



# USER MANUAL



# **USER MANUAL**

## **BUCKET ROTATOR**

### **Rotozi**



The purpose of this manual is to ensure the product's proper functioning, durability and safety.

It is vital that you understand the safety and maintenance instructions given in this manual.

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# **1 INTRODUCTION**

This manual concerns the use and maintenance of the Rotozi bucket rotator. What is stated here applies to all bucket rotators regardless of the excavator make and model. The rotator user must be familiar with the safety instructions of the excavator and various accessories.

## **1.1 SAFETY INSTRUCTIONS**

This manual must be kept nearby, wherever the machine is used.

Find out any restrictions regarding your machinery (such as its tipping load).

The safety instructions facilitate the safe and correct use of the rotator.

Make sure that the owner and anyone using the machine have understood the safety instructions after they have read the user manual.

### **1.1.1 LOSSES NOT COVERED BY WARRANTY**

- Incorrect use
- Normal wear and tear
- Modifications without the manufacturer's permission

### **1.1.2 TIGHTENING BOLTS AND ENSURING THEIR TIGHTNESS**

Make sure that the bracket bolts are sufficiently tight after the first 10 hours of use.

Tightening torques:

Rotozi P3 140 Nm

Rotozi P5 330 Nm

Rotozi P10 330 Nm

Check the bolt tightness every day.

## **2 WARNINGS AND OBSERVATIONS**

Do not use the rotator unless you are properly familiar with its use. Ensure that the rotator is properly mounted on the truck before use.

Using a defective rotator is forbidden!

A bucket rotator is not intended for rocky ground but for levelling and moving soil.

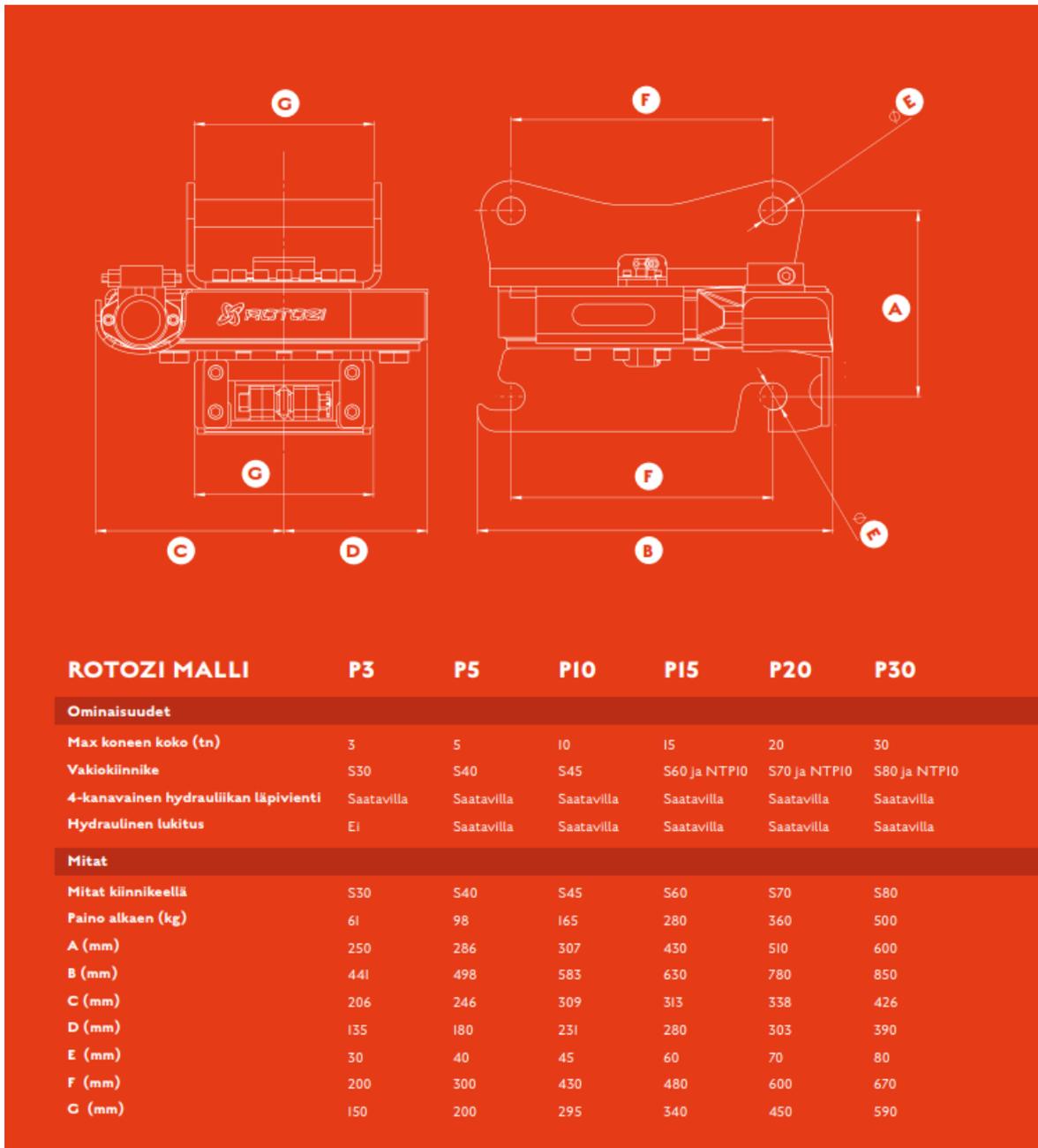
The installation, use and maintenance of a bucket rotator is strictly forbidden until the user has read and understood all information provided about the device.

Incorrect installation can be a safety hazard. If you are uncertain about any safety issues, please contact the equipment dealer.

Remember to check that the tool is properly mounted before starting work.

### 3 TECHNICAL DETAILS THAT MUST BE ACCOUNTED FOR WHEN STARTING TO USE THE DEVICE

#### 3.1 DIMENSIONS



### 3.2 BUCKET ROTATOR INSTALLATION (check the following)

Check before installing the device:

Superficial condition of the device

Condition of hydraulic hoses

The truck's tipping load limits, you may have to select a smaller bucket.

Correct hydraulic pressure from the machine

**Note!**

The truck and bucket rotator must be placed on a flat and firm surface.



*Mounting the connector on the rotator.*

### **3.3 MOUNTING THE CONNECTOR ON THE ROTOZI ROTATOR.**

1. Lower the bracket parts onto the corresponding surfaces of the bucket rotator
2. Turn the lock cylinder switch of the brackets to the ON position. You will hear a sound indicating that the lock cylinder is open.
3. If the excavator connector is equipped with mechanical locking, follow the instructions provided by the connector's manufacturer.
4. Lower the entire bracket against the bucket rotator connector.
5. Switch the lock cylinder to the OFF position.
6. Check that the connector is secure.

Incorrect installation can be a safety hazard. Read the instructions carefully before installing the rotator!

If you have any doubts about safety issues, please contact the equipment supplier or Rotozi.

### 3.4 ATTACHING A TOOL TO THE ROTATOR (buckets, forklift spikes, etc.)

#### 3.4.1 Manual locking

1. Lower the bucket rotator brackets onto the corresponding surfaces of the tool
2. Turn the lock screw of the connector to the OPEN position
3. Lower the bucket rotator bracket/connector against the tool so that you can lock the wedge in place.
4. Once the rotator is in the bracket/connector, tighten the lock screw and check that the wedge is securely in place.
5. Check that the tool is firmly in place by moving the entire rotator and the tools.

#### 3.4.2 Hydraulic locking

1. Lower the bucket rotator brackets onto the corresponding surfaces of the tool
2. Switch the hydraulic lock to the LOCKED position (see section 3.8 Approved locking methods)
3. Check that the connector is secure.

Remember to check that the tool is closed before you start working with the machine.

The tool must always be attached in such a manner that the force (excavation force) is applied to the bracket/connector, not the wedge.



*Attaching the tool to the rotator.*



*Tool locking screw to the CLOSED position.*

## 3.5 REMOVING THE TOOL FROM THE ROTATOR

### 3.5.1 Manual locking

1. Lower the tool onto a flat surface.
2. Open the lock screw and remove by turning the connector to the OPEN position
3. Lift the connector carefully off the machine as shown in the picture.
4. First lift the bracket on the side where the wedge is, after which the device can be removed.

### 3.5.2 Hydraulic locking

1. Lower the tool onto a flat surface.
2. Lower the bucket rotator brackets onto the corresponding surfaces of the tool
3. Switch the hydraulic lock to the OPEN position (see section 3.8 Approved locking methods)
4. Lift the connector carefully off the machine as shown in the picture.
5. First lift the bracket on the side where the wedge is, after which the device can be removed.



*Tool locking screw to the OPEN position.*

### 3.6 REMOVING THE BUCKET ROTATOR CONNECTOR

1. Lower the bucket rotator on a level surface.
2. Release the bracket's lock cylinder on the device by pressing the lock cylinder switch to the ON position. (If the device has mechanical locking, follow the manufacturer's instructions).
3. Lift the bracket carefully off the rotator, as shown in the picture.
4. Lift the end with the wedge first, after which the rotator can be removed.
5. As you remove the rotator, be careful not to drop and damage it.



*Removing the rotator from the connector.*

### 3.7 INSTALLATION OF HYDRAULICS ON THE ROTATOR

Connect the hoses to the hydraulics and the rotator motor.



*Connection of hoses to boom hydraulics.*

Hydraulics values of the machine:

The operating pressure of the rotator hydraulics is max. 195 bar.

### 3.8 INSTALLING THE HYDRAULIC LOCKING

If the Rotozi bucket rotator is equipped with hydraulic tool locking, the locking must be controlled in one of the ways below.

**Alternative A**, Simultaneous use of two buttons:

Two buttons must be pressed at the same time to remove a tool

It must not be possible to press the buttons with one hand

Both buttons must be self-returning.

At least one of the buttons must be located somewhere other than the joystick (hand must be taken off the joystick to use the safety lock)

**Alternative B**, Separate safety lock:

In order to remove the tool, you must first open the safety lock

The safety lock must be located somewhere other than the joystick (hand must be taken off the joystick to use the safety lock)

When the safety lock is open, a sound must be heard

Only once the safety lock has been opened will it be possible to release the actual tool; the button must be self-returning.

**Note!**

Hydraulic locking must be installed so that the cylinder is under constant pressure when in the locked position.

Hydraulics faults may only be repaired by authorised professionals. Before maintenance, make sure that there is no pressure in the hydraulic system.

**CAREFUL!** Hot hydraulic oil. Do not look for a hydraulic leak with your hands.



**In the picture:**

2-way valve with 6/2 electron solenoid. The machine must have a button/buttons on the handles

The machine must have double-acting hydraulics

The bucket rotator is connected to the excavator's additional hydraulics.

For example, either directly to the loader bucket hydraulics, or through a 6/2 valve.

**- Note!**

- Check that the pressure values of the machine are suitable for the rotator.

Local hydraulics shops can assist you with the installation.

The manufacturer is not responsible for any hydraulic systems installed on the machine.

### 3.9 CENTRAL LUBRICATION

If your bucket rotator has been supplied with manual central lubrication, all lubrication will be done by means of a progressive distributor nipple.

By replacing the nipple with a connector, you can connect the rotator lubrication to your machine's central lubrication system. If this is the case, you must make sure that:

- A sufficient amount of lubricant has been specified for the bucket rotator
- When connecting to a single-line system in particular, you must check regularly that the rotator is receiving lubricant. We recommend that the rotator is always connected to a progressive system, such as Beka-Max



### 3.10 LUBRICATION INSTRUCTIONS:

We supply the machines with initial lubrication. Depending on the model and bracket, the lubrication nipple locations may vary.

Lubricate all nipples daily.

You must use a high-quality lubricant designed for pinions.

## **4 USING THE ROTATOR WITH THE MACHINE**

Usage depends on the control system used on the machine. The machine owner or a technician authorised by the owner must make any control adjustments for the rotator.

We will not be held responsible for control adjustments and hydraulics installations on the machine. As a rule, the tilt and rotation is done by pressing the buttons.

The tool is used by controlling the tilting and rotating elements.

### **4.1 MAINTENANCE**

The machine must be maintained regularly to guarantee durability and safety. It is important that daily maintenance is carried out as instructed.

Repair and maintenance must occur under recommendations. The device may only be maintained by a qualified professional.

#### **DAILY ROUTINES**

- Check the device condition (any cracks, damage or leaks?).
- Defective hydraulic hoses must be replaced.
- Device mounting (check the screw tightness).
- The rotator must be on a flat surface during maintenance.
- Checking the tightness of bracket bolts, see section 1.1.2 TIGHTENING BOLTS AND ENSURING THEIR TIGHTNESS

**ALWAYS CHECK THE MOUNTS AND HOSES BEFORE USE**

**IF THERE ARE ANY DEFECTS, DO NOT USE THE DEVICE!**

## **4.2 WARNINGS AROUND THE AREA WHERE THE MACHINE IS USED**

- Do not go under the machine under any circumstances
- Work must not be done around the machine when it is excavating.

### **Checklist before using the machine's rotator**

- Check that the tool/rotator is properly mounted
- Check that the rotator is properly mounted on the connector

The machine operator must ensure that the above checks have been performed before using the machine.

## **5 WARRANTY**

Rotozi grants a 12-month warranty for the product, covering any raw material and material defects.

We are not responsible for any damage caused by:

- Improper or careless use
- Misuse
- Natural wear and tear
- External breakage
- Modifications/repairs made without the manufacturer's permission
- Defects caused by inadequate maintenance

**THE WARRANTY DOES NOT APPLY IF THE ROTATOR HAS BEEN USED INCORRECTLY OR THE MANUFACTURER'S INSTRUCTIONS HAVE NOT BEEN FOLLOWED.**

If a fault occurs, contact the manufacturer or dealer. Faults covered by the warranty are repaired by the manufacturer or an expert authorised by it.

A bucket rotator is not intended for rocky ground. It is designed for levelling and moving soil.



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