

Operator's manual

Vibratory plate

BPU

4045, 5545



Model

BPU

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Errors excepted.

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



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Original operator's manual

1 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.





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2 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 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. Therefore, the operator's manual should be constantly available at the location of the machine.

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.

3 Introduction

3.1 Using the manual

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

3.2 Storage location of the manual

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

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

- Download from the Internet: www.wackerneuson.com
- Contact your Wacker Neuson contact partner.

3.3 Accident prevention regulations

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

3.4 More information

This manual applies to various machine types 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 manual is based on machines manufactured up to the time of printing. Wacker Neuson reserves the right to change this information.

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

3.5 Target group

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

This manual is intended for the following people:

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.

3.6 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.

3.7 Wacker Neuson Contact partner

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

On the Internet at www.wackerneuson.com.

3.8 Disclaimer

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

- Failure to follow this manual.
- Unintended use.
- 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).

3.9 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 and model	
Year of manufacture	
Machine number	
Version no.	
Item no.	

4 Safety

NOTICE

Read and comply with all notes and safety instructions in this 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.

4.1 Policy

In keeping with the latest technological developments

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 or third parties as well as damage to the equipment and other material assets.

Proper use

The machine may only be used for the following purposes:

- Soil compaction.
- Asphalt compaction.
- Vibration of sett paving (paving stones).

The machine may not be used for the following purposes:

- Compaction of very cohesive soils.
- Compaction of frozen soils.
- Compaction of hard, non-compressible soils.
- Compaction of non-load-bearing soils.

Use in accordance with the intended purpose also includes the observation of all safety instructions in this manual as well as complying 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.

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 case of unauthorized structural changes, the liability and warranty of the manufacturer are no longer applicable.

The following cases are considered structural changes:

- Opening the machine and the permanent removal of components.
- Installing spare parts that do not originate from Wacker Neuson or are not comparable in the design system and quality of 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 mounted. They can be found on the Internet under www.wackerneuson.com.

4.2 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 this has been read and understood.

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

The operator must hand over the 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.

4.3 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 responsibilities for operation, troubleshooting, maintenance, and cleaning.
- Regularly train employees and inform them about potential hazards.
- Provide employees with the necessary equipment.

4.4 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
- not under the influence of drugs, alcohol or medication that can impair responsiveness.
- familiar with the safety instructions in this manual.
- familiar with the intended use of this machine.
- Have reached the minimum age of 18 to operate this machine.
- Be instructed in the independent operation of the machine.
- Be authorized to operate machines and systems independently according to the standards of safety engineering.

4.5 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 machine manufacturer is to be informed.

4.6 General safety instructions

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

4.6.1 Working area

- Before beginning work, familiarize yourself with the working environment, e.g. the load-bearing capacity of the floor or obstacles in the vicinity.
- Make working area safe for the public transport sector.
- Necessary fuse protection of walls and ceilings, e.g. in trench applications.
- Keep the working area tidy. Cluttered or dark working areas can lead to accidents.
- Using this machine in an explosive atmosphere is prohibited.
- 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!

4.6.2 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.

Screw 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 new adhesive.

NOTICE

Observe the instructions of the liquid adhesive manufacturer.

4.6.3 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 exact values of vibration measurement, refer to the *Technical Data* section.
- Wear suitable clothing. Keep loose clothing, gloves, jewelry, and long hair away from moving/rotating machine parts. Danger of being pulled!
- Ensure that no other individuals are in the danger zone!

4.6.4 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.
- The machine, accessories, and tools should be used in accordance with these instructions.
- Store unused machines out of reach of children. The machine may only be operated by authorized personnel.
- 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.

4.7 Specific safety instructions – Vibratory plates**4.7.1 External influences**

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

- In heavy rain on sloped surfaces. Risk of slipping!
- Oil field environments – methane leaks from bottom. Explosion hazard!
- In dry, flammable vegetation. Fire hazard!
- In potentially explosive areas. Explosion hazard!

4.7.2 Operational safety

- When operating the machine, make sure that no gas, water, or electric lines are damaged.
- The machine must not be operated in tunnels or enclosed spaces.
- Pay maximum attention near drops or slopes. Risk of crashing!
- The operator must not leave the machine while it is in operation.
- Do not leave the machine unattended. Risk of injury!
- Delimit spacious workspace and restrict access to unauthorized individuals. Risk of injury!
- Machine operators must ensure that people in the working area keep a minimum distance of 2 meters from the running machine.
- Do not use any starting aid sprays. These can cause misfires as well as engine damage. Fire hazard!
- 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.
- Do not exceed max. allowable slanting position of the machine – possible failure of the engine lubrication, see chapter *Technical Data*.

4.7.3 Minimum safety distances

Compaction 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.

4.8 General safety instructions - Combustion engines

The following notes must be observed:

- 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 the engine and allow 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!
- For operation in partially closed spaces, sufficient ventilation and 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!

NOTICE

This machine is outfitted with an EPA-certified engine.

Adjusting the revolutions per minute (RPM) impacts the EPA-certification and the emissions. Settings for this engine may only be changed by a professional.

For more information, contact the manufacturer or your Wacker Neuson contact partner.

4.9 General safety instructions – fuel, lubricants and coolants

The following notes must be observed:

- Always wear safety glasses and protective gloves when handling fuel, lubricants, and coolants. If hydraulic oil, fuel, oil, or coolant gets into your eyes, see a doctor 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
- Contaminated hydraulic oil or fuel from dirt or water can lead to premature wear or failure of the machine
- Dispose of spilled fuel, lubricants and coolants according to the applicable provisions 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.

4.10 Maintenance




The following notes must be observed:

- This machine may not be maintained, repaired, adjusted or cleaned while switched on. Disconnect the starter battery when working on the electrical system!
- Adhere to maintenance intervals.
- After each maintenance or repair, the safety devices on this machine must be reattached.
- Observe the maintenance schedule. Non-listed work must be taken over by the service department of the Wacker Neuson contact partner.
- Immediately replace worn or damaged machine parts. Only use 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 performed in a clean and dry vicinity (e.g. workshop).

4.11 Personal Protective Equipment

NOTICE

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.
	Wear protective gloves!	Protective gloves provide protection from abrasion, cuts, punctures, and hot surfaces.
	Wear ear protection!	Ear protection provides protection from permanent hearing impairment.

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 regarding noise emissions, refer to *Technical Data* section.

Work particularly cautiously and pay attention when wearing ear protection, as your ability to hear noises, such as screams or signal tones, is restricted.

Wacker Neuson recommends always wearing ear protection.

4.12 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.

This machine has the following safety equipment:



Item	Description	Item	Description
1	Belt guard	3	Automatic central position of control handle
2	Contact protection of exhaust system		

NOTICE

Always tighten loosened screwed connections with the prescribed torque setting.

4.13 Behavior in dangerous situations

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.

Measures in the case of an emergency:

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

5 Safety and information labels



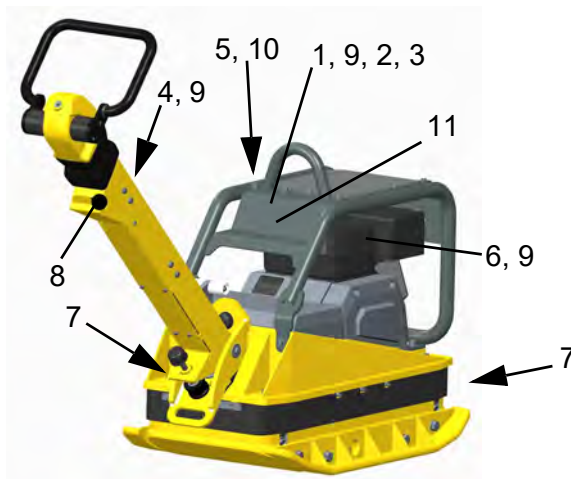
WARNING







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.

The following labels are located on the machine:



Item	Label	Description
1		Use personal protection equipment in order to prevent injuries and health hazards. <ul style="list-style-type: none"> ■ Ear protection. ■ Read operator's manual.
2		Falling machines can cause serious injury. <ul style="list-style-type: none"> ■ Only lift machine at the central lifting point with certified lifting gear and tackle (safety load hook). ■ Do not lift the machine on the central lifting point with an excavator bucket. ■ Do not lift the machine on the central lifting point with a forklift.
3		Guaranteed sound power level.
4		Falling machines can cause serious injury. <ul style="list-style-type: none"> ■ Do not lift the machine with the control handle or center pole.
5		Fire hazard. It is prohibited to smoke and start an open fire.
6		Warning against hot surface.



Item	Label	Description
7		Tie-down lugs.
8	US Machines 	Start/Stop.
9	US Machines 	Warning.
10	US Machines 	Danger.
11	US Machines 	Warning. From chemicals that cause cancer, birth defects or other reproductive damage.

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

6.2 Application areas

The vibratory plate is used for compacting soil. It is used in gardening and landscaping as well as civil engineering, road construction, and paving.

6.3 Short description

The vibratory plate is a machine used to compact soils.

The vibration required for the compression is generated by the exciter, which is firmly connected to the base plate. This exciter is designed as a centrally mounted exciter with single-plane/directional vibrations. By adjusting the eccentric weights, such a principle allows for modification of vibration direction.

A continuous transition can thereby be made between forward travel compaction, spot compaction, and reverse travel. This process is hydraulically controlled with the control handle on the center pole head.

The drive motor attached to the upper mass drives the exciter. The torque is firmly transferred through the centrifugal clutch and the exciter V-belt.

At low engine speeds, the centrifugal clutch interrupts the force flow to the exciter and thereby allows for proper idling of the drive motor.

For the US machines, the rpm of the drive motor can be continuously varied by remote control and locked into neutral. The upper mass and base plate are connected with four vibration absorbing shock mounts. This attenuation prevents the transfer of high frequencies to the upper mass. The functionality of the drive motor therefore remains preserved, despite the high compaction performance.

The drive motor is started via a recoil starter.

Mounting plates

For larger working areas, wider mounting plates are recommended.

7 Components and operator's controls

7.1 Components



Item	Designation	Item	Designation
1	Drive motor	6	Fuel tank
2	Upper mass	7	Protective frame
3	Base plate	8	Mounting plates
4	Center pole	9	Nameplate
5	Central lifting point		

Center pole

The optimal working height of the center pole can be set by adjusting the threaded spindle.

Central lifting point

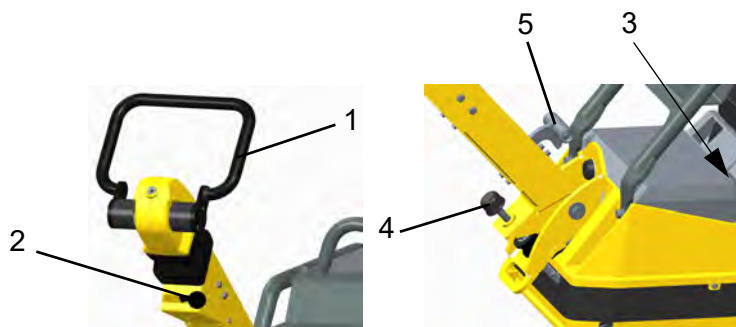
The central lifting point is used to lift the machine. This is found in the center of gravity of the machine.

Mounting plates

Mounting plates of various widths are available for the machine. These can be used to increase or decrease the operating width of the machine.

7.2 Operator's controls

Always keep the display and operator's controls on the machine clean, dry, and free of oil and grease. Operator's controls, such as the ON/OFF switch, throttle control handles, etc. may not be locked, manipulated or changed without permission.



Item	Designation	Item	Designation
1	Control handle	4	Threaded spindle
2	Throttle lever (US machines)	5	Center pole detent handle
3	Starter rope		

Control handle

The control handle is used to continuously regulate the speed and travel direction.

Gas control lever

The rpm of the drive motor can be continuously varied by remote control and locked into neutral.

EU Machines: Throttle lever on the engine

US Machines: Throttle lever on the center pole

Center pole detent handle

Center pole detent handle is used to release the center pole so that it can be returned to working position.

Threaded spindle

The threaded spindle is used to set the optimal working height of the center pole.

8 Transport



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 from falling.

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

- Only use suitable and tested lifting gear and tackle (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 on the central lifting point with a forklift or excavator bucket.
- Do not lift the machine at the control handle.
- Evacuate danger zone 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.

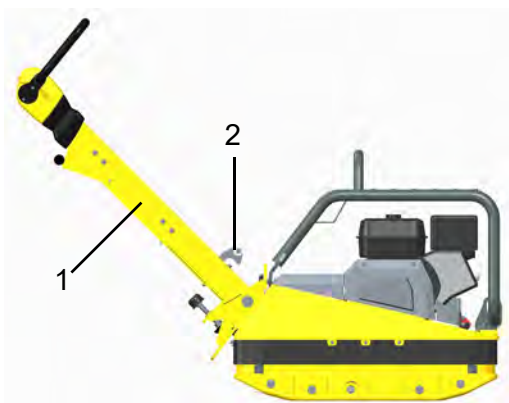
- Lift and transport the machine upright.

8.1 Loading and transport

Carry out preparations

NOTICE

Wacker Neuson recommends emptying the fuel tank prior to transport.



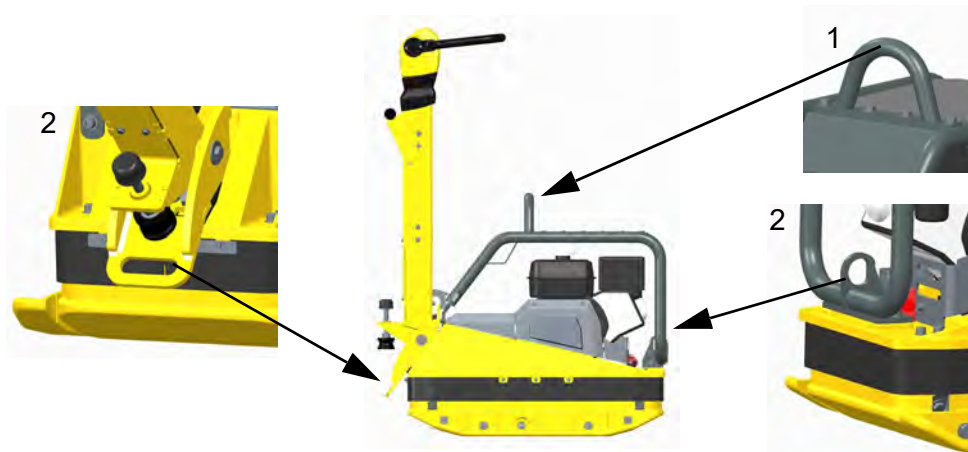
Item	Designation	Item	Designation
1	Center pole	2	Center pole detent handle

When loading and transporting, the center pole must be locked into the upright position via the center pole detent handle.

Lifting and lashing down the machine

NOTICE

Appoint a specialist flagman for a safe lifting operation.



Item	Designation	Item	Designation
1	Central lifting point	2	Tie-down lugs

1. To lift the machine, hang suitable tackle at the central lifting point.
2. Carefully load machine into or onto a stable means of transport.



After loading the machine, lash down the machine to prevent it from rolling off, slipping, or tipping over. Attach tie-down lugs to the designated lashing points.

9 Operation and use



WARNING

Improper handling may result in injury or serious material damage.

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

9.1 Before commissioning

9.1.1 Inspection before commissioning

- Check the machine and components for damage. In the event of visible damage, do not operate the machine and immediately contact a Wacker Neuson dealer.
- Ensure that loose packaging material has been removed from the machine.
- Check fuel level.
- Check the engine oil level.
- Check air cleaner.
- Check hydraulic oil level.
- Check the fuel lines for leak tightness.
- Check to ensure the screwed connections are firmly seated.

NOTICE

Perform control procedures according to the *Maintenance* chapter. If necessary, top off missing fuel, lubricants and coolants, see chapter *Technical Data*.

9.1.2 Set center pole



Item	Designation	Item	Designation
1	Center pole	2	Threaded spindle

The optimal working height of the center pole can be set by adjusting the threaded spindle.

9.2 Notes about operation



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.

- Turn off the machine and lift it back onto a load-bearing surface.



WARNING

Health hazard from exhaust fumes

- The exhaust fumes of this engine contain chemicals, which the state of California knows can cause cancer, birth defects or other reproductive damage.


WARNING

Danger of crushing

If hydraulic oil is lost, the machine goes into reverse.

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 allowable slanting position (see *Technical Data*) chapter.
- Only operate the machine for a short time in maximum allowable slanting position.

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.

Vibrating sett paving (paving stones)

When compacting interlocking paving stones, Wacker Neuson recommends using of the sliding device in order to avoid damage to the machine and compaction material. See chapter *Accessories*.

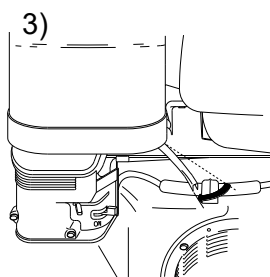
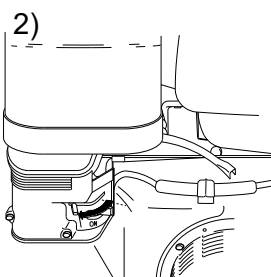
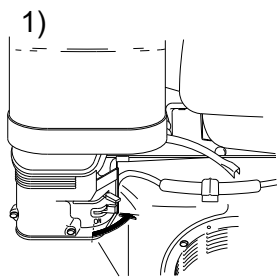
9.3 Commissioning

DANGER

Fire hazard

Jumper cable sprays are highly flammable; they can ignite and cause severe burns.

- Do not use jumper cable sprays.

9.3.1 Start engine


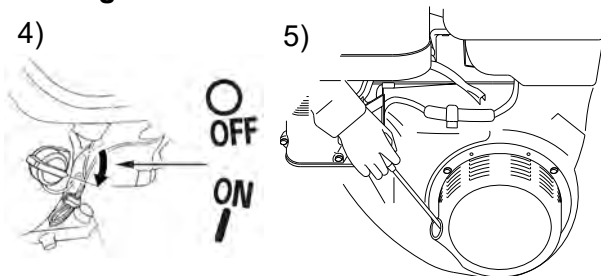
1. Turn the fuel cock to ON.
2. Set the choke lever to the CLOSE position.

NOTICE

Do not use the choke if the engine is warm or if the air temperature is too high.

3. Set the throttle lever to no-load voltage.

9.3.2 Starting with the recoil starter



4. Turn the ignition key switch to ON.
5. Pull out the starter rope slowly up to the compression resistor, and then pull through forcefully.



CAUTION

Do not allow the starter rope to snap back against the engine. Slowly guide back by hand to prevent damage to the starter.

9.3.3 Commissioning the machine.

Once the engine has warmed up, set the choke lever to OPEN.

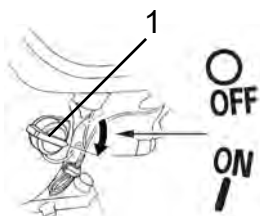
Set the throttle lever to the desired engine speed.



WARNING

Oil level warning system

The oil level warning system should prevent engine damage that can be traced to insufficient amounts of oil in the crankcase. Before the oil level in the crankcase can drop below the minimum level, the oil level warning system will automatically switch off the engine (the ignition key switch remains in the I position).



Item	Designation
1	Ignition key switch

9.4 Operation

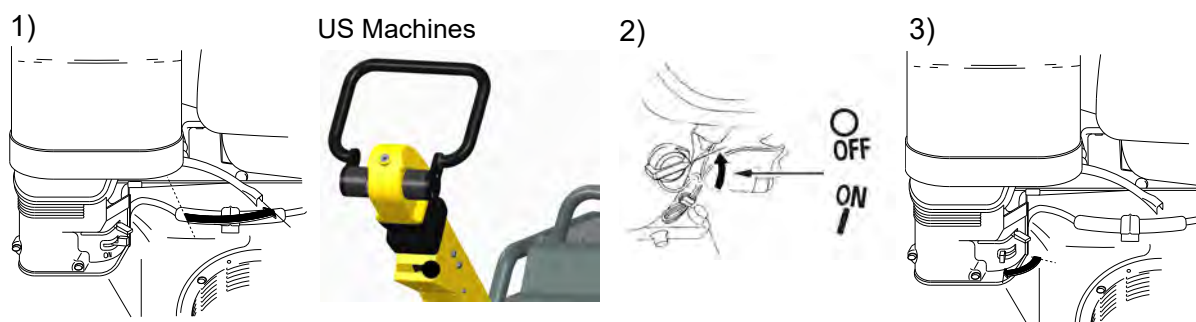


- In accordance with the intended purpose, the operator should stand behind the machine.
- Guide and steer machine using the control handle.

9.4.1 Choose travel direction


Item	Designation	Item	Designation
1	Forward	2	Reverse

1. Put throttle lever in the full power position.
2. Select travel direction and speed with the control handle.

9.5 Decommissioning
9.5.1 Decommissioning the machine


1. Set the throttle lever to no-load voltage.
2. Turn the ignition key switch to OFF.
3. Turn the fuel cock to OFF.

10 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 jobs 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 jobs with the engine switched off and the machine decommissioned.

**WARNING**

Risk of fire and explosion from fuel and fuel vapors.

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

- Do not smoke.
- Do not refuel near open flames.
- Switch off the engine and allow 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 engine to cool down completely after use.
- If there is not enough time to allow the machine to cool down (e.g. in an emergency situation.) – 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.

10.1 Maintenance table

Maintenance jobs	Daily	Monthly	h
Clean the machine Visual check for completeness. Visual check for damage.	■		
Check engine oil level.*	■		
Check the intake area of the combustion air.*	■		
Check to ensure the screwed connections are firmly seated.	■		
Clean spark plug, check spark plug air gap.*		■	
Check hydraulic oil level.***		■	
Check/replace V-belt.		■	
Replace motor oil.*			20 h**/100 h
Lubricate threaded spindle.			40 h
Replace fuel filter.*			100 h
Clean spark arrester screen.*			100 h
Clean air cleaner cartridge.*			100 h
Replace exciter oil.			100 h**/250 h
Check hydraulic hose lines.**			125 h
Check rubber buffer.***			125 h
Check exciter oil level.			150 h
Check valve clearance.***			300 h
<p>* Note the engine operator's manual. ** Only carry out this work once. *** Have this work performed by the service department of your Wacker Neuson contact partner.</p>			

10.2 Maintenance jobs



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.



WARNING

Risk of fire and explosion from fuel and fuel vapors.

- Do not smoke.
- Do not refuel near open flames.
- Switch off engine and allow to cool before refueling. Only refuel in a well-ventilated vicinity.

Carry out preparation work:

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

10.2.1 Check the fuel level and top off



Item	Designation	Item	Designation
1	Cover	2	Fuel cap

1. Fold cover aside.
2. Remove dirt accumulation within the range of the fuel filler neck.
3. Open the fuel cap.
4. Check the fuel level by visual inspection.
5. If necessary, top off the fuel with a clean filling container.
For fuel type, See chapter *Technical Data*.

NOTICE

Only fill the fuel tank to the bottom edge of the filler neck.

6. Close fuel cap.

10.2.2 Clean the machine



WARNING

Risk of fire and explosion when using flammable cleaning agents.

- Do not clean the machine and elements with gasoline or other solvents.

NOTICE

Penetrating water can damage the engine, electrical operator's controls or components of the machine. Do not aim high pressure washer directly at air intake area and electrical elements.

1. After cleaning, check the cable, hoses, utility lines and hardware for leaks, loose connections, chafe marks and other damage.
2. Immediately eliminate detected damage.

10.2.3 Clean the sediment cup

1. Shut off the fuel cock.
2. Remove the sediment cup and O-ring, wash in a cleaning solution and dry thoroughly.
3. Insert the sediment cup and O-ring.
4. Turn on the fuel cock and check for leaks.

10.2.4 Cleaning the air cleaner



WARNING

Risk of fire and explosion!

- Do not use any gasoline or cleaning solution to clean the air cleaner cartridge.

**CAUTION**

Do not run the engine without an air filter. This will quickly lead to engine wear.

1. Remove the wing nuts and air cleaner cover.
2. Remove and separate the air cleaner cartridge.
3. Check both applications for holes and cracks and replace if damaged.

Foam insert:

Wash out the insert in a solution of household detergent and warm water and then rinse thoroughly. Allow the insert to dry and tip into clean motor oil. Press out excessive oil. If too much oil remains in the insert, the engine will smoke during its first start.

Paper insert:

Gently tap the insert several times against a hard surface to remove excess grime. Blow compressed air from the inside to the outside through the filter. Do not brush the dirt off as it will get pressed into the fibers.

In the event of extreme dirt accumulation, replace the insert.

10.2.5 Screwed connections

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

10.2.6 Spark plug maintenance**CAUTION**

Do not use spark plugs with the wrong thermal value.

To ensure proper engine operation, the spark plug must have the correct spark plug air gap and be free of combustion residues.

1. Remove the spark plug cap and unscrew the spark plug with a spark plug wrench

**WARNING**

Risk of burns

The muffler is very hot if the engine had just been running. Do not touch the muffler.

2. Visually inspect spark plug. If the isolator is broken or splintered, replace spark plug. Clean spark plug with a wire brush if it is to be re-used. For the spark plug model, see chapter *Technical Data*.
3. Measure the spark plug air gap with a thickness gauge. For the spark plug air gap, see chapter *Technical Data*. If necessary, correct the air gap by bending the side electrodes.
4. Check whether the spark plug seal ring is in a good condition.
5. Screw in the spark plug by hand to avoid cross-threading.
6. After fitting, tighten spark plug with a spark plug wrench to compress the seal ring.

NOTICE

After it has been attached, a new spark plug must be rotated a 1/2 turn in order to compress the seal ring. If the old spark plug is re-used, a 1/8–1/4 turn is enough to compress the seal ring.

**CAUTION**

The spark plug must be tightened correctly. An insufficiently tightened spark plug can become very hot and cause engine damage.

10.2.7 Check and replace V-belt



Item	Designation	Item	Designation
1	Belt guard	3	Engine V-belt pulley
2	Nuts	4	V-belt

1. Disassemble the belt guard.
2. Loosen screws on the engine V-belt pulley.
3. Remove external half of V-belt pulley.
4. Remove the required number of shims (removing one shim is usually enough).
 - Attach the removed shims to the outside of the V-belt pulley half.
5. Place elastic shim in such a way that the large flange is seated on the V-belt pulley.
6. Screw on nuts and tighten alternately while constantly rotating the V-belt pulley. The torque setting is 25 Nm.
7. Assemble the belt guard.

10.2.8 Replace the exciter oil and check the oil level



DANGER

Risk of scalding

- Use caution when draining hot oil.

NOTICE

Perform oil change with warm exciter oil. The machine cannot be in operation.



Item	Designation	Item	Designation
1	Screw plug	2	Filler boring

NOTICE

Lay an impermeable film on the working surface to protect against escaping oil.

1. Tip the machine to the side of the filler boring and support it.
 2. Place an appropriate collecting container below the filler boring.
 3. Remove dirt accumulation within the range of the filler boring.
 4. Unscrew the screw plug from the filler boring and allow the waste oil to drain completely.
-

NOTICE

Collect escaping or overflowing oil and dispose of with the waste oil in an environmentally friendly manner in accordance with the existing rules and regulations of the legislative body.

5. Tip the machine to the other side and support it.
-

NOTICE

Only fill with the prescribed volume of oil.

6. Fill new oil (see chapter *Technical Data* for the exciter oil type and volume) into the filler boring. Use a suitable, clean filling container.
7. Place the machine level on the ground.
8. Screw the screw plug with seal ring into the filler boring. The torque setting is 100 Nm.

11 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.

11.1 Fault table

Fault	Possible causes	Remedial measure
Motor will not start.	Not enough fuel.	Refuel. Check the fuel supply.
	Fuel cock closed.	Open fuel cock.
	Air filter contaminated.	Clean air filter.
	Engine switch in the OFF position.	Put the engine switch in the ON position.
	Recoil starter defective.	*
	Oil level warning system has switched off.	Top up motor oil.
Forward travel speed too low.	Not enough hydraulic oil in the center pole head.	Top off hydraulic oil.
Reverse travel speed too low.	Too much hydraulic oil in the center pole head.	Correct oil level accordingly. *
	Air in hydraulic control system.	Bleed.*
No forward/reverse travel.	Mechanical fault.	*
Loss of hydraulic oil.	Leaks, hydraulic hose defective.	*
* Have this work performed by the service department of your Wacker Neuson contact partner.		

12 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.

Mounting plates

Mounting plates of various width are available for the machine. These can be used to increase or decrease the operating width of the machine.

Sliding mechanism

Sliding mechanisms offer optimal protection against damage to the sett paving (paving stone) surface, which is especially required for surface-coated types of paving.

13 Technical data

13.1 BPU

Designation	Unit	BPU4045A US	BPU5545A	BPU5545A US
Item number		5100009663	5100009657	5100009658
Centrifugal force	kN	40.00	55.00	55.00
Oscillations	Hz	69	69	69
	1/min	4,140	4,140	4,140
Compaction performance*	m ² /h	870	852	852
Travel speed	m/min	24.0	27.0	27.0
Gradeability	%	36.4	36.4	36.4
Length (center pole in working position)	mm	1,661	1,661	1,661
Width	mm	604	604	604
Height	mm	1,308	1,308	1,308
Operating weight	kg	330	340	340
Ground clearance	mm	725–859	725–859	725–859
Electrical load rating**	kW	5.1	6.4	6.4
Nominal speed	1/min	2,600	2,600	2,600
Exciter oil volume	l	0.75	0.75	0.75
Exciter oil type		75W-90 API GL-4		
Hydraulic oil volume	l	0.5	0.5	0.5
Type of hydraulic oil		MR 520	MR 520	MR 520
Storage temperature range	°C	-15–+40	-15–+40	-15–+40
Operating temperature range	°C	-15–+40	-15–+40	-15–+40
Sound pressure level L _{pA}	dB(A)	90	91	91
Standards		EN 500-4		
Sound power level L _{wa} measured guaranteed	dB(A)	107	107	107
		108	108	108
Standards		EN 500-4		
Vibration total value a _{hV}	m/s ²	< 2.5	< 2.5	< 2.5
Standards		EN 500-4		
Uncertainty of measurement of the vibration total value a _{hV}	m/s ²	0.5	0.5	0.5
* Depending on the soil properties.				
** Corresponds to the net installed power according to directive 2000/14/EC.				



13.2 Combustion engine

Designation	Unit		
Manufacturer		Honda	
Type of engine		GX270 UT2-QA-4-SD	GX390 UT2-QA-4-SD
Combustion method		Four-cycle	Four-cycle
Cooling		Air cooling	Air cooling
Cylinders		1	1
Displacement	cm ³	270	389
Max. slanting position	o	20	20
Fuel type		Gasoline	Gasoline
Fuel consumption	l/h	1.6	2.0
Tank capacity	l	5.3	6.1
Oil specification		SAE 10W-30	SAE 10W-30
Max. oil filling	l	1.1	1.1
Max. performance	kW	6.3	8.7
Speed	1/min	3,600	3,600
Standards		SAE J1349	SAE J1349
Spark plug model		W20EPR-U, NGK BPR-6 ES	W20EPR-U, NGK BPR-6 ES
Spark plug air gap	mm	0.7–0.8	0.7–0.8
Starter type		Recoil starter	Recoil starter

14 Emission control systems information and warranty

The Emission Control Warranty and associated information is valid only for the U.S.A., its territories, and Canada.

Emission control systems warranty statement

See the *engine owner's manual* for the applicable exhaust and evaporative emission warranty statement.

**WACKER
NEUSON**

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	BPU4045
Product type	Vibratory plate
Function of product	Soil compaction
Material number	5100009663
Net installed power	5,1 kW
Measured sound power level	107 db(A)
Guaranteed sound power level	108 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 13766-1:2019, EN ISO 13766-2:2019

Person responsible for technical documents

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

Reichertshofen, 03.06.2019

Helmut Bauer
Managing Director

Original Declaration of Conformity

5100010141_07_BPU4045_CE_en

**WACKER
NEUSON**

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	BPU5545
Product type	Vibratory plate
Function of product	Soil compaction
Material number	5100009657, 5100009658
Net installed power	6,4 kW
Measured sound power level	107 db(A)
Guaranteed sound power level	108 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

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Person responsible for technical documents

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

Reichertshofen, 15.04.2019

Helmut Bauer
Managing Director

Original Declaration of Conformity

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