



Meijer Holland

bale handling systems

Jumbo CKM1–CKM2–CKM3

Manual Bale grab



Content

1. Introduction	4
2. Technical specifications.....	5
3. Safety precautions.....	6
4. The functioning of the bale grab	7
5. Installation, starting up, adjustment	8
6. Operation and use.....	9
7. Maintenance.....	10
8. Problems and solutions	11
9. Environment and disposal	12
10. Assembly drawings.....	13
CE-Declaration of conformity.....	16

1. Introduction

The bale grabs Jumbo CKM's of Meijer Holland are designed to be attached to a telescopic handler, front loader, wheel loader or forklift (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	100 cm	100 cm	115 cm
Width	100 cm	265 cm	320 cm
Weight	250 kg	510 kg	980 kg
Volume hydraulic circuit	2 litres	4 litres	10 litres
Max. load (lxwxh)	1 wrapped bale 160x125x120 cm	2 wrapped bales 160x125x120 cm	3 wrapped bales 160x125x120 cm
Max. pressure hydraulic circuit	180 bar	180 bar	180 bar



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 5 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 per 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.



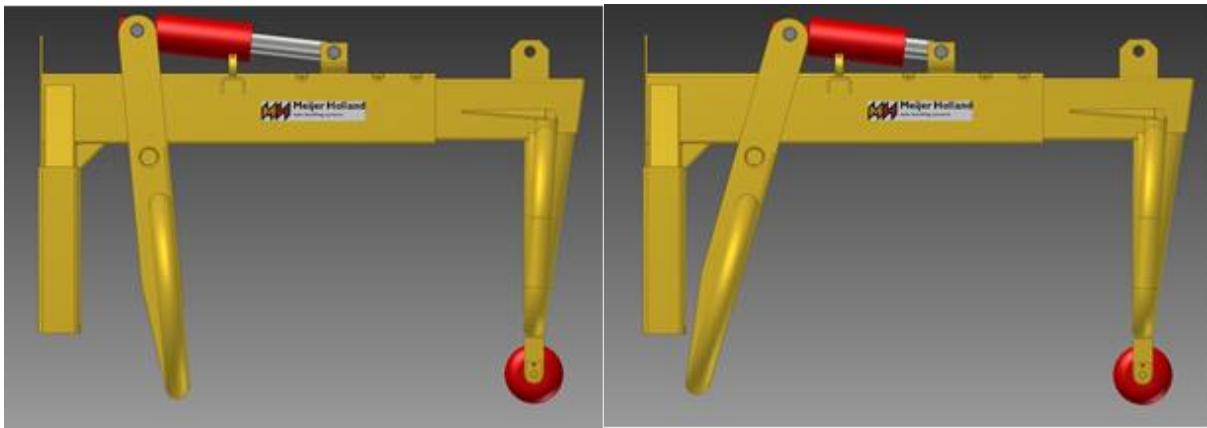
Build the stack of straw and hay bales in a stable way so that it cannot fall over. The driver must be aware of the rules that apply to the lifting and hoisting of heavy loads.

4. The functioning of the bale grab

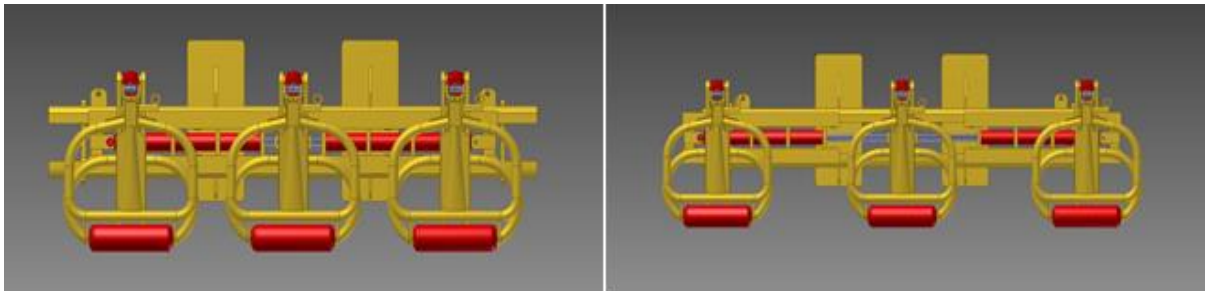
Mount the bale grab to a vehicle with a hydraulic system. The bale grab only works when it is attached correctly to the hydraulic system of the vehicle.

For all three types of the bale grab - CKM1, CKM2 and CKM3 - the clamping of a bale takes place with a clamp arm that is powered by a hydraulic cylinder. Each clamp arm has one cylinder. This movement can be seen in the images below.

The Jumbo CKM3 offers the possibility to adjust the distance between the clamp arms.



Movement clamp arms Jumbo CKM1,2 en 3



Jumbo CKM3 – small width (left) and large width (right) between clamp 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. Drive the vehicle in such a way to the bale grab that the mounting surface falls against the mounting point of the bale grab.
2. Attach the bale grab to the vehicle.
3. Check the couplings for dirt. Only attach clean couplings to prevent dirt from entering the system.
4. 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.
5. Check for oil leakage.
6. Check the correct control of the cylinder from the hydraulic system.
7. Put the hydraulic system under pressure and test the bale grab by opening and closing the hooks.

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.

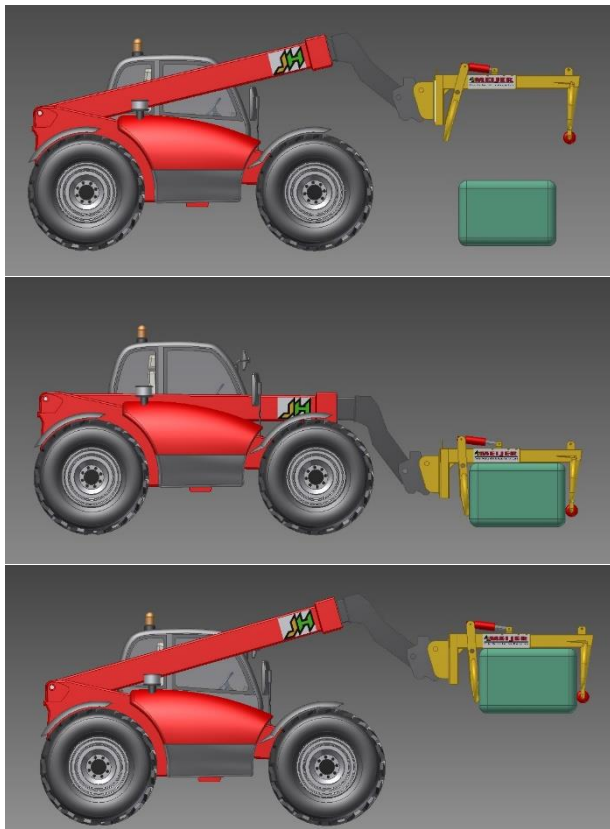
6. Operation and use

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 has to be located 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 in such a way to the bale that the still empty clamp arm hangs right above the second bale.
7. Let the bale grab sink so that the front frame leans against the bale. Hold the bale grab in such a way that the wheel will be pushed up. By doing so, the hydraulic circuit is pushed under pressure the clamp arm will be closed.
8. Let the bale (bales) sink to the loading floor and put the hydraulic system in 'return'. Lift the bale grab up.
9. Drive the vehicle away from the bales in reverse.
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 few maintenance.

Maintenance schedule

Before every use	Check the bale grab for damages and wear. Replace damaged or worn parts immediately.
	Check the hydraulic clutch, 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 8 working hours add a bit of grease (0,86 grams per grease nipple).
	Check the clamp arms for damages in order to prevent damages of the wrapped bales.

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

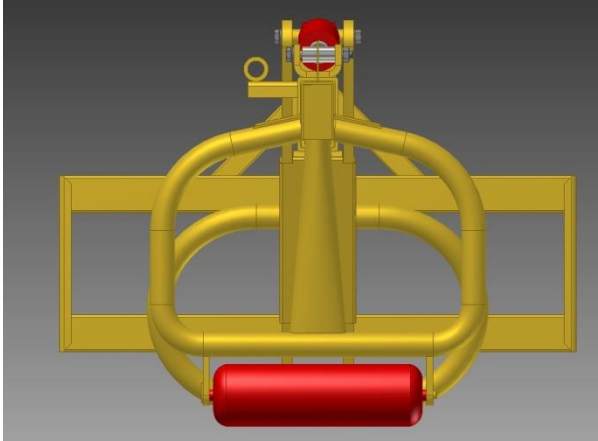
The bale grab has a hydraulic circuit that contains hydraulic fluid, a poisonous liquid that is harmful to the environment. Regularly check the bale grab for leakage and replace damaged or worn parts immediately.

9.1 Disposal of the bale grab

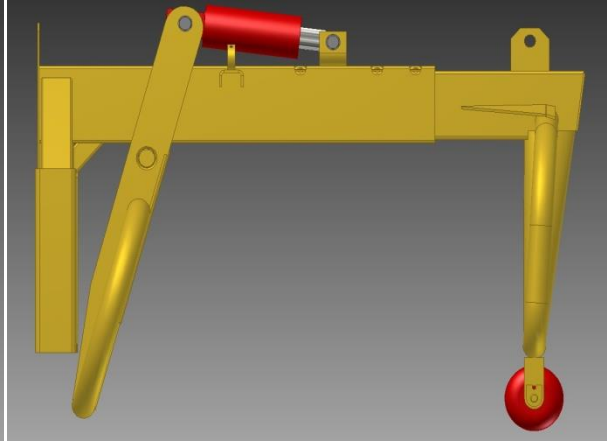
- Drain the hydraulic system and let the fluid be disposed by an authorised company.
- The rest of the bale grab is made of coated steel and can be disposed of as scrap.

10. Assembly drawings

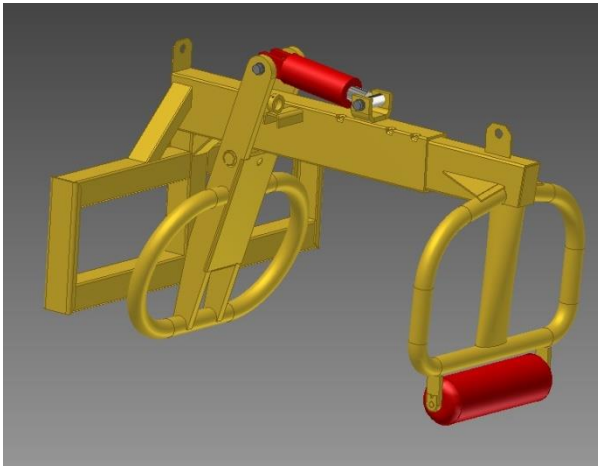
Jumbo CKM1



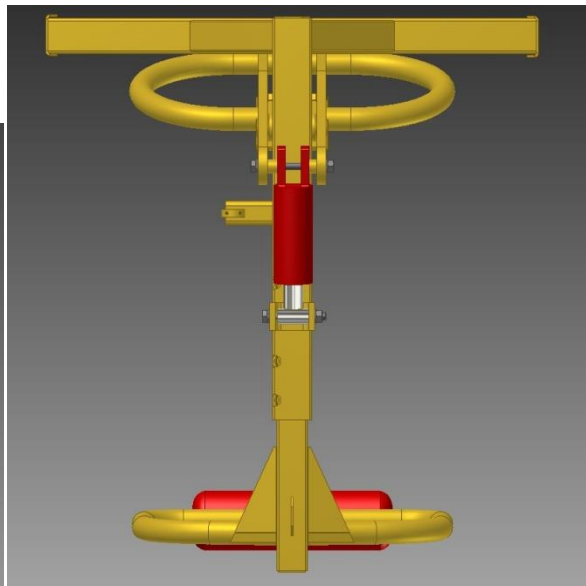
Front view



Side view

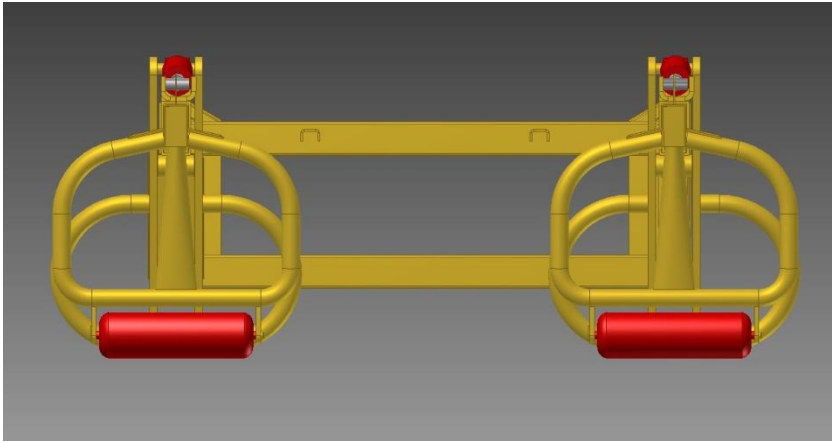


Isometric view

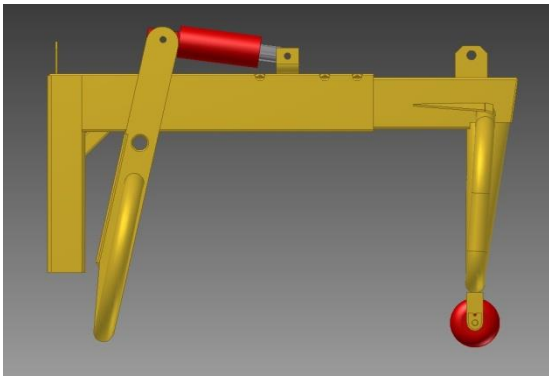


Top view

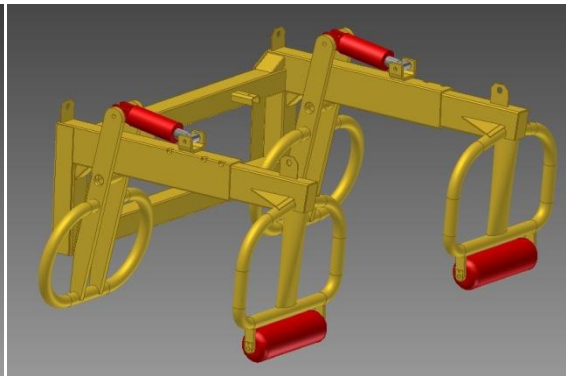
Jumbo CKM2



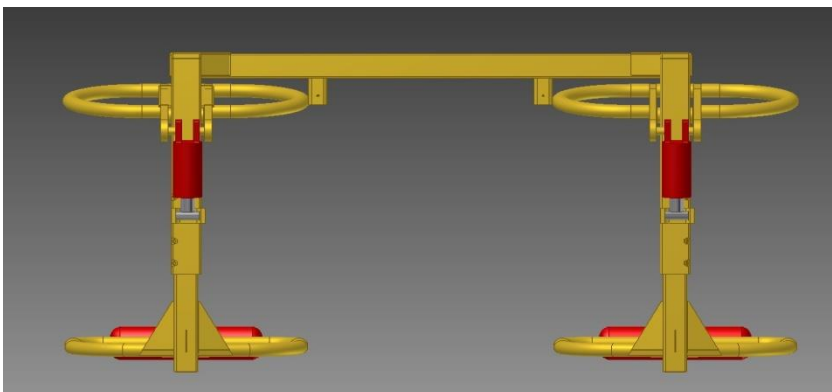
Front view



Side view

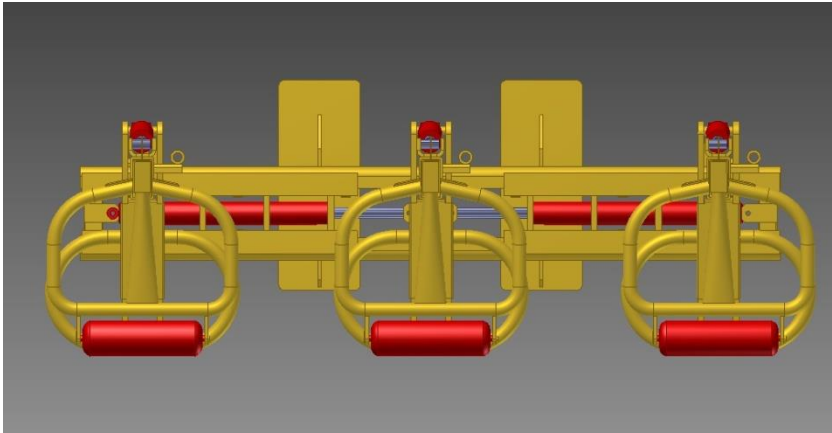


Isometric view

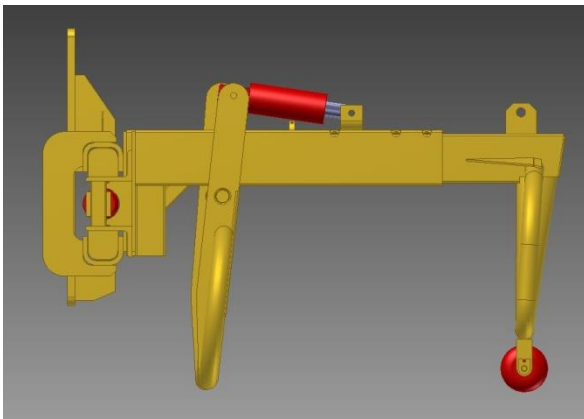


Top view

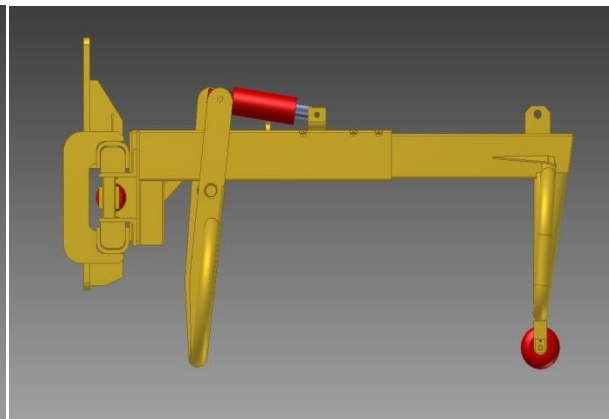
Jumbo CKM3



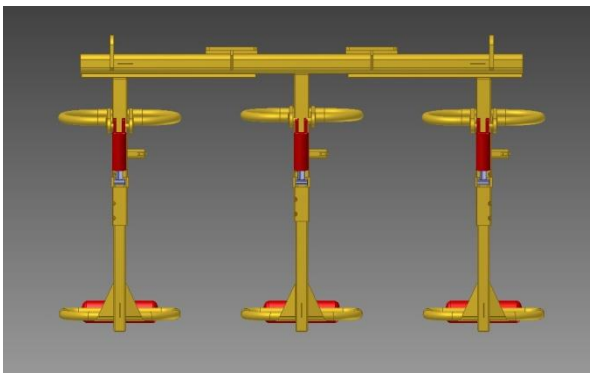
Front view



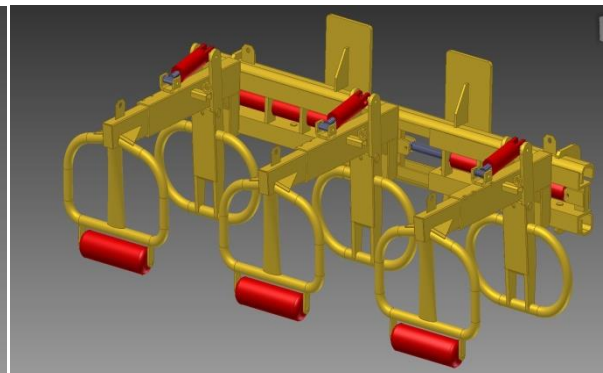
Side view



Side view extended



Top view



Isometric view

CE-Declaration of conformity

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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*