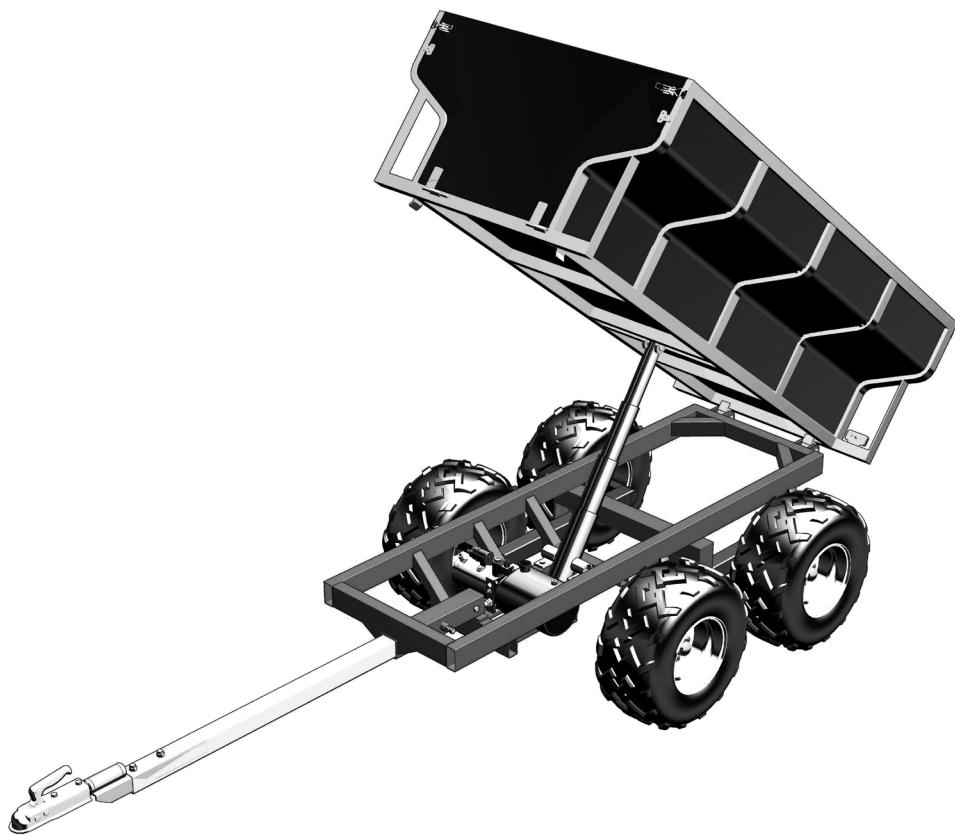




Kellfri®

23-TV10H

**TIPPING TRAILER ATV WITH ELECTRICAL
HYDRAULIC TIPPER**



CAREFULLY READ THE OPERATING INSTRUCTIONS BEFORE USING THE PRODUCT!

OPERATING INSTRUCTIONS IN ORIGINAL

INTRODUCTION

Thank you for choosing a product from Kellfri AB. Compliance with the general safety instructions, instruction manual and sound common sense will guarantee many years of enjoyment using the product. Kellfri's equipment and products are aimed at self-employed farmers who have stringent performance demands.

PRODUCT DETAILS

- Electrical hydraulic tipper
- Sturdy floor in 2 mm tread plate
- Powerful three-stage tipper ram
- Robust tyres
- Practical storage box for actuator

A well-built ATV tipping trailer with sturdy floor plate, powder coated for long service life. Electrics and hydraulics are safely protected under the floor, long three-part tipper ram for large tipping angle makes the floor easy to clean.

Electricity is supplied from the ATV's 12 V socket and tipping is controlled from an actuator with cable which is stored in a box on the tow bar when not in use. Note: 12V is minimum and operation may not work below 12V.

1,420 kg load capacity, head and tailgates can be opened, jack with crank and 50 mm rotatable tow bar ball hitch.

THE MACHINE'S FUNCTION

The trailer was developed in order to transport loose materials or branches, etc. up to a max. load of 1,420 kg behind an ATV.

TECHNICAL DATA

Dimensions L x W x H (mm):	3,450 x 1,250 x 1,110
Floor dimensions L x W x H (mm):	2,000 x 1,070 x 580
Tyre dimensions:	22 x 11-10
Amount of hydraulic oil:	4.5 L
Hydraulic pressure	16 Mpa
Max. load trailer:	1,420 kg
Lifting capacity	1,000 kg
Weight	270 kg
Tipper	Electrical hydraulic, 12 V
Motor output	2.2 kW

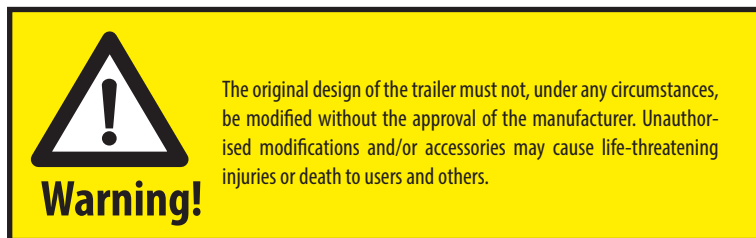
SAFETY INSTRUCTIONS

Before using the trailer, and for the safety of yourself and others, you must read the safety instructions and operating instructions and understand their contents. Always make the safety instructions and the operating instructions easily accessible to users of the equipment or product. It is a good idea to read the safety instructions from time to time, both for your own safety and that of others. It is important that the user understands that common sense and general caution are not built into the product, but must be supplied by the user.

If the operating instructions gets damaged or in any other way cannot be used, new copies may be ordered from:

Kellfri AB, Munkatorpsgatan 6, SE-532 37 SKARA, Sweden. Tel.: 0511-242 50

The general safety instructions can also be downloaded from Kellfri's website: www.kellfri.se
Do not use the equipment or product if you feel ill, tired or are under the influence of alcohol. Do not use the equipment or product if you are taking prescribed medication or drugs, or suffering from severe depression or mental illness. Always comply with general rules of the road and applicable rules stipulated by the Animal Welfare Act. People under the age of 15 and those suffering from mental illness are not allowed to use the equipment.



PRODUCT SAFETY INSTRUCTIONS

Read through the ATV's operating manual before starting work.

- Always check that the performance of the machine combination to be used with the trailer guarantees safety and functionality. As the trailer is not fitted with lights, fit a magnetic rear light or similar where required.
- An SMV sign must be attached when travelling on roads.
- Ensure that the trailer is on a level surface when unhitching it.
- EU regulations stipulate how fast a rig with a non-brake trailer is allowed to go. Take care to comply with these regulations.
- Drive straight up or down hilly terrain.
- Do not drive up slopes that are too steep to drive up.
- The trailer is not intended for use behind a car.
- Never overload the trailer!
- Never leave the driver's seat until the brakes on the towing vehicle have been engaged.
- The risk area is 5 metres. Only the operator is allowed to be within the risk area while the trailer is in use.
- Under no circumstances are operators allowed to stand under suspended loads.
- Do not leave a loaded trailer parked unsupervised.
- When unhitching the trailer, it must be empty and on a level surface with the trailer wheels secured using suitable brake blocks.
- The trailer is fitted with a ball coupling for a 50 mm tow bar eye. Max. pulling force 1,000 kg. Replace the ball coupling after excess wear.

WARNING DECALS

Make sure warning decals are always visible and clean them when necessary. Do not use a high-pressure washer directly on the warning decal. If a decal becomes worn or in any other way unusable, order a new set of decals.

An SMV sign must be visible and mounted when travelling on public roads.

SYMBOL	EXPLANATION
	<p>Read operating instructions</p> <p>Turn off the motor and remove the key from the ignition when carrying out repairs or when you leave the towing vehicle, even for short periods.</p>
	<p>Risk zone 5 m</p>
	<p>Warning! Electric cable</p> <p>General risk of crushing hands</p> <p>General risk of crushing feet</p>
	<p>Do not walk under suspended loads.</p> <p>Warning! Moving parts.</p>
	<p>Lubrication after 10h of operation</p> <p>Retighten all bolts and connections</p>
	<p>Risk of accidents to children.</p> <p>Children are not allowed in the vicinity of the machine</p> <p>Keep off the machine</p>
	<p>The product is CE marked</p>

INSTRUCTIONS FOR EMERGENCY SITUATIONS

In case of emergency, call 112.

Always have a mobile phone or emergency phone available when working alone. A first-aid kit and fire extinguisher must be kept in an easily accessible location when carrying out any work, maintenance or service.

PERSONAL PROTECTION

Always use suitable protection equipment. Do not wear loose clothing or jewellery while working with the equipment or the product.



SURROUNDINGS

Check that the work area is free from bystanders, children and objects before hitching or using the equipment. There is a risk of serious injury.

Be extra careful if there are children in the vicinity of the area where the equipment or product is used or stored. Check that there are no low-hanging electrical cables within the work area. Exercise caution when working on slopes and close to ditches. Always work alone with equipment or products that are made for working alone. Remove all rubbish from your work area. Keep work areas clean. Always respect the equipment's risk zone.



Children must not be left unsupervised in the area

DANGER!

STEPS TO TAKE BEFORE USE

Carefully read the safety instructions and the instruction manual. Make sure that you understand the safety instructions, the instruction manual and warning decals. Use common sense when using the product and suitable personal protective equipment. Always check the performance of the machine combination to be used. It is important that these are compatible and work satisfactorily together. This is to ensure that the equipment or product works as expected, and to guarantee the safety of yourself and others. Carry out a visual inspection of the equipment or product before use. Repair or replace damaged or worn parts to reduce the risk of injury. Grease moving parts and check that all nuts and bolts are tightened. Correct if necessary.



Never use equipment or a product with defective safety components.

Warning!

Learn and remember the correct working method. Beginners must work slowly until they have learned how the machine or product works. Users/customers are responsible for ensuring users can handle the situation. If users feel that the machine is dangerous to use, it should not be used.

- Check the tyre pressure, recommended pressure 1 bar.
- Check the ball coupling with respect to damage or wear.

USE/OPERATION

Only those who understand the safety instructions and the instruction manual may use the equipment or product. Exercise caution and care when working with the equipment or product and only use the equipment/product in the way described in the instruction manual. There is a risk of crushing when working with equipment that has moving parts. Exercise caution when working with equipment with hydraulic hoses as oil under pressure can penetrate the skin. Immediately seek medical attention if this should occur. Always work alone with equipment that is made for working alone. Respect the equipment's risk zone.

- Check that the trailer is undamaged before connecting it to the vehicle.
- Connect the trailer's ball coupling to the ATV's tow bar.
- Ensure that the ball coupling has locked in place by lifting the tow bar, the ball coupling should stay attached to the tow bar.
- Crank the support wheel up and raise the jack so that you are sure it will not come into contact with the ground while driving.
- Be sure to tighten the jack properly, so that it does not vibrate loose and touch the ground while driving.
- Do not load up more than the maximum load of 1,420 kg.
- The brakes on the ATV must be engaged when loading and unloading.
- Connect the trailer's electrical function to the ATV's 12V socket. Test all functions before starting work.



**NOTE: Be aware that the trailer's lifting capacity is 1,000 kg.
Do not tip the trailer if the weight of the load exceeds 1,000 kg.**



Compliance with the safety instructions requires that the product is only used as described in these instructions. It is the user's responsibility to read through the instructions and comply with them.

Warning!

AFTER USE

- Ensure that the trailer is on a level surface when unhitching it.
- On slopes, place brake blocks in front of the wheels before unhitching.
- To extend the service life of your trailer, do not park it out in the open, but under a roof.

TRANSPORTATION AND SET-UP

Check that the work area is free from bystanders, children and objects before driving off. Always observe additional caution during transport and moving. Ensure that the equipment or product is well anchored and existing transport lashings are fitted. Always position the load as low as possible. Respect the risk zones even during transport and moving. Do not permit anyone to walk under suspended loads when carrying out lifts. Trailers used for transport should have brakes that work.

Always store the equipment or product on a dry surface, preferably under a roof, when not in use.

Ensure that the equipment or product is stable and cannot fall over. Never permit children to play at the storage site. Be aware of the tipping risk!

MAINTENANCE AND SERVICE

Make sure that the equipment is stable and cannot tip over when carrying out maintenance and service work. Disconnect the trailer from the vehicle while faults are being repaired.

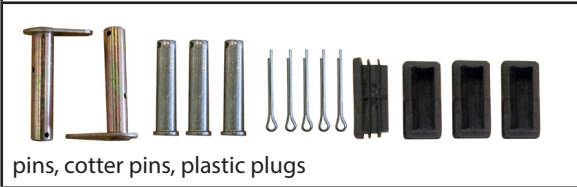
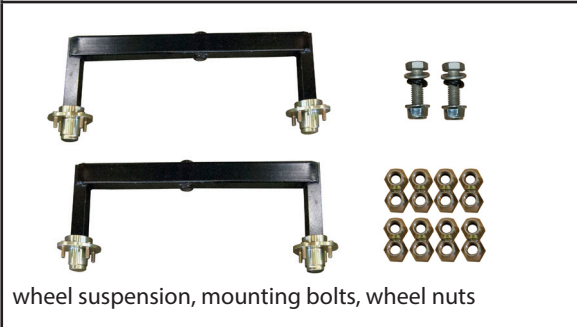
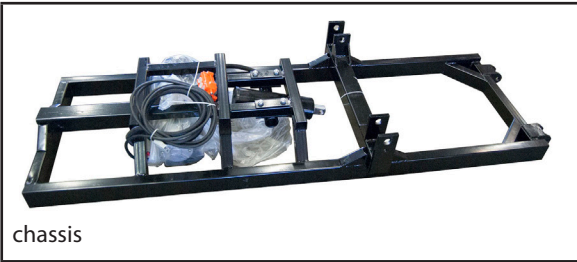
Replace damaged or worn parts to reduce the risk of injuries. Only use spare parts with equal performance to reduce the risk of injuries and breakdowns. Carry out maintenance, service and checks in line with recommendations.

Regularly check the condition of the trailer. Retighten the wheel bolts and nuts when required. If cracks, twists, bends, gaps or fatigue are discovered, stop using the trailer and rectify the fault. Avoid using the trailer at temperatures lower than -20°C and higher than +30°C. Wash the trailer down with water if required.

- After wheel replacement, check that the wheel nuts are tightened and retighten after a number of miles in use. The tightening torque must not exceed 45 kpm.
- Grease the wheel bearings regularly.
- Check that the bearing setting is correct in order to prevent bearing play and abnormal bearing wear. The bearing setting should rather be too tight than too loose.
- Check that all nuts and bolts are tightened after maintenance and service work.
- Always test the machine before starting work.

RECYCLING

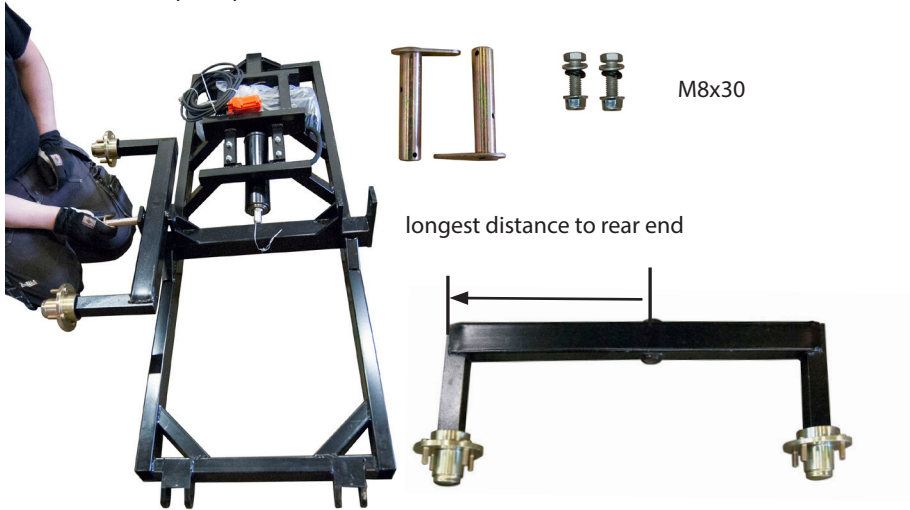
When scrapping, the equipment should be dismantled and transported to a designated recycling station. Contact your municipality for further information.



ASSEMBLY: Remove all packing and check that all parts are present, see previous page.

Due to the weight of the floor and the components, it is recommended that at least two people work together to assemble it. Be careful when assembling, be aware of the risks it entails and ensure that the parts are stable and cannot overturn or fall down when the trailer is raised. Attach right- and left-sides with the trailer connected to the towing vehicle.

- Start by fitting the wheel suspension to the chassis. Place the chassis upside down to make it easier to fit the wheel suspension and the wheels. NOTE: right and left wheel suspension! Measure the distance between right and left wheel hub from the centre. Secure with pivot pin and M8x30 bolt.



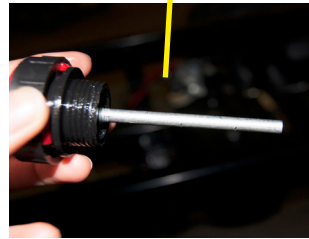
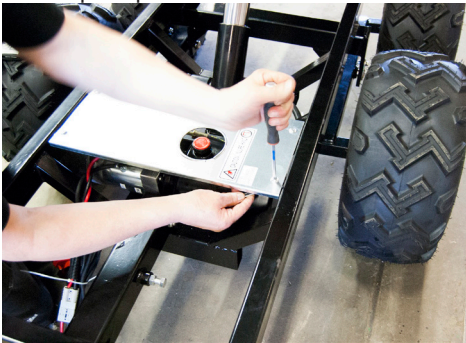
- Fit the wheels NOTE: right and left wheel, the wheels are marked R=right and L= left. Secure using wheel nuts with the conical side facing inwards towards the rims. Tighten.



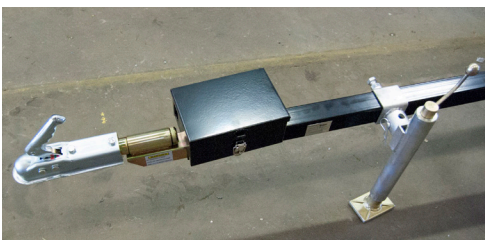
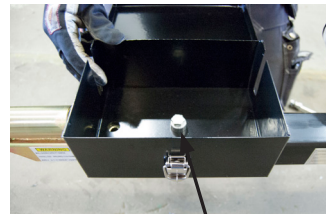
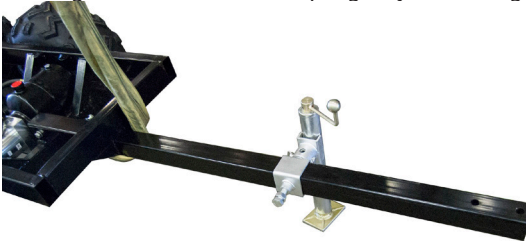
- Turn the chassis around, fill the tank with hydraulic oil, check the oil level.



- Fit plate protection above the tank



- Fit the tow bar and jack. The storage box for storing electric cables should be fitted together with the ball coupling. Adjust the height of the jack and tighten all bolts.



- Lift the floor and fit it onto the chassis. **WARNING!** Risk of crushing!



- The hydraulic cylinder must be fitted while the floor is raised. **WARNING!** It is important that you ensure that the floor cannot drop down! Connect electric cables to a 12V battery in order to start the hydraulics. Extend the cylinder so that the piston rod reaches the bracket under the floor, secure with the pin.



- Fit plugs in the floor and reflectors at the rear. See pictures below:



- The cables should be kept in the storage box during transportation or storage. Secure the cables on the tow bar with plastic ties or similar so that they do not hang beneath the trailer while driving.



- Check all bolts Ready for use! Good luck!

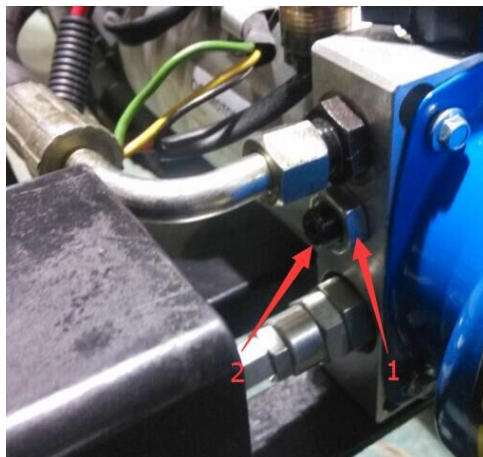
ADJUSTMENT THE SPEED OF LOWERING THE FLOOR

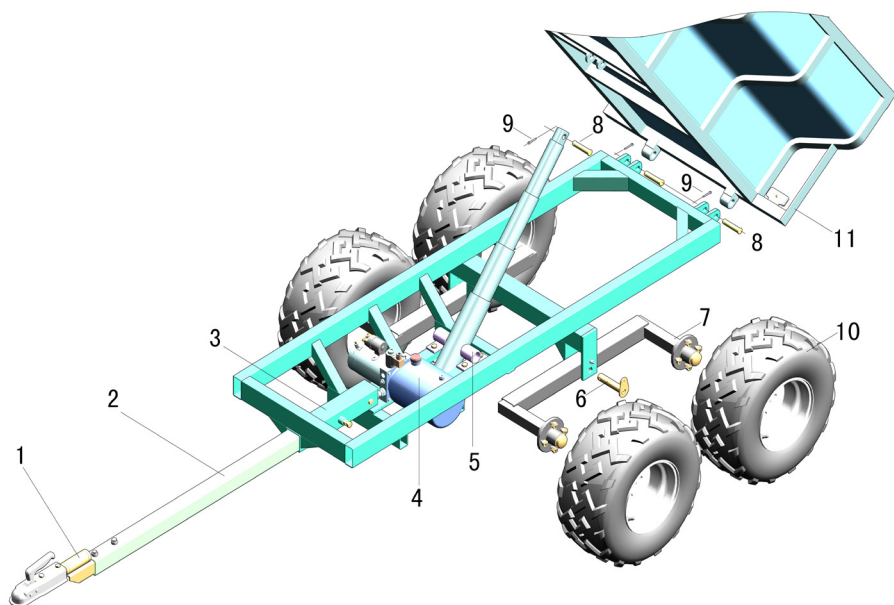
This method controls the speed of lowering the floor of the trailer. By loosening the insex screw (2), the lowering speed will increase and by tightening the speed will decrease.

NOTE, if you loose the insex screw (2) too much the floor will not be able to stay up and will begin to lower itself.

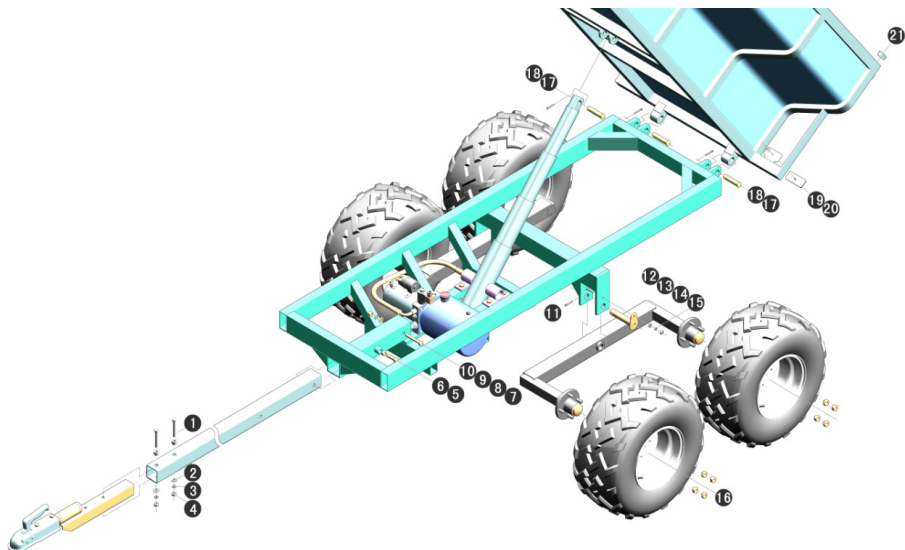
Our recommendation is to tighten the insex screw (2) by at least 3 turns, some times it may require one or a couple turns more.

- A. Loosen the nut (1).
- B. Tighten the insex screw (2) 3 turns.
- C. Tighten the nut (1) again to secure the insex screw (2).

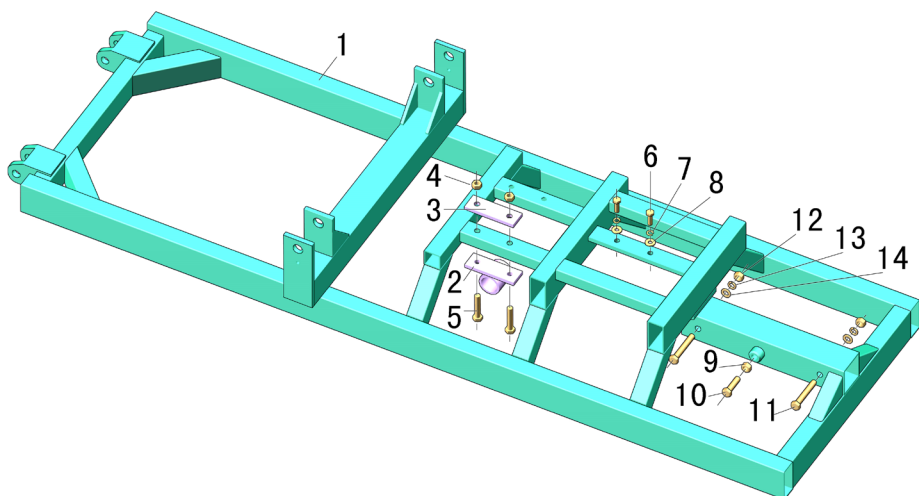




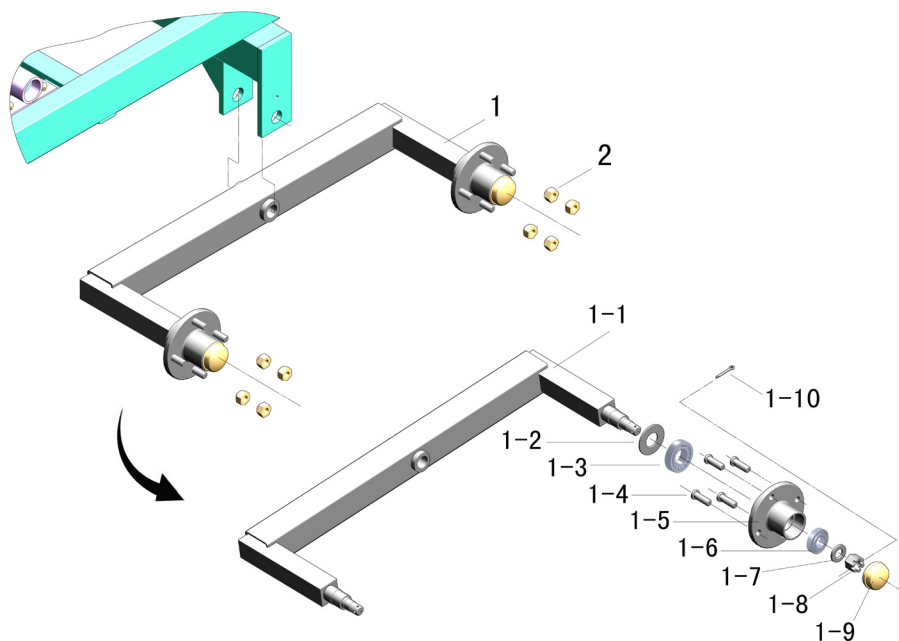
NO.	DESIGNATION	QUANTITY
1	Ball coupling	1
2	Tow bar	1
3	Chassis	1
4	Hydraulic tank	1
5	Mounting plate for hydraulic cylinder	2
6	Pivot pin	2
7	Bogie; wheel-axle with hub	2
8	Pin 18x80	3
9	Cotter pin $\Phi 3.5 \times 30$	3
10	Wheel 22 x 11-10	4
11	Floor	1



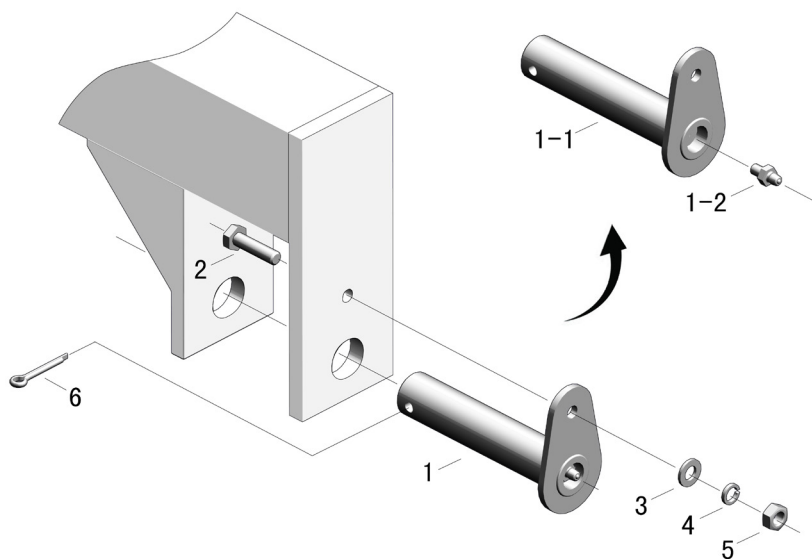
NO.	DESIGNATION	QUANTITY
1	M10x90 Bolt	2
2	Φ10 Flat washer	2
3	Φ10 Spring washer	2
4	M10 Nylock nut	2
5	M12 x 50 Bolt	1
6	M12 Nut	1
7	M12x90 Bolt	2
8	Φ12 Washer	2
9	Φ12 Spring washer	2
10	M12 Nut	2
11	Φ5x50 Split pin	2
12	M8x 30 Bolt	2
13	Φ8 Washer	2
14	Φ8 Spring washer	2
15	M8 Nut	2
16	M12 Wheel nut	16
17	18x80 Pin	3
18	Φ3.5x30 Cotter pin	3
19	Reflector	2
20	Plug	4



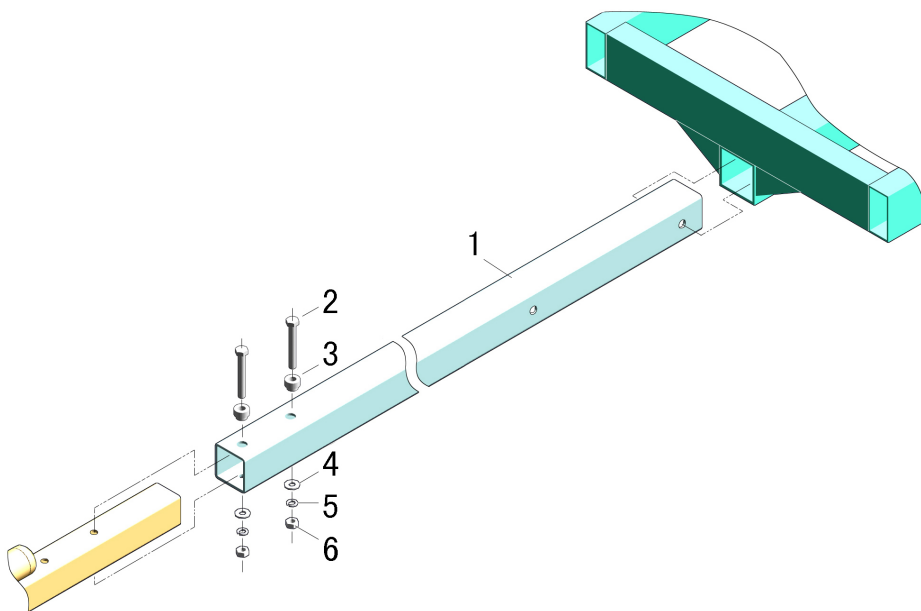
NO.	DESIGNATION	QUANTITY
1	Chassis	1
2	Mounting plate - upper	2
3	Mounting plate - lower	2
4	Nylock nut M12	4
5	Bolt M12*60	4
6	Bolt M10*30	2
7	Spring washer $\Phi 10$	2
8	Flat washer $\Phi 10$	2
9	Nut M12	1
10	Bolt M12*50	1
11	Bolt M12*90	2
12	Bolt M12	2
13	Spring washer $\Phi 12$	2
14	Flat washer $\Phi 12$	2



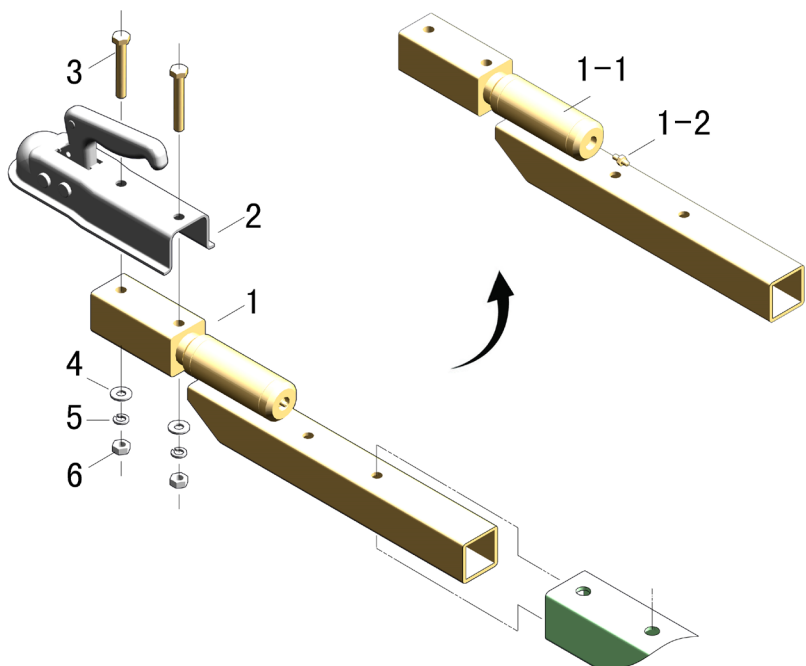
NO.	DESIGNATION	QUANTITY
1	Bogie	2
2	Hub nut M12	16
1-1	Axle	2
1-2	Rubber washer	4
1-3	Conical roller bearing 30206	4
1-4	Hub bolt M12*35	16
1-5	Hub	4
1-6	Conical roller bearing 30204	4
1-7	Flat washer $\Phi 18$	4
1-8	Hub nut M18-1.5	4
1-9	Hub cap	4
1-10	Cotter pin $\Phi 3.5 \times 30$	4



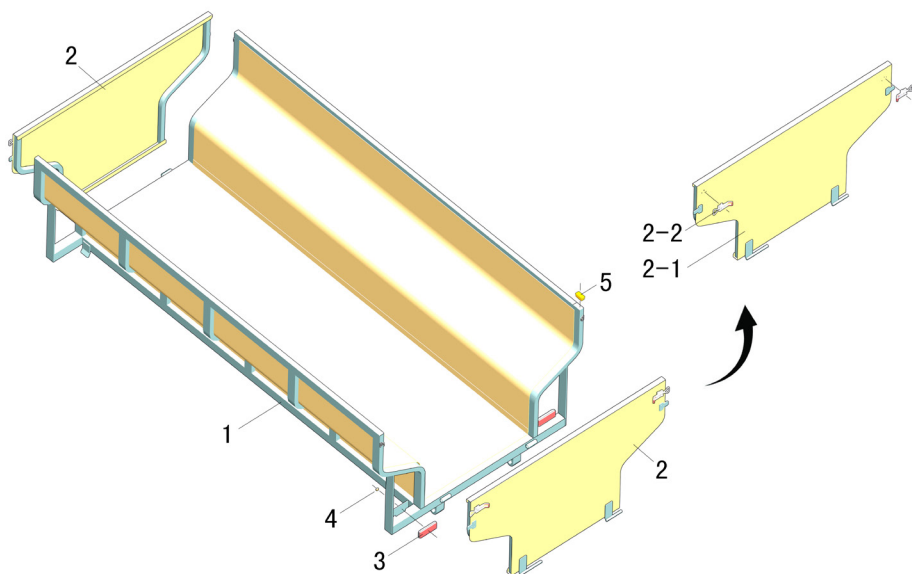
NO.	DESIGNATION	QUANTITY
1	Pivot pin	2
1-1	Axle	2
1-2	Grease nipple M6	2
2	Bolt M8*30	2
3	Flat washer $\Phi 8$	2
4	Spring washer $\Phi 8$	2
5	Nylock nut M8	2
6	Cotter pin $\Phi 5 \times 50$	2



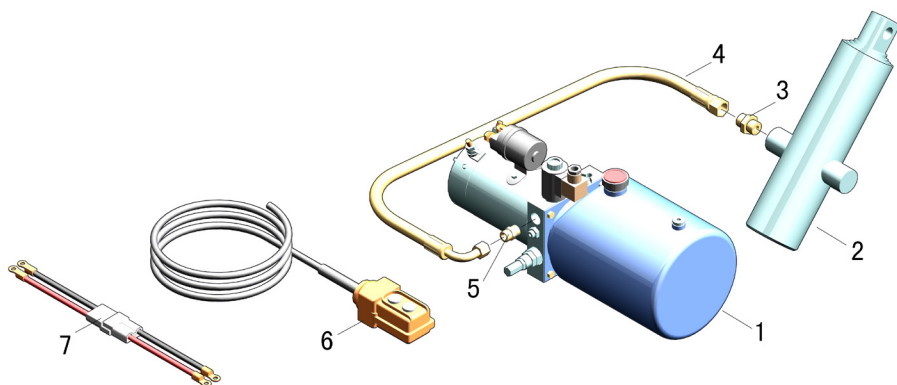
NO.	DESIGNATION	QUANTITY
1	Tow bar	1
2	Bolt M10*90	2
3	Bushing	2
4	Flat washer $\Phi 10$	2
5	Spring washer $\Phi 10$	2
6	Nylock nut M10	2



NO.	DESIGNATION	QUANTITY
1	Ball coupling	1
1-1	Tow hitch	1
1-2	Grease nipple M6	1
2	Coupling 50 mm	1
3	Bolt M10*70	2
4	Flat washer $\Phi 10$	2
5	Spring washer $\Phi 10$	2
6	Nylock nut M10	2



NO.	DESIGNATION	QUANTITY
1	Floor	1
2	Headgate	2
2-1	Tailgate	2
2-2	Floor lock	4
3	Reflector	2
4	Nut M6	2
5	Plug 20*40	4



NO.	DESIGNATION	QUANTITY
1	Hydraulic unit 12V	1
2	Hydraulic cylinder Ø85	1
3	Hydraulic coupling M20-1.5	1
4	Hydraulic pipe	1
5	Hydraulic coupling M16-1.5	1
6	Switch with cable 2 m	1
7	Electric cable	1

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 and other information in order to process your request.

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

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

.....

Problem description:

.....

Describe the sequence of events:

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Other:

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Submit Complaint form and photo to:

Kellfri AB

Division of Services : Contact Kellfri retailer

Or e-mail service.

info@kellfri.se

Signature:	Date:
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WARRANTY TERMS AND CONDITIONS

The warranty's validity - Kellfri's warranty is valid for 12 months from the date of purchase

The warranty covers - Reimbursement for parts replaced after verified material or manufacturing defect.

The warranty does not cover

- Labour costs
- Travel costs
- Machines on which the purchaser has made/commissioned modifications.
- Any additional costs arising as a result of damage to the machine.
- Damage due to normal wear and tear of the machine, substandard servicing, the user's inexperience or use of spare parts that are not original.
- Wear parts such as hoses, seals, oil and belts.

EC DECLARATION OF CONFORMITY FOR MACHINERY, ORIGINAL

In accordance with 2006/42/EG, Appendix 2A

Kellfri AB

Munkatorpsgatan 6

SE-532 37 Skara, Sweden

Hereby declares that the machine

Name: 23-TV10H

Type: Tipping trailer ATV with Electrical hydraulic tipper

Conforms with all applicable requirements in the Machinery Directive 2006/42/EC.

Other equipment must comply with the Machinery Directive's requirements.



Tina Baudtler, Representative

Kellfri AB has a policy of continuous product development and therefore reserves the right to make modifications, e.g. to the design and appearance of the product, without prior notice.

CUSTOMER SERVICE

You are always welcome to give feedback or ask us about our equipment and products.

KELLFRI AB

Phone: 0511 - 242 50

Fax: 0511 - 168 33

E-mail: info@kellfri.se

The Kellfri logo consists of the word "Kellfri" in a bold, blue, sans-serif font. A registered trademark symbol (®) is located at the top right of the letter "i".