

Manual Maredo® GT 190. REV02. CountRo RandomVerticutter.

SERIAL:

IMPORTANT:

The required (hydraulic/ electric) power depends on the working depth, soil conditions, working speed etc. The ambient temperature and the greens mower condition determine the available capacity of the greensmower. **Everybody should check and control the greensmower during work to prevent overloading.** 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.

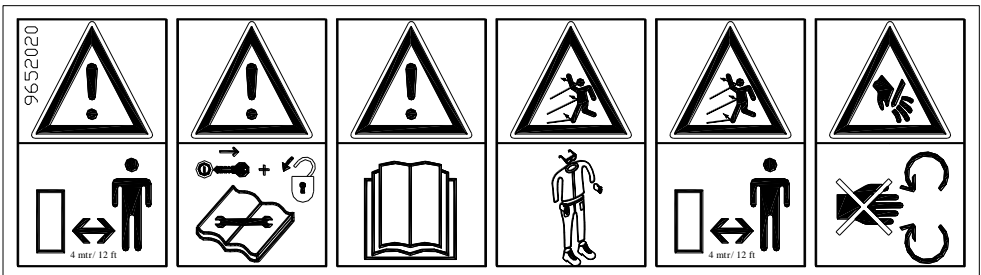
MAREDO BV, RIJKSSTRAATWEG 16, 3956 CR LEERSUM, HOLLAND.

WWW.MAREDO-BV.COM

EN 1312

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 them.
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.
14. **Wear certified ear protection** against any noise, if the machine is used for more than 2 hours.



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 190 02
Working width	: 520 mm/ 21" per head
Working depth	: 0 - 6 mm/ 0 – ¼"
“Slit” spacing	: 4 mm / 1/8"
Ground speed	: 0.5- 3.0 km/h / 0.3- 2 mph
Weight	: 37 Kg/ 90 lbs per head.

EU- declaration.

We, MAREDO, Rijkstraatweg16, 3956CR. Leersum, Holland, hereby declare fully on our authority, that the product:

MAREDO, 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.



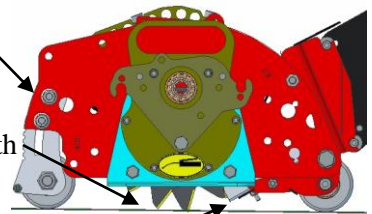
Marinus Reincke Maredo BV Holland.

TIPS/ REMARKS/ ADJUSTMENTS.

1. Do not use the machine in wet conditions. The material may clog.
2. Clean the unit regularly with air or low pressure water. **DO NOT USE HIGH PRESSURIZED WATER.**
3. Be careful when dropping the units on a hard (concrete) floor. **PUT SOMETHING UNDERNEATH TO PROTECT THE BLADES.** Damages to the heads may occur.
4. Check bolts and nuts regularly.
5. Make straight passes. It is allowed to make some curves, but not too tight.
6. **DON'T SET IT TOO DEEP (MORE THAN 4 MM) AS IT MAY REMOVE ALL THE TURF. It does a very intensive job. (removing weeds, like Poa), but handle with care.** The slower you drive, the more intensive the job.
7. **START AND STOP PROCEDURE:** Set the engine throttle at appr. 80%. Drive forward and drop the heads (don't stand still!!) Increase the throttle if necessary (otherwise stay at 80%). At the end raise the head, turn around and make the next pass.

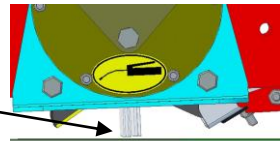
8. Depth setting via the rear roller. Unlock the 2 x 2 and adjust the roller. Do not over tighten the nuts.

Lay a strip over the front+ rear roller to check the depth



You may need to adjust the position of the bottom pick up plate

9. Check also the depth setting of the 2 x Brush elements. It should just touch the turf.

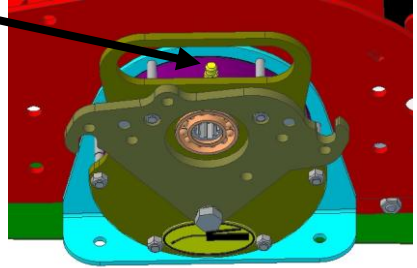


10. The position of the collecting box can be changed to create more clearance



MAINTENANCE.

1. CHECK BOLTS + NUTS REGULARLY
2. CLEAN THE HEADS REGULARLY. **DON'T USE HIGH PRESSURE WATER.**
USE COMPRESSED AIR (CAREFULLY)
3. THERE IS ONE GREASE NIPPLE ON TOP OF THE GEARBOX.
RE-GREASE IT EVERY 50 HOURS
WITH 2 SHOTS EP 2 GREASE.

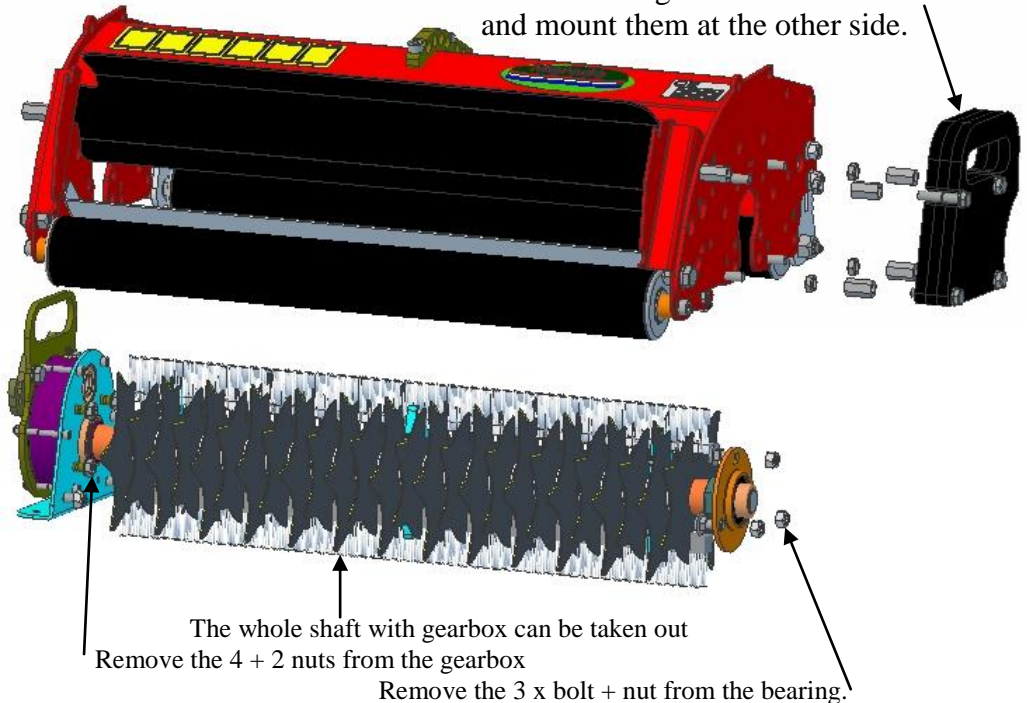


FIRST SETUP:

The GreensmowerTools are delivered as a standard Right Hand driven base unit. We need to mount the parts kit to prepare the unit for a certain greensmower. See for that the instructions added at the parts kit.

Sometimes we have to change a Right Hand (RH) drive into a Left Hand (LH) drive. For a GT 180 with regular blades, we have to de-mont the complete main shaft with gearbox, turn it around and mount it back in the main frame (The weights+ all bolts/nuts have to be re-mounted on the other side as well).

Take all weights+ bolts+ nuts of
and mount them at the other side.



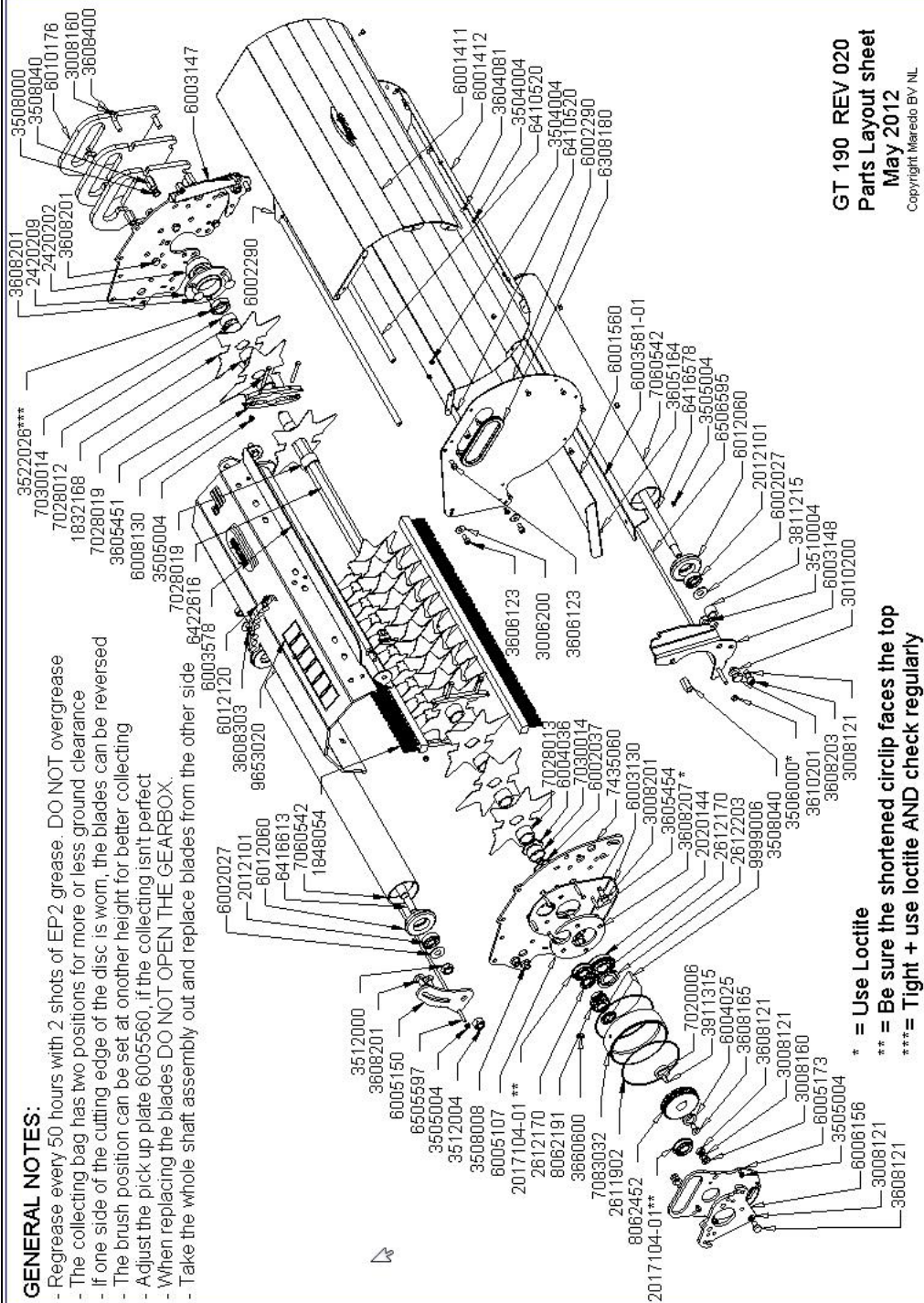
FOR REGULAR BLADES: TURN THE WHOLE SHAFT AROUND AND MOUNT IT BACK IN THE MAIN FRAME, AFTER THE WEIGHTS HAVE BE MOVED TO THE OTHER SIDE.

EXTRA FOR CARBIDE TIPPED (WIDIA) BLADES: ALL BLADES SHOULD BE TURNED ON THE MAIN SHAFT FIRST, BEFORE THE WHOLE SHAFT CAN BE RE-MOUNTED IN THE FRAME (otherwise the cutting edge is at the wrong side).

Quant.	Part Number + Name GT190 REV 020		
25	1832168-01 Verti-cut blade GT180 190	1	6001412-00 Bottom interplate collecting bag 250
2	1848054-00 Brush element L=535 H=45 08 GT180	1	6001560-01 Bottom guide plate GT180 250 1150
4	2012101 Bearing 6201 2RS	4	6002027-02 Washer 30- 12- 1,5 1150
2	2017104-01 Bearing 6003 2RS NR with shortened	1	6002037-01 Washer 37 - 20 -2 204 bearing
1	2020144 Bearing 6204 2RS NR	2	6002290-03 Side panel collecting bag GT250
1	2420202 Bearing SB 204	1	6003130-03 Interplate gearbox GT 250 1150
1	2420209 PF 204 housing	1	6003147-04 Collecting bag support LH GT180 250
2	2611902-01 O Ring 90 x 2 gearbox GT	1	6003148-04 Collecting bag support RH GT180 250
2	2612170 Nilos seal 6003 AV	1	6003578-06 Top guide plate GT180 190 250 black
1	2612203 Nilos seal 6204 AV	1	6003581-01 Front roller scraper plate GT180 250
4	3006200 Large washer M6 DIN 9021	1	6004025-00 Washer 25- 8 -4 countersunk
9	3008121 Springwasher M8 6798 A	1	6004036-00 Timing and grip plate Hex 22
6	3008160 Washer M8 DIN 125A	2	6004356-05 Side plate GT frame
2	3010200 Washer M10 DIN 125A	1	6004591-05 Central bridge for 7435060
20	3504004 Self lock nut M4 D985	1	6005107-04 Inner plate gearbox 250 1150
17	3505004 Self lock nut M5 D985	2	6005150-01 Roller support GT180 190 250 1150
2	3506000 Nut M6 DIN 934	1	6005173-03 End plate with hand grip gearbox 250
8	3508000 Nut M8 DIN 934	1	6006156-03 1114 Hydraulic mount plate 250
7	3508004 Self lock nut M8 D985	6	6008130-01 Brush clamp GT
4	3508008 Self lock nut with washer D6926	3	6010176-02 Counter weight GT black
6	3508040 Nut M8 DIN 6334	4	6012060-00 Bearing support front roller GT
2	3510004 Self lock nut M10 D985	1	6012120-02 Pick up cam for GT D shackle
2	3512000 Nut M12 DIN 934	2	6308180 Rubber U seal for bag 250
2	3512004 Self lock nut M12 D985	3	6410520-01 Rod for collecting bag Gt250 1021
1	3522026 Low height nut M22 x 1.5	1	6416578-00 Front roller shaft GT 190 front roller 11
20	3604081 Bolt M4 x 8 DIN 933	1	6416613-00 Front roller shaft 6201 GT
3	3605164 Mushroom head bolt M5 x 16 DIN 603	1	6422616-00 Main shaft for GT190 M22
6	3605451 Bolt M5 x 45 DIN 933	1	6505597-00 Roller scraper 5 x 597
6	3605454 Hex socket screw M5 x 45 DIN 912	1	6506595-00 Threaded rod M6 x 595 GT180-250
6	3606123 Hex socket screw M6x12 8.8 D912 plate	1	7020006 Distance washer 27-20- 6 5 GT 250
3	3608121 Bolt M8 x 12 4017 S	1	7028012-01 Distance End bush Female 83,24 degr
2	3608161 Bolt M8 x 16 4017 SELF	1	7028013-01 Distance End bush Male 83,24 degree
1	3608165 Tapered hex screw M8 x 16 DIN 7991	24	7028019-01 Distance bush with notch 83,24 degree
6	3608201 Bolt M8 x 20 ISO 4017	2	7030014 Distance bush Hex 22 L14
2	3608203 Hex socket screw M8 x 20 DIN 912	2	7060542-02 Front roller GT
7	3608204 Mushroom head bolt M8 x 20 DIN 903	1	7083032-03 Gearbox house 25 250 1114
4	3608207 Stud M8 x 20 DIN 938	1	8062191-01 Input gearwheel z20 m15 GT 250
2	3608303 Hex socket screw M8 x 30 DIN 912	1	8062452-01 Gearwheel m15 z45 d45 250
4	3608400 Bolt M8 x 40 DIN 931	2	9653000-01 Maredo Logo oval decal
2	3610201 Bolt M10 x 20 DIN 933	1	9653010 CE Decal standard
1	3660600 Grease nipple M6 straight	1	9653018 Grease decal
2	3811215 Distance bush d12x D20 x L15	1	9653020 Safety decal standard
1	3911315 Key 6 x 6 x 15 DIN 6885 A	1	9999006-01 GreaseKroon EPO 1 31393 45cc
1	6001411-00 Interplate Top for collecting bag 250	1	9999010 Silicon liquid gasket paste GT250

GENERAL NOTES:

- Regrease every 50 hours with 2 shots of EP2 grease. DO NOT overgrease
- The collecting bag has two positions for more or less ground clearance
- If one side of the cutting edge of the disc is worn, the blades can be reversed
- The brush position can be set at another height for better collecting
- Adjust the pick up plate 6005560, if the collecting isn't perfect
- When replacing the blades DO NOT OPEN THE GEARBOX.
- Take the whole shaft assembly out and replace blades from the other side 6422616



* = Use Loctite

** = Be sure the shortened circlip faces the top

*** = Tight + use loctite AND check regularly