



Kellfri[®]

35-VKMATV FLAIL MOWER ATV



READ THIS MANUAL CAREFULLY BEFORE USING THE PRODUCT !!!

TRANSLATED FROM THE ORIGINAL

INTRODUCTION

Thank you for choosing a product from Kellfri AB. By following general safety information, operating instructions and common sense, you will have many years of enjoyable use of the product. Kellfris equipment and products are aimed to be use by active farmers with high demands on functionality.

PRODUCT INFORMATION

The ATV mower is designed to be pulled behind an ATV/ 4-wheeler. It can be towed by any vehicle with a 50 mm towbar coupling. The drawbar coupling rotates which means it follows the angle of the towing vehicle. The vertical mower is powered by an 13 hp engine and the drawbar is adjustable in 3 different positions. A simple and stable design with robust metal construction, making it perfect equipment to cut large lawns.

The mower is equipped with an easy-start petrol engine and it is designed to withstand different conditions. The vertical mowers height is easy to adjust and it also has a full-width support roller to avoid damage to the machine, rotor and blades.

INTENDED USE

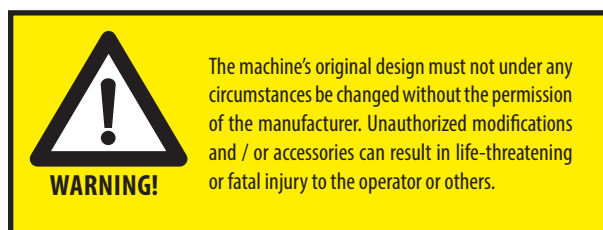
The equipment is intended to only cut and trim grass. Make sure that there are no rocks or obstacles in the fields before you start the operation.

TEKNISK DATA	35-VKMATV
Dimension (Lx Wx H)	1760x 1720x 900
Working width, m	1,15
Height, cm	85,5
Wheel	16x6,5-PR
Number of flails, pieces	28
Hp	13
Driving speed, km/h	6-12
Motor oil, type L	SAE 10W-30
Oil level, L	0,8
Volume, tank L	6
Weight, kg	230
Spark Plug	NHSP LD F6RTC

SAFETY INFORMATION

Before using the product, please read the safety information and instruction manual and understand its contents for your own and others' safety. Always keep the safety information and instruction manual easily accessible to the user of the product. Remember that it may be good for your own and others' safety to read the safety information every now and then. If the instructions manual is damaged or otherwise unusable, please contact and order a new one from: Your retailer

The general safety instruction is also available from Kellfris website: www.kellfri.co.uk
Do not use this equipment if you are feeling sick, tired or in influence of alcohol. Nor if you are under the influence of strong medications or drugs, suffering from strong depression or severe mental illness. Always follow the general traffic rules and regulations and the rules of the Animal Welfare Act. Persons under 15 years old and people with mental illness may not use these product.



Warning symbols identify important safety aspects in this manual to help you and others avoid hazards and accidents. When using the machine: Be extremely careful!



This symbol indicates that a serious accident will occur if the instructions in the manual are not followed. The accident leads to serious injury, possibly death or serious property damage.



This symbol indicates that an accident will occur if the instructions in the manual are not followed. The accident leading to serious injury or property damage.



This symbol indicates that an accident may occur if the regulations are not followed. The accident results in personal injury or property damage.



N.B! indicates the potential of failure if the regulation is not followed.

PRODUCT SAFETY INFORMATION

- Read the instruction manual carefully before using the machine.
- Do not use the machine in an inappropriate manner. Only use the machine as described in the manual.
- Do not put hands or feet under the machine without stopping the machine and the engine
- Never leave the equipment unattended while it's running. Turn off the engine and apply the parking brake when you leave, even for a short moment.
- Make sure that all guards are always correctly mounted and can not come loose.
- Only the operator is allowed in the vicinity of the machine during operation.
- Check before starting operation that no rocks are sticking up on the field.
- Always disengage the machine before performing service or maintenance work.
- Do not operate the mower if all the protective guards are correctly fitted.
- Do not turn off the engine immediately after hard work (see "turn off the engine").
- Do not run the engine in a closed area; exhaust fumes contains carbon dioxide which is can be fatal if inhaled.
- Do not operate the mower on steep slopes.
- Do not try to remove things that get stuck under the mower when the engine is running. Ensure that the engine and the rotor have stopped spinning before any action is taken on the mower.
- Do not operate the mower at night unless custom headlights are used.
- Do not drive with the mower if excessive vibration occurs, please stop the machine immediately and check the maintenance.
- Do not change the settings of the engine unless advised by the engine manufacturer.
- Do not use the mower unless all safety precautions are taken.
- Do not climb and never allow anyone to climb on the mower

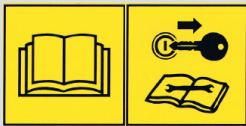







Never use a tool or product
with defective safety equipment.

Warning!

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
	Read the operating manual! Before carrying out work Warning! Before maintenance, servicing, connecting and disconnecting the machine, turn off the engine!
	Danger Zone
	Rotating Blades
	Warning! Keep off the machine!
	Warning! Accident risk for children! Children are not allowed in the vicinity of the machine
	The equipment is CE marked

PERSONAL PROTECTIVE EQUIPMENT

Wear suitable clothing and footwear. Do not wear loose clothing or jewelry when working with the equipment. Remember to put up long hair when working with equipment that rotates. Wear protective gloves during maintenance. Hearing protection should be used when operating the machine. Wear protective boots with anti-slip soles.



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.



IN CASE OF EMERGENCIES

In case of an emergency please dial 112.

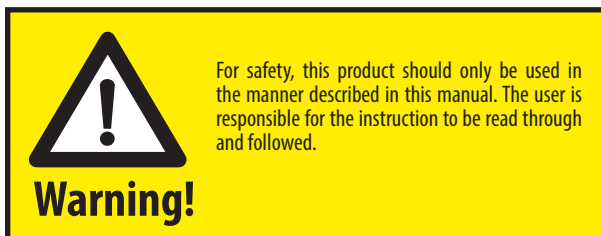
Keep cell phone or emergency phone available specially when working alone. First aid kit and fire extinguishers must be kept easily accesable during all work, maintenance and service.

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 use.It's highly important these matches 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 tractor's manual before connecting the machine.



- Check the engine oil level, top up if necessary.
- Check V-belt tension and adjust if necessary.
- Check that the flails are not defective, replace if necessary.
- Make sure that all nuts, bolts and fittings are securely attached, and all packing/shipping supplies such as tape, steel strips and rope, etc. are removed.
- Make sure the oil level is correct in the engine and there is fuel in the tank.
- Make sure the tire pressure is proper.
- Ensure that all protective parts are in place and won't loosen during operation
- Connect the equipment to ATV's tow ball.
- Ready for use.

OPERATION

Only people who understand the safety information and operating instructions to operate this equipment or product. Be alert and cautious while working with the tool or product, and use only the tool or product in the manner described in the manual. When working with equipment that has moving parts, there is always the risk of injury. Be careful when working with equipment equipped with hydraulic hoses ,oil under pressure can penetrate the skin. Seek medical attention immediately if this occurs. Always work alone with the tools that are defined as single purpose tools. Respect the equipment's danger zone. Respect implement risk zone. All manouvers occurs from the driver's seat.

OPERATION

- Lower the mower on the ground so that the support roller and the runners touches the ground.
- The machine is not made to process the ground, ensure that the blades do not touch the ground. Cutterhead should only cut the grass
- Let the engine come up to right working speed before starting
- Set the towing vehicles speed for the material to be cut. The recommended speed is 3-10 km / h
- Lift the machine when operating on uneven ground.
- Reduce speed when operating on slopes and uneven terrain
- BE aware that different parts of the machine may be hot after use.
- Follow the guidance from ATV manufacturer who provides evidence regarding towing / pulling of equipment / tools
- Be careful when you filling the tank with fuel, especially when some parts are hot.

USE

Vertical Mower ATV 120 is designed to be used safely and reliably if used in accordance with instructions for its intended use. Read and understand this manual before using the mower; otherwise it may result in personal injury and / or damage to equipment. Always use ear protectors during operation. Under normal operating conditions, the noise level may reach 83 decibels; in this case ear protection is recommended.

SETTING OF DRAWBAR

Drawbar coupling height of the towing vehicle may vary. To customize the settings, there is a screw rod in the drawbar which can be extended or shortened so that the mower is horizontal with the ground. (This brings the more efficient mowing).

TO ADJUST

Screw / turn the bar and extend the bar so as to raise the drawbar or shorten to lower it. (Figure 1)

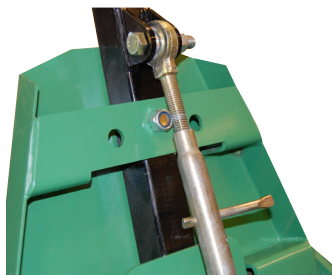


FIGURE 1

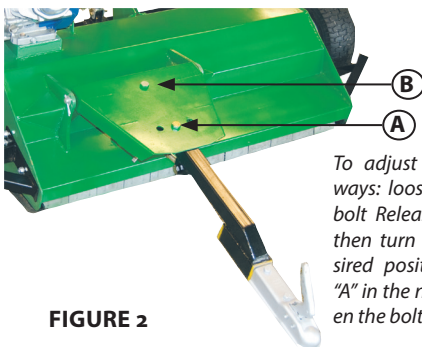


FIGURE 2

To adjust the drawbar side-ways: loosen and remove the bolt Release "A" and bolt "B", then turn the rod to the desired position. Remount bolt "A" in the new hole, then tighten the bolts

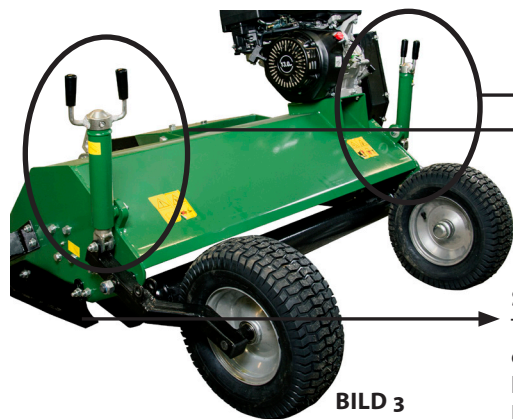


BILD 3

Adjusting the wheel height by turning the height adjustment levers to raise and lower the wheels.

SUPPORT SKIDS

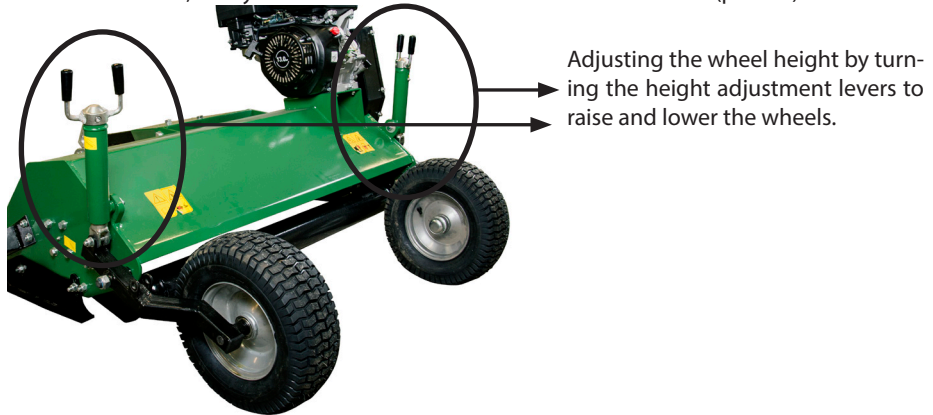
The skids are ment to support the machine when driving over obstacles like large rocks or mounds during operation. Be sure to set both of them at the same height on both sides of the machine.

ADJUSTING THE CUTTING HEIGHT

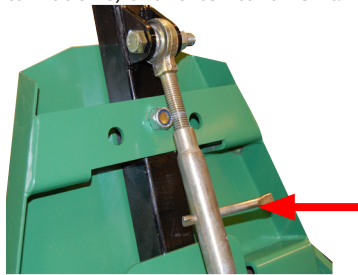
There are three ways how to adjust the cutting height: by raising and lowering the towing bar, the support roller and the wheels.

Adjust the height of cutting deck by following these steps:

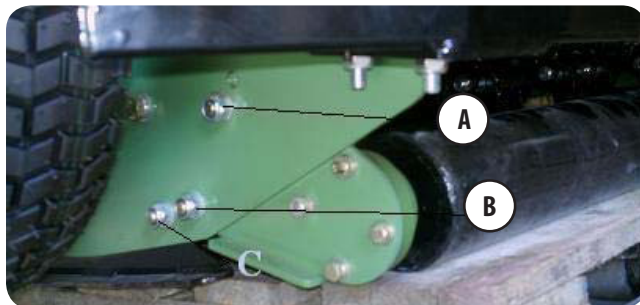
Step 1 adjust the wheels = adjust the height of the wheels by turning the levers clockwise or counter clockwise, always check that both wheels are in the same level (picture)



Step 2 Combine drawbar and support roller = Raise the drawbar by extending it (turn the turnbuckle) or shorten to lower it.



Adjust the height of the roller by loosening the bolt-level "B", loosen and remove bolt "A" (repeat this on both sides of the roller). Then select another hole and remount bolt "A". Tighten the bolts "A" and "B".



Step 3 Combine the drawbar and wheels: Raise or lower the drawbar just as described in the previous steps (turn the turnbuckle in or out to shorten / extend the drawbar). Adjust the height of the wheels by turning the levers clockwise or counter clockwise, always check that both wheels are in the same level.



The support skids shouldn't rest or be drag onto the ground, the skids are there to support the machine over obstacles like large rocks or mounds. If the skids are resting on the ground during operation, you can get soil/ground damage and deep grooves if flails hit the ground.

Travel speed must be adapted to the cutting conditions. If the engine drives heavily, speeds must be reduced. Be careful when driving on uneven ground.

START THE ENGINE

1. Read and understand the engine manual before using the machine.
2. Observe all safety precautions: Keep hands and feet away from blades and other moving parts.
3. Ensure that bystanders are at a safe distance from the machine.
4. Ensure that there is space between the blades and ground / grass before starting the engine
5. Choose an area free from loose objects that can be thrown around.
6. Turn on the engine choke and control the idle throttle.
7. Place one foot on top of the machine to get a firm grip and good balance. Pull the starter rope; follow slowly with the rope back to the engine.
8. After a few minutes of warming the engine at idle, set the throttle to the factory settings for work so as to give the engine a normal working speed of up to 3600 revolutions.



Caution!

If the gas is altered to exceed the speed of the given recommendations, the warranty may be invalid, and mower efficiency will decrease; the fuel consumption will increase and excessive vibrations can occur, causing danger to personnel and damage to equipment.

DRIVING AND SPEED

The amount of grass to be mowed determines the speed forward; low speed usually ensures the best results. Make sure that you have followed the following sequence. Have the normal speed of 3 km/h at heavy work, and 10 km/h at easy work. Start with the lowest possible speed, ensuring that the mower works effectively with the engine at maximum speed effortlessly. (If this is not possible due to very tough mowing conditions, increase the mowing level and mow the same area twice at a second time with a lower mowing level. Leave it for at least 24 hours between the first and second mow so that the grass can dry out.)

Increase speed forward until the engine starts moving heavily; slow immediately and hold the speed where the engine goes smoothly. It is important to always listen to the engine to ensure that the engine and mower are working effectively; slow down or stop if the engine starts moving heavily.



Caution!

When driving from normal work of the heavier mowing, it is normal that the engine runs heavy and the turning speed get slower. When this happen **SLOW DOWN IMMEDIATELY** so that the engine can resume the normal speed. Follow the instructions above at "Normal speed". Expect speed is much lower in hard work.

FAILURE OF THESE MAY RESULT IN POWER TRANSMISSION SLIP, AND VERY SERIOUS DAMAGE AT COUPLING AND DRIVE BELTS

RETIGHTEN BOLTS AFTER SOME HOURS DRIVING!!!

TRANSPORT MODE

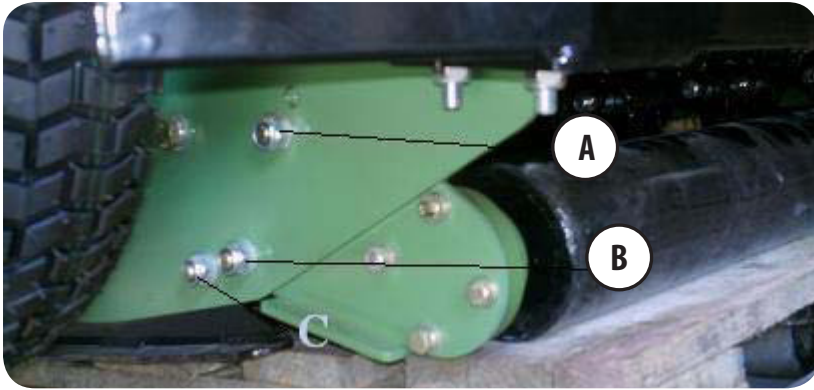
When the mower is moved from one operation to another, it is advised to raise the deck to the highest position, use the screw jack (see section mowing height). The engine must be turned off and the blades stopped before adjusting to the transport position. Remove all debris or grass etc. from the mower before you leave the field. Never move from one place to another when the engine is still running. Please consider that flail mower ATV120 is not legal on public roads and it shall not be used on public roads. Maximum speed when driving is 30km / h.

SUPPORT ROLLER AND SIDE RAILS

The main purpose of the support roller and side rails is to prevent damage. If one wheel goes into a hole, or if the ground becomes uneven between the wheels, the roll will bear the mower's weight and thus prevents the blades from hitting the ground. The support roller in combination with side rails offers the rotor protection. The support roller has the additional advantage of enabling edge mowing of the grass since the roll allows the wheels to hang off the edge. The factory-set position of the roller and side rails are suitable for most situations. However, if the mower is widely used in tougher terrain, the roll and side rails can be lowered; thereby providing increased ground clearance for rotor and blades. At the positions, mower is used to "fine tune" so that the roll can be increased by using the desired mowing height given by the various holes and the wheels can then be lifted off the ground.

TO SET THE SUPPORT ROLLERS:

Loosen the bolt-level "B", loosen and remove the bolt "A" (repeat this on both sides of the roll). Then select another hole and remount the bolt "A". Tighten the bolt "A" and "B".



Basic setting of the sliding skids:

Adjust the skids at the desired height, adjust also the support roller. Bear in mind that the wheels should not bear all the weight of the cutting unit while driving, large impact force causes the wheels and suspension to breaks.

TIRE PRESSURE

DO NOT exceed the recommended tire pressure.

16.5X6.50-8

29 PSI (max)

AFTER USE

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

TRANSPORTATION AND STORAGE

Make sure there are no people, children and foreign objects around the area before transporting the machine. Always take an extra caution during the transport. Ensure that the product is well secured and that transport brackets are mounted. Always place the load as low as possible. Respect the danger zone even during transport. When lifting the equipment, never go underneath suspended loads. Trailer used for transport should have working brakes.

Always store the machine in a dry place preferably underneath a cover when not in use. Ensure that the product is stable and not likely to tip over. Never let children play where the machine is being stored. Always keep in mind the risk of tipping!



CHECK AND TIGHTEN THE BELTS PERIODICALLY.

NEW MACHINE: CHECK AND TIGHTEN THE BELT AFTER 1 HOUR OF DRIVING

MAINTENANCE AND SERVICE

Make sure that the unit is stable and not likely to tip over during service and maintenance. Replace damaged and worn parts immediately to reduce the risk of injury. Perform maintenance, servicing and inspections as recommended. 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 maintenance and service. Always test the machine before work is started.

- Regularly check the condition of the equipment before the failure occurs.
- When cracks, twisting, bending, glitches or fatigue are detected, stop the work and correct the defects. Worn parts should be replaced.
- Retighten all nuts and bolts after a few hours of driving, or after daily run.
- Avoid using the equipment at temperatures above + 30C.
- Disconnect the tool from the towing vehicle when errors are resolved.
- Check that all nuts and bolts are tightened after maintenance and service. Always test the machine before starting.
- Lubricate moving parts regularly. For maintenance of the engine, see the separate manual.
- For spare parts: Contact Kellfri Service

Service intervals / maintenance

Check oil level before each run.

Change the oil regularly in a range of about 100 hours.

RECYCLING

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

INSPECTION

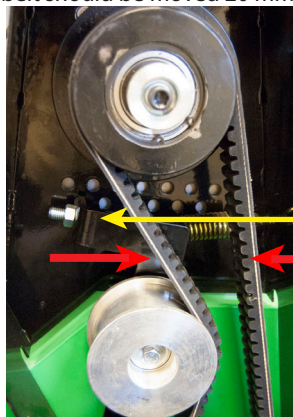
It is very important to regularly check the machine, in order to detect and prevent wear, tear, damage, etc.

INSPECTION OF ROTOR BEARING

Spin the rotor shaft by hand and feel any irregularities in the bearings. Moreover, try to move the axle from side to side to detect any gaps. If either or both of these occur, remove the axle caps to closer inspect the bearings. Replace if necessary

INSPECTION OF V-BELT

Initial test and post-tensioning shall be made after 1 hour of run time to be sure that the belt is properly tensioned. Check V-belt regularly and tighten as necessary. Belt tension at pressure belt should be moved 20 mm (10 mm on each side).



ADJUSTING BOLT

INSPECTION OF WHEEL BEARINGS

First make sure that all the wheel nuts / bolts are securely tightened; Jack up one side of the mower so that one of the wheels is just above the ground. Spin the wheel by hand and check the wheel placement. In order to check bearings, try to move the wheel from right to left to feel for gaps. Replace damaged bearings.

GREASE 50MM TRACTION COUPLING

Check the link to see signs of damage or wear, spin coupling 36 degrees and check if the bushings are not worn. Replace damaged and / or worn parts. Lubricate the coupling regularly.

MAINTENANCE OF KNIVES

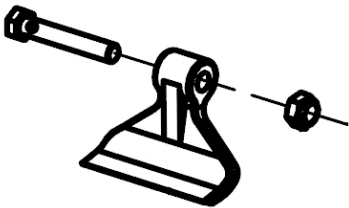
The mower is equipped with knives made to last for a long time. If the blade becomes loose or broken, it is important to replace it immediately. If there is a possible imbalance, which is very serious, then the blade should be changed and the blade on the opposite side of the rotor must be controlled for current damage and wear. If it is partly or completely worn out, it should be replaced to maintain the correct weight balance. When the first edge is getting blunt, the whole set should be reversed or replaced. Using dull blades will reduce the cutting efficiency and increase fuel consumption. Replacing the blades is instructed as follows:

- A) Ensure that the engine is off and the blades are not rotating. Turn off the fuel valve and allow the engine to cool for five minutes. Remove the spark plug to make sure the engine does not start.
- B) Raise mower to its maximum cutting height.
- C) Raise gently the drawbar to a slightly inclined position so that the height adjustment hinge may bear some weight.
- D) Loosen and remove the bolts.
- E) Replace the blades (note the direction of rotation).
- F) Replace the bolts properly, and check that if the blades can move on the shaft.

Never use worn, cracked or repaired shackle when the blades are reinstalled. Replace with new ones. For repairs beyond those previously listed adjustments, please contact your local dealer.

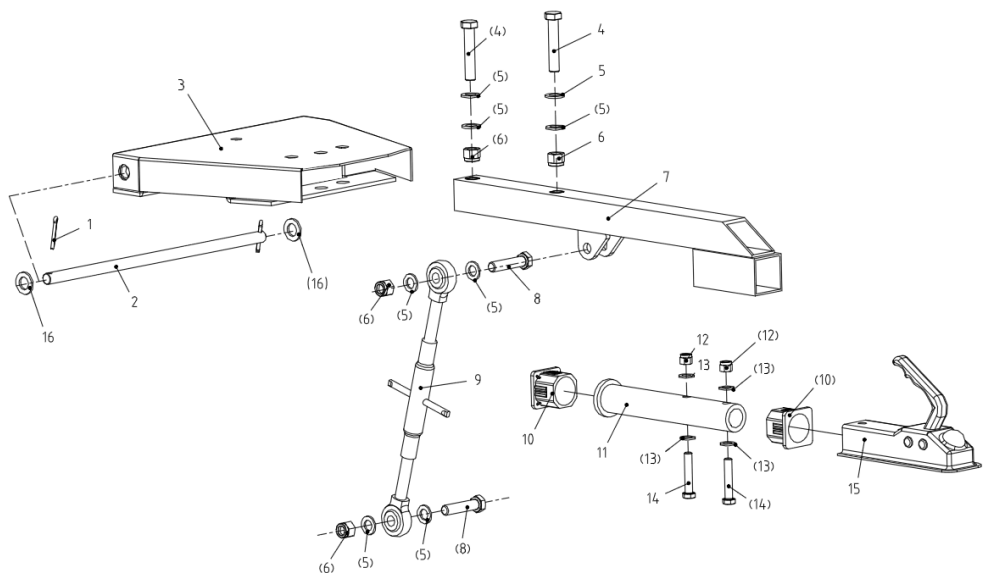
WARNING!!

Never install different types of flails on the mower.
When replacing flails, always check the tightening of the screws. Make sure all screws are properly tightened.

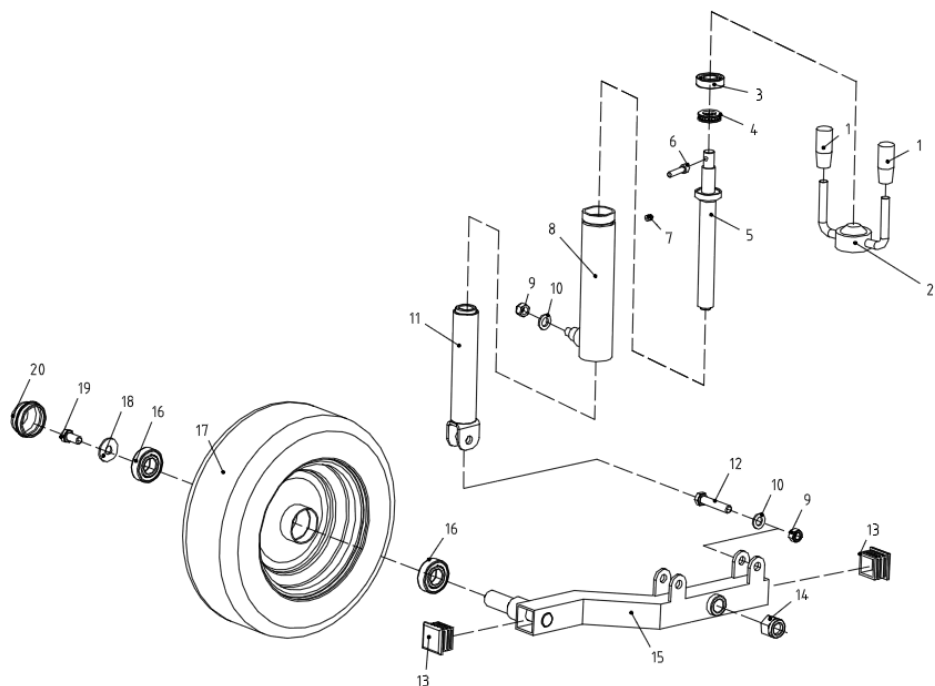


TROUBLESHOOTING	MEASURE
Slope mower mows uneven or badly	Check that the flails are intact and firmly seated. Adjust the support roller and make sure it is correct. Check and tighten any belts
Cut sound changes	Check roller. Check the tension of drive belts. Check flails.
Vibrations	Check flails
The hydraulic system is not working	Check hoses and couplings

SERVICE	INTERVAL	
Flail	Before each run	Replace any defective flails. Sharp flails gives better results. When replacing bolts are tightened securely.
	While driving	Listen for noises
	After each run	Check
Gearbox	Before each run	Check level: 1.5-1.8 L Oil type: Lubricant 80/90
	50 hours	First oil change
	100 hours or once a year	Oil Change
Rotor	20 operating hours	Lubrication
Belt	Before each run	Belt tension. When pressing the belt must be moved 20 mm.
Hydraulics	Before each run	Check that all hoses and couplings are not damaged and leaking.
The machine	After each use	Rince the machine from dirt or soil

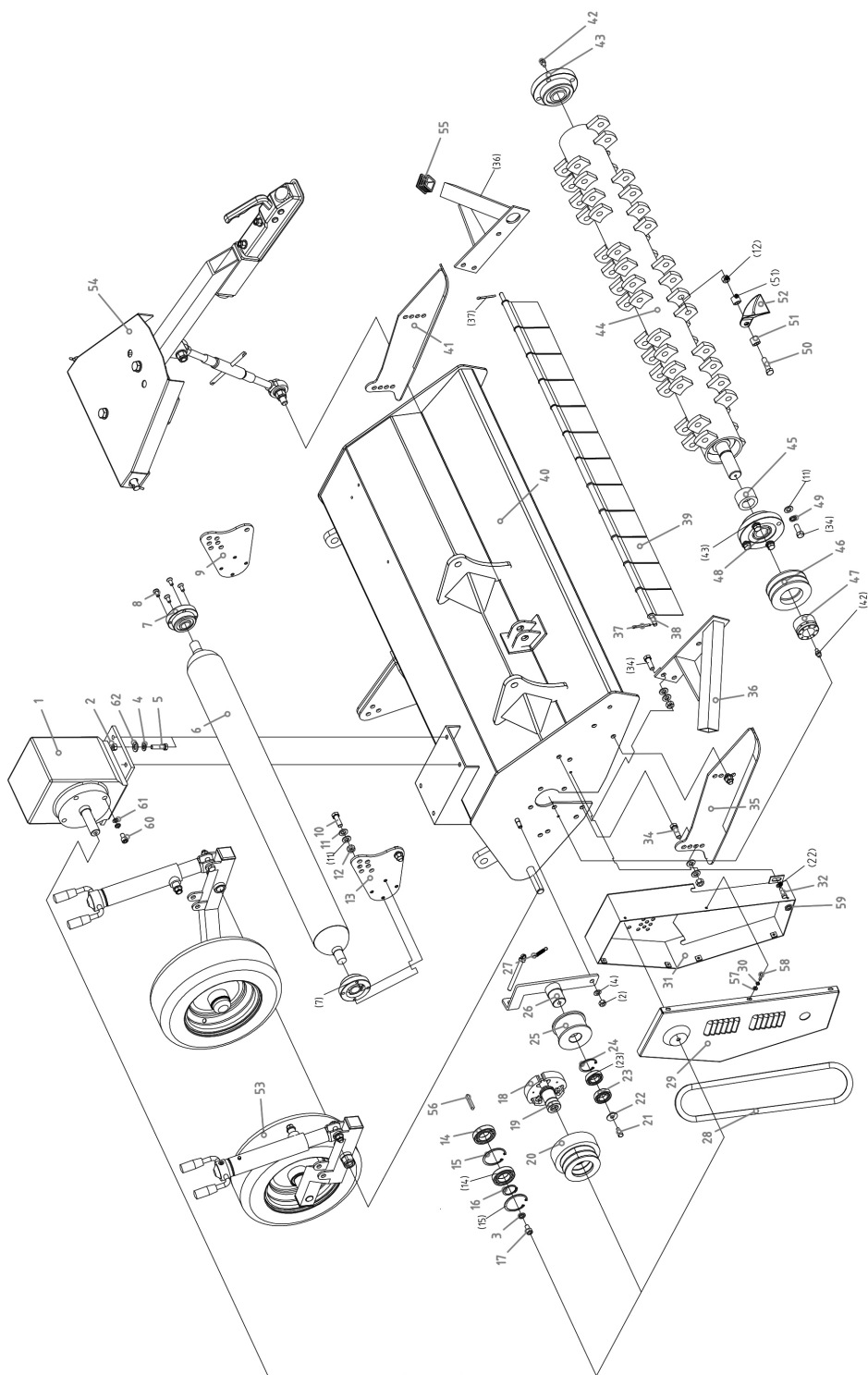


NO	NAME	QTY.
1	Pin 5x40	2
2	Shaft	1
3	Console	1
4	Bolt M16x85	2
5	Washer 16x3	8
6	Nut M16	4
7	Drawbar - adjustable	1
8	Bolt M16x70	2
9	Rigging screw	1
10	Collet	2
11	Shaft tube for the draw	1
12	Locking nut M12	2
13	Plain washer 12	4
14	Bolt M12x65	2
15	Pull Glove	1
16	Plain washer 19x34x3	2



NO	NAME	QTY
1	Bushing	2
2	Handle	1
3	Bearing 6004	1
4	Bearing 51104	1
5	Shaft - adjustable	1
6	Hex bolt M8x35	1
7	Lubrication nipple M8x1	1
8	Outer protection tube	1
9	Locking nut M12	2
10	Plain washer 12	2

NO	NAME	QTY
11	Inner protective tube	1
12	Bolt m12x60	1
13	Plug	2
14	Locking nut M20	1
15	Wheel suspension	1
16	Bearing 6205-22	2
17	Wheel	1
18	Plain washer 12x40	1
19	Bolt M12x35	1
20	Wheel hub	1



NO	NAME	QTY
1	Motor	1
2	Locking nut M10	5
3	Spring washer 10	1
4	Plain washer 10	6
5	Bolt M10x45	4
6	Supporting roller	1
7	Bearing seat	2
8	Hex bolt M8x20	8
9	Adjusting plate - left	1
10	Bolt M12x35	4
11	Plain washer 12	36
12	Locking nut M12	42
13	Adjusting plate - right	1
14	Bearing 6007-2Z	2
15	Locking ring (D=62)	2
16	LOCKING RING (D=35)	1
17	Hex bolt 3/8" 24x30	1
18	COUPLING HZR96.7	1
19	Drive belt shaft	1
20	Drive belt wheel	1
21	Bolt M8x20	3
22	Plain washer 8x30x2	3
23	Bearing 6005-2Z	2
24	Locking ring (D=47)	1
25	Tension roller	1
26	Mount for tension roller	1
27	Spring 2x13x85	1
28	Belt Bx17x1067	2
29	Sheet covers	1
30	Spring washer 6	7
31	Belt protective cover	1

NO	NAME	QTY
32	Bolt M8x25	2
34	Bolt M12x30	18
35	Slide way - right	1
36	Mount	2
37	Pipe pin 4x28	2
38	Pole	1
39	Rotor Covers	12
40	Protective cover	1
41	Side rail - left	1
42	Lubrication nipple M8x1	2
43	Bearing seat	1
44	Roller	1
45	Collet	1
46	Belt wheels	1
47	Sealing collet 35x60	1
48	oil seal	1
49	Spring washer 12	8
50	Bolt M12x75	28
51	Collet for knife	56
52	Knife	28
53	Support wheels	2
54	Towing device	1
55	Plastic plug	2
56	Wedge 6.3x7x50	1
57	Large washer 6	7
58	Hex bolt M6	7
59	Spring washer 8	6
60	Bolt M8x20	4
61	Plain washer 8	4
62	Large plain washer 10x27x3	2

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

EG-FÖRSÄKRAN OM MASKINENS ÖVERENSTÄMMELSE, ORIGINAL

EC-DECLARATION OF CONFORMITY

According to 2006/42/EC, Annex 2A

Kelfri AB

Munkatorpsgratan 6

532 37 Skara, Sweden

Declares that the machine

Name: 35-VKMATV

Type: Flail mower

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

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