User manual



SPEEDSEED 1100-1500-2000-2300



Translation of the original user manual



2244 English 924.120.202 EN



Kwekerijweg 8 | 3709JA | Zeist | The Netherlands |

T: +31 (0)306 933 227 E: redexim@redexim.com W: www.redexim.com

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Redexim Handel- en Exploitatie Maatschappij B.V. Kwekerijweg 8 3709 JA Zeist, The Netherlands

declare that this "EU - DECLARATION OF CONFORMITY" is issued under our sole responsibility and belongs to the following product:

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

to which this declaration refers, complies with stipulation of:

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and with the standards:

- ISO 12100-1:2010 Safety of machinery General principles for design Risk assessment and risk reduction
- ISO 13857:2019 Safety of machinery Safety distances to prevent hazard zones being reached by upper and lower limbs
- ISO 4254-1:2015 Agricultural machinery Safety Part 1: General requirements
- ISO 4254-9:2018 Agricultural machinery Safety Part 9: Seed drills

Zeist, 03-01-2022

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S.I. 2008 No. 1597 HEALTH AND SAFETY The Supply of Machinery (Safety) Regulations 2008

and with the standards:

- **ISO 12100-1:2010** Safety of machinery General principles for design Risk assessment and risk reduction
- ISO 13857:2019 Safety of machinery Safety distances to prevent hazard zones being reached by upper and lower limbs
- ISO 4254-1:2015 Agricultural machinery Safety Part 1: General requirements
- ISO 4254-9:2018 Agricultural machinery Safety Part 9: Seed drills

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FOREWORD

Congratulations on your Speedseed 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.

This document is a translation of the original user manual. Upon request, the original user manual is available in Dutch.

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	



TABLE OF CONTENTS

EU –	DECLAF	RATION OF CONFORMITY	2
UK –	DECLAF	RATION OF CONFORMITY	3
1.	SAFE	TY INSTRUCTIONS	6
	1.1.	Obligations of the user	6
	1.2.	Maintenance, repairs and adjustments	7
	1.3.	Using the machine	7
2.	TECH	NICAL DATA	8
3.	GENE	RAL DESCRIPTION	9
4.	SAFE	TY STICKERS	9
5.	FIRST	「INSTALLATION	10
6.	ATTA	CHING AND DETACHING THE MACHINE	11
	6.1.	Attaching the machine	11
	6.2.	Detaching the machine	12
7.	MACH	INE SETTINGS	12
	7.1.	Setting the seed-element valves	12
	7.2.	Setting the quantity of seeds using the gearbox	13
	7.3.	Turning test	14
8.	TRAN	SPORT	17
9.	STAR	T/STOP PROCEDURE	17
	9.1.	Safety	17
	9.2.	Starting to sow	17
	9.3.	Stop sowing	19
10.	MAIN	TENANCE	19
	10.1.	Lubrication points	20
11.	TROU	JBLE SHOOTING (PROBLEM ANALYSIS)	20
12.	OPTIO	ONAL: SET OF WEIGHTS	21
13.	OPTIO	ONAL: SPIKES ON THE REAR ROLLER	22
14.	OPTIO	ONAL: BRUSH SCRAPER	23
15.	OPTIO	ONAL: CRUMB ROLLER	24
16.	OPTIO	ONAL: DIGITAL SURFACE METER	25
17.	OPTIO	ONAL: SET OF WHEELS	26



1. SAFETY INSTRUCTIONS

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

Treating fields/lawns is the only purpose of the machine. 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/UKCA marking is cancelled. The person that has made these modifications has to apply for a new CE/UKCA 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 <u>always</u> 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. 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

<u>Type</u>	Speedseed 1100	Speedseed 1500
Recommended vehicle	20 pk with a minimum lifting capacity of 450 kg (990 lbs) measured 610 mm behind the lifting eyes	30 pk with a minimum lifting capacity of 550 kg (1212 lbs) measured 610 mm behind the lifting eyes
Working width	1.1 m. (43.3")	1.5 m. (59")
Working depth	5 – 20 mm (0.19" – 0.78")	5 – 20 mm (0.19" – 0.78")
Sowing speed	Max. 12 km/h (7.5 mph)	Max. 12 km/h (7.5 mph)
Sow hole distance	Square 30 mm (1.18")	Square 30 mm (1.18")
Number of holes per m ² using a single spiked roller	990/m² (10,656/ft²)	990/m² (10,656/ft²)
Weight	380 kg (836 lbs)	468 kg (1030 lbs)
Dimensions (L x W x H)	0.88 x 1.52 x 1.02 m. (34.8" x 60.1" x 40.1")	0.88 x 1.91 x 1.02 m. (34.8" x 75.5" x 40.1")
Three-point system	Cat. 1-2	Cat. 1-2
Bearing grease to be used	EP 2	EP 2
Content of the seed bin	169 l.(5.9 cu.ft.)	224 l.(7.84 cu. Ft.)
Tyre pressure	1 – 2 bar (14.5 – 29 Psi)	1 – 2 bar (14.5 – 29 Psi)
Optional	 Rear roller with spikes Brush scraper Digital counter Crush roller Set of weights Set of wheels 	 Rear roller with spikes Brush scraper Digital counter Crush roller Set of weights Set of wheels

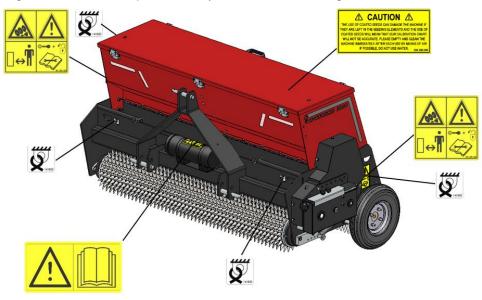
<u>Type</u>	Speedseed 2000	Speedseed 2300
Recommended vehicle	40 pk with a minimum lifting capacity of 595 kg (1310 lbs) measured 610 mm behind the lifting eyes	40 pk with a minimum lifting capacity of 650 kg (1430 lbs) measured 610 mm behind the lifting eyes
Working width	2.0 m. (78.7")	2.3 m. (90.6")
Working depth	5 – 20 mm (0.19" – 0.78")	5 – 20 mm (0.19" – 0.78")
Sowing speed	Max. 12 km/h (7.5 mph)	Max. 12 km/h (7.5 mph)
Sow hole distance	Square 30 mm (1.18")	Square 30 mm (1.18")
Number of holes per m ² using a single spiked roller	990/m² (10,656/ft²)	990/m² (10,656/ft²)
Weight	591 kg (1300 lbs)	650 kg (1430 lbs)
Dimensions (L x W x H)	0.88 x 2.44 x 1.02 m. (34.8" x 96.1" x 40.1")	0.88 x 2.72 x 1.02 m. (34.8" x 107.4" x 40.1")
Three-point system	Cat. 1-2	Cat. 1-2
Bearing grease to be used	EP 2	EP 2
Content of the seed bin	297 l.(10.4 cu.ft.)	337 l.(11.8 cu. Ft.)
Tyre pressure	1 – 2 bar (14.5 – 29 Psi)	1 – 2 bar (14.5 – 29 Psi)
Optional	 Rear roller with spikes Brush scraper Digital counter Crush roller Set of weights Set of wheels 	 Rear roller with spikes Brush scraper Digital counter Crush roller Set of weights Set of wheels

3. GENERAL DESCRIPTION

The Speedseed is a machine for sowing grass areas.

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.



921.280.402	 In case of maintenance, adjustments and repair, always switch OFF the engine of the towing vehicle. Keep a distance of minimum 4 metres when the machine is used (except for the user). No persons are allowed in the danger zone of the machine during its operation, because there is the risk of injury caused by rotating parts.
900.280.402	 Prior to using the machine, the operators of the machine must read the user manual carefully.
922.340.008	Fixation point to secure the machine during transport on, for example, a trailer.
THE USE OF COATED SEEDS CAN DAMAGE THE MACHINE IF THEY ARE LEFT IN THE SEEDING ELEMENTS AND THE USE OF COATED SEEDS WILL MEAN THAT OUR CALIBRATION CHART WILL NOT BE ACCURATE, PLASS EMPTY AND CLEAN THE MACHINE IMMEDIATELY AFTER EACH USE BY MEANS OF AIR IF POSSIBLE, DO NOT USE WATER 204 280 0.000	 Contamination of the seeding system can seriously damage the machine. Clean the machine thoroughly after each use, preferably using compressed air, not water.

5. FIRST INSTALLATION

The machine should be prepared for use as follows (Figure 1):

1. Attach cables to the hoisting points (1).

 \wedge

Ensure that the crane and hoisting cable can handle at least the following weights:

 Speedseed 1100
 500 kg (1100 lbs)

 Speedseed 1500
 650 kg (1430 lbs)

 Speedseed 2000
 700 kg (1540 lbs)

 Speedseed 2300
 850 kg (1870 lbs)

- 2. Lift the machine including the pallet approx. 10 cm (4") off the ground.
- 3. Loosen the pallet by removing the 3-point pins at the bottom (2).
- 4. Pull the pallet from under the machine.
- 5. 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 !!

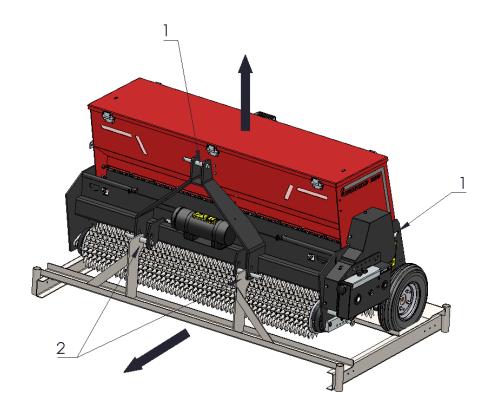


Figure 1

6. ATTACHING AND DETACHING THE MACHINE

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

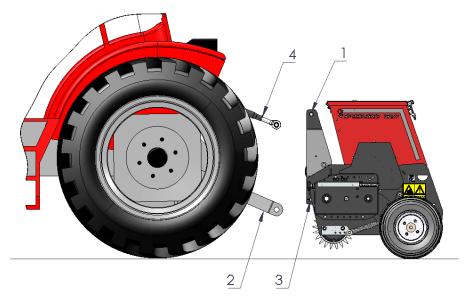


Figure 2

6.1. Attaching the machine

Prior to attaching the machine, check the following 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) at the top from the machine (see Figure 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 using the 3-point pins (3). Lock the pins using the R-clips.
- 4. Set the stabilizer to a sideways stroke of 100 mm.
- 5. Mount the top rod (4) onto the tractor and attach it to 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.

6.2. Detaching 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 machine and the tractor cannot move while you are detaching them !!



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



If the machine is to be parked for an extended period of time, make sure it is in a dry environment.

- 2. Carefully place the machine on the ground.
- 3. Loosen the top rod (4) and remove it.
- 4. Loosen the lowest arms (2).



!! The ground must be flat !!



!! First, you will have to remove additional weight !!

5. Start the tractor and drive off.

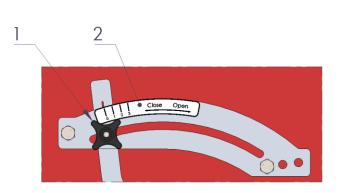
7. MACHINE SETTINGS

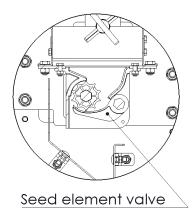
The Speedseed has several options for setting the machine optimally.

7.1. Setting the seed-element valves

The machine is suitable for sowing different types of seeds. Furthermore, the Speedseed can also be used in combination with various tractors and you can sow at different speeds. To adjust the machine to the various factors, the machine's sowing installation must be adjusted. The sowing elements have a number of functions (see **Figure 3b**):

- 1. If the valve is closed, no seeds can flow out of the hopper when the machine is idle (e.g., during transport).
- 2. To empty the hopper after sowing, the sowing-element valve can be opened so that the seeds can run out of the hopper.
- 3. The valve can be adjusted according to the size of the seeds that will be sown. In case of fine grass seed, the element valve must be closed completely. Then the gear wheel grabs the seeds. In the case of larger seeds, the space between the gear wheel and the valve is not large enough to let the seeds pass. Therefore, the valve needs to be opened more for larger seeds. Adjusting the size of the opening can be done using the valve adjustment handle. The handle can be adjusted by loosening the stellar knob (1), selecting the required position by means of the indication sticker (2), and retightening the stellar knob (see Figure 3a).





Figuur 3a

Figuur 3b

7.2. Setting the quantity of seeds using the gearbox

By affecting the setting of the sowing elements, the delivery of seeds can be set to additional or fewer seeds. Each sowing element contains a rotor that transports the seeds. By affecting the speed of the gears, the quantity of seeds can be adjusted. The gearbox can adjust the speed continuously-variable. Do the following to adjust the quantity of the seeds:

- 1. Loosen the stellar knobs (1) (see Figure 4).
- 2. Rotate the stellar knob (2) to change the settings. You can see the settings on the sticker (3).
- 3. Retighten the stellar knobs (1).

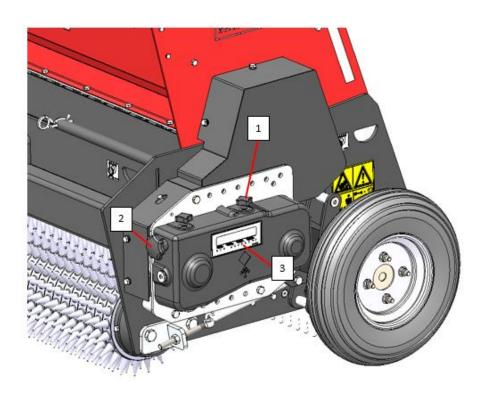


Figure 4



7.3. Turning test

The quantity of seeds should be adjusted for the correct operation of the Speedseed. See Table 1 for an indication of the required quantity.

You should consider the following instructions for this:



!! Make sure that the Speedseed and the tractor cannot move while you are setting them !!



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

You will need the following accessories for adjusting the quantity of seeds:

- 1. A scale
- 2. A tray for weighing the seeds
- 3. Enough seeds for filling the hopper for minimum 30%

The procedure is as follows (see **Figure 5**):

- 1. Fill the hopper with seeds and make sure that these are evenly spread throughout the hopper.
- 2. Lift the Speedseed off the ground so that the wheel can rotate freely.
- 3. Place a blanket or a piece of carton (1) under the machine.
- 4. Turn the wheel (2) 13 rotations counter-clockwise.
- 5. Weigh the seeds in:

Kilograms and multiply the result by:		Pounds and multiply the result by:	
Speedseed 1100:	559	Speedseed 1100:	5.20
Speedseed 1500:	410	Speedseed 1500:	3.81
Speedseed 2000:	308	Speedseed 2000:	2.86
Speedseed 2300:	268	Speedseed 2300:	2.49
The result is the amount of seeds in kilograms that should be spread per hectare. For a result in grams/m² divide the result by 10.		The result will give the ar seeded per 1000 sq.ft. For a result in pounds/ac with factor 43.56.	·



!! Attention !! If the gearbox is set on a high output, it may cause the release of a large quantity of seeds. Then divide the 13 rotations in several smaller steps!

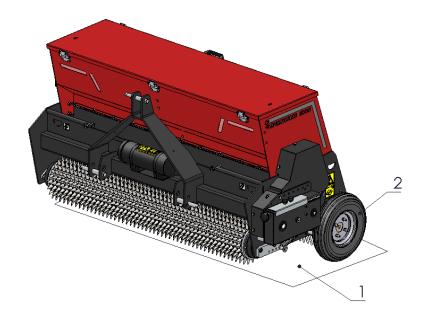


Figure 5

	Seeding table Sp	eedseed 11	100-1500-20	00-2300	
Gearbox setting	Gate opening		00 7000 20	00 2000	
J			Rve	grass	
0000000	/		,	J	
	0	a/m²	Ka/ha	Dound /	Bound /
		g/m²	Kg/ha	Pound / 1000 ft²	Pound / Acre
•••••				1000 11-	ACIE
0.5	0	0.4	4.1	0.1	3.6
1	0	1.0	9.6	0.2	8.6
1.5	0	2.2	21.6	0.4	19.3
2	0	4.2	42.1	0.9	37.5
3	0	6.9	69.3	1.4	61.8
4	0	9.9	99.3	2.0	88.6
5	0	13.4	134.3	2.8	119.8
6	0	17.1	171.3	3.5	152.8
7	0	21.3	213.5	4.4	190.4
8	0	26.7	267.3	5.5	238.5
9	0	32.4	324.1	6.6	289.2
10	0	38.9	388.9	8.0	347.0
11	0	49.1	490.8	10.1	437.9
Gearbox setting	Gate opening				
			Blue	grass	
	3000 Sam				
		g/m²	Kg/ha	Pound /	Pound /
•••••				1000 ft ²	Acre
0.5	0	1.1	11.2	0.2	10.0
1	0	2.2	22.3	0.5	19.9
1.5	0	5.0	49.9	1.0	44.6
2	0	7.7	77.1	1.6	68.8
3	0	12.7	127.0	2.6	113.4
4	0	18.2	182.1	3.7	162.5
5	0	24.6	246.3	5.0	219.7
6	0	31.4	314.0	6.4	280.1
7	0	39.1	391.3	8.0	349.1
8	0	49.0	490.1	10.0	437.2
9	0	59.4	594.2	12.2	530.1
10	0	71.3	713.0	14.6	636.1
11	O Coto ananima	90.0	899.9	18.4	802.8
Gearbox setting	Gate opening		Pod For	nous arons	
0000000			Red Fes	scue grass	
	Cisso Open				
		g/m²	Kg/ha	Pound /	Pound /
				1000 ft²	Acre
0.5	0	0.6	5.6	0.1	5.0
1	0	1.1	11.2	0.1	10.0
1.5	0	2.5	25.0	0.5	22.3
2	0	3.9	38.6	0.8	34.4
3	0	6.4	63.6	1.3	56.7
4	0	9.1	91.1	1.9	81.3
5	0	12.3	123.2	2.5	109.9
6	0	15.7	157.1	3.2	140.2
7	0	19.6	195.8	4.0	174.7
8	0	24.5	245.2	5.0	218.8
9	0	29.7	297.3	6.1	265.2
10	0	35.7	356.8	7.3	318.3
11	0	45.0	450.3	9.2	401.7
	•				



	Sooding table Sn	andened 11	00 1500 20	000 2200	
Gearbox setting	Seeding table Sp Gate opening	eeuseeu ii	00-1500-20	00-2300	
Gearbox Setting	Gate opening	Bermuda grass			
	Close Open				
		g/m²	Kg/ha	Pound / 1000 ft²	Pound / Acre
0.5	0	1.4	13.8	0.3	12.3
1	0	2.7	27.4	0.6	24.5
1.5	0	6.1	61.4	1.3	54.8
2	0	9.5	94.8	1.9	84.6
3	0	15.6	156.2	3.2	139.3
4	0	22.4	223.8	4.6	199.7
5	0	30.3	302.7	6.2	270.0
6	0	38.6	385.9	7.9	344.3
7	0	48.1	481.0	9.9	429.1
8	0	60.2	602.3	12.3	537.4
9	0	73.0	730.3	15.0	651.6
10	0	87.6	876.4	17.9	781.9
11	0	110.6	1106.0	22.7	986.8
Gearbox setting	Gate opening	1.010			000.0
			Ben	t grass	
000000				. g. a.c.	
	O O O				
		g/m²	Kg/ha	Pound /	Pound /
		.	J. 13	1000 ft ²	Acre
0.5	0	0.9	9.1	0.2	8.1
1	0	1.8	18.0	0.4	16.1
1.5	0	4.0	40.3	0.8	36.0
2	0	6.2	62.3	1.3	55.6
3	0	10.3	102.6	2.1	91.5
4	0	14.7	147.0	3.0	131.2
5	0	19.9	198.8	4.1	177.4
6	0	25.3	253.5	5.2	226.1
7	0	31.6	315.9	6.5	281.8
8	0	39.6	395.6	8.1	353.0
9	0	48.0	479.7	9.8	427.9
10	0	57.6	575.6	11.8	513.5
11	0	72.6	726.4	14.9	648.1
Gearbox setting	Gate opening	72.0	720.4	14.5	040.1
Gearbox setting	Gate opening				
0000000	\square				
	Cama Gan				
	0.00	g/m²	Kg/ha	Pound /	Pound /
		9/111	r (g/ria	1000 ft ²	Acre
				1000 It	, 10, 0

8. TRANSPORT

The user is responsible for transporting the Speedseed in back of the tractor on public roads. Verify the national legislation regarding the regulations. On open fields while the machine is raised, the maximum permitted speed is 20 km/h (12.4 mph) due to the weight of the Speedseed. A higher speed can be dangerous for the driver and/or the public and can even damage the machine.



!! When the machine is raised off the ground, the front axle of the tractor has to support minimum 20% of the tractor's weight !!

9. START/STOP PROCEDURE

9.1. Safety

Before using the Speedseed, 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. Are there hard objects in the ground? If so, use the Speedseed at adjusted speed.
- 4. Is there danger of flying objects (e.g., golf balls) that distract the attention of the driver? If so, the Speedseed **CANNOT** be used.
- 5. Is there danger of sinking/sliding away? If so, postpone sowing.
- 6. If the soil is frozen or very wet, postpone the activities until conditions improve.
- Check whether the hopper is not too damp. Dampness can cause the seeds to stick to each other and this leads to a poor result.
- 8. Do NOT make sharp curves when the Speedseed touches the ground.

A few general remarks/tips about using the Speedseed:



!! If a hard object in the ground is hit, the spikes can get damaged !!



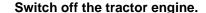
!! NEVER drive backwards when the drive wheel is on the ground !!

9.2. Starting to sow

Before starting to sow, check the machine on the following points:



Make sure that the Speedseed and tractor cannot move during adjustment.



- Check that the shaft that drives the seed cups rotates smoothly.
 When the hopper is empty, the shaft (1) must be able to rotate with a wrench without too much force.
 - Rotate the shaft in the direction indicated by the arrow. (See Fig. 5-1)

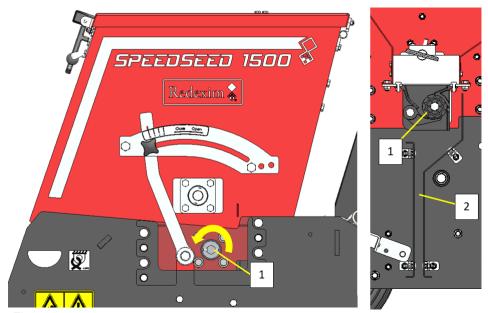


Fig. 5-1

If a heavy point is found, first check where it comes from and fix it.

First of all, check for contamination of the sowing system and clean.

Attention! If the shaft turns too heavily, a damaging overload of the gearbox can be the result.

- Check that the seed passage (2) is not blocked. (Fig.5-1)
- Check that the machine is not damp, especially the sowing system.
- Check the sowing elements (1) for damage and repair if necessary. (Fig.5-2)

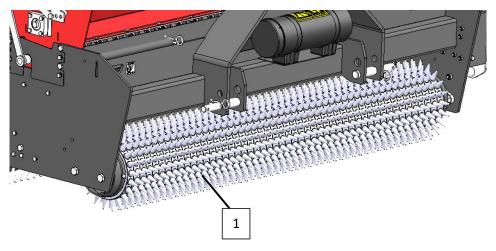


Fig.5-2



The start procedure is **VERY** important. Follow the described procedure, because otherwise the Speedseed can get damaged.

- 1. Fill seeds into the hopper.
- 2. Adjust the gearbox to the type of seeds that should be sown.



!! Make sure that the Speedseed and the tractor cannot move while you are setting them !!

- 3. Drive to a spot where the machine will be used.
- 4. Drive slowly forward and lower the Speedseed slowly until the machine drives completely on the ground.
- 5. Increase the speed to the required speed.



!! The maximum working speed is 12 km/h. Higher speeds are not recommended and can cause damage to the Speedseed !!

9.3. Stop sowing

- 1. Reduce the speed.
- 2. Lift the machine off the ground.
- 3. Drive to the next spot for sowing and start to sow.

10. MAINTENANCE

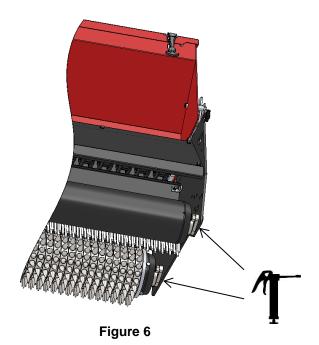
Timeline	Checkpoint	Method
Before <u>every</u> usage	Check the shaft that drives the seed cups rotates smoothly.	See chapter 9.2. If the shaft rotates heavily, check for contamination and clean the seeding system.
	Check that the machine is not damp, especially the seeding system.	Dry the machine, use only air.
	Check for loose bolts/nuts.	Tighten the loose bolts/nuts to the correct torque.
	Presence and legibility of the safety decals.	Replace if not present/damaged.
After <u>every</u> usage	Clean the machine and especially the sowing mechanism.	Clean the seeding mechanism with air only. Do not use water.
	Store the machine in a dry environment.	
After the first 20 working hours. (new or repaired)	Check for loose bolts/nuts.	Tighten the loose bolts/nuts to the correct torque.
	Grease the grease points.	Use EP 2 grease. 1 shot
	Check that the drive chains have enough lubrication.	Lubricate the drive chains.
After <u>every</u> 100 hours	Check whether there is still enough grease/oil in the gearbox.	Top up the gearbox, see parts manual for details.
	Check that the drive chains have enough lubrication.	Lubricate the drive chains.
	Grease the grease points.	Use EP 2 grease. 1 shot

Table 7

10.1. Lubrication points

11.

To guarantee the proper functioning of the Speedseed, the lubrication points at both sides of the machine (see Figure 6) must be greased periodically. Grease these points according to Table 7.



TROUBLE SHOOTING (PROBLEM ANALYSIS)

Problem	Possible cause	Solution
The seeds do not reach	The soil is too hard.	Aerate / irrigate
the correct depth.	Too little pressure on the front roller	Adjust the machine so that only the front roller touches the ground.
	Not enough weight on the machine	Stack more weight on the machine.
	Spikes are worn out	Replace the spikes
The tractor does not	Soil is too wet	Postpone sowing
have sufficient traction.	Not enough weight on the machine	Stack more weight on the machine
No seeds come out of the machine.	The seeds stick to each other because they are too wet	Use dry seeds
	Gearbox is in the wrong position	Adjust the gearbox
	No seeds in the hopper	Check whether there are enough seeds in the hopper. Top up if necessary.
Too many seeds come out of the machine.	The handle for operating the seed- element valves is opened too far	Readjust the handle for operating the seed-element valves

12. OPTIONAL: SET OF WEIGHTS

Standard, the Speedseed is equipped with a front bar to which the weights (1) can be attached (see **Figure 7**).

Please refer to the parts manual for the correct quantity of weights.

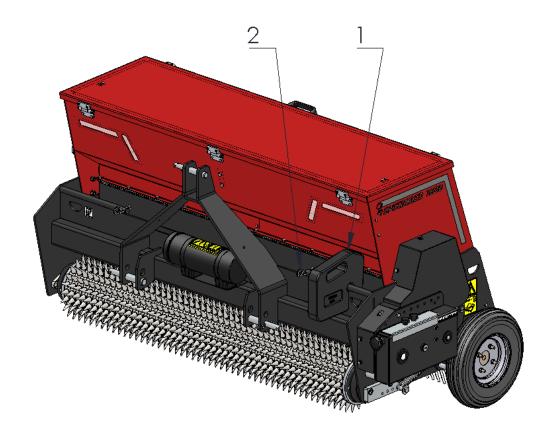


Figure 7

Do the following to mount the weights:

- 1. Remove the locking pin (2).
- 2. Slide the required number of weights (1) onto the axle.
- 3. Return the locking pin (2) into the frame.

The following weights per machine are available:

•	Speedseed 1100:	6x	492.502.800 (120 kg / 264 lbs)
•	Speedseed 1500:	12x	492.502.800 (240 kg / 529 lbs)
•	Speedseed 2000:	20x	492.502.800 (400 kg / 882 lbs)
•	Speedseed 2300:	26x	492.502.800 (520 kg / 1146 lbs)

13. OPTIONAL: SPIKES ON THE REAR ROLLER

You have the possibility to mount spikes on the rear roller (see Figure 8).

The article numbers for these spikes are:

Speedseed 1100: 224.120.000
Speedseed 1500: 224.160.002
Speedseed 2000: 224.210.000
Speedseed 2300: 224.240.000

Please refer to the parts manual for the correct assembly.



!! When mounting the spikes, make sure that you use approved hoisting equipment, never crawl under the machine and take into account that the spikes have sharp points!!

- 1. Ensure that the machine stands firmly on the ground and cannot move.
- 2. Lift the rear side of the machine off the ground so that the rear roller can roll freely.
- 3. Dismount the protective plate at the rear side (1).
- 4. Dismount the rear roller.
- 5. Dismount the scraper. Save the scraper for cases in which you want to work with a smooth rear roller.
- 6. Dismount the brush (2).
- 7. Mount the spike elements.
- 8. Mount the roller with the spikes (3) in the most forward position (4).
- 9. Mount the brush (2) in the rear position (5).
- 10. Mount the protective plate at the rear side (1).
- 11. Slowly lower the machine onto the ground.

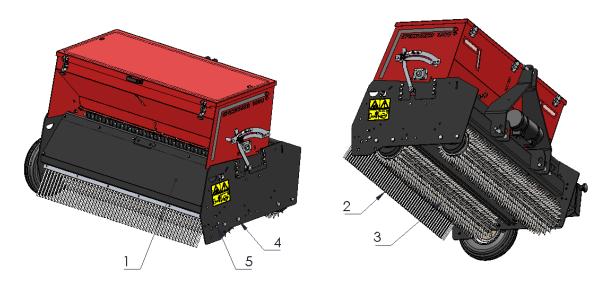


Figure 8



14. OPTIONAL: BRUSH SCRAPER

You have the possibility to mount an additional brush scraper onto the Speedseed (see **Figure 9**). The article numbers for these brush scrapers are:

Speedseed 1100: 490.809.013
Speedseed 1500: 490.809.017
Speedseed 2000: 490.809.022
Speedseed 2300: 490.809.024

Please refer to the parts manual for the correct assembly.

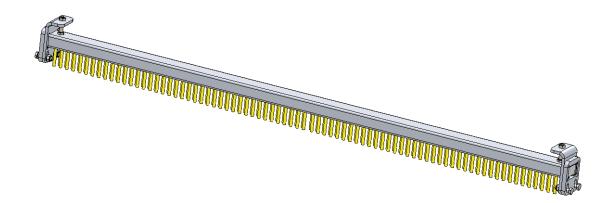


Figure 9



15. OPTIONAL: CRUMB ROLLER

You have the possibility to mount a crumb roller onto the Speedseed instead of the rear roller (see **Figure 10**).

The article numbers for these crumb rollers are:

Speedseed 1100: 224.120.006
Speedseed 1500: 224.160.006
Speedseed 2000: 224.210.004
Speedseed 2300: 224.240.002

Please refer to the parts manual for the correct assembly.

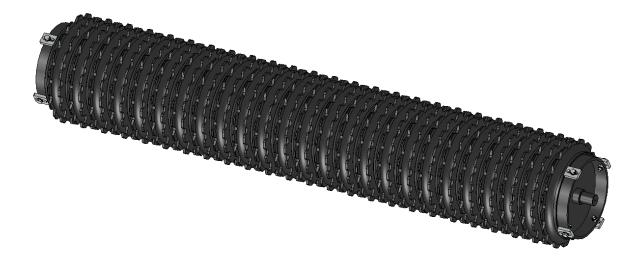


Figure 10



16. OPTIONAL: DIGITAL SURFACE METER

The machine can be equipped with a digital surface meter (see **Figure 11**) that can read a variety of data, such as the treated area, distances, operating hours, etc.

A separate manual (included in the delivery of the set) is available. This manual explains the operation of the surface meter.

If the settings of the surface meter have disappeared from the memory, then you should fill in the following specific parameters:

Machine	Parameter 'C'	Parameter 'L'	
	Pulses of the speed sensor (Chapter 8.2)	Working width (Chapter 8.4)	
	Setting UN=0 (metric); 1 (imperial)	m ft	
Speedseed 1100	79	1.2 3.93	
Speedseed 1500	79	1.6 5.25	
Speedseed 2000	79	2.1 6.89	
Speedseed 2300	79	2.4 7.87	

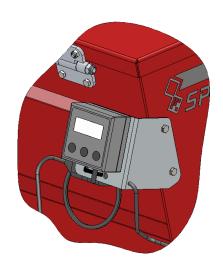


Figure 11

17. OPTIONAL: SET OF WHEELS

The machine can be constructed including a set of wheels (see **Figure 12**).

The article number of a complete transport kit is:

• Speedseed 1500: 224.160.000

This kit is delivered separately and can be mounted onto the machine with a standard 3-point connector. In general, the wheel kit will reduce the minimally required number of horsepower to 10. The kit is easily removed, so that the machine can be used in both manners.



Figure 12