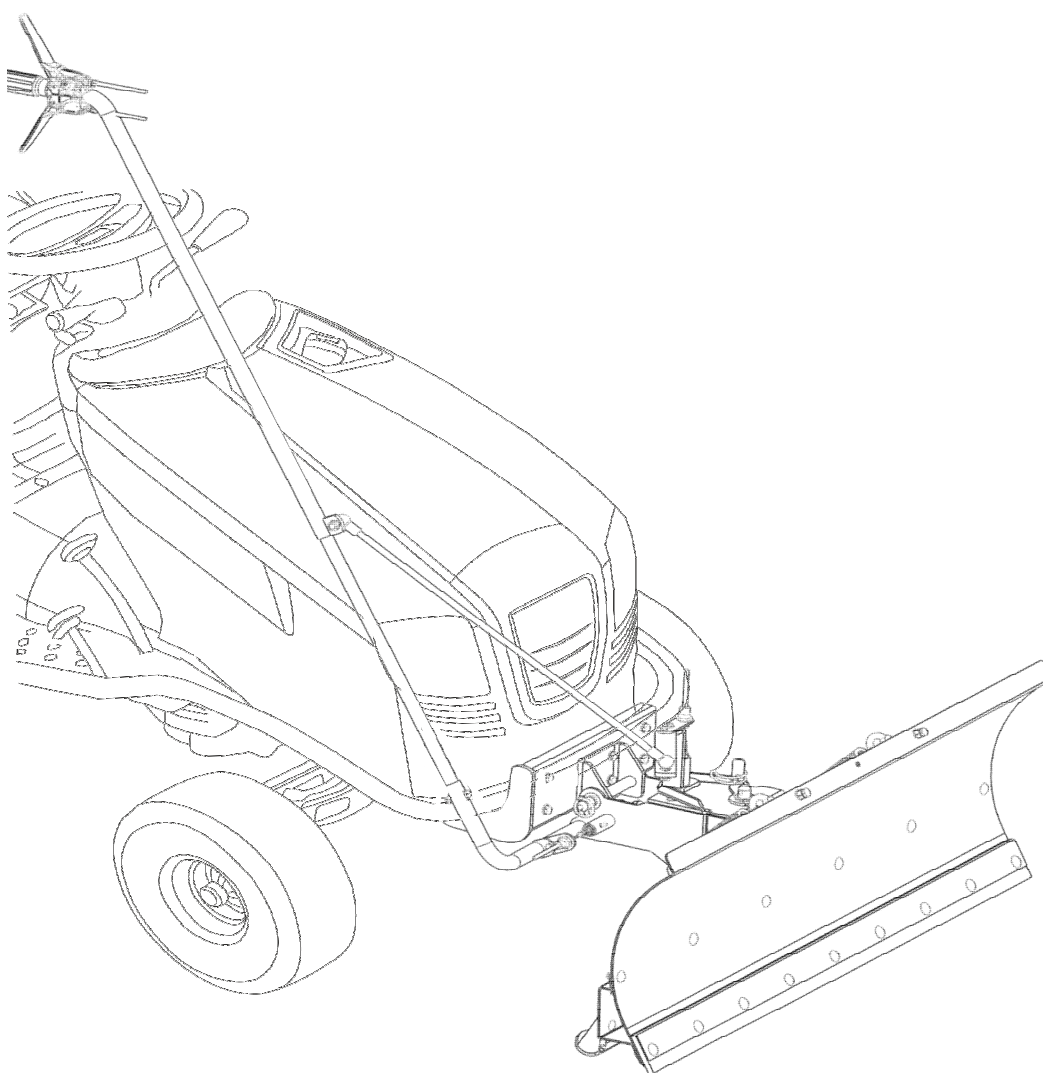




## original operating instructions

### Mechanical excavation for snow blade SCHN 12545



Order number: B00067

from machine number:

Rev.: R00

Status: 17.12.2015



**Arealmaschinen GmbH**

Empeler Straße 95

D - 46459 Rees

[www.kersten-maschinen.de](http://www.kersten-maschinen.de)

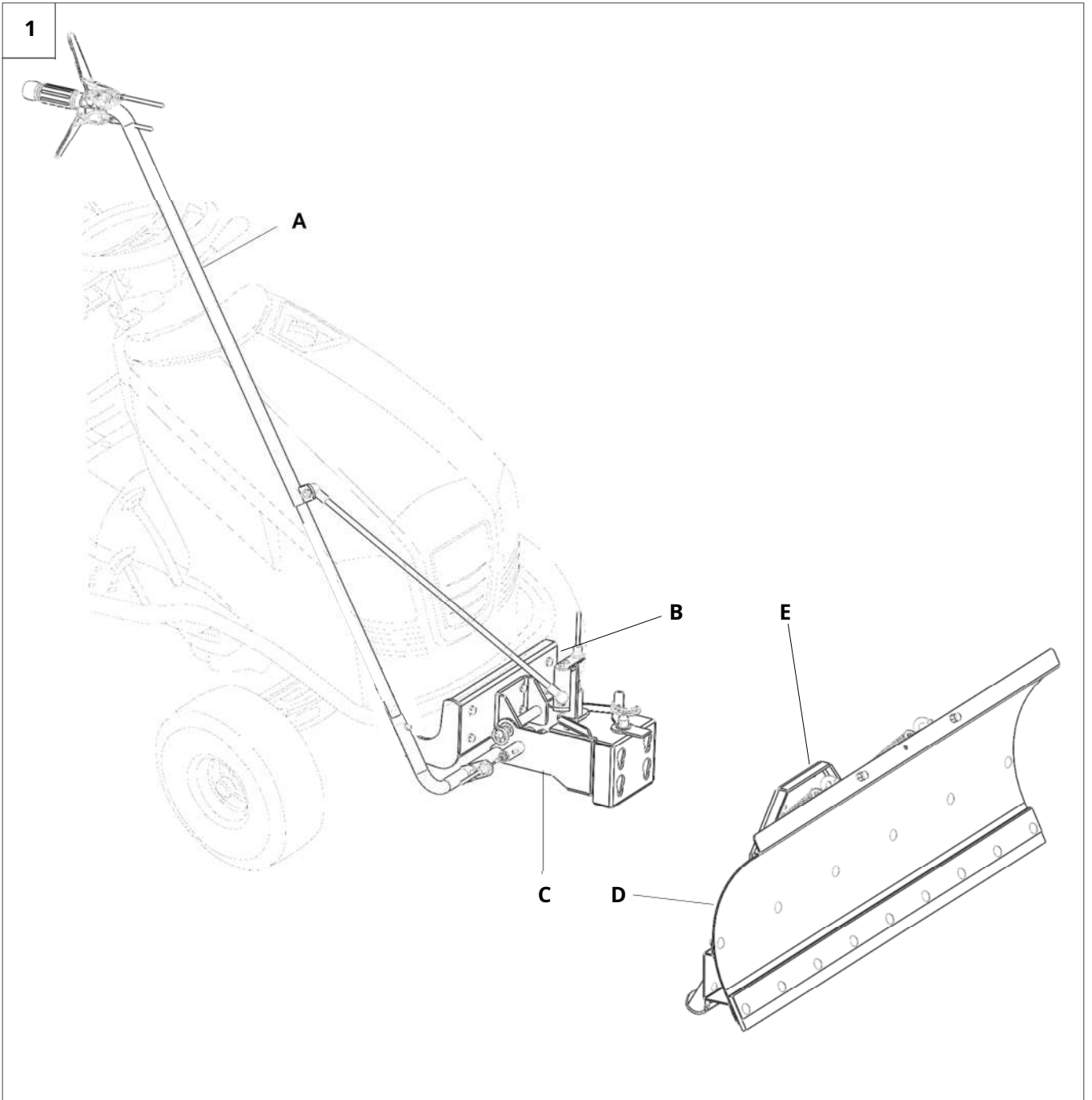
Tel.: +49 (0) 2851 / 9234 - 10

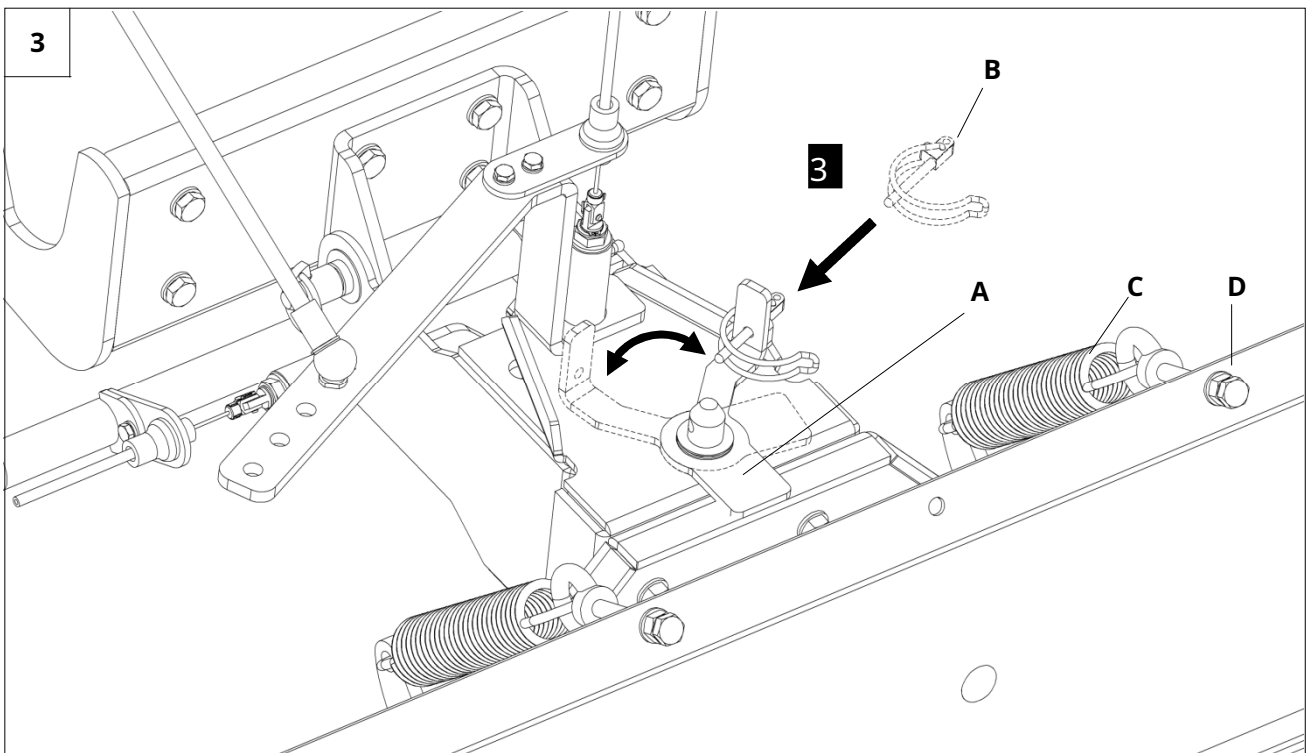
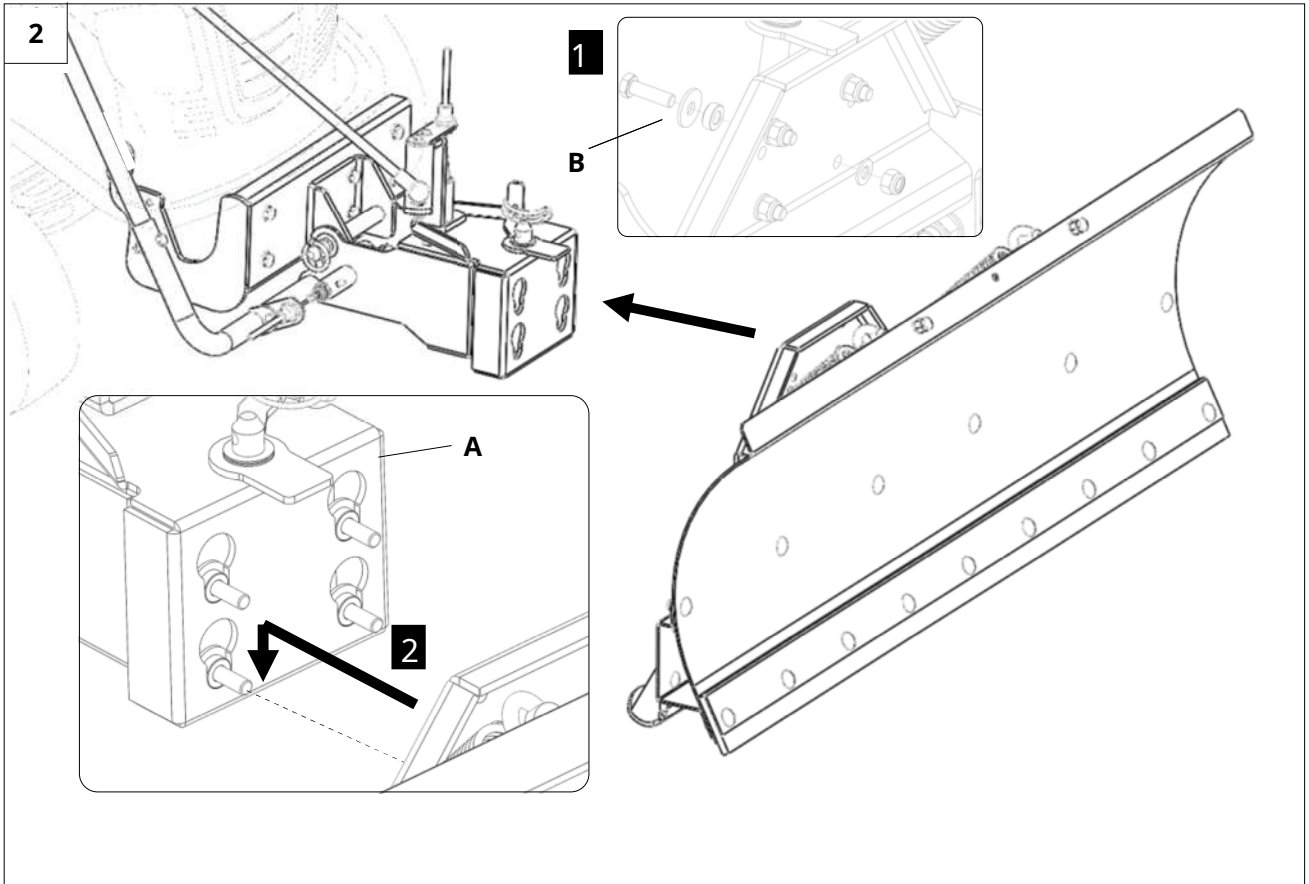
Fax: +49 (0) 2851 / 9234 - 44

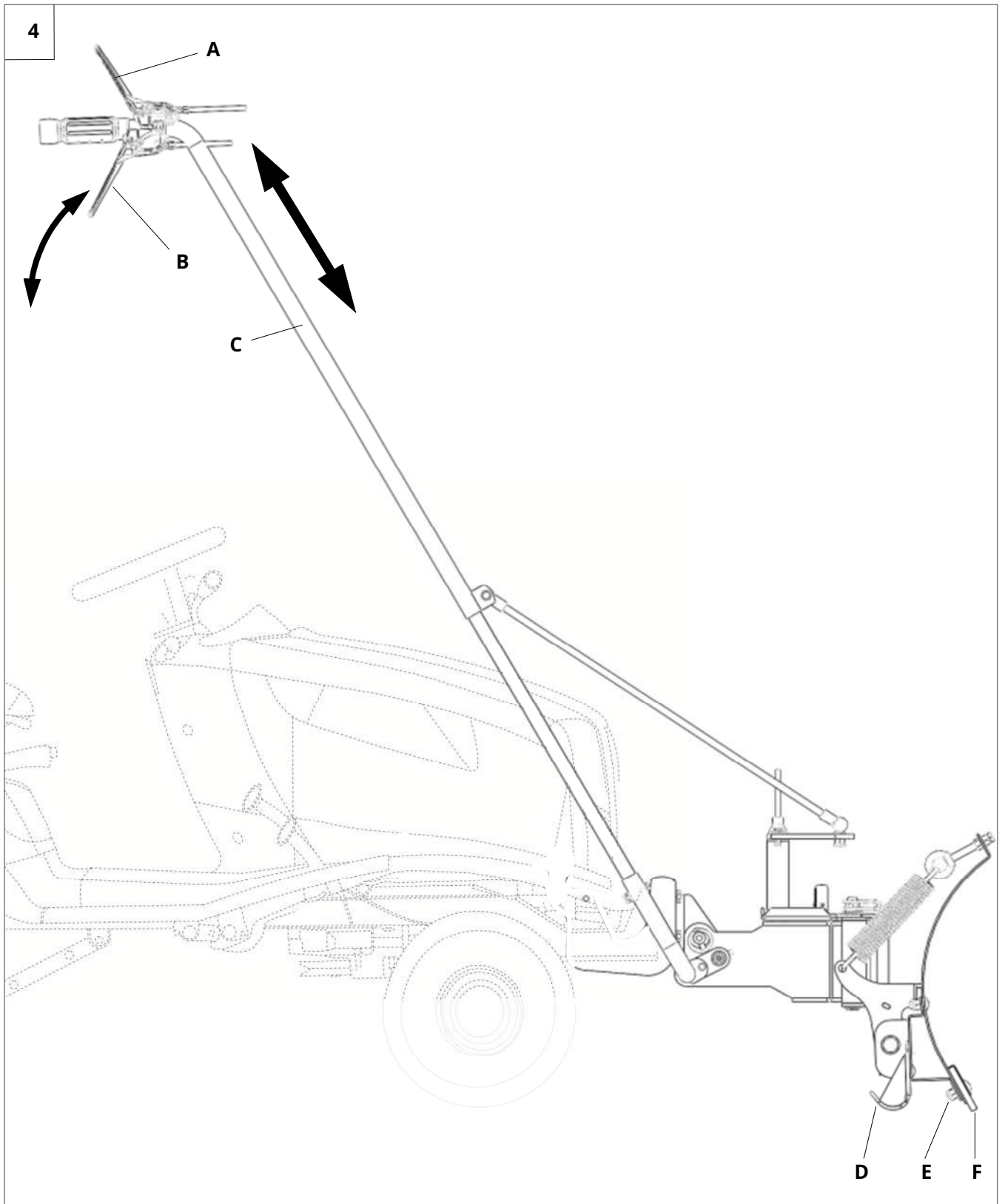


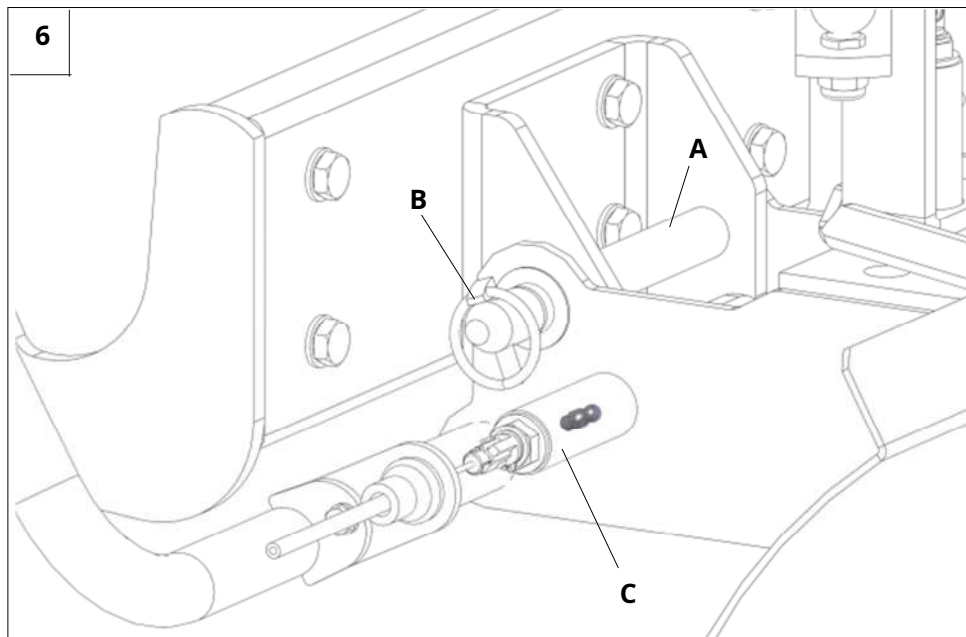
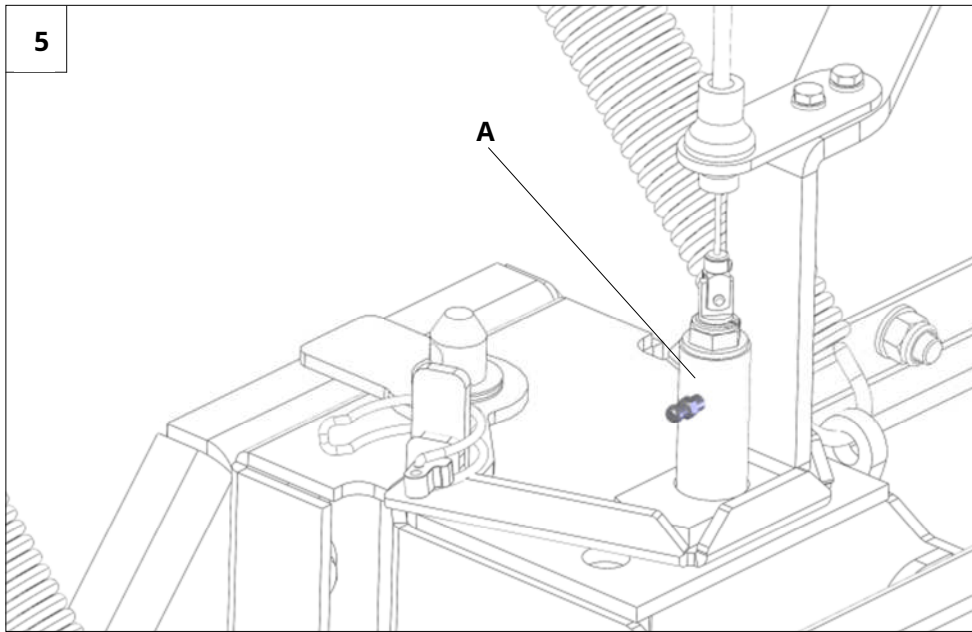
## Table of contents

<b>1</b>	<b>FOREWORD</b> .....	<b>7</b>
<b>2</b>	<b>ABOUT THIS MANUAL</b> .....	<b>8</b>
	2.1 VOR DER ICOMMISSIONING.....	8
	2.2 HINFORMATION ABOUT THIS BOPERATING INSTRUCTIONS.....	8
<b>3</b>	<b>SAFETY INFORMATION</b> .....	<b>9</b>
	3.1 AGENERAL.....	9
	3.2 BAPPROPRIATE VUSE.....	9
	3.3 AGENERAL PUBLIC S SAFETY-AND U FALL PREVENTION REGULATIONS.....	9
	3.4 VUSED PICTOGRAMS.....	12
<b>4</b>	<b>DISPOSAL</b> .....	<b>13</b>
<b>5</b>	<b>GUARANTEE</b> .....	<b>13</b>
<b>6</b>	<b>RECOMMENDATIONS</b> .....	<b>13</b>
	6.1 S CREATIVE SUBSTANCES.....	13
	6.2 WSERVICING AND IREPAIR.....	13
<b>7</b>	<b>ASSEMBLY/DISASSEMBLY</b> .....	<b>14</b>
	7.1 AB-/ANBAU DES AUSHEBE-AND S SWIVEL FRAME.....	14
	7.2 ANBAU DES S SNOW SHIELD.....	14
	7.3 ABBAU DES S SNOW SHIELD.....	14
<b>8</b>	<b>OPERATION</b> .....	<b>15</b>
	8.1 V CREATION OPTIONS.....	15
<b>9</b>	<b>MAINTENANCE</b> .....	<b>16</b>
	9.1 W PLANNING.....	16
	9.2 S DISORDERS.....	16
<b>10</b>	<b>TECHNICAL DATA</b> .....	<b>17</b>
	10.1 S SNOW SHIELD.....	17
<b>11</b>	<b>DIMENSION SHEET</b> .....	<b>17</b>
<b>12</b>	<b>EC DECLARATION OF CONFORMITY</b> .....	<b>18</b>









## 1 foreword

Dear Customer,

Thank you for choosing a quality product from Kersten.

This product has been manufactured using the most modern manufacturing processes and extensive quality assurance measures, because our goal is only achieved when you are satisfied with your device.


Before using this machine or attachment for the first time, please read this operating manual completely and carefully.

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

Please keep this manual handy so that you can refer to important information and instructions when required.

We wish you much joy with your Kersten device

Dipl.- Ing. (FH) Robert Bosch



Managing Director



## 2 About this manual

The machine or attachment is subject to technical progress. All information, illustrations and technical details are current at the time of publication. The manufacturer reserves the right to make changes in the interests of technical progress at any time.

Therefore, no claims can be derived from the information and illustrations in this booklet.

### 2.1 Before commissioning



Since self-propelled work equipment and attachments can pose a significant risk of accidents and danger if not used properly, it is essential that you receive instruction from qualified and authorized personnel when using the Kersten work equipment for the first time. The best way to familiarize yourself with its basic functions and how to use it is to choose an open, level area for your first trip.

**-This will reduce the risk of accidents for you or third parties!**

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

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

### 2.2 Notes on this operating manual

- Lists 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:

- 1st text
- 2nd text

-In this manual, illustrations and their components are referred to in various chapters for illustrative purposes. The illustrations 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 2 is given as (Figure 2:C).

## 3 Safety instructions

The most important safety instructions in this manual cannot 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.

**To keep the risk of accidents as low as possible, please note the following subsections.**

### 3.1 General



- This symbol indicates a WARNING. Failure to follow instructions may result in serious personal injury and/or property damage.
- Before starting, these operating instructions and the safety regulations in the operating instructions for the carrier vehicle must be read carefully and observed.

### 3.2 Intended use



- The attachment is designed for the usual or usual use in winter service and is used to clear snow from streets, paths and squares.
- Any use beyond this is considered improper. The manufacturer is not liable for any resulting damage. The operator alone bears the risk.
- Proper use also includes compliance with the operating, maintenance and repair conditions specified by the manufacturer.
- The attachment may only be used, maintained and repaired by persons who are familiar with it and are informed of the hazards.
- The relevant accident prevention regulations as well as other generally accepted safety and occupational health rules must be observed.
- Unauthorized modifications to the machine will result in the manufacturer being exempt from liability for any resulting damage.

### 3.3 General safety and accident prevention regulations

#### 3.3.1 Basic rules



- In addition to the information in this operating manual, please also observe the generally applicable safety and accident prevention regulations!
- The device must not be operated by persons under 16 years of age, even under adult supervision! Children and young people should be instructed not to play with it.
- Only trained personnel or persons may use this machine! When using public roads, observe the relevant regulations!
- When using the attachment on public roads, the provisions of national road traffic regulations must be observed, e.g. reflectors, lighting.
- The user's clothing should fit tightly. Avoid loose clothing and wear sturdy shoes or safety shoes!
- Only work in good visibility and lighting conditions!
- The warning and information signs provided provide important information for safe operation. Please observe them for your own safety!
- Unauthorized modifications endanger the operational safety of the machine and are prohibited! Check the machine for operational safety before each use!
- Never remove or modify protective devices!
- Never go under the unsecured device for repairs or inspection!

### 3.3.2 Work and danger area



- The user is responsible to third parties in the work area!
- Before clearing, familiarize yourself with the contours of the area to be cleared. Depressions, holes, hollows, etc. should always be avoided.

### 3.3.3 Before starting work



- Before starting work, familiarize yourself with all the equipment and operating elements and their function and ensure that all protective devices are properly installed and in the protective position. It is too late to do this during work!
- Before each use, check the machine for operational safety!
- Check the \_\_\_\_\_ area to be cleared for protruding obstacles, such as ledges, borders, large stones, etc. and mark or remove them. Obstacles can easily be hidden by snow. When working, pay attention to other foreign objects and remove them in good time.
- Never operate the machine with defective or lost protective devices.

### 3.3.4 During operation



- Driving behavior, steering and braking ability, as well as tipping behavior are influenced by attached or coupled equipment and load. For this reason, only attachments approved by the manufacturer may be used.
- The working speed must be adapted to the current conditions. On snow or ice, a lower driving speed should be selected. The reduced traction of the wheels of the carrier vehicle can lead to longer braking distances, poor steering behavior or the vehicle slipping on inclines.
- Avoid abrupt steering and braking movements.
- When clearing snow, pay attention to the snow depth and the snow condition (depending on the temperature). These two factors have a significant influence on the clearing performance of the device.
- Never leave the control station while driving!
- Do not make any adjustments to the attachment during operation - risk of accident!
- Transporting people and objects is prohibited!
- If the attachment is damaged, have the damage repaired.


### 3.3.5 Leaving the machine

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

### 3.3.6 Coupling and uncoupling of attachments

- When changing attachments and their parts, use suitable tools and wear gloves.
- When assembling and dismantling, place the necessary support devices in the appropriate position and ensure sufficient stability.
- Secure the self-propelled work machine and the attachment against rolling away (parking brake, wheel chocks).
- There is a risk of injury (crushing) when coupling attachments. Particular caution is required.
- Couple attachments correctly and secure them in the prescribed places.

### 3.3.7 Maintenance, cleaning and repair work

- Only carry out maintenance and cleaning work when the engine is not running! Check the
  - settings and wear of the two skids and the Robalon-S scraper bar. Clean the snow blade and
  - attachment frame thoroughly and remove any road salt.
  - Only use original spare parts from the manufacturer, as these meet the technical requirements and thus minimize the risk of accidents!
  - Cleaning work with the high-pressure cleaner should be carried out in such a way that the water jet is not aimed directly at bearings, rotating parts, grease nipples, etc. After each cleaning with the high-pressure cleaner, the lubrication points must be re-greased. Failure to do so will void the warranty!
  - Check that the moving parts move smoothly and re-grease if necessary!
  - After maintenance and cleaning work, be sure to reinstall the protective devices and put them into the protective position!
  - Check nuts and bolts regularly to ensure they are tight and tighten if necessary.
-  -When carrying out maintenance, cleaning and repair work on the raised device, always ensure that it is secured using suitable support elements!
- Repairs may only be carried out by qualified personnel. Welding work
  - may only be carried out when the snow blade has been removed.
  - Repair work such as welding, grinding, drilling, etc. must not be carried out on load-bearing and other safety-related parts such as frames, axles, etc.!

### 3.4 Pictograms used

The following pictograms are located on the device to alert the operator to the need for caution and attention when using and maintaining the device.

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!



Observe the instructions in the technical manual.  
Lubrication point!



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



Danger from flying parts when the engine is running – keep a safe distance!

## 4 disposal

The devices must be disposed of in accordance with the applicable municipal, city or state regulations.

Depending on the material, you can dispose of the parts as residual waste, hazardous waste or for recycling. Kersten Arealmaschinen GmbH does not take responsibility for disposal.

## 5 guarantee

A sales notice is included with the device, which, among other things, determines the start date of the guarantee period. If you sell the device, please fill out the sales notice completely and send it back to us within 14 days. If a guarantee claim is made without us having received a sales notice, the guarantee will not be processed.

Warranty claims should be submitted immediately, but no later than six weeks after the damage occurs, stating the purchase details; otherwise, the warranty will not be processed. Complaints must be confirmed by Kersten Arealmaschinen GmbH. Wear parts are excluded from the warranty. The warranty is also void if the product is used improperly, if no maintenance is carried out or if maintenance work is carried out incorrectly, if unauthorized operating materials are used, and if non-original spare parts are used.

## 6 recommendations

### 6.1 Lubricants

Use the specified lubricants for the engine and transmission (see "Technical Data").

For "open" lubrication points or nipple points we recommend **bio-lubricating oil** or **bio-lubricating grease**. By using bio-lubricants you are acting ecologically correctly, protecting the environment and promoting the health of people, animals and plants.

### 6.2 Maintenance and repair

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

## 7 assembly/disassembly

- Please note the information in the operating manual of the carrier vehicle!
- There is a risk of injury when coupling and uncoupling, e.g. due to crushing. Particular caution is required!

### 7.1 Removal/installation of the lifting and swivel frame

- If the snow blade is not required for a longer period of time, the complete lifting and swivel frame (1:C) together with the operating rod (1:A) can be dismantled from the attachment frame (1:B).
- To do this, remove the linch pin (6:B) and pull out the bolt (6:A). To
- reassemble, proceed in reverse order.
- The mounting frame (1:B) bolted to the carrier vehicle can easily remain on the carrier vehicle during other work.

### 7.2 Installation of the snow blade

- Make sure that the safety lever (3:A) is open and that the frame (1:E) is locked in the raised position.
- To attach the snow blade to the frame, proceed as follows:
  - 1stLift the snow blade (1:D) together with the frame (1:E) in front of the lifting and swivel frame (1:C).
  - 2ndInsert the screws (2:B) mounted on the snow blade frame into the keyholes of the swing frame (2:A) and press the snow blade down into the keyholes.
  - 3.Turn the safety lever (3:A) clockwise and secure it with the pipe clip (3:B).

### 7.3 Dismantling the snow blade

- To remove the snow blade, proceed as follows:
  - 1stRemove the pipe clip (3:B) and turn the safety lever (3:A) counterclockwise.
  - 2ndLift the snow blade and insert the screws (2:B) from the keyholes in the swing frame (2:A).

## 8 service

### 8.1 Adjustment options

#### -Pan left/right:

Release the swivel lock (5:A) by operating the lever (4:A). You can swivel the snow blade to the left or right by pushing in or pulling out the operating rod (4:C). This is much easier when raised than when in the working position.

#### -Lowering and lifting:

To lower the snow blade, release the lifting lock (6:C) by operating the lever (4:B) and place the snow blade on the ground by lifting the operating rod (4:C).

To lift the snow blade, pull the operating rod (4:C) downwards until the lifting lock (6:C) engages.

#### -ground clearance:

The ground clearance of the snow blade can be adjusted using the two skids (4:D) and the scraper bar (4:F) on the lower edge of the blade.

To do this, loosen the carriage bolts. Adjust the runners (4:D) and the scraper bar (4:F) evenly and retighten all bolts.

The scraper bar (4:F) on the snow blade must be adjusted during initial installation depending on the local conditions.

If it becomes worn, the scraper bar can be adjusted or turned.

To do this, please loosen the screws on the support rail (4:E). The height must be adjusted equally on the left and right.

**Never use the snow blade without skids or scraper bars. Never set the skids higher than the bottom edge of the snow blade. Readjust worn scraper bars in good time or replace them if necessary!**

#### -Retraction force of the snow plow blade:

The retraction force is adjusted by the two adjusting screws (3:D) above the tension springs (3:C).

The tension springs should be equally tight on both sides.

The tighter the spring is set, the later the snow blade will fold over when hitting an obstacle.



## 9 Maintenance



Risk of injury!

Before carrying out any maintenance or repair work, read and observe the chapter "Safety instructions".

Failure to observe this may result in personal injury or damage to the machine. Check all safety-relevant parts before using the machine. Remove the ignition key and keep it in a safe place before carrying out any maintenance, repair or cleaning work.

### A notice !

The coupling triangle and snow blade must be completely lowered beforehand so that the bonnet is not damaged by the attached coupling triangle.

### 9.1 Maintenance plan

The specified maintenance intervals must be strictly adhered to.

#### Maintenance work after the first 5 hours of operation:

- Check that all screw connections are secure and tighten if necessary.

#### Maintenance work before each use:

- Adjustments and wear of the two skids and the Robalon-S scraper bar control.

#### Maintenance work after each use:

- Clean the snow blade, snow blade frame and ride-on mower thoroughly and remove any road salt.
- After each cleaning, lubricate the lubrication points on the locking devices (5:A) and (6:C) and grease the pivot points on the lifting and swivel frame with a suitable grease spray (e.g. chain spray).

### 9.2 Disturbances

disorders	Possible cause	fix
Snow blade rattles (vibrates) unusually loudly during a clearing operation.	Snow blade is not adjusted correctly.	Adjust snow blade.
Poor clearing performance.	Amount of snow too large.	Reduce clearing width.

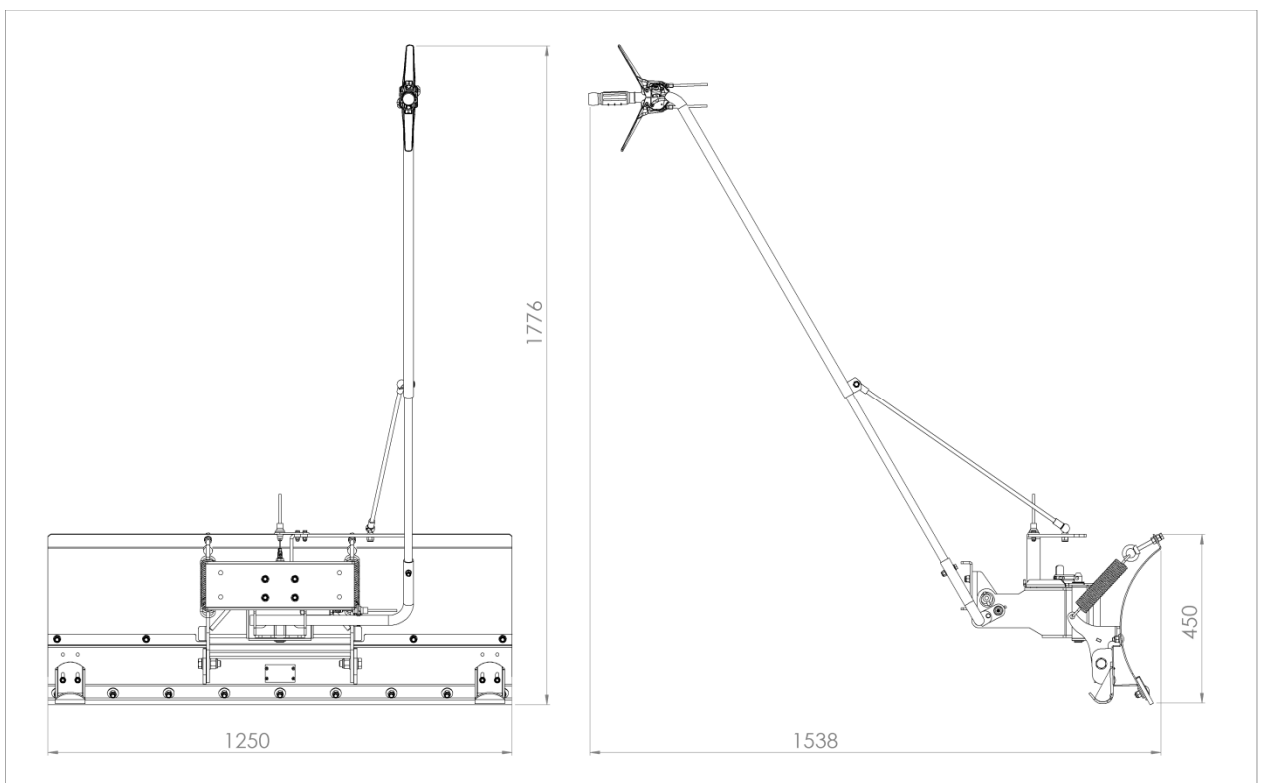
## 10 Technical Data

### 10.1 Snow blade

Technical data	
Snow blade width:	125 cm
Snow blade height:	45 cm
Weight:	45 kg

- Technical changes reserved! -


### 11 Dimension sheet



**12 EC - Declaration of Conformity**

CE Declaration of conformity  
 EC Declaration of Conformity  
 EG conformiteitsverklaring



(D)	(F)	(GB)	(NL)
We	Nous	We	Wij
<b>Kersten Arealmaschinen GmbH</b> <b>Empeler Straße 95</b> <b>D- 46459 Rees</b>			
explain that the product	declare that the product	herewith declare that the product	clarify that it product
<b>spring flaps snow blade</b>	<b>Valve resort de la neige bouclier</b>	<b>Valve spring snow shield</b>	<b>Klepveer snow shield</b>
<b>mechanical lifting for snow blade SCHN 12545</b>			
with all relevant provisions of the EC Machinery Directive Directive 2006/42/EC in agreement is.	satisfaction for the ensemble de la directive machines 2006/42/CE.	fulfills all relevant provisions of Directive 2006/42/EC.	willing to all appropriate palingen of EG-Machine Directive 2006/42/EC.
The machine is also in accordance with all relevant provisions of the following EC directives:	This machine satisfies the requirements of the CE directives following:	The machinery is also in compliance with all relevant provisions of the following EC directives:	The machine is also in overeenstemming with all the appropriate Please refer to the following EC directives:
Furthermore, the following applicable standards applies:	Outer, the standards and specification techniques suivantes ont été utilisées:	The following harmonized standards apply:	Next harmonized soil norms will hanteerd:
<b>EN ISO 12100 : 2010</b>			
Mister	Monsieur	Mr.	The army
<b>Dipl.- Ing. (FH) Robert Bosch</b> <b>Empeler Straße 95</b> <b>D- 46459 Rees</b>			
is authorized the technical support were together place.	It is authorized to compose the documentation Technique conformément à l'annex VII A.	is authorized to compile the technical file according to Annex VII A.	is done it technical dossier seeds.
Rees, August 4, 2015			
			
Managing Director	Director	Managing Director	business owner