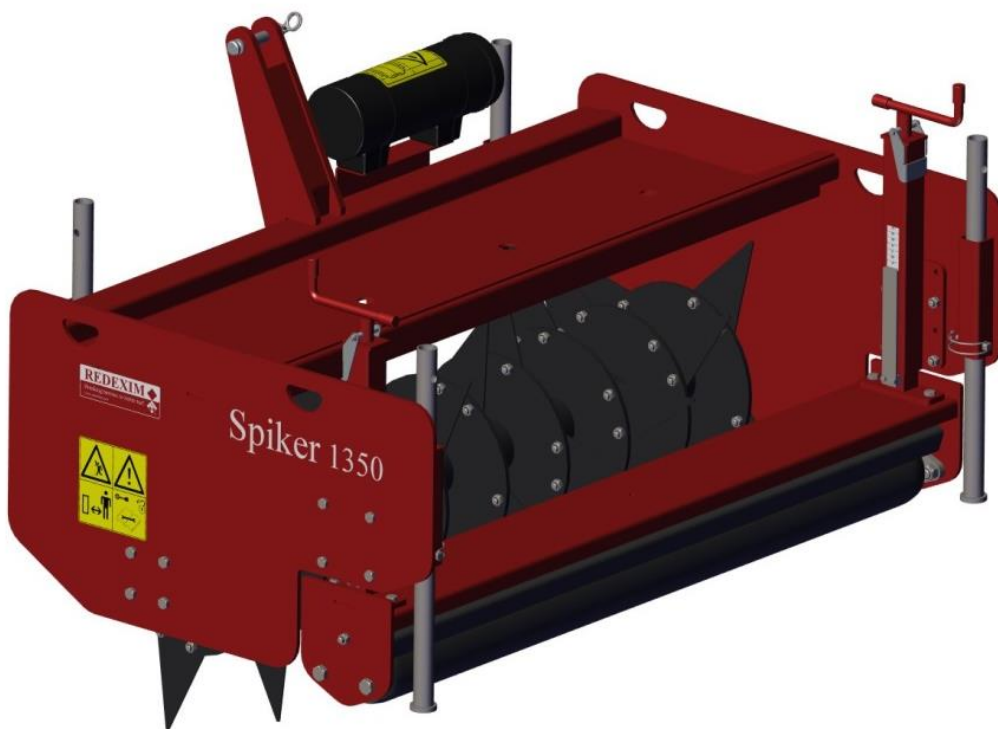

Spiker 1350



1845 English 913.120.404

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EU CERTIFICATE



We,

Redexim BV
Utrechtseweg 127
3702 AC Zeist, Holland

Declare entirely on our own responsibility that the product:

SPIKER 1350 WITH MACHINE NUMBER AS INDICATED ON THE MACHINE AND IN THIS MANUAL,

to which this declaration refers, complies with the stipulation of the 2006/42/EC machine directive and the following norms: NEN-EN-ISO 12100 : 2010, NEN-EN-ISO 13857 : 2008.

Zeist, 05/11/2018

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

FOREWORD

Congratulations on your Spiker 1350 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.

This machine does not operate independently. It is the user's responsibility to use the correct tractor or other towing vehicle. The user should check the combination of the towing vehicle and the machine with regard to various aspects, such as noise level and safety risks. In addition, the user should comply with the user instructions of the vehicle and spare parts that are used.

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.

You can contact your sales point or dealer if you have questions and/or if there are ambiguities in this manual or about the machine concerned.

WARRANTY CONDITIONS

AT THE TIME OF DELIVERY THIS MACHINE IS GUARANTEED AGAINST MATERIAL DEFECTS.

THIS WARRANTY IS VALID FOR A PERIOD OF 12 MONTHS FROM THE PURCHASE DATE.

REDEXIM 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	

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1. SAFETY INSTRUCTION

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

Read and understand the manual before you start using this machine.

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

This user manual lists 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.

1.1. Obligations of the user

The machine is solely intended for planting and cultivating areas. Any other use is improper. The manufacturer will not accept any liability for damage resulting from improper use. All risks occurring with this are entirely at the expense of the user.

All persons assigned to operate, maintain and repair the machine by the owner must completely read and understand the operation manual and in particular the chapter of Safety Instructions.

Modifications to the machine that have a negative impact on the safety must be rectified immediately.

The user is obliged to check the machine for visible damage and defects before using the machine.

For safety reasons it is not permitted to make changes or adjustments to the machine (except those approved by the manufacturer). If modifications to the machine 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.

Following the use, maintenance and repair instructions prescribed by the manufacturer is also considered proper use of this machine.

The user is responsible for the safe combination of the machine and the towing vehicle, which comply with the requirements as described in the Technical Data (**see Chapter 2**). This entire combination should be tested for noise, safety, risk and user friendliness. User instructions should also be drafted.

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

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.

1.2. Maintenance, repairs and adjustments

Keep a record of the repair activities.

When unskilled people use, maintain or repair the machine, this could result in injuries to the user and to third parties. This should be avoided!

Use only original Redexim 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 machine.

When carrying out maintenance, adjustments and repairs, it is necessary to block the machine in order to prevent it from sinking away, driving off and/or sliding off.

If a hydraulic installation is present, you should always make it pressure-free before working on this installation.

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

1.3. Using the machine

Attach the machine to the towing vehicle according to the regulations. Please pay close attention to the risk of injury!

Never use the machine in the absence of protective guards and safety stickers.

Check the machine for loose bolts, nuts and components before every operation.

Check whether you have a clear field of vision – both close by and far away – before you start moving.

All persons that are going to operate the machine must be familiar with all the functions and control elements of the machine before starting any work activities.

Never crawl under the machine! If necessary, tip over the machine to work at the bottom side.

If present, check the hydraulic hoses regularly and replace these when the hydraulic hoses are damaged or appear old.

2. TECHNICAL DATA

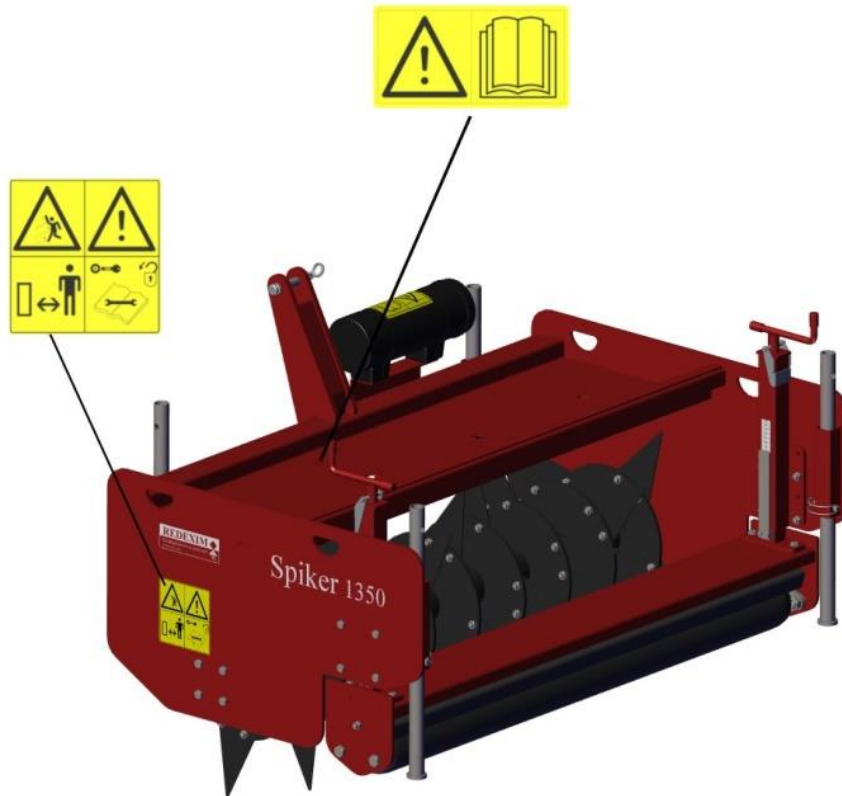
Type	Spiker 1350
Recommended vehicle	30 HP with minimal lift capacity of 610mm behind the lift eyes of 350 Kg (770 lbs)
Working width	1350 mm (53.1")
Working depth	0-150mm (0" - 5.9")
Slit distance between the knives	150mm (6")
Slit distance in drive direction center to center with maximum depth	245mm (9.6")
Speed	Depending on circumstances and desired result with a maximum speed of 15km/h (9.4mph).
Weight	250 kg (550 lbs)
Dimensions (L x W x H)	1.03x 1.44 x 0.98 m (40.5"x56.7"x37.8")
Three-point system	Cat. 1
Used grease for roller bearings	EP2
Standard parts	Knives Support legs



3. GENERAL DESCRIPTION

The Spiker 1350 is a machine for aerating grass surfaces.

4. SAFETY STICKERS

Safety stickers are located on both sides of the machine. These safety stickers must always be clearly visible and legible and must be replaced if they have become damaged.



 <p>933.280.402</p>	<ul style="list-style-type: none"> - In case of maintenance, adjustments and repair, always switch OFF the engine of the towing vehicle. - Keep a distance of minimum 4 metres if the machine is operating (except the operator).
 <p>900.280.402</p>	<ul style="list-style-type: none"> - Prior to using the machine, the operators of the machine must read the user manual carefully

5. FIRST INSTALLATION

To remove the pallet and to place the machine horizontally on the ground, take the following steps (see Figure 1):



Make sure that the cable/crane/lift can hoist minimum 400 kg (880 lbs).

1. Attach a cable to the lifting eye (1).
2. Lift the machine (including the pallet) approx. 50 mm (2") off the ground.
3. Loosen the pallet by removing the 3-point pins (2).
4. Pull the pallet from under the machine.
5. Lower the legs (3) and secure them with the enclosed locking pins.
6. Carefully lower the machine until it stands safely on the ground.



!! KEEP A SAFE DISTANCE. THE MACHINE MAY START TO SLIDE DURING HOISTING !!



!! NEVER CRAWL UNDER THE MACHINE !!

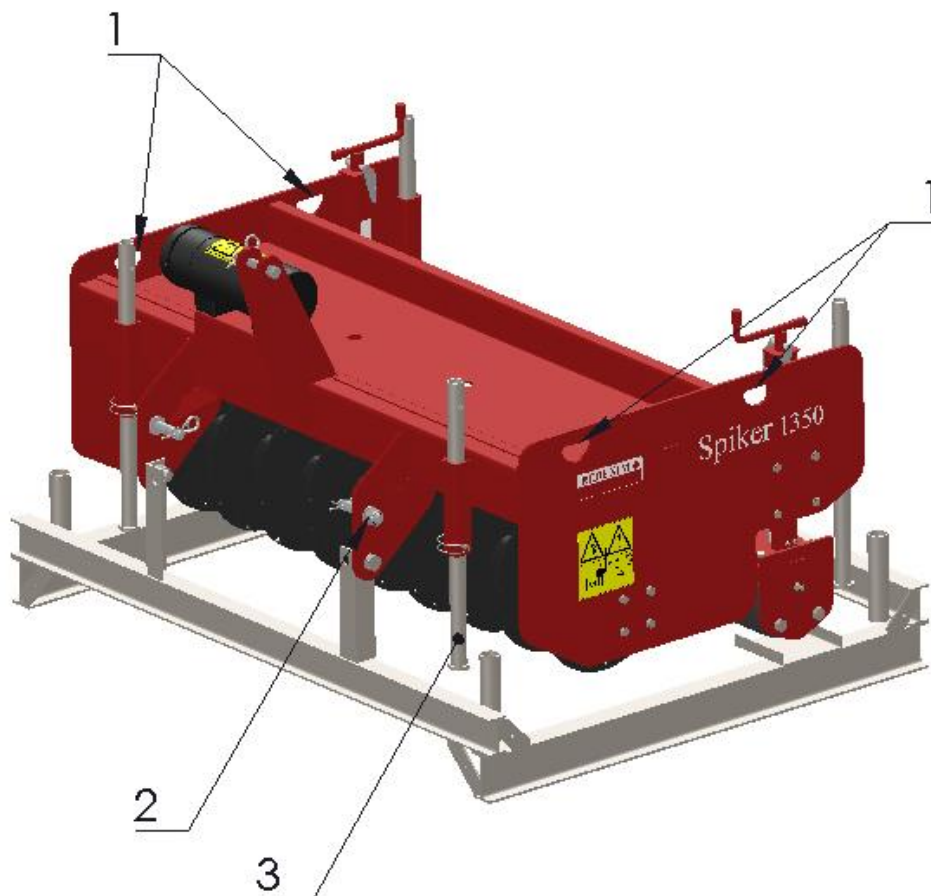


Figure 1

6. ATTACHING AND DETACHING THE MACHINE

Attaching and detaching the machine has to be done carefully. Follow the instructions below:

6.1. Attaching the machine

Prior to attaching the machine, check the following the points:

- Check whether the machine is undamaged and whether it is safe to attach and use the machine.
- Check whether the bolts and nuts are tightened with the correct torque.
- Check whether all safety stickers are on the machine and whether these are undamaged and easily readable. Never use the machine if it has damaged or unreadable stickers.

The machine should be attached to the tractor in the following manner:

1. Remove the 3-point pins **(1)** from the machine (see **Figure 2**).
2. Carefully drive the tractor backwards until the lifting arms **(2)** can be attached to the machine.



!! Make sure that the tractor and the machine cannot move while you are attaching them !!



!! Switch off the tractor engine before attaching the machine !!

3. Attach the lifting arms **(2)** to the machine and lock the pins by using the r-clips.
4. Set the stabilizer to a sideways stroke of 100mm.
5. Mount the top link **(3)** of your tractor and extend it until it is at the same height as the top 3-point hitch of the machine..
6. Adjust the top rod in such a manner that the machine is horizontal.



!! Make sure that the 3-point pins are locked using the r-clips !!

7. Start the tractor and lift the machine off the ground.
8. Lift the legs (4) and secure them with the enclosed locking pins.

6.2. Dettaching the machine

The machine should be detached in the following manner (see **Figure 2**):

1. Place the tractor and the machine on a flat surface.

⚠ !! Make sure that the tractor and the machine cannot move while you are detaching them !!

⚠ !! Switch off the tractor engine before detaching the machine !!

2. Lower the legs (4) and secure them with the enclosed locking pins.

3. Carefully lower the machine until it stands safely on the ground.

4. Loosen the top rod (3) and remove it.

5. Loosen the lowest arms (2).

⚠ !! The surface must be flat !!

⚠ !! Extra weight must be removed first !!

6. Start the tractor and drive off.

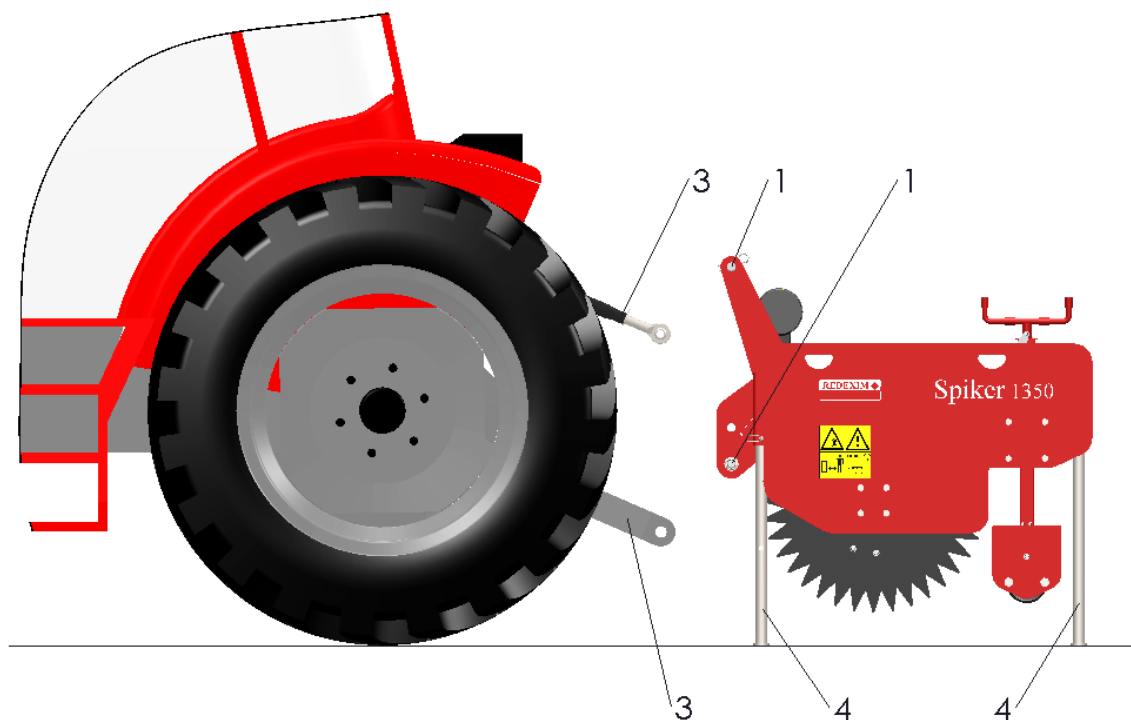


Figure 2

7. TRANSPORT

The user is responsible for transporting the machine on public roads. Verify the national legislation regarding the regulations. In view of the machine's weight, it is not advised to drive faster than 20 km/h (12.4 mph) with a raised machine. Higher speeds can lead to hazardous situations and result in damage to the machine and tractor.



Make sure the top rod is attached and set tight! See chapter 6 figure 2.



Make sure the legs are mount in top position!



When the machine is in the raised position, at least 20% of the weight of the tractor should be supported by the front axle .

8. PUTTING THE MACHINE INTO OPERATION

8.1. Safety

Before using the machine, you should check the following:

1. Are there slopes? The maximum slope is 20 degrees for this machine. Always go from top to bottom.
2. Are there hard objects in the ground? If so, use the machine at adjusted speed.
3. Is there danger of flying objects (e.g., golf balls) that distract the attention of the driver? If so, the machine **cannot** be used.
4. Is there danger of sinking/sliding away? If so, postpone the treatment.
5. If the soil is frozen or very wet, postpone the activities until conditions improve.
6. Do NOT make sharp curves when the machine touches the ground.

8.2. Working speed

The maximum safe working speed of the machine is approx. 15 km/h (9 mph). However, the user should check which speed is optimal to achieve the required result per individual situation and soil treatment.

The higher the speed, the less time the knife has for penetration. Lower speed ultimately gives a better result.



Only make straight lines.



The unit can be moved in the ground and upwards without stopping the tractor.



Pay attention! The rotor can continue to rotate by lifting the machine in forward direction. Do not get too close to the machine, but put the knives in the ground to stop.

8.3. Assemble the blades

The knives (1) are mounted on all discs. See parts manual for correct numbers and assembly. (see **Figure 3**).

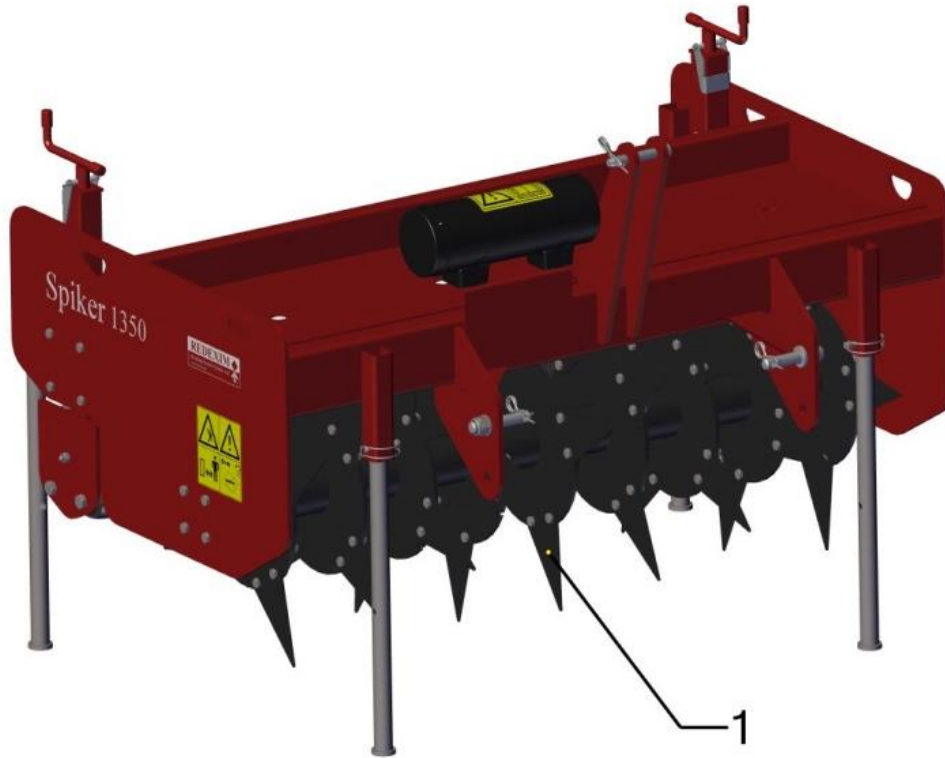


Figure 3

8.4. Working depth adjustment

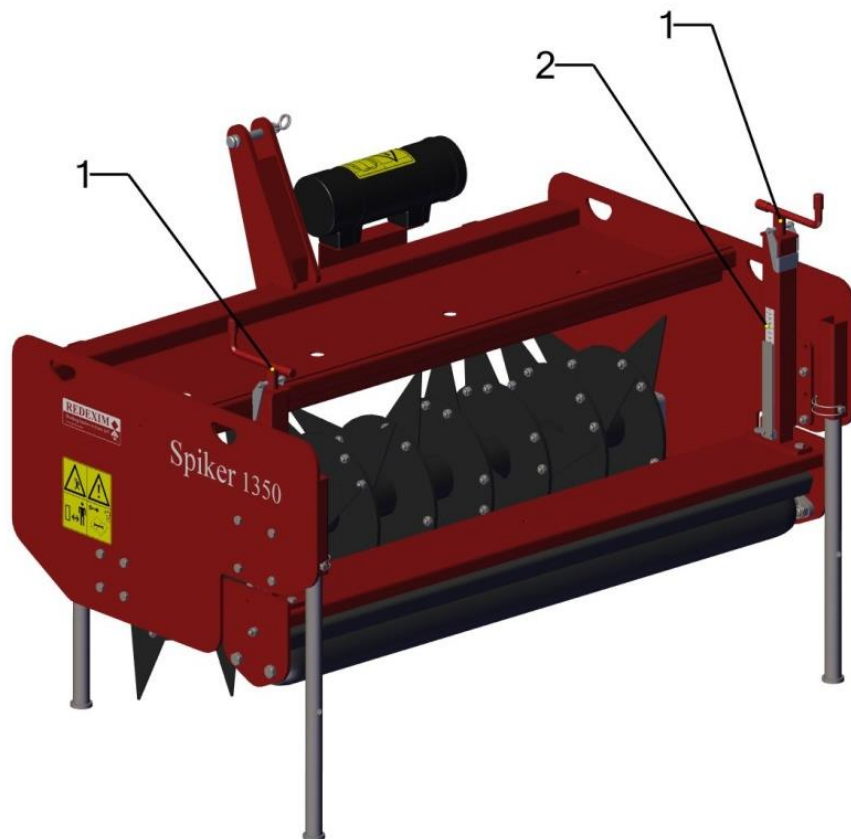


Figure 4

The working depth is adjusted by adjusting the rear roller. (zie **Figure 4**).

Adjusting:

1. Adjust the spindles **(1)** on both sides of the machine as far as possible evenly until the desired working depth is reached and lock it by folding the lock downwards. Use the height indicators **(2)** on both sides to adjust the roller at the same level.
2. Check the working depth by running the machine a few meters. Adjust the working depth if necessary






Make sure that the working depth is the same on both sides of the machine!! Readable on height indicators (2)

9. START/STOP PROCEDURE

The start procedure is **VERY** important. If this procedure is not carried out as described below, serious damage to the machine may occur.

The start procedure is as follows:

1. Check the machine for loose components and see if all parts are working properly.
 **!! If loose parts are detected or parts do not work properly then the problems must be solved before using the machine !!**
2. Drive to the place where the operation must take place.
3. Slowly lower the machine onto the ground.
 **!! Make sure that the tractor is properly blocked and can not move of its own accord!!**
 **!! Switch off the tractor before moving off !!**
4. Lift the machine and adjust the working depth as described in chapter 8.4
5. Switch the tractor to the correct gear.
6. Slowly lower the machine until the full working depth is reached.
7. Now drive forward and speed up.
8. For the first job:
Check that the correct working depth has been reached; if necessary adjust the working depth as described in chapter 8.4

The stop procedure is as follows:

1. Decrease the speed.
2. Lift the machine out of the ground.
3. Go to the next location and start again as described.

10. MAINTENANCE

10.1. Maintenance scheme

Time schedule	Check point	Work activities
Before each use	<ul style="list-style-type: none"> - Check for loose bolts and nuts. - Presence and legibility of safety stickers (see Chapter 4) 	<ul style="list-style-type: none"> - Tighten the loose bolts/nuts with the correct torque. - Replace if damaged or missing.
After each use	<ul style="list-style-type: none"> - Clean the machine - Grease the rotor and bearings. 	<ul style="list-style-type: none"> - Clean the machine with compressed air. Don't use water. Pay attention for bearings. - Use 1 shot EP2 grease
After first 20 operating hours (new or repaired)	<ul style="list-style-type: none"> - Grease the rotor and bearings. - Checkfor loose bolts and nuts. 	<ul style="list-style-type: none"> - Use 1 shot EP2 grease - Tighten the loose bolts/nuts with the correct torque.
After every 100 operating hours.	<ul style="list-style-type: none"> - Grease the rotor and bearings. - Checkfor loose bolts and nuts. 	<ul style="list-style-type: none"> - Use 1 shot EP2 grease - Tighten the loose bolts/nuts with the correct torque.

10.2. Grease points

To ensure proper machine operation, all lubrication points on both sides of the machine (see **Figure 5**) must be periodically lubricated. Lubricate the points according to the maintenance schedule (**Chapter 10**).

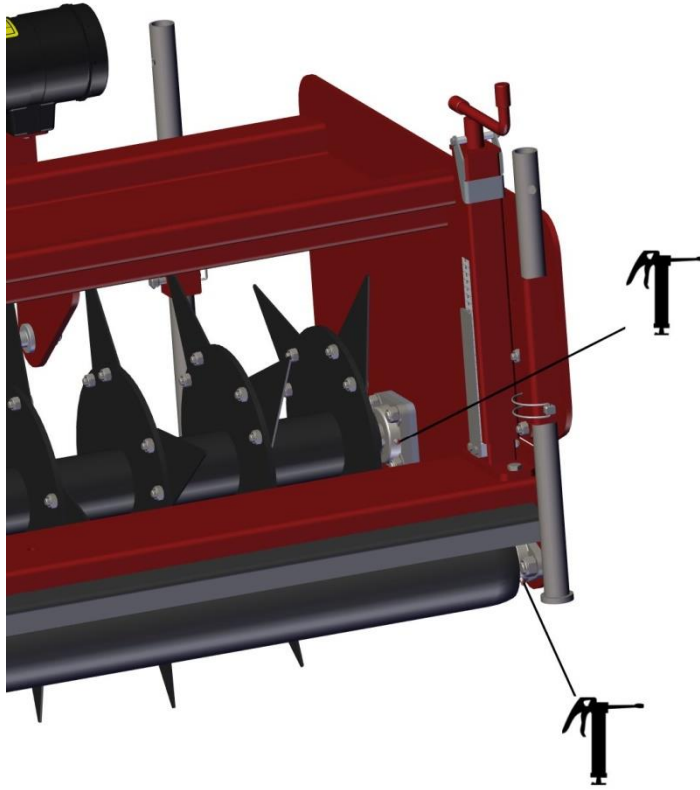


Figure 5

11. PROBLEM ANALYSE

Problem	Possible cause	Solution
Machine vibrates.	<ul style="list-style-type: none"> - Obstruction between the blades. - Worn or broken knives. - Rotor is out of balance. - Underground too hard. 	<ul style="list-style-type: none"> - Remove obstacle. - Replace with new blades. - Balance the rotor - Reduce the speed or adjust the machine less deeply.
Working depth is not reached.	<ul style="list-style-type: none"> - Work depth not properly adjusted. - Underground too hard. - Ride speed too high. 	<ul style="list-style-type: none"> - Adjust the working depth correctly. - Decrease the driving speed or do multiple passes. - Lower driving speed.
Slits have a bad shape.	<ul style="list-style-type: none"> - Soft ground. 	<ul style="list-style-type: none"> - Reduce work depth. - Decrease the driving speed.