

Operating manual

SWE-45

Front sweeper



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1 About this Operating Manual

Dear Customer,

We thank you for purchasing this front sweeper and the trust that you have put in us.

Before the machine's first operation, please read this Operating Manual completely and thoroughly.

Keep this Operating Manual handy so that it is easily accessible. You can then refer to important information and handling instructions as and when required.

Enumerations are marked with bullets as follows:

- Text
- Text
- Text

Handling instructions are given in the sequence in which they need to be carried out, marked as follows:

1. Text
2. Text
3. Text



The front sweeper is subject to technical progress. All information, figures and technical specifications conform to the latest version at the time of publication. The manufacturer reserves the right to make modifications at any time in the context of technical developments.

2 Safety



Note

It is absolutely necessary to read this!!!

Regulations and instructions that you need to observe and follow are summarised in this chapter.

People who install, operate and maintain the front sweeper have to read and understand this Operating Manual.

2.1 Intended Use

- This machine has been built for the normal use of street and pavement cleaning, the care of green areas and parks and winter road maintenance only.
- Any use which goes beyond this definition shall be deemed as not as intended. The manufacturer is not liable for any loss or damage resulting from this, and the operator alone shall be responsible for any such risk.
- Intended use also includes compliance with the conditions specified by the manufacturer for operation, maintenance and service.
- Each extension unit may only be operated, maintained and repaired by people who are familiar with it and have been made aware of the dangers.
- The intended use also implies that exclusively original – replacement parts and add-on equipment and such parts and equipment is used which corresponds to the technical specifications of the manufacturer.
- Unauthorised alterations of the machine immediately lead to liability exclusion for the manufacturer. The resulting damages of the unintended use can lead to the following:
 - Risks to the health of the operator or third persons
 - Damage to the tractor or other devices mounted on it
 - Environmental damage
 - Immediate lapse of the guarantee
- Alterations of the machine and/or its accessories which are not authorised by the manufacturer lead to a lapse of the guarantee and exclude the manufacturer from liability for damages which are a result of these alterations.
- To avoid accidents and reduce the risks of accidents, the relevant accident prevention guidelines and all other generally accepted safety, occupational medical and traffic regulations must be adhered to.

2.2 Qualification of Personnel

Only such persons should install, operate and maintain the machine who are qualified as follows:

- They are at least 18 years of age.
- They have read and understood this Operating Manual.

2.3 General Safety Instructions

General information on safety is explained in this chapter and this is used in the subsequent chapters.

Follow these safety instructions in order to ensure safe operation and to save working time and costs.

- Apart from the notes in this Operating Manual, note all generally accepted safety and accident prevention regulations! Young people under the age 16 may not operate this machine!
- When using public roads, adhere to the respective regulations!
- Before starting work, familiarise yourself with all equipment and operational elements and their functions. Ensure that all protective devices are installed correctly.
- The operator is responsible for third parties in the operating range!
- Staying in the danger zone of the machine is prohibited!
- Check the immediate vicinity before start-up. Ensure there is sufficient visibility!
- When fluids (hydraulic oil) exit under high pressure, they can penetrate the skin and cause severe injuries! Consult a doctor immediately – Danger of infection!
- Repair, maintenance and cleaning works and the removal of malfunctions should only be performed when the drive is switched off and the engine is at a standstill. Remove ignition key! After performing this work, re-attach all safety devices!
- When performing maintenance works on the lifted machine, always secure it with a suitable support element!

These safety instructions are applied in the following chapters.



Danger!
The most severe injuries may occur to the operator or third persons.
Follow the safety instruction.



Attention!
Minor injuries may occur to the operator or third persons. The tractor, the sweeper or the environment could be damaged. Note the safety instruction.



Note!
Important and helpful tips or information for the operator.
Please read this note. It simplifies your work.



Attention!
Injuries can occur.
Wear protective work gear.

2.4 Special Safety Instructions

Safety instructions are listed in this section and are placed in the form of stickers on the devices mounted.



Attention!
Injuries may occur as a result of unintended operation. This can damage the machine.
Read the Operating Manual completely.
Follow the safety instructions.



Danger from moving parts when the engine is running – Keep a safe distance.



Attention!
Risk of crushing by moving parts.
Never reach into the area posing a risk of crushing as long as there are parts moving or could move there.
Follow the instruction in the Operating Manual.



Only touch machine parts when they have reached a complete standstill.



Attention!
Before performing maintenance and repair works, switch off the engine and remove the key. Risk of injury through moving parts.



Attention!
Risk of injury through turning parts. Switch off the machine. Wait until all machine parts stop moving before you convert or maintain the equipment.
Do not stay within the range of the drive shaft.
Increased accident risk due to turning power take-off. Do not enter the operating range of the power take-off when it is turning.
For your safety, do not wear loose clothing, straps or other loose things.



Be careful when high-pressure fluid exits.
Follow the instructions in the technical handbook.



When the engine is running, never open or remove safety devices.



Attention!
Check all screw connections before and after each operation. Loose connections must be tightened again. Damages may occur.

2.5 Basic Rules

- Before the machine is started up, check it for operational safety every time!!!
- Cleaning work, such as cleaning with a high-pressure device, should be performed so that the water jet is not pointed directly on bearing and turning parts (shaft seals, grease nipples and so on). Otherwise check the free movement of parts and grease, if necessary!
- In the case of non-compliance, all guarantee claims lapse.

3 Task and Application

Combined with a tractor, the sweeper can be used to sweep dirt and snow on roads and pavements. With an appropriate dirt catcher (available as an accessory), the swept-up dirt can be caught at the same time.

This sweeper is an independently sweeping machine. This means the dirt is swept and caught by the dirt catcher (accessory), if applicable. Because of this, you should expect a certain dust development with this machine, unlike with a sweeping and suction machine.

The machine is installed at the front of a tractor and is driven from it through a power take-off or a hydraulic engine. To sweep large areas, gutters or similar things, the machine can be swivelled hydraulically in both directions.

All operation functions can be controlled from the driving seat.



Attention!
When sweeping snow, do not use the front sweeper with the available dirt catcher. This can damage the front sweeper.
The sweeper may only be used for small levels of snow, up to about 5 cm.



Attention!
When using a dirt catcher and / or mechanical or hydraulic side brush (available as an accessory), the sweeping roller cannot be swivelled. This can damage the front sweeper.

4 Delivery and Shipment

The sweeper is rigged to a pallet and delivered.

Lifting the sweeper from the pallet

1. Remove the protective packaging and the transport locks.
2. Lift the sweeper using suitable means (crane or forklift) from the pallet and put it down.

Transport over long distances

If you would like to transport the sweeper over longer distances (e.g. dispatch by forwarding agency), you must rig the machine to a pallet as at the time of delivery.

5 Installation



Danger!
Switch the tractor off and pull out the ignition key before you assemble or dismantle the devices mounted on it.



Note!
Enter the chassis number of the front sweeper in the 7.4 section of this Operating Manual.

5.1 Install Adapter Extension

Depending on the chosen accessories, either an adapter extension rigid (Order No. 131_7733) or adapter extension swing balance (Order No. 131_7734) is mounted to the basic model.

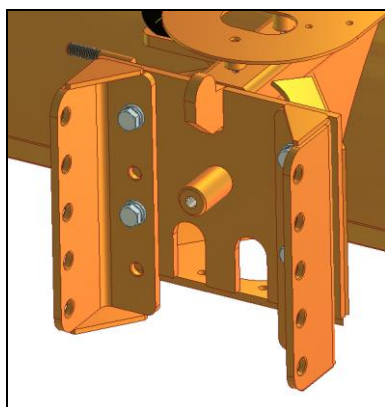


Figure 1: Adapter extension rigid

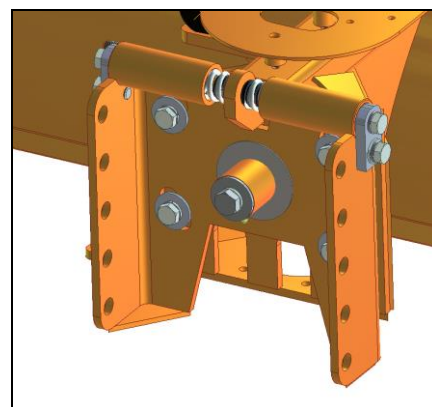


Figure 2: Adapter extension Swing balance

Depending on the design of the front hydraulics, hang the front sweeper in the tractor triangle or the two-point attachment. The first time, the adapter extension may have to be adjusted depending on the desired lifting height.

5.2 Mount Extension Cat or Extension JD



Attention!
Extension must be secured via bolts

To attach the sweeper, a tractor with coupling triangle or JD lift is required.

Adding the extension using a coupling triangle is done using either extension cat. 0 or scanfram. When the quick coupling triangle is lifted into the extension, for safety reasons, the locking bolt must be pushed in and secured by the spring plug. If this is not possible, the locking part must be re-adjusted. Loosen both nuts of the locking part and move the lock so that the bolt can be pushed in. Re-tighten the nuts after that.

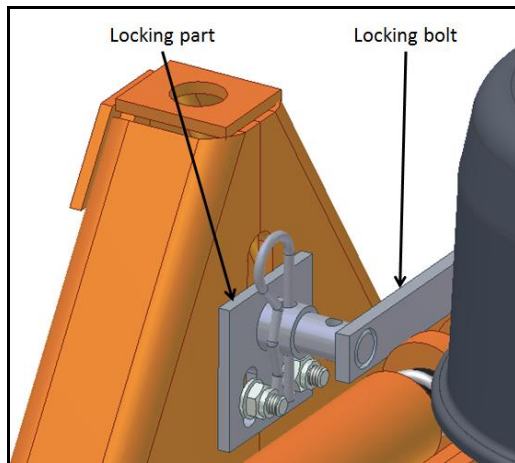


Figure 3: Locking coupling triangle

The JD extension is added on using the JD lift mounted onto the tractor. The JD extension can be tilted by moving the nuts on the eye-bolts parallel. The JD extension must be adjusted so that the sweeper is horizontal when in use. The connection is secured via two locking bolts.

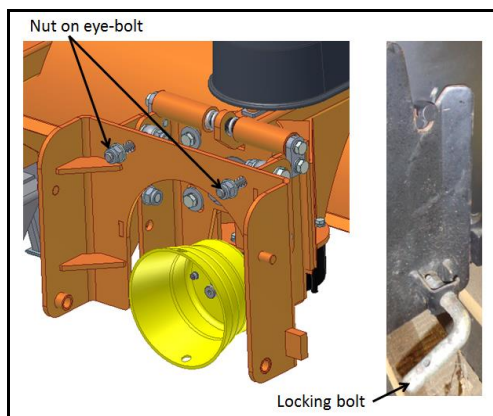


Figure 4: Locking JD extension

5.3 Assembly of the Drive Shaft for Sweepers with Mechanical Drive

A drive shaft or hydraulics are required to transfer power between the tractor and the sweeper. Only use the drive shaft supplied by the manufacturer.

Depending on the tractor type, the drive shaft supplied may be too long. In this case, it must be shortened in accordance with the following steps.



Attention!
Damages on the extension unit or tractor can occur.
Only use the supplied drive shaft.



Note!
When installing the drive shaft, also follow the supplied original instructions of the drive shaft manufacturer.



The safety and maintenance instructions which are contained in the Operating Manual supplied with the drive shaft have to be followed absolutely!

5.3.1 Adjusting the drive shaft

1. Separate the drive shaft halves from one another.
2. Install one end of the drive shaft on the tractor.
3. Install the other end of the drive shaft on the extension unit.
4. At the shortest working position mark the piece to be sawed off on one half of the drive shaft.

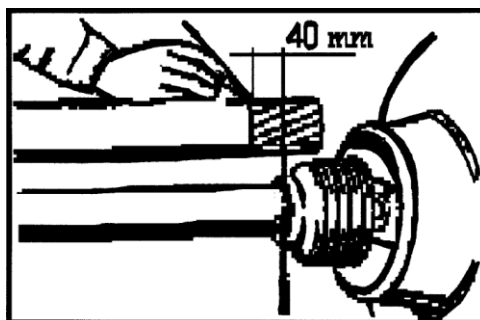


Figure 5: Marking the interface

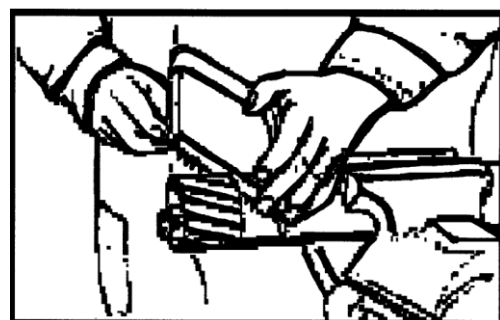


Figure 6: Sawing off the drive shaft

5. Cut off the drive shaft protective cover up to the marking.
6. Saw off the pipe section. Attention: the pipe section has to be 10mm longer than the guard.

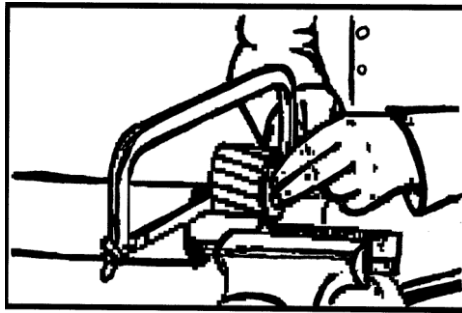


Figure 7: Saw off the pipe section

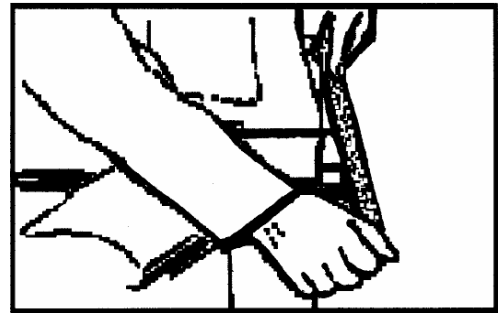


Figure 8: Deburr the edges

7. Repeat the instructions on the second half of the drive shaft.
8. Deburr all edges that have been cut.
9. Grease the pipe sections.

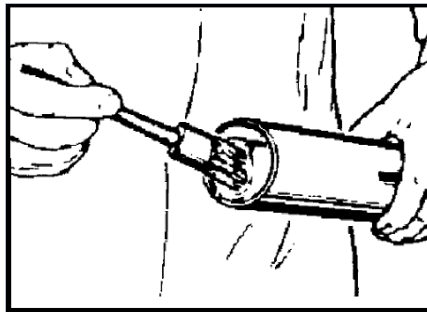


Figure 9: Greasing the section pipes

10. Push the section pipes together.

5.3.2 Installing the drive shaft

1. Push down the locking disc on the outer side and keep it pushed down.
2. Pull the splined hub on the splined shaft of the power take-off.
3. Release the locking disc.
4. Move the drive shaft somewhat to and fro until the locking disc latches audibly.

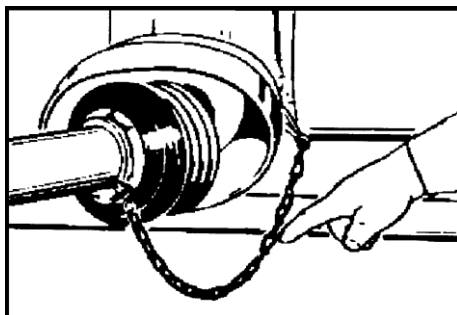


Figure 10: Latch in locking disc

5. Connect the counterpart of the shaft with the extension unit and secure it with the screw contained in the delivery scope.
6. Mount the safety chains of the drive shaft to a fixed element on the tractor and on the extension unit.

5.3.3 Drive shaft angled sharply

Depending on the tractor, the drive shaft can be angled differently in the operating position. If the drive shaft is angled too much, the service life is reduced. The angle of the drive shaft can be reduced by extension (Order No. 131_7828).

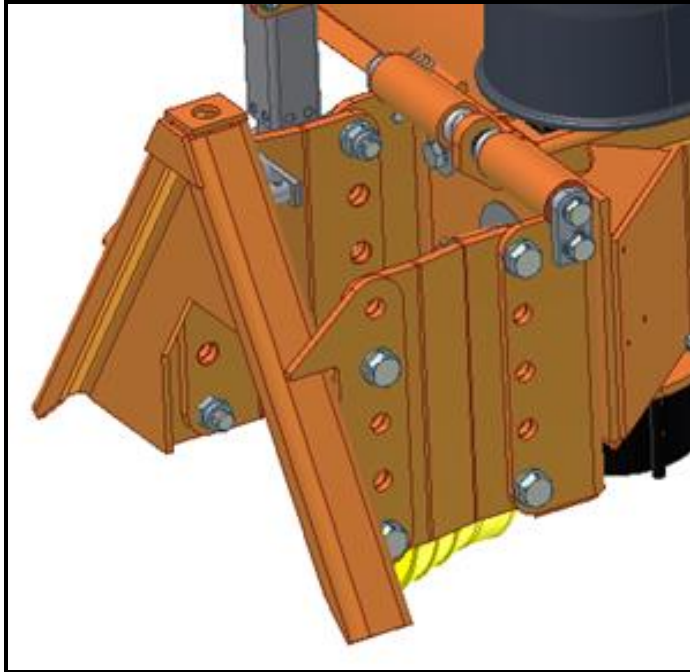


Figure 11: Prolongation extension cat

5.4 Connect hydraulic connections of the sweeper to the tractor



Make sure the plug-in connectors are clean.

Hydraulic swivelling

The sweeper is equipped with a hydraulic swivelling unit. The two hydraulic hoses which have to lead away from the swivel cylinder have to be connected to a free hydraulic cycle on the tractor.

Hydraulic drive

If the sweeper is equipped with a hydraulic drive, the two hydraulic hoses (flow and return) have to be connected to a free hydraulic cycle on the tractor. The litre capacity of the cycle must suit the hydraulic engine.

If not enough hydraulic cycles are available on the tractor, an electro-magnetic switching valve (Order No. 131_7746) is required.

5.5 Install the Dirt Catcher



Note!

The dirt catcher is an accessory and is not part of the delivery scope of the front sweeper. Order the dirt catcher separately.

1. The cylinder to swivel the sweeper is replaced through the connecting rod.

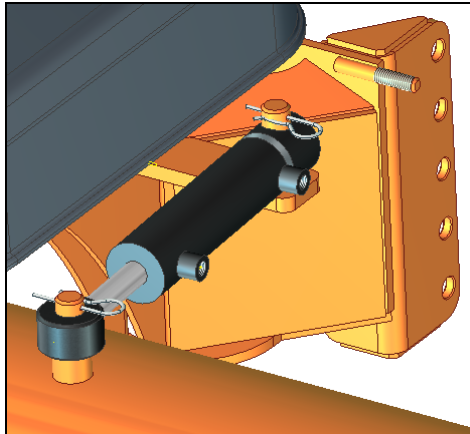


Figure 12: With cylinder

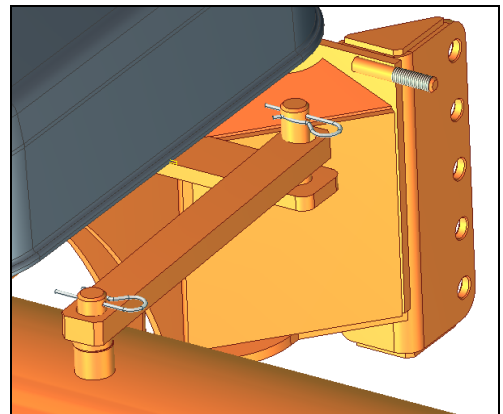


Figure 13: With connecting rod

2. The cylinder holder and the lever is screwed onto the sweeper. The cylinder which is used to swivel the sweeper is used to lift the dirt catcher.

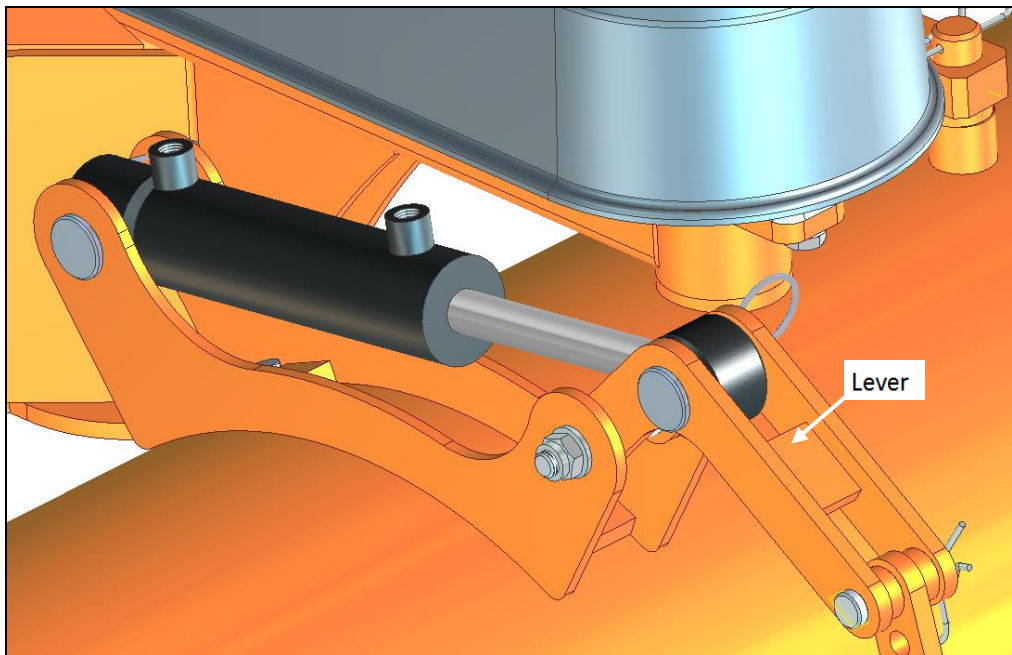


Figure 14: Front sweeper with cylinder holder

3. The screw-on bushing and counter plate to lift the dirt catcher must be installed as shown in the pictures.

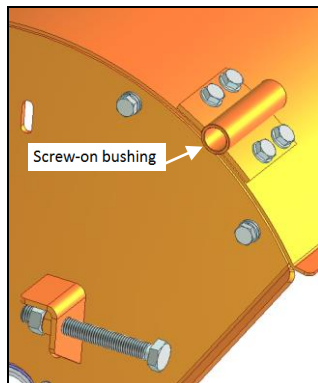


Figure 15: Screw-on bushing

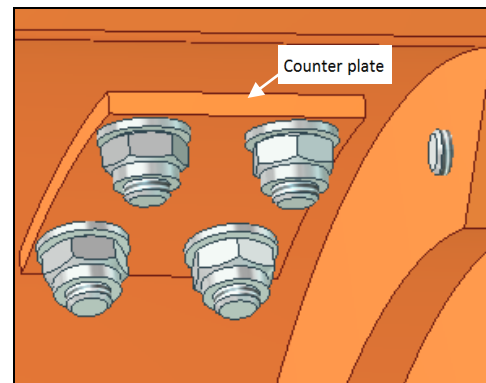


Figure 16: Counter plate screwed on

4. A screw M12x100 is screwed into the existing angle. The screw head is used as a stop for the dirt catcher. By adjusting the screw, the dirt catcher is positioned.

Points 3 and 5 are performed on the left and right side of the sweeper.

5. The dirt catcher is connected together via the screw-on bushing and bolts. This step is also done on both sides.

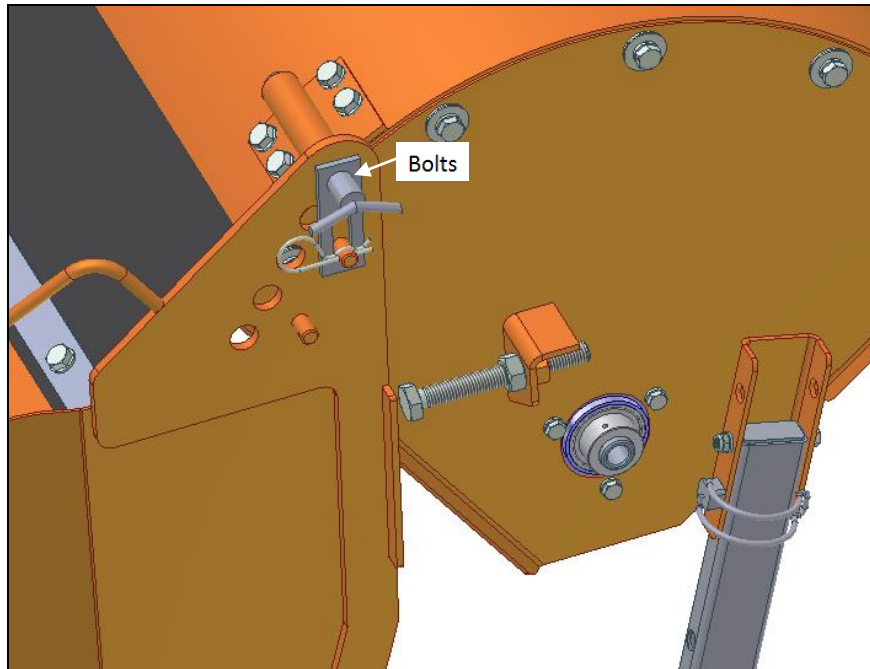


Figure 17: Pin sweeper and dirt catcher

6. Hang up the adjusting rod into the dirt catcher.

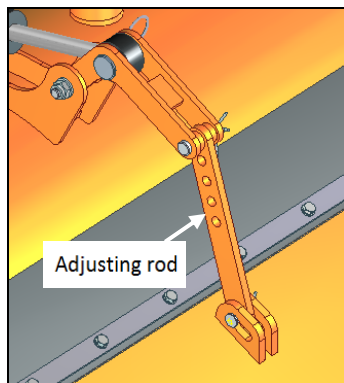


Figure 18: Lifting mechanism

7. Adjust the dirt catcher via screw 12 and the adjusting rod so that the wheels of the dirt catcher can roll on the floor.
8. Connect hydraulic hoses to the cylinder

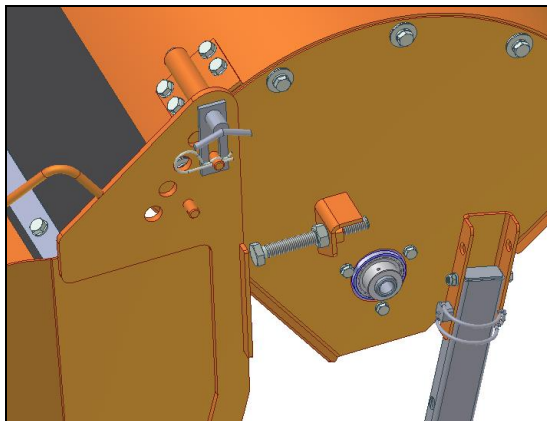


Figure 19: Stop dirt catcher

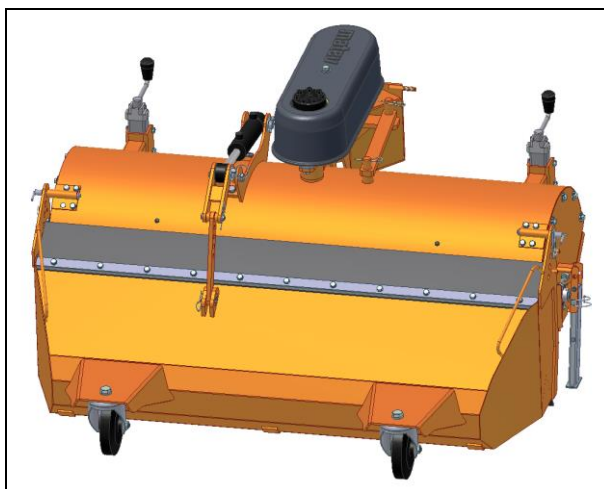


Figure 20: Dirt catcher installed

5.6 Mount Splash Guard and Splash Plate



Note!

The splash guard and splash plate are accessories and are not part of the delivery scope of the front sweeper. Please order this separately.

The splash plate is assembled as shown in Figure 21.

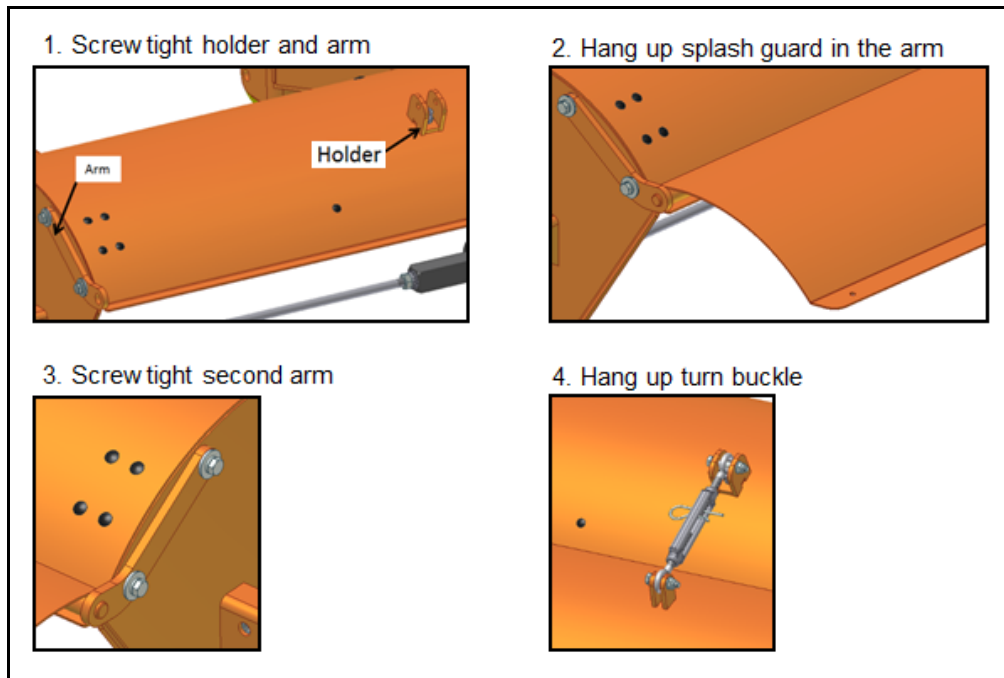


Figure 21: Installation instruction splash plate

The splash guard is also assembled as shown in Figure 21. Additionally, the supplied canvas is secured to the splash guard via a steel slat.

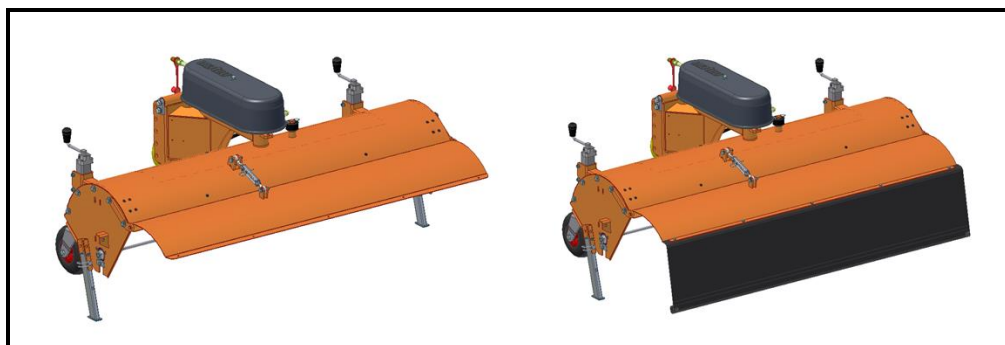


Figure 22: Sweeper with splash plate left, with splash gaurd right

5.7 Mechanically Assemble the Side Brush



Note!

The side brush is an accessory and is not part of the delivery scope of the front sweeper. Please order this separately.

The mechanical side brush is assembled as shown in Figure 23.

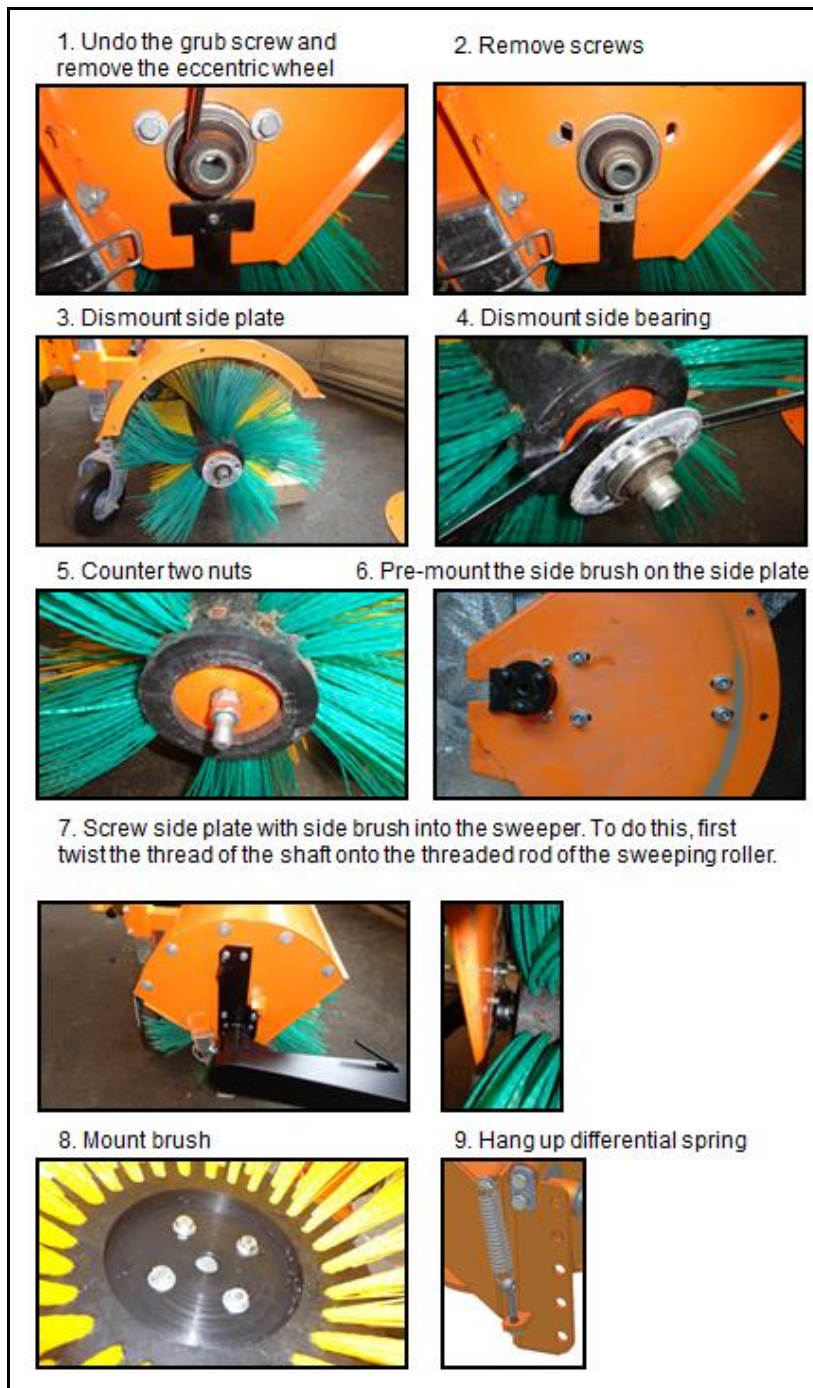


Figure 23: Installation instruction mechanical side brush

5.8 Hydraulically Assemble the Side Brush



Note!

The hydraulic side brush is an accessory and is not part of the delivery scope of the front sweeper. Please order this separately.

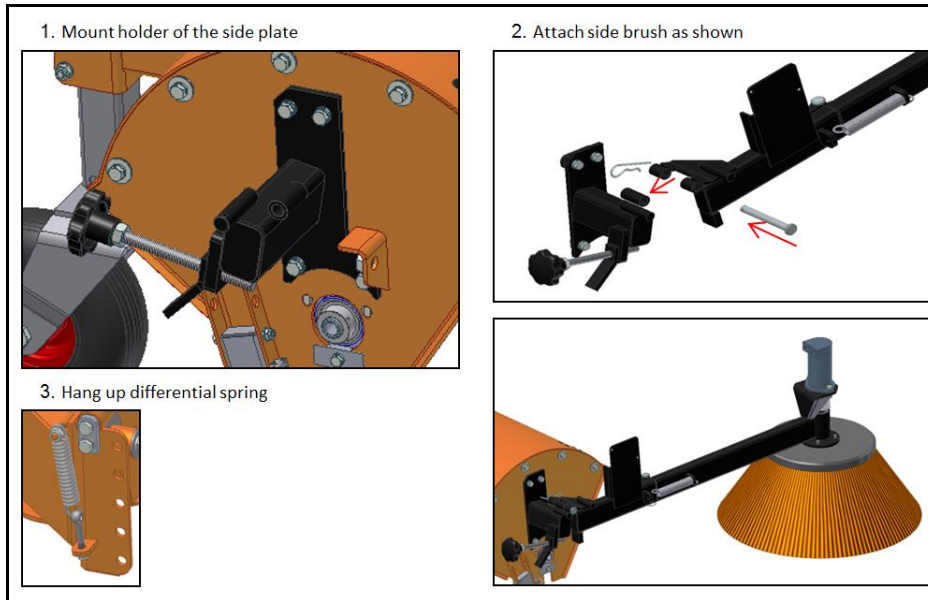


Figure 24: hydraulic side brush

If there is no free hydraulic cycle available on the tractor or the rotation speed of the side brush is to be adjusted via a current regulation valve, a hydraulic add-on kit (Order No. 131_7739) is necessary.

5.9 Installing the Irrigation Sprinkler



Note!

The irrigation sprinkler is an accessory and is not part of the delivery scope of the front sweeper. Please order this separately.

An additional operating manual is supplied for the irrigation sprinkler (Order No. 131_7704).

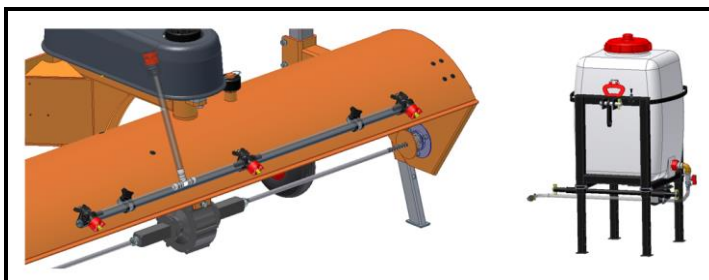


Figure 25: Irrigation sprinkler

5.10 Electro-Magnetic Switching Valve



Note!

The electro-magnetic switching valve is an accessory and is not part of the delivery scope of the front sweeper. Please order this separately.

The valve is mounted to the sweeper and hydraulically connected as shown in the pictures. The letters in the pictures mark the ends of the hydraulic lines.

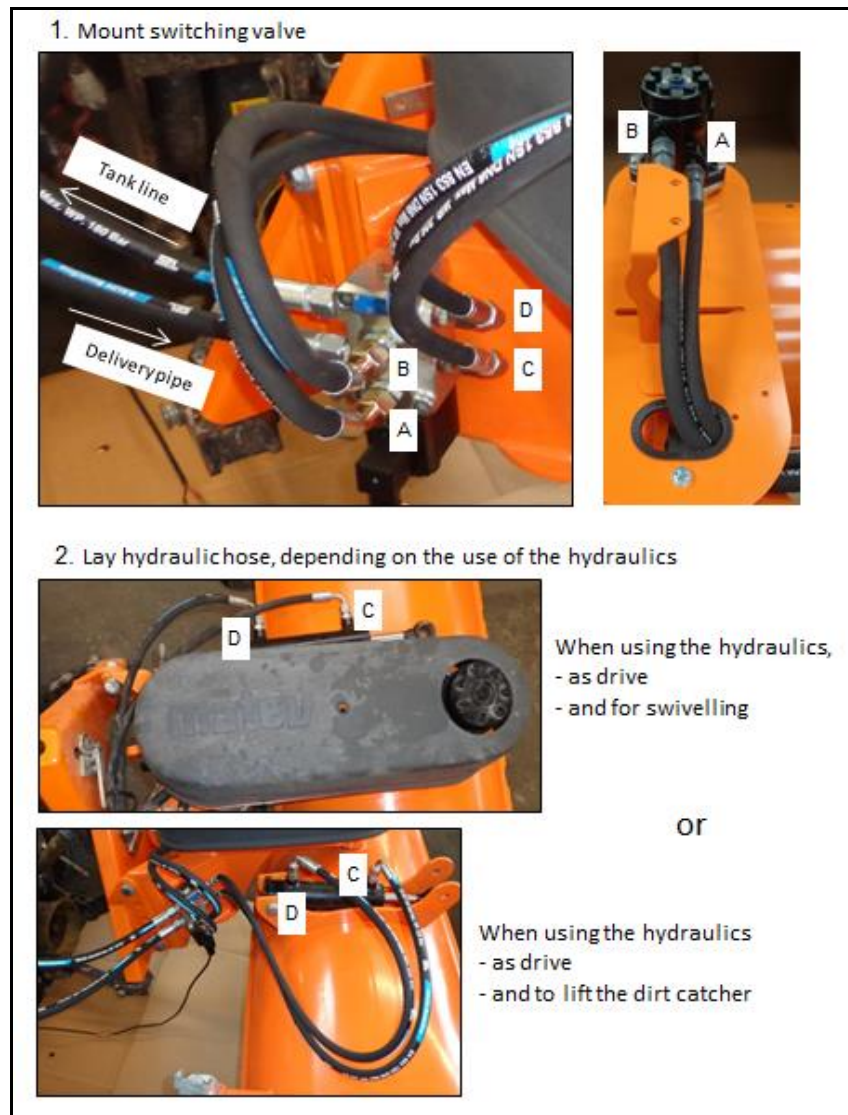


Figure 26: Electro-magnetic switching valve

Hydraulic lines consist of:

Line A: GE12L-1/2"; 1SN10-900-DKOL-DKOL90; GE12L-3/8"

Line B: GE12L-1/2"; 1SN10-700-DKOL-DKOL90; GE12L-3/8"

Line C: GE8L-3/8"; Adjustable angle 8L; 1SN06-DKOL-DKOL90; GE8L-1/4"

Line D: GE8L-3/8"; Adjustable angle 8L; 1SN06-DKOL-DKOL90; GE8L-1/4"

The electro-magnetic switching valve is electrically connected as shown in the pictures.

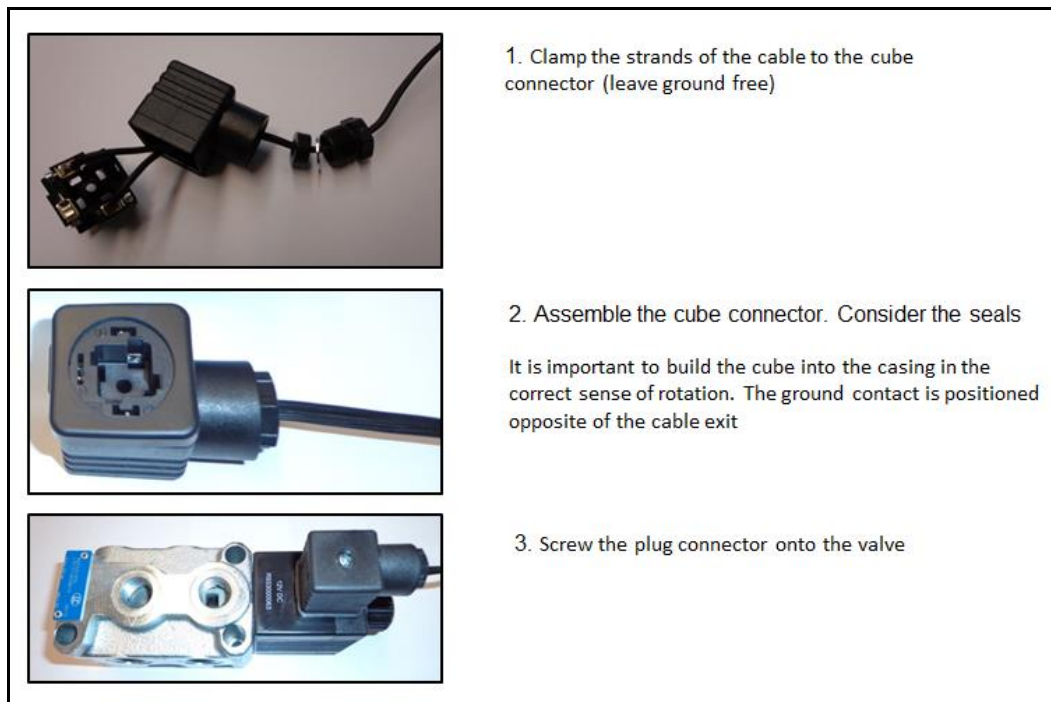


Figure 27: Electrically connect the switching valve

Connect the supplied switch and plugs to the electronics of the tractor and install.

5.11 Hydraulic Add-on Kit for Side Brush



Note!

The hydraulic add-on kit for the side brush is an accessory and is not part of the delivery scope of the front sweeper. Please order this separately.

The electro-magnetic switching valve is electrically connected as described in 5.10.

The valve is mounted to the sweeper and hydraulically connected as shown in the pictures. The letters in the pictures mark the ends of the hydraulic lines.

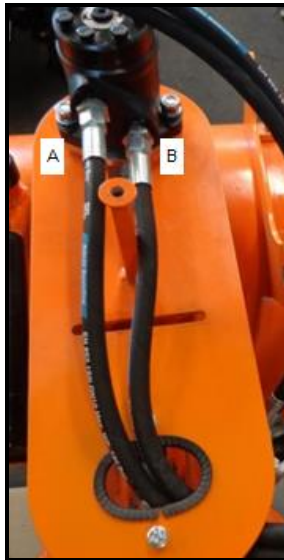


Figure 28: Add-on kit side brush, Engine connection

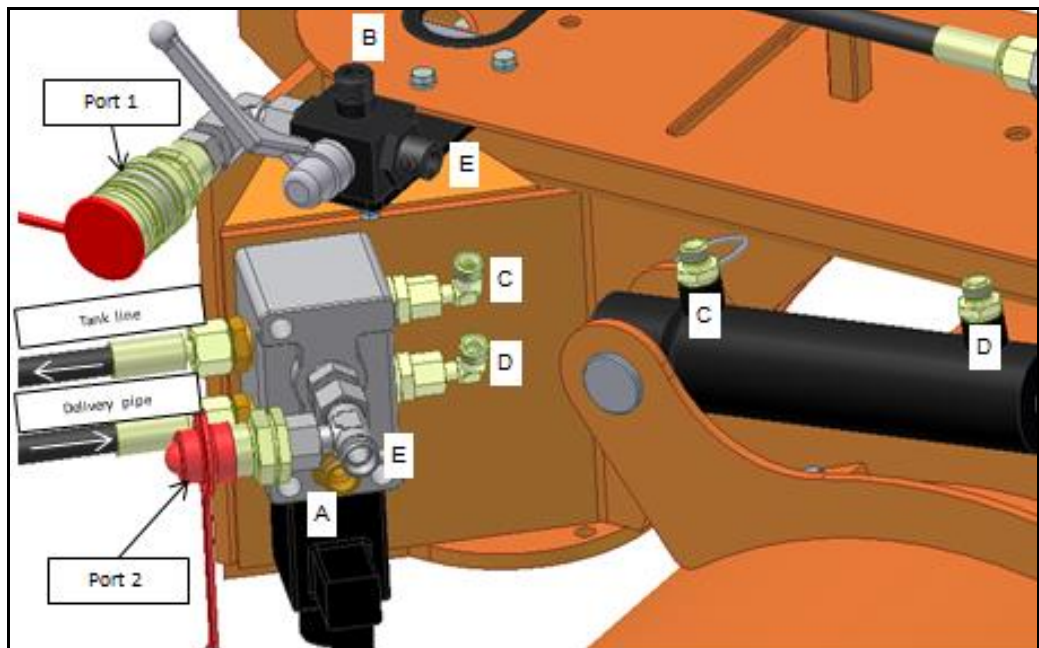


Figure 29: Add-on kit side brush, switching valve and 3-way ball valve

Hydraulic lines consist of:

Line A: GE12L-1/2"; 1SN10-900-DKOL-DKOL90; GE12L-3/8"

Line B: GE12L-1/2"; 1SN10-700-DKOL-DKOL90:

Line C: GE8L-3/8"; Adjustable angle 8L; 1SN06-DKOL-DKOL90; GE8L-1/4"

Line D: GE8L-3/8"; Adjustable angle 8L; 1SN06-DKOL-DKOL90; GE8L-1/4"

Line E: 1SN10-350-DKOL-DKOL45; T screw connection 12L adjustable; G12L-3/8"

Port 1: Adjustable angle12L; G12L-3/8"; Bushing BG3-3/8"

Port 2: Plug BG3-12L; Dust guard

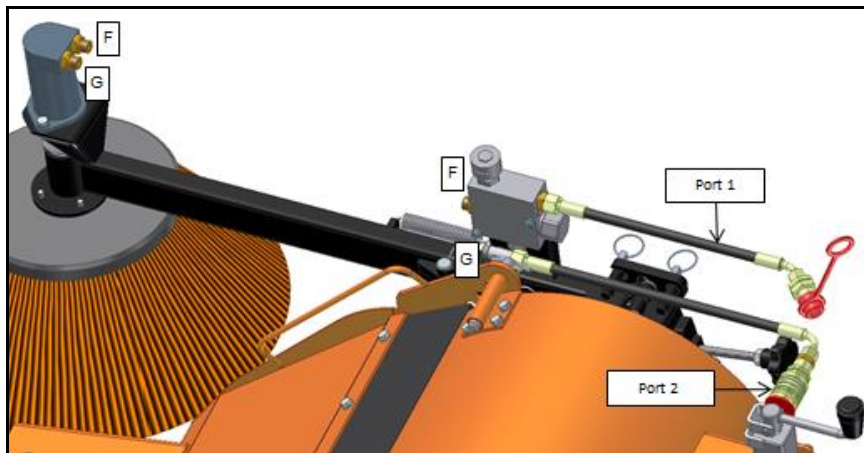


Figure 30: Add-on kit side brush, Flow divider

Hydraulic lines consist of:

Line F: GE12L-3/8"; 1SN10-600-DKOL-DKOL; GE12L-3/8"

Line G: GE12L-3/8"; 1SN10-600-DKOL-DKOL; T screw connection 12L adjustable; Adjustable angle 12L; Adjustable angle 12L; GE12L-3/8"

Port 1: GE12L-3/8"; 1SN10-850-DKOL-DKOL45; Plug BG3-12L; Dust cap

Port 2: 1SN10-900-DKOL-DKOL90; GE12L-3/8"; Bushing BG3-3/8"; Dust plug

Connect the ports 1 and 2 from Figures 29 and 30.

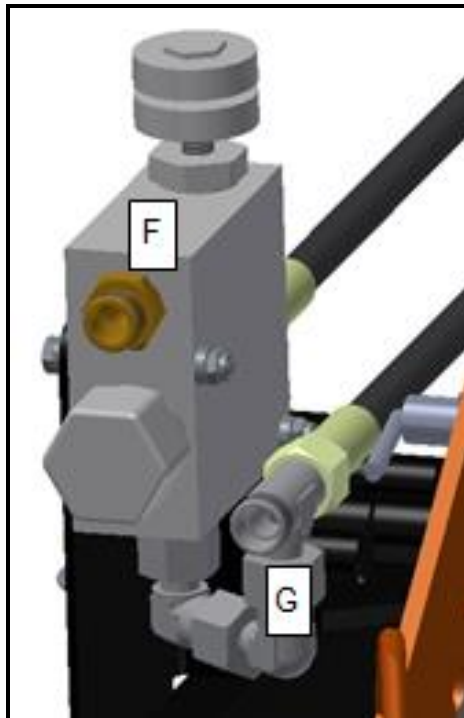


Figure 31: Flow divider

6 Operation



Attention!
Before starting up the machine, pay attention to the safety and handling instructions for operating the whole machine and the connection to the tractor.



Note!
Sweeping rollers which are adjusted too tightly, do not produce a better sweeping result.



Attention!
Never store the sweeper on the brush.



The sweeper can be used to sweep dirt or snow and dirt can be collected with the appropriate dirt catcher (available as an accessory).

For ensure proper operation, the sweeping rollers have to be properly adjusted in the slope and height. If the sweeping rollers are set too high, the area is cleaned badly. If the sweeping rollers are set too low, the machine has too much floor pressure and can be damaged because of it. The sweeping height can be adjusted using the two support wheels which run along the ground during operation. The support wheels have to be adjusted so that the sweeping rollers just touch the floor when the machine is released. Since the sweeping rollers are a wear part, their adjustment must be checked and adjusted prior to each operation.

When sweeping dirt, the machine can be used with and without the dirt catcher. However, when sweeping snow always use the machine without a catcher. If the machine is used with a catcher, it has to be positioned across the direction of travel. Without a container, the machine can be adjusted across using the hydraulic angle adjuster (e.g. to sweep surfaces).

6.1 Adjust the sweeper



Note

The sweeper must be adjusted anew on each new attachment to a tractor and the adjustment of the sweeping pressure and the inclination.

6.1.1 Adjust the inclination of the sweeper

The sweeper must be aligned horizontally with the ground. The inclination of the sweeper can be adjusted via the spindle on the front power lift. If the wheels are perpendicular to the ground, the sweeper is adjusted correctly in the inclination.

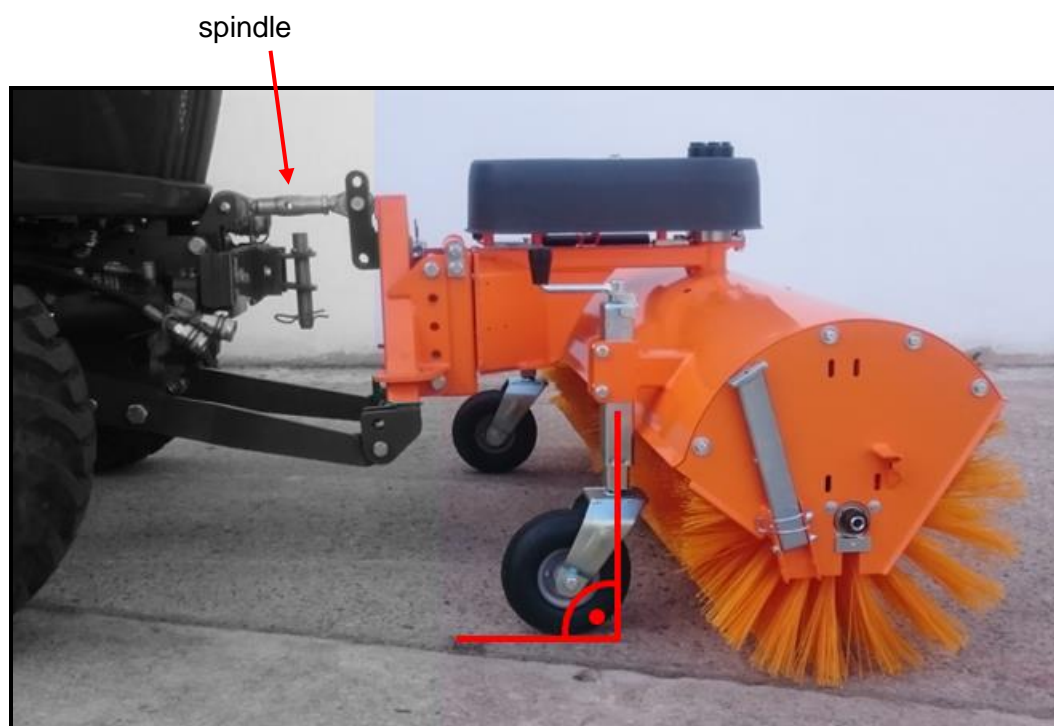


Figure 32: Adjust the inclination of the sweeper

6.1.2 Maximum sweeping pressure

The maximum sweeping pressure of the sweeping roller on the substrate must be selected in such a way, when the tractor is stationary with the sweeper in the floating position and running sweeping roller a maximum cleaned area of evenly 3cm width is created. A sweeping pressure caused beyond this range an increased wear of the sweeping roller. The sweeping pressure is varied by adjusting the support wheels in height. (Chapter 6.1.3)

6.1.3 Adjust the Height of the Support Wheels



Note!

Adjust the support wheels so that the sweeping roller can touch the floor easily in the operating position.

1. Loosen both screws slightly
2. Use a tape measure to set a height for a wheel
3. Tighten both screws
4. Turn the anti-twist lock of the height adjustment upwards
5. Through turning the handle, the height of the wheel is adjusted
6. Set the position of the wheel via the scale
7. Turn the anti-twist lock downwards again.
8. Set the second wheel to the same height!

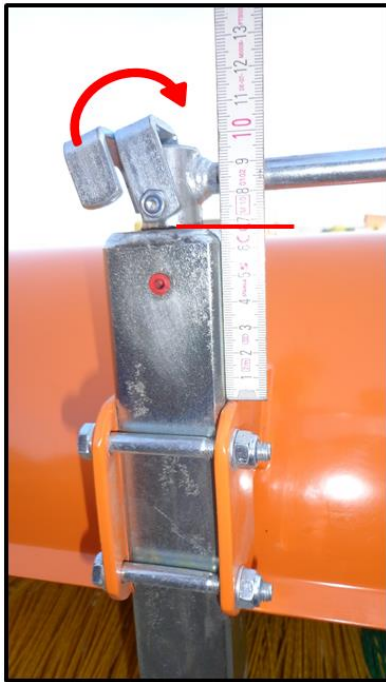


Figure 33: Loosen lock

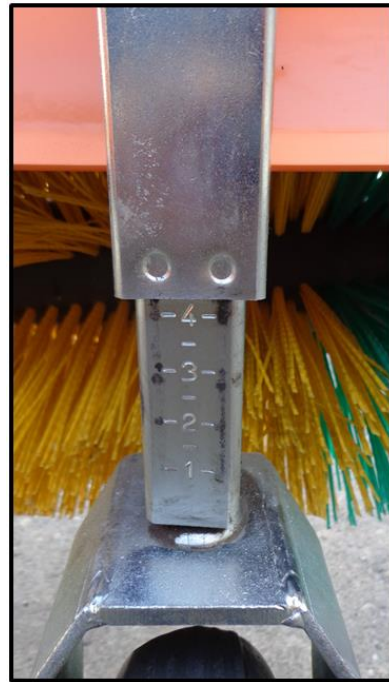


Figure 34: Set height via scale

6.2 Parking the sweeper



Attention!
Never store the sweeper on the brush.

When stopping the equipment, ensure that the sweeping rollers do not touch the floor. This can bend or push the sweeping roller edging out of shape which then results in an imbalance of the sweeping rollers. For this reason, ensure that the support wheels are adjusted accordingly. The supporting feet have to be folded down before stopping. During operation, the supporting feet have to be folded up.



Figure 35: Unfolded supporting feet

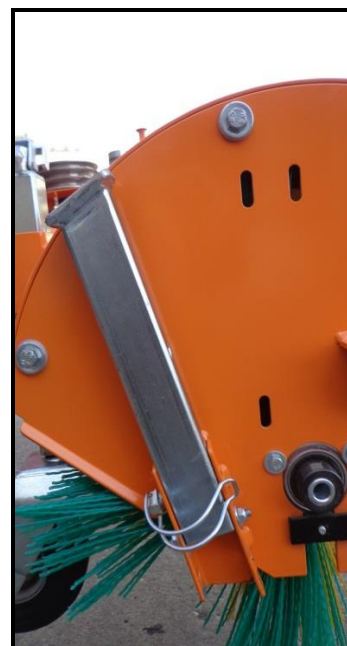


Figure 36: Folded supporting feet

6.3 Working with the Front Sweeper



Attention!

This can damage the front sweeper. Before each operation, check the correct positioning of the support wheel, see section 6.1.3. Control the front sweeper from the driving seat of the tractor.

6.3.1 Sweeping without the dirt catcher



Attention!

Injuries of third parties or property damage may occur. During independent sweeping, i.e. without a dirt catcher, stones and similar parts are flung to the front by the sweeping rollers. Always keep a safe distance from people or objects which could be injured or damaged.

The manufacturer does not accept liability in these cases.

1. Position the front sweeper in the desired inclined position using the angle adjuster.
2. Lower the front sweeper.
3. Always set the hydraulics to lower the machine in swimming position.
4. Switch the sweeping roller on.
5. Drive forwards at a low speed.

6.3.2 Sweeping with the dirt catcher



Attention!

The sweeper must not be swing with a dirt container!
By swing the sweeper with dirt container, the sweeper can be damaged.

1. The sweeper must be set perpendicular to the direction of travel.
2. Lower the front sweeper.
3. Always set the hydraulics to lower the machine in swimming position.
4. Switch the sweeping roller on.
5. Drive forwards at a low speed.

Empty the dirt catcher

1. Drive to the unloading place.
2. Swivel the dirt catcher upwards. The dirt falls out.

6.4 Exchange Sweeping Roller Edging

The sweeping roller edging should be changed at a minimal diameter of 250 mm. At a smaller roller diameter, the sweeping result worsens and the danger of collision of the transmission between the two rollers increases.

6.5 Rotation Speed

Mechanical drive

One variant of the machine is equipped with a three-step belt drive with which you can adjust the rotation speed of the sweeping rollers to suit the conditions. To do this, the machine and tractor are turned off and the ignition key is removed. The belt guard is removed by loosening the locking screws with tools. Relieve the belt using the belt tightener, position the belt again and tighten it using the belt tightener. The belt guard must be screwed tight again.

Mechanical drive	Rotation speed of sweeping roller in U/min		
	1. Step	2. Step	3. Step
1-fold 1000U/min	117	-	-
1-fold 2000U/min	102	-	-
3-fold 1000U/min	163	117	82
3-fold 2000U/min	82	117	163

Table 1: Rotation speeds mechanical drives

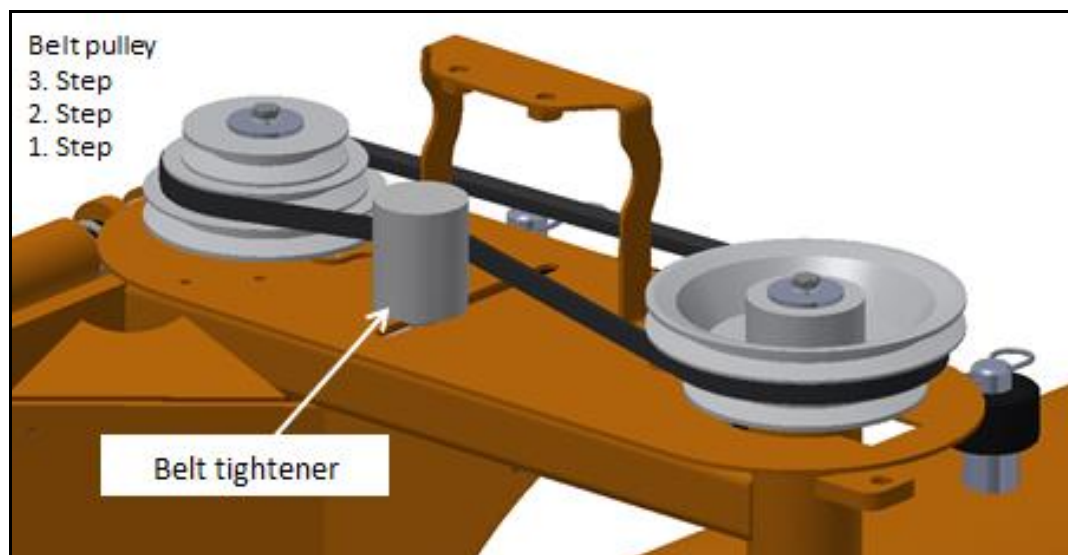


Figure 37: Fan belt



Note!

The belt may only run horizontally in a setting. Running diagonally leads to damages of the machine.

The belt tightener must tighten the belt on the trailing belt strand. If the drive is turned to compensate a changed power take-off rotation direction, the belt tightener must be repositioned.

Hydraulic drive

Due to different litre capacities of tractors, three sizes of hydraulic engines are available. The three drive sets are listed on the price list.

6.6 Side Brush Mechanical and Hydraulic

6.6.1 Shift the support foot

If a mechanical or hydraulic side brush is installed, the support foot on the right side can no longer be folded down. To be able to park the sweeper with a side brush, the screw must be removed around which the support foot is normally folded. The support foot is held by the tube clip. By removing the tube clip, the support foot can be shifted.

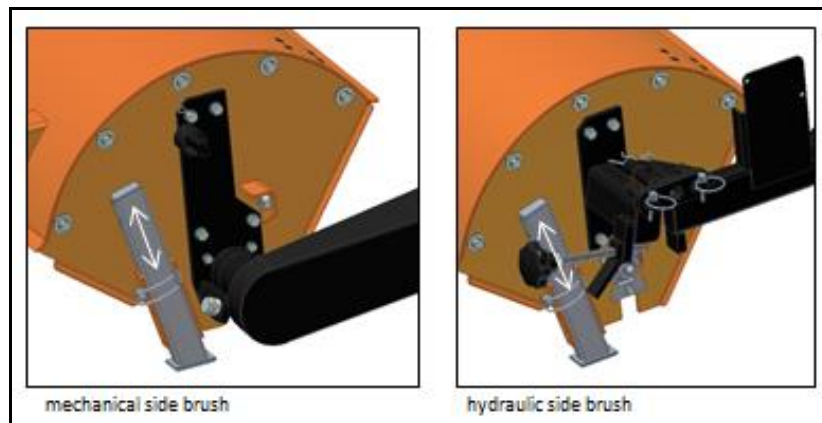


Figure 38: Shift the support foot

6.6.2 Lift up side brush



Attention!
The side brush must be secured in the lifted position!

The mechanical side brush can be lifted up. To do this, the sleeve has to be shifted and secured by the hatchet.

The hydraulic side brush can also be lifted up. To do this, the flap has to be removed before folding upwards and suspended again and secured in the upper position.

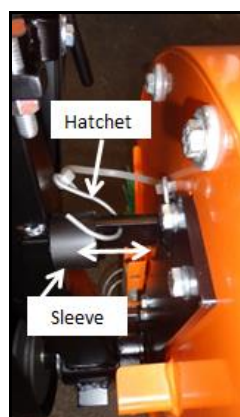


Figure 39: mechanical side brush

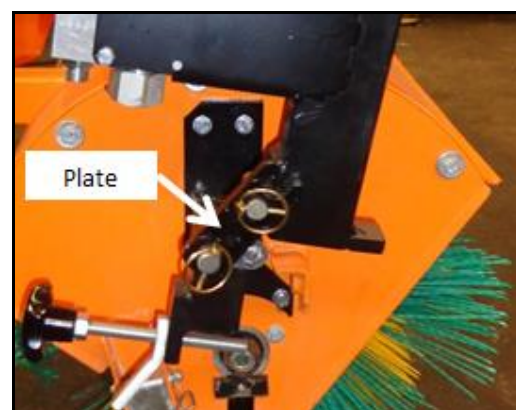


Figure 40: hydraulic side brush

7 Maintenance

7.1 General Information



Attention!

Injuries of people or damages of the tractor or extension units may occur. Before each operation of the extension units, check all safety-relevant parts and the hydraulic connections.



Danger!

Perform all maintenance and repair work only when the tractor has been switched off.



Attention!

Pull out the ignition key before you perform any maintenance or servicing work on the equipment.



Attention!

Risk of crushing by moving parts.

Never reach into the area posing a risk of crushing as long as there are parts moving or could move there.

When pressure decreases, there is a risk of crushing and shearing in the lifting mechanism.



Attention!

After maintenance works, all dismantled safety devices must be reattached properly.



Note!

- After the first 20 hours of operation, check all screw and bolt connections.
- Perform regular maintenance on the machine.
- To grease the moving parts, use lubricating grease.

7.2 Maintenance

In regular intervals and at the start and end of a season, all movable parts of the equipment must be greased or oiled.

7.2.1 Maintenance schedule

Daily maintenance tasks:

- Prior to operation, check all safety elements and movable parts for signs of wear
- Check hydraulic connections and lines
- Check height of sweeping rollers and adjust if necessary
- Perform a test run before each use
- The machine must be cleaned after each use

Maintenance after 25 hours of operation or longer periods of standstill:

- Check all screw and bolt connections. If necessary, tighten loose screws and secure loose bolt connections with spring connectors.
- For versions with a mechanical drive, perform a visual inspection of the belt. Worn or damaged belts must be replaced.

7.2.2 Lubrication schedule

All ball bearings used in this machine are encapsulated, greased for the duration of their service lives and do not have to be re-greased. To grease the machine according to the lubrication schedule, proceed as follows:

- Grease the grease nipple of the swivel bearing

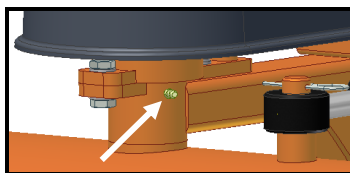


Figure 41: Grease nipple Swivel bearing

- Grease the grease nipple of the swing balance if you have purchased a version with a swing balance.



Figure 42: Grease nipple Swing balance

- The drive shaft must be greased.

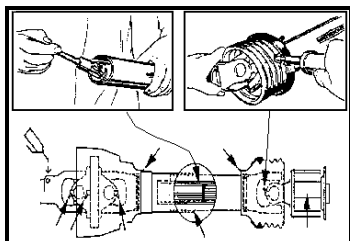


Figure 43: Grease drive shaft

7.2.3 Change sweeping roller



Note!
Always change both sweeping rollers.

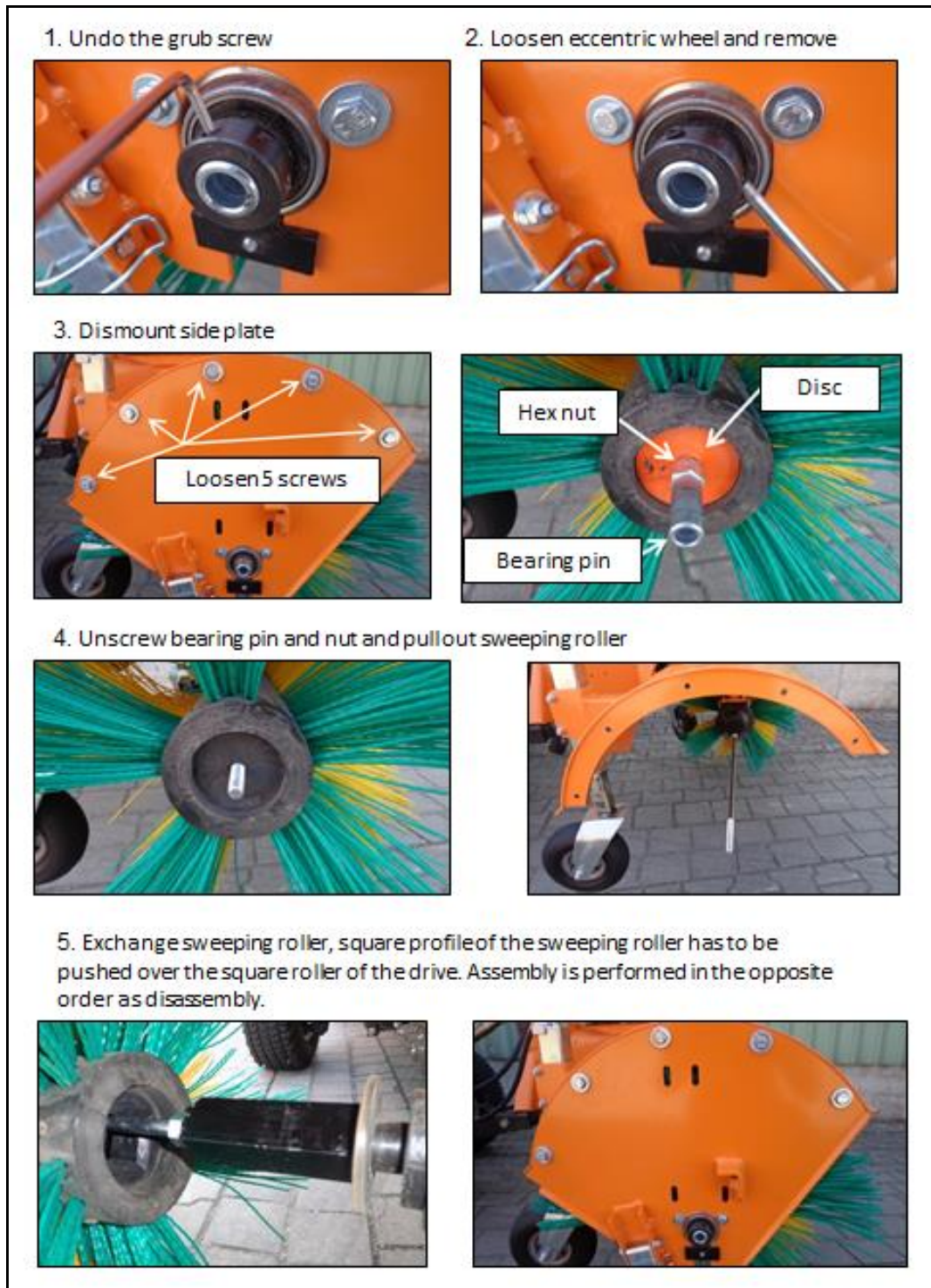


Figure 44: Change sweeping rollers

7.3 Errors

Fault:	possible cause / remedy:
Machine does not sweep cleanly	Sweeping roller is set too high
Tractor strains when working with the sweeper	Tractor is too small for the machine Sweeping roller is set too low
whistling noise	Belt too loose and slipping
Sweeping roller does not run smoothly	Sweeping rollers pushed out of shape due to incorrect parking of the machine, replace sweeping rollers

7.4 Repairs

In the event of faults, problems or other indications, please get in touch with your sales advisor or take up direct contact with:

matev GmbH
 Nuernberger Str. 50
 90579 Langenzenn
 Tel. (Headquarters): 09 101/90 87-0

Please enter the item number – and chassis number.
 You can find these on the type plate of the machine.

Item number:

Chassis number:

8 Disposal

The extension units must be disposed of in conformity with the applicable rules and regulations of the municipal corporation or at the national level.

Depending on the material, please dispose of them by feeding it to the household waste, special waste or send it for recycling.

Matev does not provide any arrangements for disposal.

9 Guarantee

Please find the guarantee conditions in the general terms and conditions of matev GmbH.

matev GmbH
Nürnberger Str. 50
90579 Langenzenn

10 Technical data, Extension units and add-on kits

10.1 SWE-H/M 12-45

Dimensions	Data
L x W x H	780mm x 1200mm x 730mm
Max. work width	1200mm
Work width swivelled	1100mm
Sweeping roller diameter	Ø450mm
Weight without accessories	100kg

10.2 SWE-H/M 14-45

Dimensions	Data
L x W x H	780mm x 1400mm x 730mm
Max. work width	1400mm
Work width swivelled	1288mm
Sweeping roller diameter	Ø450mm
Weight without accessories	106kg

10.3 SWE-H/M 16-45

Dimensions	Data
L x W x H	780mm x 1200mm x 730mm
Max. work width	1600mm
Work width swivelled	1472mm
Sweeping roller diameter	Ø450mm
Weight without accessories	112kg

10.4 Extension Units and Additional Equipment

Accessories / Replacement part	Order number
Adapter extension rigid	131 7733
Adapter extension Swing balance	131 7734
Extension Cat. 0	131 7719
Extension JD	131 7735
Prolongation Extension Cat.	131 7828
SWE-H/M 12-45 Dirt catcher	131 7715
SWE-H/M 14-45 Dirt catcher	131 7716
SWE-H/M 16-45 Dirt catcher	131 7717
SWE-H/M 12-45 Splash plate for winter service	131 7723
SWE-H/M 14-45 Splash plate for winter service	131 7724
SWE-H/M 16-45 Splash plate for winter service	131 7725
SWE-H/M 12-45 Splash guard	131 7723
SWE-H/M 14-45 Splash guard	131 7724
SWE-H/M 16-45 Splash guard	131 7725
Mechanical side brush	131 7705
Hydraulic side brush	131 7718
Electro-magnetic switching valve, Set	131 7746
hydraulic add-on kit for side brush	131 7739
Irrigation sprinkler 110 litres	131 7704
Set PPN sweeping roller 120 cm 6x3-row spiral set	131 7768
Set PPN sweeping roller 140cm 6x3-row spiral set	131 7769
Set PPN sweeping roller 160cm 6x3-row spiral set	131 7770
Set PPN sweeping roller 120 cm 16-row full edging	131 7709
Set PPN sweeping roller 140cm 16-row full edging	131 7710
Set PPN sweeping roller 160cm 16-row full edging	131 7711

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12 EC – Declaration of Conformity

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

The manufacturer matev GmbH
 Nuernberger Str. 50
 90579 Langenzenn

explains that the machine SWE-H/M 12-45 Basic model: Order No.131_7691
 SWE-H/M 14-45 Basic model: Order No.131_7693
 SWE-H/M 16-45 Basic model: Order No.131_7690

complies with the provisions of the Machinery Directive 2006/42/EC and with the national legal regulations implementing the same.

The signatory is authorised to compile the technical documentation.

The signature is that of the manufacturer.

Date / Signature April 2017

Name of the signatory
Designation of the signatory


.....
Georg Hemmerlein
Managing Director