Meijer Holland
bale handling systems

Jumbo CKM1–CKM2–CKM3

Manual

Bale grab

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Content

1. Introduction

The Meijer Holland bale grabs of the ‘Jumbo CKM’ type are designed to be attached to a telescopic handler, front loader, wheel loader, forklift or crane (hereinafter referred to as ‘vehicle’) in order to grab and transport wrapped bales over a short distance. The hydraulic hoses of the bale grab are to be attached to the hydraulic system of the vehicle.

It is important to read the manual carefully before using the machine. Should this not be the case, there can be the risk of serious injury or death for the user and damages to the environment. Moreover, there is the risk of damage to the materials or to the machine. Therefore, it is essential that you follow the instructions of this manual.

2. Technical specifications

Feature		Jumbo CKM1	Jumbo CKM2	Jumbo CKM3
height	cm	120	120	135
width	cm	135	255	300
weight	kg	250	585	1200
volume hydraulic circuit	ltr	2	4	10
max. number wrapped bales		1	2	3
max. load (lxwxh)	cm	160x125x120	160x125x120	160x125x120
max. pressure hydraulic circuit	bar	180	180	180

⚠ When using a vehicle with a pressure higher than 180 bar, it is strongly recommended to use a pressure relief valve.
This is available at Meijer Holland.

CE-marking
This machine is certified with the CE-marking. This means that the machine meets the requirements of the applicable EC-directives on safety and health. These directives are specified in the attached declaration of conformity.

⚠
- The non-observance of the rules and instructions stated in this manual is to be considered as serious negligence which leads to the extinguishment of any liability on the part of Meijer Holland concerning the resulting consequences. In this case, the risk lies exclusively with the user.
- Meijer Holland is constantly busy with the improvement of its products. Therefore, it also reserves the right to make any changes that are considered necessary. There is no obligation to apply these changes to earlier delivered machines.

3. Safety precautions

The following precautions are important to prevent injuries and damages.

1. Read the manual before use.
2. Only experts should (dis)mount the bale grab.
3. Only experts should operate the bale grab.
4. Use the bale grab only for bales.
5. Check whether the hydraulic system is working well right after having mounted the bale grab.
6. Follow the instructions for use (chapter 6).
7. The working area of the machine is five metres:
   - no persons are allowed within that range!
8. Operate the bale grab exclusively from the cabin of the vehicle.
9. Mind the rules for max. load (chapter 2).
10. Be aware of oil leakage:
    - check the hydraulic hoses and cylinders at least once a day.
11. Replace damaged or worn wires and cylinders immediately.
12. Follow the instructions for maintenance (chapter 7).
13. When driving longer distances or on a public road:
    - no bales are permitted in the bale grab!
14. Drive straight backwards after having placed the bales.
    - when the clamp arm is not lifted above the placed bale, the stack of bales can fall over.
15. While reversing:
    - make sure that there are no people behind the vehicle.

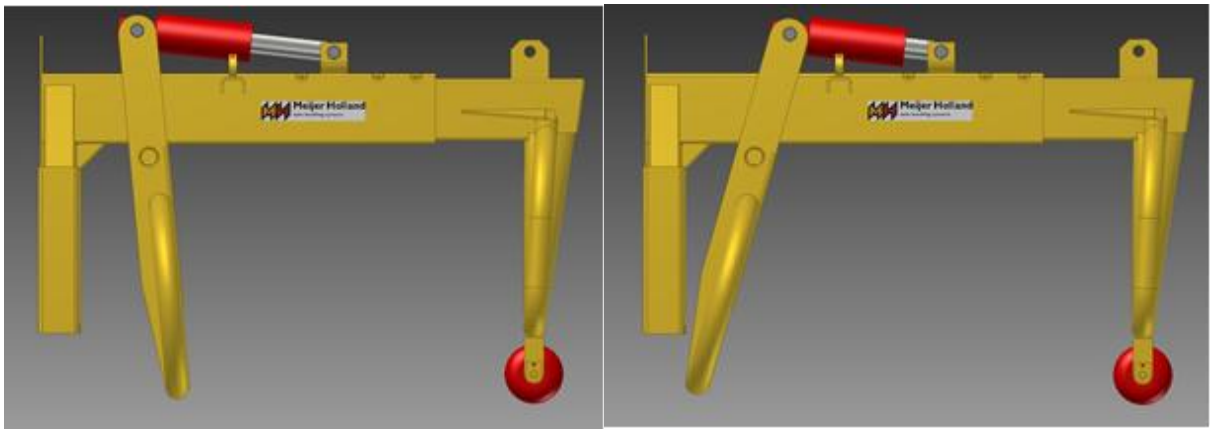
Build the stack of straw and hay bales in a stable way so that it cannot fall over. The driver must be aware of the rules that apply to the lifting and hoisting of heavy loads.

4. The functioning of the bale grab

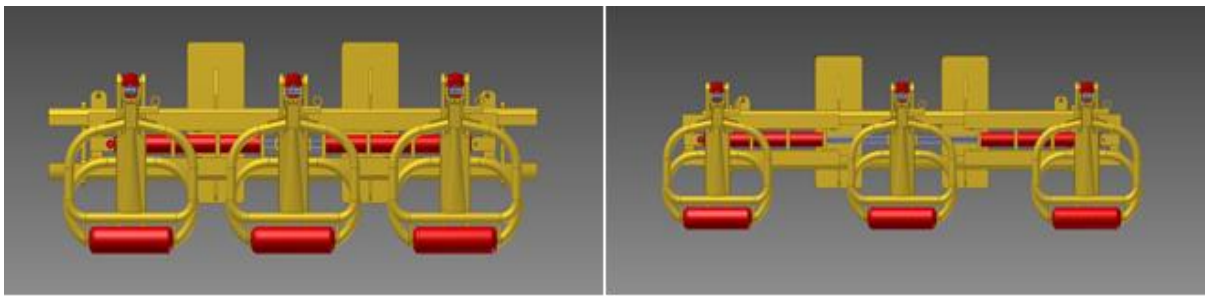
Mount the bale grab to a vehicle with a hydraulic system. The bale grab only works when it is attached correctly to the hydraulic system of the vehicle.

On the bale clamp, one movement is possible per clamp arm:
- Wrapped bales are clamped with the clamp arms that are driven by a hydraulic cylinder. Each clamp arm has one cylinder. This movement can be seen in the images below.

On the Jumbo CKM3, there is a second movement option:
- The distance between the clamping arms can be adjusted with two hydraulic cylinders



movement clamp arms Jumbo CKM1, 2 and 3



Jumbo CKM3: narrow distance (left) and wide distance (right) between clamping arms

5. Installation, starting up, adjustment

⚠ Check if the bale grab is undamaged and in good condition on delivery. Please contact Meijer Holland if you notice any damages. Use the grab only if it is found to be in good order and after this manual has been read.

5.1 After delivery

- Place the bale grab on a solid and even ground.

5.2 Before moving the bales

1. Assemble the mounting parts.
2. Drive the vehicle in such a way to the bale grab that the mounting surface of the vehicle falls against the mounting point of the bale grab.
3. Attach the bale grab to the vehicle.
4. Check the couplings for dirt. Only attach clean couplings to prevent dirt from entering the system.
5. Connect the two correct hydraulic hoses of the vehicle to the two quick release couplings above the mounting point of the bale grab. The upper hose is for clamping the bales and the lower one is for releasing them.
6. Check for leakage.
7. Check the correct control of the cylinder from the hydraulic system.
8. Put the hydraulic system under pressure and test the bale grab by opening and closing the clamp arms.

5.3 After having moved the bales

1. Place the bale grab with the vehicle on a solid and even ground.
2. Check whether the bale grab stands steady.
3. Disconnect the hydraulic hoses and check them for leakage.
4. Dismount the junction of the vehicle from the bale grab and drive away in reverse.

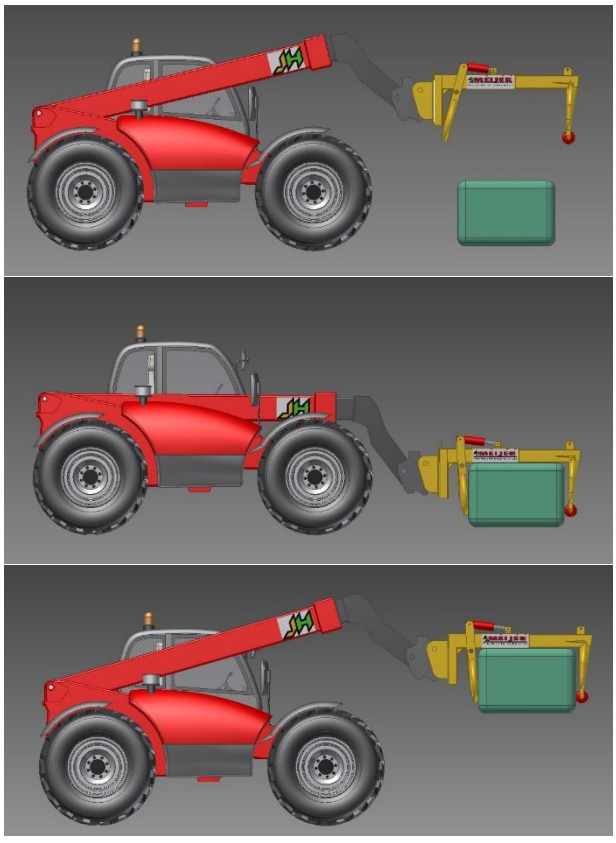
⚠ Store the bale grab in a dry and clean environment until the next use.

6. Operation and use

1. Drive the vehicle in such a way to the bale that the bale is located right under the bale grab (with the CKM3, the first bale should be placed right under the middle clamp arm).
2. Let the bale grab sink until the front frame leans against the bale.
3. When the frame pushes against the bale, the hydraulic system can be operated. The rear frame moves towards the bale.
4. Once the bale is clamped, put the hydraulic system back into ‘neutral’.

> ⚠ Make sure that the rear frame has enough space above the ground so that it does not drag on the ground.

5. Lift the bale and drive the vehicle to the place of destination or to the next bale.
6. For the second and third bale: drive again straight in front of the bale so that the still empty clamp arm is hanging straight above the second or the third bale.
7. Lower the bale grab so that the front frame is against the bale. Hold the bale grab in such a way that the running wheel is pushed upwards. By doing so, the hydraulic circuit is pushed under pressure the clamp arm will be closed.
8. Let the bale(s) sink to the loading floor and put the hydraulic system in ‘return’. Lift the bale grab.
9. Drive the vehicle backwards away from the bales.
10. The bale grab is ready to grab and move another series of bales.



use Jumbo CKM1, 2 and 3

7. Maintenance

Regular maintenance extends the life span. The bale grab needs relatively little maintenance.

Maintenance schedule

Before every use	Check the bale grab for damages and wear. Replace damaged or worn parts.
	Check the hydraulic couplings, hoses and cylinders for leakage, wear and damages. Let problems be fixed immediately by a competent mechanic.
At least once per week	Clean the bale grab of caked dirt and dust. When using a high-pressure washer, avoid the electrical parts.
	Put grease on the grease nipples. At extensive use: after every eight working hours add a bit of grease (0,86 grams per grease nipple).
	Check the arms for damage to prevent damages to the bale foil

8. Problems and solutions

The bale grab has relatively few moveable parts and damages are unlikely to occur when used properly. Repair or replace damaged or worn parts immediately. Spare parts are available at Meijer Holland.

- Turn off the engine of the vehicle while you are fixing one of the below-mentioned problems.
- Turn off the power supply during welding.
- Hydraulic fluid is a poisonous liquid that is harmful to the environment. Never try to shut a leak with your hand. Fluid under high pressure easily penetrates through skin and clothing and can cause serious injuries.

Problem	Possible cause	Solution
The clamp arm(s) is/are not moving.	The hydraulic system of the bale grab is not attached to the hydraulic system of the vehicle.	Attach the two hoses.
	The hydraulic circuit of the bale grab is not attached correctly.	Exchange the wrongly attached hydraulic hoses.
	Malfunction in the hydraulic system of the vehicle.	Consult the manual of the vehicle.
	The clamp arm(s) or cylinder(s) is/are blocked.	Look for the blockade and remove it.

9. Environment and disposal

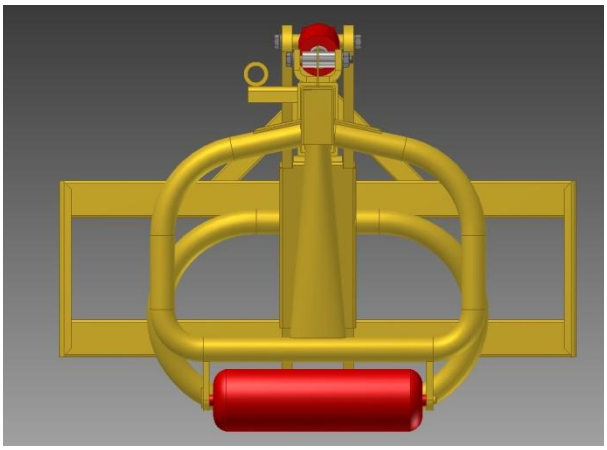
The bale grab has a hydraulic circuit that contains hydraulic fluid, a poisonous liquid that is harmful to the environment. Regularly check the bale grab for leakage and replace damaged or worn parts immediately.

9.1 Disposal of the bale grab

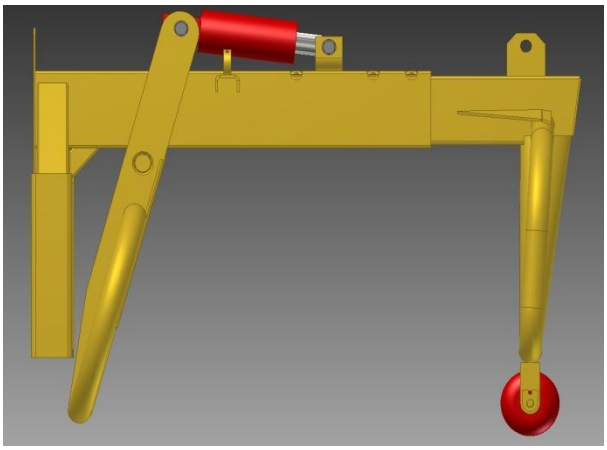
- Drain the hydraulic system and let the fluid be disposed by an authorised company.
- The rest of the bale grab is made of coated steel and can be disposed of as scrap.

10. Assembly drawings

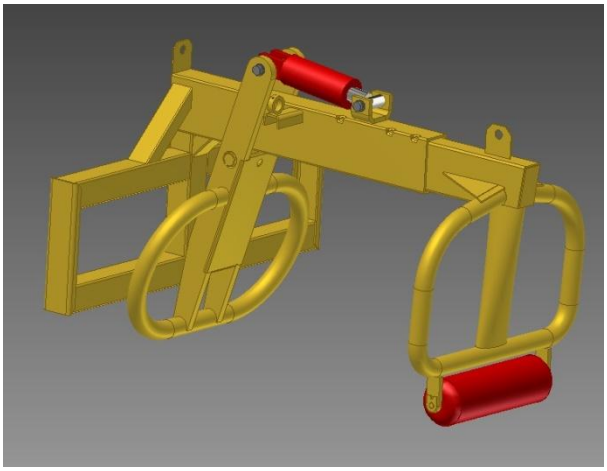
Jumbo CKM1



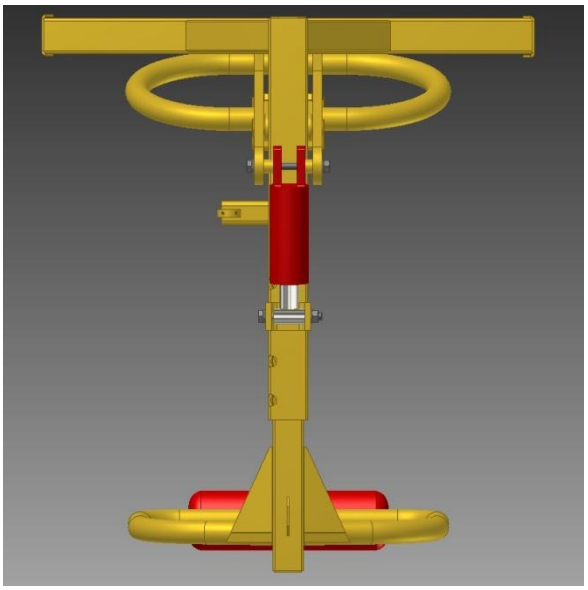
front view



side view

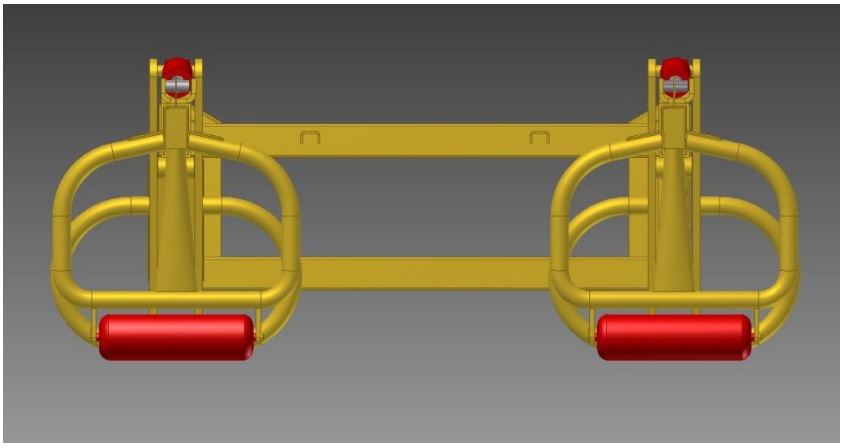


isometric view

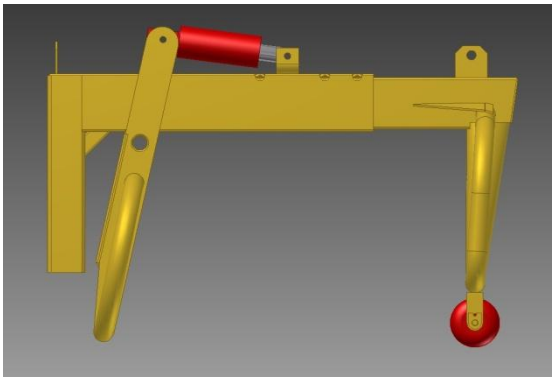


top view

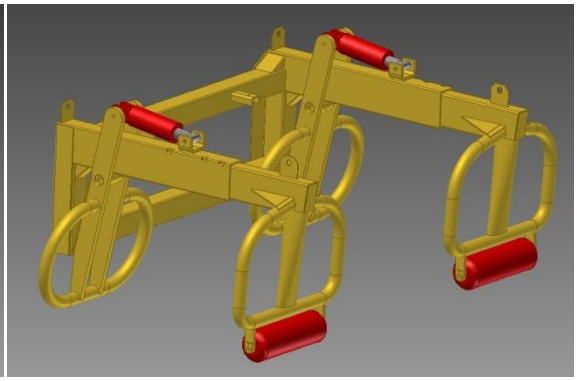
Jumbo CKM2



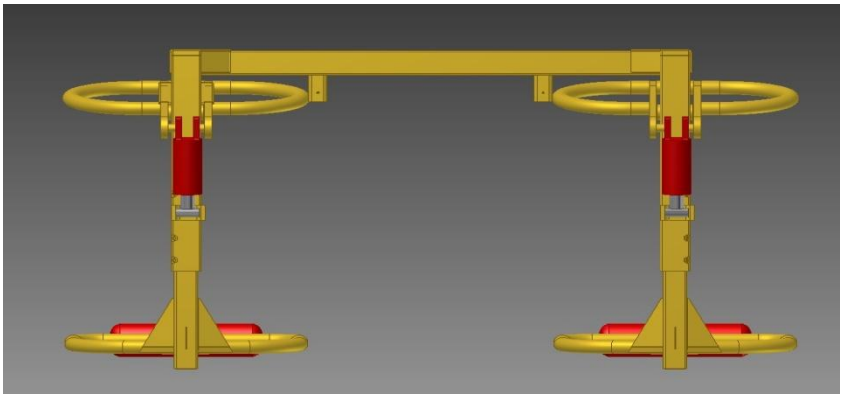
front view



side view

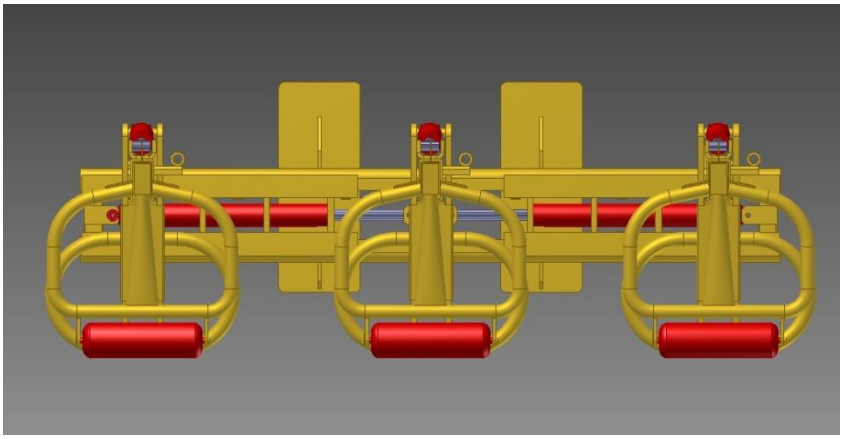


isometric view

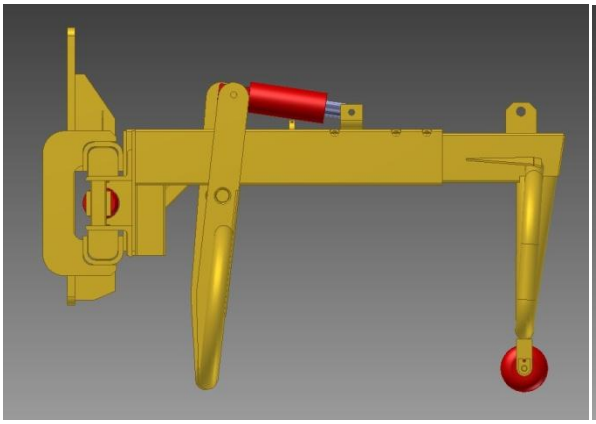


top view

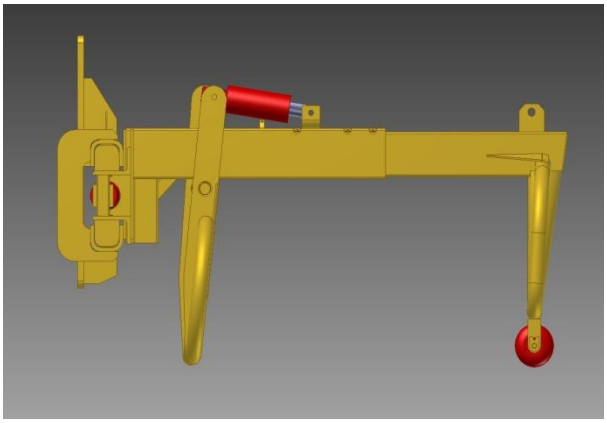
Jumbo CKM3



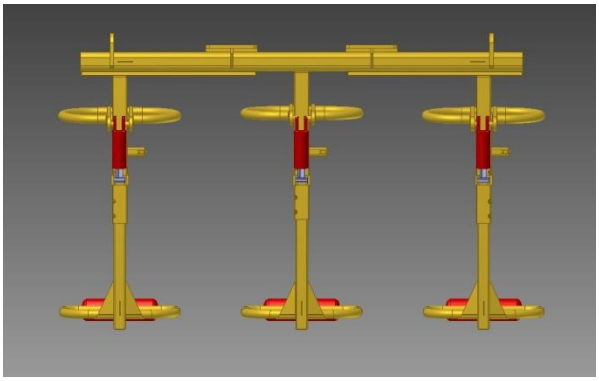
front view



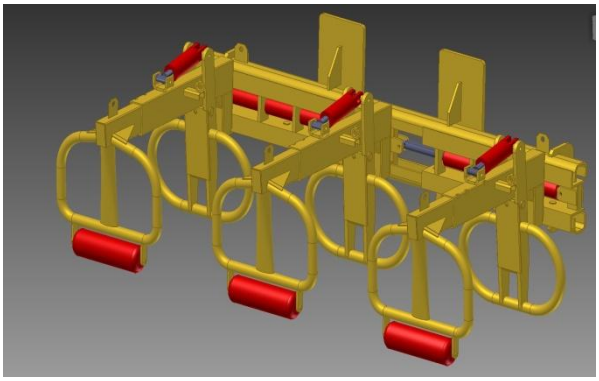
side view



side view extended



top view



isometric view

Meijer Holland
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CE-Declaration of conformity

We, Meijer Holland
Bale handling systems
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The Netherlands
Tel: +31 (0)50 - 312 64 48

declare under our sole responsibility that:

1. **we are the manufacturer of:**
   MH Jumbo CKM1 (model MHCKM01)
   MH Jumbo CKM2 (model MHCKM02)
   MH Jumbo CKM3 (model MHCKM03)

2. **the machine complies with the following applicable directives:**
   Machinery directive 2006/42/EG

3. **the machine is designed and constructed according to European standards, including:**
   - EN 349:1993+A1:2008
   - EN-ISO 4413:2010
   - EN-ISO 12100:2010

The electrics and the control section are the responsibility of the customer.

Groningen, 3 August 2016

J.F. Lommerts, *director*