

User Manual and Parts book

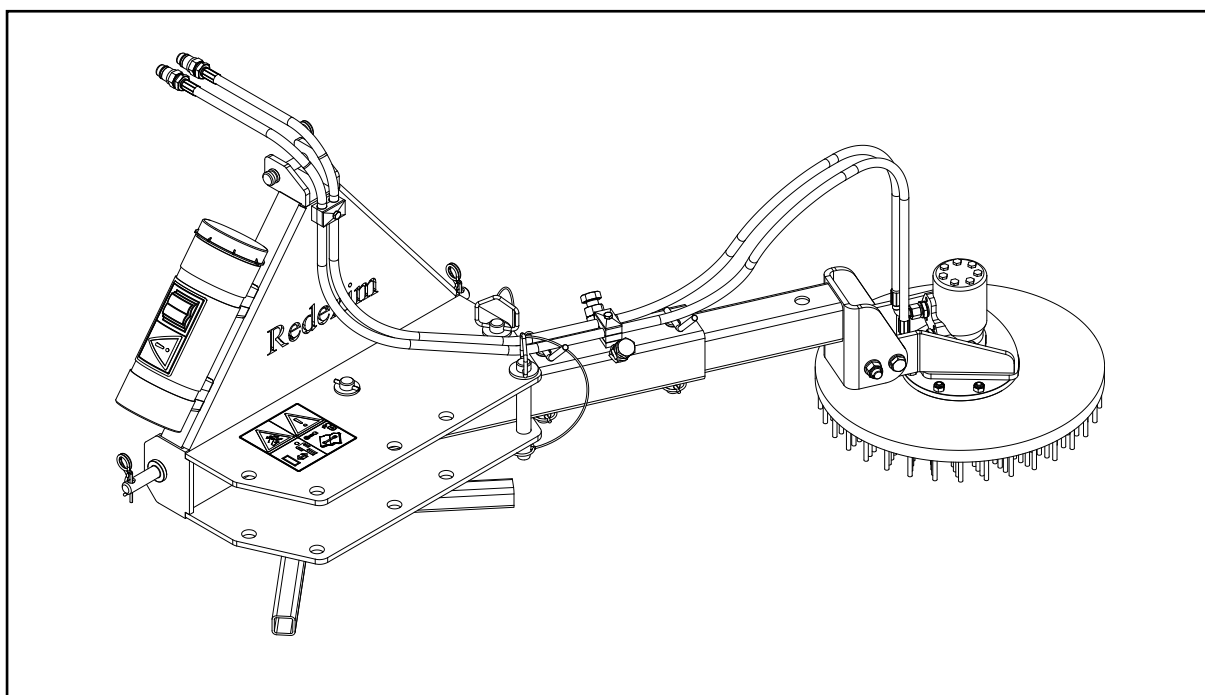


Side-Brush

Serial number:

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Translation of the original User Manual



ATTENTION:

IT IS OF THE UTMOST IMPORTANCE TO READ THIS USER MANUAL CAREFULLY PRIOR TO USING THE SIDE-BRUSH IN ORDER TO USE THE MACHINE SAFELY AND TO OBTAIN THE BEST RESULTS.

FOREWORD

Congratulations on your Side-Brush purchase. For safe and long-lasting operation of this machine, it is necessary to read and to understand this user manual. It is impossible to work safely with this machine *without* complete knowledge of the content of the user manual.

The following pages deal initially with the general safety instructions. Every user should know these safety instructions and apply them. At the end of this page, a registration card is inserted. This registration card should be returned to enable us to deal with potential future claims.

This user manual lists many instructions that are numbered in sequence. You should follow this sequence. A  is an indication of a safety instruction. A  means a tip and/or note.

All information and technical specifications provided at the moment that this document is published are the most recent ones. Design specifications may be changed without prior notice.

WARRANTY CONDITIONS

WITH DELIVERY THIS SIDE-BRUSH IS GUARANTEED AGAINST MATERIAL DEFECTS. THIS WARRANTY IS VALID FOR A PERIOD OF 12 MONTHS FROM THE PURCHASE DATE.

SIDE-BRUSH WARRANTIES ARE SUBJECT TO THE 'GENERAL CONDITIONS FOR SUPPLY OF PLANT AND MACHINERY FOR EXPORT, NUMBER 188' THAT ARE PUBLISHED UNDER THE AUSPICES OF THE UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE.

REGISTRATION CARD

For your own information, fill in the table below:

Serial number of the machine	
Dealer name	
Date of purchase	
Remarks	

! SAFETY INSTRUCTIONS !

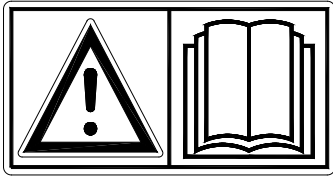


Figure 1

The Side-Brush is designed for safe use. This can only be achieved if you completely follow the safety instructions described in this manual.

Read and understand (Figure 1) the manual *before* you start using the Side-Brush.

If the machine is not used as described in this manual, this can result in injuries and/or damage to the Side-Brush.

- (1) The user must be an expert in using the machine and the machine should be professionally adjusted for processing the subsoil.
The manufacturer will not accept any liability for unprofessional use and its resulting damage. All risks occurring with this are entirely at the expense of the user.
Non-compliance with the use, maintenance and repair instructions prescribed by the manufacturer is also considered unprofessional use of this machine.
Inspect the area to be treated *before* using the Side-Brush.
Remove loose obstacles and avoid irregularities.
- (2) The Side-Brush is manufactured according to the latest technical understanding and is safe to use.
When unskilled people use, maintain or repair the machine, this could result in injuries to the user *and* to third parties. **This must be avoided!**
- (3) All persons assigned to operate, maintain and repair the Side-Brush by the owner must read and completely understand the operation manual and in particular the chapter of **Safety Instructions**.
The user is responsible for the safe use of the **Side-Brush**.
- (4) The user is **obliged to check** the Side-Brush for **visible damage and defects** *before* using the Side-Brush.
Modifications to the Side-Brush (including its operations) that have a negative impact on safety must be rectified immediately.
For safety reasons it is in principle not permitted to make changes or adjustments to the Side-Brush (except those approved by the manufacturer).

If **modifications** to the Side-Brush have been made, then the current CE marking is cancelled. The person that has made these modifications has to apply for a new **CE marking himself**.

Check the Side-Brush for loose bolts, nuts and components *before* every operation.

Check the hydraulic pipelines regularly and replace these when the hydraulic pipelines are damaged or appear old. The pipelines that are replaced should comply with the technical requirements of the manufacturer.

The hydraulic installation should **always** be made pressure-free *before* working on this installation.

NEVER use the Side-Brush in the absence of safety stickers.

NEVER crawl under the Side-Brush.

If necessary, tilt the Side-Brush.

In case of maintenance, adjusting and repairs, it is necessary to block the Side-Brush in order to prevent sinking away, driving off and/or sliding off.

Always switch off the motor and take the key out of the ignition in case of carrying out maintenance, adjustments and repairs (Figure 2).

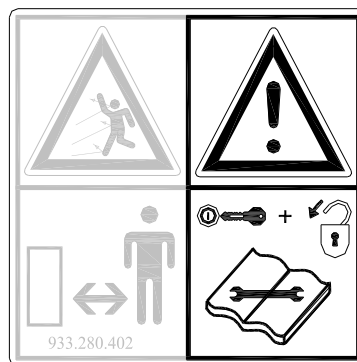


Figure 2

Use only original Side-Brush parts for maintenance or repairs because of the safety of the machine *and* of the user.

Only authorised technical personnel may carry out repairs to the Side-Brush.

Keep a record of the repair activities.

- (5) The general applicable health & safety (Dutch: ARBO) regulations must also be followed in addition to the instructions in this user manual.

Relevant traffic regulations also apply in case of using public roads.

Transporting persons is not permitted!

Do not use the Side-Brush in the dark, in heavy rain/storm or on slopes with an angle larger than 20 degrees.

- (6) All persons that are going to operate the Side-Brush must be familiar with all the functions and control elements of the Side-Brush *before* starting any work activities.

Safety stickers with an identical meaning are attached to both sides (Figure 5) of the Side-Brush and to the protective cover. These safety stickers must always be clearly visible and legible and must be replaced if they have become damaged.

During operation, **NO persons without the proper PPE are allowed within the danger zone** of the Side-Brush, because there is danger of physical injuries caused by flying particles or substances (Figure 3).



Figure 3



Figure 4

Keep a distance of minimum 4 metres (Figure 4)!

Dress appropriately. Wear sturdy shoes with steel toecaps, long trousers and tie up long hair. Do not wear loose clothing.

Use the proper personal protection gear according to the applicable health & safety (Dutch acronym: ARBO) and safety regulations.

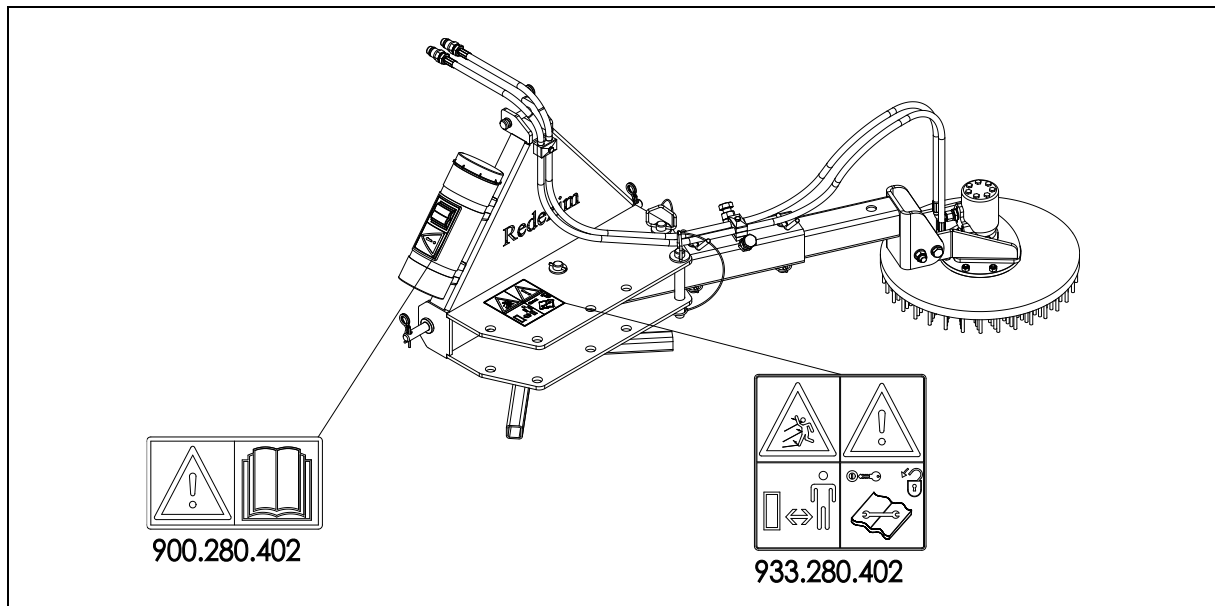


Figure 5

- (7) Location of the safety stickers. (Fig. 5)

Used oil / grease is harmful to the environment. Dispose of these substances according to the regulations that apply in your location.

EU-DECLARATION



We,

Redexim BV
Utrechtseweg 127
3702 AC Zeist, Holland

declare entirely under our own responsibility that the product

**SIDE-BRUSH WITH A MACHINE NUMBER AS INDICATED ON THE MACHINE AND
INDICATED IN THIS MANUAL**

to which this declaration refers, complies with stipulation of the 2006/42/EC machine directive.

Zeist, 30/06/2015

A handwritten signature in blue ink, appearing to be 'A.C. Bos', written over a light blue rectangular background.

A.C. Bos
Manager Operations & Logistics
Redexim Holland

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1.0 TECHNICAL DATA

Model	Side-Brush
Working range	1140 mm (44.8")
Working depth (in case of unworn brush)	0 mm – 20 mm (0" - 0.8")
Speed	Maximum 12 km/h (7.4mph) depending on the subsoil condition
Weight	110 kg (242.5 lbs)
Recommended tractor	18 - 35 HP
Tractor hydraulics	1x double-acting Minimum 20 l/min
3-point connection	Cat. 1
Minimum lift capacity of the tractor at 610 mm (24") from the lifting balls	150 kg (330 lbs)
Dimensions	L x W x H 1310 x 835 x 750 mm 51.6" x 32.9" x 29.5"
Standard components	– Adjustable brush arm – Cylinder for the manual (including the user manual) – Support leg

2.0 GENERAL DESCRIPTION

The Side-Brush is a surface cleaning machine for cleaning artificial grass.

3.0 INITIAL INSTALLATION

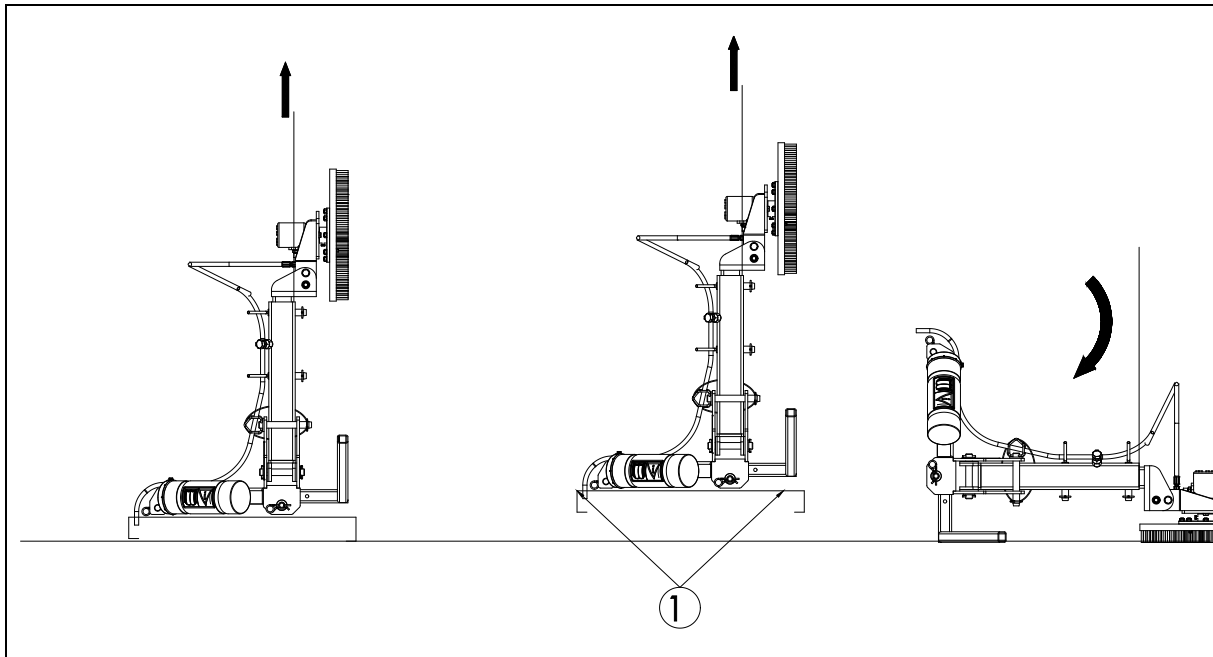


Figure 6

The machine is delivered in a transport position on a pallet. To remove the pallet and to place the machine horizontally on the ground, you take the following steps (see Figure 6).



!! NEVER crawl under the machine !!

1. Attach a cable to the frame of the brush head.
2. Lift the machine approx. 50 mm (2") off the ground.
3. Remove the lashing strap (1).
4. Pull the pallet from under the machine.
5. Carefully rotate the machine horizontally.
6. Lower the machine controlled and calmly until it stands completely on the ground.



Make sure that the cable / crane/lift can hoist minimum 300 kg (660 lbs).

4.0 ATTACHING / DETACHING

Prior to attaching the Side-Brush, check the following points:

- Check the Side-Brush for visually discernible damage and repair any damages that might result in unsafe operation of the machine.
- Check whether the bolts and nuts are tightened.
- Check whether all protection caps and all safety stickers are on the machine and whether these are undamaged.

Never use the machine if it has damaged protection caps and/or safety stickers.

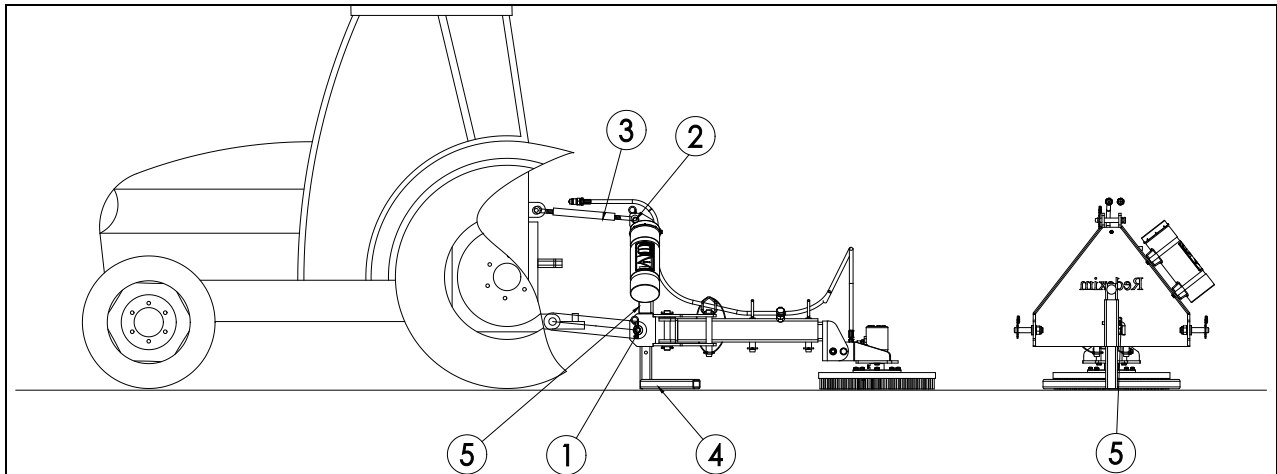


Figure 7

The Side-Brush can be attached to the tractor by means of the 3-point connection.

The procedure is as follows (Figure 7):

1. Remove the 3-point pins (1) and (2).
2. Carefully drive the tractor backwards, so that the low lifting arms can be attached to the frame.



!! Make sure that the tractor cannot move while you are attaching the Side-Brush !!



!! Switch off the tractor engine before descending from it !!

3. Attach the low lifting arms to the bottom 3-point pins. Lock the pins using the securing pins included in the delivery.
4. Set the stabilizer of the tractor to a sideways stroke of 100 mm.
5. Mount the top rod of your tractor and turn it counter-clockwise, until it reaches the same height as the top 3-point connection of the Side-Brush.
6. Attach the top rod (3) to the frame using the pin (2). Lock the pin (2) using the securing pins included in the delivery.
7. Turn the top rod (3) clockwise, so that it becomes tensioned and the machine is parallel to the ground.



!! Make sure that all securing pins are locked !!

8. Start the tractor and lift the Side-Brush off the ground.
9. Rotate the pin (5) a quarter turn and pull it outward.
10. Subsequently, pull the support leg (4) into the highest position and lock it again using the pin (5).
11. Connect the hydraulic hoses to the tractor.

Detaching occurs in the reverse order.

5.0 ADJUSTING THE WORKING POSITION OF THE BRUSH

The machine is in the driving position on the pallet. The working position of the brush can be adjusted by moving the arm at the rear side of the machine.

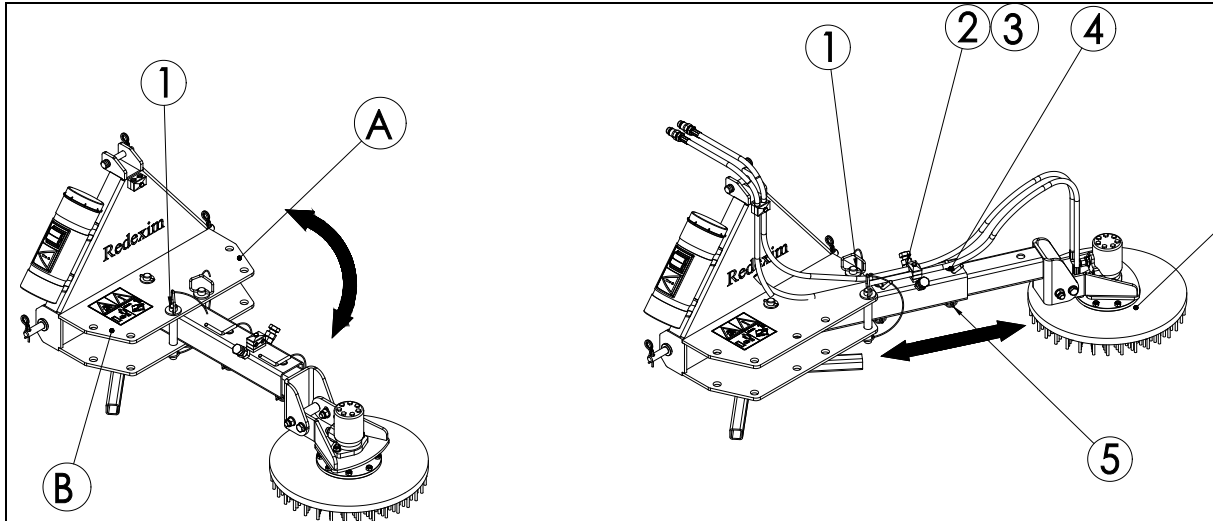


Figure 8

The procedure is as follows (see Figure 8):



!! Make sure that the Side-Brush cannot move !!



!! Switch off the tractor engine before descending from it !!

1. Remove the pins (1).
2. Move the arm to the required side: (A) or (B)
3. Remount the pins (1) in the appropriate holes and lock them.

The length of the arm can be adjusted to the type of tractor, so that you achieve the required length. The procedure is as follows:

1. Loosen the bolts (2) and nuts (3).
2. Remove the pins (4) by removing the securing pin (5).
3. Now the arm can be extended to a length of ± 240 mm.
4. Place the pins in the securing holes and lock the pins again using the securing pins (5).
5. Tighten the bolts (2) and nuts (3).

It is also possible to adjust the brush head in such a way that it is horizontal in relation to the surface that should be treated. The adjustment is as follows (see Figure 9):

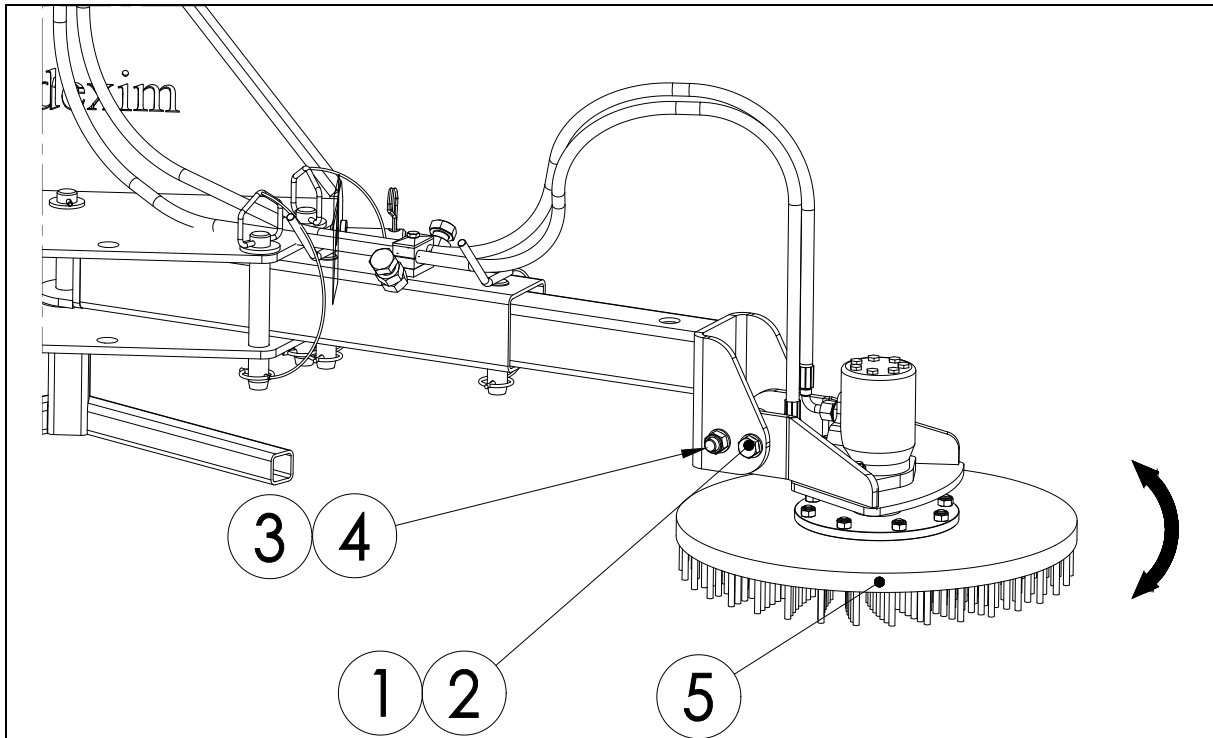


Figure 9

1. Loosen the bolts (1) and nuts (2) one whole turn.
2. Loosen the bolts (3) and nuts (4) one whole turn.
3. Rotate the brush head (5) to the required angle.
4. Tighten the bolts (1) and nuts (2).
5. Tighten the bolts (3) and nuts (4).

NEVER adjust the machine in a way that damages the ground that should be treated.



! IMPORTANT !

Before using the machine, first check statically the working depth while the machine stands on the ground that should be treated!

6.0 TRANSPORT OF THE SIDE-BRUSH

The user is responsible for transporting the Side-Brush behind the tractor on public roads. Verify the national legislation regarding the regulations. A maximum speed of 20 km/h (12.4 mph) is allowed on open fields while the Side-Brush is lifted. Higher speeds can lead to hazardous situations for the tractor's driver and onlookers and might result in damage to the machine.



**Make sure that the top rod is attached and tensioned (see Figure 7)!
You can severely damage the machine if this is not the case.**



When the Side-Brush is raised off the ground, the front axle of the tractor has to support minimum 20% of the tractor's weight.

7.0 WORKING SPEED

The driving speed of the tractor pulling the Side-Brush is maximum 12 km/h (7.4mph). However, you have to adjust the maximum speed to the required cleaning and the ground that should be treated.

8.0 USING THE SIDE-BRUSH

Before using the Side-Brush, you should check the following:

1. Are there loose objects in the field? First remove these objects.
2. Are there slopes? The maximum slope is 20 degrees for this machine. Always go from top to bottom.
3. Is there danger of flying objects (e.g., golf balls) that distract the attention of the driver? If so, the Side-Brush **cannot** be used.
4. Is there danger of sinking/sliding away? If so, postpone the treatment until conditions improve.
5. If the soil is wet, postpone the activities until conditions improve.
6. Do **NOT** make sharp curves. Preferably, drive in a straight line, otherwise you might damage the subsoil.

9.0 START/STOP PROCEDURE

The start procedure is **VERY** important. If this procedure is not executed as described below, it might result in serious damage to the machine / the ground that should be treated.

The start procedure is as follows:

1. Check the Side-Brush for loose components and look whether all components function properly.



!! If loose components are observed or components do not function properly, the problems must be solved *before* using the Side-Brush !!

2. Drive to the spot where the treatment should take place.
3. Lower the machine onto the ground that should be treated and statically adjust the working depth of the as described in Chapter 5.0.
4. Start to drive the tractor and increase the speed until the required speed.



!! Preferably, drive in straight lines, because otherwise you might damage the subsoil !!

Stopping occurs as follows:

1. Decrease the speed completely and lift the machine off the ground.
2. Put the machine in the driving position (see Chapter 5.0).
3. Drive to the next spot and start the treatment as described above.

10.0 TROUBLE SHOOTING (PROBLEM ANALYSIS)

Problem	Possible cause	Solution
Too little cleaning	- Working depth is too shallow. - Brush hairs are canted. - Brush is worn out.	- Adjust the machine deeper. - Adapt the turning direction of the brush. - Replace the brush.
Sloppy view of the field after treatment	- Machine is adjusted to work too deeply.	- Adjust the machine to a more shallow depth.
Machine takes too much out of the field	- Brush is adjusted to work too deeply. - Wrong angle	- Adjust the machine to a more shallow depth. - Adjust the angle of the brush head.

11.0 MAINTENANCE

Time schedule	Check / Grease point	Method
Before every use	- Check for loose bolts / nuts. - Presence and readability of the safety stickers. (Figure 5)	- Tighten loose bolts / nuts with the correct tightening moment. - Replace these if not present or damaged.
After the first 20 working hours (new or repaired)	- Check the drive line. - Check for loose bolts / nuts.	- If necessary, replace worn-out parts. - Tighten loose bolts / nuts with the correct tightening moment.
After every 100 working hours or annually	- Check the drive line. - Check for loose bolts / nuts. - Check the wear & tear of the brush.	- If necessary, replace worn-out parts. - Tighten loose bolts / nuts with the correct tightening moment. - If necessary, replace the brush.