User manual



OVERSEEDER 1430A-1830A-2230A



Translation of the original user manual



2244 English 922.120.204 EN



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EU – DECLARATION OF CONFORMITY



We,

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:

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

to which this declaration refers, complies with stipulation of:

2006/42/EC Machinery Directive

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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to which this declaration refers, complies with stipulation of:

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 Overseeder 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 operating instructions. Upon request, the original operating instructions are 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	

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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 \triangle is an indication of a safety instruction. A \bigcirc 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/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 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

Model	1430A	<u>1830A</u>	2230A		
Working width	1.41 m (55.5")	1.83 m (72")	2.25 m (88.6")		
Working depth	5mm-30mm (0.19"-1.18")				
Seeding speed		Up to. 12 Km/h (7.5 mph)			
Weight	1340 Kg (2954 lbs)	1647 Kg (3631 lbs)	1947 Kg (4292 lbs)		
Seeding row distance		30 mm (1.18")			
Number of cutting elements	47	61	75		
Recommended tractor	40 HP with minimal lift capacity 610mm behind the lift eyes of 1340 Kg (2954 lbs).	50 HP with minimal lift capacity 610mm behind the lift eyes of 1647 Kg (3631 lbs).	60 HP with minimal lift capacity 610mm behind the lift eyes of 1947 Kg (4292 lbs)		
Seed-tray capacity	260ltr. (9.18cu. ft.)	330ltr. (11.65cu. ft.)	410ltr. (14.5cu. Ft.)		
Maximum capacity (theoretically at maximum speed ±12 km/h (7.5 mph) and single passage)	16920 m ² /h (182125 ft ² /h)	21960 m ² /h (236375 ft ² /h)	27000 m ² /h (290626 ft ² /h)		
Seeding density per 1 ha (2.47 acre)	Normal seed: 0 – 392 Kg (0 – 864.2 lbs)				
Shipping dimensions	L x W x H 1470 x 1800 x 1351 mm 57.9" x 70.9" x 53.2"	L x W x H 1470 x 2220 x 1351 mm 57.9" x 87.4" x 53.2"	L x W x H 1470 x 2640 x 1351 mm 57.9" x 103.9" x 53.2"		
Three-point connection	CAT. 1 / 2				
Lubricant	Gearbox: See parts manual, depending on the type of gearbox mounted. Other: EP 2				
Standard parts	Fillable back roller with scraper. Infinitely adjustable gearbox for adjusting the seeding density. Integrated seed spreading tray.				
Optional extras:	Bogy kit Weight kit				
Weight kit specifications					
Front Center Rear	44 Kg (97 lbs) 148 Kg (326 lbs) 352 Kg (774 lbs)	79 Kg (174 lbs) 193 Kg (425 lbs) 563 Kg (1239 lbs)	114 Kg (251 lbs) 238 Kg (524 lbs) 733 Kg (1613 lbs)		

3. GENERAL DESCRIPTION

The Overseeder is a seeding machine for treating natural 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.

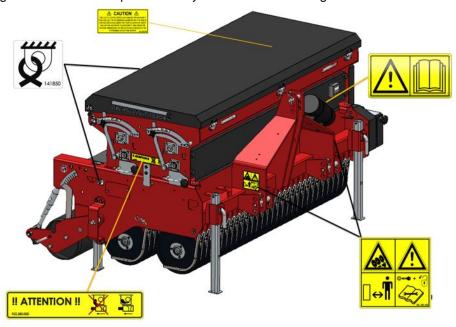


Figure 1

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 if the machine is operating (except the operator). During operation, make sure there are no persons in the danger area of the Overseeder to prevent them from getting injured by moving parts.
900.280.402	 Prior to using the machine, the operators of the machine must read and understand the user manual before starting to use the Overseeder.
# ATTENTION # 922.280.000	 Before removing funnel tray close seeding element valve. If not the valves may become damaged.
922.340.008	 Fixation point for fixing the machine during transport on a trailer. NOT for lifting the machine.
THE USE OF COATES SEEDS CAN DAMAGE THE MACHINE IF THEY ARE LEFT IN THE SEEDING ELEMENTS AND THE USE OF COATES SEEDS WILL MEAN THAT OUR CALIBRATION CHART WILL NOT SE ACCURATE, PLASSE SEMPTY AND CLEAN THE MACHINE IMMEDIATELY AFTER EACH USE BY MEANS OF AIR IF POSSIBLE, DO NOT USE WATER 294.280.000 924.280.000	 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

To remove the pallet and to place the machine horizontally on the ground, take the following steps (see Figure 2):

<u>^</u>

Make sure that the cable/crane/lift can hoist minimum of :

- Overseeder 1430A: 2000 Kg (4400 lbs)
- Overseeder 1830A: 2300 Kg (5060 lbs)
- Overseeder 2230A: 3000 Kg (6600 lbs)
- 1. Lower the legs (4) and secure them.
- 2. Attach a cable to the lifting point (1).
- 3. Lift the machine (including the pallet) just till the tension is of the pins (2).
- 4. Loosen the transport pallet by removing the 3-point pins (2).
- 5. Lift the Overseeder from the transport pallet, remove the transport pallet and 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 !!

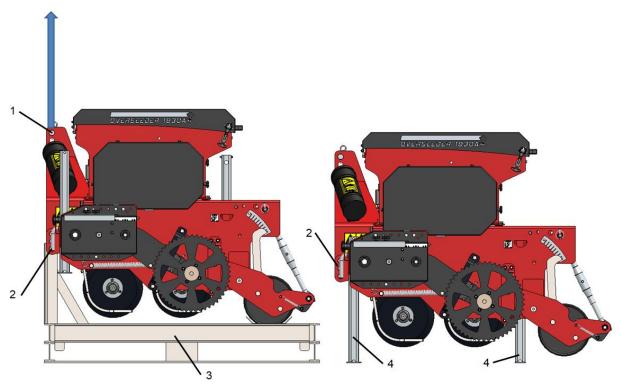


Figure 2

6. ATTACHING AND DETACHING THE MACHINE

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

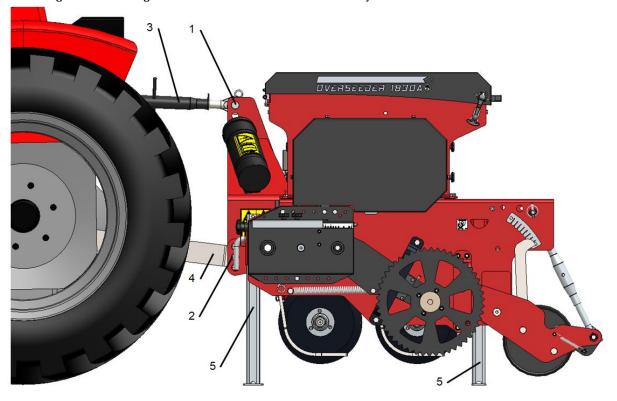


Figure 3

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: (see Figure 3).

- 1. Remove the 3-point pins (1 and 2) from the machine.
- Carefully drive the tractor backwards until the lifting arms (4) can be attached to the machine.



 ${\tt !!}$ Make sure that the tractor and the machine cannot move while you are attaching the machine ${\tt !!}$



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

- 3. Attach the lifting arms (4) to the machine using the 3-point pins (2). Lock the pins using the R-clips.
- 4. Set the stabilizer of the lifting arms to a sideways stroke of 100 mm.
- 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 (1) of the machine
- 6. Adjust the top link 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. Slide the support legs (5) upwards and lock them in the working position.

6.2. Detaching the machine

The machine should be detached in the following manner (see Figure 3):

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



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



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



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

- 2. Lower the support legs (5) and secure them.
- 3. Carefully place the machine on the ground.
- 4. Loosen the top link (3) and remove it.
- 5. Loosen the lifting arms (4).
- 6. Start the tractor and drive off.



Make sure the cutting discs do not touch the ground or any obstacle when storing the machine to avoid damage.

7. ADJUSTING THE WORKING DEPTH

The working depth can be adjusted by adjusting the sliding foot of the seed blades. Loosen the bolts (1). Now move the sliding feet (2) to the desired depth, from 5 to 30 mm working depth. (see Figure 4)

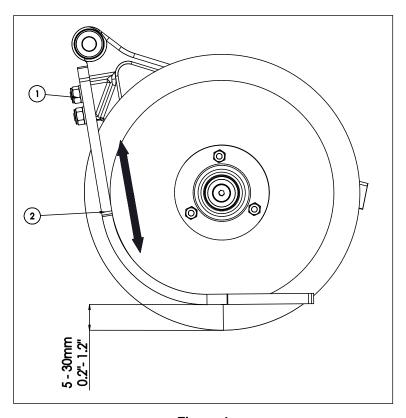


Figure 4



!! Please note that front and rear sliding foot the same depth are set and parallel !!

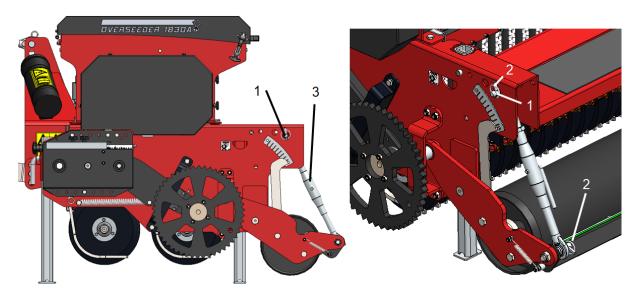


Figure 5

The rear roller can also be used to control the cutting depth.(see Figure 5) Use spindles (3) to acquire the desired cutting depth.

When desired the rear roller can also be mounted floating. This can be achieved by loosening lock pin (2) and pin (1). The spindles (3) can be removed from the machine.



The machine can be equipped with additional weights (see chapter 13), and/or filling the rear roller with water.



If the rear roller is filled with water, empty it before it starts freezing.

8. SETTING THE SEED-QUANTITY / DIGITAL SURFACE METER

The seed quantity can be set by changing the gearbox-ratio and the opening of the seed element valve (see chapter 8.1).

These settings provide various combinations for a wide range of settings. The gearbox has been marked with a decal, which indicates the numbers 1 to 11. By changing the gearbox-ratio as indicated, the required quantity setting is obtained.

To change the gearbox-ratio, proceed as follows: (see Figure 6)

- Loosen the knobs (1)
- Turn knob (2) to the required setting
- Tighten the knobs (1)

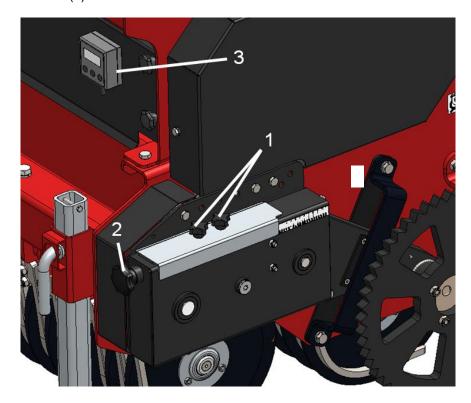


Figure 6

On the machine there is also a digital surface meter (3) that can be used to read various data such as the machined area, distances, hours of work, etc.

For the explanation of the operation of this surface meter, a manual is included in the toolbox.

If the settings of the surface meter have disappeared from memory, these are the specific parameters to be filled in:

Machine	Parameter "C" Pulses of the speed sensor (Chapter 8.2)	Parameter "L" Working width (Chapter 8.4)	
	Setting UN=0 (metric); 1 (imperial)	m	ft
Overseeder 1430A	76	1.41	4.63
Overseeder 1830A	76	1.83	6.00
Overseeder 2230A	76	2.25	7.38

8.1. The seeding element valve opening

The seeding element valve opening is depending on the seed size.

In most cases the setting 0 is used but when the seed size is larger the valve can be set more open to transport the seeds correct.

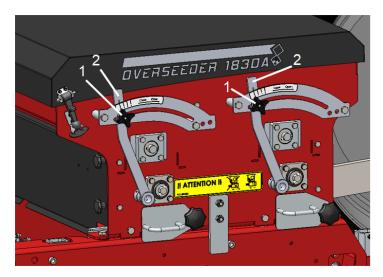
When transporting the machine the seed element valve must be closed or seeds may spill out. Close the seed element valve before transporting the machine.

Changing the seeding element valve opening is done as follows: (see Figure 7)

- 1. Loosen knob (1).
- 2. Adjust lever (2) with the knob by sliding it to open or closed.
- 3. Fasten the knob (1).



By default the seed element valve is closed.



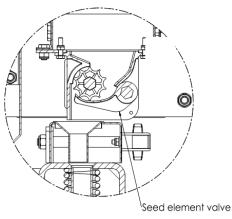
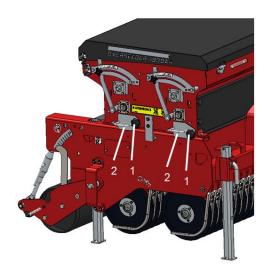


Figure 7

8.2. Spreading test

If the seeding output of the machine has to be checked or recalibrated, a spreading test has to be carried out.

This has to be done as follows: (see Figure 8)



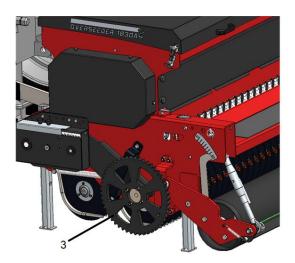


Figure 8

1. Place the machine safely on the support legs on a flat surface.



!! Make sure the tractor and overseeder are secured in place and cannot start moving !! !! Switch the tractor off before getting off !!

- 2. First of all check if the seeding element valve opening is correct (see chapter 8.1).
- 3. Put the seed that has to be calibrated into the seed hopper and spread it out equally.
- 4. Remove the knobs (1).
- 5. Take out the funnel trays (2).
- 6. Turn the funnel trays (2) upside down.
- 7. Slide the funnel trays (2) back into the machine and lock it with the knobs (1).
- 8. Turn the wheel (3) 13 full rotations counter clockwise and take out the funnel trays. Measure the total weight of the seed in:



Use the table on the next page to write down the measured values for future use.

Kilograms and multiply the result by:
Overseeder 1430A: 447
Overseeder 1830A: 344
Overseeder 2230A: 280

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.

Pounds and multiply the result by:

Overseeder 1430A: 4.15
Overseeder 1830A: 3.20
Overseeder 2230A: 2.61

The result will give the amount of pounds seeded per 1000 sq.ft.

For a result in pounds/acre multiply the result with factor 43.56.

the result with factor 45.50.

9. Place the funnel trays (2)back in the machine and secure them with their knobs (1).

	Seedina tahle	Overseeder 14:	30A-1830A-2230	DA	
Gearbox setting	Gate opening		7071 103071 2230		
3	, 3		Rye	grass	
	Lati Cione Opin /				
	0	g/m²	Kg/ha	Pound /	Pound / Acre
		g/III-	Kg/IIU	1000 ft ²	Poulla / Acre
•••••				1000 jt	
0.5	0	0.4	3.8	0.1	3.4
1	0	0.9	9.1	0.2	8.1
1.5	0	2.0	20.3	0.4	18.1
2	0	3.9	39.5	0.8	35.2
3	0	6.5	65.0	1.3	58.0
4	0	9.3	93.2	1.9	83.2
5	0	12.6	126.1	2.6	112.5
6	0	16.1	160.7	3.3	143.4
7	0	20.0	200.3	4.1	178.7
8	0	25.1	250.9	5.1	223.8
9	0	30.4	304.2	6.2	271.4
10	0	36.5	365.0	7.5	325.6
11	0	46.1	460.6	9.4	411.0
Gearbox setting	Gate opening		Plu	e grass	
0000000			Бійс	gruss	
	Osm Open				
	0 20	g/m²	Kg/ha	Pound /	Pound / Acre
		g/III-	Kg/IIu	1000 ft ²	Poulla / Acre
000000			10.6		0.4
0.5	0	1.1	10.6	0.2	9.4
1	0	2.1	20.9	0.4	18.7
1.5	0	4.7 7.2	46.9 72.4	1.0	41.8 64.6
3	0	11.9	119.2	1.5 2.4	106.4
4	0	17.1	170.9	3.5	152.5
5	0	23.1	231.1	4.7	206.2
6	0	29.5	294.7	6.0	262.9
7	0	36.7	367.3	7.5	327.7
8	0	46.0	459.9	9.4	410.3
9	0	55.8	557.6	11.4	497.5
10	0	66.9	669.2	13.7	597.0
11	0	84.5	844.5	17.3	753.5
Gearbox setting	Gate opening				
	, ,		Red Fes	scue grass	
0000000	Jan Com Com				
	0	g/m²	Kg/ha	Pound /	Pound / Acre
		9/111	Kg/Tiu	1000 ft ²	Found / Acre
•••••					
0.5	0	0.5	5.3	0.1	4.7
1	0	1.0	10.5	0.2	9.4
1.5	0	2.3	23.5	0.5	20.9
2	0	3.6	36.2	0.7	32.3
3	0	6.0	59.7	1.2	53.2
4	0	8.6	85.5	1.8	76.3
5	0	11.6	115.6	2.4	103.2
6	0	14.7	147.4	3.0	131.5
7	0	18.4	183.8	3.8	163.9
8	0	23.0	230.1	4.7	205.3
9	0	27.9	279.0	5.7	248.9
10	0	33.5	334.8	6.9	298.7
11	0	42.3	422.6	8.7	377.0
	Seeding table	Overseeder 143	30A-1830A-2230	JA .	

Gearbox setting	Gate opening		Bermu	da grass	
	0 00	g/m²	Kg/ha	Pound / 1000 ft²	Pound / Acre
0.5	0	1.3	13.0	0.3	11.6
1	0	2.6	25.7	0.5	23.0
1.5	0	5.8	57.6	1.2	51.4
2	0	8.9	89.0	1.8	79.4
3	0	14.7	146.6	3.0	130.7
4	0	21.0	210.0	4.3	187.4
5	0	28.4	284.0	5.8	253.4
6	0	36.2	362.2	7.4	323.1
7	0	45.1	451.4	9.2	402.7
8	0	56.5	565.3	11.6	504.3
9	0	68.5	685.4	14.0	611.5
10	0	82.2	822.5	16.8	733.8
11	0	103.8	1038.0	21.3	926.1
Gearbox setting	Gate opening	103.6	1036.0	21.5	920.1
ocursos setting	oute opening		Ben	t grass	
		g/m²	Kg/ha	Pound / 1000 ft²	Pound / Acre
0.5	0	0.9	8.5	0.2	7.6
1	0	1.7	16.9	0.3	15.1
1.5	0	3.8	37.8	0.8	33.8
2	0	5.8	58.4	1.2	52.1
3	0	9.6	96.3	2.0	85.9
4	0	13.8	138.0	2.8	123.1
5	0	18.7	186.6	3.8	166.4
6	0	23.8	237.9	4.9	212.2
7	0	29.6	296.5	6.1	264.5
8	0	37.1	371.3	7.6	331.2
9	0	45.0	450.2	9.2	401.6
10	0	54.0	540.2	11.1	481.9
11	0	68.2	681.8	14.0	608.2
Gearbox setting	Gate opening				
		g/m²	Kg/ha	Pound / 1000 ft²	Pound / Acre

9. 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.



!! When the machine is lifted of the ground, at least 20% of the weight of the tractor must rest on the front axle. !!

10. PUTTING THE MACHINE INTO OPERATION

10.1. 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 is in the soil.

10.2. Working speed

The maximum safe working speed of the machine is approx. 12 km/h (7.5 mph). However, the user should check which speed is optimal to achieve the required result per individual situation and soil treatment.

10.3. General remarks on the use of the overseeder

- A field can be tilled 2 or 3 times in different directions in order to obtain a higher seeding density and for seeding in a diamond shape.
- Do not make sharp turns, preferably drive in straight lines to avoid damaging the machine and/or the ground.
- When hitting a hard object in the soil, the cutting elements may be burred/damaged. Try to file burrs away or replace the cutting element.
- When the cutting elements become wet, the seed may stick and accumulate between the cutting elements.
- Make sure the cutting elements do not become wet or postpone the work.
- NEVER drive backwards while the running wheel is on the ground.

10.4. Starting / stopping procedure

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



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

Switch off the tractor engine.

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. 7-1)

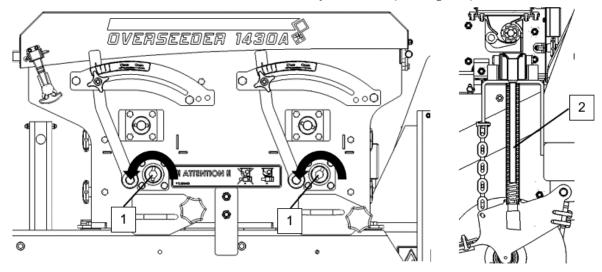


Fig. 7-1

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.7-1)
 - Consult Hs.11.2 to gain access to this section.
- Check that the machine is not damp, especially the sowing system.
- Check the sowing elements (1) for damage and repair if necessary. (Fig.7-2)

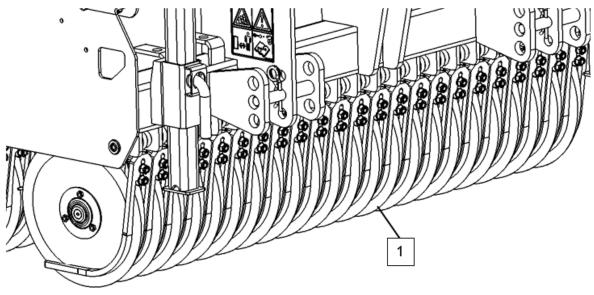


Fig.7-2

START SEEDING

The starting procedure is VERY important. If this procedure is not followed exactly as described below, serious damage may occur to the machine. The procedure is as follows:

- 1. Put the seed in the seed tray.
- 2. Set the required seed quantity by adjusting the gearbox. (Chapter 8.0)
- 3. Drive to the place where you want to start.
- 4. Start with a driving speed of about 3 km/h (1.9 mph).
- 5. While driving lower the machine carefully and in a controlled way until the seeding elements are cutting the ground.
- 6. Increase the speed until the correct driving speed has been reached.

STOP SEEDING

- 1. Decrease the driving speed to about 3 km/h (1.9 mph).
- 2. While driving, raise the machine out of the ground.
- 3. Go to the next place and start again as described.



It is absolutely imperative that the above procedures are followed. If the machine is placed in the ground while standing still, it may be seriously damaged.



While driving, lower the machine carefully and in a controlled way during the lowering process.



Never drive backwards when then machine is in the ground.

11. MAINTENANCE

Timeline	Checkpoint	Method
Before every usage	Check the shaft that drives the seed cups rotates smoothly.	See chapter 10.4. 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

11.1. Grease points

To guarantee the proper functioning of the Overseeder, the lubrication points at both sides of the rear roller (**see Figure 9**) must be greased periodically. Grease these points according to the table in Chapter 11.

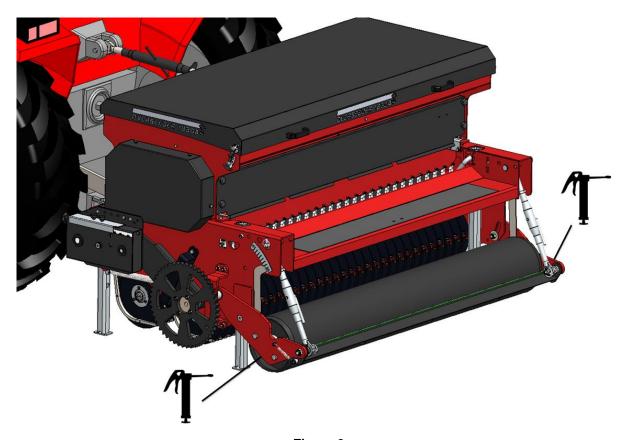


Figure 9

11.2. Shifting the seed hopper open

For service or placing center weights the seed hopper needs to be opened, proceed as described: (see Figure 10)

- 1. Drive the overseeder to a storage place with a stable/even floor.
- 2. Adjust the legs (1) downwards and lock them with the included lock pins.



!! Before stepping of the tractor be sure the overseeder is standing stable on the floor and secured in place against sliding!!



!! Switch the tractor off before getting off !!

- 3. Remove the cover (2) and untension the chain spanner (9)
- 4. Remove the chain (3) and both funnel trays (4).
- 5. Disconnect the connector of the digital counter (6).
- 6. Remove cover plates (5) on the front and back side of the machine.
- 7. Remove the four bolts and nuts (7) which connect the seed hopper (8) with the lower frame.
- 8. The seed hopper (8) is free and can be pulled backwards.



!! Don't pull the seed hopper too fast, this can damage the machine !!

!! Beware of hands and fingers, they may get caught between moving parts !!

To close the seed hopper, proceed as follows:

1. Push the seed hopper (8) forwards.

!! Don't push the seed hopper to fast forward, this can damage the machine !!



!! Beware of hands and fingers, they may get caught between moving parts !!

2. Place the four bolts and nuts (7) which connect the seed hopper (8) with the lower frame.



Check the alignment of the sprocket wheels before connecting the chain. The sprockets of the seed hopper and the gearbox need to be in line.

- 3. Place the cover plates (5) on the front and back side of the machine.
- 4. Fasten the connector of the digital counter (6).
- 5. Place the both funnel trays (4) and place the chain (3).
- 6. Tension the chain with the spanner (9)
- 7. Place the cover (2) back on the machine.

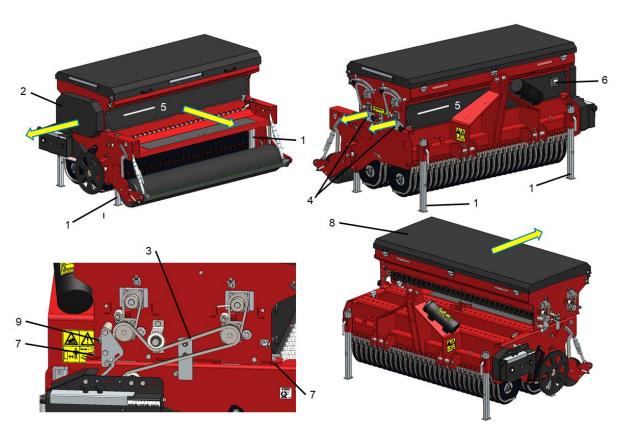


Figure 10

12. TROUBLE SHOOTING (PROBLEM ANALYSIS)

Problem	Possible cause	Solution	
No seeds come out of the machine.	The seeds stick to each other because they are too wet.	Use dry seeds.	
	Gearbox in the wrong setting.	Adjust gearbox to correct setting.	
	The handle for operating the valves is closed.	Operate the handle to open the valves in the correct setting.	
	No seeds in the hopper	Check whether these are enough seeds in the hopper. Top up if necessary.	
	Seeding pipes / funnels are blocked / dirty	Unblock / clean.	
The seed is not in the seeding cut.	Seed discs are worn.	Replace the seeding discs.	
	Wrong working depth.	Adjust the machine to the correct working depth.	
	Soil is too wet.	Postpone sowing.	
	The soil is too hard.	Loosen the soil by means of ploughing, irrigating, etc.	
	Tractor tensioning is too low.	Put lower link arms in to a higher hole.	
	Top link incorrect adjusted.	Adjust the top link in the correct position.	
	Too much dead leaves and roots in the top layer of the field.	Remove the dead leaves and roots. Increase the weight of the machine.	
	Not enough weight.	Add weight.	
Too many seeds come out of the machine.	The handle for operating the valves is opened too far.	Readjust the handle for operating the valve(s).	
	Gearbox setting is too high.	Adjust gearbox to correct setting.	
Seeding cuts are poorly shaped.	Seed discs are worn.	Replace the seeding discs.	
	Seeding disks don't turn / are stuck.	Loosen the discs.	
	Bearings of the seed discs are worn.	Replace the bearings.	
	Poor ground.	Lower the working depth. Aerate / irrigate the ground if it is too dry and repeat the tilling later.	
	Too much dead leaves and roots in the top layer of the field.	Remove the dead leaves and roots. Increase the weight of the machine.	
	Top link incorrect adjusted.	Adjust the top link in the correct position.	
Seeding cuts are not	Slits are too wide.	Lower the working depth.	
closed.	Soil is too hard.	Aerate / irrigate the soil and repeat sowing later.	
	Rear roller not on the ground.	Make rear roller floating.	

13. OPTIONAL EXTRAS

13.1. Weight kit

A weight kit can be placed on the machine, this will help the machine to cut more easily into the soil.

For the overseeder there 2 weight kits available.

1. The internal version: (See figure 11)

2. The external version: (See figure 12)

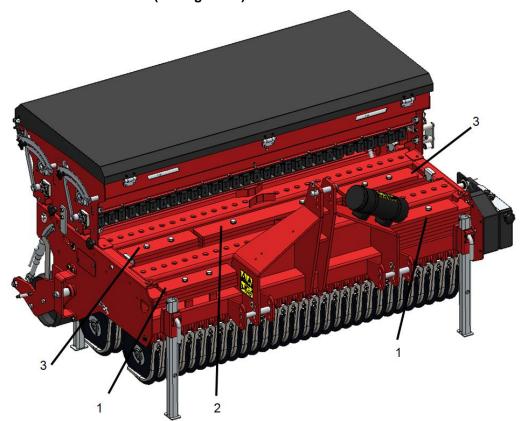


Figure 11

Internal weight (See Figure 11)

Overseeder 1430A: Kit no: 222.140.006 192 Kg (423 lbs)
Overseeder 1830A: Kit no: 222.180.006 272 Kg (600 lbs)
Overseeder 2230A: Kit no: 222.220.006 352 Kg (776 lbs)

The weights (1) are mounted with bolts on the front beam of the overseeder. When weights are needed at the center of the machine, the seed hopper needs to be shifted backwards. On the inside of the machine it is possible to mount weights (2+3) on the frame with bolts. See parts manual for exact mounting. After mounting the weights the seed hopper can be shifted forwards.



See chapter 11.2 for opening and closing the seed hopper.

External weight (See figure 12)

The weights (1) can be placed on the rear beam of the machine with a frame. See parts page for exact mounting.

Overseeder 1430A: Kit no: 222.140.004 352 Kg (776 lbs)
Overseeder 1830A: Kit no: 222.180.004 563 Kg (1241 lbs)
Overseeder 2230A: Kit no: 222.220.004 733 Kg (1616 lbs)

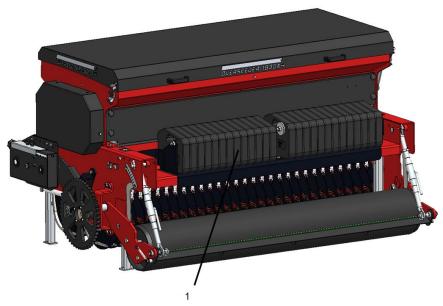


Figure 12

General comments weight kit:



Always fix the weights on the machine with the supplied brackets and rods. If this isn't done correctly the weights could fall off the machine while moving and injure people or damage parts.



!! Never crawl under the machine !!



!! Make sure the tractor is secured in place and cannot start moving while placing the weight kit !!



!! Switch off the tractor before getting off !!

13.2. Bogy kit

If the tractor is not able to lift the overseeder a bogy can be a solution to use the machine with a tractor with less lifting capacity.

The following bogy kits are available: (See figure 13)

Overseeder 1430A: Kit no: 222.140.002 Kit no: 222.180.002 Overseeder 2230A: Kit no: 222.220.002

Before assembling the bogy kit be aware care of the following safety instructions :



!! Never crawl under the machine !!



!! Make sure the machine is securely placed before assembling!!



See parts pages for exact position of parts and sequence hydraulic components.

1. Remove spring pin (1) and push pin (2) inwards.

\triangle

!! Take care that the rear roller does not fall on the ground !!

- 2. Remove bush (3) and slide the pivot point of the bogy-frame (4) in this place.
- 3. Insert pin (2) and mount spring pin (1).
- 4. Mount cylinder bracket (5) to the frame with the supplied bolt and nuts.
- 5. Mount the cylinders (11) between the brackets and the bogy.
- 6. Mount wheel shaft (8) to the frame using the supplied spacer (9) and the mounting plates (7+10).
- 7. At the front of the machine the draw bar (15) is mounted. It is mounted by fastening it with standard fixing pins at the lower 3-point plates.
- 8. Install cylinder (16) with two stop cylinders (17) between the top 3-point suspension and drawbar, using the included pins and circlips (13+14).
- 9. Place the various hydraulic couplings(12) and hoses.



Figure 13

13.3. Setting the bogy kit

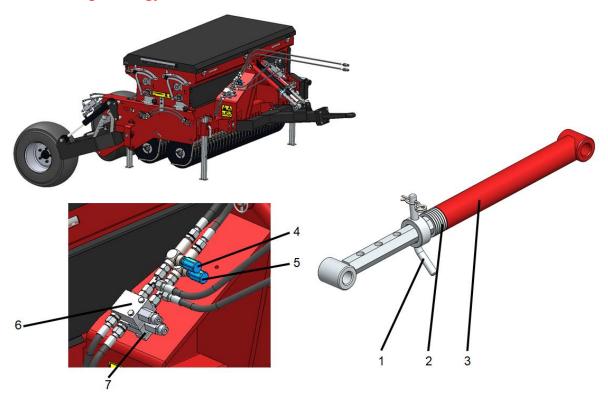


Figure 14

The lifting sequence and speed of the front and rear section of the overseeder its bogy kit is separately adjustable. (See figure 14)

The sequence and speed control is located at the front of the machine.

The speed of lifting and lowering can be adjusted by rotating the restrictors (4) and (5).

The sequence of lowering and lifting is controlled by the valves (6) and (7).



!! Warning! Be careful !!

If the restrictors are opened too far, the machine can lower very quickly, creating an unsafe situation

The speed of the lowering and lifting is controlled by the restrictors (4) and (5).

Clockwise = slower, Counter clockwise = faster.

The setting is different for each circumstance and should be experimentally established.

In addition, it is possible to change the order of lifting and lowering. By setting valve (6) or (7) it's possible to adjust the sequence of lowering and lifting off the rear wheels. When changed the rear wheels can be set slower or equal to the draw bar speed.

Clockwise = slower, Counter clockwise = faster.

When the correct setting is reached fix the valve / restrictor with the screw beside the knob.

Connect the machine to the tractor.

Adjust the pin (1) using the rings (2) of the stop cylinders (3) so that the machine is on working depth and slides with the cutting guides of the seed discs flat on the ground, but still putting pressure on the tow bar.