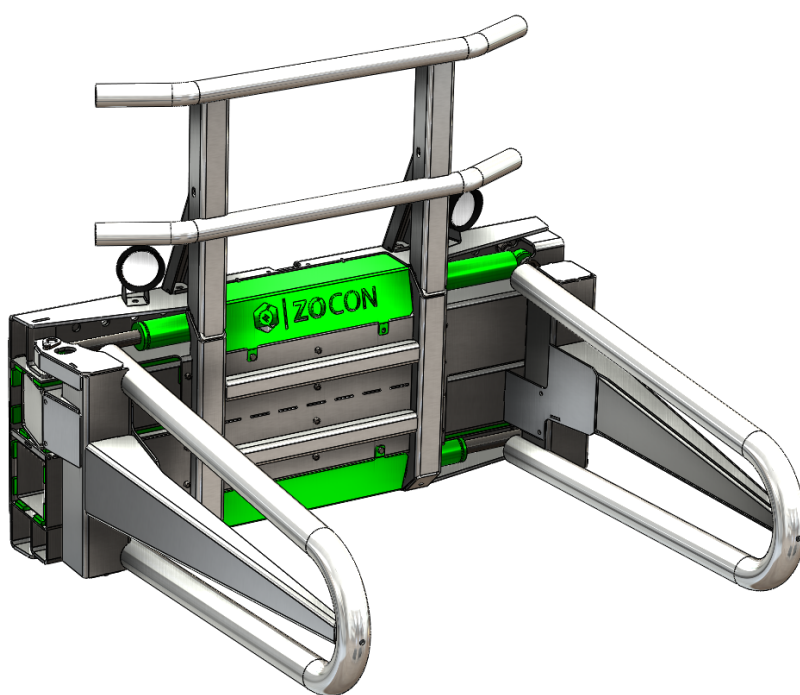




# ***Instruction manual and safety measures***

## ***Bale Clamp***



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# 1. Introduction


Congratulations on your purchase of this Zocon Bale Clamp.

This instruction manual describes how to use the Zocon Bale Clamp, which safety measures to take and how to service and transport the machine.

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

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.

 <b>NOTE</b>	<b>Not observing the following instructions may result in a dangerous situation and the manufacturer's warranty may become invalid.</b>
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## Explanation of the warning symbols

- Read this instruction manual carefully before using the machine.

- Risk of getting trapped.



- Maximum operating pressure.

- Maximum oil flow rate.

- **Do not** lubricate the wear strips.

## 2. CE Declaration

Zonderland Constructie B.V.

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Zonderland Constructie B.V. declares that the machine:

Description of the machine	
Standard function:	<b>BALE CLAMP</b>
Type:	<b>B-01</b>
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 Bale Clamp is given below.

### 4.1 Use

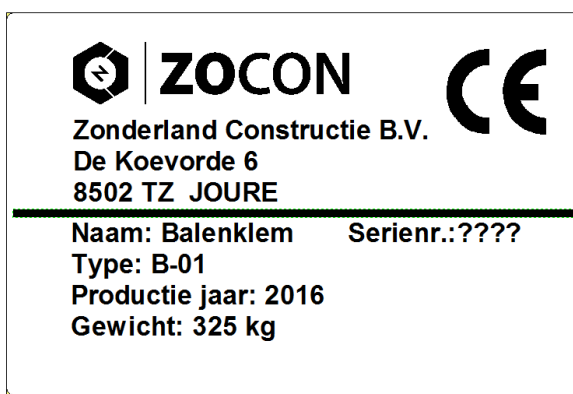
The Zocon Bale Clamp is only intended to be used to move round or square bales. It is not permitted to use the bale clamp to carry out other lifting work or to use the bale clamp for purposes other than those described in this instruction manual.

### 4.2 Explanation of the type plate

The bale clamp's type plate is located on top of the bale clamp.

The bale clamp's type number is "B-01".

#### Example:



## 5. Safety measures

To ensure that the work is carried out safely, the following safety measures must always be observed when using the Zocon Bale Clamp.

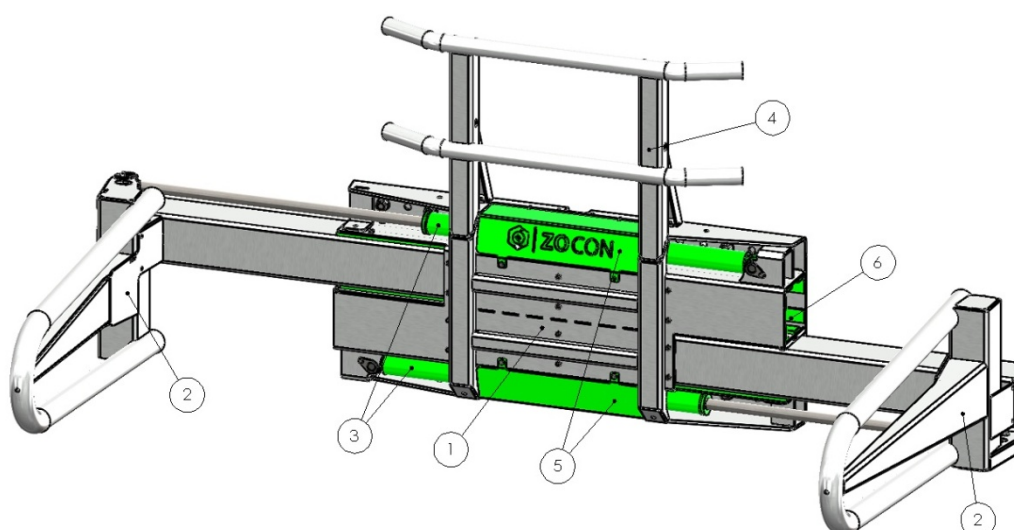
- Only use the machine for the intended purpose.
- Operate the machine safely.
- Make sure the warning symbols remain legible. Replace any missing or damaged symbols.
- Remain out of the reach of rotating and sliding parts.
- Make sure nobody is located within the machine's operating range.
- Before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

## 6. Technical information

### 6.1 Construction

The Zocon Bale Clamp has a modular construction. The Zocon Bale Clamp can be connected to any tractor or wheel loader by means of a bolted hitch. There may be a difference between your bale clamp and the one described in this instruction manual as a result of the chosen options or because of alterations and innovations.

The diagram below shows the Zocon Bale Clamp and its components. Study this diagram before reading chapter 7 "Using the Zocon Bale Clamp".



Number	Description
1	<i>Bale clamp main frame</i>
2	<i>Jaws</i>
3	<i>Cylinders</i>
4	<i>Add-on for moving a second bale</i>
5	<i>Finishing covers</i>
6	<i>Wear strips</i>



## 6.2 Technical specifications

<i>Max. capacity (kg)</i>	<i>1500</i>
<i>Weight (kg) *</i>	<i>325</i>
<i>Jaw reach (mm)</i>	<i>700 - 2450</i>
<i>Maximum width (mm)</i>	<i>2820</i>
<i>Minimum width (mm)</i>	<i>1400</i>
<i>Max. operating pressure (bar)</i>	<i>180</i>

\* The specifications given above are for a standard Zocon Bale Clamp.

## 7. Using the Zocon Bale Clamp

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

### 7.1 Using the bale clamp for the first time

Before using the Zocon Bale Clamp for the first time, you must check, pay attention to and adjust the following:

- On delivery, there is **no** oil in the hydraulic circuit!
- The wear strips are maintenance-free. They must not be lubricated with oil or grease.
- 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.

### 7.2 Preparation work

Always make sure the Zocon Bale Clamp is in a good condition before using it. The points given below must be checked and taken into consideration every time you connect the Zocon Bale Clamp.

- 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.
- Make sure the lights work correctly (if fitted).

The bale clamp may only be connected if you are sure it has no faults.

## **7.3 Connecting the bale clamp**

The Zocon Bale Clamp can be connected to a tractor or wheel loader in a number of different ways. This section explains how to do so correctly. Read the following carefully and make sure you understand the information given. This information is extremely important to ensure the correct operation and a long service life of the bale clamp.

### **7.3.1 Connecting to three-point hitch (rear-mounted hoisting mechanism)**

Carry out the following to connect the Zocon Bale Clamp to a tractor:

- Drive the tractor so that it is just in front of the bale clamp.
- Make sure the hydraulic valves to be used are not pressurized.
- Turn off the tractor and remove the key from the ignition.
- Make sure the lifting mechanism is single action (lifting only).
- Connect the bale clamp to the tractor's three-point hoisting mechanism and secure the attachment pins using reliable circlips.
- Connect the hydraulic hoses to the tractor. (Max. 30 l/min, max. 180 bar. A pressure reducing valve must be fitted for higher pressures.)
- Connect the electrical components (if fitted).

### **7.3.2 Connecting to a quick-hitch A frame (Accord)**

Carry out the following to connect the Zocon Bale Clamp to a quick-hitch A frame:

- Drive the tractor so that it is just in front of the bale clamp.
- Sufficiently lower the quick-hitch A frame (front lift).
- Place the quick-hitch A frame in the quick-hitch adaptor and raise the bale clamp.
- Make sure the hydraulic valves to be used are not pressurized.
- Turn off the tractor and remove the key from the ignition.
- Make sure the lifting mechanism is single action (lifting only).
- Connect the hydraulic hoses to the tractor. (Max. 30 l/min, max. 180 bar. A pressure reducing valve must be fitted for higher pressures.)
- Connect the electrical components (if fitted).

### **7.3.4 Connecting the bale clamp using the wheel loader coupling board**

Carry out the following to connect the Zocon Bale Clamp to a wheel loader:

- Make sure nobody is located between the bale clamp and the wheel loader and connect the bale clamp.
- Lock the coupling.
- Connect the hydraulic hoses to the wheel loader. (Max. 30 l/min, max. 180 bar. A pressure reducing valve must be fitted for higher pressures.)
- Connect the electrical components (if fitted).

## 7.4 Instructions for use

The Zocon Bale Clamp is only intended for transporting round or square bales that are or are not wrapped in foil. The instructions given below must be observed to ensure optimal operation.

- Open the jaws so that they are at least as wide as the bale.
- Drive the tractor so that the jaws are on either side of the bale and until the main frame pushes against the bale.
- Close the jaws until the bale is firmly held.
- You can now lift the bale from the ground.



**When lifting the bale, make sure it is firmly held and does not slip. The bale can slip because it is too heavy, too slippery or too loose.**

## 8. Maintenance

Important information on how to keep the bale clamp in optimal condition is given below.

### 8.1 General maintenance

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

- Thoroughly clean the bale clamp.
- Lubricate the machine with a rust-preventing agent.
- Keep the wear strips clean and free of grease. The wear strips are maintenance-free and must **never** be lubricated with oil or grease.
- Check all the bolted connections and retighten any that are loose.

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.
- The bale clamp is in a stable position when it is not connected to a vehicle.

### 8.2 Wear of the wear strips

The wear strips are made from high-quality, self-lubricating plastic. The wear strips must, therefore, **never** be lubricated with oil or grease. Keeping the wear strips clean and free of grease extends their service life.

Regularly check the wear strips for wear. You can determine the wear by measuring the thickness of the wear strips.

The wear strips are worn when they reach a thickness of 6 mm.

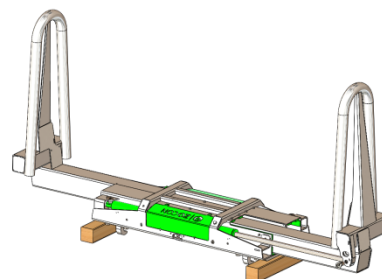


**Do not allow the wear strips to become thinner than 6 mm! In the event of excessive wear, the bolts that are used to attach the wear strips will seize on the jaws!**

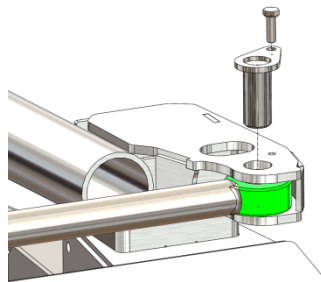
#### 8.2.1 Replacing the wear strips

The following must be carried out to replace the wear strips of the Zocon Bale Clamp:

- Slide out the jaws as far as possible.
- Disconnect the bale clamp.
- Place the bale clamp on the welded-on hooks or on beams with the jaws facing upwards so that you can reach the nuts of the wear strips.



- Disassemble the attachment pins of the cylinders on the same side as the jaws.



- Pull the jaws out of the main frame.

- Remove the bolts of the wear strips and remove the wear strips from the main frame.

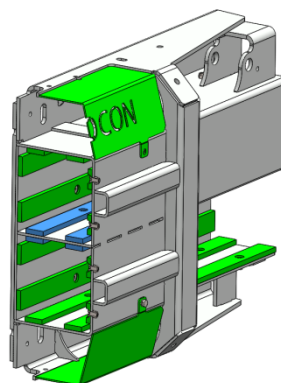
- Fit the new wear strips and fit the bolts.



**- Use new lock nuts when securing the wear strips.**

**- Use low DIN 439B hexagonal nuts for the four blue-shaded wear strips. Secure them using Loctite screw thread locking compound, type 242.**

**- Carefully tighten the bolts. The wear strips must remain flat. If the bolts are overtightened, the wear strips will start to bend.**



- Place the jaws back in the main frame. The jaws may be rather tight at first because of the new wear strips.

- Attach the cylinders to the jaws.

- You can now place the bale clamp upright and attach it.

## 9. Technical diagrams

### 9.1 Hydraulic diagrams

