Portavibe Concrete Vibrator

ECCENTRIC TYPE

PVE44 / PVE44R

OPERATING INSTRUCTIONS

WARNING

To reduce the risk of injury, all operators and maintenance personnel must read and understand these instructions before operating, changing accessories, or performing maintenance on this power equipment. All possible situations cannot be covered in these instructions. However care must be exercised by everyone using, maintaining or working near this equipment.

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INTRODUCTION

Thank you for your selection of Parchem equipment.

Parchem have specialised in the design and manufacture of quality products since 1951.

We have taken care in the design, manufacture and testing of this product. Should service or spare parts be required, prompt and efficient service is available from our branches.

General Safety Instructions for the Operation of Power Equipment

The goal of Parchem is to produce 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 judgement are the best protection against injury. All possible hazards cannot be covered here, but we have tried to highlight some of the important items, individuals should look for and obey Caution, Warning and Danger signs placed on equipment, and displayed in the workplace. 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. Get the “feel” of it and know its capabilities, limitations, potential hazards, how it operates, and how it stops.

APPLICATIONS

Civil: roadways, kerbing, pre cast beams, bridge decks, piers.

Commercial building: strip and raft foundations, stairs, walls, floors, driveways, suspended slabs, tilt panels, stack cast panels.

Residential building: floor stumps, wall cavities, house slabs, wall footings, paving slabs.

Rural: fence posts, stock troughs and pens.

ASSEMBLY

If the unit was supplied unassembled the following must be completed prior to operation:

The unit is supplied with the flexible shaft disconnected from the motor unit. To attach the flexible shaft, place the threaded ferrule end of the flexible shaft approximately 20 mm from the coupling housing. Engage the squared end of the flexible shaft core assembly into the squared seal sleeve adaptor.

The threaded ferrule end of the flexible shaft may now be screwed into the motor adaptor. Rotate the ferrule end of the flexible shaft in an anti-clockwise direction to engage the left hand thread. Once tightened by hand use multigrip pliers to ensure the ferrule is tightened sufficiently to stop it from working loose and coming detached during operation.

A 1 litre container of Honda 10W/30 engine oil is included with the unit. Engine oil capacity is 100 ml. To add oil place the unit on a level surface and remove the oil filler cap. Add oil until the oil level reaches the edge of the oil filler neck & reinstall the oil filler cap.

Fuel may now be added and the unit is ready for operation.

FUNCTION AND CONTROLS

DRIVE UNIT

This portable drive unit is designed to power flexshaft drive, eccentric vibrators.

The motor is controlled by an ON/OFF push button which is mounted below the throttle lever on the handle.

The motor speed is controlled by throttle lever mounted on the handle.

A centrifugal clutch is fitted to the motor which disengages the drive to the vibrator when the motor is idling.

The clutch operates automatically and requires no adjustment.

The motor is a **4-stroke** unit and must only be used with **unleaded** petrol.

VIBRATOR

This vibrator is designed for the compaction of concrete by immersion of the vibrator head. Compaction improves the strength and finish of concrete by driving out entrapped air.

High frequency vibration allows the efficient compaction of low slump concrete mixes.

The vibrator head is driven by a rotating flexible drive shaft that transmits the drive from the drive unit.

The vibrator head uses an eccentric mass to produce vibration. Ball bearings support the rotor at each end.

HAZARDS AND RISKS

NEVER allow any person to operate equipment without adequate instruction.

ENSURE all operators read, understand and follow the operating instructions.

SERIOUS INJURY may result from improper or careless use of this machine

! MECHANICAL HAZARDS

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

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

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

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

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

DO NOT hold the vibrator shaft in your hands while it is running.

Hold the vibrator by the “D” handle & use the supplied carry strap to help isolate your hands from the vibration.

NEVER stand on the vibrating head while it is operating.

DO NOT place your foot on the vibrator head while it is running unless it is done momentarily and the vibrator head is resting on a resilient support such as a car tyre.

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 machinery are carried out by COMPETENT personnel.

! 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.

DO NOT refuel the motor in the vicinity of sparks, a naked flame or a person smoking.

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

Motor vibrations can cause an improperly tightened fuel cap to loosen or come off and spill quantities of fuel. In order to reduce risk of fuel spillage and fire, tighten fuel cap by hand with as much force as possible.

To reduce the risk of serious injury from burns, never attempt to refuel the unit until it has been stopped & completely removed from the operator.

! CHEMICAL HAZARDS
DO NOT operate or refuel a petrol motor in a confined area without adequate ventilation.

CARBON MONOXIDE exhaust gases from internal combustion motor driven units 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.

Noise levels in excess of 85dB(A) may be produced by engines and vibrators.

PROTECTIVE CLOTHING
ALWAYS wear protective clothing and footwear to prevent the skin coming into contact with wet concrete.

PROTECTIVE FOOTWARE should be worn to reduce injuries from penetration through the sole, contact with cutting objects, slipping, contact with wet concrete and electrical hazards.

GOGGLES for eye protection may also be necessary.

USE waterproof protection for hands and knees (if kneeling) when concreting. If your clothing becomes wet from concrete contact make sure you change the clothing. Do not walk about waiting for it to dry.

USE GLOVES when handling and inspecting the flexible shaft outer casing. Excessive wear of the rubber cover can expose the wire braided reinforcement, allowing it to project and cause injury.

! ADDITIONAL HAZARDS
To reduce the risk of injury from loss of balance, start the motor with the unit on a flat level surface, and only pick up the unit when the engine is idling.

Slip/Trip/Fall is a major cause of serious injury or death.

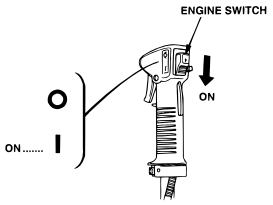
Beware of the flexible shaft and water left on the walking or work surface.

Exercise caution and ensure that the perimeter of elevated formwork or platforms is protected.

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

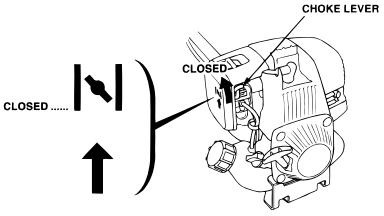
OPERATION

To start the motor, place the unit on a flat level surface, and only pick up the unit when the engine is idling.



To start the motor turn the engine switch to the ON position.

To start a cold engine, move the choke lever to the closed position



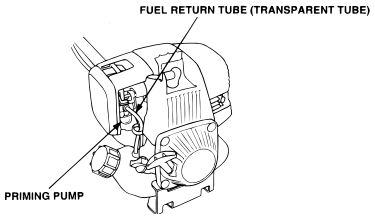
To restart a warm engine, leave the choke lever in the OPEN position.

Press the priming pump several times until a flow in the fuel return tube is visually noticed.

Pull the starter grip lightly until you feel resistance while holding the unit steady, then pull briskly.

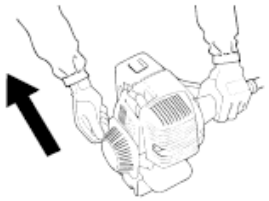
Return the starter grip gently.

If the choke lever is in the CLOSED position, gradually move it to the OPEN position as the engine warms up.



The idle-up function helps the engine start by opening the throttle valve in the carburetor moderately when the engine won't start.

1. Hold down the throttle interlock.
2. Pull the throttle trigger.
3. Push the idle-knob, then release the throttle trigger and the interlock.
4. Start the engine



NOTE: This function must not be used when vibrating.

Always operate the unit at full throttle. This will ensure correct concrete compaction and avoid damage to the drive mechanism.

Be careful starting and or revving the unit on loose gravel as it may be sucked into the flywheel cooling fins causing damage to the unit.

Avoid sharp bends in the flexshaft, particularly when it is in use.

Do not use a eccentric-type immersion vibrator head as an external vibrator by applying it to the outside of formwork.

Do not operate the vibrating head out of concrete for extended periods. Do not leave it running while you wait for fresh supplies of concrete to be placed. Vibrator heads are designed to be cooled by the concrete in which they are immersed.

CARE AND PREVENTIVE MAINTENANCE

Keep the unit clean and free of concrete residue.

Check the oil level in the engine crankcase daily, it should reach the edge of the oil filler neck. The engine oil capacity is only 100 ml and running the engine with a low oil level will cause serious engine damage.

Vibrators must be handled with care, and be properly maintained in order to avoid unnecessary breakdowns. Check regularly for signs of wear and rectify any faults immediately.

The exterior of the flexshaft and the vibrator head are subject to abrasion and wear. If the vibrator is operated unchecked, concrete will eventually enter the vibrator head or the flexshaft.

Naturally, the cost of repairing, a vibrator which has been allowed to deteriorate in this way will be greater.

Regular inspection of the vibrator and the flexible shaft will avoid these problems.

Check the flexible shaft for kinks and external damage by laying it out straight on a workbench or the floor. Although it still operates, a badly kinked flexible shaft may result in a broken inner core.

Check the outer casing rubber cover for damage where it enters the ferrule at the vibrator head. Damage is caused by operators using a crane to retrieve a vibrator trapped in concrete reinforcing bars.

SERVICE

Replace the oil in the motor crankcase regularly with Honda 10W/30 oil.

The air cleaner element fitted is a wet foam type. Service the air cleaner element regularly by washing the element in a non flammable solvent and let it dry thoroughly. Soak the element in clean engine oil, squeeze out the excess oil and reinstall the air cleaner element.

A fuel tank strainer is fitted to the unit. A clogged filter may cause poor engine performance requiring the fuel filter to be removed from the fuel tank and cleaned.

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

CLEANING AND STORAGE

It is advisable to wash the vibrator head and flexshaft with clean water after use each day and before storing. This will ensure that concrete does not accumulate on the exterior.

Ensure the cooling fins on the motor are kept unobstructed.

SPECIFICATIONS

MOTOR	Honda, 35 cc 4-stroke petrol
MOTOR OIL CAPACITY	100 ml

MODEL	**PVE44**	**PVE44R**
TYPE	Hard Nose	Resilient Nose
PART NO.	F03330	F03331
FREQUENCY	9,000	9,000
AMPLITUDE	2.8 mm	2.8 mm
HEAD DIA.	44 mm	44 mm
WEIGHT	11 kg	11 kg

Flextool

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February 2012