

GLOBUS



GSF 245-18

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. Please keep this manual and pass it along if you sell the product to others.

Underhaug manufactures a range of products such as: stone pickers, stone rakes, stone grabs, round bale forks, pallet forks, harrows, Cambridge rollers, crosskill rollers, snow blowers, excavator buckets, quick coupler systems, 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 become a satisfied Globus customer. To achieve this, we focus on quality and user-friendly products. In cooperation with our dealers, we aim to resolve any issues that may arise, and we guarantee delivery of spare parts for 10 years.

Underhaug is a forward-looking company, and we focus on continuous product development. We are eager to receive 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 improvements 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 product details listed at the bottom of this page. This will make it easier and faster to handle any potential product claims.

Kind regards,
Underhaug AS

PRODUCT INFORMATION

Article Number: (see type plate)	
Serial Number: (see type plate)	
Production Year: (see type plate)	
Purchase Date:	
Distributor:	

Underhaug AS
Rev. -
9-2023

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 GSF245-18***

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, august 20, 2021



Sales manager Arild Høien

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2 SAFETY

2.1 Instruction manual

Anyone using the Globus snow blower GSF 245-18 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 chute to avoid damage. Pay special attention when reversing to ensure no people or objects are harmed.

2.3 Crushing hazard, chute

If the chute becomes blocked with snow, always disengage the power take-off (PTO), stop the engine, and remove the key from the ignition before beginning the cleaning process. If necessary, the chute can be tilted down, and the included cleaning pin can be used. Never place your hands or feet into the chute opening to clear it.

Be aware of crushing hazards when tilting the chute back into position. The protective guard on the chute must always be mounted and in proper condition when the snow blower is in use.

2.4 Crushing hazard, 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 chute 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 Crushing hazard, PTO

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 chute. 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 labels

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.

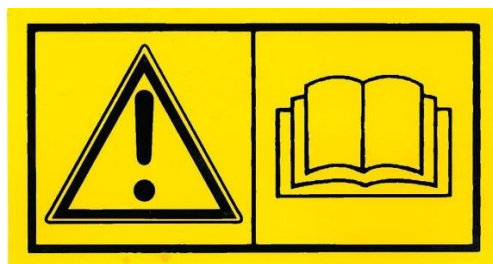
If the markings are removed from the snow blower, new ones can be provided by the manufacturer or dealer.



The machine is designed for 540 RPM.



Rotating parts.



Read the user manual.



Warning.



When performing repairs, always remove the key from the ignition.

2.9 Lifting points

The snow blower housing is equipped with three lifting points, marked with the symbol illustrated. Please note that a snow blower weighs approximately 820 kg. Therefore, always use straps designed for this total weight.



3 PRODUCT INFORMATION

3.1 Intended Use

The Globus GSF 245-18 is a robust and functional V-blower suitable for medium to large tractors from 70 hp to 170 hp. The blower is supplied with a fixed three-point hitch, adapted to current standards. The blower requires skilled operation, and the user manual should be read before connection and operation, even if you have prior experience with similar machines.

3.2 Construction and Features

The Globus GSF 245-18 has a symmetrical blower housing, meaning the blower has equally long side walls. The housing has a sharp V-shaped design, providing a sharp cutting angle against the ground, allowing easy snow intake.

On the fan shaft, there are 6 hardened and hinged auger blades equipped with lubrication nipples. The auger blades feed the snow into the fan, and the hinging ensures that the blades move aside for foreign objects, reducing the risk of damage to the blower.

The auger blades have two mounting holes for height adjustment. The blower will perform better in wet snow when the auger blades are as close to the ground as possible. However, users with a high arch on the road or worn wear plates may experience conflicts where the auger blade strikes the ground. In this case, the auger blades should be adjusted upward.

The discharge fan has a diameter of 85 cm and is designed to provide optimal throwing distance based on power requirements. The chute has a rounded shape, making the passage of snow easier. It is also equipped with a swivel motor and an adjustable deflector that ensures the snow can be directed in the desired direction. The chute is foldable for easy access during maintenance.

As optional equipment, side wings and hydraulic control of the deflector can be supplied.

3.3 Technical data

Model	GSF 245-18
Working width	245cm
Scraper width	226cm
Working width w/ cutting edge R	265cm
Working width w/ cutting edge L	285cm
Power requirements	100hk
Fan diameter	85cm
Weight	820kg

3.4 OPTIONAL EQUIPMENT

Available optional equipment for the Globus GSF 245-18 is listed below.

Art. no.	Description	Add. Info.
127320	Double-acting hydraulic deflector	For hydraulic control of the deflector
127971	Light set	Marker lights and strobe (LED)
128079	Edge cutter cpl L	20cm width
128078	Edge cutter cpl R	20cm width
127645	Grease plate R	Can only be used with the edge cutter
127686	Grease plate L	Can only be used with the edge cutter
127965	Side knife R	
127966	Side knife L	
124966	Splash guard	R + L side
124949	Wheel set	Compact wheel
127962	Toolbox	
126477	P.T.O shaft	

4 ASSEMBLY AND CONNECTION

4.1 Assembly

The blower is delivered fully ready for use unless otherwise agreed. (Note: The PTO shaft is adapted to the tractor.)

The GSF 245-18 comes standard with mounting holes that provide multiple options for adjusting the desired position of the deflector.

If the blower has been ordered with hydraulic control (127320), it will be delivered with this installed. The edge cutter can be supplied separately or mounted, depending on practical reasons such as shipping, etc.

4.2 Adjusting PTO shaft

Always use the PTO shaft supplied with the machine. It is adapted to the snow blower's power requirements and equipped with an 8.8 shear bolt for overload protection.

Some tractors have high-mounted PTOs, which increases the angle of the PTO shaft, reducing 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 blower on the tractor without the PTO shaft. Ensure there is enough clearance between the tractor and the blower in all lift positions, including when the top link is actively used.
2. Find the position where the distance between the spline pin on the blower and the tractor is shortest. Then, pull the PTO shaft apart and mount each half onto their respective profile pins with the tubes placed side by side.
3. Mark the tubes for cutting and allow for at least 15mm clearance at the ends.
4. Check the longest distance between the spline pins. If this is the working position, the profile tubes should still overlap by half of their length.
5. Once this is completed, the shaft can be cut. It is important to cut each tube equally. File off any burrs that could hinder sliding, clean the shaft, and lubricate the profile tubes with grease.
Mount the PTO shaft and carefully check the fit in all movements.

4.2 Connection

- Ensure that no one is between the tractor and the snow blower during connection.
- Back the tractor up to the snow blower and turn off the engine before attaching the drawbars to the three-point hitch. The tractor's stabilizing rods should be used to prevent uncontrolled side movements during operation.
- Connect the hydraulic hoses for the chute. Check that the hoses are tight and undamaged before using the hydraulic functions.
- Attach the PTO shaft to the blower first and secure the safety chain to prevent rotation of the protective cover. Make sure the protective covers are intact and replace them if damaged. Follow the instructions for adjusting the PTO shaft in section 4.2 and refer to the PTO shaft instruction manual for further details.

5 USER TIPS

5.1 Power Take-Off (P.T.O.)

The snow blower is designed for a PTO that provides 540 RPM. The forward speed and gear selection depend entirely on snow conditions and tractor type. The PTO should only be engaged at low engine speed.

5.2 Adjustment of working width/depth

The working width of 245 cm can be adjusted by mounting edge cutters (see technical data 3.3). The edge cutters for the right and left sides add approximately 20 cm in width, thereby increasing the blower's stated working width.

The depth of the blower is adjusted with the skid shoes, which can be raised or lowered. Another option is the wheels (see optional equipment 3.4), which can be adjusted continuously with a mechanical linkage.

5.3 User tips

- Prepare the road well in advance before the snow arrives by removing large stones and other foreign objects that may interfere with the blower during operation. If stones and other items enter the blower while operating, they may damage or destroy vital parts.
- Mark the roadside with snow markers if necessary and take note of the location of manhole covers.
- Equip the tractor with good chains or studded tires.
- Clear the entire width of the road at the first snowfall and create an even base. Do not wait until the snow depth becomes too large. Instead, make multiple passes.
- Choose a speed that ensures steady forward movement, as this makes the job easier.
- Do not force the blower to throw snow unnecessarily far. Lower the engine speed instead, as this makes the job easier and uses less diesel.
- If the snow blower clogs in wet snow, keep the engine speed up as you drive into the snow until the blower has emptied of snow.
- If the chute becomes blocked with snow, stop the fan before cleaning, disengage the PTO, and turn off the engine (see section 2.3). Loosen the two screws at the bottom of the chute and tilt the chute down. Use the clearing rod provided with the snow blower to clean it.
- If you are moving snow without throwing it out, the blower should be reversed a little before engaging the PTO.
- The chute is designed with a fold-down feature, allowing you to throw snow in front of the blower without stopping the fan, and then swing the chute back out once the obstruction is passed.
- To ensure the blower scrapes effectively, it is important to adjust the height of the skid shoes or wheels. Place the snow blower on a level surface and adjust the skid shoes and wheels to their highest setting. The blower will then rest all its weight on the wear plates, allowing for better scraping. Lowering the wheels or skid shoes will reduce wear on the wear plates but will make the scraping less effective.
- Regularly check that the top link is adjusted so that the snow blower sits level on the road surface. If the top link is adjusted too far in, the blower will tilt forward, causing excessive wear on the front edge of the wear plates. If the top link is adjusted too far out, the blower will lift at the front, causing unnecessary wear on the rear edge. If using a three-point hitch, it is recommended to operate with the top link in the floating position.

6 MAINTENANCE

6.1 Retightening

After 5 hours of operation with a new blower, all bolt connections should be checked and tightened where necessary. This should then be checked regularly.

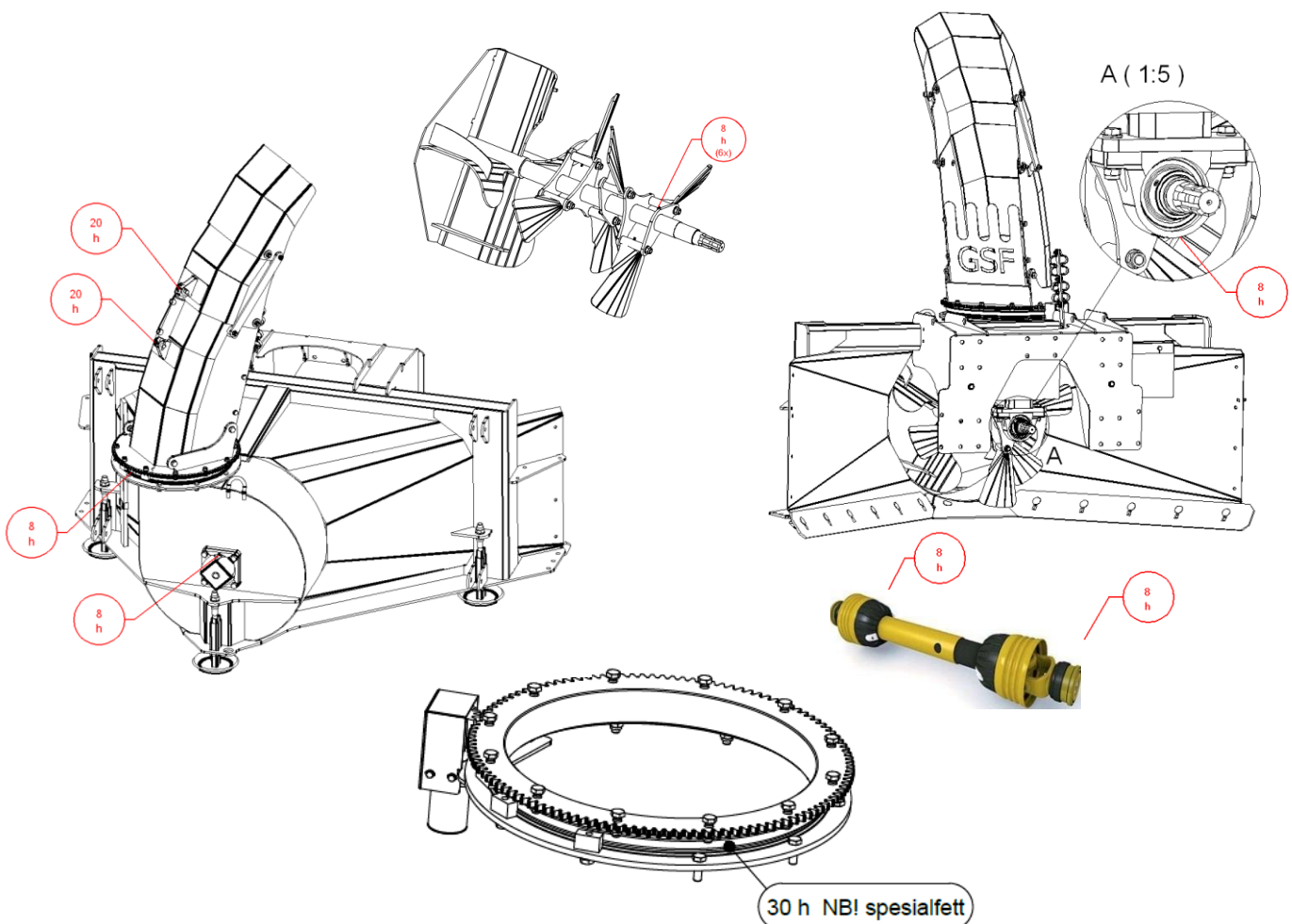
6.2 Lubrication points

- The snow blower is equipped with two ball bearings for the support of the fan shaft. The bearings are filled with grease and have built-in seals. Both are equipped with grease nipples and should be lubricated every 8 operating hours and when the snow blower is stored for the spring.
- The six auger blades in front of the fan have grease nipples. These should be lubricated with grease every 8 operating hours.
- The swivel ring has a grease nipple and should be lubricated with grease every 8 operating hours.

Note: It is important not to use universal grease on the swivel ring, as it requires special grease to prevent operational failure in extreme cold temperatures (Omega 66).

Be aware that too much grease can cause the swivel ring to move slowly in severe cold.

- The joints where the hydraulic deflector cylinder is mounted should be lubricated every 20 operating hours.
- The chute has grease nipples on the movable joints. These should be regularly lubricated with grease.
- The cross joints of the PTO shaft should be lubricated every 8 operating hours during use. Also, ensure that the tubes on the shaft are well lubricated.
- h = operating hours



6.2 Replace wear parts

Globus snow blowers are equipped with wear blades made of Hardox 500, which provide excellent wear resistance.

The wear blades are reversible on both the right and left sides, and replaceable under the fan housing. When the wear blades are worn down on both sides, they should be replaced before the wear reaches the blower housing.

The wear blades are bolted with M16x40 locking bolts all around and are easy to replace.

6.3 Color code

The paint color code is red RAL 3000.

7 WARRANTY

7.1 What is covered by the warranty

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

7.2 What is not covered by the warranty

1. The warranty does not cover third-party costs/consequences or operational downtime.
2. The warranty does not cover transportation of the product between the customer and the dealer for repairs.
3. The warranty does not cover consumable parts, including the PTO shaft.
4. Underhaug does not cover damage caused by incorrect use or load beyond what the product is designed for.

7.3 Warranty duration

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

7.4 Warranty conditions

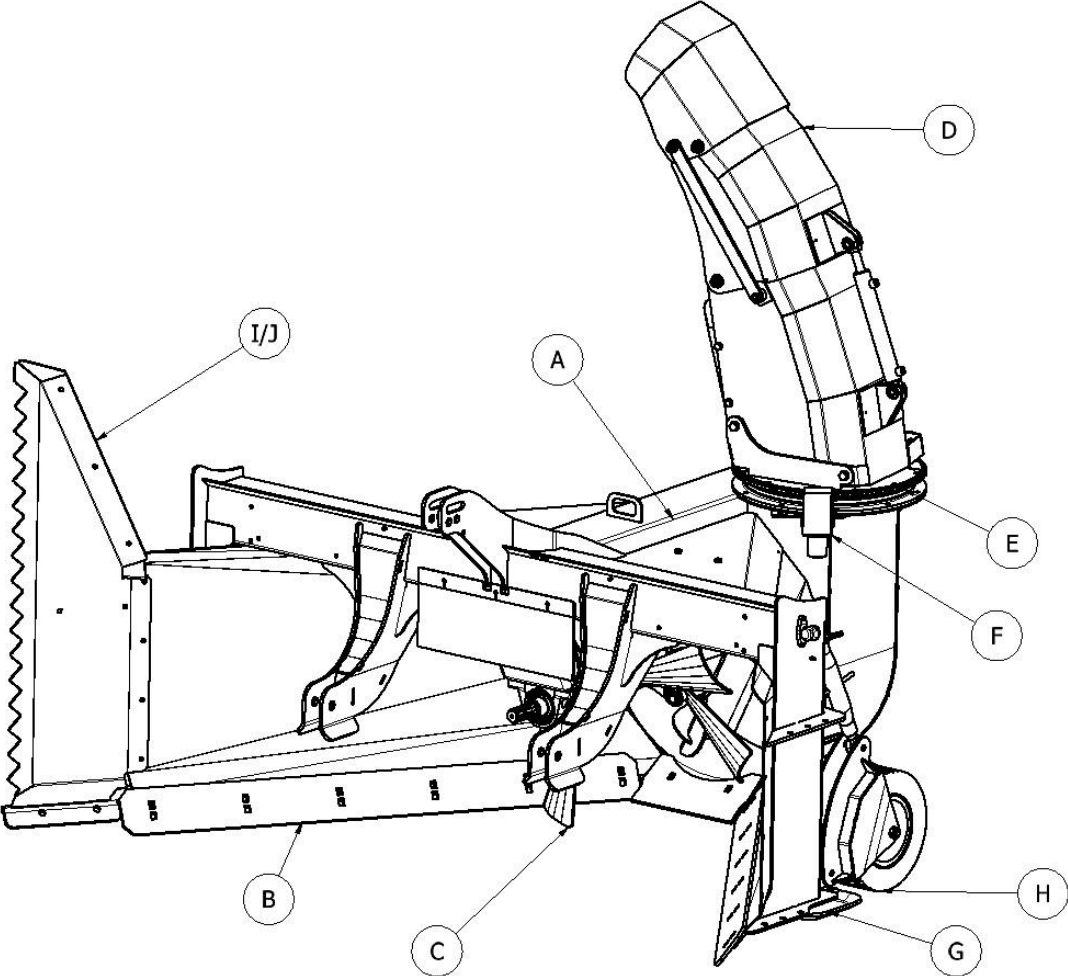
1. The warranty is invalid if defects or damage to the product occur due to incorrect use or if the instructions in the user manual are not followed.
2. The warranty is invalid if the product is used for purposes other than those described in the user manual.
3. The warranty is invalid if non-original spare parts (including the PTO shaft) are used or if prescribed maintenance for the product is not followed.
4. The warranty assumes that service intervals in the user manual have been followed. 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 sales date. The invoice date from the dealer to the customer serves as documentation for the sales date.
2. However, the warranty is limited to 48 months from the invoice date from Underhaug to the dealer.
3. The product must follow the recommended service intervals from Underhaug. This applies to machines sold from 2020. At least one service by the dealer is required each year. This service must be performed before the season and no later than September 15th.
4. The delivery form must be sent to Underhaug no later than 1 month after the delivery of the new product to the customer for the extended warranty to be valid.

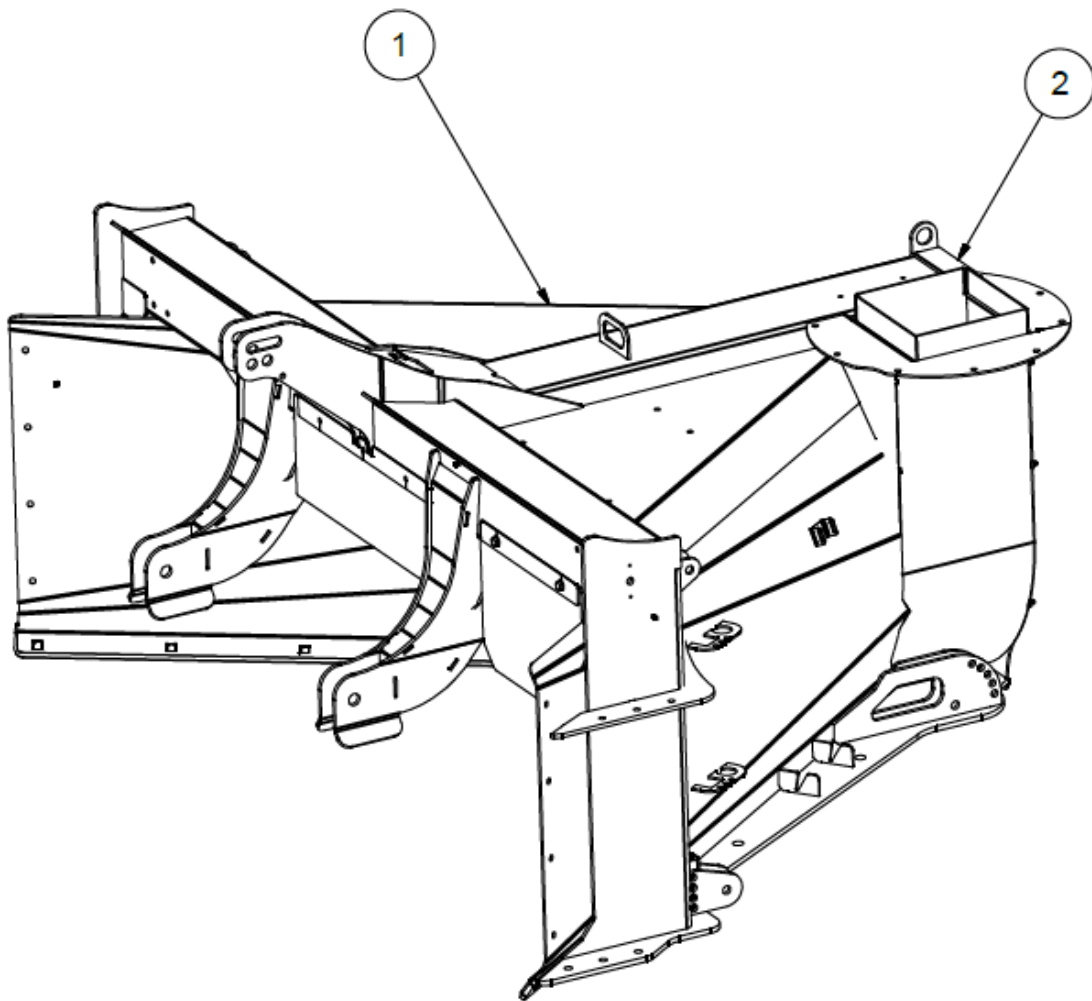
8 SPARE PARTS

8.1 Content



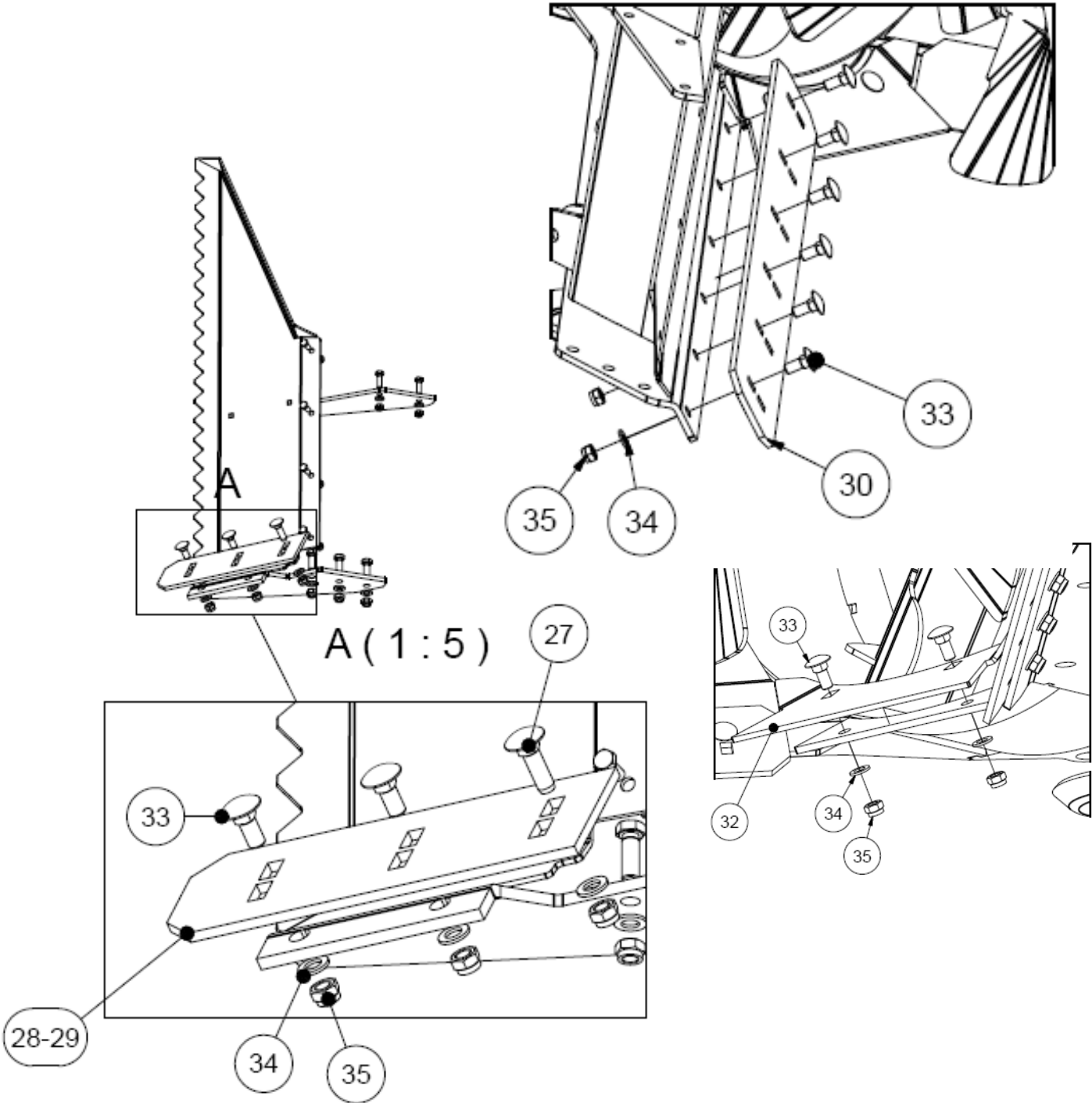
POS:	Description:	Chapter:	Page:
A	Chassis	2	15
B	Wear plate	3	16-17
C	Fan cpl	4	18-19
D	Chute cpl	5	20-21
E	Swivel ring cpl	6	22-23
F	Engine bracket cpl	6	22-23
G	Wear shoes	7	24
H	Wheel	8	25
I	Edge cutter R	9	26
J	Edge cutter L	9	26
	Lubrication schedule/annual inspection		27

8.2 Chassis



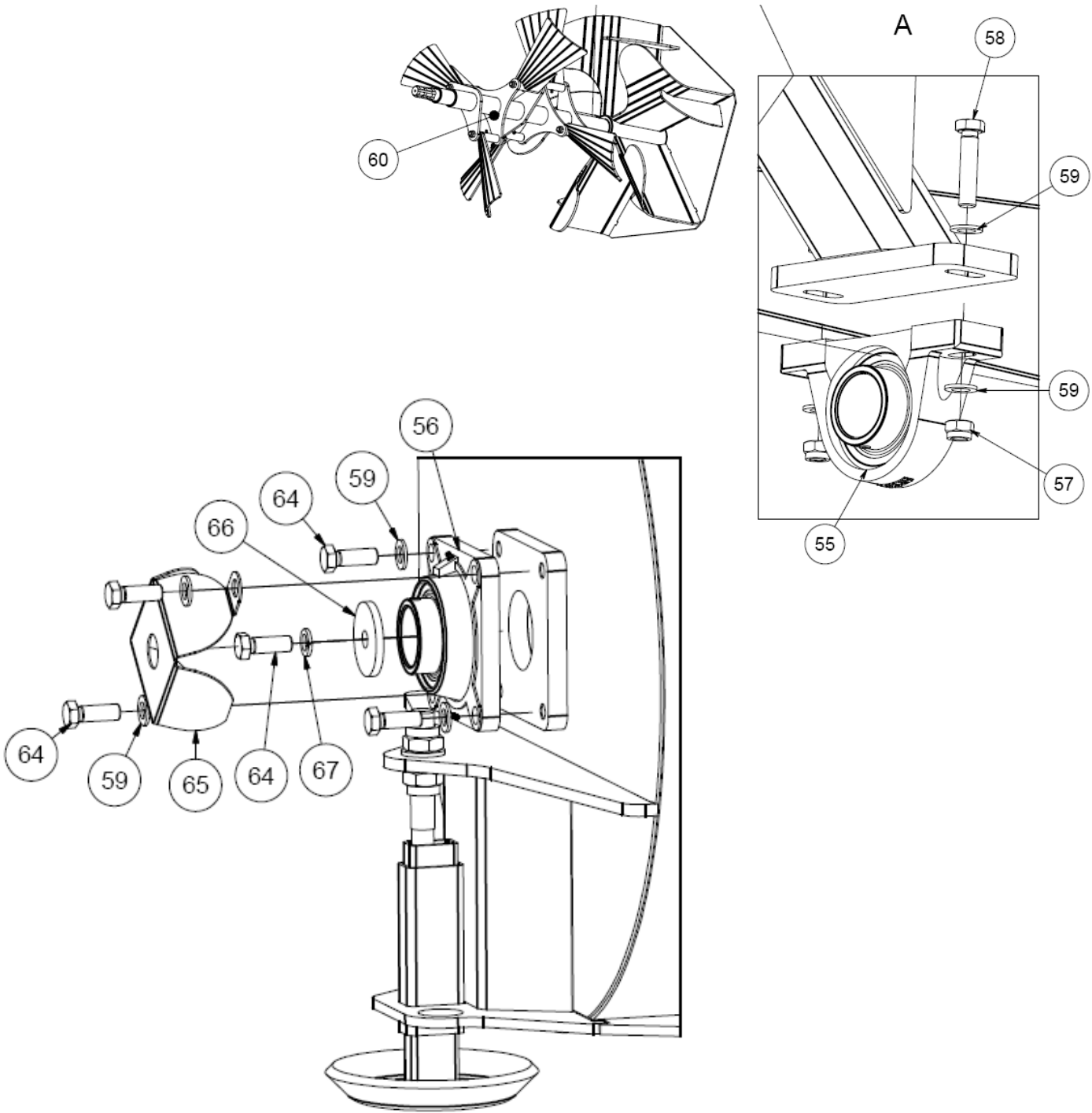
Pos	GSF 245-18	Name, type	Qty.	Serial no.	Note
1	127600	Chassis welded	1		
2	930468	Cleaning rod	1		

8.3 Wearing steel

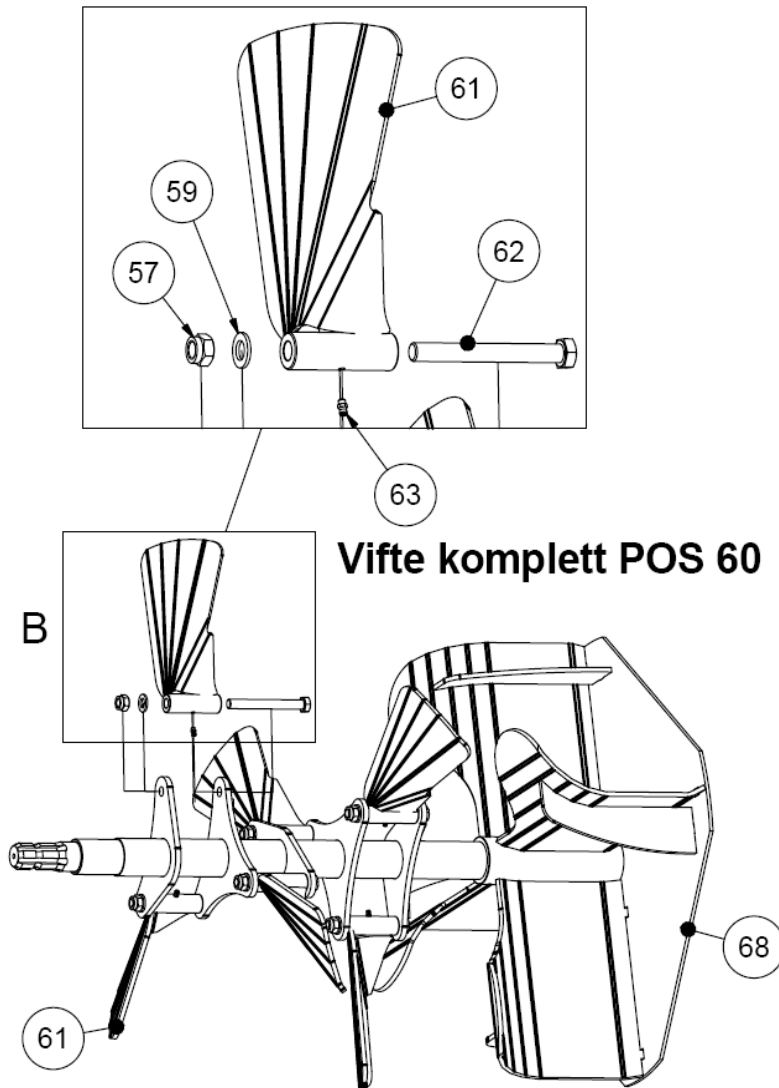


Pos	GSF 245-18	Name, type	Qty.	Serial no.	Note
27	034841	Locking screw M16x50	1		
28	127642	Waring blade edge cutter L	1		
29	127642	Wearing blade edge cutter R	1		
30	127623	Wearing blade R	1		
31	127623	Wearing blade L	1		
32	127622	Wearing blade auger blade	1		
33	034840	Locking screw M16x40	x		
34	012927	Washer \varnothing 17	x		
35	016010	M16 nut DIN 985	x		

8.4 Fan and bearing

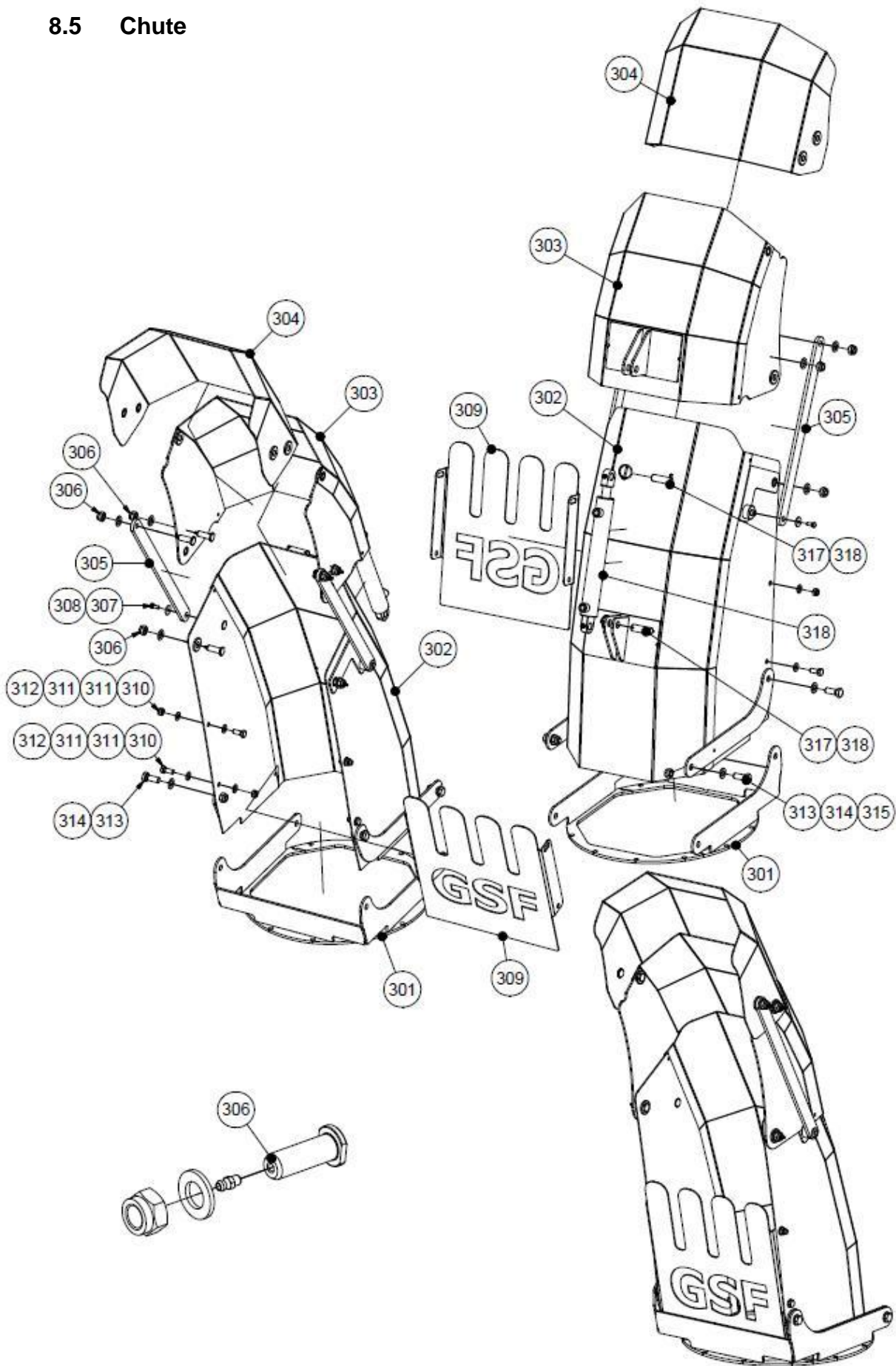


B (1 : 5)



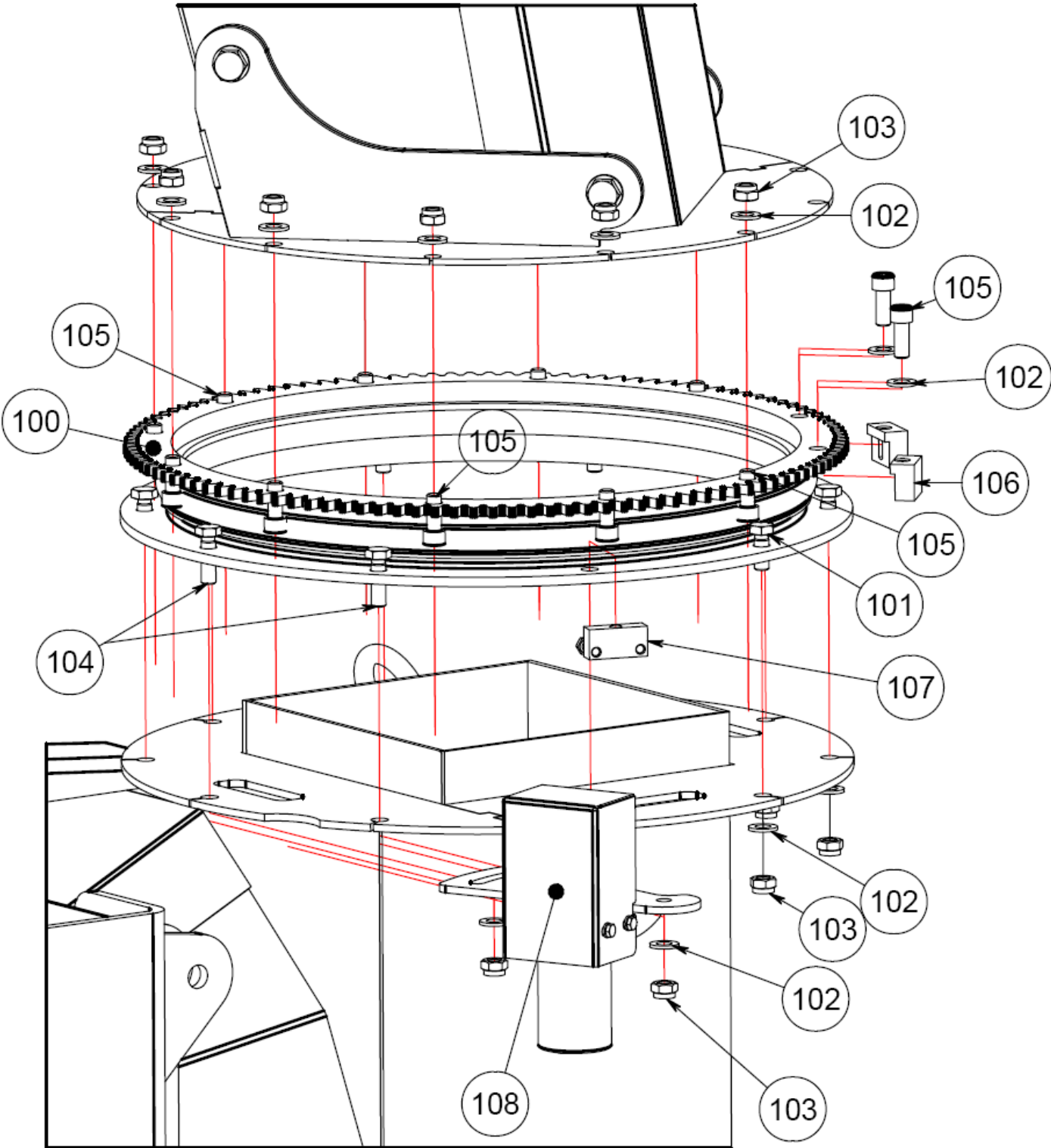
Pos	GSF 245-18	Name, type	Qty.	Serial no.	Note
55	011226	Foot bearing $\varnothing 60$	1		
56	011227	Flange bearing $\varnothing 60$	1		
57	016010	M16 nut DIN 985	X		
58	032770	Screw M16x70	2		
59	012927	Washer $\varnothing 17$	X		
60	127553	Fan cpl	1		w/auger
61	127625	Auger blade	6		
62	032713	Screw M16x180	6		
63	029918	Grease nipple M6 rett	6		
64	033745	Screw M16x45	5		
65	127555	Safety bearing cover	1		
66	930707	Locking washer for shaft	1		
67	012989	Retaining ring $\varnothing 17$	1		
68	127546	Fan welded	1		

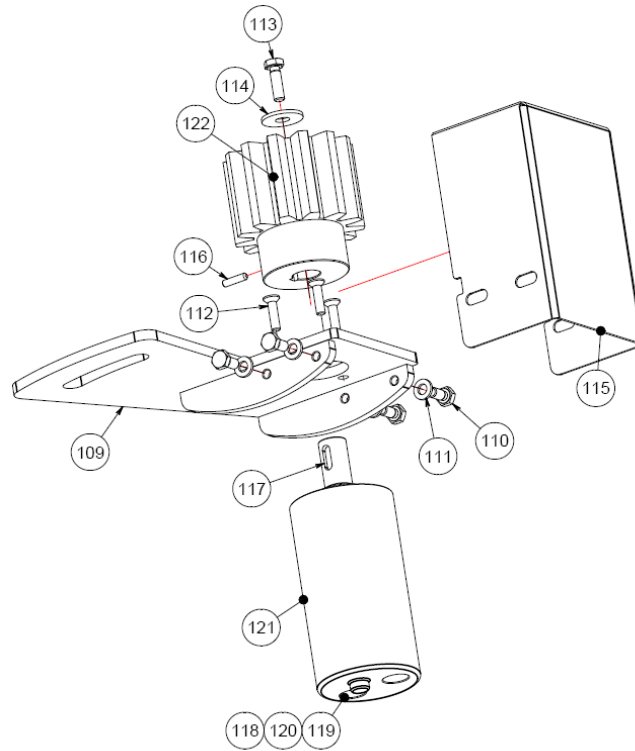
8.5 Chute



8.6 Chute			Serial no.		
POS:	Art. no:	Description:	From	To	Add. info:
301	124171	Lower part of the chute against the swivel ring 2011.			
302	124176	Chute lower part 2011			
303	124181	Flap 1 chute 2011			
304	124184	Flap 2 chute 2011			
305	124187	Linkager od for gearing			
306	124954	Moubting bolt chute cpl			
307	033420	Screw M8x20			Glued
308	012904	Washer Ø8,4 DIN 9021			
309	124186	Safety cover			
310	016008	M12 Locking nut			
311	012919	Washer Ø13 DIN 125			
312	033625	Screw M12x25 DIN 933			
313	033735	Screw M16x35 DIN 933			
314	012927	Washer Ø17 DIN 125			
315	016010	M16 Locking nut			
316	930391	Bolt for cylinder			
317	010703	Clevis pin			
318	127320	Cylinder cpl w/hoses			
318	124188	Adjusting pin fixed			

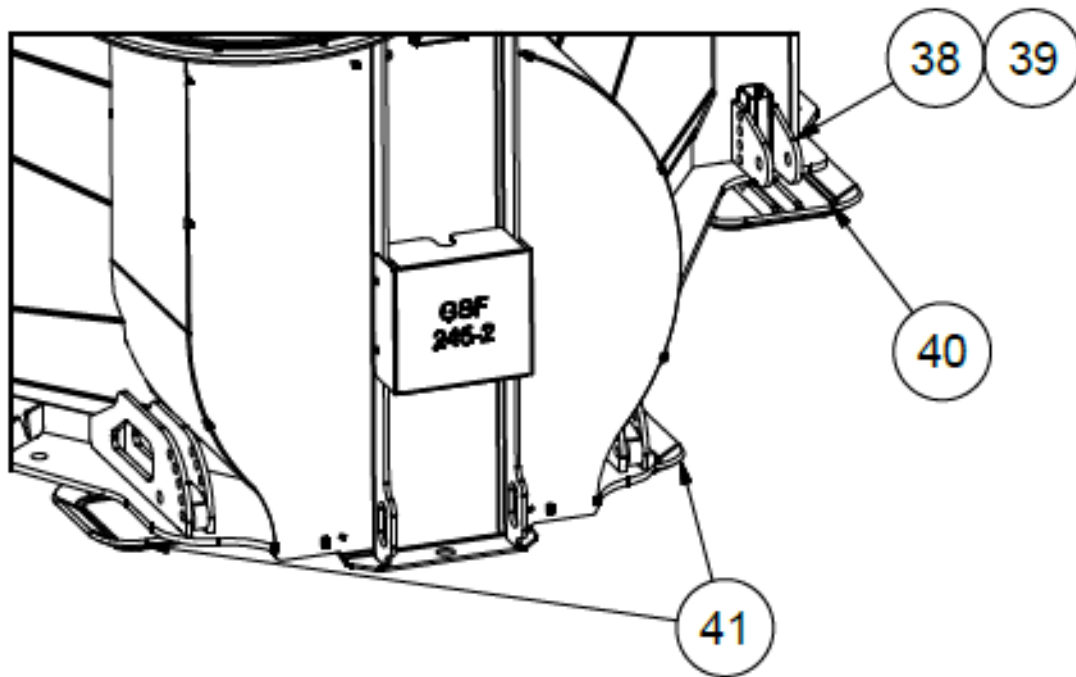
8.6 Swivel ring / engine





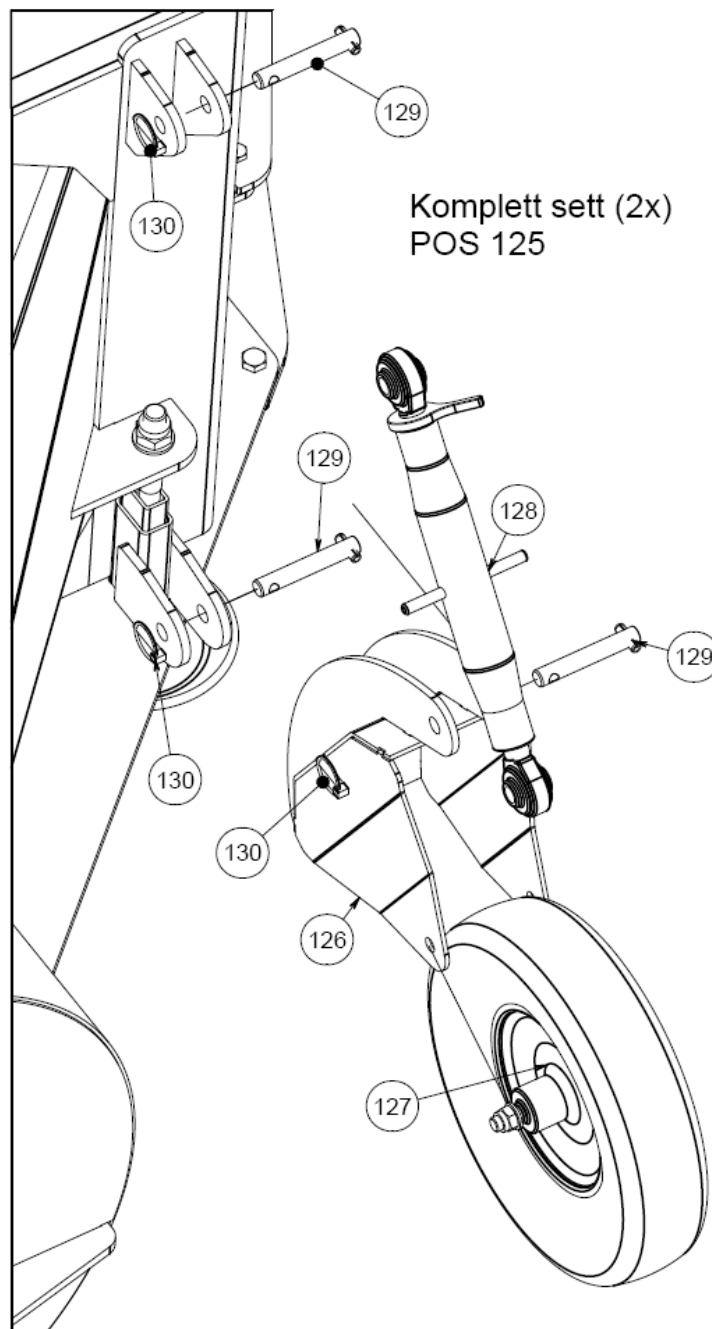
Pos	GSF 245-18	Name, type	Qty.	Serial no.	Note
100	124804	Swivel w/teeth	1		cpl w/brake
101	033630	Screw M12x30	8		
102	012919	Washer Ø13	22		
103	016008	M12 nut DIN 985	22		
104	033640	Screw M12x40	2		
105	802040	Screw M12x35 DIN 912	12		
106	127284	Upper brake	2		
107	127285	Lower brake	1		
108	124875	Engine bracket cpl	1		cpl w/engine
109	124874	Engine mount	1		
110	032320	Screw M6x20	4		
111	012911	Washer Ø6,4	4		
112	015027	Screw M5x20 Senk	3		
113	B06013	Screw M6x12	1		
114	012904	Washer Ø8 DIN 9021	1		
115	124876	Safety cover sprocket	1		
116	032119	M4x6 set screw	1		
117	930574	Wedge	1		
118	011517	Hydr. hose 1/4" BSP	2		not ill. ISO
119	011585	Gasket DBS 3/8"	2		not ill.
120	012292	Connecting nipple 3/8"-1/4"	2		not ill.
121	930371	Hydr. engine	1		
122	124859	Tannhjul M5	1		

8.7 Wear skids



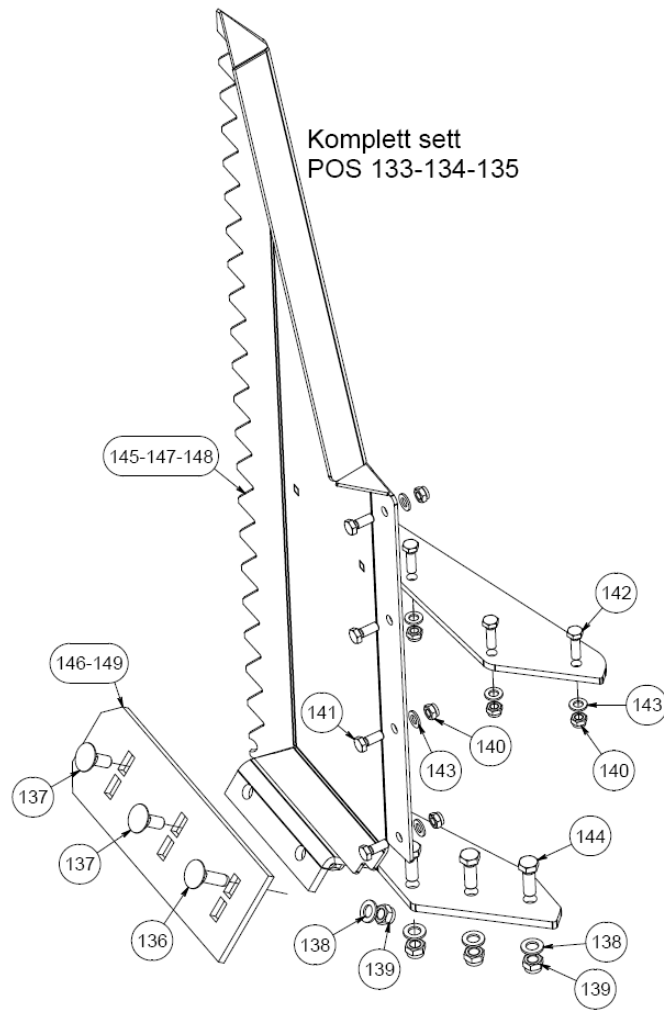
Pos	GSF 245-2	Name, type	Qty.	Serial no.	Note
38	970049	Bolt $\varnothing 16$	2		
39	029712	Cotter pin $\varnothing 4$	2		
40	126510	Front wear skids cpl	2		
41	126509	Rear skid plate	2		Deviates from pic.
41	130114	Rear wearskid cpl	2		

8.8 Wheel



Pos	GSF 245-18	Name, type	Qty.	Serial no.	Note
125	124949	Wheel set cpl	1		Set w/2 wheels
126	129945	Wheel frame	2		
127	125377	Wheel cpl w/bolt	2		
128	124871	Adjusting pin	2		
129	010278	Bolt	6		
130	010704	Ring splint	6		

8.9 Edge cutter



Pos	GSF 230-2	GSF 245-2	Name, type	Qty.	Serial no.	Note
133		128078	Edge cutter R. cpl	1		
134		128079	Edge cutter L.. cpl	1		
136		034841	Locking screw M16x50	1		
137		034840	Locking screw M16x40	2		
138		012928	Washer Ø17	6		
139		016010	M16 nut DIN 985	6		
140		016008	M12 nut DIN 985	10		
141		033635	Screw M12x35	4		
142		033640	Screw M12x40	3		
143		012922	Washer Ø13	12		
144		033745	Screw M16x45	3		
145		127637	Edge cutter R welded	1		
146		127642	Wear blade edge cutter R + L	1		
147		127683	Edge cutter L. welded	1		

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PRODUCER:

Underhaug AS
4365 Nærbø
N-NORWAY