



GREEN CLIMBER

F300 Pro EPA

OPERATIONS AND MAINTENANCE MANUAL



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<https://www.mdb srl.com>



A COMPANY WITH QUALITY MANAGEMENT SYSTEM CERTIFIED BY DNV GL ISO 9001:2015

INTRODUCTION

MDB S.r.l. would like to thank you for having chosen this machine. This manual contains the description of functions and the instructions needed to carry out the main ordinary and periodical use and maintenance operations of the F300 PRO machine correctly.

The instructions for use must be strictly observed to obtain the best performance, to ensure the parts last for a long time and to work safely.

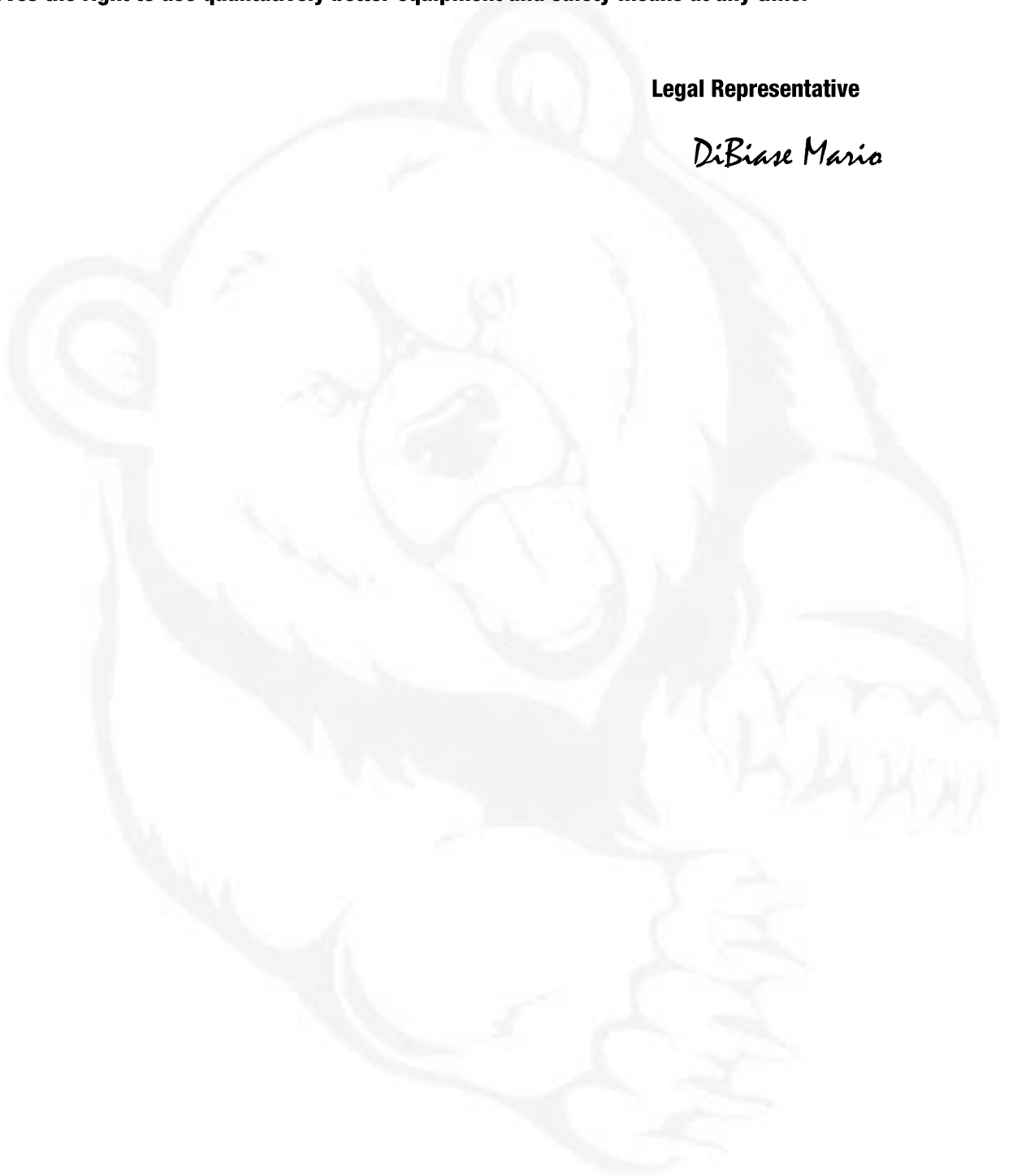
Users of the F300 PRO machine must read this manual carefully. This manual must be considered as an integral part of the machine; and must be stored and protected so as to preserve its integrity, as well as transmitted together with the machine, to a possible subsequent owner.

In pursuing its policy of providing ever safer, more efficient and technologically advanced means, MDB S.r.l. reserves the right to use qualitatively better equipment and safety means at any time.

Sincerely,

Legal Representative

DiBiase Mario



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2. GENERAL INFORMATION

1.1. “OPERATIONS AND MAINTENANCE MANUAL” IDENTIFICATION

The “Operation and Maintenance Manual” is a document issued by

MDB S.r.l. and must be considered an integral part of the machine.

COPYRIGHT

MDB S.r.l. owns the copyright on this manual of use and maintenance. This manual is intended for the personnel involved in the use of the **F300 PRO** machine. It contains instructions and drawings of a technical nature, which must not be reproduced (even in part), nor disclosed by any means, used for competitive purposes nor made available to third parties. **MDB S.r.l.** prohibits the total or partial reproduction of this manual and the dissemination of its contents in any form..

1.2. PURPOSE OF THE MANUAL

The purpose of the “Operations and Maintenance Manual” is to provide all those who will use the **F300 PRO** machine with all the information necessary for its diligent use and maintenance in optimal conditions; particular attention has therefore been given to ensure that this occurs in the most extensive safety conditions for operators.

The equipment is supplied to be used as specified in this manual. To improve the overall level of the machine’s safety, operators are reminded to always be aware of safety aspects while operating it.

NOTICE

The machine manufacturer may not be held responsible for damage to persons, animals, goods or environments resulting from the use of the equipment by operators not meeting the requirements.

1.3. STORAGE

The following instructions must be followed closely in order to keep the manual in perfect conditions:

- Use the manual in such a way that it is not damaged in any way;
- Do not remove, add, change or write in any part of the manual; updates may be carried out only by **MDB S.r.l.**
- Keep the manual in an area protected against damp, so that its life-time is not compromised;
- Deliver the manual to any other user or future owner of the machine.

1.4. GENERAL INFORMATION

Get to know the equipment before starting to use it by reading this manual carefully. Operators must be instructed correctly and exhaustively on the content of **CHAPTER 2** relating to the use and operation of the machinery prior to its use.

The instructions for operations and maintenance for the **F300 PRO** are in two integral parts, and must accompany the machine during its entire working life, until dismantling and demolition.

MDB S.r.l. declines all responsibility regarding problems, breakages, damage to persons, goods or animals, even if caused by non-use of the equipment or failure to comply with the procedures and instructions in this manual;

- Due to failure to comply with the normal workplace safety regulations;

- Due to lack of diligence when working;
- Due to personnel's lack of expertise and improper use of the machinery;
- Due to failure to comply with accident prevention regulations while operating or carrying out maintenance on the machinery, even if not expressly mentioned in our manual;
- For modifications, variations and/or installation of accessories not authorized by MDB S.r.l.
- MDB S.r.l. will not be held liable for damage caused by:
 - Natural disasters;
 - Revolts and riots;
 - Lack of maintenance or incorrect maintenance;

For replacements parts, the customer must only use ORIGINAL SPARE PARTS.

To obtain optimal performance from the equipment, check it periodically, and if necessary, replace all parts that, by their nature, are subject to wear.

Replacing a part at the right time, not only allows the machine's operation to meet expectations, but also prevents more serious damage and/or personal injuries.

Using original spare parts maintains the machine's quality over time and entitles you to the product's WARRANTY for the period for which it is provided.

To highlight the risks or hazardous operations, this manual contains safety alerts. Each alert starts with a symbol followed a warning.

The following lines describe the symbols used:



This symbol indicates an imminent risk situation which, if not prohibited, results in serious injury or death of the persons concerned



This symbol indicates a situation of potential risk to the integrity of the machinery which, if not avoided, may cause damage to the machinery itself which, indirectly, could cause serious injury or death to the persons concerned



This symbol indicates particularly important actions enabling to work with the machine in the simplest and safest way

1.5. WARRANTY AND LIABILITY INFORMATION

The warranty covers manufacturing defects.

The manufacturer may not be held responsible for any damage that occurs during transportation.

The machine is shipped without packaging, covered with a plastic film that protects the parts subject to oxidation in the event of contact with water or moisture. The manufacturer undertakes to take care of fastening the machine, assuming liability if the transportation is carried out with his own means.

If the transportation is performed by a carrier, all care will be taken to ensure that the machine is not damaged but, as already noted above, the manufacturer assumes no liability if it is.

For this reason, if transported by a carrier, adequate insurance coverage should be requested.

The customer is responsible for checking the state of the goods on arrival and promptly

notifying the carrier and the manufacturer of any damage.

If the customer deems it appropriate, the machine may be packed in a wooden crate at an additional cost.

The accessories and documents that accompany the machine are located on board, duly protected to prevent any damage.

Items not covered by the warranty are:

- **Items that are part of the machine, but that are not manufactured by MDB (such as: tracks, transmission belts, bearings, gearboxes, etc.): they are supported only by the guarantee from the respective manufacturers.**
- **Items that have deteriorated due to wear.**

Exceptions that invalidate the warranty:

- **Modifications carried out on the machine without the written approval of MDB.**
- **Repairs carried out in unauthorised workshops.**
- **Use of non-original spare parts.**
- **Negligence in the maintenance.**
- **Use of the machine other than that defined in this manual.**
- **Removing the guards installed on the machine: the guards must not be removed under any circumstances; moreover, they must be periodically inspected, and restored to their original condition if damaged;**
- **Failure to comply with the machine-related safety measures mentioned in the operation manual.**

The warranty period is specified in the quotation and in any case shall not exceed 12 months from the shipping date.

Warranty request

A warranty request must be made in writing to MDB by the dealer, within 4 weeks from the fault, specifying: name and address of the user; type, model, serial number, date of sale, date of the fault, number of hours of operation, circumstances and alleged causes.

For the warranty to be granted, the parts must be sent to MDB for examination and, once confirmed, replacement of the part will be authorised.

1.6. MANUFACTURER IDENTIFICATION

Name: MDB S.r.l.
Headquarters: C.da Sant'Onofrio, 6/A
LANCIANO (CH) - ITALIA
Telephone: +39 0872.50221
Fax: +39 0872.50231
E-mail: info@mdbsrl.com
VAT number: 01960690699

1.6.1. TECHNICAL ASSISTANCE

Technical assistance is always provided by the manufacturer. For further information call:

+39 0872.50221

1.7. MACHINE IDENTIFICATION

The F300 PRO machine identified by the CE Marking prepared according to the specifications in the European Directive 2006/42/EC, of Legislative Decree n. 17/2010 implementing the Machinery Directive in Italy and of the Italian Legislative Decree 81/08, and subsequent amendments the Consolidated Text on Safety in the Workplace implementing the European directives in this regard.

The essential data regarding the marking can be found on the ID plate positioned in the lower part of the same machine (see Fig. a).

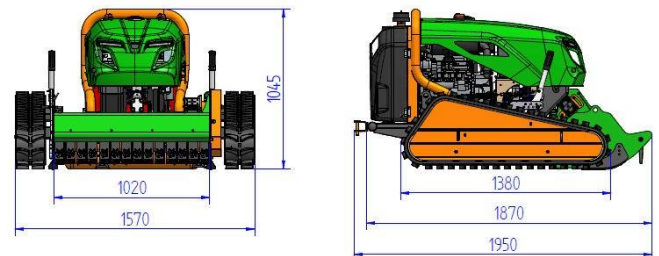
MDB ™ S.R.L.	
C.da S. Onofrio, 6/A - 66034 Lanciano (CH) ITALY Tel. (+39) 0872 50221 - 508566 - Fax (+39) 0872 50231	
○ Designazione: <input type="text"/> ○	
Modello: <input type="text"/>	Anno: <input type="text"/>
Potenza: <input type="text"/>	Matricola: <input type="text"/>
Portata: <input type="text"/>	Peso: <input type="text"/>
Conforme alle Direttive comunitarie CEE/2006/42/CE e successive implementazioni In conformity with ECC rules 2006/42/CE and subsequent implementation	
CE	

Figure 1

1.8. DESCRIPTION OF THE MACHINE

1.8.1. TECHNICAL DATA

DESCRIPTION	U.M.	VALUE
Height	mm	1045
Minimum width	mm	1570
Length	mm	1870
Weight	kg	785
Engine type and model	YANMAR 3TNV80F-SDSA	
Nominal engine power	kW	17.8
Engine fuel		diesel
Diesel tank capacity	l	20
Radiator capacity	l	3 water + 1.5 oil
Max speed	km/h	9
Hydraulic oil tank capacity	l	11
Remote control type and model:		
Receiver	IMET M880- ZEUS2 B1N- 10431-00	
Transmitter	IMET M880-LCD- 10431-00	



The machine has been tested on slopes of up to 60°. The machine should not be used on slopes of more than 39°, the static stability angle established by the design calculation of EN ISO 16231-1:2013 specifying the principles for risk assessment with regard to the design and construction of self-propelled machinery with on-board operator used in agriculture.

1.8.2. WORK ENVIRONMENT

LIGHTING

The machine has two lighting devices at the front to improve the machine's visibility in the work area and not to light the work area at night. The machine must only be used during the day, with sufficient visibility for the operator to see the work area for a radius of at least 100 m.

VIBRATIONS

The machine generates vibration during use. Since it is operated from a distance by means of a radio remote control, these vibrations cannot harm the operator.

NOISE

The machine is intended to operate only outdoors. Noise measurements have been made at the control position, as prescribed by the machine directive (dynamic - static measurement at 1 m from the machine in motion, measurement time 5" for a distance of 5.6 m), with the operator to the side of the machine. The measured sound pressure level is 85 dB (A) uncertainty KpA ± 2.8.

DEMOLISHING THE MACHINE

According to normal scrapping of the machinery (after dismantling) and delivery of each component to a company specialized in the transport, disposal and/or recovery of waste.

1.8.3. GENERAL DESCRIPTION OF THE MACHINE AND ITS OPERATION

The F300 PRO machine is made up of:

1. S355 and S700 steel base frame. Welded structure;
2. Tracks;
3. Hydraulic oil reservoir;
4. Diesel tank;
5. Bonnet;
6. Roll-bar;
7. Rear cover panel;
8. Air filter;
9. Exhaust assembly;
10. Engine;
11. Battery;
12. Radio remote control receiver;
13. Radio remote control transmitter;
14. Flail mower;
15. Control unit;
16. Headlights;
17. Flashing lights;
18. Spare battery and battery charger for the radio remote control;
19. Vortex filter;
20. Towing hook





The F300 PRO machine is made up of a welded steel frame, to which the components have been fixed. It is moved by rubber tracks. The vehicle track is fixed. The diesel engine drives the machine's hydraulic circuit through hydraulic pumps.

The F300 PRO self-propelled machine has been designed for use in the agricultural and forestry sector. The front of the machine is equipped with original MDB forage harvester equipment.

Thanks to extremely low centre of gravity, the F300 PRO machine can easily work on any type of terrain, even on steep slopes.

Its remote control allows the operator to work in complete tranquillity even on the most inconvenient and impractical terrains.

 **CAUTION**

The safe working inclination should never be exceeded, especially on soils with different conformation other than sand-like.



 **DANGER**

Never stop or manoeuvre the machine from below it, but always in an area above it, especially on terrains with steep slopes, as the machine could overturn.



1.9. OPERATING CONDITIONS

The F300 PRO has been manufactured in compliance with safety regulations, directives and applicable European regulations. Before starting work, inspect the work area and check that there are no people and/or animals present, in which case accompany them to a safe area.

For reasons of safety concerning people, goods and animals, the work area where the machine must operate must always be cleared and marked out before the start of work, and the operator must forbid entry to non authorized persons.

Learn how to operate the machine properly. NEVER operate or work around this machine without proper instructions, while fatigued or under the influence of alcohol, prescription or non-prescription medication or if feeling ill.

Keep your machine in proper working condition.

Be informed regarding the regulations and laws that apply to you and your industry. This manual does not replace any regulations or laws. (Additional information may be found at: <https://osha.europa.eu/> or www.osha.gov)

If you do not understand any part of this manual, contact MDB srl +39 0 872 57617.

PREPARE FOR EMERGENCIES

Keep a fire extinguisher and first aid kit close to the machine. Keep emergency phone numbers close to your phone.

Be informed regarding your address so emergency services can locate you if an emergency arises.



REPLACE SAFETY SIGNS

Replace missing or damaged safety signs.

Safety signs positions are indicated on page 5 of this manual.

Replacement safety signs are available from your dealer.

DO NOT ALLOW RIDERS

NEVER lift or carry anyone on the machine.

NEVER use the machine as a work platform.

NEVER allow passengers on the machine.

AVOID HIGH PRESSURE FLUIDS



DANGER

Pressurized fluids can penetrate the skin.

Hydraulic pipes can fail due to age, damage and exposure.

Use body and face protection equipment while searching for leaks. A tiny, almost invisible leak can penetrate the skin, thereby requiring immediate medical attention.

Use wood or cardboard to detect hydraulic leaks, never use your hands.

Leaking fluid under pressure can penetrate the skin causing serious injury.

Prevent the hazard by relieving pressure before connecting or disconnecting hydraulic lines. Check that all connections are tight before applying pressure. Search for leaks using a piece of cardboard or wood.

Protect hands and body from high pressure fluids. If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or serious infection may result.

Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.

MAINTENANCE HAZARDS

Before servicing, park the machine on a firm and level surface, shut down the engine, check the tracks, and place a "Do Not Operate" tag on the control panel. Read and make sure you understand this manual. If you do not understand any part of the manual, contact

MDB Srl +39 0872 57617

1.10. WORK POSITIONS

The operator in charge of operating the F300 PRO machine must be trained and informed by the MDB retailer/dealer before use. The end user is responsible for the application of the laws of the country of origin for the proper use of the equipment. When the machine is in use, no other person may be positioned and/or working near the machine or within the marked out area unless authorised.

The operator controls the machine through a radio remote control, and is therefore not near the danger area. He must, however, bear in mind that he must remain at a distance of at least 3 metres behind the machine, never in front of it. The maximum operating range of the radio remote control is set to 100 m.

1.11. REFERENCE STANDARDS

1.11.1. ITALIAN LEGAL REGULATIONS

- LEGISLATIVE DECREE no. 81/2008 and subsequent amendments and additions;
- LEGISLATIVE DECREE no. 17/2010;
- LEGISLATIVE DECREE no. 262/2002;
- LEGISLATIVE DECREE no. 80/2016;
- LEGISLATIVE DECREE no. 86/2016

1.11.2. EUROPEAN STANDARDS

- MACHINERY DIRECTIVE 2006/42/EC;
- ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/EU;
- LOW VOLTAGE DIRECTIVE 2014/35/EU;
- DIRECTIVES FOR THE IMPROVEMENT OF WORKER SAFETY AND HEALTH DURING WORK 80/1107/EEC, 82/605/EEC, 83/477/EEC, 86/188/EEC, 88/642/EEC, 89/391/EEC, 89/391/EEC, 89/654/EEC, 89/655/EEC, 89/656/EEC, 90/269/EEC, 90/270/EEC, 90/394/EEC, 90/679/EEC, 93/88/EEC, 95/63/CE, 97/42/CE, 98/24/CE, 99/38/CE, 99/92/CE, 2001/45/CE, 2003/10/CE, 2003/18/CE, 2004/40/CE, 92/58/EEC, 2002/44/CE, 2006/25/CE, as applicable;
- ENVIRONMENTAL ACOUSTIC EMISSION DIRECTIVE OF MACHINES AND EQUIPMENT INTENDED TO OPERATE OUTDOORS 2000/14/CE and 2005/88/CE;

1.11.3. TECHNICAL HARMONISED STANDARDS

- EN ISO 12100:2010 – Safety of Machinery — General Principles for Design — Risk Assessment and Risk Reduction;
- EN ISO 4254-1:2015 – Agricultural machinery — Safety — Part 1: General Requirements;
- EN ISO 60204-1:2006 + AC:2010 - Safety of Machinery - Electrical Equipment of Machines - Part 1: General Requirements;
- EN ISO 16231-1:2013 - Self-propelled agricultural machinery — Assessment of stability — Part 1: Principles;
- EN ISO 16231-2:2015 - Self-propelled agricultural machinery — Assessment of stability — Part 2: Determination of static stability and test procedures;

- 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 — 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;
- EN ISO 3744:1995 - Acoustics - Determination of sound power levels of noise sources using sound pressure;
- ISO 6395:1988 - Acoustics - Measurement of exterior noise emitted by earth-moving machinery - Dynamic test conditions.

3. USE OF THE F300 PRO MACHINE

3.1. TRANSPORT

The F300 PRO machine is delivered to the purchaser adequately protected from impacts during transport. Once arrived at destination, the attachment points on the machine must be used to position it, which are located in the areas indicated in the photos below.



3.2. USING THE MACHINE

The F300 PRO machine has a single control system by means of remote control. To operate the machine, you must start its heat engine. First make sure that the red battery isolator lever (Fig. 1) has been turned clockwise



Figure 1

Insert the key in the control panel at the left of the machine as indicated in Figure 2.



Figure 2

ATS-25 CONTROL PANEL



KEY INSERTED IN OFF POSITION





Turn the key clockwise and perform the 1st click to the ON position. The message MDB appears on the control unit display and all the lights come on as

shown in the figure.

The engine of the F300 PRO machine can be powered up in two different ways:

- Turning the key to the “start” position as follows;
- By using the remote control.

POWERING UP THE ENGINE USING THE KEY FROM THE CONTROL PANEL

To power up the engine with the key, proceed as follows:



Turn the key clockwise and perform the 2nd click to the START position. Keep the key on START for as long as the plug indicator light (as shown in the

figure) is on, when glow plug preheating time is

over, the indicator light will go off and the starter will start to work when powering up the engine.



ATTENZIONE

CAUTION

If the machine does not start up, wait a few seconds before repeating the ignition procedure.



CAUTION

NEVER keep the key in START position for more than 15 seconds or the engine will overheat.



CAUTION

NEVER operate the starter motor when the engine is running, as this could damage the starter motor pinion and/or the spur gear.

Keep the engine running idle for at least 15 seconds before starting work.



CAUTION

At first start-up, allow the engine to operate idle for at least 15 minutes, while checking that the engine oil pressure is correct, that there are no diesel fuel or coolant fluid leaks and that the warning lights and/or indicators work correctly.



CAUTION

Vary the speed and load of the engine during the first hour of operation. Short periods of maximum engine speed and load are recommended. Avoid prolonged operations with minimum and maximum speeds and loads during the next four to five hours.

Work can now be started using the remote control (Fig. 5) after having connected the transmitter to the radio receiver.

Make sure that with the engine running, all the control warning lights are off.

If the engine fails to start, refer to the dedicated section in this manual (PARAGRAPH 3.2.2 SOLVING PROBLEMS) to solve the problem.

CONNECTING THE TRANSMITTER TO THE RADIO RECEIVER

Take the "TX" radio transmitter (detail n. 13 on page 15), with the transmitter turned off:

- Insert a charged battery into the transmitter.
- Check that the mushroom-shaped STOP button is not inserted and the selector to activate the device ("4" figure 5) is set to "OFF"



Figure 3

Press button "B" (Fig. 3) to request connection between the transmitter and receiver. The "TX" and "RX" LEDs on the transmitter panel (see Fig. 4 "F" and "I") will begin to flash simultaneously.

Press the "B" button again. The transmitter and receiver will be connected when the LEDs remain on.

RADIO REMOTE CONTROL LED INDICATORS

The remote control is equipped with LEDs that indicate to the user:

- The operating status
- Malfunctions
- Type of malfunction

TRANSMITTER UNIT		
LED	STATUS	INDICATION
F	Off	The transmitter is switched off or damaged
	On	The transmitter is operational
	Flashing	The transmitter is switched on but not working
G	Two flashes every 20s.	Low battery
	Morse Code	Indication of transmitter error
I	Off	The receiver is switched off or damaged
	On	The receiver is operational
	Flashing	Radio connection with the receiver active
L	On	Equipment in operation
M	Flashing	Low fuel level
	On	Blocked air filter Scheduled maintenance required.
H	Flashing	High engine temperature (95°C)
	On	High engine temperature (105°C)
		Low oil pressure Other engine alarms
RECEIVER		
LED	COLOUR	INDICATIONS
N	Red Green	Normally off during operation. Red/green for the duration of the data error on channel B.
O	Red Green	Green during operation. Red indicates that system B channel is in STOP status.
P	Red Green	Normally off during operation. Red/Green for the duration of data error on channel A.
Q	Red Green	Green during operation. Red indicates that system A channel is in STOP status.
R	White	On indicates that the radio connection between the transmitter and the receiver has been established. The intensity is proportional to the intensity of the received signal. In case of control wire connection, the LED flashes at a fixed interval.
S	Green	On indicates that there is power
T	Blue	On indicates that the receiver has established the link with the remote device under the voltages necessary for their proper functioning.

POWERING UP THE ENGINE WITH THE REMOTE CONTROL

The engine of the machine can be started up by means of the TX radio transmitter by holding down button “D” in Fig. 4.



Figure 4

With the engine running and after the transmitter and receiver have established contact at the pre-set frequency, you can start to use the radio remote control (fig. 5).



Figure 5

TX TRANSMITTER RADIO CONTROL FUNCTIONS

FORWARD



REVERSE



FORWARD, TURN RIGHT



FORWARD, TURN LEFT



REVERSE, TURN LEFT



REVERSE, TURN RIGHT



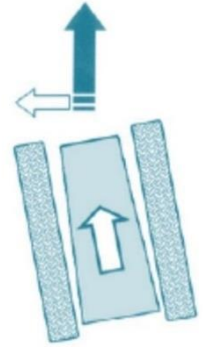
necessary to steer the machine towards the desired direction, without being affected by uneven ground, when it is running on steep terrain.

RIGHT COUNTER-ROTATION

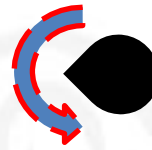


LEFT DIRECTION

Turn the ± selector switch anti-clockwise to direct the machine straight, curving left

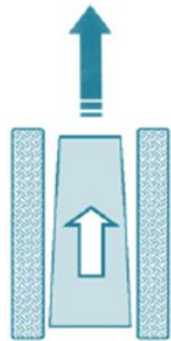


LEFT COUNTER-ROTATION

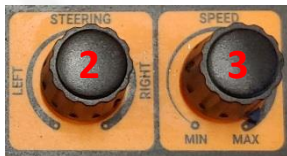


“0” POSITION

The machine will move straight without curving



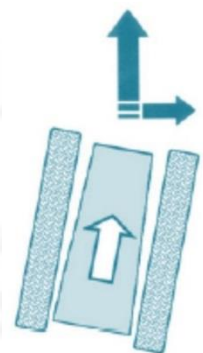
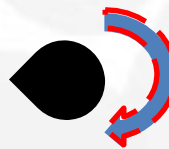
COMMANDS 2 AND 3 FUNCTIONS



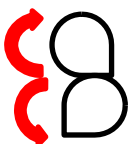
- 2 Set the direction of the machine
- 3 set the speed of the machine

RIGHT DIRECTION

Turn the ± selector switch clockwise to direct the machine straight, curving right



SPEED ADJUSTMENT



Clockwise rotation: maximum speed
 Counter-clockwise rotation: minimum speed

MACHINE DIRECTIONS

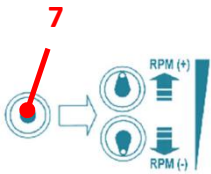
The direction function allows the machine to proceed forward more or less to the left or right, depending on how clockwise or anticlockwise manipulator 2 is rotated. This function is

COMMAND FUNCTIONS 4 – 5 – 6 – 7 – 8



- 4 ON = shredder on – OFF = shredder off
- 5 command deactivated
- 6 emergency button
- 7 increase or decrease engine revs

ENGINE SPEED



Switch up: max engine rpm

Switch down: min engine rpm



DANGER

It is forbidden to operate the machine from the front with equipment inserted, always operate it from behind.



CAUTION

With equipment mounted on the machine, there is a hazard to the operator's body and face from blunt objects being expelled from the front area of the machine. Always wear the PPE indicated in this manual and on the labels on the machine. Always use as intended and follow safe practices, remaining behind the machine and NEVER in front of it. Do not fail to comply with this obligation for any reason.



DANGER

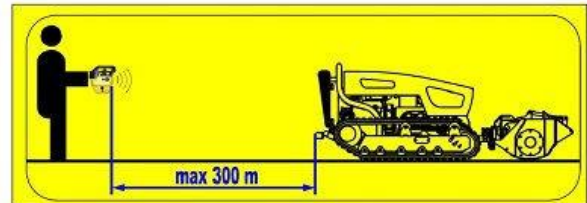
Never stop or manoeuvre the machine from below it, but always in an area above it, especially on terrains with steep slopes, as the machine could overturn.



ATTENZIONE

CAUTION

The radio signal between the transmitter and the receiver has been set for a maximum operating radius of 100 metres. If you exceed this distance, the signal could be lost, which would block the machine and turn of the engine. To restore normal operation, follow the instructions in paragraph 2.2.1 of this manual.

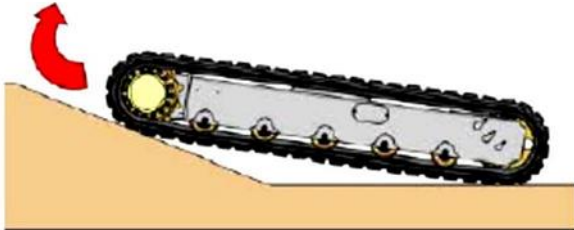


DANGER

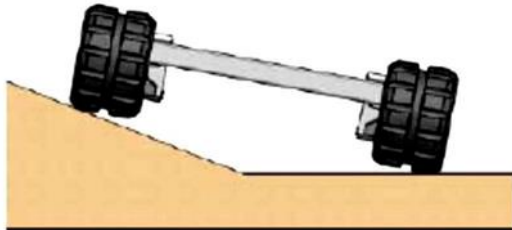
Before starting work and driving the machine, make sure that there are no persons and/or animals in the work area. Mark out the work area so that people and/or animals cannot enter. Failure to comply with this safety procedure could cause risk of serious injury and/or death to persons or animals.

CORRECT USE OF THE MACHINE

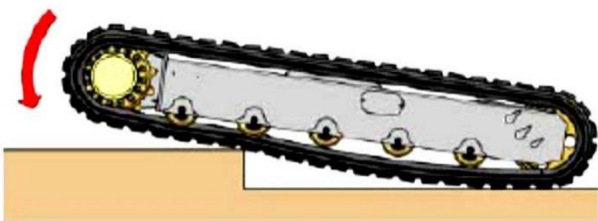
While driving, never turn from flat terrain onto uphill terrain. If it is absolutely necessary to do so, steer gradually, taking great care.



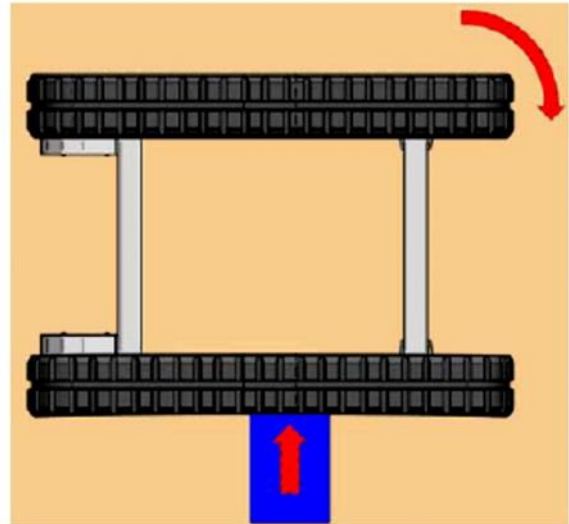
Avoid driving along the edge of sloping terrain or in rough terrain with one track on horizontal ground and the other on a slope. Always drive with the slides resting on the same level to avoid damaging the tracks.



When the machine drives as shown in the figure, it creates a gap between the supporting rollers and the track, with the risk that the track comes out of its seat.



When changing direction in a condition where the track cannot move sideways due to an obstacle, the track may be damaged and leave its seat.



STOPPING THE MACHINE

The machine's engine can be stopped in two ways:

- Manually;
- With the radio remote control.

To turn off the engine manually, turn the key switch on the control panel shown in Fig. 2 in the "OFF" position.

To turn off the engine in "RADIO" mode, press the button "E" shown in Fig. 4.



CAUTION

The machine engine must never be turned off suddenly, especially when running at high rpm or when the machine is moving fast, unless an emergency situation occurs. Before turning off the engine, let it run for a short time idle and empty, always deactivate the equipment you are working with by using lever 4 of the COMMAND FUNCTIONS until the "L" LED turns off. Stopping the engine of the machine without first deactivating the equipment could cause damage

to the hydraulic system. At the end of the work session, always turn the battery disconnect switch of Fig. 1 counter-clockwise to open the safety circuit.

 **DANGER**

Do not use the emergency button to turn off the machine, unless there is an emergency situation. Continuous use of this button to stop the engine in normal circumstances could damage the hydraulic system.

 **DANGER**

Never tamper with the machine's safety systems or remove the fixed and mobile guards supplied with the machine

 **CAUTION**

Before starting the machine at the beginning of the work shift, always check that all the safety systems are in working condition, the fluid levels are correct and the tension of the tracks corresponds to the parameters indicated in the maintenance chapter.

3.2.1. EMERGENCY OPERATION

In the event of a radio remote control failure, repair the machine on site. If this is not possible, inform the breakdown services so that lifting equipment can be used to take the machine to the nearest authorised workshop.

If the radio battery has run out, replace it with the reserve battery located in the container indicated in paragraph 1.8.3 (component n.18) and in Fig. 6.

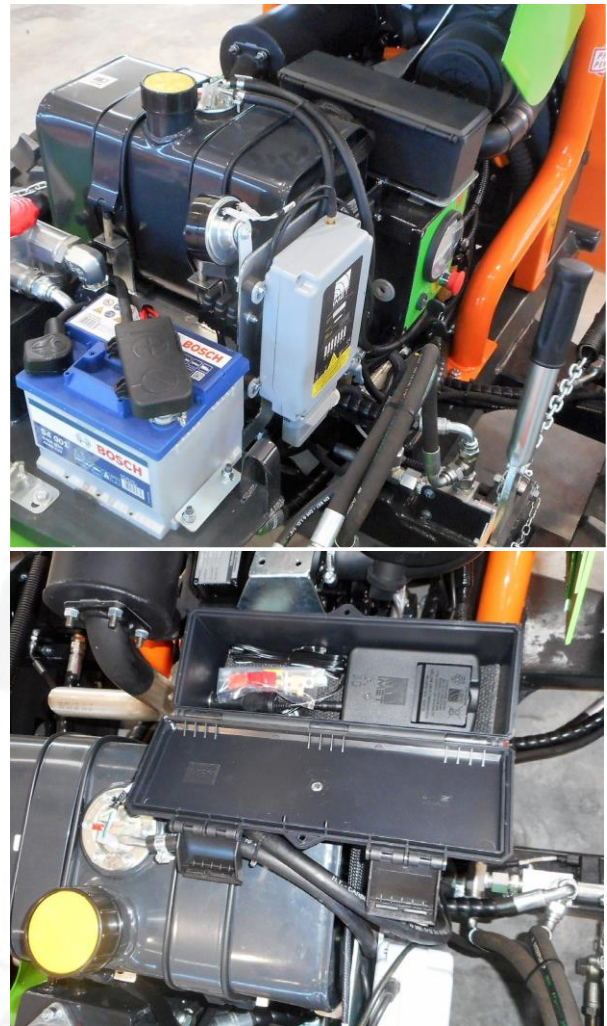


Figure 6

3.2.2. EMERGENCY INTERVENTION

If, while using the machine, the operator needs to block the machine and is unable to do so using the normal radio remote control and/or control panel, the machine is equipped with 2 emergency buttons. One is on the left side of the machine, on the control panel, and the other is on the radio remote control. These are easily identifiable red mushroom-shaped buttons (Fig. 7).



Figure 8

3.2.3. DESCRIPTION OF THE CONTROL PANEL



Figure 7



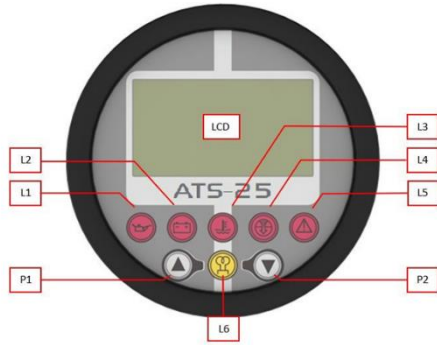
The engine control unit is a supervision and protection instrument for Mechanical Diesel Engines. It has an LCD graphic 128x64 pixel display with amber backlight that displays the engine speed (RPM), the fuel level, the engine temperature and the engine hour meter; it has 6 lights to rapidly view the state of the main engine parameters.

The parameters monitored by the instrument for the alarm signal are:

When the emergency button is pressed, it remains down, and the machine's engine is immediately turned off, blocking any movement. To start the machine again once safe working conditions have been restored:

- Turn the red emergency button clockwise (fig. 8)
- The button is now released. To start the engine and continue working, follow the instructions in paragraph 2.2 of this manual.

- Engine oil pressure
- Alternator charging voltage (D+)
- Engine fluid temperature
- Fuel air filter
- Active alarm
- Activation of spark plugs



POS.	TYPE	DESCRIPTION
LCD	LDC 128X46	Graphic display with amber back-lighting to view data on the device
P1	BUTTON 1	Increase button, ESC button if held down
P2	BUTTON 2	Decrease button, ENTER button if held down
L1	OIL LED	On: low oil pressure (digital input)
L2	BATTERY LED	On: low alternator voltage
L3	TEMPERATURE LED	On: high water temperature (digital input)
L4	AIR FILTER LED	On: air filter clogged (digital input)
L5	ALARM LED	On: alarm activated
L6	LED plugs	On: plugs activated

LCD - CONTROL UNIT DISPLAY



This device warns the operator in case of anomalies, providing information regarding the machine's working hours and the hours left to carry out ordinary maintenance.

	Engine revs (RPM): shows the engine revs per minute.
	Hours counter: shows the hours of operation with the engine running.
	Fuel level: shows the level of fuel both in percentage as well as graphically by means of a horizontal bar.
	Engine temperature: shows the temperature of the engine in °C.
	Alert Box: shows different graphic symbols for: <ul style="list-style-type: none"> - Active alarms - Cleaner function active - Lights on - Start input active - Stop input active

The control unit monitors several parameters to detect engine faults and, if necessary, switches it off to avoid causing damage to the engine.

The monitored parameters, with engine shut-down if anomalies occur, are:

- High engine water temperature;
- Low engine oil pressure, indicated by warning light coming on are:
- Low voltage alternator battery charger;
- Low battery power;
- Air filter clogged.

Use the setting menu divided over a number of pages to set the tool correctly.

If an alarm is triggered, an indication relating to the alarm will appear. Press P1 or P2 to return to the homepage.

All alarms can be reset by pressing P1 or P2 for 5 seconds.



CONTROL UNIT PROGRAMMING MENU

To enter the menu, press and hold down the P1 and P2 buttons for 5 seconds at the same time; 3 digits will appear on the instrument with “000” indicated.


Enter the basic menu by pressing P1, where some options of the instrument can be changed, but not machine configuration, the display is shown as in the following image.



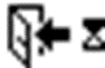
To confirm the menu page, hold down P2 for 5 seconds, selecting the first icon, and press P2 to go forward in the menu by selecting the various parameter icons one by one; pressing P1 button will take you back in the menu by selecting them in the opposite order.


Once the desired parameter has been selected, hold down P2 for 5 seconds to enter the edit page.


This menu allows to set the following options:


 **Display contrast:** entering this parameter enables to choose a number that identifies the contrast of the liquid crystals, useful to increase the contrast if the display is too bright due to the low temperatures to which the tool is subjected.

Display illumination time: this parameter enables to select the seconds required to switch on the display backlighting starting from when the buttons are no longer pressed. If 0 is selected the backlighting does not switch off.

 **Time to leave the main menu:** this parameter enables to select the minutes required to leave the menu and display the homepage starting from when the keys are no longer pressed. If 0 is selected this function is disabled.

 **Language:** this parameter enables to select the language for the non-symbolic menu items of the advanced menu. Italian, English and French can be selected.







 **Alarm history:** this parameter displays a list of the last 10 alarms detected with the relative indication of working hours, scroll through the list using P1 and P2, press down on P2 for 5 seconds to reset them, but only if access has been carried out via the advanced menu.

 **Information and assistance:** this page provides dealer information with regards to technical assistance on the tool, as well as the version of the programmed software.

Each page allows to change the relative parameter by using P1 and P2, confirming said change by press down P2 for 5 seconds; press P1 down for 5 seconds to go back without saving the change.

Press both P1 and P2 for 5 seconds from anywhere in the menu to return to the homepage.

The following warning lights and information displayed:

	Engine oil level	Fixed warning light on signals that the engine oil level is in short supply: the engine is switched off to protect it from failure.
	Glow Plugs	The warning light turns on when the key selector is on 1. Wait for it to switch off and then start the engine within 5 seconds by turning the key switch to START.
	Battery power level	Warning light on signals that battery power is low, recharge or replace the battery if necessary.
	Engine temperature	Warning light on signals that the engine temperature is higher than the set limit: the engine is switched off to protect it from failure. Check the level of the cooling fluid
	Clogged filter	Warning light on signals that the air filter is clogged, clean the air filter or replace it before switching on the engine
	Alarm	Warning light on signals low power supply to the alternator battery charger.

3.2.4. REFUELLING

Once the fuel warning light on the control panel has come on (see paragraph 2.2.3 of this manual), immediately refuelling the machine is recommended. Lift the bonnet using the elastic pin shown in fig. 11 and fig. 12.



Figure 9



Figure 10

Locate the fuel tank as in paragraph 1.8.3 (component n. 4) Fig. 11, open the cap and top up the fuel using a funnel so that the liquid does not leak out during refuelling, if necessary.



Figure 11

 **CAUTION**

Do not wait for the tank to empty completely, which would cause the engine to stop. This could damage the engine and make subsequent starting difficult.

 **CAUTION**

Do not smoke or use naked flames while refuelling, to prevent explosions or fires. These operations must be carried out only outdoors or in well ventilated areas as fuel fumes are highly toxic.

 **CAUTION**

Do not disperse fuel in the environment as it is highly pollutant.

LEGEND OF STICKERS WITH WHICH THE MACHINE IS EQUIPPED



WEAR PROTECTIVE WORK GLOVES



CONSULT THE OPERATIONS AND MAINTENANCE MANUAL



USE PROTECTIVE FOOTWEAR



USE EAR PROTECTION EQUIPMENT



USE A PROTECTIVE HELMET



USE A PROTECTIVE FACE MASK



USE WORK CLOTHING



DANGER WATCH YOUR HANDS



DANGER HIGH TEMPERATURE

ALTA TEMPERATURA



DANGER OF CRUSHING AND COLLISION DO NOT STAND NEAR THE MACHINE. NEVER MANOEUVRE THE MACHINE FROM BELOW IT, BUT ALWAYS IN AN AREA ABOVE IT.



DANGER OF CONTACT WITH MOVING WORKING PARTS. DO NOT APPROACH THE SHREDDING PARTS IN MOTION, WITH TRANSMISSION INSERTED AND MOTOR RUNNING. DO NOT WEAR LOOSE CLOTHING.

4. MAINTENANCE AND TECHNICAL ASSISTANCE

A machine's reliability, safety and service life depend on its maintenance and technical assistance. Performing maintenance and technical assistance is not a recommendation, but something that the machine's owner is obliged to do.

The manager must make sure that all the maintenance is carried out according to the instructions in this manual and in compliance with the applicable laws in force.

MDB does not assume any liability for damage to the machine or for accidents due to inadequate maintenance, inadequate technical assistance or failure to comply with the laws in force.

If components need to be replaced during repair or technical assistance, only MDB spare parts or parts authorised by MDB may be used. MDB does not assume any liability for damage to the machine or for accidents due to using non-original parts.



WARNING

Observe the maintenance and technical assistance instructions and intervals prescribed by MDB. Otherwise you will lose any liability and warranty rights.

RESPONSIBILITIES AND TASKS

TYPE OF OPERATION	REQUEST	CARRIED OUT BY
Maintenance	Owner	Owner / Operator / MDB technical assistance centre
Technical Assistance	Owner	MDB technical assistance centre

Use only original MDB lubricants or those that meet the lubricant specifications in this chapter.

WORKING TIME COUNTER

The MDB control unit has an operating hours counter, and the machine must be taken to the nearest technical assistance centre (*) to undergo scheduled maintenance.

(*) a list of MDB authorised technical assistance centres can be found at the end of this manual.



WARNING

Observing the prescribed maintenance and technical assistance intervals increases the machine's service life and prevents the onset of unpredictable faults during its operation.

If you fail to observe the technical assistance intervals or if it is not carried out by an MDB authorised technical assistance centre, you will lose the warranty rights.

4.1. MAINTENANCE

Sequence of maintenance work:

1. Cleaning.
2. Visual inspection.
3. Lubrication and fluid level checks.
4. Track maintenance.

SERVICE MAINTENANCE SYMBOLS	
Functional test	
Replacement	
Visual inspection	
Topping up	
Cleaning	

AT THE END OF EVERY WORK DAY

DESCRIPTION	ACTION
Cooling fluid	
Electrical system warning lights	
Engine oil	
Hydraulic oil	
Regulator and engine speed lever	
Fuel level	
Motor	
All safety devices	
Fuel filter/water separator	

EVERY 50 HOURS OF OPERATION OR AT LEAST ONCE EVERY 6 MONTHS

DESCRIPTION	ACTION
Radiator fins	

EVERY 250 HOURS OF OPERATION OR AT LEAST ONCE EVERY 6 MONTHS

DESCRIPTION	ACTION
Air filter	



WARNING

Maintenance work must only be carried out by expert persons.

4.1.1. CLEANING



WARNING

Proper cleaning increases the device's reliability and durability.

Only use only environmentally friendly, pH-neutral detergents that do not irritate the skin. In this way it is possible to protect the environment and avoid oxidising the device. Only clean in places that are suitable for washing (with oil separators). Do not use rags that could scratch or scrape.

CLEANING TASKS



CAUTION

Wet or damp electrical components can cause the device to malfunction or create short circuits in the electronic systems.

Only clean the device when it is not connected to the power supply, every day or at least after each use.

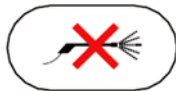
HIGH PRESSURE CLEANING



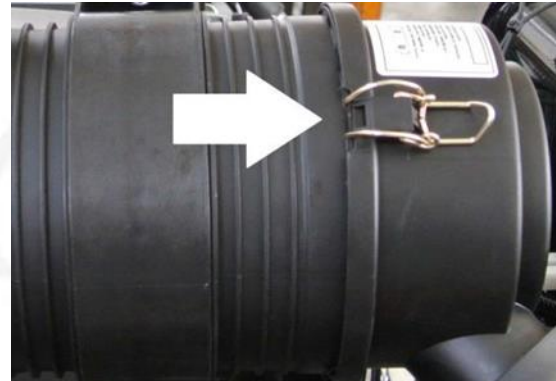
CAUTION

If the following instructions are not respected, the device can be damaged.

- Instructions for using the high pressure washer.
- The water/detergent temperature must not exceed 60°.
- The nozzle must always be kept at a sufficient distance from the equipment.
- The water jet must never be aimed at:

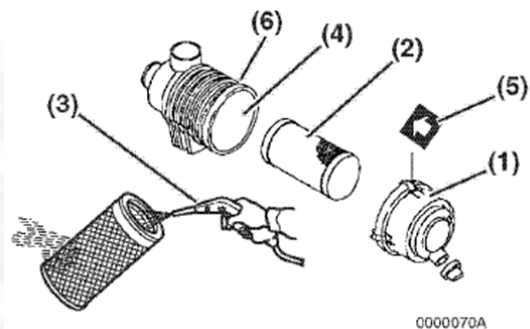


- Electrical or electronic components (water entry).
- Plastic components (deformation, fracturing).
- Bearings or support points (the dirt and lubricant must be removed from the bearing).
- ID plates (they could be removed or become illegible)



CLEANING AIR ENGINE FILTER

The engine air filter must be checked every 250 working hours, or at least every 6 months. The warning lights and buzzers of the control panel display signal clogging of the engine air filter. To clean the filter, remove the cover by unhooking it from the two metal clips as in Fig. 12, remove the filter body and remove impurities by means of compressed air at a pressure of 42-71 psi (0.29-0.49 MPa, 3.0-5.0 kgf/cm²). Once it is clean, refit the filter element and close the protection cover with the two metal clips.

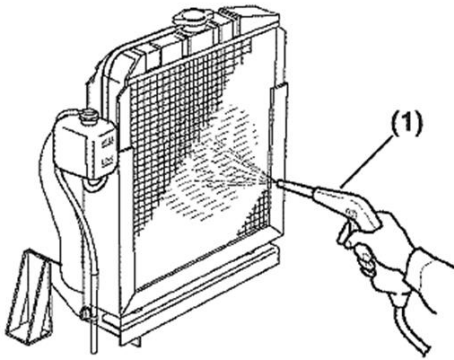


0000070A

Figure 12

CLEANING OF RADIATOR FLAPS

Dirt and dust on the radiator fins can reduce their cooling capacity, causing overheating. Check the radiator fins every 50 working hours or at least every 6 months and, if necessary, clean them using compressed air (1) at a pressure of 28 psi (0.19 MPa, 2 kgf/cm²) or less.



CAUTION

if the fins are very dirty, clean thoroughly using detergent and rinse with tap water.

CAUTION

NEVER use high pressure water or compressed air with pressure above 28 psi (193 kPa; 19686 mm Water) or a wire brush to clean the radiator fins

4.1.2. VISUAL INSPECTION

WARNING

Missing, damaged or worn components must be replaced immediately.

Carry out the following checks daily before each use:

Clamping elements

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

Renew any missing or damaged fastening components.

Steel components

- Cracks on the components, in particular in the welds and curved edges.
- Deformations.
- Rust.

Hydraulic system

- Whole hydraulic system (cables, pipes, cylinders, etc.) to find any leaks.
- Hydraulic lines for impacts, cracks, deformations.
- Leaking pipes, grease, dents, splits, porosity, etc.
- Hydraulic oil level.

Electrical system

- Cable integrity, dents, splits, porosity, etc.
- Sheathing for completeness, damage, etc.
- Control unit, switches, display, sensors for correct mounting, damage, etc.

Labels

- Check completeness and legibility.

Safety device checks

- Check the stop and emergency buttons

DANGER

If the machine does not stop when the emergency button is pressed, there is a high risk of fatal accidents.

Working with a defective emergency stop switch is gross negligence. Do not use the machine if the emergency button(s) does not work and immediately contact the MDB support centre.

OPERATIONAL CHECK:

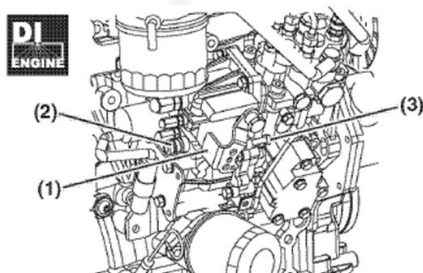
- Press any control lever on the radio remote control or on the control panel.

The machine must move without problems.

- Press the emergency stop button with the machine in motion. First the one on board the machine, then perform the same check on the one on the radio remote control. The machine must stop with the engine off when the emergency button is pressed.
- Press any control lever again. The machine must not move.
- Release the emergency stop button. Operate the levers on the radio remote control and on the control panel: the machine must not move.
- Carry out the steps given in paragraph 2.2.1 of this manual: operating the control levers on the radio remote control or on the control panel, the machine should move.

CHECK THE REGULATOR LEVER AND MOTOR SPEED CONTROL

The regulator and engine speed lever (gas lever, pedal, accelerator and so on) are interconnected by means of a cable or a lever. If the cable is stretched or the lever is worn or loosened, the regulator lever may no longer respond to engine speed control position changes. Check that the regulator lever (1) is firmly in contact with the maximum speed stop (2) and the minimum speed limitation screw (3) when the engine speed control is in the maximum or minimum positions.



CAUTION

Do not force the movement of the cable or accelerator lever. This could damage the regulator lever, cable or accelerator lever, also leading to irregular engine speed control operations.

4.1.3. LUBRICATION AND LIQUID LEVEL CONTROL

Grease every 8 hours and in any case after each wash.



WARNING

MDB recommends using biodegradable lubricants. Do not mix different lubricants together. Even biodegradable greases must not be released into the environment. The lubricants must be free of solid residues. Do not use graphite based lubricants.



CAUTION

Failure to respect maintenance schedules, improper or lack of lubrication can damage the device and provoke high repair costs and downtime.



DANGER

The machine must not be operated in any way during lubrication. It would put your life in danger.

Lubrication process:

- Thoroughly clean any old parts or parts covered in grease or impurities. Otherwise, any dirt from the old grease would be pressed onto the device's surfaces.



CAUTION

In this application, the presence of dirt can quickly lead to wear, machine downtime and high repair costs.

- Press the grease onto the support point.
- After lubricating, remove any excess grease.
- The excess grease cannot be reused.
- Dispose of excess grease as per national laws in force



 **CAUTION**

If you get lubricant in your eyes, rinse immediately with clean water and contact a doctor or go to the hospital! If you get lubricant on your skin, clean the affected area with clean water.



Figure 13

4.1.4. LEVEL CHECK, TOPPING UP HYDRAULIC OIL

The hydraulic oil level must be topped up and checked with the vehicle not on a slope and with the engine stopped. At the end of each working day, lift the bonnet of the machine using the flexible pin as shown in Figures 11 and 12. Locate the tank and the hydraulic oil cap as in Fig. 14 and, for simple topping up, remove the cap, pour in the oil, checking the maximum level indicator on the right side of the machine near the tank, screw the cap back on.

To change the hydraulic oil completely, the tanks should be emptied when the engine is warm, but not running, in order to drain the fluid quickly and completely.

 **CAUTION**

Always wear protective gloves to protect the skin when performing these operations. To choose the right kind of gloves, refer to the safety data sheet for the fluid being used. The manufacturer recommends using AGIP OSO 46 oil.

 **CAUTION**

Do not disperse used oil in the environment as it is highly pollutant. Before starting up the machine again, make sure that the drain plug and

filler cap are screwed on correctly in order to avoid lubricant spills

REPLACEMENT OF HYDRAULIC OIL

The hydraulic oil must be changed after the first 500 hours of operation, and then every 2000 hours of operation or at least once a year.

 **WARNING**

We recommend that the oil be replaced by an authorized service centre.

HYDRAULIC OIL MAINTENANCE

 **WARNING**

Annual oil maintenance greatly extends the oil change intervals. This means reducing user costs as well as reducing costs for the disposal of used oils and reducing pollution. Oil maintenance must be carried out each year by the MDB authorised support centre.

Oil maintenance consists of the following:

- Filtering the oil.
- Eliminating the water.
- Checking the oil's purity.
- Replace the filter

HYDRAULIC OIL

 **WARNING**

MDB recommends the use of ENIOSO 46 or PANOLIN HLP SYNTH 46 oil.

 **WARNING**

Maintenance and oil changes must be carried out as described in paragraph 3.1.4 of this manual.

4.1.5. CHECKING AND TOPPING UP COOLANT FLUID

Checking and topping up the coolant fluid level must be carried out with the vehicle not on a slope and with the engine stopped and cold. At the end of each working day, locate the rear crankcase opening as in Fig. 14, open and locate the coolant cap.

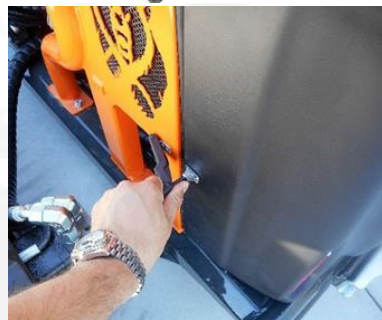




Figure 14

To top up, unscrew the plug, pour the coolant up to the maximum level, screw the plug back on.

CAUTION

Continuing to use the machine if there is a leak in the cooling circuit or the liquid level is too low, could cause irreparable machine damage. Locate the cause and repair the fault immediately before using the machine.

CAUTION

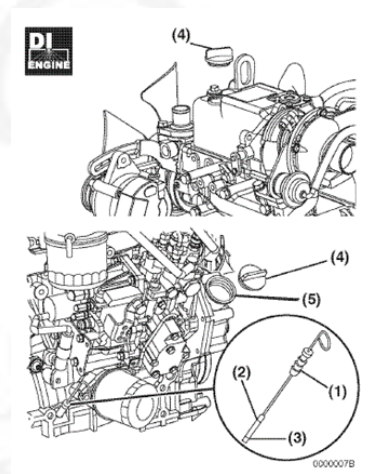
The cooling fluid must be made up of: 50% ANTIFREEZE and 50% decalcified water.

CAUTION

The fluid must cover the pipes inside the radiator by about 5mm. Do not fill up the radiator completely but leave enough space for coolant fluid expansion.

4.1.6. CHECKING AND TOPPING UP ENGINE OIL

Check the engine oil level by means of the appropriate dipstick (1) at the end of each working day. Carry out this check with the engine warm, the machine must be in a perfectly flat horizontal position, never tilted, wait at least 10 minutes after turning it off, check that the oil level is between the upper (2) and lower (3) lines of the dipstick (1). If necessary, top up the oil unscrewing the yellow cap (4) and using a funnel or container suitable for the transfer of liquids.



(2) upper limit:
5.5 litres

(3) lower limit:
3.6 litres



WARNING

MDB recommends using 10 W 40 oil.



CAUTION

If the oil level is too low or the oil pressure warning light comes on (see paragraph 2.2.3 of this manual), you must find the cause and solve it.

Continuing to use the machine if the problem is not solved could cause irreparable machine damage.

4.1.7. TRACK MAINTENANCE

DAILY MAINTENANCE

- Check the track tension (see the following paragraphs).
- Check that the gear motors function properly.
- Check the tracks' wear and condition.



CAUTION

Replace the tracks when there is 10 mm of tread left, or before if there are cuts.

- Check that there are no foreign bodies between the rolls and the tracks, between the idle wheels and the tracks, or between the drive wheels and the tracks.

MONTHLY MAINTENANCE

- Visually check the roller mountings.
- Check for loose bearings.

TRACK TENSION

Remove the undercarriage covers:



The tracks must be tensioned to enable the track to move. The clamping must be carried out at 20 Nm as shown in the Figure. To perform correct tightening, loosen the locking nut and once the adjustment has been made, tighten the nut again.



This check must be carried out daily, especially when the tracks are new and the rubber covering the ground chain starts to wear (pay particular attention during the first 10 hours of operation).

4.2. TECHNICAL ASSISTANCE



DANGER



Technical assistance can only be carried out by MDB authorised support centres. Otherwise, any form of warranty is lost.

To program technical assistance, see the machine's operating time on the control unit display.






When the counter shows a use of 0 to 10 hours, the machine's owner must start to plan the machine's maintenance. Keep a log book of the maintenance done. All maintenance and repairs must be recorded in the log book and must be signed and stamped by the MDB authorised support centre.

TECHNICAL ASSISTANCE SYMBOLS	
Functional test	
Replacement	
Visual inspection	
Screw tightness check	
Cleaning	




FIRST TECHNICAL ASSISTANCE AFTER 50 HOURS OF OPERATION OR 6 MONTHS

DESCRIPTION	ACTION	
Check and adjust the V-belt of the cooling system fan		
Engine oil		





EVERY 50 HOURS OF OPERATION OR AT LEAST ONCE A YEAR

DESCRIPTION	ACTION
Check and adjust the V-belt of the cooling system fan	
Engine oil	
Check and adjust the regulator lever and engine speed control.	
Empty the fuel tank	
Replace the air filter	

EVERY 125 HOURS OF OPERATION OR AT LEAST ONCE A YEAR

DESCRIPTION	ACTION
Fuel filter/water separator: empty	
Battery check	
Check and clean the radiator fins	

EVERY 250 HOURS OF OPERATION OR AT LEAST ONCE A YEAR

DESCRIPTION	ACTION
Tracks: wear, link condition, pinions, lower rollers	
Tighten the track screws	
Alternator belt	
Reversible radiator fan compressor filter	

EVERY 500 HOURS OF OPERATION OR AT LEAST ONCE A YEAR

DESCRIPTION	ACTION
Remote control	
Electrical lines/hydraulic pipes, tighten the screw clamps	
Control levers, control bars	
Alternator belt	
Fuel filter	
Fuel filter/water separator	
Air filter	

EVERY 1000 HOURS OF OPERATION OR AT LEAST ONCE A YEAR







DESCRIPTION	ACTION
Radiator fluid	
Hydraulic piping	
Hydraulic oil filter cartridge	
Adjust the light of the intake valves/engine exhaust	

EVERY 1500 HOURS OF OPERATION OR AT LEAST ONCE EVERY 2 YEARS

DESCRIPTION	ACTION
Hydraulic oil	
Hydraulic oil tank	
Fuel injectors	
Crankcase ventilation system	


EVERY 2000 HOURS OF OPERATION OR AT LEAST ONCE EVERY TWO YEARS

4.2.1. RELAY AND FUSE POSITIONING DIAGRAM

DESCRIPTION	ACTION
Lap the valves and seats	 
Alternator check	
Starter motor check	
Fuel pipes	
Cooling pipes	



TRACK TREAD HEIGHT ≤ 10 mm

DESCRIPTION	ACTION
Tracks	

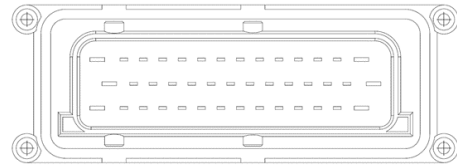
FUSES:

F3 (30 A) is the solenoid fuse controlled by the control unit

F2 and F1 (from 5 A) are for the linear actuator that controls the accelerator, one for output and one for input.



40-POLE ATS25-MDB CONNECTOR CONTROL UNIT



RELAYS:

(X14) for the plugs,

(X26) for the solenoid controlled by the control unit



FUSES:

The 100 A fuse is for the starter motor.

The 50 A fuse protects the: engine control unit, solenoid driver and plugs

The 30 A fuse is for protection of: solenoid relay and alternator

- 1 Positive output under panel
- 2 Plug output (2A)
- 3 CAN H
- 4 CAN L
- 5 Horn command input (+)
- 6 Not connected
- 7 Motor start command input (+)
- 8 Oil pressure switch input (-)
- 9 Analogue input for engine temperature
- 10 Analogue input for fuel level
- 11 Digital input for fuel reserve (-)
- 12 Not connected
- 13 Solenoid valve cleaner output (15 A)
- 14 1 second electrostop pulse output active (15 A)
- 15 Positive battery
- 16 Electrostop withholding output (2 A)
- 17 Not connected
- 18 Not connected
- 19 Not connected
- 20 Digital input for signalling lights (+)
- 21 10A key protected output for battery charger
- 22 Digital input for air filter (-)
- 23 Not connected
- 24 Not connected
- 25 Not connected
- 26 Input for cleaner (+)
- 27 Buzzer input (+)
- 28 Motor start output (8 A)
- 29 Positive battery

- 30 10A key protected output for bonnet lights
- 31 Horn output (15 A)
- 32 Not connected
- 33 Not connected
- 34 Negative battery
- 35 Engine stop input (+)
- 36 Diesel pump output
- 37 Not connected
- 38 Not connected
- 39 Not connected
- 40 Alternator input D + (with pre-excitation resistance)
- 41 W alternator input
- 42 Compressor cleaner output (15 A)

TROUBLESHOOTING

MOTOR		
PROBLEM	CAUSE	SOLUTION
1 The machine does not turn on	Emergency button pressed	Release the emergency button
	Battery contact key not inserted/connected	Insert/connect battery contact key
	Out of fuel	Fill the tank
	Fuse blown	Replace damaged fuse
1.1 The engine starts but the machine does not move	Brakes locked / hydraulic oil cold	Go forward and back repeatedly until unlocked
	Pump or motor problem	Contact the dealer
	Speed potentiometer on the radio remote control set at zero	Turn the potentiometer to the desired speed
1.2 The engine starts but the machine does not go straight.	Steering potentiometer not set at the centre	Turn the potentiometer to the centre
	Pump solenoid valve dirty or ruined	Contact the dealer
	Hydraulic pump or motor damaged	Contact the dealer
	RC fuse blown	Contact the dealer
1.3 Engine starts, machine does not move - warning light on transmitter off	Radio remote control connection not made	Connect transmitter - receiver
1.4 The engine turns off	Electro stop failure	Contact the dealer
	Out of fuel	Fill the tank
	Emergency button pressed	Release the emergency button
	Lack of radio signal	Connect transmitter - receiver

REMOTE CONTROL		
PROBLEM	CAUSE	SOLUTION
2 Radio remote control not working	Flat battery	Recharge the battery
	Radio remote control connection not made	Connect transmitter - receiver
	Emergency button pressed	Release the emergency button
	Transmitter with different serial number from receiver	Release the emergency button
2.1 Radio remote control not working: RF busy LED flashing or off	Lack of radio signal	Check aerial connection
	Interference from other radio signal	Use only one machine at a time
	Interference from other radio signal	Use emergency electrical cable
2.2 Remote control does not work: battery LED off	Fuse blown	Replace the receiver fuse
	Flat battery	Recharge the battery
2.3 Remote control does not work: battery LED flashes intermittently	Shredder command on	Turn off flail mower
	Aux 2 activated	Turn Aux 2 off
2.4 RADIO REMOTE CONTROL battery on the machine does not charge	Battery charger cables disconnected	Connect the battery charger cables

TRACKS		
PROBLEM	CAUSE	SOLUTION
3 Track has come off	Tracks excessively worn	Replace the tracks
	Metal track structure broken	
	Insufficient track tension	Tension the tracks
3.1 Tracks loose	Rubber worn	Tension the tracks
	Insufficient track tension	
	Tensioning system broken	Contact the dealer

BEEPER / HORN		
PROBLEM	CAUSE	SOLUTION
4 Intermittent signal while driving	Fuel running out	Fill the tank
	Alternator problem	Contact the dealer
	Routine maintenance expired	Carry out maintenance as indicated in the operation and maintenance manual
4.1 Intermittent signal and machine turns off	Low oil level	Do not use the machine until the cause of the problem is found as there is a risk of causing greater damage. Contact the dealer
	High engine temperature	

**4.2.2. WORKSHOPS AUTHORISED BY
MDB**

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5. ATTACHMENT A



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Fax (+39) 0872 50231
VAT number 01960690699
Website: www.mdb srl.com

MDB SRL
Production unit:
Via Cupone 13
66022 Fossacesia (CH) Itali

DECLARATION N. __/2018

DECLARATION OF CE COMPLIANCE

(according to attachment II, item A of Directive 2006/42/CE

The undersigned **Mario Di Biase**, legal representative of the company **MDB S.R.L.**, with registered office in Lanciano (CH), C.da S. Onofrio, 6/A – Italy, manufacturer of the machine: **MULTIFUNCTIONAL REMOTE CONTROLLED BULLDOZER**

DESCRIPTION	SELF-PROPELLED TRACTOR
SERIES	GREEN CLIMBER
MODEL	F300 PRO
SERIAL NUMBER	
YANMAR 3TNV80F-SDSA MOTOR POWER	17.8 kW
IMET REMOTE CONTROL	M880-ZEUS2 BIN-10431-00
YEAR POF MANUFACTURE	2018

DECLARES under his own responsibility

THAT THE MACHINE IS COMPLIANT WITH THE DIRECTIVES:

2006/42/CE (Machinery) implemented in Italy by means of Legal Decree n. 17/10, 2014/35/CE (Low Voltage) implemented in Italy by means of Legal Decree n. 86/16, 2014/30/UE (EMC) implemented in Italy by means of Legal Decree n. 80/16, 2000/14/CE art. 12, Attachment I n. 16 and 2005/88/CE (Environmental Acoustic Emission) implemented in Italy by means of Legal Decree n. 262/02

AND WITH THE HARMONISED STANDARDS:

EN ISO 12100:2010, EN 60204-1:2006 + AC:2010, EN 349:1993+A1:2008, EN ISO 13857:2008;
EN ISO 4254-1:2013, EN ISO 16231-1:2013, EN ISO 4254-7:2010, EN ISO 4254-12:2012, EN ISO 5395-1:2013, EN ISO 3744:1995, ISO 6395:1998 (as far as applicable)

procedure n. 2 is compliant with Attachment VI of Directive 2000/14/CS and was carried out by the notified body:

VERICERT S.r.l. - EUROPEAN NOTIFIED BODY n. 1878

Via L. Matteotti, 5 – 48124 Fornace Zarattini – Ravenna – ITALY

which issued the CE test certificate n. 1878EA072CT1118, on 30/11/2018

Measure noise level: LWA = 98,0 dB (A)

Guaranteed noise level: LWA = 101,0 dB(A)

The person authorized to compile the technical file is Mr. Mario Di Biase, resident in Lanciano (CH), C.da S. Onofrio, 6/A.

Equipment not expressly specified is excluded from the scope of this declaration.

DECLINES

all responsibility for accidents to people or damage to goods caused by manipulation of the machine by third parties, or from lack of maintenance or repair.

Lanciano, __/__/2018

Legal Representative MDB S.r.l.

Sig. Mario Di Biase
M D B S. R. L.
C.da S. Onofrio, 6/A
66034 LANCIANO (CH)
Partita IVA 01960690699

LOG BOOK

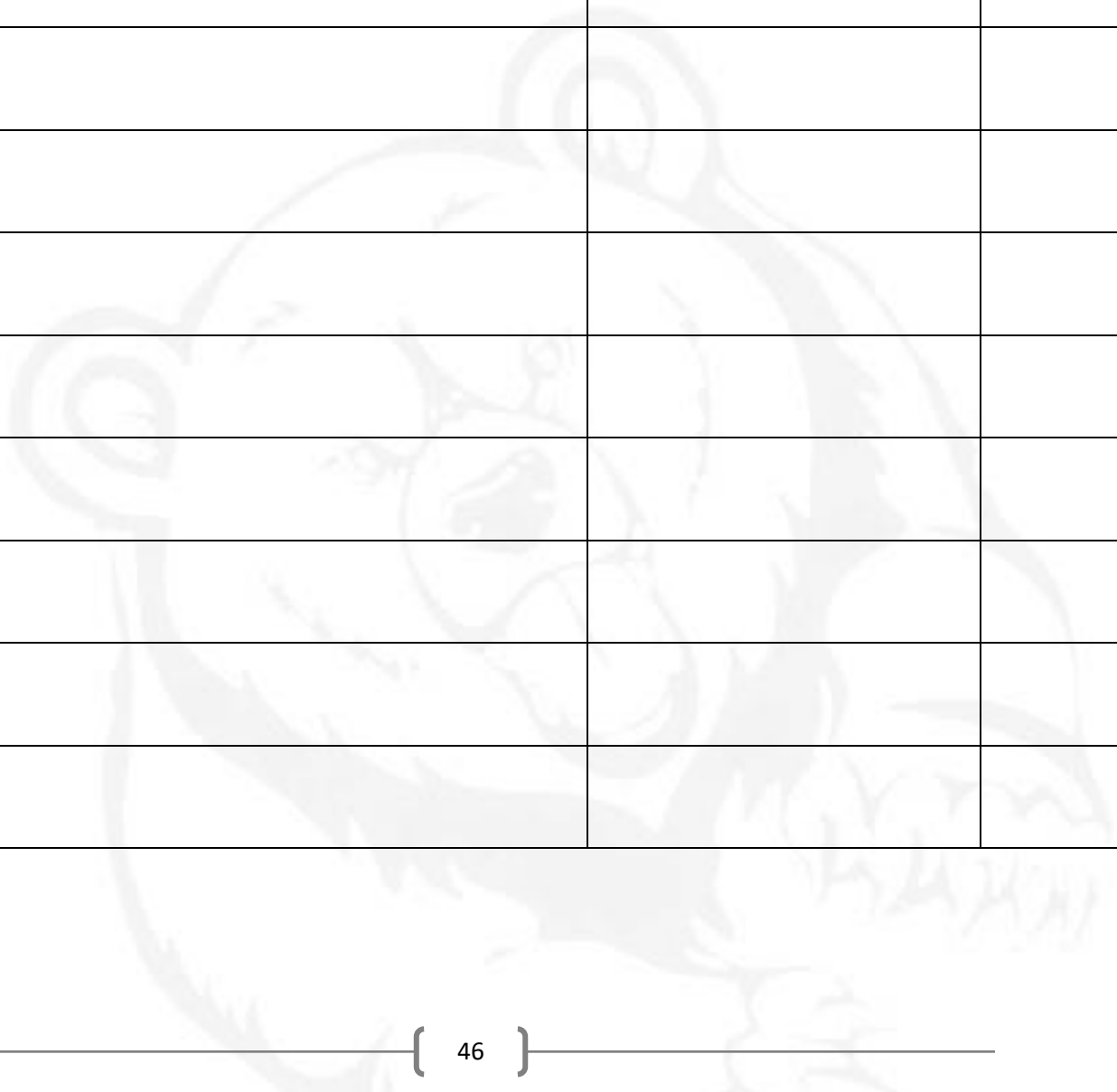
ROUTINE MAINTENANCE

MACHINE MODEL	F300 PRO
SERIAL NUMBER	
YEAR OF MANUFACTURE	

Date	Maintenance after 10 hours of operation	Performed by	Signature and Stamp

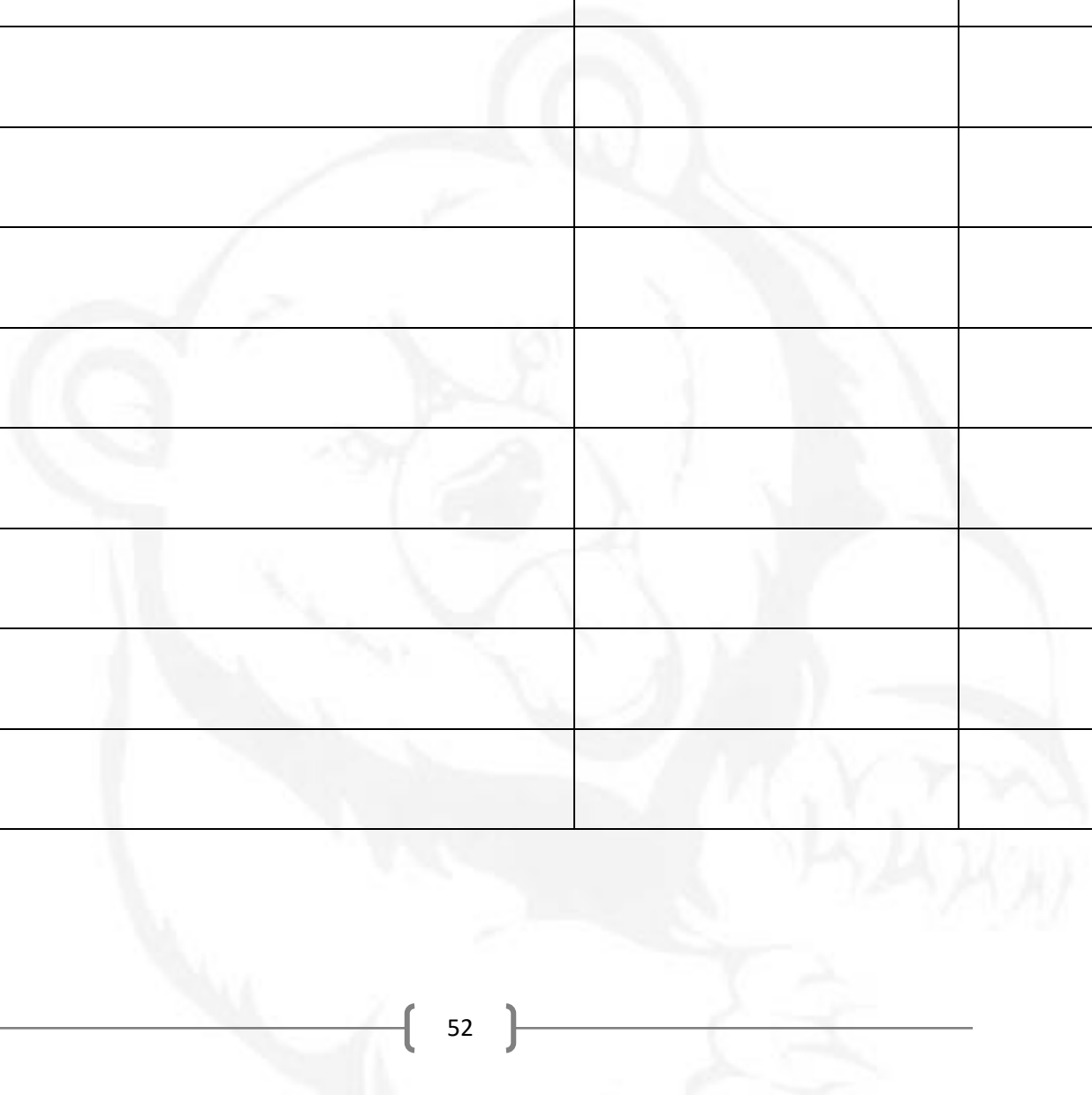
Date	Maintenance after 50 hours of operation	Performed by	Signature and Stamp

Date	Maintenance after 500 hours of operation	Performed by	Signature and Stamp

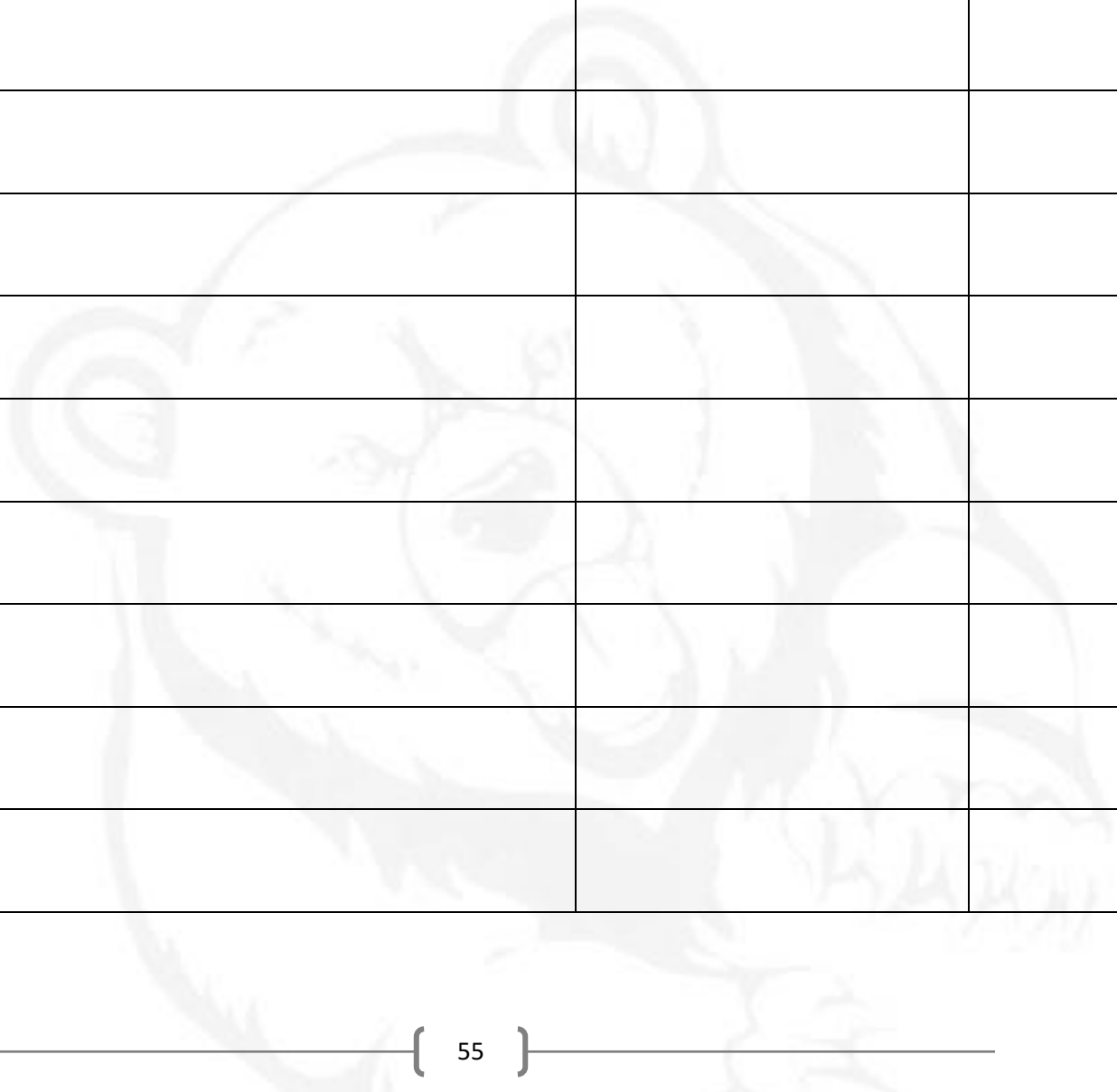


Date	Maintenance every 50 hours of operation	Performed by	Signature and Stamp

Date	Maintenance every 125 hours of operation	Performed by	Signature and Stamp



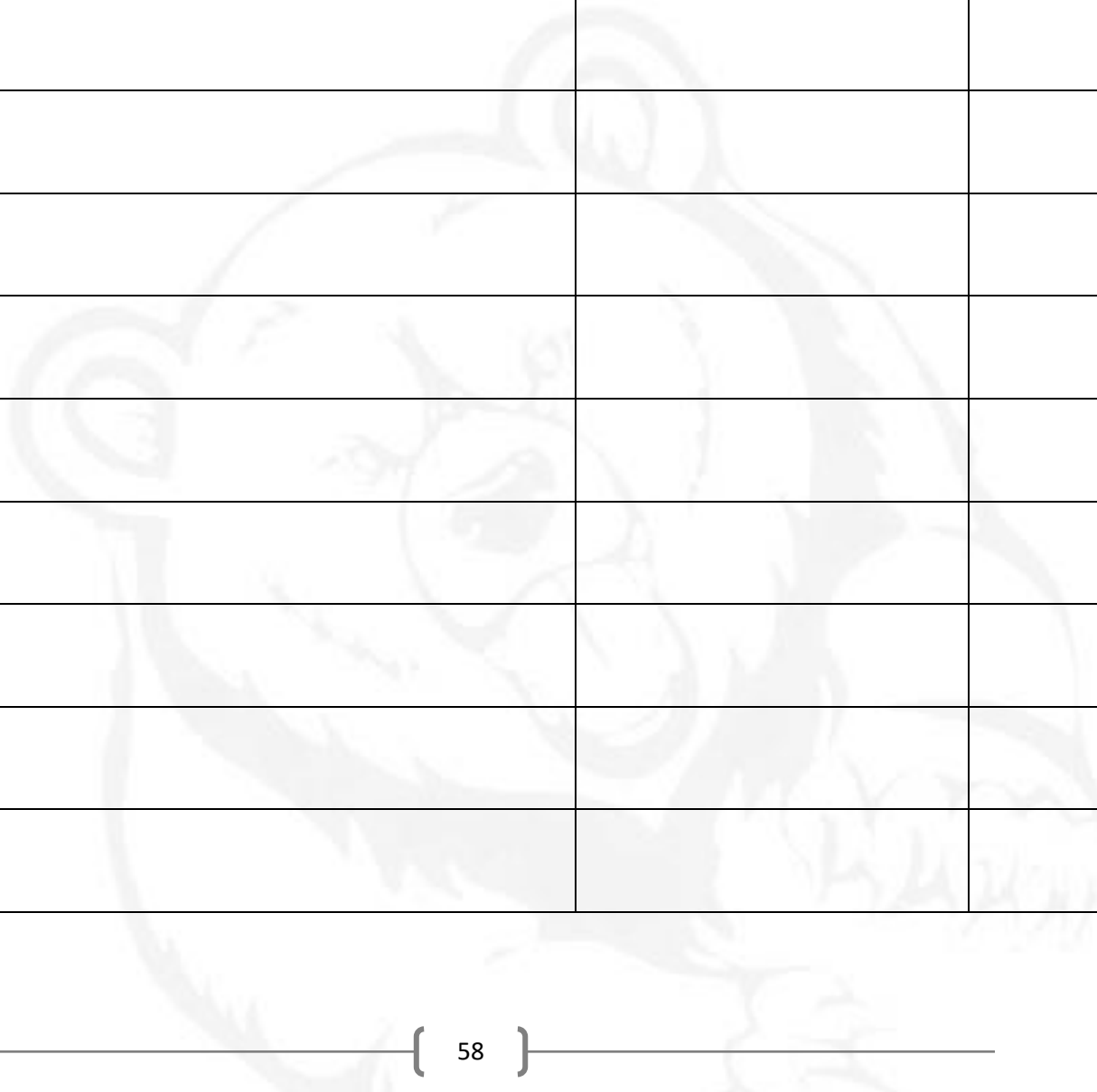
Date	Maintenance every 250 hours of operation	Performed by	Signature and Stamp



Date	Maintenance every 500 hours of operation	Performed by	Signature and Stamp

Date	Maintenance every 1000 hours of operation	Performed by	Signature and Stamp

Date	Maintenance every 2000 hours of operation	Performed by	Signature and Stamp



Date	Maintenance every 2500 hours of operation	Performed by	Signature and Stamp

UNSCHEDULED MAINTENANCE

Date	Reason for the maintenance	Performed by	Signature and Stamp

Date	Reason for the maintenance	Performed by	Signature and Stamp