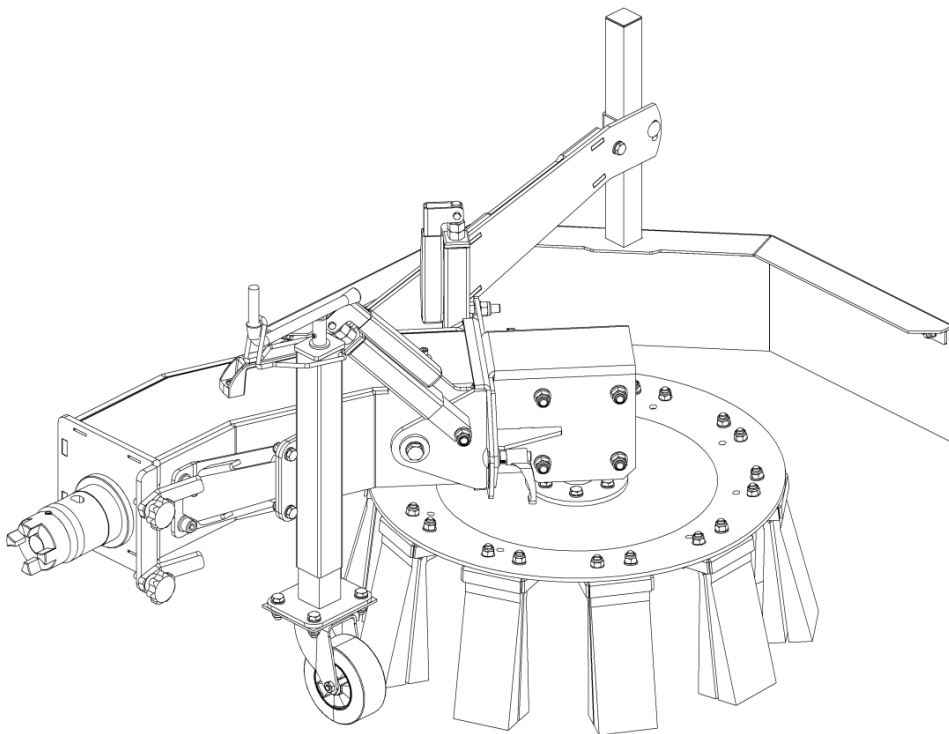




# Original Operating Manual

## Weedbrush Attachment

WKB 60 M-U 70



Order number: B00047

From machine- No.: 55732

Rev.: R01

Data: 26.01.2016



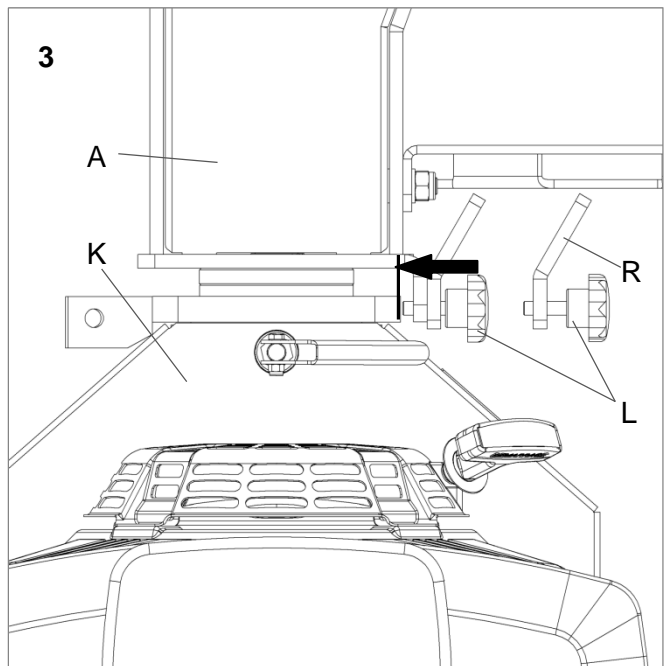
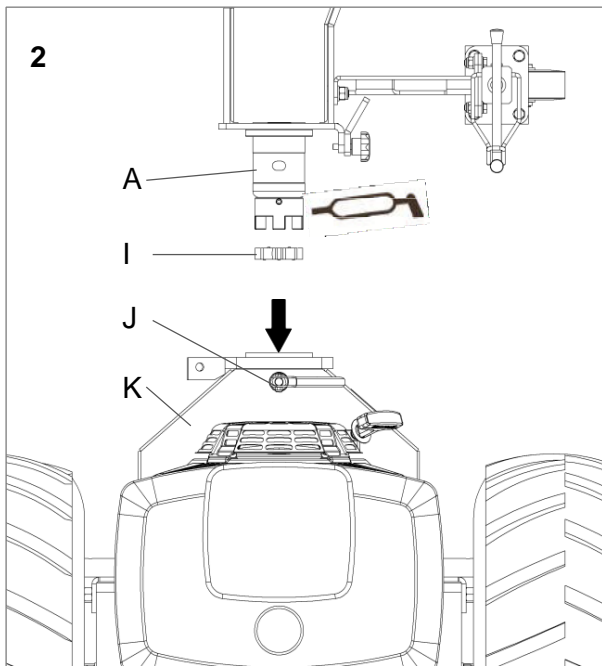
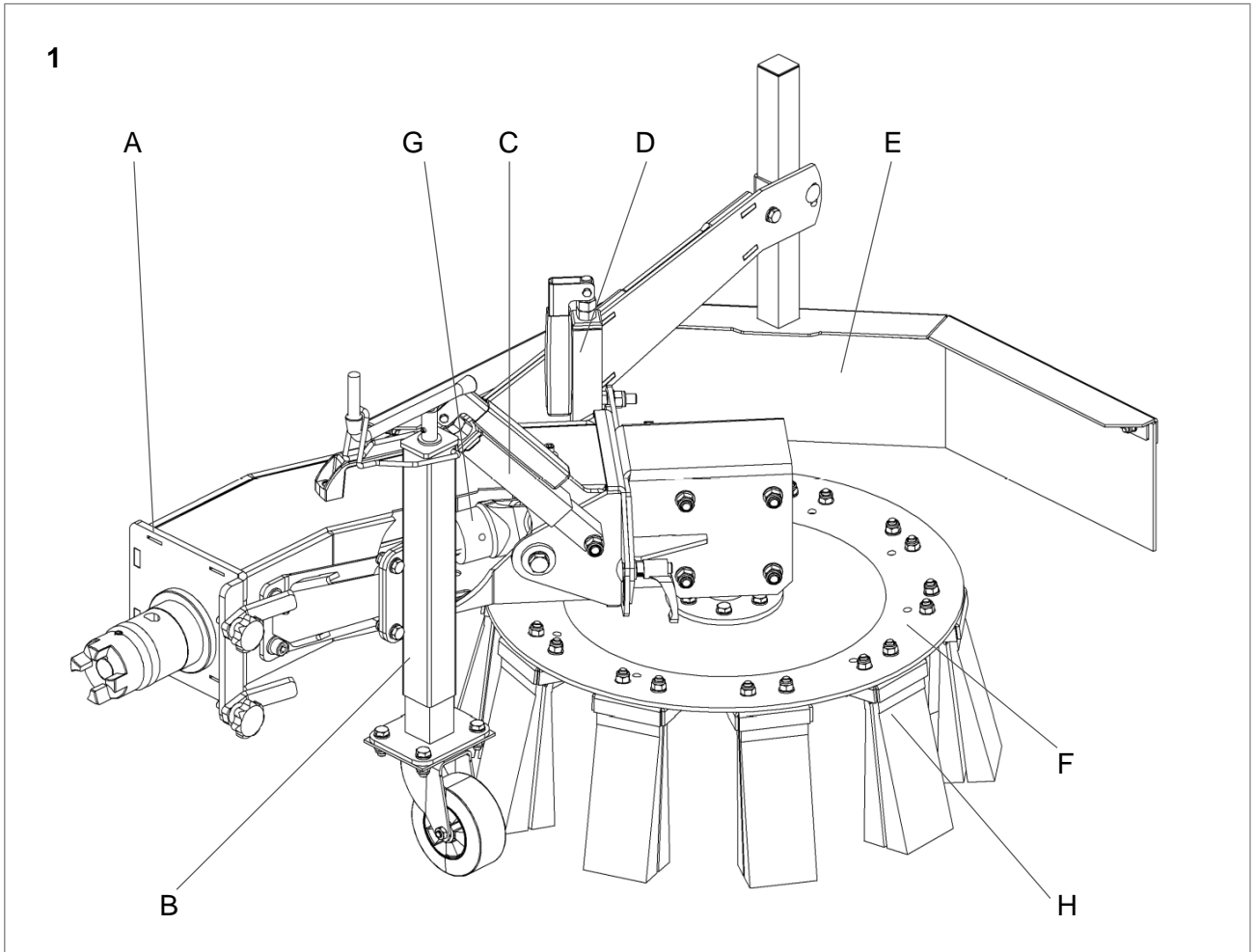
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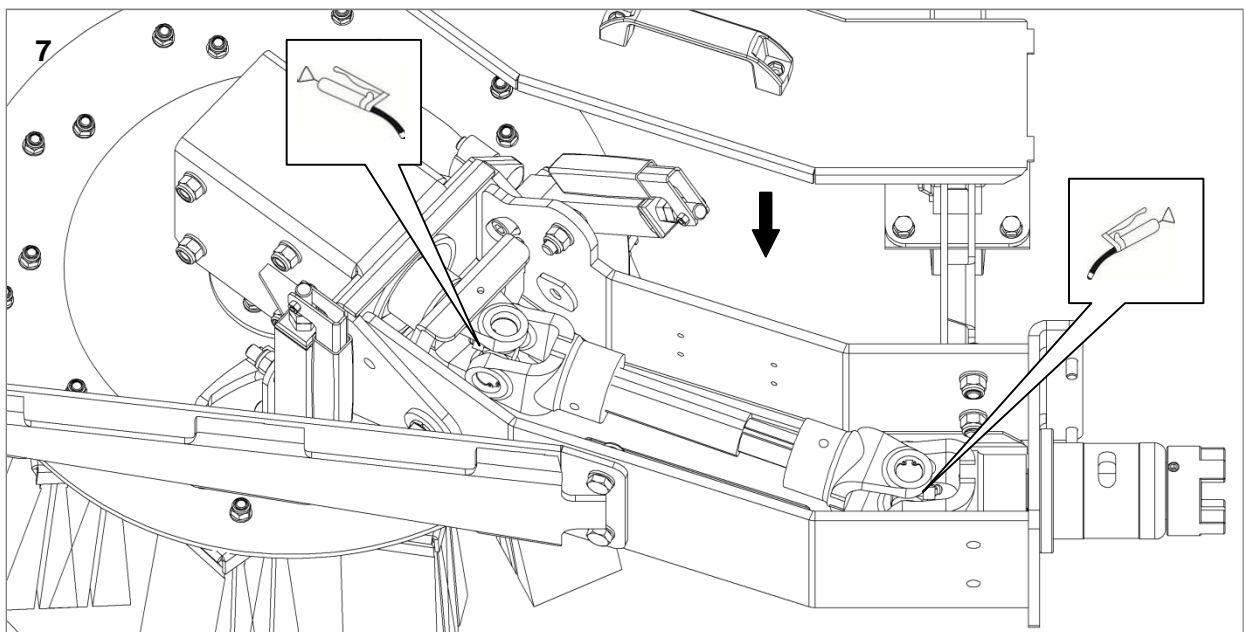
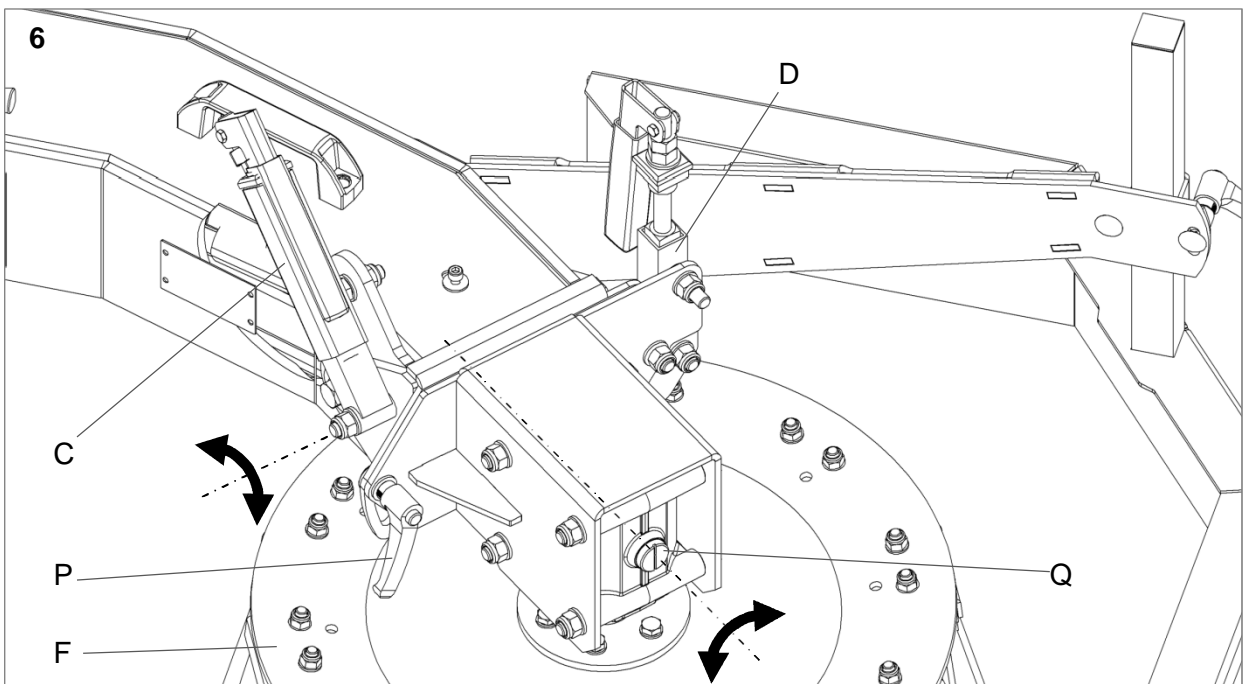
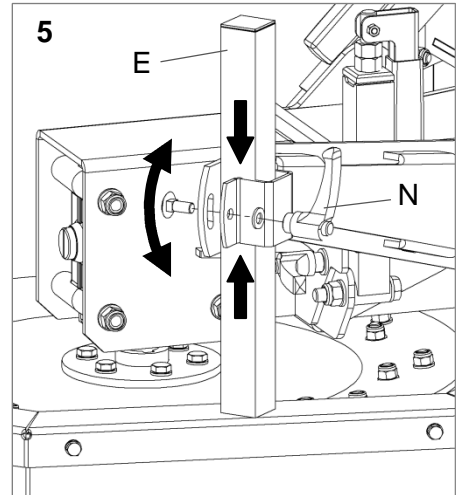
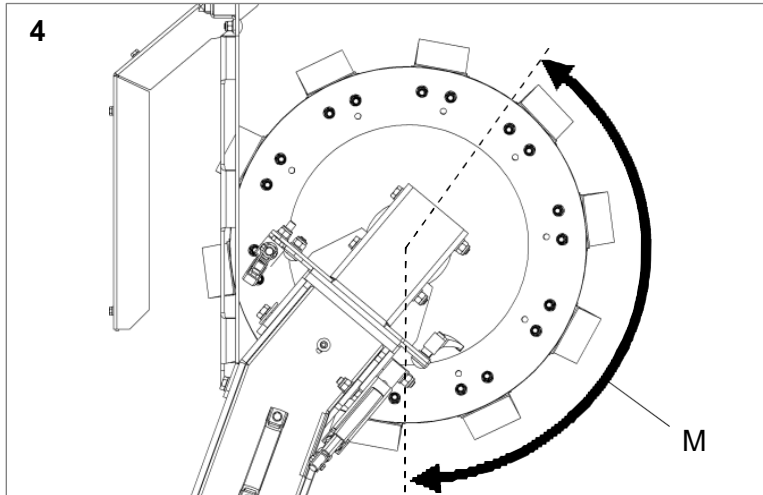


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## Contents

<b>1</b>	<b>FOREWORD</b> .....	<b>5</b>
<b>2</b>	<b>ABOUT THIS INSTRUCTION MANUAL</b> .....	<b>6</b>
2.1	<b>BEFORE OPERATING</b> .....	6
2.2	<b>OPERATING INSTRUCTIONS</b> .....	6
<b>3</b>	<b>SAFETY PRECAUTIONS</b> .....	<b>7</b>
3.1	GENERAL INFORMATION .....	7
3.2	INTENDED USE.....	7
3.3	GENERAL SAFETY AND INSTRUCTIONS.....	7
3.4	DIAGRAMS.....	10
<b>4</b>	<b>DISPOSAL</b> .....	<b>11</b>
<b>5</b>	<b>GUARANTEE</b> .....	<b>11</b>
<b>6</b>	<b>DESCRIPTION</b> .....	<b>11</b>
6.1	GENERAL DESCRIPTION OF THE BRUSH.....	11
<b>7</b>	<b>ASSEMBLY</b> .....	<b>11</b>
<b>8</b>	<b>DISMANTLING</b> .....	<b>12</b>
<b>9</b>	<b>ADJUSTING</b> .....	<b>12</b>
9.1	SETTING THE BRUSHES .....	12
9.2	ADJUSTMENT OF SPRAY PROTECTION .....	13
<b>10</b>	<b>MAINTENANCE</b> .....	<b>14</b>
10.1	GENERAL INFORMATION .....	14
10.2	GENERAL MAINTENANCE.....	14
10.3	MAINTENANCE AFTER 50 OPERATING INSTRUCTIONS OR EXTENSIONS.....	14
10.4	CHANGE OF BRUSHES .....	14
<b>11</b>	<b>TECHNICAL SPECIFICATIONS</b> .....	<b>15</b>
<b>12</b>	<b>EG - DECLARATION OF CONFORMITY</b> .....	<b>17</b>





## 1 Foreword

Dear Customer,

Thank you for choosing a quality product from Kersten.

This product has been manufactured according to the most modern production processes and extensive quality assurance measures.

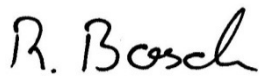
Before using this machine for the first time, please read this manual carefully and conscientiously.

If you do not understand any information contained in this safety data sheet or the product specific assembly or operating instructions, please contact your salesperson or distributor.

Keep these operating instructions ready for use. You can then read important information and instructions for use.

Enjoy your Kersten device

Dipl.- Ing. (FH) Robert Bosch



Managing Director

## 2.0 About this manual

The machine or the equipment is subject to technical progress. All information, illustrations and technical data correspond to the latest state at the time of publication. The manufacturer reserves the right to alter the technical progress at any time.

No claims can therefore be derived from the information and illustrations .

## 2.1 Before commissioning



Since self-propelled working implements as well as attachments can cause considerable accidents and / or danger in case of improper application, special instruction by qualified and authorized persons is mandatory during the initial start-up of the Kersten working tool. You will be made familiar with the basic functions and how to handle them by choosing a free and level terrain for your first use.

- **This reduces the risk of accidents on your part or third parties!**

For further information or any kind of difficulties, please contact the dealer.

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

## 2.2 Information on this operating manual

- Enumerations are marked with points of view.

Example:

- Text
- Text

- Instructions for use are marked according to the order in which they are to be executed.

- Example:

1. Text
2. Text

- In this manual, illustrations and their components are referred to in various chapters. The figures are numbered 1, 2, 3, etc., and the components shown there are designated A, B, C, etc.

- Example:

- A reference to component C in Figure

## 3.0 Safety instructions

It is recommended that users of this machine are not under the influence of alcohol, prescription medication or harmful substances and are physically and mentally capable to operate the machine

To keep the risk of accidents as low as possible, please refer to the following sub-sections.

### 3.1 General information



- This symbol indicates a WARNING. Failure to follow the instructions can result in serious personal injury and / or property damage.



- Before starting, read these operating instructions as well as the safety instructions in the operating instructions of the carrier vehicle carefully.

### 3.2 Proper use



- The weed brush is designed for use with a Kersten single axle tractor.
- The machine is designed for use in highway, agriculture and forestry such as, for example, Green area and plant maintenance, for the removal of wild herbs, moss and path edges.
- Any use beyond this is deemed to be not intended. The manufacturer is not liable for damages resulting from this and is liable on the operator alone.
- The intended use also includes the observance of the operating, maintenance and maintenance conditions stipulated by the manufacturer.
- The attachment equipment may only be used, maintained and repaired by persons who are familiar with this and are aware of the dangers.
- The relevant accident prevention regulations as well as other generally recognized safety and occupational medical regulations must be observed.
- Unauthorized modifications to the machine lead to the exclusion of liability of the manufacturer for damages resulting therefrom.

## 3.3 General safety and accident prevention regulations

### 3.3.1 Basic rules



- Observe the safety instructions in the operating instructions of the carrier vehicle!
- In addition to the instructions in this manual, observe the general safety and accident prevention regulations!
- Only trained personnel or persons are allowed to use this machine!
- Incorporation into rotating parts causes severe injuries. The operator must ensure that no persons or animals enter.
- When using the equipment on public transport, the provisions of national road traffic regulations, e.g. Reflector, lighting.
- The wearer's clothing should be tight. Avoid loose clothing and wear solid shoes or safety shoes!
- Only work with good visibility and light conditions!
- Place the attachments in difficult-to-reach areas and ensure that no one is in danger.

- The warning signs provide important information for safe operation. This is for your safety!
- For transport on motor vehicles or trailers as well as outside of the surface to be treated, the attachments must be switched off!
- Caution with rotating and oscillating tools - Observe the safety distance!
- Be careful with trailing machine parts. Before working on these wait for them to stop!
- Driven parts are crushed and scraped!
- Driving behavior, steering and possibly braking capacity as well as tilting behavior are influenced by attached or attached equipment and loading. The operating speed must be adapted to the respective conditions.
- Unauthorized modifications endanger the operational safety of the machine and are forbidden!
- Before commissioning, check the machine for operational safety!
- Never remove or modify protective devices!

### 3.3.2 Working and Hazardous Area



- The user is responsible for third parties in the work area!
- It is forbidden to stay in the hazardous area of the machine! Refer all persons from the danger area. Hazard area: 10 m radius
- Before switching on the attachment unit and starting up, check the close-up area. Pay particular attention to children and animals. Make sure you look at it!
- Removing foreign bodies from the surface to be machined before beginning work. When working on other foreign bodies pay attention and eliminate them in good time.
- When working in enclosed areas, the safety distance to the edge must be maintained in order not to damage the machine and tools.
- When working in the immediate vicinity of public roads and paths, these should not be approached as far as possible, but rather as far as possible, as this minimizes the risk of injury to third parties by flying objects.
- In the case of work on public roads and squares or in the immediate vicinity, warning signs and hazard signs must be drawn up in order to draw attention to third parties.
- Protective goggles are required due to the risk of injury from catapulted objects. In this case, approved goggles are those which meet the ANSI Z87.1 standard for the USA or EN 166 for EU countries.



### 3.3.3 Before commencement of work



- Be familiar with the operation and operation of all the devices and controls, and make sure that all the protective equipment is properly installed and protected. It is too late during the work process!
- Before commissioning, check the machine for operational safety!
- Before each use, check that the drive shaft is firmly seated on the drive stub on the carrier vehicle and on the attachment unit.
- Check any hydraulic connections and hoses for leakage and replace if necessary.
- Never operate the machine with defective or missing protective devices.

### 3.3.4 During operation



- If persons or motor vehicles approach the danger area (radius 10 m), turn off the installation unit immediately.
- Never leave the operating station while driving!
- Do not leave the control panel until the tools of the attachment unit have come to a standstill!



- Do not make adjustments to the attachment during operation - Risk of accident!
- Transport of persons and objects is prohibited!
- If, for example, the attachment unit had detected a foreign object and blocked it, the auxiliary drive train should be switched off, the engine must be switched off and the ignition key removed. Subsequently, the attachment unit can be freed from foreign bodies with a suitable tool! The work must be carried out carefully and carefully, as the components may be clamped together and may give a sudden impact.
- In the event of damage, stop the attachment and repair the damage.
- If the attachment vibrates strongly, immediately stop the machine and, if necessary, have the fault rectified by a specialist. Do not continue!

### 3.3.5 Maintenance, cleaning and repair work



- Only the work described in these operating instructions may be carried out for the maintenance and care of the weed brush.
- Perform maintenance, cleaning, and repairs only when the drive is switched off and the engine is at rest!
- If protective devices and working tools are subject to wear, they must be checked regularly and replaced if necessary.
- Damaged brush elements must be replaced.
- When replacing brush elements, use a suitable tool and wear protective gloves.
- Only use original spare parts from the manufacturer as these correspond to the technical requirements and therefore the risk of accidents is minimized!
- Perform cleaning work with the high-pressure cleaner so that the water jet is not held directly in bearings, rotating parts, grease nipples, shaft seal rings, wheel hubs, etc. After each cleaning with the high-pressure cleaner, the lubrication points must be greased. In the case of an infringement, the claim for guarantee performance ceases.
- Check the moving parts for smooth operation and grease them if necessary!
- After maintenance and cleaning work, the protective devices must be re-installed and put into the protective position!
- To avoid a fire hazard, keep the machine clean!
- Regularly check the nuts and bolts for tightness and retighten if necessary.
- When carrying out maintenance, cleaning and repair work on the lifted unit, always make sure that it is secured by means of suitable support elements!
- Before carrying out any repairs, make sure that the hydraulic system is depressurized, as pressurized fluids can penetrate the skin and cause serious injuries! In case of such injuries consult a doctor immediately - risk of infection!
- Repairs may only be carried out by specialists.
- Periodically inspect hydraulic hose lines for damage and aging and replace if necessary. At the latest after 6 years of operation, re-create all hose lines! The date of manufacture is stamped on the hose line.



### 3.4 Used pictograms

The following pictures are provided on the device to alert the operator that caution and attention are required when using and maintaining the device.

Explanation of the pictures used:



Please read and observe the operating instructions and the safety instructions before using.



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



Observe the notes in the technical manual.  
Lubrication point!



Only touch machine parts when they have come to a complete standstill.



Danger by spinning parts while the engine is running - Keep the safety distance!



Wear safety glasses!

## 4 disposal

The devices must be disposed of according to the applicable regulations of the municipality, the city or the country.

Depending on the material, the parts may be recycled, recycled, or recycled. Kersten UK (LTD) does not accept any disposal.

## 5 guarantee

The device is accompanied by a sales message which, among other things, specifies the date of commencement of the warranty period. When selling the device, please fill out the sales message completely and send it back to us within 14 days. If warranty claims are asserted, without a sales message, we will not process warranty claims.

Warranty claims should be submitted promptly, but at the latest six weeks after the occurrence of damage, under the terms of the purchase data, otherwise no warranty processing will be carried out. Complaints must be confirmed by Kersten UK (LTD). Wear parts are excluded from the warranty. In addition, the guarantee will be void if the device is not used properly, if the device is not used or if the device is not used properly, if the device is not used and if the device is not used.

## 6 description

### 6.1 General description of the weed brush

The weed brush consists of a steel construction with an angular gear on which the tool holder, also known as a brush plate (1: F), is mounted. The brush plate can be equipped with a tuft (1: H) or with wire rope braids. The weed is scraped out of the joints by the rotation of the brush holder and the propulsion of the carrier vehicle and is absorbed by a laterally applied protective device (1: E).

## 7 Assembly



1. Observe the information in the operating instructions of the carrier vehicle!
2. There is a risk of injury when coupling. Through bruises. Special caution is advised!
3. For the assembly of the attachment unit, the connection between the attachment unit (2: A) and the two-wheel tractor (2: K) must be free of grease and grease.
4. The operation of the attaching unit without the plastic coupling dog (2: I) leads to serious damage and is strictly forbidden.
5. When coupling the attachment unit, proceed as follows:
  1. Turn off the engine.
  2. Raise the locking lever (2: J) and fold the lever upwards for locking.
  3. Move the pickup mandrel from the attaching unit (2: A) and the pick-up pin from the single-axle tractor (2: K) to the same height to allow them to collapse.
  4. Ensure that the coupling holder (2: I) is between plastic and the plastic.
6. If the receiving mandrel from the attachment unit (2: A) can not be pushed completely into the pick-up tube by the one-axis tractor, the teeth of the two coupling halves may be against one another. By switching on the auxiliary drive and by pulling slowly on the starter cable of the motor, a clutch half rotates further and allows further pushing in.
  1. Fold down the locking lever (2: J) and check that the locking pin is fully engaged.
  2. To prevent twisting of the attachments, the star handles (3: L) must be tightened against the chassis by the single-axle tractor and countered with the clamping lever (3: R).



## 8 Disassembly

- Observe the information in the operating instructions of the carrier vehicle!
- There is a risk of injury when disconnecting. Special caution is advised!
- When decoupling the attachment unit, proceed as follows:
  1. Stop the internal combustion engine.
  2. Place the tractor on the support stand.
  3. Loosen the star handles (3: L).
  4. Raise the locking lever (2: J) and fold the lever upwards to lock it.
  5. Pull the attaching unit forward and look for the clutch follower (2: I).

### 9.0 Service

#### 9.1 Adjusting the brush

##### 9.1.1 General information

- The working height of the brush holder is adjusted via the trailing support wheel (1: B). The working height depends on the position of the brush holder (1: F) and on the wear rate of the brushes (1: H).
- The position of the plate depends, among other things, on the strength of the wild boulder. The operating range of the brush holder is shown in figure (4: M). Good working performance is achieved when viewed in the direction of travel, the brush plate is inclined to the right and slightly backwards.
- After rainfall and wet weather, particularly good results are achieved.
- The driving speed depends on the strength of the wild boulder.

##### 9.1.2 Tilt adjustment of the brush holder

- The inclination angle adjustment of the brush holder is via the spindles (6: C and 6: D). The spindle (6: D) pivots the brush holder to the side of the direction of travel. The spindle (6: C) pivots the brush plate forwards or backwards to the direction of travel.
- Before the brush holder can be swiveled to the side of the direction of travel, loosen the clamping lever (6: P).
- After adjusting the brush holder, firmly tighten the clamping lever (6: P).

## 9.2 Adjusting the splash guard

- The rotating movement of the brush holder causes materials such as weeds, stones and other objects to be thrown away. To prevent this material from leaving the working area, a side splash guard (1: E) is attached to the machine.



**Always ensure that the splash guard is properly adjusted to prevent injury and damage to property against third parties!**

- The setting of the splash guard depends on the setting of the brush holder and according to local conditions.
- Figure (5) shows the possible settings for the splash guard. By loosening the clamping lever (5: N), the spray guard (5: E) can be adjusted in angle and height.
- The rubber liner from the splash guard (1: E) must be placed on the floor slightly in the working position.

## 10 Maintenance

### 10.1 General information

- The safety regulations listed in 3.3.5 must be followed.
- The weed brush must be periodically serviced.
- Failure to do so could result in personal injury or damage to the machine. Check all safety-relevant parts before each use.
- Always carry out repair, maintenance and cleaning work, as well as the elimination of malfunctions, only when the drive is switched off and the motor is still. Remove ignition key or spark plug connector! After carrying out this work, reattach all protective devices!
- Check all screw and bolt connections after the first 5 operating hours.

### 10.2 Daily maintenance

- Check the protective devices and brush elements for wear and, if necessary, replace them.
- Check the brush elements for tightness.
- Damaged brush elements must be replaced.
- Check the brush holder whether it is free from wrapping such as e.g. Wire and Weeds.
- Check the movement of the moving parts.
- Perform a test run before each use.
- Lubricate the hinge shaft as specified by the manufacturer.

### 10.3 Maintenance after 50 operating hours or longer standstill

- The moving parts must be greased or oiled at regular intervals as well as at the start and end of the season.
- Check the oil level of the gearbox. Unscrew the front control screw on the gearbox (6: Q). The oil level must be just below the opening and should be filled with gear oil SAE 80W-90.

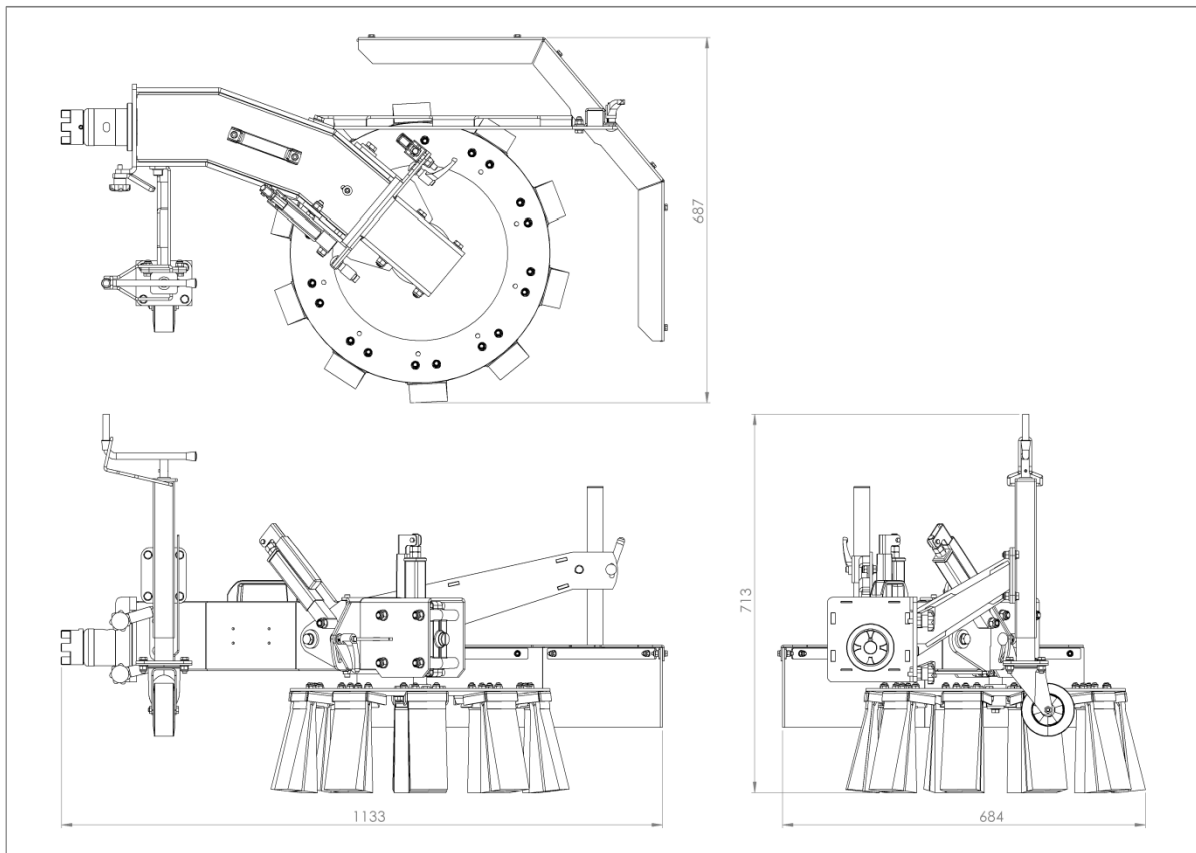
### 10.4 Replacing brush elements

- Replacement of brush elements may only be carried out by a qualified person.

## 11 Specifications

11 Specifications	
Working width	Ø 60 cm
Number of Brushes	10
Tool type	Weed removal
Drive type	Mechanical, via PTO shaft
Power Requirments	Fits Kersten - one - axle tractors
Max. Brush drive speed	360 U/min
Sound pressure level LpA, eq	dB(A) At the ear of the operator Measurement in accordance with DIN EN 12733: 2009 Measurement with Kersten single axle tractors UBS 14 Hydro
Attachment Weight	60 kg
Length / width / Height	113 / 68 / 71

- Reserve technical changes! -







## 12 EG - Konformitätserklärung

CE Déclaration de conformité  
EC Declaration Conformity  
EG conformiteitsverklaring



D

Wir

F

Nous

GB

We

NL

Wij

**Kersten Arealmaschinen GmbH  
Empeler Straße 95  
D- 46459 Rees**

erklären, dass das  
Produkt

déclarons que le  
produit

herewith declare  
that the product

verklaren dat het  
produkt

**Wildkrautbürste**

**Brosse déherbante**

**Weed brush**

**Kruidborstel**

### WKB 60 M-U 70

mit allen einschlägigen  
Bestimmungen der  
EG-Maschinenricht-  
linie 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 be-  
palingen van EG-  
Machinerichtlijn  
2006/42/EG.

Die Maschine ist auch  
in Übereinstimmung  
mit allen einschlägigen  
Bestimmungen der fol-  
genden 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 vol-  
gende EG- richtlijnen:

Weiterhin wurden fol-  
gende Normen ange-  
wendet:

En outre, les normes et  
spécifications techniques  
suivantes ont été utilisées:

The following  
harmonised standards  
apply:

Volgende geharmoni-  
seerde normen warden  
gehanteerd:

#### EN ISO 12100 : 2010

Herr

Monsieur

Mr.

De heer

**Dipl.- Ing. (FH) Robert Bosch  
Empeler Straße 95  
D- 46459 Rees**

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Rees, 08.04.2015

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