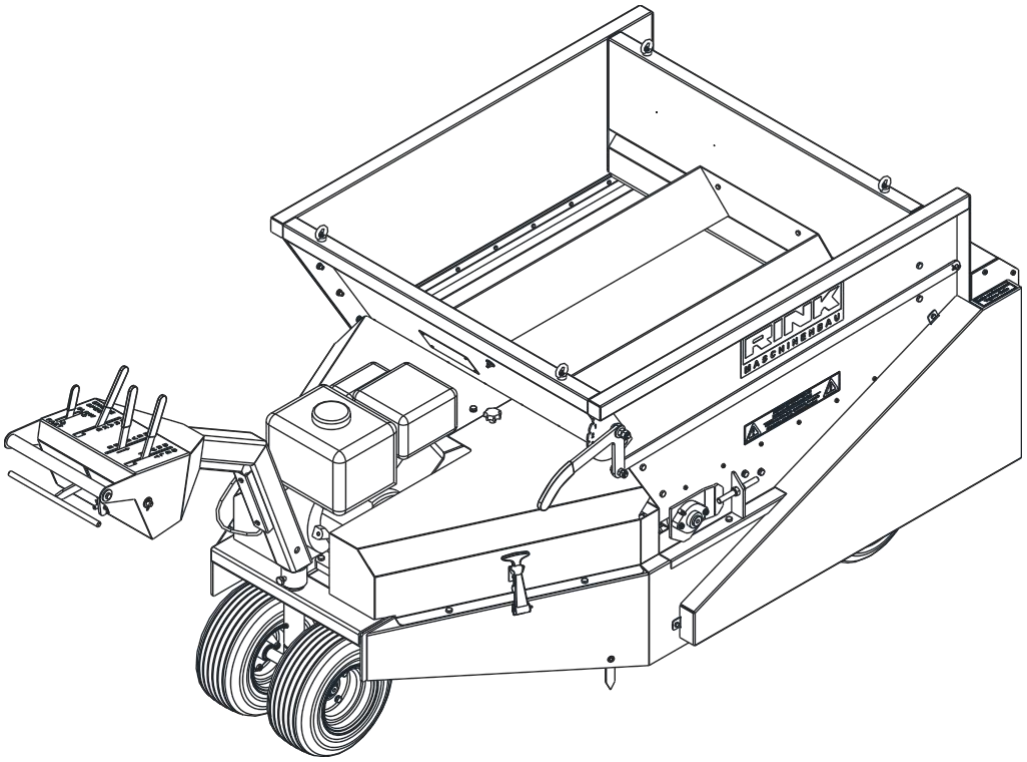
# User Manual

# RINK – Topdresser

# Model SP950

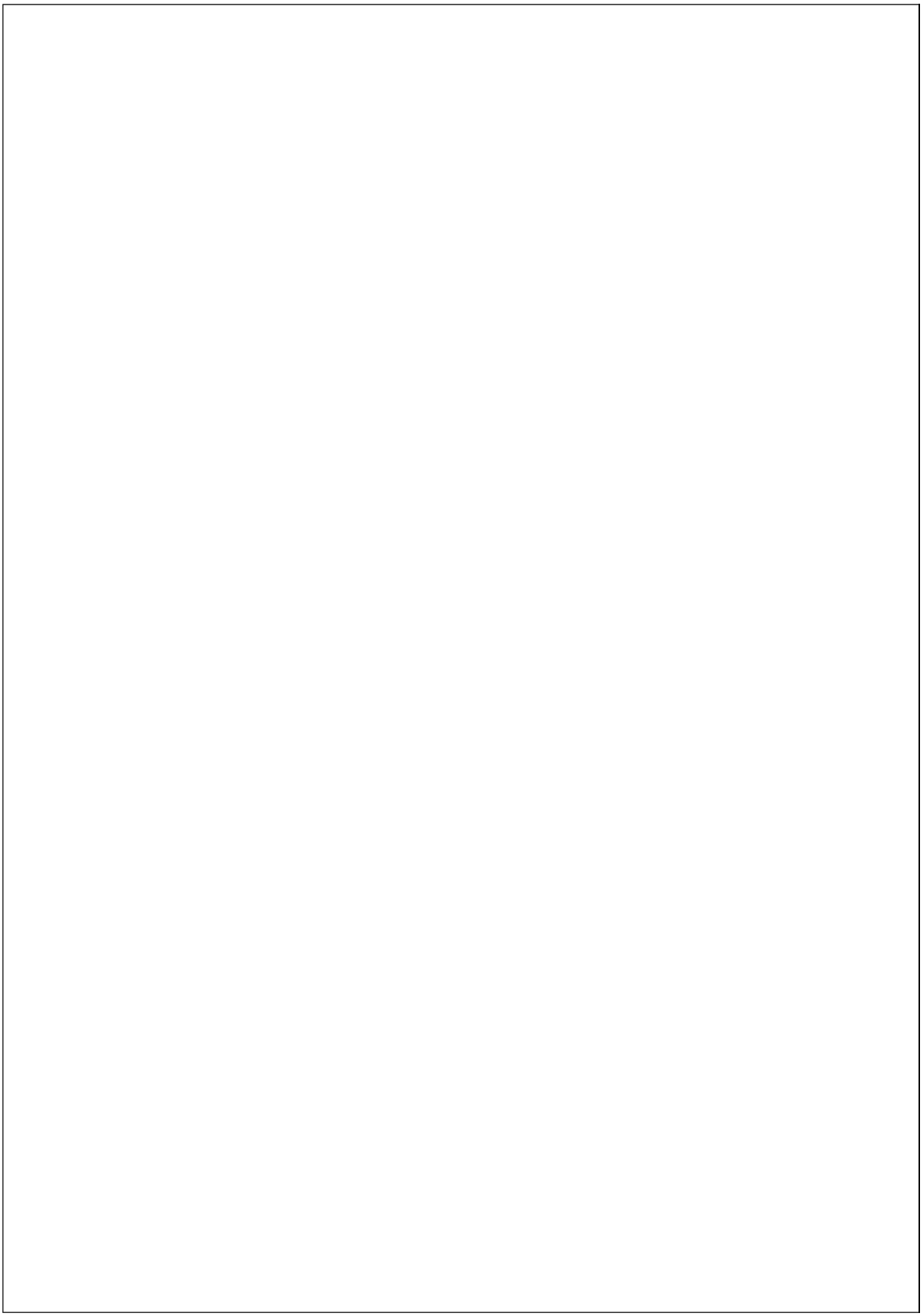
Applies to:

S0001591 RINK - Topdresser SP950



**Translation of the original user manual**

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**Subject to technical changes.**

***Features marked with a # are available only as optional equipment.***

# SAFETY INSTRUCTIONS

- The **RINK Topdresser SP950** is designed exclusively for spreading fine-grained, loose material such as sand, gravel, granules, or similar substances.

- Any other use is considered improper. The manufacturer is not liable for any resulting damage; the user bears the full risk.

- Proper use also includes compliance with the operating, maintenance, and service conditions prescribed by the manufacturer.

- The **RINK Topdresser SP950** is built to the latest technical standards and is safe to use; however, the **RINK Topdresser SP950** can pose a risk to life and limb to the user and third parties if it is not operated, maintained, and repaired by persons who are familiar with it and who have been instructed on the hazards.

- Anyone designated by the user to operate, maintain, or repair the spreader must have read and understood the operator's manual, particularly the chapter **safety instructions**.

- Use only **original replacement parts from the manufacturer** for repairs.

- In addition to the instructions in this manual, generally applicable **safety and accident prevention** regulations must be observed.

- The **RINK Topdresser SP950** must **not be used on public roads**.

- Carrying passengers is not permitted!

- **It is prohibited to step onto the loading platform while the spreading mechanism is in operation**. A corresponding warning is affixed to both sides of the **RINK Topdresser SP950**. This warning must always be clearly legible and must be replaced if damaged. (see Spare Parts)

- The user is **required** to inspect the **RINK Topdresser SP950 for visible damage and defects**. Any modifications to **the RINK Topdresser SP950** (including the controls) that could adversely affect safety must be rectified immediately. For safety reasons, it is strictly prohibited to make any modifications or additions to the **RINK Topdresser SP950** (except for modifications/additions approved by the manufacturer). If modifications are made to **the RINK Topdresser SP950**, the CE marking currently valid for the machine loses its validity and must be renewed independently by the person who made these modifications.

# SAFETY INSTRUCTIONS

- Before starting, check the immediate surroundings and ensure adequate visibility.

- During operation, no one is allowed to remain in the spreader's danger zone, as there is a risk of injury from rotating parts and flying debris.

- Wear appropriate clothing. Wear safety shoes and long pants. Long hair must be tied back. Do not wear loose-fitting clothing. Use appropriate personal protective equipment in accordance with applicable occupational health and safety regulations.

- The **RINK Topdresser SP950** generates a noise level of 74 dB(A) in the immediate vicinity of the brush roller.

- Wear certified hearing protection when working with the machine.



- Adjustment and repair work may only be performed by authorized and qualified personnel.



***Used oil is harmful to the environment; dispose of it in an environmentally friendly manner.***

# BRIEF DESCRIPTION

The **RINK Topdresser SP950** is designed for spreading fine-grained, loose spreading material such as sand, grit, granules, or similar substances. The spreading mechanism of the **RINK Topdresser SP950** is driven by V-belts and chains. The spreading thickness or quantity is adjusted via a mechanical slide. This allows for precise dosing of the spreading material.

# TECHNICAL SPECIFICATIONS

**Dimensions of the RINK Topdresser SP950**

Length ..... 2.50 m
Width ..... 1.08 m
Height ..... 1.20 m

**Payload** ..... 0.33 $m^3$

**Weights**

Gross vehicle weight ..... 750 kg
Curb weight ..... 250 kg

**Spreading width** ..... 0.95 m

**Tires** ..... 6 x 13x6.50-6 4PR tires

**Tire pressure** ..... 1.50 – 1.75 bar

**Engine** ..... 6.5 hp gasoline engine

**Fluids**

Engine oil ..... Universal engine oil 15W40
Fuel ..... Unleaded regular gasoline
Engine and transmission oil ..... SAE 90

**The nameplate is located on the front right side of the spreader.**

# INITIAL COMMISSIONING

- Tighten the wheel nuts.
- Check the tire pressure.
- Check the tension of the chains and V-belts.

 **Check these points again after the first test drive!**

# OPERATION

## Before each use

- Inspect **the RINK Topdresser SP950** for visible external damage and repair any damage.
- Check the tire pressure.
- Check the alignment of the conveyor belt and adjust it if necessary, as the conveyor belt must not rub against the side (see page 14, Tensioning the conveyor belt).

## Loading

- Adhere to the recommended maximum ground pressure.
- When loading, take the permissible total weight into account.
- Prevent contamination of the drive components (motor).

## Start the engine

- Fill the fuel tank with unleaded gasoline.
- Set the throttle lever to the FAST position.
- Set the switch on the engine to the ON position and push the starter handle to the left.
- Start the engine; repeat if necessary and close the choke slightly.
- Once the engine is running, push the starter handle back and use the throttle to set the desired speed.

 **Also refer to the engine manufacturer's owner's manual, which is included with this manual. It is important that the operator familiarize themselves with the instructions contained therein.**

# DRIVING

## Controls

(1) Throttle

(2) Brake lever (parking brake)

(3) Reverse

(4) Lever for activating the conveyor belt and the brush

(5) Reverse

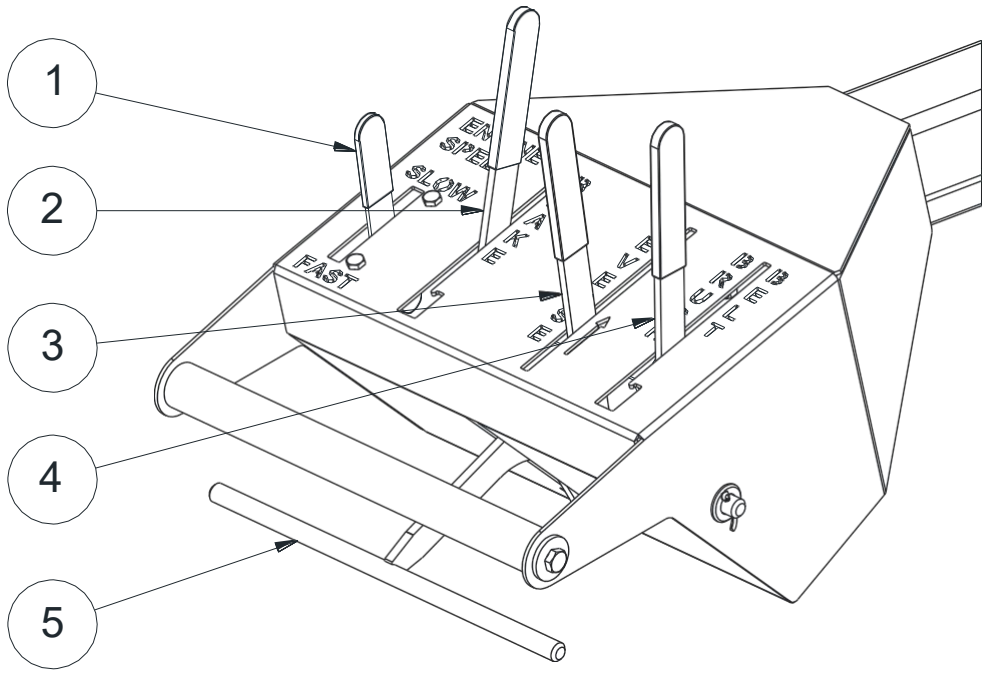



Fig. 1: Controls

## Operation

The **RINK Topdresser SP950** is operated as follows:

- Start the engine (see page 7).
- Release the brake lever (2) and set the throttle lever (1) to the SLOW position. The machine's speed can be adjusted as desired using the throttle lever (1).
- To drive forward, pull the gear lever forward (5) to engage it.
- Spreading is only possible while driving. To activate the spreader, pull the conveyor belt and spreader roller lever (4) forward. If this lever is held in place by the lock, the spreading mechanism remains activated.
- To stop, release the forward gear lever (5).
- To drive in reverse, push the reverse gear lever (3) forward.
- To park the **RINK Topdresser SP950,** turn off the engine and engage the brake lever (2).

# SPREADING

## Setting the spread rate

Set the desired spread width on solid ground before starting work. The spread width or spread capacity depends on the setting of the slide opening (1).

## Spreading diagram

| Spreading capacity | Slide opening | Spreading width |
|---|---|---|
| **Low** | 1 | 0.5 mm |
| **Medium** | 2 | 5 mm |
| **High** | 3 | 10 mm |

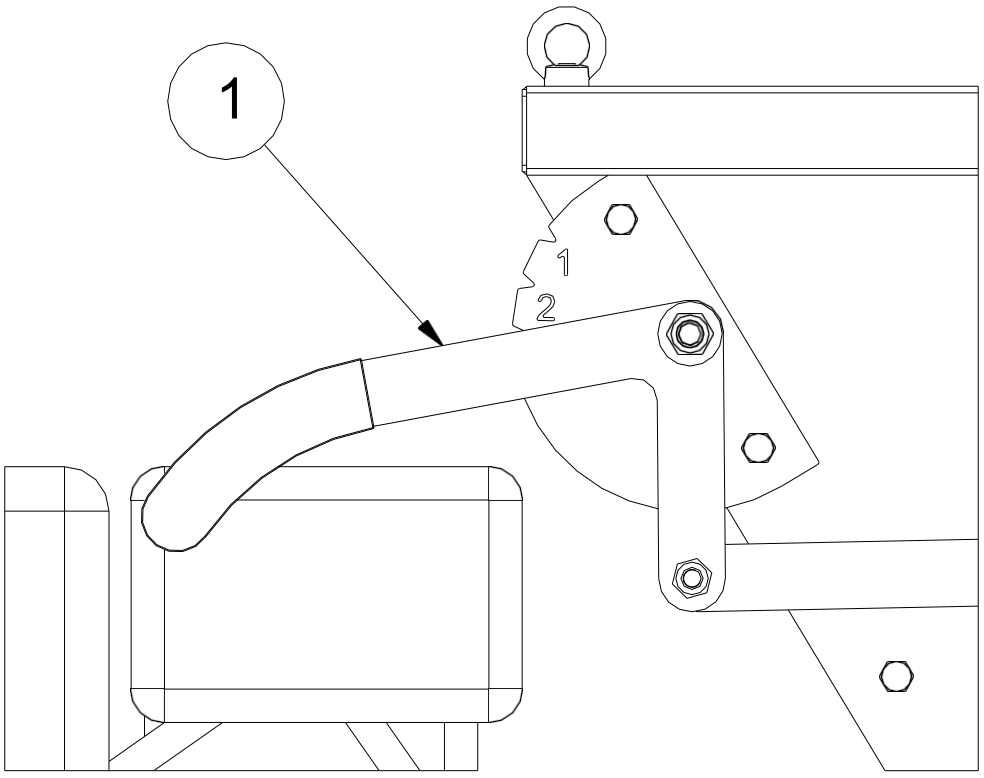



Fig. 2: Adjusting the spread width

# CARE and MAINTENANCE

## Lubricate the bearings with universal grease (every 50 operating hours)

(1) Bearings on both sides of the brush roller

(2) Bearings on both sides of the rear drive roller

(3) Bearings on both sides of the front tension roller

(4) Bearings on the steering shaft

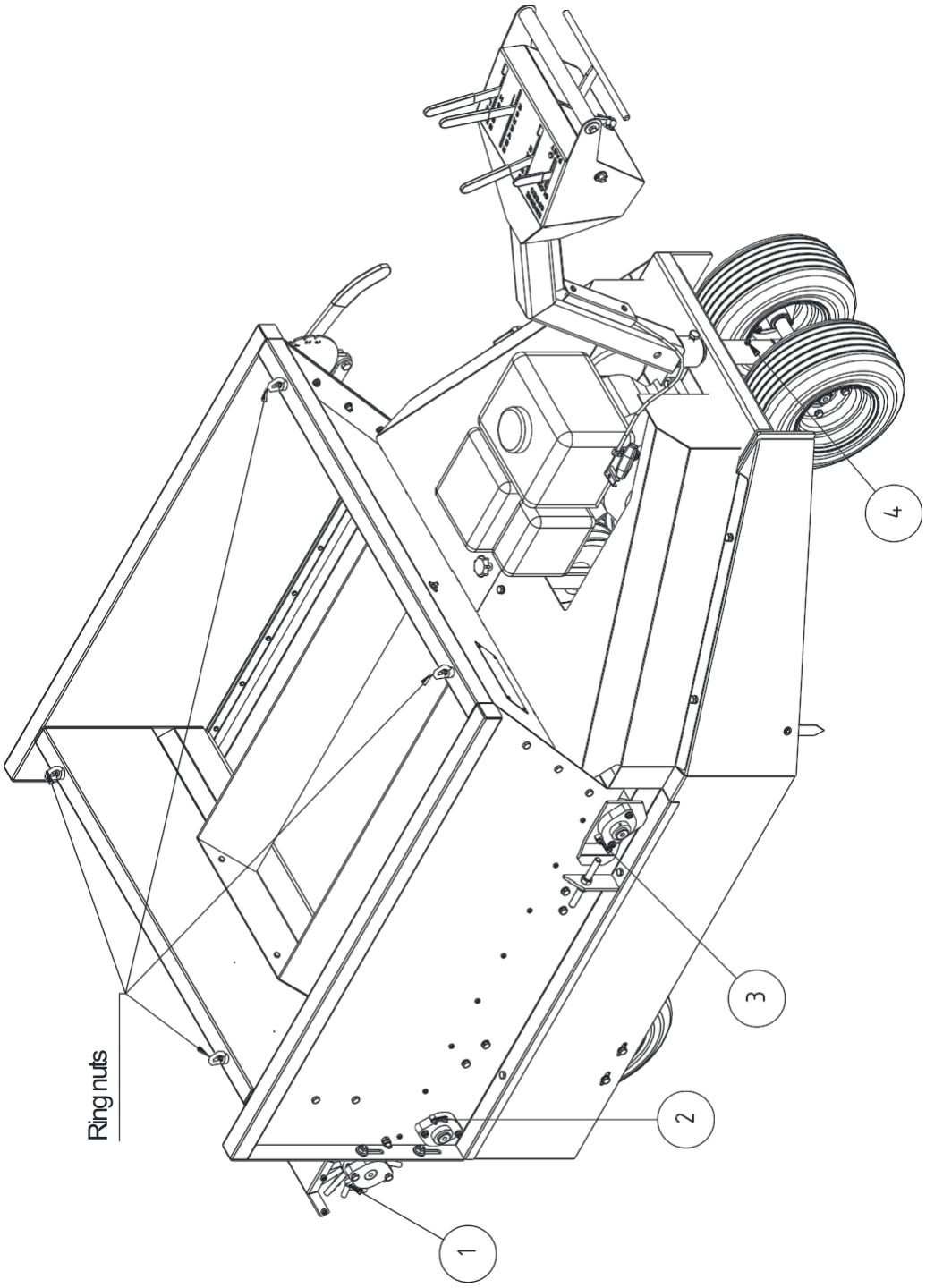



Fig. 3: Lubrication points

***To lubricate the bearings on the drive shafts and the belt tensioners, tilt or raise the machine using the ring nuts.***

(5) Bearings on the drive shafts

(6) Bearings on the belt tensioners

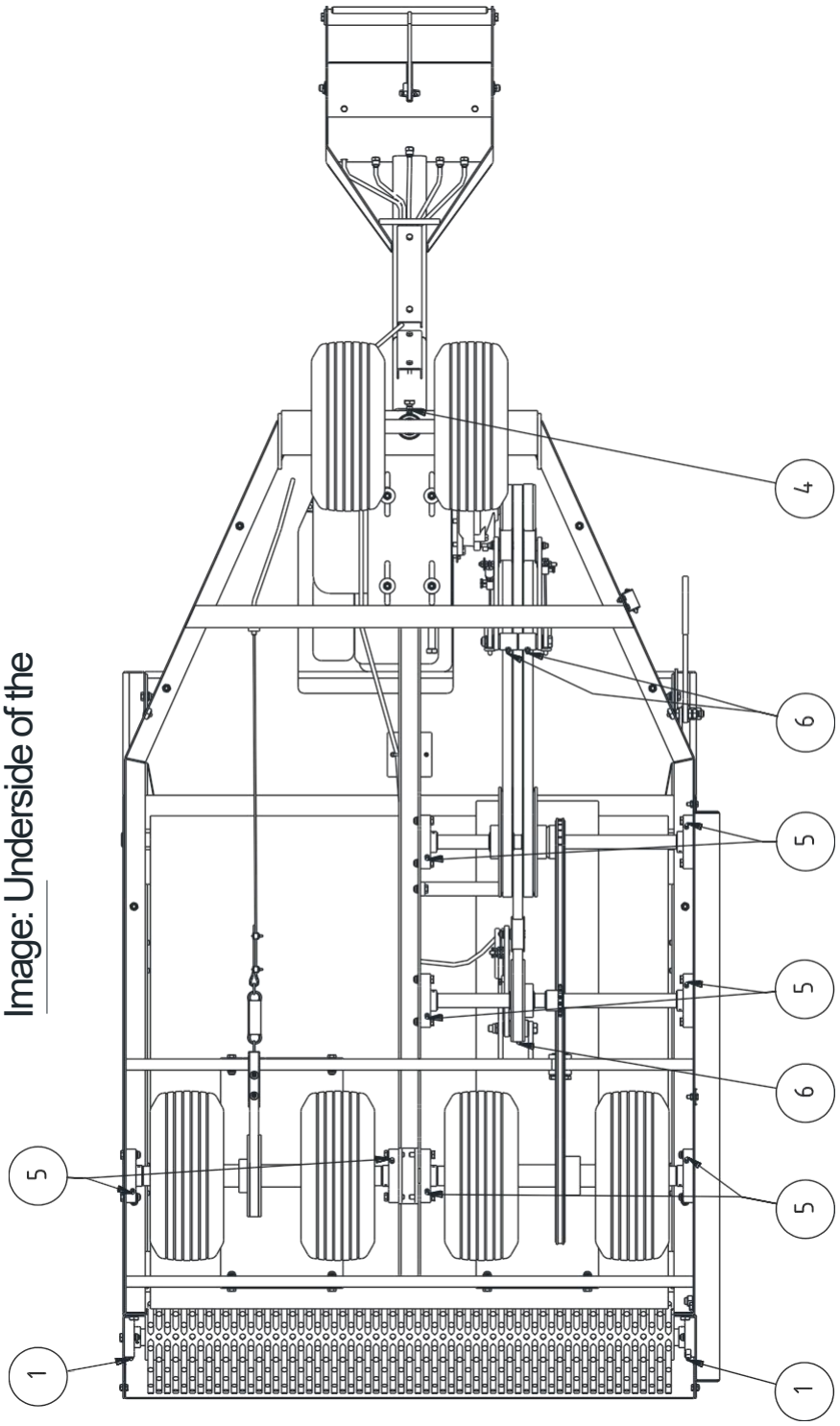



Fig. 4: Lubrication points

## Tension the chains

**Drive chain (5)**

- Remove the protective cover (1) by loosening the screws (2).
- Loosen the screws (6) and tension the drive chain (5) by pulling the drive shaft (7) evenly backward.
- Secure the adjusted chain tension by tightening the screws (6).
- The brake shaft (8) must be aligned with the drive shaft (7).
- Reinstall the protective cover (1) using the screws (2).

**Chain for the conveyor belt and brush drive (3)**

- The chain is automatically tensioned by the tension spring (4).

**Check the tension of the tension spring (4) regularly and replace it if necessary.**

**Lubricate the chain for the conveyor belt and brush drive (3) and the chain for the drive (5) regularly with a maintenance spray!**

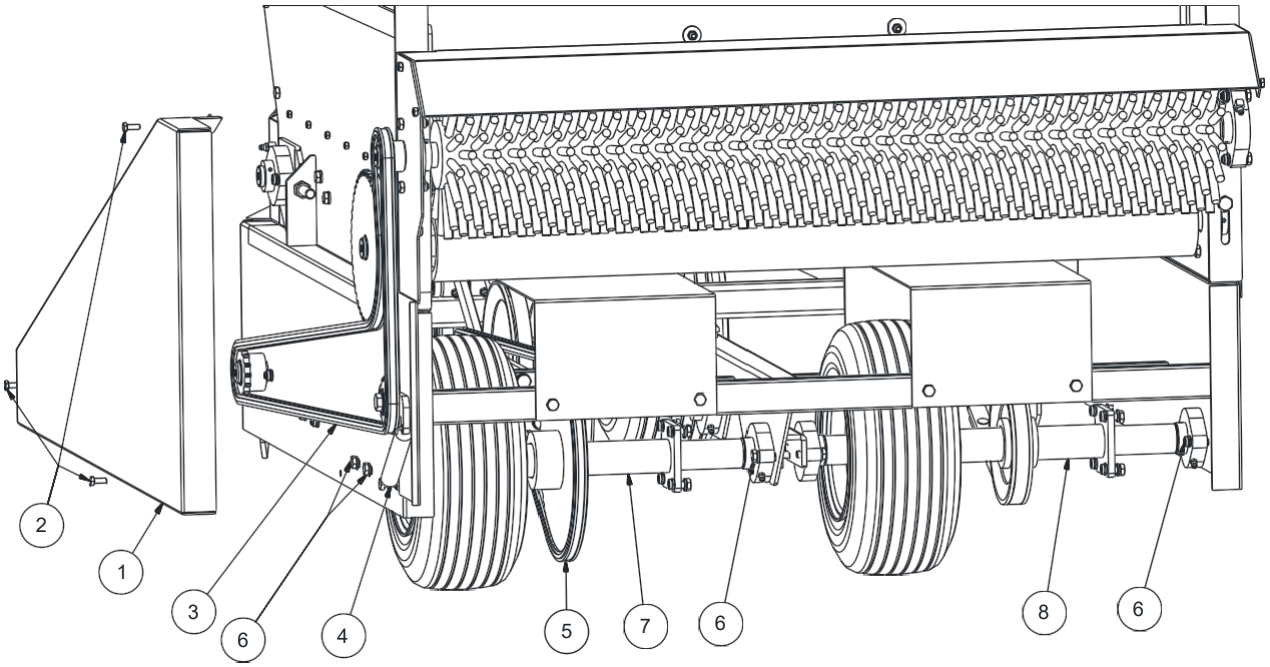



Fig. 5: Tensioning the chains

## Tension the V-belts

### Overall tension

- Remove the protective cover (1) by loosening the cover fastener (2) and unscrewing the star knob (3).
- Loosen the mounting screws (4) and the lock nut (5) on the motor.
- Adjust the tension of the V-belt by moving the motor using the adjustment screw (6) and tighten the lock nut (5).
- Tighten the motor mounting screws (4).
- Replace the protective cover (1) and secure it with the cover fastener (2) and the star knob (3).

**Excessive tension causes the forward, reverse, and spread units to continuously run in freewheel mode. If this is the case, the overall tension must be reduced, or each V-belt must be adjusted individually.**

### V-belt for forward gear

- Adjust the belt tensioner using the adjustment screw (7).

### V-belt for conveyor belt and brush (spreading unit)

- Adjust the belt tensioner using the adjustment screw (8).

### V-belt for reverse gear

- Lift the spreader and adjust the belt tensioner using the adjustment screw (9).

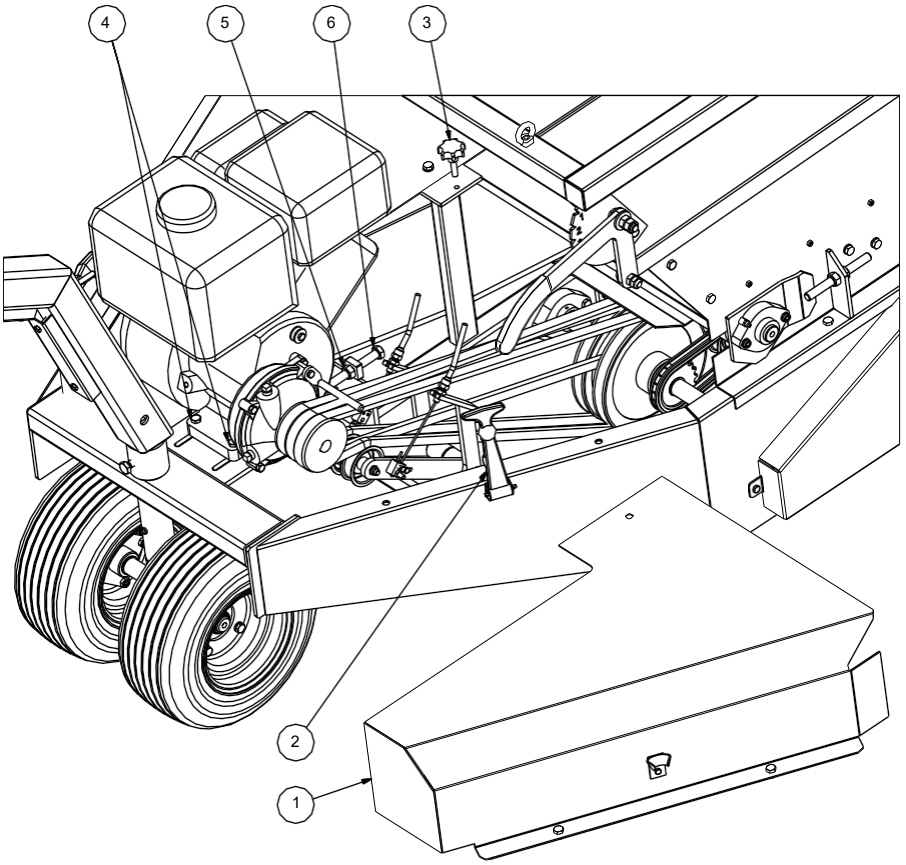



Fig. 6: Tensioning the V-belt

## Adjust the distance between the brush rollers (if necessary)

Wear on the brush roller increases the gap between the brush roller and the conveyor belt. This can lead to uneven spreading. The brush roller gap can be adjusted as follows:

- Loosen screw (1) on both sides of the brush roller.
- Press the brush roller down until it lightly touches the conveyor belt.
- Tighten the screws (1) on both sides of the brush roller.

## Tension the conveyor belt (if it slips)

- Loosen the lock nut (2) on both sides.
- Tighten the nut (3) on both sides evenly clockwise, ½ turn at a time, until the conveyor belt runs smoothly.
- Tighten the lock nut (2) on both sides.

**Excessive tension shortens the conveyor belt's service life!**

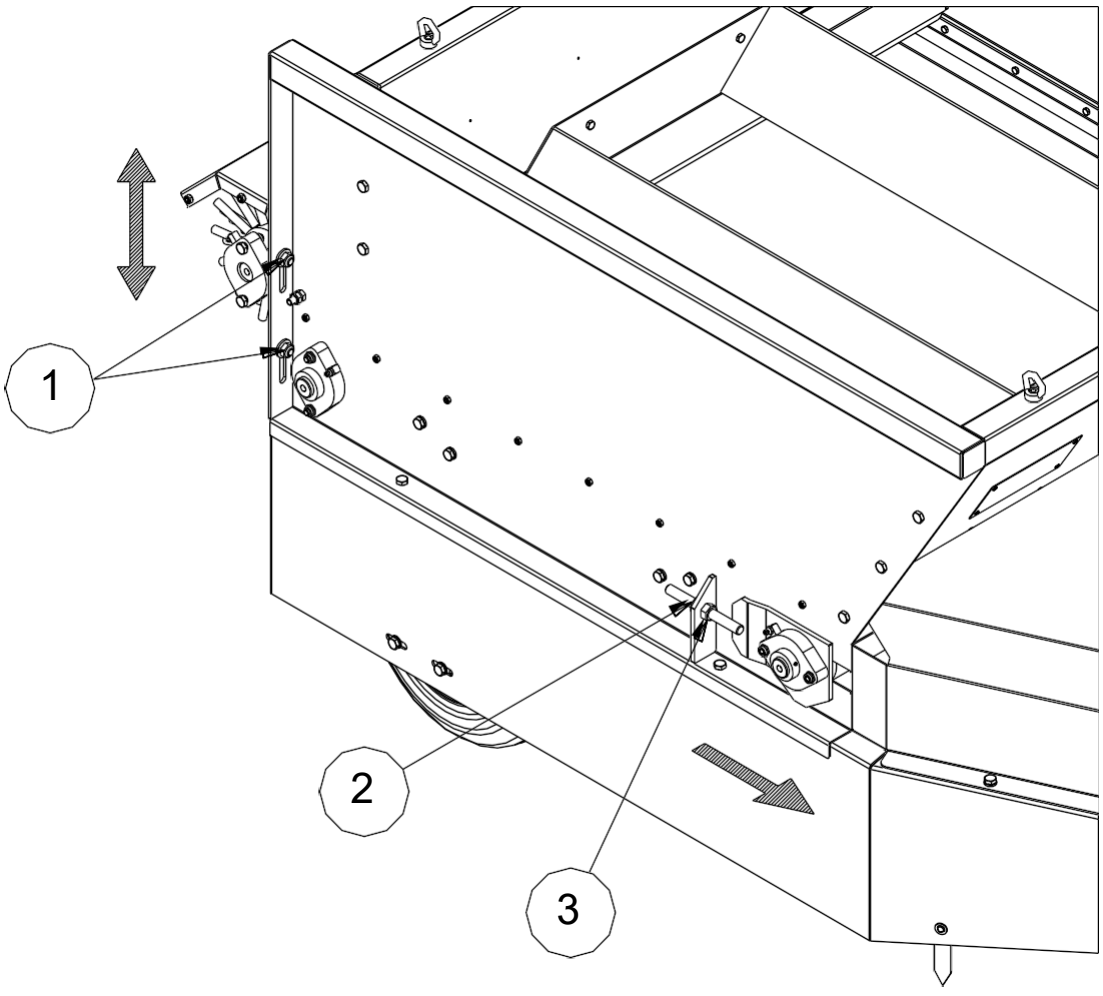



Fig. 7: Tensioning the conveyor belt

## Remove the hopper from the chassis

To remove and install the conveyor belt and to perform maintenance work on the chassis, the hopper must be removed from the chassis:

- Loosen the screws (2) and remove the protective cover (1).
- Push the tension spring (4) upward in the direction of the arrow to release the chain tensioner (5), then remove the chain (3).
- Detach the hopper (6) from the chassis (9) by removing the screws (7).
- Lift the hopper (6) using the ring nuts (8) and place it on a sturdy surface.

***Reattach the hopper to the chassis in reverse order.***

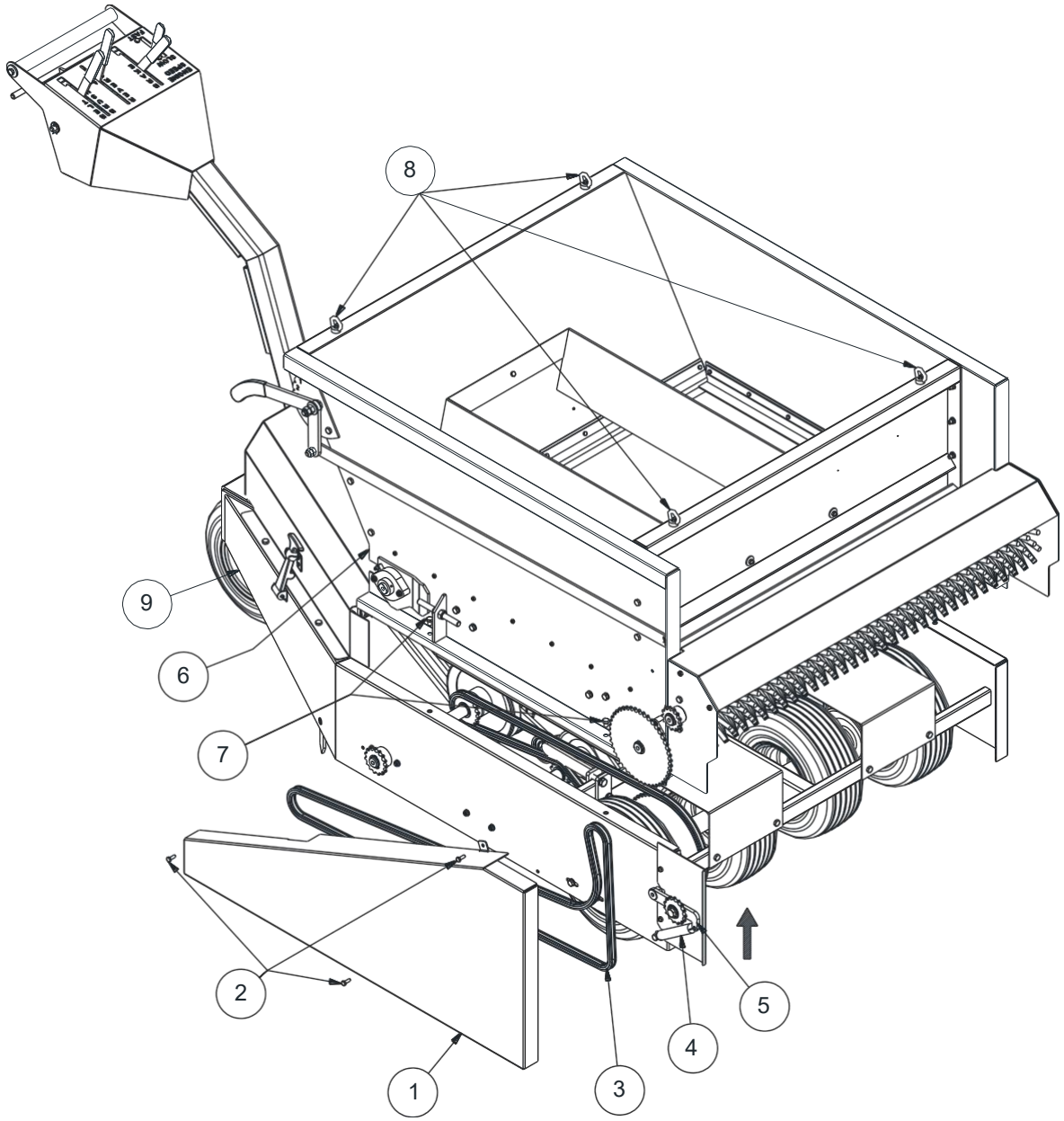



Fig. 8: Remove the hopper from the chassis

## Replace the brush roller

The brush roller (6) consists of ten individual segments that interlock. The two outer segments are each secured to the shaft with three set screws (5). Proceed as follows to replace the brush roller:

- Loosen the adjusting screws (1) on the brush bearing on the right side.
- Remove the right brush holder (4) by removing screws (2) and (3).
- Loosen the brush roller (6) by removing the set screws (5). Then pull all brush segments to the right. Pay close attention to the order and placement of the brush segments.
- Slide the new brush segments onto the brush shaft. Pay attention to the start and end segments.
- Install the brush bearing holder (4) using screws (2) and (3).
- Tighten the adjusting screws (1) on the brush bearing.
- Centre the brush and clamp it in place with a screw clamp so that the teeth engage fully.
- Loosen the set screws (5) on both outer segments of the new brush roll (6).
- Drill a hole in the brush shaft for the brush roller (6) with a diameter of 5 mm and a depth of approx. 4 mm. Make sure not to damage the thread of the brush roller (6).
- Secure the brush roller by tightening the set screws (5) in the start and end segments.

**The holes from the old brush roller can no longer be used!**

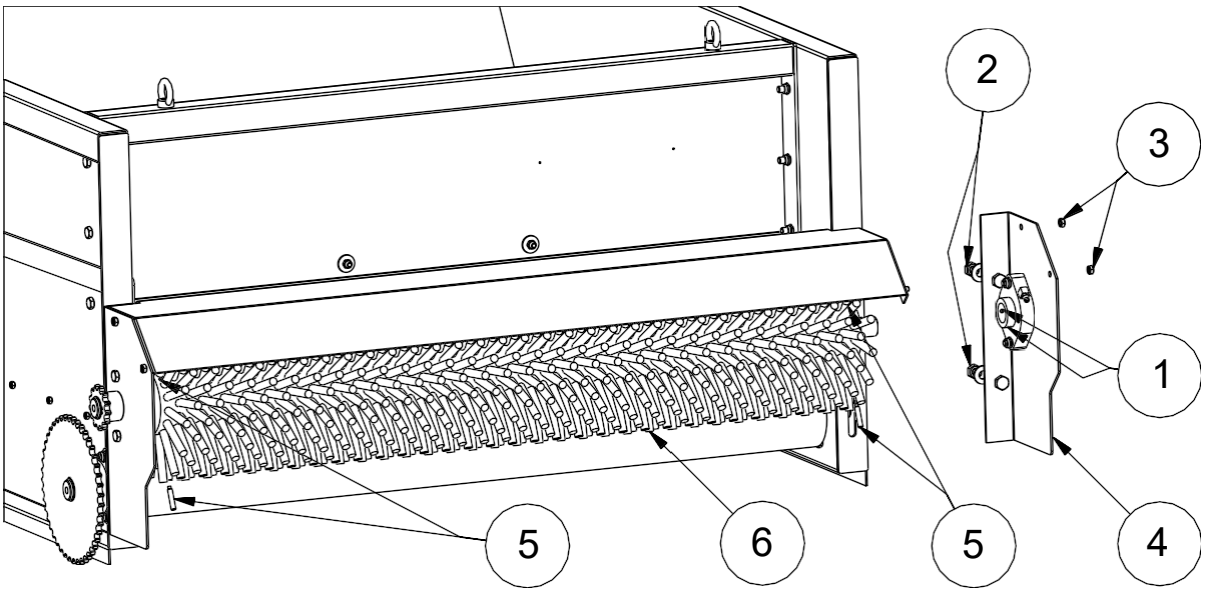



Fig. 9: Replacing the brush roller

## Remove and install the conveyor belt

- Release the tension on the front pulley by loosening the nuts (1) in the direction of the arrow.
- Loosen the bearing adjustment screws (2) on the right side in the direction of travel.
- Remove the brush roller (4) by loosening the screws (3). (see page 18)
- Completely remove the right-side panel (6) by removing the screws (5). (see page 18)
- Pull the old conveyor belt (7) to the right in the direction of travel and replace it with a new one. (see page 18)

***Reassembly is performed in reverse order.***

## Tension the conveyor belt after installation

- With the conveyor belt slack, mark a length of 500 mm on both sides of the conveyor belt.
- Tension the conveyor belt gradually and evenly on both sides using the two tensioning bolts until the marked length is stretched to a maximum of 502 mm. (see page 14)
- Let the conveyor belt run in for about 30 minutes until it runs cantered between the side guides; readjust if necessary.



**The conveyor belt must not rub against the sides, as this will damage the belt. When adjusting the conveyor belt, gradually tighten the side where the belt is rubbing.**

**Excessive tension shortens the conveyor belt's service life!**

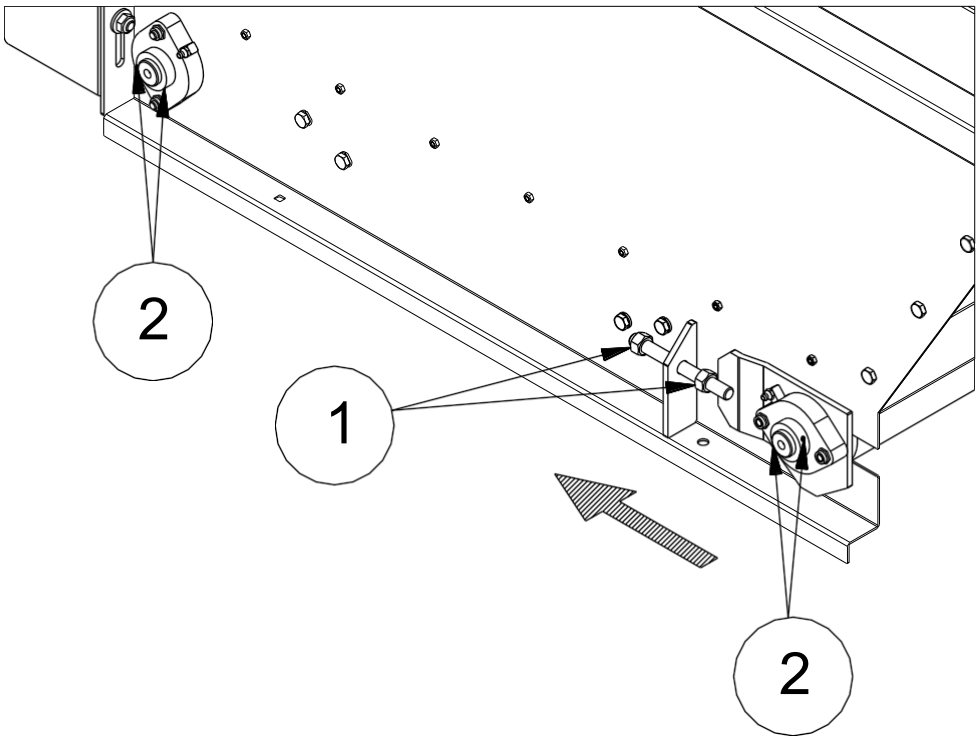



Fig. 10: Removing and installing the conveyor belt

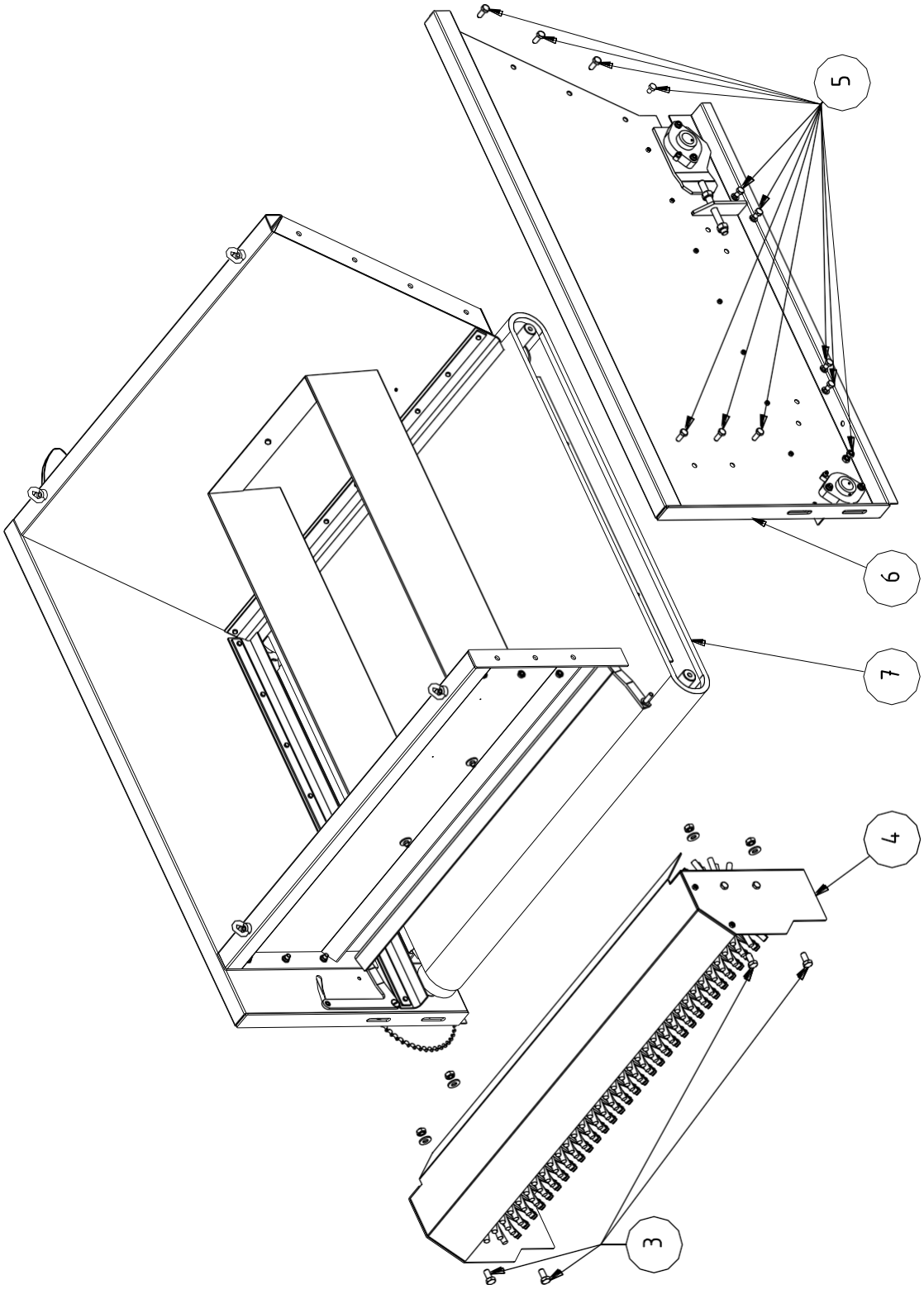



Fig. 11: Removing and installing the conveyor belt

## Troubleshooting

| *Problem* | *Cause* | *Solution* |
|---|---|---|
| | | |
| The slide valve won't open. | The slide's fasteners are too tight.<br><br>The flap is stuck. | Loosen the fasteners.<br><br>Check if the flap opens. |
| | | |
| Material is not coming out of the machine. | The slide valve is closed.<br><br>Drive is not engaged.<br><br><br><br>Conveyor belt is slipping. | Check the valve and open it (see page 9).<br><br>Check the control lever (see page 8).<br><br>Tension the conveyor belt (see page 14). |
| | | |
| The engine won't start. | No gasoline in the tank | Refill the tank with gasoline (see page 6). |
| | | |
| Engine shuts down due to overload. | Drive forward and reverse gears. | Adjust the V-belt tension (see page 13). |
| | | |
| Coating layer is too thin. | Insufficient material feed | Increase the slide opening (see page 9). |
| | | |
| Spreading thickness is too thick. | Too much material is being fed. | Reduce the slide opening. (see page 9) |
| | | |
| The feed rate or spreading pattern is uneven. | Distance between the brush rollers is too large. | Adjust the distance between the brush rollers (see page 14). |
| | | |
| Conveyor belt does not start. | Conveyor belt is not tight enough.<br><br>Machine is overloaded. | Tension the conveyor belt (see page 14).<br><br>Take into account the load capacity of 0.33 m³ (see page 6). |
| | | |
| Conveyor belt and brush roller do not rotate. | V-belt tension is too low. | Increase the V-belt tension (see page 13). |
| | | |
| Conveyor belt and brush are idling (idle speed). | V-belt tension is too high, | Reduce the V-belt tension (see page 13). |
| | | |

Fig. 12: Troubleshooting