

# Operating and Maintenance Manual



**CF 3-II H**  
**CF 3/60 H**

0100321, 0100323



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## Introduction

This operating and maintenance manual is designed to facilitate familiarization with your soil compactor, and to enable you to maintain the compactor 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 soil compactor.

This operating and maintenance manual must always be available at the implementation site of the soil compactor.

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.

Information concerning the assembled Hatz diesel engine, as well as a spare parts list for the engine is provided at **[www.hatz-diesel.com](http://www.hatz-diesel.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 soil compactor should only be used if it is in a technically faultless condition, as intended, in a safety-conscious and hazard-conscious manner, in compliance with the instructions in the operating manual. Malfunctions that impair safety must be eliminated without delay.

The CF 3-II H soil compactor is designed exclusively for compacting

- sand,
- gravel,
- crushed rock,
- low-cohesive mixed material,
- concrete paving stone.

Any other use of the soil compactor 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

Soil compactors are only permitted to be operated by suitable persons of or above the age of 18. Personnel must be instructed in how to guide the compactor by the owner or by the 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 not allowed 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 compactor 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 soil compactor 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 compactor must be checked for apparent defects. If there are apparent defects then operation of the compactor must be stopped immediately, and the responsible person must be informed. Prior to restarting, compactor malfunctions that have occurred must be corrected. Always maintain adequate clearance to the edges of pits and embankments.

Do not drive at ninety degrees to slopes to prevent the compactor from tipping over.

After work has been concluded secure the compactor in accordance with statutory regulations, particularly in the area of public traffic surfaces.

### 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.

### Maintenance and repair work

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

Hydraulic hose lines must be checked at regular intervals in accordance with standard engineering practice, or they must be replaced at appropriate intervals, even if no signs of safety-relevant defects are present.

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, service, or inspection work the engine of the compactor 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 compactor must be parked 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

Compactors must be inspected in accordance with the corresponding 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 compactor 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

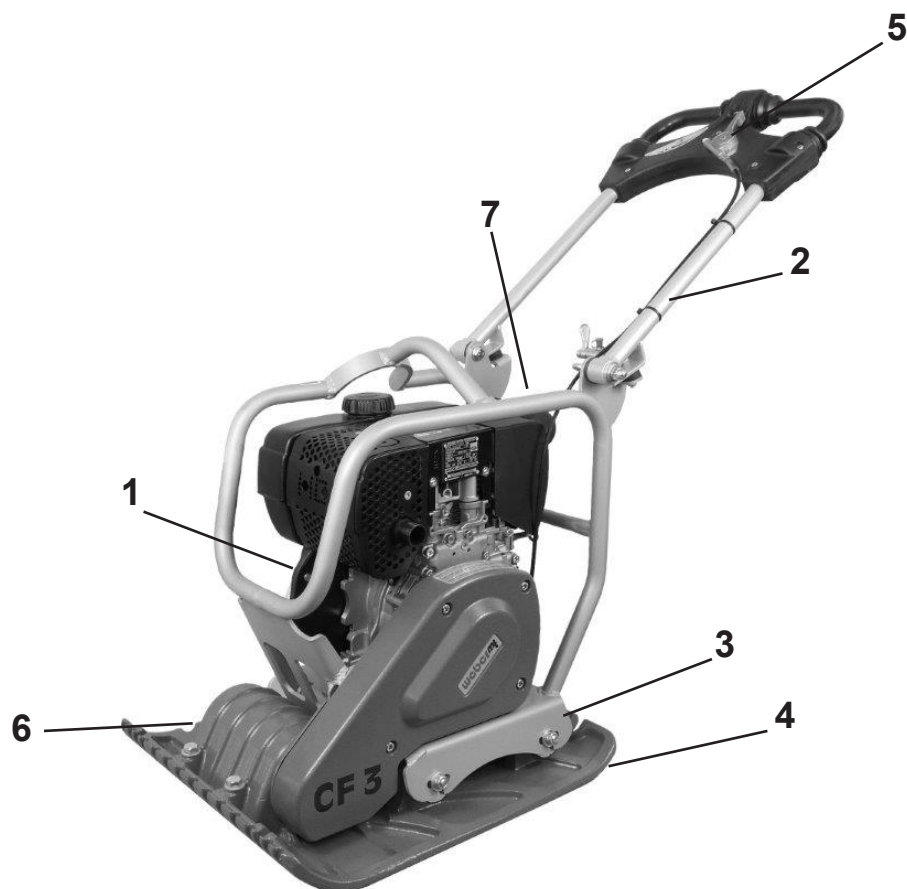


Safety shoes




Protective gloves

## Graphic presentation



### Overall view CF 3-II H

- 1 Engine
- 2 Guide bar
- 3 Engine bracket
- 4 Base plate
- 5 Gas lever
- 6 Exciter
- 7 Hearing protection (sticker) 
- 8 Undercarriage (accessory), no image
- 9 Water tank (accessory), no image
- 10 Vulkollan plate (accessory), no image



## **Device description**

The CF 3-II H soil compactor is used for road-building and landscaping compaction tasks.

### **Drive**

The compactor is propelled by an air-cooled Hatz diesel engine.

Force is transferred to the exciter mechanically via a V-belt.

### **Operation**


Start the Hatz diesel engine with the attached reversing starter. After starting, vibration is switched on via the centrifugal clutch attached to the engine.

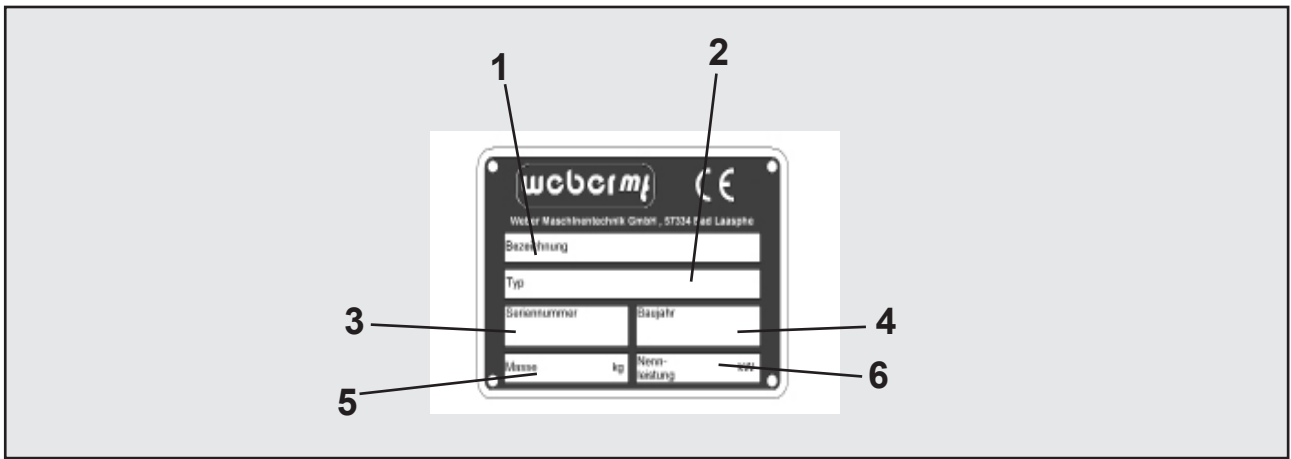
Use the gas lever to vary the engine speed between idle and full throttle.

The guide bar is used to steer the soil compactor.

## Technical data

	CF 3-II H
<b>Weight</b>	
Operating weight CECE in kg (basic device)	108
<b>Dimensions</b>	
Overall length (in mm)	1100
Overall width	500
Height with folded guide bar (in mm)	650
Base plate length (base in mm)	400
Pressure surface (in mm)	400x500
<b>Drive</b>	
Engine manufacturer	Hatz
Type	1 B 20
Performance at operating speed in accordance with ISO 3046-1 (kW)	3.10
Combustion process	4-stroke diesel
Operating speed (1/min)	3000
Operating speed (ground-dependent in m/min)	26
Incline capacity (soil-dependent, in %)	35
Area capacity (in m <sup>2</sup> /h)	780
<b>Vibration</b>	
System	Single shaft vibrator
Drive concept	Mechanical
Frequency (in Hz)	95
Centrifugal force (in kN)	20

	CF 3-II H
<b>Noise emissions in accordance with 2000/14/EC</b>	
Sound pressure level $L_{PA}$ ascertained in accordance with EN 500, in dB (A)	99
Sound power level $L_{WA}$ ascertained in accordance with EN ISO 3744 and EN 500, in dB (A)	108
<b>Vibration values</b>	
Root-mean-square acceleration value for hand-arm vibration ascertained in accordance with EN 500 in m/s <sup>2</sup>	3.9
 In accordance with directive 2006/42/EC, complying with the vibration values is the owner's responsibility.	



**1 Description**

.....

**3 Serial number**

.....

**5 Mass**

.....

**2 TYPE**

.....

**4 Year of construction**

.....


**6 Rated power kW**


.....


## Activities prior to starting work

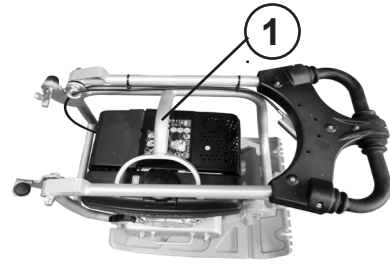
### Transport

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

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

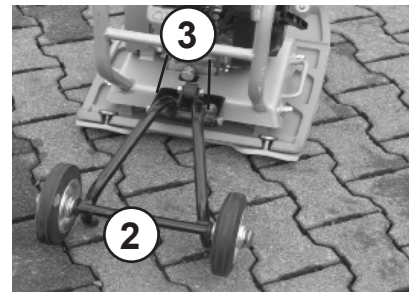
 Only use lifting machines with a minimum bearing capacity of 200 kg.

 Do not step under suspended loads.

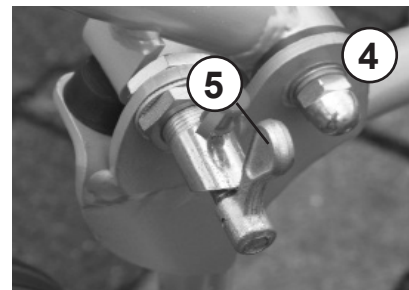


### Mounting the undercarriage

Use the screws (3) to fasten the undercarriage (2) to the engine console.




Arrest the guide bar (4) with the spring bolt (5).



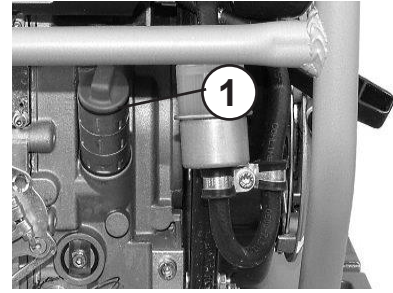
Pivot the hand truck under the base plate.




 The manual guidance rod must be locked during transport.


### Check the engine oil level

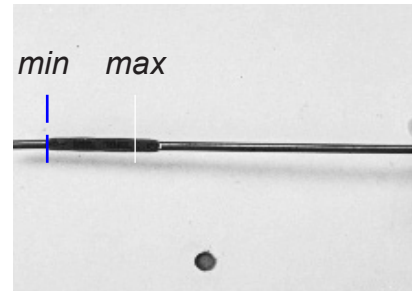
Unscrew and pull the oil dipstick (1) out of the crankcase.



 Insert the oil dip stick in the oil filler neck, but do not screw it in.


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


 Stop operating the engine immediately when the oil level reaches the min. mark and top up oil until it reaches the max. mark. Risk of engine damage if the oil level drops below the minimum oil level in unfavorable operating conditions.



### Check the fuel level

Open and remove the gas cap (2), check the level, if necessary top off to the lower edge of the filler neck with clean fuel in accordance with the specification.

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


 Fire, naked light, and smoking is forbidden!

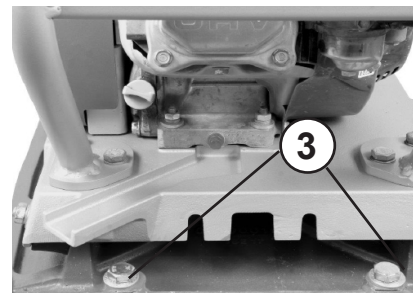


### Installing the protective mat

Hook in the protective mat at the rear.

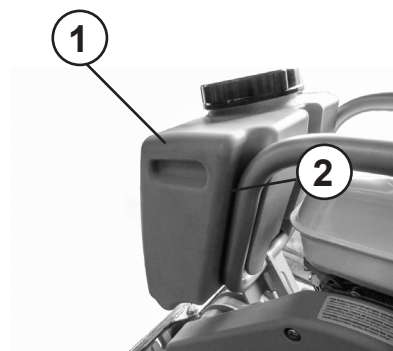
Fasten with holder, screws, spring-lock washers and nuts (3) on the base plate front.

 Ensure that the protective mat rests under the base plate.




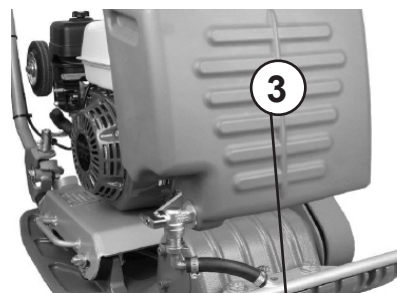
## Mounting the water sprinkling system

Lift the water tank (1) into the frame (2).



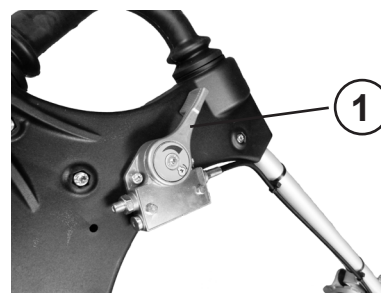
Attach the water spray pipe (3) to the base plate.

 Completely empty the water tank if there might be a frost.



## Starting


Bring the gas lever (1) into full-throttle position.



Slowly tighten the handle (2) of the reversing starter (3) until resistance is noticeable.

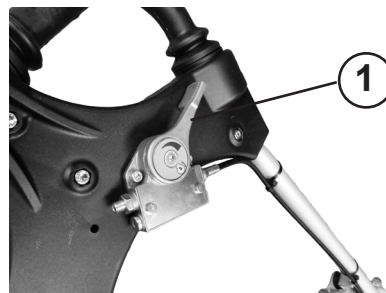
Allow the handle (2) to glide back into the initial position, and then forcefully and completely pull it through with both hands.




 **If ambient temperatures are below minus 5 degrees Celsius, comply with the instructions in the operating manual provided by the engine manufacturer!**

## Compacting

Bring the gas lever (1) into full-throttle position.



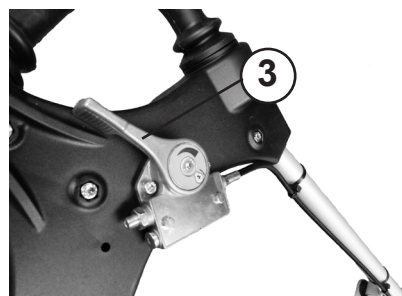
Control drive speed and direction of travel with the handle (2).

 Only guide the machine in the handle area of the guide bar.





## Shutting down


Bring the gas lever (3) into idling position.



Press the switch-off button (4).

 The engine can only be switched off via the switch-off button!







 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 25 operating hours	Engine	<ul style="list-style-type: none"> <li>– Change the engine oil</li> <li>– Check valve play; adjust if necessary</li> <li>– Re-tighten all accessible threaded connections</li> </ul>
every 8 operating hours / daily	Air filter	<ul style="list-style-type: none"> <li>– Clean air filter insert, check for damage, replace if necessary</li> </ul>
every 150 operating hours / every 6 months	Engine	<ul style="list-style-type: none"> <li>– Change the engine oil</li> <li>– Change the fuel filter</li> <li>– Change the oil filter</li> </ul>
every 150 operating hours / every year	Gearshift Exciter	<ul style="list-style-type: none"> <li>– Change oil</li> <li>– Change oil</li> </ul>
every 250 operating hours	Engine	<ul style="list-style-type: none"> <li>– Check valve play; adjust if necessary</li> </ul>

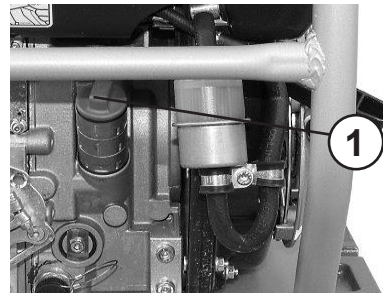
-  The regulations of the engine manufacturer must be complied with in addition to the above maintenance overview!
-  Tasks must be executed using proper tools, and the safety instructions of this operating and maintenance manual must be complied with for all tasks.
-  All maintenance work: select collection 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).





Screw the oil drain pipe (2) onto the drain valve and drain the oil.


 Only drain engine oil when at operating temperature.

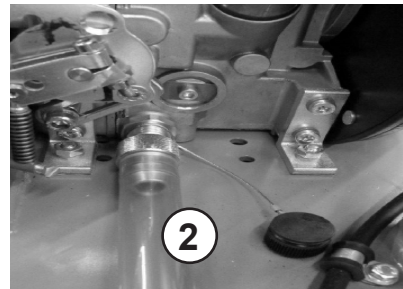
After emptying completely, unscrew the oil drain pipe from the drain valve and fill with oil in accordance with the specification.

 Risk of scalding due to hot oil.

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

 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.

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



### Clean the engine oil filter

Drain engine oil.

Loosen the screw (1) approximately 5 revolutions.


Pull the oil filter (2) out of the motor compartment.

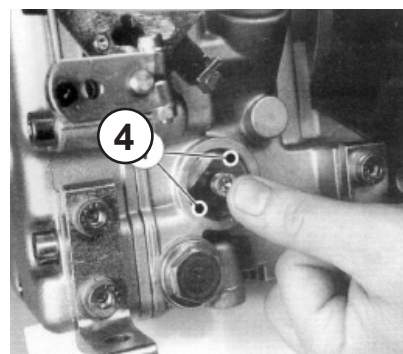
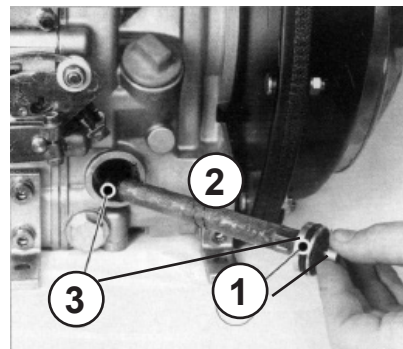
Blow out the oil filter (2) from inside to outside with compressed air.

Lightly oil the sealing rings (3) on both sides of the oil filter.

Check sealing rings (3) for damage and firm seat, replace the oil filter if there is damage.

Press the oil filter into the crankcase as far as it will go.

 Prior to tightening the screws ensure that the tension springs rest on the oil filter with both ends (4).



## Change the fuel filter

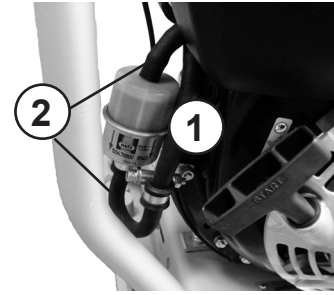
Pull the fuel line (2) off the fuel filter (1) on both sides.  
Replace the filter with a new filter element.



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.

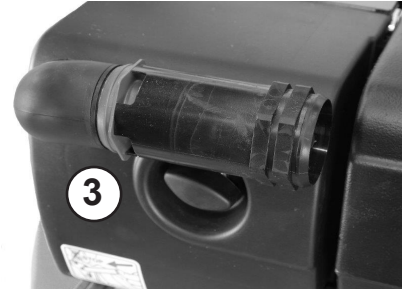


Dispose of oils, greases, cloths soaked in oil, and replaced parts with oil on them in an environmentally friendly manner.



## Clean/change air filter cartridge

Unscrew the air filter cover (3).

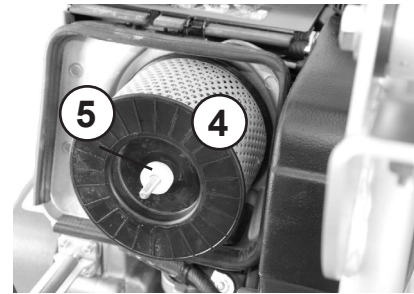


Remove the air filter insert (4) from the air filter enclosure by unscrewing the nut (5).

Clean the air filter insert in accordance with the guidelines provided by the engine manufacturer or replace it if it is extremely dirty.



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



## Changing the oil in the exciter

Remove the oil drain plug/filler plug (6) and drain oil.

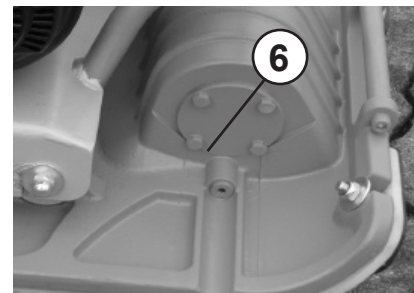
Fill with oil as specified in the fill quantity table.  
Screw in the oil drain / filler screw.



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).



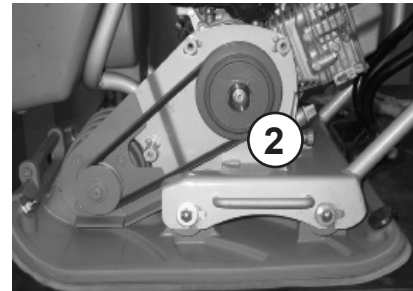
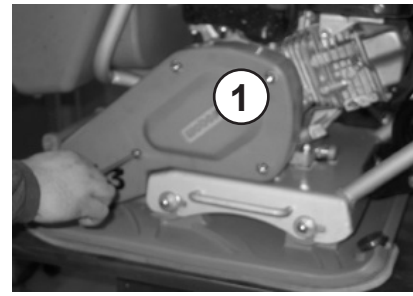
Wipe up/off oil slick and oil residue and dispose of fuel-soaked cleaning cloths in an environmentally responsible manner.



## Checking the V-belt

Remove the V-belt guard (1).

Check the V-belt (2) for cracks, damaged flanks, and wear. If there is excessive wear – replace the V-belt as specified in the repair manual.



## Operating fluids and fill levels

Assembly	Operating material		Quantity
	Summer	Winter	CF 3-II H
Quality			
<b>Engine</b> Engine oil	SAE 10 W 40 (-10 ~ +50 °C) API – CD CE-CF-CG or SHPD or CCMC – D4 – D5 – PD2		0.9 l
<b>Fuel tank</b>	<b>Diesel</b> Diesel in accordance with DIN 51601-DK or BS2869-A1/A2 or STM D975-1D/2D		3.0 l
<b>Vibrator</b>	Fully-synthetic transmission fluid API GL-5/GL-4 First filling Fuchs Titan SINTOPOID LS SAE 75W-90		0.2 l

## Troubleshooting

Fault	Possible cause	Remedy
<b>Soil compactor does not start</b>	Operating error	Execute start process as prescribed
	Lack of fuel	Check the fuel level
	Fuel filter fouled	Change the fuel filter
	Air filter fouled	Clean/change air filter cartridge
<b>No vibration/ no forward motion or insufficient forward motion</b>	Vibrator V-belt defective	Change vibrator V-belt
<b>Soil compactor does not switch</b>	Wrong hydraulic oil level in the guide bar	Check oil level Correct oil level

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

<b>Entire soil compactor</b>	<ul style="list-style-type: none"><li>– Clean thoroughly</li><li>– Check for leaks</li><li>– If there are leaks, correct defects</li></ul>
<b>Fuel tank</b>	<ul style="list-style-type: none"><li>– Empty fuel and fill with clean fuel up to the lower edge of filler neck</li></ul>
<b>Engine</b>	<ul style="list-style-type: none"><li>– Check oil level, if necessary fill to upper oil-level mark</li><li>– Check air filter, clean, replace if necessary</li><li>– Check fuel filter, change if necessary</li></ul>
<b>All bare parts / gas lever / accelerator control cables / fastening bolts</b>	<ul style="list-style-type: none"><li>– Oil / grease</li></ul>



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







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Original instructions