

Instruction manual



The KVIK-UP harrow

Søren Kjærgaard,
Skjernvej 188
7500 Holstebro
Tlf 9742 7033 / 9740 3354
www.kvik-up.dk
CE-2002

1. Directions for use and maintenance

The Kvik-Up harrow is designed with a cutting-tool that releases the earth in depth and a rotating spring teeth that catches the roots and throws them slantingly backwards/upwards, thus separating the earth from the roots. Due to gravity the heaviest elements will hit the ground first (mould and stones) putting roots and other organic parts on top. The sun and wind will dry the organic materials hence improving the earth quality.

The Kvik-Up harrow is for field use only and only for purposes as described next. All other use is strongly dissuaded.

1.1 Instructions

WARNING:

- ✓ **The rotor has no safety shield on the sides.**
- ✓ **Always stop the engine when working with the rotor.**
- ✓ **The machine must be bending back when working under the harrow or rotor.**
- ✓ **General regulations concerning lightning, marking and safety are to be observed when transporting the harrow on public roads.**
- ✓ **Pictograms with warning signs against rotating parts and stone throwing are placed on the harrow.**

1.1.1 Getting started

- ✓ The rotor must always be placed in loose earth from the front teeth.
- ✓ The earth must be decent before the Kvik-Up harrow can be used.
- ✓ Be aware that the operation of the harrow is depending on the soil. When used on wet meadow soil, clay soil or hard soil the adjustments may vary according to the following description.
- ✓ The Kvik-Up harrow is mounted on the tractor and adjusted horizontally.

Important: The Kvik-Up harrow must be operated partly on the tractor's lift system so that the harrow's wheels are touching the earth vaguely. Otherwise the loading on the harrow's wheels and the spindle will be too heavy.

The rotor part runs directly on wheels and the hydraulic on the rotor must be put in floating position.



Adjust the wheels so that the teeth sticks approx. 5-15 centimeters in depth. The harrow must run partly on the tractor's lift system so that the harrow's wheels touch the earth vaguely.

Adjust the wheels so that the rotor sticks approx. 3 cm in depth the first time it is used on hard soil. Use 5-7 centimetres in depth the second time.

Instructions

1. Start the PTO on low speed before putting it down on the soil. Afterwards regulate the PTO to approx. 500 RPM per minute.
2. If there are many rocks on the field it is important to lower the speed on the PTO. Otherwise the spring teeth on the rotor may get damaged.
3. Always begin driving cross wise of the headland. This will secure that the Kvik-Up harrow always starts out in loose soil after each turn.
4. To avoid too much shaking on the rotor always remember to lower the revolution or turn it off when the harrow is not in the soil.

Important: Lower the revolution when driving towards public roads. Always stay more than 15 meters behind the rotor while driving due to risk of backwards thrown up stones. Never sit on the harrow when in use. Always leave the area between the tractor and the harrow before using it. Lower the revolution on the rotor or turn it off when not placed in soil.

1.2 Driving instructions:

1.2.1 Driving with the Kvik-Up harrow:

1. Driving speed is approx. 5-7 km/h.
2. Always check the indication of height on the rotor part after ploughing through the second time. Otherwise the rotor part may go deeper than the desired 5-7 cm down the soil and cause the spring teeth to brake.
3. The harrow has a mechanical securing system with a spring bolt in the power transmission to avoid overload. Moreover the goose feet (teeth) and frame are secured with bolts.
4. **IMPORTANT:** Never make turns with the Kvik-Up harrow when it is operating in the soil, as this cause the wheels and spindle to get damaged as well as the suspension arms on the rotor will be overloaded.
5. Always be aware of trees, edges and the like. Remember that the wheels stick far out from the sides.

1.3 Maintenance instructions:

WARNING: Always stop the engine during maintenance of any kind.

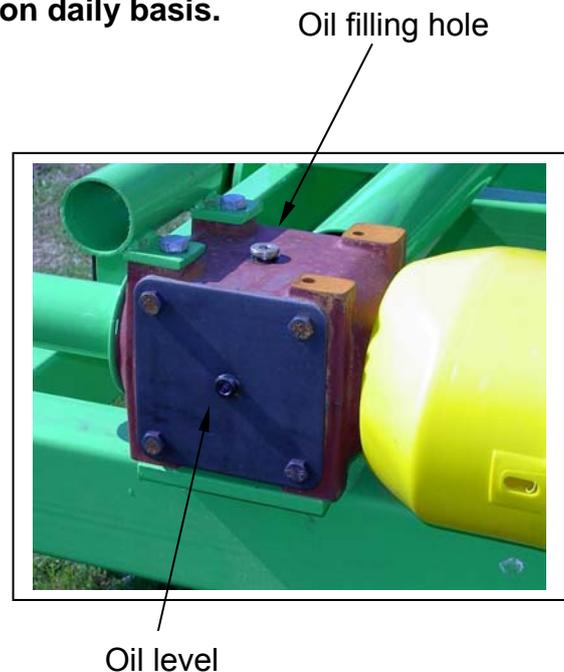
Power transmission axles are to be lubricated on daily basis.

Check oil level on bevel gear every half year.

If necessary fill up with oil.

Content: 0,9 litre.

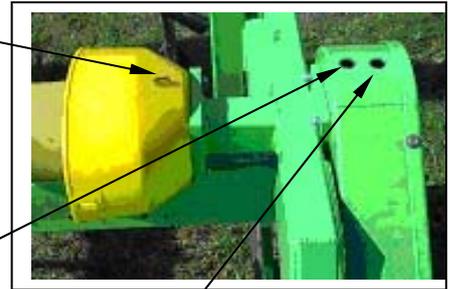
Oil type: SAE90 EP



Lubricate chain bearing with lubricator nipples after every 20 hours of use.

Lubricate the chain with chain oil on daily basis.

Lubricator nipple



Lubricator nipple

Lubricate the chain with chain oil on daily basis.

When the oscillation of the chain is too big the chain must be tightened.

The guard plate must be removed and the tightening wheel or block also removed to tighten the chain.



Tightening of chain

When replacing gear wheel:
Tighten split bushing with -
Big gear wheels: 90 Nm.
Small gear wheels: 50 Nm.

Lubricate bearing at rotor in the chain side with lubricator nipples after approx. 20 hours of use or when needed.



Lubricator nipple

Lubricate bearing at the rotor on the opposite chain with lubricator nipples after approx. 20 hours of use or when needed.



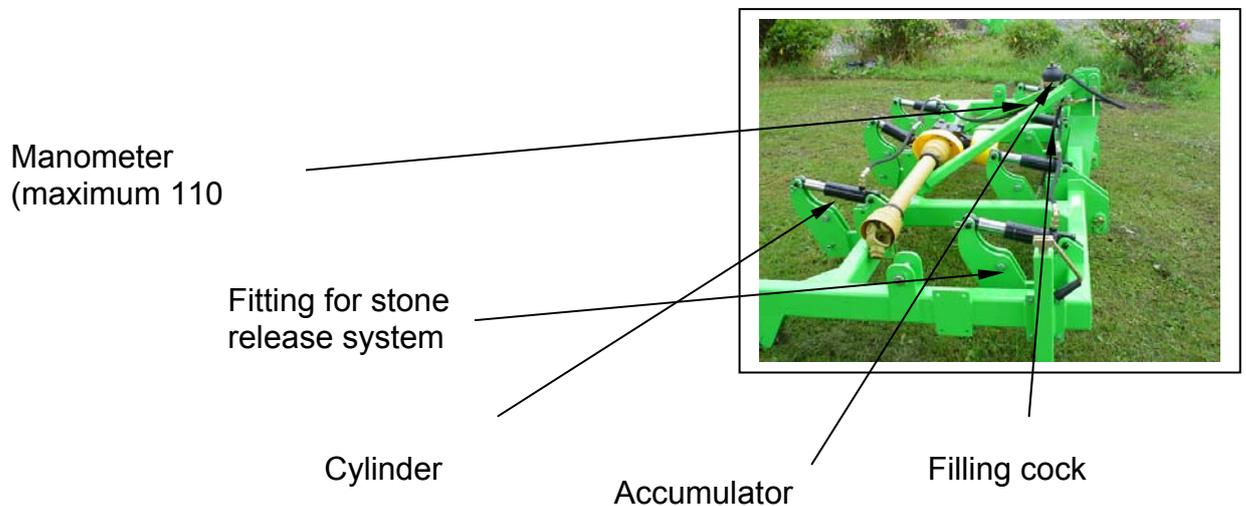
Lubricator nipple

Lubricate wheel once a year or when needed.



2. Kvik-Up with hydraulic stone release system

(It is also possible to mount the hydraulic stone release system on all B-models).



		R.-number.
Fitting for stone release system		701
Cylinder	60/50x100 mm	702
Accumulator		703
Filling cock		704
Manometer		705

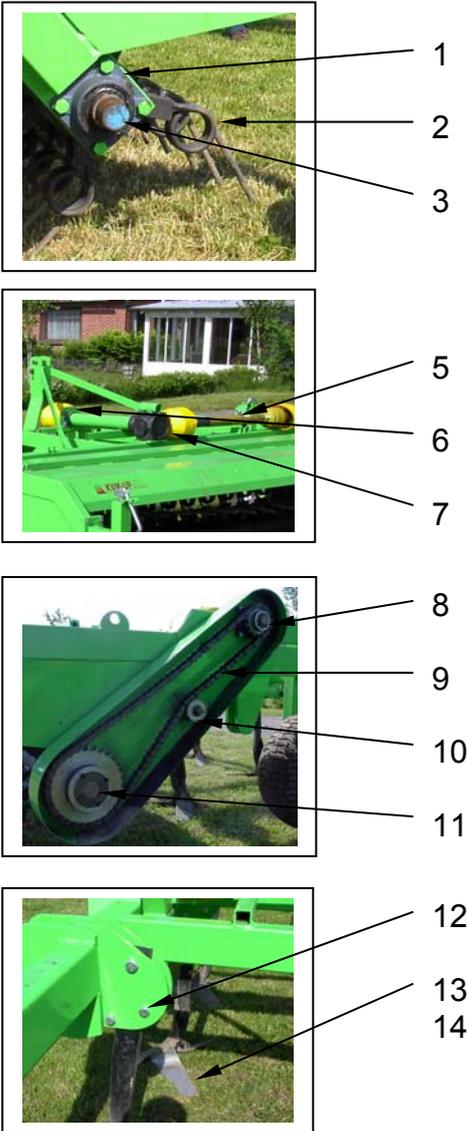
1. First put pressure on the tractor's hydraulic outlet.
2. Then go to the harrows hydraulic tap and open it very slowly. Take the manometer up to 90 kilogram. **NOTICE:** Maximum 110 kilograms pressure as otherwise the accumulator will brake down.
3. Close the harrow's hydraulic tap and shut off the tractor's hydraulic outlet.
4. The harrow's hydraulic handle must be used. Otherwise the tractor's hydraulic system gives too much oil supply.

NOTICE: The accumulator can brake down if too much oil is added.

One fill a year should be enough if all tubes and couplings are tight.

3. Components list

3.1 Components list and spare parts numbers.



POS	Description	R.-nr.	Kvik-up		
			2M	3M	4M
1	Flanged bearing FY50 TF	001	•	•	•
2	Spring tooth	002	•	•	•
3	Axle for rotor: 50 mm	203	•		
	Axle for rotor: 50 mm	303		•	
	Axle for rotor: 50 mm	403			•
5	PTO axle AX6	005	•	•	•
6	PTO axle AX6 m/M10x50 spring bolt 8.8	006	•	•	•
7	T-27A bevel gearbox 1:1 (Oil type SAE90 EP)	007	•	•	•
8	Bushing chain wheel 17 tooth 1" Single	2308	•	•	
	Split bushing 2012/35	2012/35	•	•	
	Bushing chain wheel 17 tooth 1" Duplex	408			•
	Split bushing 2517/35	2517/35			•
9	TRP 1" single BS roller chain	2309	•	•	
	TRP 1" duplex BS roller chain	409			•
10	Tightening wheel	010	•	•	•
	Block	0101	•	•	•
11	Bushing chain wheel 46 tooth 1" Single	2311	•	•	
	Bushing chain wheel 46 tooth 1" Duplex	411			•
	Split bushing 3020/50	3020/50	•	•	•
12	Spring bolt M12x80 10.9 el.12.9	012	•	•	•
13	Cultivator point	013	•	•	•
14	Goose feet Mammuth 430 mm wide	014	•	•	•
	Stem 60x25mm for goose feet and cultivator point	015	•	•	•
	Steel plough bolt M12 x 80 mm 12.9 goose feet and cultivator point	016	•	•	•
	Cylinder type 5300 for rotor lift	1253 220300	•	•	•
	After tools for disk harrow:				
	Hub for disk: 500 kilogram. Circumference 35x200 4/59/100	7040	•	•	•
	Disk: Circumference 460MM DINCO DALB0	5160 75261	•	•	•
	Flange bearing for expanding FY50	7777 FY 50	•	•	•
	Wheels				
	Complete wheel 8631B 4 holes	8631B	•	•	
	Tyre 23x8.50-12/6	1480B	•	•	
	Hub 500 kilogram. Circumference 35x200 4/59/100	7040	•	•	
	Wheel rotor:				
	Complete wheel 8631B 4 holes	8631B			•
	Tyre 23x8.50-12/6	1480B			•
	Hub 500 kilogram. Circumference 35x200 4/59/100	7040			•

POS	Description	R.-nr.	Kvik-up		
			2M	3M	4M
	Front frame wheels:				
	Complete wheel 8631A 5 holes	8631A			•
	Tyre 23x8.50-12/6	1480B			•
	Hub 1000 kilogram. Circumference 40x200 5/80/115	7045			•
	Spindle tube for rotor	H001	•	•	•
	Foldable crank 160 mm	202-00021	•	•	•
	Axial bearing 51104 (spindle bearing)	536-00001	•	•	•
	Strap fastener	515-06030	•	•	•
	Threading spindle	205-00021	•	•	•
	Outlet harrow frame:				
	Spindle tube for harrow frame	H002	•	•	•
	Foldable crank 160 mm	202-00021	•	•	•
	Axial bearing 51104 (spindle bearing)	536-00001	•	•	•
	Strap fastener	515-06030	•	•	•
	Threading spindle	205-00021	•	•	•

4. Warranty

Warranty is only applicable as long as the instruction manual has been followed.

- ✓ The front frame has a 24 month warranty
- ✓ The rotor frame has a 24 month warranty
- ✓ No rotating parts or other wearing parts are covered by warranty - except shown defects from factory.
- ✓ The rotating spring teeth on the rotor are not covered by warranty.

Declaration of agreement

Manufacturer: Firm: Søren Kjærsgaard
Address: Skjernvej 188
Area code/City: 7500 Holstebro
Country: DK
Telephone: +45 9742 7033 / 9740 3354

declare hereby that

Machine: KVIK-UP HARROW
Style: ECOLOGICAL HARROW
Type:
Serial number:

is manufactured in accordance with the conditions in "RÅDETS DIREKTIV 98/37/EF" under special reference to the directive appendix 1 about specific security and health requests in relation to construction and fabrication of machines and "DIRECTIVE 73/23/EØF and DIREKTIV 89/336/EØF".

Standard DS/EN292-1 and DS/EN292-2

Title: Manufacturer
Name: Søren Kjærsgaard
Firm: Søren Kjærsgaard

_____ date

Holstebro
_____ place

_____ signature