Operator’s manual

DPU110Lekc



Machine type	**DPU110Lekc**
Material number	**5100038092**
Version	**03**
Date	**10/2019**
Language	**[en]**

5100038092

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The cover features the machine with possible optional equipment.

Responsibility for errors or omissions not accepted.

Wacker Neuson Produktion GmbH & Co. KG

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www.wackerneuson.com

Printed in Germany

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CALIFORNIA Proposition 65 Warning

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

WARNING

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

WARNING

Batteries, battery posts, terminals and related accessories contain lead and lead compounds, and other chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. WASH HANDS AFTER HANDLING.



EC Declaration of Conformity

Manufacturer

Wacker Neuson Produktion GmbH & Co. KG, Wackerstraße 6, D-85084 Reichertshofen
This declaration of conformity is issued under the sole responsibility of the manufacturer.

Product	**DPU110**
Product type	Vibratory plate
Function of product	Soil compaction
Material number	5100034515
Net installed power	16,0 kW
Measured sound power level	107 dB(A)
Guaranteed sound power level	109 dB(A)

Conformity assessment procedure

2000/14/EC, Annex VIII

Notified body

TÜV Rheinland LGA Products GmbH, Tillystr. 2, D-90431 Nürnberg (NB 0197)

Guidelines and standards

We hereby declare that this product complies with the relevant provisions and requirements of the following directives and standards:

2006/42/EC, 2000/14/EC, 2014/30/EU, EN 500-1:2006 + A1:2009, EN 500-4:2011, EN ISO 13766-1:2018, EN ISO 13766-2:2018

Person responsible for technical documents

Wacker Neuson Produktion GmbH & Co. KG, Wackerstraße 6, D-85084 Reichertshofen

Reichertshofen, 10.04.2019

Helmut Bauer
Managing Director

Original Declaration of Conformity

3 Preface

This operator's manual contains important information and procedures for the safe, proper and economic operation of this Wacker Neuson machine. Carefully reading, understanding and observing is an aid to avoiding hazards, repair costs and downtime, and therefore to increasing the availability and service life of the machine.

This operator's manual is not a manual for extensive maintenance or repair work. Such work should be carried out by the Wacker Neuson service or by technically trained personnel. The Wacker Neuson machine should be operated and maintained in accordance with this operator's manual. An improper operation or improper maintenance can pose dangers.

Defective machine parts must be exchanged immediately!

If you have any questions concerning the operation or maintenance, a Wacker Neuson contact person is always available.

4 Introduction

4.1 Use of the operator's manual

This operator’s manual is to be considered part of the machine and must be carefully stored during the entire service life of the machine. This operator’s manual shall be transferred to subsequent owners or users of the machine.

This operator’s manual applies to various machine models from one product series. For this reason, some figures may vary slightly in appearance from the machine purchased. Depending on the model, there may be descriptions of components that are not included in the standard package.

The information contained in this operator’s manual is based on machines manufactured up to the time of printing. Wacker Neuson reserves the right to change this information without notice.

The manufacturer shall immediately include any modifications or additions in this operator’s manual.

Group - model	Material number (mat. no.)
DPU110Lekc	5100034515
Supplement package to 3-part coupling set, consisting of: • Coupling linkage • Remote control • Telematics module (not applicable for UK)	5100040046 The 3-part coupling set supplement package must be ordered separately.

Abbreviations for versions/options	Description
L	Kohler/Lombardini engine
e	Electric starter
k	Coupling set
c (not applicable for UK)	Compatec (incl. machine protection)

The following individual machine and coupling set are described in this operator's manual:

- Individual machine: DPU110Lekc (drawbar operation)
- Coupling set: individual machines mechanically connected with coupling linkage in double or triple machine interconnection (hereinafter referred to as coupling set/ 2/3-part coupling set).

4.2 Storage location of the operator's manual

This operator's manual must be kept in the immediate vicinity of the machine and made accessible to staff at all times.

If this operator’s manual is lost, or if a second copy is required, there are two options to obtain a replacement:

- Download from the internet - http://www.wackerneuson.com
- Contact the Wacker Neuson contact person.

4.2.1 Understanding this manual

This section helps in understanding this operator's manual and the representations used in it.

Explanation of symbols

Symbols	Explanation
1., 2., 3…	Denotes an activity. The sequence of the actions must be followed.
⇨	Denotes a result or intermediate result of an action.
✓	Denotes prerequisites that must be provided for the activity
•	Denotes a list, for example if several components are named one after another.
-	Denotes a sub-list, for example if components consist of further components.
	Denotes a position, usually a component or control element, in a graphic. Numbering may be consecutive or in Roman numerals.
1; **A**	Denotes component names in explanatory texts. It is identical with the adjacent positions in the graphics
▶	Denotes the avoidance of dangers in warning information
[‣52]	Denotes a cross reference in tables. Here, for example, reference to page 52

4.2.1.1 Explanation of symbols



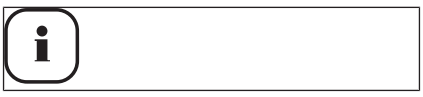
Symbol for warning notices

This symbol denotes warning information. It is used to warn you of possible dangers. The safety symbol is always followed by a signal word that indicates the danger. This warning information must be observed in particular. This protects the operators and third parties from personal injuries.



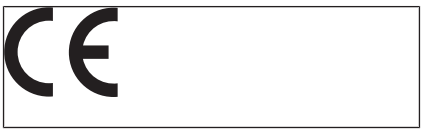
Symbol for environmental instructions

This symbol denotes environmental instructions. It is used to warn you of possible dangers to the environment.



Symbol for information

This symbol denotes information. This information may be, for example, tips for operation. They help to better understand and use the machine.



Symbol for adherence to EC Directives

The CE sign documents that the machine complies with the applicable EC Directives.

4.3 Accident prevention regulations

In addition to the notes and safety instructions in this operator's manual, the local accident prevention regulations as well as the national health and safety regulations shall apply.

4.4 Target group

Individuals working with this machine must be regularly trained on the dangers of handling the machine.

This operator's manual is intended for:

- Operating personnel:
  - These individuals have been trained on the machine and informed about the possible dangers in the event of improper conduct.
- Technically trained personnel:
  - These people have professional training as well as additional knowledge and experience. They are able to assess the tasks assigned to them and recognize possible dangers.

4.5 Wacker Neuson contact partner

Depending on the country, the Wacker Neuson contact partner is a Wacker Neuson Service, a Wacker Neuson subsidiary or a Wacker Neuson dealer.

On the internet at - http://www.wackerneuson.com.

4.6 Disclaimer

For the following violations, Wacker Neuson dismisses any liability for personal injury or material damage:

- Non-observance of this operator's manual.
- Use not in accordance with the intended purpose.
- Deployment of untrained personnel.
- Using non-approved spare parts and accessories.
- Improper handling.
- Structural modifications of any kind.
- Failure to observe the "General Terms and Conditions" (GT&Cs).

4.7 Product identification of the machine

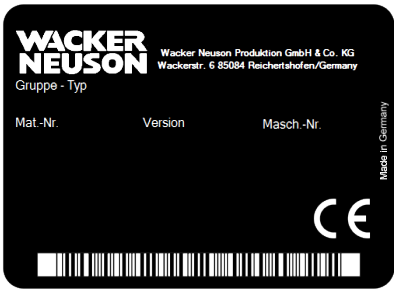
Data of the type label

The type label contains information that uniquely identifies this machine. This information is required for ordering spare parts and when inquiring about technical issues.

Enter information about the machine in the following table:

Designation	Your information
Group - model	
Material number (mat. no.)	
Machine version (version)	

Designation	Your information
Machine number (mach. no.)	
Year of manufacture	



5 Safety

Read and comply with the notes and safety instructions in this operator's manual. Failure to comply with these instructions can cause electric shock, fire and/or serious injuries as well as damage to the machine and/or damage to other objects.

Keep safety instructions and notes for the future.

5.1 Safety symbols and signal words

The following symbol indicates safety instructions. It is used to warn you of possible personal dangers.



⚠ DANGER

DANGER indicates a situation that leads to death or serious injuries if it is not avoided.

Consequences if not followed.

► Avoidance of injuries or death.



⚠ WARNING

WARNING indicates a situation that may lead to death or serious injuries if it is not avoided.

Consequences if not followed.

► Avoidance of injuries or death.



⚠ CAUTION

CAUTION indicates a situation that may lead to injuries if it is not avoided.

Consequences if not followed.

► Avoidance of injuries.



NOTICE

NOTICE indicates a situation that leads to material damage on the machine if it is not avoided.

Consequences if not followed

► Avoidance of material damages.

5.2 Policy

The machine has been built in keeping with the latest technological developments and the recognized technical safety rules. Nevertheless, improper use can result in hazards to life and limb of the user, third parties or to damage to the machine and other material assets.

5.3 Proper use

5.3.1 General

Use in accordance with the intended purpose also includes the compliance with all safety instructions in this operator’s manual as well as compliance with the prescribed care and maintenance instructions.

Any other use or use that exceeds this is considered as not being in accordance with the intended purpose. The manufacturer's liability and warranty are canceled for any damage resulting from improper use. The risk lies entirely with the operator.

5.3.2 Individual machine

The machine is used for:

- Compacting earth and coarse gravel work.
- Compacting mixed and sandy soils.
- Asphalt compaction.
- Vibration of sett paving (paving stones).

5.3.3 Coupling set

The machine is used for:

- Compression of earth and coarse gravel work – in particular trackbed compaction in railway construction.
- Compacting mixed and sandy soils.

5.4 Use not in accordance with the intended purpose

The manufacturer shall not be liable for personal or material damages due to use not in accordance with the intended purpose. The following activities are not in accordance with the intended purpose:

- Compaction of very cohesive soils.
- Compaction of frozen soils.
- Compaction of hard, non-compressible soils.
- Compaction of non-load-bearing soils.
- Operating the machine outside of the power rating.
- Working in an explosive vicinity.
- Working in closed or partially closed spaces without adequate aeration and ventilation.
- Operation contrary to the notes and safety instructions fixed to the machine and included in the operator’s manual.
- Structural changes.

5.5 Structural changes

Structural modifications may not be undertaken without the written permission of the manufacturer. Unapproved structural changes may result in risks to the operator and/or third parties as well as damage to the machine.

In the event of unapproved structural changes, the manufacturer's liability and warranty are also not applicable.

The following in particular are considered structural changes:

- Opening the machine and the permanent removal of components.
- Installation of spare parts that do not originate from Wacker Neuson or are not equivalent in the design system and quality to the original parts.
- Attaching any accessories that do not originate from Wacker Neuson.

Spare parts or accessories that originate from Wacker Neuson can be safely installed. They can be found on the Internet at - http://www.wackerneuson.com.

5.6 Areas of responsibility of the operator

The operator is the individual who personally operates this machine for industrial or commercial purposes or who entrusts a third party with the use. The operator bears legal responsibility for his/her protection as well as that of third parties.

The user must make the operator's manual available to the operator and ensure that the operator has read and understood it.

The operator’s manual must be kept next to the machine or place of use.

The operator must hand over the operator’s manual to subsequent operators or owners of the machine.

The country-specific regulations, standards, and guidelines on accident prevention and environmental protection must be observed. The operator's manual must be supplemented with additional instructions that take regulatory, national or generally applicable safety standards into consideration.

5.7 Operator responsibilities

- Know and implement the applicable industrial safety regulations.
- Use a risk assessment to identify the dangers that result from the working conditions at the site of application.
- Create operating instructions for the operation of this machine.
- Periodically check whether the user instructions correspond to the current state of regulations.
- Clearly regulate and specify the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- Regularly train employees and inform them about potential hazards.
- Periodically refresh the instruction.
- Keep records of the training received and provide them to the competent authorities upon request.
- Provide employees with the necessary equipment.

5.8 Personnel qualification

This machine may only be installed and operated by trained personnel.

Faulty operation, misuse or operation by untrained personnel can endanger health of the operator or third parties and lead to damage to or total loss of the machine.

In addition, the operator should be:

- physically and mentally fit.
- Minimum age of 18.
- not under the influence of drugs, alcohol or medication that can impair responsiveness.
- familiar with the safety instructions in this operator’s manual.
- familiar with the intended use of this machine.
- instructed in the independent operation of the machine.

5.9 Residual dangers

Residual dangers in particular are hazards when dealing with machines that, despite a safe design, cannot be eliminated.

These residual dangers are not obvious and may be the source of a possible injury or health hazard.

If unforeseeable residual dangers occur, the operation of the machine is to be stopped immediately and the competent supervisor is to be informed. This supervisor shall make the following decisions and initiate everything required to eliminate the occurring danger.

If necessary, the manufacturer is to be informed.

5.10 General safety instructions

The safety instructions in this chapter include the "General Safety Instructions", which should be reported in the operator's manual in accordance with the applicable standards. There may be information that is not relevant to this machine.

5.10.1 Work area

- Before starting work, familiarize yourself with the working environment e.g. load-bearing capacity of the floor or obstacles in the environment.
- Make work area safe for the public transport sector.
- Necessary fuse protection of walls and ceilings e.g. in trenches.
- When using this machine, children and unauthorized individuals must be kept away. Distraction can lead to loss of control of the machine.
- Always protect the machine against tilting, rolling, sliding, and crashing. Risk of injury!
- Keep the work area tidy. Cluttered or dark work areas can lead to accidents.

5.10.2 Personal safety

- Working under the influence of drugs, alcohol, or drugs can lead to serious injuries.
- Protective equipment should be worn for all work. Appropriate personal protective equipment considerably reduces the risk of injury.
- Remove any tools before the machine is put into operation. Tools that are located on a rotating machine part can be ejected and cause serious injury.
- Always ensure good footing.
- In the case of extensive work with this machine, long-term vibration-induced damage cannot be ruled out. For vibration stress, see the chapter Technical data .
- Wear suitable clothing. Keep baggy or loose clothing, protective gloves, jewelry and long hair away from moving/rotating machine parts. Danger of being pulled!
- Ensure that no other individuals are in the danger area!

Personal Protective Equipment

To prevent personal injury when handling this machine, personal protective equipment must be worn when working on or around this machine.

Pictogram	Significance	Description
	Wear safety shoes!	Safety shoes provide protection from bruises, falling objects, and slipping.

Pictogram	Significance	Description
	Wear safety glasses!	Safety glasses protect against flying objects and liquid spray.
	Wear protective gloves!	Protective gloves provide protection from abrasion, cuts, punctures, and hot surfaces and operating materials.
	Wear ear protection!	Ear protection provides protection from permanent hearing impairment.
	Wear a protective helmet!	A protective helmet protects against injuries from falling objects.



NOTICE

With this machine, the permissible, country-specific noise limit (personal rating level) may be exceeded.

Therefore, ear protection must be worn. For exact values for noise measurement, see chapter Technical data. When wearing ear protection, remain alert because your ability to hear noises such as screams or signal tones is restricted. Wacker Neuron recommends always wearing ear protection.

5.10.3 Handling and use

- Handle machines with care. Do not operate machines with defective components or operator's controls. Immediately replace defective components or operator's controls. Machines with defective components or operator's controls carry a high risk of injury!
- The operator's controls of the machine shall not be improperly locked, manipulated, or changed.
- Store unused machines out of the reach of children. The machine may only be operated by authorized personnel.
- Handle the machine with care. Have defective parts exchanged immediately before the machine is operated. Defective machines have a high risk of injury.
- The machine, accessories, tools, etc. should be used in accordance with these instructions.
- After operation, store the cooled-down machine in a locked, clean, frost-protected, and dry location that is inaccessible to children and other unauthorized individuals.

Vibratory plate

External influences

In case of the following external influences, the machine may not be operated:

- In an explosive vicinity. Explosion hazard!
- In heavy rain on sloped surfaces. Risk of slipping!
- Oil field environments – methane leaks from ground. Explosion hazard!
- In dry, flammable vegetation. Fire hazard!
- In the vicinity of a naked flame. Fire hazard!

Breaks

When operating this machine for long periods of time, vibration-induced circulatory disorders may occur to your fingers, hands or wrists.

- Take regular work breaks.

If you have a personal disposition to poor blood circulation, your working hours may be reduced despite wearing protective gloves and taking regular work breaks.

Symptoms may include:

- Tingling, pain, stinging and changes in skin color.
- The mentioned body parts may become numb.

Operational safety

- When operating the machine, make sure that no gas, water or electric lines are damaged.
- Pay maximum attention near drops or slopes. Risk of crashing!
- The operator must not leave the operator's position while it is in operation.
- In trenches and pits, pay very close attention to the sidewalls to ensure they are stable and do not collapse from the vibration. Danger of collapse!
- Never leave the machine running unattended. Risk of injury!
- Delimit work area and restrict access to unauthorized individuals. Risk of injury!
- Machine operators must ensure that people in the work area keep a minimum distance of 2 meters from the running machine.
- When operating the machine on sloped surfaces, always approach slopes from below and always stay above the machine on a slope. The machine could slip or tip over.

Minimum safety distances

Compression work near buildings can cause damage to buildings. Therefore, all potential effects and vibrations on surrounding buildings must be checked in advance.

The relevant rules and regulations for measuring, evaluating and reducing vibration emissions, especially the DIN 4150-3, must be considered.

Wacker Neuson assumes no liability for any damage to buildings.

5.11 Maintenance

- This machine may not be maintained, repaired, adjusted or cleaned while switched on.
- Disconnect the starter battery beforehand.
- Adhere to maintenance intervals.
- Observe the maintenance plan. Non-listed work must be taken over by the service department of the Wacker Neuson contact partner.
- After each maintenance or repair, the safety devices on this machine must be reattached.
- Immediately replace worn or damaged machine parts. Use only spare parts from Wacker Neuson
- Keep the machine clean.
- Missing, damaged, or illegible safety warning labels should be replaced immediately. Safety stickers contain important information for the protection of the operator.
- Maintenance jobs must be carried out in clean and dry environment (e.g. in a workshop).

5.11.1 Service

- The machine should only be maintained/repaired by technically trained personnel.
- Use only original spare parts and accessories. This ensures the operational safety of the machine.

Screwed connections

All screw connections must meet the prescribed specifications and must be firmly screwed together. Observe the tightening torques! The screws and nuts may not be damaged, bent or deformed.

Pay particular attention to:

- Captive nuts and micro-encapsulated screws may not be reused once loosened. The locking effect is lost.
- Screw connections with adhesive securing/liquid adhesives (e.g. Loctite) must be cleaned after loosening and must be provided with new adhesive.



NOTICE

Observe notices from the manufacturer of the liquid adhesive.

5.11.2 Fuel, lubricants and coolants

- Always wear safety glasses and protective gloves when handling fuel, lubricants, and coolants. If hydraulic oil, fuel, oil, or coolant gets into your eyes, consult a physician immediately.
- Avoid direct skin contact with fuel, lubricants and coolants. Immediately rinse skin with soap and water.
- Do not eat or drink while working with fuel, lubricants and coolants.
- Fuel, lubricants and coolants contaminated with dirt or water may lead to premature wear or failure of the machine.
- Dispose of spilled fuel, lubricants and coolants according to the applicable regulations for environmental protection.
- If fuel, lubricants and coolants escape from the machine, do not operate the machine any longer and have it repaired immediately by the Wacker Neuson contact partner.

5.11.3 Combustion engine

- Before starting work, check the engine to ensure there are no leaks and cracks in the fuel lines, tank and fuel cap.
- Do not operate a defective engine. Replace damaged parts immediately.
- The pre-set engine speed may not be adjusted. This could lead to engine damage.
- Make sure that the exhaust system of the engine is free of debris. Fire hazard!
- Switch off engine and allow it to cool before refueling.
- Use the correct fuel type. The fuel may not be mixed with other liquids.
- Use clean filling aids for refueling. Do not spill fuel. Immediately wipe up any spilled fuel.
- The engine may not be started near spilled fuel. Explosion hazard!
- When operating in partially enclosed spaces, adequate aeration must be ensured. Do not inhale exhaust fumes. Risk of poisoning!
- The engine surface and exhaust system can quickly become extremely hot. Risk of burns!
- Do not open the cooler cover while the engine is hot. Beware of hot coolant!
- Do not use any starting aid sprays. These can cause misfires as well as engine damage. Fire hazard!
- Do not exceed max. allowable slanting position of the machine - for possible failure of the engine lubrication, see chapter Technical data.



NOTICE

This machine is equipped with a certified engine (e.g. EU model approval, EPA). Adjusting the revolutions per minute (rpm) impacts the certification and the emissions. Settings for this engine may only be carried out by a professional. For more information, contact the engine manufacturer or your Wacker Neuson contact partner.

Starter battery

- Only use Wacker Neuson starter batteries. These are vibration proof and therefore suitable for the high vibration exposure.
- Prevent incorrect connection of the starter battery or bridging of the terminals with tools. Risk of short circuit!
- Starter batteries contain corrosive acid. Wear acid-proof protective gloves and safety glasses when handling starter batteries.
- Flames, sparks, and smoking are prohibited when handling starter batteries.
- When disconnecting the starter battery, always disconnect the negative terminal first.
- When connecting the starter battery, always connect the positive terminal first. Fasten battery terminal cover.



NOTICE

Never add an acid or distilled water. For charging, observe the battery manufacturer's instructions. Do not open the battery!

5.12 Behavior in dangerous situations

5.12.1 Preventive measures

- Always be prepared for accidents.
- Keep first aid equipment on hand.
- Make sure that all employees are familiar with accident reporting, first aid, and rescue facilities.
- Keep access routes clear for emergency vehicles.
- Make sure that employees receive first aid training.

5.12.2 Measures in the case of an emergency

- Immediately take the machine out of operation.
- Remove injured and other people from the danger area.
- Initiate first aid measures.
- Alert rescuers.
- Keep access routes clear for emergency vehicles.
- Inform the person responsible at the site of application.

5.12.3 Measures in the case of a fire

- Remain clear of resulting vapors and gases. Note the wind direction!
- Use a fire extinguisher of fire classification ABC (powder extinguisher).
- Use a fire extinguisher of fire classification D (e.g. for lithium ion rechargeable batteries).

5.13 Safety devices

Safety devices protect the user of this machine from being exposed to existing hazards. These are barriers (separating protective devices) or other technical measures. This prevents the user from being exposed to a danger. The source of danger will be eliminated in certain situations or the danger will be reduced.



1 Protective frame / protective hoods 2 Emergency stop switch

NOTICE

► Always tighten loosened screwed connections with the prescribed tightening torque setting.

Protective frame / protective hoods

The protective frame with the protective hoods protects the operator in particular from hot engine parts and noise.

Emergency stop switch

The emergency stop switch is used solely to switch off the machine in the case of danger. Activating the emergency stop switch results in the machine immediately switching off. Operation can only be resumed after unlocking the emergency stop switch.

5.13.1 Safety shutdown – coupling set

The coupling set is operated via an infra-red remote control. For safety reasons, it switches off vibration and movement in the following situations:

- When the operator enters the proximity area of the machine (approx. 2 meters from a receiving unit).
- When the operator leaves the receiving area (a maximum of 20 meters from the machine).
- Interruption of the clear line of sight between the remote control and receiving units of the machine.
- Power failure of remote control and/or machine.
- Contact break between the already coupled machines.

5.14 Safety and information labels

⚠ WARNING

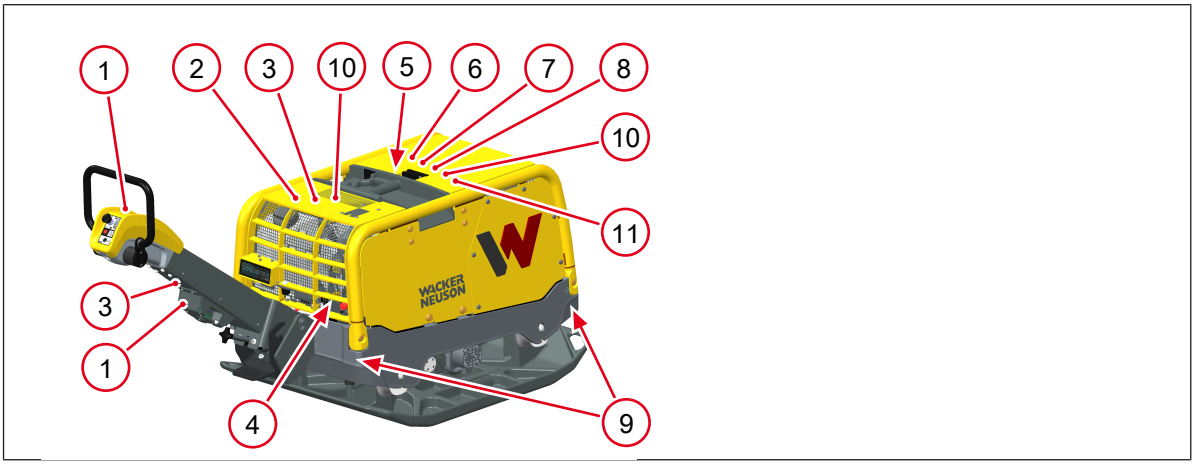
Illegible symbols!

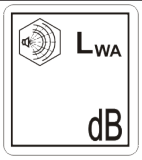
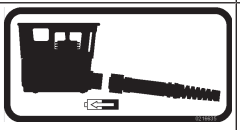
Over time, labels and signs on the machines can become dirty or otherwise unrecognizable.

► Keep all safety, warning, and operating instructions on the machine in a legible condition.

► Replace damaged labels and signs immediately.

5.14.1 Individual machine DPU110Lekc

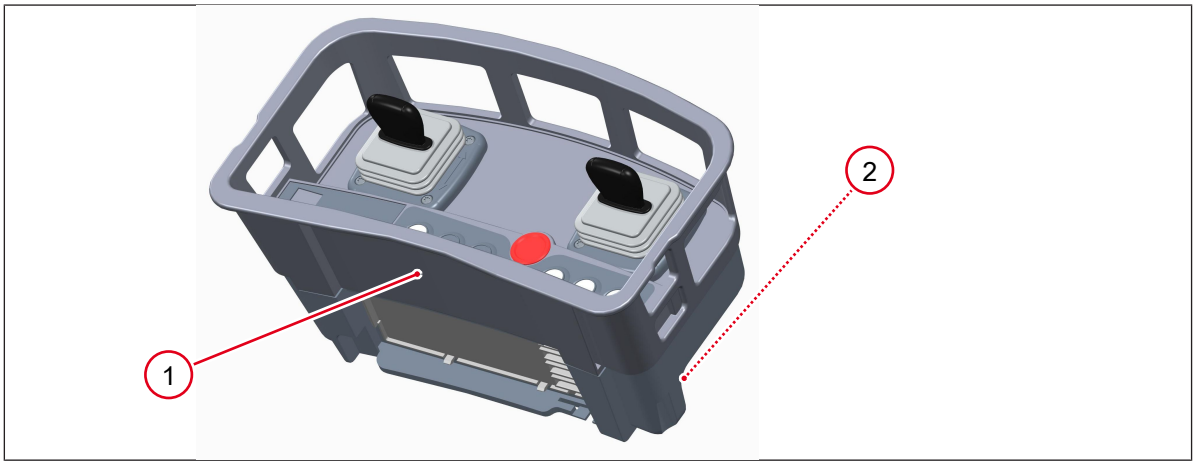


Item	Label	Description
1		Falling machines can cause serious injury. • Do not lift the machine with the control handle or a drawbar.
2		Guaranteed sound power level.
3		Use personal protection equipment in order to prevent injuries and health hazards. • Ear protection • Read operator's manual.
4		• Label identifies the remote control in the bracket. • Label identifies the connection of the charging cable for charging.
5		The coolant is under pressure. Hot coolant can spurt out and cause injury from scalding. • Only open the cover of the radiator after the engine has cooled down.
6		• Falling machines can cause serious injury. Only lift machine at the central lifting point with certified lifting gear and sling (safety load hook). • Do not lift the machine on the central lifting point with the tooth of the excavator bucket or a grab. • Do not lift the machine on the central lifting point with a forklift arm.
7		Closing the protective hood can lead to crushing wounds. • When closing the protective hood, do not grab between the machine and the protective hood.

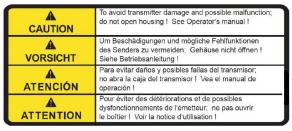
Item	Label	Description
8		Warning against hot surface.
9		Tie-down lugs.
10	US Machines 	Warning.
11	US Machines 	Warning. From chemicals that cause cancer, birth defects or other reproductive damage.

5.14.2 Remote control

The following labels are found on the remote control:



Item	Label	Description
1		To prevent interference of the infrared transmission and possible machine malfunction, do not attach to housing or open housing. Clean remote control and receiving unit before commissioning!

Item	Label	Description
1	US Machines 	To prevent interference of the infrared transmission and possible machine malfunction, do not attach to housing. Clean before transmitter and receiver eye before commissioning!
2	US Machines 	To prevent damage and possible malfunction of the transmitter unit, do not open housing! See operator's manual!

6 Setup and function

6.1 Standard package

The machine is delivered fully assembled and is ready for operation out of the box.

The standard package includes:

- Vibratory plate
- Operator's manual
- Manual for machine configuration (includes PIN data of the machine)

6.2 Application areas

6.2.1 Individual machine

The machine is used for compressing soil. It is used in gardening and landscaping as well as civil engineering, road construction and paving.

6.2.2 Coupling set

The machine is primarily used for compacting trackbeds in railway construction.

6.3 Short description

6.3.1 General

The exciter is designed as a centrally mounted exciter This principle enables the modification of direction of oscillation (by adjusting the eccentric weights) and thus the movement of the machine (forwards and backwards). Spot vibration can also be adjusted in the coupling set.

The water-cooled drive motor in the upper mass hydraulically powers the eccentric weight of the base plate.

The radiator reduces the temperature of the engine coolant as well as that of the hydraulic oil.

The intake air is aspirated in the cold area between the radiator and the rear protective hood and purified via an air filter equipped with a pre-cleaner.

The muffler discharges exhaust fumes from the front.

To start the drive motor automatically, the glow plugs are preheated. The speed of the drive motor is controlled via a lifting magnet. The machine is switched off via an electrically controlled solenoid valve on the fuel filter.

The electrical control unit is located in the electrical box.

The maintenance-free starter battery is located between the fuel tank and the electrical box.

6.3.2 Individual machine

The machine is controlled by the drawbar.

The operator's controls are located in the electrical box, the receiving unit and on the drawbar head.

6.3.3 Coupling set

The coupled machines are controlled exclusively by the remote control.

Within the receiving area, the commands of the remote control are transmitted to the machines via infrared signal.

For trouble-free transmission of the infrared signal, the remote control must always be aimed directly at the receiving units of the machines.

The following commands are possible with the remote control:

- Start engine.
- Move machine with simultaneous vibration.
- Switch spot vibration on and off
- Move machine slow or fast.
- Switch off engine.

Infrared system

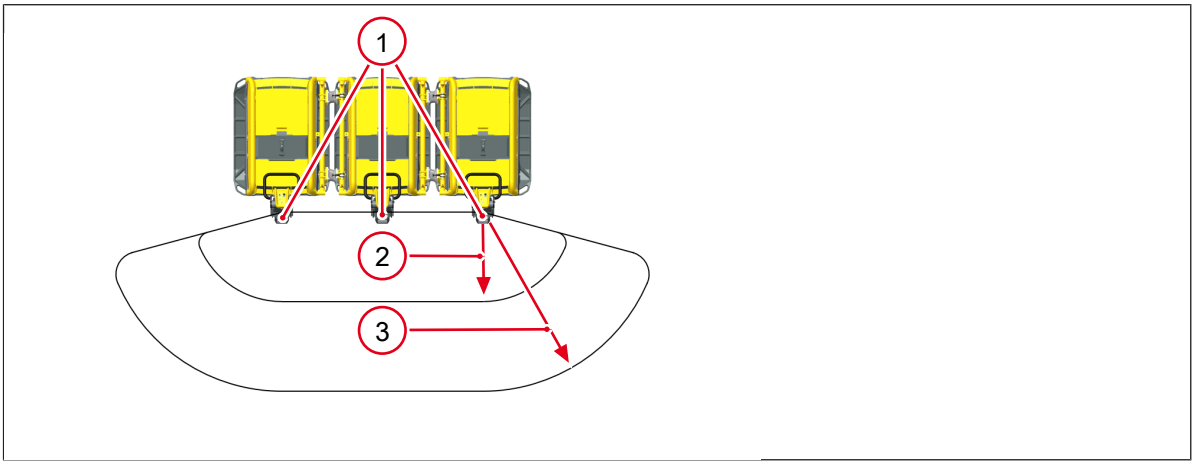
If the remote control has been activated by pressing the On/Off switch, it permanently sends infrared signals to the respective receiving unit of the machine.

The receiving unit of the machine converts the infrared signal into an electrical signal. The control electronics the process the electrical signal and control the machine in accordance with the control command.

In order for the machine to be able to execute the control commands, the remote control and machine must be set to the same transmission channel.

Each machine has its own address for the transmission channel. Upon delivery, the transmitter unit is set to the address of the machine and will only work with this machine. If the transmitter unit operates another machine, this can be adjusted, see Setting the transmission channel (remote control) chapter. The transmission channels of the machines in the coupling set must be the same.

Receiving area



1 Receiving units

2 Proximity area

3 Receiving area

Operation is only possible when the machine is within the receiving area. The receiving area is maximum 20 meters from a receiving unit of the machine.

Within the receiving area, there must always be a clear line of sight between the remote control and the machine. If there is no clear line of sight, the machine will cease all vibration and movement.

Outside of the receiving area, the machine will not receive the commands. The machine will stop vibrating and moving.

Proximity area

If the machine comes within 2 meters (proximity area) of the operator, it will cease all vibration and movement. Once the operator leaves the proximity area, the machine is once again able to receive commands.

If the infrared signals of the remote control are transmitted via reflection, stopping of the vibration and movement is not ensured.



⚠ WARNING

If another person comes within 2 meters (proximity area) of the machine, the machine will not cease vibration and movement. The shutdown in the proximity area only works in connection with the remote control unit.

6.3.4 Diagnostic system

General

The diagnostic system of the machine consists of control electronics and sensors that monitor various components of the machine.

If the diagnostic system detects a fault or error, a malfunction is indicated with error code on the display.

Each error code stands for a specific fault. The diagnostic system can distinguish between 36 error codes.

In case of serious faults, the error code is entered into the error memory, and the machine will automatically switch off the motor or deactivate itself.

Individual machine

If the diagnostic system detects a fault or error, the LED on the drawbar head lights up to signalize this.

Coupling set

If the diagnostic system detects a fault or error, this is signaled by a red light at the receiving unit of the faulty machine.

6.3.5 Machine protection – installation

The acceleration load of the upper mass is monitored via a sensor. When a threshold value corresponding to an operation of the vibratory plate on an extremely hard surface (e.g. concrete, asphalt) is exceeded, a warning is given to the operator that the vibrator plate is overloaded. Additionally, an entry is made in the error memory.

Individual machine

If the machine protection detects overload, this is signaled with the red blinking of indicator light on the drawbar head.

In addition, the machine will respond in one of the following ways (adjustable in the machine configuration):

- Entry in the error memory.
- Lowering the excitation speed.
- Switch-over to slow mode.

Coupling set

If the machine protection detects overload, this is signaled with the red blinking of the receiving unit of the overloaded machine/machines of the coupling set.

6.3.6 Machine configuration system

In the machine configuration system, machine parameters can be changed by the user (e.g. switching an activation PIN on or off).

6.3.7 Compatec system (not applicable for UK)

The Compatec display unit is integrated into the protective hood and is located within the operator's line-of-sight. The display unit, which consists of eight light-adjusting LEDs, displays the relative compression progress by successively lighting up. When the number of illuminated LEDs no longer increases, this means that no further compression can be achieved with the machine. The operator can finish the work and avoid unnecessary passes.

The overload display indicates if the machine is being operated on too hard of a surface. The operator is notified of this through an alternating flashing of the LED's.

The Compatec system is suitable for all highly compactable and mixed (well graded) soils.



NOTICE

The Compatec system only supports soil compression and does not replace the professional measuring of soil density by an expert.

6.3.8 Telematics - module (optional - not applicable for UK)

The telematics records parameters such as GPS data and machine data and transmits them to an Internet portal. There, the information of every machine can be visualized, documented and evaluated.



NOTICE

Per machine or per coupling set, only one telematics module is required.

6.3.9 Compatec system (not applicable for UK)

The Compatec system combines the compaction data of the Compatec system with the data transfer of the telematics module.

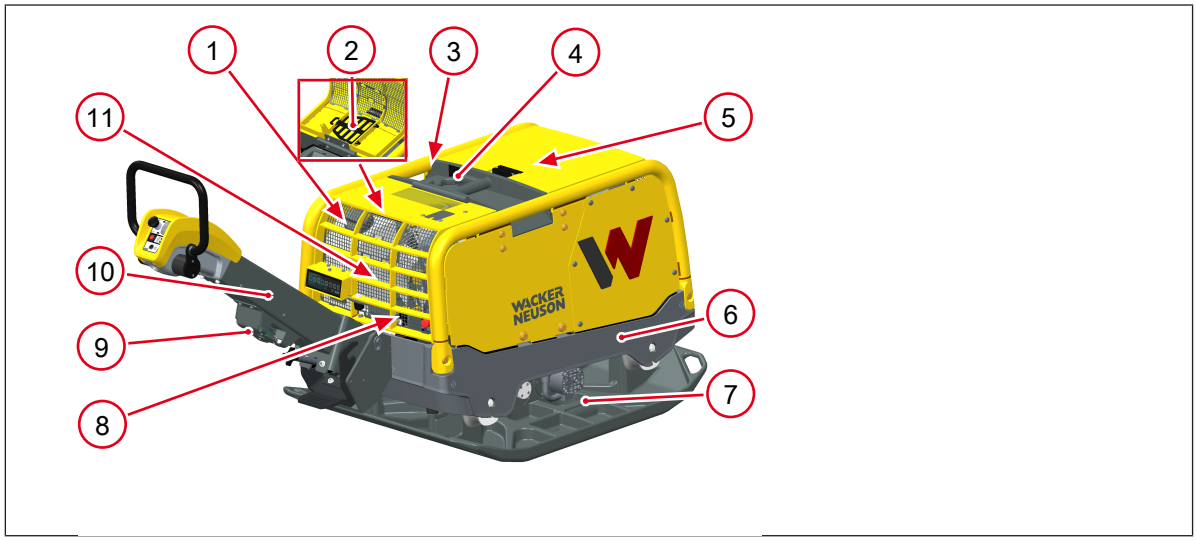
The following data is transmitted to an Internet portal:

- Compression value
- Machine position (GNSS)
- Operating hours
- Machine number (last 4 digits)
- Telematics module serial number
- Operating mode
- Number of machines in the coupling set group
- Machine type
- Time stamp

7 Components and operator's controls

7.1 Machine components

7.1.1 Individual machine



1 Fuel tank
2 Bracket for operator's manual
3 Type label
4 Central lifting point
5 Drive motor
6 Upper mass
7 Base plate
8 Eyelet for padlock
9 Receiver unit
10 Drawbar

Drawbar

The drawbar can be adjusted to the optimum working height.

Central lifting point

The central lifting point is used to lift the machine. When the overall height is a deciding factor, the central lifting points can be folded.

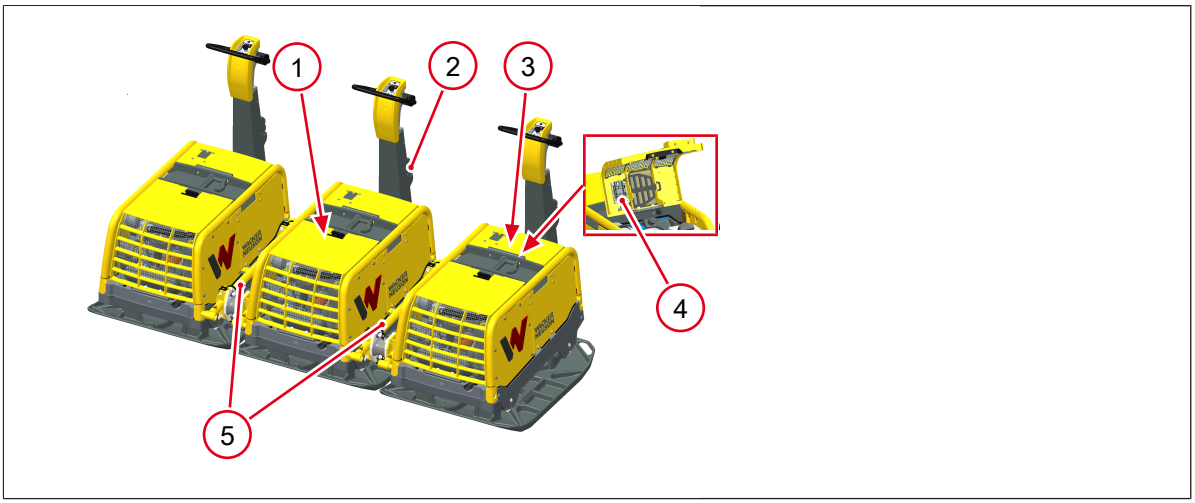
Eyelet for padlock

The rear protective hood features an eyelet for hooking up a padlock. The machine is thus protected against unauthorized opening of the rear protective hood as well as unauthorized operation.

Bracket for operator's manual

The bracket is used to store the operator's manual.

7.1.2 Coupling set



1 Individual machine
2 Receiver unit
3 Bracket for remote control and charging cable
4 Bracket for telematics module
5 Coupling linkage

Receiver unit

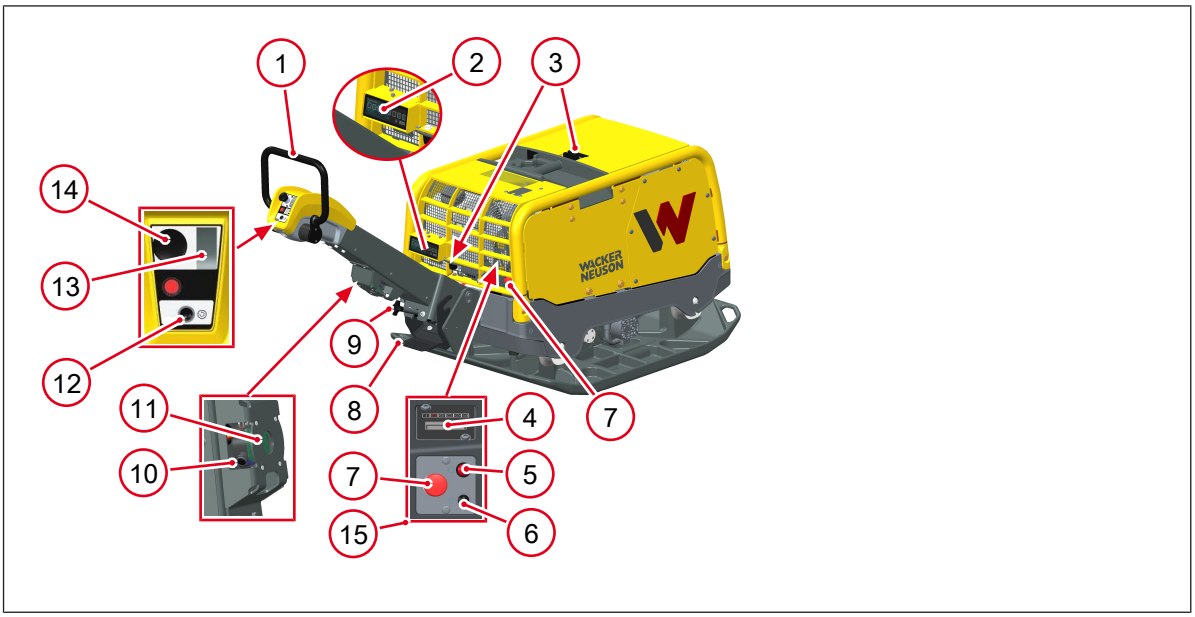
There is a receiving unit with integrated status display at the rear of the drawbar on every machine. The integrated status display uses lights and flashing signals to indicate the current operating status of the machine.

Bracket for remote control and charging cable

The bracket is used to store and to store during charging and to protect the remote control against damage and theft.

7.2 Operator's controls

7.2.1 Individual machine



1 Control handle
2 Compatec display
3 Hood opener
4 Display and telltale lights (diagnostic and configuration menu)
5 On/Off button
6 Setting key
7 Emergency stop button
8 Foot lever drawbar lock
9 Height adjustment mechanism of center pole
10 Reset button
11 Telltale light
12 Start button
13 Slow/fast rocker switch
14 Vibratory rammer
15 Electrical box with decoder

Control handle

The control handle serves for switching between forward and reverse drive.

Footrest of drawbar lock

The footrest of the drawbar lock is used to release the drawbar from the transport position so that it can be returned to working position. The individually adjusted working height is maintained.

Emergency stop switch

The emergency stop switch is used solely to switch off the machine in the case of danger. Activating the emergency stop switch results in the machine immediately switching off. Operation can only be resumed after unlocking the emergency stop switch.

Drawbar height adjustment mechanism

The drawbar height adjustment mechanism allows continuous height adjustment in order to adjust the drawbar individually to the optimum working height for the respective operator. This is done by turning the star knob.

In addition, by pushing down on the star knob, the drawbar can be brought into the lower position e.g. to be able to travel through low passages. If the drawbar is raised, the optimally adjusted working height for the respective operator is once again active.

On/Off switch (red)

Use the on/off button to:

- Activate/deactivate the machine.
- Call up diagnostic and configuration menu and change menu items.

Start button

Starts the machine at the drawbar head and switches it off.

Setting button (black)

Digits of the activation PIN, setup PIN or machine settings can be adjusted with the setting button.

7.2.2 Coupling set

On/Off switch (red)

The machine is activated with the On/Off button. The machine is started with the remote control unit.

Emergency stop switch

The emergency stop switch is used solely to switch off the machine in the case of danger. Activating the emergency stop switch results in the respective machine immediately switching off. All other machines stop the travel motion and vibration by signal abort. Operation can only be resumed after unlocking the emergency stop switch.

7.2.3 Display and telltale lights on the electrical box



1 Indicator light for operation
2 Indicator light for charging
3 Indicator light for pre-heating
4 Indicator light for air filter
5 Indicator light for oil pressure
6 Indicator light for coolant temperature

7 Display with diagnostic menu

Indicator light for operation

- Lights up green when the machine has been activated with the On/Off button.
- The indicator light for operation goes out when the machine has been deactivated with the On/Off button.

Indicator light for charging

- Lights up red when the machine is activated.
- The indicator light goes off when the engine is running.
- Lights up red when the starter battery of the machine is no longer charged.

Indicator light for pre-heating

- Lights up yellow as long as the glow plugs of the engine are being pre-heated during starting.
- The indicator light goes off when pre-heating is completed.

Indicator light for air filter

- Lights up yellow if the air filter is dirty.

Indicator light for oil pressure

- Lights up red when the machine is activated.
- The indicator light goes off when the engine is running.
- Lights up red when the oil pressure is too low.

Indicator light for coolant temperature

- Lights up red when the coolant temperature is too high.

Diagnostic menu

The following information can be called up:

- Overview of all detected errors (error memory)
- Starter battery voltage
- Coolant temperature
- Hydraulic oil temperature
- Engine speed
- Software version (w/f version)
- Switch test (in drawbar mode)

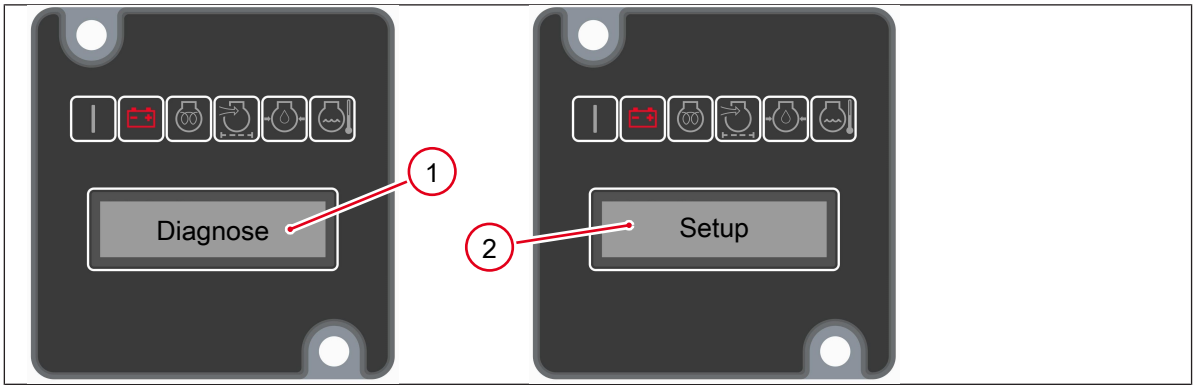
Configuration menu

The following settings can be made:

- Activation PIN
- Turn-off time of the machine (in drawbar mode)
- Display language
- Compatec setting (in drawbar mode - not applicable for UK)
- Switch-on Compatec system (not applicable for UK)
- Setting the hydraulic parameters/centrifugal forces
- Changing the setup PIN

7.2.4 Machine protection - installation

Display at the electrical box



1 Diagnostic menu 2 Configuration menu

The information about the machine can be accessed via the diagnostic menu.

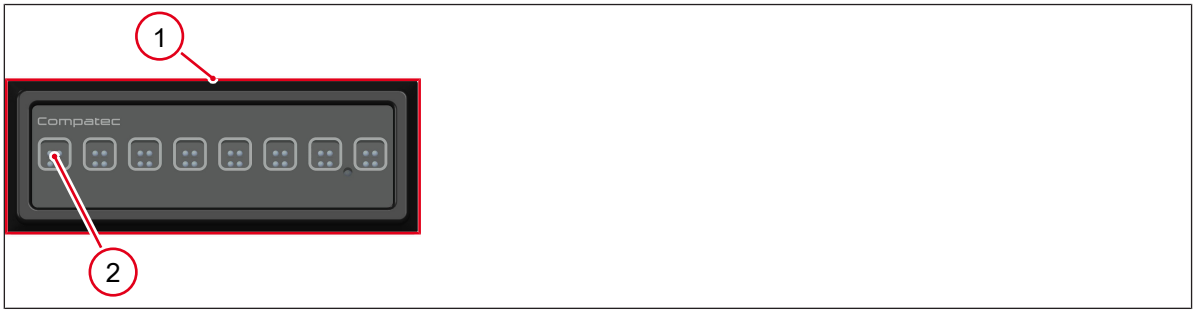
Machine settings can be made in the configuration menu.

NOTICE

The operation of the configuration menu is described in the manual for machine configuration.

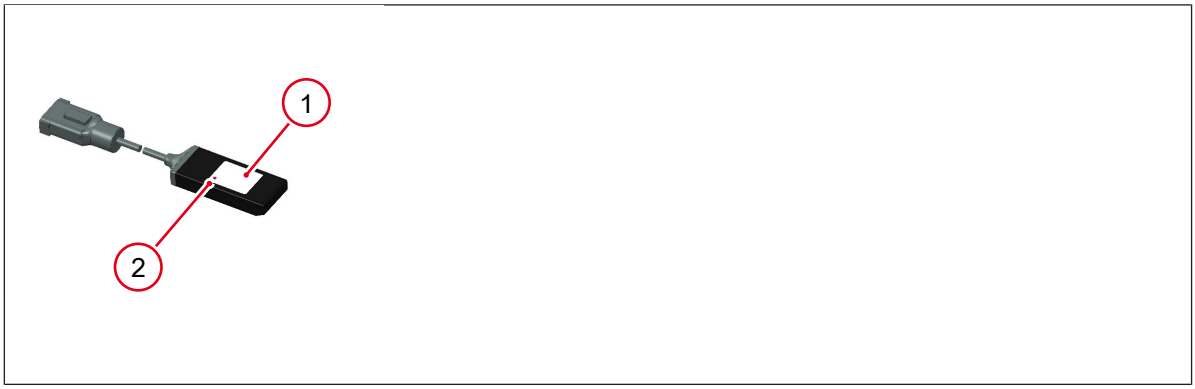
7.2.5 Compatec system (not applicable for UK)

The Compatec system displays the relative compression progress.



1 Compatec display unit 2 LEDs/light progress bar

7.2.6 Telematics module (not applicable for UK)



1 Serial number
2 LEDs (red and green)

The telematics module records parameters such as GPS data or machine data and transfers these to an Internet portal. There, the information of every machine can be visualized, documented and evaluated.

7.2.7 Compatec system (optional - not applicable for UK)

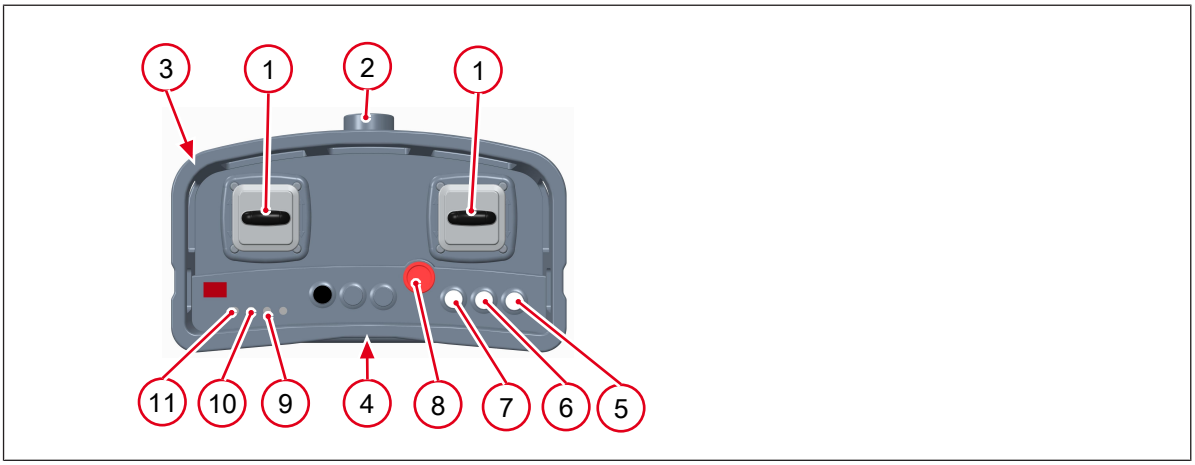
The Compatec system combines the compaction data of the Compatec system with the machine position data from telematics.

The following data is transmitted:

- Compression value
- Machine position (GNSS)
- Operating hours
- Machine number (last 4 digits)
- Telematics module serial number
- Operating mode
- Number of machines in the coupling set group
- Machine type
- Time stamp

The data is accessed via an Internet portal. If you have any questions, the Wacker Neuson contact person is always available.

7.2.8 Remote control



1 Joystick (left, right)
2 Socket for charging cable
3 Carrying strap
4 Rechargeable battery
5 Spot vibration button
6 Button for slow/fast operation
7 Engine start button
8 On/Off button
9 Indicator light for charging
10 Indicator light for operation

11 Diagnostic indicator light

Joystick (left, right)

By pressing the joystick, the vibration starts, and the machine moves.

On/Off button

The remote control unit is switched on via the On/Off button. When switching off, the remote control and the engines are turned off.

Engine start button

The start button starts the engines.

Button for slow/fast operation

The slow/fast button is used to switch between slow and fast operation.

Fast operation is selected by default.

- Quick mode – operating mode for compacting.
- Slow operation – mode for traversing highly compacted or hard surfaces.

Spot vibration button

The spot vibration button must remain pressed so that the machine compresses on the spot.

Carrying strap

The carrying strap is used to hang the remote control.

Rechargeable battery

The rechargeable battery powers the remote control unit. The rechargeable battery can be recharged with the charging cable of the machine or with an external battery charger.

Indicator light for charging

- Lights up green when the rechargeable battery is charging.
- The indicator light goes off once the rechargeable battery is charged.

Indicator light for operation

- Flashes green when the remote control is switched on.
- The indicator light goes off when the remote control is switched off.
- Flashes red when the charge state of the rechargeable battery is low.
- Lights up red when the rechargeable battery is discharged.

Diagnostic indicator light

- Briefly flashes green when a joystick is moved or a button on the remote control is pressed.

8 Commissioning

8.1 Inspection before commissioning

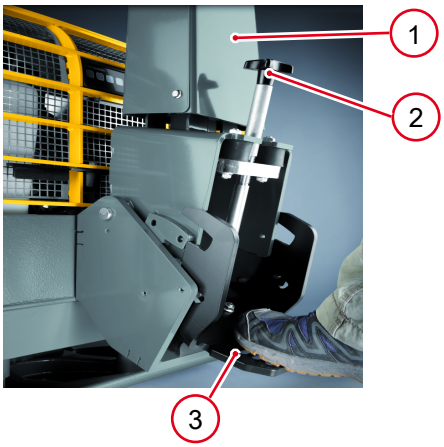
8.1.1 Unlocking the drawbar

⚠ CAUTION

Risk of crushing and impact!

The high dead weight and sudden lowering of the drawbar can lead to injuries.

► Support the drawbar with your hand.



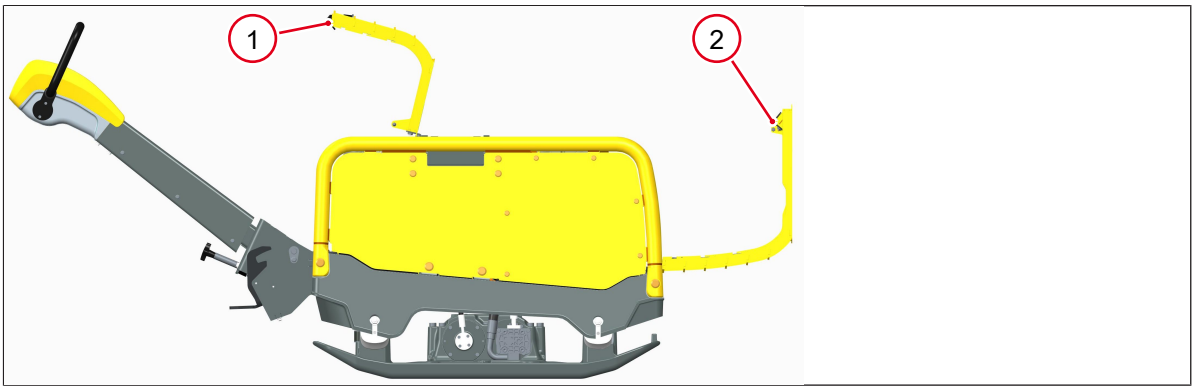
1 Drawbar
2 Star knob
3 Foot lever

1. Activate foot lever **3**.
   ⇨ Drawbar **1** is unlocked.
2. Set the optimum working height of drawbar **1** by turning the star knob **2** .

NOTICE

The foot lever enables fast lowering and resetting of the drawbar.

8.1.2 Machine



1 Hood opener for protective hood (rear) 2 Hood opener for protective hood (front)

1. Pull hood opener for protective hood **1/2**.
   ⇨ Protective hood is unlocked.
2. Completely open protective hood **1/2**.

Complete the following inspections:

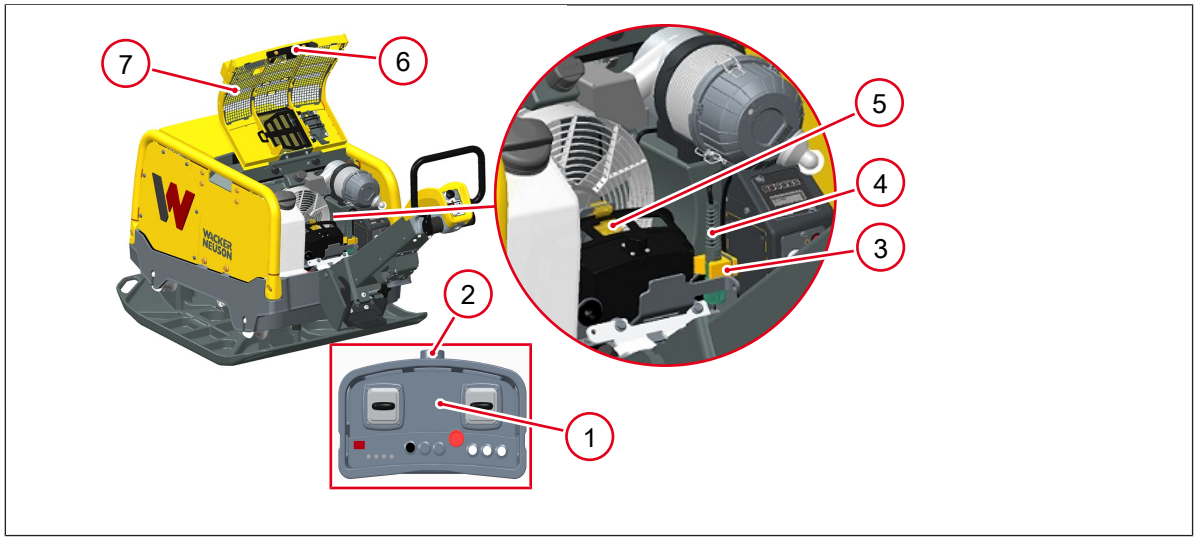
- Check the machine and components for damage. If there is any visible damage, do not use the machine and immediately contact the Wacker Neuson service.
- Ensure that:
  – loose packaging material has been removed from the machine.
  – there are no loose items under the protective hoods, e.g. gloves, tools.
- Check fuel level.
- Check the engine oil level.
- Check the coolant level.
- Check hydraulic oil level.
- Check the fuel lines for leak tightness.
- Check to ensure the screwed connections are firmly seated.
- Ensure that the receiving units are free of contaminants.

NOTICE

Perform maintenance according to the Maintenance chapter. If necessary, top up missing fuel, lubricants and coolants, see chapter Technical data.

8.1.3 Removing and checking the remote control

Removing the remote control



1 Remote control
2 Socket for charging cable
3 Bracket for charger cable
4 Charge cable
5 Bracket for remote control
6 Hood opener for protective hood (rear)
7 Protective hood

1. Pull hood opener for protective hood **6**.
   ⇨ Protective hood **7** is unlocked.
2. Completely open protective hood **7**.
3. Unscrew the charging cable **4** from remote control **1**.

NOTICE

Improper handling can result in damage to the charging cable.

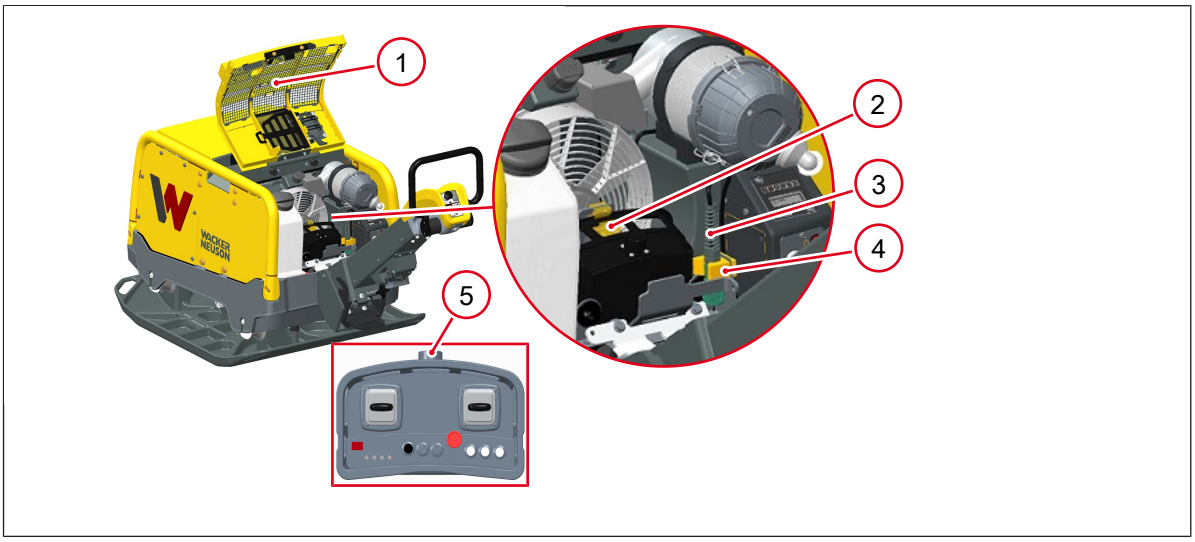
► When placing charging cable in the bracket, make sure that it will not get pinched when closing the protective hood

4. Place charging cable **4** in the bracket **3**.
5. Screw filler cap **2** on the connection socket of remote control **1**.
6. Remove remote control **1** from bracket **5**.

Check remote control

1. Remote control and carrying strap are undamaged.
2. Remote control is free of dirt.
3. Rechargeable battery is charged.

8.1.4 Charging the rechargeable battery – version with remote control



1 Rear protective hood
2 Bracket for remote control
3 Charge cable
4 Bracket for charger cable
5 Socket with screwed nose cap

NOTICE

Charging the battery at temperatures below 0 °C may not be possible.

Charging rechargeable battery with charging cable

NOTICE

After connecting the charging cable to the remote control, the rechargeable battery is loaded. Overcharging the battery is not possible; the charging cable must not be disconnected from the remote control after charging. Note that after a longer downtime/service life of the machine, the rechargeable battery charges more slowly. It may need to be recharged.

A charging time of 15 minutes is sufficient to operate the machine for about 1 hour.

Connecting the charging cable

NOTICE

Improper handling can result in damage to the charging cable.

► When using charging cable, make sure it will not get pinched when closing the protective hood.

1. Open the rear protective hood **1**.
2. Unscrew filler cap from the connection socket **5** of the remote control.
3. Remove the charging cable **3** from the bracket.
4. Plug charging cable **3** into the connection socket **5** on the remote control and screw on.

NOTICE

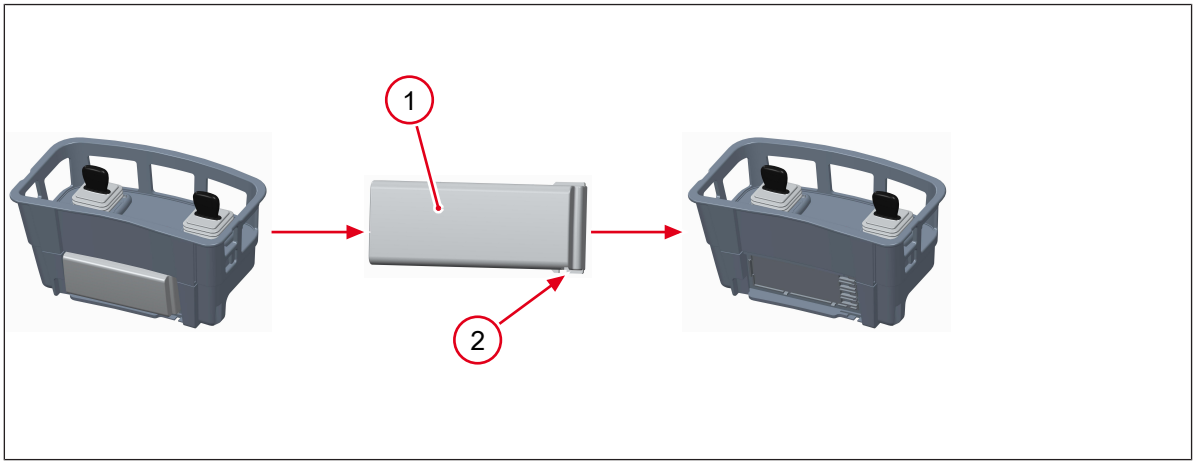
► The loading of the remote indicator light lights up green when the rechargeable battery is charging.

► The loading of the remote indicator light goes out once the rechargeable battery is charged.

5. Place remote control in the bracket.
6. Close the rear protective hood **1**.

8.1.5 Rechargeable battery charger with external charging device (optional)

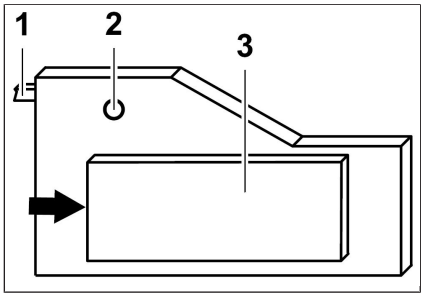
- Use only external battery chargers from Wacker Neuson.



1 Rechargeable battery 2 Clip

▪ Press strap **2** and simultaneously pull the rechargeable battery **1** to the right.

Rechargeable battery charger with external charging device



✓ Before the first charging, read the operator's manual for the battery charger.

1. Insert rechargeable battery **3** into external battery charger.
2. Connect country-specific connector plug **1** to the battery charger.
3. Insert the plug of the battery charger into the plug receptacle.

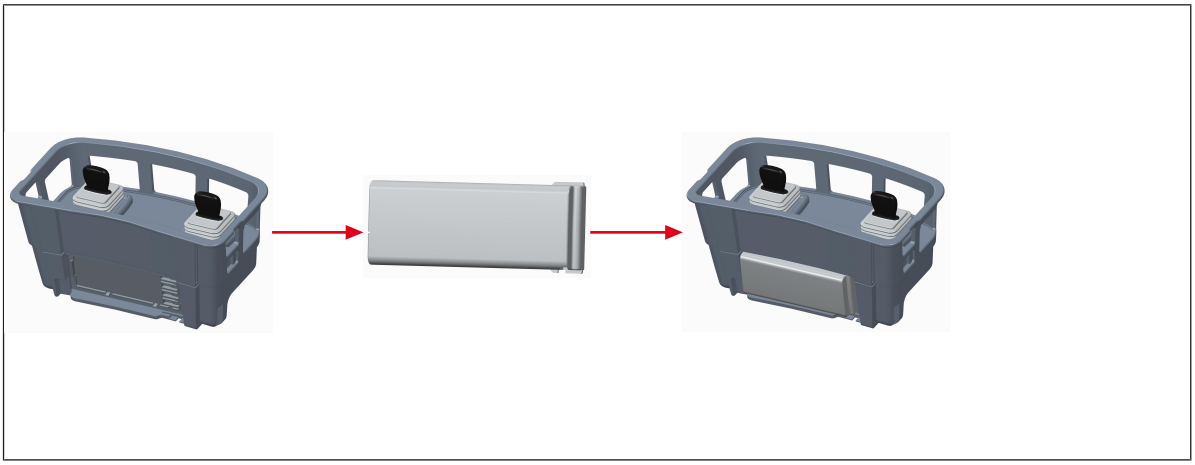
NOTICE

The status indicator light **2** lights up orange when the rechargeable battery is charging.

The status indicator light **2** flashes orange when the rechargeable battery is completely charged.

4. Once the rechargeable battery **1** is charged, remove the plug from the plug receptacle.
5. Remove rechargeable battery **1** from the external battery charger.

Insert rechargeable battery into the remote control



- Push rechargeable battery into the remote control until the clip snaps into place.

8.1.6 Setting the transmission channel

The machine can only be operated if the transmission channel of the remote control corresponds to the transmission channel of the machine. The transmission channel of the remote control, which is supplied in the 3-part coupling set supplement package, must be synchronized with the coupling set during commissioning.

The IR address is displayed:

- Label on decoder in the electrical box.

In the following cases, an adjustment of the transmission channel may be required:

- If the remote control has been replaced by another.
- If the machines are replaced from a coupling set
- When individual machines from different coupling sets are combined to form a coupling set.

Synchronize transmission channel between remote control and machine.

✓ The receiving units of all machines in the coupling set must be aligned straight.

✓ The lateral infrared communication between the machines must not be covered.

1. Switch on remote control unit.
2. Activate all machines.
3. Pull out the charging cable from the bracket for one machine of the coupling set.
4. Unscrew filler cap from the connection socket of the remote control.
5. Plug charger cable into the connector on the remote control and screw on.
6. Directly aim the remote control towards the receiving unit of the machine in which the remote control is connected to the charging cable. Press and hold the reset button of this receiving unit IR transfer, address comparison appears on the display and the receiving unit flashes yellow and red in alternation.
   ⇨ When the receiving unit flashes yellow and red in common mode and the display shows the operating hours, the synchronization of transmission channel is complete.
7. Unscrew the charging cable from the remote control.
8. Place charging cable in the bracket.



NOTICE

After synchronizing the remote control to a machine, the coupling set can be controlled with the remote control. The synchronization to an individual machine is sufficient.



NOTICE

Improper handling can result in damage to the charging cable.

► When using charging cable, make sure it will not get pinched when closing the protective hood.

9. Screw screwed nose cap on the connection socket of the remote control.
10. Fold up all drawbars until the drawbar lock engages.
11. Press the reset button of the receiving unit in the machine in which the remote control was connected to the charging cable.
    ⇨ A new coupling is initiated with this.
    ⇨ The new, synchronized transmission channel is then communicated to all machines of the coupling set via infrared communication.

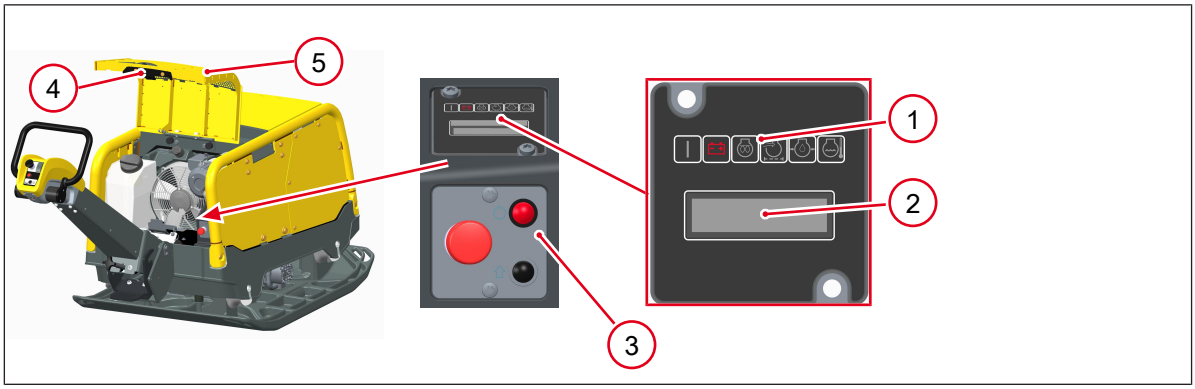
⇨ The transmission channel is set.

8.1.7 Activate machine



NOTICE

All machines of the coupling set must be activated.



1 Control lamps
2 Display
3 On/Off switch (red)
4 Hood opener for protective hood (rear)
5 Protective hood

✓ The drawbar lock is released.

1. Pull hood opener for protective hood **4**.
   ⇨ Protective hood **5** is unlocked.
2. Completely open protective hood **5**.
3. Press the On/Off button **3**.
   ⇨ All indicator lights **1** illuminate for about 1 second.
   ⇨ Display **2** consecutively shows: Status of the self-test, number of operating hours.
   ⇨ Machine is activated.
   ⇨ The prompt for entering the activation PIN appears on the display.
4. Enter activation PIN (deactivated by default) or
5. Close and lock protective hood **5**.

⇨ The machine is ready for operation.

8.1.8 Activation PIN

NOTICE

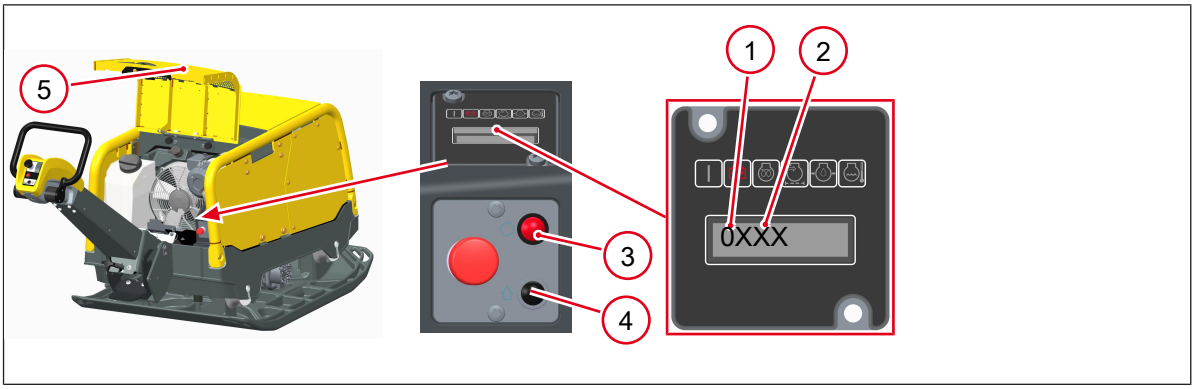
Anti-theft protection!

Entering the activation PIN is deactivated by default. If the machine should be secured by an activation PIN, this must be set in the configuration menu; see Manual for machine configuration.

► The activation PIN should always be kept secret and never be listed on the machine or remote control.

NOTICE

The same activation PIN must be used for all machines of the coupling set.



1 Digit of the activation PIN
2 Position of the activation PIN
3 On/Off button
4 Setting key
5 Rear protective hood

✓ The prompt for entering the activation PIN appears on the display

- Press the On/Off button **3**.
  ⇨ Request for entering the activation PIN.

⇨ Digit 1 of 4 of the activation PIN can be entered.

NOTICE

If an incorrect activation PIN is entered 4 times in succession, you must wait for 5 minutes before re-entering the PIN. During the wait time, the request to wait is displayed.

1. Press setting button **4** as many times as required until the desired digit is displayed.
2. Press the On/Off button **3**.
   ⇨ Digit 2 of 4 of the activation PIN can be entered.
3. Select and enter the remaining digits using the same procedure.
4. Press the On/Off button **3**.
   ⇨ The activation PIN is confirmed.
5. Close and lock protective hood **5**.

⇨ The machine is ready for operation.

9 Operation and use



⚠ WARNING

Danger of tipping!

There is a serious risk of injury from slipping or tipping over of the machine. Near edges, at least 2/3 of the machine must be on a load-bearing surface.

► If not, decommission the machine and lift back on a load-bearing surface.



⚠ WARNING

Improper handling may result in injury or serious material damage.

► Please read and follow all safety instructions in this operator's manual.



⚠ WARNING

Cold starting fluid sprays are highly flammable; they can ignite and cause severe burns.

► Do not use cold starting fluid sprays.

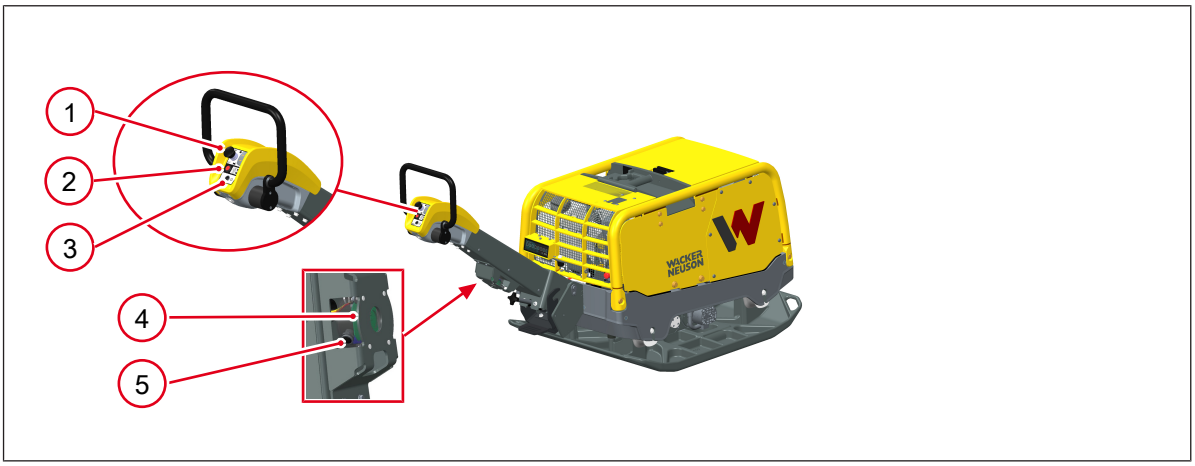


NOTICE

The operation of the configuration menu is described in the manual for machine configuration.

9.1 Start engine

9.1.1 Individual machine



1 Vibratory rammer
2 Telltale light
3 Start button
4 Receiver unit
5 Reset button

✓ The machine is switched on.
✓ No other activated individual machine is positioned in a radius of 5 meters.
✓ The drawbar is unlocked and adjusted.
✓ The functional test of Compatec system is successfully completed.

- If required, enter the activation PIN.
  ⇨ The receiving unit 4 flashes fast. The automatic coupling phase begins and other individual machines capable of coupling are searched for.
  ⇨ After a waiting time of about 2 minutes, the machine automatically switches to the operating mode Drawbar operation.
  ⇨ The flashing on receiving unit 4 stops.
  ⇨ The indicator light **2** shortly flashes at an interval of 5 seconds.

⇨ The individual machine is ready to start.

1. Press vibration switch **1** (vibration is OFF).
2. Shortly press start button **3**.
   ⇨ The engine starts automatically.

⇨ The machine is ready for operation.

9.1.2 Coupling set

Coupling machines – operation via remote control

- ✓ No other activated individual machine is positioned in a radius of 5 meters.
- ✓ The coupling set is created mechanically (see Chapter Assembly/disassembly)
- ✓ The drawbars are folded up and locked.
- ✓ Receiving units are not contaminated or covered.
- ✓ The remote control is removed and the rechargeable battery is charged.

▪ Activate all machines of the coupling set and if required enter the activation PIN.

- ⇨ The receiving units **4** flash fast.
- ⇨ The automatic coupling phase begins and other individual machines capable of coupling are searched for.
- ⇨ After a waiting time of approximately 20 seconds the machines are coupled and the coupling set switches to the operating mode Coupling set operation.
- ⇨ Receiving units **4** light up yellow.
- ⇨ The functional test for Compatec system is conducted.

⇨ The coupling set is ready to start.

NOTICE

With a 2-part coupling set, the automatic coupling phase may takes approximately 2 minutes. If no third machine is found during this time, a 2-part coupling set is created.

If a 2-part coupling set is intended, the coupling phase can be accelerated by:

► Aim the remote control towards the receiving units and switch it on.

► Press the rest button **5** of one of the receiving unit.

NOTICE

If the fast flashing of the receiving units stops, the coupling set cannot be created and the machine switches to the operating mode Drawbar operation.

Switch on remote control unit



1 Indicator light for operation

2 On/Off button

3 Joystick

✓ The machines are activated.

✓ The drawbars are folded up and locked.

✓ The remote control is removed and the rechargeable battery is charged.

1. Hang the remote control with the carrying strap.
2. Press the On/Off button **2**.
   ⇨ Indicator light for operation **1** flashes green.

⇨ Remote control is ON.

⇨ Receiving units change from permanent yellow light to yellow flashing.

NOTICE

► Fast yellow flashing indicates that the operator is within the proximity area

► Slow yellow flashing indicates that the operator is in the receiving area.

NOTICE

When the indicator light operation **1** flashes red (almost empty) or lights red (empty).

► If the rechargeable battery is dead and needs to be recharged.

Start engine



1 Engine start button

✓ The operator is located outside the receiving area (approximately 2-20 meters).

✓ Receiving units of the coupling set flash yellow slowly.

1. Directly aim remote control towards the receiving units.
2. Shortly press start button **1**.
   ⇨ Engines start automatically. The receiving units light up red during automatic engine start.

⇨ The machine is ready for operation.

⇨ Receiving units flash yellow.

NOTICE

If there is a fault in the infrared communication between the machines, the concerned receiving units flash red. If the infrared communication is not restored within 2 minutes, the coupling is lost.

► Re-couple machines.

Re-coupling machines

In the following situations, the machines must be re-coupled:

- Coupling error due to:
  - Drawbars are not aligned.
  - Receiving units are contaminated or covered during the coupling phase.
  - Unintentional activation of remote control during coupling phase.
- Too long interruption of the infrared communication between the machines of the coupling set.
- Too late activation of other machines – outside the 2-minute waiting time.
- Electronics unit is defective.

▪ Press the reset button **5** on any receiving unit for approximately 1 second.

⇨ The receiving units will first illuminate red with simultaneous fast yellow flashing.

⇨ All receiving units visible on the side thus initiate a new coupling process and try to create a coupling set.

⇨ The receiving units **4** flash fast.

⇨ The automatic coupling phase begins and other individual machines capable of coupling are searched for.

9.1.3 Change-over from individual machine to coupling set

✓ Engine runs.

1. Shortly press start button **3**.

   ⇨ Engine is OFF.

2. Prepare coupling set according to chapter “Coupling machines – operation via remote control”.

3. Press the reset button **5** on any receiving unit for approximately 1 second.

   ⇨ The receiving units **4** flash fast. The automatic coupling phase begins and other individual machines capable of coupling are searched for.

   ⇨ Receiving units **4** light up yellow.

⇨ The coupling set is ready to start.

9.1.4 Change-over from coupling set to individual machine

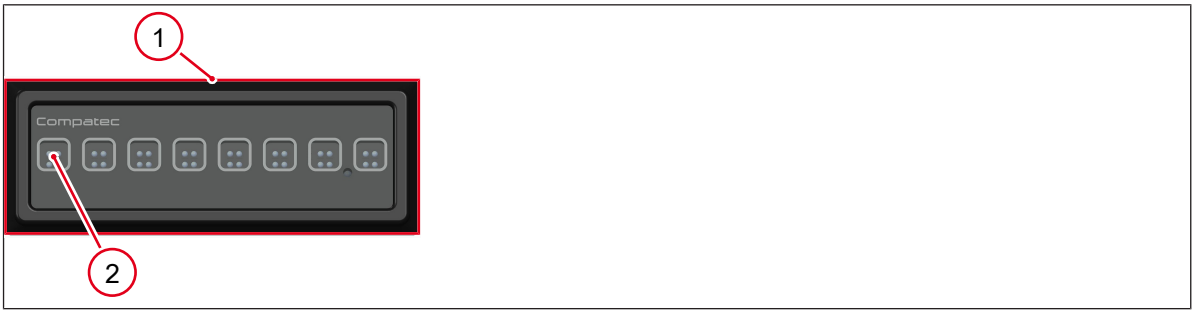
✓ Engines of the machines are running.

1. Press the On/Off button **2**.
   ⇨ Engines of the machines are OFF.
2. Mechanically disconnect the individual machine from the coupling set (see Chapter Assembly/ disassembly).
3. Shortly press start button **3**.

⇨ Machine is in the operating mode Drawbar operation.

⇨ The individual machine is ready for operation.

9.2 Compatec system (not applicable for UK)



1 Compatec - display unit 2 LEDs/light progress bar

1. During the first few seconds after activation of the machine, a light progress bar **2** appears on the Compatec display unit **1**.
   ⇨ LEDs light up starting from left to right.
2. After the moving light stops, all LEDs light up simultaneously for approximately 1 second.

⇨ The sensor is successfully tested and the Compatec system is ready for operation.

NOTICE

If the brief lighting up of all LEDs does not occur, the sensor has not been successfully tested. See Troubleshooting chapter.

9.3 Operation

9.3.1 Notes about operation

Operation on sloped surfaces

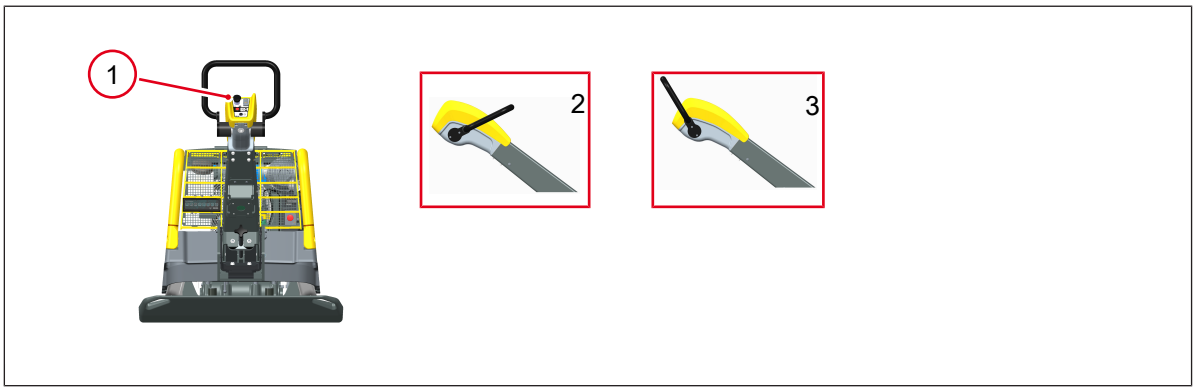
- Always stand above the machine within the area of a slope.
- Only approach gradients from below (a gradient that can be easily driven up can also be driven down without any risk).
- Do not stand in the direction of descent of the machine.
- Do not exceed the maximum permissible slanting position (see Technical data) chapter.

NOTICE

If the maximum permissible slanting position is exceeded, this results in a failure of the engine lubrication and therefore inevitably causes a defect of important engine parts

9.3.2 Individual machine

- In accordance with the intended purpose, the operator should stand behind the machine.
- Guide and steer machine using the control handle.



1 Vibratory rammer
2 Forward travel direction
3 Reverse travel direction

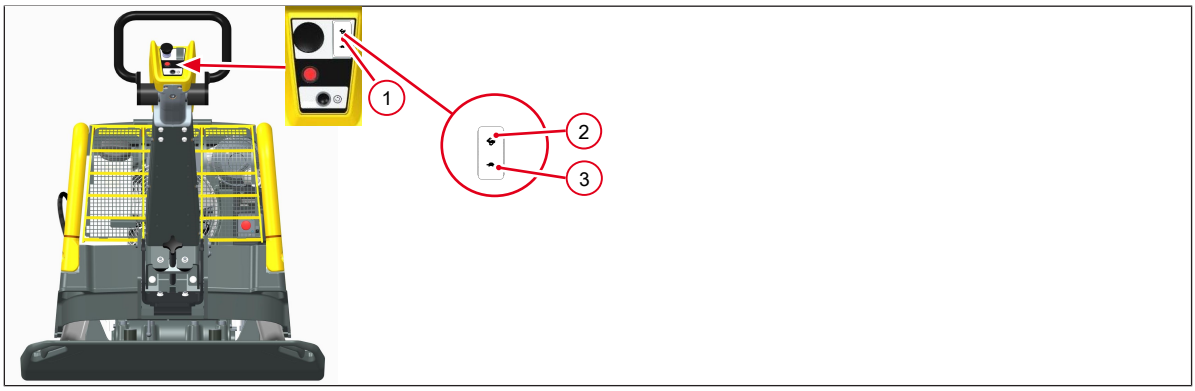
1. Pull vibration switch **1**.
   ⇨ Vibration turns on.
   ⇨ Machine moves forward in neutral position.
2. Preselect travel speed.

⚠ CAUTION

Caution!

Machine moves forward without operating force when vibration is switched on.

Switch slow/fast mode on and off



1 Slow/fast button
2 Maximum speed (position I)

3 Minimum speed (position II)

- Bring slow/fast button to position I.

⇨ The maximum speed is preselected.

- Bring slow/fast button to position II.

⇨ The minimum speed is preselected.

Indicator lights:

-  Illuminates when maximum speed is reached.
-  Flashes when speed is lower than maximum.
-  Illuminates when minimum speed is reached.

- Select travel direction using control handle **2**.



NOTICE

To switch from maximum to minimum (or vice versa) speed, the slow/fast operation switch must be pressed for approximately 2 to 3 seconds.



NOTICE

The speed is independent of the position of control handle **2**.

9.3.3 Coupling set

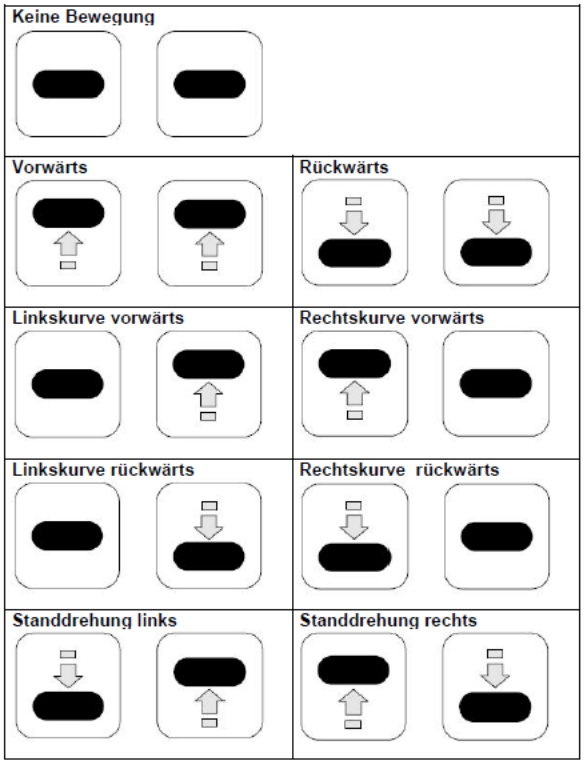


NOTICE

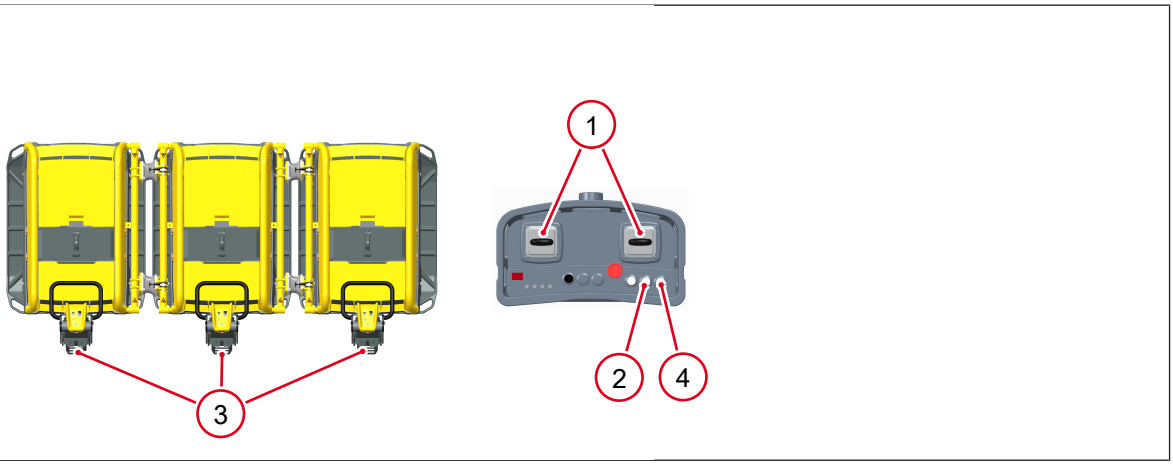
Only operate with the drawbars folded up and locked.

- In accordance with the intended purpose, the operator should stand behind the machine.
- Guide and steer the machine using the remote control.

The following table shows the machine behavior depending on the position of the joystick:



Moving and stopping the machine



1 Joystick

2 Button for slow/fast

3 Receiving units
4 Spot vibration button

- Press the joystick **1** of the remote control to the desired position and hold.

⇨ The machine starts vibrating and moves in the desired direction – the further the joysticks **1** are pushed forward or backward, the faster the machine moves.

- Release both joysticks **1** of the remote control.
  ⇨ The machine stops movement and vibration.

⇨ After approximately 6 seconds the engine switches to idling speed.

Switch slow/fast mode on and off

Fast operation is selected by default.

The slow operation is only intended for traversing highly compressed or hard surfaces.

- Press slow/fast button **2** to switch between slow and fast operation.
  ⇨ When the receiving units **3** slowly flash yellow, the machine is in slow mode.

Switching spot vibration on and off

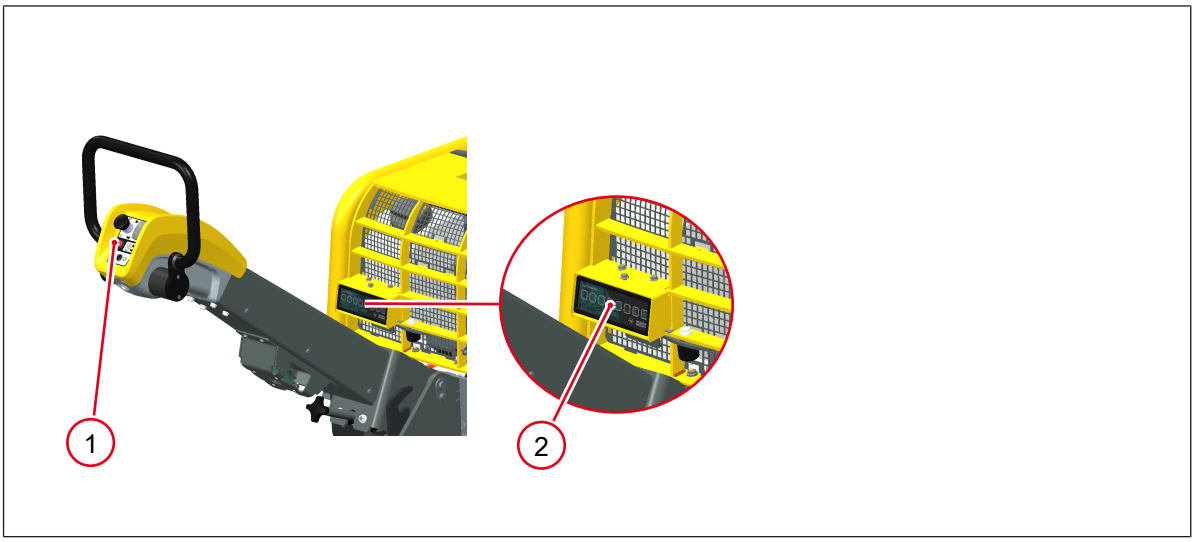
- Press and hold the spot vibration button **4**.

⇨ The machine compresses on the spot without moving in a direction.

- Release the spot vibration button **4**.

⇨ The machine is in normal operating mode again.

9.3.4 Machine protection – installation

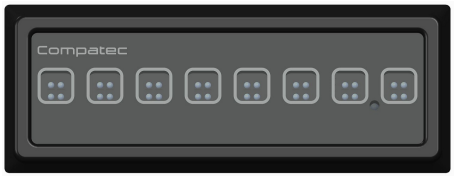


1 Telltale light
2 Compatec - display unit

To protect the machine, a warning is activated in the event of an overload by:

- Flashing of the indicator light **1** on the drawbar.
- The receiving units flash red (coupling set operation).
- Alternating flashing of LEDs of the Compatec display unit **2**.

9.3.5 Read the Compatec display unit (not applicable for UK)



- The display roughly indicates the work progress of compression.
- Superfluous passes or over-compression and overload are avoided.

NOTICE

The functionality of machine protection installation is integrated. See chapter Machine protection installation.

- The number of LEDs lit is proportional to the soil density, more illuminated LEDs corresponds to a higher soil density.
- The flashing of all LEDs indicates over-compression of the soil.
- The number of illuminated LEDs depict the degree of compression (max. 8).
- If the display does not progress any further, the maximum achievable soil compression has been achieved.

NOTICE

It is possible to detect non-compactable material if the spot is longer than one meter. In the case of abrupt change from high to low-compacted soil (or vice versa), there is a slow increase or decrease of the LEDs.

NOTICE

The LED bar utilization of the Compatec display unit is tailored to soils that can be compacted easily. A soil density that is well beyond the achievable values of soils that can be compacted easily is signaled by the flashing of all LEDs.

NOTICE

If the machine is operated at reduced speed,

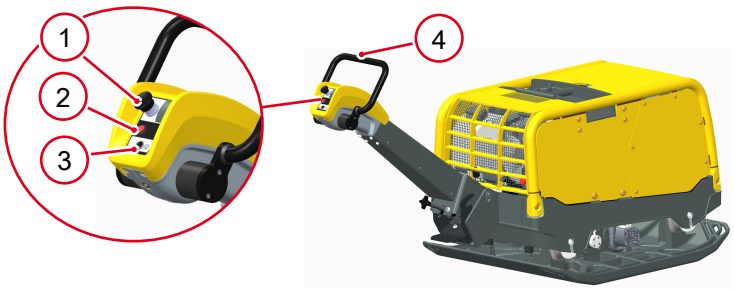
► If minimum or reduced speed was pre-selected.

⇨ No LEDs of the Compatec display unit are illuminated.

9.4 Decommissioning

9.4.1 Switch off the engine

Individual machine



1 Vibratory rammer
2 Telltale light
3 Start button
4 Control handle

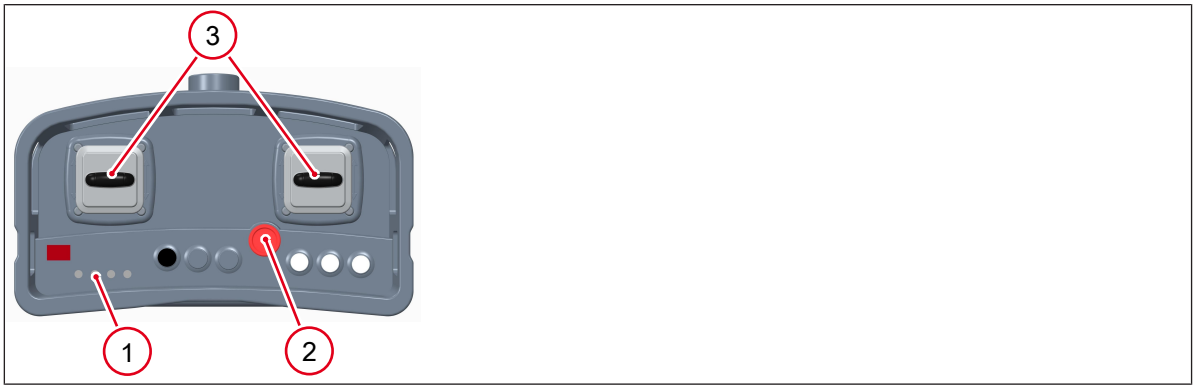
1. Press vibration switch **1**.
   ⇨ Vibration turns off.
   ⇨ The machine stops.
2. Shortly press start button **3**.

⇨ Engine is OFF.

NOTICE

The Compatec display unit automatically switches itself off once the machine is deactivated.

Coupling set



1 Indicator light for operation
2 On/Off button
3 Joystick

1. Release both joysticks **3**.
2. Directly aim remote control towards a receiver unit.

NOTICE

If the remote control is not directly aimed at the receiving unit, only the remote control will be switched off.

3. Press the On/Off button **2**.
   - ⇨ Engine is OFF.
   - ⇨ Remote control switches off.
   - ⇨ The indicator light for operation **1** goes off.

⇨ The machine is deactivated.

NOTICE

The remote control automatically switches off after about 10 minutes if the joystick or buttons are not pressed.

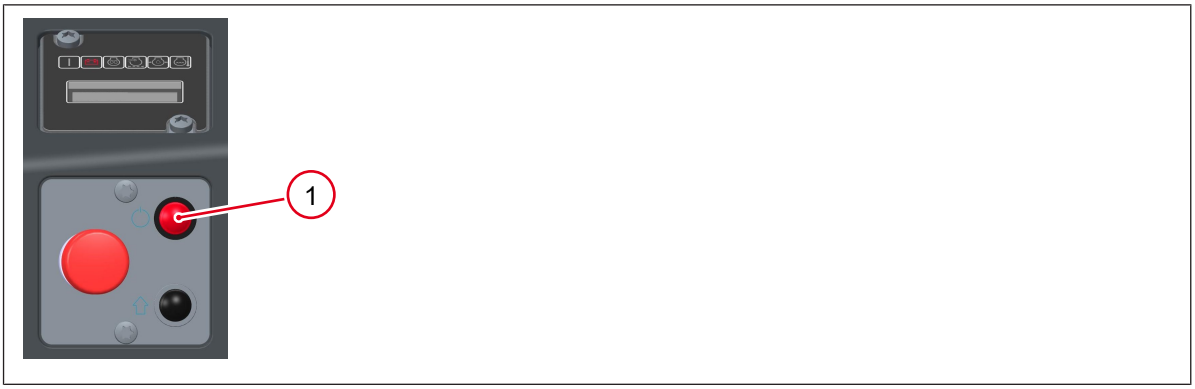
NOTICE

If the machine is not deactivated manually, it will deactivate:

- ► Automatically after 4 hours in case of coupling set.
- ► In case of an individual machine, the deactivation time can be set in the configuration menu.

9.4.2 Operating the diagnostic menu

Call up diagnostics menu



1 On/Off button

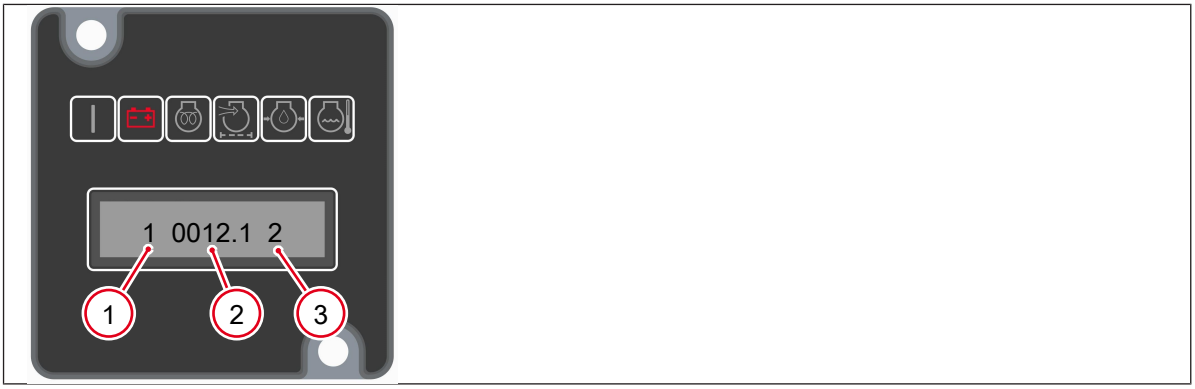
1. Activate machine. (See chapter Activate machine)
2. Press On/Off button **1** on machine for at least 3 seconds.
3. Press the On/Off button **1** on the machine until the desired menu item appears on the display.
4. After finishing the configuration, the diagnosis menu is automatically exited.

Call up error memory

In the error memory, all errors (maximum 52) are stored along with an associated error code. In addition, the operating hour in which the error occurred is stored. The system assigns a consecutive number for each error. The most recent error is stored under the highest number.

The following information alternately displayed:

- Consecutive number, hour of operation, error code.
- Error message.



1 Consecutive number
2 Operating hours
3 Error code

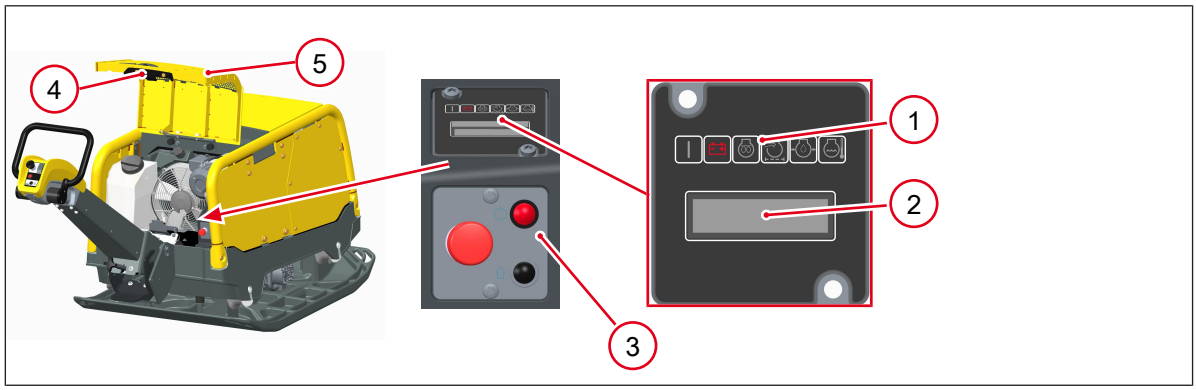
1. In the diagnostics menu, select the error memory entry
2. To select the stored error, repeatedly press the black setting button until the desired area appears.
3. To exit the error memory, press the red On/Off button.

9.4.3 Deactivate machine

⚠ WARNING

Operation of the machine by unauthorized persons can lead to serious injury!

- ► Ensure that no unauthorized persons can access the machine and remote control.
- ► Always keep the remote control in a safe place, e.g. within the locked machine.



1 Control lamps
2 Display
3 On/Off switch (red)
4 Rear protective hood

1. Open the rear protective hood **5**.
2. Press the On/Off button **3** on the machine.
   ⇨ The indicator light for operation **1** and the receiving units go off.
   ⇨ The machine is deactivated.
3. Charge rechargeable battery of the remote control with the charger cable.
4. Close the rear protective hood **5**.

NOTICE

If the machine is not deactivated manually, it will automatically deactivate after certain time. The deactivation time can be set in the configuration menu.

9.4.4 Decommissioning the machine in an emergency situation (emergency stop)

NOTICE

The emergency stop switch is a safety device and should only be used for the immediate switch off of the machine in the case of an emergency situation.



1 Emergency stop switch

- Press emergency stop switch **1**.
  - ⇨ The machine immediately stops driving movement and vibration.

⇨ The machine automatically deactivates.

- To unlock, turn the emergency stop switch **1** to the left.

⇨ The machine can then be re-activated.

NOTICE

► The emergency stop switch deactivates only the respective machine in the coupling set.

10 Assembly

10.1 Assembly of coupling linkage

10.1.1 Prepare individual machine

- Place all individual machines on a firm and even surface (e.g. asphalt, steel plate).
- Decommission the individual machines.
- Deactivate the individual machines.
- Allow engine to cool down.
- Unlock the drawbar.

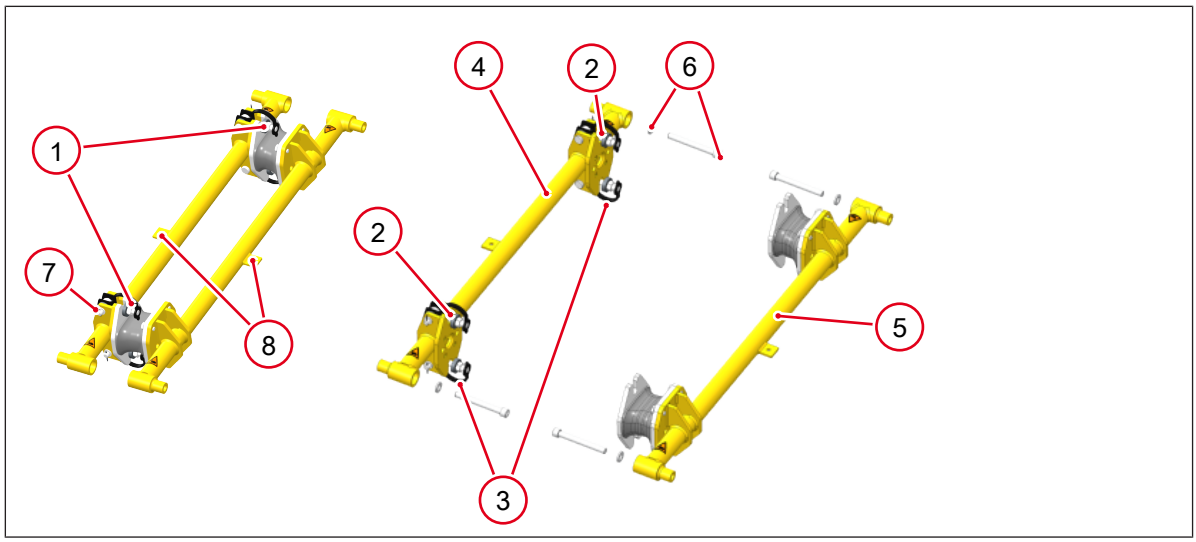
10.1.2 Coupling linkage

⚠ WARNING

Uncontrolled starting of the machine and moving parts!

Perform assembly and disassembly work only when the engine is switched off.

Prepare coupling linkage



1 Nut with washer
2 Eye bolt
3 Elastomer strap
4 Coupling linkage
5 Coupling linkage (with rubber buffer)
6 Screw with washer
7 Split pin, washer and bolt
8 Position marking

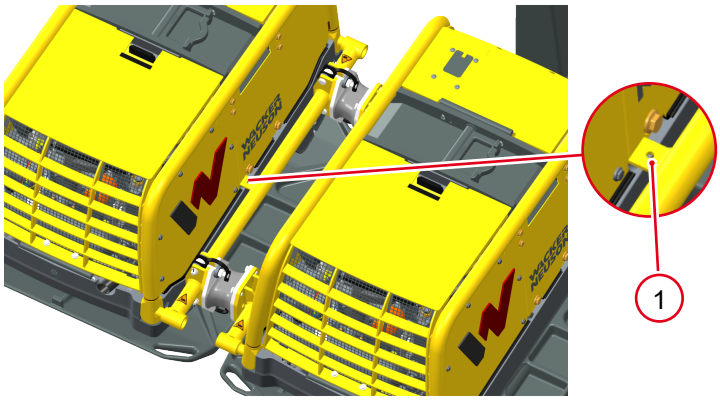
Disconnect coupling linkage

1. Loosen nut **1** (4x) and do not remove completely.
2. Fold away eye bolt **2** (4x) with elastomer strap **3**.
3. Separate coupling linkages **4/5** from each other and place on a clean surface.

Mount coupling linkages

NOTICE

Observe correct positioning and alignment of the coupling linkages. Incorrectly mounted linkages lead to a non-symmetrical alignment of the individual machines with each other.



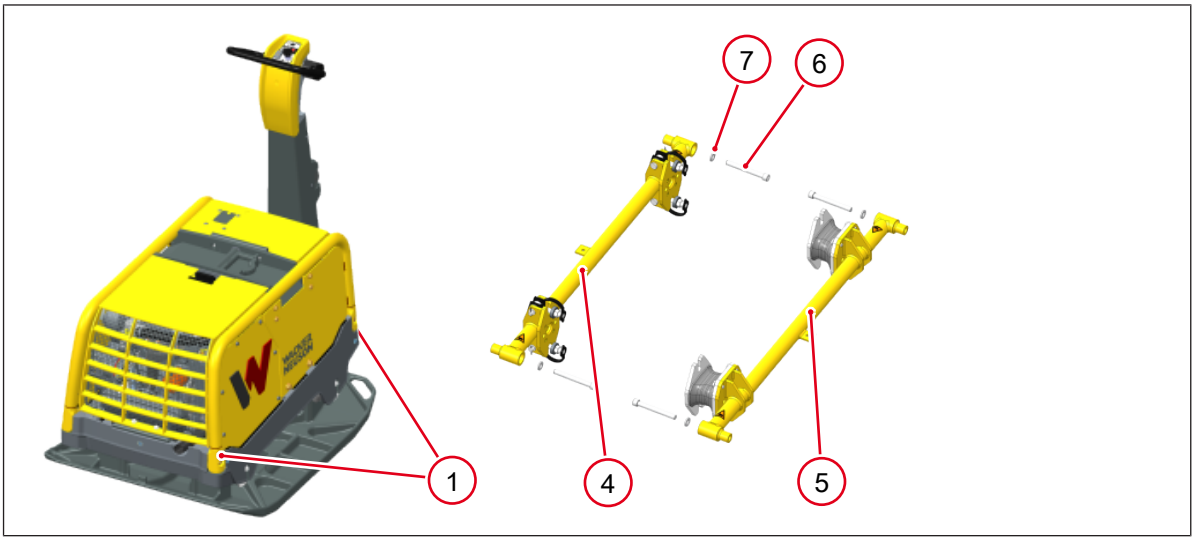
1 Correct positioning and alignment of coupling linkages

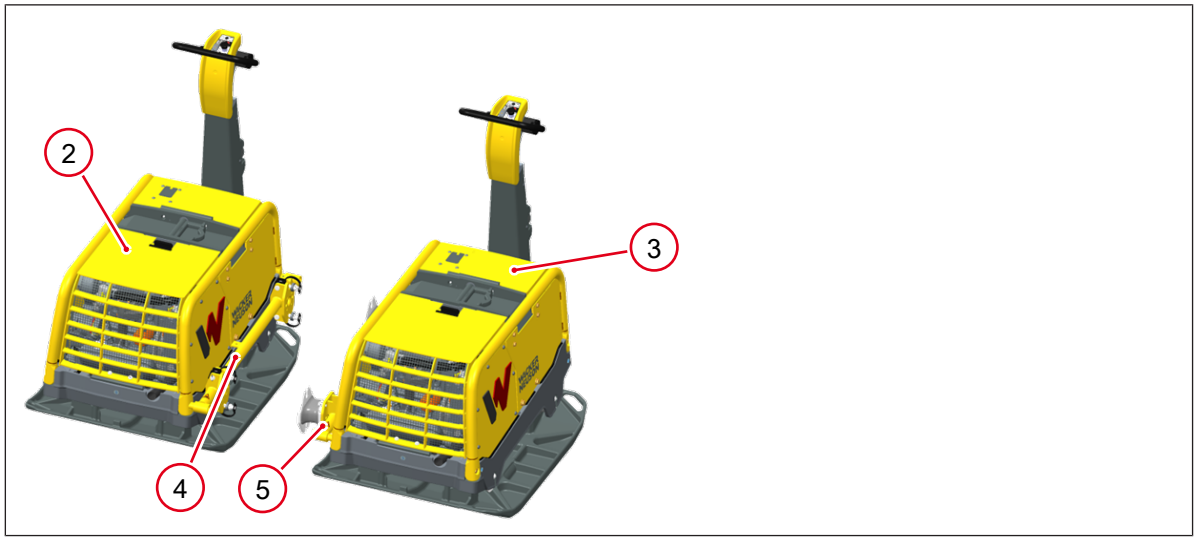
Information

The shorter original screws of the upper mass are required for the retrofitting from coupling set to individual machine.

► Keep the original screws for the upper mass.

2-part coupling set:



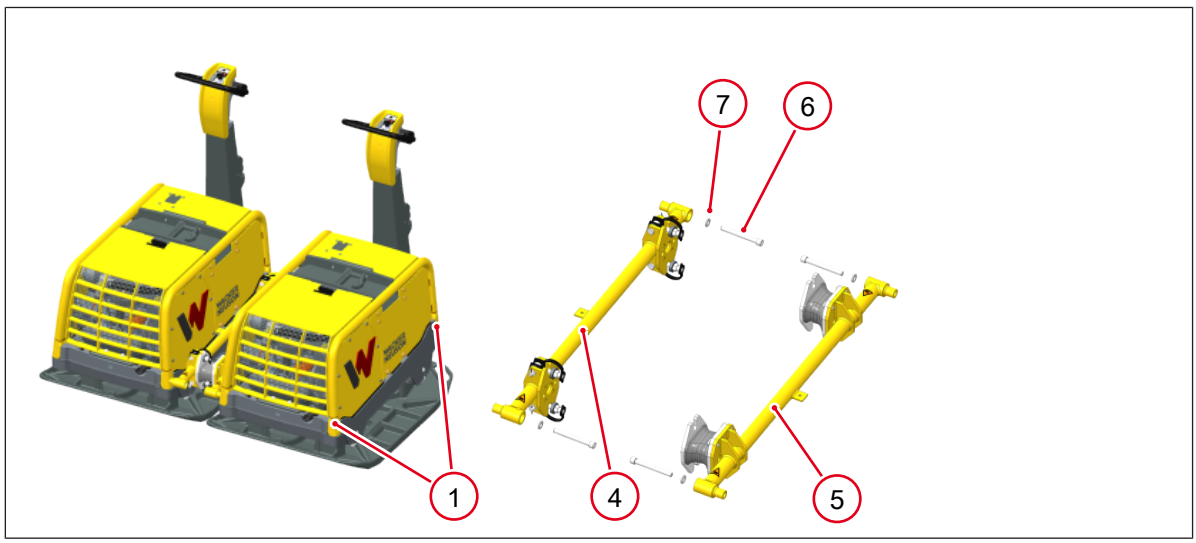


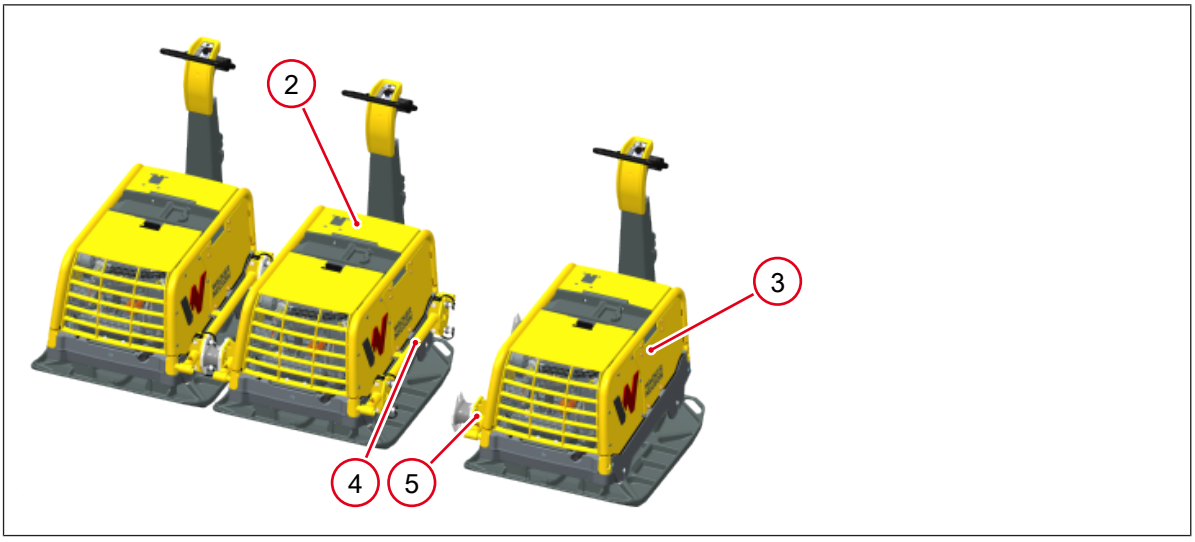
1 Original screw for the upper mass with washer
2 Individual machine
3 Individual machine
4 Coupling linkage
5 Coupling linkage (with rubber buffer)
6 Screw
7 Washer

1. Loosen and remove the original screw of the upper mass with washer **1** on the individual machine **2**.
2. Position the coupling linkage **4** on the individual machine **2**. Note correct alignment.
3. Fasten the coupling linkage **4** to the upper mass with screws and washers **6/7**. The tightening torque setting is 300 Nm.
4. Position the coupling linkage **5** on the individual machine **3**. Note correct alignment.
5. Fasten the coupling linkage **5** to the base plate with screws and washers **6/7**. The tightening torque setting is 300 Nm.

⇨ 2-part coupling set prepared for mechanical coupling.

3-part coupling set:





1 Original screw for the upper mass with washer
2 Coupling set
3 Individual machine
4 Coupling linkage
5 Coupling linkage (with rubber buffer)
6 Screw
7 Washer

✓ 2-part coupling set mechanically coupled.

1. Loosen and remove the original screw of the upper mass with washer **1** on the coupling set **2**.
2. Position the coupling linkage **4** on the coupling set **2**. Note correct alignment.
3. Fasten the coupling linkage **4** to the upper mass with screws and washers **6/7**. The tightening torque setting is 300 Nm.
4. Position the coupling linkage **5** on the individual machine. Note correct alignment.
5. Fasten the coupling linkage **5** to the upper mass with screws and washers **6/7**. The tightening torque setting is 300 Nm.

⇨ 3-part coupling set prepared for mechanical coupling

10.2 Mechanically coupling machines



⚠ WARNING

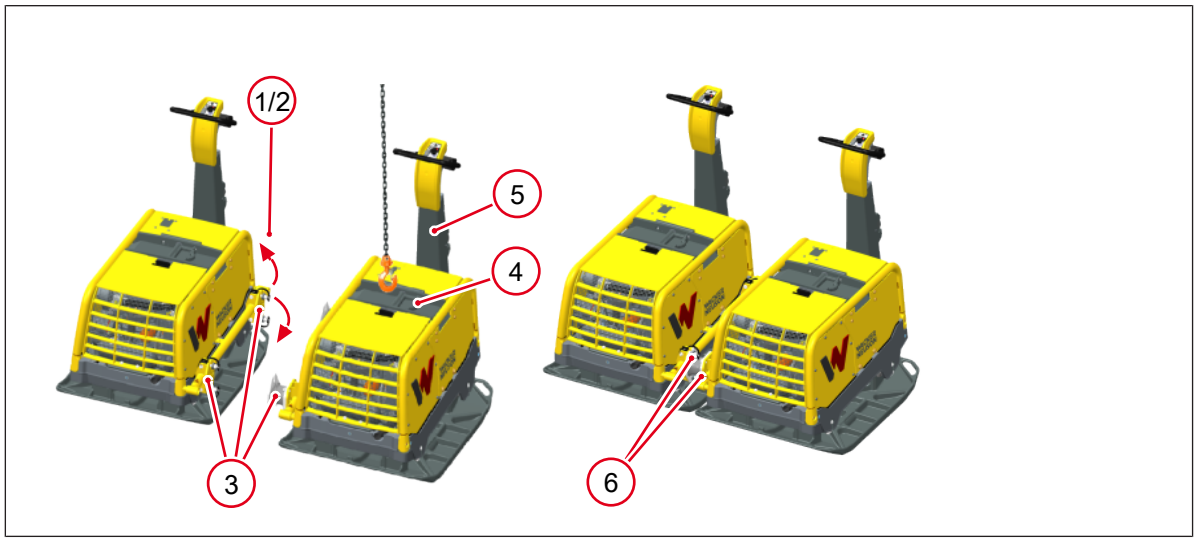
Danger of crushing!

When coupling a second or third machine, there is a risk of crushing due to the proper motion of the individual machine.

► At least two persons required during assembly process.

► Move the individual machine slowly and carefully towards the stationary machine.

10.2.1 2-part coupling set:



1 Eye bolt
2 Elastomer strap
3 Disconnection point
4 Central lifting point
5 Drawbar
6 Nut with washer

✓ Eye screws **1** with elastomer strap **2** are folded away (elastomer strap keeps the eye screws folded away).

✓ Machines positioned next to each other with a small distance.

1. Clean disconnection points **3** and check for undamaged surfaces.
2. Set central lifting point **4** into vertical position.
3. Lift the machine on central lifting point **4** using sufficiently dimensioned lifting gear (e.g. chain).
4. Align the machine with the help of drawbar **5** in such a way that the disconnection points **3** of the coupling linkage lie flat against each other.
5. Slowly lower the machine and finally align it.
6. Unhook the lifting gear.
7. Fold down eye screws **1** with elastomer strap **2**.
8. Tighten nut with washer **6** (4x). The tightening torque setting is 70 Nm.

⇨ 2-part coupling set mechanically coupled.



NOTICE

Loosen the screw connections!

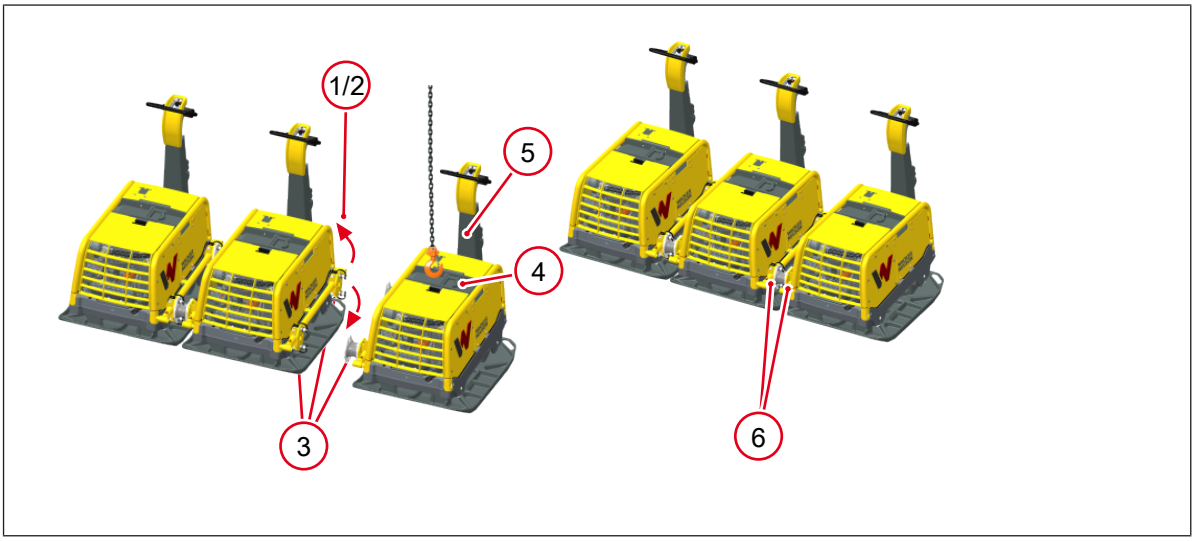
Disconnection points that do not lie flat against each other or machines that are coupled under tension can cause the screw connections to loosen.

► After approx. 5 minutes of compaction work, check the screw connections **6** for firm fit and tighten if necessary. The tightening torque setting is 70 Nm.

10.2.2 3-part coupling set:

Information

Always mount the third individual machine on an already mechanically coupled 2-part coupling set.



1 Eye bolt
2 Elastomer strap
3 Disconnection point
4 Central lifting point
5 Drawbar
6 Nut with washer

- Repeat the steps 1-8 with 2-part coupling set and individual machine.

⇨ 3-part coupling set mechanically coupled.

NOTICE

Loosen the screw connections!

Disconnection points that do not lie flat against each other or machines that are coupled under tension can cause the screw connections to loosen.

► After approx. 5 minutes of compaction work, check the screw connections **6** for firm fit and tighten if necessary. The tightening torque setting is 70 Nm.

10.3 Mechanically decoupling machines

The machines are decoupled by loosening the nut on the eye screw. The coupling linkage usually remains on the machines.

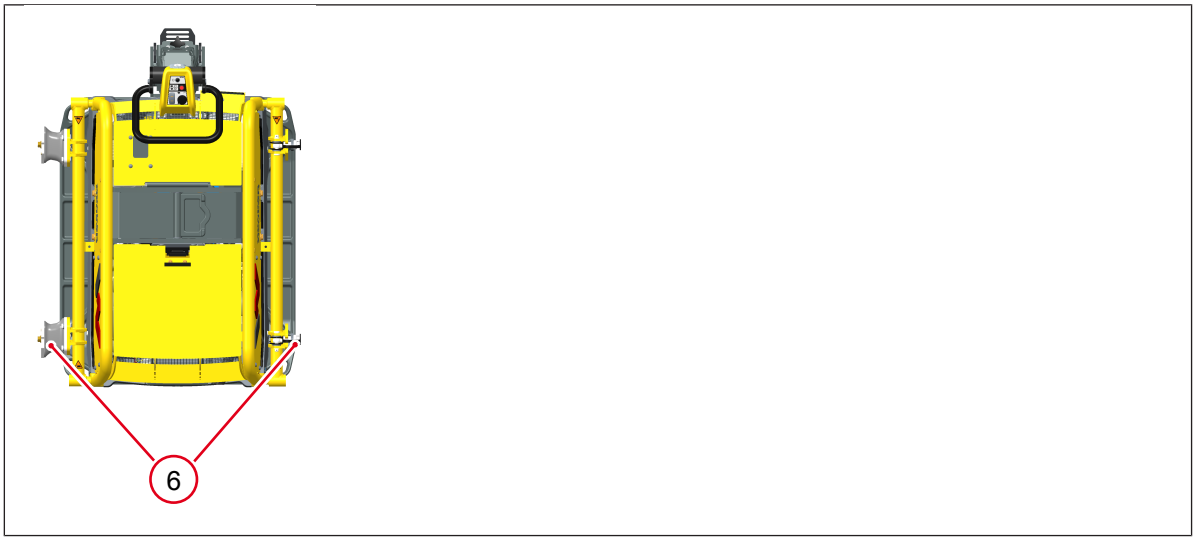
⚠ WARNING

Danger of crushing

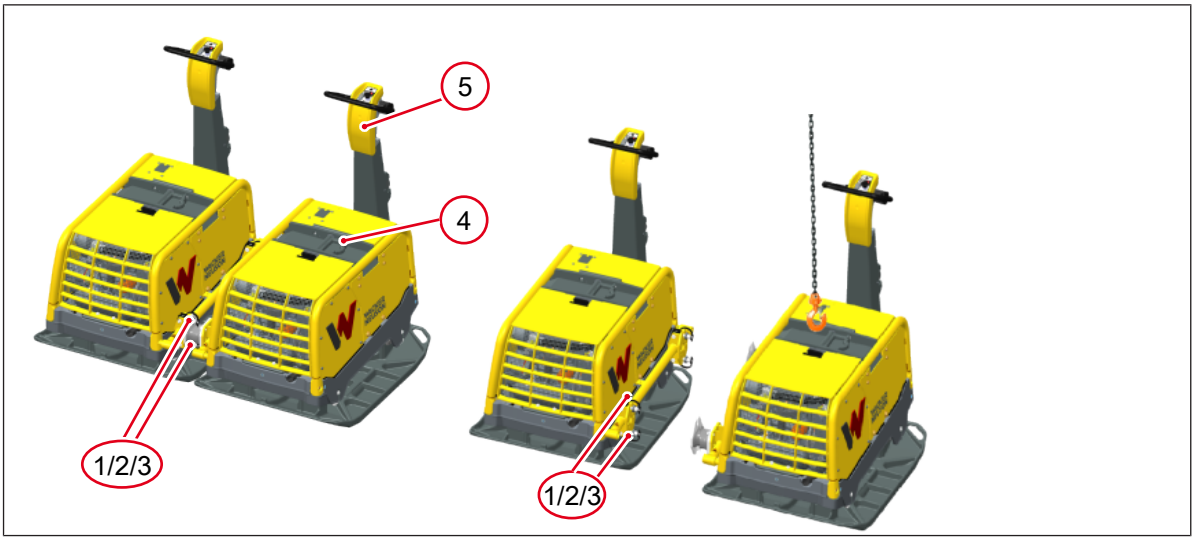
After decoupling the machines, the machine width **6** increases due to the mounted coupling linkage. The coupling linkage projects beyond the base plate.

► Work carefully on obstacles.

► If required, dismantle the coupling linkage.



1 Coupling linkage changes the machine width



1 Nut with washer
2 Eye bolt
3 Elastomer strap
4 Central lifting point
5 Drawbar

1. Loosen nut **1** (4x) and do not remove completely.
2. Fold away eye screw **2** (4x) with elastomer strap **3**.
3. Set central lifting point **4** into vertical position.
4. Unlock drawbar **5** and fold down.
5. Lift the machine on central lifting point **4** using sufficiently dimensioned lifting gear (e.g. Chain) and guide using the drawbar **5**.
6. Carefully lift and set aside the decoupled individual machine.
7. Fold down eye screw **2** with elastomer strap **3** and tighten nut **1** hand-tight.

   ⇨ Machines mechanically decoupled.

10.4 Dismantling the coupling linkage

Information

The shorter original screws of the upper mass are required for the retrofitting from coupling set to individual machines.

► Keep the original screws for the upper mass.

The dismantling of the coupling set linkage is carried out in the reverse order to the assembly:

3-part coupling set - 2-part coupling set - individual machine.

- Fasten the original screw of the upper mass with washer to the upper mass. The tightening torque is 330 Nm.

10.5 Assembly of telematics module (not applicable for UK)

Information

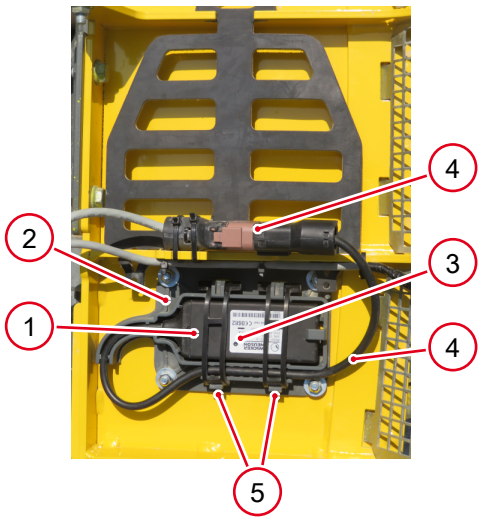
Install outdoors in order to improve quality of the GPS and GSM signal.

Mount the telematics module in the middle machine of the 3-part coupling set. If the assembly is carried out in another machine, the position data shows an offset of approx. 1 m (with the 3-part coupling set) or 0.5 m with the 2-part coupling set. In case of longer machine downtimes, disconnect the telematics module.

NOTICE

Connecting and disconnecting the telematics module!

- ► Connect or disconnect the telematics module only when the machine is deactivated.
- ► Improper handling may lead to the transmission of incorrect machine data (machine type, machine serial number, operating hours) by the telematics module.



1 Telematics module
2 Bracket
3 LED/ label (serial number)
4 Cable installation/ plug connection
5 Mounting

✓ All engines are switched off.

✓ All machines are deactivated.

1. Open the rear protective hood.
2. Insert the telematics module **1** in the bracket **2** so that the label and the LED **3** are visible.
3. Ensure correct cable installation/ plug connection **4** and fixture **5**.
4. Activate all machines.
5. Check the telematics function using the LED mode.
   ⇨ LED **3** flashes red and illuminates green permanently.

⇨ Connection to mobile network OK, GPS found valid satellite position.

▪ Close rear protective hood.

11 Transport



⚠ WARNING

Danger from falling!

Falling machines can cause serious injury e.g. through crushing.

- ► Only use suitable and tested lifting gear and sling (safety load hooks) of sufficient lifting capacity.
- ► Only lift the machine from the central lifting point.
- ► Reliably secure the machine to the lifting gear.
- ► Do not lift the machine by the control handle and handle.
- ► Evacuate danger area while lifting, do not stop under suspended loads.



⚠ WARNING

Risk of fire and explosion from fuel!

Escaping fuel may catch fire and cause serious burns.

- ► Lift and transport the machine upright.



⚠ WARNING

Danger from falling! (Coupling set)

Falling machines can cause serious injury e.g. through crushing.

- ► When lifting the coupling set with the lifting beam, always attach all individual machines to the lifting beam.
- ► See also original operator's manual of the lifting beam.



⚠ CAUTION

Danger of crushing! (Coupling set)

When lifting with the lifting beam, there is a risk of crushing due to the proper motion of the individual machine.

- ► Lift coupling set only in mechanically coupled condition.



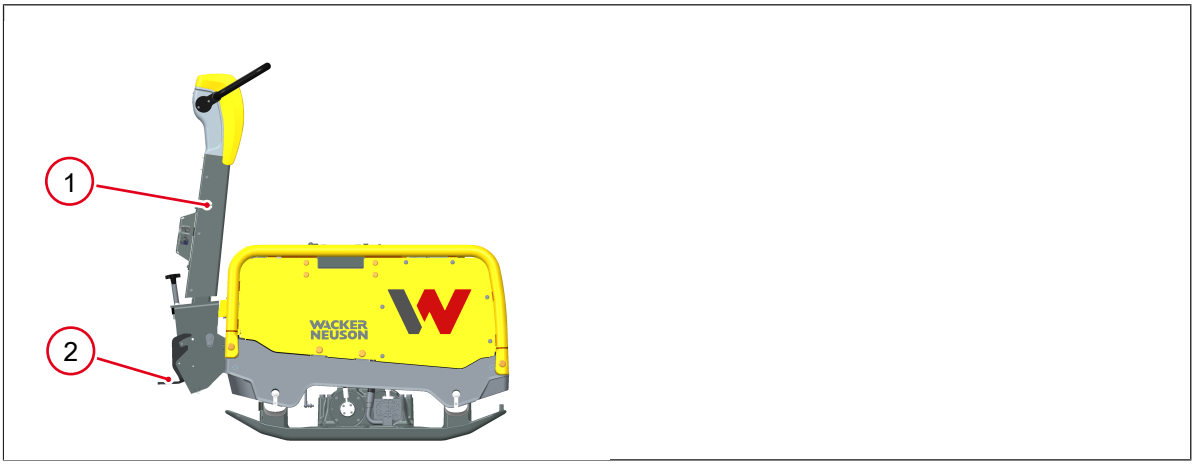
NOTICE

Material damage!

The machines should only be transported as individual machines.

- ► Disconnect/ decouple the mechanically coupled individual machines beforehand (see chapter Assembly/disassembly).
- ► Only use the lifting beams available from Wacker Neuson as an accessory to lift the 2 and 3-part coupling set (see also the original operator's manual for the lifting beam).

11.1 Loading and transport



1 Drawbar 2 Drawbar lock

✓ Shut off engine and allow to cool.

✓ Deactivate machine.

✓ Keep the machine in horizontal position to avoid oil and fuel leakage.

✓ Completely empty the fuel tank if the machine is to be transported over a longer distance.

▪ Move drawbar **1** to vertical position.

⇨ Drawbar lock **2** engages.

⇨ Drawbar **1** is locked.

11.2 Raise individual machine and lash down



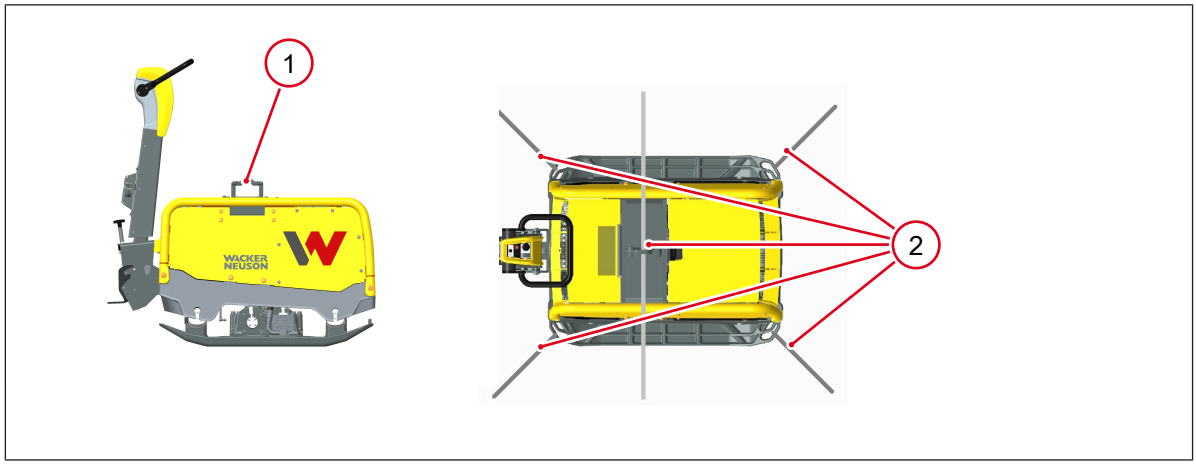
NOTICE

Appoint a specialist flagman for a safe lifting operation.



NOTICE

Use anti-slip mats for securing the load.



1 Central lifting point (attachment point) 2 Lashing points

1. Set central lifting point **1** into vertical position.
2. Hook up a suitable sling to the central lifting point **1**.
3. Carefully load machine onto a stable means of transport.
4. Lash down the machine on the means of transport at the tie-down points **2** in such a way that it is secured against rolling off, slipping off and tipping over.

11.3 Raise coupling set and lash down

NOTICE

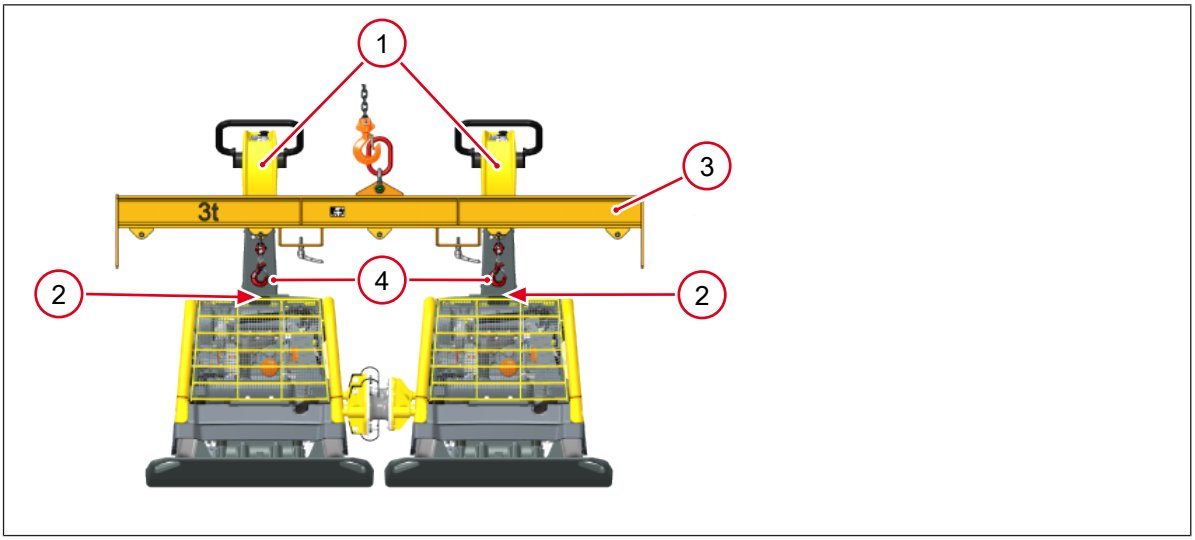
Appoint a specialist flagman for a safe lifting operation.

NOTICE

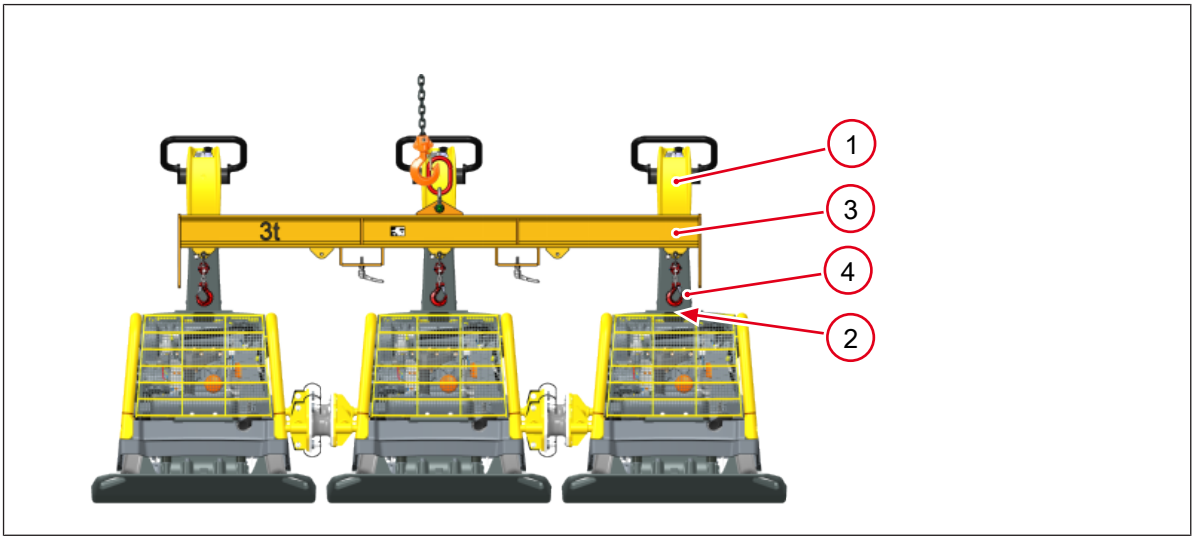
Use anti-slip mats for securing the load.

11.3.1 Lift 2-part/ 3-part coupling set

2-part coupling set:



3-part coupling set:



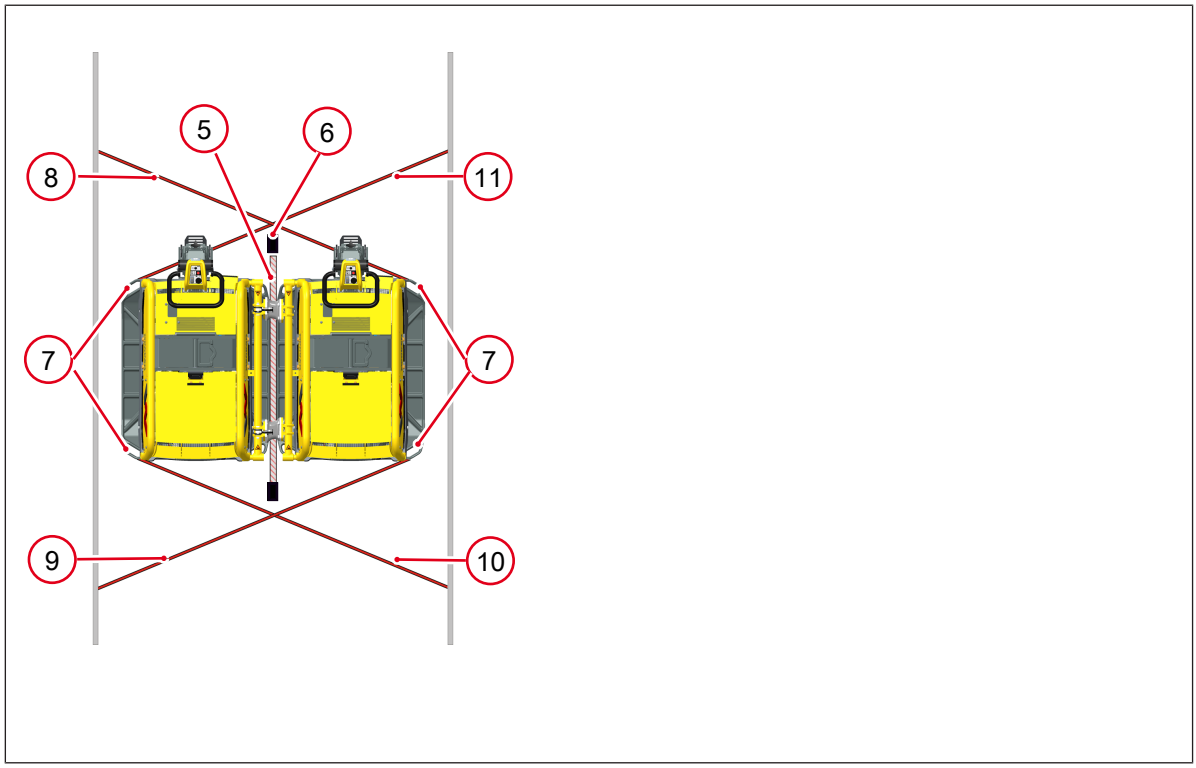
1 Drawbar
2 Central lifting point
3 Lifting beam
4 Sling

✓ Drawbar **1** in vertical position and locked.

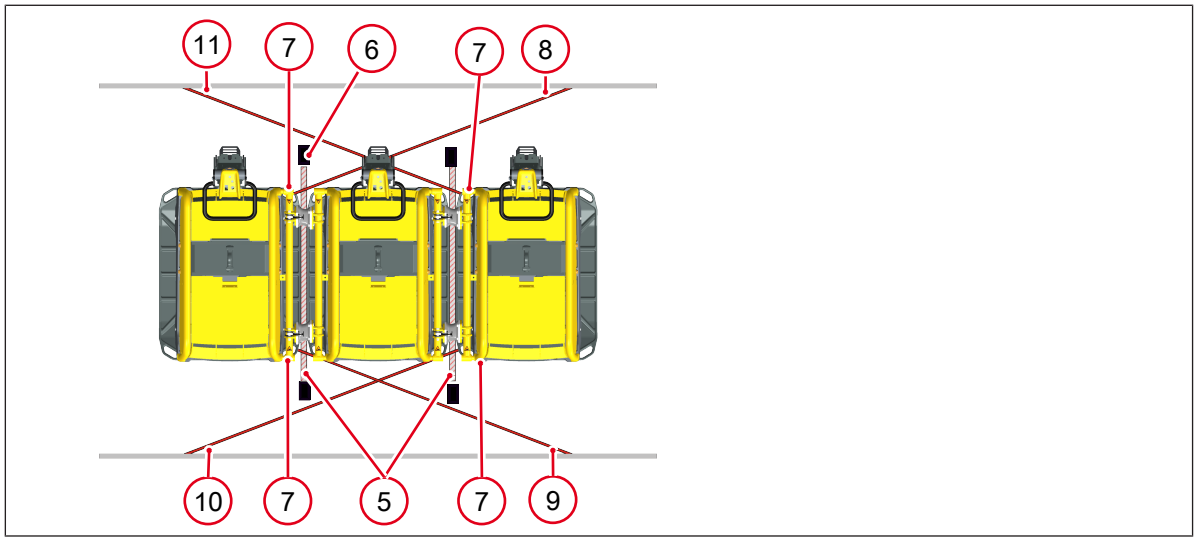
1. Set central lifting point **2** into vertical position.
2. Hook up lifting beam **3** with suitable sling **4** at the central lifting point **2**.
3. Carefully load machine onto a stable means of transport.

11.3.2 Lash down 2-part/ 3-part coupling set

2-part coupling set



3-part coupling set:



5 Squared timber
6 Wooden wedge
7 Lashing point
8 Lashing means
9 Lashing means
10 Lashing means

11 Lashing means

1. Push squared timber **5** (approx. 20x50x1750 mm) into the intermediate area of the base plates. The width of the squared timber must not exceed the clearance between the base plates.
   ⇨ The squared timber serves as an aid for forming a tight fit of the individual machines.
2. Fix all squared timber **5** with wooden wedges **6** with nails and secure against slipping.
3. Lash down the machine crosswise on the means of transport at tie-down points **7** so that it is secured against rolling off, slipping off and tipping over (suitable lashing means: e.g. tension belt (2000 daN), chain (6/8 2200daN)). Proceed as follows to ensure the tight fit and the mechanical relief of the rubber buffers:
4. Attach lashing means **8/9** and bias evenly.
   ⇨ The coupling set is fixed in lashing direction.
5. Attach lashing means **10/11** and bias evenly.
   ⇨ Tight fit is established.
6. Bias lashing means **8/9/10/11** evenly and finally.

12 Maintenance



⚠ WARNING

Improper handling may result in injury or serious material damage.

► Please read and follow all safety instructions in this operator's manual.



⚠ WARNING

Danger of poisoning from exhaust fumes!

Exhaust fumes contain poisonous carbon monoxide, which can lead to unconsciousness or to death.

► Only perform maintenance work with the engine switched off and the machine decommissioned.



⚠ WARNING

Risk of injury from uncontrolled starting of the machine and moving parts!

► Only perform maintenance work with the engine switched off and the machine decommissioned.



⚠ WARNING

Fuel and fuel vapors can ignite or catch fire and cause serious burns.

► Only refuel in a well-ventilated vicinity.

► Do not smoke.

► Do not refuel near open flames.

► Switch off the engine and allow it to cool before refueling.



⚠ WARNING

Warning of hot surfaces!

The exhaust system and engine can become extremely hot, which can lead to severe skin burns.

► Always allow the machine to cool down completely after use.

► If the cool-down phase cannot be adhered to (e.g. due to an emergency), use heat-resistant protective gloves.



⚠ WARNING

Risk of injury due to non-existent or non-functioning safety devices!

► Only operate the machine if the safety devices are properly fixed and functioning.

► Do not modify or remove safety devices.

12.1 Maintenance plan

12.1.1 Maintenance plan – one-time maintenance work

The following maintenance work must only be performed after the first commissioning in accordance with this interval.

Maintenance work	after the first 50 h
Replace engine oil and oil filter of the drive motor.	●

12.1.2 Maintenance plan – daily maintenance work

Maintenance work	before operation	after operation
Visual check for completeness.	●	
Visual check for damages and leaks.	●	
Check engine oil level and top up if necessary.	●	
Check coolant level and top up if necessary.	●	
Check radiator for contaminants and clean if necessary.	●	
Check the operation of the emergency stop switch.	●	
Diagnostic menu: Check entries. If required, have the machine repaired*.	●	
Clean machine and remote control.		●
* Have this work performed by the service department of the Wacker Neuson contact partner.		

12.1.3 Maintenance plan – regular intervals

Maintenance work	every xxx h	every 250 h	every 500 h
Make sure the screw connections are firmly seated: • Center brace. • Central lifting point. • Hydraulic oil reservoir. • Rubber buffer of the base plate.	●		
Check exciter oil level.	●		
Check hydraulic oil level.	●		
Check hydraulic hose lines.*	●		
Check hydraulic oil level in the drawbar.	●		
Check the rubber buffer of the base plate.*	●		
Check function of the proximity recognition sensor (remote control).	●		
Lubricate locks of the protective hood.	●		
Check central lifting point for damage.	●		
Replace engine oil and oil filter of the drive motor.		●	

Maintenance work	every xxx h	every 250 h	every 500 h
Replace fuel filter.*		●	
Check coolant hoses and clamps.*		●	
Check anti-freeze layer of radiator.		●	
Check the hose pipes and clamps of the air intake system.*		●	
Replace air filter cartridge. If the indicator light lights up, even before reaching the interval.		●	
Replace exciter oil. *		●	
Check the V-belt of the generator, re-tighten.*		●	
Check the rubber buffers on the protective hoods, hinges and locks for initial stress.		●	
Replace the hydraulic oil filter with breather filter.*			●
Check the valve clearance, adjust if necessary.*			●
* Have this work performed by the service department of the Wacker Neuson contact partner.			

Maintenance work	every 1000 h / every 2 years	every 4000 h / every 4 years	every 6 years
Replace coolant.*	●		
Replace the hydraulic oil.*	●		
Replace the tooth belt pulley of the engine.*		●	
Check hydraulic hose lines.*			●
* Have this work performed by the service department of the Wacker Neuson contact partner.			

12.1.4 Maintenance plan –coupling linkage

Maintenance work	every 125 h	every 250 h	every 500 h
Check to ensure the screw connections are firmly seated.	●		
Check rubber buffer for tears.		●	
Check elastomer strap for tears.		●	
Check eye screw safety with cotter pin.	●		

Maintenance work	every 125 h	every 250 h	every 500 h
* Have this work performed by the service department of the Wacker Neuson contact partner.			

12.2 Maintenance work

⚠ CAUTION

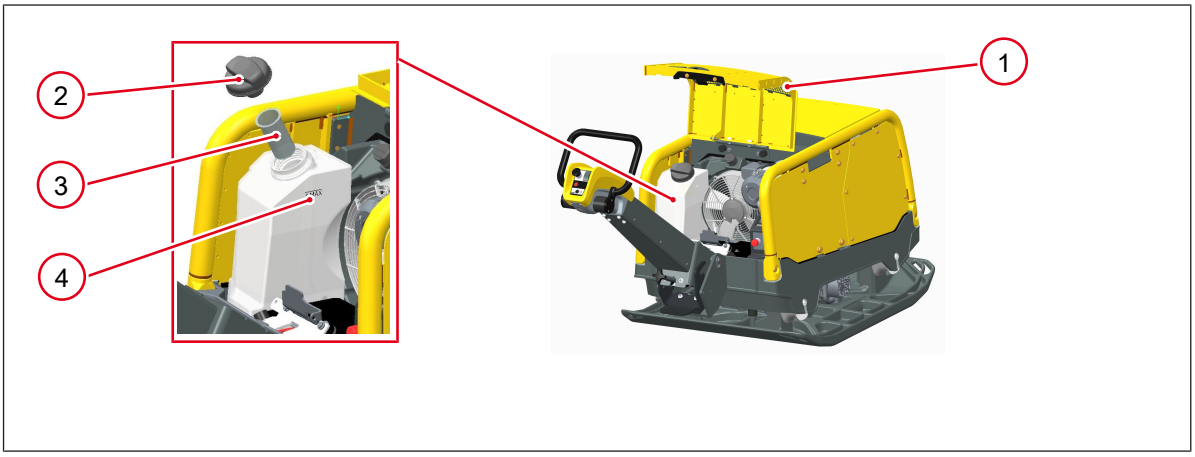
Health risk from fuel, lubricants and coolants!

- ► Do not inhale fuel, lubricants, coolants or vapors.
- ► Avoid contact of skin or eyes with fuel, lubricants and coolants.

Carry out preparations

1. Place the machine on a level surface.
2. Decommissioning the machine.
3. Deactivate machine.
4. Allow engine to cool down.

12.2.1 Check the fuel level and top up



1 Rear protective hood
2 Fuel cap
3 Fuel filter
4 Limit mark

1. Open the rear protective hood **1**.
2. Remove contaminants from the area of the tank cover **2**.
3. Unscrew the tank cover **2** from the fuel tank and remove it.
4. If necessary, remove and clean the contaminated fuel tank filter **3**. Reinsert fuel tank filter **3** before topping off.
5. Top up fuel to the limit mark **4** – for fuel type, see Technical data chapter.
6. Tighten tank cover **2**.
7. Close the rear protective hood **1**.

NOTICE

Dispose of impurities of the fuel filter in accordance with the applicable regulations for environmental protection.

12.2.2 Clean machine and remote control

⚠ WARNING

Risk of fire and explosion when using flammable cleaning agents!

► Do not clean machine, components, or operator's controls with gasoline or other solvents.

NOTICE

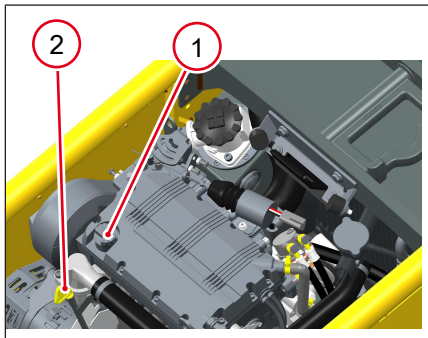
Penetrating water can damage the engine, electrical operator's controls or components of the machine and the remote control.

► Do not aim high-pressure cleaner directly at air intake area and electrical components.

► Clean remote control with only a damp cloth.

1. After cleaning, check switches, levers, cables, hoses, lines and hardware for leaks, loose connections, abrasions and other damage.
2. Immediately eliminate detected damage.

12.2.3 Check engine oil level and top up engine oil



1 Cover of the oil filler opening
2 Oil dipstick

Check engine oil level

1. Open both protective hoods.
2. Remove contaminants in the area of the oil dipstick **2**.
3. Pull out oil dipstick **2**.
4. Wipe oil dipstick **2** with a dry, lint-free cloth.
5. Fully reinsert oil dipstick **2**.
6. Pull out oil dipstick **2**.
7. Check whether the oil is between the lower and upper mark of the oil dipstick **2**.

Top off engine oil

1. Remove cover **1** of the oil filler opening.
2. Fill engine oil using a hopper until the upper mark of the oil dipstick **2** is reached. For oil specification and amount of oil, see Technical data.
3. Fully reinsert oil dipstick **2**.
4. Put the cover back on the oil filler opening **1** and press firmly.
5. Wipe away any spilled engine oil.



NOTICE

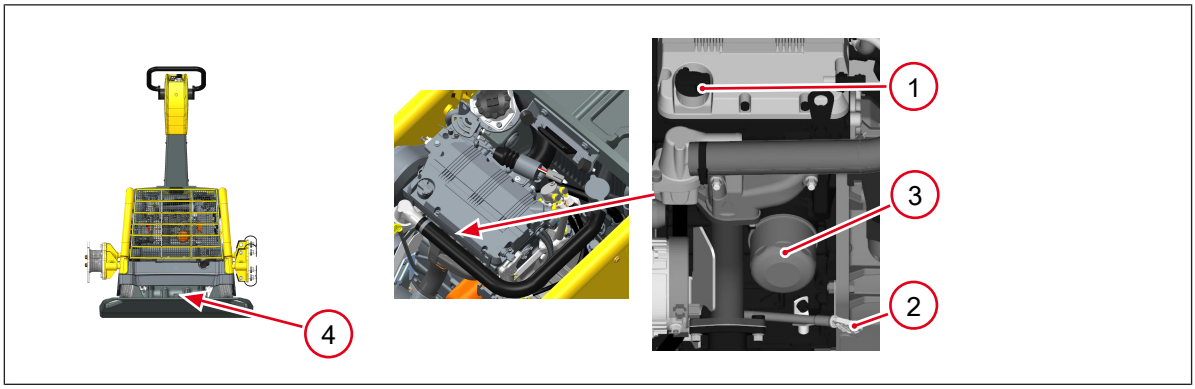
Dispose of oil in accordance with the applicable regulations for environmental protection.

12.2.4 Replacing engine oil



NOTICE

Change oil in lukewarm engine so that the oil can drain completely.



1 Cover of the oil filler opening
2 Oil dipstick
3 Oil filter
4 Oil drain plug

Drain the engine oil and replace the oil filter

✓ To protect the floor from leaking oil, cover the working surface with an impermeable foil.

1. Open the front protective hood.
2. Place collecting container under the oil drain plug **4**.
3. Loosen oil drain plug **4**.
4. Place a sufficiently large collecting container under the oil filter **3**.
5. Unscrew oil filter **3** and remove it. While unscrewing it, catch any leaking oil.
6. When the oil has completely drained, screw in the oil drain plug **4**. If required, first replace the seal.
7. Screw in a new oil filter **3** and tighten with 20 Nm.

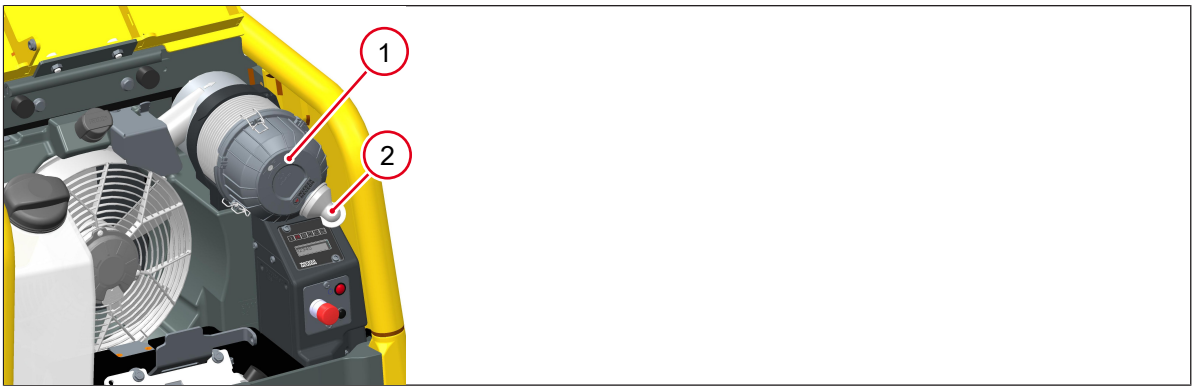
NOTICE

Dispose of oil in accordance with the applicable regulations for environmental protection.

Fill engine oil

1. Remove contaminants in the area of the oil filler opening.
2. Remove cover **1** of the oil filler opening.
3. If necessary, fill oil with hopper until the upper mark of the oil dipstick **2** is reached – for oil specification and amount of oil, see Technical data chapter.
4. Put the cover back on the oil filler opening **1** and press firmly.
5. Wipe away any spilled oil.
6. Briefly allow the engine to run.
7. Switch off engine.
8. Check oil level again and top up if necessary.

12.2.5 Checking and cleaning the air filter



1 Air filter
2 Dust discharge valve

1. Open rear protective hood.
2. Check whether the clamps of the air filter are tight and the air filter **1** is undamaged.
3. Check whether the dust discharge valve **2** is contaminated.
4. If necessary, squeeze dust discharge valve **2** to remove the contaminants.

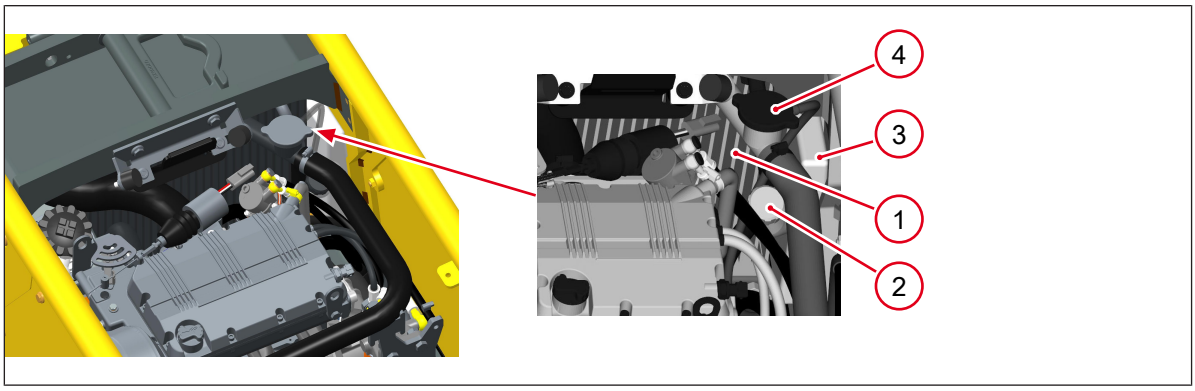
12.2.6 Replacing the air filter cartridge



1 Air cleaner cartridge
2 Lower housing part
3 Clips (3 pieces)

1. Loosen clips **3** and remove housing lower part **2**.
2. Remove air filter cartridge **1**.
3. Clean housing lower part **2**.
4. Insert air filter cartridge **1**.
5. Replace housing lower part **2** and close clips **3**.

12.2.7 Check the coolant level and top up coolant



1 Radiator
2 Cover of the coolant reservoir
3 Coolant reservoir
4 Radiator cap

Check the coolant level in the coolant reservoir

1. Open the front protective hood.
2. Remove contaminants in the area of the coolant reservoir **3**.
3. The coolant reservoir **3** should be filled 1/4 to 1/2 in cold state.

Top up coolant in the coolant reservoir

1. Unscrew and remove cover of the coolant reservoir **2**.
2. If necessary, top up the coolant until the coolant reservoir **3** is filled 1/3. For the coolant specification, see the chapter Technical data.
3. Replace cover of the coolant reservoir **2** and tighten.

Check the coolant level in the radiator

⚠ WARNING

Cooling system is pressurized!

Hot coolant can spurt out and cause injury from scalding.

► Only open the cover of the radiator after the engine has cooled down.

1. Remove contaminants in the area of the radiator cover **4**.
2. Slowly unscrew the radiator cover **4** and remove.
3. Check whether the coolant reaches the upper edge of the filler opening.

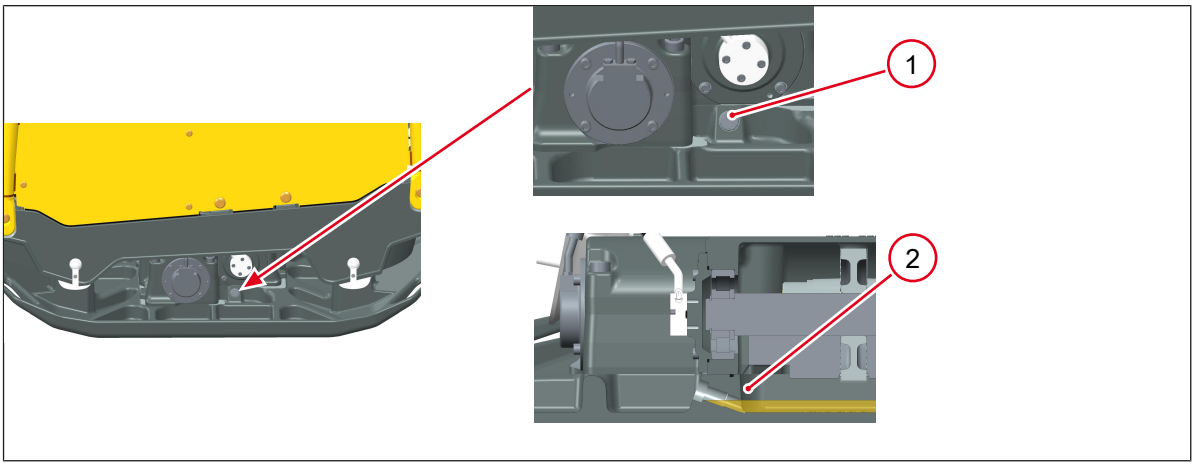
Top up coolant in the radiator

NOTICE

If the machine is losing coolant, check the cooling system for leaks and have the machine repaired by the service of Wacker Neuson contact partner.

1. If required, top up until the coolant reaches the upper edge of the filler opening. For the coolant specification, see the chapter Technical data.
2. Replace radiator cover **4** and tighten.

12.2.8 Check exciter oil level and top up exciter oil



1 Screw plug with seal ring of the oil fill/drain opening

2 Level of exciter oil

Check the exciter oil level

1. Open rear protective hood.
2. To protect the floor from leaking oil, cover the working surface with an impermeable foil.

⚠ WARNING

Injuries due to scalding!

Hot exciter oil can leak out and cause injury from scalding.

► Do not open the screw plug of the exciter while the exciter oil is still hot.

► Let the machine cool.

1. Remove contaminants in the area of the screw plug.
2. Unscrew the screw plug of the oil filler / drain opening **1** and remove together with the seal ring.
3. Check whether the exciter oil level **2** reaches the lower thread of the tapped bore.

Top up the exciter oil

1. Top up the exciter oil with a clean hopper at the oil filler / drain opening until the exciter oil reaches the lower thread. For oil specification, see chapter Technical data.
2. Screw in the screw plug of the oil filler / drain opening **1** along with a new seal ring and tighten (tightening torque of 100 Nm).
3. Wipe away any spilled oil.

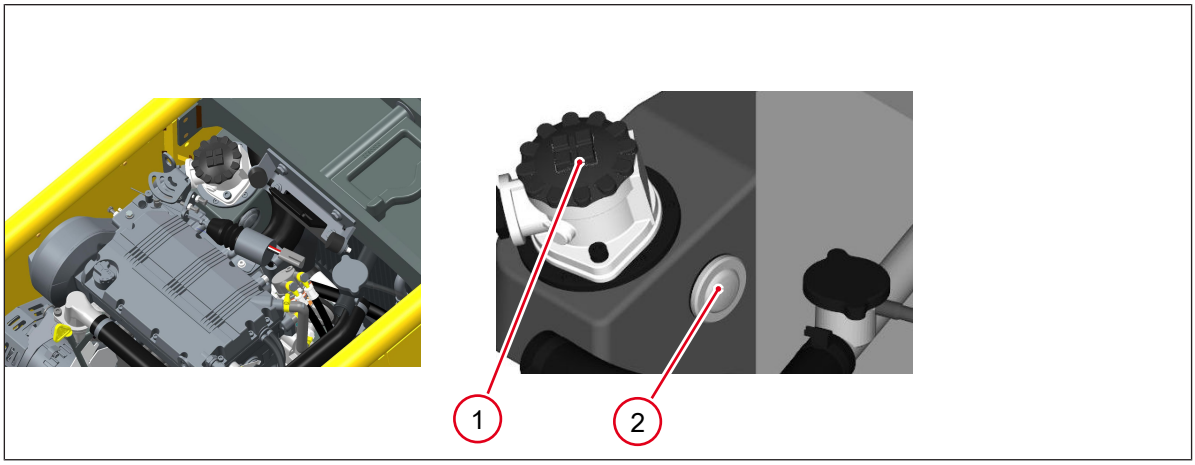
NOTICE

Dispose of oil in accordance with the applicable regulations for environmental protection.

12.2.9 Screw connections

For the vibratory plates, the screw connections must be regularly checked for a firm seat.

12.2.10 Check hydraulic oil level and top up hydraulic oil



1 Cover of the hydraulic oil reservoir 2 Oil sight glass

Check hydraulic oil level

1. Open both protective hoods.
2. Check whether the hydraulic oil reaches the upper edge of the oil level glass.

Top up hydraulic oil

NOTICE

If the machine is losing hydraulic oil, check the hydraulic lines for leaks and have the machine repaired by the service of Wacker Neuson contact partner.

⚠ WARNING

Injuries due to scalding!

Hot hydraulic oil can cause injury by scalding.

- ► Do not open the cover of the hydraulic oil reservoir while the hydraulic oil is still hot.
- ► Let the machine cool.

1. Remove contaminants in the area of the hydraulic oil reservoir.
2. Unscrew and remove cover of the hydraulic oil reservoir **1**.
3. Top up hydraulic oil until the hydraulic oil reaches the middle of the oil sight glass **2**. For oil specification, see chapter Technical data.
4. Replace cover of the hydraulic oil reservoir and tighten (tightening torque of 10 Nm) – make sure that the seal of the cover fits properly.

13 Troubleshooting.



⚠ WARNING

Serious risk of injury!

If faults occur with this machine that are not described in this manual:

- ► contact the manufacturer.
- ► Do not eliminate the faults independently.

13.1 Troubleshooting table – machine

Fault	Possible cause	Remedial measure
Motor will not start.	Emergency stop switch is pressed.	Unlock emergency stop switch.
	Machine is not activated.	Activate machine.
	Discharge starter battery.	Load starter battery or perform jump-start with donor starter battery.
	Vibration switch is pulled.	Press vibration switch.
	Low oil level	Top up oil and actuate valve hood on the oil filter housing.
	Low fuel.	Top up the fuel.
	Fuel filter is dirty.	Replace fuel filter.*
	Defective starter motor.	Have the machine repaired.*
	Remote control, decoder or wiring harness is defective.	Have the machine repaired.*
Engine runs unevenly.	Fuel filter is dirty.	Replace fuel filter.*
	Air filter is dirty.	Clean or replace air filter.
Vibration will not start.	Electrical system defective.	Have the machine repaired.*
Engine smokes and does not perform.	Air filter is dirty.	Replace air filter.
Machine cannot be activated.	Incorrect activation PIN entered.	Enter the correct activation PIN.
		Deactivate machine with emergency stop switch.
	Electrical system defective.	1. Deactivate machine with emergency stop switch. 2. Have the machine repaired.*
	Emergency stop switch is pressed.	Unlock emergency stop switch.
Diagnostics menu cannot be called up.	On / off switch of the machine not pushed long enough.	Continuously press the On/Off button of the machine for at least 3 seconds.
Compatec - display unit (optional): Light progress bar does not appear upon initialization.	Compatec display unit or wiring harness defective.	Have the machine repaired.*

Fault	Possible cause	Remedial measure
Compatec - display unit (optional): Flashing of the two external LEDs.	Overload sensor or electrical connection is defective.	Have the machine repaired.*
Compatec - display unit (optional): Signaling during machine activation: After the light progress bar has been displayed, the following lighting of all LEDs does not occur.	Overload sensor or electrical connection is defective.	Have the machine repaired.*
* Have this work performed by the service department of the Wacker Neuson contact partner.		

13.2 Troubleshooting table – receiving units

Fault	Possible cause	Remedial measure
Receiver units light up yellow. Machine does not respond to commands from the remote control.	Remote control is switched off.	Switch on remote control unit.
	Rechargeable battery of the remote control is discharged.	Load or replace rechargeable battery of the remote control.
	Remote control is defective.	Have remote control replaced or repaired.*
	Operator is outside of the receiving area.	Enter the receiving area of the machine.
	No clear line of sight between the remote control and receiver unit.	Establish a clear line of sight with the receiving unit.
	Receiving units or remote control is dirty.	Clean remote control and receiving units.
	Decoder, receiver unit, or electrical connection is defective.	Have the machine repaired.*
	Transmission has incorrect address.	Synchronize transmission channel between remote control and machine.
Receiver units flash yellow in rapid succession. Machine does not respond to commands from the remote control.	Operator is located in the proximity area.	Leave the proximity area of the machine.
The receiving unit illuminates red.	Machine is in the warm-up phase.	Wait until the warm-up phase has completed.
	Diagnostic system has detected an error.	Check indicator lights and fault indications on the display.
The receiving unit flashes red.	Machine is overloaded because the soil cannot be compacted any further.	• Avoid operation on non-compactable soil. • Reduce the compaction performance by actuating the slow / fast button.

Fault	Possible cause	Remedial measure
* Have this work performed by the service department of the Wacker Neuson contact partner.		

13.3 Troubleshooting table - drawbar head indicator light

Fault	Possible cause	Remedial measure
The indicator light illuminates red.	Machine is in the warm-up phase.	Wait until the warm-up phase has completed.
	Diagnostic system has detected an error.	Check indicator lights and fault indications on the display.
The indicator light flashes red.	Machine is overloaded because the soil cannot be compacted any further.	• Avoid operation on non-compactable soil. • Reduce the compaction performance by actuating the slow / fast rocker switch. • Switch-over from fast to slow operation.

13.4 Troubleshooting table – remote control

Pictogram	LED under pictogram	Possible cause	Remedial measure
	Diagnostics indicator light flashes green. In addition, the operation control lamp illuminates red.	Joystick is defective.	Have the joystick replaced.*
		Remote control is defective.	Have remote control replaced or repaired.*
	Indicator light flashes or lights up red operation.	Rechargeable battery of the remote control is discharged.	Load or replace rechargeable battery of the remote control.
			Operate machine with charging cable (for simultaneous loading of the rechargeable battery).
	After switching on the remote control, the operation indicator light does not flash.	Rechargeable battery of the remote control is discharged.	Load or replace rechargeable battery of the remote control.
		Remote control is defective.	Have remote control replaced or repaired.*
	Charging indicator light flashes green.	The rechargeable battery is automatically being pre-warmed for charging. Charging the battery at temperatures below 0 °C may not be possible.	• Wait until the charging indicator light is green and charging begins. • Rechargeable battery at temperatures above 0°C.
Remote control switches itself off – if no button on the remote control is pressed, the remote control will automatically switch off after 10 minutes.			

Pictogram	LED under pictogram	Possible cause	Remedial measure
* Have this work performed by the service department of the Wacker Neuson contact partner.			

13.5 Troubleshooting table – indicator lights display

Fault indications on the display

If the error is corrected, the error message should be acknowledged in the diagnostic menu because the error is no longer relevant for further operation.

To acknowledge the last error, the diagnostic menu must be called up and exited.

Pictogram	LED under pictogram	Possible cause	Remedial measure
	Indicator light for operation.		
	Charging indicator light lights up red when the engine is running.	Error in the electric system.	Have the machine repaired.*
	Warm up control lamp lights up yellow.	Machine is in the startup process.	Wait until the engine starts.
	Air filter indicator light lights up yellow.	Air filter cartridge is dirty.	Replace air filter cartridge.
	Oil-pressure control lamp lights up when the engine is running.	Engine oil level is too low.	Top up engine oil.
		Oil pressure switch or electrical connection is defective.	Have the machine repaired.*
	Coolant-temperature control lamp lights red.	Cooling fins of the cooler are dirty.	Blow cooling fins with compressed air from the inside to the outside from a safe distance.
		Coolant level is too low.	Top up coolant.
		Cooling system is leaking.	Have the machine repaired.*
* Have this work performed by the service department of the Wacker Neuson contact partner.			

13.6 Troubleshooting table – error code display

Fault indications on the display

If the error is corrected, the error message should be acknowledged in the diagnostic menu because the error is no longer relevant for further operation.

To acknowledge the last error, the diagnostic menu must be called up and exited.

Error code	Display	Possible causes	Remedial measure
1	Oil pressure shutdown	Engine oil level is too low.	1. Deactivate machine. 2. Top up engine oil.
		• Oil pressure switch or electrical connection is defective.	Have the machine repaired.*
2	Excess temperature shutdown	Coolant level is too low.	Top up coolant.
		Cooling system is leaking.	Have the machine repaired.*
		Engine is overheated.	Allow engine to cool down.
		Cooling fins of the cooler are dirty.	Blow cooling fins with compressed air from the inside to the outside from a safe distance.
		Temperature sensor or electrical connection is defective.	Have the machine repaired.*
		Electric fan is defective.	
3	Peak in the mains supply shutdown	Charge controller or electrical connection is defective.	
4	Battery error	Alternator, charge controller, battery, or electrical connection is defective.	
5	Charge controller/generator shutdown.	Alternator, charge controller, or electrical connection is defective.	
6	Battery error	Alternator, charge controller, battery, or electrical connection is defective.	
7	Check air filter	Air filter cartridge is dirty.	Replace air filter cartridge.
		Electrical connection of the air filter sensor is defective.	Have the electrical connection of the air filter sensor checked.*
8	Air filter error	Air filter sensor is defective.	Have the machine repaired.*
		Electrical connection of the air filter sensor is defective.	Have the electrical connection of the air filter sensor checked.*

Error code	Display	Possible causes	Remedial measure
9	Oil pressure switch shutdown	Oil pressure switch or electrical connection is defective.	Have the machine repaired.*
10	Charge controller error	Charge controller or electrical connection link to the generator is defective.	
11	Charge controller/generator error.	Alternator, charge controller, or electrical connection is defective.	
12	Overload shutdown	Machine is overloaded, because the soil density is too high.	Deactivate the machine and then re-activate it.
		To prevent overload, observe the following rules: • Avoid operation on soils that are too hard to compact. • Reduce the compaction performance by actuating the slow / fast button. • Switch-over from fast to slow operation.	
13	Machine overloaded	Machine is overloaded, because the soil density is too high.	Deactivate the machine and then re-activate it.
		To prevent overload, observe the following rules: • Avoid operation on soils that are too hard to compact. • Reduce the compaction performance by actuating the slow / fast button. • Switch-over from fast to slow operation.	
14	Overload sensor shutdown	Overload sensor or electrical connection is defective.	Have the machine repaired.*
15	Address comparison of IR transfer	No fault. Transmission channel is synchronized between remote control and machine.	
16	Incorrect transmitter unit for IR transfer	Incorrect model of remote control.	Use correct model of remote control.
17	Incorrect address for IR transfer	Transmission channel on the remote control has been incorrectly set.	Synchronize the transmission channel between the machine and remote control.

Error code	Display	Possible causes	Remedial measure
18	Allow the machine to cool down.	Coolant level is too low.	Top up coolant.
		Engine is overheated.	Allow engine to cool down.
		Cooling fins of the cooler are dirty.	Blow cooling fins with compressed air from the inside to the outside from a safe distance.
		Cooling system is leaking.	Have the machine repaired.*
		Temperature sensor or electrical connection is defective.	
19	Excess temperature of the machine	Coolant level is too low.	Top up coolant.
		Engine is overheated.	Allow engine to cool down.
		Cooling fins of the cooler are dirty.	Blow cooling fins with compressed air from the inside to the outside from a safe distance.
		Cooling system is leaking.	Have the machine repaired.*
		Temperature sensor or electrical connection is defective.	
20	Temperature sensor error	Temperature sensor or electrical connection is defective.	
		At very low external temperatures, the coolant does not reach the required temperature of 55 °C during the warm-up phase. The machine will cancel the warm-up phase but is ready for operation.	
21	Automatic start error	Fuel tank is empty.	Top up the fuel.
		• Defect in fuel system. • Engine, diesel valve, or electrical connection of the diesel valve is defective.	Have the machine repaired.*
22	Charge controller/start error.	Charge controller, starter motor, or electrical connection is defective.	Have the machine repaired.*
		Battery is discharged or defective.	Charge or replace battery.

Error code	Display	Possible causes	Remedial measure
23	Diesel valve error	Diesel valve is defective. Machine cannot be switched off.	Have the machine repaired.*
24	Gas adjuster error	Fuel tank is empty	Top up the fuel.
		• Gas adjuster or electrical connection is defective. • Cable pull of the gas adjuster is incorrectly set or is defective. • 80 A fuse has blown.	Have the machine repaired.*
25	Error Hydraulic temperature sensor	Hydraulic temperature sensor outside of the valid range.	
26	Oil pressure shutdown	Engine oil level is too low.	1. Deactivate machine. 2. Top up engine oil.
		Oil pressure switch or electrical connection is defective.	Have the machine repaired.*
27	Overload sensor error	Overload sensor or electrical connection is defective.	Have the machine repaired.*
28	Overload sensor error	Defective overload sensor. Outdated software or break in communication.	
29	IR receiver error	Incorrect current value.	
30	IR receiver error	No power/not connected.	
31	Shutdown of the drawbar unit	No signal/not connected.	
32	Shutdown error of the decoder	Internal error.	
33			
34			
35	Shutdown of the drawbar unit	No signal.	
–	Decoder error	Electrical connection in the electrical box is defective.	• Deactivate machine with emergency stop switch. • Have the machine repaired.*
36	Check overload sensor	Overload sensor with obsolete software and Compamatic set to value 1 (configuration menu).	• Install new sensor • Or set Compamatic to value 0 in the configuration menu.

Error code	Display	Possible causes	Remedial measure
Display of different errors that alternate in direct succession.		Earth connection of the engine / upper mass or electric box / upper mass is loose or defective.	Have the machine repaired.*
* Have this work performed by the service department of the Wacker Neuson.			

13.7 Troubleshooting table – telematics module (not applicable for UK)

Status display of the LED for functional check

Status	LED mode	LED color	Status display
✓	LED flashes red and illuminates green permanently		• Connection to mobile network OK • GPS found valid satellite position
!	LED does not light up		• No power supply
!	LED illuminates red permanently, LED does not light up green		• Power supply is OK, but there is no connection to a mobile network • GPS did not find valid satellite position
!	LED flashes red, LED does not light up green		• Connection to mobile network OK • GPS did not find valid satellite position
!	LED lights up red and green permanently		• Power supply is OK, but there is no connection to a mobile network • GPS has valid satellite position

Error diagnosis

Error description	Proposals for solutions
No answer	• Check GSM number for correctness • Check LED status
LED does not light up	• Check wiring harness. • Check fuse
LED illuminates permanently red	• Check the assembly position of the telematics module • Change the location of the machine to improve the GSM signal
LED does not light up green	• Check the assembly position of the telematics module • Change the location of the machine to improve the reception of the GSM signal

Error description	Proposals for solutions
* Have this work performed by the service department of the Wacker Neuson contact partner. Keep the serial number of the telematics module ready.	

13.8 Perform jump start with donor starter battery

If the starter battery of the machine is discharged and the engine does not start, a jump-start with a donor battery is possible.



⚠ WARNING

Risk of explosion from explosive gas!

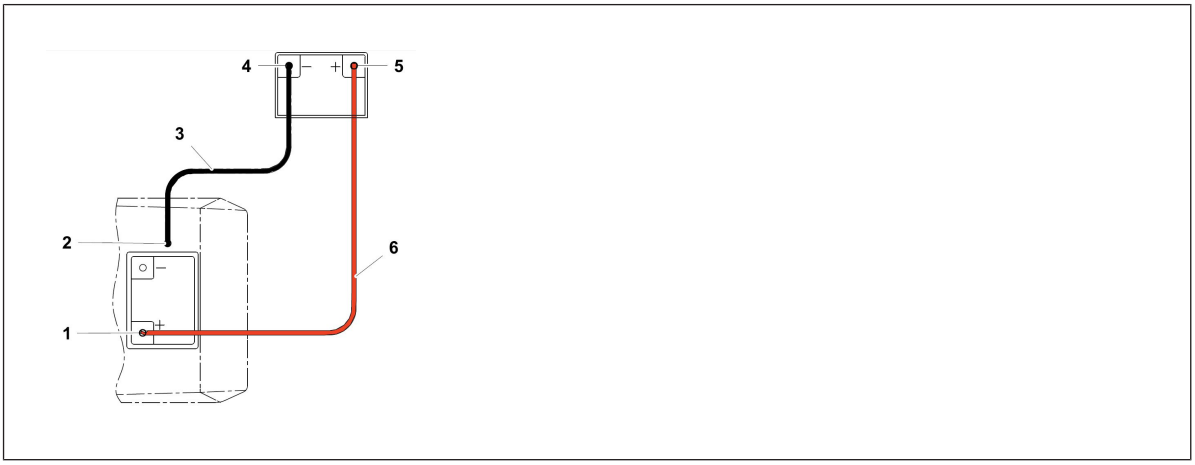
Risk of injury from splashing acid.

- ► Wear safety glasses and protective gloves.
- ► The donor starter battery and starter battery of the machine must have the same voltage (12 V).
- ► Avoid short circuit from reverse polarity (plus to plus, minus to minus).
- ► Use correct sequence when connecting the battery jump cable.



NOTICE

Use only insulated jumper cables with a conductor cross-section of at least 16 mm².



1 Positive terminal of the discharged starter battery
2 Negative terminal at the grounding point
3 Black jumper cables
4 Negative terminal of the donor starter battery

5 Positive terminal of the donor starter battery
6 Red jumper cables

1. Connect clamping tongs of the red battery jump cable **6** to the positive terminal of the discharged starter battery **1**.
2. Connect clamping tongs of the red battery jump cable **6** to the positive terminal of the donor starter battery **5**.
3. Connect clamping tongs of the black battery jump cable **3** to the negative terminal of the donor starter battery **4**.
4. Reconnect second clamping tongs of the black battery jump cable **3** to a grounding point **2** of the machine, e.g. at the engine block.

Perform jump start

- Start engine.

If the engine does not start after a maximum of 2 minutes, contact your Wacker Neuson contact partner.

- Run engine for a few minutes.

Disconnect the battery jump cable

1. Disconnect clamping tongs of the black battery jump cable **3** from the earthing point of the machine **2**.
2. Disconnect second clamping tongs of the black battery jump cable **3** from the donor starter battery **4**.
3. Disconnect clamping tongs of the red battery jump cable **6** from the positive terminal of the discharged starter battery **1**.
4. Disconnect second clamping tongs of the red battery jump cable **6** from the positive terminal of the donor starter battery **5**.

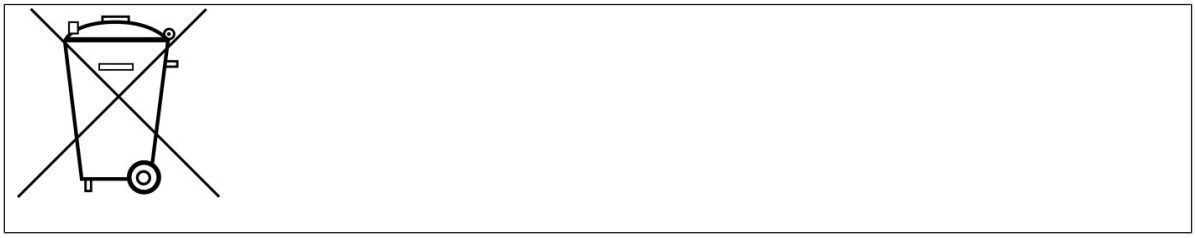
14 Disposal

14.1 Disposal of batteries

The machine contains one or more batteries or rechargeable batteries (hereinafter referred to as "the battery"). Professional disposal of the battery prevents negative effects on individuals and the environment, follows the specific treatment of pollutants, and ensures the recycling of useful raw materials.

For customers in EU countries

This battery is subject to the European Directive on (old) batteries and (old) rechargeable batteries, and the respective national laws. The battery directive outlines the framework for an EU-wide treatment of batteries.



The battery is marked with the symbol of a crossed-out garbage bin as displayed above. Below this symbol, there is also the designation of the pollutants contained therein, i.e. "Pb" for lead, "Cd" for cadmium, and "Hg" for mercury.

Batteries may not be disposed of with normal household waste!

End-users may only dispose of used batteries via the manufacturer and the dealer or specially equipped collection facilities (statutory obligation to return); the delivery is free. Retailers and manufacturers are obliged to take back these batteries and properly recycle them or dispose of them as hazardous waste (legal obligation). Batteries obtained from Wacker Neuson can be returned to Wacker Neuson free of charge after use. If the batteries cannot be personally returned to a Wacker Neuson branch, there are instructions in the sales contract or in the Terms and Conditions of the location where they were purchased.

For customers in other countries

Wacker Neuson recommends that you do not dispose of the battery in normal household waste but rather in a separate, environmental friendly collection facility. National laws may also have regulations for the separate disposal of batteries. Disposal of the battery in accordance with current national guidelines must be assured.

15 Accessories



⚠ CAUTION

Accessories and spare parts that do not originate from Wacker Neuson can increase the risk of injury and possible damage to the machine.

► The use of other accessories and spare parts that do not originate from Wacker Neuson shall cancel any liability.

A wide range of accessories is offered for the machine.

More information about the individual accessories can be found online at www.wackerneuson.com.

Rechargeable battery

A replacement rechargeable battery is especially useful when the machine should be used for long periods without interruption.

External battery charger

The external battery charger charges the rechargeable battery when it cannot be charged via the charging cable of the machine.

The external battery charger has a country-specific plug to connection to various current networks.

16 Technical data



NOTICE

The given total vibration value and the given noise emission value can also be used for an interim estimate of the loading. As a result, further safety measures to protect the operator during actual conditions of use must be defined.

16.1 Noise and vibration information

The noise and vibration information listed was determined according to the following guidelines with the machine-typical operating states / specific test conditions while applying harmonized standards:

- Machines directive 2006/42/EC
- Noise emissions directive 2000/14/EC

In operational application, deviating values may result depending on the prevailing operating conditions.

16.1.1 Noise information

Guaranteed sound power level

- L_{WA} was determined pursuant to 2000/14/EC, EN ISO 3744 and EN ISO 15744.

Sound pressure level at the operator's position

- L_{pA} was determined pursuant to EN ISO 11203 and EN ISO 15744.

16.1.2 Hand-arm vibration (HAV) information

Weighted total vibration value

- The a_{hv} was determined pursuant to EN ISO 28927-10.

16.2 DPU110Lekc, coupling set

Designation	Unit	DPU110Lekc970	2-part coupling set:	3-part coupling set:
Material number		5100034515	-	-
Centrifugal force	kN	110	220	330
Oscillations	Hz	60		
	rpm	3,600		
Compaction performance*	m^2/h	1,397	2,822	4,248
Travel speed*	m/min	24		
Gradeability	%	36		
Length (drawbar in working position)	mm	2,409	1,477	
Width	mm	970	1,960	2,950
Height	mm	1,541		
Operating weight	kg	838	1,727	2,616
Vertical clearance	mm	830		
Electrical load rating	kW	16.0		
Nominal speed	rpm	2,700		
Working pressure of hydraulics**	bar	193		
Maximum permissible hydraulic pressure	bar	230		
Coolant volume**	l	4.2		
Type of coolant		SAE J1034: water (1:1)		
Exciter oil volume**	l	1.35		
Exciter oil type		M 75W90		
Hydraulic oil volume**	l	21.9		
Type of hydraulic oil		MR 520		
Storage temperature range	°C	-20 - +50		
Operating temperature range	°C	-10 - +50		
Sound pressure level at the operator's location L_{pA}	dB(A)	94	-	-
Sound power level L_{WA} Guaranteed	dB(A)	107 109	-	-
Vibration total value a_{nv}	m/s^2	< 2.5	0	0

Designation	Unit	DPU110Lekc970	2-part coupling set:	3-part coupling set:
Uncertainty of measurement of the vibration total value a_{hv}	m/s^2	0.5	-	-
* Depending on soil properties. ** This information relates to the individual machine.				

16.3 DPU110Lekc US, coupling set

Designation	Unit	DPU110Lekc970 US	2-part coupling set:	3-part coupling set:
Material number		without	-	-
Centrifugal force	kN	110	220	330
Oscillations	Hz	60		
	rpm	3,600		
Compaction performance*	m^2/h	1,397	2,822	4,248
Travel speed*	m/min	24		
Gradeability	%	36		
Length (drawbar in working position)	mm	2,409	1,477	
Width	mm	970	1,960	2,950
Height	mm	1,541		
Operating weight	kg	838	1,727	2,616
Vertical clearance	mm	830		
Rated power**	kW	16.0		
Nominal speed	rpm	2,700		
Working pressure of hydraulics**	bar	193		
Maximum permissible hydraulic pressure	bar	230		
Coolant volume**	l	4.2		
Type of coolant		SAE J1034: water (1:1)		
Exciter oil volume**	l	1.35		
Exciter oil type		M 75W90		
Hydraulic oil volume**	l	21.9		
Type of hydraulic oil		MR 520		
Storage temperature range	°C	-20 - +50		
Operating temperature range	°C	-10 - +50		
Sound pressure level at the operator's location L_{pA}	dB(A)	94	-	-
Sound power level L_{WA} Guaranteed	dB(A)	107 109	-	-
Vibration total value a_{nv}	m/s^2	< 2.5	0	0

Designation	Unit	DPU110Lekc970 US	2-part coupling set:	3-part coupling set:
Uncertainty of measurement of the vibration total value a_{hv}	m/s^2	0.5	-	-
* Depending on soil properties. ** This information relates to the individual machine.				

16.4 Combustion engine

Designation	Unit	DPU110
Manufacturer		Kohler
Type of drive		KDW 1003E527A
Combustion method		Four-cycle
Cooling		Water cooling
Cylinders		3
Displacement	cm³	1,028
Max. slanting position	°	25
Fuel type		Diesel
Fuel consumption	l/h	3.3
Tank capacity	l	11.2
Oil specification		SAE 10W40
Max. oil filling	l	2.4
Max. output	kW	18.5
rpm	rpm	3,600
Standard (ISO 3046-1 IFN)		
CO_2 emissions	g/kWh	933.3
Exhaust emissions stage		EU stage V
Exhaust aftertreatment system		without
Air filter		Dry air filter
Starter type		Electric starter
Voltage of starter battery	V	12
Battery capacity (nominal value)	Ah	50
* Determined value of CO_2 emission during engine certification without consideration of the application on the machine.		

16.5 US combustion engine

Designation	Unit	DPU110 US
Manufacturer		Kohler
Type of drive		KDW 1003 US
Combustion method		Four-cycle
Cooling		Water cooling
Cylinders		3
Displacement	cm^3	1,028
Max. slanting position	°	25
Fuel type		Diesel EN590
Fuel consumption	l/h	3.3
Tank capacity	l	11.2
Oil specification		SAE 10W40
Max. oil filling	l	2.4
Max. output	kW	18.5
rpm	rpm	3,600
Standard (ISO 3046-1 IFN)		
CO_2 emissions	g/kWh	905.72
Exhaust emissions stage		EPA Tier 4
Exhaust aftertreatment system		without
Air filter		Dry air filter
Starter type		Electric starter
Voltage of starter battery	V	12
Battery capacity (nominal value)	Ah	50
* Determined value of CO_2 emission during engine certification without consideration of the application on the machine.		

Manual for the machine configuration

Vibratory plate

DPU

80, 90, 110



Model	DPU
Document	5100018593
Issue	11.2019
Version	05
Language	en

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Printed in Germany

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Errors excepted.

The machine on the cover may have special equipment (options).



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Original operator's manual

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1 Preface

This manual describes the possible settings and the operation of the configuration menu on the machine's display. In addition, this manual includes the PIN data of this machine that was set ex factory.

This manual is intended exclusively for the machine's licensee and not for the operator. Store this manual in a place that is secured against unauthorized access.

This manual is a supplement to the operator's manual and only contains notes regarding the operation of the configuration menu.

Also observe the notes in the operator's manual of the machine.

2 Introduction

2.1 Explanation of symbols

This manual contains specially emphasized safety instructions in the following categories: **DANGER, WARNING, CAUTION** and **NOTICE.**

Before performing any work on or with this machine, the notes and safety instructions must be read and understood. All notes and safety instructions in this manual must be passed on to the maintenance, repair, and transport personnel.



DANGER

This combination of symbol and signal word indicates a hazardous situation that will lead to death or serious injury if it is not avoided.



WARNING

This combination of symbol and signal word indicates a hazardous situation that can lead to death or serious injury if it is not avoided.



CAUTION

This combination of symbol and signal word indicates a hazardous situation that can lead to minor injury or damage to the machine if it is not avoided.

NOTICE

Supplementary information.

2.2 Wacker Neuson Contact partner

Depending on the country, the Wacker Neuson contact partner is a Wacker Neuson service department, a Wacker Neuson affiliate, or a Wacker Neuson dealer.

On the Internet at www.wackerneuson.com.

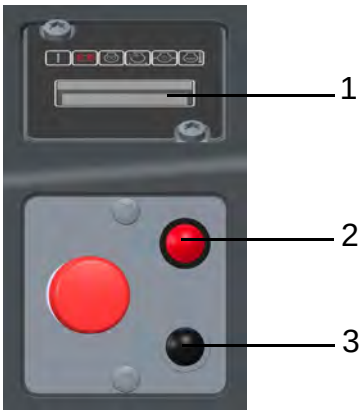
The manufacturer's address can be found at the beginning of this manual.

3 Operation of the configuration menu

NOTICE:

The overload sensor cannot be set in the coupling set (= coupling mode).The value 0 is set.

The machine has a system for the machine configuration, which can be used to adapt certain machine settings to the operating company's requirements.



Item	Designation	Item	Designation
1	Display - configuration menu	3	Setting button (black)
2	On/Off switch (red)		

Setting options in the configuration menu

In the configuration menu on the display, the following machine settings can be adjusted:

- Change/activate/deactivate activation PIN of the machine.
- Setting turn-off time of the machine.
- Select the display language (English, German, French, or Spanish).
- Adjust machine response in the case of overload (overload sensor).
- Setting the Compamatic option.
- Setting the hydraulic parameters/centrifugal force.
- Change setup PIN.

Operator's controls

With the ON/OFF switch on the machine, you can switch from one menu item to the next menu item and from one digit to the next digit.

The value of a digit can be changed with the adjusting button.

3.1 Accessing the configuration menu

CAUTION!

Unintentional changing of settings.
The changed settings are always changed when the setup menu is left.

- If settings have been changed unintentionally and these should not be saved, switch off the machine with the emergency stop switch.

NOTICE:

The access to the configuration menu is secured by the setup PIN.

1. Activate machine.
2. Hold down the ON/OFF switch on the machine and simultaneously the setting button on the machine for at least 3 seconds.

3. The following text will appear on the display:

```
Hold down the button
and wait...
```

```
Setup
Menu
```

4. The following text will appear on the display after about 2 seconds:

```
Setup PIN
Enter PIN
```

5. If the following text appears on the display, enter the setup PIN with the setting button and then press the ON/OFF switch on the machine.

```
Enter PIN
0000
```

- Enter the value of the first digit with the setting button.
- Change to the next digit with the ON/OFF switch.
- Enter the entire PIN.

Value	Setup PIN
8946	Setup PIN input enabled (factory default setting)
0001 to 9999	Possible setup PIN combinations

NOTICE:

If the setup PIN has been entered incorrectly, an error message will appear on the display. In this case, press the ON/OFF switch to be able to make a new entry.

6. If the following text appears on the display after a successful setup PIN entry, press the ON/OFF switch on the machine.

In the configuration menu:

Settings can be changed here or you can simply scroll through the configuration menu with the ON/OFF switch in order to check the settings.

3.2 Change the activation PIN

An activation PIN can be set, which secures the machine against unauthorized operation. After activating the machine, the operator has to enter the activation PIN.

1. Press the ON/OFF switch on the machine until the following text appears on the display:

```
Activation PIN
0000
```

2. The activation PIN can be changed.
   - Enter the value of the first digit with the setting button.
   - Change to the next digit with the ON/OFF switch.
   - Enter the entire PIN.

Value	Activation PIN
0000	Activation PIN input disabled (factory default setting)
0001 to 9999	Possible activation PIN combinations

3. Repeat the activation PIN
4. A confirmation appears that the activation PIN has been changed.

3.3 Setting the turn-off time (in drawbar mode)

NOTICE:

The turn-off time cannot be set in the coupling set (= coupling mode).The value 4 is set.

A time duration can be selected after which the machine is automatically deactivated if it no longer receives a control command from the remote control or the engine is off.

1. Press the ON/OFF switch on the machine until the following text appears on the display:

Turn-off time
1 h

2. The turn-off time can be set:
   - Enter the value of the first digit with the setting button.

Value	Turn-off time
0.25	0.25 hours (factory default setting for center pole machines)
1	1 hour (factory default setting for remote control machines)
2	2 h
3	3 h
4	4 h

3.4 Setting the language

The display language can be adjusted.

1. Press the ON/OFF switch on the machine until the following text appears on the display:

Select language
0=DE

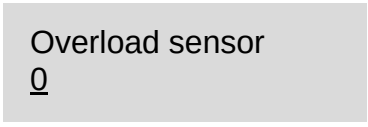
2. The language can be adjusted:
   - Enter the value of the first digit with the setting button.

Value	Language
0	DE German (factory default setting EU machines)
1	EN English (factory default setting US machines)
2	FR French
3	ES Spanish
4	EN (UK) English UK
5	SV Swedish
6	FI Finnish
7	NO Norwegian
8	DA Danish
9	NL Dutch
10	PL Polish
11	CS Czech
12	RU Russian

3.5 Setting the overload sensor

The machine's overload sensor detects when the machine is working on hard soil that cannot be compacted further. To protect the machine from damage, you can set how the machine is to react in the event of overload.

1. Press the ON/OFF switch on the machine until the following text appears on the display:



2. The machine's response in the event of an overload can be set.
   - Enter the value of the first digit with the setting button.

NOTICE:

Software status can be read out in the diagnostics menu, see operator's manual for the machine, chapter *Components and operator's controls.*

3.5.1 Software status 10

Value	Overload sensor
0	The receiving units/control lamp on the center pole flash red quickly. After more than 10 seconds of overload, an entry is made in the error memory (error code 13). It is possible to operate the machine despite an overload.
1	(Factory default setting) The receiving units/control lamp on the center pole flash red quickly. No entry is made in the machine's error memory. The machine immediately reduces the compaction performance in the event of an overload.
2	The receiving units/control lamp on the center pole flash red quickly. After more than 6 seconds of overload, an entry is made in the error memory (error code 12). After more than 6 seconds of overload, the engine is switched off.
3	The receiving units/control lamp on the center pole flash red quickly. No entry is made in the machine's error memory. In the event of an overload, the machine immediately switches to slow operation (engine idling) and reduces the compaction performance.

3.5.2 Software status 11

Value	Overload sensor
0	The receiving units/control lamp on the center pole flash red quickly. After more than 10 seconds of overload, an entry is made in the error memory (error code 13). It is possible to operate the machine despite an overload.
1	The receiving units/control lamp on the center pole flash red quickly. No entry is made in the machine's error memory. The machine immediately reduces the compaction performance in the event of an overload.
2	The receiving units/control lamp on the center pole flash red quickly. After more than 6 seconds of overload, an entry is made in the error memory (error code 12). After more than 6 seconds of overload, the engine is switched off.
3	(Factory default setting) The receiving units/control lamp on the center pole flash red quickly. No entry is made in the machine's error memory. In the event of an overload, the machine immediately switches to slow operation (engine idling) and reduces the compaction performance.

3.6 Activate Compamatic

1. Press the ON/OFF switch on the machine until the following text appears on the display:

Compamatic
0

Value	Compamatic
0	Deactivated
1	Activated

3.7 Hydraulic parameters

The following menu items have a factory default setting. These settings should only be changed by the service department of the Wacker Neuson contact partner.

Center pole machines

- Hydraulic parameters.
  - L: 100%, H: 100%*

Remote controlled machines

- Hydraulic parameters T:
  - All values are at 0.
- Hydraulic parameter Z:
  - All values are at 0.

3.8 Changing the setup PIN

The setup PIN locks access to the configuration menu.

The setup PIN assigned ex factory can be changed.

NOTICE:

Never deactivate the setup PIN, as the configuration menu will no longer be protected against unauthorized changes.

1. Press the ON/OFF switch on the machine until the following text appears on the display:

Setup PIN
8946

- Enter the value of the first digit with the setting button.
- Change to the next digit with the ON/OFF switch.
- Enter the entire PIN.

Value	Setup PIN
8946	Factory default setting
0000	Setup PIN disabled
0001 to 9999	Possible setup PIN combinations

2. Repeat the activation PIN
3. A confirmation appears that the activation PIN has been changed.

3.9 Exiting the configuration menu

1. Press the ON/OFF switch on the machine for 3 seconds.
2. Deactivate machine.

NOTICE:

When exiting the configuration menu, the changed settings will automatically be saved.

So that the changed settings are effective, the machine has to be deactivated once and then reactivated again.

4 Troubleshooting



DANGER

Danger to life from unauthorized troubleshooting.

- If faults occur with this machine that are not described in this manual, contact the manufacturer. Do not eliminate the faults independently.

4.1 Fault table

Fault	Possible causes	Remedial measure
The configuration menu cannot be accessed.	Machine was not activated.	Activate the machine and wait until the display shows the operating hours.
	ON/OFF switch and setting button of the machine not pushed long enough.	Hold down the ON/OFF switch and simultaneously the setting button on the machine for 3 seconds.

5 PIN data

The following table includes PIN data set ex factory.

Note the modified PIN data in the following table:

Serial number			
PIN	**Setup PIN**	**Modified on**	**Date**
0000 (PIN query disabled)	**8946**	**Factory default setting**	

NOTICE

If the PIN was forgotten, the machine can also be unlocked with the setup PIN.
If the PIN and the setup PIN were forgotten, however, the machine can no longer be unlocked. In this case, please contact the service department of the Wacker Neuson contact partner.