Rotary tedder
KW 4..62/4;  KW 5.52/4x7
KW 6.02/6;    KW 6.72/6
KW 7.82/6 x7  KW 8.82/8

(from machine no. 566 606)
Dear customer,

You have now received an operating manual for the KRONE product which you have purchased.

This operating manual contains important information for the proper use and safe operation of the machine.

If this operating manual should for any reason become wholly or partially unusable, you can obtain a replacement operating manual for your machine by stating the number given on the other side.
Dear Customer!

On buying the Rotary tedder you have selected a quality product from KRONE.

We are grateful for the belief you have invested in us as a result of buying this machine.

It is important to read the operating instructions very carefully before you start operating the machine so that the Rotary tedder may be used to its maximum capacity.

The contents of this manual are laid out in such a way that you should be able to perform any task by following the instructions step by step. It contains extensive notes and information about maintenance, about how to use the machine safely, about secure working methods, special precautionary measures and the accessories which are available. It is essential, important and useful for the operational safety, reliability and durability of the Rotary tedder, that these notes and information are adhered to.

Please note:

Always keep this instruction manual behind the passenger seat in the driver’s cabin as it is an integral part of your machine.

Only operate this machine after you have been trained to do so and according to these instructions.

It is essential to observe the safety instructions!

It is also necessary to observe the relevant accident prevention regulations and other generally recognised regulations concerning safety, occupational health and road traffic.

All information, illustrations and technical details in this instruction manual are the latest and most up to date at the time of going to press.

It is within our rights to modify the design at any time and without having to give reasons. Should you for any reason not be able to use this instruction manual either wholly or partially, it is possible to get a replacement instruction manual for your machine by quoting the number supplied overleaf.

We hope that you will be satisfied with your KRONE machine.

Machine factory Bernard Krone GmbH
Spelle
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1 General

This operating manual contains basic instructions to follow for assembly, operation and maintenance. For this reason, these operating instructions must be read by operating personnel before commissioning and use, and need to be available for easy reference.

Follow both the general safety instructions contained in the section on safety and the specific safety instructions contained in the other sections.

1.1 Intended Use

The rotary tedder is built solely for spreading or turning grass material, be it spread over the ground or laid in swaths.

1.2 Technical Data

1.2.1 Manufacturer’s Address

Maschinenfabriken Bernard Krone GmbH
Heinrich-Krone-Straße 10
D-48480 Spelle (Germany)
Telefon: 0 59 77/935-0
Telefax: 0 59 77/935-339
E-Mail:info.idm@krone.de

1.2.2 Certification

EC Declaration of Conformity
See reverse side of title page

1.2.3 Identification

The machine data are listed on an identification plate

<table>
<thead>
<tr>
<th>Year</th>
<th>Vehicle ID No</th>
<th>Made in Germany</th>
</tr>
</thead>
</table>

Die gesamte Kennzeichnung besitzt Urkundenwert und darf nicht verändert oder unkenntlich gemacht werden.

1.2.4 Data Required for Questions and Orders

When making questions concerning the machine or ordering replacement parts, be sure to provide type designation, vehicle ID number and year of manufacture.

We recommend that these details be entered in the above boxes so that they are readily available.

Genuine replacement parts and accessories authorized by the manufacturer help ensure safety. Use of other parts may void liability for damage which results.
1.2.5 Operation in Accordance with Specifications

The rotary tedder is designed solely for normal agricultural use (operation in accordance with specifications).

Any use of the machine for other purposes is deemed to be not in accordance with specifications. The manufacturer bears no responsibility for any resulting damage; such use is entirely at the operator’s risk.

Use in accordance with specifications also includes adherence to the operating, maintenance and service instructions prescribed by the manufacturer.

1.2.6 Technical Data

Road travel is only permitted with the outer rotor swivelled out in transport position.

<table>
<thead>
<tr>
<th>Type</th>
<th>KW 4.62</th>
<th>KW 5.52</th>
<th>KW 6.02</th>
<th>KW 6.72</th>
<th>KW 7.82</th>
<th>KW 8.82</th>
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</thead>
<tbody>
<tr>
<td>Working width [mm]</td>
<td>4600</td>
<td>5500</td>
<td>6000</td>
<td>6700</td>
<td>7800</td>
<td>8800</td>
</tr>
<tr>
<td>Number of swather discs</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Tine arms per swather disc</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Surface covered [appr. ha/h]</td>
<td>4,6</td>
<td>5,5</td>
<td>6</td>
<td>6,7</td>
<td>7,8</td>
<td>8,8</td>
</tr>
<tr>
<td>Width in transport position [mm]</td>
<td>2690</td>
<td>2980</td>
<td>2690</td>
<td>2850</td>
<td>2980</td>
<td>2850</td>
</tr>
<tr>
<td>Height in transport position [mm]</td>
<td></td>
<td></td>
<td></td>
<td>3400</td>
<td>3450</td>
<td></td>
</tr>
<tr>
<td>Power consumption [KW/PS]</td>
<td>25/34</td>
<td>37/50</td>
<td>37/50</td>
<td>44/60</td>
<td>48/65</td>
<td>55/75</td>
</tr>
<tr>
<td>Max. allowable hydraulic pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200 bar</td>
<td></td>
</tr>
<tr>
<td>Pro shaft speed [max. rpm]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>540</td>
<td></td>
</tr>
<tr>
<td>Weigh [kg]</td>
<td></td>
<td></td>
<td>860</td>
<td></td>
<td>1180</td>
<td></td>
</tr>
<tr>
<td>Equivalent continuous sound pressure level [d B(A)]</td>
<td>under 70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tyres</td>
<td></td>
<td></td>
<td></td>
<td>16 x 6.50-8</td>
<td></td>
<td>(18/8.50x8 only middle)</td>
</tr>
<tr>
<td>Three-point mounting with run-on mechanism</td>
<td>Standard equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edge spreading mechanism [hydr.]</td>
<td>Standard equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spreading angle adjustment</td>
<td>13° - 19°</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional tine loss protection</td>
<td>Special accessory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighting unit</td>
<td>12 Volt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2 Safety

2.1 Identifying Safety Instructions in the Operating Manual

The safety instructions contained in this manual which could result in personal injury if not followed are identified by the general danger sign:

![Safety Sign]

safety sign in accordance with DIN 4844 - W9

General function instructions are indicated as follows:

Instructions which are attached to the machine need to be followed and kept fully legible.

2.2 Operation in Accordance with Specifications

The rotary tedder is designed solely for normal agricultural use (operation in accordance with specifications).

Any use of the machine for other purposes is deemed to be not in accordance with specifications. The manufacturer bears no responsibility for any resulting damage; such use is entirely at the operator’s risk.

Use in accordance with specifications also includes adherence to the operating, maintenance and service instructions prescribed by the manufacturer.

The rotary tedder must only be used, maintained and repaired by personnel who are acquainted with the machine and have been informed of the danger involved.

The applicable accident prevention regulations and all other generally recognized safety, health and road traffic regulations must be adhered to.

Any unauthorized alterations to the machine render any liability for damage undertaken by the manufacturer null and void.

2.3 Safety and Accident Prevention Regulations

1. Take note of both the regulations in these operating instructions and also the general safety and accident prevention regulations!

2. The attached warning and information signs give important advice for safe operation. Observing them will enhance your safety!

3. When you use public roads, make sure you observe the relevant traffic regulations!

4. Make sure you know all equipment and controls before you begin working with the machine. When you are operating the machine, it’s too late!

5. The operator’s clothing should be tight fitting. Avoid wearing loose fitting clothes.

6. Keep the machine clean to prevent the danger of fire!

7. Before starting the machine and moving off, check the danger area around the tractor (children!). Good visibility is absolutely essential!

8. Carrying passengers on the implement during work or transport is not permitted.

9. Make sure that the implement is correctly coupled, and that it is only fixed and secured with the prescribed fittings!

10. Make sure that the supporting devices, jacks etc. are in the correct position during assembly and removal!

11. Special care is required when equipment is being coupled to the tractor or detached from the tractor!

12. Ballast weights must always be attached in the prescribed way at the designed attachment points!

13. Adhere to the permitted axle loads, total weights and transport dimensions!
14. Check and fit transport equipment—e.g. lighting, warning signs and, if required, protective equipment!
15. Operating equipment for remote controls (ropes, chains, rods etc.) must be laid out in such a way that, whatever the working or transport position, it can not inadvertently cause any movements.
16. Prepare equipment for road transport as prescribed by the manufacturer, and lock the equipment in accordance with the manufacturer’s regulations!
17. Never leave the driver’s position when the tractor is in motion!
18. The speed of travel must always be suited to the environmental conditions! Avoid any sudden turns when travelling uphill, downhill or across a slope!
19. The handling, steering and braking of the tractor is affected by integrated or attached equipment and ballast weights. Make sure that you allow for more flexibility in steering and braking!
20. When turning, remember to take account of the wide load and/or the greater weight of the equipment!
21. Only switch on equipment when all protective devices are fitted and in protection position!
22. Persons are not allowed to enter the working area!
23. Keep clear of the area of rotation and swing of the equipment!
24. Hydraulic controls must only be operated if no persons are in the swing area!
25. Power operated parts (e.g. by hydraulics) contain danger points which can cause injury by bruising and grazing!
26. Before leaving the tractor, rest the machine on the ground, switch off the engine and remove the ignition key!
27. Make sure that no personnel go between the tractor and the implement unless the tractor is protected from rolling by the parking brake and/or wheel blocks!

2.3.1 Attached Equipment

1. Special care is required when the implements is being connected to the tractor or disconnected from it!
2. The implement must only be coupled to the appropriate fittings (e.g. the 3-point connection), and they must be so secured (transport, operation) that unintentional lifting or lowering of the implement is not possible.
3. When connecting the three point linkage, it is absolutely essential that the hitching categories of the tractor and attachment (e.g. power take-off shaft speed, hydraulics) are matched!
4. When operating the external controls for three-point connection, make sure that nobody goes between the tractor and the implement (danger of injury!)

2.3.2 Power Take-Off shaft Operation

1. Only the P.T.O. shafts prescribed by the manufacturer may be used!
2. Both male and female guard tubes and cones of all P.T.O. shafts must be fitted and in good condition!
3. Observe the tube overlap prescribed for P.T.O. shafts in transport and operating position!
4. Before installing or removing the P.T.O. shafts, make sure to turn off the power take-off shaft and the engine, and remove the ignition key!
5. When using P.T.O. shafts with overload or free wheel clutches that are not covered by the guards on the tractor, the overload or free wheel clutches must be fixed on the implement side!
6. Always ensure correct assembly and guarding of the P.T.O. shaft!
7. Protect the P.T.O. shaft guard from rotating with the shaft by fitting the chains!
8. Before switching on the power take-off shaft, make sure that the p.t.o. speed of the tractor matches the permitted speed of the implement!
9. Before switching on the power take-off shaft, make sure that nobody is in the danger area of the implement!
10. Never switch on the power take off shaft when the tractor engine is turned off!
11. Any work on the power take-off shaft may only be carried out when nobody is in the area of the rotating power take-off shaft or P.T.O. shaft.
12. The power take-off shaft should always be turned off when the angle is too great or the p.t.o. shaft is not required!

13. **Danger!** Working elements continue to rotate after the power take-off shaft is turned off! Do not approach the machine during this time! Work may only be carried out on the machine when the machine is fully stationary and the rotating parts have been secured.

14. Cleaning, lubrication or adjustment of the P.T.O. shaft or any equipment driven by the power take-off shaft may only be carried out when the p.t.o. shaft and the engine are turned off and the ignition key has been removed! Rotating parts must be secured with the parking brake.

15. Place the detached P.T.O. shaft on the support bracket provided!

16. After removing the P.T.O. shaft, place the protective cover on the stub of the power take-off shaft!

17. Any damage must be repaired immediately before any work is carried out with the attachment!

### 2.3.3 Hydraulic System

1. The hydraulic system is pressurized!

2. When connecting hydraulic cylinders and motors, make sure that the hydraulic hoses are correctly coupled!

3. When connecting hydraulic hoses to the tractor’s hydraulic system, make sure that all pressure has been released from the hydraulics of both the tractor and the implement!

4. When there are functional hydraulic connections between the machine and the implement, all coupling sleeves and plugs must be marked to prevent operating errors. If the connections are switched, the functions are reversed (e.g. lifting and lowering) – **this can cause accidents!**

5. Hydraulic hoses must be checked regularly, and they must be replaced if they are damaged or worn. Replacement hoses must conform to the technical requirements of the implement manufacturer!

6. When tracing leaks, suitable aids should be used to prevent injury!

7. Fluid leaking under high pressure (hydraulic oil) can penetrate the skin and cause serious injury! When injury occurs, consult a doctor immediately! Danger of infection!

8. Before carrying out any work on the hydraulic systems, lower the machine to the ground, depressurize the system and turn off the engine!

### 2.3.4 Tyres

1. When working on the tyres, make sure that the implement has safely lowered and been secured against rolling (wheel chocks).

2. Installing wheels and tyres requires adequate knowledge and suitable tools!

3. Repair work on the tyres and wheels should be carried out by specially trained personnel using appropriate installation tools only!

4. Check tyre pressure regularly! Inflate the tyres to the recommended pressures!

### 2.3.5 Maintenance

1. Repair, maintenance and cleaning work and the correction of malfunctions must always be carried out only when the drive is turned off and the engine is at a standstill! Remove the ignition key! Apply the parking brake.

2. Nuts and bolts must be checked regularly for tightness, and tightened if necessary!

3. When carrying out maintenance work on the machine in a lifted position, it must always be supported on suitable jacks.

4. When replacing fittings that contain cutting blades, always use suitable tools and gloves!

5. **Oil, grease and filters must be correctly disposed of!**

6. The power supply must always be disconnected before any work is carried out on the electrical system!

7. If protective devices are subject to wear, they must be checked regularly and replaced in good time!

8. When electric welding is carried out on the tractor and any fitted attachments, the cables must be disconnected from the generator and battery!

9. Replacement parts must conform at least to the technical requirements defined by the manufacturer! The best guarantee is to use only original KRONE parts!

10. Where gases are stored, only refill with nitrogen. **Danger of explosion!**
2.4 Introduction

The KRONE rotary tedder is equipped with all necessary safety features (protective devices). Not all danger points on this machine can be completely secured with regard to the preserving of the function of the machine. The machine bears appropriate warning labels to point out these residual dangers. We have designed these danger notices in the form of so-called warning symbols. This chapter contains important information on the position of these warning labels and their meaning/explanation!

Make sure that you are fully conversant with the meaning of the warning symbols opposite. The text next to the symbols and the position of the signs on the machine give information about the specific danger points on the machine.

2.4.1 Position of the warning signs, with safety-technical information, on the machine
The PTO shaft speed must not exceed 540 rpm!
The operating pressure of the hydraulic system must not exceed 200 bar!

Order no. 939 100-4 (1x)

Read and observe the operating instructions and the safety instructions before starting operation.

Order no. 939 471-1 (1x)

Danger in the operating range of the swather disc - Keep clear!

Order no. 939 472-2 (4x)

Never put your hand into the danger area as long as parts may be moving.

Order no. 942 196-1 (2x)

Accumulator is under gas and oil pressure. Repairs can be carried out only in connection with replacement of the complete unit.

Order no. 939 529-0 (1x)  
KW 5.52/4 x 7
KW 6.72/6
KW 7.82/6 x 7
KW 8.82/8

Never reach into the danger zone between the three-point frame and the carrier bar of the rotary tedder while any parts located there can still move by themselves.

Order no. 942 196-1 (2x)
2.4.2 Position of the information signs on the machine
Safety

1 942 578 -0 (1x) KW 4.62/4
   942 526 -0 (1x) KW 5.52/4 x 7
   942 579 -0 (1x) KW 6.02/6
   942 465 -0 (1x) KW 6.72/6
   942 527 -0 (1x) KW 7.82/6 x 7
   942 466 -0 (1x) KW 8.82/8

2 942 295-0 (1x) 500 lg.
   942 296-0 (2x) 370 lg.

3 942 103-1 (1x)

4 942 085-0 (1x)

5 942 118-0 (1x)

6 942 107-1 1,5 bar
   939 170-1 2,0 bar

7 939 138-2
   (2x) KW 4.62/4
   (2x) KW 5.52/4 x 7
   (3x) KW 6.02/6
   (3x) KW 6.72/6
   (3x) KW 7.82/6 x 7
   (4x) KW 8.82/8

8 939 139-1
   (2x) KW 4.62/4
   (2x) KW 5.52/4 x 7
   (3x) KW 6.02/6
   (3x) KW 6.72/6
   (3x) KW 7.82/6 x 7
   (4x) KW 8.82/8

9 924 569-0 (4x)

HAMMER
939-139-1
3. Preparations for use

3.1 Special safety instructions

- In all care, maintenance, repair and assembly work on the rotary tedder the PTO shaft must always be switched off. Switch off the engine and remove the ignition key. Take measures to prevent the tractor and rotary tedder from rolling!
- The maximum drive speed is 540 rpm.
- Control elements such as ropes, cables, hydraulic hoses and electrical cables must be so routed that accidental activation and contact with the tractor wheels are impossible. Accident risk!
- When raising and lowering the rotary tedder, no persons may be allowed to go between the tractor and the rotary tedder. High risk of injury!
- When lowering the outer swather discs, make sure that no persons are in the swivel area of the swather discs Accident risk!
- Before you switch on the PTO shaft, make sure that no persons are in the danger zone of the rotary tedder. Accident risk!
- Make sure that the protective features are correctly fitted during operation and when driving the tractor on public roads. Fit the lighting and check that it works.
- The operating personnel must not leave the tractor when the rotary tedder is in operation!

Safety instructions for the hydraulic system

- The hydraulic system is under pressure!
- Hydraulic oil that squirts out under high pressure can cause severe injury. Consult a doctor immediately if such injuries occur. Risk of infection!
- Check hydraulic hoses and pipes regularly, and replace them if they are damaged or worn. The replacement hoses and pipes must conform to the requirements of the manufacturer of the machine!
- When connecting hydraulic hoses, take care to ensure that the hydraulic system in both the tractor and the attachment is depressurized.

3.2 Preparations on the tractor and rotary tedder

When fitting the bracket to the tractor, make sure that the switchover valve is easily accessible and the hydraulic hoses (3) do not obstruct the driver. Hose lines may not be placed in the cabin.

Fix the bracket (1) for the hydraulic switchover valve (2) to the tractor. Make sure that the hydraulic hoses are not pulled tight or trapped when the attachment is raised and lowered.
3.3 Mounting the PTO shaft on the rotary tedder

Only those PTO shafts provided may be mounted and used.

To mount the PTO shaft on the rotary tedder, unscrew the screw (1) on the rotary shaft protective sleeve (2), twist the protective socket and the protective tube against each other and push the PTO shaft protective sleeve in the direction of the arrow.

Push the PTO shaft with the overload clutch onto the PTO shaft end on the rotary tedder. Take care to ensure that the locking device (1) clicks into place. Fit the protective sleeve again and secure it with a screw.

Note direction of arrow on PTO shaft!

3.4 Anbau des Kreiselzettwenders an den Traktor

- When fitting the rotary tedder, make sure that nobody enters the area between the implement and the tractor.
- Make sure that the tractor front wheels remain on the ground when the rotary tedder is raised. If necessary, raise the ballast on the front axle.

Couple the rotary tedder to the lower link arm (1) and upper link arm (2). Fix the lower link arms to the tractor use limiting chains or rods so that the rotary tedder does not swivel out to the side.

The withdrawal speed of the rear hydraulic system must be reduced by adjusting the lowering throttle so that the undercarriage of the rotary tedder is slowly lowered to the ground.
Preparations for use

PTO shaft

After the rotary tedder has been coupled to the upper and lower link arm, turn off the engine. Remove the ignition key. Protect the tractor from rolling!

Push the PTO shaft onto the PTO shaft end of the tractor. Make sure that the locking device clicks into place. Fix the protective sleeve (1) with chains (2) to prevent it from rotating with the shaft.

Check the PTO shaft for correct length the first time the rotary tedder is used and every time a different tractor is used. If the length of the PTO shaft is not correct for the tractor, it is essential to take note of section "Adjusting the PTO shaft length".

3.5 Hydraulic

3.5.1 Special safety instructions

- When connecting the hydraulic hoses to the tractor, the hydraulic system on both sides must be free from pressure!
- When tracing leakages, use suitable aids and wear protective goggles to prevent injury.
- Fluid escaping under high pressure (hydraulic oil) can penetrate the skin and cause serious injury! If such injuries occur, consult a doctor immediately. Danger of infection!
- Release the pressure before disconnecting hoses and before any work is carried out on the hydraulic system.
- Check hydraulic hoses regularly, and replace any damaged or worn hoses. Replacement hoses must conform to the mower manufacturer's technical specifications.

For the operation of the rotary tedder, the tractor must be fitted with a single acting control valve.

- Couple hydraulic hose (1) to female coupler (2) of the control valve.
- The control rope (3) which is used to move the machine to transport position, has to be tied to an appropriate point on the tractor.

When connecting the rapid action couplings, make sure that they are clean and dry. Soiling will result in leaks and damage.
Preparations for use

3.6 Transport locking device

The rotary tedder is equipped with a mechanical locking device (1).
Fix the control cable (2) to the tractor. Make sure that the cable does not come into contact with the tractor wheels.

- Make sure that the transport locking device is always correctly engaged when the machine is in transport position.

Before raising the rear hydraulics, make sure that the rear window of the tractor cabin is closed. Otherwise, the protective frame of the rotary tedder could cause damage.

3.7 Jack stand

Jack stand at front

The rotary tedders is fitted with a jack stand that folds away to the rear (1). The jack stand is folded away in working position. To do this, lift the rotary tedder slightly and unlock the pin (2). Fold the jack up to position "3" and lock it with a pin (2).

Jack stand at rear

The rotary tedders are fitted with a jack stand (2) at the rear. In working position, fold up the jack stand and secure it in position "3" with a linch pin (1).

- The rear jack stand (2) mainly prevents the rotary tedder from tipping over backwards when it is stopped while in operating position. - Danger of accident!
3.8 Adjusting the PTO shaft length

- Risk of damage to material. Do not raise the rotary tedder before the length of the PTO shaft has been adapted!
- The PTO shaft must be switched off before any, maintenance, repair and assembly work is carried out on the rotary tedder. Switch off the engine and remove the ignition key. Secure the tractor and rotary tedder to prevent them from rolling!
- When raising the rotary tedder, no persons must be allowed to enter the area between the rotary tedder and the tractor.

In order to adjust the length of the PTO shaft, first pull it apart. Push one half of the shaft (1) and (2) onto the tractor and attachment respectively. Use the rear hydraulics to move the rotary tedder into the position in which the PTO shaft is shortest. Hold the halves next to each other and measure them. For the procedure for measuring and shortening the shaft, please refer to the operating manual of the PTO shaft manufacturer.

The PTO shaft reaches its shortest position when the rotary tedder is raised.

3.9 Lighting, Warning and protection features

Before driving the tractor and machine on public roads, mount and connect the lighting system and check that it is working.

If the tractor’s license plate is hidden by the rotary tedder, then it must also appear at the rear of the machine.

Before driving on public roads, check the lighting and warning signs.
3.10 Converting from transport to working position

When the outer swather discs are being lowered, no persons may be allowed to enter the swivel area of the outer swather discs.

Only for KW 7.82/6 x 7
Move the undercarriage wheel (2) on the second swather disk forward into working position. Secure with the bolt (1) and linch pin.

Observe the position of the individual wheels when lowering into working position. (see chapter "Adjusting the swather disk spreading angle")

Activate the single action control valve on the tractor and pressurize the hydraulic cylinder. This relieves the pressure on the locking device (2). Pull the control cable (1) to release the locking device (2). Keep the cable taut. Slowly lower the outer swather discs with the control valve until the wheels rest on the ground.

When in use, leave the control valve in the "Lower" position.
3.11 Conversion from working to transport position

- Make sure that no persons are in the swivel area of the outer swather discs.
- Before driving on public roads, attach all protective devices, warning signs and lights, check them and make sure that they work.

Raise the outer swather discs until the locking devices (1) have fully clicked into place.

Be sure that the transport locking device has correctly engaged and that the control cable (2) is not taut.

Before each transport trip, charge the rotor arm hydraulic cylinders with pressure and then set the tractor hydraulics to „Neutral“ so the outrigger arm transport interlock is not under any load.

Only for KW 7.82/6 x 7

Observe the maximum width of the machine when travelling on public roads.

For reducing the transport width (< 3 m):

- Lower the undercarriage wheel (3) on the second swather disk backwards into transport position
- Secure with the bolt (1) and the linch pin (2)

3.12 Removing from the tractor

- When removing the rotary tedder, make sure that the ground is level and firm.
- When the rotary tedder is being raised and lowered, make sure that no persons enter the space between the tractor and the attachment.
- Make sure that you observe all other safety instructions.

Jack stand at front

Fold down the front jack stand (1) from position (3) and lock with a pin (2).
Jack stand at rear

Fold down the rear jack stand (2) from position "3" and secure it with a linch pin (1).

Switch off the engine and remove the ignition key. Protect the tractor from rolling. Only then pull off the PTO shaft.

Loosen the holding chain, pull off the PTO shaft and lay it on the PTO shaft support bracket (1).

The holding chains of the protective tubes are not designed or suitable for holding up the PTO shaft.

- Uncouple hydraulic hose from the tractor and install the dust cap.
- Remove plastic rope from the tractor.
- Uncouple the rotary tedder from the tractor.
4. Settings

4.1 Special safety instructions

- The adjustments described here must only be carried out when the machine is at a complete standstill. Switch off the engine and remove the ignition key.
- Secure the rotary tedder and tractor from rolling.
- When the rotary tedder is raised by the rear hydraulic system, take steps to prevent it from being accidentally lowered!

4.2 Spreading angle settings for the swather discs

The settings for the spreading angle of the tedder tines must be adapted to the conditions of the ground and crop. Adjustments are made on the undercarriage wheels of the rotary tedder.

Basic data for the spreading angle setting:

**Flat spreading angle II:**
- large intake width
- short crops
- crop lying out wide
- fodder with less than 40% moisture content

**Steep spreading angle I:**
- large output width
- long crops
- better spreading effect for mown swaths
- wilted silage
- fodder with more than 40% moisture content

**Settings:**
Remove the linch pin (1) and pull out the pin (2). Move the wheel bracket (3) to the selected position between position I and position II. Insert the pin again and secure it with the linch pin.

Pin towards position I = steeper spreading angle
Pin towards position II = flatter spreading angle

4.3 Setting the working depth of swather disc tines

Setting the working depth of the swather disc tines is carried out on the upper link arm (1). Move the rotary tedder to working position on a level surface. Adjust the rear hydraulic system to float position. Shorten or lengthen the upper link arm until the distance "a" between the front tines (2) and the ground is approx. 2 cm. The roller (3) of the carrier bar must be resting at the back of the U-profile (4) of the three-point frame.

This setting is a basic setting. In practice, the height setting of the tines must be adapted to the conditions.

If the spreading angle is altered, then the working depth adjustment of the swather disk tines must be checked and recalibrated.
4.4 Drive rpms

Wide spreading (tedding)

Take the mowing swaths as much as possible between the swather disks.
In cases of heavy fodder, move with high rpm (540/min) and a not-too-high travel speed (4 - 6 km/h) (steep spreading angle).

Turning

The drier the fodder, the lower the PTO rpm to be chosen (approx. 450/min), in order to avoid damaging the fodder. The movement speed (6 - 8 km/h) should be adjusted to the condition of the fodder. If the fodder is moist, the rpm and the movement speed should be selected as with wide spreading (flat spreading angle).

These specifications are approximate values which will need to be adjusted in practice to the actual circumstances.

4.5 Edge spreading mechanism

4.5.1 (KW 4.62; KW 6.02)

The field boundary spreading can be adjusted to 3 positions.

- To do this, loosen the spring cotter pin (2), move the field boundary spreading lever (1) to the desired position and secure it in place with the spring cotter pin (2).

Default setting (centre driving): Position II
4.5.2 (KW 5.52; KW 6.72; KW 7.82; KW 8.82)

The undercarriage wheel setting can be seen on the pointer (1). It is situated behind the carrier bar.

To adjust the edge spreading mechanism, raise the rotary tredder. Switch the hydraulic switchover valve (1) to position "b" (edge spreading mechanism). The edge spreading mechanism can be adjusted from the control valve on the tractor. The setting of the undercarriage wheels can be seen on the pointer.

4.6 Stabilizers

For rotary tedders with a large working width, the machine could start to wobble on uneven ground. A greater pre-tensioning of the stabilizers can suppress this effect. To achieve this, tighten the screws (1) of the friction plates (2) on the stabilizer tubes (3).

Do not tighten the friction plates too tightly, or the stabilizers may lock!

4.7 Tine adjustment

The tines (3) must be aligned vertically to the ground. The alignment of the tines can be changed by turning the eccentric. For adjustment release securing bolt (1) and turn eccentric (2) to the next position. Tighten the adjustment screw to a torque setting of 95 Nm.
5. Care and maintenance

5.1 Special safety instructions

- Repair, service, maintenance and cleaning work must only be carried out when the machine is at a standstill. Switch off the engine and remove the ignition key.
- Protect the rotary tedder and tractor from rolling.
- The raised rotary tedder must be prevented from accidentally being lowered!
- After service and maintenance work has been completed, all protective panels and other protective devices must be correctly fitted again.
- Avoid skin contact with oil and grease.
- If any injury is caused by oil escaping from the system, consult a doctor immediately.
- Observe all other safety instructions to prevent injuries and accidents.

5.2 General

To ensure the correct operation of the rotary tedder and reduce wear, certain maintenance and service intervals must be observed. These include intervals for the cleaning, greasing and oiling of parts and components and the inspection and tightening of bolts. The bolts on all tines must be checked after the first hours of operation and tightened if necessary (95 Nm), and thereafter checked daily and tightened if necessary.

Independently of the adjacent table, the following torque moments $M_A$ [Nm] apply:

<table>
<thead>
<tr>
<th>A Ø</th>
<th>5.6</th>
<th>6.8</th>
<th>8.8</th>
<th>10.9</th>
<th>12.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 4</td>
<td>2.2</td>
<td>3.0</td>
<td>4.4</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>M 5</td>
<td>4.5</td>
<td>5.9</td>
<td>8.7</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>M 6</td>
<td>7.6</td>
<td>10</td>
<td>15</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>M 8</td>
<td>18</td>
<td>25</td>
<td>36</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>M 10</td>
<td>29</td>
<td>37</td>
<td>49</td>
<td>72</td>
<td>84</td>
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<td>42</td>
<td>64</td>
<td>85</td>
<td>125</td>
<td>145</td>
</tr>
<tr>
<td>M 14</td>
<td>100</td>
<td>135</td>
<td>200</td>
<td>235</td>
<td></td>
</tr>
<tr>
<td>M 14x1,5</td>
<td>145</td>
<td>215</td>
<td>255</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 16</td>
<td>160</td>
<td>210</td>
<td>310</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>M 16x1,5</td>
<td>225</td>
<td>330</td>
<td>390</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 20</td>
<td>425</td>
<td>610</td>
<td>710</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 24</td>
<td>730</td>
<td>1050</td>
<td>1220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 24x1,5</td>
<td>350</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 24x2</td>
<td>800</td>
<td>1150</td>
<td>1350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 27</td>
<td>1100</td>
<td>1550</td>
<td>1800</td>
<td></td>
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</tr>
<tr>
<td>M 27x2</td>
<td>1150</td>
<td>1650</td>
<td>1950</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 30</td>
<td>1450</td>
<td>2100</td>
<td>2450</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$A = \text{thread size}$
(Property class can be seen on bolt head.)
5.3 Tyres

- Repair work on the tyres must only be carried out by qualified personnel and with suitable equipment.
- Before repair work begins, make sure that the rotary tedder is at a standstill. Switch off the engine and remove the ignition key.
- Place the rotary tedder on a firm, level surface. Fit wheel blocks to protect it from accidental rolling.
- Check the air pressure regularly.

<table>
<thead>
<tr>
<th></th>
<th>Pressure [bar]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undercarriage wheels (Single Axle)</td>
<td>1,5</td>
</tr>
<tr>
<td>Undercarriage wheels (Single Axle) inside</td>
<td>2,0</td>
</tr>
</tbody>
</table>

5.4 Lubrication points on the rotary tedders

PTO shaft

The specified lubrication intervals refer to hours of operation!

The PTO shaft(s) on the machine should be greased at the points shown in the illustration at the time intervals shown. At the same time, observe the operating instructions of the PTO shaft manufacturer.
5.5 Lubrication points on the (KW 4.62/4; KW 5.52/4x7)
5.5.1 Lubrication points on the (KW 6.02/6; KW 6.72/6; KW 7.82/6x7)
5.5.2 Lubrication points on the KW 8.82/8
6. Winter storage

6.1 Safety instructions

![Safety icon]

- Repair, service, maintenance and cleaning work must only be carried out when the machine is at a standstill.
- Switch off the engine and remove the ignition key.
- After service and maintenance work has been completed, all protective panels and other protective devices must be correctly fitted again.
- Avoid skin contact with oil, grease, cleansing agents and solvents.
- In the event of injury or cauterization caused by oil, cleansing agent or solvents, consult a doctor immediately.

6.2 General

Thoroughly clean the rotary tedder before placing it in winter storage. If a high-pressure water cleaner is used, do not aim the water jet directly at the bearings. After cleaning, grease all lubrication nipples. Do not wipe off grease that oozes out of the lubrication points. The grease ring provides additional protection from moisture.

Check all moving parts for freedom of movement. Where appropriate, dismantle and clean them, then lubricate them and fit them again. If necessary, replace with new parts. Only use original KRONE replacement parts.

Pull the PTO shaft apart. Lubricate the inner tubes and the protective tubes with grease. Grease the lubrication nipples on the universal joint and the bearing rings of the protective tubes.

Store the rotary tedder in a dry place, and not near artificial fertilizers or stables.

Touch up paintwork. Bare metal must be thoroughly preserved with anti-corrosion agent.

![Warning icon]

The rotary tedder must only be jacked up with a suitable jack. Make sure that the rotary tedder is solidly supported when it is jacked up.

To lift the tyres (the tyres can be damaged if the rotary tedder stands on the same spot for a long period), jack the rotary tedder up on a support stand. Protect the tyres from outside factors such as oil, grease, direct sunlight etc.

Have necessary repair work carried out in the period directly after the harvest season. Make up a collective list of all replacement parts required. This will make it easier for your KRONE dealer to deal with your orders, and it will give you the security of knowing that your machine will be fully operational at the beginning of the new season.
Starting up after winter storage

7 Starting up after winter storage

- Remove oil and grease which was applied for the preservation of chains and the machine.
- Grease the machine completely to allow any accumulation of condensed water in the bearings to be eliminated.
- Check the oil level in the gearbox and top up as laid down by the manufacturer.
- Retighten all bolts and nuts.
- Be sure all machine components are correctly adjusted and readjust as required.
- Read thoroughly the instruction manual again.

Use oils and greases produced on vegetable basis.
Starting up after winter storage
8 Special accessories

- For all service, maintenance, repair and assembly work on the rotary tedder, always switch off the PTO shaft.
- Switch off the engine and remove the ignition key.
- Protect the tractor and rotary tedder from rolling!

8.1 Support wheel

The supporting wheel (3) should be mounted on the right in the direction of travel on the three point block.

Whenever the supporting wheel (3) is used, it must always be allowed to coast down by **continuing to rotate**!

Support wheel installation:

- Mount the supporting wheel (1) on the three point block with the flange plate (2), screws, washers and nuts.
- Insert the supporting wheel (3) in the supporting wheel support (1) and secure it in place with the bolt (4) and spring cotter pin (5).
- Mount the upper link with bolt (6) in the oblong hole of the upper link plates and secure with linch pin (7).

Height adjustment:

The raking height can be adjusted by changing the level at which the supporting wheel (3) is mounted in the supporting wheel support (1).

Never lower the machine onto the supporting wheel (3). Always use the front parking support (9) to lower the machine.

Please note the following requirements for road transport:

- Use the rigid upper link.
- Mount the rigid upper link with bolt (6) in one of the three bore holes in the upper link plate (8) and secure with linch pin (7).
8.2 Additional tine loss safety mechanism

Apart from the standard tine loss safety mechanism(5), it is possible to fit an additional tine securing mechanism. Per tine, it consists of:

- one cable
- two cable clamps, each with
- two flat round washers and safety washers

Fit the cable (4) with the cable clamps (3) to the swather tines (1). Seen in the direction of rotation, the cable must be behind the swather tine. The nuts (2) of the cable clamps must face outwards.
Appendix to the Operating Instructions

Assembly instructions for the

KW 4.62/4, KW 5.52/4x7, KW 6.02/6,
KW 6.72/6, KW 7.82/6x7, KW 8.82/8

The work described on the following pages must only be carried out by authorized specialist dealers.

Because safety devices must be mounted as well, the rotary tedder cannot be put into operation until all the tasks described below have been completely carried out.
A1 Special safety instructions

- Place the rotary tedder on a firm, level surface.
- Before starting the rotary tedder, fit all safety equipment.
- When folding the outer discs to working position, make sure that nobody is in the swivel area of the discs.
- Special care is required when mounting the components supplied with the rotary tedder.

A1.1 Preparations

- Dismantle the protective frame that is screwed for the transport to the rotary tedder.
- Take off the PTO shaft.
- Unscrew the tine arms with the tines from the control tube of the border spreading attachment.
- Move the rotary tedder to working position.

A1.2 Mounting the wheels

Make sure that the height adjustment of the wheels is the same
A1.3 Mounting the disc arms to the disc plates

The disc arms that are fitted with the tines must be mounted in accordance with the direction of rotation. Take note of the stickers on the rotary tedder.

- Beige tines = anti-clockwise disc
- Green tines = clockwise disc

Fix the tine arms (2) from below to the disc plates (6) with M16 bolts (5) and spring washers. Do not tighten the bolts. Then insert M12 bolts (1) with washers from above and place them through the hole in the tine arm. Push on the semi-round support (3) as shown in the illustration. When all tine arms have been fitted as described, place the reinforcement ring on the bolts and secure the bolts with nuts and washers. For the torque settings, see chapter 4 “Care and maintenance”.

![Diagram of disc arm mounting](KW-0-067)
A1.4 Mounting the protective frames to the KW 6.72/6, KW 8.82/8

Appendix
**A1.5 Mounting the warning signs**

The illustration shows the mounting positions of the warning signs.

**A1.6 Light brackets for removeable lights**

The illustration shows the mounting positions of the front light brackets (1) and (4) and the rear light brackets (2) and (3) on the warning signs. The lights can only be inserted when the brackets have been mounted.
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