



INSTRUCTION MANUAL AND SAFETY MEASURES

RUBBER BLADES



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1. Introduction

This instruction manual is intended for people who work with the machine or who perform daily maintenance on the machine.

It must be read carefully before performing work with or on the machine for the first time.

This instruction manual describes how to use the Zocon rubber blade, which safety measures to take and how to service and transport the rubber blade.

This instruction manual may include components that are optional extras.

Any deviations between the text and/or diagrams in this instruction manual and your machine may, therefore, result from a difference in design. They may also stem from changes as a result of continuous development and innovation.



NOTE

Not observing the following instructions may result in a dangerous situation and the manufacturer's warranty may become invalid.

Explanation of the warning symbols

- Read the instruction manual before using the machine.



- Risk of getting trapped.



2. CE Declaration

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Zonderland Constructie B.V. declares that the machine:

Description of the machine	
Standard function:	RUBBER BLADE
Type:	RS-S190 to RS-H300
Serial number:	...

Declares that the machine is in accordance with Machinery Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 amending Directive 95/16/EC (Official Journal of the EU, L 157/24 of 9/6/2006).

The person responsible for compiling the technical information is the head of the Research and Development department at Zonderland Constructie B.V.

This declaration only applies to the machine as sold in the market and does not concern components and/or treatments that are added at a later date.

3. Warranty

The manufacturer guarantees that the delivered machine meets the usual requirements and standards applicable to the machine and that the machine is free of faults. This warranty is valid for a period of twelve months after delivery. The warranty only concerns the components to be replaced.

This warranty is not valid if a fault occurs as a result of improper use.

Repairs may only be performed after approval from the manufacturer. Repairs that are performed before approval has been given by the manufacturer are at the owner's own expense and no claim can be made against the manufacturer for such repairs.

4. General information

General information concerning the Zocon Rubber Blade is given below.

4.1 USE

The Zocon rubber blades are only intended to be used to shovel surfaces clean and to move sand, mud, snow and animal feed. The Zocon rubber blades are not intended to be used to move or level large volumes of soil.

4.2 EXPLANATION OF THE TYPE PLATE

The rubber blade's type plate is located to the left of the Zocon logo.

The type number consists of the code "RS" followed by the model type and the width of the rubber blade.

Models:

S = Standard rubber blade

M = Mechanical rubber blade

H = Hydraulic rubber blade

Example:



4.3 AVAILABLE TYPES

The following Zocon rubber blades are available:

Type	Model	Width
RS-S190	Standard	1.90 metres
RS-S270	Standard	2.70 metres
RS-S300	Standard	3.00 metres
RS-M190	Mechanical	1.90 metres
RS-M270	Mechanical	2.70 metres
RS-M300	Mechanical	3.00 metres
RS-H190	Hydraulic	1.90 metres
RS-H270	Hydraulic	2.70 metres
RS-H300	Hydraulic	3.00 metres

5. Safety measures

- Only use the machine for the intended purpose.
- Operate the machine safely.
- Make sure the warning symbols remain legible. Replace any missing or damaged symbols.
- Remain out of the reach of rotating parts.
- Make sure nobody is located within the machine's operating range.
- Before using the machine, check the nuts and bolts and if necessary, tighten them.
- Check the hydraulic circuit (if fitted) for leaks every time before use.

6. Technical information

6.1 CONSTRUCTION

The Zocon rubber blades have a modular construction. The individual modules can be bolted together to form every type of rubber blade.



Figure 6.1.1

The three basic models are:

- Standard rubber blade: A rubber blade that cannot be set at an angle. This type of rubber blade has adjustable end flaps.
- Mechanical rubber blade: A rubber blade that can be mechanically set at an angle and has five preset settings. The angular adjustment is controlled by two top rods. The blade can be set to every possible intermediate position (free of play) by adjusting these top rods.
- Hydraulic rubber blade: A rubber blade that can be hydraulically set at an angle. The angular adjustment is controlled by two cylinders. The two cylinders produce an angular adjustment of 45 degrees to the left or right without any play.

Each of the three basic models can have the following optional extras:

- Pallet fork pockets
- Three-point linkage cat. 2 & 3
- Wheel loader coupling board
- Silage bucket coupling

6.2 Technical specifications

ZoCon Rubber Blade type	RS-S190	RS-S270	RS-S300	RS-M190	RS-M270	RS-M300	RS-H190	RS-H270	RS-H300
<i>Working width (cm)</i>	190	270	300	190	270	300	190	270	300
<i>Blade height (cm)</i>	40	40	50	40	40	50	40	40	50
<i>End flap length (cm)</i>	250	380	530	250	380	530	250	380	530
<i>Weight (kg) *</i>	148	173	190	213	238	255	218	243	260

* Weight applies to a blade with a three-point connecting linkage.

7. Using the Zocon rubber blade

When using the Zocon rubber blade, the information given in this chapter must be observed in order to ensure safe working conditions.

7.1 PREPARATION WORK

Always carefully check the Zocon rubber blade for faults before connecting it. A number of important points of consideration are given below:

- On delivery, there is **no** oil in the hydraulic circuit!
- Check the nuts and bolts and if necessary, tighten them.
- Check whether all the assembly pins are securely locked.
- Check the hydraulic circuit for leaks and other faults.
- Check the construction for faults.
- Check the rubber for faults.

The rubber blade may only be connected if you are sure it has no faults.

7.2 CONNECTING THE BLADE USING THE PALLET FORK POCKETS

Carry out the following to connect the Zocon rubber blade using the pallet fork pockets:

- Use the prop to make sure the pallet fork pockets are horizontal.
- Make sure nobody is located between the rubber blade and the vehicle to which it is to be connected and insert the forks into the pockets.
- Fold the manual lock's catch (if fitted) behind the pallet board.
- Connect the hydraulic hoses (if fitted) to the vehicle to which the rubber blade is being connected.

7.3 CONNECTING THE BLADE TO THE THREE-POINT LINKAGE

Carry out the following to connect the Zocon rubber blade to a tractor:

- Drive the tractor so that it is just in front of the rubber blade.
- Make sure the hydraulic valves to be used are not pressurized.
- Turn off the tractor and remove the key from the ignition.
- Connect the rubber blade to the tractor's three-point hoisting mechanism and secure the attachment pins with reliable circlips.
- Adjust the top rod so that the pallet fork pockets are horizontal.
- Connect the hydraulic hoses (if fitted) to the tractor.

7.4 CONNECTING THE BLADE USING THE WHEEL LOADER COUPLING BOARD

Carry out the following to connect the Zocon rubber blade to a wheel loader:

- Make sure nobody is located between the rubber blade and the wheel loader and connect the rubber blade.
- Lock the coupling.
- Connect the hydraulic hoses (if fitted) to the wheel loader.

7.5 CONNECTING THE BLADE USING THE SILAGE BUCKET COUPLING

Carry out the following to connect the Zocon rubber blade to a wheel loader's silage bucket:

- Use the prop to make sure the silage bucket coupling is horizontal.
- Open the silage bucket's clamp.
- Slide the silage bucket into the opening until the blade touches the rear of the coupling.
- Carefully close the clamp until it grips behind the grip plate, coloured blue in figure 7.4.1.

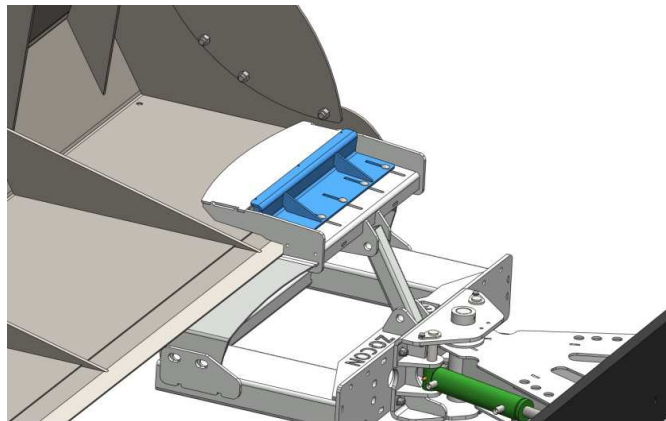


Figure 7.4.1

NOTE:

The grip plate must be adjusted to the type of silage bucket the first time the silage bucket coupling is used.

Adjust the grip plate as follows:

- Open the silage bucket's clamp.
- Slide the silage bucket into the opening until the blade touches the rear of the coupling.
- Close the clamp until it is approximately 5 mm above the grip plate.
- Slide the grip plate against the teeth and fix the plate in place using the five carriage bolts.
- Check how easy the silage bucket can be connected and, if necessary, make an adjustment of a few millimetres.

7.6 ANGULAR ADJUSTMENT OF THE RUBBER BLADE

It is only possible to set the Mechanical and Hydraulic rubber blades at an angle. The blade of the Standard model is rigidly fitted to the blade carrier.

Mechanical angular adjustment:

The mechanical angular adjustment is made by means of two top rods and a pattern of holes with five preset settings.

The preset settings are made during manufacture at:

- 45 degrees to the left
- 22.5 degrees to the left
- 0 degrees
- 22.5 degrees to the right
- 45 degrees to the right

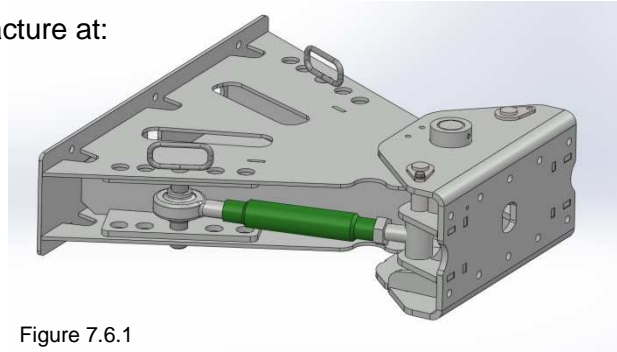


Figure 7.6.1

The top rods also have an adjustment range of 10 cm, so that the rubber blade can be set to every desired intermediate setting. By rotating the top rods in opposite directions, a play-free connection can be achieved in every desired position.

Hydraulic angular adjustment:

The hydraulic angular adjustment is made by means of two hydraulic cylinders. The two cylinders produce a play-free angular adjustment of 45 degrees to the left or right.

7.7 ADJUSTING THE END FLAPS OF THE RUBBER BLADE

The Zocon rubber blades have adjustable end flaps as standard. The end flaps can be adjusted separately in the following three positions:

Position 1: 0 degrees (straight blade)

Position 2: 20 degrees

Position 3: 40 degrees

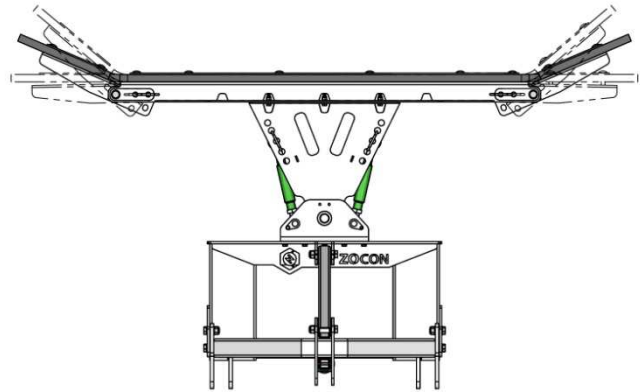


Figure 7.6.1

The end flaps are adjusted using a pin. In position 1, the pin is inserted through the adjustable end flap so that the blade is blocked in both the pushing and pulling direction. In positions 2 and 3, the pin is placed behind the adjustable end flap, so that the blade is only blocked in the pushing direction.

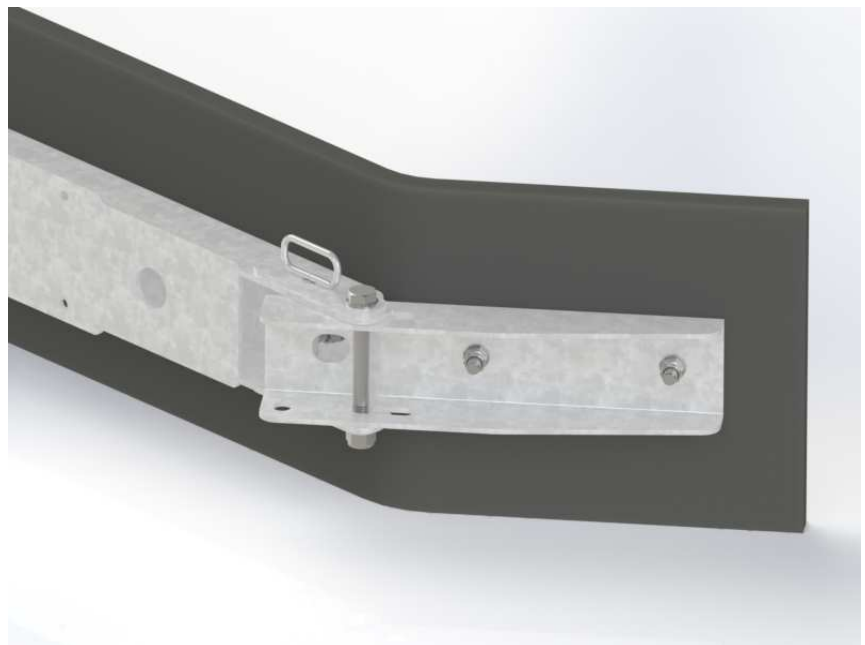


Figure 7.6.2

8. Maintenance

Important information on how to keep the rubber blade in optimal condition is given below.

8.1 GENERAL MAINTENANCE

The following maintenance work must be performed each time after use:

- Thoroughly clean the rubber blade.
- Lubricate the machine with a rust-preventing agent.
- Check all the bolted connections and retighten any that are loose.
- Lubricate the grease nipples on the angular adjustment's bush and the cylinders' bushes (if fitted).

Mind your own safety when performing maintenance and/or repairs. Make sure:

- The connected vehicle is turned off.
- The vehicle's handbrake has been applied (if the rubber blade has been connected to a vehicle).
- The rubber blade is stable (if the rubber blade has not been connected to a vehicle).

9. Technical diagrams

9.1 HYDRAULIC DIAGRAM

Number	Description
1	Cylinder
2	Hydraulic hose 5/16 (long)
3	T-coupling 12L
4	Bulkhead fitting 12L
5	Hydraulic hose 5/16 (short)
6	Hydraulic hose 5/16L (to tractor)
7	Insert nipple 1/2 M18x1.5-12L

