

POWER KING®

Instruction Manual

PLATE COMPACTOR

Model:PK0201 / PK0202



Please keep this instruction manual for future reference



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INTRODUCTION

Thank you for your selection of POWERKING equipment.

We have taken care in the design, manufacture and testing of this products. It is covered by a 1 YEAR warranty. Should service or spare parts be required, prompt and efficient service is available please visit www.qvtools.com or call 1-800-344-3371 PST.

Powerkings goal is to produces power equipment that helps the operator work safely and efficiently. The most important safety device for this or any tool is the operator. Care and good judgment are the best protection against injury. All possible hazards cannot be covered here, but we have tried to highlight some of the important items, safety signs placed on equipment. Operators should read and follow safety instructions packed with each product.

Learn how each machine works. Even if you have previously used similar machines; carefully check out each machine before you use it. Know its capabilities, limitations, potential hazards, how it operates, and how it stops.

APPLICATIONS

Plate compactor is the machine that compacts the ground and it intends to make the surface smooth, by transmitting vibration

through the vibrating plate, which power is generated from Kohler motor, this machine is suitable for making the ground surface smooth, such as leveling the soil and beaching, finishing the asphalt paving. Applications as followings:

Trench compaction	Earthworks
Road maintenance	Landscaping
Brick paving	Drive way toppings

This machine is hard to move forward on wet soil (especially clay soil). It is not suitable for such application. This machine is difficult to level ground with big stones due to insufficient compacting force. Plate compactor is mainly applied for compacting surface smooth and it is not effective for jobs that requires heavy compaction. In case of compacting ground deeply into lower layer. It is recommended to use tamping rammer, vibrator compactor and vibration roller which compacting force is rather effective. Please use this compactor for compacting surface on soil, sediment, sand, beaching and asphalt.

STRUCTURE

The upper part is made up of Engine, Handle, Belt Cover and Guard Hook which are fixed by Engine base. The engine base is fixed on

vibrating plate by Shock absorbing Rubber. The lower part is made up of Vibrating plate and Vibrator unit that has an Eccentric rotary shaft built in. The power source is transmitted from the centrifugal clutch on engine output shaft to the Eccentric rotary shaft via V-belt.

Power Transfer

Air-cooled single cylinder engine is amounted as power source and centrifugal clutch is fixed on engine output shaft. Centrifugal Clutch engages by running up the engine and engine R.P.M is reduced to suitable number for compacting. The rotation of engine is transmitted from V-pulley integrated with Clutch drum to Vibrator Pulley through V-belt. Vibrator pulley rotates Eccentric rotor shaft that is contained from eccentric rotor is transmitted to Compaction with the weight of the machine makes the compaction of the ground possible.

FUNCTION AND CONTROLS

Engine

The engine is controlled by an ON/OFF switch or push button which is mounted on the motor below the fuel tank.

The motor speed is controlled by a remote throttle lever which is mounted on the machine handle.

Drive belt

Tension of the drive belt is adjustable. Loosen the four nuts on the

bolts which secure the motor to the baseplate. Adjust the set screws which bear against the motor crankcase to achieve the required belt tension. Ensure that the four nuts and the set screw locknuts are tightened after adjustment.

ACCESSORIES

Transport Trolley-facilitates handling. Hooks into the baseplate.

FOR SAFETY OPERATION

1. This safety alert symbol identifies important safety messages throughout this manual and on the machine. When you see this symbol, carefully read the message that follows. Your safety is at stake!

Forward:

It is important to read this manual carefully so that you will fully understand the operational characteristics and performance of the plate compactor. Proper maintenance procedures will insure long life and top performance of the unit.

Safety:

This section outlines basic safety procedures that apply to the operation, maintenance and adjustment of the plate compactor. This unit is designed as a powerful, productive machine that should be operated with respect and caution.

Misuse or carelessness can result in serious injury or property

damage, or booth. Safety precautions must be observed at all times.

Operator qualifications;

Before operating this equipment, an individual should read this manual. Whenever possible, operator should be shown how to operate the unit by an experienced operator. Inexperience is hazardous in operating any machine or attachment. Trial and error is not the way to become familiar with a piece of equipment. This is expensive, cuts equipment life and can create machine downtime, inexperience can cause injury or death. The machine should not be left unattended when operating.

General safety:

CAUTION

Protection required. Wear hard hat, shatterproof safety glasses, steel toed boots, gloves and hearing protection. Avoid jewelry or loose clothing. These may catch on controls or in moving parts and cause serious injury.

Starting safety:

CAUTION

Poisonous fumes. Start and operate only in well ventilated area. Breathing exhaust gases can result in sickness or death.

Servicing safety;

CAUTION

Flammable liquid. Stop engine and do not smoke or allow work in immediate area when refueling. Fire or explosion could result from flames or sparks.

- Shutdown engine before performing service or maintenance. Contact with moving parts can cause serious injury.
- Allow machine and engine to cool before performing service or maintenance.

Contact with hot components can cause serious burns.

Engine

See engine operations manual

STUTDOWN

EMERGENCY SHUTDOWN

Move throttle lever to “OFF” position and also turn stop switch to “OFF”.

NORMAL SHUTDOWN

Move throttle lever quickly from “ON” to “OFF” turn stop switch on engine to “OFF” position. Close fuel shutoff valve.

Let cool before loading or storage.

HAZARDS AND RISKS

NEVER allow any person to operate the machine without adequate instruction.

ENSURE all operators read, understand and follow the operating

instructions.

SERIOUS INJURY could result from improper or careless use of this machine.

Plate compactors are heavy units and should be positioned by two people of appropriate strength. Using the lifting handles provided on the machine, along with correct lifting techniques.

MECHANICAL HAZARDS

DO NOT operate the machine unless all protective guards are in place.

KEEP hands and feet clear of rotating and moving parts as they will cause injury contacted.

ENSURE that the engine operation switch is in the OFF position and the spark plug ignition lead is disconnected before removing the guards or making adjustments.

ENSURE both the machine and the operator are stable by setting up on level terrain and the machine will not tip over, slide or fall while in operation or unattended.

DO NOT leave the machine in operation while it is unattended.

ENSURE that the walls of a trench are stable and will not collapse due to the action of the vibration, prior to commencing compaction.

ENSURE that the area to be compacted does not contain any “live” electrical cables, gas, water or communication services which may

be damaged by the action of the vibration.

EXERCISE CARE when operating unit. Exposure to vibration or repetitive work actions may be harmful to hands and arms.

NEVER stand on the unit while it is operating.

DO NOT change the governed no-load motor speed above 3,500 r/min. Any increase may result in personal injury and damage to the machine and void warranty.

BE CAREFUL not to come in contact with the muffler when the engine is hot, since it can cause severe burns.

ENSURE that repairs to the motor and machine are carried out by authorized service centers for Kohler.

FIRE & EXPLOSION HAZARDS

PETROL is extremely flammable and explosive under certain conditions.

ENSURE that petrol is only stored in an approved storage container.

DO NOT refuel that motor while it is in operation or hot.

DO NOT over fill the fuel tank and avoid spilling gas when refueling. Spilled gas or gas vapor may ignite. If spillage occurs, ensure that the area is dry before starting the motor.

ENSURE that the fuel tank cap is securely fitted after refueling.

CHEMICAL HAZARDS

DO NOT operate or refuel a gas motor in a confined area without

adequate ventilation.

CARBON MONOXIDE exhaust gases from internal combustion motor driven nits can cause death in confined spaces.

NOISE HAZARDS

EXCESSIVE NOISE can lead to temporary or permanent loss of hearing.

WEAR an approved hearing protection device to limit noise exposure. As required by occupational health and safety regulations.

PROTECTIVE CLOTHING

ALWAYS wear approved hearing protection when operating this equipment. Protective goggles and a dust mask should be worn at all times. Wear Protective clothing and footwear.

ADDITIONAL HAZARDS

Slip/Trip/Fall is a major cause of serious injury or death. Beware of uneven or slippery work surfaces.

Exercise care when working in the vicinity of unprotected holes or excavations.

OPERATION

GENERAL OPERATION

The machinery is best suited to the compaction of bituminous and sands or mixtures of both. Cohesive soils such as silt and clay are best compacted using the impact force produced by a vibrating

rammer.

Where possible the site should be graded and leveled before commencing compaction.

Correct moisture content in soil is vital to proper compaction. Water acts as a lubricant to help slide soil particles together. Too little moisture means inadequate compaction; too much moisture leaves water filled voids that weaken the soil's load bearing ability.

Use fuel as recommended by Kohler.

The vibratory motion provides a self-propelling action. Position the handle at the opposite end of the machine to the vibrator.

Start the motor using the recoil starter.(if the motor is fitted with an on/off switch this must first be turned to ON before starting).

For more information on starting and correct

Operating procedures of the motor, refer

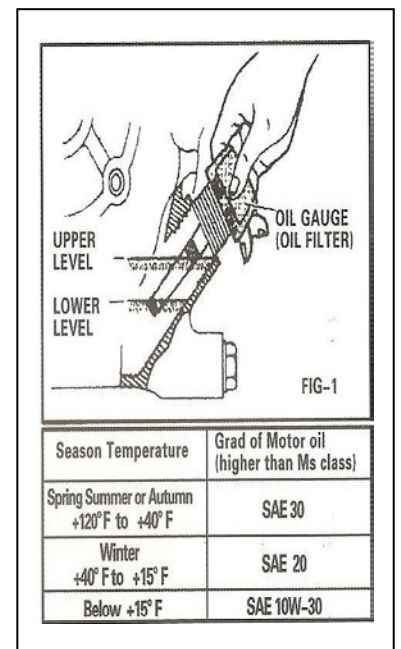
to the motor operation manual supplied with the unit.

Increase the motor speed to the maximum setting using the handle throttle lever, before commencing

Compacting.

The machine should be controlled by grasping the handle with both hands and applying restraint to

control the forward motion.



Steer the machine by moving the handle sideways to the right or left.

ALWAYS maintain good footing so that you do not slip and lose control when starting or operating the machine.

1. Prior to operation

- 1-1. Make sure that all dirt, mud, etc., are thoroughly removed from the unit prior to operation. Special effort should be given to the button face of the vibrating plate and those areas adjacent to the cooling air inlet of engine, carburetor, and air cleaner.
- 1-2. Check all bolts and screws for tightness and make sure all bolts and screws are securely tightness. Loose bolts and screws may cause damage to the unit.
- 1-3. Check the V-belt for tightness. The normal slack should be approximately (1/2”) when the belts are forcibly depressed in the middle position between the two sheaves. If there is excess belt play, there could be a decrease in the impact force or erratic vibration, causing machine damage.
- 1-4. Check the engine oil level and if the engine oil level is low, it should be refilled. Use the proper motor oil as suggested in the table below.(Fig-1)

- 1-5. Remove the oil plug in the vibrator assembly and check the oil level when checking. The oil level should be full. Every month or every 200 hours of operation, replace the oil.

IMPORTANT:

Use the motor oil SAE

When changing the oil, the old oil can be drained by tipping the unit.

Regular grade gasoline should be used in the engine.

When filling the fuel tank, make sure the fuel filter is used.

2. Caution

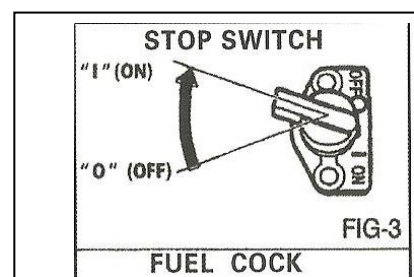
2-1. Be careful with the operating place and ventilation. Avoid operating the machine in a closed room, tunnel, or other badly ventilated places, since its exhaust contains deadly poisonous carbon monoxide.

2-2. Be careful with the hot machine.

Mufflers and other hot members are dangerous.

Do not touch them.

2-3. Observe with the following caution when transporting. Clamp fuel tank cap securely, and turn the fuel valve OFF at the source during drain gasoline from fuel tank before transporting over a long distance or on rough road.



2-4. Stop engine before replenishing fuel tank.

Never replenish gasoline while the engine is running or remains hot otherwise spilled or evaporated fuel is liable to catch fire from engine sparks or muffler heat. Wipe off spilled fuel, if any, before starting engine. Be careful not to spill fuel.

2-5. Keep inflammables away from the vicinity of the exhaust port.

Be careful with gasoline match, straw and other inflammables, since the exhaust port is subjected to a high temperature.

3. Starting

Gasoline Engine.

3-1. Turn the STOP SWITCH clock-wise to the position "1" (ON)

3-2. Open the fuel cock

3-3. Set the speed control lever $\frac{1}{3}$ to $\frac{1}{2}$ of the way towards the high speed position.

3-4. Close the choke lever.

If the engine is warm or the ambient temperature is high, open the choke lever half-way, or keep it fully open.

If the engine is cold or the ambient temperature is low,

close the choke lever fully.

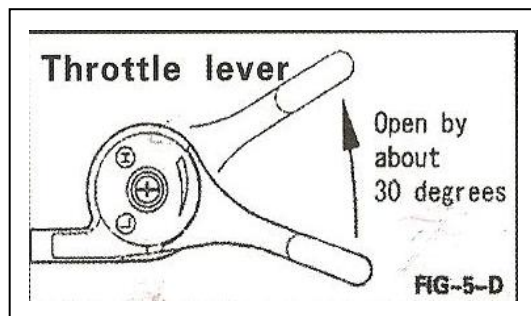
3-5. Pull the starter handle slowly until resistance is felt.

This is the “compression” point. Return the handle to its original position and pull swiftly.

Do not pull the rope all the way. After starting the engine, allow the starter handle to return to its original position while still holding the handle.

Diesel Engine – THIS MODEL NOT EQUIPED WITH DIESEL

3-6. Turn the throttle lever to START position (open By about 30 degrees).



3-7. Operate Starter

In case of recoil starter

By pulling the starter knob slowly, you will reach such point where resistance become strong (compression point) by pulling it further. You will find a point where resistance is reduced. Return the knob but slowly return it original.

CAUTION

Do not pull the rope all the way and do not take your hand off the pulled knob but slowly return it original position.

3-8. After starting up the engine, be sure to perform a warm up the engine, be sure to perform a warm up run for 2 to 3 minutes. This should be performed without fail, particularly during winter season.

4 Operation

4-1. As the engine warms up, gradually move the choke lever to the OPEN position. Fig-8

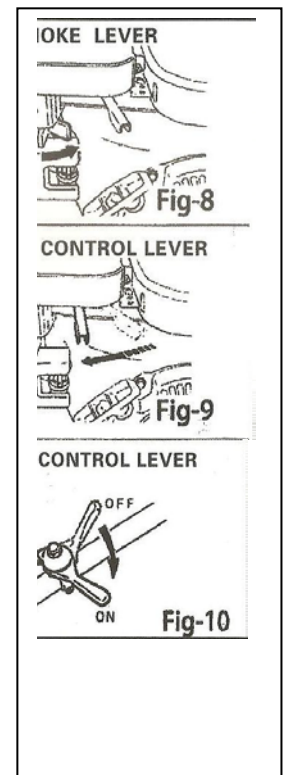
4-2. Move the speed control lever from the LOW to the HIGH position. When the engine speed reaches approximately 2,300-2,600 RPM, the centrifugal clutch engages. If the engine speed increased very slowly, it is possible that clutch can slip.

Do not operate the speed control lever slowly. Fig-9.10

OIL ALERT SYSTEM

The Oil Alert System is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase can fall below a safe limit.

The OIL ALERT SYSTEM will automatically stop the engine (the engine switch will remain in the ON position).



NOTICE

If the engine stops and will not restart, check the engine oil level.

4-3. When compacting asphalt, it is advisable to paint the bottom face of the vibrating plate with diesel fuel.

This will assist in preventing the plate from sticking to the asphalt.

4-4. When shutting off the vibrator, turn the speed control lever from the HIGH to LOW position. Do not move the speed control lever slowly.

5. Transportation

5-1. Be sure to stop the engine while transporting. **WAIT UNTIL ENGINE IS COOL.**

5-2. Screw up the fuel tank cap securely and close the fuel valve to avoid fuel leaking.

5-3 Fix machine securely not to move or fall down.

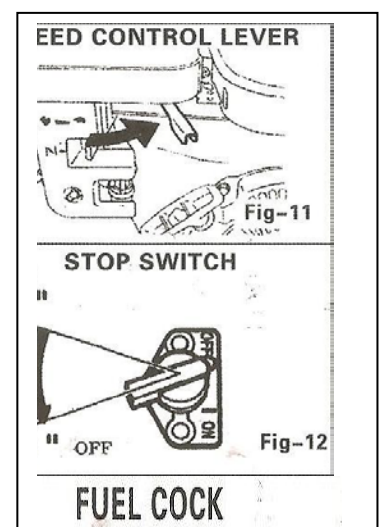
In case of driving for long distance or at off road, **DRAIN** out fuel from tank.

6. Shutdown

To stop the engine in an emergency, turn the stop switch the OFF position.

Under normal conditions, use the following procedure.

6-1. Set the speed control lever at the low speed



position and allow the engine to run at low speed for 2 or 3 minutes before stopping.

6-2. Turn the stop switch to the OFF position.

6-3. Close the fuel cock.

7. Service & Storage

CAUTION

Flammable liquid: stop engine and do not smoke or allow work in immediate area when refueling.

Fire or explosion could result from flames or sparks.

Moving parts: shutdown engine before performing service or maintenance. Contact with moving parts can cause serious injury.

High temperature: Allow machine and engine to cool before performing service or maintenance.

Contact with hot components can cause serious burn.

7-1. Daily Service

- A. Remove mud, dirt, etc, from the unit.
- B. Clean bottom face of the vibrating plate.
- C. Check the air cleaner element and clean if necessary.
- D. Check all nuts, bolts, and screws for tightness and retighten as necessary.

7-2. Weekly Service

A.AIR CLEANER SERVICE

Fig-14

Dirty air cleaner element will cause starting difficulty, power loss, engine malfunctions, and shorted engine life.

IN COLD WEATHER TURN THE FILTER COVER SNORKLE TOWARD ENGINE. IN WARM WEATHER TURN SNORKLE AWAY FOR FROM ENGINE. YOUR KOHLER ENGINE IS EQUIPED WITH A 4 STAGE CYCLONIC FILTER WITH COLD AND WARM WEATHER COVER.

Keep the air cleaner element clean per Kohler instruction manual.

B.Remove Spark plug, clean and adjust the spark plug gap to 0.6-0.7mm (0.2-0.3in) Fig-15

C.drain the motor oil of the engine and replace with new specified oil. Fig-16

!NOTE: when the engine is new, the first oil change must be made after 20 hours of operation.

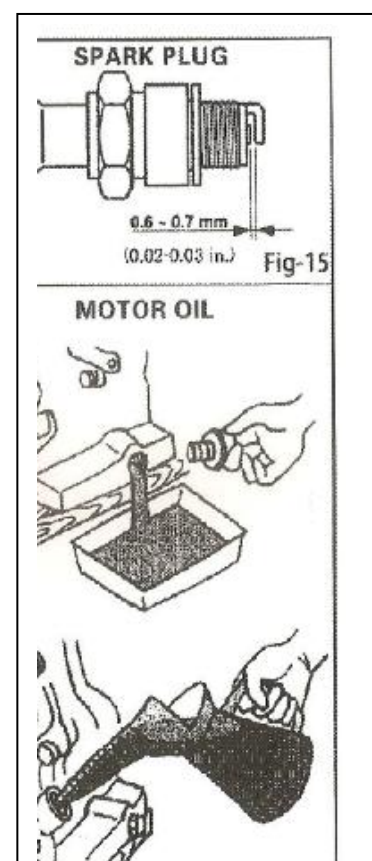
7-3.Monthly Service

Change the oil in the vibrator assembly.

7-4.Storage

When storing the compactor for long periods after operation.

A. Thoroughly drain the fuel from the fuel tank fuel



pipe and carburetor.

B. Pour a few drops of motor oil into the cylinder by moving the spark plug.

Rotate the engine several times by hand so that the cylinder interior is covered with oil.

C. Clean the outer surface of the machine with an oil moistened cloth. Cover the unit and store in a humidity-free, dust-free area.

CARE AND PREVENTIVE MAINTENANCE

Check the oil level in the motor crankcase daily.

Check the vibrator oil level weekly.

Inspect the rubber and vibration mounts for wear or deterioration.

Clean the underside of the plate regularly to prevent a buildup of material.

SERVICE

Change the oil in the motor crankcase regularly to minimize wear.

Inspect, clean and /or replace the motor air cleaner regularly, particularly when operating in a dusty environment.

Inspect, clean and /or replace the spark plug regularly.

Check all fasteners for tightness as the machine is subject to vibration.

Check v-belt tension, wear and that it is running true, adjust or replace as required.

Vibrator Oil Check

1. Place the plate compactor horizontally on flat surface.

Make sure the compactor is level when checking the oil in the vibrator assembly.

1. Check vibrator oil level by removing the plug (vibrator oil gauge) as shown in Fig-17.

The oil level should be up to the oil plug .If oil is required, replace using SAE motor oil, as suggested in the table Fig-1.

2. When changing the vibrator oil, remove the drawn Plug (Fg-17), and simply tip the compactor to drain the oil.

WARRANTY

Kohler engine warranty is 3 years with proof of purchase, keep your receipt. Locate Kohler service centers on www.QVTOOLS.com

This machine has a 1 year limited warranty on parts only, excluding belts. Contact us at Powerking QVTOOLS for parts and/or warranty assistance at 1-800-344-3371 PST.