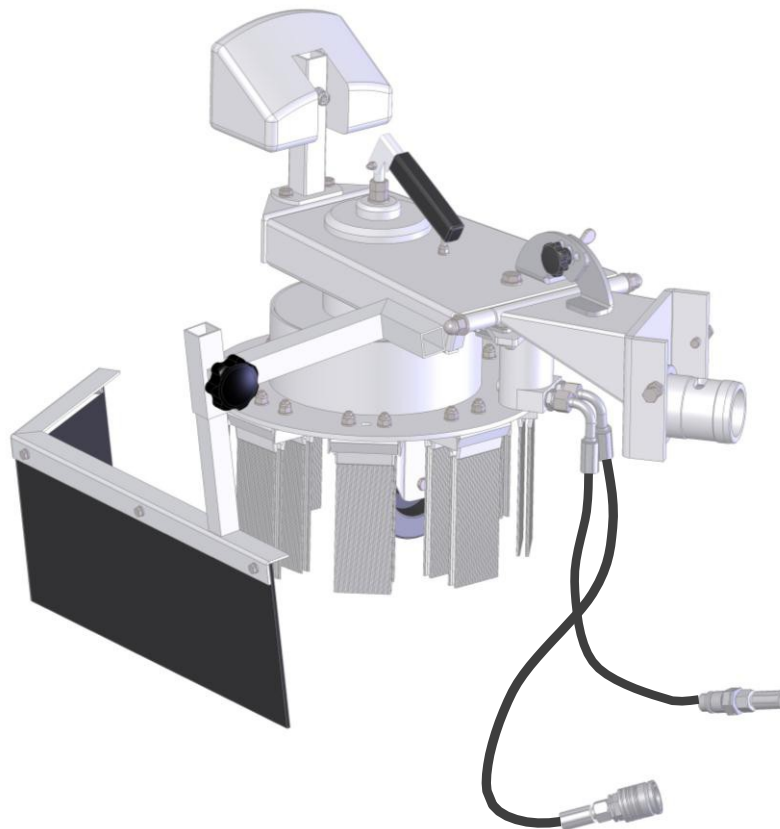




# Original operating instructions Weed Brush Attachment

WKB-H-K 35, WKB-H-KU 70



Order number: B00025 From machine.-No.:49465 Rev.: R00 Data: 04.01.2012



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## TABLE OF CONTENTS

1	LETTER.....	2
2	ABOUT THIS INSTRUCTION MANUAL .....	4
2.1	BEFORE COMMISSIONING .....	4
2.2	NOTES ABOUT THIS MANUAL .....	4
3	SAFETY INSTRUCTIONS FOR ATTACHMENTS .....	5
3.1	Intended Use .....	5
3.2	GENERAL SAFETY AND ACCIDENT PREVENTION RULES .....	5
3.3	USED PICTOGRAMS .....	8
4	DISPOSAL .....	9
5	WARRANTY .....	9
6	RECOMMENDATIONS .....	9
6.1	LUBRICANTS .....	9
6.2	MAINTENANCE AND REPAIR .....	9
7	ASSEMBLY .....	10
7.1	CONSTRUCTION OF WILD HERB BRUSH .....	10
8	SERVICE.....	11
8.1	OPERATING INSTRUCTIONS - WILD HERB BRUSH.....	11
8.2	SWITCHING ON THE WILDSTOCK BRUSH .....	11
9	MAINTENANCE .....	12
9.1	GENERAL.....	12
9.2	MAINTENANCE .....	12
9.3	DAILY TESTING .....	12
9.4	MAINTENANCE AFTER 50 HOURS OF OPERATION OR LONGER SERVICE LIFE.....	12
10	TECHNICAL SPECIFICATIONS.....	13
10.1	WILD HERB BRUSH SUPPLEMENT .....	13
10.2	SHEET, ATTACHMENT.....	13
11	EC DECLARATION OF CONFORMITY.....	15

## 1 Introduction

Thank you for choosing a quality product from Kersten.

This product has been manufactured according to the most up-to-date production methods and extensive quality assurance measures, because only when you are satisfied with your device, our goal is reached.

Before using this machine or implement for the first time, please read this manual thoroughly and thoroughly.

If you do not understand any of the information contained in this safety data sheet or the product-specific installation or operating instructions, please contact your sales representative or the machine manufacturer directly.

Keep this manual handy. If necessary, you can read important information and handling instructions.

Have fun with your Kersten device wishes you.



Dipl.- Ing. Georg Kersten

## 2 About this manual

### 2.1 Before commissioning



Since self-propelled implements as well as implements result in significant accident or danger sources if used improperly, the initial start-up is required. Kersten implement is instructed by competent and authorized persons absolutely necessary. The best way to familiarize yourself with its basic functions and its handling is to choose a free and level terrain for your first trip..

- **You reduce the risk of accidents on your part or third parties!**

For further information and difficulties of any kind, please contact the dealer, importer or directly to the manufacturer.

- **Be sure to read the safety instructions on the following pages!**
- **Read the operating instructions before commissioning!**
- **Pass on all safety instructions to other users!**

### 2.2 Notes on this operating manual Enumerations are marked with eye-catching points. Example:

- Text
- Text

Instructions are marked according to the order in which they are to be carried out.

Example:

1. Text
2. Text

The machine or implement is subject to technical progress. All information, illustrations and technical data are up-to-date at the time of publication. Changes in the sense of technical progress are reserved to the manufacturer at any time

### 3 Safety instructions for attachments

The most important safety instructions in this manual can not cover all possibilities. It goes without saying that common sense and caution are factors that are not built into a machine, but must be brought by the person who uses and maintains the machine.

**In order to keep the accident risk as low as possible, please observe the following subchapters.**

#### 3.1 Intended use



- The attachment is designed for standard use in Arial Care for weed removal.
- Any other use is considered improper use. For this,
- The manufacturer is not liable for any resulting damage, the risk is borne solely by the operator.
- Proper use also includes compliance with the operating, maintenance and service conditions specified by the manufacturer.
- The attachment may only be used, maintained and repaired by persons who are familiar with it and have been informed about the dangers.
- The relevant accident prevention regulations as well as the other generally accepted safety and occupational health rules must be observed.
- Unauthorized modifications to the machine lead to the exclusion of liability of the manufacturer for the resulting damage.

#### 3.2 General safety and accident prevention regulations

##### 3.2.1 Basic rules



- Beachten Sie neben den Hinweisen in dieser Bedienungsanleitung die allgemeinen gültige
- In addition to the instructions in this operating manual, observe the general valid safety and accident prevention regulations!
- The implement may not be used by persons under the age of 16, not even under the supervision of a Adults, be served! Children and adolescents should be instructed not to play with it.
- Only trained personnel or persons may use this machine!
- When using public traffic routes, observe the relevant regulations!
- The clothing of the user should be tight. Avoid loose-fitting clothing and wear sturdy shoes or safety shoes!
- Only work in good visibility and light conditions!
- The attached warning and information signs provide important information for safe operation; the attention serves your safety!
- Be careful with rotating tools - safety distance!
- Be careful with trailing tools. Wait for work on these until they stop completely!
- There are crushing and shearing points on driven parts!
- Driving behavior, steering and possibly braking capability as well as tilting behavior are influenced by mounted or attached devices and load. For this reason, only implements approved by the manufacturer may be used. The working speed must be adapted to the respective conditions.
- Unauthorized conversions that endanger the operational safety of the machine are prohibited!
- Check the machine for operational safety before each use!
- Never remove or change protective devices!
- Never go under the unsecured device for repair or inspection!

### 3.2.2 Work and danger area



- The user is responsible to third parties in the work area!
- Staying in the danger area of the machine is prohibited!
- Check the near area before switching on the implement and starting. Pay special attention to children and animals. Ensure sufficient visibility!
- Before starting work, remove foreign objects from the surface to be worked. Pay attention to other foreign objects during work and eliminate them in good time.
- When working in enclosed areas, the safety distance to the border must be maintained so as not to damage the machine or brushes.
- When working in the immediate vicinity of public roads and paths, they should not be approached across, but as far as possible longitudinally as far as possible, as this minimizes the risk of injury to third parties due to flying objects.
- When working on public roads and squares or in the immediate vicinity, warning and danger signs should be set up in order to attract the attention of third parties.

### 3.2.3 Before starting work



- Before starting work, familiarize yourself with all equipment and actuators and their function and make sure that all safety devices are properly installed and in the protective position. It is too late during the work assignment!

### 3.2.4 During operation



- Never leave the operating area while driving!
- Do not leave the operating station until the brushes of the attachment come to a standstill!
- Do not make any adjustments to the attachment during operation - risk of accident!
- The transport of persons and objects is prohibited!
- If, for example, the attachment has caught a foreign object and blocked it, stop the engine and clean the attachment with a suitable tool! Always switch off the engine and remove the spark plug connector during operations or cleaning of the attachment! Please observe the safety instructions of the self-propelled implement.
- In the event of damage to the self-propelled implement or attachment, stop the engine immediately and have the damage repaired.

### 3.2.5 Leaving the machine



- When leaving the machine, secure it against rolling away, by using wheel chocks or if necessary by operating the parking brake.
- Secure the device against unauthorized use!
- Never leave the appliance unattended while it is still in operation!

### 3.2.6 Screw connections and tires



- When working on the wheels, make sure that the device is safely parked and secured against rolling away!
- Regularly check nuts and bolts for tightness and retighten if necessary.
- Repair work on the tires must only be carried out by qualified personnel and with suitable mounting tools!
- If the tire pressure is too high there is a risk of explosion!
- Check the air pressure regularly.

### 3.2.7 Coupling and uncoupling attachments



- Only connect and disconnect attachments when the engine is off and the PTO is off.
- When changing attachments and their parts, use suitable tools and
- Wear gloves.
- When mounting and dismounting, bring the required support equipment into the respective position and ensure sufficient stability.
- Secure the self-propelled work machine and attachment against rolling away (parking brake, wheel chocks).
- When attaching attachments, there is a risk of injury (crushing). Special care is necessary.
- Attach implements according to regulations and fix in the prescribed places.
- Maintenance, cleaning and repair work

### 3.2.8 Maintenance, cleaning and repair work



- Only carry out maintenance and cleaning work with the drive switched off and the motor stationary!
- If guards and working tools are subject to wear, these must be checked regularly and replaced if necessary.
- Only use original spare parts from the manufacturer, as these correspond to the technical requirements and thus the risk of accidents is minimized!
- Cleaning with the high-pressure cleaner should be carried out so that the water jet is not held directly in bearings, turned parts, grease nipples, shaft seals, wheel hubs, etc. After each cleaning with the high-pressure cleaner, the lubrication points must be re-greased. In case of infringement, the right to warranty service expires!
- Check the moving parts for ease of movement and if necessary grease them!
- It is absolutely necessary to replace the protective devices after maintenance and cleaning work and put them in the protective position!
- To avoid the risk of fire, keep the machine clean!
- Check nuts and bolts regularly for tightness and retighten if necessary.
- When carrying out maintenance, cleaning and repair work on the lifted device always make sure that it is protected by suitable support elements!
- Before carrying out any repairs, make sure that the hydraulic system is pressureless, because fluids under pressure can penetrate the skin and cause serious injuries! Therefore, seek medical attention immediately - risk of infection!
- Repairs may only be carried out by qualified personnel.
- Check the hydraulic hose lines for damage and aging at regular intervals and replace if necessary.
- When welding the tractor or mounted equipment, disconnect the battery.
- Repairs such as welding, grinding, drilling, etc. must not be carried out on supporting and other safety-related parts such as frames, axles, etc.!

### 3.3 Used pictograms

Explanation of the pictograms used::



Before commissioning read and observe the operating instructions and safety instructions



Never open or remove protective devices while the engine is running!



Follow the instructions in the technical manual. Smudge!!



Touch machine parts only when they have come to a complete stop.



Danger from passing parts while the engine is running - keep safety distance!





## **4 Disposal**

The equipment must be disposed of in accordance with local, state, or local regulations.

Depending on the material, you can dispose of the parts in the form of residual waste, special waste or recycling.

The company Kersten Maschinen GmbH assumes no disposal.

## **5 Warranty**

The device is accompanied by a sales message, which among other things determines the time for the start of the warranty period. When selling the device please fill in the sales message

completely and send them back to us within 14 days. If warranty claims are asserted without us having a sales message, no warranty service will be provided.

Warranty claims should be submitted promptly, but no later than six weeks after the occurrence of the damage, giving details of the purchase data, otherwise no warranty service will be provided. Complaints must be confirmed by the company Kersten Maschinen GmbH. Wear parts are excluded from the warranty. Furthermore, the warranty expires due to improper operation, when performing no or incorrect maintenance work, when using inadmissible equipment and when using non-original spare parts.

## **6 Recommendations**

### **6.1 Lubricants**

For "open" lubrication points or nipple points, we recommend to use biolubricant oil or biolubricant grease. With the use of biolubricants you act ecologically correct, protect the environment, promote the health of people, animals and plants.

### **6.2 Maintenance and repair**

Your dealer has trained mechanics who perform proper maintenance and repair. You should only carry out major maintenance work and repairs yourself if you have the appropriate tools and knowledge of machines and internal combustion engines.

## 7 Montage

### 7.1 Cultivation of the weed brush



#### Danger!

- Severe injuries to the operator or third parties may occur.
- Before fitting or disassembling the weed brush, switch off the prime mover and remove the spark plug connector.
- The receptacle and the receiving tube must be clean and freshly greased.

1. Pull up the locking pin (see Fig.1 and 2).
2. Slide the pick-up tube, on the intermediate frame of the weed brush, into the receptacle of the basic unit.
3. Then lock the locking pin.
4. Now insert the two hydraulic lines (see Fig.3).
5. To dismantle, follow the steps in reverse order.

K 2000, K 2100

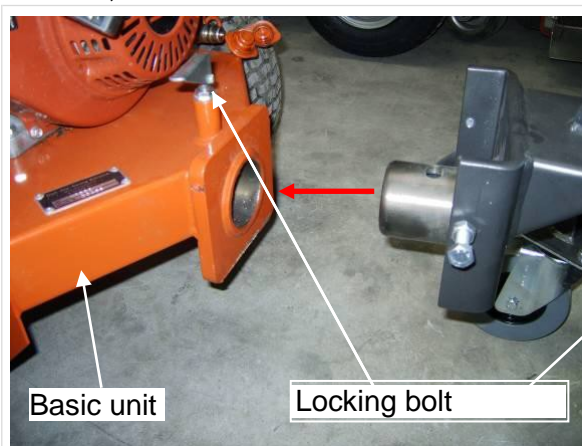


Fig. 1

K820 Pro, K 1500



Fig. 2



Fig. 3

## 8 Operation

### 8.1 Operating instructions - Weed brush

The best performance of the weed brush is achieved when the brushes in the area "A" (see Fig.4) touch the ground. Since the vertical inclination of the brush plate also contributes to the work, the following relationship applies:

The more the brush holder is lowered at an angle (vertical inclination), the sooner and more aggressively the brushes are used and the wear increases.

#### Setting the work area:

To get into the working area "A" first, the horizontal inclination of the brush plate must first be set.

**The horizontal** of the brush plate is adjusted by the two screws (Fig. 5, Item 1) on the right and left of the take - up of the drive machine. To do this, loosen the locknuts, adjust the inclination using the screws and then tighten the locknuts.

**The vertical two wheeled tractor** of the brush plate is changed by the stem housing (Fig.5; Pos.2) for receiving (Fig.5, Pos.3) can be adjusted at an angle over predefined holes. By means of a star grip (Fig.5, Pos.4) and a thumbscrew (Fig.5, Pos.5), the angle adjustment is locked.

**The height adjustment** of the brush plate is made by a support wheel, which can be changed via the lever (Fig.5, Pos.6). Changes in length of the brushes due to wear are hereby compensated

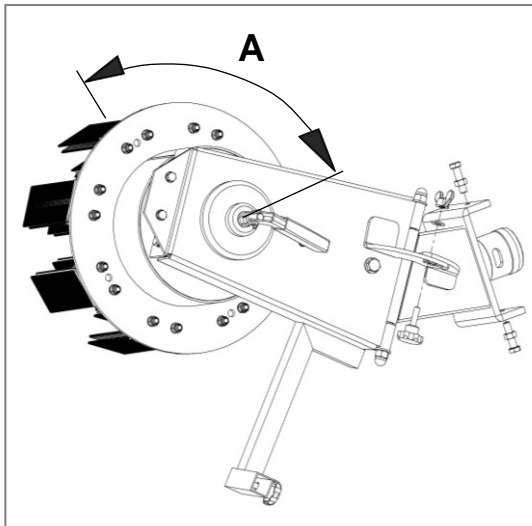


Fig. 4

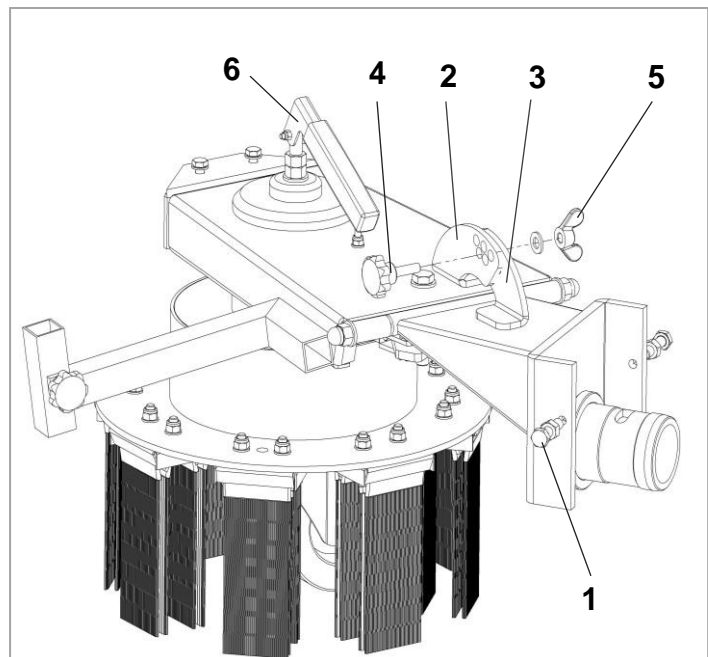


Fig. 5

### 8.2 Turning on the weed brush

By actuating the lever for the hydraulic power take off (PTO), the weed brush is switched on.11

## 9 Maintenance

### 9.1 General



**Personal injury or damage to the machine may occur. Before using the machine, check all safety-related parts and hydraulic connections.**

### 9.2 Maintenance

- The weed brush must undergo regular maintenance.
- After carrying out maintenance work, all disassembled protection devices must be properly replaced.
- Check all bolt and bolt connections after the first 5 operating hours.
- Lubricate or lubricate all moving parts.
- Check the hydraulic connections for leaks before each use.
- Check hydraulic connections for the first time after 5 operating hours, retighten if necessary!



**Only tightening has no success !!!**

**Please first loosen a leaking hydraulic screw connection, then move the hose or screw connection. Now the screw connection can be tightened again.**

### 9.3 Daily test

- Check the brush elements for tightness.
- Check the safety elements and moving parts for wear before each use.
- Check the hydraulic connections and lines.
- Perform a test run before each use.
- Clean the device after each use.

### 9.4 Maintenance after 50 operating hours or longer downtime

- At regular intervals and always at the beginning and end of the season, the moving parts of the unit must be greased or oiled.
- Check hydraulic connections and hoses for leaks and damage, replace if necessary. In doing so, also consider the legal regulations for the maximum duration of use.
- Lubricate the attachment of the attachment regularly.

### 9.5 Storage

If the machine is not used for a long time, the following measures are recommended:

1. Carry out cleaning
2. Check the function of all parts
3. Check all screws and bolts for tightness and tighten if necessary.
4. Replace worn or damaged components, only use original Kersten spare parts!
5. Subordinate the machine
  - To prevent corrosion, protect the machine from weathering. Do not place the machine in damp rooms, stables or artificial fertilizer storage.
6. Cover the machine with a cloth or similar

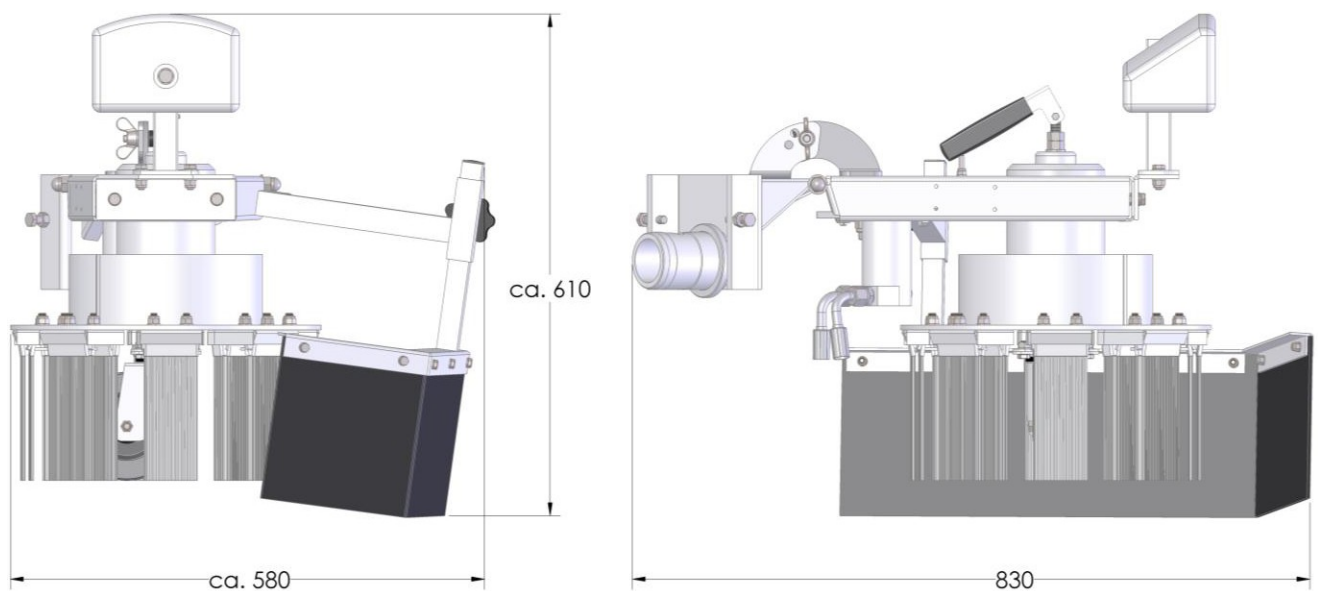
## 10 Technical data

### 10.1 Weed brush attachment

Technical data	
Drive	hydraulisch
Amount of oil	minute 10 l / min
Number of brushes	8 pieces
Brush plate diameter	40 cm
Splash guard	height adjustable
Weight attachment	42 kg

Reserve technical change!

### 10.2 Dimension sheet, attachment



## 11 Fault cause and remedy




This chapter describes in more detail the most important faults that can occur during operation on the artificial turf care brush. Faults which require major intervention must always be rectified by your specialist workshop

Observe safety instructions!

<b>Malfunction:</b>	<b>Possible causes:</b>	<b>Remedy:</b>
Hydraulic motor does not turn	Internal combustion engine is not running.	Start combustion engine.
	Hydraulic power take-off not switched on.	Switch on hydraulic power take-off on the single-axle vehicle.
	Hydraulic hoses not connected.	Connect hydraulic hoses.
	Hydraulic connector not engaged.	Check hydraulic connector, insert if necessary until it clicks into place.
	No hydraulic fluid in the hydraulic tank.	Fill hydraulic fluid in the hydraulic tank of the monobloc.
Brushes do not come on tours	Speed on the single-axle set too low.	Increase the speed of the single axle.
	Hydraulic fluid level too low.	Top up hydraulic fluid in the hydraulic tank of the single-axle.
	Leakage on the hydraulic hoses.	Replace hydraulic hoses.
	Leakage at the hydraulic connectors.	Release hydraulic connector and insert again until it clicks into place. Should leakage continue; Check hydraulic connector and replace if necessary.
	Leakage at the hydraulic screw connection.	Slightly loosen the hydraulic screw connection, move the hose slightly and tighten the hydraulic screw connection again.
	Contact pressure on the work surface too large.	Align the machine higher so that the brushes are relieved.
Slope adjustment stiff	Threaded rod and bending mechanism rusted.	Release threaded rod and remove. Remove dirt, grease and reassemble. Clean the hinge.
Height adjustment stiff	Threaded spindle dirty.	Release lever, unscrew jockey wheel. Clean spindle and jockey wheel and grease.
Recording does not engage.	Pickup dirty, adjusting screws screwed in too far.	Remove dirt from the receiving socket and the pick-up tube and then grease them fresh. Re-adjust the adjusting screws (see chapter 8.1, Fig. 5, item 1).

## 12 EG – Konformitätserklärung

CE Déclaration de conformité  
 EC Declaration Conformity  
 EG conformiteitsverklaring

D	F	GB	NL
Wir	Nous	We	Wij
<b>Kersten Maschinen GmbH</b> <b>Empeler Straße 93 – 95</b> <b>D- 46459 Rees</b>			
erklären, dass das Produkt	déclarons que le produit	herewith declare that the product	verklaren dat het produkt
<b>Wildkrautbürste-hydraulisch</b>	<b>Brosse désherbante – hydraulique</b>	<b>Weed brush - hydraulic</b>	<b>Hydraulische het kruidborstel van het spel -</b>
<h3>WKB-H-K 35, WKB-H-KU 70</h3>			
mit allen einschlägigen Bestimmungen der EG-Maschinenrichtlinie 2006/42/EG in Übereinstimmung ist.	satisfait à l'ensemble de la directive machines 2006/42/CE.	fulfiles all relevant provisions of Directive 2006/42/EC.	voldoet aan alle toepasselijke bepalingen van EG-Machinerichtlijn 2006/42/EG.
Die Maschine ist auch in Übereinstimmung mit allen einschlägigen Bestimmungen der folgenden EG-Richtlinien:	Cette machine satisfait également à toutes les dispositions pertinentes des directives CE suivantes:	The machinery is also in compliance with all relevant provisions of the following EC directives:	De machine is ook in overeenstemming met alle toepasselijke bepalingen van de volgende EG- richtlijnen:
Weiterhin wurden folgende Normen angewendet:	En outre, les normes et spécifications techniques suivantes ont été utilisées:	The following harmonised standards apply:	Volgende geharmoniseerde normen warden gehanteerd:
<b>EN ISO 12100 Teil 1:2004</b> <b>EN ISO 12100 Teil 2:2004</b>			
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