Operating and Maintenance Manual

SRV 590-II

0170160

From serial no. 20032537

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Introduction

This operating and maintenance manual is designed to facilitate familiarization with your tamper and enable you to maintain it and use it for its intended purpose.
When complying with the instructions in the operating and maintenance manual you help avoid hazards, reduce repair and downtime costs, and increase the reliability and service life of your tamper.
This operating and maintenance manual must always be available at the implementation site of the tamper.
If necessary, you can obtain additional information from your authorized WEBER MT dealer, or you can obtain information from one of the contact addresses on the last page.

You can obtain information on the assembled Honda gasoline engine and find a spare-part list for it at **www.honda-engines-eu.com**

The valid conformity declaration is enclosed with every machine delivery.

Safety guidelines

General
All safety instructions must be read and complied with, as non-compliance will result in

– danger to life and limb of the user,
– impairments to the machine or other property.

In addition to the operating manual, the accident-prevention regulations in the country where the appliance is used must be complied with.

Intended use
The tamper should only be used if it is in a technically faultless condition, as intended, in a safety-conscious and hazard-conscious manner, and in compliance with the instructions in the operating manual. Malfunctions that impair safety must be eliminated without delay.
The tamper is designed exclusively for compacting

– sand,
– gravel,
– crushed rock,
– semi-cohesive mixed material.

Any other use of the tamper is considered to be improper use for which the owner shall be exclusively responsible. All liability is rejected if damage occurs due to non-compliance with this provision. This risk is borne solely by the user.

Easily foreseeable misuse
Any use for which the machine is not intended.

Operation
Tampers are only permitted to be operated by suitable persons of or above the age of eighteen. Operators must be instructed in how to guide the tamper by the owner or by owner's assigned personnel.
The machine operator must comply with traffic regulations. If instructions that affect safety are given by third parties, then the operator must be authorized to reject these instructions.


Unauthorized persons are forbidden from being in the area of the soil compactor during the compacting process.

Protective equipment
This machine is capable of exceeding the permissible sound level of 80 dB(A). The owner might also face additional dangers when using the machine. Precautionary action must, therefore, be taken.

Protective equipment includes:


Hearing protection


Hard hat


Safety shoes


Protective gloves

Operation

Prior to starting work the owner of the tamper must be familiar with the work environment. The work environment includes obstacles in the work and traffic area, the bearing capacity of the ground, as well as the necessary safeguarding of the construction site in the area adjacent to public traffic; and it includes compliance with traffic regulations.
The tamper should only be operated when the protective fixtures are mounted. The protective fixtures must all be in functional condition.
At least once per shift the tamper must be checked for apparent defects. If there are apparent defects, operation of the tamper must be stopped immediately, and the responsible person must be informed. Prior to restarting, tamper malfunctions that have occurred must be corrected.

Operation under difficult conditions

Never inhale the exhaust gas. It contains carbon monoxide, a colorless and odorless gas that is extremely hazardous, which, if inhaled even briefly, can cause unconsciousness and death.

Therefore, never operate the engines in enclosed areas or in areas that are poorly ventilated (tunnels, caves, covered pits, etc.).

Exercise particular caution when operating the engine in the vicinity of people and livestock.

The tamper described in this operating manual is suitable for use in trenches that are deeper than shoulder height, provided the following basic conditions have been met:

– Trench width at least 1.5 m

– Trench depth no more than 3.0 m

– Open trench width at least 10 m

– Slight wind movement in the trench

– The compactor is used for periods of no more than 4 x 15 minutes per shift, interrupted by breaks (each approx. 1 hour)

If these boundary conditions are not complied with, the owner is required to implement the protective measures identified as necessary to avoid CO poisoning as part of the owner’s risk assessment, for example:

– Use of zero-emission compacting equipment

– Blower-supported ventilation with a fan forcing air along the length of trench

The use of respiratory equipment during operation of this gasoline-powered compactor without documented evidence of conformity and without the necessary precautions **is generally not permitted!**

– As CO will accumulate in the blood after repeated use

– As CO filters have a short service life

Maintenance and repair work

Only use **original Weber MT spare parts** to ensure reliable and safe operation for maintenance or repair work.

Adjusting tasks, maintenance tasks, and inspection tasks must be carried out on schedule as specified in this operating and maintenance manual. These activities should only be executed by instructed personnel.

For repair, maintenance, or inspection work the engine of the tamper must be safeguarded against unintentional starting.

All pressurized lines, particularly hydraulic lines and lines of the injection system of the drive motor must be depressurized before performing maintenance or repair tasks.

For maintenance and repair tasks the tamper must be placed on a level and stable substrate and must be secured from rolling off or tipping over.

Heavy components and assemblies must be secured to and lifted by hoisting machines that can bear their weight when they are replaced. Ensure that no hazard is caused by raising components or assemblies.

Do not position yourself or work under suspended loads.

If lubricating oils and fuel come into contact with skin, they can cause skin cancer. Upon contact with the skin, clean affected skin with suitable cleaning agent without delay.

Inspection

Tampers must be inspected in accordance with appropriate implementation conditions and operating conditions, as needed; however, an inspection to ensure operationally safe status must be performed by an expert at least once a year. The results of the inspection must be recorded in writing and must be stored at least until the next inspection.

Cleaning work

Prior to cleaning the tamper with a high-pressure cleaner, protect all accessible energized switches, cable connections, etc. against water penetration by masking them off.

Cleaning tasks should only be executed in areas that are suitable and have been approved for this purpose (oil separator amongst others).

Disposal

All operating fluids and auxiliary materials must be disposed of in an environmentally compatible manner in accordance with country-specific regulations.

Important information for operating and maintenance personnel is marked by pictograms.


Warning against irritants or materials hazardous to health


Warning against a hazardous place


Warning against a suspended load


Wear ear protection


General regulation

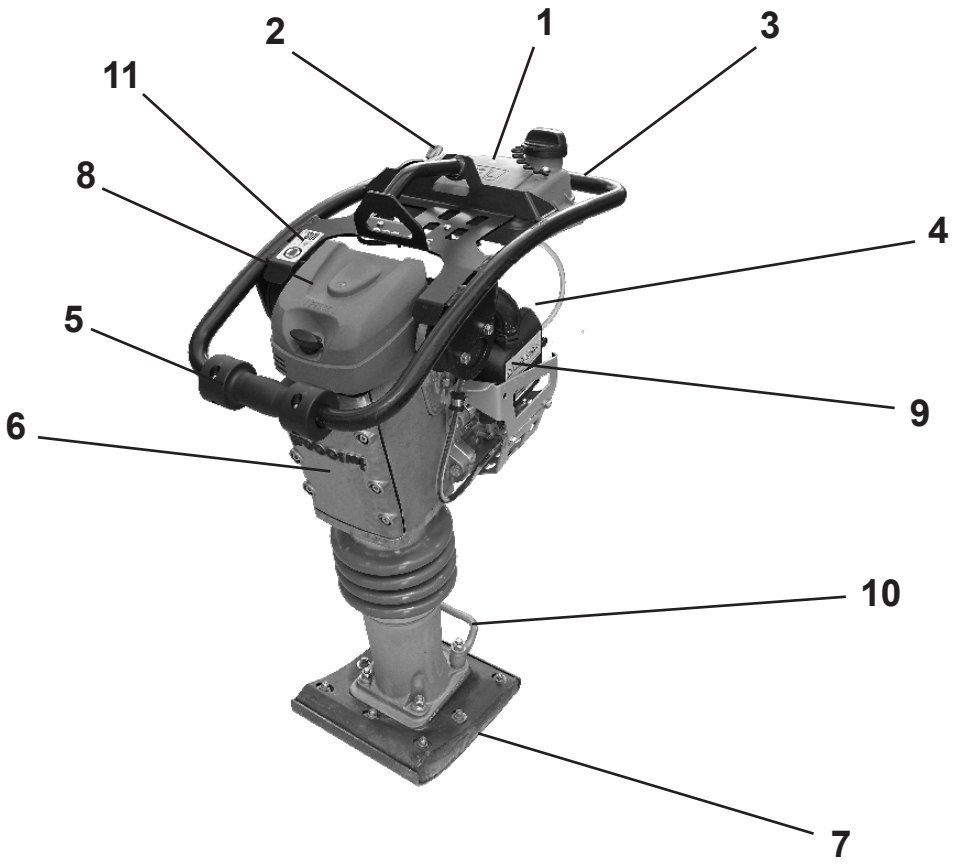

Environmental protection


Hard hat


Safety shoes


Protective gloves

Graphic presentation



Total overview SRV 590

1	Fuel tank	6	Tamping system
2	Gas lever	7	Tamping foot
3	Manual guidance rod	8	Main filter
4	Engine	9	Secondary air filter
5	Transport roller	10	Handle
		11	Hearing protection (sticker)

Device description

The series SRV 590 tamper is used for road-building, canal construction, pipe laying and landscaping compaction tasks.

Drive

The tamper is powered by an air-cooled Honda gasoline engine.
Force is transmitted via the centrifugal clutch directly to the tamping system. The compaction work is performed by the tamping foot.
The engine is protected by a double filter system consisting of an oversized main air filter and an additional air filter.

Operation

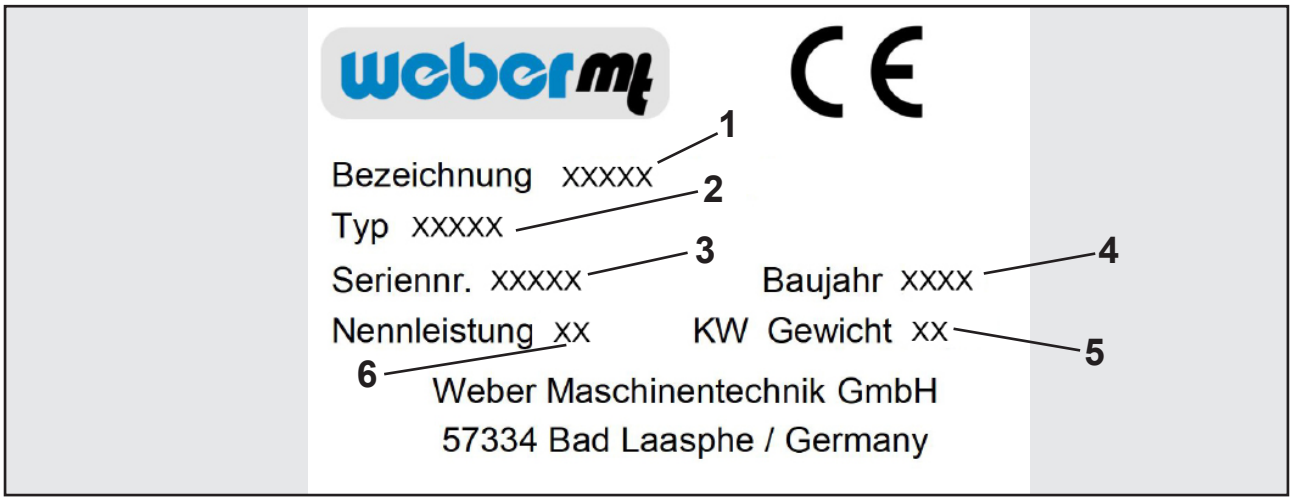
Start the Honda gasoline engine with the attached reversing starter.
After starting, the tamping system starts to vibrate via the centrifugal clutch which is attached to the engine. Use the gas lever to vary the engine speed between idle speed and full-throttle speed.
For easier transport the tamper can be pushed onto or into a means of transport.

Technical data

	SRV 590
Weight	
Operating weight CECE (in kg)	62
Dimensions	
Overall length (in mm)	740
Overall width (in mm)	350
Height (in mm)	1035
Tamping foot width (in mm)	280
Impact rate (/min)	700
Stroke (in mm)	61.6
Drive	
Engine manufacturer	Honda
Type	GXR 120
Performance at operating speed in accordance with ISO 3046-1 (kW)	2.6
Combustion process	4-stroke gasoline
Operating speed (m/min)	4100
Fuel	Unleaded gasoline

	SRV 590
Noise emissions in accordance with 2000/14/EC	
Sound pressure level L_{PA} ascertained in accordance with EN 500, in dB (A)	98
Sound power level L_{WA} ascertained in accordance with EN ISO 3744 and EN 500, in dB (A)	108
Vibration values	
Root-mean-square acceleration value for hand-arm vibration ascertained in accordance with EN 500 in m/s²	6.5
⚠ In accordance with directive 2006/42/EC, complying with the vibration values is the owner's responsibility.	

Note down this information so that you can recreate the rating plate should the plate be lost.



1 Description

.....

2 Type

.....

3 Serial no.

.....

4 Year of construction

.....

5 Weight

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6 Rated power kW

.....

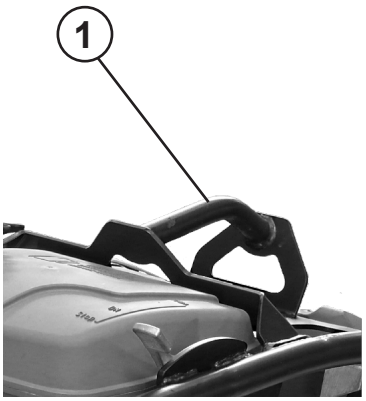
Activities prior to starting work

Transport

When transporting the tamper on a vehicle, secure it with suitable restraints.

Loading with crane

Fit the crane hook into the lifting ring (1) and lift the machine onto the desired means of transport.



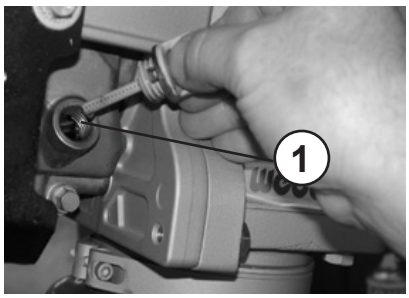
Only use lifting machines with a minimum bearing capacity of 100 kg.

Do not step under suspended loads.

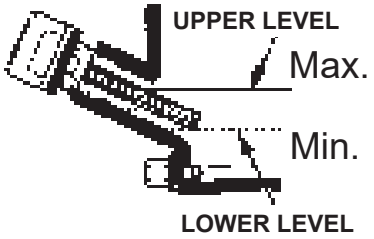
Preferably transport the tamper in the upright position.
If this is not possible, the tamper must be laid on the side that houses the exhaust. This will prevent any remaining fuel from entering the air filter.

Check the engine oil level

Pull the oil dip stick (1) out of the crankcase.

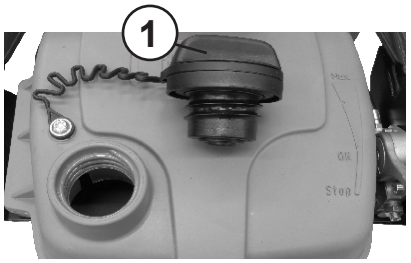


The correct oil level is between the min. and max. marks.



Check the fuel level

Open the gas cap (1), check the level, and, if necessary, top off to the lower edge of the filler neck with clean fuel in accordance with the specification.



Carefully wipe up spilled fuel.

If lubricating oils and fuel come into contact with skin, they can cause skin cancer. Upon contact with the skin, clean affected skin with suitable cleaning agent without delay.

For work at the fuel system, have a suitable fire-extinguishing agent at the ready.

Fire, naked light, and smoking is forbidden!

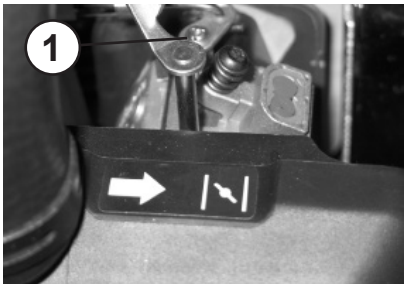
Starting

After horizontal transport: bring tamper into a vertical position and wait several minutes until the engine oil has collected in the lower area of the crankcase.

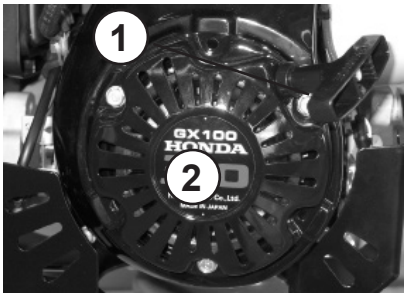
Bring the gas lever into full-throttle (Max.) lock-in position.

A valve will automatically open the fuel line.

Push the choke lever (1) to the right (close).



Slowly tighten the handle (1) of the reversing starter (2) until resistance is noticeable.
Allow the handle (1) to glide back into the initial position, and then forcefully and completely pull it through with both hands.
Allow the engine to warm up for a few minutes.



After the engine has warmed up, slide the choke lever to the left (open).

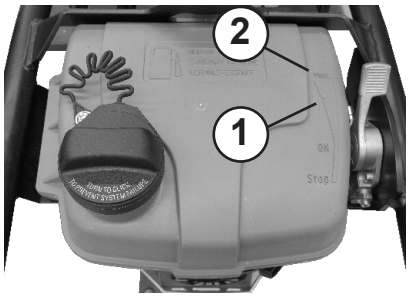
When starting in enclosed spaces ensure adequate ventilation – danger of suffocation.

Never use any starter spray.

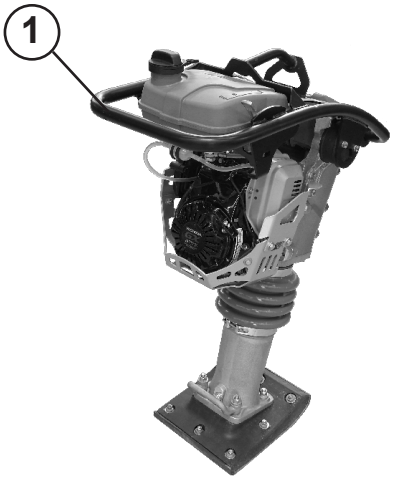
The engine is equipped with an oil monitoring system. If the LED (1) is illuminated during the start process, you must interrupt the start process and check the oil level. Top off with oil as specified if the oil level is too low.

Tamping

Bring the gas lever into the 1 or 2 (Max.) lock-in position.



Only run machine within reach of the manual guidance rod (1).



Compacting is only permissible at gas lever position 1 or 2 as there is an increase level of wear in the slip range of the centrifugal clutch.

At obstructions (walls, pits, etc.) ensure that no one can be caught between the machine and the obstruction; or ensure that the machine does not slip into the pit.

Unauthorized persons are forbidden from being in the area of the tamper during the compacting process.

Shutting down

Do not switch off the engine under full load; let engine cool down at idle speed for a few minutes.

Bring the gas lever into the “ON” lock-in position.

To shut off the engine, push the gas lever back (Stop) beyond the idle lock-in position (ON).

A valve will automatically close the fuel line.

During breaks – even if they are short – the machine must be shut down.

Parked devices that represent an obstacle must be safeguarded against through conspicuous measures.

Maintenance overview

Maintenance interval	Maintenance point	Maintenance activity
After the first 10 operating hours	Engine	– Change the engine oil – Check valve play; adjust if necessary – Re-tighten all accessible threaded connections
Every 50 operating hours / every six months	Main air filter Engine	– Clean air filter insert, check for damage, replace if necessary – Change the engine oil – Change the fuel filter
Every 150 operating hours	Secondary air filter Engine	– Clean secondary air filter, check for damage, replace if necessary – Check valve play; adjust if necessary
Every 150 operating hours / every year	Tamping system	– Change oil

The regulations of the engine manufacturer must be complied with in addition to the above maintenance overview!

Work must be carried out using regulation tools, and the operating and maintenance manual must be complied with for all work.

All maintenance work: select collection vessels large enough to prevent oil from spilling onto the ground. Dispose of waste oil in an environmentally friendly manner (regulation on waste oils).

Dispose of oils, greases, cloths soaked in oil, and replaced parts with oil on them in an environmentally friendly manner.

If lubricating oils and fuel come into contact with skin, they can cause skin cancer. Upon contact with the skin, clean affected skin with suitable cleaning agent without delay.

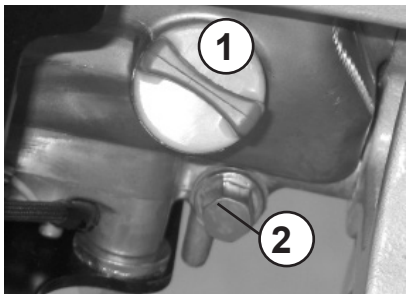
If accessible during maintenance, check the condition and stability of all screws.

Maintenance work

Change the engine oil

Remove the oil dip stick (1).

Open the drain plug (2) of the engine and drain oil.



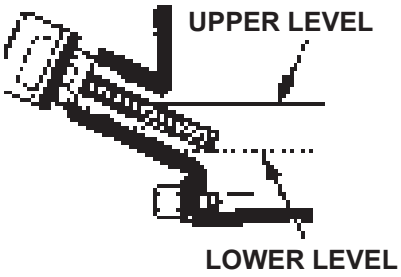
⚠ Only drain engine oil when at operating temperature.

Screw in the oil drain plug (2) with new seal and top off with oil as specified.

⚠ Risk of scalding due to hot oil.

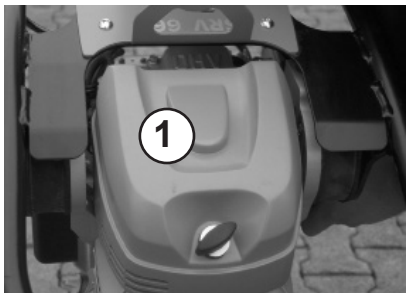
⚠ When working in the area of the engine compartment there is a danger of being burnt!

❗ Check the oil fill level with the oil dip stick again.

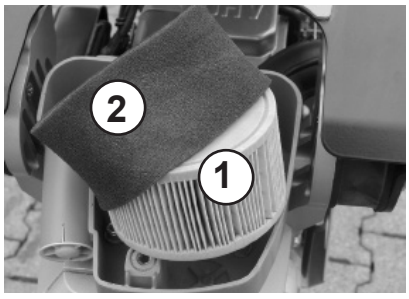


Clean / change main air filter cartridge

Unscrew the air filter cover (1).



Remove the air filter insert (1) and the air filter fleece (2) from the air filter enclosure or remove air filter cover. Clean air filter insert and air filter fleece as specified by the engine manufacturer if there is damage or if they are extremely dirty.

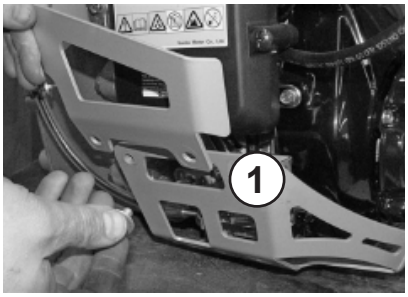


Dispose of oils, greases, cloths soaked in oil, and replaced parts with oil on them in an environmentally friendly manner.

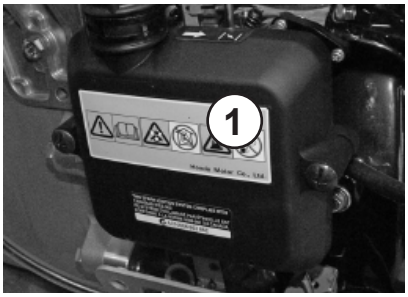
⚠ If lubricating oils and fuel come into contact with skin, they can cause skin cancer. Upon contact with the skin, clean affected skin with suitable cleaning agent without delay.

Clean / change secondary air filter cartridge

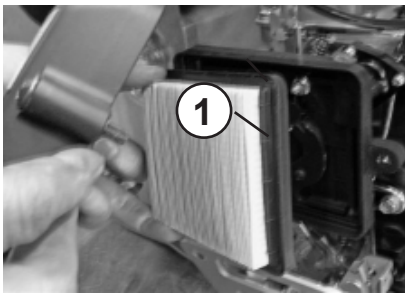
Remove the protection (1).



Remove the air filter cover (1).

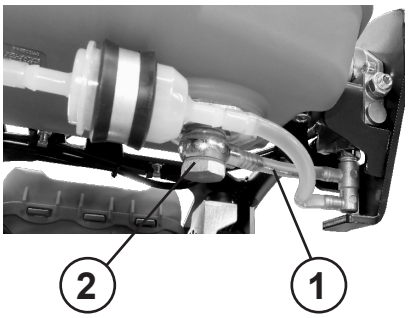


Remove the air filter insert (1) from the air filter enclosure / air filter cover.
Clean air filter insert as specified by the engine manufacturer if there is damage or if it is extremely dirty.



Change the in-line fuel filter

Pull the fuel line (1) off the in-line fuel filter (2).



Unscrew the fuel filter (1) out of the fuel tank.
Clean the fuel filter.

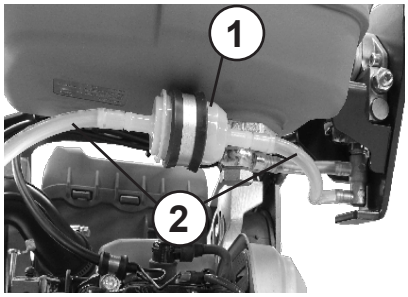
Replace fuel filter if damaged.

For work at the fuel system, have a suitable fire-extinguishing agent at the ready.

Fire, naked light, and smoking is forbidden!

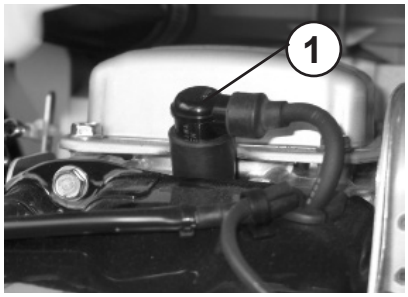
Change the fuel line filter

Pull the fuel line (2) off the fuel filter (1) on both sides.
Replace the filter with a new filter element.

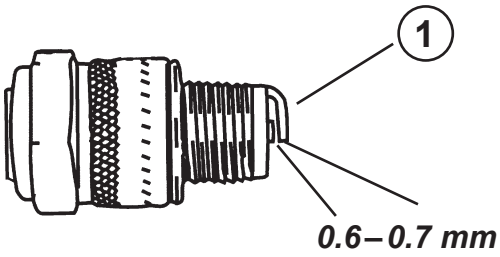


Adjust / replace the spark plug

Pull off the spark plug connector (1) and unscrew spark plug.



Clean the electrode (1) of the spark plug.
Measure the electrode air gap (1); the gap should be 0.6 – 0.7 mm.
If necessary, correct the electrode air gap or replace the spark plug.

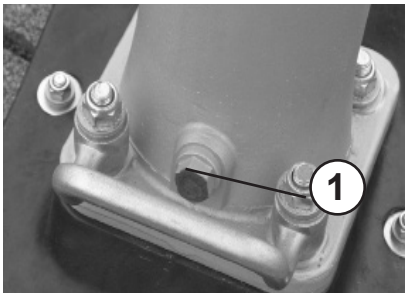


Only use spark plugs with the correct thermal value.

This work may only be carried out when the engine is cold.

Change the oil in the tamping system

Unscrew the screw plug (1) from the fill opening.
Tilt the tamper slightly and let the old oil drain into a suitable collection vessel. Set down the tamper and fill oil in as specified.
Clean the screw plug and screw it into the fill opening.

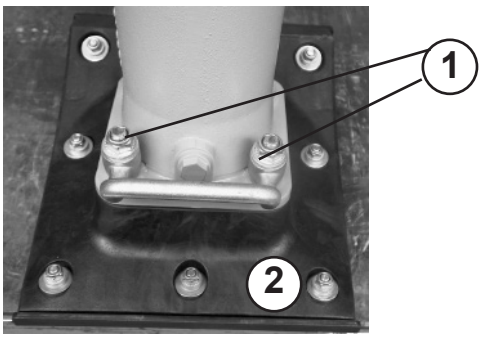


Select collection vessels large enough to prevent oil from spilling onto the ground. Dispose of waste oil in an environmentally friendly manner (regulation on waste oils).

Dispose of oils, greases, cloths soaked in oil, and replaced parts with oil on them in an environmentally friendly manner.

Change the tamping foot

Unscrew the 4 nuts (1).
Lift the tamping foot (2) off of the tamper and attach a new tamping foot.



When mounting the new tamping foot, the nuts (1) must be tightened with a torque of 35 Nm.

Mount the fastening nuts of the tamping foot using the plate springs as shown in the adjacent illustration.

Mounting arrangement of the plate springs

Operating fluids and fill levels

Assembly	Operating material Summer Winter Quality	SRV 590
Engine Engine oil	SAE 10 W 40	0.3 l
Gasoline	Unleaded gasoline in accordance with DIN 51607	3.0 l
Tamper lower part	Hydraulic oil HVLPD 68	1.0 l

Troubleshooting

Fault	Possible cause	Remedy
Tamper does not start	Operating error	Execute the start process as prescribed
	Lack of fuel	Check the fuel level
	Air filter fouled	Clean / change the air filter
	Fuel filter fouled	Change the fuel filter
	Spark plug fouled	Clean, adjust, replace the spark plug
	Oil level too low	Top off with oil
Engine runs but it does not reach full speed or engine runs but stops after a short time	The fuel line is incorrectly mounted	Check the mounting of the fuel line
	Air filter fouled	Clean / change the air filter
	Fuel filter fouled	Change the fuel filter
	Spark plug fouled	Clean, adjust, replace the spark plug
Engine runs at full rpm, tamper does not tamp or tamps inadequately	Centrifugal clutch is defective	Repair
Unclean compaction pattern	Tamping foot is worn	Change the tamping foot

Actions to be taken before long-term storage (longer than 1 month)

Entire soil compactor	– Clean thoroughly – Check for leaks – If there are leaks – correct defects
Fuel tank	– Empty fuel and fill with clean fuel up to the lower edge of filler neck
Engine	– Check oil level, if necessary fill to upper oil-level mark – Check air filter, clean, replace if necessary – Check fuel filter, change if necessary
All bare parts / gas lever / accelerator control cable / fastening bolts	– Oil / grease

If the machine is to be stored for longer than six months, then contact the Weber service organization to discuss additional measures.

facebook.com/WeberMT

youtube.com/MyWeberMT

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