

MENEGOTTI TECHNICAL MANUAL POWER TROWEL MPT 36 | MPT 46

- 40730148 - Power Trowel Frame MPT 36 without Engine (Prepared for Honda GX160 Engine)
- 40730149 - Power Trowel MPT 36 with Menegotti 200 6.5HP Engine
- 40730160 - Power Trowel MPT 36 with Honda GX160 5.5HP Engine
- 40730163 - Power Trowel MPT 36 with Menegotti 200 6.5HP Engine with quickpitch
- 40730164 - Power Trowel MPT 36 with Honda GX160 5.5HP Engine with quickpitch
- 40730165 - Power Trowel MPT 36 without Engine (Prepared for Honda GX160 Engine) with quickpitch
- 40730158 - Power Trowel MPT 46 with Menegotti 270 9.0HP Engine
- 40730159 - Power Trowel Frame MPT 46 without Engine (Prepared for Honda GX270 Engine)
- 40730162 - Power Trowel MPT 46 with Honda GX270 9.0HP Engine
- 40730166 - Power Trowel MPT 46 with Menegotti 270 9.0HP Engine with quickpitch
- 40730167 - Power Trowel MPT 46 with Honda GX270 9.0HP Engine with quickpitch
- 40730168 - Power Trowel MPT 46 with Engine (Prepared for Honda GX270 Engine) Engine with quickpitch

QR-Code:



Point your cell phone or tablet camera to access the updated version of **Technical Manuals** and **Parts Catalogs** online, or click the link below to access the website.

www.sites.google.com/view/menegotti-engenharia-docs

Attention:

Before operate **Menegotti** equipment, read this **Technical Manual**, itself will inform and instruct the operator about the operation.

By the way, you avoid possible working accidents and early maintenance on at the equipment.



Illustrative images.

MENEGOTTI
N O R T H A M E R I C A 

Congratulations, you have just purchased a Menegotti product!

With the highest quality, projected and built especially to serve your needs.

This manual was elaborated to provides the informations and key instructions to use and mantain our product, in addiction presents their technical characteristics.

Before use the product for the first time, read and pay attention at the informations in this manual.

The product durability only depends the way you treat it in service (operation) and the satisfactory working is consequence of yours regular work carefully.

Menegotti is prepared to offer you all technical assistance, and attend all your needs about replacement parts.

Welcome, you are part of the huge Menegotti “customers familiy”.

After sales Departament
and Technical Assistance MENEGOTTI.

Attention: For better comodity, store and keep this manual in a properly spot so it can be easily checked.

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Menegotti Group

Menegotti is reference in the development of solutions in machines and tools for the Construction machinery, Handling and Lawn | Garden Segments.

A Brazilian company, present in more than 40 countries, has its headquarters in Jaraguá do Sul, Santa Catarina, units in Brazil and in the United States.

With more than 80th years of history, it is in the fourth generation of consistent and successful family management.

National leader in sales of concrete and cement mixers, it stands out in the resale and rental market.

Through its Innovation Program, it fosters creativity and competitiveness, with disruptive actions and partnerships, aimed at continuous professional and business growth.

With an organizational culture that values and encourages its constant professional and personal development, Menegotti is active in sustainable projects, which make its purpose of contribute “to build a better and more sustainable world”, a reality.



The Product

The Power Trowel MPT was developed exclusively for smoothing and finishing concrete floors where greater speed and uniformity in the surface finish is required. The equipment performs the smoothing and straightening of the concrete floor by means of the circular rotation of the trowel blades.

• **Menegotti reserves the right to make changes to the products without prior notice. Illustrations may include optional equipment and accessories, which may not be included in all standard equipment. If any information in this manual is not consistent with the physical product, consider the current product and manual for reference only.**

For more up-to-date information, just access our website: <https://sites.google.com/view/menegotti-engenharia-docs>, or use the QR code on the cover of this manual.

Main features:

- * Constructive shape of the gearbox guarantees a long service life;
- * Its more robust design guarantees a superior finish;
- * Adjustable handlebar height, ensuring operator comfort and ease of equipment control;
- * It has a handle for lifting and a front carrying handle which allows the machine to be carried by only 2 people (with the other person lifting by the operating handlebar);
- * It has a safety switch, which allows the engine to stop in case the operator loses control of the equipment;
- * It has adjustment of the positioning of the straightening blades.

See in more detail some features of this equipment:

- a) **SAFETY SWITCH:** Its purpose is to stop the engine in an unstable situation. Example: if the operator releases the operating handlebars;
- b) **ADJUSTABLE THROTTLE:** This speed control ("push-pull" button) can provide a speed between 50 and 130 rpm on the trowels;
- c) **BLADE FIXING ARM ADJUSTMENT:** Allows the blades to be adjusted if the blade fixing arms are damaged, caused by a fall or misuse of the equipment. It can be easily adjusted in the field for a uniform finish;
- d) **BLADES PROTECTION GRID:** protects the operator and the machine, providing a lower center of gravity, which contributes to the stability and performance of the trowel;
- e) **BLADES FIXING ARM SUPPORT:** it is more robust to ensure alignment. It also contributes to lowering the center of gravity or increasing blade performance;
- f) **ADJUSTMENT OF OPERATING HANDLEBAR:** can be positioned to provide comfort and control for any operator height;
- g) **BLADES ANGLE ADJUSTMENT KNOB:** adjusts the angle of the blades for different stages and conditions of concrete curing. Turning the handle clockwise increases the angle of the blades to the concrete. Turning the handle counterclockwise flattens or decreases the angle of the blades.

Safety Information

This equipment, if not observed the safety recommendations, presents risks of intoxication, burns, crushing and cuts of limbs.

This manual contains notes, cautions and warnings that must be followed to avoid the possibility of misuse, damage to the machine or personal injury.



NOTES: Contains additional information for important procedures.

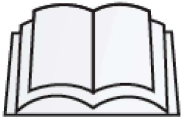
CAUTIONS: Important information to prevent errors that could damage the machine or its components.

WARNINGS: Alert you to conditions or practices that could lead to personal injury or even death!

Operational Security

For the safe operation of the equipment, the operator must be trained or qualified.

Equipment operated improperly, or by unauthorized persons, can be dangerous. Training is the responsibility of the employer and must be provided by a qualified professional.



- * **NEVER** allow untrained people to operate the equipment;
- * **ALWAYS** read, understand and follow the Instruction Manual procedures before operating the equipment;
- * **ALWAYS** make sure that the operator is familiar with proper safety precautions and operating techniques before using the equipment.



- * **NEVER** operate the trowel in applications it is not intended for;
- * **NEVER** change or disable operational and safety functions;
- * **NEVER** use accessories not recommended by Menegotti for the trowel. It can cause damage to the equipment and/or injury to the user;
- * Menegotti will **NOT** be responsible for any accident due to equipment modifications. Such changes will void the warranty;
- * **ALWAYS** use caution and common sense when operating the trowel.



- * **ALWAYS** in case of damaged or missing parts, contact Menegotti immediately, for replacement;
- * **ALWAYS** with the machine off, carry out a daily inspection of the parts of the equipment. In case of problems, immediately contact the Menegotti Authorized Service.



- * **ALWAYS** avoid contact with hot surfaces, contact with these areas can cause severe burns;
- * **ALWAYS** before performing any operation or maintenance, allow the engine to cool down.



- * **NEVER** use the equipment in closed places (without ventilation). Engine exhaust gases contain carbon monoxide; exposure to carbon monoxide can cause loss of consciousness and can lead to death;
- * **NEVER** ingest fuel or inhale its vapors, and avoid skin contact. In case of skin contact, wash the affected surface immediately. If fuel comes into contact with operator's eyes, flush immediately with water and seek medical attention as soon as possible.



- * **NEVER** leave the machine running unattended;
- * **ALWAYS** wear protective clothing when operating equipment. Wear safety glasses or goggles, ear protection and safety shoes;
- * **ALWAYS** keep hands, feet and loose clothing away from the moving parts of the equipment.

WARNINGS:



- * **DO NOT** refuel the engine when it is hot or running;
- * **DO NOT** refuel near a confined area, areas with sparks, flames, smoke or any restricted area;
- * **DO NOT** spill fuel when refueling the engine. Always clean up any fuel spills.



- * **DO NOT** smoke when operating the trowel and/or refueling the engine;
- * **DO NOT** smoke near a confined area, areas with sparks, flames, smoke or any restricted area.



- * **ALWAYS** replace the fuel tank cap after refueling;
- * **ALWAYS** check the fuel hoses, fuel tank cap and fuel tank for leaks before starting the engine. Do not start the machine if there are fuel leaks or the fuel tank cap or tank is loose.



- * **ALWAYS** turn off the engine when the trowel is not being operated;
- * **ALWAYS** ALWAYS avoid contact with the exhaust and engine parts, and wait until it has cooled down before doing any maintenance or service;
- * **NEVER** use the choke to stop the engine.

Services security:

Poorly maintained equipment can become a safety hazard! In order for the equipment to operate safely and properly for a long period of time, periodic maintenance and occasional repairs are necessary.

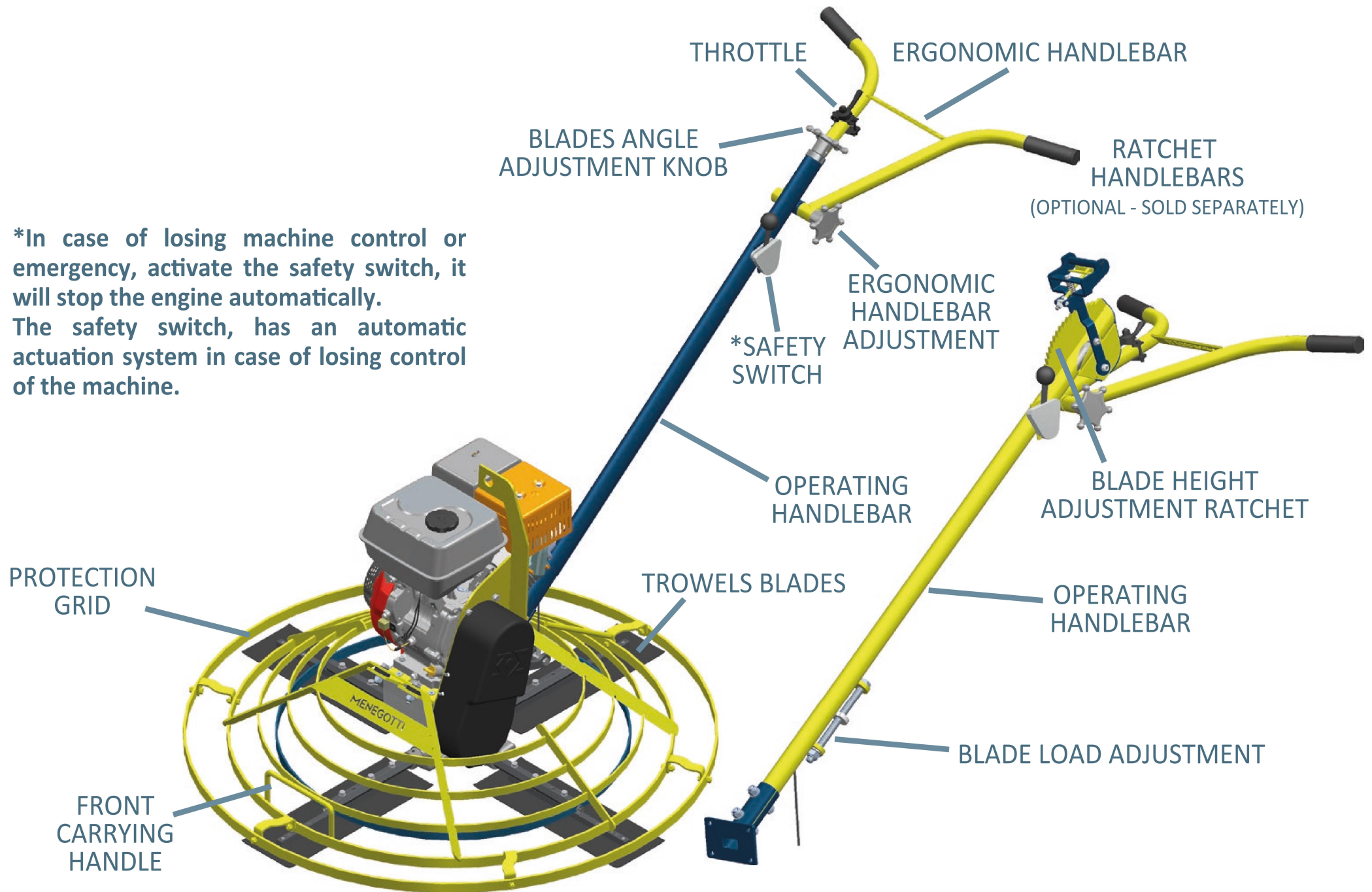
WARNINGS:

- * **DO NOT** attempt to clean or repair the equipment while it is in operation;
- * **DO NOT** operate the equipment without safety devices and protections or without operating conditions;
- * **DO NOT** operate the equipment without the air filter;
- * **DO NOT** remove the air filter element, pre-filter or air filter cover while the equipment is operating, as this may damage the engine;
- * **DO NOT** allow anyone to stand or lean on the machine during operation;
- * **ALWAYS** stop the engine and disconnect the spark plug wire before doing any procedure;
- * **ALWAYS** keep the safety switch set and in good operating condition at all times. Do not use the Power Trowel if this switch is not working. The equipment will automatically stop if the operator loses control of it;
- * **ALWAYS** make sure the safety stop switch has the lever released (in the down position) before starting to use the Power Trowel. Keep your hands firmly on the operating handlebars while operating the equipment;
- * **ALWAYS** perform periodic maintenance as recommended in the Instruction Manual.



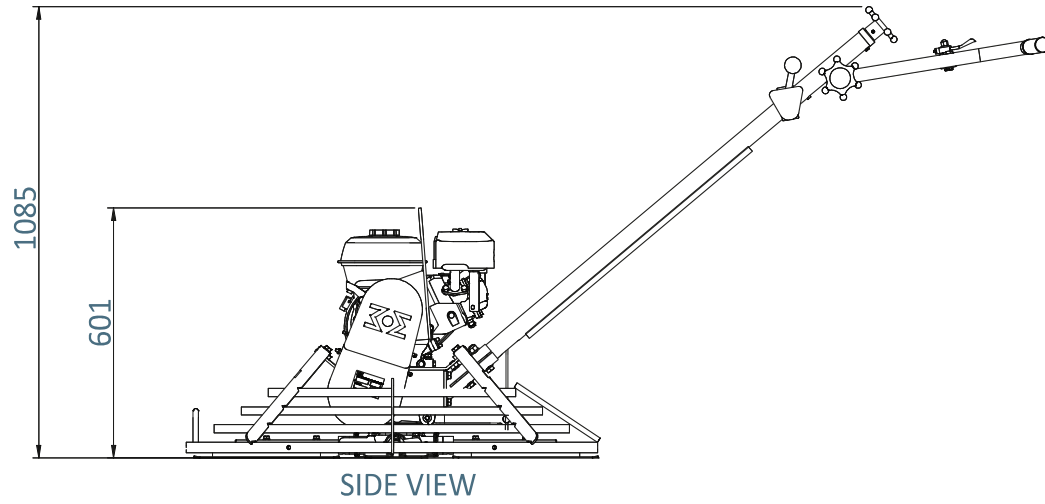
Component and Control Localization

*In case of losing machine control or emergency, activate the safety switch, it will stop the engine automatically. The safety switch, has an automatic actuation system in case of losing control of the machine.

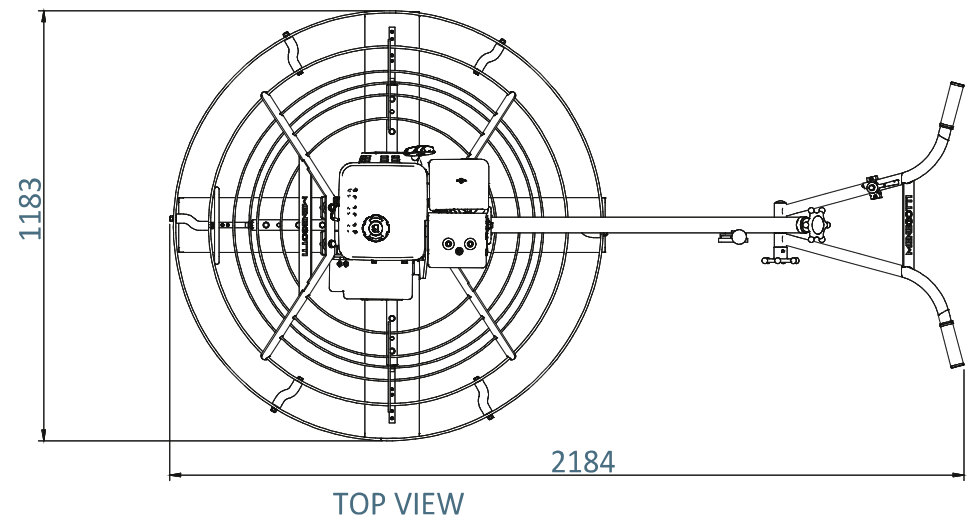
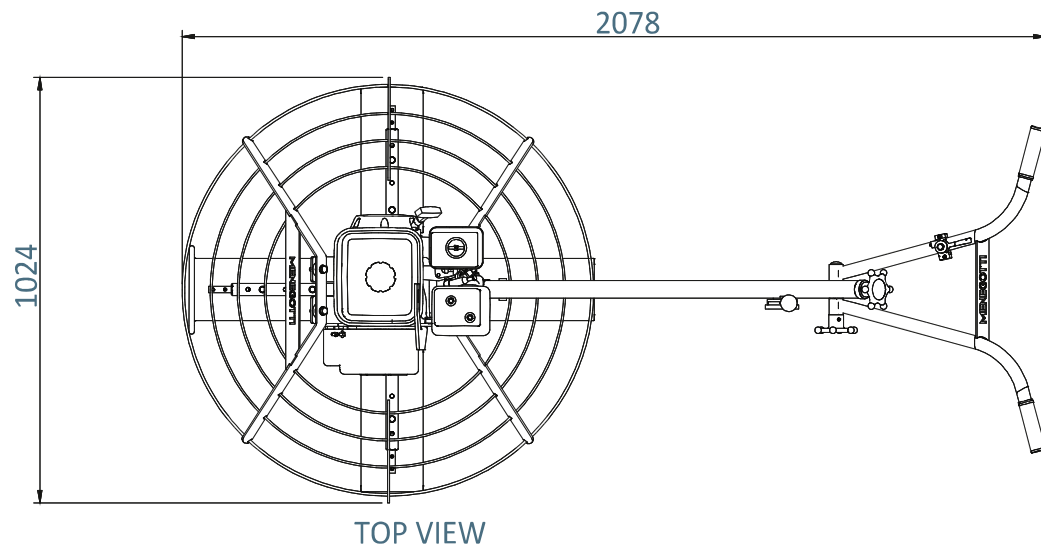
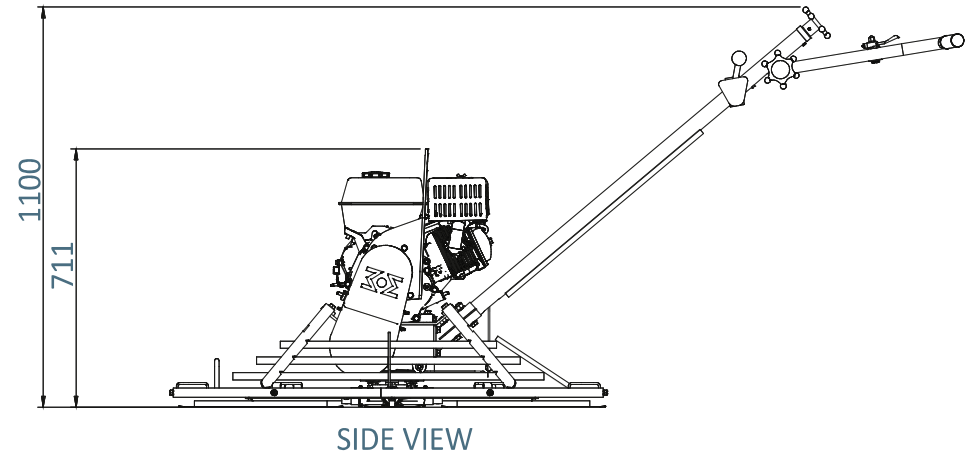


Product Dimensions

MPT 36



MPT 46



Technical Specifications

SPECIFICATIONS	MPT 36					
Code	40730148*	40730163	40730164	40730165*	40730149	40730163
Motor	Honda Gx160				Menegotti 200	
Power - hp	5.5				6.5	
Operating mass - kg	89					
Reach diameter - cm	90					
Number of blades	4					
Flotation disk - cm	94					
Total weight (with packaging and motor) - kg	115					

*Equipment prepared to receive the respective engine.

SPECIFICATIONS	MPT 36					
Code	40730159*	40730162	40730167	40730168*	40730158	40730166
Motor	Honda Gx270				Menegotti 270	
Power - hp	9.0				9.0	
Operating mass - kg	113					
Reach diameter - cm	117					
Number of blades	4					
Flotation disk - cm	119,4					
Total weight (with packaging and motor) - kg	128					

*Equipment prepared to receive the respective engine.

Machine Inspection

Inspection must be performed before each operation of the equipment and in accordance with the maintenance plan. For more information, consult the maintenance section. If one of the following items is found, the error must be corrected before using the equipment.

1. Read the trowel manual and also the engine manual equivalent to the equipment purchased;
2. Analyze if there are signs or defects present in the equipment, verify that all protections are positioned in their correct places;
3. Check the engine and gearbox oil level, top up if necessary. The engine will not start without oil. The Power Trowel blades are already lubricated;
4. Check the fuel level and top up if necessary. Always use clean fuel. The use of adulterated fuel can damage the fuel system, make an adequate supply to avoid a risk of fire. Do not mix oil with gasoline;
5. Check for oil and fuel leaks;
6. Check that the air filter is clean. Excessive dust in the filter will cause the engine to not work under normal conditions and cause damage to the engine;
7. Check if the blades are correctly fixed;
8. Perform a visual inspection of the trowel. Check that all screws are tight and the mechanical components are in perfect working order;
9. The safety stop switch must operate freely and must always be kept in that state;
10. With the key in the OFF position, the engine must not start or run.

Assembly and Installation of the Components

STEP 1 - Unpack the assembled operating handle.

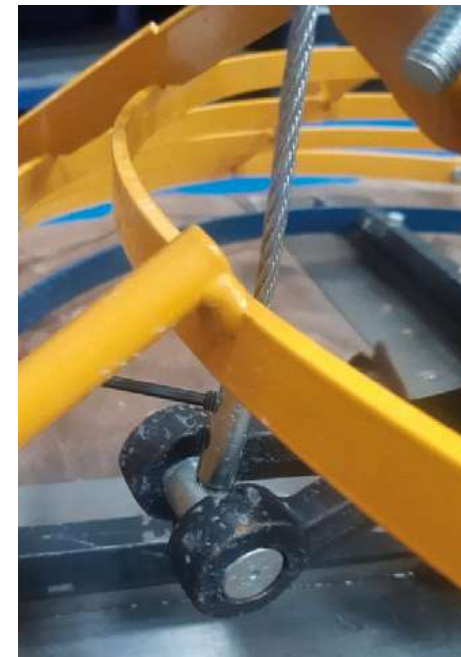
Make sure that no damage was done during transport.

Assemble the operating handle on the bracket, attached to the gearbox, using:

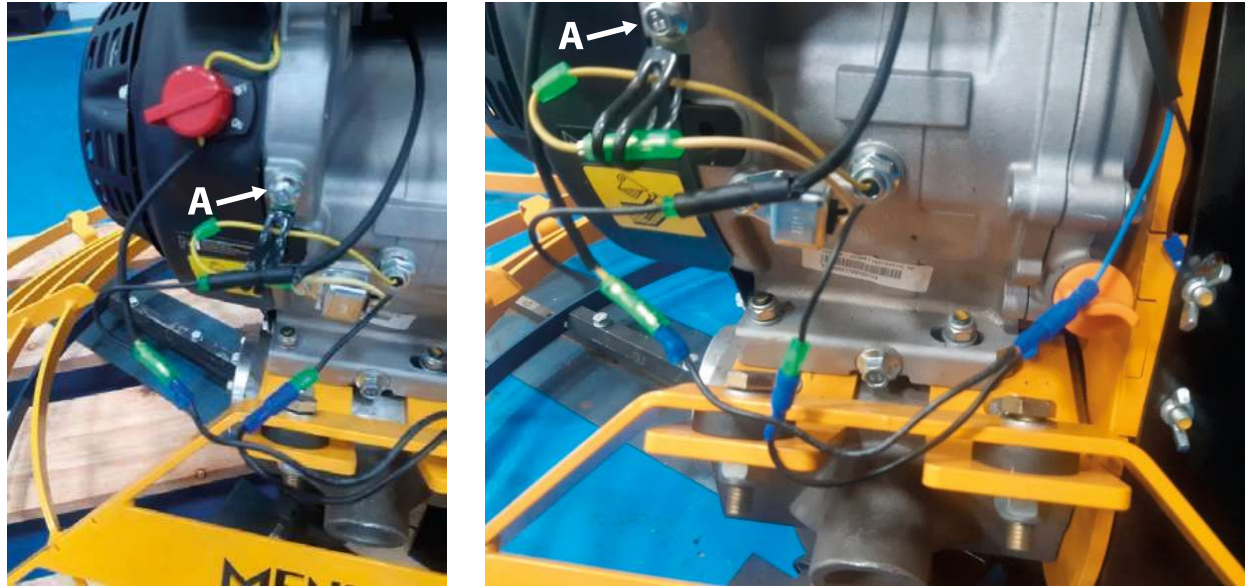
02 M12x70mm bolts + 04 M12 washers + 02 M12 locking hex nuts.



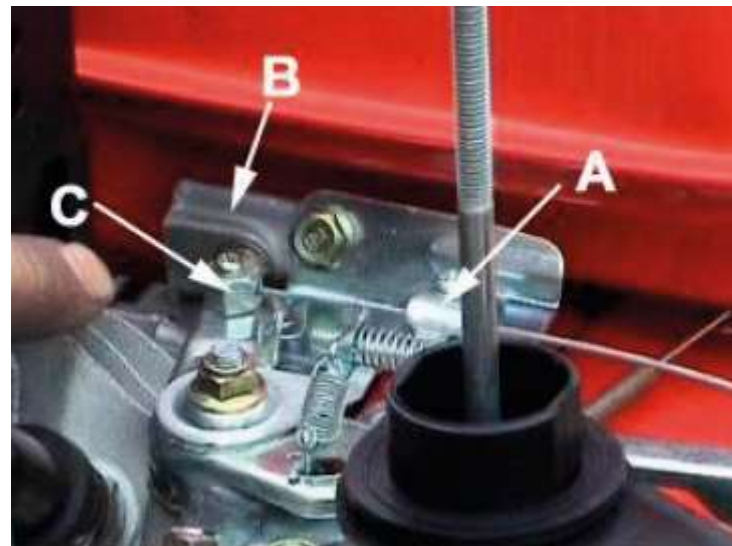
STEP 2 - With the operating handlebar assembled, connect the blade tilt adjustment cable, using the 02 M6x8mm allen screw.



STEP 3 - Connect the blue wire of the safety device (which comes from the operating handlebars) to the engine and connect the terminal of the brown wire to the screw (A), as shown in the images below.

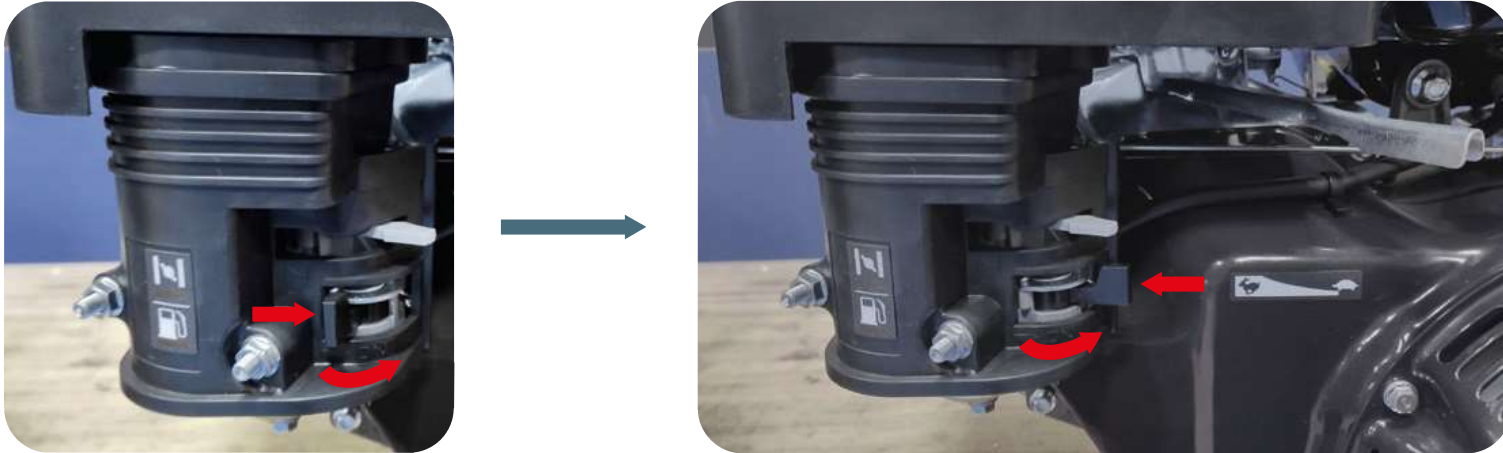


STEP 4 - Make sure the operating handlebar throttle lever moves forward when it is operated. Remove the engine breather cap. Loosen the cable adjustment lock (A). Then make sure that the engine throttle lever (B) moves forward when operated. Insert the cable into the hole outlet (C). With the parts in place, put the cable exit clasp (A) and tighten the screw.

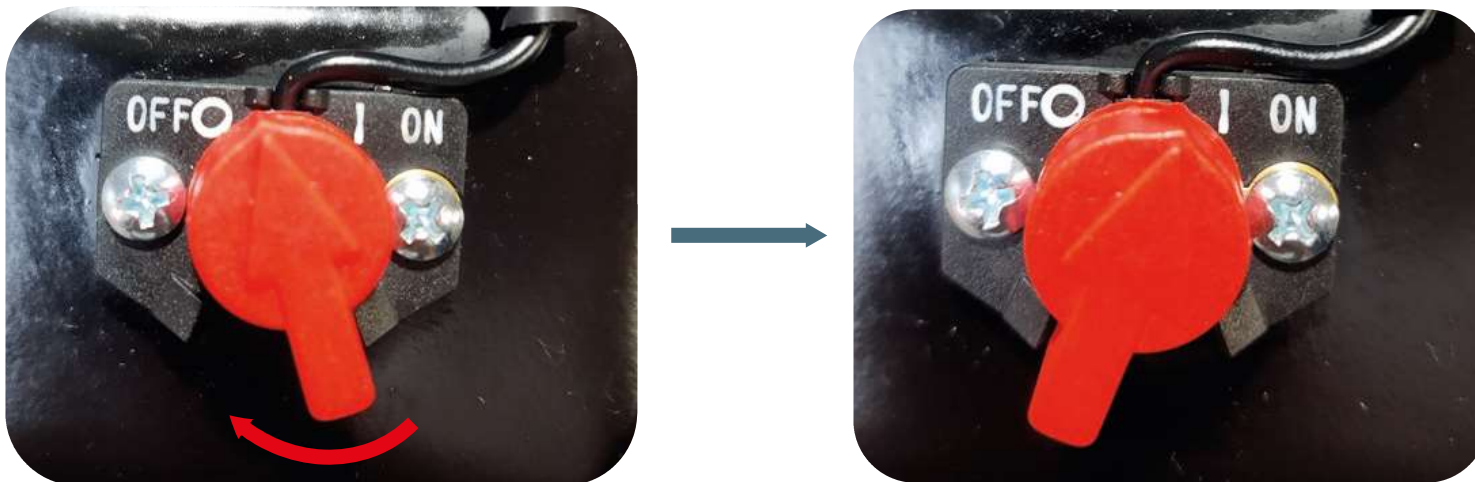


Starting the Engine

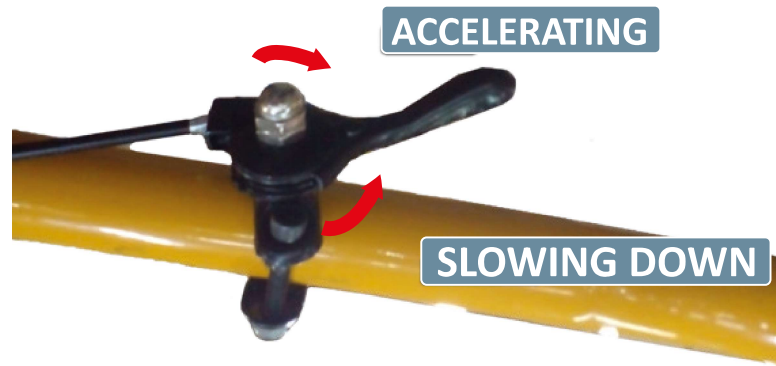
1. Open the fuel valve located under the fuel tank, moving the switch from the "OFF" position to "ON", as shown in the figures below;



2. Position the engine stop switch from the "OFF" position to the "ON" position, as shown in the figures below;



3. Move the throttle lever/rod to approximately 1/4 of its full travel (25% throttle), as indicated in the following figure;

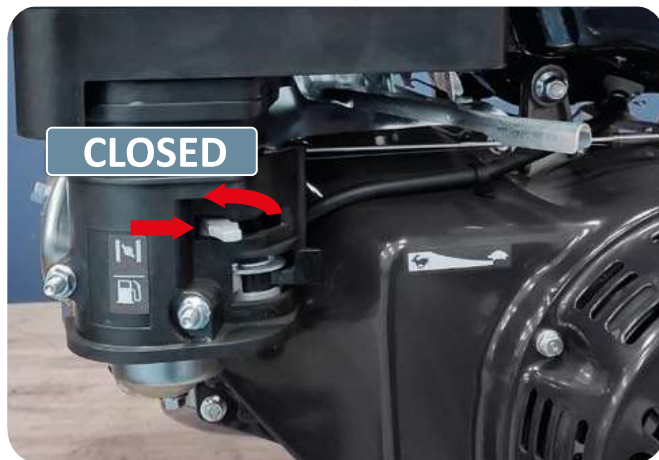


ATTENTION: If this value is exceeded (25%), there is a risk that, when starting the engine, it will have enough capacity to make the machine work without the operator being prepared to start operations, a fact that can result in accidents or damage to the machine.

4. 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.

If the choke lever was moved to the CLOSED position to start the engine, gradually move it back to the OPEN position as the engine warms up.



Note: This can change its physical appearance and position depending on the machine, including the direction for opening or closing, so pay attention to the signs containing information regarding actions, movements and directions.

ATTENTION: Step 4 is valid only in cases of cold start, in case of hot start, disregard this step, that is, it is **NOT** necessary to activate the choke. In cases where the engine is at an "average temperature" to the point that it does not fit into any of the starting categories, that is, hot or cold, open the choke in order to have 50% of its actuation, soon after, just follow the instructions for the other steps as normal.

5. Pull the starter rod/handle slightly to correctly fit the internal components until it offers a slight resistance to movement, as shown in the following figures;



ATTENTION: This first movement must be smooth for the correct fitting of the components shown in the following figures. Once the rods open and fit into the limiting walls, if the movement is sudden and not continuous, the fitting may not occur as it should, a fact that compromises the internal walls of this system, and also reduces the life of the retractable starter rope.



6. Pull the starter rod/knob continuously, quickly and firmly to start the engine;



ATTENTION: Both the pulling and returning movement of the retractable starter rod/handle must be firm and continuous, in order to avoid breakage of internal components. To perform the correct movement, just pull the rod to the position that offers a little resistance, which indicates the ideal fit of the internal components, and from this point on, continue the movement in a continuous, fast and firm way, without sudden movements, the same is valid for returning the rod to the initial position, that is, do not release the rod/handle while the rope is stretched out of the housing.

7. When the engine starts, return the choke rod to the “Closed” position, and move the throttle rod to a position of 50 to 75% of the throttle so that it is continuous;
8. If the engine does not start after 3 attempts, open the choke slightly to prevent drowning and repeat the entire engine starting process;
9. Let the engine warm up for 3 to 5 minutes before using it under load, that is, in full operation;
10. Always operate the engine with the throttle rod fully open (100%) when the machine/equipment is in operation.

Turning off the Engine

1. Turn off the throttle to the idle position;
2. Place the engine switch in the "0" (OFF) position, turning it counterclockwise;
3. Close the fuel cock by moving the tap level switch to the closed (OFF) position, being to the left.

NOTE: These starting instructions are general guidelines only. Consult the engine manual for specific instructions.

Machine Operation

Never remove or alter safety guards, as they play an important safety role for the operator. Always check the state of conservation of the equipment's protective 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 sick, tired or under the influence of alcohol.

If the operator finds himself in a risky situation, the equipment must be turned off immediately and the supervisor or person in charge takes measures to eliminate these risks. It is necessary to inform the manufacturer of any risk event or accident with the equipment.

Operating the machine:

After starting the engine as instructed, hold the operating handlebars firmly with one hand and move the throttle to the ACCELERATE position to activate the trowels blades.

Smoothing operation:

When the concrete is already at the ideal curing stage to receive the trowel's weight, place the equipment over this area. Turn on the equipment and adjust the blades as previously explained.

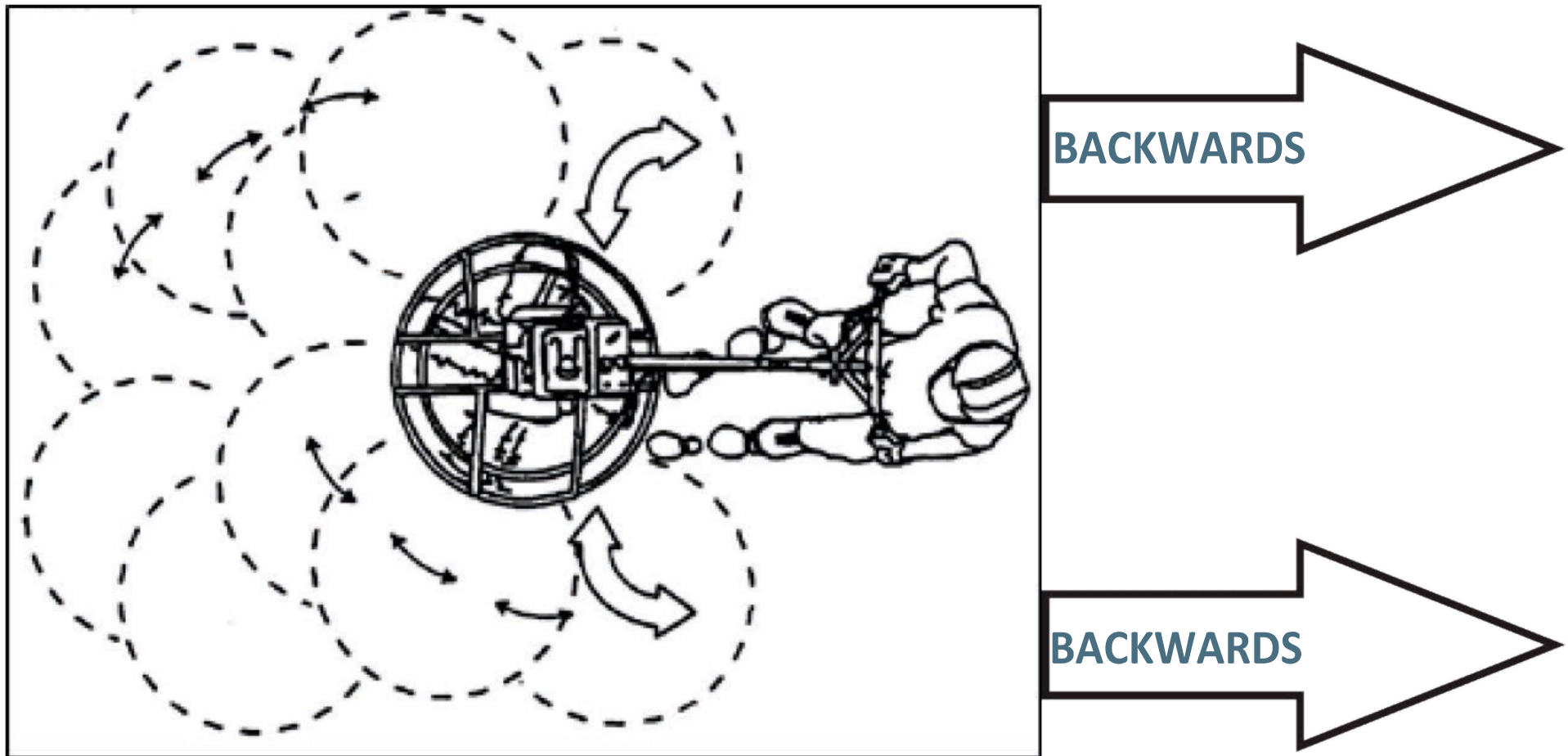
Use the tilt adjuster to adjust the blades - they must be as close to the concrete as possible and the operator must hold the equipment strong enough to prevent it from losing its stability.

Guide the blades over the concrete in a circular a circular, backward motion. Under normal conditions, it should be able to float in a 30 x 30 meter area in approximately 15 minutes. This operation will bring the water to the surface, allowing for a finer finish to the smoothed area.

Maneuver Operation:

During final finishing, adjust the height of the blade inclination to approximately 6 to 10mm. If the blades begin to sink into the concrete, decrease the tilt height.

As the following explanation shows, it is possible to understand the application of the Power Trowel in the backward direction.



- To move the trowel to the left of the operator, lift the operating handlebar and to move it to the right, push the handlebar down;
- The best method for finishing concrete is to slowly maneuver the trowel backwards, swiveling the blades from side to side. This will cover any marks that still exist in the wet cement;
- Remember! If you stop operating the Power Trowel, step away from the machine, and only when it has stopped completely can you resume using it. **NEVER** use the trowel on surfaces that are already dry/cured, as this may damage the blades, and will not produce any troweling effect.

Periodic Maintenance Plan

General machine maintenance plan:

	Daily and before starting	Every 2 weeks or 50 hours	Every month or every 100 hours	Every 2 months or 200 hours	Annually or every 2000 hours
Visual inspection of all equipment	X				
Check crankcase and engine oil level	X				
Check that the fuel hose is cracked or leaking	X				
Check fuel level	X				
Check and retighten screws	X				
Check the belts	X				
Check and clean air filter, if necessary		X			
Check and change blades, if necessary		X			
Lubricate the blade fixing arm, bearing seat and clutch		X			
Clean and check spark plug			X		
Grease all grease points				X	
Remove, clean, reinstall and lubricate the blade fixing arm and bearing seat				X	
Remove, clean and reinstall the clutch				X	
Check and replace the arm bushings and shaft seals, if necessary					X
Check throttle cable wear					X
Adjusting the speed of the blades					X

General engine maintenance plan:

ITEM H - HONDA ENGINE M - MENEGOTTI ENGINE		In all operations	First month or 20Hrs	Every 3 months or 50Hrs	Every 6 months or 100Hrs	Every year or 300Hrs
Engine oil	Check level	H M				
	Change		H M		H M	
Gearbox oil (applicable types)	Check level	H M				
	Change		H M		H M	
Air filter	Check	H M				
	Clean			H [1] M[1]	H*[1]	
	Replace					H** M**
Sediment cup	Clean				H M	
Spark plug	Check and adjust				H	
	Check and clean				M	
	Replace					H M
Spark arrestor (optional)	Clean				H M	
Idle speed	Check and adjust					H [2] M [2]
Valve clearance	Check and adjust					H [2] M [2]
Combustion chamber	Clean	H - Every 500hrs [2] M - Every 300hrs [2]				
Fuel tank and filter	Clean				H [2]	M [2]
Fuel tube	Check	H [2] and M [2] - Every 2 years (Replace if necessary)				

* Internal vent carburetor with dual element type only;

- Cyclone type every 6 months or 150 hours;

** Replace only the paper filter element;

- Cyclone type every 2 years or 600 hours;

[1] More frequent service when used in dusty areas

[2] These items must be performed by the maintenance service or trained professionals with appropriate tools.

Belt maintenance:

WARNING: NEVER attempt to check the belt with the engine running. Serious injuries can occur.



To service or replace the belt, first remove the top cover and check the belt tension. The belt tension is adequate if the belt is between 10 to 15 mm slack when pressed hard with the finger between the axles.

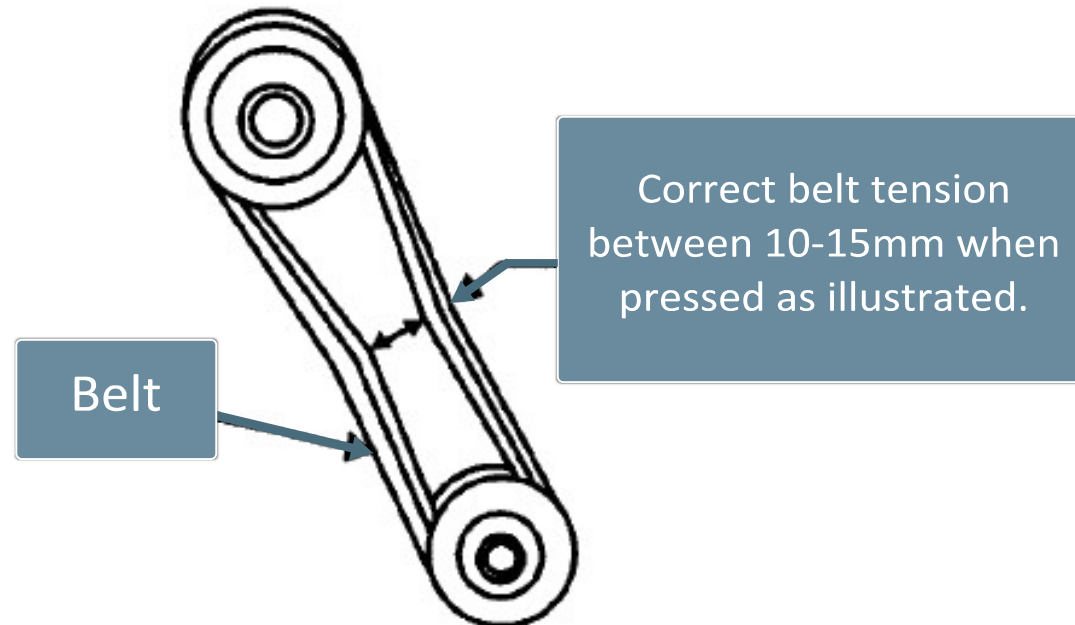
Loose or worn belts reduce the power and efficiency of the transmission, causing poor vibration and shortening the life of the belt itself.

Belt replacement:

1. Remove the upper and lower belt covers.
2. Wrap a star key around the pulley fixing screw in order to lock it.
3. Wrap a cloth in the middle of the belt on the left side, pull it back tightly so as to remove the belt from the pulley.

Belt reinstallation:

1. Wrap the belt to lower the pulley.
2. Push the belt to the left side of the upper clutch, in the same way as for removal.
3. Turn the pulley clockwise by compensating with the star key, so that the belt comes back.

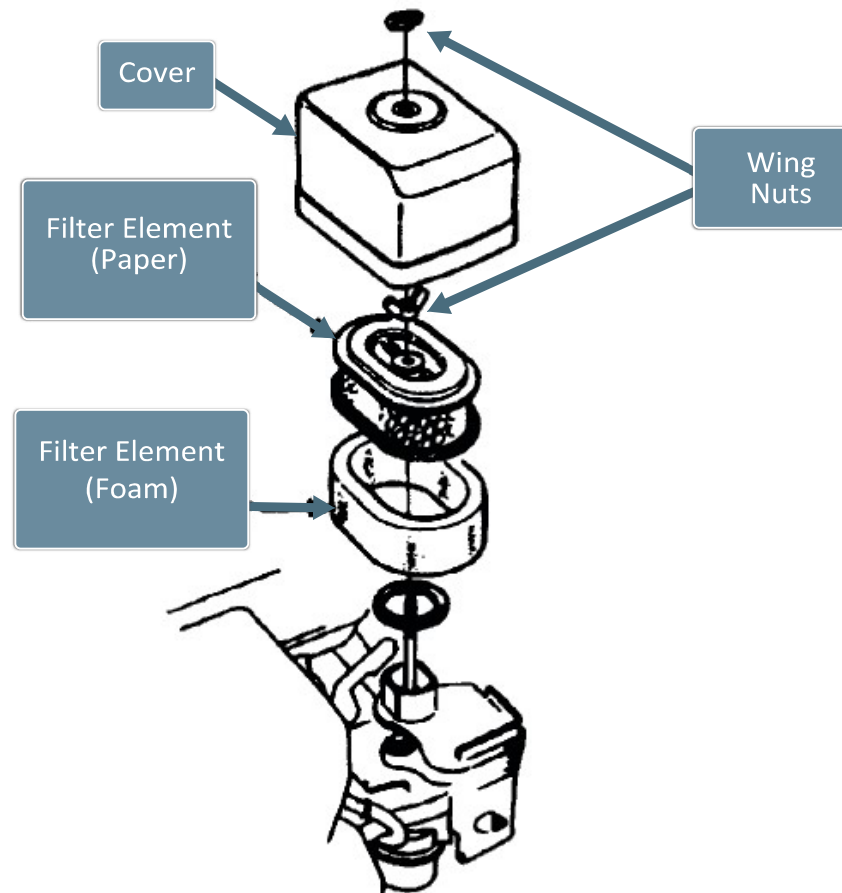


Air filter maintenance:

Air filter maintenance is important for engine performance, since a clogged air filter can cause poor engine starting, power failure, and premature engine wear.

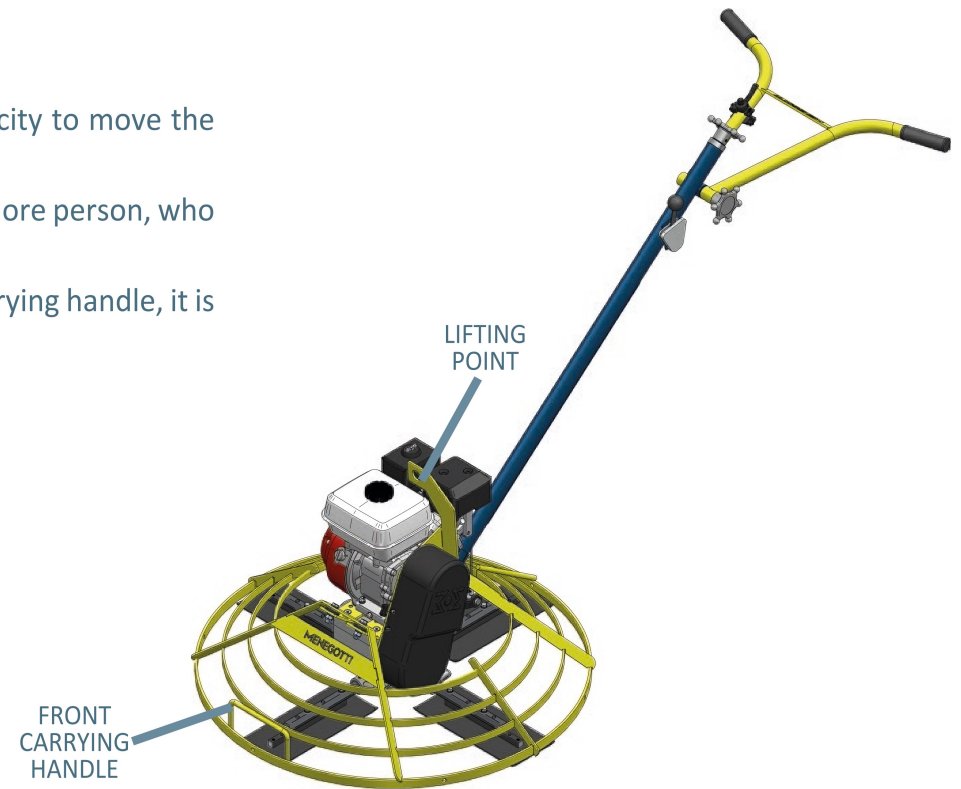
To perform the maintenance of the filter elements the following items must be followed:

1. Loosen the wing nut and remove the air filter cover, also removing the filter elements;
2. Check the condition of the filter elements and, if necessary, replace them;
3. If only cleaning is required, blow a jet of compressed dry air through the air filter cartridge from the inside, moving up and down until all dust is removed;
4. Reassemble the filter elements and close the cover.



Machine Transport

- * Always turn off the engine when transporting the machine;
- * Make sure that the lifting device (winch, hoist, others) has sufficient capacity to move the machine (see the weight of the Power Trowel on the nameplate);
- * Use a front carrying handle when lifting the machine, with the help of one more person, who lifting the equipment by the operating handlebars, and another person who lifting it through the front carrying handle, it is possible to move the machine from one place to another.
- * The machine can also be transported through the lifting point.



Machine Lubrication

- * Check the oil level in the gearbox. There is no warranty if the Power Trowel runs without oil. Add oil as needed to keep the box filled. The gearbox oil must be changed every 250 hours of operation, or once a year (whichever comes first) and the gearbox oil must be checked at each operation. The first oil change must be done after 100 hours of operation.

The oil requirements are:

- * In environments with colder temperatures, below 10° C use SAE 5W-30 oil.
- * In environments with tropical temperatures, above 10° C, use SAE 10W-30 oil.

The first engine oil change should be performed after no more than 20 hours of use. For specific requirements and other information about engine maintenance, refer to the engine manual. For the engine maintenance and troubleshooting guide, please also refer to the engine manual.

Troubleshooting

SYMPTOM	PROBLEM	SOLUTION
Engine doesn't work properly or doesn't start.	Safety Stop Switch malfunction?	Make sure the safety stop switch is "ON" or change it, if necessary.
	Fuel?	Check the fuel system. Make sure fuel is getting to the engine. Check that the fuel filter is not clogged.
	Ignition?	Check that power is coming to the ignition key and that it is working properly.
Safety stop switch doesn't work.	Bad connection?	Change the switch.
	Loose cable connector?	Check the cable. Replace, if necessary.
	Other problems?	Consult the engine manufacturer's manual.
The machine has a noticeable wavy movement during operation.	Main axis?	The output mainshaft of the gearbox assembly should be checked for straightness tolerance. The mainshaft must operate in a straight line and cannot vary more than 0.08 millimeters in the coupling point of the crosshead.
	Fork?	Make sure that both ends of the adjustment fork evenly tighten the adjustment flange. Replace the adjustment fork if necessary.
	Blade position?	Check and make sure that each blade is adjusted so that it is level with all the other blades.
Clutch slipping or unresponsive by varying engine speed.	Worn belts?	Change the belts.
	Dirty clutch?	Disassemble and clean the clutch.
	Worn or defective clutch?	Replace the clutch.
	Worn gearbox bearing?	Turn the input shaft by hand. If the shaft turns with difficulty, check the input and output shaft bearings. Replace if necessary.
	Worn or broken gears in the gearbox?	Check that the housing shaft turns when the input shaft is rotated. Replace both the shaft and the worm gear in the assembly.

SYMPTOM	PROBLEM	SOLUTION
The blades are moving irregularly	Blades?	Make sure that the blades are in good condition, without excessive wear. Finishing blades must measure at least 5cm wide for each side, counting from the fixing bracket (which is in the center of the blade) to its end.
	Blade crosshead?	Check that all blades are set to the same pitch angle as measured on the blade holders.
	Blade arm bent?	Check the crosshead for curvature in the arms of the blades. If one of the arms is bent more than the other arms, replace it immediately.
	Arm bush?	Check the tightness of the paddle arm bushings. This check can be done by moving the arms up and down. If there is more than 3.2mm of play at the end of the arm, the bushings must be replaced. All bushings need to be changed at the same time.
	Worn bearing?	Check the bearing by turning it on the crosshead. If there is a variation greater than 0.5 millimeters, replace it.
	Bearing bush?	Check it by swinging the cross. If the crosshead skews more than 2.4 millimeters measured on the outside diameter of the collar, replace the bearing bushing.
	Worn thrust bearing?	Check thrust bearing to see if it is rotating freely, replace if necessary.

Product Warranty

The conditions and terms of this warranty are non transferable and go into effect on the date of purchase of this equipment, proven by presentation of the sales invoice issued to the first end user. At the time of delivery of the equipment, the customer must be provided with the information and technical orientations according to the contents of this manual.

Not, however, included in this warranty are defects arising from improper use, negligence, imprudence or malpractice, nor are repairs or alterations to any part and/or component of the equipment. Also not included are: the assembly of any sets of parts by technicians not from the Factory itself or from an Authorized Technical Assistant, application other than which it was specified, mechanical or electrical overloading as well as lack of phase, use in environments for which it was not designed, incorrect voltages and frequencies, incorrect lubrication, damage caused by accidents of any nature, such as floods, gales, fire, landslides or due to transportation.

Removal or any alteration to the series numbers originally placed on the product will render the warranty null, where the Sales invoice and Warranty Certificate must be presented in relation to the equipment in question.

This warranty is limited to the repair, replacement of parts or assembly of parts in which, through examination by a Menegotti Authorized Technical Assistant with prior authorization from the Factory, any manufacturing defect will be verified. This repair or replacement will be performed by the authorized Technical Assistant, where the purchaser will be responsible for risks and expenses arising from transport to and from the authorized Technical Assistant, and where labor and parts will not be charged according to the terms of this warranty.

This warranty replaces any other warranty, implicit or explicit, as well as all any obligation or responsibility on the part of our company in relation to the above mentioned product.

MENEGOTTI Post Sales Department and Technical Assistance.

Warranty Term

By the present CERTIFICATE provided from original purchaser, Menegotti guarantees this product against manufacturing defects, for a period of 12 (twelve) months, counted from the invoice issue date of the first final consumer. The components of daily use such as: bearings, clutch disc, gears, tires, brake shoes, etc. are not included in the warranty.

This warranty includes spare parts and repair against manufacturing defects duly verified by the factory or Authorized Technical Assistance. The warranty for this product will be void if it suffers damage caused by accidents, natural events, application outside the specification, or in the case of alterations or repairs by a person or workshop not authorized by Menegotti. The product freight charges, including the technical assistant or factory, are borne by the consumer.

If the equipment is purchased with the engine warranty covers defects arising from the internal engine manufacture. Not covered by warranty defects of: broken or crushed shell due to carelessness in transporting/or storage, energization of the motor coupling or out specification defects, general misuse and /or incorrect installation, overcharging due to lack or excess of phase and use of voltage out of the specification.

Aware of this term,

Customer: _____
Model: _____ **Serial Number:** _____
City: _____ **Date:** _____

Customer

Menegotti Authorized Service



Menegotti

GROUP

Solid values, *sustainable future.*

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Jaraguá do Sul - SC - 89254-000



Unit • Unidat Mentec

José Theodoro Ribeiro, 2399 - Ilha da Figueira
Jaraguá do Sul - SC - 89258-468



Unit • Unidat Menfer

Saudade, 186 - Seminário
Corupá - SC - 89278-000



Unit • Unidat MNA

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