

35-VKM195H FLAIL MOWER



Kellfri

Read this manual carefully
before using the product!
Translated from the original

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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

Flexible flail mower with hydraulic side shift adjustment

- 35 cm hydraulic side shift adjustment
- 195 cm working width
- 32 forged hammer flails
- Adjustable supporting roller at rear
- Wear skids on sides

Kellfri's VKM195H flail mower is designed to quickly manage everything from cutting/topping of grassland, clearing overgrown land with saplings to slashing straw stubble.

The 1.95 metre working width ensures a top clearing speed per hour. The fast rotation speed and the weight from the 32 forged hammer flails ensure the machine can very easily cut and hack all types of materials; fits tractors with between 40 and 50 hp.

The machine is only intended for cutting and topping of grassland. Clean the cutting area from objects such as stones, branches, etc. before starting the operation. The machine defined as single purpose equipment.

TECHNICAL SPECIFICATION	35-VK195H
Working width	195 cm
Weight	350 kg
Flails	32 Hammer flails
Power requirements	40-50 hp
Driving speed of the tractor	6-12km/h
Gearbox: oil type	Transmission oil 80W-90 (1L)
RPM	540
PTO Shaft	Standard

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 Kellfri's 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!

The machine's original design must not under any circumstances be changed without the permission of the manufacturer. Unauthorized modifications and / or accessories can result in life-threatening or fatal injury to the operator or others.

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



Danger!

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



Warning!

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



careful!

This symbol indicates that an accident could occur if the directions is not followed. The accident resulting in personal injury or property damage.

Note!

Notes! indicates the potential for the breakdown of the regulations is not followed.

When using the machine in a company, the employer has the responsibility to ensure the user of the machine has theoretical and practical knowledge of the machine and the operation is done safely. Follow the country's Health and Safety regulation. For more information, contact your Health and Safety Executive.

PRODUCT SAFETY INFORMATION

The user of the machine should understand the contents of this manual before use, service and installation of equipment to the tractor and all other relevant measures. Never wear jewellery, loose clothing, ties, scarves, belts, unbuttoned jackets that can get caught in moving parts.

Always wear approved clothing that complies with the provisions of accident prevention purposes, such as non-slip shoes, hearing protection, goggles and gloves. Wear a jacket with reflective stickers on the equipment used near public roads.

Contact your dealer, health authority or the nearest equivalent authority for information about the current safety regulations and special provisions to guarantee the personal security.



Always disengage the PTO shaft, Turn off the tractor engine and apply the parking brake before adjustment is performed on the machine.



Never put your hands or feet near the machine without stopping the implement and the tractor engine. The rotors may continue to rotate for up to 1 minute

- * Never leave the machine with the tractor engine running. Turn off the engine and apply the parking brake when you leave the equipment, even for a short while.
- * Never leave the machine uplifted. The hydraulics can lose pressure and cause the implement to fall down.
- * Make sure that all guards are fitted correctly and cannot come loose.
- * The PTO shaft must be protected throughout its length. Make sure to anchor the safety chain well.
- * Only the operator of the tractor shall be in the vicinity of the machine during work. No one is allowed to stand underneath any suspended load.
- * Check before driving that no rocks are sticking up on the field, or lying objects or other debris that can be thrown out while operating.
- * Keep hands, feet and clothing away from rotating parts.
- * Lower the implement to the ground, put tractor in park, turn off engine, and remove the key from the ignition before performing maintenance, service or other reparation on the machine.
- * Remove buildup of grease, oil or debris.
- * Do not drive with the mower if large vibrations occur, stop the machine immediately, check and correct the error before using the machine again.
- * Do not climb on the mower!
- * When attaching the machine onto the tractor; do not allow anyone to stand between tractor and implement while backing up to it.
- * Make sure that there is no longer any pressure in the system before disconnecting or connecting the hydraulic hoses.
- * Disconnect quick couplings, and be sure to protect hydraulic couplings after use so that they are not exposed to dirt.

PERSONAL PROTECTION

Always wear suitable clothing and footwear. Do not wear loose clothing or jewelry when using the machine. Remember to put up long hair when operating machines with rotating parts. Wear protective gloves, to prevent burn injuries on contact with hot surfaces such as exhaust system, and to avoid oil and gasoline on the skin. Hearing protection should be used when the engine is running.



SURROUNDINGS

Make sure your working area is clear from people, children and objects before installing and using the machine. Risk of serious injuries can occur during operation.

Take an extra caution when children are in the area where the equipment/ product is being use or stored. Check the area for low hanging electrical wires. Be careful when working on slopes and near ditches.

Always work alone with single - purpose products such as this product. Never have junk lying in your area. Keep working areas clean. Always respect the risk zone.



INCASE 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 accessible during all work, maintenance and service.



BEFORE USE

Read the safety information and instruction manual carefully. Be sure you understand the safety measures, instruction manual and warning labels. Use common sense when operating the machine and use appropriate personal protective equipment.

Always check the performance and the machine combination that are used. 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. Do visual inspection of equipment or product before each use. Fix or replace damaged or worn parts immediately to reduce the risk of injury. Lubricate moving parts and check that all screw-nuts and bolts are tightened.



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.

Learn and remember the correct working methods. Beginners should always keep a low speed, use extreme caution before routine and product knowledge is achieved. The user/customer is responsible to handle the situation correctly. The product should not be taken into use unless it can be done in a safe way for the user.

Read the tractor's manual before connecting machine.

WORKSTATION

The driver must remain in the driver's seat during the entire operation. If the operator need to leave the tractor, the PTO must be disengaged, the tractor engine shut off and the parking handbrake must be applied.



NEVER RUN THE HYDRAULICS WHEN THE TRACTOR IS TURNED OFF.

What to consider when operating a machine with the PTO shaft

The transmission gearbox is protected by both the drive shaft and the shear bolt. All guards should be effective and in good condition. If machine guards condition is poor or worn, the guards should be replaced before the implement is used.



If the PTO shaft is not properly protected, this can cause death because it can catch parts of the body or clothing and cause life-threatening injuries.

Make sure the safety chain is properly anchored to the PTO-shaft and that the PTO shaft is protected over its entire length. Ensure that PTO shaft spins easily inside the protective tube. Hold the spline groove clean and well lubricated so that the drive shaft can be connected easily.

Read PTO shaft manual adjustment and use of PTO shaft.

RISKS AND HAZARDS WHEN USING A MOWING MACHINE

Risk of crushing

Bystanders may be injured when the machine is lowered to the cutting position. The machine has crushing points around the hinge areas and between the three-point hitch mount and the main body.

Rotating blades

All persons will be at risk of injury if they stick out their hands or feet under the machine when it is lifted from the ground and the blades are rotating.

Risk of pinching or risk of trapping body parts

This risk is common in transmission devices such as belt drives, gears and rollers. Ensure that all guards are fitted correctly.

WARNING!

Never use a tool or product with defective safety equipment.

Risk during disengaging of the machine

The heavier the rotating part is, the longer it will continue to rotate after the drive has been switched off. This feature is called "free-wheeling". Rotating blades and other components, such as drive shafts, etc. will continue to spin after the drive has been disconnected. Damages:

* When the operator releases the equipment, and try to clean or adjust the machine before the components have stopped rotating.

* When the shear bolt in the protective device in the power take off breaks and rotors still spins while the PTO has stopped. Operator's awareness is the key to safety around rotating parts. Do not raise the machine while the blades are rotating.

Risk of ejecting objects

Machines that mow throws out material while driving. Foreign objects such as rocks, sticks and other debris can get into the machine and ejected with tremendous speed. Cover the sides and the front prevents these objects to be thrown out but it does not always guarantee that the guards catch everything that is thrown out.

Bystanders or animals that stand in the way of the projected object can be seriously damaged. Never allow any bystanders within the vicinity of the machine. Respect the machine's danger zone. **Danger zone 15m!**







Noise

Please note that the machine is made to be used outdoors and that the position of the operator is in the driving seat of the tractor. It is advisable to read the regulations specified in the tractor manual and maintenance instructions.

The sound pressure level exceeds 70 dB during operation. Hearing protection should be used while driving.

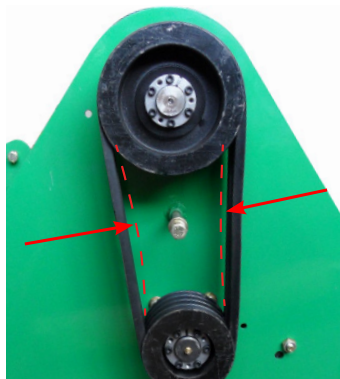
WARNING LABELS

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 instruction manual! Before starting the operation. Before maintenance, service, connection and disconnection of the machine, the tractor engine must be switched off and the ignition key removed.
	Warning! Rotating Driveline. Rotating Blades.
	Caution! Before maintenance, service, connection and disconnection of the machine, the tractor engine must be switched off and the ignition key removed. Risk zone 15 m. Warning! Keep distance!
	NEVER allow anyone to be on or near the machine! The machine is designed for solitary work.
	NEVER allow anyone to be on the machine! Do not allow anyone to stand between tractor and implement while backing up to implement.
	Children in the area should be supervised.
	The equipment is CE-marked.

BEFORE USING THE MACHINE

*** IMPORTANT! Check and tighten all bolts, nuts and all connections.**



The bolts must be retightened at regular intervals.

Check belt tension and tighten if necessary.

- * Check knives/flails, make sure they are installed properly. Replace broken, cracked or worn knives / flails.
- * Check all protective covers, protective devices. Remove any transport locking device.
- * Lubricate the drive shaft and other lubrication points .

OPERATION

Only people who understand the safety information and instructions in this manual may operate the equipment. Be alert and careful when working with the machine and only use the equipment or product in the manner described in this 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 equipments that are defined as single purpose equipment. Never overload the implement. Respect the equipment's danger zone.

Connecting the machine

- * Attach the machine onto the tractor's rear three point.
- * Connect the PTO shaft. Anchor the chain well.
- * Connect hydraulic hoses to the tractor's double- acting hydraulic outlet
- * Ready for use.

CUTTING

- * Check the area to be cut and remove objects and trash that can be caught and thrown away by the blades.
- * The amount of grass to be cut determines the speed forward; Low speed usually gives the best results. It is best to cut grass when dry. Cutting wet grass can cause clogging, which leads to grass lumps behind the cutting unit. When cutting very high grass, raise the cutting level and cut the same surface twice - the second time with lower cutting level, allow at least 24 hours between first and second cutting to allow the grass to dry out.
- * Lower the cutting unit on the ground. Connect the PTO shaft so that the blades start to rotate.

Operate at 540 rpm, start at the lowest possible speed, make sure the mower works efficiently with the engine on 540 rpm without effort.

Stop and check that the cutting unit is set correctly after the first 10 meters.



Before maintenance, service, connection and disconnection of the machine, the tractor engine must be switched off and the ignition key removed.

Do not make sharp turns and do not drive backwards when the machine is sunk on the ground.



Do not connect the PTO shaft when the machine is in the raised position or at full throttle.

* The rotating knives can throw heavy stones with ease from the ground. It is therefore wise that you who work with the machine make sure that no one else is near by and the tractor when working.

* On top of the mower drive system, there are protective covers and shields that prevent soil and rock from being thrown around. These also protect the operator of the mower from the rotating blades.

* When cutting high grass, sometimes the grass gets caught around the rotor and knives. Therefore, be aware when the noise is heard from the machine or excessive vibration occurs. Switch off the tractor, disconnect the machine and check that the knives rotate freely.

IMPORTANT! Make sure that the rotors have stopped rotating before lifting the machine to control the knives. Wait a few minutes to make sure the knives have stopped spinning before inspecting the machine.

AFTER USE

* Lower machine to the ground, park the tractor, pull the handbrake, turn off the engine and remove the key.

* Rinse the machine if necessary.

TRANSPORT AND STORAGE

Check that the area is free of persons, children and objects prior to transportation. Always take precaution when transporting and moving the machine. Make sure that the equipment or product is well anchored and that existing transport safety locks are fitted. Always place the load as low as possible. Always have the risk zone in mind when transporting and moving the machine. When lifting the machine, nobody is allowed to stand underneath a suspended load. Trailers used for transport should have functional brakes.

Always store the machine or product in a dry place, preferably underneath a roof when not in use. Make sure that the equipment or product is standing steady and there is no risk for it to tip over. Never allow children to play where the machine is stored. Keep in mind the risk of tipping! When storing a machine, it should be cleaned and all bearings and knives are lubricated.

MAINTENANCE AND SERVICE

Make sure the implement is stable and there's no risk of falling over during maintenance and service. Replace damaged and worn parts immediately to reduce the risk of machine failure and injuries. Perform maintenance, service and inspections as recommended. Use only spare parts with equivalent performance to reduce the risk of damage and failure.

Check that all bolts and nuts are tightened after maintenance and service. Always test the machine before starting work.

RECYCLING

Dispose the product correctly, disassemble and transport to the municipality's recycling station. Contact your local authority for further information.



Important!

Dispose broken parts correctly when recycling.

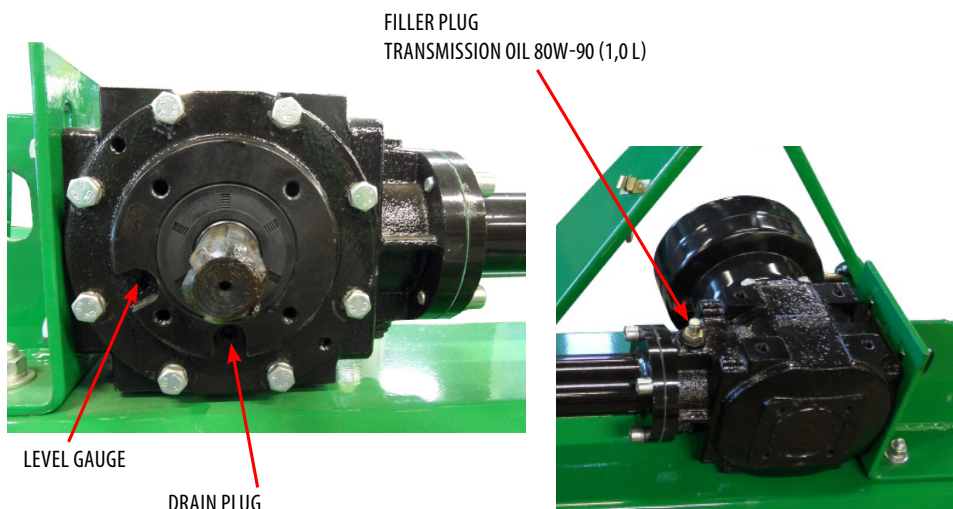
SERVICE	INTERVAL	
Flails	Before each run.	Replace all damaged flails. Sharp flails give better results. When replacing bolts, tighten bolts properly.
	During operation.	Listen for unusual noise.
	After each run.	Check
Gearbox	Before each run.	Check the oil level: Oil type: transmission oil 80W-90 (1,5L)
	50 operating hours	First oil change.
	100 operating hours or at least once a year.	Oil change. Grease in the tube (amount/type): 0,2L/ 80w90
Rotor	20:e operating hour	Lubrication.
Belt	After 1 hour of driving. Regularly.	Check and tighten the belt. At pressure the belt should be moved 20 mm.
The machine	After each run.	Rinse soil and grass with water.
Lubrication	First time after 2 hours of operation.	Lubricate all grease fitting regularly.
	After 20 operating hours.	

TROUBLESHOOTING

ERROR	MEASURE
The flail mower cuts unevenly or poorly.	Make sure the flails are intact and mounted properly. Adjust the support roller and make sure it is positioned correctly. Check and tighten any belt.
The sound of the machine changes during mowing.	Check the roller. Check the tension of the belt. Check all flails
Vibrations	Check the flails, replace worn or damaged
Hydraulic does not work.	Check hoses and couplings.

WARNING: Leaking oil or fuel under pressure can penetrate the skin and can cause serious damage. Do not use your hands when looking for leakage. Use a piece of cardboard when searching for any leakage.

GEARBOX VKM195H



IMPORTANT! ALWAYS CHECK THE OIL LEVEL AND GREASE LEVEL PRIOR OPERATION!

CHECKING THE BELT TENSION



FIG. 1

Check belt tension regularly
When pressure is applied the belt should move
20 mm (10mm on each side - shown in fig. 2)

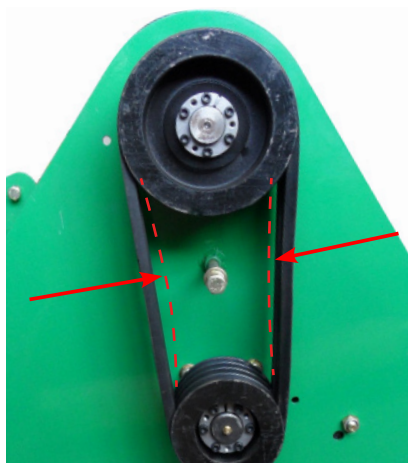
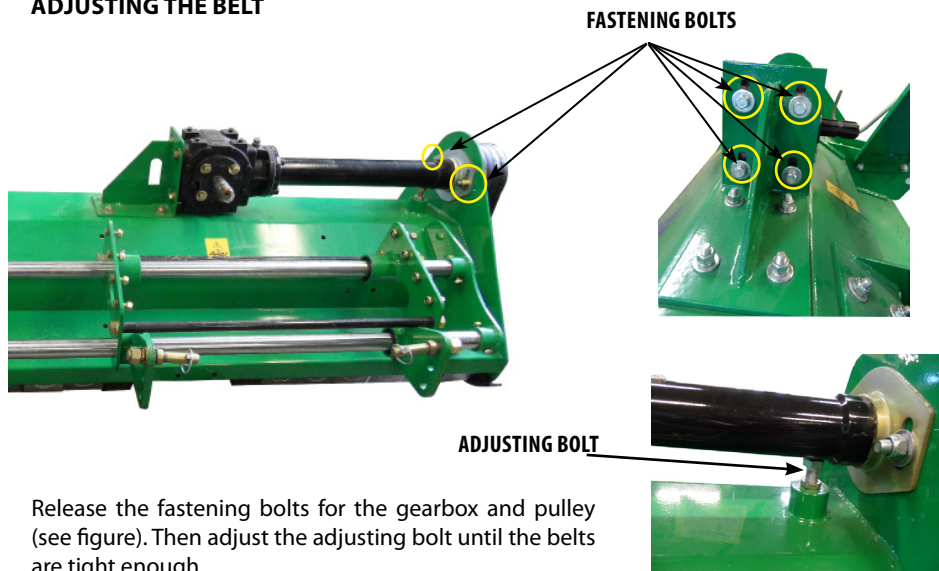
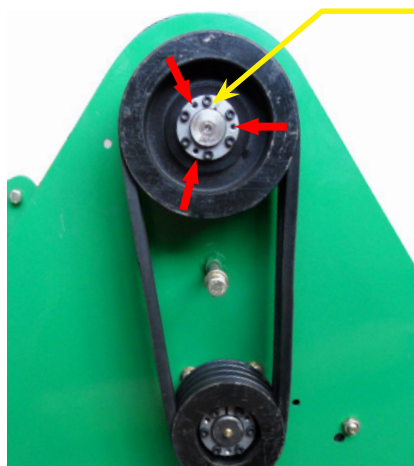


FIG. 2

ADJUSTING THE BELT



CHECK AND TIGHTEN THE BELTS AFTER 2 HOURS OF OPERATION! THIS IS IMPORTANT IN PARTICULAR WHEN OPERATING THE MACHINE FOR THE FIRST TIME!

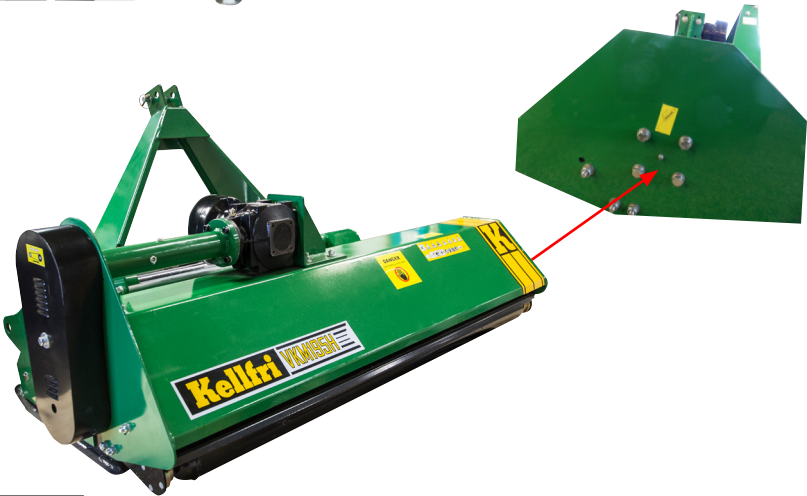
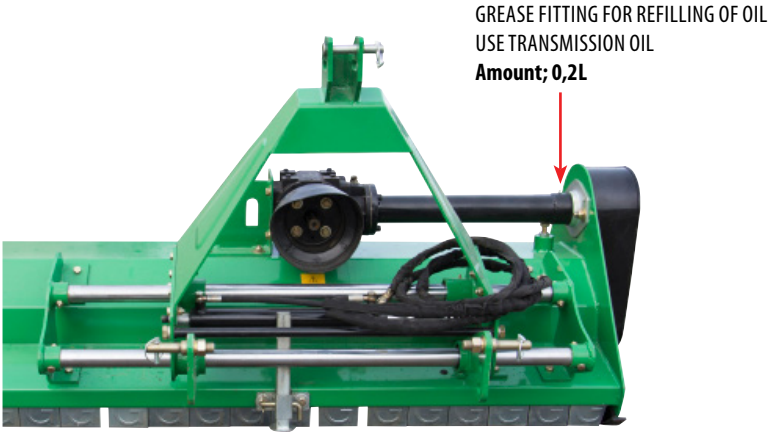


Bolts must be retighten at regular intervals.

To hold the sleeve in place when changing the belt or pulley:

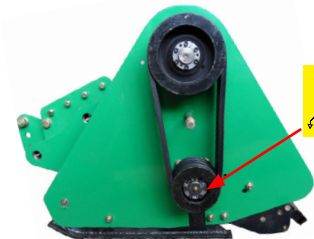
- * Loosen and disassemble 3 bolts from the pulley.
- * Fit them into threaded holes on the sleeve (see marked holes in the picture).
- * Then remove remaining bolts.
- * Replace belt/pulley and then assemble all bolts.
- * Tighten and check belt tension, adjust if necessary.

REFILLING GREASE



LUBRICATION POINTS

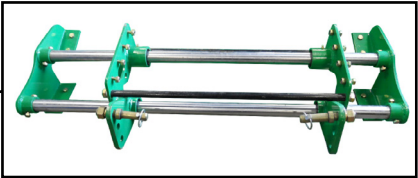
Lubricate all lubrication points on a regular basis, as well as every time you rinse the machine to remove any water that may have entered the bearing house during rinsing.



Unnecessary wear and damage may result from insufficient lubrication.
Use universal lubricant.

IMPORTANT! Avoid lubricating too much. Dirt gathers easily in exposed grease and cause increased wear. After lubrication, wipe excess grease from grease fittings and bearings.

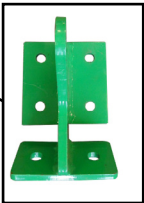
ASSEMBLY 35-VKM195H



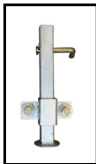
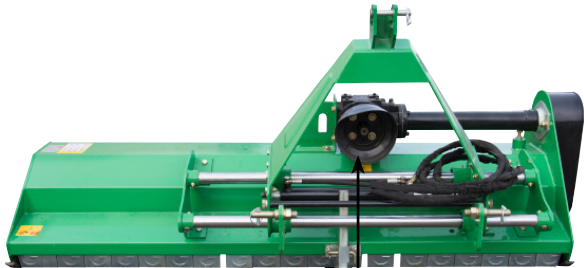
3 - point bracket



Cylinder + 2 pcs Hydraulic hoses



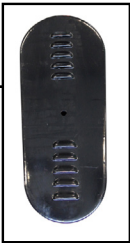
Attachment for the cylinder



Outrigger

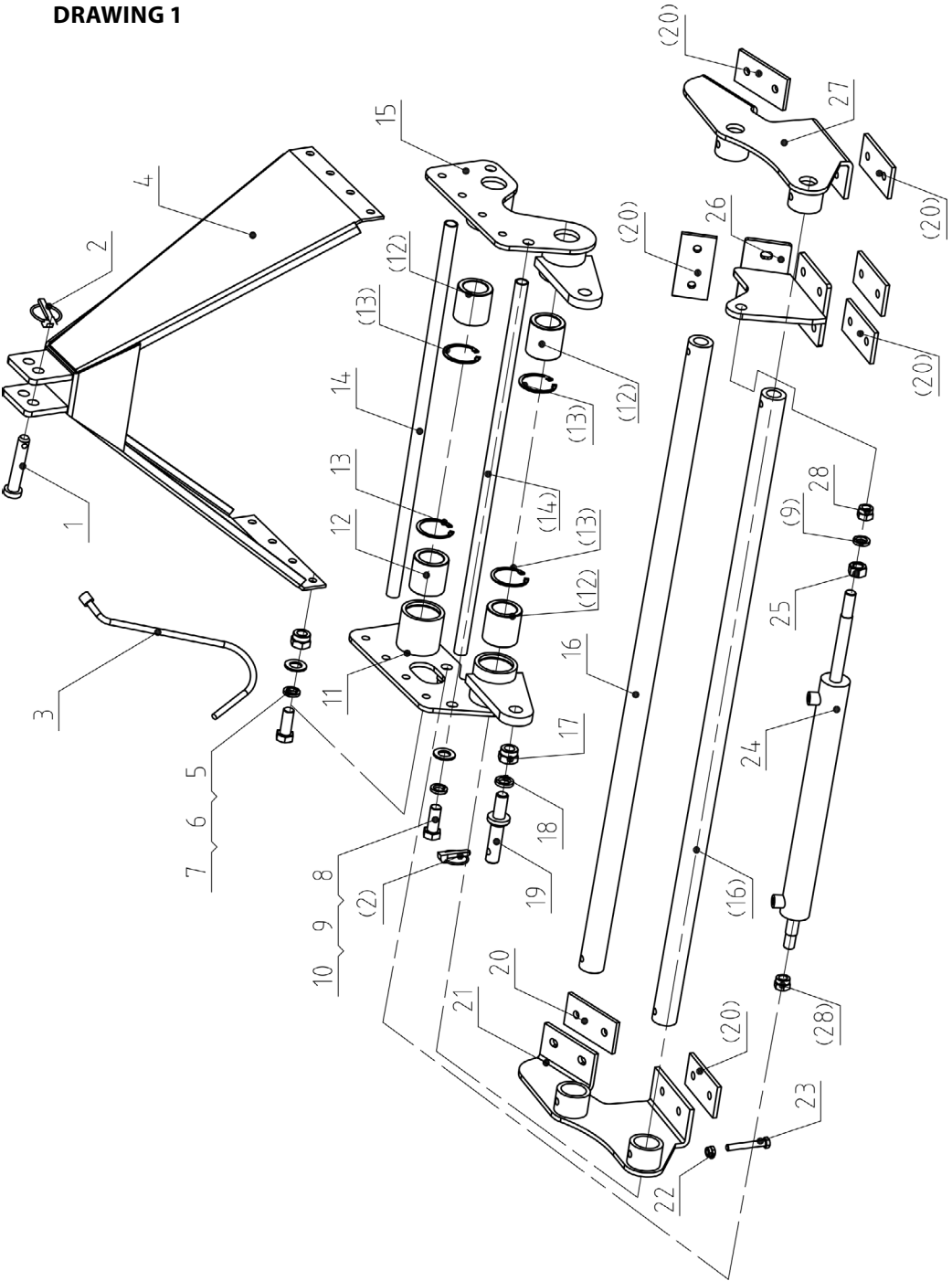


PTO guard



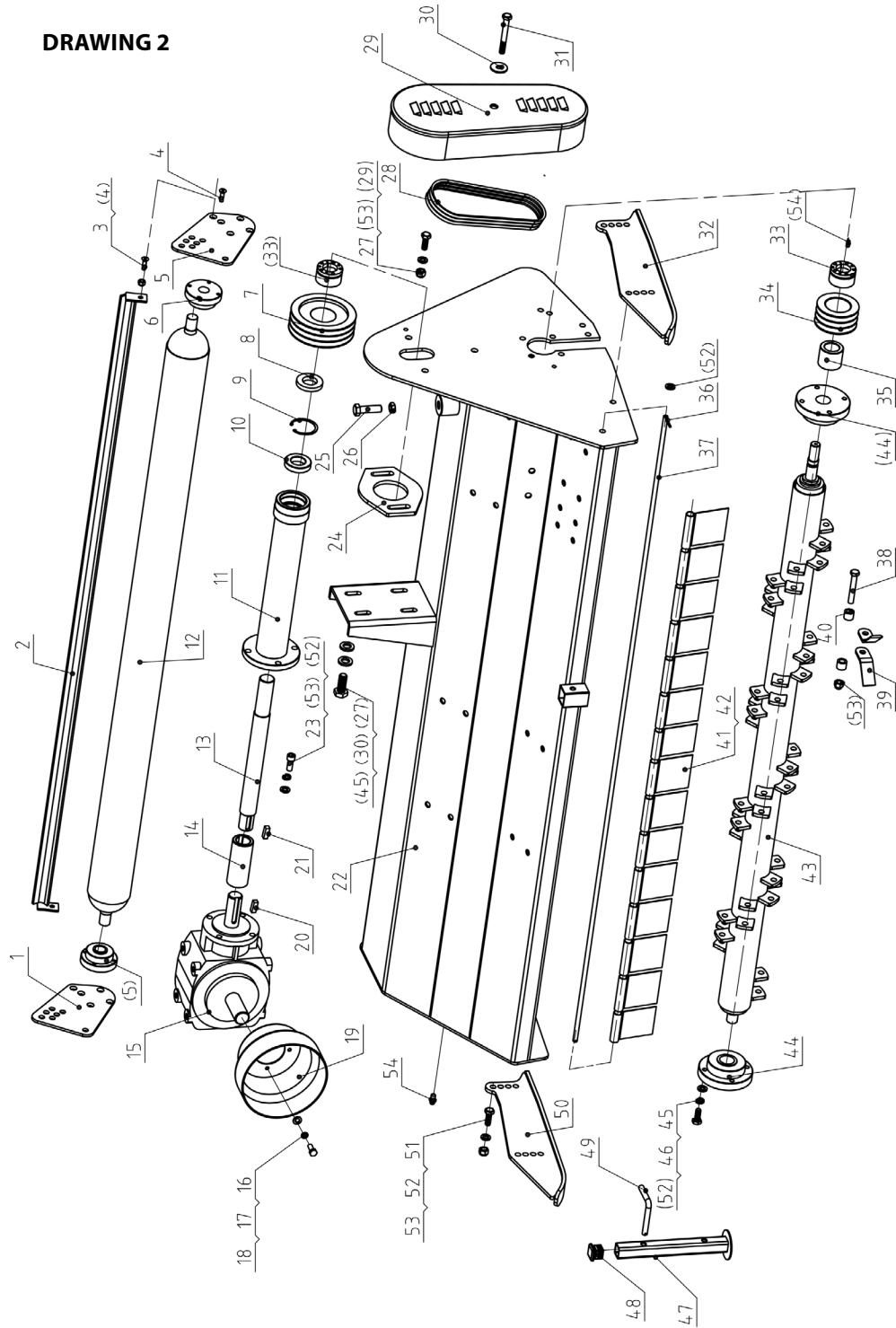
Belt guard

DRAWING 1



POS NO	DESIGNATION	QTY
1	Upper pin	1
2	Locking pin	3
3	Hook	1
4	3 point bracket	1
5	Bolt M12x30	8
6	Plan washer 12	8
7	Lock nut M12	8
8	Bolt M18x45	2
9	Spring washer 18	2
10	Plan washer 18	2
11	Side plate - left	1
12	Spacer nylon	4
13	Lock ring 60	4
14	Stabilizer bar	2
15	Side plate - right	1
16	Rail	2
17	Lock nut M20	2
18	Spring washer 20	2
19	Lower sprint	2
20	Inner plate	1
21	Mounting plate - left	1
22	Mutter M10	4
23	Bolt M10x70	4
24	Cylinder	1
25	Nut M18	1
26	Adapter plate for cylinder	1
27	Mounting plate - right	1
28	Lock nut M18	2

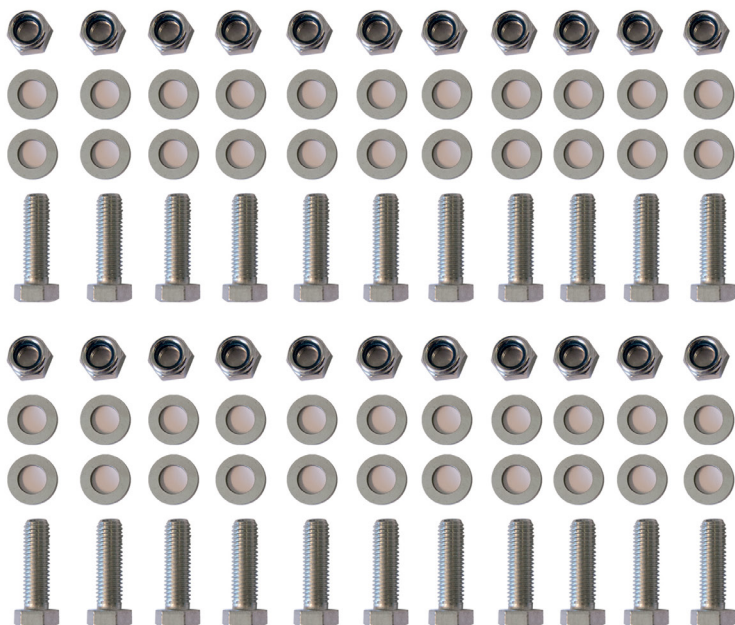
DRAWING 2



POS NO	DESIGNATION	QTY
1	Adjustment plate - right	1
2	Scraper	1
3	Lock nut M8	2
4	Inner hexbolt M8x25	10
5	Adjustment plate - left	1
6	Bearing UC205	2
7	Large belt buckle	1
8	Oil seal 35x62x10	1
9	Lock ring 62	1
10	Bearing 6007	1
11	Protective tube	1
12	Roll	1
13	Shaft	1
14	The drive coupling	1
15	Bevel gear	1
16	Bolt M10x25	4
17	Spring washer 10	4
18	Plan washer 10	4
19	Dust guard	1
20	Key A10x70	1
21	Key A10x40	1
22	Chassis	1
23	Inner hexbolt M12x30	4
24	Connection plate	1
25	Bolt M16x1,5X55	1
26	Mutter M16x1,5	1
27	Bolt M12x35	6

POS NO	DESIGNATION	QTY
28	Belt 17x1016 mm	3
29	Pulley cover	1
30	Plan washer large 12	7
31	Bolt M12x100	1
32	Skidplate - left	1
33	Lock bushing 35x60	2
34	Pulley - small	1
35	Adjusting sleeve	1
36	Elastic cylindrical pin 4*22	2
37	Defence axle	1
38	Bolt M12x80	28
39	Y flail	56
40	Blade Spacer	56
41	Fender	17
42	Fender - adjustment	1
43	Knife axle weldment	1
44	Bearing UC205	2
45	Spring washer 12	12
46	Bolt M12x30	8
47	Support weldment	1
48	Stopper	1
49	L-sprint	1
50	Skidplate - right	1
51	Bolt M12x35	16
52	Plan washer 12	28
53	Lock nut M12	10
54	Lubrication nipple M8x1	2

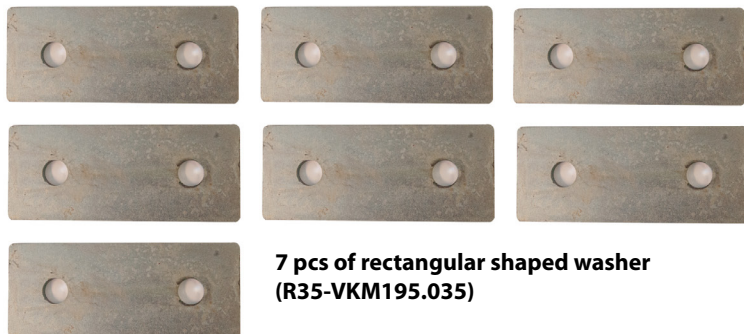
ASSEMBLE KIT FOR 35-VKM195H



22 pcs bolts M12x40
22 pcs lock nuts M12
44 pcs plain washers M12 (Ø24)



2 pcs bolts M10x15
2 pcs plain washer M10 (Ø 20)
2 pcs lock washers



7 pcs of rectangular shaped washer
(R35-VKM195.035)

Kellfri

COMPLAINT FORM

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 no:

When was the product delivered?	When was the product taken into operation?	Did the product functioned as it should upon the first operation?
--	---	--

Defect product / part:
.....

Problem description:
.....
.....

Describe the sequence of events:
.....
.....
.....
.....
.....

Other:
.....
.....

Submit Complaint form and photo to:
Kellfri AB
Division of Services : Contact Kellfri retailer
Munkatorpsgratan 6
532 37 Skara

Or e-mail service.
info@kellfri.se

Signature:	Date:
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KELLFRI AB Munkatorpsgratan 6 SE-532 37 SKARA Phone: +46 (0)511-242 50 Fax. +46 (0)511-168 33	Web www.kellfri.se E-mail info@kellfri.se Issue:: 2014-01-01
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WARRANTY TERMS AND CONDITIONS

Validity of the warranty	- Kellfri'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	<ul style="list-style-type: none">• Labour costs• Travel expenses• Any modification that the buyer himself has/had made.• Any consequential damages that occurred due to 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

EC-DECLARATION OF CONFORMITY, ORIGINAL



According to 2006/42/EC, Annex 2A

Kellfri AB

Munkatorpsgratan 6

532 37 Skara, Sweden

Declares that the machine

Name: 35-VKM195H

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.

Kjell Johansson

Product Development Manager

CUSTOMER SERVICE

You are always welcome to give your feedbacks, reviews or ask us about our equipment and products. Kellfri AB is constantly working on further developing their products and therefore reserves the right to modify, among other things the design and appearance without further notice.

Kellfri

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