



OPERATING AND MAINTENANCE INSTRUCTIONS



CR 7 CCD
Lombardini 15 LD 440



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Preface

These operating and maintenance instructions describe the safe operation of the **CR7 CCD** soil compactor. Please read this operation manual and familiarize yourself with all details of your soil compactor before operating the machine for the first time. Carefully follow all instructions and always carry out the described operations in the indicated order.

Please refer to the following page for the General Safety Instructions.

We reserve the right to modify our equipment without prior notice.

In chapter 1, the soil compactor is briefly described to provide you with a good overview on the location of the individual assembly groups and their functions. Chapter 2 describes how to put the soil compactor into and out of operation and how to work with the machine.

In chapter 3, you will find a survey on and a description of the required service work. Chapter 4 contains instructions for trouble shooting by the operator. Chapter 5 describes how to preserve the soil compactor for an extended storage, e.g. during the winter season.

We placed a great emphasis on a user-friendly lay-out with clear pictorial and textual information. In the text, you will find figures in brackets which point out to illustrations, whereby the first figure indicates the figure number and the second one - separated by a dash - indicates the item number on the corresponding illustration.

Example 1: (2/1) means figure 2, item 1

Example 2: (2/3,6) means figure 2, item 3 and item 6

Important information for the operator and service personnel is highlighted by pictograms.



Indicates important information and hints which must be followed by the operator and service personnel.



Indicates working and operating methods requiring in addition the observance of all applicable environment protection and waste disposal regulations.



Indicates working and operating methods which must be precisely followed in order to prevent the soil compactor from being damaged or deteriorated.



Indicates working and operating methods which must be precisely followed in order to avert direct danger to persons.

For further information, please contact your authorized WEBER distributor or one of the addresses on the last page.

General Safety Instructions

General

All safety notes (see also explanations of the pictogram meanings in the preface) must be read and observed (any lack of clarity must be dispelled before the soil compactor is put into operation), because otherwise the use of the machine may

- * constitute a risk to life and limb of the user
- * impair the machine and other valuable property.

In addition to these operating instructions and the mandatory accident prevention regulations in the country of use and on the operating site, the generally accepted technical standards for safe and professional work must be also observed.

Designated Use

Soil compactors are only allowed to be operated in accordance with their designated use, whereby the operating and maintenance instructions, the generally accepted safety and traffic rules and the regulations of the individual countries of use must be followed.

The soil compactor has been exclusively designed for the compaction of

- sand
- gravel
- crushed aggregates
- semi-cohesive mixed material
- concrete block pavement.

Any other use of the soil compactor is considered contrary to its designated use. The company operating the soil compactor bears the sole responsibility for any misuse of the machine.

Driving Permission

Only trustworthy persons, who are aged at least 18 years, are allowed to handle soil compactors. They must be properly trained in the operation and maintenance of the soil compactor by the employer or his authorized representative.

Protective Equipment

When operating the soil compactor described in this operation and maintenance manual, the noise level at the operator's ear may exceed 90 dB(A). The German noise protection regulations (VBG 121) require the operator to wear personal ear protectors in case of noise levels of 90 dB(A) and more.

Additionally, a safety helmet and safety shoes belong to the protective equipment.

EC Machinery Directive, prEN500-1, EN292

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1 Technical Description

1.1 Illustration

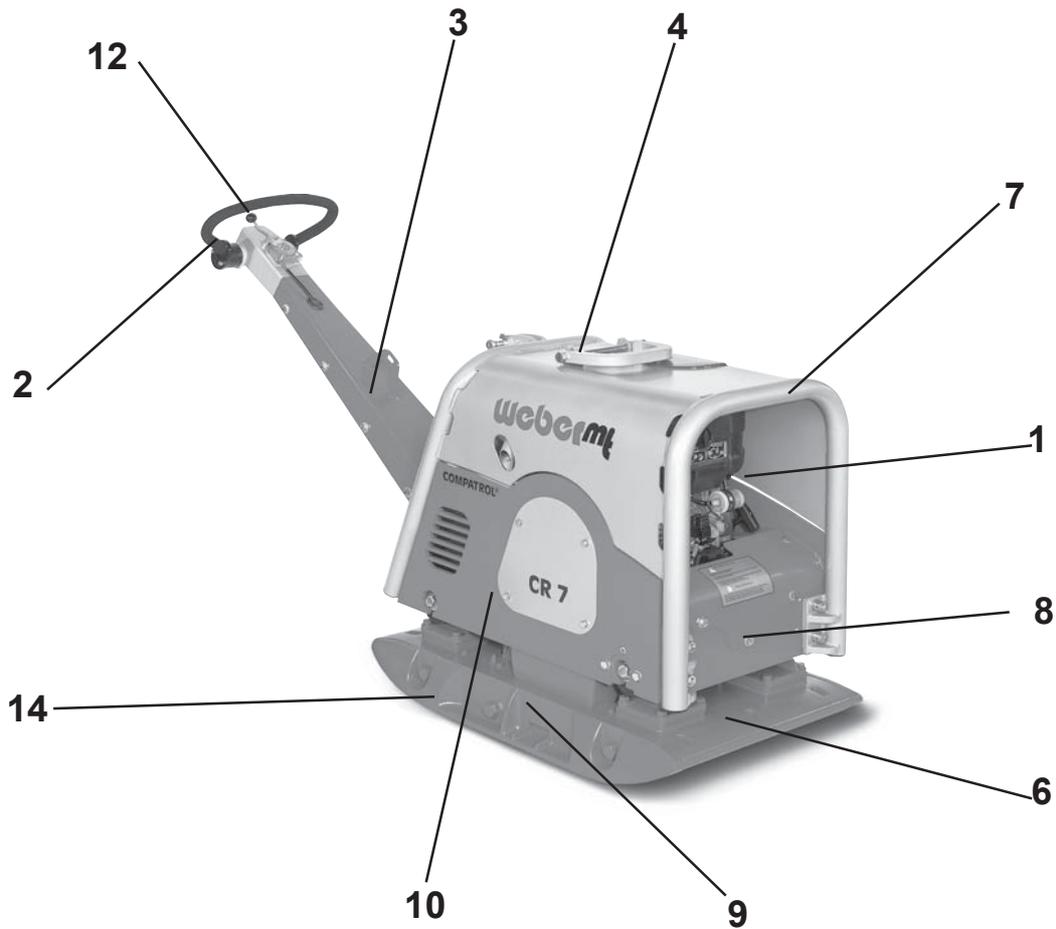


Figure 1 Overall View CR 7 CCD

- | | |
|-----------------------------|---|
| 1 Engine | 8 Engine bracket |
| 2 Drive lever | 9 Vibrator |
| 3 Handle | 10 V-belt guard |
| 4 Lifting lug | 11 Spring bar (not shown) |
| 5 Ignition lock (not shown) | 12 Engine speed adjusting lever |
| 6 Base plate | 13 Vulkollan plate (not shown) |
| 7 Protective frame | 14 Extension plates |
| | 15 COMPATROL® Compaction Control System (not shown) |

1.2 Machine Description

The **CR 7** CCD soil compactors are machines of the walk-behind type used for compaction work in road construction and landscape applications.

Propulsion

The CR 7 soil compactor is driven by a Lombardini Diesel engine.



Important!

Please refer to paragraph 1.3 (Specifications) for the performance details of the engine and the whole machine.

Function

The engine (1/1) drives the vibrator via a V-belt. The vibrator is screwed down to the base plate (1/6) and sets it vibrating. The vibrating base plate performs the vibration work and travelling motion.

Accessories

A damper plate (2.4.3), extension plates (2.4.4) and Compaction Control System Compatrol[®] (1.2.1) are available as optional extras.

Operation

The soil compactor is started by means of an electric starter (1/5).

The soil compactor is steered by means of the handle (1/3) holding the engine speed adjusting lever (1/12) and the drive lever (1/2) to control the direction of travel and the infinitely variable driving speed. The spring bar (1/11) allows to fix the handle in vertical position during work breaks and transports.

The COMPATROL[®] compaction control system enables, during compaction work, to measure the degree of soil compaction achieved and to optically indicate it by means of light-emitting diodes.

1.2.1 Description of the COMPATROL Compaction Control System

COMPATROL® is a continuous compaction control system for soil compactors of the walk-behind-type. The system can be used on soils of the “V1” class (well compactable soils).

The COMPATROL® compaction control system consists of an acceleration sensor (2/2) fitted to the base plate (2/1) and of the Compaction Control Display (CCD) (3/2) integrated in the dashboard (3/1).

Light-emitting diodes (4/1) optically indicate the operating modi described in the following.

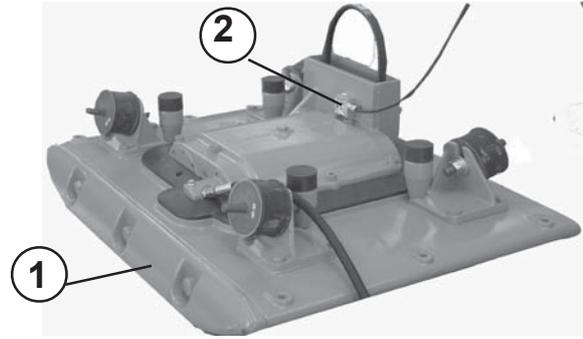


Figure 2

 When the soil compactor is dismantled, i.e. when the base plate is detached from the engine bracket, always make sure that the acceleration sensor (2/2) is disconnected from the compaction control display (3/1) in order to avoid damage to the COMPATROL® measuring system.

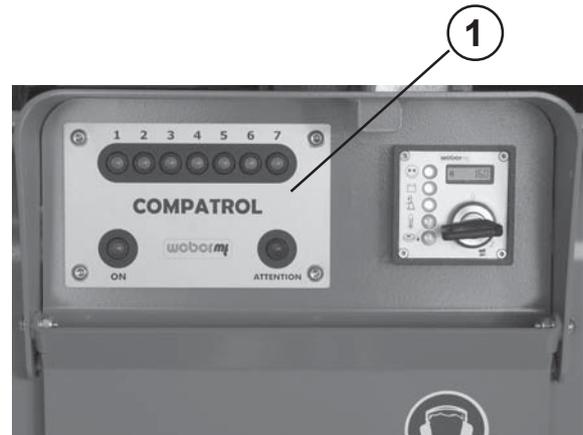


Figure 3

1.2.2 Principles of Operation

When the ignition is switched on (2.5), the COMPATROL® compaction control system makes an operational check. All light-emitting diodes (4/1) will light up

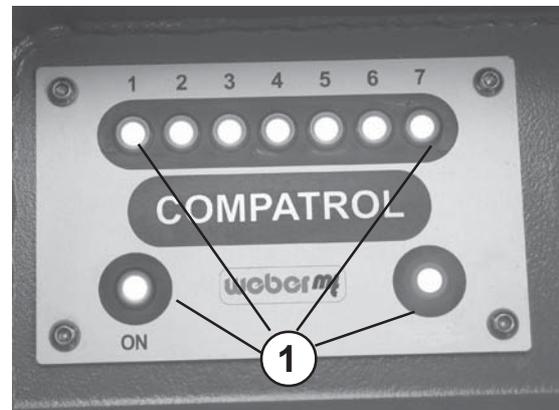


Figure 4

When the engine has been started (2.5), the LEDs (5/1/2) will light up until the correct frequency is reached. As soon as the correct vibration frequency is reached, the red LED (5/2) will be extinguished. If the red diode (5/2) does not go out, please refer to chapter 4.2 “Trouble Shooting”.

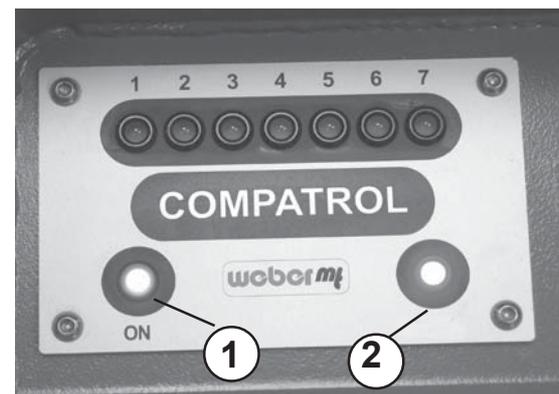


Figure 5

When the operating frequency is achieved, the green LED (6/1) and at least one of the yellow LEDs (6/2) will light up to indicate that the COMPATROL[®] system is ready for work.

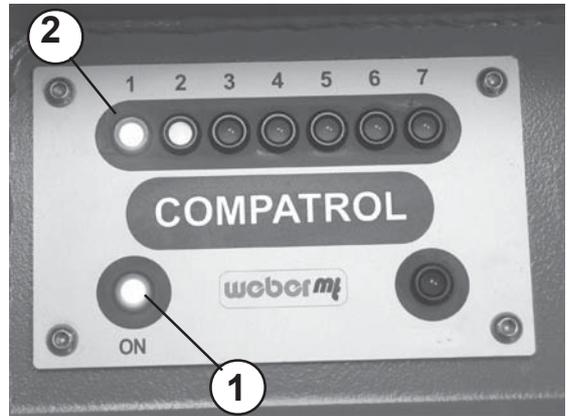


Figure 6

During the compaction process, the compaction achieved is continuously measured and optically indicated by the yellow LEDs 1 to 7 (7/8/1). The maximum compaction is achieved when the number of flashing diodes does not increase anymore.



Figure 7

When all LEDs (9/1) light up, compaction work must be stopped immediately.

The maximum compaction is achieved.

 Continued compaction will cause the material to re-loosen.

 Grounds which are too hard may cause damage to the machine.



Figure 8

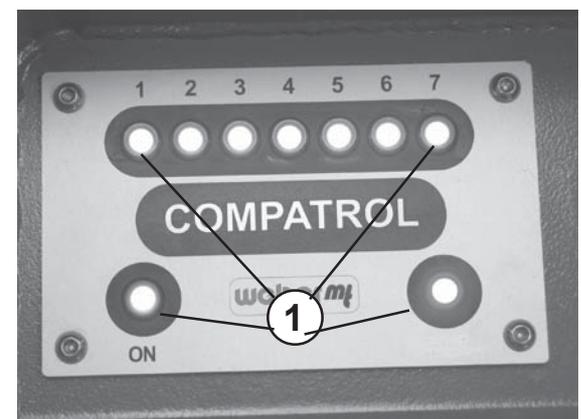


Figure 9

1.3 Specifications

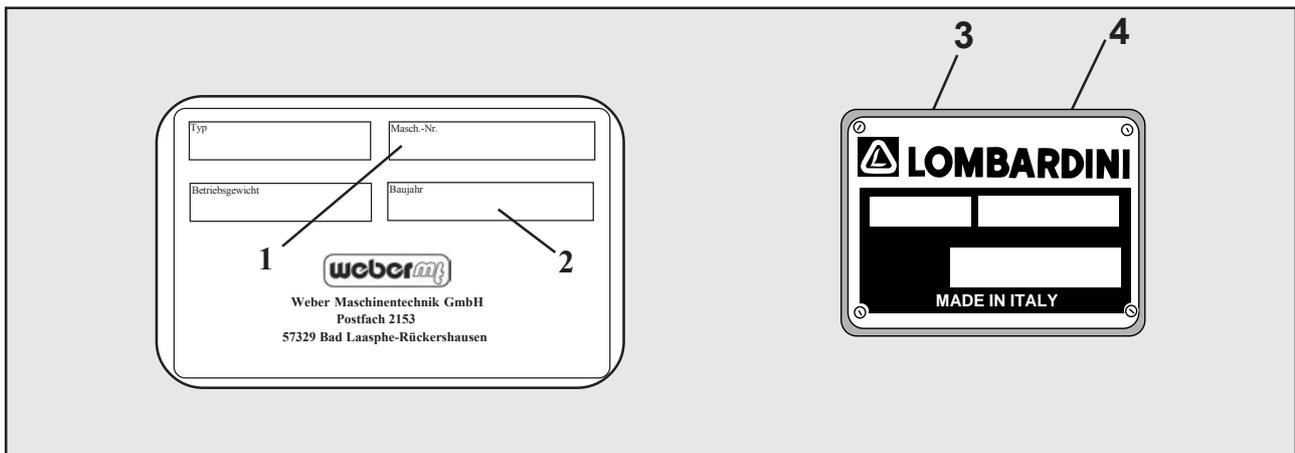
	CR 7 CCD	
Weight		
Operating weight according to CECE in kg	480	504
Dimensions		
Overall length (in mm)	1835	1835
Width with extension plates (in mm)	600	800
Height with handle folded down (in mm)	1135	1135
Base plate length (contact area in mm)	440	440
Propulsion		
Engine manufacturer	Lombardini	
Type	15LD440	
Maximum output according to DIN 70020 (in kW (HP))	8,1 (11,0)	
Type of combustion	4-stroke Diesel	
Operating speed	3000	
Driving speed (dependent on soil conditions (in m/min))	24	19
Gradeability (dependent on soil conditions, in %)	30	30
Depth compaction (in cm)	70	70
Performance (in m ² /h)	864	912
Vibration		
System	Two-shaft vibrator	
Mode of driving	Mechanical	
Frequency (in Hz)	65	
Centrifugal force (in kN)	60	

CR 7 CCD	
Noise and Vibration Data*	
Sound pressure level LPA (at the operator's place, according to 2000/14/EG, in dB(A))	98
Sound power level LWA (according to 2000/14/EG, in dB(A))	109
Hand/arm vibration (weighted root mean square acceleration, at the handle, determined according to 2002/44/EG, Part 1, in m/s ²) forward/reverse	5,2 * 3,7 **

* 600 mm

** 800 mm

* The indicated noise and vibration data were determined with the engine at nominal speed and the vibration system turned on, 2000/14/EG. During operation, these data may vary according to the specific conditions prevailing on the job site.



1 MACHINE NO.

.....

2 YEAR OF CONSTRUCTION

.....

3 TYPE

.....

4 ENGINE/SERIAL No.

.....

2 Operation

2.1 Safety Precautions for the Operation

Safety and protection devices

Before every shift, the operator must check the operativeness of all controls and safety elements as well as the proper installation of all protection devices. The soil compactor is only allowed to be operated with all protection devices in place. The control's functionality is not allowed to be impaired or neutralized.

Before starting the soil compactor, the operator must take his personal noise protection measures. Before starting the engine, check to ensure that the soil compactor cannot slip out of control.

Conduct in Case of Failures

If defective safety devices or other failures which might affect the safe operation of the soil compactor are ascertained, the supervisor must be informed without delay. In case of malfunctions endangering the unit's operational safety, the machine must be turned off immediately.

Conduct of the Machine Operator

During the machine's operation, the operator has to constantly supervise the operational safety of the soil compactor. When running the machine, the operator is not allowed to leave the operating controls of the soil compactor. In addition, he must always have a sufficient visibility on the soil compactor's zone of operation. The operator must be assisted by a second person if, because of the operating conditions, the visibility on the zone of operation is restricted.

Stability

Soil compactors must be used and operated in a way ensuring their stability. The machine's stability is especially endangered on slopes and brinks. Thus, keep clear of slopes and brinks.

Driving and Compacting

When working on slopes, the operator must always walk on the uphill side. Compaction work on slopes exceeding the maximum gradeability of the soil compactor is prohibited. When working/travelling on slopes, always use extreme precaution and work directly in uphill or downhill direction.

 Moist and loose bases considerably reduce the grip of the soil compactor on slopes. Increased danger of accident!

Passing unevennesses or kerbs is only allowed at reduced speed. In addition, the soil compactor must be operated in a way excluding any risk of injury caused by the handle swinging towards the operator.

Exhaust Precautions

 Never inhale exhaust gasses. They contain carbon monoxide, a colorless, odorless and extremely dangerous gas which can cause unconsciousness or death. Never operate the engine indoors or in a poorly ventilated area, such as tunnel, cave, etc. Exercise extreme care when operating the engine near people or animals. Keep the exhaust pipe free of foreign objects.

2.2 Transport

Short distances on the job site can be covered by the soil compactor in accordance with paragraph 2.6.

For long distances, however, the compactor can be lifted on an appropriate transport vehicle (truck, trailer) by means of a crane.

2.2.1 Loading by Crane

- Put the soil compactor out of operation as described in paragraph 2.7.
- Lock the handle (10/1) by means of the spring bar (10/2).



Danger!

Never use the handle (10/1) for lifting the machine by crane. The machine may overturn!!

- Connect the crane hook (11/1) to the folding lifting eye (11/2).



Danger!

Only use a lifting tackle and a crane of a sufficient bearing capacity.



Danger!

Do not enter the zone under the suspended load.

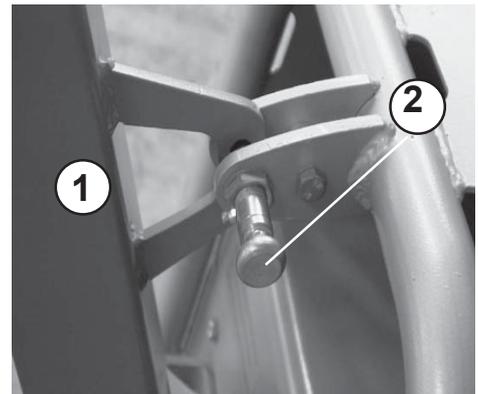


Figure 10

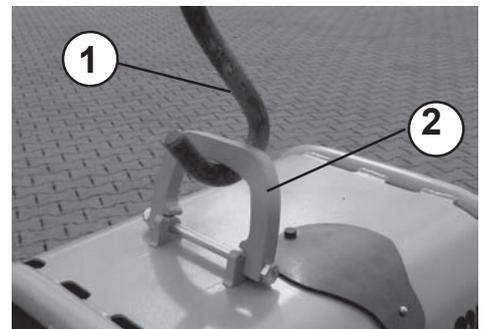


Figure 11

2.3 Commissioning



Caution!

For commissioning, only carry out the pre-start work described in paragraph 2.4.

Keep to the initial maintenance intervals (refer to paragraph 3.2.1).

2.4 Pre-Start Work

- Check to ensure that all safety devices are in place.
- Check the whole soil compactor for evident damage (visual check).
- Check all screwed connections for tight seat, retighten them if necessary.
- Check the fuel level, if necessary, add fuel (refer to paragraph 2.4.1).
- Check the engine oil level, if necessary add engine oil (refer to paragraph 2.4.2).
- If required, fit the damper plate (refer to paragraph 2.4.3).
- If required, fit the extension plates (refer to paragraph 2.4.4.).

2.4.1 Checking the Fuel Level

- Put the soil compactor out of operation as described in paragraph 2.7.
- Loosen the tank cover (12/1).
- Push the tank cover(13/1) aside.
- Clean the area around the filler neck.
- Open the cap (14/2) of the fuel tank (14/1).



Figure 12



Caution!

Fill the tank up with clean Diesel fuel only. Refer to paragraph 3.4 for quantities and specifications.

- Replenish to the lower edge of the filler neck (14/3).



Danger!

Take care that fuel does not come in contact with hot engine parts. Extinguish all open flames and do not smoke while filling the tank.



Environment Hazard!

Always wipe up any spilled fuel. Dispose of fuel-soaked cloth in an environmentally-friendly manner.

- Firmly close the fuel tank (13/2) with the tank cap (13/3).
- Firmly tighten the tank cover (15/1).

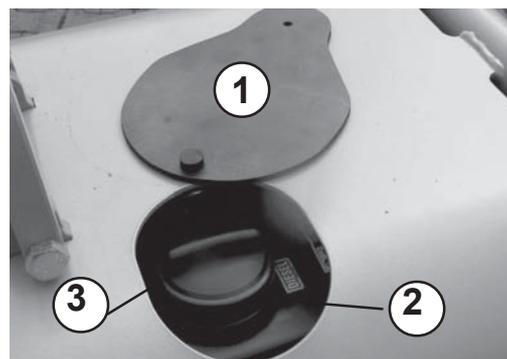


Figure 13

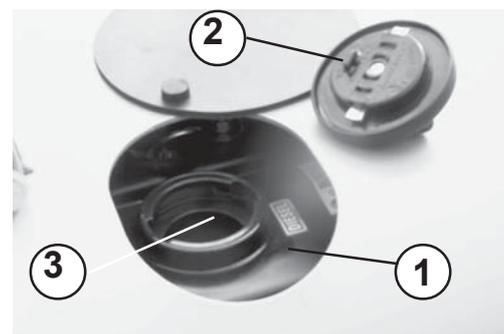


Figure 14



Figure 15

2.4.2 Checking the Engine Oil Level

Caution!

The engine oil level must be checked with the soil compactor standing horizontally on the ground.

- Pull out the oil dipstick (16/1), wipe it off with a clean, non-fluffing cloth and insert it again.

Caution!

- Screw the oil dipstick (16/1) down.
- Undo the oil dipstick once again.

Caution!

The oil level must reach up to the top mark (16/max).

- If required, add engine oil according to paragraph 3.3.1 (refer to paragraph 3.4 for quantities and specifications).
- Firmly screw the oil dipstick down.

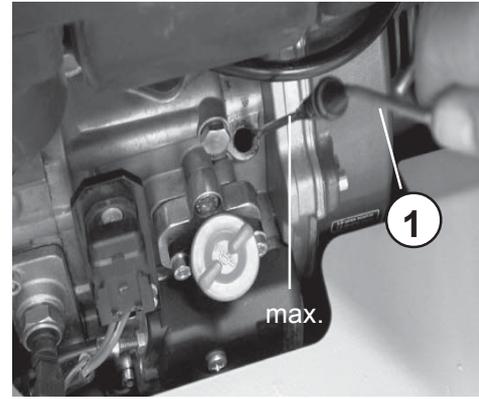


Figure 16

2.4.3 Fitting the Damper Plate

- Put the soil compactor out of operation as described in paragraph 2.7.
- Lift the soil compactor by means of a crane as described in paragraph 2.2.1.
- Put the damper plate beneath the machine.

Caution!

Do not enter the zone under the suspended load. - Risk of injury!

- Attach the Vulkollan plate (17/1), together with the holder (17/2), the screws, lock washers and the nut (17/3), to the front of the base plate (17/4) as shown.
- Attach the Vulkollan plate (18/1), together with the holder (18/3), the screws, nuts and the lock washers (18/2) to the back of the base plate.

Important!

Check to ensure that the Vulkollan plate is correctly fitted beneath the base plate.

Danger!

Do not enter the zone under the suspended load!

2.4.4 Fitting/Detaching the Extension Plates

- Undo three each fastening screws (19/2) and remove the extension plates.
- Put the extension plates (19/1) against both sides of the base plate and fix them by means of three each fastening screws (19/2).

 **Firmly tighten the screws!**

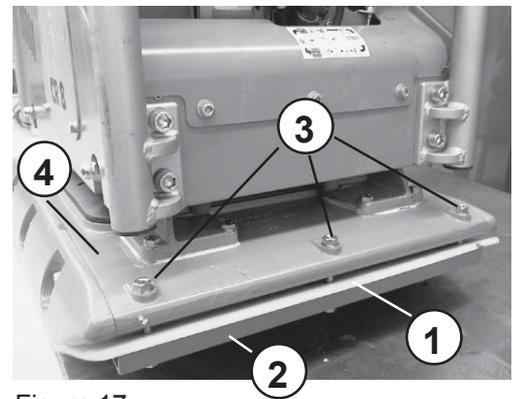


Figure 17

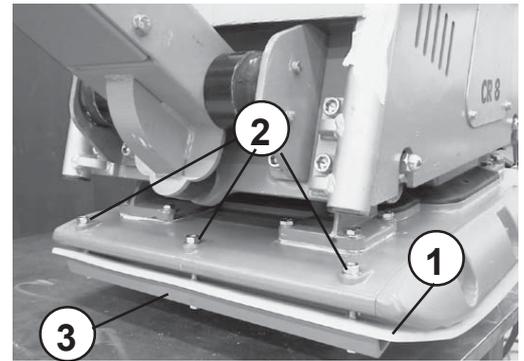


Figure 18

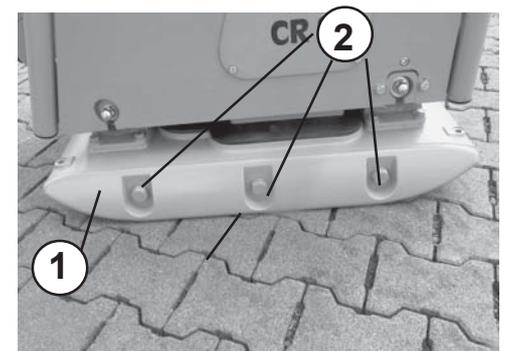


Figure 19

2.5 Starting



Danger!

Before starting the machine, always ensure that nobody is in the danger area of the soil compactor and that all protective devices are properly in place.

When starting the soil compactor in closed premises, always ensure a proper ventilation - danger of poisoning.



Caution!

Never use starting aid sprays!

- Put the engine speed adjusting lever (20/1) into the full speed position.
- Put the ignition key (21/1) into the lock and turn it into position 1.
- Turn the ignition key (21/1) into position 2.
- Release the ignition key as soon as the engine starts.



Important!

The ignition key must automatically return into position 1 and must remain in this position during operation. The alternator charge pilot lamp (21/3) and the oil pressure pilot lamp (21/4) must go out immediately after starting.



Caution!

The pilot lamp (21/2) lights up to indicate the engine's operation.

As long as the ignition is switched on, the hourmeter (21/7) records the working hours performed.

The symbols (21/5) and (21/6) are not assigned to a function.

When the ignition is switched on, the COMPATROL[®] compaction control system makes an operational check. All light-emitting diodes (22/1) will light up.



Figure 20

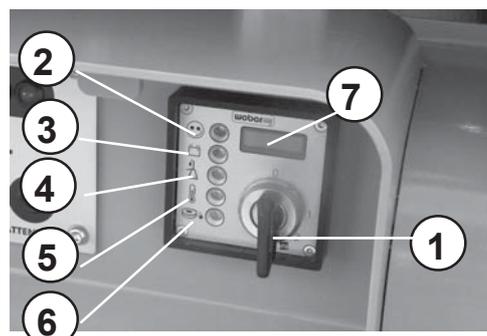


Figure 21

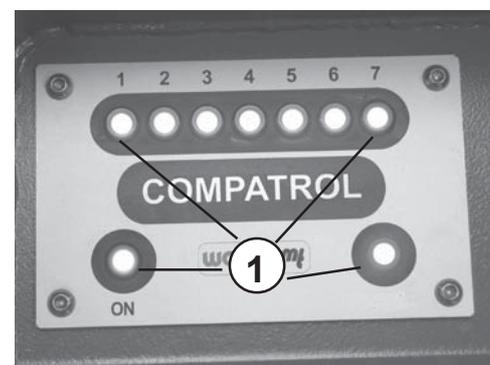


Figure 22

When the engine has been started, the LEDs (23/1) will light up until the correct frequency is reached. As soon as the correct vibration frequency is reached, the red light-emitting diode (23/2) will be extinguished. If the red LED (23/2) does not go out, please refer to paragraph 4.2 "Trouble Shooting".



Important!

In case of any irregularity, turn off the engine immediately, localize and repair the malfunction. Let the engine idle for some minutes.

In case of ambient temperatures of 5 degrees C below zero or less, the starting procedure must be carried out in accordance with the operation manual of the engine manufacturer.



Caution!

If the ignition key does not automatically return into position 1, put the machine out of operation - risk of starter damage because of starter working during machine operation.

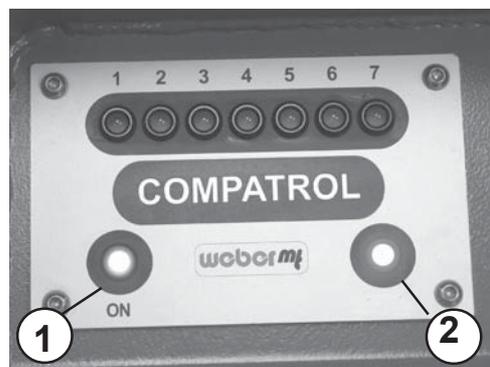


Figure 23

2.6 Compaction Work

- Put the soil compactor into operation (refer to paragraph 2.5).
As soon as the engine reaches its operating temperature:
- push the engine speed adjusting lever (20/1) into the full speed position.

Caution!

Compaction work is only allowed at full engine speed, otherwise the centrifugal clutch may slip and cause increased wear.

Important!

As soon as the centrifugal clutch achieves the cutting-in speed, the vibrator is automatically turned on.

When the operating frequency is reached, the green LED (24/1) and at least one of the yellow LEDs (24/2) will light up to indicate that the COMPATROL[®] compaction control system is ready for work.

During the compaction process, the compaction achieved is continuously measured and optically indicated by the yellow LEDs 1 – 7 (25/1). The maximum compaction is achieved when the number of flashing diodes (25/26) does not increase anymore

When all LEDs (27/1) light up, compaction work must be stopped immediately.

The maximum compaction is achieved.

 Continued compaction will cause the material to re-loosen.

 Grounds which are too hard may cause damage to the machine!

 **Danger!**
If obstructions (such as walls or trenches) are encountered, take care that persons do not get crushed and that the machine does not slip out of control.

 **Warning!**
During work breaks, even if they are short, the soil compactor must be put out of operation (refer to 2.7).

- Steer the soil compactor with the handle (20/1) into the desired direction.

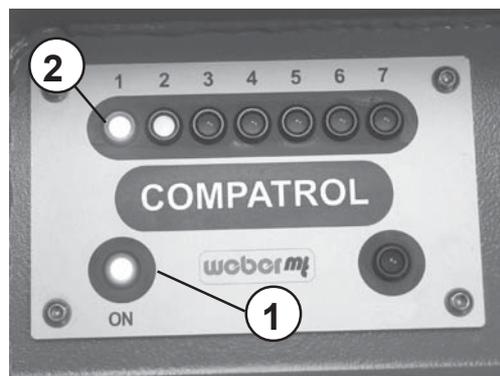


Figure 24



Figure 25



Figure 26

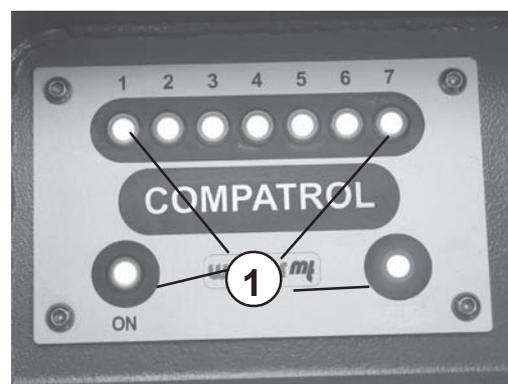


Figure 27

2.7 Putting the Soil Compactor Out of Operation

Before work breaks and at the end of every day's shift, the soil compactor must be parked on a stable base which should be as horizontal as possible.

Warning!

If the soil compactor causes an obstruction when being parked, precautionary measures must be taken in order to make the machine visible. If the machine is parked on traffic roads, the safety precautions required by the traffic regulations must be additionally observed.

Caution!

Never stop the engine while it is running at full speed, but let the engine idle for some minutes.



Figure 28

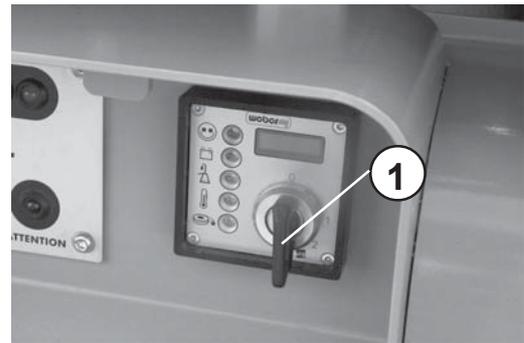


Figure 29

2.7.1 Stopping

- Push the speed adjusting lever (28/1) to the back and let the engine idle for some minutes.
- Turn the ignition key (29/1) from position "1" back in- to position "0".
- Take out the ignition key.

3 Maintenance

3.1 Safety Precautions for Maintenance Work

Checks

Dependent upon the operating conditions, soil compactors must be made subject to an expert's check for operational safety as required, but at least once a year. The inspection results must be recorded in writing and kept at least until the next inspection.

Service Work

Service work is only allowed to be done when the drives are stopped. Exceptions are only allowed if work can be done with running drives only. In addition, the soil compactor must be secured against unintentional movements.



Drained consumables must be caught and stored in an appropriate receptacle and disposed off according to the relevant environmental protection regulations.

Prior to any work on parts which are not protected, the engine must be secured against unintentional starting. After completion of service work, all protective devices must be properly installed again.

Modifications and Retrofittings

For safety reasons, any modifications and retrofittings made on the soil compactor without the manufacturer's authorization, are prohibited. Damage resulting from modifications or retrofittings is excluded from the manufacturer's liability. Only use genuine WEBER spare parts to ensure a safe and reliable operation.

Safety Precautions Required by the Engine Manufacturer

Please refer to the annexed operation manual of the engine manufacturer Lombardini for a detailed description of the maintenance work to be done on the engine.

3.2 Maintenance Survey

Any maintenance work required on the soil compactor must be repeated at regular intervals.

The column „Maintenance Point“ refers to the assembly group on which the work indicated in the column „Maintenance Work“ must be carried out.

The column „Remarks“ contains cross-references on paragraphs of this operating and maintenance manual or other documentation in which the maintenance work is described in detail.

3.2.1 Maintenance

Maintenance Interval	Maintenance Point	Maintenance Work	Remarks
Every 8 operating hours	Whole machine	- Check for visible damage, leaks etc.	
	Air filter	- Clean the air filter element, check it for damage and replace it if required	# 3.3.2
	Engine	- Check the engine oil level	# 2.4.2
Every 150 operating hours	Whole machine	- Check all screwed connections for tight seat, retighten them if necessary	
	All bare parts	- Slightly oil	
	Engine	- Change the engine oil	# 3.3.1
		- Replace the fuel filter	# 3.3.3
		- Replace the oil filter	# 3.3.1.1
	Vibrator	- Check the V-belt for damage/wear	# 3.3.4/3.3.5
	Battery	- Check the acid level, if required add distilled water	
Every 300 operating hours	Vibrator	- Change the oil	# 3.3.6

3.3 Description of the Maintenance Work

3.3.1 Changing the Engine Oil

- Put the soil compactor out of operation as described in paragraph 2.7.



Caution!

Drain off the engine oil at operating temperature and with the soil compactor in horizontal position only.

- Put a drain pan under the outlet.



Environment Hazard!

Choose a drain pan having a sufficient capacity to catch all the used oil. Do not let used oil run into the soil. Dispose of the collected used oil in an environmentally-friendly manner (acc. to statutory pollution control regulations).

Wipe up any oil residues and dispose of the oil-soaked cloth in an environmentally-friendly manner.



Danger!

Danger of scalding because of hot oil.

- Undo the screws (30/2) to remove the cover (30/1).
- Pull out the oil dipstick (31/1).
- Undo the protective cap (31/2).
- Screw the oil drain hose (32/1) onto the drain valve (32/2) and completely drain the engine oil.



Important!

Screwing the drain hose down opens the drain valve - oil escapes!

- Undo the oil drain hose (32/1).
- Put the protective cap (31/2) onto the drain valve (31/3).
- Top up with engine oil according to the quantity chart (3.4).
- Check the oil quantity by means of the dipstick (31/1) (refer to paragraph 2.4.1).
- Screw the dipstick (31/1) down.



Caution!

Make a short trial run and check tightness!

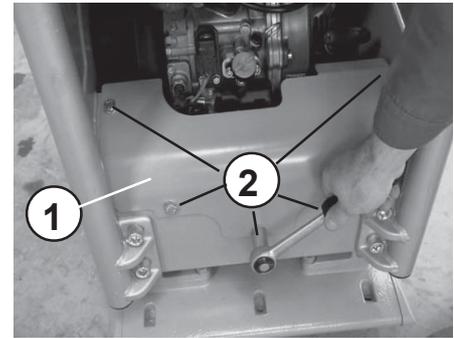


Figure 30

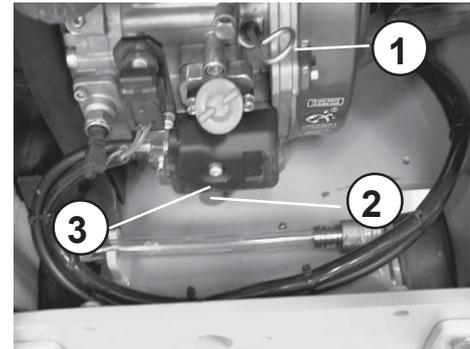


Figure 31

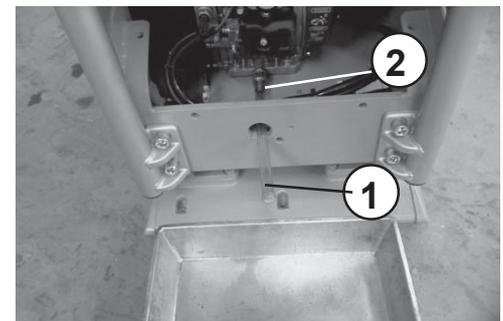


Figure 32

3.3.1.1 Cleaning the Engine Oil Filter

- Put the soil compactor out of operation as described in paragraph 2.7.
- Drain the engine oil according to paragraph 3.3.1.
- Undo the screws (33/1) and remove the lid (33/2) of the filter body.
- Pull the oil filter (34/1) out of the crankcase and replace it by a new oil filter.
- Put the oil filter into the crankcase (35/1).
- Put the lid (33/2) onto the crankcase and fasten it by means of the screws (33/1).



Environment Hazard!

Wipe up any oil and dispose of the oil filter and the oil-soaked cloth in an environmentally-friendly manner.

- Top up with engine oil according to paragraph 3.3.1.



Caution!

Make a short trial run and check for tightness, if required, retighten the screws.

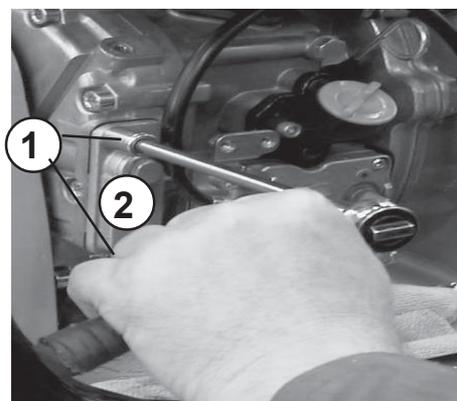


Figure 33

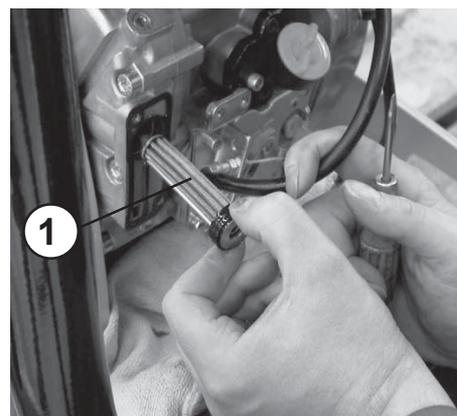


Figure 34

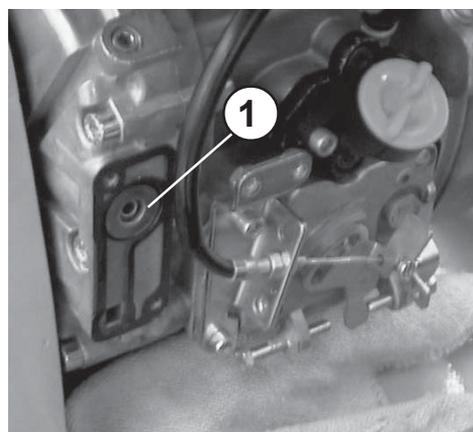


Figure 35

3.3.2 Cleaning/Replacing the Air Filter Cartridge

- Loosen the fastening screw (36/2) and remove the cover (36/1) from the air filter body.
- Pull the air filter element (37/1) out of the air filter body(37/2) and blow or knock it clean.

 **Caution!**

If this procedure does not provide a sufficient cleaning (e. g. because of humid or oily dirt), a new filter element must be used.

- Insert the filter (37/1) again.
- Put the cover (36/1) on the air filter body again and firmly close the body with the screw (36/2).

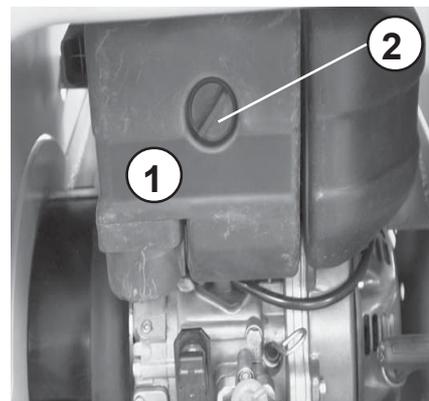


Figure 36

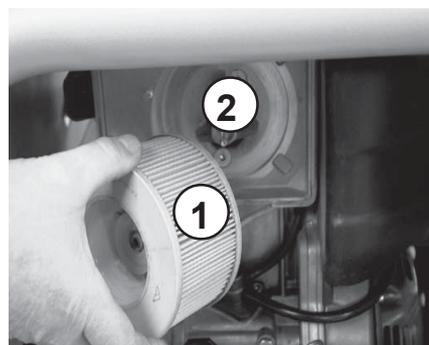


Figure 37

3.3.3 Replacing the Fuel Filter

- Put the soil compactor out of operation as described in paragraph 2.7.
- Undo the clips (37/2), remove the diesel fuel lines (37/1) from the fuel filter (37/3) and completely drain the tank.
- Remove the clip (37/4) from the fuel filter (37/3) and replace the used filter by a new one.
- Put the fuel lines (37/1) on the fuel filter and fasten them with the clips (37/2).

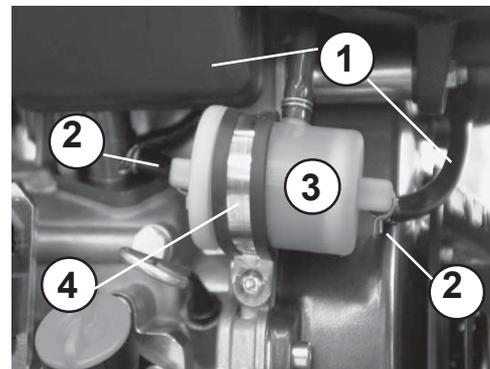


Figure 37



Immediately wipe up any escaping fuel, dispose of the fuel-soaked cloth in an environmentally-friendly manner.



Make sure that the clips are correctly fastened and check the system for tightness.

3.3.4 Checking the Condition and Tension of the Vibrator V-Belt

- Put the soil compactor out of operation as described in paragraph 2.7.
- Undo the screws (38/1) to remove the V-belt guard (38/2).
- Check the condition of the V-belt (39/1) (cracks, broken out flanks, wear).
- In case of excessive wear, replace the V-belt as described in paragraph 3.3.5.

Caution!

Take care to properly fit the V-belt on the pulleys (belt alignment).

The special centrifugal clutch will tension the V-belt.

3.3.5 Replacing the V-Belt

- Loosen the screws (38/1) and remove the V-belt guard (38/2).
- Undo the fastening screw (40/1) and (39/2) of the centrifugal clutch (40/2) and remove it from the clutch.
- Screw a (M20x100) hexagon head cap screw with through-thread into the centrifugal clutch (41/1). Remove the clutch from the cone of the driving engine by means of the (M20x100) screw.
- Remove the screw (42/3) from the clutch.
- At first, mount the V-belt (42/1) on the pulley of the vibrator and then on the clutch (42/2).
- Put the centrifugal clutch onto the cone of the driving engine.
- Fasten the centrifugal clutch with the screw (39/2) and the disk (39/3).
- Fit the V-belt guard (38/2) by means of the screw (38/1).

Caution!

Check to ensure that the V-belt is properly aligned, especially after repair work.

Always use a new screw and disk to fasten the centrifugal clutch.

The torque to fasten the centrifugal clutch is 40 Nm.

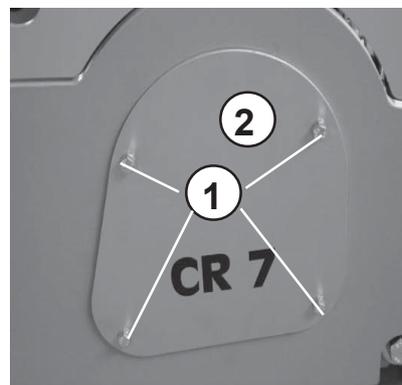


Figure 38

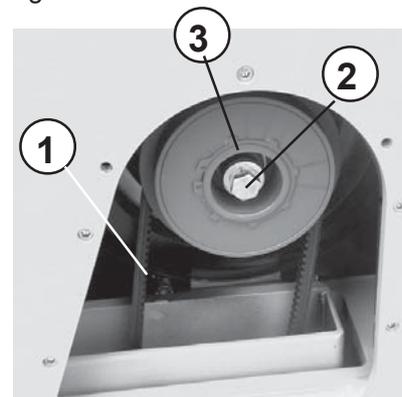


Figure 39

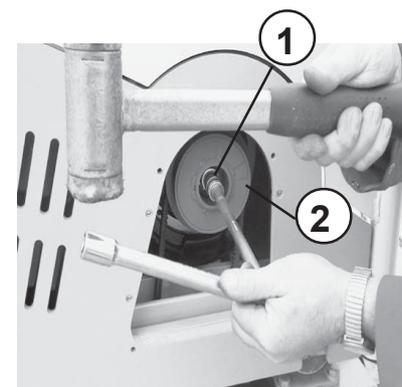


Figure 40

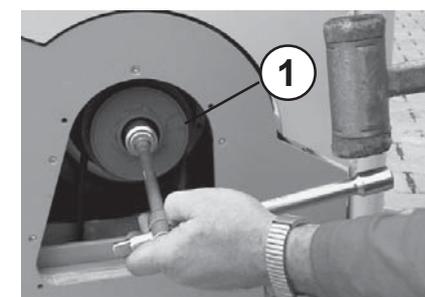


Figure 41

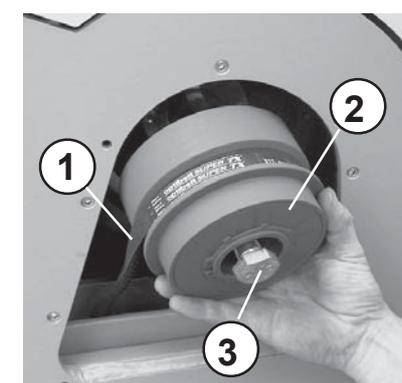


Figure 42

3.3.6 Changing the Vibrator Oil

- Put the soil compactor out of operation as described in paragraph 2.7.

 **Caution!**

Change the oil at operating temperature only.

 When working on the machine, always protect the soil compactor against slipping out of control. - Risk of injury -

- Thoroughly clean the oil drain plug (43/1) and the area around it.
- Put an appropriate drain pan (44/2) beneath the drain outlet.
- Remove the oil drain plug (44/1) from the base plate.
- Completely drain the oil.

 **Caution!**

Take care that the contact surfaces of the oil drain/filler plug (43/1) and of the base plate (44/1) are clean.

- Tilt the soil compactor.
- Top up with gear oil through the oil filler/oil drain opening (44/2) (refer to paragraph 3.4 for quantities and specifications).

 **Environment Hazard!**

Dispose of the collected used oil in an environmentally-friendly manner. Take care that the environment is not polluted by oil.

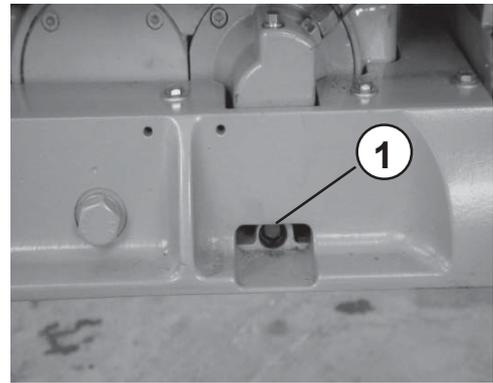


Figure 43

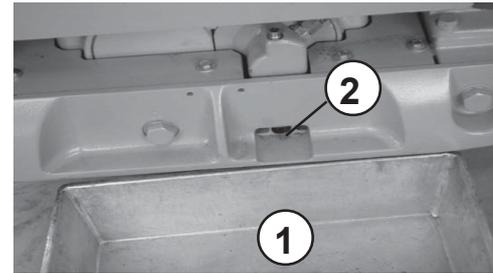


Figure 44

3.3.7 Hydraulic Control

 The switch head (24/2) is filled with hydraulic oil. Switching is effected upon actuation of the switch lever (24/1). A hydraulic line connects the reaction end socket (26/1) and the switch head.

 **Important!**

In case of switching problems, proceed as follows:

- Remove the oil filler screw (46/2) of the switch head (46/1).
- Add hydraulic oil according to the specifications in paragraph 3.4 up to the middle of the sight glass (46/3). (Handle in vertical position).
- Fasten the oil filler screw (46/2).
- Bleed the hydraulic system by loosening the bleeding screw (47/2) at the reaction end housing (47/1).
- Firmly tighten the bleeding screw (47/2) again.

 Check the oil level once again!

 Always wipe up any spilled fuel. Dispose of fuel-soaked cloth in an environmentally-friendly manner.

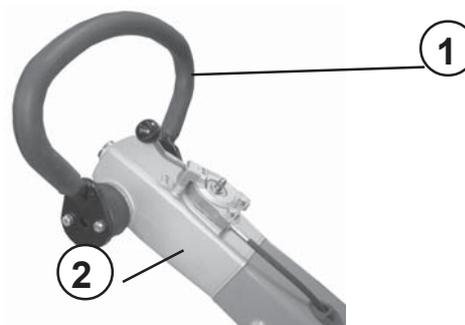


Figure 45

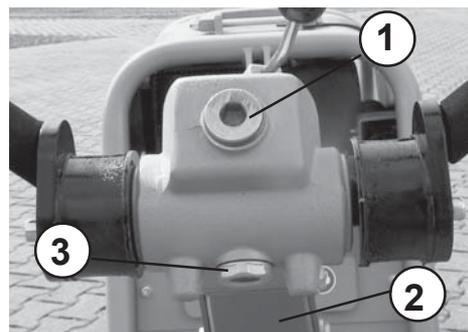


Figure 46

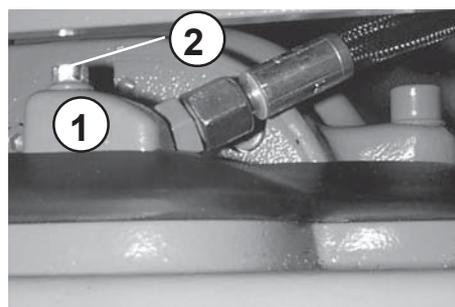


Figure 47

3.4 Consumables and Quantities

Assembly Group	Consumable		Quantity
	Summer	Winter	CR 7
Quality			
Engine Engine oil	SAE 10 W 40 (-10 ~ + 50 °C) API - CD CE-CF-CG or SHPD or CCMC - D4 - D5 - PD2		1,2 l
Fuel tank	Diesel Diesel according to DIN 51601-DK or BS2869-A1/A2 or STM D975-1D/2D		5,0 l
Vibrator	Fully synthetic gear oil API GL-5/GL-4 Initial filling Fuchs Titan 5 Speed SL 75 W 90		1,25 l
Hydraulic control	Fully synthetic gear oil DEXRON II-D- ATF Initial filling Fuchs TITAN ATF 3000 or equivalent		as required
Greasing points	High-pressure grease (lithium-saponified) according to DIN 51825 - KPF2		as required
Battery	Distilled water		as required

4 Malfunctions During Operation

4.1 General

If a malfunction occurs on the soil compactor, proceed as follows:

- Put the soil compactor out of operation as described in paragraph 2.7.
- Determine the source of the malfunction (refer to paragraph 4.2 - Trouble Shooting).
- Repair the failure (refer to paragraph 3 (maintenance work) and paragraph 2 (description of the various controls)).



Please refer to the manual of the engine manufacturer with regard to the repair of engine malfunctions.

The detailed description of the various controls and the references given in the column "Remarks" of the maintenance survey chart (paragraph 3) and trouble shooting chart (paragraph 4.2) allow a quick failure elimination on condition that the given order is precisely kept to when service work is carried out.



Any service work has to be made with appropriate tools and in accordance with the safety regulations set out in this operating and maintenance manual.

If a problem persists although a component or assembly group has been replaced, repair work has to be continued with the work described next.

If a failure cannot be repaired although the described service work has been carried out or if a defect is not described in the operating and maintenance instructions, the failure must be repaired by authorized service personnel.

4.2 Trouble Shooting

Failure	Possible Cause	Remedy	Remarks
Soil compactor does not start	Mistake in operating the unit	Perform the starting procedure as described	# 2.5
	Lack of fuel Dirty fuel filter	Check the fuel level Replace the fuel filter	# 2.4.1 # 3.3.3
	Dirty air filter	Clean/replace the air filter cartridge	# 3.3.2
	Lack of fuel/lack of oil	Activate oil pressure check	Refer to the manual of the engine manufacturer
No vibration/no or insufficient forward travel	Defective vibrator V-belt	Replace the vibrator V-belt	# 3.3.5
Delayed control	Air in the hydraulic control system	Bleed the control system	# 3.3.7
After the starting procedure, the red LED does not go out on the Compatrol display	Engine speed too low	Check/adjust the engine speed	Refer to the manual of the engine manufacturer
	Worn V-belt	Check the V-belt	# 3.3.3
	Torn V-belt	Replace the V-belt	# 3.3.4
	Uncompactable soil/insufficient soil bearing capacity		

4.3 Repair and Replacement Work

4.3.1 Replacing the Battery

- Put the soil compactor out of operation as described in paragraph 2.7.
- Undo the fastening screws (48/1) and remove the battery cover (48/2).
- Disconnect the cable plug (49/3).
- Disconnect the terminals (49/1).



At first, disconnect the negative terminal.

- Undo the screws (49/2) and take out the battery.



The installation is done in reverse order.

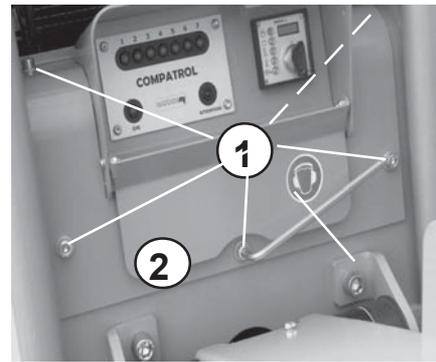


Figure 48

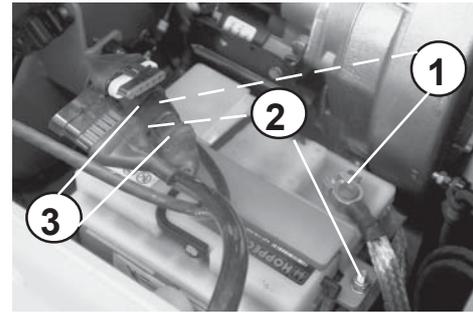


Figure 49

4.3.2 Replacing the Fuse

- Put the soil compactor out of operation as described in paragraph 2.7.
- Remove the protective cap (50/1) of the fuse holder (50/2).
- Remove the fuse (51/1) from the fuse holder (51/2).
- Insert a new fuse (51/1) with a rating of 20 A.

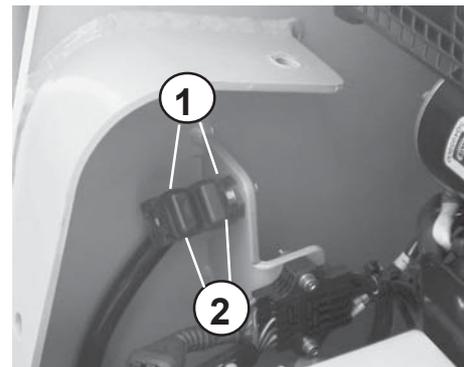


Figure 50

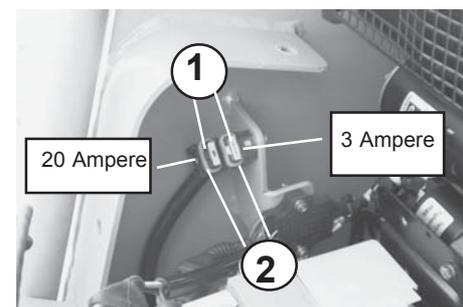


Figure 51

5 Preserving the Machine

If the soil compactor is planned to be put out of operation for an extended period of time (approx. 1 ... 6 months), e. g. during the winter season, it must be stored in a frost-proof and dry room. Before storing the machine, however, the preservation measures described in paragraph 5.1 must be taken. After the storage, the soil compactor must be put in operation according to paragraph 5.2.



If the soil compactor is to be stored for more than 6 months, additional measures must be taken in accordance with your WEBER service.

5.1 Preservation Measures

Assembly Group	Measure	Remarks
Whole soil compactor	<ul style="list-style-type: none">- Thoroughly clean- Check condition, fastenings and tightness- Have any failures ascertained repaired	
All bare parts	<ul style="list-style-type: none">- Apply a slight film of grease or oil	
Fuel tank	<ul style="list-style-type: none">- Add fuel up to the bottom edge of the filler neck	# 2.4.1
Engine	<ul style="list-style-type: none">- Check the oil level, if required, add oil- In the location of storage, put the engine into operation until its operating temperature is achieved.- Put the engine out of operation	# 2.4.2 # 2.7
Battery	<ul style="list-style-type: none">- Detach, charge, measure the fluid level, add distilled water if required	# 4.3.1

5.2 Removing Machine Preservatives

Assembly Group	Measure	Remarks
Whole soil compactor	<ul style="list-style-type: none">- Thoroughly clean- Charge the battery- Perform pre-start work	# 2.4.



6 Addresses, Weber Maschinenteknik GmbH

For problems, questions and further information refer to one of the following addresses:

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