



Power Trowel



Percussion Compactor



Concrete Cutter



Vibratory Plate Compactor



Reverse Plate Compactor



Immersion Vibrator



MPR400 REVERSIBLE PLATE



Menegotti



1. IDENTIFICATION	2
1.1 Manufacturer Identification.....	2
1.2 Machine Identification.....	2
1.3 Using the Manual.....	2
1.4 Responsibility.....	2
1.5 Safety Notes	2
 2. SAFETY AND CORRECT USE	2~3
 3. PRECAUTIONS WHEN USING THE EQUIPMENT.....	4~6
 4. EQUIPMENT DESCRIPTION	7
 5. APPLICATION	8
 6. START OF EQUIPMENT OPERATION	8
6.1 Initial Inspection	8
 7. TECHNICAL SPECIFICATIONS	8
 8. EXPLODED VIEW	9~10
 9. ON/OFF PROCEDURE.....	11
 10. COMPACTING PLATE OPERATION.....	11
 11. MAINTENANCE	12
11.1 Dry Air Filter	13
11.2 Air Filter Bathed in Oil	13
11.3 Hydraulic System	13
 12. STORAGE	13
 13. TROUBLESHOOTING	14
 14. WARRANTY.....	18

**14. WARRANTY:**

1. Menegotti guarantees this product against manufacturing or material defects for a period of 6 months from the date of purchase through presentation of an official invoice to the first end consumer;
2. This warranty includes the changing of parts and repairs against manufacturing defects duly recognized by the manufacturer or Authorized Technical Assistance Service.
3. This warranty does not cover damage caused by accidents, natural disasters, non-specified application, or, if opened by any person or workshop not authorized by Menegotti.
4. The consumer will be responsible for any freight expenses for taking the product to the technical assistant or factory. Menegotti has an ample network of Technical Assistants throughout the national territory.



NOTE:



1. IDENTIFICATION

1.1 Manufacturer Identification:

Menegotti Indústrias Metalúrgicas Ltda (Menmaq) is part of the Menegotti Group, with headquarters in Jaraguá do Sul - SC, and current leader in the production of concrete mixers, tools and equipment for civil construction.

1.2 Machine Identification:

The Menegotti reversible plate compactor is identified by its serial number and model identification plate.

Note: With the aim of constantly improving its equipment, Menegotti reserves the right to alter product characteristics without prior notice.

1.3 Using the Manual:

The contents of this manual must be carefully read before performing any operations. The manual contains useful information about the product, manufacturer, safety, replacement parts, maintenance and conservation. For greater convenience, always keep this manual nearby for quick consultation.

1.4 Responsibility:

Menegotti is not responsible for any accidents caused by the operator / objects due to improper use of the equipment and/or failure to comply with the procedures contained in this manual.

1.5 Safety Notes:

The following symbols signify important points to which the reader must pay special attention:



DANGER: The equipment could be at risk. The equipment or operator could be subject to risk if the instructions contained in this manual are not carefully followed.



ATTENTION: The life of the operator could be at risk.

2. SAFETY AND CORRECT USAGE



- Before using this equipment, carefully read this manual and follow the instructions, in order to reduce the risk of accidents in operation;
- It is expressly prohibited to remove or alter any safety device or characteristic, otherwise, Menegotti will not be responsible for any possible damages;
- Use the equipment according to the instructions in this manual;



- In case of damaged or missing parts, contact Menegotti by telephone (0xx47) 3275-8000 for replacement of same;
- With the machine in off position, conduct a daily inspection of the machine parts;
- In case of problems, contact the Menegotti authorized service immediately;



- Reserve an exclusive area for working with the equipment, always keeping the area clean and free of obstructions and with adequate lighting;
- The operator must be trained or qualified in the use of the equipment;



- Use clothing that is not too loose and which could get caught in the machine;
- Always use gloves, safety goggles and ear protectors;
- The drives must be installed by qualified professionals;
- Perform maintenance as suggested in this manual with qualified personnel and within the recommended time period;



- Avoid contact with hot surfaces;
- Before performing any activity or maintenance, first let the drive cool down;
- Take care not to touch the damper when the drive is hot, as this can cause serious burns;



- The Menegotti Reversible Plate compactors are not recommended for closed environments.
- **Carbon monoxide** from internal combustion drives can cause **death** if used in confined spaces;
- Do not operate or fill the diesel or gasoline drive in a confined space without ventilation;



- Keep hands and feet away from rotating and moving parts, as contact with these can result in serious injury;



- Ensure that both the machine and the operator are stable, placed on level ground so that the machine does not capsize or fall during operation.
- When compacting ditches, ensure that sides do not collapse due to vibration.
- Make sure that the area to be compacted does not house live electrical cables, gas, water or communication lines that could be damaged due to vibration.



NOTE:



NOTE:



Important note: Due to changes and improvements to the equipment, the following illustrations may vary in relation to the equipment.

3. PRECAUTIONS WHEN USING THE EQUIPMENT:

- ▶ This equipment can only be used for its intended application;
- ▶ This equipment can only be used by trained operators;
- ▶ The owners of this equipment must train personnel and recommend the safety instructions in accordance with local laws;
- ▶ Use the appropriate equipment when lifting the product;
- ▶ This machine must be operated on ground where stability is guaranteed. When working on the edge of excavated ditches, take care to avoid getting too close to the edge as this can cause the sides to collapse taking the machine with it;
- ▶ Keep people and animals away from the equipment during use;
- ▶ Keep hands and feet away from the shoe;
- ▶ Never allow people to be used as a weight for this equipment;
- ▶ Personal protection equipment (PPE) must be used by the operator during equipment operation;
- ▶ Before switching on the equipment determine how it can be switched off;
- ▶ Always switch off the drive before performing maintenance;
- ▶ The drive gets hot during use. Before touching it wait for it to cool down;
- ▶ Never let the equipment run unsupervised;
- ▶ Never remove or alter the safety shields, as these play an important role in the safety of the operator. Always check the state of the equipment's protection shields. If any of these are damaged or missing, do not use the equipment until it has been replaced or repaired;
- ▶ Do not operate the equipment if you are not in good health, are tired or under the influence of alcohol and/or medication;
- ▶ This equipment has been designed to eliminate any risk of accident. Nevertheless, there will always be risks which can cause accidents or even result in death when equipment is used improperly. If the operator should be placed in a position of risk the equipment will turn off immediately and the supervisor or person responsible will take measures to eliminate these risks. The manufacturer must be informed of any risk or accident with the equipment.



Fuel is inflammable. It can expose the operator to risk. Turn off the drive, eliminate any risk of fire and do not smoke during the fuel tank filling up process. Clean away any fuel spillage.



►If working on a sloping surface, take special care in controlling the direction of the machine. Always work in an up and down direction, never crossing from side to side;

►Cordon off the area around the work and keep unauthorized people, including animals, at a safe distance;

►Before filling up with fuel, turn off the drive and wait for it to cool down;

►When filling, do not smoke or allow naked flames near the site;

►When filling, use a proper funnel and do not spill fuel on the surface of the drive;

►If fuel is spilt pour sand over the surface. Should fuel come into contact with the operator's clothing, this must be changed immediately;

►Store the fuel in an appropriate container far from hot objects or those which could present a fire hazard;

►When transporting long distances, empty the fuel tank and seal it completely;

►Only use original spare parts. Do not alter drive maximum speed. Any alterations to this machine must be expressly authorized by Menegotti. Failure to comply with this condition could result in loss of warranty;

►Once all maintenance work and repairs have been conducted, all safety devices must be correctly reinstalled;

PPE Personal Protection Equipment

Personal protection equipment (PPE) must be used by the operator. For example: safety goggles, gloves, ear protectors, mask and special shoes. Use appropriate work clothes for equipment operation. Always avoid direct contact between skin and concrete.

Dust

The compacting process can produce dust which can be dangerous to your health. Always use a mask appropriate for the dust being produced.

Fuel

Do not ingest fuel or inhale its vapors and avoid contact with the skin. Should there be contact with the skin, wash the affected surface immediately. If fuel comes into contact with the operator's eyes, immediately rinse with a copious amount of water and seek medical treatment as soon as possible.



13. TROUBLESHOOTING

PROBLEMS	POSSIBLE CAUSES	SOLUTIONS
Machine does not advance or advances slowly.	Lack of oil in the reverse system.	Put the control handle in vertical position. Add hydraulic oil up to level indicated in the pump. Remove air from the circuit by lowering and raising the control handles.
Machine only moves backwards.	Pump gasket is torn or worn.	Replace gasket
Machine does not recoil or recoils slowly.	There is too much oil in the hydraulic pump control tank.	Remove the oil and fill to the level indicated in the pump.
	There is some air under pressure in the pump.	Open the pump switch to release the air.
Valve oil level is slowly decreasing.	Loss of oil in the hydraulic circuit.	Replace broken piece.
	Eccentric element cylinder gasket is torn or worn causing oil to enter.	Replace gasket and restore oil level in eccentric element.
Drive runs normally at maximum capacity, but the machine does not vibrate.	The belt is broken	Replace belt.
	Belt is loose due to wear.	
	The centrifugal clutch is broken.	Replace the centrifugal clutch.
The drive runs and the eccentric element vibrates, but the machine does not move.	Mechanical failure in eccentric element.	Contact Central Assistance Service.
Machine works with difficulty, clutch gives off smoke and eccentric element is straining.	The mechanical parts in the eccentric element are not running well (worn bearings, oil loss, broken gears).	Open the eccentric element and replace the worn parts.
		Contact Central Assistance Service.
The drive runs at minimum RPM however the eccentric element does not turn off.	The centrifugal clutch spring is broken.	Replace broken springs.
Working speed is reduced or discontinued.	Low machine RPM.	Check if accelerator lever is at maximum during work.
		Adjust the drive RPM using the proper tool



WARNING

Use oil with the viscosity and characteristics recommended by the drive manufacturer (see drive manual).

11.1 Dry Air Filter

1. To avoid carburetor dysfunction, clean air filter regularly.
2. Never use solvents with low boiling or evaporation point for cleaning the air filter.
3. Never switch on drive without air filter

11.2 Air Filter Bathed in Oil

1. Detach oil tank from filter
2. Remove the used oil and add new oil to the proper oil level.
3. Remove dirt from filter lid.
4. Clean suction tube

11.3 Hydraulic System

1. Move the operating handle to vertical position (See Fig.2 page 6).
2. Open the filling hole.
3. Check the oil level, fill up if necessary.
4. Fill up with T68 hydraulic oil.
5. Close the filling hole.

12. STORAGE

For long storage periods, remove the fuel from the carburetor with the drive turned on and with the fuel valve closed until the drive dies.

The chemical composition of the fuel will deteriorate with prolonged storage. When equipment is to be stored for a long period remove all fuel and water from the respective tanks. Also remove all fuel from the carburetor by draining.

Clean the dirt accumulated in the Compacting Plate. Cover the machine and store in a dry place.



Extreme care must be taken when moving the equipment for storage.

Always use the hook on the equipment for lifting. Only use proper hoists for this operation.

Ensure that the area around the machine is isolated from operators before lifting it. Always lift the machine high enough so that it doesn't drag when being transported.



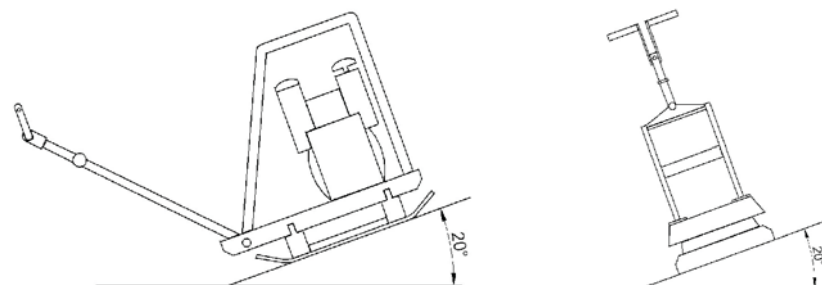
Exhaust gases



The exhaust gases produced by this equipment are highly toxic and can cause risk of death.

Do not operate your compactor inside a closed environment or limited space, ensure that the work area is well ventilated.

MAXIMUM INCLINATION PERMITTED



Operation

The compacting plate has a hydraulic system that enables speed to be gradually increased.

Direction is determined by the eccentric shaft control.

Fig.1

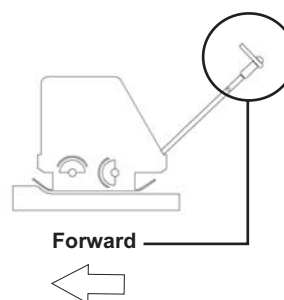


Fig.2

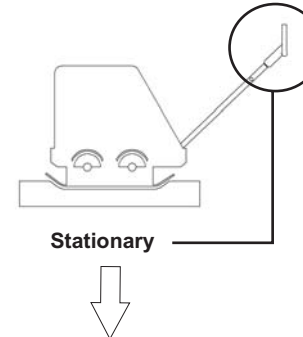
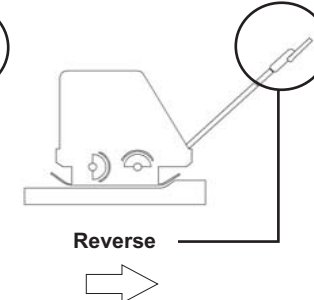
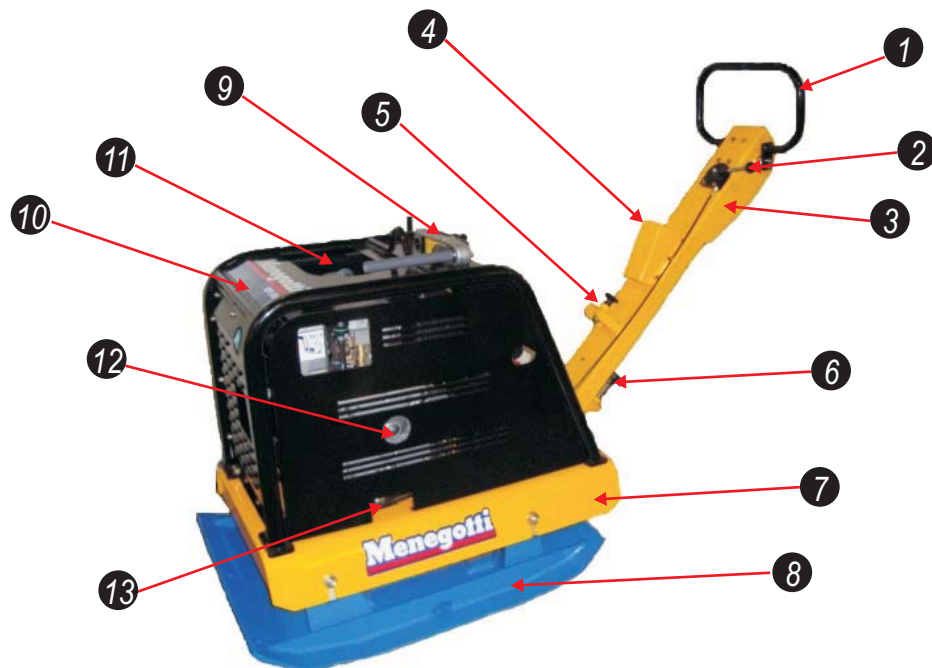


Fig.3





4. EQUIPMENT DESCRIPTION:



No.	Description	Function
1	Control Handle	Machine direction support.
2	Accelerator	Controls machine speed.
3	Drawbar	Operates and controls machine.
4	Electric Start Switch	Switches on machine. (if connected)
5	Locking pin	Fixes handle after folding.
6	Adjustable Fuse	Adjusts drawbar height.
7	Drive plate	Fixes drive.
8	Plate base	Eccentric element gear Box vibration is transferred to the base plate for efficient compacting.
9	Crank Start	Starts the machine.
10	Protection Frame	Protects machine drive and lifting.
11	Drive	Drives the reversible compactor.
12	Crank Start Coupling	Starts the machine.
13	Oil Drain	At time of changing, the oil is drained from the drive through this tube.



11. MAINTENANCE

PARTS	MAINTENANCE	INTERVAL
Air Filter	Check the filter, clean or replace if necessary. Check oil level (only for models with filters bathed in oil).	Daily
Gas Tank	Check that oil tank lid is firm, replace if necessary.	
Drive	Check oil level, fill up if necessary.	
Eccentric Element	Check if it is duly open and that it's not making a strange noise.	After 20 hours
Drive	First oil change.	
"V" Belt	Check belt tension	Monthly
Gas Tank	Check the gas filter, replace if necessary.	After 100 hours
Drive	Later oil changes	
Eccentric Element	Check oil level, fill up if necessary.	After 150 hours
Eccentric Element	Change oil.	After 250 hours

Drive oil change

1. Check oil level using dipstick.
2. When changing oil use the tube to drain the oil while the drive is hot.
3. Fill up to the level indicated.



9. ON/OFF PROCEDURE



Incorrect operation can lead to risks. Carefully read this section before using the equipment.

NOTE: Before switching on the machine, ensure that the Safety start switch is in the ON position, the speed lever in the idle position.

1. Take the Reversible Vibratory Plate to the place of use. Use the appropriate suspension equipment to position the Reversible Vibratory Plate in the place of use. Ensure that the suspension equipment has an adequate load weight limit to carry the weight of the Reversible Vibratory Plate. Tie the ropes or chains up to the suspension point only;

2. Never transport with the drive turned on, even if for a short period of time;

3. After checking the previously described items the operator can start the drive. The Menegotti Reversible Vibratory Plate has a centrifugal clutch that allows the drive to run without the equipment beginning to vibrate. The centrifugal clutch starts when drive speed is increased. To operate correctly the drive must be at maximum;

Before switching on the drive.

4. Check the drive oil level. Check correct quantity with drive manufacturer. If oil needs changing consult manufacturer's manual;

5. Check the fuel tank. Consult drive supplier manual. (The drive manual is together with the machine);

10. OPERATING THE COMPACTING PLATE:

1. Place the drive in maximum acceleration and decelerate the Vibratory Plate until reaching normal speed.

2. When operating on an upwards slope it may be necessary to help the Vibratory Plate by pulling it slightly forwards.

3. When operating on a downwards slope hold the Vibratory Plate back if it accelerates too high.

4. Depending on the material to be compacted, it is recommended to pass the compactor 3 or 4 times over the surface for better compaction.

5. Although a certain soil humidity is necessary, excessive soil humidity can cause soil particles to stick and prevent good compaction.

6. If the soil is very wet, wait until it dries a bit before compacting.

7. If the soil is so dry that dust clouds form during Vibratory Plate operation, then the soil must be dampened for better compaction. This also reduces the work of the air filter.



The plate must not be used on concrete or other extremely hard surfaces, dry and compacted. The plate will jump and not vibrate resulting in damage to the plate and drive.



5. APPLICATION

This Reversible Vibratory Plate was designed to compact loose granulated soil, gravel, paving stones and asphalt. It was projected to be used in confined areas close to structures such as curbs and foundations.

The Reversible Vibratory Plate is not recommended for compacting very adherent soil and soil with a high clay content. For this type of soil, use the Menegotti Percussion Compactor.

6. START OF EQUIPMENT OPERATION

6.1 Initial Inspection

The following initial inspection must be conducted before the beginning of each equipment operation or after several hours of use. For more information consult the service and maintenance section. Should one of the following items be encountered the error must be corrected before using the equipment ;

1. Check for the existence of signs of defects in the equipment. Check if all shields are in their correct positions;

2. Inspect all hoses, openings, drains and other areas for leakage;

3. Check the drive oil level and fill up if necessary, SAE 10W-30 oil is recommended;

4. Check the fuel level and fill up if necessary. Always use clean fuel. The use of adulterated fuel could damage the equipment;

5. Check if the air filter is clean. Excess dust in the filter will not permit the drive to work under normal conditions. Clean the drive filter according to the service and maintenance section;

6. Check for oil and fuel leakage and ensure that all screws are well tightened;

7. TECHNICAL SPECIFICATIONS

MODELO	MPR400
Dimension (W x L x H) - mm	1050 x 700 x 1500
Operating Weight – kilo (lbs)	400 (881)
Plate Size (W x L)- mm	910 x 700
Work Speed km/h	1.5
Vibration Frequency - Hz	70 (4200)
Centrifugal Force – Kg (KN)	6200 (62)
Compacted Area - m ² /h	1050
Compaction Depth (depending on soil) - cm	70~85
Maximum gradeability	20 %
Drive	Hatz 1D41S
Drive Type	Motor Diesel, Ar – Esfriado, 4 Tempos
Maximum Production Power – Hp (kW)	8.7 (6.4)
Maximum Drive Speed - rpm	3600



8. EXPLODED VIEW OF EQUIPMENT

