

Manual Maredo® GT 414- 072

Vibe- Seeder for Fescue.

SERIAL:

IMPORTANT:

The required (hydraulic) power depends on the working depth, soil conditions, working speed etc. The condition of the triplex greensmower and the ambient temperature determine the available capacity. Everybody should check the greensmower during work if it isn't overloaded by checking the heat built up and take the correct measurements . MAREDO DOES NOT TAKE ANY LIABILITY FOR GREENSMOWER DAMAGES.



Note:

For a safe operation it is essential, that the operator reads and understands the manual of the Maredo machine.

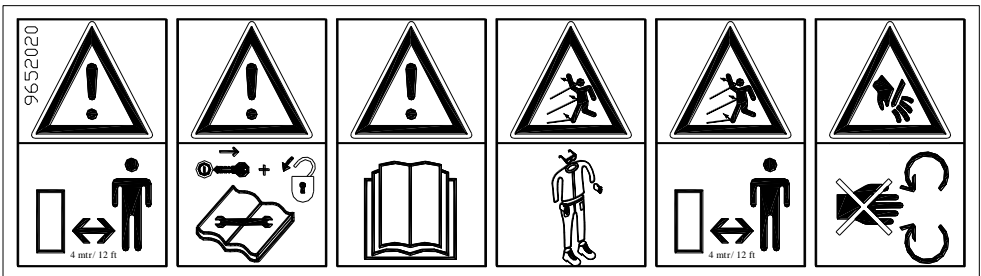
MAREDO BV, RIJKSSTRAATWEG 16, 3956 CR LEERSUM, HOLLAND.

WWW.MAREDO-BV.COM.

EN 1309

SAFETY INSTRUCTIONS.

1. Never **disconnect or shortcut any of the safety devices.**
2. Every **MAREDO user must be fully informed** and understand the safe use of the MAREDO machine.
3. **Inspect the ground**, where the MAREDO machine is to be applied. Remove loose obstacles, avoid uneven areas.
4. **Drive carefully** during work and during transport.
5. Ensure that **other people are standing at least 4 mtr./ 12 ft away** from the MAREDO machine during work and transportation.
6. **Use appropriate clothing**. Wear strong shoes with steel enforced toe caps, long trousers, gloves, tie up long hair and use protection glasses for the eyes.
7. **Never overload** the Maredo.
8. **Check the MAREDO minimal once a week**, to ensure there are no loose bolts and nuts. Check for damages too and repair it.
9. The MAREDO **may never be used without protection covers** and safety decals.
10. **Use only original MAREDO spare parts**, in order to ensure the safe operation of the machine.
11. **Never use the MAREDO** in the dark, in heavy rains, on frozen grounds, stony conditions and/ or on slopes steeper than 30 degrees.
12. **Maintain a log book** of repairs
13. Be aware that **changes to the MAREDO**, releases MAREDO from any CE regulations.



FOREWORD.

Congratulations with the purchase of your MAREDO®. To ensure the safe and long lasting operation of the MAREDO machine, you and anyone using the machine, should read and understand this user's manual.

Also ensure that you understand and practice the safety rules, as described in this manual.

This MAREDO machine is delivered accomplished by a guarantee against material and assembly errors. This guarantee applies for a period of 12 months, as from the date of purchase.

TECHNICAL SPECIFICATIONS.

Model	: GT 414-072 with dosing shaft 6425555
Working width	: 520 mm/ 21" per head
Working depth	: 7-15 mm/ 0.28- 0.60"
Hole spacing	: 20 x 45 mm/ 0.80 x 1.77"
Driving speed	: 0.5- 4.8 km/h / 0.3- 3 mph
Dosing rate	: 6425555 Fescue: 0.6 – 14.4 gr/ m ² = 0.6 – 2.9 lbs/1000 sqft 6425555 Bent: 5.0- 25.0 gr/m ² = 1 – 5 lbs/1000sqft.
Weight	: 70 Kg/ 154 lbs per head.
Overall Dimensions	: 72 x 44 x 24 cm / 29 x 18 x 10"
Options :	: Other seed dosing shafts

EU- declaration.

We, MAREDO, Rijksstraatweg16, 3956CR. Leersum, Holland, hereby declare fully on our authority, that the product:

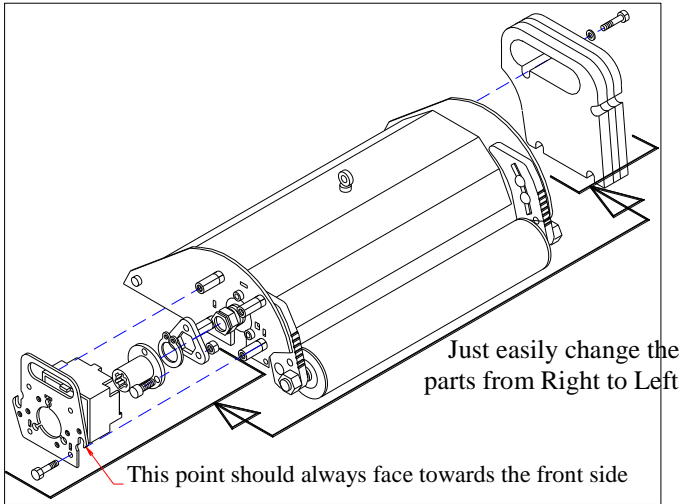
MAREDO GT410 , with serial number as indicated on the machine and in this manual, to which this declaration applies, has been manufactured in line with NEN-EN –ISO 14121-1:2007, according to the stipulations of The Machine Directive 2006/42/EG.



Marinus Reincke Maredo BV Holland.

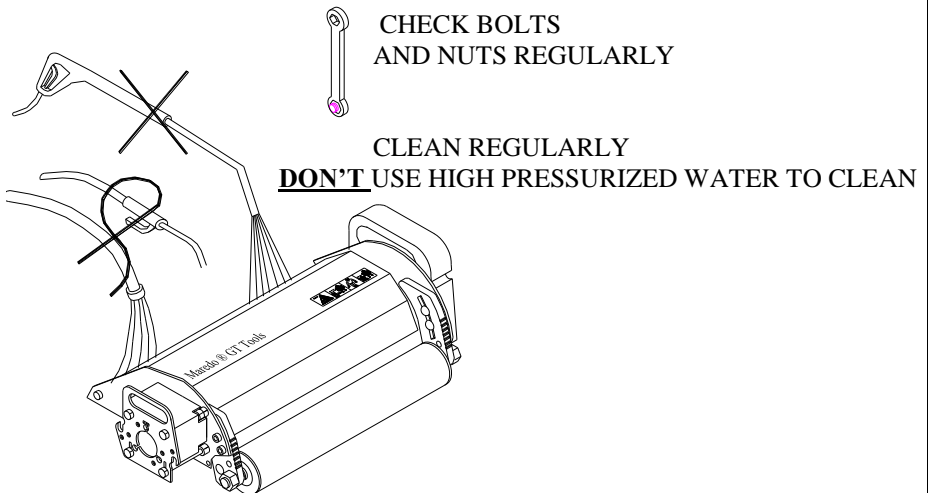
FIRST SETUP:

The heads are standard delivered with the motor connection at the Right Hand side. We can easily swop this to the left side by removing the clutch parts and mount them at the other side of the machine (swop the side weights at the same time). Be sure you mount them in exact the same position as before (do not mirror them), see picture.



Next, we need a parts kit to mount the head to your triplex greensmower. Maredo has several kits available. Each kit comes with its own mounting instructions and partslist.

MAINTENANCE.



GENERAL TIPS/ REMARKS.

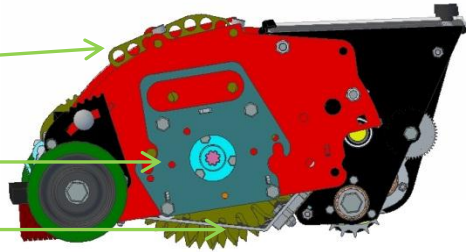
1. Do not use the seeder unit in wet conditions. The funnels may clog.
2. You can check the dosing yourself. 10.3 revs of the front roller matches equals 1m² (or 9.4 revs matches 10 sq ft). Measure the seed amount and you know the dosing per m² or per 10 sqft.
3. Clean the unit regularly with air or low pressure water. **DO NOT USE HIGH PRESSURIZED WATER.** Use air to clean the seed funnels.
4. The cleaning strips in between the spiked disks can be aligned side wards in case the spikes rub against them. Remove the seedbox to access the front mounting bolts.
5. If the centre hydraulic front motors hit each other (TORO), you can offset both heads by adjusting the ball-bolts at which the two TORO arms are connected in the front or by choosing another holes in the black U bracket (Jake/ JDeere).
6. Fertilizer can be applied, as long as it can be fed through the dosing roller, however the zinc plated dosing roller may get hurt. **BE CAREFULL and CLEAN WELL.**
7. Play with the engine throttle and the forward speed, if the holes do not look nice. You may even use the heads without the hydraulic motor running (the spikes just roll over the surface, without vibration).
8. If the holes are not deep enough, slow down on driving speed and/ or increase the engine rpm's, so that the vibration per spike increases.
9. The dosing rate is not only determined by the gear set, but also by the gap between the dosing roller and (rear) seal plate. See also the dosing decal in the seed box. The larger the gap, the more seed is sown. Calibrate yourself, if needed..
10. The heads are very heavy and need two persons to carry (with the grip at each side). However an easy trolley is available that can be mounted underneath and which makes it easy to roll the heads under or away from the greensmower.
11. If you top-dress first, the brush will brush the remaining seed and sand in the holes. This works even better with the GT 414 wider brush.
12. You can play right after the green has been overseeded.
13. Don't make tight curves. Straight passes are the best, with a final round.
14. Check if the heads are well mounted at your greensmower. If not adjust the mounting kit. The head should be floating during work and secured during transport.
15. If the seed boxes seed at different rates, check & adjust the gearwheel setting and the gap between the dosing roller and the (rear) seal plate of each individual head.
16. If your turf is damaged during start-up (as the spikes start spinning), start at lower engine rpms, outside the green, or drop the heads down with the greensmower still in transport mode. When at the ground, switch back to the work mode and engage the drive.
17. Be careful when dropping the units on a hard (concrete) floor. **PUT SOMETHING UNDERNEATH TO PROTECT THE SPIKES, PLATES OR ROLLERS.** Or just simply use the trolleys all the time.
18. Check bolts and nuts regularly.

USER NOTES.

Pick-up cam for Toro

Motor mount plate

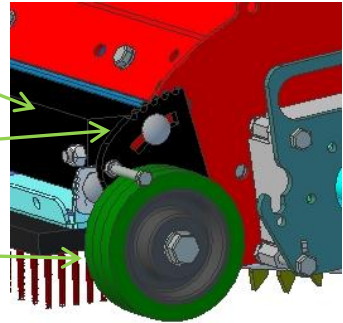
Cleaning shoe strips



Contra weight (can be removed)

Depth adjustment rear wheels
(adjust evenly at both sides)

Side support wheel (2x)

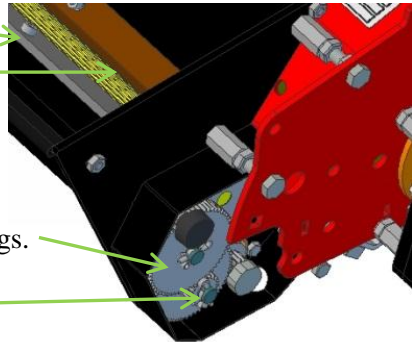


Front seal strip

Rear guide strip. Seed goes through
this gap, which can be adjusted.
Unscrew all 5 bolts 1 turn, use feeler gauge
and set at the right distance.

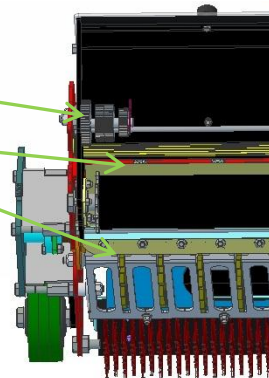
Changeable gears for different dosing settings.

Secure R pin for gearwheels



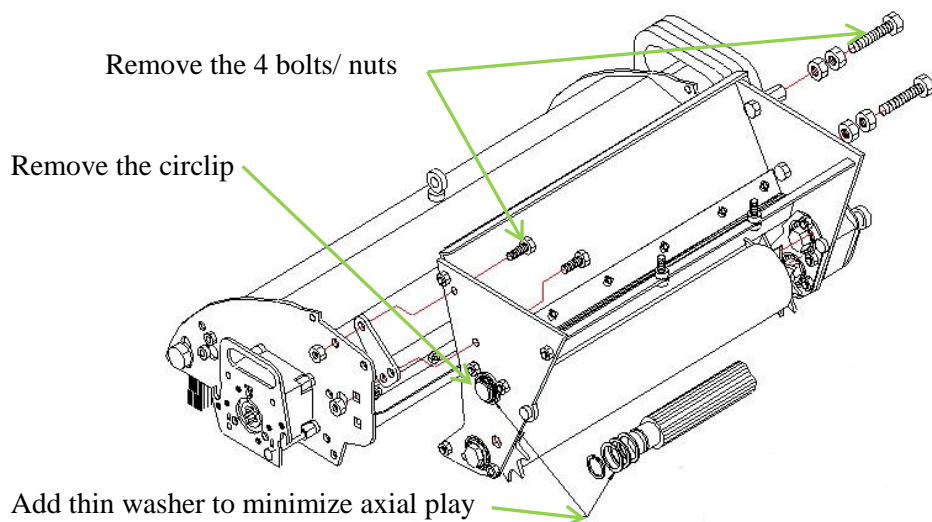
Spare gear wheels

Clean funnels through this gap+
from the bottom up.



CHANGING THE DOSING SHAFT.

Several dosing shafts are available. For the standard dosing rates, see the attached dosing table. To change the shaft, remove the seed box first by removing 4 bolts (see the figure below). When the secure washer is removed, the dosing shaft can be removed. Replace it and take any axial clearance away by using thin washers behind the secure washer.



Quant.	Part Number + Name GT414 REV072
24	1835181-01 Spiked disk GT412 special 1119
1	1848056-00 Brush for GT 414
2	2015114 Bearing 6202 2RS NR
2	2015114-01 Bearing 6202 2RS NR with shortened circ
12	2035142 Bearing 6007 ZZ Self
2	2420200 Bearing SC 204
2	2420209 PF 204 housing
6	3008121 Springwasher M8 6798 A
14	3008160 Washer M8 DIN 125A
5	3012250 Washer M12 DIN 125A
2	3014250 Washer M14 DIN 125A
1	3051805 Shimm washer d18 D25 s05 D988
2	3505000 Nut M5 DIN 934
16	3505004 Self lock nut M5 D985
5	3505008 Self lock nut M5 with washer DIN 6929
3	3505016 Plastic nut M5
12	3506000 Nut M6 DIN 934
31	3506004 Self made nut M6 985
1	3506040 High nut M6 3d
12	3508000 Nut M8 DIN 934
102	3508004 Self lock nut M8 D985
10	3508040 Nut M8 DIN 6334
2	3510000 Nut M10 DIN 934
2	3512012 Low height nut M12
1	3522026 Low height nut M22 x 1.5
10	3605124 Hex socket screw M5 x 12 DIN 912
12	3605161 Bolt M5 x 16 DIN 933
5	3605164 Mushroom head bolt M5 x 16 DIN 603
1	3605451 Bolt M5 x 45 DIN 933
3	3606201 Bolt M6x 20 DIN 933
26	3606205 Self threading bolt M6x20 DIN 7500
1	3606251 Bolt M6x 25 DIN 933
2	3606600 Bolt M6x 60 DIN 931
8	3608161 Bolt M8 x 16 4017 SELF
8	3608164 Mushroom head bolt M8 x 16 DIN 903
57	3608201 Bolt M8 x 20 ISO 4017
6	3608204 Mushroom head bolt M8 x 20 DIN 903
1	3608251 Bolt M8 x 25 4017 S
2	3608254 Mushroom head bolt M8 x 25 DIN 903
3	3608301 Bolt M8 x 30 4017 S
2	3608303 Hex socket screw M8 x 30 DIN 912
2	3608351 Bolt M8 x 35 4017 S
8	3608400 Bolt M8 x 40 DIN 931
24	3608500 Bolt M8 x 50 DIN 931

Quantity	Part Name
2	3608654 Mushroom head bolt M8 x 65 DIN 903
2	3610251 Bolt M10 x 25 DIN 933
1	3612411 Bolt M12 x 40 x 1.25 DIN 961
1	3612511-90 Bolt M12 x 50 x 1.25 DIN 961 cut down
2	3612600 Bolt M12 x 60 DIN 931
8	3640525 Screw 4.8 x 25 DIN 7981 CH
1	3901320 R pin d=2
2	3902325 R clip Viba
1	3903316 Roll pin 3 x 16 D1481
5	3903416 Roll pin 4 x 16 D1481
1	3905180 Cir clip d=18 DIN 471
2	3911800 Cir clip d=18 DIN 471
1	3912600 Cir clip d=26 DIN 471
12	6001035-02 Shimm washer 35-56-05
1	6001310-03 Interplate gearbox seeder 410 black
1	6001519-00 Seed guide plate GT 400 1148
1	6001559-05 Seed guide plate (REV 04 is wrong)
1	6002014-00 Distance washer bolt M12 GT410
2	6002027-01 Washer 30- 12- 2
2	6002037-00 Washer 37 - 20 -2 204 bearing
12	6002118-01 U distance plate 6007
1	6002142-02 Cover plate gearbox seedbox black
1	6002525-02 Rear seed box panel black
1	6002526-03 Front seed box panel black
1	6002527-02 Front roller scraper
4	6003026-00 Washer d18 D27 s3
1	6003048-00 Bearing mount plate 6202 seedbox
2	6003078-02 Spiked wheel for front roller
2	6003082-02 Seal plate inside seedbox 410
1	6003123-01 Bearing mount plate 3x 6202 seedbox
2	6003183-00 Pivot strip brush support GT414
1	6003221-01 Bottom shoe plate narrow 410
2	6003222-01 Bottom shoe plate wide 410
1	6003525-00 Rear support plate for shoes GT414
1	6003527-00 Brush support beam GT 414
1	6004034-00 Washer 37- 20 -4
1	6004041-00 Timing and grip plate Hex 24
1	6004107-02 Distance plate motor mount plate
2	6004356-05 Side plate GT frame
1	6004495-00 Backup strip for seal plates seedbox
1	6004591-05 Central bridge for 7435060
1	6005050-01 Clutch plate with hex hole
12	6005101-02 Outer mounting plate spike
1	6005155-03 Hydr motor mount plate GT 1109
1	6005198-01 Right side panel seed box 410 black
1	6005199-02 Left side panel seed box 410 black

12	6006065-04 Excenter plate Hex 24- 3.50
13	6008077-02 Funnel plate 8 mm 410
1	6008098-01 Distance plate seedbox GT frame
2	6008105-00 Rear wheel support GT414
3	6010176-02 Counter weight GT black
1	6012120-03 Pick up cam for GT D shackle
1	6303535-00 Top cover for seedbox 410
1	6305519-02 Seal strip for seed box 410
1	6308519-00 Rubber U seal 8 x 13
1	6410058-01 Shaft for spare gearwheels 410
2	6417048-02 Gearwheelshaft seedbox 410
1	6424636-00 Main shaft for GT 24 mm
1	6425555-00 Fesceu drawn dosing shaft GT414
1	6450518-03 Weight square 50 black
1	6460482-02 Front roller for seed box 410 black
5	6506540-00 Threaded rod M6 x 540 seedbox
2	6720815-00 Pivot bush brush support GT414
2	6721222-00 Distance bush front roller seeder
1	6731815-00 Drive nut M18 Left
1	6731816-00 Drive nut M18 Right
1	6735031-02 Slined drive bush GT
2	6761508-01 Bearing bush dosing roller
1	7033016-00 Distance bush Hex 24 L16
2	7033033-00 Distance bush Hex 24 L33
5	7033053-00 Distance bush Hex 24 L53
2	8061161-01 Gearwheel z16 m1 seeder 410
1	8061201-01 Gearwheel z20 m1 seeder 410
1	8061301-01 Gearwheel z30 m1 seeder 410
2	8061401-01 Gearwheel z40 m1 seeder 410
1	8061501-01 Gearwheel z50 m1 seeder 410
2	8061561-01 Gearwheel z56 m1 seeder 410
1	8061601-01 Gearwheel z60 m1 seeder 410
1	9653000 Maredo Logo standard decal
1	9653006 Dosing decall for GT 414 drawn 24 teeth dos
1	9653010 CE Decall standard
1	9653012 Patent decall
1	9653020 Safety decall standard

- the 6 spike sections should be well timed on the main shaft
- the sequence should be 1.6.2.4.3.5.

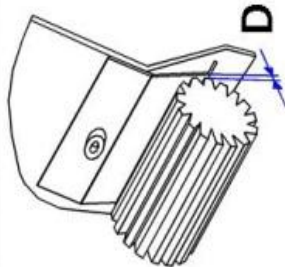
- Tighten the nut 3522026 on the main shaft well & locitite!
- Don't use high water pressure for cleaning; the bearings get damaged!
- The distance between 6001519 and 6425553 is 0.2 standard

Change it for more or less seed, or fine calibration

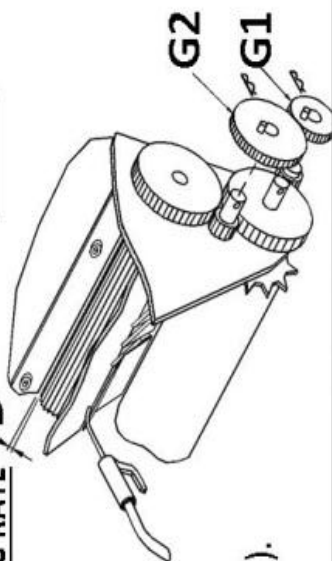
- Clean with air !!



ADJUST D FOR CHANGING OR FINE TUNING THE DOSING RATE **D** **9653006 1301**



Clean funnels top + bottom regularly with air before and after the job (and in case they are clogged during the job as well).



Dosing rates for GT 414 equipped with 24 teeth drawn dosing shaft # 64255555 :

G1 TEETH:	G2 TEETH:	Fescue D=0.5 mm/0.20"		Bent G6 D=0.1 mm/ 0.004"	
		gr/m ²	lbs/1000 sqft	gr/m ²	lbs/1000 sqft
20	60	3.0	0.60	5.0	1.00
30	50	5.5	1.10	8.8	1.80
40	40	9.2	1.85	15.0	3.00
50	30	14.4	2.90	25.0	5.00