

GLOBUS



STONE RAKE

GSR 32300 / GSR44400 / GSR63300 / GSR 87400

Underhaug

User manual and spare parts

WELCOME AS A UNDERHAUG CUSTOMER!

Congratulations on purchasing a Globus product! Before using the equipment, we ask that you carefully read the user manual. You should keep this manual and pass it along if you sell the product to others.

Underhaug manufactures a wide range of products, including stone pickers, stone rakes, seeders, round bale forks, pallet forks, harrows, Cambridge rollers, crosskill rollers, snow blowers, potato machines, excavation buckets, quick coupler attachments, and other construction equipment for excavators.

If you would like to learn more about our products, you can visit our website at www.underhaug.no or contact us by phone or email.

Our goal is for you to be a satisfied Globus customer. To achieve this, we focus on quality and user-friendly products. In collaboration with our dealers, we aim to solve any problems that may arise and guarantee the supply of spare parts for 10 years.

Underhaug is a forward-looking company, and we are committed to continuous product development. We would appreciate receiving feedback from you as a customer. Both positive and negative experiences help strengthen our development and make our products better. Please feel free to send us ideas or suggestions for product modifications or additional equipment via email at arild@underhaug.no. All suggestions will be considered during future product upgrades.

We recommend that you fill out the necessary information about the product you have acquired in the table below. This will make it easier and faster to handle any inquiries for spare parts and/or additional equipment. It is also helpful in case of a product warranty claim.

Best regards,
Underhaug AS

PRODUCT INFORMATION:

Art. no.: (see type plate)	
Serial no.: (see type plate)	
Production year: (see type plate)	
Purchase date:	
Distributer:	

Underhaug AS
Rev. 1.1
01.01.2025

DECLARATION OF CONFORMITY

Producer: Underhaug AS

Address: Torlandsveien 3
4365 Nærbø

N-NORWAY

We hereby declare under our own responsibility that the following product:

Type: *Globus Stone rake GSR 32300 /GSR44400 / GSR63300 /GSR 87400*
Serial No.:

Year of Manufacture: 2024->

covered by this declaration, complies with the following standards:

- **NS/EN ISO 13857: 2008**
- **NS/EN 13021: 2003 + A1: 2008**
- **NS/EN ISO 12100: 2010**
- **Directive 2006/42/EC**

Nærbø, 2025



Sales manager Arild Høien

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2. SAFETY

2.1 Operating Manual

Anyone who operates the Globus stone rake must familiarize themselves with the contents of the operating manual before using the machine.

2.2 Caution

Ensure that no persons are in the machine's working area. Stones, soil, and other foreign objects affected by the machine can cause damage to people, vehicles, buildings, and other objects.

2.3 Risk of Crushing

If stones get stuck in the rake disc, always disconnect the PTO, turn off the engine, and remove the key from the ignition before starting any cleaning. Never place your hands or feet near the rake disc or belt drive to clean them.

2.4 Crushing Risk During Operation

Make sure no one is near the machine when it is in operation. When the rake disc is rotating, it poses a significant crushing risk that could result in severe injuries. Never stay within the working area of the stone rake when it is in use. Always remember to disconnect the PTO and ensure the rotor has stopped before leaving the tractor seat.

2.5 Crushing Risk During Power Transfer

Ensure that the protective cover around the power take-off shaft is always in place and securely attached with the provided chains to prevent it from rotating during use. Avoid staying near the power take-off shaft when it is rotating. If clothing or other items get caught in an unprotected shaft, it can cause severe personal injury. For additional information about the use and safety of the power take-off shaft, please refer to the separate manual that comes with the shaft.

2.6 Repairs

Before performing maintenance or repairs, always stop the engine, remove the key from the ignition, or disconnect the stone rake from the tractor. Never stay under machines suspended on the tractor's hydraulics. Therefore, ensure the stone rake is supported or properly parked before carrying out any work.

2.7 Safety Labels

The Globus Stone Rake is equipped with various warning labels that indicate actions that must be taken to avoid injuries and accidents. The symbol appears on warning labels placed at different locations on the machine.

These are shown in the images below.

If the labels are lost from the machine, new ones can be provided by the manufacturer or dealer.



The machine is designed for 540 RPM.



Rotating parts.



Read the operating manual.



For repairs, always remove the key from the ignition.

2.8 Lifting points

The stone rake is equipped with two lifting points, which are marked with the symbol illustrated.



3. PRODUCT INFORMATION

3.1 Application

The Globus stone rake is a soil cultivation tool used to gather stones in rows before stone sorting. The stone rake provides the best results on fields that have been plowed and harrowed first. Larger stones with a diameter of 30-40 cm should be removed before using the stone rake to avoid overloading the machine.

3.2 Technical Data

The 4m stone rake is supplied with a transport bracket as standard. The 3m stone rake can be supplied with a transport bracket as an option.

Model	3 m single	4 m single	3 m double	4 m double
No. of tines	32 pcs	44 pcs	63 pcs	87 pcs
Working width	3m	4m	3m	4m
Transport width	3m	1,5m	3m	1,5m
Power requirement	50hp	60hp	60hp	70hp
Weight	700kg	890kg	820kg	1040kg

3.3 Additional Equipment

Available equipment for the Globus stone rake is listed below.

Art. no.	Description
940310	Triangle
940189	Splash guard
940188	Transport bracket 3m stone rake

4. ASSEMBLY AND CONNECTION

4.1 Assembly Instructions

The stone rake is always supplied with a transport bracket, and the associated mounting device is disassembled. Otherwise, the machine is delivered complete and ready to use, unless otherwise agreed.

4.2 Adjusting the PTO Shaft

Always use the power take-off shaft supplied with the machine. It is adapted to the machine's power requirements and is equipped with a wide angle to avoid heavy loads.

Some tractors have high-mounted PTOs, which increase the angle of the power take-off shaft and thereby reduce its lifespan. The angle should be as small as possible and ideally not exceed 25 degrees.

The following procedure is recommended to adjust the shaft:

1. Mount the stone sorter on the tractor without the shaft. Ensure there is sufficient clearance between the tractor and machine at all heights, even when the upper support arms are in active use.
2. Find the position where the distance between the pin on the cutter's shaft and the tractor is the shortest. Then remove the power take-off shaft and mount it on separate profile brackets with the pipes placed next to each other.
3. Check the pipes for cutting and ensure at least 15 mm clearance at the end.
4. Check the longest distance between the brackets. If this is the working position, the profile pipes should still overlap by half the length of the pipe.
5. Once this is done, the shaft can be cut. It is important to cut the same amount off each pipe. File the edges that may obstruct movement, clean, and lubricate the profile pipes with grease. Mount the shaft and carefully check the fit in all movements.

4.3 Connection

- Ensure no one is between the tractor and stone rake during connection. Drive the tractor close to the machine and stop the engine before attaching the hitch to the three-point linkage.
- The tractor's stabilizing rods should be used to prevent uncontrolled lateral movements during operation.
- Attach the power take-off shaft with a wide angle to the stone rake first and secure the safety chain to prevent rotation of the protective cover. Ensure that the protective covers are intact and replace them if damaged. Follow the instructions for mounting the power take-off shaft in section 4.2 and refer to the operating manual for the power take-off shaft.

5. USER TIPS

5.1 Power Take-Off (PTO)

The stone rake is designed for 540 RPM. The forward speed and gear selection depend entirely on the conditions and the type of tractor. The PTO should only be engaged at low speed.

5.2 User Tips

- Before starting stone raking, it is necessary to harrow well to bring the stones to the surface. Larger stones with a diameter of 30-40 cm should be removed before driving.
- The working depth is adjusted with the depth wheels. It can vary between 0-10 cm depending on the amount of stones and soil conditions.
- Assess the field to be raked, and if possible, drive in a way that avoids excessive slopes.
- Choose a speed that provides steady progress, and the job will be easier. However, adjust the speed based on the conditions. 3-5 km/h under "normal" conditions.
- The PTO should normally operate at 340-540 RPM for the best result, but if the speed is too high, the stones will be thrown too far. The highest speed is only recommended when it is suitable for raking smaller stones. The driving speed should also be reduced simultaneously.
- Be cautious with larger stones. If driving on solid rock, always reverse slightly and lift the machine before continuing to avoid damage to the belts, pins, and rake discs.

6. MAINTENANCE

6.1 Tightening and Lubrication

After a few hours of operation, all bolt connections should be checked and tightened where necessary. This should be done regularly. The power take-off shaft should be lubricated daily during use, and the roller chain should be lubricated every other day. The handles on the depth wheels should be lubricated as needed.

6.2 Gearbox

The oil in the gearbox should be checked at least once a year, and the oil level should be up to the level plug when the gearbox is horizontal. Use oil labeled API GL4 or similar.

6.3 Paint Code

The paint color code is red RAL 3000.

6.4 Tensioning the Belts

Belts should be tensioned after a few hours of operation, as they tend to loosen a bit after the initial use. To tension the belts, first, loosen the two bolts on each side of the bearings located around the shaft from the gearbox toward the tractor.

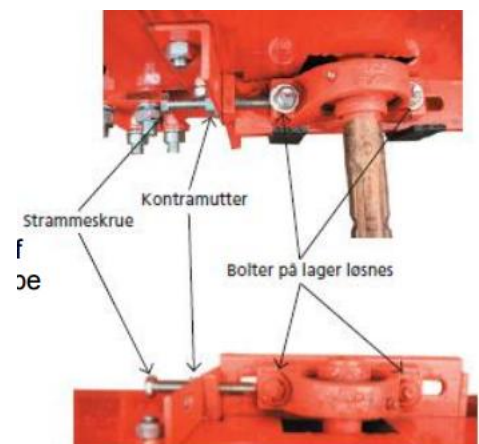
Next, loosen the locknut on the tensioning screw on both sides and turn the tensioning screw in.

Once the belts are sufficiently tightened, tighten the locknut, and then tighten the bolts that hold the bearings.

Note:

It is important to tighten both sides equally.

Mark the screws to prevent them from being tightened unevenly, as this could easily cause one of the belts to break. Once the belts are tightened, you should be able to press them down by no more than 1 cm with your thumb.



7. WARRANTY TERMS

7.1 Warranty

Underhaug AS guarantees that the product, including all parts, is manufactured in accordance with applicable specifications and is free from material or manufacturing defects for a period of 12 months from the date of sale. The date of sale is the invoice date. A receipt for a paid invoice serves as the warranty certificate.

7.2 Valid Warranty

To ensure the warranty is valid, the following conditions must be met:

- The product must be set up and used in accordance with the operating instructions and warnings provided by the manufacturer or dealer.
- Warranty claims must be made in writing to the dealer or manufacturer immediately after the defect occurs and within the warranty period.
- Written and/or photographic documentation of the defect must be provided. Information about the product's type designation, serial number, and model year must also be included.

Once a warranty claim is approved, a time and location for the repair will be agreed upon, and necessary parts will be sent to the dealer. Costs for correcting defects covered by the warranty provisions will be determined by the manufacturer.

7.3 What a Valid Warranty Covers

- The warranty covers the correction of breaks, faults, or defects in the product or incoming components of the product.
- The warranty covers faults caused by material failure, manufacturing defects, assembly errors, or consequential damage due to the lack of testing and control that should have been performed by the manufacturer.
- The warranty covers new parts delivered free of charge under standard shipping conditions to the dealer. If the parts are required sooner, the additional cost must be covered by the customer.

7.4 Invalid Warranty

- The warranty is invalid if the defect or damage occurs due to improper use by not following the operating instructions.
- The warranty is invalid if the product is used for purposes other than those described.
- The warranty is invalid if non-original spare parts have been used or if the prescribed maintenance of the product has not been followed. Documentation of performed maintenance may be required.

7.5 What an Invalid Warranty Does Not Cover

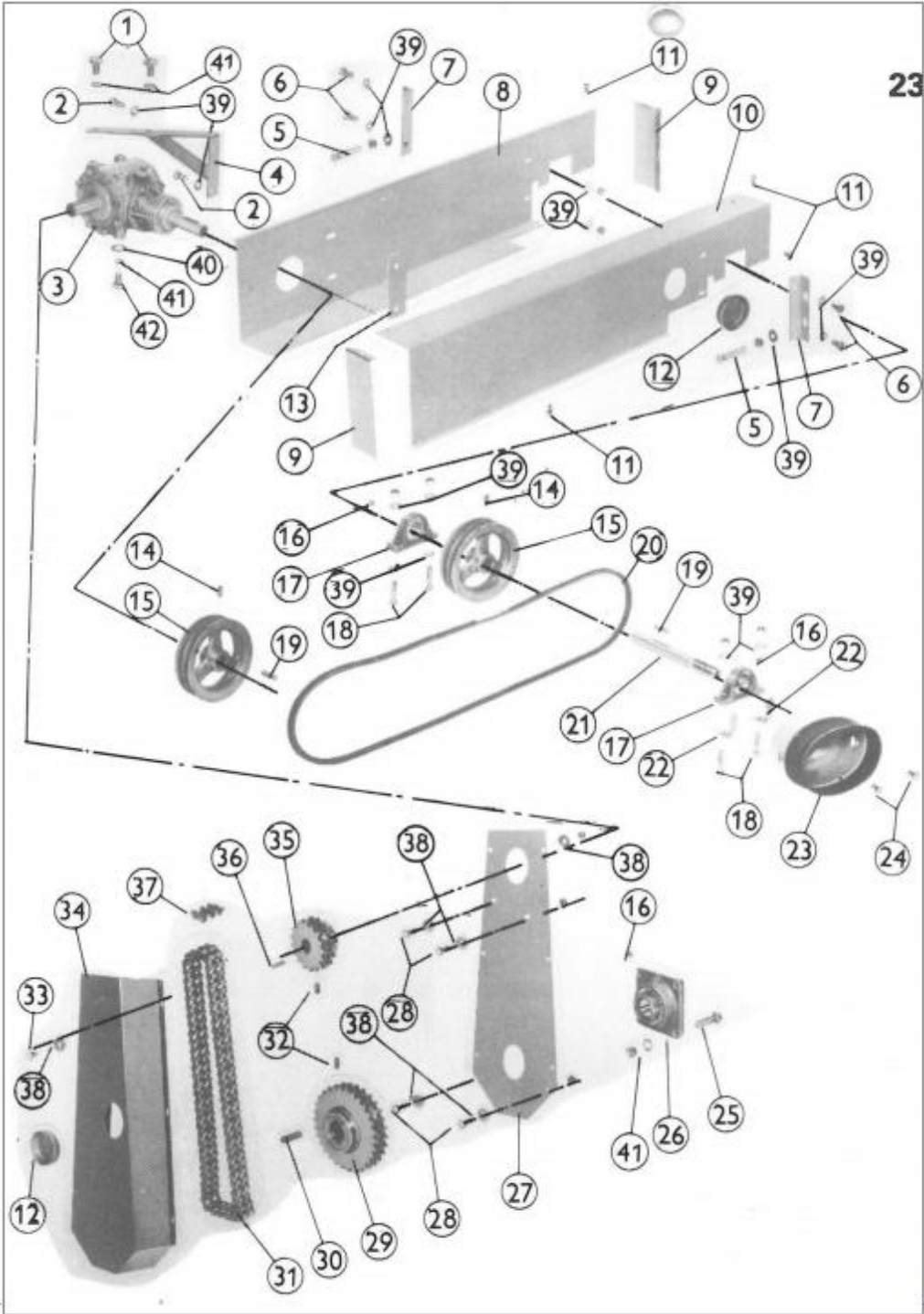
- The warranty does not cover financial losses resulting from downtime.
- The warranty does not cover consequential damage caused by improper use.
- The warranty does not cover normal wear and tear.
- The warranty does not cover shipping of the product between the customer and the dealer for repairs.
- The warranty does not cover travel, meals, or accommodation for service personnel. The product must be transported to the nearest dealer, or the customer must cover travel, meals, and accommodation for service personnel if warranty work is performed at the product's location.

8.1 Main frame and stone rake

POS:	Art. no.:	Qty.	Description:
1	940001	1	Main frame 4 m
	940147	1	Main frame 3 m
2	940085	2	Mounting bracket 4 m
	940154	2	Mounting bracket 3 m
3	940084	2	Lid 4 m
	940156	2	Lid 3 m
4	940086	2	List for lid 4 m
	940156	2	List for lid 3 m
5	033630	6	Bolt M12 x 30
	016008	6	Locking nut M12
6	033630	6	Bolt M12 x 30
	016008	6	Locking nut M12
7	032675	2	Bolt M12 x 75
	016008	2	Locking nut M12
8	925257	2	Spacer sleeve
9	033680		Bolt M12 x 80
	016008		Locking nut M12
10	940201	2	Plastic plug
11	033850	8	Bolt M12 x 50
	016000	8	Locking nut M20
12	010861	1	Shackle
14	940244	1	Chain
15	010700	1	Splint
16	940068	1	Parking leg
17	925302	1	Lifting bolt 4 m
18	940157	2	Lifting bolt 3 m
19	940058	2	Drawbar
20	940058	1	Drum 4 m
	940043	1	Drum 3 m
21	940151	1	Tends 32stk/44stk/63stk/87stk
22	033640		Bolt 12 x 40
	016008		Locking nut M12
23	940145		Transport drawbar 4 m
24	940112	1	Draw bolt
25	940109	1	Draw plate
26	032812	1	Bolt M20 x 160
27	925211	1	Locking bolt
28	012920	1	Disc
29	012991	1	Chip
	140479	1	Tine set 32 tines 3 m

	140480		Tine set 64 tines 3 m double
	140481		Tine set 44 tines 4 m
	140482		Tine set 87 tines 4 m double
	940127		Tine bracket

8.2 Belt and chain



8.2 Belt and chain

POS:	Art. no.	Qty.	Description
1	033720	2	Bolt M16 x 20
2	033630	2	Bolt M12 x 30
	016008	4	Locking nut M12
3	940353	1	Gearbox kpl.
4	940076	1	Belt cover mount.
5	033680	2	Bolt M12 x 80
	016008	2	Locking nut M12
6	033630	4	Bolt M12 x 30
	016008	4	Locking nut M12
7	940075	2	Angle bracket for mounting front cover
8	940141	1	Rear belt cover 4m
	940155	1	Rear belt cover 3m
9	940195	2	End cover
10	940142	1	Front strap cover 4m
	940152	1	Front strap cover 3m
11	033416		
	016005		
12	940104	1	
13	940074	1	
14	032025	2	
15	940101	2	
	940299	2	
16	029900	2	
17	011218	2	
18	032650	4	
	016008	4	
19	940088	2	
20	012000	2	
	012002	2	
	012005	2	
	012006	2	
21	940087	1	
22	940133	2	
23	940144	1	
24	033420	2	
	016005	2	
25	033745	4	
	016010	4	
26	011227	1	
28	033530	4	
	016006		

29	940098	1	
		1	
30	940090		
31	940099	1	
32	022126	1	
33	033520	1	
	016006	1	
34	940190	1	
35	940097	1	
36	940089	1	
37	940100	1	
38	012916	X	
39	012920	X	
40	012927	X	
41	940317	X	
42	032755	X	
NOT ILL.			
X	940096	1	
X	940319	1	
X	940320	1	

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PRODUCER:

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