

Kellfri[®]

ROTATOR 21-KR03 21-KR07



READ THIS MANUAL CAREFULLY BEFORE USING THE PRODUCT !!!

TRANSLATED FROM THE ORIGINAL

INTRODUCTION

Thank you for choosing a product from Kellfri AB. By following the general safety information, instruction manual and common sense you will get many years of enjoyable use of the product. Kellfri's tools and machines are aimed for farmers with high demands on functionality.

PRODUCT INFORMATION

Kellfris rotator should be used on hydraulic powered lifting cranes where the rotator can swing the load horizontally. The lifting equipment's maximum load must not exceed the corresponding force limit of the rotator. When the rotator is in use, the hydraulic oil must have come at the right working temperature and comply with normal viscosity values.

AREA OF USE

The hydraulic turning device, or rotator, is designed for use on a hydraulic lifting crane, e.g. cranes that handle timber or single items. The rotator axle is fitted to lifting equipment, e.g. a grapple, which grips the load

TECHNICAL DATA	21-KR03	21-KR07
Rotation	Unlimited	Unlimited
Maximum axle load [kg]	970	1900
Torque [15 MPA, NM]	270	655
Maximum operating pressure [MPa]	20	20
Upper attachment point [mm]	60	60
Upper locking pin diameter [mm]	25	25
Lower mounting point [mm]	39,5	49,5
Lower locking pin diameter [mm]	20	25
Hose Connection	1/4"	3/8"
Lowest rec. Oil flow [l / min]	10	20
Weight [kg]	10	15

SAFETY INFORMATION

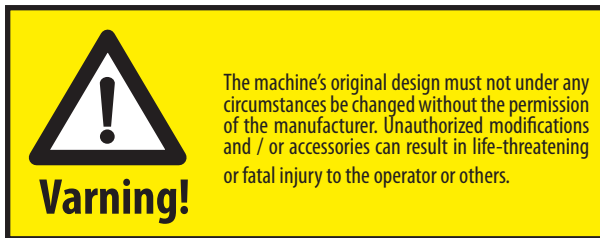
Before using the equipment, for your and others' safety, read the instruction manual and understand its contents. Always keep the instruction manual handy for the user of the tool. Remember that it can be good for your own and others' safety to read the safety information occasionally. It is important that the user understands that common sense and general precautions are not built into the product, but must be used by the user.

If the instruction manual is damaged or otherwise unusable, contact your local retailer or visit our homepage for more information:

<https://www.kellfri.co.uk/>

Kellfri AB Munka Torpgatan 6
532 37 Skara, Sweden
Phone number: +46(0)511-242 50

Do not use the equipment or product if you are feeling ill, tired or under the influence of alcohol. Nor if you are under the influence of strong medications or drugs, suffering from great depression or severe mental illness. Always follow the general traffic regulations and rules in the Animal Welfare Act. Persons under the age of 15 are not allowed to use the equipment.



PRODUCT SAFETY INFORMATION

- Read the instruction manual carefully before using this product!
- The gear is always operated from the cabine of the tractor.
- Check rotator maximum load and the weight of the load. When the base equipment is overloaded the load can fall uncontrollably. Do not overload the rotator !!!
- Always disengage the machine before any actions are taken on the rotator.
- Ensure that the hydraulic system has reached operating temperature before using the equipment. The hydraulic system which rotator is to be connected must be driven with clean oil to ensure that the rotator operates in its highest performance.
- Do not walk under suspended loads. Risk of crushing!
- Be cautious! When there is no pressure in the rotator, there is no braking torque and the load may rotate due to factors such as wind or imbalance. A counter movement has to be used if this rotation is to be stopped.
- Check hydraulic that the hydraulic hoses do not get pinch by any obstacles. A broken hose or a coupler can cause the load to fall or turnaround uncontrollably
- Set the crane in transport or storage position in a way that it does not put all the pressure on the rotator. E.g it is forbidden to leave the crane boom resting on the rotator.
- Always check the performance of the machine combination to be used with rotator to ensure the safety and function.
- Rotator should be operated from the driver's seat inside the tractor cabine.
- Danger zone of 15 meters. No one other than the operator may be present within the danger zone during operation with the tool.

INSTRUCTIONS FOR EMERGENCIES

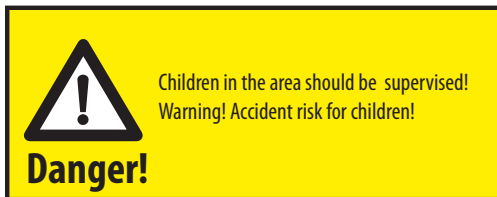
In case of an emergency please dial 112.

Keep cell phone or emergency phone available specially when working alone. First aid kit and fire extinguishers must be kept easily accesable during all work, maintenance and service.

SURROUNDINGS




Check and make sure that the area is clear of people, children and objects before switching on or using the equipment. Risk of serious personal injury. Be especially careful if children are in the area where the equipment is being use or stored. Check that there are no low-hanging power lines within the work area. Be careful when working on slopes and near ditches.

Always work alone with equipment designed for single - purpose tools/products. Never have junk/debris lying in your work area. Have workspaces clean. Always respect the risk zone.



WARNING LABELS

Make sure that the warning labels are always visible, clean the warning labels if necessary. Do not wash with high pressure washer directly on the warning label. If any part of the decal is worn or label becomes frayed or otherwise unreadable, order new decals.

SYMBOL	EXPLANATION
 A yellow square warning symbol with a black border. Inside is a black triangle containing a silhouette of a person being crushed by a heavy object falling from above.	Warning! Risk of crushing! Do not permit anyone to stand under suspended loads.
 A yellow square warning symbol with a black border. It shows a silhouette of a person and a vertical rectangle representing a machine, with a double-headed arrow between them indicating a distance.	Risk zone 15 m Respect the equipment's risk zone!
 A blue and white CE marking label. It features the CE mark, a table with fields for "Vikt" (Weight), "Fällvår" (Falling height), "Serie nr." (Serial number), and "Typ" (Type). Below the table, it says "KELLFRI AB" and provides contact information: "Munkatorpsväg 8, 53237 Skåre, Sweden", "Tel: 0511-24250, Fax: 0511-16838".	The equipment is CE marked

PERSONAL PROTECTIVE EQUIPMENT

Always use suitable protection equipment. Do not wear loose clothing or jewellery while working with the equipment. Long hair should be tied up when working equipment that has moving parts. Use protective gloves as there is a risk of burns if any hot surfaces are touched such as exhaust pipes, and avoid getting oil and petrol on skin. Ear defenders must be worn whilst the engine is running. Helmets with ear defenders must be used while working to prevent knocks from the cabin sides and suchlike in uneven terrain. Wear protective boots with anti-slip soles.



BEFORE USE

Read the safety information and operating instructions carefully. Be sure that you understand the safety information, operating instructions and warning labels. Use common sense when using the machine and use appropriate personal protective equipment. Always check the performance and the machine combination that are used. It's highly important these match in a satisfactory manner. This is to ensure the product or the function and most important yours and others safety. Visually inspect the equipment or product before using it. Fix or replace damaged or worn parts immediately to reduce the risk of injury.

Lubricate moving parts and check that all nuts and bolts are tightened. Learn and remember correct working method. Beginners should keep a low speed until the person has learned how the machine works. The user / customer is responsible to handle the situation correctly. Do not use the machine if it is experienced to be dangerous for the user. Read the User's manual before connecting the machine.



Warning!

For safety, this product should only be used in the manner described in this manual. The user is responsible for the instruction to be read through and followed.

OPERATION

Only people who understand the safety information and instruction manual to operate this tool. Be alert and careful when working with the equipment and only use the equipment in the manner described in the instruction manual. Avoid the use of the implement at temperatures lower than -20°C and higher than 30°C .

There is always risk of crushing when working with equipment that has moving part. Be careful when working with any equipment with hydraulic hoses, oil under pressure can penetrate the skin, if this occurs seek medical attention immediately!

HYDRAULICS

Hydraulic system might not be 100% tight, the hydraulic control must be performed before the equipment is use. Leakage can be due to internal leakage in the tractor valve, electric valve on the front loader, internal leakage in the equipments hydraulic cylinder etc. Check the extent of the leakage by running the equipments cylinder to it's end positions and keep up the pressure for 1 min. If the cylinder begins to "move" the other way, theres a leakage on the gasket inside the cylinder. The gasket or cylinder must be replaced.



Always work alone with the tools that are destined for this. Never overload the implement and respect the implement risk zone.

ROTATOR

USAGE RESTRICTIONS(Safety instructions when working)

- Check the rotator's maximum permitted load and the weight of the load.
- Do not overload the rotator!
- Make sure the hydraulics have reached working temperature.
- Check movement speeds and directions as well as control lever function.
- Lift the load before moving and rotating it.
- Never leave a load unsupervised during lifting.
- When there is no pressure in the rotator, there is no braking torque and the load may rotate due to factors such as wind or imbalance. A counter movement has to be used if this rotation is to be stopped.
- Check that the hydraulic hoses do not touch any obstacles. A broken hose or nipple can cause the load to fall or rotation to continue.
- When in transit or in storage, position the crane so that it is not supported by the rotator. For example, the crane boom must not be allowed to rest against the rotator.

WORKING CONDITIONS

The hydraulic turning device, or rotator, is designed for use on a hydraulic lifting crane, e.g. cranes that handle timber or single items. The rotator axle is fitted to lifting equipment, e.g. a grapple, which grips the load. The load can be rotated horizontally using the rotator. The hydraulics are connected to the lifting equipment through the rotator axle. The maximum permissible load on the lifting equipment must not exceed the corresponding value for the rotator. When the rotator is in use, the hydraulic oil must be at the correct working temperature and satisfy standard viscosity values.

INSTALLATION INSTRUCTIONS

- Rotator connection to the crane
- The rotator must be connected to the end of the crane boom using a link.
- The rotator must always be suspended freely and vertically in the direction of the axle. The link pins must be locked in place using clip pins.
- The rotator is connected to a bushing on the lifting equipment using a pin that is locked in place with clip pins.

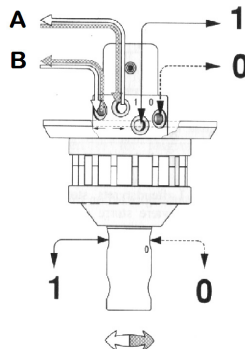
CONNECTING THE ROTATOR TO THE CRANE HYDRAULIC SYSTEM

Turning the rotator: The system should be thoroughly cleaned. Once the hydraulic system has reached working temperature, the oil should be circulated to channel any impurities to the filter. The hoses for the rotator's turning unit are connected together using intermediary nipples before the rotator. Oil can circulate in this line for at least 5 minutes. The rotator is connected to the crane's control valve via suitable hoses and pipes. The crane must be equipped with pressure-limiting valves that limit the pressure going to the rotator to a maximum of 200 bar. If a higher pressure is possible, pressure-limiting valves should be installed on the rotator's hydraulic line. The oil flow for rotator rotation is regulated using control nipples. The rotational direction of the rotator and grapple movement must correspond to the markings on the control levers. If rotation is too slow, the rotator's movement speed must be checked. Control nipple openings have been factory-set to a diameter of 1.5 mm. They can be enlarged in 0.1 mm increments.

18. ROTATOR LEAD-THROUGH

When connecting the hydraulics, it should be noted that the maximum pressure in the pressure duct is 200 bar and that the marked duct in the rotator's upper cover (upper duct) and the axle must be linked to the opening side of the cylinder on the lifting equipment, e.g. a grapple. When the grapple opens, it should be noted that the cylinder movement does not extend fully to keep the duct under pressure as this pressure is an unnecessary load on the rotator. The crane and equipment must be compliant with the Machinery Directive.

A,B= Rotation
1=Grapple closed
0= Grapple open



Technical data

KR07

Technical data	KR07
Turning angle	Unlimited
Max. working pressure	200 bar
Rec. L/min.	10
Torque(200 bar)	350 Nm
Max axial force	20 kN
Max. Permissible load	1000 kg
Weight	17 kg

OPERATING INSTRUCTIONS

Exercise caution when using the crane and rotator and act in accordance with the crane's safety instructions. Lateral loads on the rotator axle should be avoided. For example, prior to lifting, loads must not be pulled using the crane or the crane's base vehicle. A broken hose or nipple can cause the load to fall or rotational movement to continue. Damage to hoses or devices can cause the release of a high-pressure liquid jet.

AFTER USE

Parking is not allowed with the equipment above ground, but with the equipment resting on the ground. Rinse the implement if necessary.

STORAGE

Always store the tool or product in a dry place preferably under cover when not in use. Ensure that the tool or product is stable and not likely to tip over. Never let children play at the storage site. Keep in mind the risk of tipping!

MAINTENANCE AND SERVICE

Visually inspect / verify the tool and its equipment regularly. The tractor engine must be switched off and the tool is lowered to the ground state before working with service begins. Make sure that the unit is stable and not likely to tip over during maintenance and service. Replace damaged and worn parts immediately to reduce the risk of injury. Lubricate all moving parts and grease fittings and check hoses regularly. The hydraulic system is not adapted to the environment of oil. Use only parts with equivalent performance to reduce the risk of damage and failure. All repairs and connections with electricity must be performed by an authorized person. Check that all nuts and bolts are tightened after use, maintenance and / or service. Always test the machine before start working.

If the rotator rotation becomes inconsistent and occasionally interrupted, the device should be checked. Lubrication of the pin on the rotator upper ear should be performed regularly. Rotator upper ear, shoulder, hoses and nipples should be checked every week due to the risk of fractures. Any damage or oil leaks must be corrected immediately. Leakage of bushing seals manifests itself in that instance, looper press force is weakened, and that looper opened. In connection with the annual crane control should check the connective bolts are tightened. The rotator should under no circumstances be repaired by welding. Replacing the rotator seals and other components must be performed under good conditions, for details contact the seller.

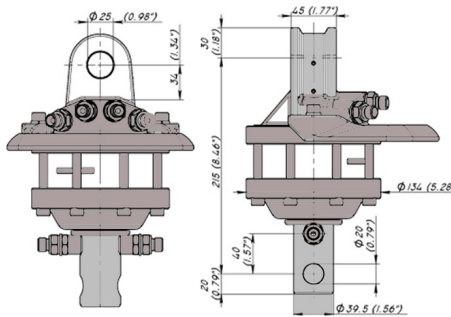
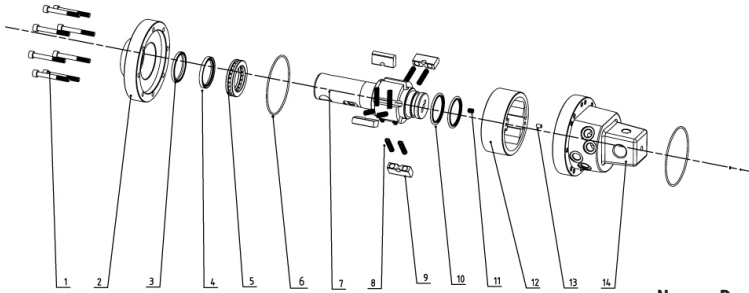


Check and tighten bolts every 250 operating hours!
Lubricate all grease points every 250 hours of operation.

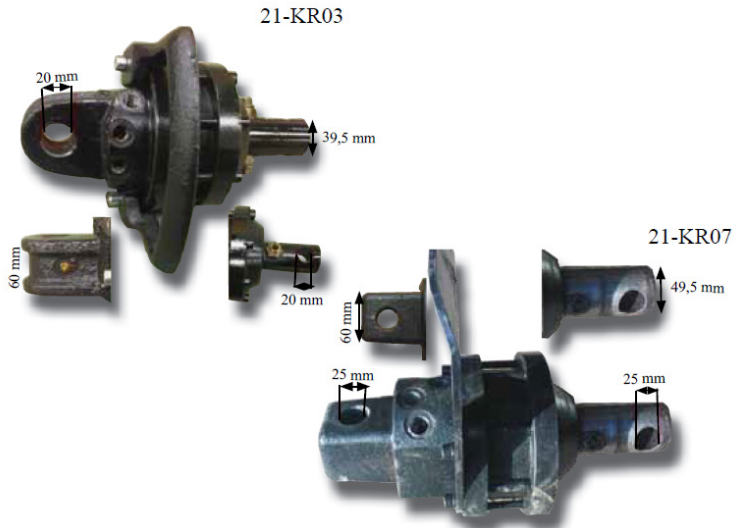
RECYCLING

When disposing of the tool be disassembled and transported to the municipality destined place. Contact your local authority for further information.

EXPLODED VIEW-ROTATOR



No.	Designation	Qty.
1	Screw	8
2	Lower bearing housing	1
3	Shaft seal	1
4	Sealing	1
5	Stock	1
6	O-ring	2
7	Shaft dia. 40	1
8	Spring	10
9	Wing	5
10	Sealing	2
11	Plug	1
12	Spacer	1
13	Plug	1
14	Upper house	1



IMPORTANT! When using a crane and rotator always be cautious and act follow crane's safety instructions. Exercise caution when using the crane and rotator and act in accordance with the crane's safety instructions. Lateral loads on the rotator axle should be avoided. For example, prior to lifting, loads must not be pulled using the crane or the crane's base vehicle. A broken hose or nipple can cause the load to fall or rotational movement to continue. Damage to hoses or devices can cause the release of a high-pressure liquid jet.

We are grateful for your help pointing out any inaccuracies in the Kellfri product delivered to you. Before making a complaint read Kellfris general warranty and sales conditions in our catalog as well as the enclosed User's manual that comes with the machine.

Please fill in the details below and attach photo in order to process your request.

Buyer:	Customer number:
Address:	Invoice number:
E-mail:	Phone nr:

When was the product delivered?	When was the product taken into operation?	Did the product function as it should upon the first operation?
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Defect product / part:

Problem description:

Describe the sequence of events:

Other:

Submit Complaint form and photo to:

Kellfri AB/ Division of Services

Munkatorpgatan 6

532 37 Skara

WEB

<https://www.kellfri.co.uk/>

Email: info@kellfri.se

Tel: 0511-242 50

Fax: 0511-168 33

Or mail Service

WARRANTY TERMS AND CONDITIONS

Validity of the warranty - Kelifri's Warranty is valid 12 months from the date of purchase.

This warranty replaces - Compensation for spare parts after acknowledgment that the fault lies on the material or manufacturing defects.

This guarantee do not cover

- Labour costs
- Travel expenses
- Any modification that the buyer himself has/had made.
- Any consequential damages that occurred out of damage to the machine.
- Damage due to normal deterioration of the machine, inadequate service, user inexperience or use of spare parts which are not original.
- Wear parts such as hoses, seals, oils, and mechanical belts

CE EC DECLARATION OF CONFORMITY MACHINE, ORIGINAL

EC-DECLARATION OF CONFORMITY

According to 2006/42/EC, Annex 2A

Kelifri AB

Munkatorpsgratan 6

532 37 Skara, Sweden

Declares that the machine

Name: 21-KR03, 21-KR07

Type: Rotator

Complies with all applicable provisions of the Machinery Directive 2006/42/EC.

Other equipment must meet the hardware requirements of the Directive.



Tina Baudtler, VD 2015-06-09

Kelifri AB is constantly working on further developing their products and therefore reserves the right to modify, among other things the design and appearance without any further notice.

CUSTOMER SERVICE

You are always welcome to give your feedbacks, reviews or ask us about our tools and products.

KELFRI AB

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Kelifri®