

# **COMPACTOR 6HP 208CC**

# ITEM: 61015



## **OWNER'S MANUAL AND SAFETY INSTRUCTIONS**

SAVE THIS MANUAL: KEEP THIS MANUAL FOR SAFETY WARNINGS, PRECAUTIONS, ASSEMBLY, OPERATING, INSPECTION, MAINTENANCE AND CLEANING PROCEDURES. WRITE THE PRODUCT'S SERIAL NUMBER ON THE BACK OF THE MANUAL NEAR THE ASSEMBLY DIAGRAM (OR MONTH AND YEAR OF PURCHASE IF PRODUCT HAS NO NUMBER)



## **GENERAL SAFETY WARNINGS**

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

#### SAFETY

**WARNING DO NOT** use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as owner's manuals, service manuals or instruction sheets supplied with this product or optional equipment. When using an electrical appliance, basic precautions **MUST** be followed to reduce the risk of fire, electric shock and personal injury.

- DANGER: CARBON MONOXIDE Using a plate compactor indoors CAN KILL YOU IN MINUTES. Engine exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the engine exhaust, you are breathing CO. Even if you cannot smell the exhaust, you could be breathing CO.
- NEVER use a plate compactor inside homes, garages, crawl spaces, or other partially/fully enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air. ONLY use outside and far away from windows, doors, and vents. These openings can pull in engine exhaust.
- **WARNING:** The exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.
- **WARNING:** This engine may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if it isn't directly in contact with gasoline.
- **DO NOT** operate near an open flame.
- **DO NOT** smoke near the plate compactor.
- **ALWAYS** turn the plate compactor off before refueling, allow it to cool for at least 2 minutes before removing the fuel cap. Loosen the cap slowly to relieve pressure in the tank.
- **DO NOT** overfill the tank. Gasoline may need to expand during operation. DO NOT fill to the top of the tank, allow for expansion.
- ALWAYS for spilled fuel before operating.
- Empty the fuel tank before storing or transporting the plate compactor.
- **DO NOT** use the plate compactor in wet conditions.
- **DO NOT** allow children to or non-qualified persons to operate the plate compactor.
- DO NOT touch hot surfaces. Pay attention to warning labels on the machine identifying hot parts.
- Allow the unit to cool down after use before touching the engine or areas of the plate compactor that become hot during use.
- Only use the compactor for intended purposes.
- **KEEP** hands and feet clear of rotating and moving parts as they will cause injury if contacted.

# WARNING IMPORTANT SAFETY INFORMATION

- Operate the plate compactor on flat, level surfaces only.
- Turn the engine OFF when the compactor is not in use.
- **DO NOT** operate or service this machine before reading this entire manual.
- Never operate this equipment without proper protective clothing, shatter proof ANSI-approved glasses, steel-toed boots, and other protective job site devices.
- **NEVER** operate the equipment while under the influence of medication, drugs or alcohol.
- ALWAYS check the machine for loosened bolts and threads **BEFORE** every use.
- **ALWAYS** wear proper respiratory, hearing and eye protection during operation.
- The Manufacturer does not assume responsibility for any accident due to equipment modifications and will also void the warranty.
- **NEVER** use accessories or attachments that are not recommended by STARK for this model of plate compactor.
- **DO NOT** add fuel to the plate compactor if it placed on top of a plastic surface such as a pickup truck bed with a plastic liner. This creates the possibility of ignition or explosion due to static electricity build up.
- ALWAYS refuel in a well ventilated area. NEVER operate near open flames, sparks or other item that could cause the gas fumes to ignite.
- Before performing compacting work near buildings or above pipelines, check the effect of the vibrations on the buildings and pipelines. If necessary, immediately stop the compacting work.
- **WARNING:** This unit produces heat when running. Temperatures near exhaust can exceed 150 F (65 C).
- **NOTE:** We suggest running the plate compactor engine at least once a month in order to maximize the lifespan of the 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.
- **DO NOT** operate the machine unless all protective guards are in place.
- **ENSURE** that the walls of a trench are stable and will not col- lapse 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.
- **DO NOT** increase the governed no-load motor speed above 3,500 r/min. Any increase may result in personal injury and damage to the machine. **BE CAREFUL** not to come in contact with the muffler when the engine is hot, since it can cause severe burns.
- 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 the motor while it is in operation or hot.

## INTRODUCTION

#### APPLICATIONS

The Plate compactor is a machine that compacts the ground and it intends to make the surface smooth, by transmitting vibration through vibrating plate, which power generated from single motor in vibrator case 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 Road maintenance
- Brick paving
- Earth works
   Landscaping
   Driveway toppings

This machine is hard to move forward on a soil with much water (especially clay soil). It is not suitable for such application. This machine is difficult to level a ground include big stones due to insufficient compacting force. Plate compactor is mainly applied for compacting surface smooth and it is nor effective for jobs that requires heavy compaction. In case of compacting ground deeply into lower layer, it is recommended to use. Tamping Rammer, Vibrato Compactor and Vibration Roller which compacting force is rather effective. Please use this compactor for compacting surface on soil, sediment, sand , beaching and asphalt. It is not recommended for use this machine for the other applications.

#### STRUCTURE

The upper part is made up of Power Source, 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. Petrol Engine (2 cycle, 4 cycle) and Diesel Gasoline Engine can be mounted as option. Centrifugal Clutch engages by running up the engine and engine is reduced o 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 in Vibrator case. The generated vibration created from eccentric rotor is transmitted to Compaction with the weight of the machine makes the compaction of the ground possible.

#### FUNCTIONS AND CONTROLS

#### MOTOR:

The motor 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. Honda and Kama motors are fitted with an oil alert device which will stop the motor or prevent starting when the crankcase oil level falls below a safe level.

#### **DRIVE BELT:**

Tension of the drive belt is adjustable. Loosen the four nuts on the bolts which secure the motor to the base plate, 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 lock nuts are tightened after adjustment.

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" and run engine for 3 to 5 minutes at low speed. After engine cools,turn stop switch to "OFF" position, Close fuel shutoff valve.

# PARTS DIAGRAM



# PARTS LIST

PART NO.	DESCRIPTION	OTY	
1	Socket head bolt M8*30 1		
2	spring washer		
3	Bigger flat washer⊄8	1	
4	Clutch assembly	1	
5	Belt 1		
6	Socket head bolt M8*20 2		
7	Spring washer C 8 2		
8	Flat washer ∉8	2	
9	Belt cover	- 1	
10	Engine	1	
11	Locknut M8	4	
14	Protective frame(Optional)	1	
15	Plate for engine mounting	1	
16	Bigger flat washer⊄ 8	4	
17	Hex bolt M8*40	4	
18	Locknut M8	4	
19	Spring washer ∉10	4	
20	Bigger flat washer⊄10	4	
21	Shock absorber for vibrating plate	4	
22	Plat washer⊄10	4	
22-1	Spring washer ∉10	4	
23	Nut M10	4	
24	Hex bolt M12*45	8	
25	Spring washer ¢12	8	
26	Flat washer⊄12	8	
27	Vibrator support		
37	Vibrator assembly	1	
28	Hexagonal bolt M10	4	
29	Spring washer ∉10	4	
30	Flat washer ⊄10	4	
31	Plate, handle setting	2	
32	Shock absorber for handle	4	
33	Circlip ¢12	2	
34	Rubber coupling for handle	2	
35	Rubber ring for handle	2	
36	Straight handle Assy	1	
	Foldable handle Assy(Optional )	1	
38	Flat washer ⊄18	2	
39	Spring washer @18	2	
40	Fit bolt M16*150	2	
41	Vibrating plate	1	

# PARTS - VIBRATOR ASSEMBLY



PART NO.	DESCRIPTION	QTY
27-01	Socket head bolt M8*20	1
27-02	Spring washer Ø	1
27-03	Flat washer ∉8	1
27-04	Driven pulley	1
27-05	Circlip ¢24	2
27-06	Ecc. rotator	2
27-07	Oil seal 35*52*7	2
27-08	Case cover/pulley	2
27-09	Paper cushion	2
27-10	Bearing 42306	2
27-11	Bearing seat	1
27-12	Main shaft	1
27-13	Flat key	3
27-14	Spring washer ∉6	6
27-15	Socket head bolt M6*25	6

## OPERATION

#### PRIOR TO OPERATION

- Make sure that all dirt, mud, etc., are thoroughly removed from the unit prior to operation. Special effort should be given to the bottom face of the vibrating plate and those areas adjacent to the cooling air inlet of engine, carburetor and air cleaner.
- Check all bolts and screws for tightness and make sure all bolts and screws are securely tightened. Loose bolts and screws may cause damage to the unit.
- Check the V-belt for tightness. The normal slack should be approximately 10-15mm (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.
- 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.



Season Temperature	Grad of Motor oil (higher than MS class)
Spring Summer or Autumn +120°F to +40°F	SAE 30
Winter +40° F to +15° F	SAE 20
Below +15° F	SAE 10W-30

- Remove the oil plug in the vibrator assembly and check the oil level. Make sure the compactor is level when checking. The oil level should be up to the oil plug. 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. The oil will drain easily while it is hot.
- A regular grade gasoline should be used in the engine. When filling the fuel tank, make sure the fuel filter is used.
- 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. If the machine is employed unavoidable operated in such a place, discharge the exhaust out side the room by a suitable means.
- Be careful with the hot members. Mufflers and other hot members are dangerous. DO NOT touch them with unprepared hand.
- Observe with the following cautions 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 roads.
- Stop engine without fail 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.
- Keep flammables 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.

## **OPERATION**

#### GASOLINE ENGINE

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



**3.** Set the speed control lever 1/3 to 1/2 of the way towards the high speed position.



**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.



2. Open the fuel cock.



**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.



**6. DO NOT** pull out the rope all the way. After starting the engine, allow the starter handle to return to its original position while still holding the handle.



**OPERATION** 

**1.** As the engine warms up,gradually move the choke lever to the OPEN position.

**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 the clutch can slip. Do not operate the speed control lever slowly.



**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).

- 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 as halt.
- When shutting off the vibrator, turn the speed control lever from the HIGH to LOW position. **DO NOT** move the speed control lever slowly.

#### TRANSPORTATION

- Be sure to stop the engine while transporting. Screw up the fuel tank cap securely and close the fuel valve to avoid fuel leaking.
- If transporting by car, fix machine securely not to move nor to fall down. In case of driving for long distance
  or at off-road, tank out fuel from tank.

#### SHUTDOWN

- 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.
- Tum the stop switch to the OFF position. Close the fuel cock.



## STORAGE AND MAINTENANCE

#### STORAGE

**FLAMMABLE LIQUID:** Stop engine and do not smoke or allow work in immediate area when refuelling. 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 injuries.

**HIGH TEMPERATURES:** Allow machine and engine to Cool before performing service or maintenance. Contact with hot components can cause serious burns.

- When storing the compactor for long periods after operation.
- Thoroughly drain the fuel from the fuel tank fuel pipe and carburetor.
- Pour a few drops of motor Oil into the cylinder by removing the spark plug. Rotate the engine several times by hand so that the cylinder interior is covered with oil.
- Clean the outer surface of the machine with an oil moistened cloth. Cover the unit and store in a humidityfree, dust-free area.

#### MAINTENANCE

**EVERY USE:** Remove mud, dirt,etc., from the unit. Clean bottom face of the vibrating plate. Check the air cleaner element and clean if necessary. Check all nuts,bolts, and screws for tightness and re-tighten as necessary.

#### WEEKLY MAINTENANCE

**AIR CLEANER SERVICE:** Dirty air cleaner element will cause starting difficulty, power loss, engine malfunctions, and shorten engine life extremely. Keep the air cleaner element clean.

**URETHANE FOAM ELEMENT:** Remove the element and wash it in kerosene or diesel fuel. Then saturate it in a mixture of 3 parts kerosene or diesel fuel and I part engine oil. Squeeze the element to remove the mixture and install it in the air cleaner.

**URETHANE FOAM DUAL STRUCTURE:** Clean the urethane foam in the same way as described above. Wash the element in kerosene or diesel fuel. Saturate it in a mixture of 3 parts kerosene or diesel fuel and I part engine oil. Shake off excessive oil and re-install.

Remove spark plug, clean and adjust the spark plug gap to 0.6-0.7mm. Drain the motor oil of the engine and replace with new specified oil. **NOTE:** When the engine is new, the first oil change must be made after 20 hours of operation and replenish the oil tank before operating.





MOTOR OIL



## MAINTENANCE

#### CARE AND PREVENTATIVE MAINTENANCE

- Check the oil level in the motor crankcase daily.
- Check the vibrator oil level weekly.
- Inspect the rubber anti vibration mounts for wear or deterioration
- Clean the underside of the plate regularly to prevent a build up.
- Clean the underside of the plate regularly to prevent build up.
- Change the oil in the motor crankcase regularly to minimise 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 well, adjust or replace as required.

#### **VIBRATOR OIL CHECK**

1. Place the plate compactor horizontally on a flat surface. Make sure the compactor is level when checking the oil in the vibrator assembly.

**2.** Check vibrator oil level by removing the plug (vibrator oil gauge).

**3.** When changing the vibrator oil, remove the drain plug, and simply tip the compactor to drain the oil. Note that the oil will drain more easily while it is hot. Inspection and other services should always be carried out on hard and level ground with the engine shutdown.



VIBRATOR OIL PLUG

#### INSPECTION AND MAINTENANCE SERVICE TABLES

To make sure your plate compactor is always in good working condition before using carry out the maintenance inspection in accordance with Tables 1 through 3

#### MACHINE INSPECTION SCHEDULE

ITEM	HOURS OF OPERATION
Loose or Missing Screws	Every 8 hours (every day)
Damaged Parts	Every 8 hours (every day)
Function of Controlling System Part	Every 8 hours (every day)
Vibrator Oil Check	Every 100 hours
Vibrator Oil Replacement	Every 300 hours
V-belt (clutch) Check	Every 200 hours
Battery Check	Every 100 hours

# TROUBLESHOOTING

ISSUE	POSSIBLE CAUSE AND CORRECTION
	Check the ON/OFF switch to ensure that it is switched 0N
	-Check the fuel supply
	-If a motor is fitted check the crankcase oil level as an oil
Motor will not start	sensor device is fitted to the motor which prevents starting and stops
	the motor when the oil level is low
	<ul> <li>Ensure the spark plug ignition lead is connected</li> </ul>
	-Check the carburettor jet and bowl to ensure they are clean
	Check the fuel supply
Motor stops	-Check that the fuel cock is turned ON
	-Check the condition of the air filter
Potrol Motor Jacks power	Check the condition of the air filter
Petro Motor lacks power	-Check the condition of the spark plug
Insufficient vibration	Check for a slipping or a missing v belt
	<ul> <li>-Check that the motor governed speed is 3,500 r/min</li> </ul>
Machine is not moving freely	Check the underside of the plate for a build up of material



## WARRANTY

**3 YEAR ENGINE WARRANTY**: Kohler Co. warrants to the original retail consumer that each new engine will be free from manufacturing defects in materials or workmanship for the applicable coverage period as set forth below, beginning on date of purchase; provided the engine is operated and maintained in accordance with Kohler Co.'s instructions and manuals. Our obligation under this warranty is expressly limited, at our option, to the replacement or repair of such part or parts as inspection shall disclose to be defective at Kohler Co., Kohler, Wisconsin 53044, or at a service facility designated by Kohler Co.

Type of use: Residential: 3 Years Commercial/Rental:3 Years

#### EXCLUSIONS:

- Damage caused as a result of an accident or casualty.
- Failures caused by faulty repairs made by others.
- Failures caused by use of non-Kohler replacement service parts.
- Transportation charges in connection with the repair or replacement of defective parts.
- Repairs caused from improper storage, old or contaminated fuel left within the fuel system (tanks, fuel lines or carburetor).
- Damage caused from unreasonable use or neglect, normal wear, or premature wear from improper maintenance.

• Engine accessories such as fuel tanks, clutches, transmissions, power drive assemblies, and batteries, unless supplied or installed by Kohler Co. These are subject to the warranties, if any, of their manufacturers.

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#### **Record Product's Serial Number Here:**

Note: If product has no serial number, record month and year of purchase instead.

**Note**: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

# Ouestions, problems, missing parts? Before returning to your retailer, our exceptional customer service is here to help. Call Us: 909.628.0880 Email Us: customer@xtremepowerusa.com Hours of Operation: 9am - 4pm (Monday - Friday)

## **PRODUCT MADE IN CHINA**