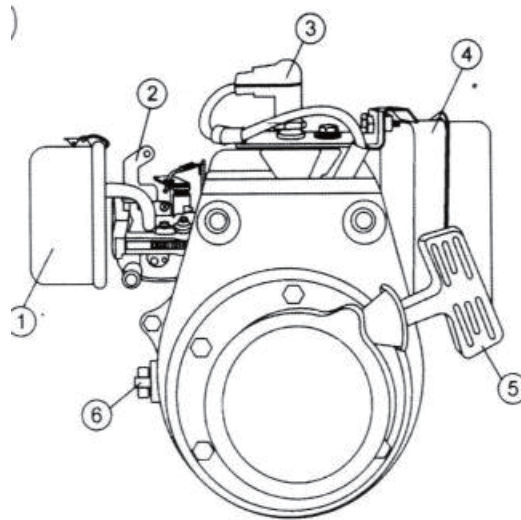
10. **Workplate** – Made of hardened steel plate, providing excellent vibration absorption.

11. **Nameplate** – Contains information about the vibrating foot.



## Engine

The engine should be checked for the proper oil level and filled with fuel before operation. For detailed information, refer to the engine manual.



1. **Secondary Air Filter** – Prevents dirt and other contaminants from entering the fuel system. To access the filter element, remove the wing nut located on top of the air filter housing.
2. **Choke Lever** – Used to start the engine. Typically used in winter conditions. In winter, set the choke lever to the fully closed position, and in warmer conditions, set it to halfway or fully open.
3. **Spark Plug** – Provides a spark to the ignition system. The spark plug gap should be set to 0.6–0.7 mm. The spark plug should be checked and cleaned every 50 hours of operation.
4. **Muffler** – Used to reduce noise and exhaust emissions.
5. **Recoil Starter Handle** – The recoil starter is used to manually start the engine. Pull the recoil starter handle until resistance is felt, then pull briskly and smoothly. Then, slowly return the rope handle to the rest position by hand.
6. **Engine Stop Switch** – Used to start and stop the engine. The switch must be in the "ON" position when starting the engine.

**⚠ WARNING!** Engine components can generate extreme heat. To prevent burns, do not touch these areas while the engine is running or immediately after running. Never run the engine without the muffler installed.

**CAUTION!** Running the engine without an air filter, with a damaged air filter, or with a filter that needs replacing will allow dirt to enter the engine, causing rapid engine wear.

## SERVICE

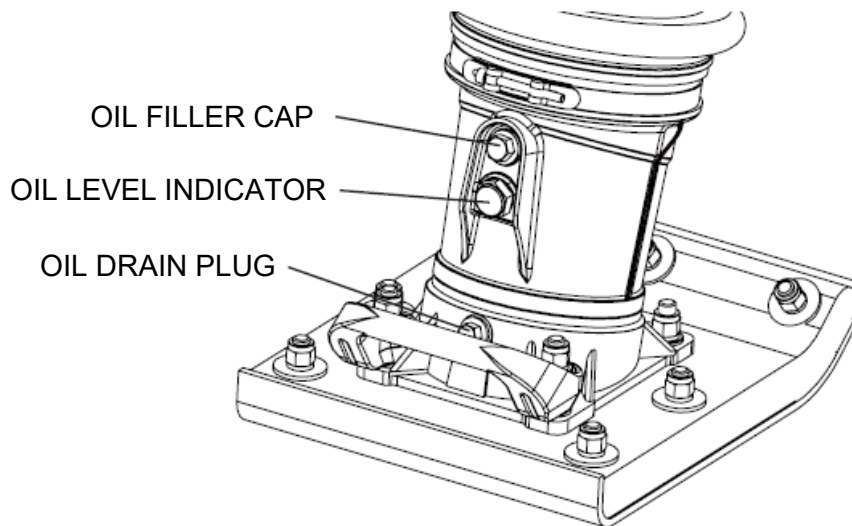
This section is intended to assist with initial setup of the vibrating foot. Please read this section carefully before attempting to operate the device. Do not use the vibrating foot until you have fully understood this section.

**WARNING!** Failure to understand how the vibrating foot works could result in serious damage to the device or personal injury.

### Checking the oil level in the spring cylinder

The machine's operating mechanism is lubricated with oil. Follow these steps:

1. Check the oil level using the indicator on the rear of the vibrating foot.

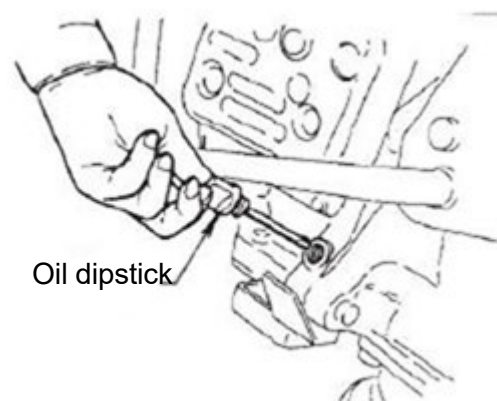


2. If the oil level is low or empty, add Mobil ISO VG46 or equivalent oil through the oil filler hole. Oil capacity is approximately 1 L.

**ATTENTION!** The oil level should be kept at half the height of the oil level gauge.

### Engine check

1. Fill the fuel tank (Fig. 3) with unleaded fuel. At the same time, check the engine oil level and top it up regularly.



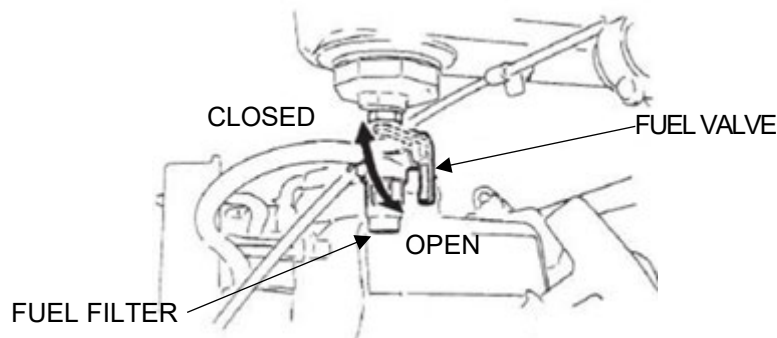
2. Low oil level can lead to engine seizure during operation.
3. Check the engine oil level (Fig. 4) and top it up if low. Use the appropriate engine oil, as recommended by the engine manufacturer – 5W30 or 10W30.

## Check before each start-up

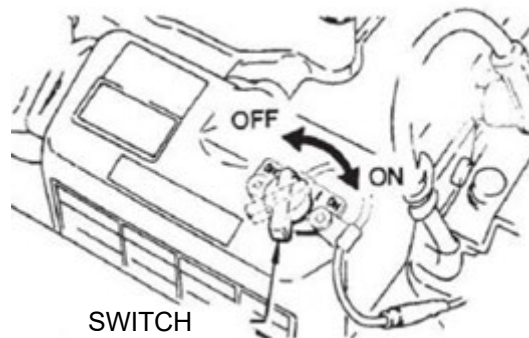
1. Check all nuts, bolts, and fasteners for looseness. Tighten as necessary.
2. Clean the starter and kickstand of any dirt. Clean the entire unit before starting.
3. Check the oil level in the engine and kickstand cylinder.
4. Replace any missing or damaged safety and operating information decals.
5. Adjust the handle height. Adjust the handle by loosening the nuts and moving the handle to the desired position. Tighten the nuts.

## Starting up

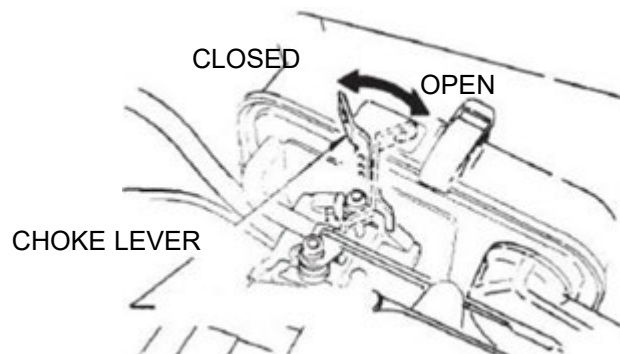
1. Open the fuel valve by moving the fuel valve lever to the OPEN position, then turn the engine stop switch to the START position.



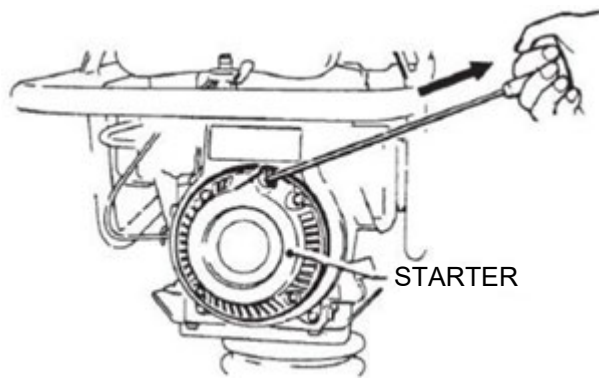
Set the engine switch to the ON position.



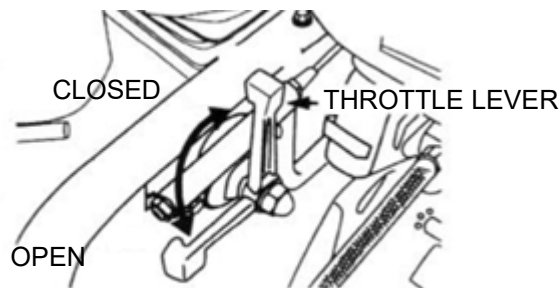
3. Close the choke lever and move the throttle lever to the fully open position. Turning the choke lever 90 degrees clockwise closes the choke. In cold conditions, start the unit with the choke fully closed. In warm conditions or when the engine is warm, the unit can be started with the choke halfway open or fully open.



4. Grasp the starter handle and pull until resistance is felt. Then pull quickly and firmly. Return the starter handle to the rest position.



5. If the engine fails to start, move the choke lever to the halfway open position to avoid flooding the engine with fuel.
6. Repeat steps 1–4.
7. If the engine fails to start after repeated attempts, check the spark plug for excess fuel. Clean the spark plug and replace it if necessary.
8. To start, quickly move the throttle lever from the IDLE position to the FULL OPEN position. Do not move the throttle lever slowly, as this may damage the clutch or spring.

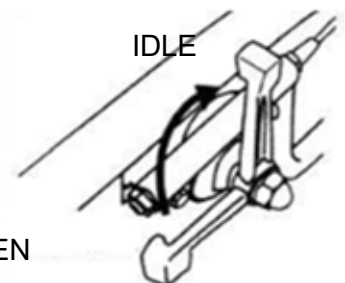


#### ATTENTION

1. Ensure the throttle lever is fully open. Operating the vibratory foot below maximum speed may damage the clutch springs or the foot.
2. The machine is designed to operate at an RPM of  $3600 \pm 100$  rpm. At optimal speed, the foot strikes at a rate of 680 blows per minute. Increasing the RPM beyond the factory setting does not increase the number of blows and may damage the machine. The machine is designed to move forward during compaction. To speed up the work, gently pull back the handle so that the back of the foot contacts the ground first.

#### Standard engine stop

1. Quickly move the throttle lever from the wide-open position to the idle position and run the engine at low speed for three minutes. After the engine has cooled, turn the engine stop switch to the "STOP" position and wait for the engine to come to a complete stop.
2. Close the fuel shut-off valve by moving the fuel valve lever to the CLOSED position.



#### Emergency stop

Quickly move the throttle lever to the idle position and then turn the engine stop switch to the STOP position.

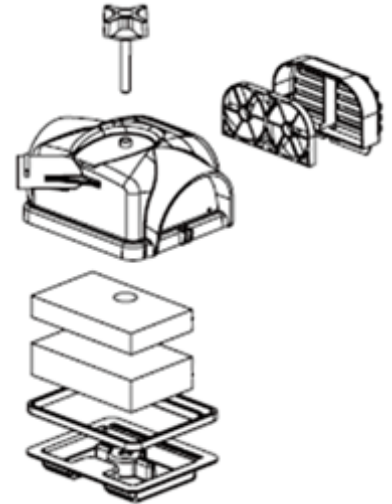
## MAINTENANCE

### Each time

- Thoroughly remove dirt and oil from the engine and control area. Clean or replace air filter elements as necessary. Inspect and tighten all fasteners as necessary. Inspect the gearbox and air spring for oil leaks. Repair or replace as necessary.

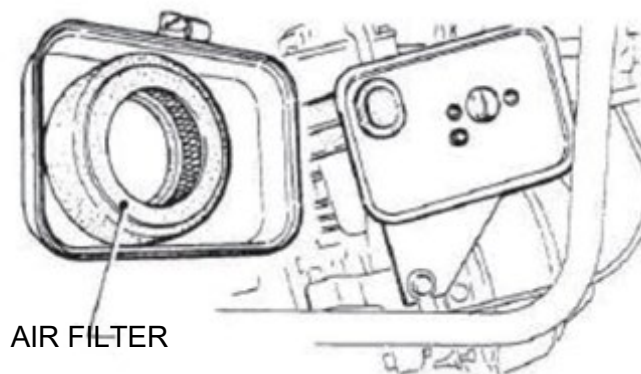
### Every week or every 25 hours

- Remove the fuel filter from the filler neck, clean it, and then drain the inside of the fuel tank.
- Clean or replace the filter located at the bottom of the tank.
- Remove and clean the spark plug, then adjust the spark plug gap to 0.6–0.7 mm. This unit has electronic ignition, which requires no adjustment.
- Remove the pre-filter element (Figure 12) from the upper crankcase (housing side) and clean it in kerosene or wash it in warm soapy water.
- Soak the upper element (yellow) with a small amount of clean SAE 10W30 engine oil and squeeze out excess oil.
- Soak the lower element (gray) with a small amount of clean SAE 10W30 engine oil and squeeze out excess oil.



### Every 50 - 100 hours of operation

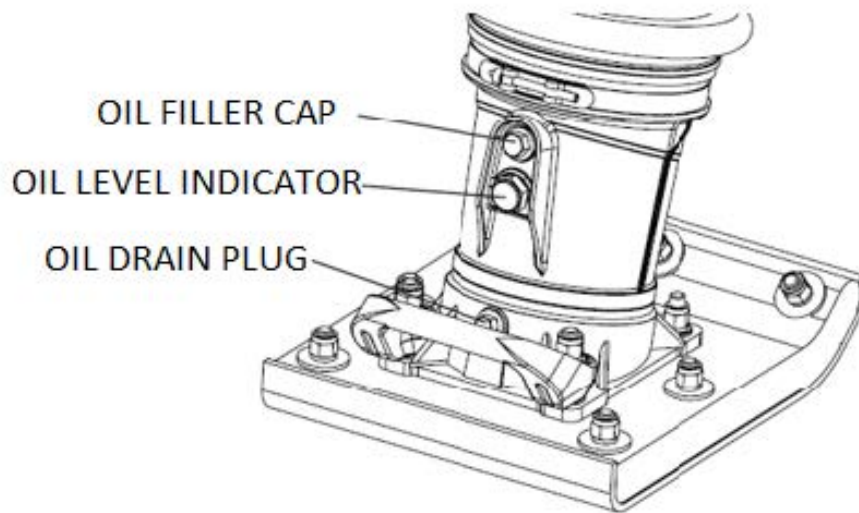
- The engine side air filter becomes dirty very slowly; however, if it does become dirty, after cleaning the element in kerosene, soak the outer main element in a small amount of clean engine oil and squeeze out the excess oil.



### Every 150 – 200 HOURS

1. Drain the oil reservoir in the foot housing (Fig. 14).
2. Fill with approximately 1 liter of MOBIL ISO VG-46 oil or another oil with the same specifications.
3. The oil level should be at the midpoint of the oil level gauge.
4. The oil should be changed after the first 50 hours of operation.





### **Every year**

- Regularly check fuel lines for damage and leaks. Replace fuel lines every two years to maintain their efficiency and flexibility.

### **LONG-TERM STORAGE**

- Drain the fuel tank, fuel lines, and carburetor.
- Remove the spark plug and pour 10-15 ml of clean engine oil into the cylinder. Crank the engine 3-4 times to ensure the oil reaches all internal parts.
- Clean the exterior components with a cloth soaked in clean oil.
- Store the unit in a moisture- and dust-free place, away from direct sunlight.

## TROUBLESHOOTING

### Engine

PROBLEM	REASON	SOLUTION
The fuel tank is full, but the spark plug does not spark	No spark at the spark plug	Check the ignition system, replace the spark plug
	Carbon buildup on the spark plug	Clean or replace the spark plug.
	Short circuit in the ignition switch	Check the ignition switch circuit. Replace the switch if faulty.
	Incorrect spark plug gap	Set the correct spark plug gap.
	Damaged ignition coil	Replace the ignition coil.
Fuel tank is full, spark plug gives spark (normal compression)	Muffler clogged; carbon deposits	Clean or replace the muffler.
	Incorrect or old fuel (water, impurities)	Flush the fuel system and fill with fresh fuel.
	Clogged air filter	Clean or replace the air filter.
The fuel tank is full, the spark plug gives a spark (low compression).	Damaged cylinder head gasket	Tighten the cylinder head bolts or replace the gasket.
	Cylinder wear	Replace cylinder.
	Spark plug not tightened properly	Tighten the spark plug.
Insufficient power (normal compression, no misfires).	Clogged air filter	Clean or replace the air filter.
	Carbon deposits in the cylinder head or on the piston	Clean or replace
Insufficient power (normal compression, misfire).	Damaged ignition coil	Replace the ignition coil
	Frequent spark plug short circuits	Clean or replace the spark plug.
	Incorrect fuel (water, impurities)	Clean the fuel system, replace the fuel
The engine is overheating.	Carbon deposits in the cylinder head or on the piston	Clean or replace
	The exhaust system or muffler is clogged	Clean or replace the muffler
	Incorrect spark plug	Replace the spark plug with the correct one
Changes in rotational speed.	Nieprawidłowa Incorrect speed controller adjustment	Contact your nearest service center
	Damaged regulator spring	Contact your nearest service center
	Irregular fuel flow	Clean the fuel system and carburetor

### Machine

The engine is running, but the impact amplitude is not uniform, or the device does not hit the ground.	Incorrectly set throttle speed	Set the throttle lever to the correct position.
	Excess oil	Drain excess oil and bring to the proper level.
	Clutch slippage	Replace or adjust the clutch.
	Damaged spring	Replace the spring
	Incorrect engine speed	Contact your nearest service center to adjust the speed system.