

# **Original Operating Manual**

## **SRM-SF 140/ 160/ 180/ 200/ 220 Snow blade**



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## 1 About this operating manual

Dear customer! Dear customer!

Thank you for purchasing this implement, we appreciate your trust.

Prior to using this implement for the first time, read this operating manual carefully and conscientiously all the way through.

Keep this operating manual where it is easily accessible. This will enable you to refer to important information and handling instructions as needed.

Listings with bullet points are marked as follows:

- Text
- Text
- Text . . .

Handling instructions are marked in the sequence in which they should be executed, as follows:

1. Text
2. Text
3. Text . . .



**This implement is subject to change in the interest of technical progress. All information, illustrations, and technical specifications represent the latest status at the time this manual was published. The manufacturer reserves the right to make changes at any time in the interest of technical progress.**

## 2 Safety

Guidelines and instructions with which you must comply, are summarized in this section.

Personnel who mount, operate and maintain this implement, must have read and understood this operating manual.

### 2.1 Intended use

The snow blade is an implement for winter service and is used for clearing snow from roads, paths, and other areas.

All other uses are excluded.

Non-intended use causes:

- Danger of injury to the operator or third parties
- Damage to the tractor and the implements
- Environmental damage

### 2.2 Qualifications of personnel

Only personnel 18 years of age or older, or instructed personnel should install, operate, and maintain the snow blade. The operator must have read and understood this operating manual.

### 2.3 General safety instructions

General safety instructions are explained in this section. These safety instructions are used in the subsequent chapters. In addition to the safety aspect, you will save money and work time if you follow these safety instructions.



**Danger!**  
**Severe injury to the operator or third parties occurs.**  
**Comply with the safety instruction.**



**Attention!**  
**Minor injury to the operator or third parties can occur. The tractor, the snow blade or the environment can be damaged.**  
**Comply with the safety instruction.**



**Note!**  
**Important, helpful tips or information for the operator.**  
**Read this note. It facilitates your work.**

### 2.4 Special safety notices

Safety notices are specified in this section that are also affixed as stickers on the implement.



**Attention!**  
Prior to start-up read and comply with the operating manual and the safety instructions.



**Attention!**  
Prior to performing maintenance and repair tasks, turn off the engine and remove the key.



**Attention!**  
Injuries due to fluid escaping under high pressure.  
Comply with the instruction in the operating manual.



**Attention!**  
Danger of crushing due to moving parts.  
Never reach into the crushing hazard danger zone, if parts are still moving or can move.  
Comply with the instruction in the operating manual.

### 3 Installation



**Attention!**

Before starting up the implement, read the instructions on safety and handling for operation of the entire implement and connection to the tractor.



**Danger!**

Switch off the tractor and remove the ignition key before mounting or dismounting the implements.



**Note!**

Enter the chassis number of the implement in section 4.3 of this operating manual.

#### 3.1 Attaching the snow blade on the tractor

In order to attach the snow blade to a tractor, the tractor must be equipped with a front lift. Take up via a coupling triangle is described in more detail below:

1. Position the snow blade in such a manner that you can drive to just in front of its coupling triangle.
2. Then the coupling triangle of the front lift is lowered all the way and is brought under the triangle of the snow blade by driving the tractor forward. In this process, ensure that the coupling triangle of the front lift is tilted slightly forward. If it is not possible to easily drive forward under the triangle of the snow blade, then the height can be set suitably by adjusting the coupling triangle. To do this you must remove the 6 screws and shift the coupling triangle up or down on the attachment flange. The final step is to retighten the threaded unions.

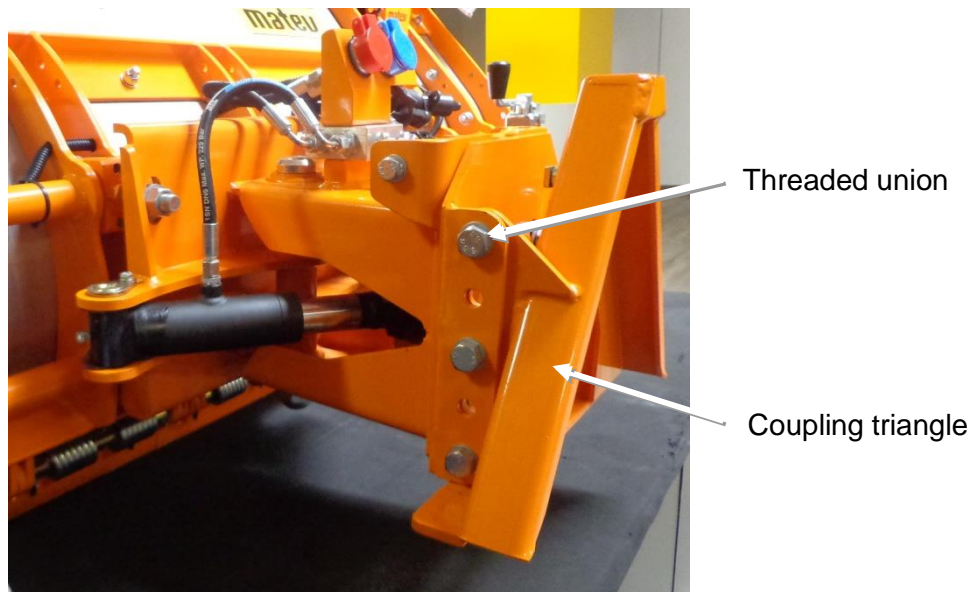


Fig. 1: Adjusting the coupling triangle

3. Lifting the front power system hooks-in its coupling triangle under the coupling triangle of the snow blade.

4. Insert the locking pin on the coupling triangle and secure it via the spring cotter pin. If this is not possible then the locking part must be readjusted. To do this both nuts are unscrewed, the locking part is adjusted, the bolt is inserted and then it is retightened.

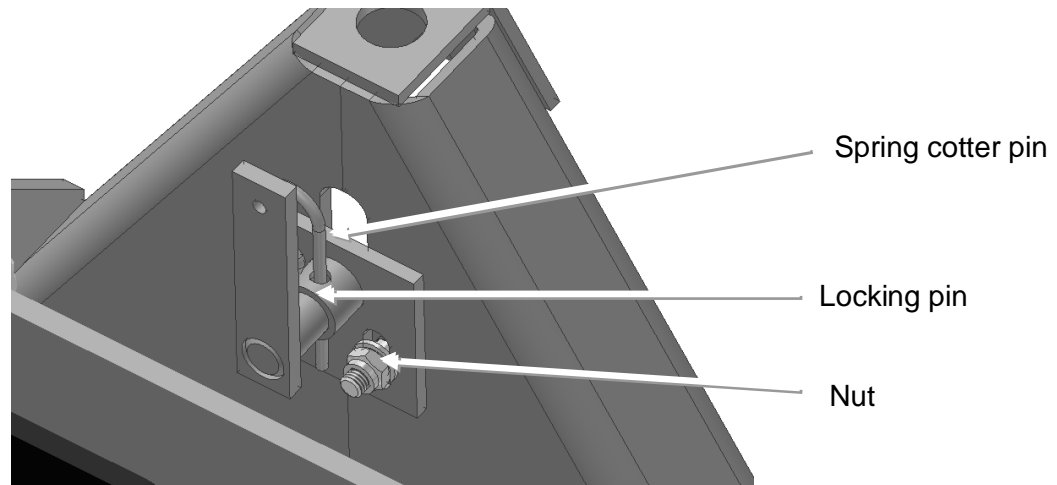


Fig. 2: Locking pin on the coupling triangle

5. Fit the hydraulic hoses, for the angle adjustment of the snow blade onto the coupling sockets of the supplemental hydraulic system.

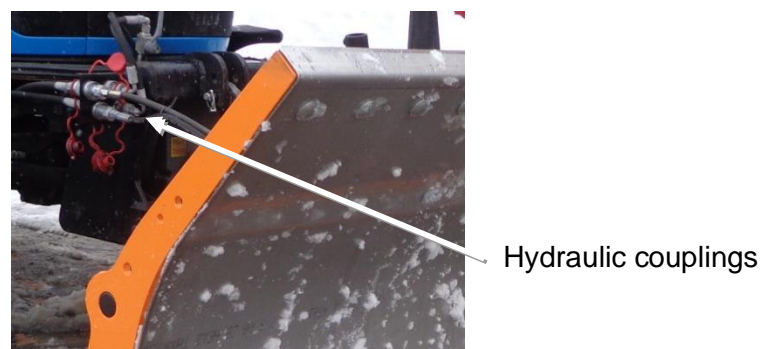


Fig. 3: Connecting the hydraulic lines on the tractor hydraulic system

### 3.2 Adjusting the slide runners or casters

Before starting to clear snow, the slide runners or the casters must be correctly adjusted. To do this the snow blade is lowered onto a level surface via the hydraulic system. The snow blade is correctly adjusted when the slide runners rest on the ground and the scraper bar just barely touches the ground or clears the ground by 1-2 mm. If this is not the case the snow blade must first be adjusted.

1. Lower the snow blade until it is just a little above the ground.
2. Set the hydraulic system to the float position and switch off the tractor.
3. Unscrew the clamp screws and lower the slide runners to the ground. For the variant with casters, crank the casters downward until they rest full-surface on the ground.

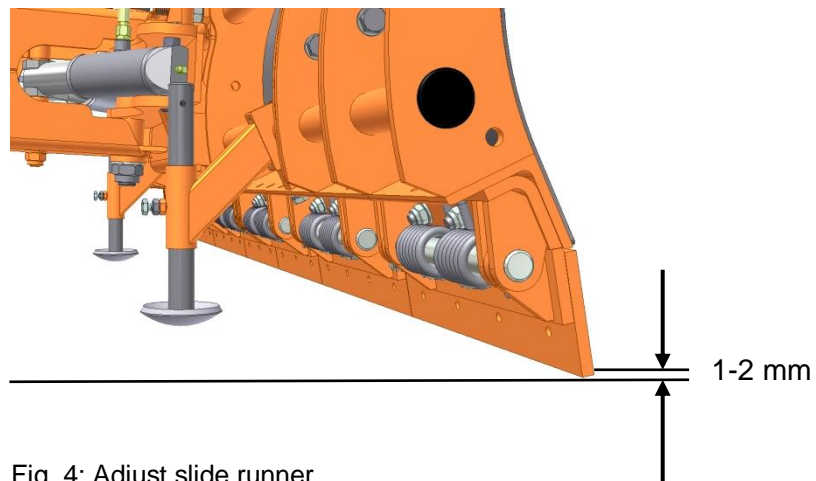


Fig. 4: Adjust slide runner

4. Secure slide runners with clamp screws. For the variant with casters, engage the lock bracket on the crank.

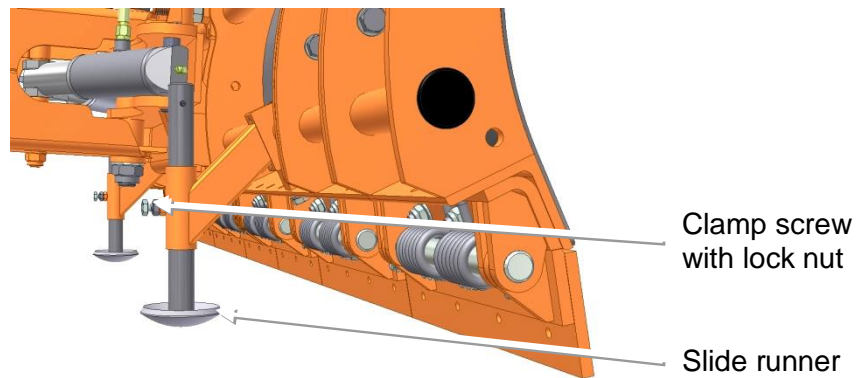


Fig. 5: Secure slide runner

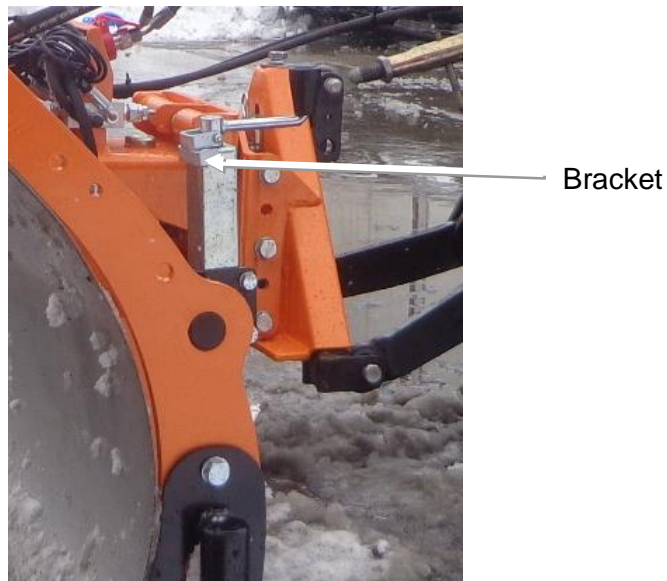


Fig. 6: Secure telescopic foot

### 3.3 Adjust the engagement angle of the blade

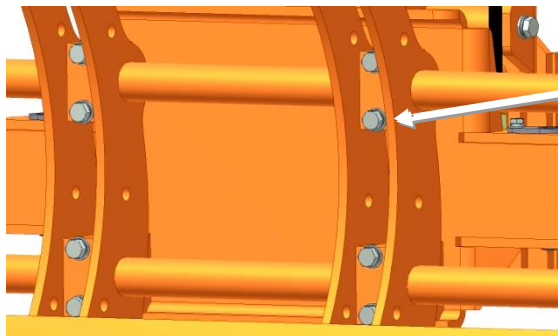
The contact angle of the scraper bar on the ground influences the snow clearing capacity of the blade. A lesser angle results in a more aggressive clearing capacity and the spring flap, folds with slightly more resistance. With a greater angle the spring flaps fold at lighter resistance and the blade runs more quietly.



**Note!**

**The blade plate must be removed to adjust the contact angle.**

1. Removing the blade plate
2. Unscrew the 8 fastening screws



Fastening screws

Fig. 7: Fastening screws - attachment bracket

3. Adjust the length of the set screw.



Set screw

Fig. 8: Adjust the length of contact angle - set screw

4. Retighten the 8 fastening screws, see Fig. 7.



**Note!**

**To avoid premature wear, do not forget to tighten the fastening screws before using the blade again.**

5. Mount the blade plate.

### 3.4 Adjust the pendulum compensation.

To ensure the horizontal position of the blade in lifted position, the pendulum compensation springs are attached. The springs are preset in the factory and should only be readjusted as required, i.e. if the blade does not hang horizontally in lifted position.

1. Lift out the snow blade.
2. Tension the springs by turning the laterally attached screws. Only tension the springs that are opposite of the side on which the blade hangs down.

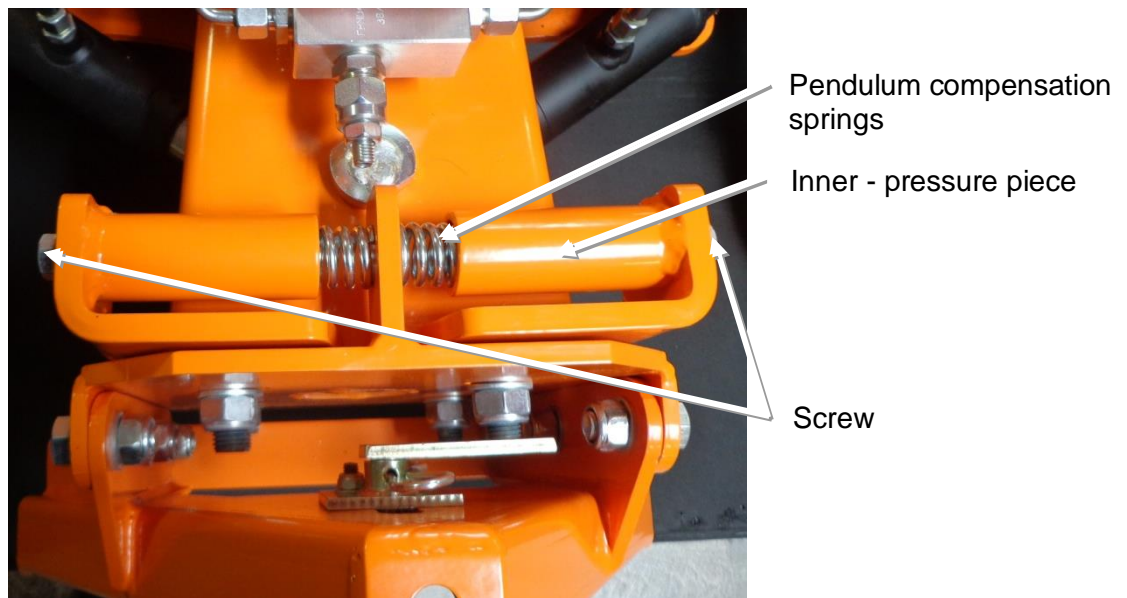


Fig. 9: Adjusting the pendulum compensation



**Note!**

The pendulum compensation element must be easy to move. Ensure that the stop nuts on the pendulum compensation allow slight play of approx. 0.5 mm between pendulum plate and pivot bracket.

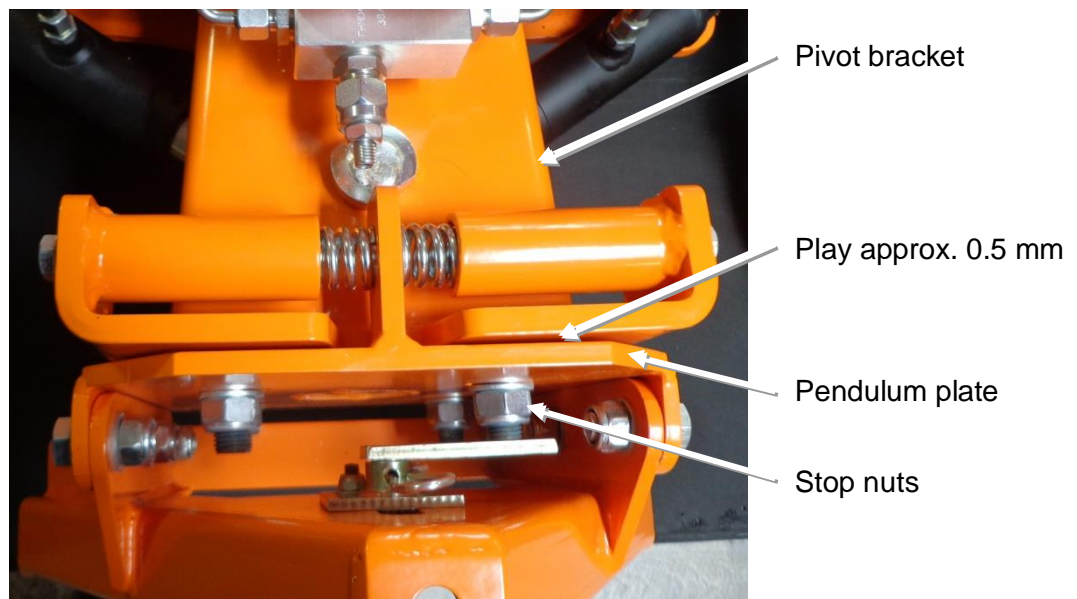


Fig. 10: Pendulum plate

### 3.5 Adjusting the pressure control valve

If the snow blade is equipped with a pressure control valve the blade can give way when moving laterally against obstructions, e.g. house walls or curbstones. The pressure at which the blade gives way can be adjusted separately for each pivot direction. Unscrew lock nut, use an Allen wrench to adjust set screw, retighten lock nut. Repeat the adjustment on the opposite side of the pressure control valve for the other pivot direction. Turn the set screw to the right to increase the pressure or to the left to decrease the pressure.

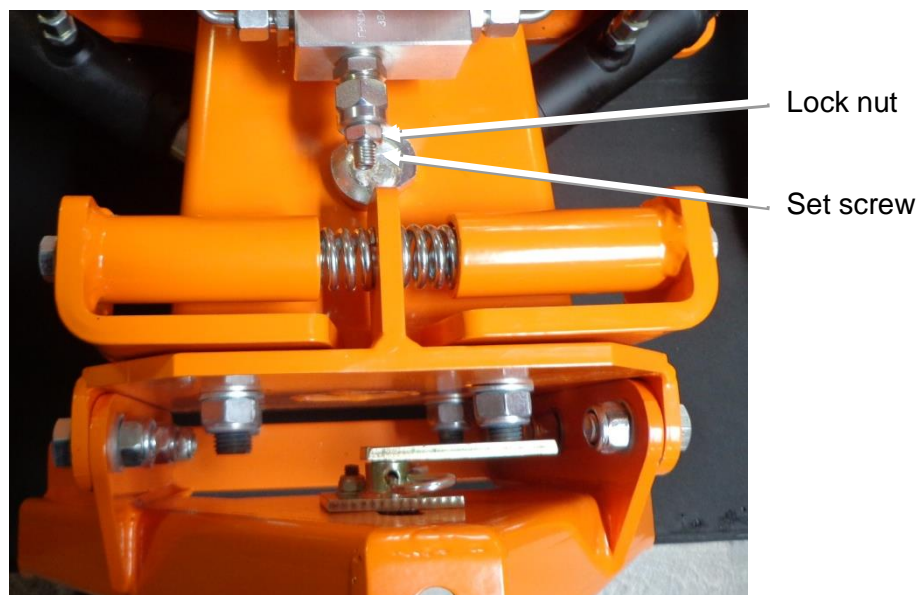


Fig. 11: Adjust the pressure control valve.

### 4 Operation and fault correction

#### 4.1 Operation

If the snow blade is correctly adjusted, you can start working. For travel between implementation sites the snow blade is lifted via the front lift and the lowering safeguard of the front lift is activated. To work with the snow blade, it must be lowered into float position.



**Danger!**  
**Driving on pressure is prohibited. This can make the vehicle unsteerable!**



**Attention!**  
**A disabled hydraulic system can result in damage to the implement and/or tractor!**

To clear the snow to a specific side the snow blade can be pivoted via the hydraulic angle adjustment. This setting must be made in a slightly lifted out position without load on the snow blade. When working with the snow blade small unseen obstacles can be run over. To protect the operator and the implement, the snow blade is equipped with spring-flap segments. When encountering an obstacle (e.g. manhole cover) the spring-flap fold back and the impact is reduced.

#### 4.2 Faults

<b>Fault:</b>	<b>Possible cause:</b>
After clearing, snow still remains	Slide runner or support wheel is set too low, see 3.2
The snow blade vibrates excessively when removing snow	Slide runner or support wheel is set too high, see 3.2 extremely uneven substrate
Tractor is hard to steer	Hydraulic system for the front lift is not in float position
The snow blade oscillates back and forth when clearing snow	Hydraulic system for angle adjustment is not in float position bearings are deflected
Pendulum compensation element moves with great difficulty	Stop nuts of the pendulum compensation element over-tightened, see 3.4

#### 4.3 Contact

If there are faults, problems, or other indications of malfunction, contact your sales consultant or directly contact the manufacturer.

Enter the article number and the chassis number here.  
This information is on the type plate of the implement.

Code - number: .....

Serial number:.....



Fig. 12: Nameplate

### 5 Maintenance

The entire implement must be subjected to regular service.

After first use, the threaded unions on the snow blade must be checked and retightened if necessary. Particularly check the following components:

- Blade plate
- Blade extensions
- Flap-segments
- Scraper bars
- Attachment bracket
- Holder of the slide runners, or telescopic foot
- Mechanism of the contact angle.

#### 5.1 Daily maintenance

- Check scraper bars for wear
- Check adjustment of the slide runners or the casters
- Check pendulum compensation for ease of movement
- Check hydraulic connections and lines
- Clean the implement.



#### **Danger!**

**Hydraulic oil escaping under high pressure can penetrate under the skin and cause severe injuries. Never attempt to find a possible leak point on the hydraulic lines by feeling them with your hands.**

#### 5.2 Maintenance after 50 operating hours or after a longer standstill period.

At regular intervals, and always at the beginning and end of the season, the moving parts of the implement must be checked and if necessary the threaded unions must be retightened. The scraper bars must be checked for wear.

Lubricate the points cited below with grease (not with oil):



Lubricating  
nipples

Fig. 13: Lubricating nipple - cylinder eyes

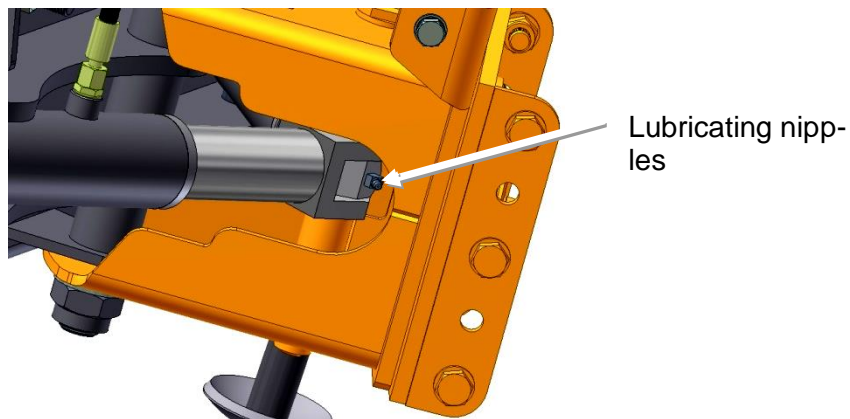


Fig. 14: Lubricating nipple - piston rod eye

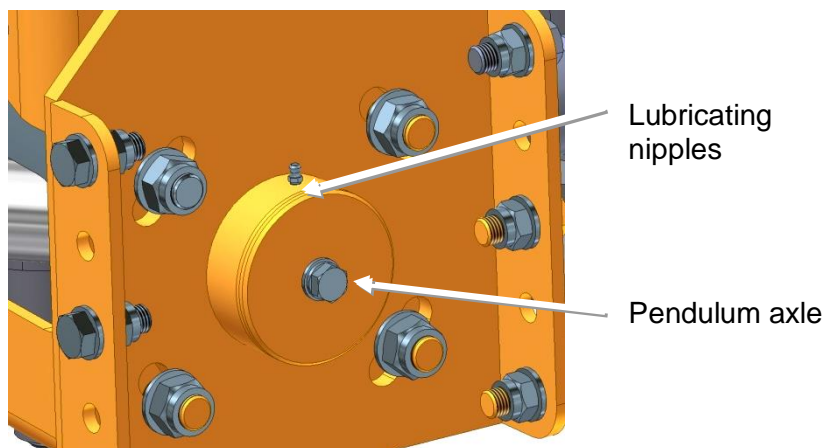


Fig. 15: Lubricating nipple - pendulum axle

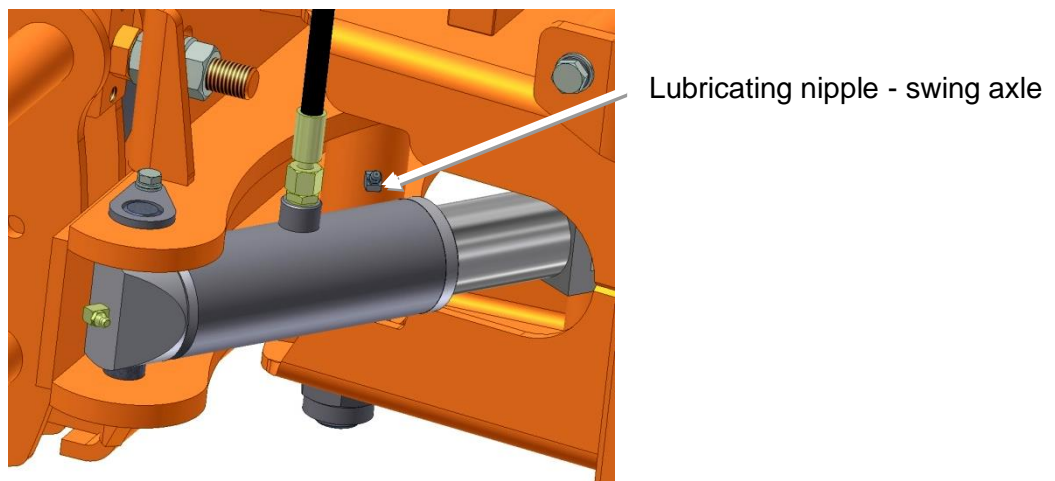


Fig. 16: Swing axle of the snow blade

### 6 Disposal

The snow blade must be disposed of in accordance with the applicable regulations of the municipality or the country. Take the parts to the collection points for residual waste, special waste, or recycle them depending on material.

matev GmbH does not provide any disposal services.

### 7 Guarantee

The general delivery conditions of matev GmbH apply.

### 8 Technical data

Technical data (without accessories)	SRM-SF 140	SRM-SF 160	SRM-SF 180	SRM-SF 200	SRM-SF 220
Working width, max.	1.4 m	1.6 m	1.8 m	2.0 m	2.2 m
Working width, angled	1,212 mm	1,382 mm	1,555 mm	1,726 mm	1898 mm
Weight	188 kg	209 kg	242 kg	264 kg	277 kg
Blade height	610 mm	610 mm	750 mm	750 mm	750 mm
Angle adjustment	30,3°	30,3°	30,3°	30,3°	30,3°
Length	580 mm	580 mm	700 mm	700 mm	700 mm

## 9 Wear parts and accessories

<b>Wear parts and accessories</b>
SRM-ST/IX 140-220 attachment cat. 0
SRM-ST/IX 140-220 attachment cat. 1
SRM-ST/IX 140-220 attachment cat. 1 for quick-catch hook
SRM-ST/IX 140-220 attachment Scanframe
Rubber scraper bar kit 140 cm
Rubber scraper bar kit 160 cm
Rubber scraper bar kit 180 cm
Rubber scraper bar kit 200 cm
Rubber scraper bar kit 220 cm
PU scraper bar kit 140 cm
PU scraper bar kit 160 cm
PU scraper bar kit 180 cm
PU scraper bar kit 200 cm
PU scraper bar kit 220 cm
Side end plates, kit
Casters, kit
Pressure control valve kit
Bumper, kit
Holder for warning flags and side marker lights
Warning flags, kit
Warning flags plastic, kit
Side marker lights, kit
Side marker lights LED, kit

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## 11 EC Declaration of Conformity

EC Declaration of Conformity for a machine to confirm compliance with the Machinery Directive 2006/42/EC and with the statutory regulations issued for the implementation of the Machinery Directive.

The manufacturer  
matev GmbH  
Nürnberger Str. 50  
90579 Langenzenn

declares that the machines with type designations:

SRM-SF -140 ST snow blade	: Order number 131 7747
SRM-SF 140 IX snow blade	: Order number 131 7748
SRM-SF 160 ST snow blade	: Order number 131 7749
SRM-SF 160 IX snow blade	: Order number 131 7750
SRM-SF 180 ST snow blade	: Order number 131 7751
SRM-SF 180 IX snow blade	: Order number 131 7752
SRM-SF 200 ST snow blade	: Order number 131 7753
SRM-SF 200 IX snow blade	: Order number 131 7754
SRM-SF 220 ST snow blade	: Order number 131 7755
SRM-SF 220 IX snow blade	: Order number 131 7756

comply with the provisions of the Machinery Directive 2006/42/EC and with the implementing national statutory regulations.

The signer is authorized to compile the technical documents.

The address is the address of the manufacturer.

Date / Signature

October 2013



Name of signer  
Signer information

Georg Hemmerlein  
Managing Director