



GREEN CLIMBER *LV500*

OPERATION AND MAINTENANCE MANUAL LOG BOOK



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Manual
(Version Rev. 01 - 31/07/2015)



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FOREWORD

*The **MDB S.r.l.** company wants to thank you for having chosen this machine.*

This manual contains the description of the functioning and the necessary instructions to carry out properly the main operations of use and maintenance, whether unscheduled or routine, of the GREEN CLIMBER machine.

The instructions on machine use must be strictly observed to achieve the best performance, to ensure a long working life of the various components and to work safely.

*The user of the **GREEN CLIMBER** machine will be required to read this manual before using it. It is of utmost importance that you consider this manual as an integral part of the machine; it is also important that this manual is kept in good conditions and, furthermore, it has to be passed on with the machine to a possible subsequent owner.*

*The **MDB S.r.l.** company, in pursuing a policy of providing safer, efficient and technologically advanced means, reserves the right to use better equipment and safety measures at any time.*

Kind regards,

The Legal Representative

Di Biase Mario



1. GENERAL INFORMATION

1.1 IDENTIFICATION OF THE DOCUMENT 'OPERATION AND MAINTENANCE MANUAL'

The "Operation and Maintenance Manual" is a document released by the **MDB S.r.l.** company and has to be considered as an integral part of the machine.

AUTHORS' RIGHTS

The **MDB S.r.l.** company owns the authorship rights of this 'Operation and Maintenance Manual'. This manual is intended to be used by the personnel assigned to use the GREEN CLIMBER machine. It contains technical standards and drawings, which cannot be reproduced (not even in part) or disclosed by any means or used for competitive purposes and, least of all, it cannot be made available to third parties.

The MDB S.r.l. company prohibits the reproduction, in whole or in part, of this manual and the disclosure by any means of its contents.

1.2 PURPOSE OF THIS MANUAL

The 'Operation and Maintenance Manual' provides the personnel assigned to use the GREEN CLIMBER machine with all necessary information to carefully use the machine and to carry out its maintenance in optimal conditions; obviously specific attention has been paid to the fact that it must be done in the broader safety conditions for the operators.

The equipment supplied must be used as indicated in this manual. While using it the operators are reminded to always adopt a vigilant behaviour in order to improve the overall safety level of the machine.



NOTE:

The manufacturer of the machine assumes no responsibility for damage to people, animals, things and/or environment deriving from the use of the equipment by operators who do not meet the necessary requirements.

1.3 SAFE-KEEPING OF THIS MANUAL

In order to keep this manual in good conditions we advise to thoroughly follow the instructions below:

- ☞ Use the manual in such a way as to not wear it out;
- ☞ Do not remove, add or modify any part of this document; possible updates will be carried out by **MDB S.r.l.**;
- ☞ Store the manual in moisture-protected zones so that it does not get ruined;
- ☞ Give this manual to any other user or subsequent owner of the machine.

1.4 GENERAL CONDITIONS

Before starting using the machine the operator is advised to carefully read this manual in order to increase knowledge of the equipment. It is of utmost importance that, before using the equipment, the operators must be correctly and accurately trained on the contents of **CHAPTER 2** regarding use and functioning of the machine.

Instructions on use and maintenance of the GREEN CLIMBER machine are two integral parts and the operators and users must abide strictly by them for the whole life of the machine until its dismantlement and scrapping.



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The MDB S.r.l. company will have no liability for problems, breakages, damages to people, things and/or animals, deriving also from misuse of the equipment or from the non-compliance with the procedures and the requirements provided for in this manual such as:

- Non-compliance with the general safety standards in the working environments;
- Lack of scrupulousness during working operations;
- Lack of competence of the personnel who misuse the machine;
- Non-compliance with the accident prevention regulations during the functioning and the maintenance of the machine, although it is not expressly mentioned in this manual;
- To carry out modifications, variations and/or installation of accessories which are not authorised by MDB S.r.l.

- MDB S.r.l. company shall not be held liable for any damage, derived from:
 - ☞ Natural disasters;
 - ☞ Uprisings and popular riotous events;
 - ☞ Lack of maintenance or wrong maintenance.

Always replace spare parts with ORIGINAL SPARE PARTS only.

In order to achieve an optimal performance of the equipment, you are advised to check it periodically and, if necessary, to replace all parts that, by their nature, are subject to wear.

The replacement of a component at the appropriate time can avoid serious damage and/or injuries to people and furthermore allows the machine to function according to expectations.



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Using original spare parts allows keeping unchanged the quality of the machine over time and it gives the right to the WARRANTY in the period of time expected.

Safety alerts have been included in this manual to highlight the risks or dangerous operations. Each alert begins with a symbol, followed by a warning.

The description of the symbols are as follows:



DANGER:

This symbol indicates a forthcoming risky situation that, if it is not prohibited, can lead to serious injuries or as a consequence death of the people concerned.



WARNING:

This symbol indicates a potentially risky situation for the entirety of the machine that, if not avoided, can lead to damage to the machine itself and, indirectly, it can lead to serious injuries or to the death of the people concerned.



PLEASE NOTE:

This symbol indicates things which are especially important to work in the simplest and safest way with the machine.

1.5 WARRANTY AND LIABILITY INFORMATION

The warranty covers manufacturing faults.

The manufacturer has no liability for any damage which may occur during transport.

The machine is delivered without packaging but with a protective film of plastic, the



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purpose of which is to protect those parts which are subject to oxidation in case of contact with water or with moisture.

The manufacturer is responsible to fasten down the machine assuming responsibility in case the transport is carried out with his own vehicles.

In case with transport by carrier, special attention will be paid to ensure that the machine won't undergo any damage but, as stated above, the manufacturer has no liability if this happens.

To this purpose, if the transport is carried out by carrier, it is advisable to ask them for an appropriate insurance cover.

The customer must verify the conditions of the goods at their arrival, informing the carrier and the manufacturer promptly about the possible damages.

If the customer considers it worthwhile the machine can be packed in a wooden box: the customer will be charged for packaging.

The accessories and the accompanying documents will be placed on-board duly protected in order to avoid any damage.

Items that are excluded from the warranty conditions:

- Parts constituting the machine but which are not manufactured by MDB (e.g.: tracks, transmission belts, bearings, gearboxes, etc.): are covered only by the warranty received by the respective manufacturers.
- Parts whose deterioration is due to wear.

Exceptions that invalidate the warranty:

- Changes to the machine without the written approval by the MDB company.
- Repairs carried out in unauthorised workshops.
- Use of non-original spare parts.
- Negligence in the maintenance.
- Use of the machine non-complying with what described in this manual.
- Removal of the protections of the machine: the protections cannot be removed under any



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circumstances; they must be periodically inspected and, if damaged, restored to their original condition;

- Non-fulfilment of the safety precautions connected to the machine described in the operation manual.

The warranty period is specified during the quotation stage and it won't exceed 12 months from the date of shipment.

Warranty Claim

Warranty claims must be made in writing to MDB by the dealer within 4 weeks from the occurrence of the fault specifying: name and address of the operator; type, model, serial number, date of sale, date of the fault, working hours, circumstances and presumed causes.

The parts must be sent to MDB so they can be examined to grant warranty, an acknowledgment that authorises the replacement of the parts.



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1.6 MANUFACTURER IDENTIFICATION

Company name : MDB S.r.l.

Registered address : C.da Sant'Onofrio, 6/A – LANCIANO (CH) -
ITALIA

Telephone : +39 0872.50221

Fax : +39 0872.50231

E-mail : sales@mdb srl.com

VAT Number : IT01960690699

1.6.1 TECHNICAL ASSISTANCE

Technical assistance is always provided for by the manufacturer. Further information can be obtained at the following telephone number:

+39 0872.50221



1.7 IDENTIFICATION OF THE MACHINE

The GREEN CLIMBER machine is identified by the CE marking drawn up according to the specifications of the European Directive 2006/42/EC, Legislative Decree No. 17/2010 transposing the Machine Directive and Legislative Decree No. 81/08 and subsequent amendments and additions.

Essential data for CE marking can be obtained reading the identification plate, located on the lower part of the machine itself. (See figure A).

C.da S. Onofrio, 6/A - 66034 Lanciano (CH) ITALY Tel. (+39) 0872 50221 - 508566 - Fax (+39) 0872 50231	
○ Designazione: TRATTRICE SEMOVENTE ○	
Serie: Green Climber	Anno: 2015
Potenza:	Matricola:
Massa Trainabile: 250 kg	Peso: 1180 kg
Conforme alle Direttive comunitarie CEE/2006/42/CE e successive implementazioni In conformity with ECC rules 2006/42/CE and subsequent implementation	

Figure A : CE identification plate

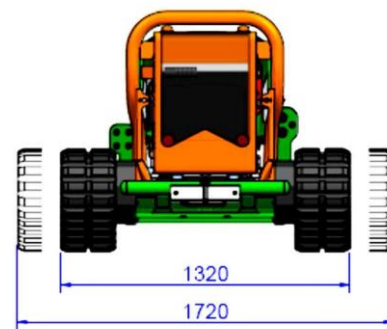
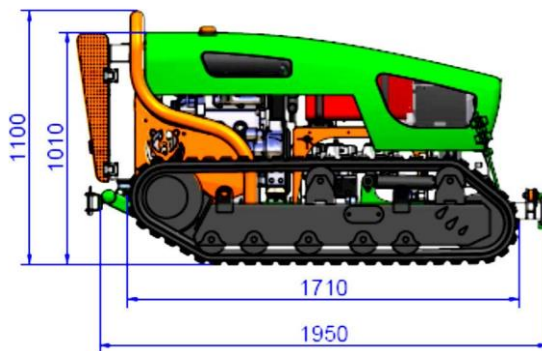


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1.8 DESCRIPTION OF THE MACHINE

1.8.1 TECHNICAL DATA

DESCRIPTION	U.M.		
Height	mm	1100	
Minimum width	mm	1320	
Maximum width	mm	1720	
Length	mm	1950	
Weight	kg	1180	
Engine type and model	YANMAR	3TNV88	4TNV88
Engine rated power	kW	29 or 37	
Engine power supply		Diesel	
Diesel tank capacity	l	38	
Maximum speed	Km/h	9	
Hydraulic oil tank capacity	l	47	
Remote control type and model	IMET M880		





1.8.2 WORKING ENVIRONMENT

LIGHTING

The machine has two front lighting devices which improve the visibility of the area in which the machine is working; these are not suitable to light up the working area at night. The machine must be used exclusively during daytime and outdoors with enough visibility so that the operator can see at least 100 metres of the working area.

VIBRATIONS

The machine generates vibrations when in use. Since the machine is remotely operated through a remote control these vibrations cannot harm the operator. In an emergency situation the machine is endowed with hydraulic levers on the left hand side. Their use is permitted only in an emergency situation; thus the vibrations to the hand-arm system are unimportant.

NOISE

The machine is intended to be used exclusively outdoors. A certified body measured the noise level at the control station as required by the machinery directive; dynamic - static measurement at a distance of 1 metre with the machine moving, duration of measurement 5 seconds for a length of 5.6 metres with the operator positioned on the side of the machine. The sound pressure level measured is 89 dB(A) Uncertainty KpA $\pm 2,8$.

DISMANTLEMENT OF THE MACHINE

To scrap the machine (after dismantling) it is required that every component is delivered to firms specialised in transporting, disposing of and/or recovery of waste.



1.8.3 GENERAL DESCRIPTION OF THE MACHINE AND OPERATION

The GREEN CLIMBER machine consists of:

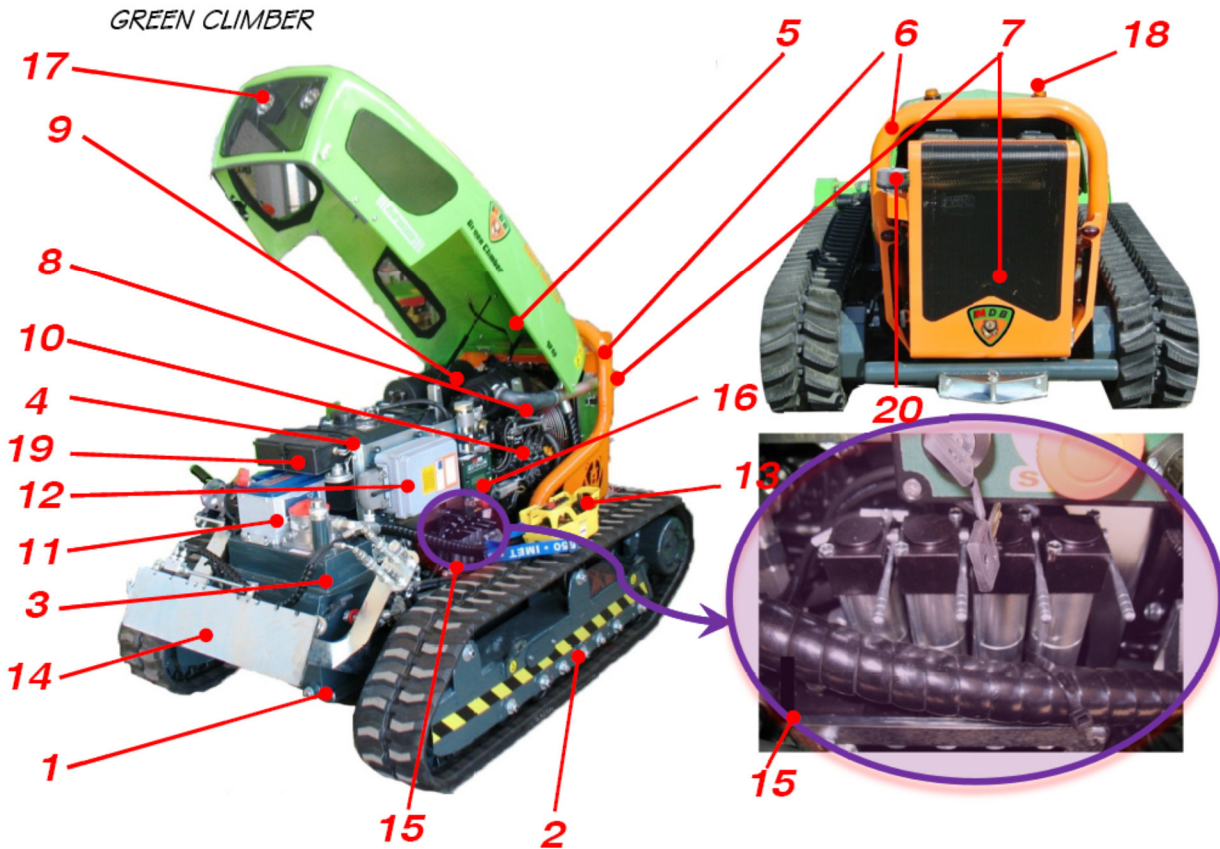
1. Base frame in S355 and S700 steel. Structure connected by welding;
2. Tracks;
3. Hydraulic oil tank;
4. Diesel tank;
5. Bonnet;
6. Roll-bar;
7. Radiator guard;
8. Air filter;
9. Drainage system;
10. Engine;
11. Battery;
12. Receiver of the remote control;
13. Transmitter of the remote control;
14. Quick coupling of the equipment;
15. Levers for the hand controls;
16. Control panel;
17. Headlights;
18. Beacons;
19. Reserve battery and battery charger of the remote control;
20. Vortex filter.



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The GREEN CLIMBER machine consists of a frame in welded steel to which the components have been fixed. The machine moves by means of rubber tracks. The undercarriage of the machine is variable and can be controlled via the remote control system. The diesel engine activates the hydraulic circuit of the machine by means of hydraulic pumps.

The self-propelled GREEN CLIMBER machine has been designed to be used in agriculture and forestry. In the front part there is a quick coupling to couple the equipment, exclusively designed and manufactured by MDB.

Equipment authorised by MDB to be used with the GREEN CLIMBER are:



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Flail head series UTD-130



Rotary tiller series CS-135



Sprayer series BV300



Stump Grinder series ST27H





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Snow Blower series DS-14



Lawnmower series SRM-215



Trencher series MT-1200



Thanks to its very low centre of gravity the GREEN CLIMBER machine can work easily on every type of soil to a maximum gradient of 45° in all directions.

The remote control allows the operator to work safely, even on uneven and impassable terrain.



1.9 OPERATING CONDITIONS

The GREEN CLIMBER machine has been manufactured in compliance with the work safety standards according to the relevant European Directives and Standards. It is possible to couple the machine only with the equipment specified in point 1.8 of this manual. In case the customer wants to couple the machine with equipment other than those specified in point 1.8, first of all the MDB technical department must give authorisation: this will be done in an appropriate time with all the necessary checks. After the results the customer will be informed whether the equipment can or cannot be used with Green Climber.

Whosoever uses equipment with the GREEN CLIMBER machine and whose implementation has not been authorised by MDB, without having asked the technical department and without having received an official answer, will exempt the MDB company from any productive and functional type liability regarding the machine.

The work area, where the machine operates, must always be cleared and fenced before starting to operate and the operator must prohibit the entrance to unauthorised people, for the safety and security of the surrounding people, things and animals.

1.10 WORKSTATIONS

The operator in charge of using the GREEN CLIMBER machine must be trained by the MDB seller / dealer before using it. The operator using the machine with a remote control and is, therefore, far from dangerous areas: the operator must bear in mind that he must stand at a minimum distance of 3 metres behind the machine and **never** in front of it. The maximum range of the remote control is set at a distance of 100 metres.



1.11 REFERENCE STANDARDS

1.8.1 EUROPEAN LEGISLATION

- ☞ MACHINERY DIRECTIVE 2006/42/EC;
- ☞ ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2004/108/EC;
- ☞ LOW VOLTAGE DIRECTIVE 2006/95/EC;

1.8.2 TECHNICAL STANDARDS

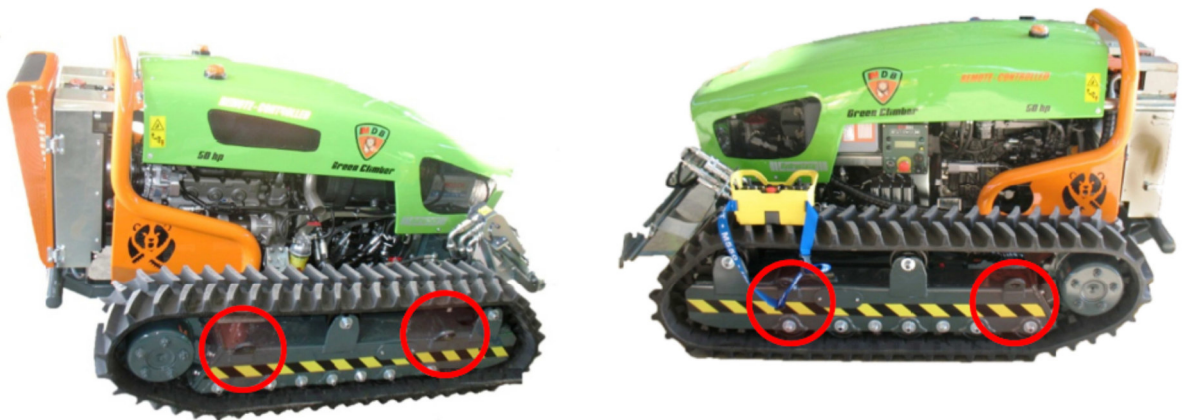
- ☞ EN ISO 12100:2010 — Safety of Machinery — General principles for design — Risk assessment and risk reduction;
- ☞ EN ISO 4254-1:2013 — Agricultural Machinery — Safety — Part 1: General requirements;
- ☞ EN ISO 60204-1:2006 + AC:2010 – Safety of Machinery – Electrical equipment of machines - Part 1: General rules;
- ☞ EN ISO 16231-1:2013 — Self-propelled Agricultural Machinery — Assessment of Stability — Part 1: Principles;
- ☞ EN 349:1993+A1:2008 — Safety of Machinery — Minimum gaps to avoid crushing of parts of the human body;
- ☞ EN ISO 13857:2008 — Safety of Machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs;
- ☞ EN ISO 4254-7:2010 — Agricultural Machinery — Technical Means to ensure Safety — Part 7: Combine harvesters, forage harvesters and cotton harvesters;
- ☞ EN ISO 4254-12:2012 — Agricultural Machinery — Safety — Part 12: Rotary disc and drum mowers and flail mowers.



2. OPERATION OF THE GREEN CLIMBER MACHINE

2.1 TRANSPORT

The GREEN CLIMBER machine is delivered to the buyer and is adequately protected from impacts during transport. Once the machine has reached its destination, it must be placed on the ground using the suitable hooking points.





2.2 MACHINE OPERATION


The GREEN CLIMBER machine has two control systems:

A – Remote control;

B – Hydraulic levers on the machine.

In normal use, the machine must be controlled with the remote control. Only for certain operations (See paragraph 2.2.2), the machine can be controlled by means of the levers.

2.2.1 OPERATION BY REMOTE CONTROL

To operate the machine, the operator will have to switch on the thermal engine of the vehicle. First of all, make sure that the red lever of the battery switch (Figure 1) has been turned clockwise. 

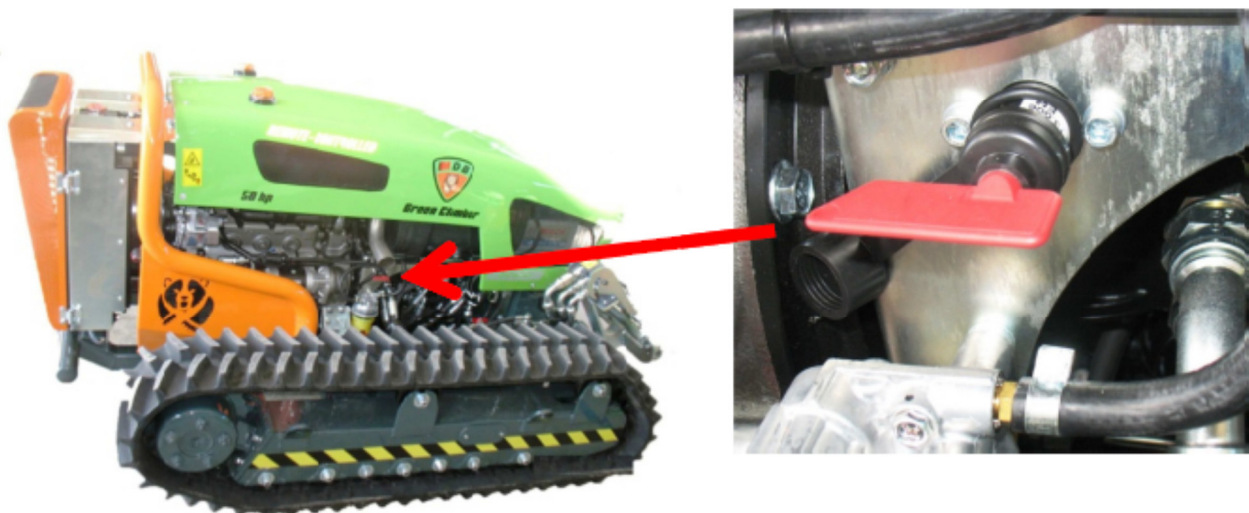


Figure 1



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Then proceed to the control panel on the left side of the machine, as shown in Figure 2.

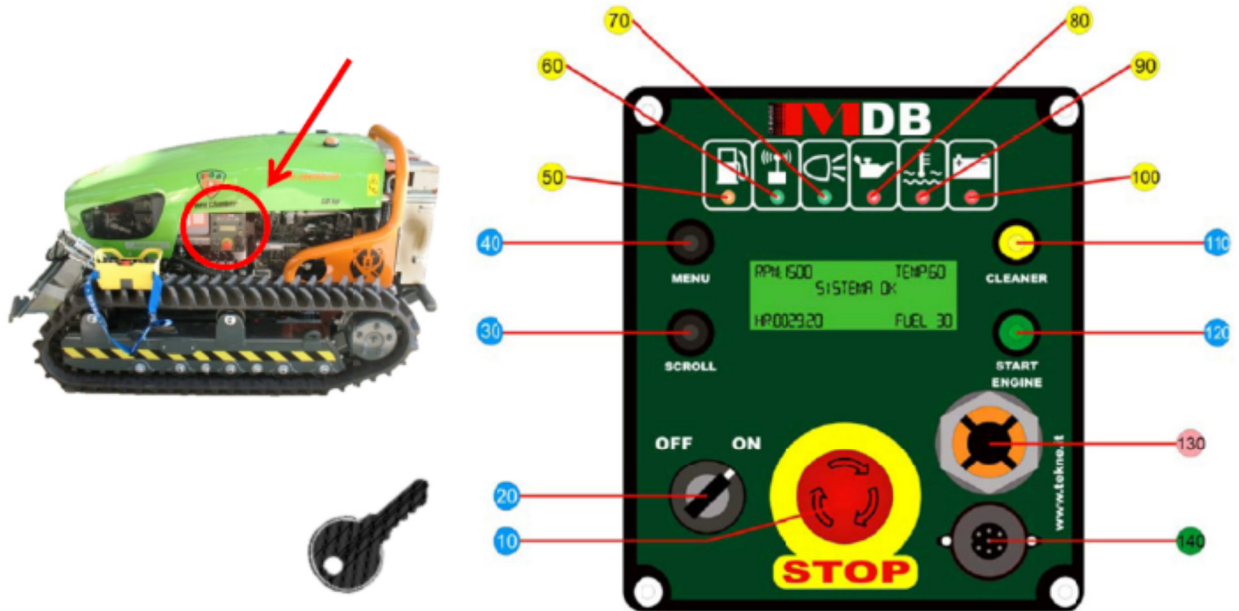


Figure 2

By means of the key switch (20), turn the switch to ON;

The control unit performs a diagnostics of the condition of the whole system, carries out the pre-heating and prepares the engine to power up.

The engine can be powered up in two ways:

1 – Hold down the 'START' button (120) until full start.

2 – Take the remote control and carry out the following commands:

Switch on the radio transmitter inserting key 'A' in its appropriate housing 'B' (Fig. 3). To confirm the ignition the green LED control light will turn on.

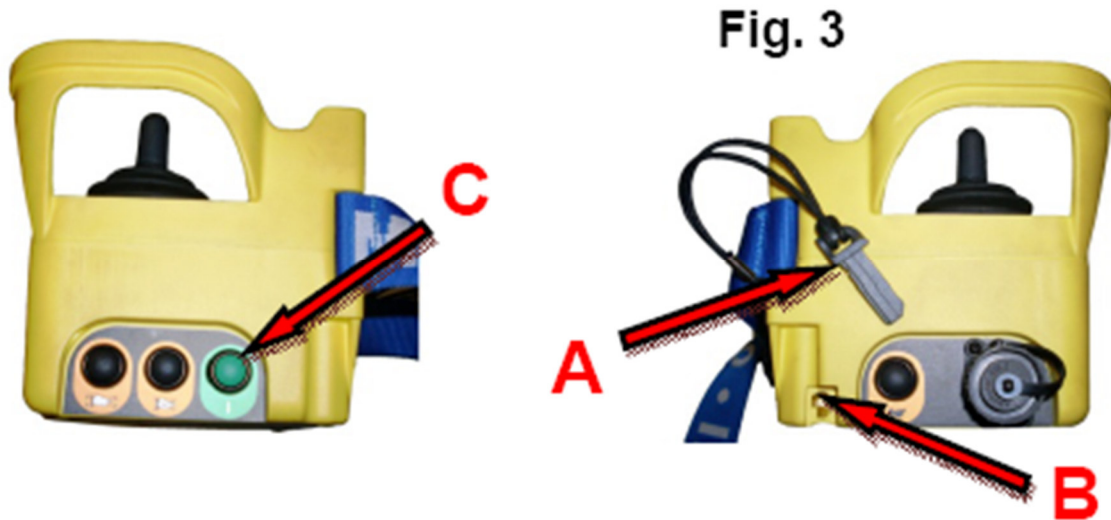


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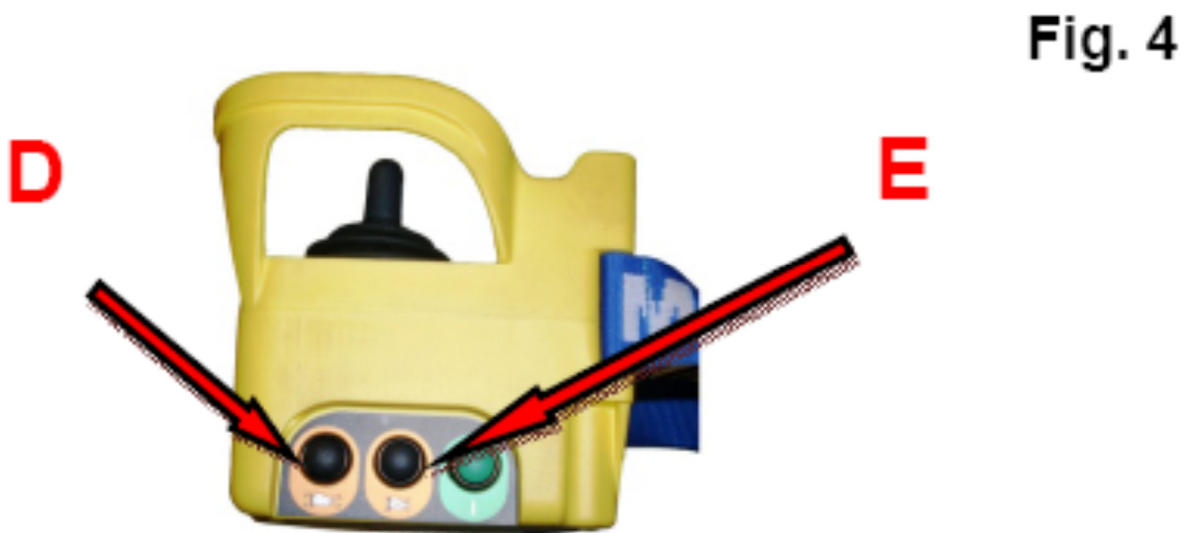


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Connect the radio transmitter to the receiver placed on the GREEN CLIMBER machine by pushing the green button 'C' (Photo 3).



Once the remote control has accepted the frequency of the receiver, the control light will change the flashing frequency. At this point, it will be possible to power up the engine of the machine by pushing the button 'D' (Fig. 4).



After having started the engine and after the contact between transmitter and receiver has been established at the pre-established frequency, it will be possible to work with the remote control (Fig. 5).



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Figure 5




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LED WARNINGS OF THE REMOTE CONTROL

The remote control is equipped with a LED that signals the operator:

- Operating status
- Malfunctions
- Fault types

TRANSMITTING UNIT	
	
LED STATE	INDICATION
It is turned off	The transmitter is turned off or it is damaged (See chapter 3.2.1)
It is turned on	The transmitter is working
It flashes at regular intervals	The battery is out of power
It flashes with a regular number of flashes	The transmitter is in the calibration mode of the analogue outputs (See Remote control manual for the calibration of the analogue outputs)
Codified flashing	Error of the remote control: it must be communicated to the service centre
It flashes fast	Anomaly in the STOP circuit (See chapter 3.2.1)
Just one short flash	EEPROM missing or not working










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RECEIVING UNIT

-  Data Error ch. B
-  Passive Emergency ch. B
-  Data Error ch. A
-  Passive Emergency ch. A
-  RF Busy
-  Power Supply
-  Working

LED	INDICATION
Data error ch. A - <i>(Yellow Led)</i>	It is on while functioning. It is turned off during data error on channel A.
Passive Emergency ch. A - <i>(Red Led)</i>	Normally it is off while functioning. When it is on, it indicates that Channel A of the system is in STOP state. System errors are diagnosed through codified flashes (like Morse code).
Data error ch. B - <i>(Yellow Led)</i>	It is on while functioning. It is turned off during data error on channel B.
Passive Emergency ch. B - <i>(Red Led)</i>	Normally it is off while functioning.
RF busy – <i>(Green Led)</i>	When it is on it shows there is a radio signal on the channel. In case of double transmission, it flashes rapidly.
Power Supply - <i>(Green Led)</i>	When it is on it indicates the presence of power supply.
Working - <i>(Green Led)</i>	When it is on it indicates the closure of the two E-STOP relays and that it is possible to use commands.



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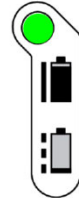


GREEN CLIMBER

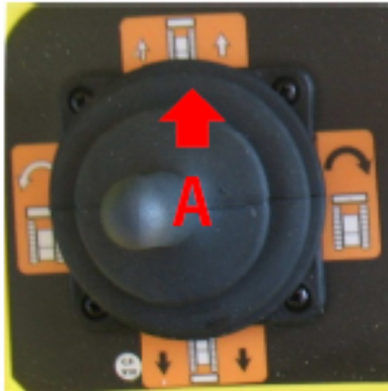
STATE OF CHARGE OF THE BATTERY

The green LED placed on the transmitter shows the state of charge of the battery. If the green LED is turned on steady, it means the battery is charged.

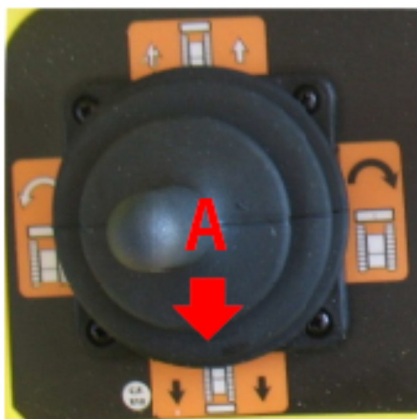
If the green LED light flashes regularly, it means that the battery is in reserve and it is necessary to switch off the transmitting unit and replace the flat battery with a charged one. The reserve duration is about 10-15 minutes.



LEFT JOYSTICK FUNCTIONS – A –

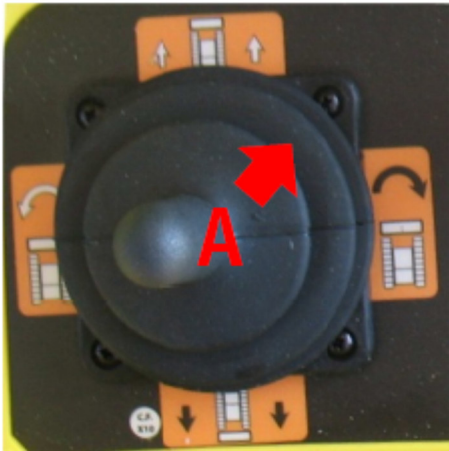


MACHINE MOVES FORWARD

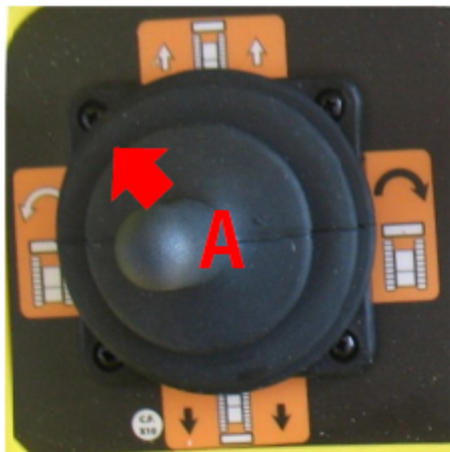


MACHINE MOVES BACKWARDS

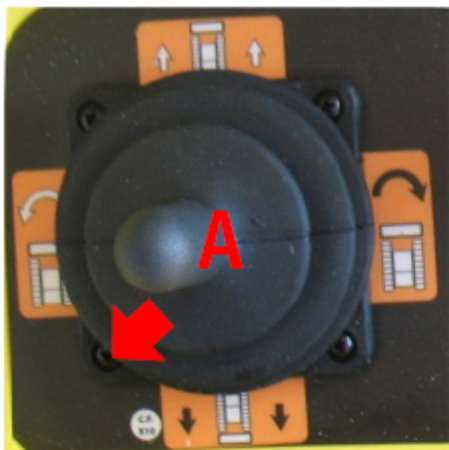




**MACHINE MOVES FORWARD
AND STEERS TO THE RIGHT**

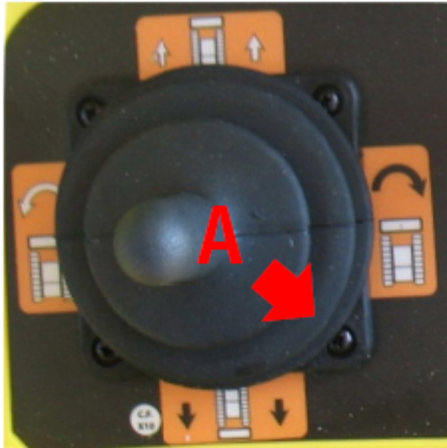


**MACHINE MOVES FORWARD
AND STEERS TO THE LEFT**

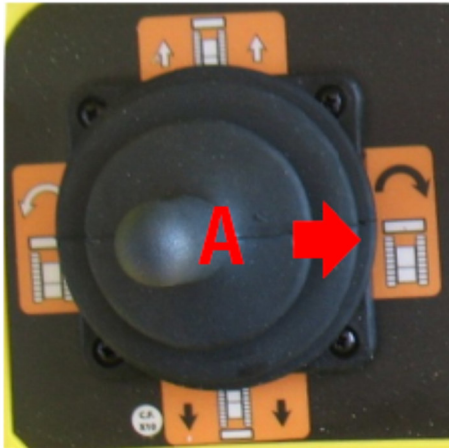


**MACHINE MOVES BACKWARDS
AND STEERS TO THE LEFT**

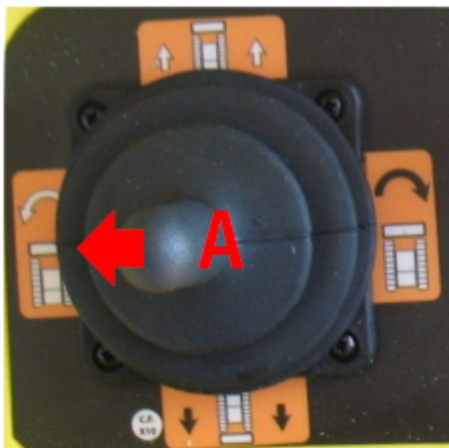




**MACHINE MOVES BACKWARDS
AND STEERS TO THE RIGHT**



RIGHT COUNTER-ROTATION

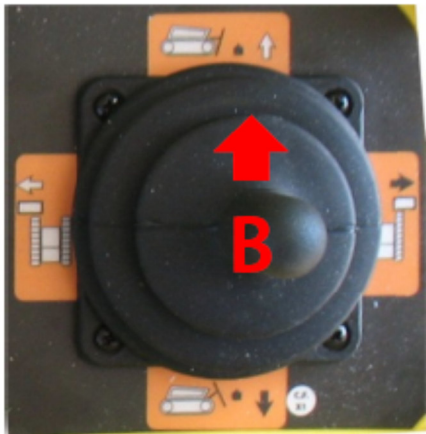


LEFT COUNTER-ROTATION

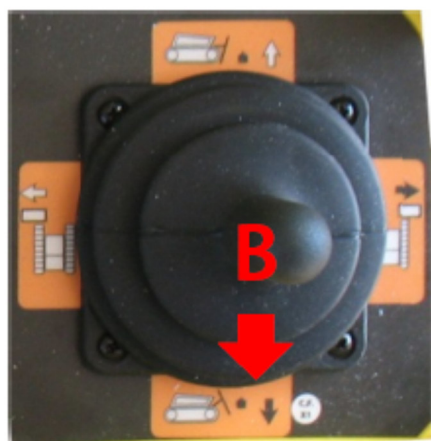




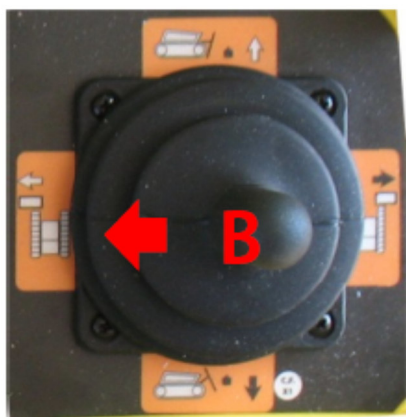
RIGHT JOYSTICK FUNCTIONS – B -



IT LIFTS THE PLATE WHERE EQUIPMENT IS CONNECTED

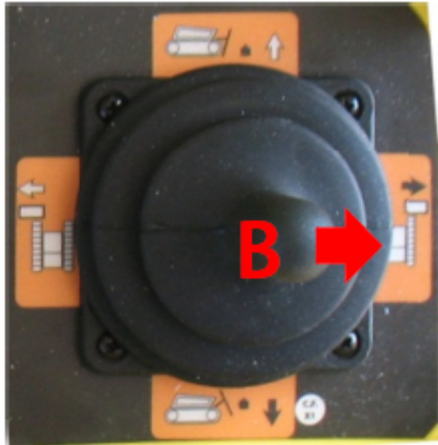


IT LOWERS THE PLATE WHERE EQUIPMENT IS CONNECTED



IT SHIFTS THE PLATE WHERE EQUIPMENT IS CONNECTED TOWARDS THE LEFT





IT SHIFTS THE PLATE WHERE EQUIPMENT IS CONNECTED TOWARDS THE RIGHT


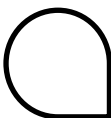


FUNCTIONS OF THE CENTRAL CONTROLS



- 1 CONTROLS THE SPEED
- 2 ADJUSTS THE TRAJECTORY OF THE MACHINE
- 3 ADJUSTS THE ENGINE RPM

1 – SPEED CONTROL

  CLOCKWISE ROTATION: MAXIMUM SPEED

  COUNTER-CLOCKWISE ROTATION: MINIMUM SPEED

2 – TRAJECTORY OF THE MACHINE

The trajectory function allows the machine to move straight forward, steering more or less to the left or to the right, depending on how much the control knob number 2 is



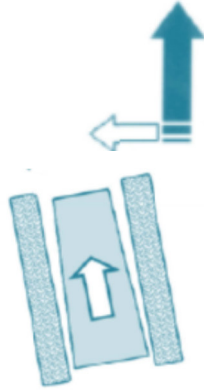
Operation and Maintenance Manual



GREEN CLIMBER

rotated clockwise or anti-clockwise. When the machine operates on steep terrain this function is necessary to move the machine to the desired trajectory so that the machine won't be influenced by the uneven terrain.

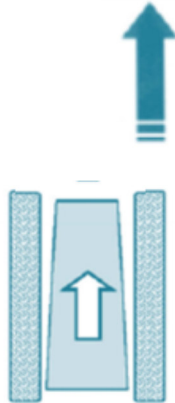
**ANTI-CLOCKWISE
ROTATION**



LEFT TRAJECTORY

ROTATE THE CONTROL KNOB ± ANTI-CLOCKWISE TO DIRECT THE MACHINE WITH A STRAIGHT TRAJECTORY TOWARDS THE LEFT

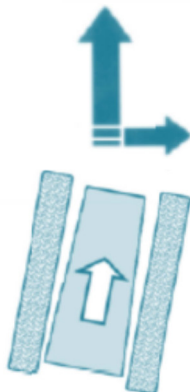
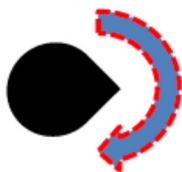
**POSITION
"0"**



POSITION "0"

MACHINE WILL GO STRAIGHT FOLLOWING NO TRAJECTORY

**CLOCKWISE
ROTATION**



RIGHT TRAJECTORY

ROTATE THE CONTROL KNOB ± CLOCKWISE TO DIRECT THE MACHINE WITH A STRAIGHT TRAJECTORY TOWARDS THE RIGHT



3 – ENGINE RPM



Upper button: maximum rpm

Lower button: minimum rpm

FUNCTIONS OF THE LOWER CONTROLS



- 1 IT SWITCHES THE EQUIPMENT ON/OFF. To switch on the equipment hold down the button for at least 3 seconds. Blue colour Led indicates that the equipment is on.
- 2 IT REVERSES THE ROTATION OF THE EQUIPMENT
- 3 IT REVERSES THE RUNNING DIRECTION OF THE MACHINE
- 4 IT INCREASES / REDUCES THE WIDENING OF THE TRACKS
- 5 EMERGENCY BUTTON
- 6 IT ACTIVATES THE FLOAT MODE OF THE PLATE
- 7 IT SWITCHES THE HEADLIGHTS ON/OFF
- 8 AUXILIARY HYDRAULIC CONTROL OF THE EQUIPMENT (See the chapter that refers to the equipment to identify the use)
- 9 IT SWITCHES ON THE FAN TO CLEAN THE RADIATOR
- 10 LED WARNING LIGHT OF THE REMOTE CONTROL BATTERY



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Danger!

The operator cannot use the machine standing in front of it when the equipment is connected



Warning!

When the equipment is connected in the front area of the machine, there is a risk of sharp objects hitting people or the face of the surrounding people. Always wear the Personal Protective Equipment (PPE) as shown in this manual and on the labels on the machine. Comply with the intended safe use by always standing behind the machine and NEVER in front of it, never neglect this obligation.



Danger!

On steep sloping grounds never stand in the lower part below the machine where the machine could overturn; stand and operate the machine always on the upper part.



Warning!

The radio signal between the transmitter and the receiver has a maximum



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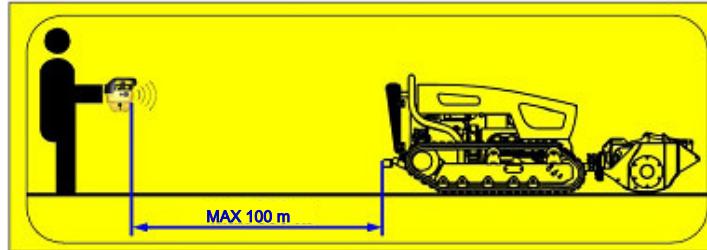


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range of 100 metres. If you go beyond this distance there will be no signal and the machine will stop and the engine will shut off.

To reactivate the normal operation, follow the instructions in paragraph 2.2.1 of this manual.



Danger!

Before starting to work and to operate the machine, make sure that in the working area there are no people and/or animals. Fence in the area so that people and/or animals cannot get in.

Non-compliance of this safety procedure could result in serious injuries and/or death of people and/or animals.

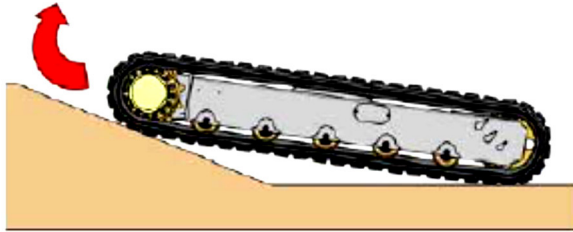


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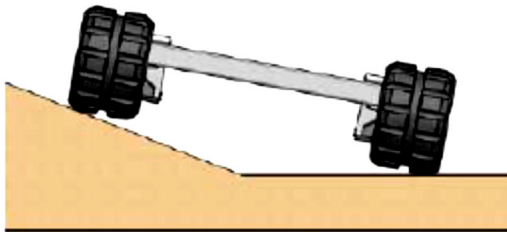


GREEN CLIMBER

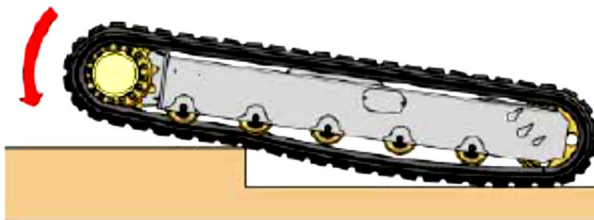
INTENDED USE OF THE MACHINE



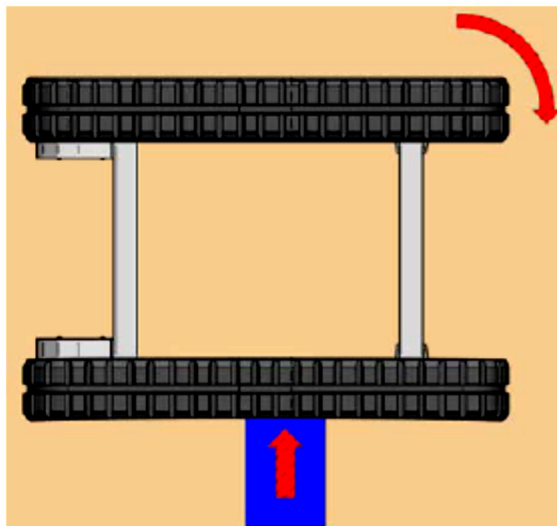
While the machine is moving never steer when passing from a flat terrain to uphill. If it is absolutely necessary, steer gradually and be very careful.



Avoid proceeding on the edge of a sloping ground or on a bumpy terrain with one of the tracks horizontal and the other one on the sloping ground; move with both of them on the same level so as not to damage the tracks.



If there's a void between the undercarriage and the tracks, as shown in the figure, there could be a risk that the track comes out of place.



If you change direction in a condition in which the track cannot extend laterally due to an obstacle, the track could get damaged or come out of place.



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SWITCHING OFF THE MACHINE

The machine engine can be switched off in two ways:

- Manually;
- With the remote control.

To switch off the engine manually, just turn the key switch on the control panel in figure 1 onto the OFF position.

To switch off the engine with the remote control press the button 'E' as in figure 4.

Warning!

If not in an emergency situation, never switch off the engine suddenly, especially when the machine has a high engine rpm or when the machine moves at high speed.

Before switching off the engine, let it operate for a short time with a low engine rpm and free of load, always deactivate the used equipment using lever 1 of the FUNCTION OF THE LOWER CONTROLS (page 27) until the blue led turns off.

If you switch off the machine engine without having deactivated the equipment, damage could be caused to the hydraulic system.

At the end of the work session always turn the battery switch anti-clockwise (Figure 1) to open the safety circuit.



Danger!

If you are not in an emergency situation, it is forbidden to switch off the machine by using the emergency button. Switching off the machine with the emergency button could damage the hydraulic system in the long run.

Danger!

Never tamper with the safety systems of the machine; never remove the fixed and movable protections of the machine.

Warning!

At the beginning of the work session, before starting the machine, always check that: all safety systems are in working order; that the fluid levels are at the pre-established level; that the tension of the tracks corresponds to the parameters according to the 'Maintenance' chapter.



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2.2.2 USE OF HAND LEVERS

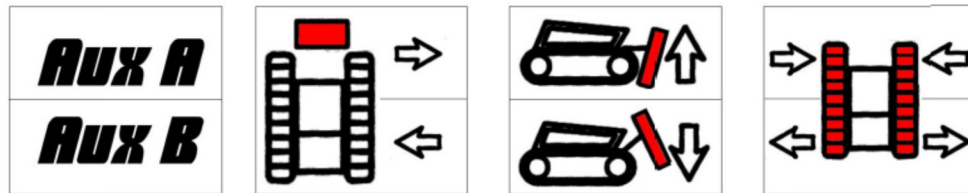
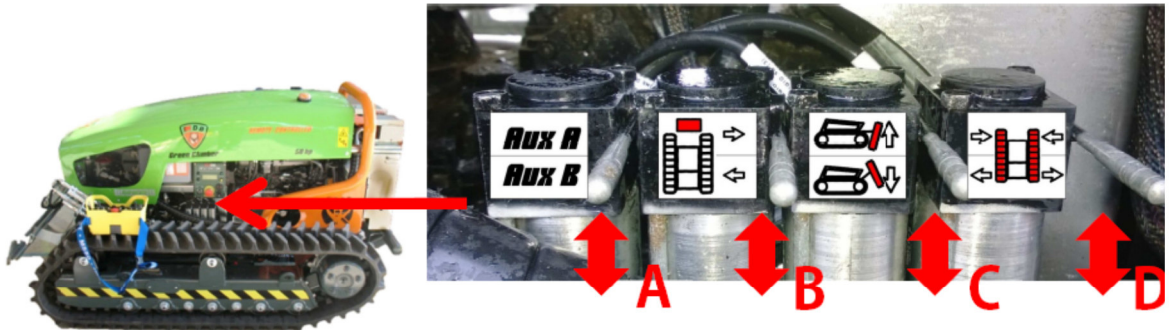


Figure 6

There are 4 hand levers and they are placed under the control panel on the left side of the machine (Figure 6).

As shown in the pictograms that are placed on the levers, their functions are as follows:

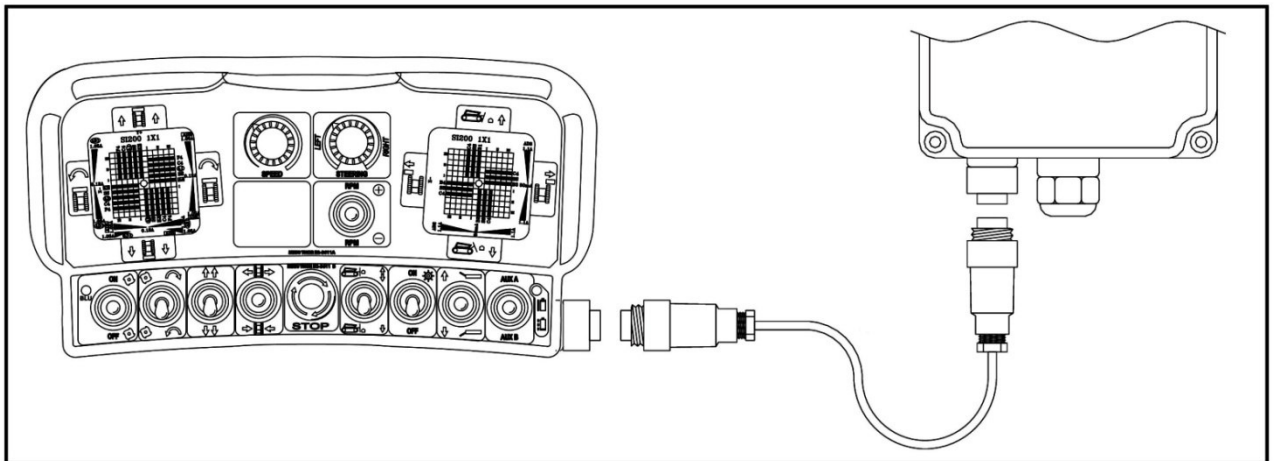
- | | | |
|----------|------------|--|
| A | AUX | AUXILIARY CONTROL (It is different for every equipment. See the final appendix of this manual to find out to which equipment the control has been coupled) |
| B | | SIDE-SHIFTING TO THE RIGHT / LEFT OF THE FRONT PLATE |
| C | | LIFTS / LOWERS THE FRONT PLATE |
| D | | INCREASES / REDUCES THE WIDENING OF THE TRACKS |



2.2.3 USE IN AN EMERGENCY

In the event of failure of the remote control, have the machine repaired on site. If this is not possible, alert the roadside assistance to let a lifting means intervene: have them tow the machine to the closest authorised workshop.

In case the battery of the remote control is out of power, replace it with the reserve battery placed in its appropriate housing as indicated on page 13 and 14 of this manual; it is possible to connect the remote control directly to the control panel by means of the cable that comes with the machine (the connection point of the cable is indicated in paragraph 2.2.5 of this manual).



2.2.4 EMERGENCY INTERVENTION

If, while using the machine, the operator needs to block the machine and he cannot do it via the remote control and/or controls on the machine, there are 2 emergency buttons on the machine for emergencies: one is placed on the left side of the machine in the control panel; the other one is placed on the remote control. They are red, have a mushroom shaped head and are easily recognisable (Figure 7).



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Fig. 7



When you press an emergency button, it stays locked and the machine engine switches off immediately, stopping every movement. Once safe working conditions have been restored, to restart the machine it is necessary to:

- Turn the red switch clockwise (Figure 8).

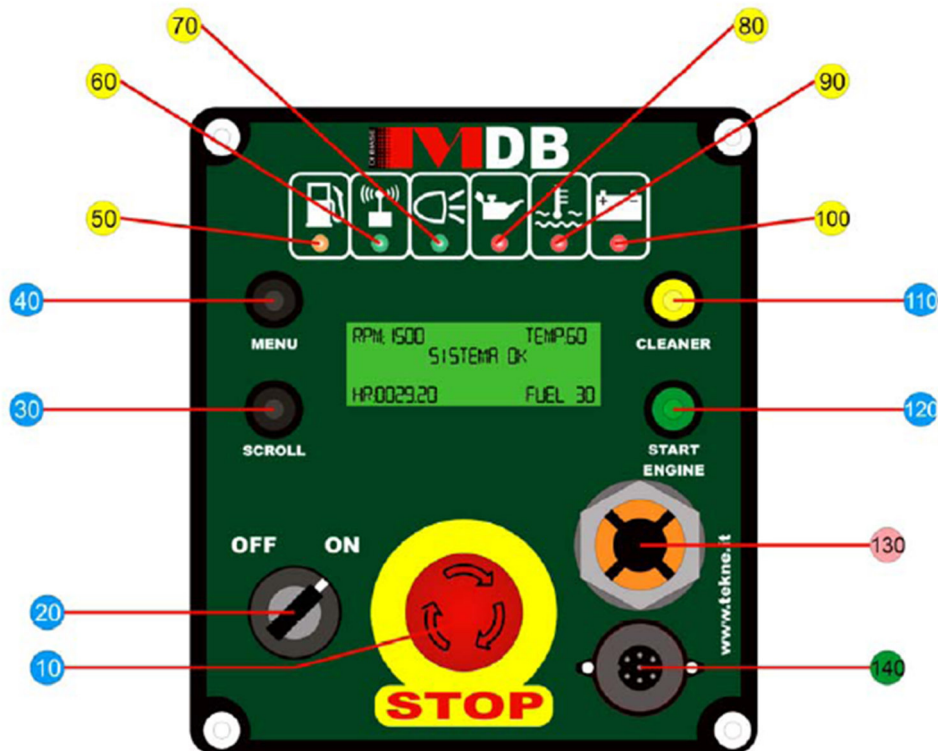


Fig. 8

- The switch is now unlocked; to power up the engine and working again, follow the instructions in paragraph 2.2.1 of this manual.



2.2.5 DESCRIPTION OF THE CONTROL PANEL



10	EMERGENCY BUTTON
20	KEYSWITCH
30	PAGE SCROLLER
40	MENU
50	FUEL WARNING LIGHT When it is on it indicates that the fuel level is low and you are in reserve mode. When the fuel level is under 30%, the system will emit an acoustic alert and it will honk twice. To refuel see paragraph 2.2.7 of this manual.



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60	<p>RADIO WARNING LIGHT</p> <p>When it is on it indicates that the radio transmitter and receiver are connected and ready for normal operation.</p>
70	<p>HEADLIGHTS WARNING LIGHT</p> <p>When the warning light is on it means the headlights are on.</p>
80	<p>OIL WARNING LIGHT</p> <p>When the warning light is on it means the oil pressure is low. If this error persists for more than 2 seconds:</p> <ul style="list-style-type: none">- It will honk three times;- The engine will switch off;- On the control panel display the error, that has caused the machine to switch off, will appear; <p>To correct the fault check the oil level in the tank; if it is too low, refill it. If the oil level is normal, check the working gradient of the machine; if it has exceeded the maximum gradient permitted of 45°, restore normal operation to a suitable gradient. To refill the hydraulic oil see paragraph 2.2.8 of this manual.</p>
90	<p>COOLANT WARNING LIGHT</p> <p>When the warning light is on it means the engine has overheated. When the coolant reaches 95°C, the system honks twice. When the coolant reaches 115°C, the system honks twice and the engine switches off.</p> <p>To correct the fault, switch off the machine engine and wait until it has cooled down. Once it has cooled down, check the coolant level in the tank and, if it is too low, refill it. To refill the coolant see paragraph 2.2.9 of this manual.</p>
100	<p>BATTERY WARNING LIGHT</p> <p>When the warning light is on it means that the battery is not being charged. Possible causes of fault: alternator or belt out of use.</p>
110	<p>RADIATOR CLEANING</p>



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Pressing the yellow button activates the cleaning cycle of the radiator. The fan reverses the air flow and pushes the residues out of the heat exchanger. During use, the system carries out cleaning cycles every 8 working minutes. This function can be activated even with the remote control by means of lever No. 9 indicated in the FUNCTIONS OF LOWER CONTROLS of the remote control; to this purpose see page 34 of this manual.

To enable the cleaning control from the remote control, it is necessary to: activate the system, press the MENU button (40), SCROLL (30) and select 'CLEANER RADIO ON'. Exit by pressing the MENU button (40).

120	ENGINE IGNITION
130	ACOUSTIC WARNING DEVICE
140	REMOTE CONTROL CABLE CONNECTION

2.2.6 FUNCTIONING OF THE CONTROL PANEL DISPLAY

During normal use the electronic system of the MDB control panel will analyse any anomaly and it will show the operating condition of the system on the display. The display can show the following information:

1. STATE SYSTEM OK OR ERROR THAT HAS CAUSED THE ENGINE TO SWITCH OFF;
2. RPM (rpm);
3. WORKING HOURS (HR);
4. WATER TEMPERATURE (TEMP__);
5. DIESEL LEVEL (FUEL__);
6. CLOGGED AIR FILTER (ONLY FOR THOSE MODELS WITH AN ENGINE POWER OF 37 Kw): the system warns by honking three times. The display will show the error that has caused the system to switch off: 'DIRTY FILTER NEEDS MAINTENANCE'.



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2.2.7 REFUELLING

When the fuel warning light of the control panel (see paragraph 2.2.5 of this manual) turns on it advises to refuel the machine immediately. Open the bonnet by unfastening the rubber locking devices shown in figures 9 and 10.



Fig. 9



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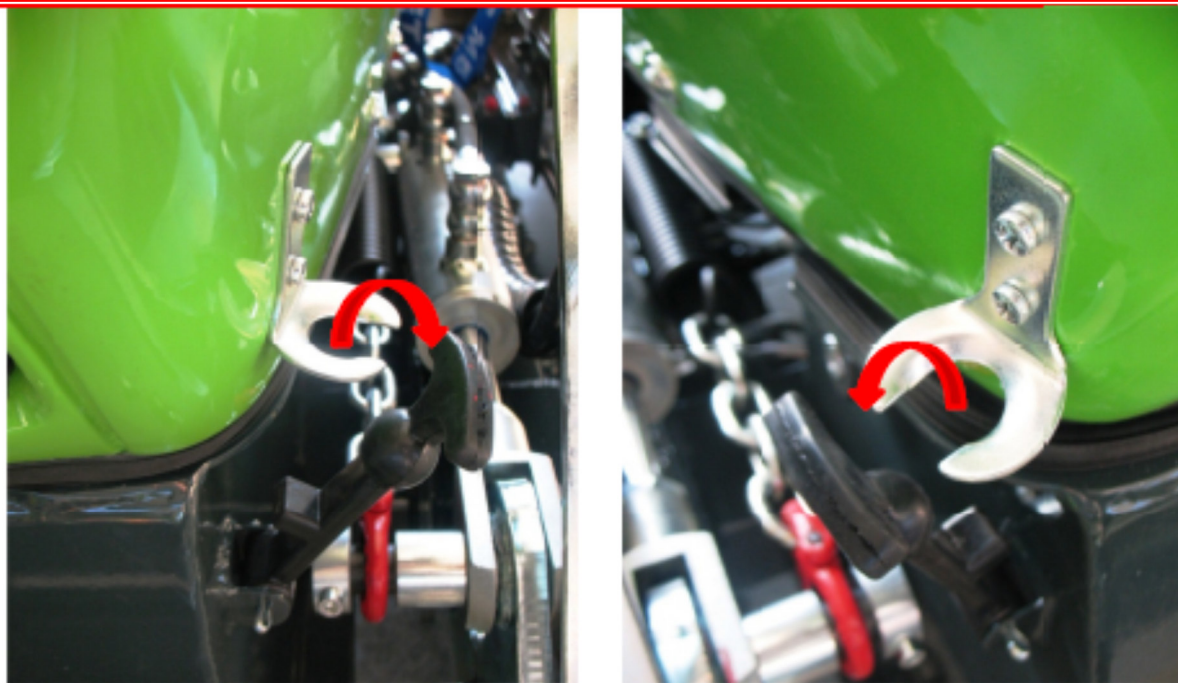


Fig. 10

Once you have detected the fuel tank (figure 11) use the supplied removable key to open the cap and refuel; if necessary use a funnel so as not to spill liquid while refuelling.



Fig.11



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Warning!

Do not wait until the tank is completely empty and the machine to shut down: it could cause damages to the engine and troubles when restarting the machine.



Warning!

Do not smoke or use live flames while refuelling in order to prevent explosions and fire. Fuel fumes are highly toxic; refuel only outdoors or in well ventilated areas.



Warning!

Dispose of the fuel correctly since it is highly polluting.



GREEN CLIMBER

2.2.8 CHECKING, REFILLING AND REPLACING THE HYDRAULIC OIL

Refilling and checking the level of the hydraulic oil must be carried out on a flat surface and with the engine switched off. Open the machine bonnet by unfastening the rubber locking devices, as shown in figures 9 and 10.

To refill the oil, detect the tank and the cap of the hydraulic oil (figure 12), remove the cap, pour in the oil and control the maximum tank contents indicator on the right side of the machine close to the tank itself then screw the cap back on.



Fig. 12



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To replace the hydraulic oil completely, we advise to empty the tank while the engine is hot, but switched off, in order to empty the tank completely and quickly.



Warning!

When carrying out these operations always wear protective gloves to protect the skin. To choose the correct type of gloves consult the safety data of the oil. The manufacturer recommends to use AGIP OSO 46.



Warning!

Dispose of the oil correctly after use since it is highly polluting. Before restarting the machine make sure that the draining plug and the refilling cap are tightened correctly to prevent lubrication leakages.



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2.2.9 CHECKING, REFILLING AND REPLACING THE COOLANT

Refilling and checking the level of the coolant must be carried out on a flat surface and with the engine switched off and cold. Open the machine bonnet by unfastening the rubber locking devices, as shown in figures 9 and 10. Detect the radiator of the machine (figure 13).

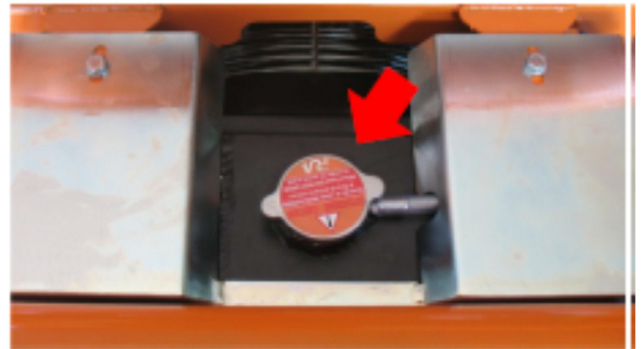


Fig. 13

To refill the coolant, remove the cap, pour the coolant until it reaches the maximum level and screw the cap back on.



Warning!

If a leak is detected in the cooling circuit or the fluid level is too low do not continue using the machine: irreparable damage could be caused to the machine. Find out the cause and correct the fault immediately before restarting the machine.



Warning!

Always dilute the coolant 50 % with water.



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LEGEND OF THE MACHINE STICKERS



PROTECTIVE WORK GLOVES ARE COMPULSORY



OBLIGATORY TO REFER TO THE OPERATION AND MAINTENANCE MANUAL



PROTECTIVE SHOES ARE COMPULSORY



OBLIGATION TO WEAR HEARING PROTECTORS



OBLIGATION TO WEAR CRASH HELMET



OBLIGATION TO WEAR PROTECTIVE FACE MASK

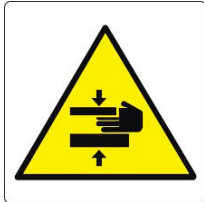


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OBLIGATION TO USE WORK CLOTHES



DANGER TO HANDS



DANGER - HIGH TEMPERATURE

ALTA TEMPERATURA



DANGER OF CRUSHING AND COLLISION. DO NOT STAND NEAR THE MACHINE. WHILE OPERATING THE MACHINE ON STEEP SLOPING GROUNDS DO NOT STAND ON THE LOWER PART; ALWAYS STAND IN THE UPPER PART.



DANGER OF CONTACT WITH THE WORKING PARTS OF THE MACHINE. DO NOT GO NEAR THE FLAIL PARTS WHILE OPERATING IN GEAR AND ENGINE ON. AVOID WEARING LOOSE OR NON CLOSE-FITTING CLOTHES.



3. MAINTENANCE AND TECHNICAL ASSISTANCE

Reliability, safety and service life of the machine depend upon maintenance and technical assistance. Carrying out the maintenance and the technical assistance is not an advice but it is a requirement the buyer of the machine has to comply with.

The manager must make sure the maintenance works are carried out according to the instructions in this manual and complying with the relevant laws in force in the country.

The MDB company won't assume any liability for any damage to the machine or any accident due to an improper maintenance, improper technical assistance or to the non-compliance with the laws in force.

If, in case of servicing or technical assistance, components have to be replaced, only use MDB original spare parts or spare parts authorised by MDB.

The MDB company won't assume any liability for any damage to the machine or any accidents due to use of non-original spare parts.



Please note!

Strictly follow the guidelines on maintenance and technical assistance and their intervals as prescribed by the MDB company otherwise any right to liability and warranty will be lost.

RESPONSIBILITIES AND TASKS

TYPE OF OPERATION	REQUEST	IMPLEMENTATION
Maintenance	Owner	Owner / Operator / MDB Technical Service Centre
Technical assistance	Owner	MDB Technical Service Centre

Use only MDB original lubricants or lubricants that comply with the specifications on lubricants in this chapter.



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OPERATING HOUR COUNTER

The MDB control unit has an operating hour counter. When the machine has reached the first 50 operating hours the following message will appear on the display:

'SERVICE NEED MAINTENANCE'. The machine will have to be taken to the nearest technical Service Centre (*) to carry out the necessary maintenance. The Service Centre will set the hour count for the next maintenance operations to be carried out.

(*) You will find the authorised Service centres of the MDB S.r.l. company at the end of this manual.



Please note!

Complying with the prescribed intervals of maintenance and technical assistance increases the service life of the machine and prevents unforeseen failures while operating.

Non-compliance with the intervals of technical assistance, or if this is not carried out by an authorised technical Service Centre, will void the warranty.

3.1 MAINTENANCE

Sequence of the works involved in the execution of maintenance operations:

1. Cleaning.
2. Visual inspection
3. Lubrication and check of the fluids levels.
4. Tracks maintenance.



Please note!

Maintenance works can only be carried out by people competent in this field.



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3.1.1 CLEANING



Please note!

A thorough cleaning increases the reliability and durability of the machine and components.

Use only environmentally sustainable detergents with a neutral pH that is gentle to the skin. In this way it protects the environment and prevents the machine and components from oxidising. Carry out the cleaning only in a suitable place (with grease traps). Do not use rags that scratch or scrape.

CLEANING WORKS



Warning!

Wet or moist electrical components can cause functioning problems or short circuits in the electronic system.

Cleaning works must be carried out every day or, at least, after every use, only when the machine has been disconnected from all electrical energy. Two removable plates are under the base frame of the machine (Figure 13a): they allow to discharge the material that is located under the engine. You must open and clean the plates after every use.



Fig. 13a



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The underbody plate (figure 13b) protects the oil sump and can be removed to facilitate ordinary maintenance.

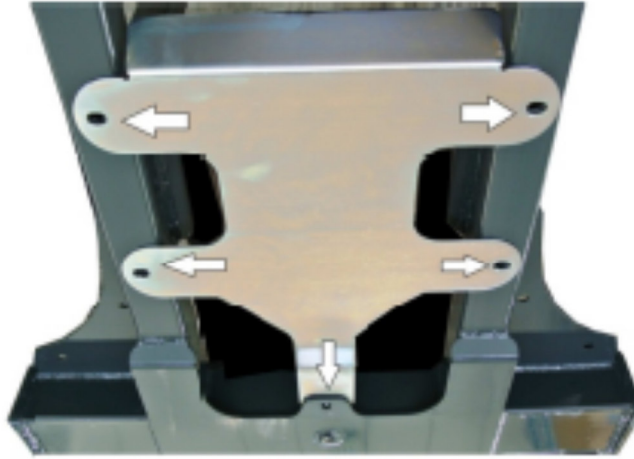


Fig. 13b

High-pressure cleaning:



Warning!

If the following instructions are not complied with there could be damage caused to the components.

- Instructions to use the high-pressure cleaner.
- The temperature of the water / detergent must not exceed 60°.
- Always make sure there is sufficient distance between the nozzle and the machine and components.



- Never aim the nozzle of the cleaner towards:
 - ⇒ Electrical and electronic components (Water could enter the components).
 - ⇒ Plastic components (deformation, cracks).
 - ⇒ Bearing or support systems (Dirt and lubricant must be removed from the bearing).
 - ⇒ Metal shields and stickers (they could get removed or become unreadable).



Cleaning of the engine air filter:

The engine air filter must be cleaned every 8 working hours. Only the models with a 37kW engine have an acoustic and visual warning signal (on the control unit display): it signals that the engine air filter is obstructed. To clean the filter: remove the cover unfastening it from the metal clips (Figure 13c); pull out the filtering body and remove the dirt by means of compressed air. Once the filter is clean, reassemble the filtering body and close the protective cover with the two metal clips.

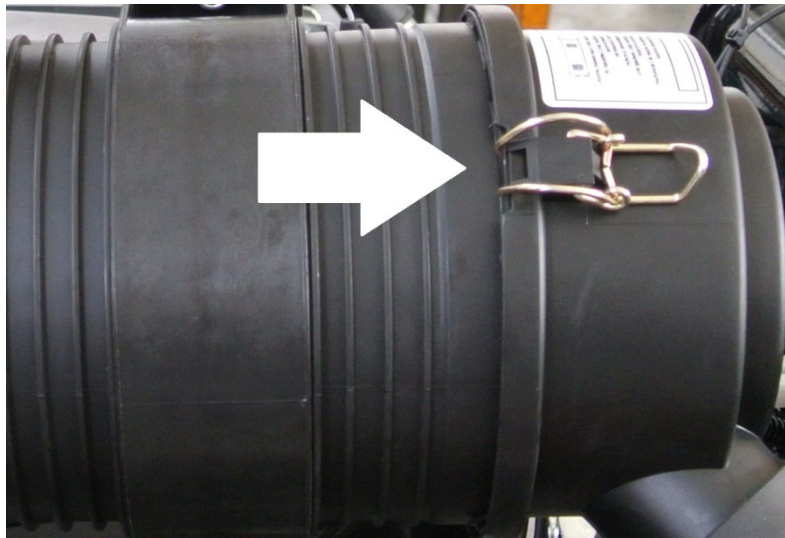


Fig. 13c



3.1.2 VISUAL INSPECTION



Please note!

Missing, damaged or worn components must be replaced immediately.

Before each use carry out the following checks daily:

Clamping elements

- Check the safety systems, the condition and the functionality of the screws, the deformation of the bolts and the necessary safety conditions.
- Tighten any loose screws and nuts.

Immediately replace the fasteners if they are missing or damaged.

Steel elements

- Cracks in components, especially on welding and on the curved edges.
- Distortions.
- Corrosion.

Hydraulic system

- Whole hydraulic system (cables, pipes, cylinders, etc.) to locate leakages.
- Impacts, cracks, distortions on the hydraulic lines.
- Leakages from pipes of fluids, grease; dents, cracks, porosity, etc.
- Level of the hydraulic oil.

Electrical system

- Integrity of the cables, dents, cracks, porosity, etc.
- Integrity of protective pipes for damages, etc.
- Control unit, switches, display, sensors of correct installation, damages, etc.

Metal shields

Verify the integrity of the metal shields and their readability.



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Control of safety devices

- Check the functioning of the emergency stop button(s).



Danger!

If, after having pushed the emergency stop button, the machine does not switch off and stop, there is a great risk of fatal accidents.

Working with the machine with a faulty emergency stop button is a gross negligence. Do not use the machine if the emergency stop button(s) is (are) not working and immediately contact the MDB Service Centre.

CHECK FOR FUNCTIONING:

- Press any control lever of the remote control or any lever on the machine. The machine should move without problems.
- First press the emergency stop button on the machine then the one on the remote control while the machine is moving. Once you have pressed the emergency stop button, the machine should stop and the engine should switch off.
- Press any control lever again. The machine should not move.
- Unlock the emergency stop button. Try the control levers of the remote control and those on the machine: the machine should not move.
- Carry out the actions specified in paragraph 2.2.1 of this manual: now, if the levers of the remote control are used and/or on those of the machine, the machine should move.



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3.1.3 LUBRICATION

Lubricate every 8 working hours and after every wash.



Please note!

The MDB company advises to use environmentally biodegradable lubricants. Do not mix different lubricants together.

Biodegradable lubricants must not be released into the environment.

Lubricants must be free of solid residues. Do not use graphite-based lubricants.



Warning!

Non-compliance with the maintenance intervals, an improper or absent lubrication can cause damages to the machine, high repair costs and downtime.

The heads of the greasers must be thoroughly cleaned of mud or other residues before they can be used to inject lubricant.

Points of the machine to be lubricated, see Figure 14:

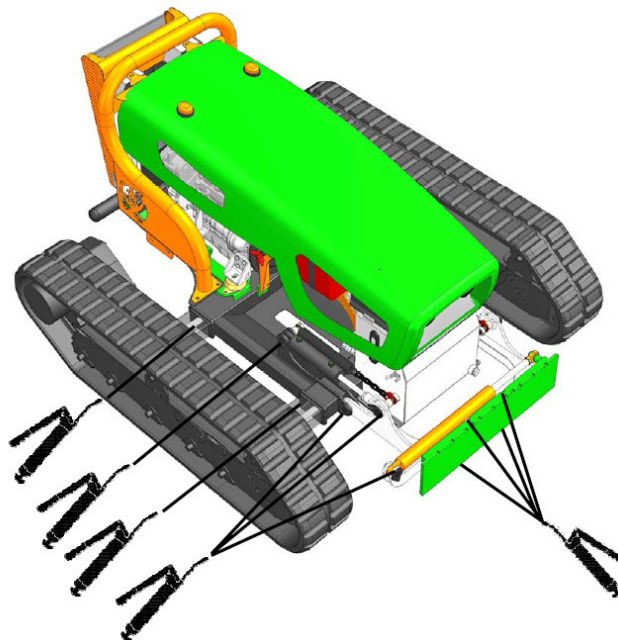


Fig. 14



Operation and Maintenance Manual



GREEN CLIMBER



Danger!

Do not operate the machine under any circumstances while lubricating the machine: danger to one's life.

Lubrication process:

- In case of lubrication of old, greasy parts or parts with impurities, clean them carefully. The dirt of the old lubricant would be otherwise pressed onto the surface of the components.



Warning!

Dirt in this area leads to quick wear, to downtime and to high repair costs.

- Press the grease onto the support point.
- After lubrication, eliminate any surplus of grease.
- Surplus of grease cannot be re-used.
- Dispose of the surplus of grease in accordance with the national laws applicable.



Warning!

If the lubricant gets in contact with the eyes, rinse them immediately with clean water and get medical attention or go to the hospital! In case the lubricant gets in contact with the skin, wash the skin with clean water.



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REPLACEMENT OF THE HYDRAULIC OIL, MAINTENANCE OF THE HYDRAULIC OIL

Replacement of the hydraulic oil

Hydraulic oil must be replaced after 500 working hours or, at least, once a year.

Maintenance of the hydraulic oil



Please note!

An annual maintenance of the oil will significantly prolong the replacement intervals. It entails a reduction of the costs for the users, a reduction of the costs of disposing of the waste oil and a reduction in pollution. The maintenance of the oil must be performed every year by an authorised MDB Service Centre.

The oil maintenance comprehends the following actions:

- Oil filtering.
- Removal of water.
- Oil purity check.
- Replacement of the filter.

Hydraulic oil



Please note!

The manufacturer recommends the use of AGIP OSO 46 oil.



Please note!

Maintenance operations and replacement of oil must be carried out as described in paragraph 2.2.8 of this manual.



Operation and Maintenance Manual



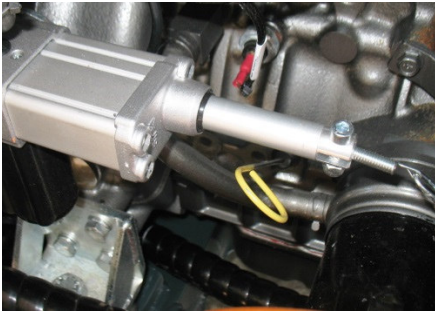
GREEN CLIMBER

COOLANT

Every day, before using the machine, check the quantity and the level of the coolant according to the procedures described in paragraph 2.2.9 of this manual.

ENGINE

Every day, before using the machine, check the level of the engine oil by means of the yellow dipstick. Check it while the engine is still hot: switch off the engine, wait 10 minutes and check the level. If necessary refill the missing oil.



Please note!

The manufacturer recommends to use 10 W40 oil.



Warning!

If the oil level lowers excessively or if the warning light of the oil pressure turns on (see paragraph 2.2.5 in this manual), identify the causes and resolve them. The machine must not be used until the problem is resolved otherwise there could be irreparable damage caused to the engine.



3.1.4 TRACKS MAINTENANCE

DAILY MAINTENANCE

- Check the tension of the track (see next paragraphs).
- Check the proper functioning of the gearbox.
- Check the wear and the condition of the tracks.



Warning!

Replace the tracks when only 10 mm of tread are left, or even earlier, if there are cuts on it.

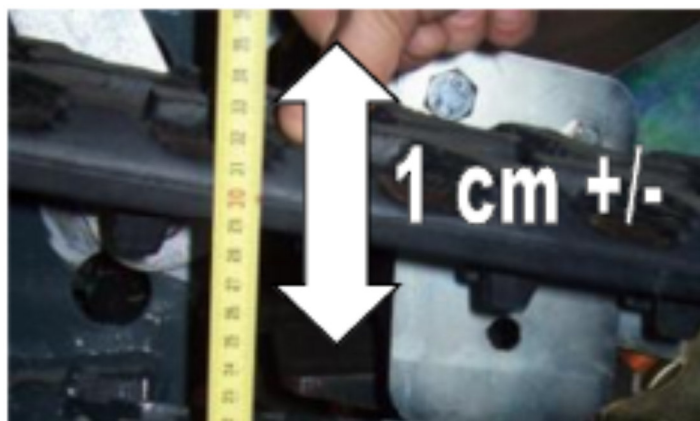
- Make sure that there are no foreign matter between the rollers and the tracks, between the idler and the tracks, between the drive wheels and the tracks.

MONTHLY MAINTENANCE

- Visually check the fastening of the rollers.
- Check if the bearings are loose.

ADJUST THE TENSION OF THE TRACKS

You must adjust the tension of the tracks if the movement of the track is more than 1 cm.





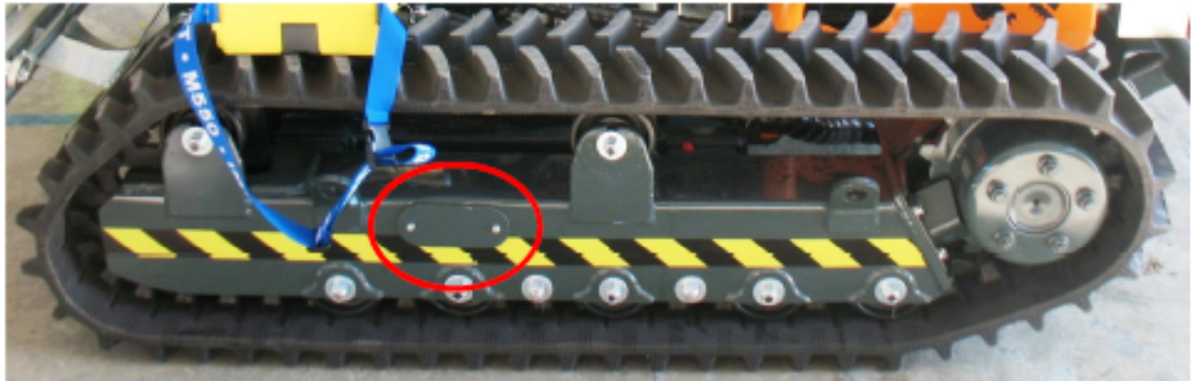
Operation and Maintenance Manual

GREEN CLIMBER



This check must be carried out every day especially when the tracks are new and the rubber, that covers the chain conveyor, starts to wear out (pay particular attention during the first 10 working hours).

Remove the covers located on the sides of the undercarriage.



Check if there are leakages of grease and, if the pipe is damaged, replace it immediately using an MDB original spare part.

Connect the adaptor, which is located inside the box of the battery charger (Part No. 19 on Page 16 in this manual), to the grease pump and to the greaser of the track spring cylinder.



Adaptor supplied



Warning!

The grease pump must have a pressure gauge with a scale up to 200 bar (See picture below).



Grease up to a pressure of 150 bar.

3.2 TECHNICAL ASSISTANCE



Please note!

Technical assistance can only be performed by an MDB authorised Service Centre. Otherwise the warranty will be void.

To plan the operations of technical assistance, check the working hours of the machine on the control unit display. When the counter shows between 0 and 10 working hours, the owner of the machine must start planning the maintenance of the machine. You must record maintenance in a register.



Operation and Maintenance Manual

GREEN CLIMBER



Each operation of maintenance and repair must be signed and stamped by the MDB authorised Service Centre.

Symbols of Service Maintenance

Function test	
Replacement	
Visual Inspection	
Control if bolts are tight	

FIRST TECHNICAL ASSISTANCE AFTER 50 WORKING HOURS

Denomination	Action
Engine oil	
Engine oil filter	
Check the tightness of the nuts and tighten them	
Check and adjustment of the V-belt of the cooling fan	

EVERY 50 WORKING HOURS OR, AT LEAST, ONCE A YEAR

Denomination	Action
Emptying of the gasoil filter / water separator.	
Battery check	



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GREEN CLIMBER



EVERY 125 WORKING HOURS OR, AT LEAST, ONCE A YEAR

Denomination	Action
Tracks: wear, condition of the connections, pinions, lower roller	
Tightening the track screws	

EVERY 250 WORKING HOURS OR, AT LEAST, ONCE A YEAR

Denomination	Action
Engine oil	
Diesel filter	
Engine oil filter	
Check and adjustment of the V-belt of the cooling fan	
Engine oil	
Check and cleaning of the radiator fans	
Check and adjustment of the regulator lever and of the engine speed control	

EVERY 500 WORKING HOURS OR, AT LEAST, ONCE A YEAR

Denomination	Action
Hydraulic oil	
Hydraulic oil filter	
Remote control	



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All safety devices	
Pump capacity – Rpm	
Power lines / Hydraulic pipes, tighten the screwed connections	
Control levers, control bars	
Engine air filter	
Diesel filter	
Cleaning of the diesel filter / water separator	

EVERY 1000 WORKING HOURS

Denomination	Action
Emptying, rinsing and refilling the cooling system with a new coolant	
Adjustment of the gap of the suction valve inlet / outlet	
Hydraulic pipes	

EVERY 1500 WORKING HOURS

Denomination	Action
Inspection, cleaning and testing of the fuel injectors of the engine	
Inspection of the turbo-charger engine	
Inspection of the turbo-charger of the engine	



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GREEN CLIMBER



EVERY 2000 WORKING HOURS OR, AT LEAST, ONCE EVERY TWO YEARS

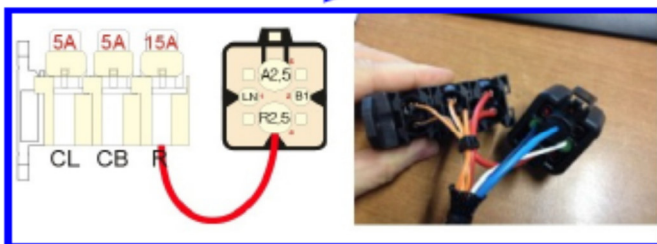
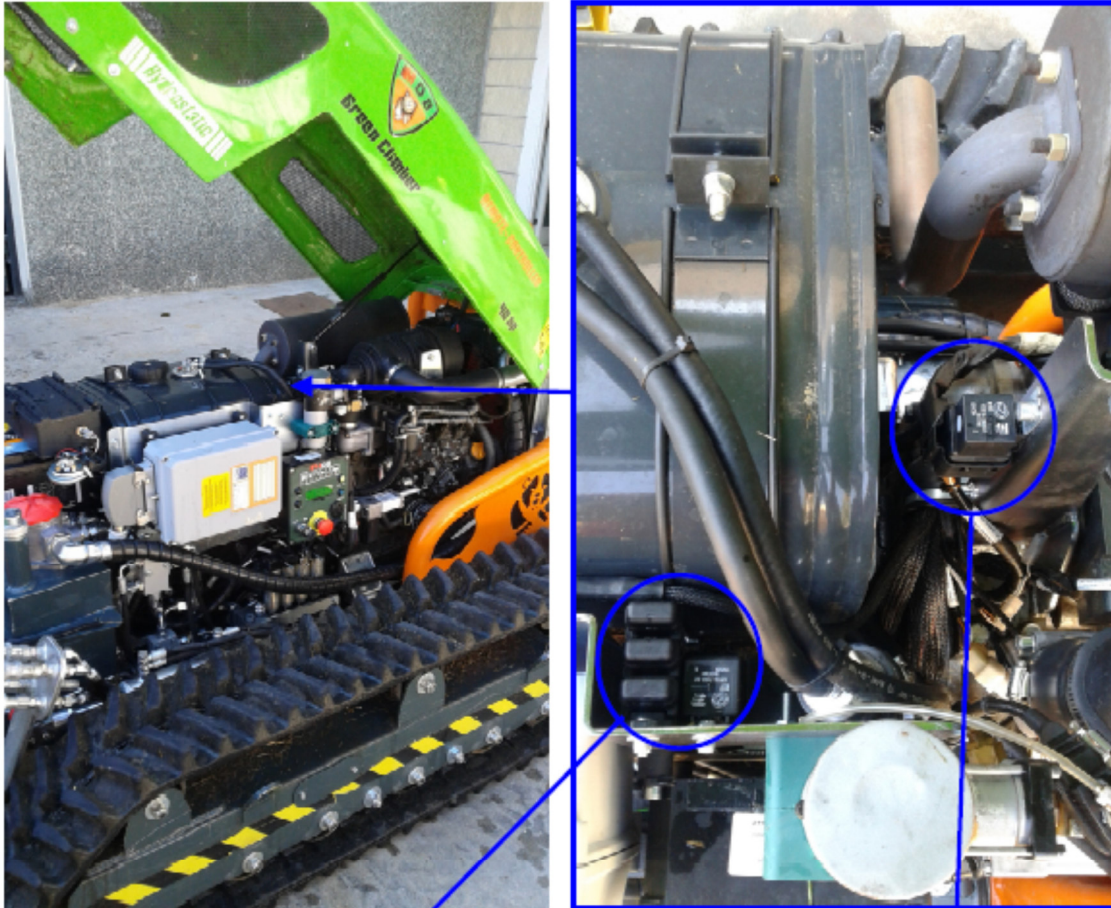
Denomination	Action
Fuel and engine coolant pipes	
Grinding of the intake / outlet valves	

TREAD HEIGHT OF THE TRACKS ≤ 10 mm

Denomination	Action
Tracks	

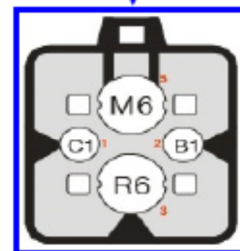


3.2.1 RELAYS AND FUSES DIAGRAM



FUSES
 5 A - LINEAR ACTUATOR (X2)
 (ACCELERATOR)
 15 A - LIGHTS (X1)

LIGHTS RELAY
 12 V - 50 Amp



GLOW PLUGS PREHEATING RELAY
 12 V- 50 Amp



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GREEN CLIMBER



3.2.2 TROUBLESHOOTING GUIDE

ACOUSTIC WARNING / VEHICLE HORN		
WARNING	CAUSE	SOLUTION
2 consecutive sounds while moving	Low fuel	Refuel
2 consecutive sounds while switching on	Ordinary maintenance expired	Perform maintenance as in the Operation and Maintenance Manual
2 consecutive sound and the machine switches off	Low oil level	Do not use the machine, until you discover the cause of the problem because greater damage could be caused. Contact the dealer.
	High engine temperature	
	Alternator problems	
	No radio signal	

THE MACHINE DOES NOT SWITCH ON	
POSSIBLE CAUSE	SOLUTION
Emergency stop button locked	Unlock the emergency stop button
Battery contact key not inserted / not connected	Insert / connect the battery contact key
Burnt fuse	Replace general fuse



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THE ENGINE SWITCHES ON BUT THE MACHINE DOES NOT MOVE	
POSSIBLE CAUSE	SOLUTION
Locked brakes / Cold hydraulic oil	Move forward or backward repeatedly until it unlocks
Problems to the pump or to the engines	Contact the dealer
Speed potentiometer of the remote control is on 0 (zero)	Turn the potentiometer until you reach the desired speed

THE ENGINE SWITCHES ON BUT THE MACHINE DOES NOT MOVE – THE WARNING LIGHT ON THE TRANSMITTER IS OFF	
POSSIBLE CAUSE	SOLUTION
Remote control connection not carried out	Carry out the connection between the transmitter and the receiver

THE REMOTE CONTROL DOES NOT WORK	
POSSIBLE CAUSE	SOLUTION
Low battery	Charge the battery
Emergency stop button pressed	Unlock the emergency stop button
Transmitter has a different serial number than the receiver	Use the same serial number on the transmitter as on the receiver



Operation and Maintenance Manual

GREEN CLIMBER



THE REMOTE CONTROL DOES NOT WORK: ON THE RECEIVER, THE LED RF BUSY IS FLASHING OR IS OFF	
POSSIBLE CAUSE	SOLUTION
No radio signal	Check the connection of the antenna
Other radio signal interference	Use only one machine at a time
Other radio signal interference	Use emergency electrical cable

THE REMOTE CONTROL DOES NOT WORK: ON THE RECEIVER, THE LED POWER SUPPLY IS OFF	
POSSIBLE CAUSE	SOLUTION
Burnt power supply fuse	Replace the fuse

THE BATTERY OF THE REMOTE CONTROL ON THE MACHINE DOES NOT CHARGE	
POSSIBLE CAUSE	SOLUTION
Cables of the battery charges are disconnected	Connect the cables of the battery charger

TRACK HAS COME OUT	
POSSIBLE CAUSE	SOLUTION
Excessive wear of the tracks	Replace the tracks
Low tension of the tracks	Adjust the tension of the tracks
Loose tracks due to wear of the rubber	Adjust the tension of the tracks and contact the dealer
Metal structure of the tracks failure	Contact the dealer
Tensioning piston failure	Contact the dealer



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Operation and Maintenance Manual

GREEN CLIMBER



3.2.3 WORKSHOPS AUTHORISED BY THE COMPANY

Italy:

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Great Britain:

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Operation and Maintenance Manual



GREEN CLIMBER

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GREEN CLIMBER



APPENDIX A

COPY OF THE DECLARATION OF CONFORMITY **EC**



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USE OF THE EQUIPMENT

FLAIL HEAD UTD-130





B.1 FOREWORD

As described in pages 16, 17 and 18 of this manual, the GREEN CLIMBER machine has been designed to be used with equipment applicable to the front axle of the machine by means of a plate with a quick coupling. The equipment FLAIL HEAD series UTD-130 is one of them. The user is reminded that only the equipment listed on pages 17 and 18 can be used with the GREEN CLIMBER machine. The MDB S.r.l. company declines any responsibility if an equipment other than those listed and present in this manual is applied to the GREEN CLIMBER machine or, in any case, not authorised by MDB.

B.2 IMPLEMENTATION OF THE EQUIPMENT TO THE MACHINE

In order to connect the equipment FLAIL HEAD to the GREEN CLIMBER proceed as follows:

- 1- Align the GREEN CLIMBER to the flail head;
- 2- Press the red button (Fig. 15);



Fig. 15



3- Couple the hydraulic pipes as in Fig. 16;



Fig. 16

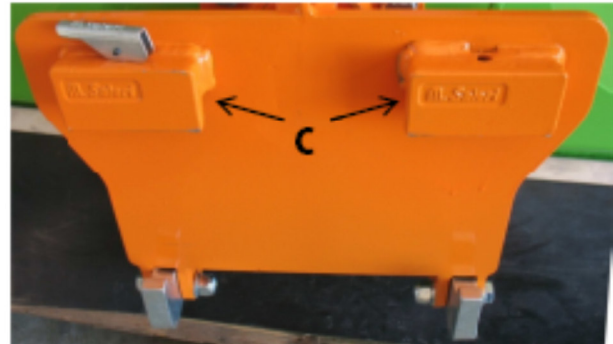
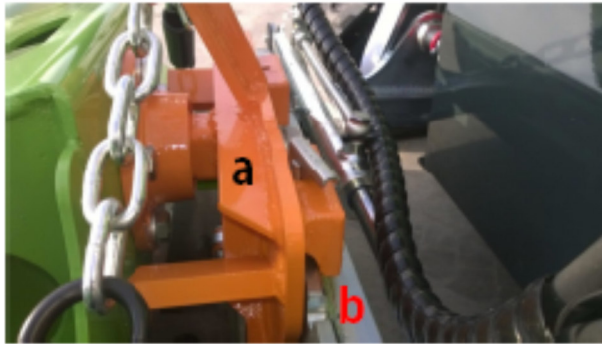
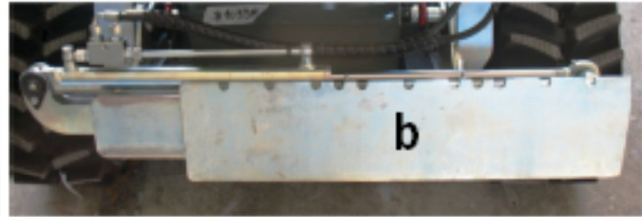


Operation and Maintenance Manual



GREEN CLIMBER

- 4- Couple the orange plate of the flail head (a) with the plate of the GREEN CLIMBER (b), lean the guides of the plate of the flail head (c) to the upper part of the plate of the GREEN CLIMBER (Fig. 17);



- 5- Raise the lever to completely lock the FLAIL HEAD to the plate of the GREEN CLIMBER (Fig. 18);





Fig. 18

The GREEN CLIMBER with the FLAIL HEAD is now ready to work.

To release the equipment from the GREEN CLIMBER machine follow the previous instructions in reverse.

B.3 OPERATION OF THE GREEN CLIMBER WITH FLAIL HEAD SERIES UTD 130

The controls and the use of the GREEN CLIMBER machine with the FLAIL HEAD series UTD-130, are the ones described for the base machine (see Chapter 2.2 of this manual).

Control – 8 – of the remote control (Paragraph 2.2.1 of this manual), auxiliary to the equipment applicable to the GREEN CLIMBER, cannot be used with the inserted FLAIL HEAD, as well as the hand levers described at paragraph 2.2.2 of this manual.



Danger!

The operator cannot run the machine, standing in front of it, when the equipment is connected. Stand always behind the machine.



Operation and Maintenance Manual



GREEN CLIMBER



Danger!

Before using the machine with the flail head, inspect the area where it will be used. Keep people and animals at a distance, fence in the work area with appropriate barriers in order to prevent strangers or non-authorised people from entering the fenced work area. People, animals and vehicles must not stand and / or transit in the vicinity of the machine while it is working.



Warning!

When the equipment is connected there is a risk of sharp objects in the front area of the machine that can hit a person or in the face of the surrounding people. Always wear the Personal Protective Equipment (PPE) as shown in this manual and on the labels on the machine. Comply with the intended safe use by always standing behind the machine and **NEVER** in front of it: never neglect this obligation.





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Danger!

On steep sloping grounds never stand in the lower part below the machine where the machine could overturn; always stand on the upper part or always operate the machine from the upper part.



Warning!

When the equipment is connected there is danger of contact with the working parts of the machine in the front of the machine. While operating do not go near the flail parts with drive and engine on. Avoid wearing loose-fitting clothes.





Manuale Uso e Manutenzione

GREEN CLIMBER



MAINTENANCE REGISTER

PERIODIC MAINTENANCE

MACHINE MODEL	GREEN CLIMBER
SERIAL NUMBER	
YEAR OF MANUFACTURE	

<i>Date</i>	<i>Maintenance after 50 working hours</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>

<i>Date</i>	<i>Maintenance every 50 working hours</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>



Manuale Uso e Manutenzione

GREEN CLIMBER





Manuale Uso e Manutenzione

GREEN CLIMBER



<i>Date</i>	<i>Maintenance every 125 working hours</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>



Manuale Uso e Manutenzione

GREEN CLIMBER



<i>Date</i>	<i>Maintenance every 250 working hours</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>



Manuale Uso e Manutenzione

GREEN CLIMBER



<i>Date</i>	<i>Maintenance every 500 working hours</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>



Manuale Uso e Manutenzione

GREEN CLIMBER



<i>Date</i>	<i>Maintenance every 1000 working hours</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>



Manuale Uso e Manutenzione

GREEN CLIMBER



<i>Date</i>	<i>Maintenance every 1500 working hours</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>



Manuale Uso e Manutenzione

GREEN CLIMBER



<i>Date</i>	<i>Maintenance every 2000 working hours</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>



Manuale Uso e Manutenzione

GREEN CLIMBER



EXTRAORDINARY MAINTENANCE

<i>Date</i>	<i>Reason of the maintenance</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>



Manuale Uso e Manutenzione

GREEN CLIMBER



<i>Date</i>	<i>Reason of the maintenance</i>	<i>Name of the executor</i>	<i>Signature and stamp</i>