# Operator’s Manual

## Pump

# PST3 750
# PSTF3 750

| | |
|---|---|
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| Version | 04 |
| Language | EN |

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**Manufacturer**

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**Original instructions**

This Operator’s Manual presents the original instructions. The original language of this Operator’s Manual is American English.

# 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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# Foreword

**Machines covered in this manual**

| Machine | Item Number |
|---|---|
| PST3 750 | 0620337<br>0620440 |
| PSTF3 750 | 0620338<br>0620441 |

**Machine documentation**

- From this point forward in this documentation, Wacker Neuson America Corporation will be referred to as Wacker Neuson.
- Keep a copy of the Operator's Manual with the machine at all times.
- For spare parts information, please see your Wacker Neuson Dealer, or visit the Wacker Neuson website at http://www.wackerneuson.com/.
- When ordering parts or requesting service information, be prepared to provide the machine model number, item number, revision number, and serial number.

**Expectations for information in this manual**

- This manual provides information and procedures to safely operate and maintain the above Wacker Neuson model(s). For your own safety and to reduce the risk of injury, carefully read, understand, and observe all instructions described in this manual.
- Wacker Neuson expressly reserves the right to make technical modifications, even without notice, which improve the performance or safety standards of its machines.
- The information contained in this manual is based on machines manufactured up until the time of publication. Wacker Neuson reserves the right to change any portion of this information without notice.
- The illustrations, parts, and procedures in this manual refer to Wacker Neuson factory-installed components. Your machine may vary depending on the requirements of your specific region.

**Manufacturer's approval**

This manual contains references to *approved* parts, attachments, and modifications. The following definitions apply:

- **Approved parts or attachments** are those either manufactured or provided by Wacker Neuson.
- **Approved modifications** are those performed by an authorized Wacker Neuson service center according to written instructions published by Wacker Neuson.
- **Unapproved parts, attachments, and modifications** are those that do not meet the approved criteria.

Unapproved parts, attachments, or modifications may have the following consequences:

- Serious injury hazards to the operator and persons in the work area
- Permanent damage to the machine which will not be covered under warranty

Contact your Wacker Neuson dealer immediately if you have questions about approved or unapproved parts, attachments, or modifications.

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# 1 Safety Information

## 1.1 Signal Words Used in this Manual

This manual contains DANGER, WARNING, CAUTION, *NOTICE,* and NOTE signal words which must be followed to reduce the possibility of personal injury, damage to the equipment, or improper service.

This is the safety alert symbol. It is used to alert you to potential personal hazards.

► Obey all safety messages that follow this symbol.

**DANGER**

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

► To avoid death or serious injury from this type of hazard, obey all safety messages that follow this signal word.

**WARNING**

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

► To avoid possible death or serious injury from this type of hazard, obey all safety messages that follow this signal word.

**CAUTION!**

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

► To avoid possible minor or moderate injury from this type of hazard, obey all safety messages that follow this signal word.

***NOTICE:*** Used without the safety alert symbol, NOTICE indicates a situation which, if not avoided, could result in property damage.

**Note:** *A Note contains additional information important to a procedure.*

### Operating and Electrical Safety

This pump has not been investigated for use in swimming pool areas.

An acceptable motor-control switch shall be provided at the time of installation according to local codes and regulations.

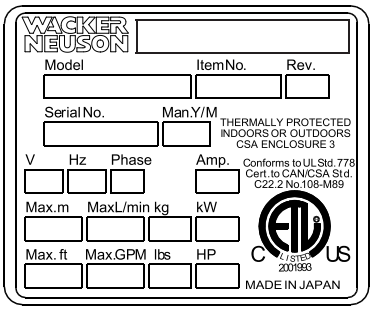
**WARNING**
Electric shock hazard.

- ► To reduce risk of electric shock, connect only to a properly grounded, grounding-type receptacle.
- ► To reduce risk of electric shock, follow instructions in this manual for proper installation.

**CAUTION!**
Electric shock hazard. This pump may automatically restart.

- ► Prior to working on the pump or control panel, all supply circuits must be disconnected.
- ► Do not remove cord and strain relief.

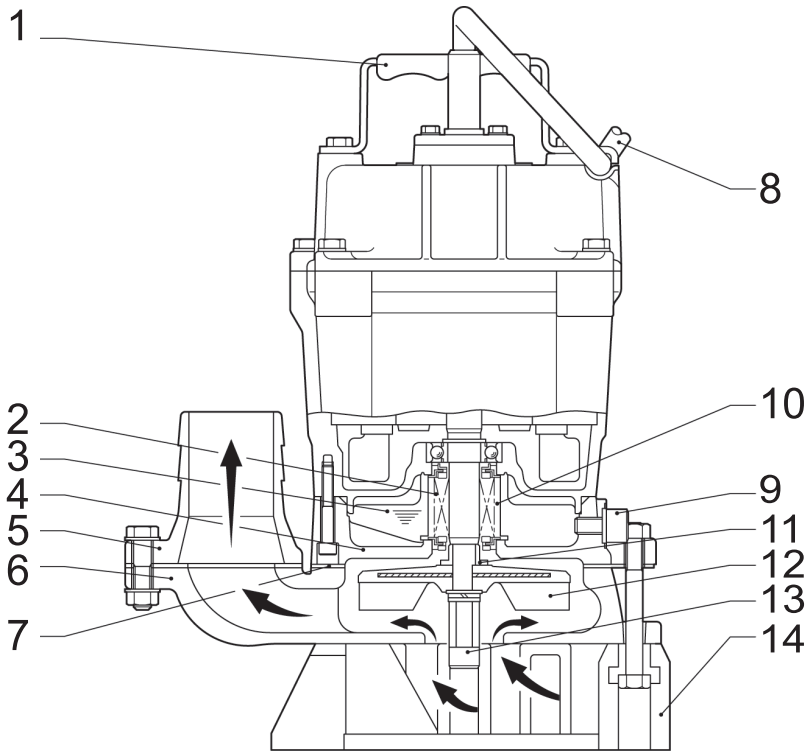
## 1.2 Informational Labels

| Label | Meaning |
|---|---|
|  | A nameplate listing the model number, item number, revision number, and serial number is attached to each unit. Please record the information found on this nameplate so it will be available should the nameplate become lost or damaged. When ordering parts or requesting service information, you will always be asked to specify the model number, item number, revision number, and serial number of the unit. |
|  | California Proposition 65 Warning<br>Cancer and Reproductive Harm - www.P65Warnings.ca.gov. |

# 2 Operation

## 2.1 Names of Parts

*See Graphic: wc_gr005663*

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| Ref. | Description | Ref. | Description |
|---|---|---|---|
| 1 | Lifting handle | 8 | Cable assembly |
| 2 | Mechanical seal | 9 | Oil plug |
| 3 | Lubricant | 10 | Oil lifter |
| 4 | Oil casing | 11 | Shaft sleeve |
| 5 | Hose coupling | 12 | Impeller |
| 6 | Pump casing | 13 | Stirrer |
| 7 | Casing packing | 14 | Strainer stand |

## 2.2 Prior to Operation

When the pump is delivered, first perform the following inspection checks:

- While unpacking, inspect the product for damage during shipment, and make sure all bolts and nuts are tightened properly.
- Check the model number to make sure it is the product that was ordered. Be certain it is the correct voltage and frequency.

**Note:** *If there is any problem with the product as shipped, contact your nearest dealer or Wacker Neuson representative at once.*

**CAUTION!**

Personal injury hazard. Failure to observe this caution can lead to electrical shock, current leakage, fire, water leakage, or other problems.

- ▶ Do not operate this product under any conditions other than those for which it is specified.

## 2.3 Installation

**WARNING**

Personal injury hazard.

- ▶ If the pump is used to drain a swimming pool, the pump must be connected to a Ground Fault Interrupter (GFI).
- ▶ If the pump is used in fountains, the pump must be connected to a Ground Fault Interrupter (GFI).
- ▶ The pump must not be used when people are in the water.
- ▶ Leakage of pump lubricants may cause pollution of water.

- ▶ Proper plug must be provided according to local codes and standards. Refer to wiring diagram.
- ▶ Do not use this pump in liquids other than water, such as oil, salt water, or organic solvents.
- ▶ Use with a power supply voltage within ±5% of the rated voltage.
- ▶ Do not use in water temperatures outside the range of 0–40°C (32–104°F) which can lead to failure, current leakage or shock.
- ▶ Do not use in the vicinity of explosive or flammable materials.
- ▶ Use only in fully assembled state.

**Note:** *Consult your local dealer or Wacker Neuson representative before using with any liquids other than those indicated in this document.*

## 2.4 Preparing for installation

Before installing the pump at a work site, you will need to have the following tools and instruments ready:

- Insulation resistance tester (megohmmeter)
- AC voltmeter
- AC ammeter (clamp-on type)
- Bolt and nut tighteners
- Power supply connection tools (screwdriver or box wrench)

**Note:** *Please also read the instructions that come with each of the test instruments.*

## 2.5 Checks to Make Before Installation

- When a three-prong grounded plug is used:

Use the megohmmeter to measure the motor insulation resistance between the grounding prong and each one of the two power prongs.

- When connection wires are used:

With the megohmmeter, measure the insulation resistance between the ground wire (Green) and each one of the two power wires.

Reference insulation resistance: 20MΩ or greater.

**Note:** *The reference insulation resistance (20MΩ or greater) is the value when the pump is new or has been repaired. For the reference value after installation, see the Periodic Maintenance table.*

### Precautions in Installation


When installing the pump, pay close attention to its center of gravity and weight. If it is not lowered into place correctly, it may fall and be damaged or cause injury.

When transporting the machine by hand, be sure to employ manpower commensurate with the weight of the machine. To avoid back injury when lifting the machine, bend the knees to pick it up rather than bending your back only.

Do not under any circumstances install or move the pump by suspending it from the cable assembly. The cable may be damaged, causing current leakage, shock, or fire.

2.5.1 Avoid dropping the pump or other strong impact. Lift the pump by holding it firmly with the hands or by attaching a rope or chain to the lifting handle.

**Note:** *On cable assembly handling, see Electrical Wiring.*


Avoid dry operation, which will not only lower performance but can cause the pump to malfunction, leading to electrical leakage and shock.

2.5.2 Install the pump in a location with sufficient water level, where water collects readily.

**Note:** *See Operation ("Operating Water Level") for the water level necessary for operation.*

**Note:** *The discharge end of the hose should be located higher than the water surface. If the end of the hose is submerged, water may flow back to the pump when the pump is stopped; and if the hose end is lower than the water surface, water may overflow when the pump is turned off.*

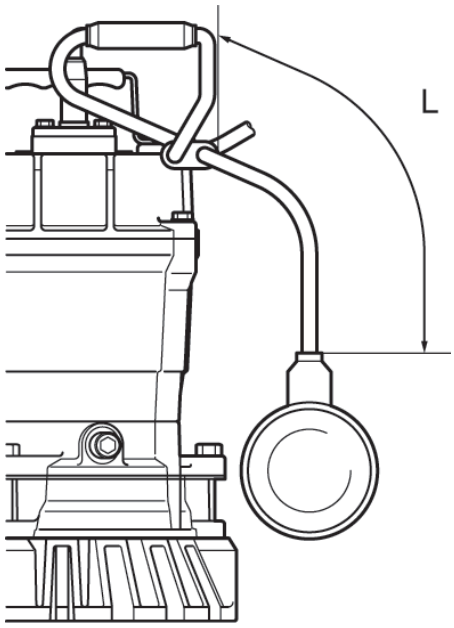

If large quantities of earth are sucked up, damage resulting from friction in the pump can lead to current leakage and shock.

2.5.3 Use the pump in the upright position. To prevent the strainer from becoming submerged in mud, causing it to suck in sand or debris, mount it on a block or other firm base.

2.5.4 If used in a permanent installation where the pump is not readily accessible after installation, please contact Wacker Neuson for a duplicate nameplate to be installed at the wellhead or on the control box so that it will be readily visible.

## 2.6 Installing the Float (if equipped)

*See graphic: wc_gr005664*

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2.6.1 Set the length of the float lead wire to the dimension indicated below. Failure to set the correct lead wire length will lead to improper operation of the pump.

| Pump model | Length “L” |
|---|---|
| PSTF3 750 | 150 mm (5.9 in.) |

***NOTICE*:** Install the float so that it moves freely up and down. If the float binds or catches, it will cause the pump to operate improperly.

## 2.7 Electrical Wiring

**WARNING**
Personal injury hazard. Incorrect wiring can lead to current leakage, electrical shock or fire.

- ▶ Electrical wiring should be connected by a qualified person in accordance with all applicable regulations. Failure to observe this precaution not only risks breaking the law but is extremely dangerous.

Always make sure the pump is equipped with the specified overload protectors and fuses or breakers, so as to prevent electrical shock from a current leak or pump malfunction.

Operate within the capacity of the power supply and wiring.

**WARNING**
Electrical shock hazard. Failure to ground the pump properly can lead to electrical shock from a current leak or pump malfunction.

- ▶ Do not attach the grounding wire to a gas pipe, water pipe, lightning arrester or telephone grounding wire.

## 2.8 Connecting the Power Supply

**WARNING**
Personal injury hazard. Electrical shock, shorting, fire, or unexpected starting of the pump can occur.

- ▶ Before connecting wires to the terminal, make certain the power supply is turned off (circuit breaker, etc.)
- ▶ Before inserting the power supply plug, make certain the power supply is turned off (circuit breaker, etc.).
- ▶ Do not use the pump with the cable assembly or plug connected loosely,

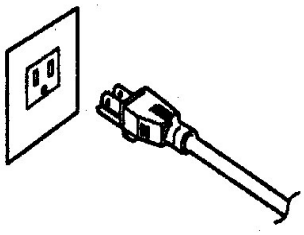
Draw power from a dedicated power outlet rated at 15 A or above. Sharing the outlet with other equipment may cause overheating at the branch outlet and could result in fire.

- The grounded plug shall be connected as shown in the drawing.

***NOTICE*: Be sure to use a dedicated power supply with a ground leakage circuit breaker.**

**Note:** *The shape of the plug may differ from that shown in the illustration.*

*See Graphic: wc_gr000242*



wc_gr000242

**CAUTION**

If it is necessary to extend the cable assembly, use a core size equal to or larger than the original. This is necessary not only to avoid a performance drop, but to prevent cable overheating which can result in fire, electrical leakage or electrical shock.

If a cable with cut insulation or other damage is submerged in the water, there is a danger of damage to the pump, electrical leakage, electrical shock, or fire.

Be careful not to let the cable assembly be cut or become twisted. This may result in damage to the pump, electrical leakage, electrical shock, or fire.

If it is necessary to submerge the connection wires of the cable assembly in water, first seal the wires completely in a molded protective sleeve, to prevent electrical leakage, electrical shock, or fire.

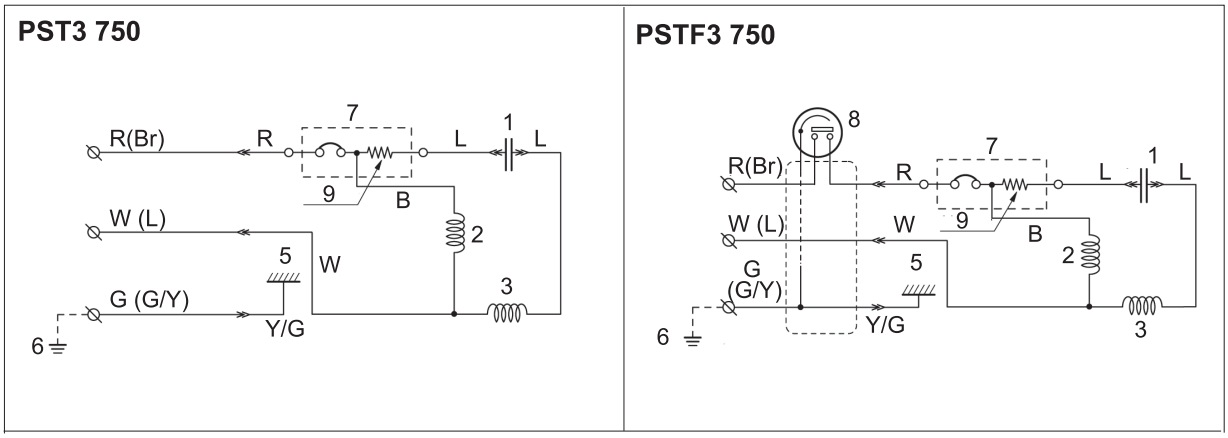
Do not allow the cable assembly wires or power supply plug to become wet.

Make sure the cable does not become excessively bent or twisted, and does not rub against a structure in a way that might damage it.

If used in a deep-well installation, the cable assembly should be secured every 6 m (20 ft.).

## 2.9 Electrical Circuit Diagrams

*See Graphic: wc_gr005665*

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***NOTICE:*** If connected to a circuit protected by a fuse, use a time-delay fuse with this pump.

| Ref. | Description | Ref. | Description |
|---|---|---|---|
| 1 | Capacitor | 6 | Ground |
| 2 | Main coil | 7 | Circle thermal protector |
| 3 | Auxiliary coil | 8 | Float switch (normally open contact) |
| 4 | Miniature protector | 9 | Heater |
| 5 | Frame grounding | | |

| Wire Colors | | | | | |
|---|---|---|---|---|---|
| **B** | Black | **V** | Violet | **Or** | Orange |
| **G** | Green | **W** | White | **Pr** | Purple |
| **L** | Blue | **Y** | Yellow | **Sh** | Shield |
| **P** | Pink | **Br** | Brown | **LL** | Light Blue |
| **R** | Red | **Cl** | Clear | **G/Y** | Green/Yellow |
| **T** | Tan | **Gr** | Gray | **—** | — |

## 2.10 Operation

### Before starting

2.10.1 Make sure once again that the product is of the correct voltage and frequency rating.
***NOTICE*:** Using the product at other than rated voltage and frequency will not only lower its performance but may damage the product.

**Note:** *Confirm the rated voltage and frequency on the model nameplate.*

2.10.2 Confirm the wiring, supply voltage, circuit breaker capacity, and motor insulation resistance.
Reference insulation resistance = 20 MΩ or greater.

**Note:** *The reference insulation resistance (20 MΩ or greater) is the value when the pump is new or has been repaired. For the reference value after installation see "Periodic Maintenance Table."*

2.10.3 The setting on the circuit breaker or other overload protector should be made in accord with the rated current of the pump.
**Note:** *See "Operating Specifications" for the rated current of the pump.*

2.10.4 When powering the pump with a generator, be certain the generator is sized to supply the required power for the pump and any other equipment powered by the generator.

### Non-Automatic Model

### Test Operation

**WARNING**

Do not operate the pump while it is suspended in the air. The recoil may result in injury or other major accident.

**WARNING**

Do not start the pump when people are standing next to it. A current leak can result in electrical shock.

Run the pump for a short time (3–10 minutes) and confirm the following:

- Using an ammeter (clamp-on type), measure the operating current at the L1 and L2 phase wires on the terminal.

**COUNTERMEASURE:** If the operating current exceeds the rated value, pump motor overload may be a cause. Make sure the pump has been installed under proper conditions as described in *Installation*.

- Using an AC voltmeter (tester), measure voltage at the terminals. Supply voltage tolerance: within ±5% of rated voltage.

**COUNTERMEASURE:** If the supply voltage is outside the tolerance, possible causes are the power supply capacity or an inadequate extension cable. Look again at the wiring diagram and make sure the conditions are proper.

CAUTION

In case of very excessive vibration, unusual noise or odor, turn off the power immediately and consult your nearest dealer or Wacker Neuson representative. Continuing to operate the pump under abnormal conditions may result in electrical shock, fire, or current leakage.

### Operation

WARNING

The pump may become very hot during operation. Be careful not to contact the pump accidentally to avoid being burned.

Make sure no extraneous objects such as pins, nails or other metal objects are sucked into the pump. These can damage the pump or cause it to malfunction, and can result in electrical shock or electrical leakage.

When the pump is not used for an extended period, be sure to turn off the power (circuit breaker, etc.). Deterioration of the insulation may lead to electrical leakage, electrical shock, or fire.

In case of a power outage, turn off the power to the pump to avoid having it start unexpectedly when the power is restored, presenting serious danger to people in the vicinity.

***NOTICE:*** Pay careful attention to the water level while the pump is operating. Dry operation may cause the pump to malfunction.

**Note:** *See section "Operating water level" for the water level necessary for operation.*

If the protection system operates due to an overload or malfunction, causing the pump to stop, first investigate and remove the cause before restarting.

Sharp bends in the hose, especially near its base, may cause air pockets to form resulting in idle operation. Lessen the degree of bending while continuing to operate the pump.

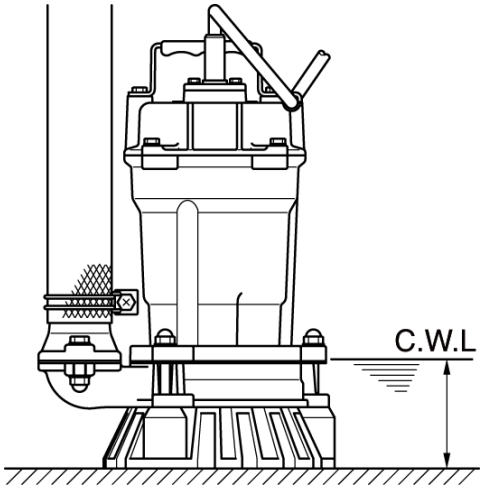
## 2.11 Operating Water Level

**CAUTION!**

Damage to pump, current leakage, or electrical shock hazard.

- ▶ Do not operate the pump below the C.W.L. (Continuous running Water Level) indicated below.

*See Graphic: wc_gr005667*

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| Pump Model | Continuous running Water Level (C.W.L.) |
|---|---|
| PST3 750<br>PSTF3 750 | 90 mm (3.5 in)<br>180 mm (7.1 in.) |

### Motor Protection System (Motor Protector)

The pump has a built-in motor protection system (Miniature Protector). If the motor overheats, for reasons such as the following, the pump will automatically stop operating regardless of the water level, to protect the motor:

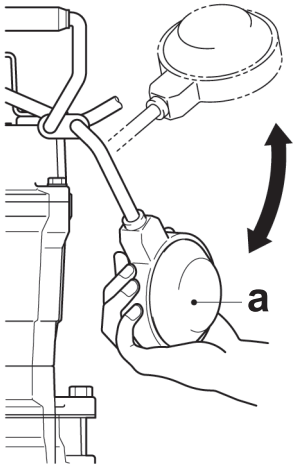
- Change in supply voltage polarity
- Overload
- Open-phase operation or operation under constraint

**Note:** *Always determine the cause of the problem and resolve it before resuming operation. Simply repeating cycles of stopping and restarting will result in damage to the pump. Do not continue operation at very low lift, low water level, or while the strainer is clogged with debris. Not only will performance suffer, but also such conditions may cause noise, heavy vibration, and malfunctioning.*

**Automatic Operation (PSTF3 750 only)**

*See Graphic: wc_gr005666*

The PSTF3 750 pump is equipped with a float switch to detect the water level. The float switch **(a)** enables the pump to perform an automatic drainage operation when connected to a continuous power supply.

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Connect the power and perform a trial operation as follows:

2.11.1 Move the float switch down to its lowest position.

2.11.2 Raise the float switch. This will start the pump.

2.11.3 Lower the float switch to its original position. This will stop the pump.

2.11.4 Repeat this cycle two or three more times to verify the operation. **Note**: *The trial operation must be completed within one minute*.

**CAUTION**

If the pump operates abnormally (i.e. exhibits an unusually large amount of vibration, noise, or odor), disconnect the power supply immediately and contact your Wacker Neuson dealer. Do not operate the pump in this condition, otherwise there is a risk of current leakage, electrical shock, or fire.

# 3 Maintenance

## Periodic Maintenance Table

| Pump | Daily | Monthly | Every 6 months or 1000 hrs. | Every year or 2000 hrs. | Every 2–5 years |
|---|---|---|---|---|---|
| Measure operating current.<br>Compare with rated current. | ✓ | | | | |
| Measure supply voltage.<br>Compare with allowable range (within ±5% of rated voltage). | ✓ | | | | |
| Measure insulation resistance.<br>Reference insulation resistance = 1MW or greater. **(1)** | | ✓ | | | |
| Pump inspection.<br>A noticeable drop in performance may indicate wear in the impeller, etc., or else clogging of the strainer, etc. Remove the clogged debris and replace any worn parts. | | ■ | | | |
| Lubricant inspection. | | | ■ | | |
| Change lubricant.<br>Designated lubricant: SAE 10W/20W. **(2)** | | | | ■ | |
| Change mechanical seal. **(3)** | | | | ■ | |
| Overhaul.<br>This should be carried out even if there are no problems with the pump. The frequency depends on how continuously the pump is in use. **(4)** | | | | | ■ |

***(1)*** *If the insulation resistance has become noticeably lower than the previous inspection, an inspection of the motor will be necessary.*
***(2)*** *See Lubricant Inspection and Lubricant Change in this section.*
***(3)*** *Specialized know-how is required for inspecting and replacing the mechanical seal. Consult with your nearest dealer or Wacker Neuson representative.*
***(4)*** *Consult with your nearest dealer or Wacker Neuson representative regarding overhauls.*

## 3.1 Maintenance and Inspection

Regular maintenance and inspections are a necessity for continued efficient functioning of the pump. If any abnormal conditions are noticed, refer to the *Troubleshooting* section and take corrective measures immediately. It is recommended that a spare pump be kept ready in case of any problems.

**Prior to inspecting**


Before inspecting the pump, make certain the power supply (circuit breaker, etc.) is turned off. Then, unplug the cable assembly from the receptacle or detach it from the terminals. Failure to follow this precaution may result in a serious accident from electrical shock or unexpected starting of the pump motor.

### 3.1.1 Washing the pump

Remove accumulated matter from the surface of the pump and wash it with clean water. Take special care to remove any debris from the impeller.

### 3.1.2 Inspecting the pump exterior

Look for any peeling or chipped paint, and make sure the nuts and bolts are fastened tightly. Any cracks in the surface should be repaired by cleaning that area, drying it and then applying a touch-up coating.

**Note:** *Touch-up paint is not supplied. Note that some kinds of damage or looseness may require that the unit be disassembled for repairs. Please consult your nearest dealer or Wacker Neuson representative.*

**Storage**

When the pump is out of use for an extended period, wash it and dry it thoroughly, then store it indoors.

**Note:** *Always run a test operation before putting the pump back into service.*

If the pump is left in the water, it should be run a minimum of once a week.

- **Inspecting Lubricant**

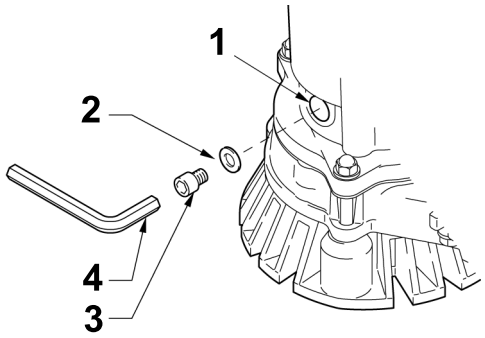
  Remove the oil plug and tilt the pump to drain a small amount of lubricant. If the lubricant is milky white or has water mixed in with it, the mechanical seal may be faulty. In this case the pump will need to be disassembled and repaired.

- **Replacing Lubricant**

  Remove the oil plug and drain all the lubricant, then replace it with the specified amount.

  **Note:** *Worn lubricant and other waste products should be disposed of by a qualified agent, in accord with applicable laws. The oil plug gasket should be replaced each time the lubricant is inspected or changed.*

*See Graphic: wc_gr005668*

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| Ref. | Description | Ref. | Description |
|---|---|---|---|
| 1 | Oil inlet | 3 | Oil plug |
| 2 | Gasket | 4 | Allen wrench |

| Pump Model | Lubricant Capacity |
|---|---|
| PST3 750<br>PSTF3 750 | 160 ml (5.4 fl. oz.) |

Replacement Parts

The table lists the parts that need to be replaced periodically. Replace these using the recommended frequency as a guideline.

| Part | Replacement Frequency |
|---|---|
| Mechanical seal | When lubricant in oil compartment becomes milky. |
| Lubricant (SAE 10W/20W) | Every 2,000 hours or 12 months, whichever comes first. |
| Gasket | Each time pump is disassembled or inspected. |
| Dust seal | When ring is worn, and each time pump is disassembled or inspected. |
| Sleeve | When it becomes worn. |

## 3.2 Disassembly and Reassembly

WARNING

Before disassembling the pump, make certain the power supply (circuit breaker, etc.) is turned off. Then, unplug the cable assembly from the receptacle or detach it from the terminals. To avoid electrical shock, DO NOT work with wet hands.

NEVER check the operation of any parts (impeller rotation, etc.) by turning on the power while the unit is partially assembled. Failure to observe these precautions may result in a serious accident.

DO NOT disassemble or repair any parts other than those designated here. If repairs are necessary in any other than the designated parts, consult your nearest dealer or Wacker Neuson representative. Improper repairs can result in electrical leakage, electrical shock, fire, or water leaks.

After reassembly, ALWAYS perform a test operation before resuming use of the pump. Improper assembly will cause the pump to malfunction, resulting in electric shock or water leaks.

The procedure for disassembly and reassembly is shown here to the extent necessary for impeller replacement. A specialized environment and facilities are necessary for work on the mechanical seal and the motor parts. Contact your nearest dealer or Wacker Neuson representative in the event such repairs are necessary.

## 3.3 Disassembly

*See Graphic: wc_gr005669*

**Note:** *For assembly or disassembly, place the pump on its side.*

**Note:** *It is not necessary to drain the oil for disassembly and inspection of the impeller **(m)**. However, drain oil if further disassembly and testing is required.*

3.3.1 Loosen the three hex nuts **(b)** and remove the three hex bolts **(a)**.

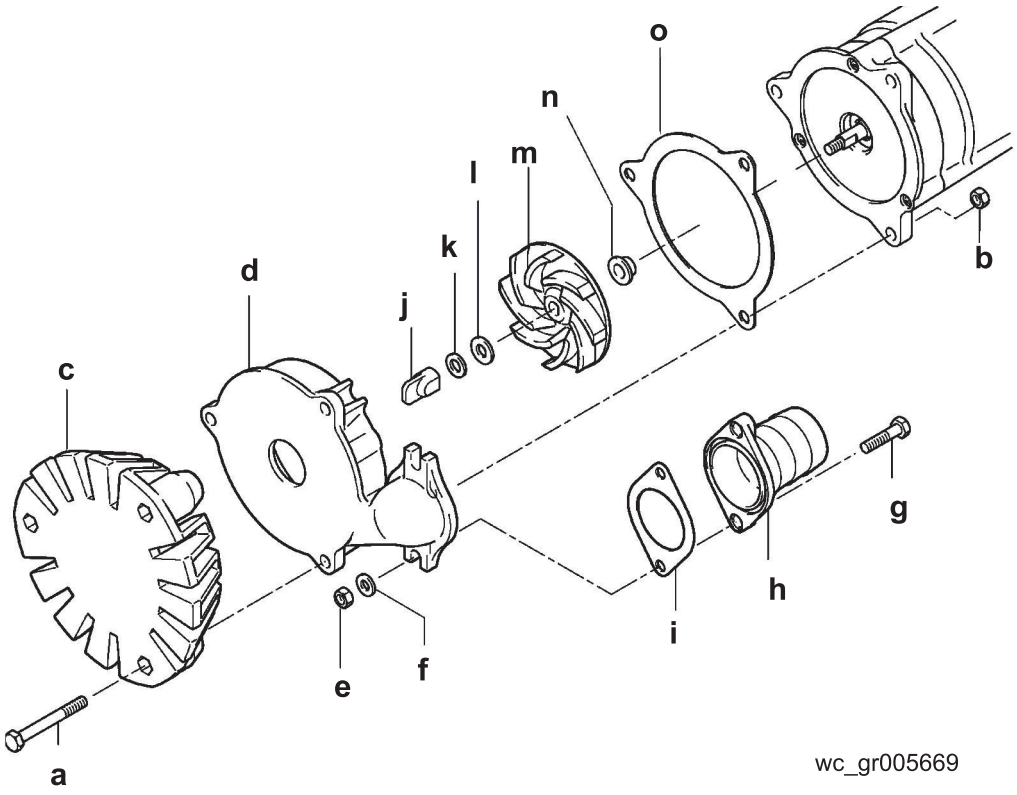
3.3.2 Remove the strainer stand **(c)** and the pump casing **(d)**.

3.3.3 While keeping the impeller from rotating, remove stirrer nut **(j)**, spring washer **(k)** and plain washer **(l)**.

**CAUTION!**
Impeller vanes may be very sharp due to excessive wear.
▶ Handle with care.

3.3.4 Remove impeller.

**Note:** *If the parts are worn or damaged, make sure to replace them with new ones.*




## 3.4 Impeller Inspection

*See Graphic: wc_gr005669*

3.4.1 Visually inspect impeller **(m)** for corrosion, wear or damage. Worn impellers compromise peak performance.

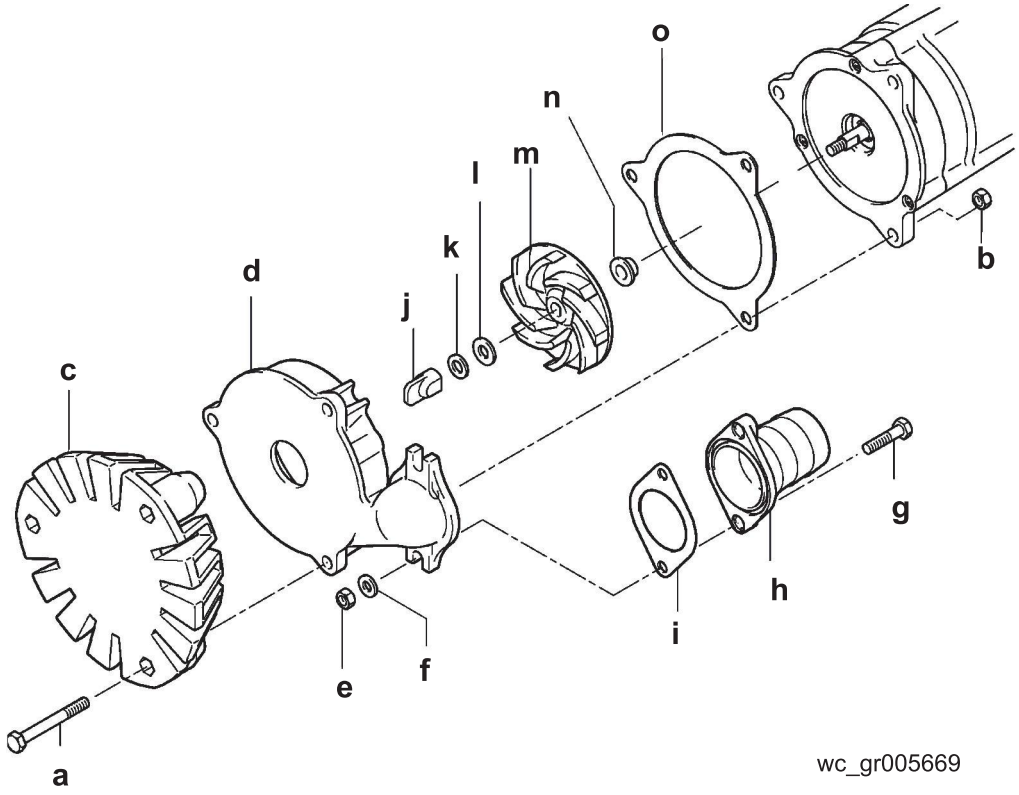
3.4.2 Visually inspect shaft sleeve **(n)** and pump shaft for signs of uneven wear.

3.4.3 Visually inspect pump casing **(d)** for cracks, wear and damage. Look for signs of wear on surfaces facing impeller.

## 3.5 Impeller Reassembly

*See Graphic: wc_gr005669*

**Note:** *If, upon inspection and testing, a pump component requires replacement, use only replacement parts available from or approved by Wacker Neuson.*




3.5.1 Turn pump on its side.

3.5.2 Remove sand, dirt, and other debris from rubber parts such as the impeller **(m)** and casing packing **(o)** before assembling the pump.

3.5.3 Make sure the casing packing fits snugly against the pump base.

3.5.4 Place the shaft sleeve **(n)**, impeller, plain washer **(l),** and spring washer **(k)**, and stirrer **(j)** onto the pump shaft.

3.5.5 Tighten the stirrer, being careful not to apply excessive force that might deform the impeller or cause the rubber liner to flake off.

3.5.6 Pre-test pump to verify proper operation.

## 3.6 Troubleshooting

Before ordering repairs, carefully read through this manual, then repeat the inspection. If the problem remains, contact your nearest dealer or Wacker Neuson representative.

**WARNING**

Personal injury hazard.

- ▶ Always turn off the power before inspecting the pump.

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| Problem / Symptom | Reason / Remedy |
|---|---|
| Pump will not start | ■ Power is off. Restore power.<br>■ Cable assembly is cut or not connected properly. Repair/replace the cable or fix the connection.<br>■ Impeller is clogged. Inspect the pump and remove any debris. |
| Pump stops soon after starting (Motor protector operates) | ■ Impeller is clogged. Remove debris.<br>■ Low voltage. Provide the rated voltage, or make sure the cable assembly extension is the proper standard.<br>■ Wrong power frequency. Check the nameplate, and replace the pump or the impeller.<br>■ Extended operation with a clogged strainer. Remove debris from the strainer.<br>■ Float (if equipped) is obstructed, not moving freely, or malfunctioning. Remove obstructions. Repair or replace float switch if necessary. |
| Pump does not stop automatically | ■ Float (if equipped) is obstructed, not moving freely, or malfunctioning. Remove obstructions. Repair or replace float switch if necessary.<br>■ Water level of float (if equipped) set lower than pump's minimum operating water level. Set float higher than pump's minimum operating water level. |
| Poor lift or discharge capacity | ■ Faulty motor. Repair or replace the motor.<br>■ Excessive sand is discharged. Place the pump on a block or other base to prevent the sand from being sucked into it.<br>■ Worn out impeller. Replace.<br>■ Sharply bent or clogged hose. Straighten out any sharp bends. Enclose the pump with a screen to keep away debris.<br>■ Strainer clogged or buried. Remove debris from the strainer, or place a block under the pump. |
| Heavy vibration or noise | ■ Damaged motor shaft or bearings. Contact dealer and replace motor or bearings. |

# 4 Technical Data

## Standard Specifications

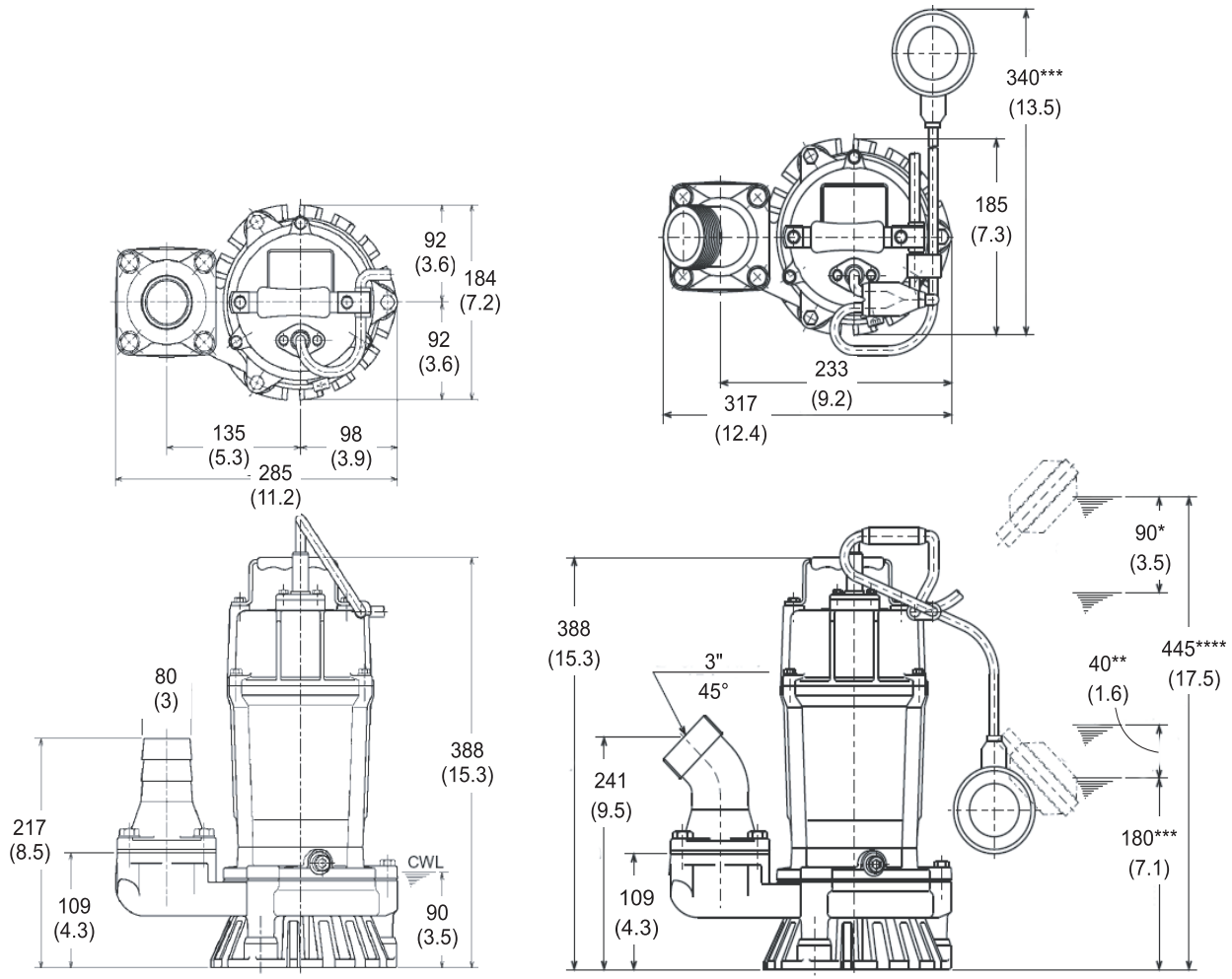
| | | |
|---|---|---|
| Applicable liquids, consistency and temperature | Water, rain water, ground water, sand-carrying water, mud-carrying water<br><br>0–40°C (32–104°F) | |
| Pump | Impeller | Vortex type |
| | Shaft seal | Double mechanical seal |
| | Bearing | Shielded ball bearing |
| Motor | Specification | Dry submersible induction motor (2-pole) |
| | Insulation | Class E |
| | Protection system (built-in) | Miniature protector (0.4 kW)<br>Circle thermal protector (0.55 kW) |
| | Lubricant | SAE 10W/20W<br>Such as:<br>–Turbine Oil ISO VG #32<br>–Shell Victrolia Oil #27<br>–British Pet Energol THB #32<br>–Gulf Paramount #32<br>–Tellus #T22 Shell Oil<br>–Shell Turbo T32 |
| Connection | Hose coupling | |

## 4.1 Operating Specifications

| Part No. | | PST3 750<br>PSTF3 750 | |
|---|---|---|---|
| **Pump** | | | |
| Electric power | V/Ph/Hz | 110/1/60 | 220/1/60 |
| Rated current | A | 10.0 | 4.7 |
| Starting method | | Capacitor-run | |
| Bore | mm (in.) | 80 (3.2) | |
| Output | kW (Hp) | 0.75 (1) | |
| Maximum discharge head | m (ft.) | 19 (62) | |
| Maximum flow rate | L/min (GPM) | 230 (60) | |
| Maximum pressure | $kg/cm^2$ (psi) | 1.79 (25.5) | |
| Solid size capacity | mm (in.) | 7 (0.27) | |
| Weight* | Kg (lbs.) | 19 (42) | |

*The weight (mass) given above is the operating weight of the pump itself, not including the cable assembly.

## 4.2 Dimensions




**PST3 750** **PSTF3 750**

wc_gr005670

*Start range

** Stop range

*** Minimum

**** Maximum

**Important:** For spare parts information, please see your Wacker Neuson Dealer, or visit the Wacker Neuson website at http://www.wackerneuson.com/.

**Wichtig!** Informationen über Ersatzteile erhalten Sie von Ihrem Wacker Neuson Händler oder besuchen Sie die Wacker Neuson Website unter http://www.wackerneuson.com/.

**Important** : Pour des informations sur les pièces détachées, merci de consulter votre distributeur Wacker Neuson, ou de visiter le site Internet de Wacker Neuson sur http://www.wackerneuson.com/.

**Importante** : Para saber más sobre las piezas de repuesto, póngase en contacto con su distribuidor de Wacker Neuson o acceda al sitio web de Wacker Neuson en http://www.wackerneuson.com/.

**Importante** : Per informazioni sui pezzi di ricambio, contattare il rivenditore Wacker Neuson o visitare il sito di Wacker Neuson all'indirizzo www.wackerneuson.com.

**Viktigt** : För information om reservdelar, kontakta din Wacker Neuson-leverantör eller besök Wacker Neusons webbplats på http://www.wackerneuson.com/.

**Tärkeää** : Pyydä varaosatietoja Wacker Neusonin jälleenmyyjältä tai vieraile Wacker Neusonin web-sivustolla osoitteessa http://www.wackerneuson.com/

**Viktig** : For informasjon om reservedeler, vennligst kontakt din Wacker Neuson-forhandler, eller besøk Wacker Neusons nettside på http://www.wackerneuson.com/.

**Vigtigt** : Hvis du ønsker oplysninger om reservedele, bedes du kontakte din Wacker Neuson forhandler eller besøg Wacker Neuson websiden på http://www.wackerneuson.com/.

**Belangrijk!** Neem contact op met uw Wacker Neuson dealer of bezoek de website van Wacker Neuson op http://www.wackerneuson.com/ voor meer informatie over reserveonderdelen.

**Importante** : Para obter informações sobre as peças sobresselentes, consulte o seu fornecedor da Wacker Neuson ou aceda ao site Web da Wacker Neuson em http://www.wackerneuson.com

**Ważne** : W celu uzyskania informacji na temat części zamiennych skontaktuj się z przedstawicielem firmy Wacker Neuson lub skorzystaj z witryny internetowej http://wackerneuson.com/.

**Důležité upozornění!** Pro informace o náhradních dílech, prosím, kontaktujte svého Wacker Neuson dealera, nebo navštivte webové stránky http://www.wackerneuson.com/.

**FONTOS:** A pótalkatrészekre vonatkozó információkért kérjük, forduljon Wacker Neuson kereskedőjéhez vagy látogasson el a Wacker Neuson weboldalára a következő címen: http://www.wackerneuson.com/.

**Важно!** Для ознакомления с информацией о запасных частях, пожалуйста, обратитесь к местному торговому представителю компании Wacker Neuson или посетите веб-сайт http://www.wackerneuson.com/.

**Σημαντικό** : Για πληροφορίες σχετικά με τα ανταλλακτικά, μιλήστε με τον αντιπρόσωπό σας της Wacker Neuson, ή επισκεφθείτε τον ιστότοπο http://www.wackerneuson.com/.

**Važno** : Za rezervne dijelove obratite se svom Wacker Neuson prodavaču ili posjetite mrežne stranice tvrtke Wacker Neuson: http://www.wackerneuson.com/.

**Önemli** : Yedek parça bilgileri için Wacker Neuson Bayinize bakın veya Wacker Neuson web sitesini ziyaret edin. http://www.wackerneuson.com/

**重要** 交換部品の情報については、ワッカーノイソンディーラーにお問い合わせ頂くか、ワッカーノイソンウェブサイト http://www.wackerneuson.com/ をご覧ください。

**重要** 有关备件信息，请咨询您的威克诺森经销商或访问威克诺森网站：http://www.wackerneuson.com/。

**Important** : Pentru informaţii referitoare la piesele de schimb, vă rugăm să vă adresaţi distribuitorului Wacker Neuson sau să vizitaţi site-ul web Wacker Neuson la adresa http://www.wackerneuson.com/.

**Важно** : За информация относно резервни части, моля, обърнете се към местния дилър на Wacker Neuson или посетете уебсайта на Wacker Neuson на адрес http://www.wackerneuson.com/.

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