GLOBUS

GTF 250-19

User manual and spare parts

Underhaug

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)	Globus GTF 250-19
Serial no-: (see type plate)	
Production year: (see type plate)	
Purchase date:	
Distributer:	

Underhaug AS
Rev. -
09-2023

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 Snowblower GTF 250*

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, October 1, 2024

Sales manager Arild Høien

INNHOLD

2 SAFETY

2.1 Instruction Manual
Anyone using the Globus snow blower GTF 250-19 must familiarize themselves with the contents of the instruction manual before operating the machine.

2.2 Caution
Ensure no people are in the snow blower's discharge area. Snow, ice, stones, and other foreign objects ejected from the blower can cause injury to people, vehicles, buildings, and other objects. Adjust the throw distance and direction of the discharge stream by controlling the engine speed, lowering the chute, and swiveling the nozzle to avoid damage. Pay special attention when reversing to ensure no people or objects are harmed.

2.3 Risk of Pinching at the Nozzle
If the nozzle becomes clogged with snow, always disconnect the power take-off, stop the engine, and remove the key from the ignition before beginning any cleaning. If necessary, the nozzle can be tilted down, and the included cleaning rod can be used. Never insert hands or feet into the nozzle opening to clean it. Be aware of the risk of pinching when returning the nozzle to its position. The protective grille on the nozzle must always be in place and properly secured when the snow blower is in use.

2.4 Risk of Pinching at the Fan and Auger
Ensure no people are near the snow blower when it is in operation. The rotating auger and fan represent significant pinch hazards that can cause serious injury. Never position yourself inside the opening in front of the blower or at the nozzle opening while the fan is rotating. Always disconnect the power take-off and ensure the fan has stopped when leaving the tractor seat.

2.5 Risk of Pinching at the Power Transmission
Ensure the protective cover around the power transmission shaft is always in place and fastened with the provided chains so it does not rotate during use. Avoid staying near the power transmission shaft when it is rotating. Clothing or similar items that get caught in an unprotected shaft can lead to serious injury. For further information on the use and safety of the power transmission shaft, please refer to the separate manual that accompanies the shaft.

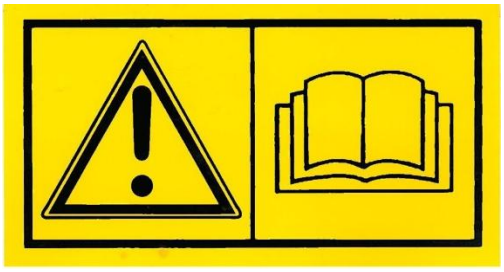
2.6 Repairs
Before any maintenance or repairs are carried out, the engine must always be turned off, and the key must be removed from the ignition, or the snow blower must be disconnected from the tractor. Never stay under machines suspended by the tractor's hydraulics. Ensure the snow blower is properly supported before beginning work.

2.7 Hydraulic Pressure
The snow blower is equipped with hydraulics to operate the nozzle. Make sure no one is near when hydraulic functions are being performed. Hydraulic oil under pressure can penetrate the skin and cause serious injury and infection. Always wear eye protection and gloves and be cautious when working with hydraulics. Seek medical attention if you suffer an injury.

2.8 Safety Markings
Globus snow blowers are equipped with various warning signs that indicate actions that must be taken to avoid injury and accidents. The symbol appears on warning signs located in different places on the machine.
These are shown in the images below.
If the markings are removed from the snow blower, new ones can be provided by the manufacturer or dealer.

The machine is designed for 540 RPM.

Rotating parts.



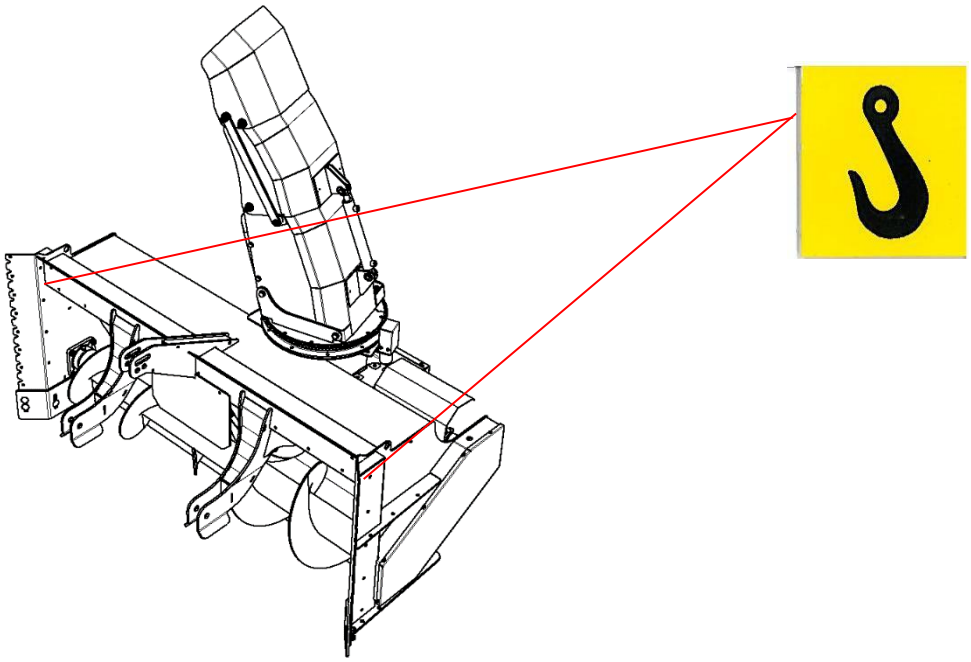
Read the user manual.

Warning.

When repairing, always remove the key from the ignition.

2.9 Lifting points

The snow blower body is equipped with two lifting points as illustrated in the image.
Be aware that the snow blower weighs approximately 900 kg, so always use straps rated for this total weight.



3 PRODUCT INFORMATION

3.1 Application
The Globus GTF 250-19 is a two-stage snow blower suitable for tractors from 70 hp. The snow blower comes with a fixed 3-point hitch adapted to the applicable standards. The blower requires skilled operation, and the user manual should be read before connecting and operating the machine, even if the operator has prior experience with similar equipment.

3.2 Power Requirements
The snow blower is designed for tractors from approximately 70 hp to 125 hp.
The drive system is designed for a maximum power requirement of 125 hp, and it is very important that the shear bolts in the drive system are not altered from the original specifications, as this may cause damage in case of overload.
Any claims or warranty will be voided in case of damage or operational failure due to this.
For more information on shear bolts, see section 3.3.

3.3 Construction and Features
The Globus GTF 250-19 is designed to handle difficult snow conditions.
The snow blower is built on a robust main frame made of high-strength steel.

Auger
• The auger facilitates snow passage and increases the blower's efficiency. The auger shaft is secured with a shear bolt in case of overload. The auger is standard quality 8.8. See section 3.2 for details.

P.T.O. Shaft
• Shear bolt M12x55 with standard 8.8 quality.
Note! Using a different quality than specified may cause damage to the snow blower or the shaft when under load. See section 3.2 for details.
For further instructions, refer to the user manual for the P.T.O. shaft.

Fan
• The fan has a diameter of 80 cm and is centrally located on the blower. Its design ensures optimal throwing distance based on power requirements.

Chute
• The chute has a rounded shape that ensures smooth snow passage. Hydraulic swivel and tilt are standard features and allow the snow to be directed as needed.
All screws on the movable parts of the chute are equipped with grease fittings for longer service life.
The chute is foldable for easy access during maintenance.

Replaceable Wear Blades
• The Globus GTF 250-19 is supplied as standard with replaceable wear blades in Hardox 500.
As an option, perforated wear blades can be supplied, which provide less slippery road surfaces.

Skid Shoe Adjustment
• Heavy-duty skid shoes are placed at the rear of the housing. They can be easily adjusted to the desired height by moving the bolt to the preferred hole.

Adjustable Wheels
• With a wheel set (optional), you can avoid creating smooth tracks in the snow and also simplify work when clearing gravel roads.
The wheels, sized 125/75-R8, have stepless adjustment. If the wheel sinks into the snow, it combines with the skid shoes to support the blower.

3.3 Tekniske data

Model	GTF 235-18
Working width	250cm
Working width w/ edge cutter R	270cm
Power requirement	70hk
Fan diameter	80cm
Weight PTO shaft	30kg
Weight, approx.	900kg

3.4 Additional accesories

Available optional equipment for the Globus GTF 250-19 is listed below.
Drawings and parts lists for the individual items can be found further back in the manual.

Art. no. .	Description	Add. infp	Page
125964	Edge cutter cpl. R	150cm height / 20cm width	-
127320	Hydraulic tilt	Cpl. w/hoses	-
125963	Wheel set	Cpl. Incl. brackets	-

4 ASSEMBLY AND CONNECTION

4.1 Assembly

The snow blower is delivered fully assembled and ready for use unless otherwise agreed.
For practical reasons during transport, the chute may be delivered either disassembled or lowered.
The side cutter is supplied unassembled for self-installation unless otherwise agreed.
If the side cutter needs to be installed, refer to the parts list for detailed drawings.

4.2 Adapting the P.T.O. Shaft

Always use the power take-off (P.T.O.) shaft that is supplied with the machine. It is adapted to the snow blower's power requirements and is equipped with a 12mm 8.8 shear bolt for overload protection.
NB! It is extremely important that the P.T.O. shaft is adapted to the tractor/snow blower. Failure to do so can cause significant damage to both the tractor and/or the snow blower's gearbox.

Some tractors have high-mounted P.T.O. shafts, which creates a large angle on the power take-off shaft, thus reducing the lifespan of the shaft. The angle should be as small as possible, ideally not exceeding 25 degrees.
The following procedure is recommended to adapt the shaft:

1. Mount the snow blower on the tractor without the shaft. Ensure there is enough clearance between the tractor and snow blower at all lift heights, including when the top link is in active use.
2. Find the position where the distance between the spline pin on the snow blower and the tractor is the shortest. Then, pull the P.T.O. shaft apart and mount it on each profile pin with the tubes positioned next to each other.
3. Mark the tubes for cutting and calculate at least a 15mm end clearance.
4. Check the maximum distance between the spline pins. If this is the working position, the profile tubes should still overlap each other by half of the tube length.
5. After this, the shaft can be cut. It is important to cut the same amount from each tube. File off any burrs that may prevent smooth sliding, clean, and grease the profile tubes. Mount the shaft and carefully check the alignment in all movements.

4.2 Connection

• Ensure no one is between the tractor and snow blower during connection.
• Reverse the tractor toward the snow blower and stop the engine before attaching the drawbars to the three-point linkage. The tractor's stabilizer bars should be used to prevent uncontrolled side movements during operation.
• Connect the hydraulic hoses for the chute. Check that the hoses are intact and free of damage before using the hydraulic functions.
• Attach the P.T.O. shaft to the snow blower (direction indicated on the shaft) 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 adapting the P.T.O. shaft in section 4.2 and refer to the instruction manual for the P.T.O. shaft.

5 USER TIPS

5.1 P.T.O.

The snow blower is designed for a power take-off (P.T.O.) that provides 540 rpm. The forward speed and gear choice depend entirely on snow conditions and tractor type. The P.T.O. should only be engaged at low engine speed.

5.2 Adjusting Working Width/Depth

The working width of the snow blower (250 cm) can be adjusted by installing edge skids (see technical data 3.3).
The depth of the snow blower is adjusted using the skid shoes, which offer multiple options for setting the correct height.
The wheels (see optional equipment 3.4) can be adjusted steplessly with a mechanical link.
The top link is included for adjusting the pitch of the snow blower.

5.3 User Tips

• Prepare the road in advance before the snow arrives by removing larger stones and other foreign objects that may interfere with the snow clearing. If stones and other objects enter the snow blower while in operation, they can damage or destroy vital parts.
• Mark the roadside with snow poles if necessary and take note of the placement of manhole covers.
• Equip the tractor with good chains or studded tires.

• Clear the full width of the road during the first snowfall and create an even base. Do not wait until the snow depth becomes too large; instead, clear several times.
• Choose a speed that ensures smooth progress, as this will make the job easier.
• Do not use excessive force to throw the snow unnecessarily far; reduce the engine speed instead. This will make it easier and use less diesel.
• If the snow blower clogs with wet snow, keep the engine speed up from the moment you enter the snow until the snow blower is emptied.
• If the chute gets clogged with snow, stop the fan before cleaning, and disconnect the P.T.O. or stop the engine. Loosen the two screws at the bottom of the chute and tilt it down. Use the cleaning rod supplied with the snow blower to clear it.
• If you are pushing snow without throwing it out, it is recommended to reverse slightly before engaging the P.T.O.
• The chute is designed with a folding mechanism that allows you to throw snow in front of the snow blower without stopping the fan, then swing the chute out again once the obstruction is cleared.
• To ensure the snow blower scrapes properly, it is important to adjust the height of the skid shoes or wheels, as well as the top link. It is not recommended to use the floating link on two-stage snow blowers, as the top link should always be fixed to maintain even pressure on the wear blade.
• Set the snow blower on a level surface. Adjust the skid shoes so that they are even with the ground. Then extend the hydraulic top link to apply pressure to the skid shoes.
NB! The snow blower should scrape on the rear blade, not on the front of the side blades.

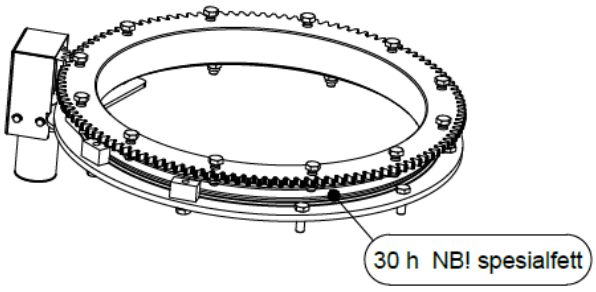
6 MAINTENANCE

6.1 Tightening
After a few hours of operation with a new snow blower, all bolt connections should be checked and tightened where necessary. This should then be checked regularly.

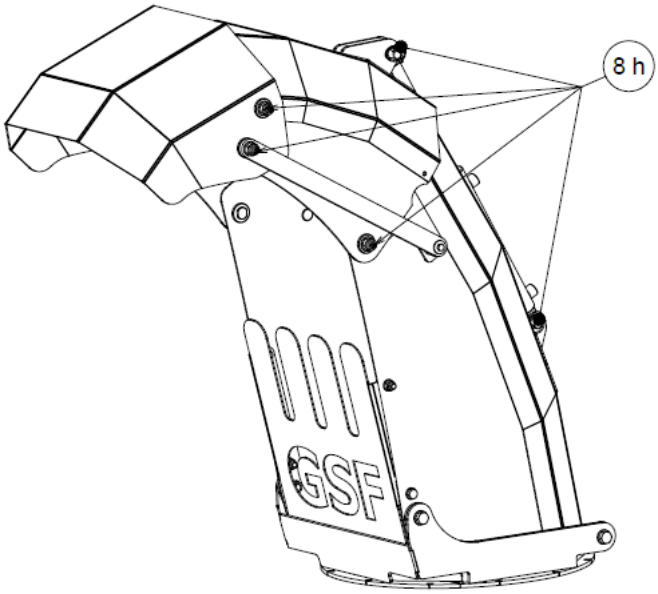
6.2 Replacing Wear Blades
The main blade is not reversible. The wear blades on the sides can be reversed, but they must be swapped to the opposite side.
When the wear blades are worn down on both sides, they must be replaced before the wear extends into the snow blower housing.
The wear blades are bolted with M16x40 lock bolts around the entire perimeter and are easy to replace.

6.3 Color Code
The color code for the paint is red RAL 3000.

6.4 Lubrication Points
1. Rotary Ring
   The rotary ring has a grease nipple and should be greased every 30 operating hours.
   Note! It is important to use special grease, Omega 66.



1. **Chute**
   The chute has 8 grease nipples and should be greased every 8 operating hours.
   Use universal grease, such as Statoil UniWay Li 712.



2. **Drive shaft**
   Gear oil *Statoil GearWay 80W-90* (Change after 50 hours of operation, then every 200 hours or annually). Quantity: 1.8 liters.

   Other lubrication points: Universal grease *Statoil UniWay Li 712.*

7 WARRANTY TERMS

7.1 What is covered by the warranty

1. The warranty covers the repair of defects and deficiencies in the product or components included in the product. This applies to faults that can be traced back to manufacturing or material defects.

7.2 What is not covered by the warranty

1. The warranty does not cover third-party costs/consequences or operational interruptions.
2. The warranty does not cover transportation of the product between the customer and the dealer for repairs.
3. The warranty does not cover wear parts, including the PTO shaft.
4. Underhaug does not cover damage caused by improper use or overloading beyond the product’s intended purpose.

7.3 Warranty duration

1. The warranty is valid for 12 months from the date of sale. The invoice date from the dealer to the customer serves as documentation of the sale date.
2. However, the warranty is limited to 24 months from the invoice date from Underhaug to the dealer.

7.4 Warranty conditions

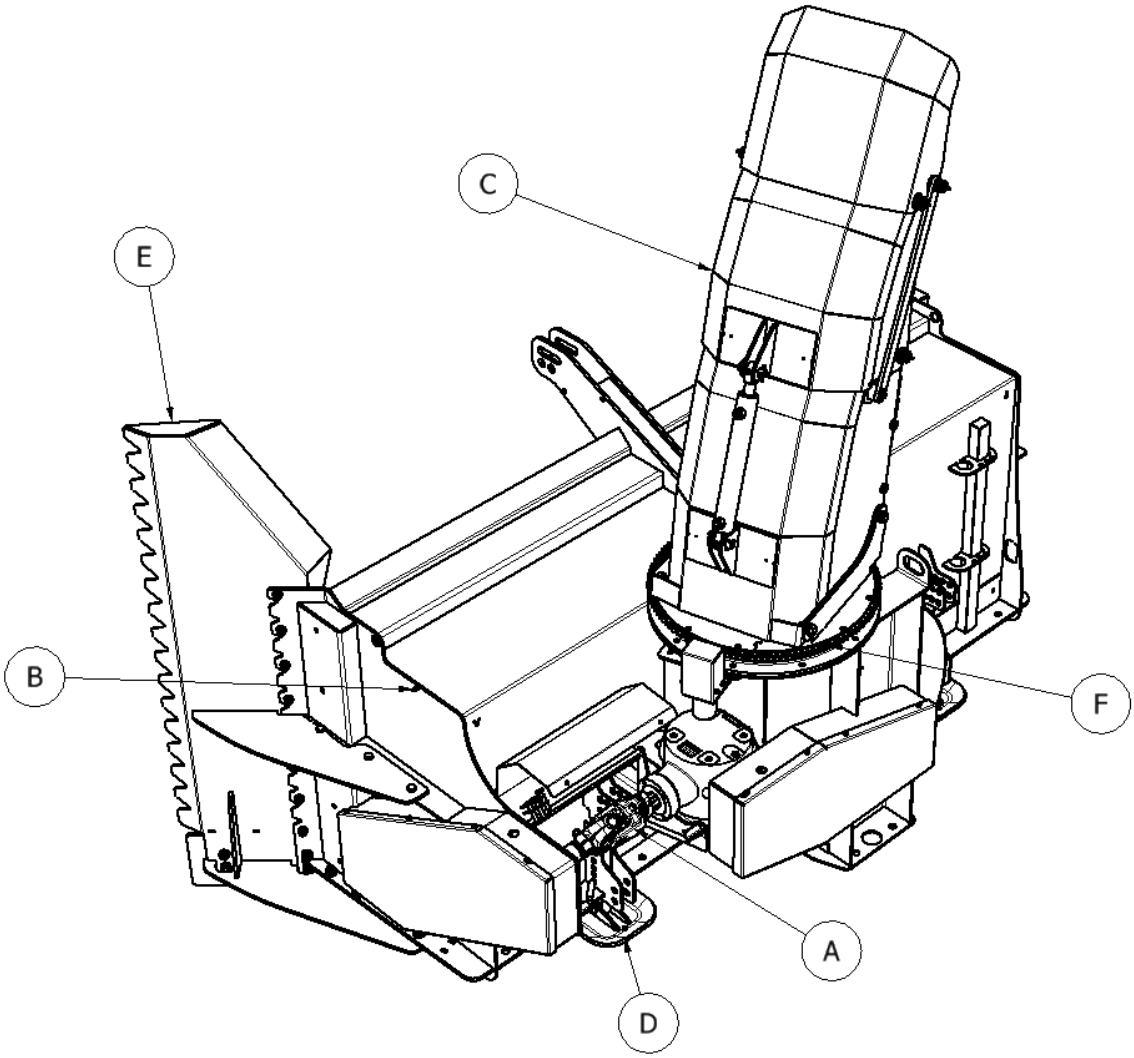
1. The warranty is invalid if defects or damage occur due to improper use or failure to follow the instructions in the user manual.
2. The warranty is invalid if the product is used for purposes other than those described in the user manual.
3. The warranty is invalid if non-original spare parts (including PTO shafts) are used, or if prescribed maintenance for the product is not followed.
4. The warranty requires that service intervals in the user manual are adhered to. The customer may be required to provide documentation of maintenance **performed.**

7.5 Extended warranty

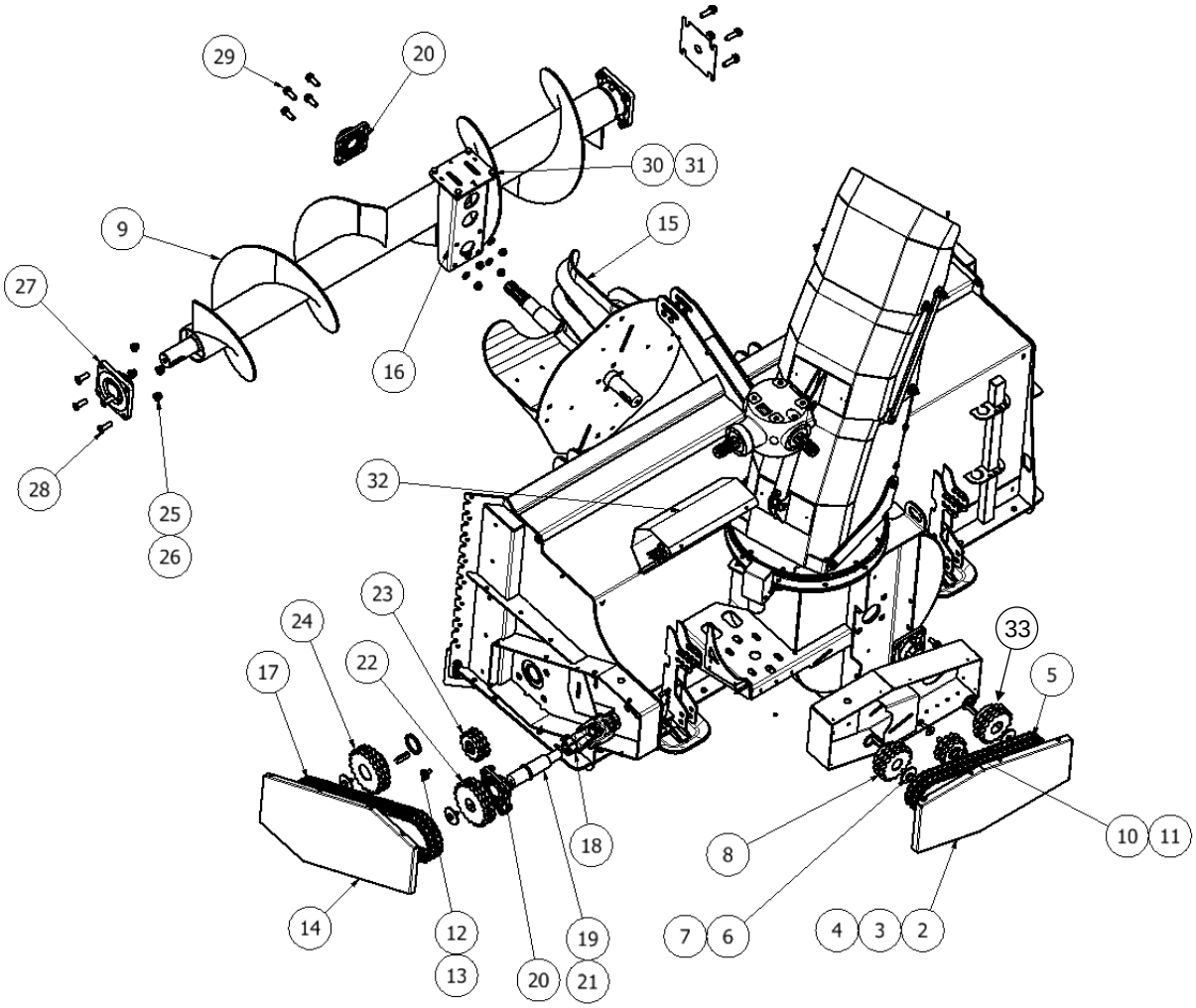
1. If the conditions mentioned in the following points are met, the product is covered by Underhaug's extended warranty for 3 years – 36 months from the date of sale. The invoice date from the dealer to the customer serves as documentation for the sale date.
2. The warranty is limited to 48 months from the invoice date from Underhaug to the dealer.
3. The product must adhere to the recommended service intervals from Underhaug. This applies to machines sold from 2020 onwards. A minimum of one service per year at the dealer is required. This should be completed before the season starts and no later than September 15.
4. The handover form must be submitted to Underhaug no later than 1 month after the delivery of the new product to the customer for the extended warranty to apply.

8 SPARE PARTS

8.1 Content

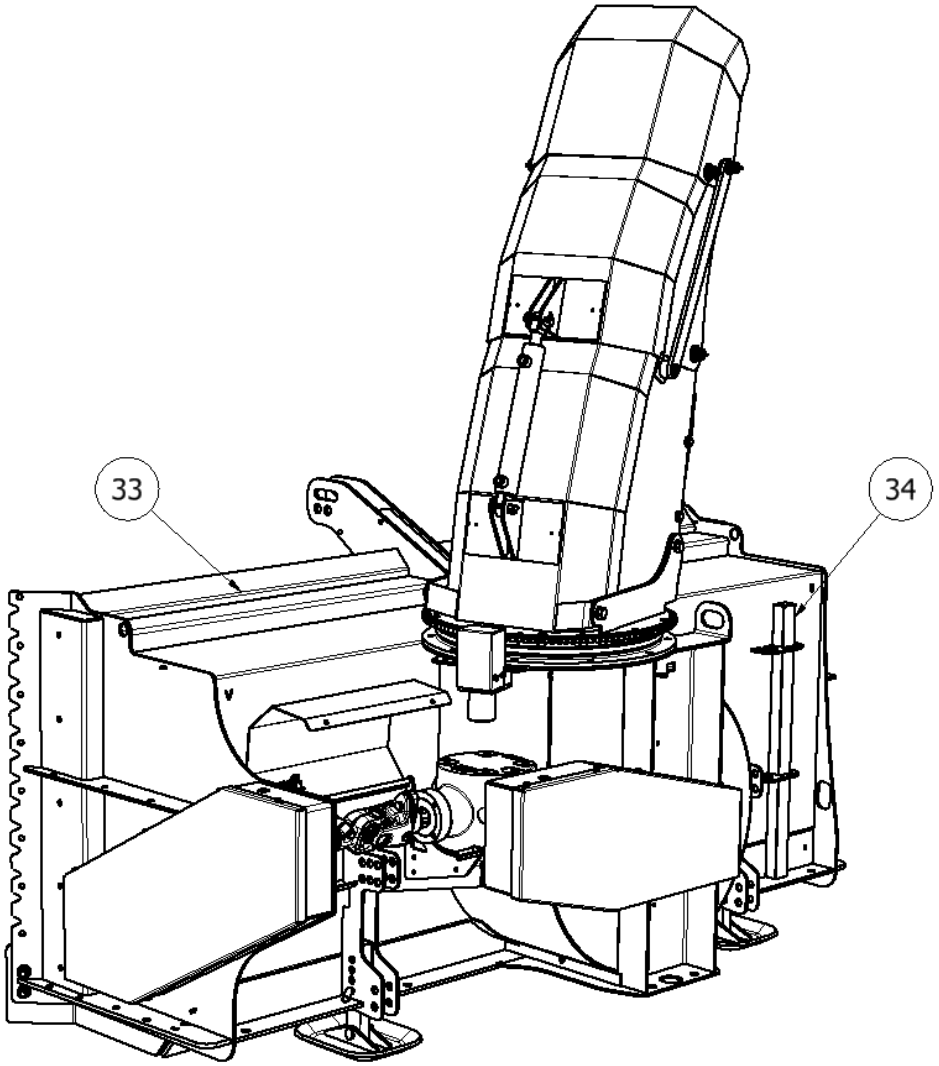


8.2 Screw, gir and fan



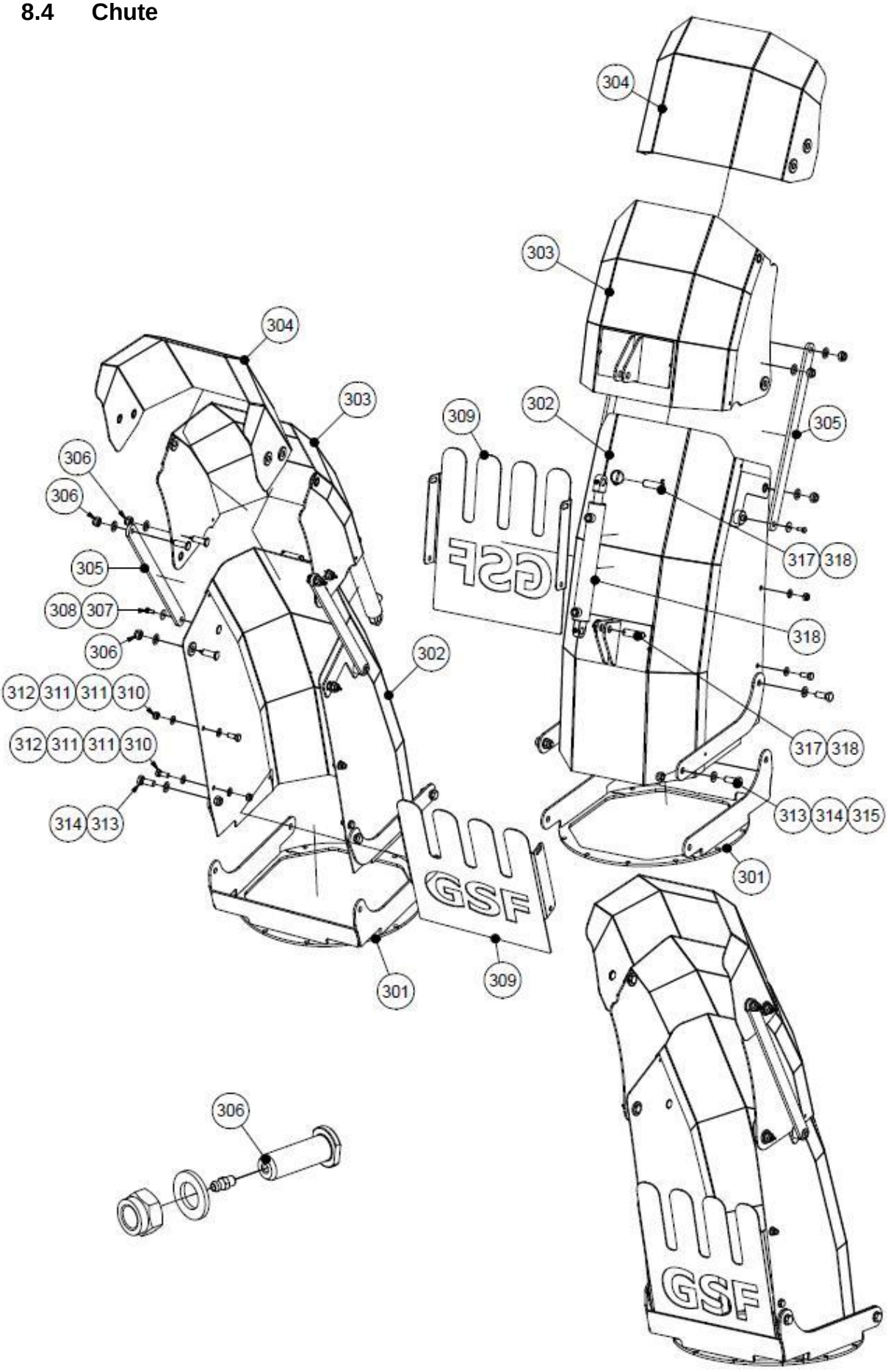
Kapittel 8.2 Screw, gir and fan			Serial no.		
POS:	**Art. no:**	**Description:**	**From**	**To**	**Add. info:**
1	124782	Gir box S2100	100	-	
2	140369	Rear cover	100	-	
3	032321	Screw M6x12	100	-	
4	012911	Washer Ø7	100	-	
5	125959	Rear chain cpl	100	-	
6	032735	Screw M16x30	100	-	
7	125940	Washer Ø17-Ø70 T-4	100	-	
8	125955	Pinion 1`` duplex 17T Ø45	100	-	
9	140199	InnmatAugererskrue	100	-	
10	125937	Rear chain tightener	100	-	
11	010753	Ball bearing	100	-	
12	033630	Screw M12x30	100	-	
13	012922	Washer DIN9021 M12	100	-	
14	125945	Side cover	100	-	
15	140330	Fan	100	-	
16	140331	Front housing bracket	100	-	
17	125962	Chain Duplex Side	100	-	
18	125948	Shear bolt coupling	100	-	
19	125875	Axle Share bolt coupling	100	-	
20	010567	Flange bearing FY50	100	-	
21	125886	Wedge	100	-	
22	125903	Pinion Z21 Ø50	100	-	
23	125931	Chain tightener side	100	-	
24	125902	Pinion Z21 Ø60	100	-	
25	016010	Nut M16	100	-	
26	012927	Washer M16	100	-	
27	011227	Flange bearing FY60	100	-	
28	015043	Lowering Hex. screw M16x50	100	-	
29	033745	Screw M16x45	100	-	
30	033635	Screw M12x35	100		
31	016008	Nut M12	100	-	
32	130120	Cover Shear bolt coupling	100	-	
33	125904	Chain wheel 1'' 17T DUPLEX Ø50	100	-	

8.3 Chassis



Kapittel 8.3 Chassis			Serial no.		
POS:	**Art. no:**	**Description:**	**From**	**To**	**Add. info:**
33	140166	Chassis welded and paintet	100	-	
34	930468	Clearing rod	100	-	

8.4 Chute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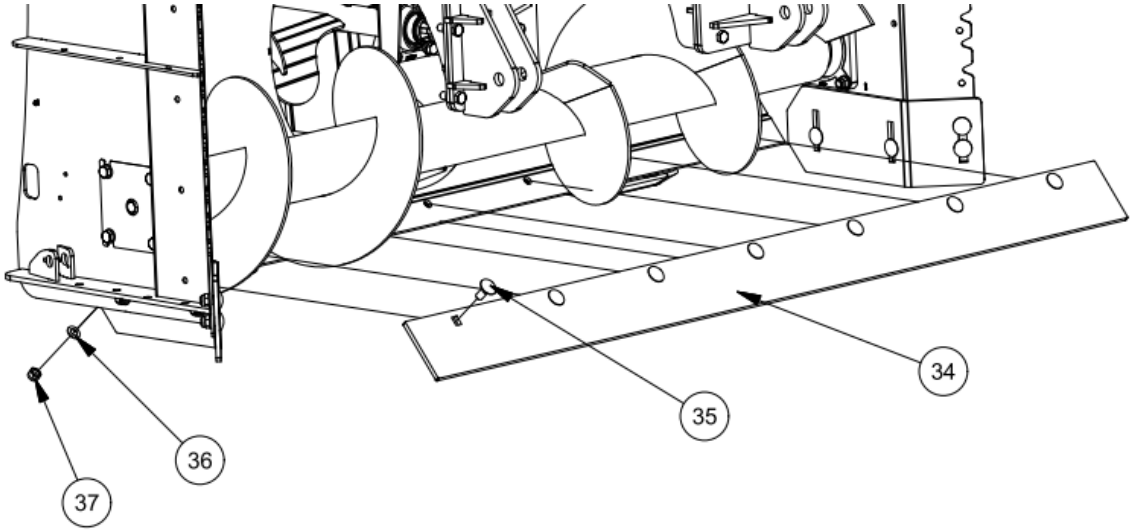
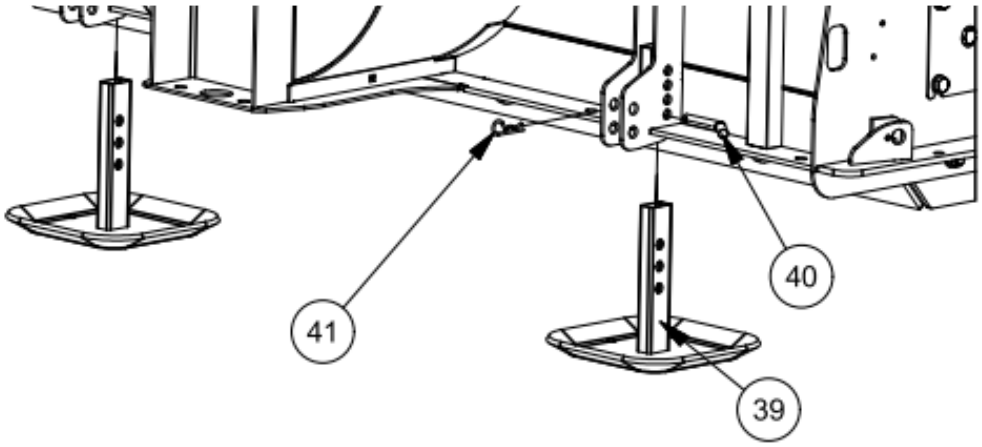
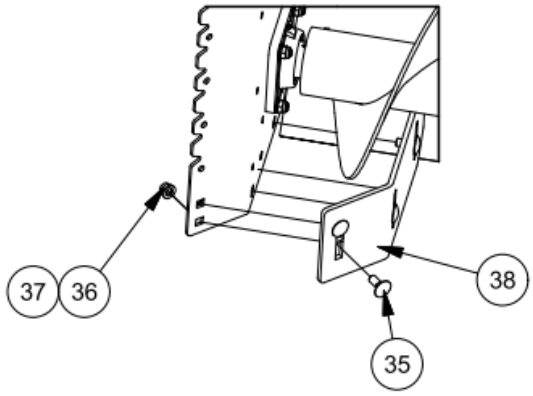
Kapittel 8.4 Chute cpl			Serial no.		
POS:	**Art. no:**	**Description:**	**From**	**To**	**Add. info:**
301	124171	Chute lower part near slewing ring 2011	100	-	
302	124176	Chute lower part 2011	100	-	
303	124181	Flap 1 chute 2011	100	-	
304	124184	Flap 2 chute 2011	100	-	
305	124187	Linkage transmission	100	-	
306	124954	Monting bolt chute cpl.	100	-	
307	033420	Screw M8x20	100	-	Glued
308	012904	Washer Ø8,4 DIN 9021	100	-	
309	124186	Safety cover	100	-	
310	016008	M12 Locking nut	100	-	
311	012919	Washer Ø13 DIN 125	100	-	
312	033625	Screw M12x25 DIN 933	100	-	
313	033735	Screw M16x35 DIN 933	100	-	
314	012927	Washer Ø17 DIN 125	100	-	
315	016010	M16 Locking nut	100	-	
316	930391	Bolt for cylinder	100	-	
317	010703	Spike pin	100	-	
318	127320	Cylinder cpl w/hoses	100	-	
318	124188	Adjustment rod, fixed	100	-	

8.5 Wear blade and wear shoes

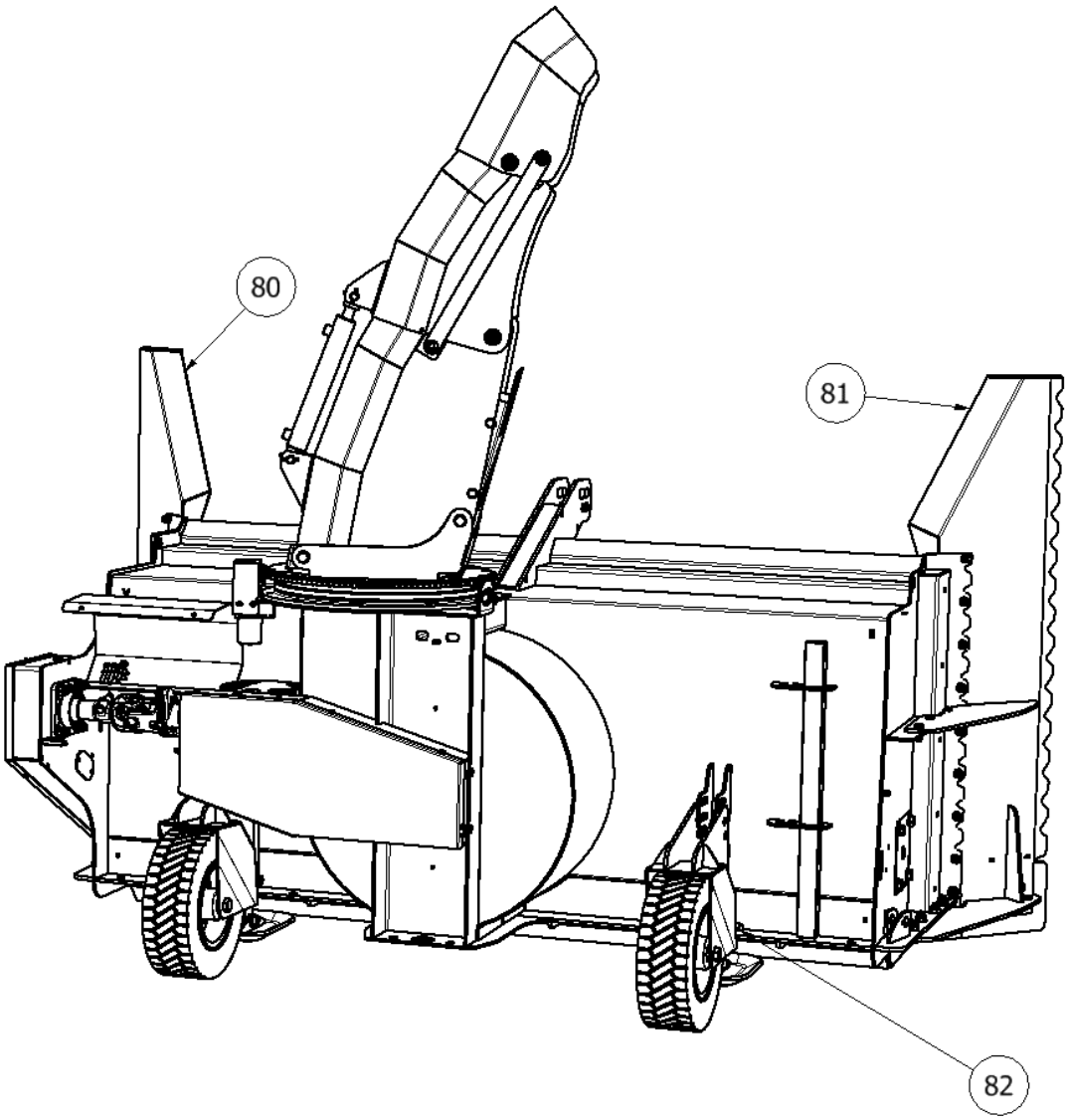


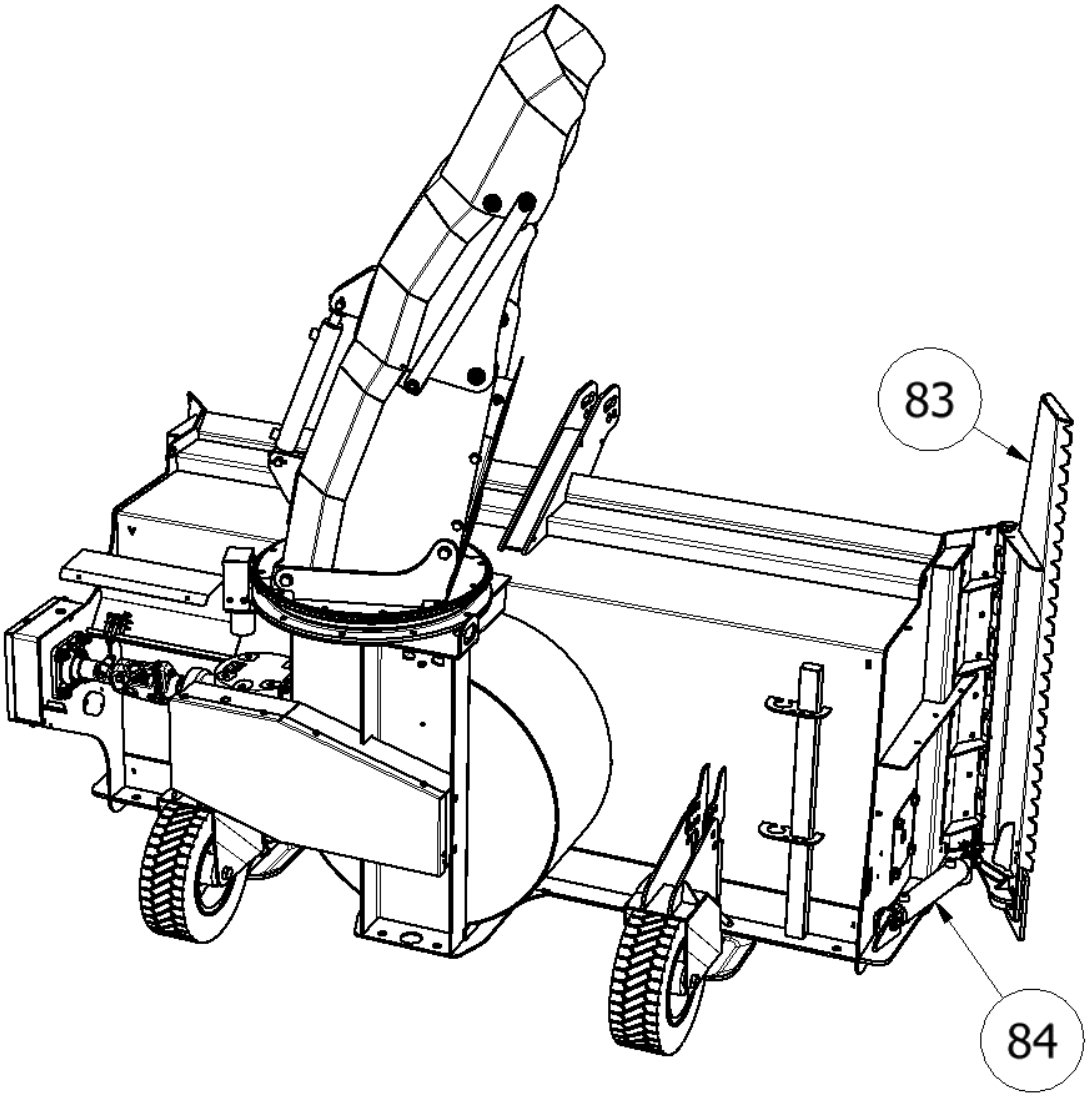




Kapittel 8.5	Wear blade and wear shoes	Serial no.		
POS:	**Art. no:**	**Description:**	**From**	**To**	**Add. info**
34	140368	Wear blade Main	100	-	
35	034840	Locking screw L-40	100	-	
36	012927	Washer Ø17	100	-	
37	016010	M16 Locking nut	100	-	
38	125909	Wearing blade R+L STD.	100	-	
39	124951	Wear shoe Large Rear	100	-	
40	970049	Ø16x142 Locking bolt	100	-	
41	029712	Spring splint single 4mm	100	-	

8.6 Additional Equipment

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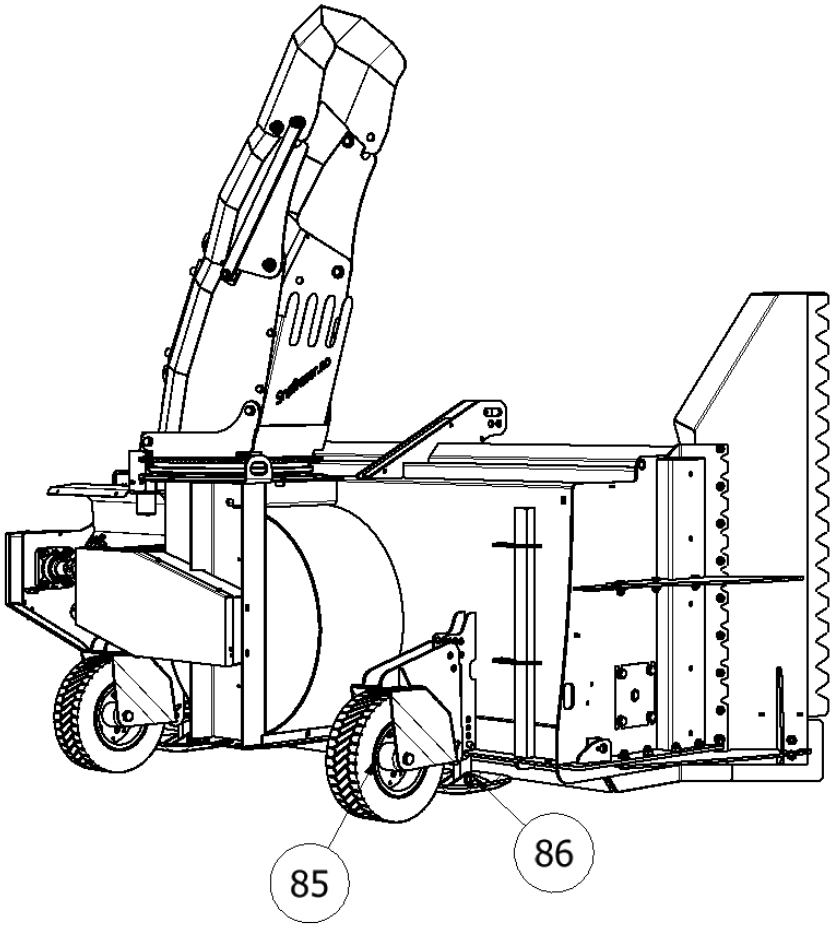
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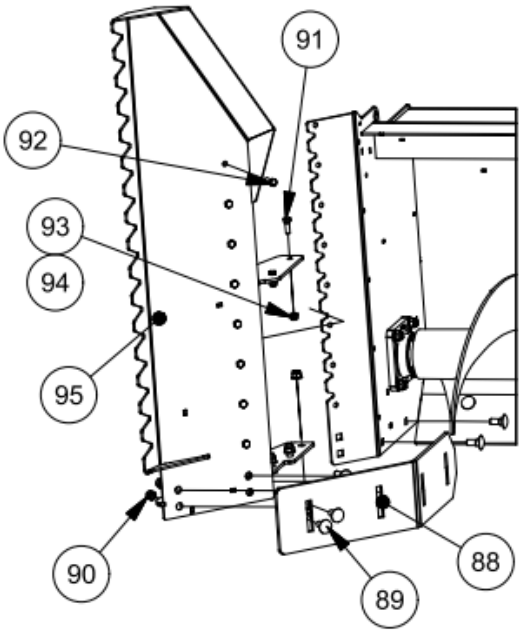
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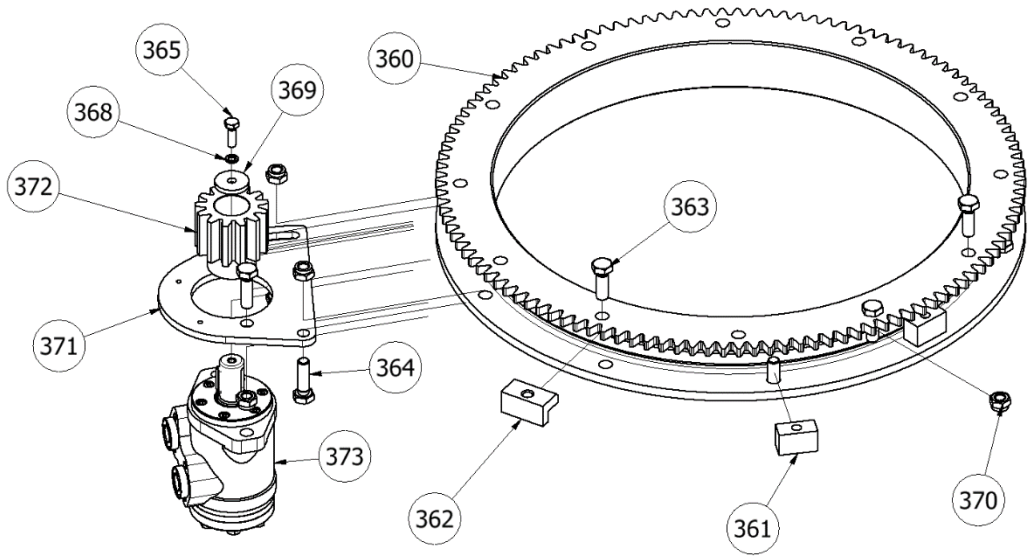
Kapittel 8.6 Additional equipment			Serial no.		
POS:	**Art. no:**	**Description:**	**From**	**To**	**Add. info:**
80	125988	Edge cutter L. cpl	100	-	
81	125964	Edge cutter R. cpl	100	-	
82	125963	Wheel set cpl	100	-	(2 stk.)
83	125834	Hydr. edge cutter R cpl	100	-	
84	125778	Cylinder Ø50730x200	100	-	
85	125963	Wheel set cpl	100	-	
86	010278	Bolt Ø19x86	100	-	
87	010700	Ring splint Ø11x45	100	-	
88	125973	Wear steel for edge wing	100	-	
89	034840	Locking screw M16x55	100	-	
90	016010	Locing nut M16	100	-	
91	033640	Screw M12x35	100	-	
92	033640	Screw M12x35	100		
93	016008	Locing nut M12	100	-	
94	012919	Washer Ø13	100	-	
95	125966	Edge cutter R. welded	100	-	

8.7 Slewing ringg



8.8 Slewing ring			Serial no.		
POS:	**Art. no:**	**Description:**	**From**	**To**	**Add. info:**
360	124804	Slewing ring			
361	123956	Brake lower part			
362	123955	Brake upper part			
363	033635	Screw M12x35 DIN 933			
364	033640	Screw M12x40 DIN 933			
365	033425	Screw M8x25 DIN 933			
368	012983	Locking washer 8mm			
369	140058	Washer for pinion			
370	016008	M12 Locking nut DIN 985			
371	130197	Engine bracket			
372	130565	Drive			
373	130196	Hydr.engine			
374	011517	Hydr. hose			Not illustrated

8.8 Maintenance schedule:

Date	Housing	Axle	Slew ring	Auger	Chute	Sign.

Annual <u>mandatory</u> inspection of the machine (according to the user manual).

Date:	Controller (approved)	Stamp/Signature

8.12 Notes

8.12 Notes

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