

GLOBUS



GTF 235

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

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 235***

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

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2. SAFETY

2.1 User Manual

All users of the Globus Snowblower GTF 235 must familiarize themselves with the content of the user manual before using the machine.

2.2 Caution

Ensure that no one is in the snowblower's throwing area. Snow, ice, stones, and other foreign objects thrown from the blower can cause damage to people, vehicles, buildings, and other objects. Adjust the throwing distance and direction using the speed, deflector, and nozzle rotation to avoid injury.

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, discharge fan and auger

Ensure that no one is near the snowblower when it is in operation. When the augers and fan are rotating, they pose a significant pinching hazard that can lead to serious injuries or, in the worst case, fatalities. Never be inside the opening at the front of the blower or near the nozzle opening with the PTO engaged. Always disengage the PTO and ensure the fan/augers have stopped before leaving the tractor's driver seat.

2.5 Crushing hazard, Power Take-Off (PTO)

Make sure that the protective cover around the PTO is always in place and secured with the provided safety chains to prevent rotation during operation. Avoid staying near the PTO when the PTO is running. If clothing or similar gets caught in a rotating shaft, it can result in severe injuries or, in the worst case, fatalities. For more information about the use and safety of the PTO shaft, refer to the separate user manual included with this product.

2.6 Repairs

Before any maintenance or repair work is carried out on the snowblower, always ensure that the engine is turned off and the key is removed from the ignition, or that the snowblower is disconnected from the tractor. Never position yourself underneath machinery that is hanging from the tractor's hydraulics. Always ensure that the snowblower is mechanically supported properly before performing any work.

2.7 Hydraulic Pressure

The snowblower is equipped with hydraulics to operate the nozzle and the hydraulically operated side plates (if installed as optional equipment). Ensure that no one is near the machine when hydraulic functions are in use. Hydraulic oil under pressure can penetrate the skin and cause serious injuries and infections. Always wear eye protection/gloves and exercise caution when working with hydraulics. Seek medical attention if you sustain an injury.

2.8 Safety Labels

The Globus snowblowers are equipped with various warning labels that indicate actions that must be taken to avoid injuries and accidents. The symbols shown on the warning labels are placed at different locations on the machine.

These are depicted in the images below.

If the labels are removed or damaged, replacements can be obtained from the manufacturer or dealer.



The machine is designed for 540 RPM.



Rotating parts.



Read the user manual.



Warning.



Always remove the key from the ignition during repairs.

22.9 Lifting Points

The snow blower body is equipped with lifting eyes marked with the symbol as illustrated. Please note that the GTF 2550 and GTF 2750 weigh approximately 1650 kg and 1750 kg, respectively. Always use straps rated for this total weight.



3 PRODUCT INFORMATION

3.1 Application

The Globus GTF 235-18 is a two-stage snow blower suitable for tractors from 70 hp. The snow blower is supplied with a fixed 3-point hitch designed to meet applicable standards. The machine requires skilled operation, and the user manual should be read before connection and operation, even if you have experience with similar machines.

3.2 Power Requirements

The snow blower is designed for tractors from approximately 70 hp up to 125 hp. The drive system is dimensioned for a maximum power requirement of 125 hp, and it is very important that the shear bolts on the drive system are not altered from the original dimensions, as this could cause damage in case of overload.

Any warranty or claims will be void if damage or malfunction occurs as a result of this.

Read more about shear bolts in section 3.3.

3.3 Construction and Features

The Globus GTF 235-18 is designed to handle the most difficult snow conditions.

The blower is built on a robust main frame made of high-strength steel.

Auger

- The auger facilitates snow passage and increases the efficiency of the blower. The shaft of the auger is secured with a shear bolt in case of overload. The screw is made of standard 8.8 quality. 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 could damage the snow blower or shaft under load. See section 3.2 for details. Otherwise, refer to the separate user manual for the P.T.O. shaft.

Fan

- The fan has a diameter of 70 cm and is located at the center of the blower. Its design provides optimal throwing distance based on power requirements.

Discharge Chute

- The chute has a rounded shape, making snow passage smooth and efficient. Hydraulic swing and folding are standard, allowing the snow to be directed in the desired direction.

All screws on the moving parts of the chute are equipped with grease fittings to ensure a longer lifespan.

The chute is foldable, providing easy access for maintenance.

Replaceable Wear Blades

- The Globus GTF 235-18 is supplied as standard with replaceable wear blades made of Hardox 500. As an optional extra, perforated wear blades are available, which provide less slippery surfaces.

Skid Shoe Adjustment

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

Adjustable Wheels

- With a wheel set (optional), you can prevent the snow from becoming slippery after the tracks from the skid shoes, as well as simplify the work when clearing gravel roads. The wheels, sized 125/75-R8, feature continuous adjustment. If the wheel sinks into the snow, it works in combination with the skid shoe, providing support for the blower.

3.4 Technical data

Model	GTF 235
Working width	235cm
Working width w/ cutting edge R	255cm
Power requirement	70hp
Fan diameter	70cm
Weight PTO axle	30kg
Weight, approx.	820kg

3.5 Optional Equipment

Available additional equipment for the Globus GTF 235 is listed below.
Drawings and parts lists for each item can be found later in the manual.

Art.no.	Description	Additional info	
125964	Cutting edge cpl.R	150cm height / 20cm width	
127320	Hydraulic tilt	Complete w / hoses	
125963	Wheel set	Complete 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 disassembled or laid down.

The edge blades are delivered unassembled for self-assembly unless otherwise agreed. If the edge blades need to be installed, refer to the parts list for detailed drawings.

4.2 Adjusting P.T.O. Shaft

Always use the power take-off (PTO) shaft supplied with the machine. It is designed to match the snow blower's power requirements and is equipped with a 12mm 8.8 shear bolt for overload protection.

Note! It is extremely important that the PTO shaft is properly adapted to the tractor/snow blower. If this is not done, it could cause significant damage to both the tractor and/or the snow blower's gearbox.

Some tractors have high-mounted PTOs, which increase the angle of the PTO shaft and reduce the shaft's lifespan. The angle should be as small as possible and ideally not exceed 25 degrees.

The following procedure is recommended to properly adjust the shaft:

1. Mount the snow blower on the tractor without the PTO shaft. Ensure there is sufficient clearance between the tractor and the snow blower at all lift heights, including when the top link is actively used.
2. Find the position where the distance between the spline pin on the snow blower and the tractor is shortest. Then, pull the PTO shaft apart and mount it on each profile pin with the tubes placed next to each other.
3. Mark the tubes for cutting and ensure 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 the tube length.
5. Once this is complete, the PTO shaft can be cut. It is important to cut both tubes equally. File off any burrs that could prevent smooth movement, clean, and grease the profile tubes.

Mount the PTO shaft and carefully check the adjustment in all movements.

4.3 Connection

- Ensure no one is between the tractor and the snow blower during the connection process.
- Back the tractor up to the snow blower and stop the engine before attaching the drawbars to the 3-point hitch. The tractor's stabilization rods should be used to prevent uncontrolled side movements during operation.
- Attach 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 snow blower (direction indicated on the shaft) and secure the safety chain to prevent rotation of the guard cover. Ensure that 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 power take-off that provides 540 rpm. Forward speed and gear selection depend entirely on snow conditions and tractor type. The P.T.O. should only be engaged at low engine speed.

5.2 Adjustment of working width/depth

The working width of 235 cm can be adjusted by installing edge blades (see technical data 3.3). The depth of the blower is adjusted using the skid shoes, which have multiple settings to find the desired height. The wheels (see accessories 3.4) can be continuously adjusted with a mechanical link. The top link is used to adjust the angle of the snow blower.

5.3 User tips

- Prepare the road well in advance of snowfalls by removing large stones and other foreign objects that could interfere with the blower. If stones or other debris enter the blower during operation, they can damage or destroy vital parts.
- Mark the road edge with snow markers if necessary and note the placement of manhole covers.
- Equip the tractor with good chains or studded tires.
- Clear the entire road width during the first snowfall and create a smooth base. Do not wait until the snow depth becomes too large; rather, clear the snow several times.
- Choose a speed that ensures steady forward movement for easiest operation.
- Do not exert unnecessary effort to throw the snow too far. Instead, reduce engine speed, which will make the job easier and save fuel.
- If the snow blower becomes clogged with wet snow, keep the engine speed up when driving into the snow and until the snow blower is cleared of snow.
- If the chute becomes blocked with snow, stop the fan before cleaning and ensure the P.T.O. is disengaged or the engine is stopped. Loosen the two screws at the bottom of the chute and tilt the chute down. Use the clearing rod that comes with the snow blower to clean it.
- When pulling snow without throwing it, it is best to reverse the blower a little before engaging the P.T.O.
- The chute is designed with a folding feature, allowing the snow to be thrown in front of the blower without stopping the fan, and then the chute can be swung back out once the obstacle is passed.
- To ensure the blower scrapes well, 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 float link on a two-stage snow blower, as the top link should always remain fixed to maintain even pressure on the wear blades.
- Place the snow blower on a flat surface. Adjust the skid shoes so they are level with the ground. Then extend the hydraulic top link to apply pressure on the skid shoes. Note! The blower should scrape the rear blade, not the front side blades.

6. MAINTENANCE

6.1 Retightening

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

6.2 Replacing wear parts

The main blade is reversible. The side wear blades can also be turned, requiring you to switch sides on them.

When the wear blades are worn down on both sides, they must be replaced before the wear extends to the blower housing.

The wear blades are bolted with M16x50 lock bolts, making them easy to replace.

6.3 Color code

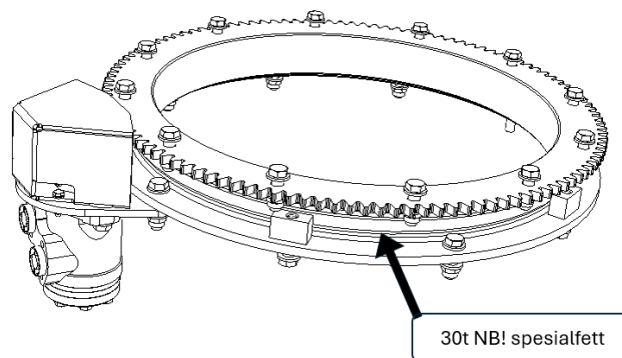
The paint color code is RAL 3000.

6.4 Lubrication points

1. Swivel ring

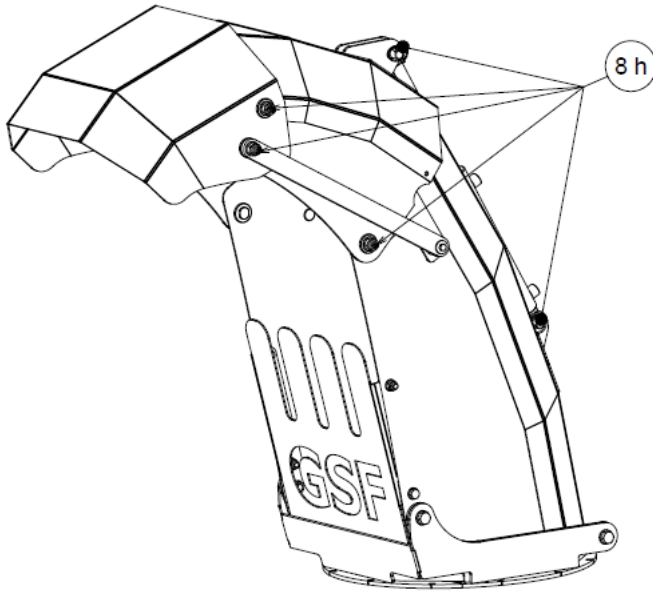
The swivel ring has one grease nipple and should be lubricated every 30 operating hours.

Note! It is important to use Omega 66 special grease or equivalent. This is due to its excellent properties at low temperatures, which is required for the swivel ring.



2. Chute

The chute has 8 grease nipples and should be lubricated every 8 operating hours. Use universal grease, such as Statoil Uniway Li 62.



3. Drive system

Use 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.

First time after 20h, afterwards every 500 hours

7 WARRANTY TERMS

7.1 What is covered by the warranty

1. The warranty covers the repair of defects and faults in the product or its components. This includes 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 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 wear parts, including the PTO shaft.
4. Underhaug does not cover damage caused by misuse or overload beyond the product's intended use.

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 for 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

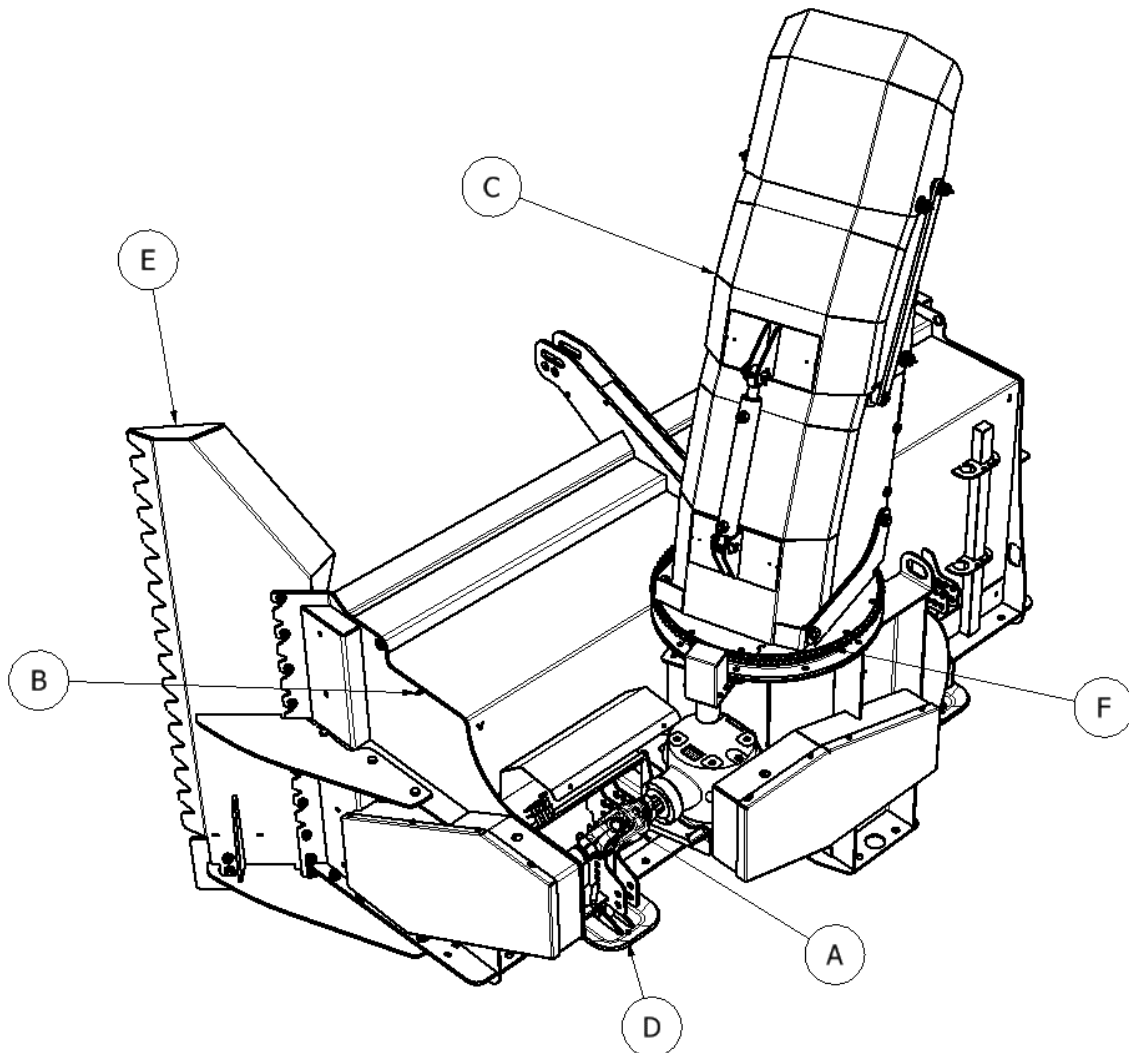
1. The warranty is void if the product is damaged due to improper use or failure to follow the instructions in the user manual.
2. The warranty is void if the product is used for purposes other than those described in the user manual.
3. The warranty is void if non-original spare parts (including the PTO shaft) are used or if the prescribed maintenance has not been followed.
4. The warranty assumes that the service intervals outlined in the user manual have been followed. The customer may be required to provide documentation of performed maintenance.

7.5 Extended warranty

1. As long as the conditions mentioned in the points below are met, the product is covered by Underhaug's extended warranty for 3 years – 36 months from the sale date. The invoice date from the dealer to the customer serves as documentation for the sale date.
2. However, 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. At least one service must be performed at the dealer every year. This service must be carried out before the season, and no later than September 15th.
4. The handover form must be sent to Underhaug no later than one month after the new product is delivered to the customer for the extended warranty to apply.

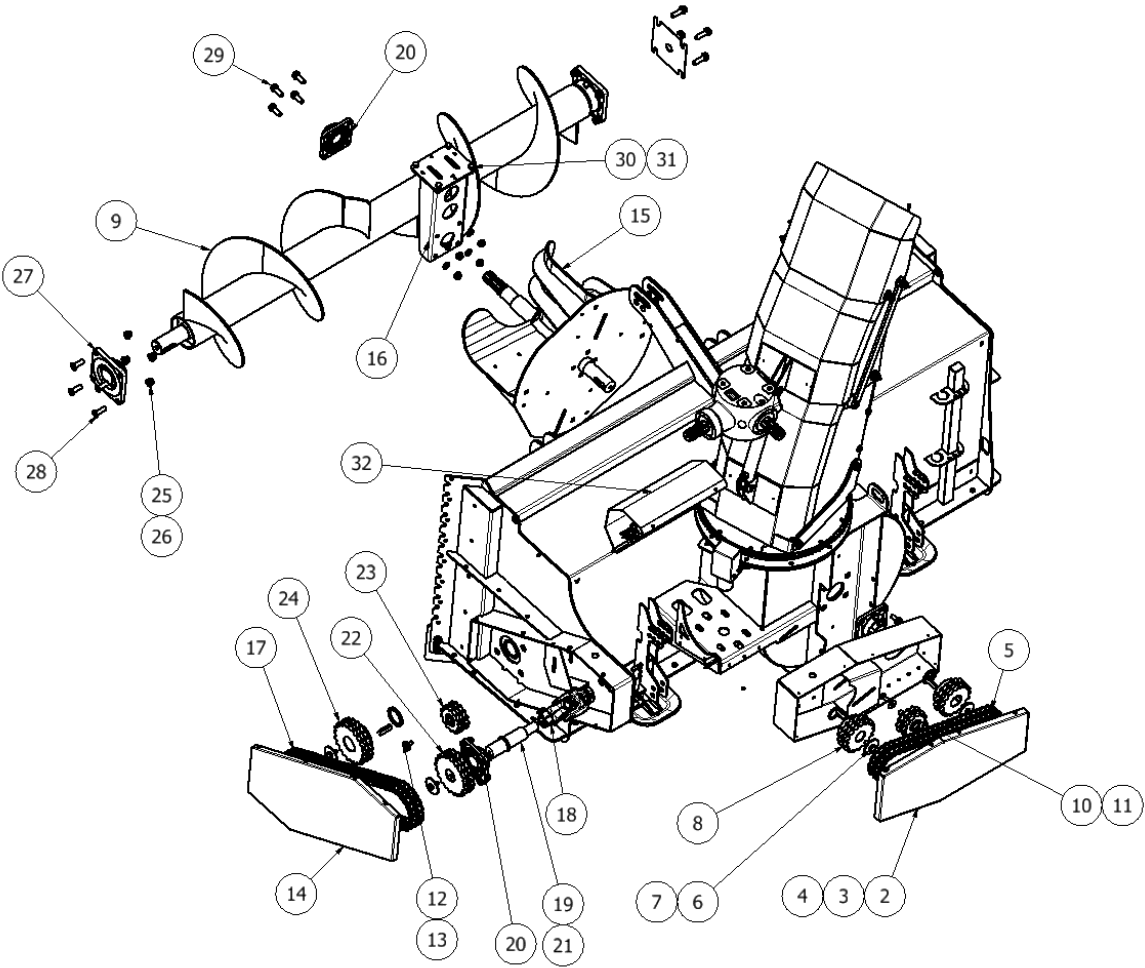
8 SPARE PARTS

8.1 Contents



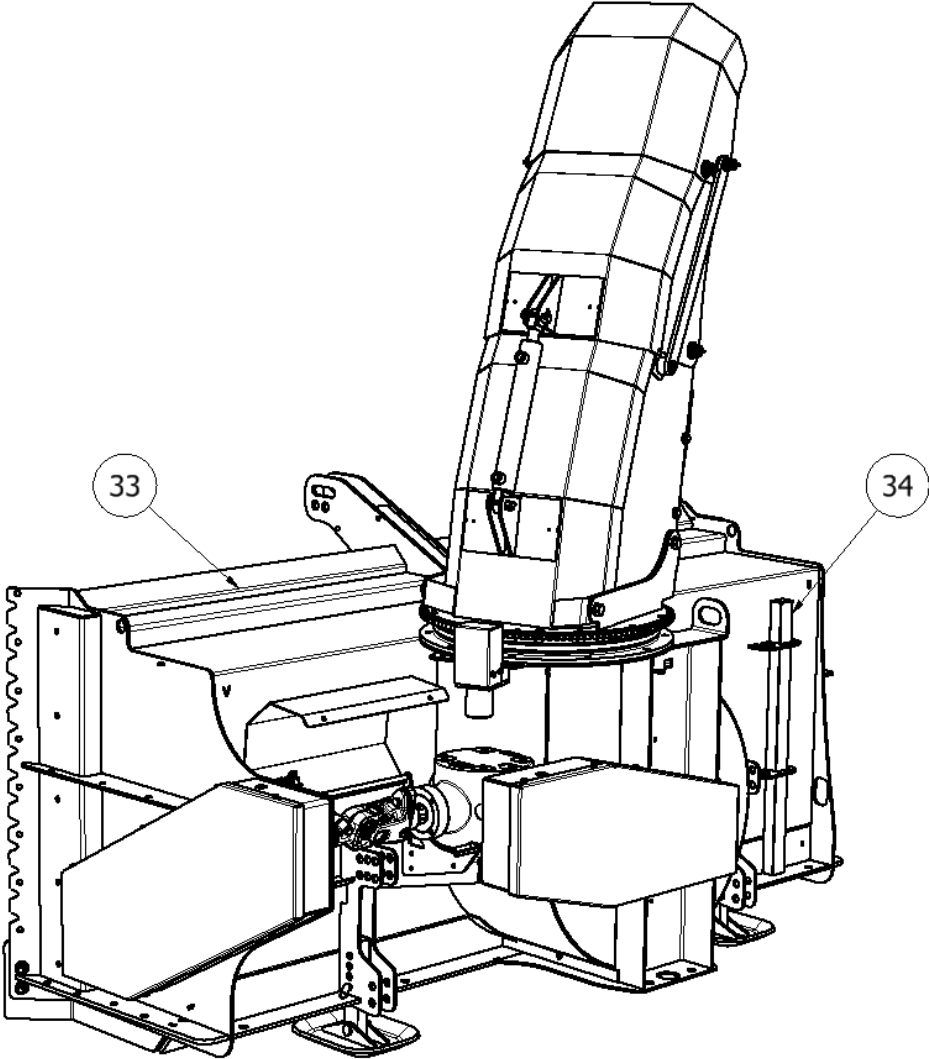
POS:	Description:	Chapter:	Page:
A	Screw, operation and fan	8.2	15
B	Chassis	8.3	17
C	Chute	8.4	18
D	Wear parts & wear skid	8.5	20
E	Optional equipment	8.6	22
F	Swivel ring w/operation	8.7	26
G	Maintenance overview	8.8	

8.2 Screw, operation and fan



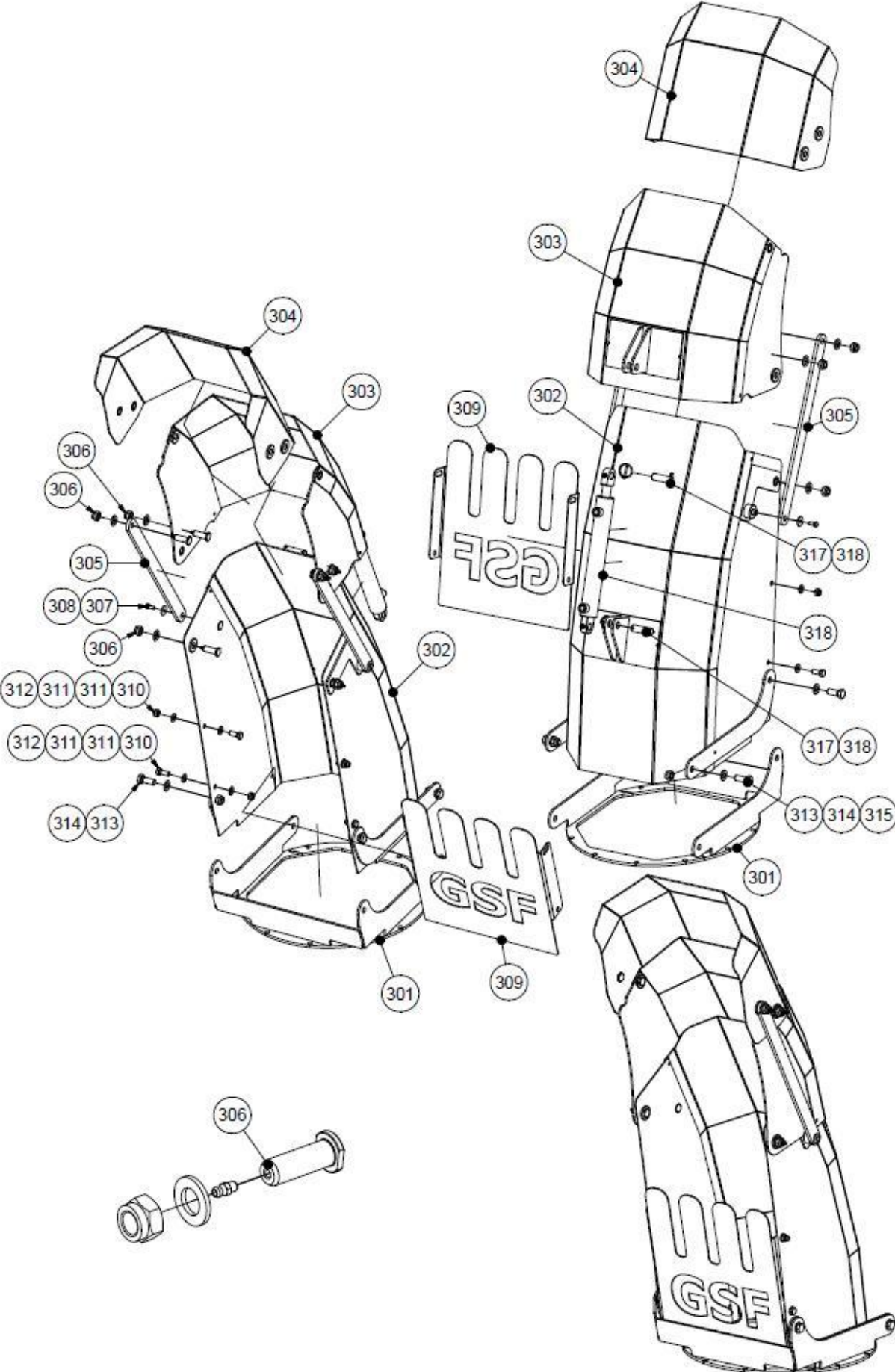
Chapter 8.2 Screw, operation and fan			Serial no.		
POS:	Art. no:	Deskription:	From	To	Add.info:
1	124782	Gearbox S2100 GTF 235	100	-	
2	130113	Rear cover	100	-	
3	032321	Screw M6x12	100	-	
4	012911	Washer Ø7	100	-	
5	125959	Cpl. Rear chain GTF 235	100	-	
6	032735	Screw M16x30	100	-	
7	125940	Washer Ø17-Ø70 T-4	100	-	
8	125955	Sprocket 1`` duplex 17T Ø45	100	-	
9	125884	Auger GTF 235	100	-	
10	125937	Rear chain tensioner GTF 235	100	-	
11	010753	Ball bearing	100	-	
12	033630	Screw M12x30	100	-	
13	012922	Washer DIN9021 M12	100	-	
14	125945	Side cover GTF 235	100	-	
15	125896	Fan GTF 235	100	-	
16	125895	Front bearing bracket	100	-	
17	125962	Duplex side chain	100	-	
18	125948	Share bolt coupling GTF 235	100	-	
19	125875	Shaft gear – shear bolt coupling	100	-	
20	010567	Flange bearing FY50	100	-	
21	125886	Wedge	100	-	
22	125903	Ball bearing Z21 Ø50	100	-	
23	125931	Chain tensioner side GTF 235	100	-	
24	125902	Ball bearing Z21 Ø60	100	-	
25	016010	Nut M16	100	-	
26	012927	Washer M16	100	-	
27	011227	Flange bearing FY60	100	-	
28	015043	Hex. screw. tilt M16x50	100	-	
29	033745	Screw M16x45	100	-	
30	033635	Screw M12x35	100	-	
31	016008	Nut M12	100	-	
32	130120	Cover share bolt coupling	100	-	

8.3 Chassis



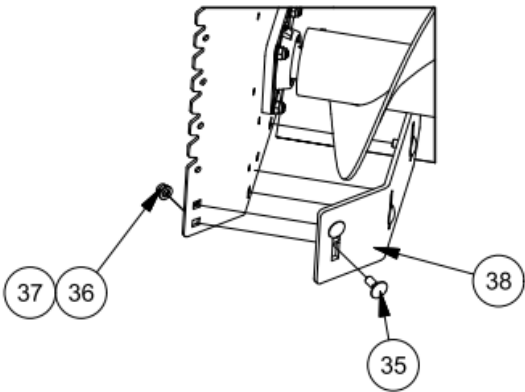
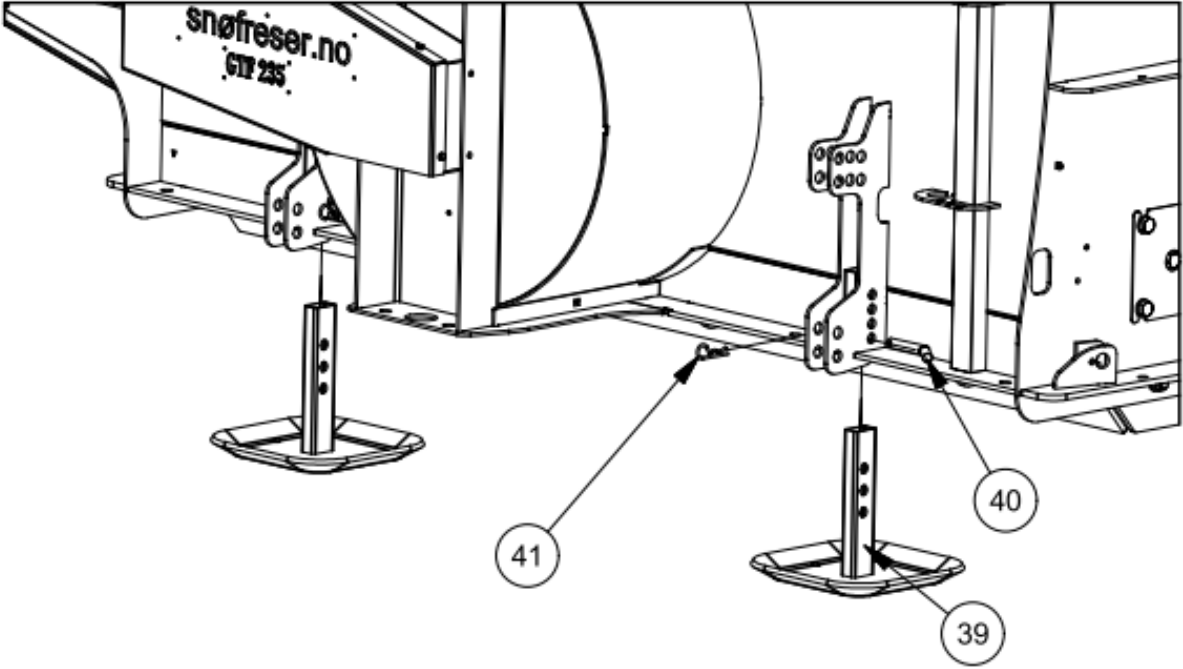
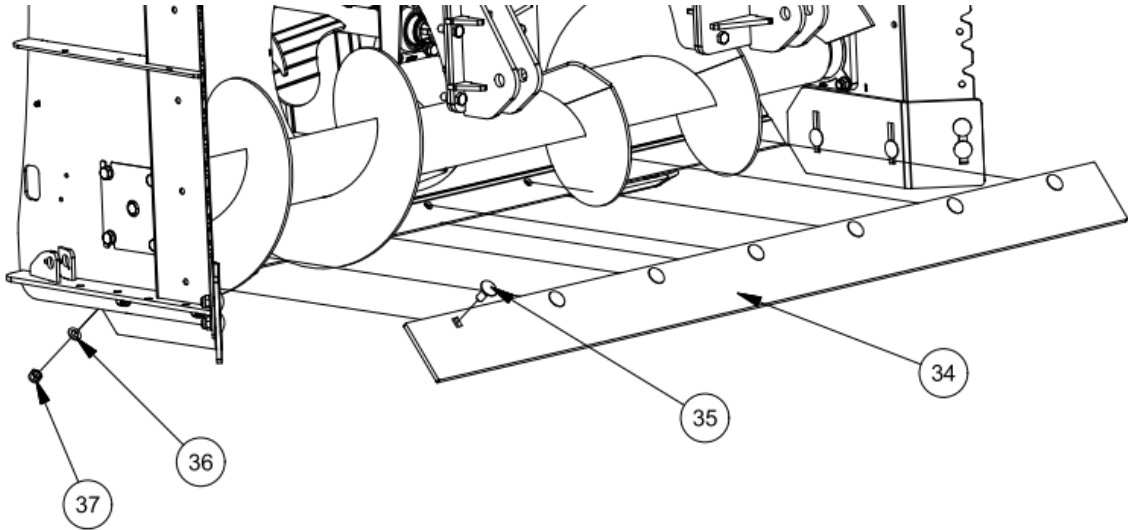
Chapter 8.3 Chassis			Serial no.		
POS:	Art. no:	Description:	From	To	Add.info:
33	125860	Chassis welded and painted GTF 235	100	-	
34	930468	Stake pin	100	-	

8.4 Chute



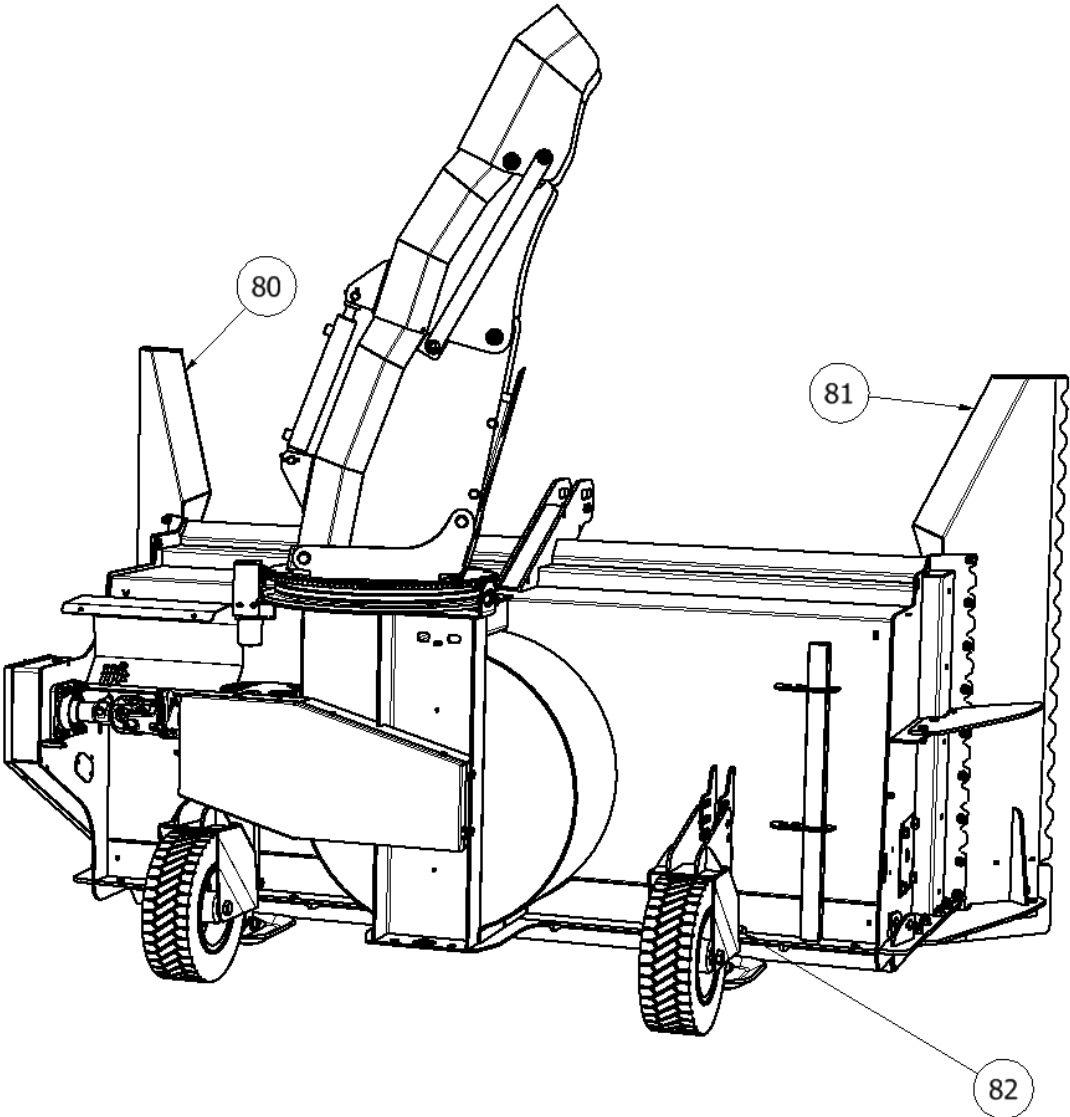
Chapter 8.4 Chute complete			Serial no.		
POS:	Art. no:	Description:	From	To	Add.info:
301	124171	Chute, lower part towards the swivel ring 2011	100	-	
302	124176	Chute, lower part 2011	100	-	
303	124181	Flap 1 chute 2011	100	-	
304	124184	Flap 2 chute 2011	100	-	
305	124187	Linkage Ratio	100	-	
306	124954	Mounting 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	Cotter pin	100	-	
318	127320	Cylinder cpl. w/hoses	100	-	
318	124188	Fixed adjustment rod	100	-	

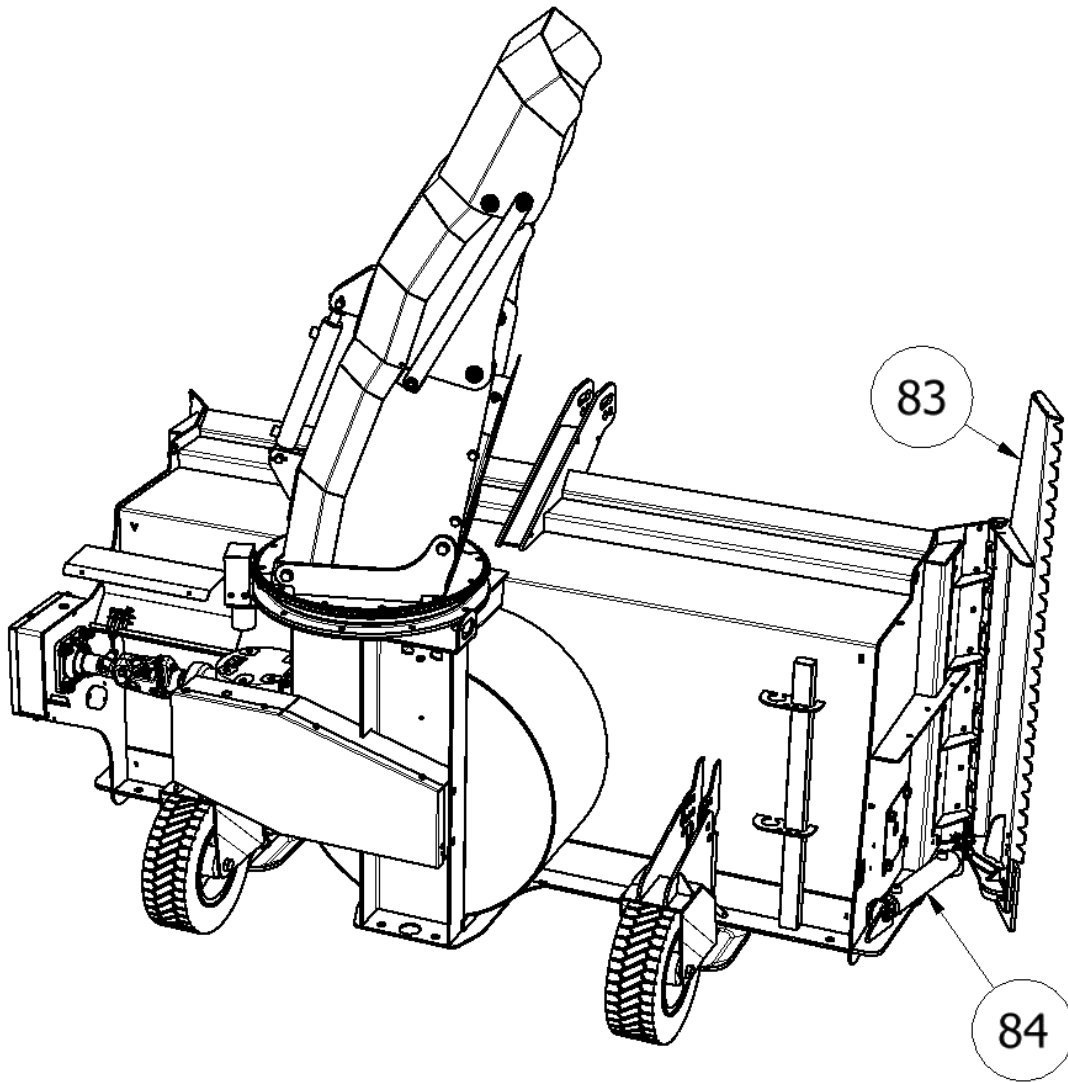
8.5 Wear skids and wear blades

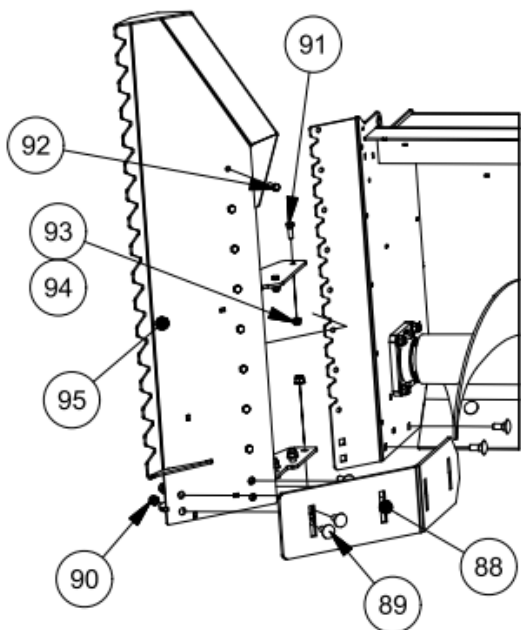
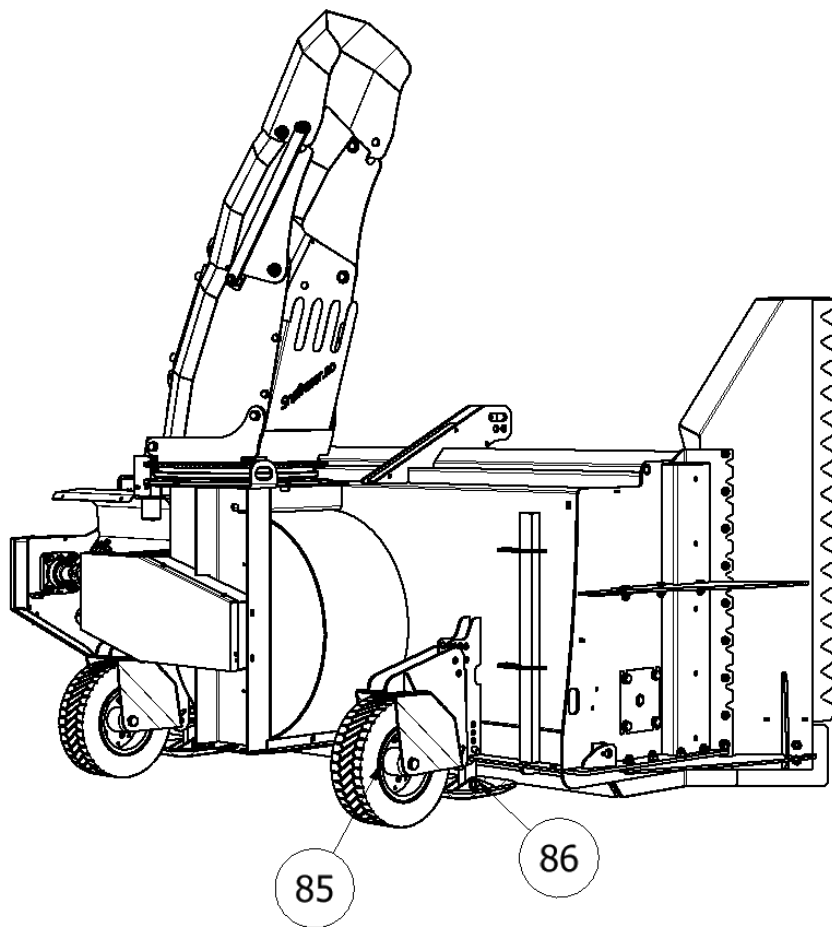


Chapter 8.5 Wear plate/wear skid			Serial no.		
POS:	Art. no:	Description:	From	To	Add.info:
34	125908	Wear plate Main	100	-	
35	034840	Locking screw L-40	100	-	
36	012927	Washer Ø17	100	-	
37	016010	M16 Locking nut	100	-	
38	125909	Wearing plate R+L STD.	100	-	
39	124951	Wear skid Large Rear	100	-	
40	970049	Ø16x142 Locking nut	100	-	
41	029712	Spring cotter pin Single 4mm	100	-	

8.6 Optional equipment

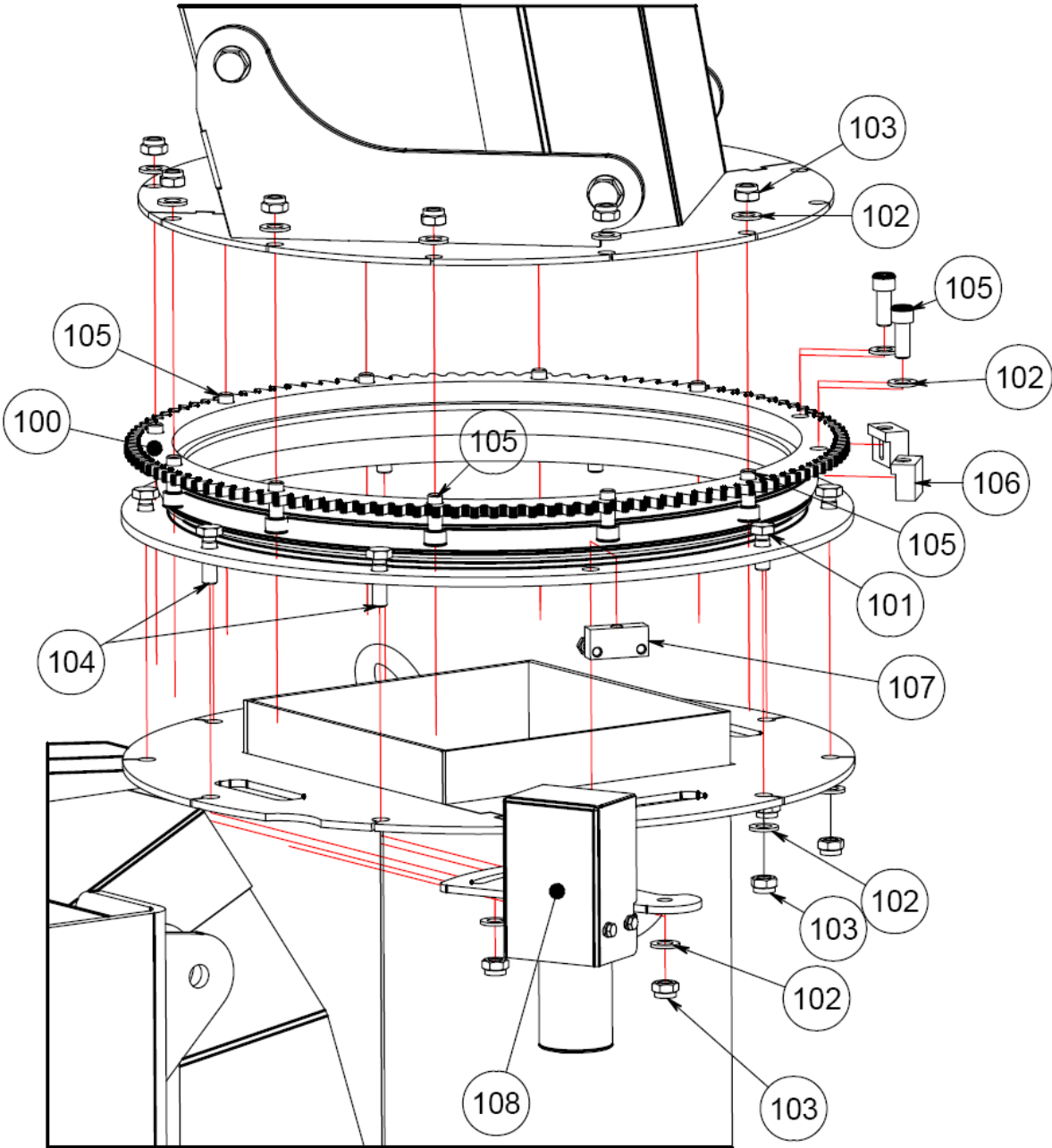


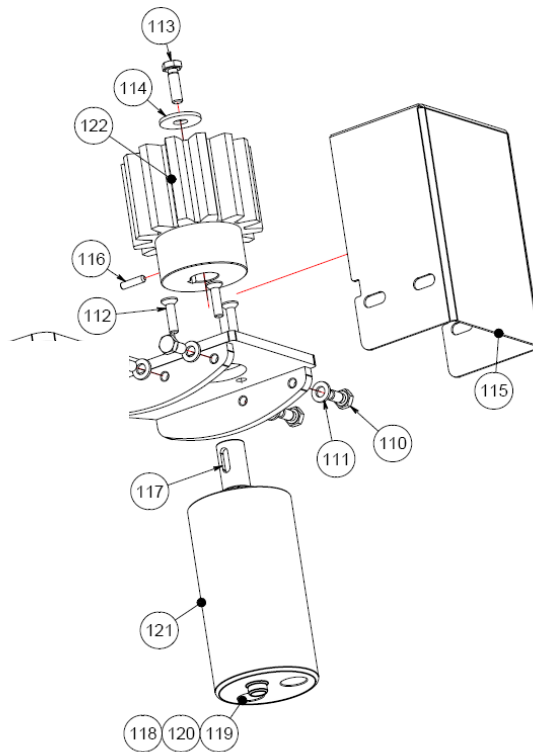




Chapter 8.6 Optional equipment			Serial no.		
POS:	Art. no:	Descripton:	From	To	Add.info:
80	125988	Edge cutter L. cpl.	100	-	
81	125964	Edge cutter R cpl.	100	-	
82	125963	Wheel set cpl.	100	-	(2 psc.)
83	125834	Hydr.edge cutter R cpl.	100	-	
84	125778	Cylinder Ø50730x200	100	-	
85	125963	Wheel set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

8.7 Swivel ring w/operation





Pos	GTF 235	Description	Qty.	Serial no.	Note
100	124804	Swivel ring w/teeth	1	100->	cpl. w/brake
101	033630	Screw M12x30	8	100->	
102	012919	Washer Ø13	22	100->	
103	016008	M12 nut DIN 985	22	100->	
104	033640	Screw M12x40	2	100->	
105	802040	Screw M12x35 DIN 912	12	100->	
106	123955	Brake Top	2	100->	
107	123956	Brake Bottom	1	100->	
108	124875	Operation bracket cpl.	1	100->	cpl. w/engine
109	124874	Operation mount	1	100->	
110	032320	Screw M6x20	4	100->	
111	012911	Washer Ø6,4	4	100->	
112	015027	Screw M5x20 tilt	3	100->	
113	B06012	Screw M6x12	1	100->	
114	012904	Washer Ø8 DIN 9021	1	100->	
115	124876	Safety cover ball bearing	1	100->	
116	032119	M4x6 Set screw	1	100->	
117	930574	Wedge	1	100->	
118	011517	Hydr. hose 1/4" BSP	2	100->	Ikke ill. ISO hann
119	011585	Gasket DBS 3/8"	2	100->	Ikke ill.
120	012292	Adapter chute 3/8"-1/4"	2	100->	Ikke ill.
121	930371	Hydr. engine	1	100->	
122	124859	Ball bearingg M5	1	100->	



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