

Ventura

MÁQUINAS FORESTALES



DLB 410

HANDBOOK MANUAL

USE AND MAINTENANCE

- PREFACE
- INFORMATION ON THE MANUAL
- INFORMATION ON THE MACHINE
- SAFETY INFORMATION
- INSTALLATION AND FUNCTION
- MAINTENANCE SECTION

• PREFACE

This manual will provide you with all the information necessary for the use and maintenance of your machine. The good working and length of life of your machine will depend on its good maintenance and careful use. Before leaving the production establishment this particular model underwent a stringent tests in order to guarantee maximum confidence; it will be necessary, however, to check that during the journey the machine has not undergone any structural damage that could prejudice its function and its safety.

This manual should be considered an integral part of the machine and should accompany it until its demolition. In the event of its loss or damage it will be necessary to request a substitute copy from the VENTURA. The technical information contained in this manual is property of the VENTURA and should be considered copyright. Any reproduction, even partial of the graphics, text or illustrations is forbidden under the law. Points discussed in this manual are expressly required by the Directives for machinery CEE 89/392 and successive modifications and technical data given are provided by the manufacturer at the time of writing. This manual is to be kept in a place that is accessible for all staff designated to drive and maintain the machine.

TECHNICAL ASSISTANCE

Sito web: www.venturamaq.com

email: info@venturamaq.com

N.B. THIS MANUAL MUST ACCOMPANY THE MACHINE IF EVER IT IS RESOLD!

• INFORMATION ON THE MANUAL

This manual should be considered an integral part of the machine and should accompany it until its demolition. In the event of its loss or damage it will be necessary to request a substitute copy. This manual contains information on the machine, safety precautions, instructions of installation and transport, functioning and maintenance. Some particulars figuring in the illustration in this manual may be different from those of your machine. This manual is to be read, learnt and kept in a place that is accessible for all staff designated to drive and maintain the machine. For any problems on the equipment or the manual, you can get into touch with VENTURA and ask for the most recent available information. The manual must accompany the machine if ever it is resold! In order to make this manual easy to follow it is subdivided into sections which are identifiable by graphic symbols.

• INFORMATIONS ON THE MACHINE

The manufacturer's data

VENTURA

Crta. Vilablareix, 18-20 _ 17181 Aiguaviva, Girona

Phone.: +34 972401522

info@venturamaq.com – www.venturamaq.com

Intended use

Professional side mower DLB 410 is suited to clean ditches, slant, edge-road and for the cut of hedges, grass and bushes up to max. Ø 10cm through shred.

The machine is not suitable to be used in different sectors from the agricultural one and from the road maintenance one.

Position of the operator

During transport and work operations, the operator will have to start the machine by means of the drive of the tractor.

Description

These models are transported by the tractor by means of a three-point attachment, and they act on the ground by virtue of their weight and PTO rotation. The structure consists of a working unit made up of a vertical axle with chains connected to the axle itself with a specific support plate.

The cutting head with chain is connected to the three-point attachment with a side frame, hydraulically moved by 2 cylinders

The PTO shaft consists of a single-side clutch (free wheel) which permits motion transmission in only one direction, freeing the PTO of the tractor in the release stage.








Here below the principal contraindications of use the DLB 410 side mower:

- be sure that on the ground to work there is no stones or rocks of big dimensions (diameters superior to 10.15 cms);
- be sure that on the ground to work there is no stumps of leaning trees over 10cm and of diameter superior to 10.15 cms;
- be sure that on the ground to work there is no metallic elements of every type, particularly nets, cables, ropes, chains, pipes, nails etc;
- observe and apply with care the instructions of height adjustment of the machine from the earth ,
- avoid that in the working range of the machine can stop people or animals up to 50 meters;
- we recommend You to never work "shaves earth" on wet ground in order to not jeopardize the output and the balancing of the machine also risking damaging the rotor. In these cases the knives will be excessively consumed, notable power is withdrawn by the motor and there is the risk to internally fill the protective chest of the rotor with pressed mud;

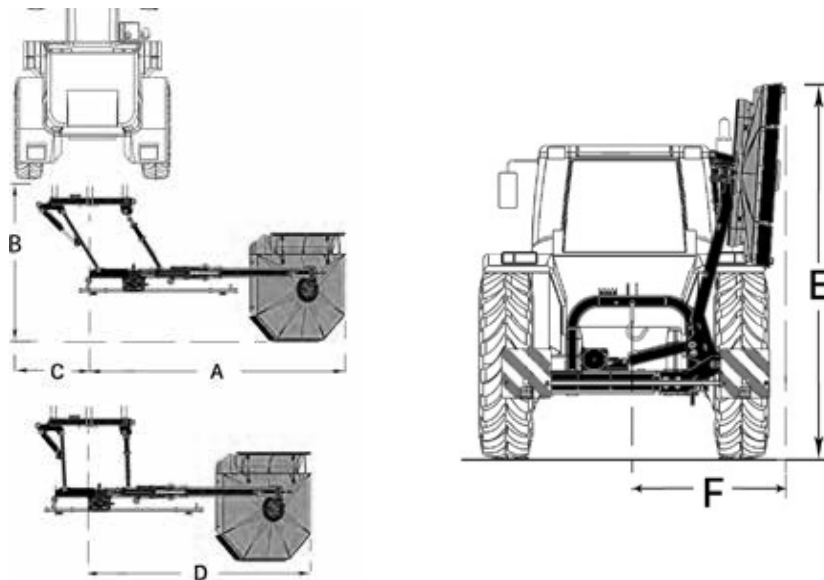
Warning!

The machine must be used from just one operator from the tractor place of guide. A different use from the specified one is considered improper

TECHNICAL FEATURES

TECHNICAL SPECIFICATIONS		
	MODEL	410
	WORK WIDTH (cm)	150
	ROAD CLEARANCE (m)	2,50
	MAXIMUM OFFSET (m)	1,00
	TOTAL HEIGHT (m)	3,27
	N°CHAINS (m)	2
	WEIGHT (Kg)	770
	STANDARD GEARBOX	80-140

SIDE OFFSET (cm)	A	410
	B	210
	C	75
	D	306
	E	327
	F	123



Residual risks

The accurate risk assessment made by the manufacturer and kept by the health & safety office has consented to eliminate the majority of the risks known to the conditions of use of machine. The manufacturer recommends scrupulous adherence to the instructions, produces and recommendations contained in this manual and to the safety laws in force including the use of safety devices and protective guards whether integrated or separate.

Warning!

As precautionary security measure you must carry out regular checks on the correct functioning of safety devices. It is strictly forbidden to carry out any kind of mechanical, electric or pneumatic modification in order to avoid additional risks or non foreseen consequent risks.

Applied directives

The following directives are applicable to the machine described in this manual: CE 98/37 Directive on machines
CE 89/336 Directive on electromagnetic compatibility
CE 73/23 Directive on low voltage



Harmonized technical

The machine has been designed and tested in accordance with the "essential safety and health risks" mentioned in Annex I of the European Directive 98/37 EC. The standards used as reference for the design, construction and testing of the machine are listed in the technical dossier filed in VENTURA.

Noise level

Noise surveys have been 95db.

Warning!

In case of using a traction engine without a cabin, in order to combat the noise level it is obligatory to use protective earplugs and headphones



Machine identification plate / CE mark

For any communication with the manufacturer it will always be necessary to cite the data on the registration plate of the machine.

Ventura MAQUINAS FORESTALES Tel. +34 972 401 522 - Fax. +34 972 400 163 Ctra. Vilabareix nº 18-20 - Pol. Ind. Mas Aliu 17181 - AIGUAVIVA (GIRONA) (SPAIN) info@venturamaq.com - www.venturamaq.com		CE	
MODELO MODEL	<input type="text"/>		
PESO WEIGHT	<input type="text"/>	Pres. Max.	<input type="text"/>
NUMERO SERIE SERIAL NUMBER	<input type="text"/>		
AÑO DE FABRICACION CONSTRUCTION YEAR	<input type="text"/>		

Scrapping of the machine

In case of scrapping the machine it should be disposed of in a lawfully appointed disposal point. Recoup any used oil and dispose of it in the suitable collection centres. Before proceeding with the scrapping it is necessary to separate the plastic

and rubber parts as well as electrical and electronic materials.

The parts that are made up solely of plastic, aluminium and steel can be recycled if taken to a collection point.

• SAFETY INFORMATION

The lack of observation of rules or basic precaution could cause accidents during use, maintenance or repair of the machine. An accident can often be avoided by recognising potentially dangerous situations before they happen. The operator should be vigilant for possible dangers and possess the training, competence and tools necessary to execute these duties correctly.

Inappropriate use of this machine during its functioning or the lack of maintenance can prove damaging and cause serious accidents. Never function the machine or do any maintenance on it without having read and understood the instructions. Safety precautions and warning are indicated in this manual and on the machine itself. If attention is not paid to these messages of danger, the operator may incur an accident with grave consequences for him or herself and for other people.

Safety messages are highlighted with the following symbols:



Warning!

These message, if not heeded could case danger to the operator.



Beware

These message, if not heeded could cause damage to the machine.

The VENTURA cannot foresee every possible circumstance capable of constituting a potential danger. The warnings in this publication and on the product are however, not exhaustive. If it should happen that tools, procedures, work practices or technical workers nor explicitly recommended by the VENTURA it will be necessary to ensure that there are no danger for oneself or others.

Information, specifications, illustrations given in this publication are provided by the manufacturer at the time of writing. Information, specification, illustrations can vary at any time and the modifications occurred can effect the necessary maintenance.

Use only original parts VENTURA declines all responsibility if non original parts are used.

Warning!

The following instructions cannot completely safeguard anyone operating the machine from all dangers that might occur. They should be combined with common sense and experience, which are totally indispensable measures for the prevention of accidents.

- The operator must ensure that the machine is always maintained clean from any extraneous materials, debris, tools, oil etc.
- The machine should be cleaned after each use. During this operation the machine should be stopped and in a stable position with the ignition keys of the tractor taken out so as to prevent any possibility of anyone causing it to move.
- When compressed air or water is used for cleaning purposes protective goggles and mask must be worn and other person or animals must be kept well away from the vicinity of the machine.
- Do not use flammable liquids.
- At the end of the cleaning session a check should be made for wear and tear, damaged or badly fixed parts.
- Check the state of wear on flexible tubing.
- The manual should always be at hand so that it may be consulted to check the correct operative cycle every time a doubt may arise.
- If this manual is lost or damaged, you will need to ask VENTURA for a replacement copy.
- Structural damage, improper modifications, alterations or repairs can change the capacity of production of the machine, thereby cancelling this certification.
- Any modifications should be made exclusively by technicians of the VENTURA or the authorised sales network.
- This machine is usually fitted on the rear of the tractor. It will therefore be necessary to add extra weight to the front of the tractor to prevent the risk of tipping over.
- Always drive slowly especially on irregular ground to prevent loss of balance. On turning take sufficient care bearing in mind the load and movement of the machine on the axle of the tractor.
- Ensure that the guards of the power drive are in place and provide for spares in case of damage.
- Never transport the machine with the rotor blade in motion.
- These machines may, in certain conditions, throw shredded material and other object gathered from the ground for great distances, which can cause serious injury or even death to anyone in the projectile path of the machine. It will therefore be necessary to block the shredding operation if there are people around either moving or static within 100 meters of the machine.
- When the height of the vegetation to be mown prevents the visibility of foreign objects, the mowing should first be made at intermediate height in order to allow for an inspection of the ground and the removal of foreign object allowing for a further cut at the desired height.
- This pre-emptive action will, moreover, notably reduce wear and tear on the machine.
- Avoid the blades coming into contact with bulky objects.
- Do not climb onto the tractor or the machine while they moving. Avoid contact with tyres while they are in motion. Climb on or off the tractor only when it is completely still and the ignition key is taken out. On no account should anyone climb onto the machine itself.
- Do not use the machine if there is an oil leak present.
- Do not search out a leak with bare hands. Use protective gloves and a piece of material or cardboard. Oil under pressure can penetrate under the skin and cause gangrene. In the event of this happening seek urgent specialist

medical attention.

- Carefully read and respect the manufacturer's instructions when using oil, solvent, detergents or other chemical substances.

Checks to be carried out on the tractor

- Ensure that the drive shaft is fitted correctly both on the power drive of the tractor and on the universal shaft of the machine.
- Check that the universal shaft is exposed for at least 1/3 third of the thread in its most extended position.
- Ensure that the guards are in perfect order, that they can be moved freely and that the fixing chains are not under strain when the machine is fully raised or lowered.
- Check that in the position of continuous working, universal shaft does not make an angle greater than 20° against the alignment of the power drive of the tractor.
- Ensure that the drive shaft does not touch the guard of the power drive of the tractor, the guards of the transmission shafts or other parts of the machine.
- No operation regarding the drive shaft or the power drive should be made with the tractor motor running. The ignition key should be taken out and shaft of the power drive should be in the off position.
- As soon as the shredding operation is finished the drive shaft must be disengaged from the power drive of the tractor and returned to the support supplied for it.
- During use, maintenance, repairs, on the road, or during delivery of the machine the operator must wear safety footwear, safety gloves, safety helmet and safety goggles for protection from falling objects or materials projected from the normal working of the machine.
- The operator's clothes should be as close fitting as possible. Never use wide or floppy clothing.
- Never allow inexperienced or untrained person to use the machine. All use of the machine must be carried out slowly to avoid carelessness that might create space that is free from any obstacles.
- Negligence or lack of attention could endanger your safety.
- Objects such as ropes, wire, cables, chains etc can hook onto the rotating elements of the cutting mechanism and be thrown out at high speed causing very dangerous situations for the safety of the operator. You should avoid the blades coming into contact with such object.
- If wire or similar materials become wrapped around the rotor try to free up the rotor (wearing safety gloves) with the help of shears. Do not try to carry out the job by inverting the direction of rotation.
- Take great care during shredding on sloping ground. The machine could sway and make the tractor lose its balance, causing serious injury or death to the operator. If this should happen do not remain in the vicinity and do not allow anyone to remain in the rotation or oscillation zone of the machine.
- Check that there is nobody in the oscillation area of the machine before starting to rotor or the potential enacting of hydraulic displacement.
- Do not allow anybody to climb onto the tractor or onto the machine. Do not carry out any operation if there is anyone nearby or on the machine. Do not allow anyone to come near especially not children.
- Check the machine periodically inspecting the bolts in general, worn or broken parts, pinched or broken cables loose connections or connections with too much play. Ensure that all the joint pins are adequately blocked. Always keep the machine scrupulously clean and free from foreign objects. Clean immediately, any stains of oil or any other inflammable material, to avoid danger of fire.
- Serious injury can be caused by neglecting maintenance.
- Do not continue to use the machine if a cutter is lost or so badly worn as to cause vibration. Consult the relevant section of the manual for instruction on replacement procedures.
- Always replacement both the worn blade and the one opposite to it at the same time.

- Always select the rotor stop position before unthreading the drive shaft from a power drive on a tractor or a completely independent power drive.
- Make a daily check on nuts, bolts, flexible and other fixture system. Checking for potential defect, alignment, or breakage that may prejudice the safety of the machine. If you do find any such problem you should immediately take measures to make repairs or replacements.
- Any maintenance, repair or checking operation must be carried out with the machine completely still and isolated from the power drive of the tractor. The ignition key must be taken out. Always position the machine on points or blocks when such procedures are carried out in order to prevent any potential lowering or raising of the tractor.

Safety advice stickers

“Warning!

Ensure that all security messages are legible. Clean them using soap and a cloth. Do not use solvents, diesel oil or petrol. Replace damaged stickers by asking for them from the VENTURA. If a sticker happens to be on a part that is to be replaced, make sure that another one is applied onto the replacement.”



Stop the motor and remove the ignition key before carrying out any maintenance operations or repairs.



Read carefully the manual of use and maintenance before starting the machine. Observe safety rules and security instructions during functioning.



Always wear safety ear protection.



Do not approach any parts of your body to the rotating parts when the machine is in operation or the motor is running.



Do not open or remove the safety guards when the machine is in operation or the motor is running.



Maximum rotation speed of P.T.O. shaft: 540 or 1000 rpm.



Keep at the safe distance from the vehicle or tools



Do not remain in the vicinity of swaying parts of the machine or the tractor.



Do not open or remove the safety guards when the machine is in operation or the motor is running



Do not approach the danger zone while the motor is running.



Keep hands away when the rotor is rotating.



Personal protective equipment (PPE)

The conductor, maintainers and operators that carry out activities on the machine, they must use the personal protective equipment to allow them to cancel all the possible risks arising from the various activities according to the provisions of the factory installation.

“Look Out!

During the operations of management and maintenance, personnel should wear appropriate clothing to prevent the occurrence of accidents. In order to avoid mechanical hazards such as entrapment or entrainment, it is forbidden to wear special as bracelets, watches, rings or chains during the cycle”

“Warning!

The clothing of those who work or perform maintenance on the machine must meet the essential safety requirements set by EU Directives 98/37 EC and applicable laws in the country where the machine is installed.”

• INSTALLATION AND FUNCTION

General rules

It is imperative to execute every maintenance operation with the machine completely still, even when undoing any element of the hydraulic circuit.

Warning!

Before any intervention is made, the maintenance person must take the key out of the ignition, after having ensured that the motor is stopped, and disconnect the drive shaft coupling from the power drive of the tractor. Only in this way can it be certain that the machine cannot set off unexpectedly while the maintenance person finds him/herself in position of risk.

During maintenance or replacement of hydraulic components, particular attention should be paid to avoiding the introduction of any foreign object, however small, into the circuit which may cause malfunction and compromise the safety of the machine.

Excepting particular demands maintenance must always be carried out with the tools of the machine in resting position and after the pressure of the oleodynamic accumulators / hydraulics has been released.

Warning!

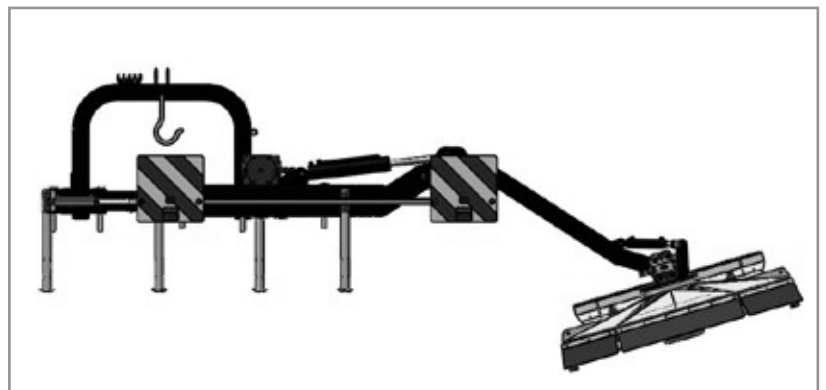
Avoid executing any operation with bare hands.

Beware

In the case of any maintenance operation that may need to be done while one or more functions of the machine is active, precise and unbreakable imperatives must be adhered in that:

- a) There should always be at least two person present: the operator who has the function of supervising the security of the person working and the maintenance engineer;*
- b) The operator who is at the commands of the machine and the maintenance engineer should be able to see each other at all times in order that communication between them will be easy and unequivocal;*
- c) The operator acts in accordance to orders given him by the maintenance engineer;*
- d) Before changing from a still activity to a moving activity the maintenance engineer should remain in a position of safety and only draw close to the moving parts after having secured assurance that his/her orders have been received exactly by the operator;*
- e) The maintenance should always be done in adequate light.*
- f) The maintenance engineer should be informed of the exact function and movement of every part of the machine.*

TRANSPORT CONFIGURATION



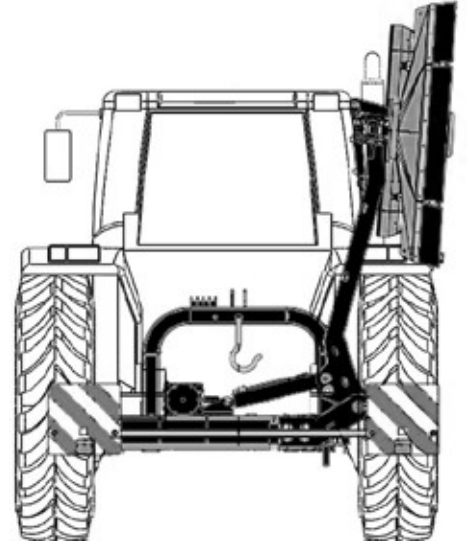
Installing on back of the tractor

Shredder Roma is also ready to be brought from tractor through rear connection. Place the machine on flat ground. Remove lower pins (A) and the top pin (B).

Move back the tractor and actuating the lower bars of the lift, carry at the holes of the bars with the holes on the attack machine

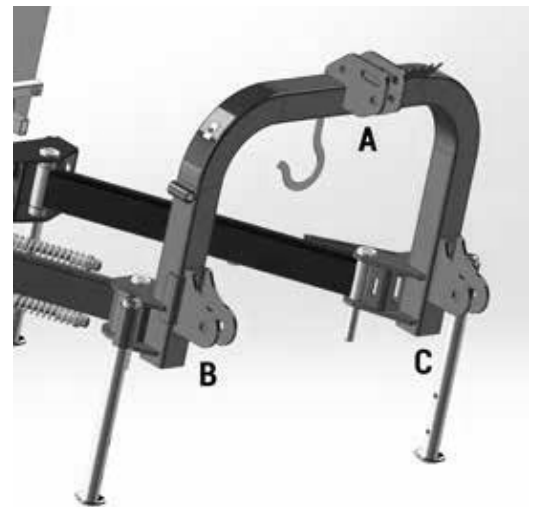
Beware

The bars lower linkages (C) should get into guides outside of the machine.



Insert lower pins (A) and lock with special safety locks. Connect the rod of the third point (It) at the top of the machine. Insert the top pin (B-C) and secure it with a clamp safety.

Remove the tubes of the hydraulic circuit from the machine and connecting the special attachment on the tractor respecting also, for all further installations, the same positioning of the pipes by means of the color code applied on the same.



Warning!

A placement opposite invert the direction of handling commands placed on the tractor.

Beware

Before starting work, you should warm the tractor engine and hydraulic oil for a few minutes to order of ensuring the prompt response of the hydraulic components.

Warning!

During work shredding, make sure that the range of the machine there are no people or animals. If the machine is used with the hood open, make sure that the safety distance is at least 50 meters.

Lift the machine

To lift the machine must be attached at placing two hooks in the prepared points marked with this symbol

“Warning!

When the machine has been raised to a height greater than 50 mm, the workers must severely remain at a safe distance from the perimeter of the same greater than 2 meters.

A break of the lifting system or an uncontrolled movement are in fact a serious danger to the safety of personnel. When handling components with dimensions do not permit adequate visibility, it is recommended make use of more operators to

provide directions

Before moving the packaging, make sure the lift system and related equipment (ropes, cords, hooks etc.) are appropriate with the

load. Check the stability of the packaging before lifting.

Fitting the drive shaft

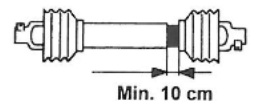
The transmission of the power to the mower will be effected through the drive shaft inserted between the tractor and the machine. Use an appropriate drive shaft for the distance between the tractor and the machine.

“Attenzione!

When the drive shaft is inserted it must have minimum play of at least 10 cm measured from the “all closed” position and must have a guard equal

to at least 1/3 log the length in the “all open” position. Check that the guards are intact and if they have undergone an damage or wear replace them

immediately.”



Clean and lubricate the power drive.

Lubricate the drive shaft following the instructions of the drive shaft's manufacturer.

Engage one end of the drive shaft onto the power drive of the tractor and the other on the multiplier group of the machine respecting the direction prescribed by the manufacturer and shown on the outer sleeve of the guard.

Hook the anti rotation chains

“Warning!

Use only original VENTURA blades”

“Warning!

Ensure that the anti thread security block (push-button) is correctly inserted and locked in its own housing. Work only on protected drive shaft Check that the guards are intact and if ever there is any damage or breakage, replace immediately. Ensure that the power drive is inserted to 540.”

General rules

It's imperative to execute every maintenance operation with the machine completely still, even when undoing any element of the hydraulic circuit.

“Warning!

Before any intervention is made, the maintenance person must take the key out of the ignition, after having ensured that the motor is stopped, and disconnect the drive shaft coupling from the power drive of the tractor. Only in this way can it be certain that the machine cannot set off unexpectedly while the maintenance person finds him/herself in position of risk. During maintenance or replacement of hydraulic components, particular attention should be paid to avoiding the introduction of any foreign object, however small into the circuit which may cause malfunction and compromise the safety of the machine. Excepting particular demands maintenance must always be carried out with the tools of the machine in resting position and after the pressure of the oleodynamic accumulators/hydraulics has been released. ”

“Warning!

Avoid executing any operation with bare hands.”

“Warning!

In the case of any maintenance operation that may need to be done while one or more functions of the machine is active, precise and unbreakable imperatives must be adhered to in that: There should always be at least two persons present: the operator who has the function of supervising the security of the person working and the maintenance engineer.”

The operator who is at the commands of the machine and the maintenance engineering should be able to see each other at all times in order that communication between them will be easy and unequivocal.

The operator acts in accordance to orders given him by the maintenance engineer.

Before changing from a still activity to a moving activity the maintenance engineer should remain in a position of safety and only draw close to the moving parts after having secured assurance that his/her orders have been received exactly by the operator. The maintenance should always be done in adequate light.

The maintenance engineer should be informed of the exact function and movement of every part of the machine.

Periodic checks

Check all parts of the machine daily, in particular check the state of wear of the c

“Warning!

Broken or excessively worn blades must be replaced.”

“Warning!

The lack of one or more blades can cause a rapid deterioration of the rotor and cause vibrations. Any discrepancy must be rectified immediately otherwise the safety conditions of the operator and the machine may be placed in jeopardy.

Check the state of wear of the chains daily. Clean them often when the vegetation is wet.

To replace the chains it will be necessary:

- Raise the machine using the tractor's 3-point hitch.
- Remove the protective cover using the four bolts
- Replace worn chains.

The safety guards of the chains must always be kept in good condition. A broken, bent or excessively worn safety guard must be replaced.





Collision shock absorber

Check the spring lubrication, to maintain correct operation.

Before putting the machine to rest for long periods it is opportune to make as follows:

- carefully wash the machine in all parts;
- make a general control watching the car in order to individualise possible structural lesions, to notice possible deep abrasions on the painting, to verify that the original safety pictograms are present in their positions, that its are entire and legible;
- In case of lesions, abrasions or damages, handle the opportune reparations: in case of necessity, immediately replace the pictograms or the parts of the machine damaged;
- grease all the mechanical organs, the tightening pivots, the attaching head to the cardan shaft junction;
- insert the terminal part of the hydraulic pipes in the special supports
- put, if it is possible, the machine in a covered place and lean the machine on wood tables or cement ground in stable position;
- cover the machine with a tarp fastening it.

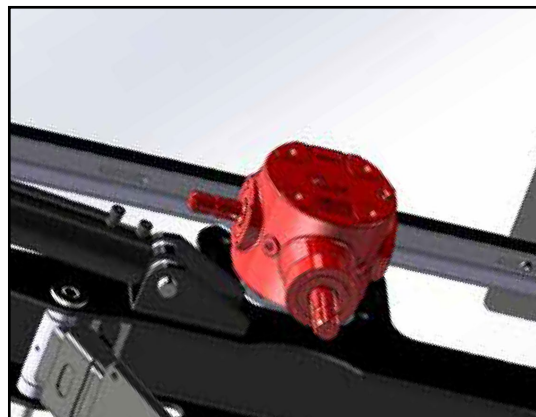
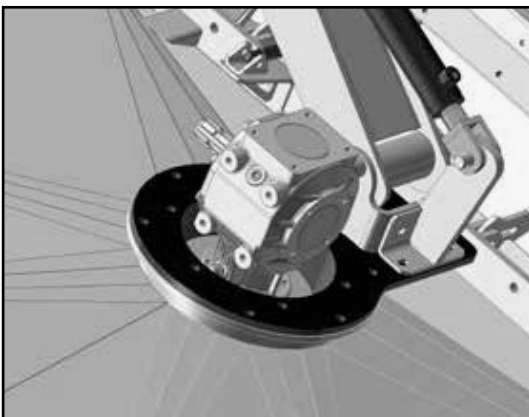
“Warning!

After completing this operation refit the protective casing blocking the two levers with the correct security screws.”

Lubrification of the VENTURA gear box

Check the oil level every 50 hours by means of the proper dip stick. Replace the oil after the first 150 hours of work and subsequently every 1000 hours of work.

In order to do this you will need to unscrew the oil filler plug (B) of the drain tank after having located, under the gear box. The tank has a capacity of at least 2 litres.



“Warning!

After collection the used oil should be kept in an appropriate container to be disposed of according to the law.

Type of oil: Spartan
220 Quantity: 1.5 litres

Warranty

1 Year Warranty. It only includes manufacturing defects in machinery or defective parts (not labour). Being provided to the verdict of the company if the flaw was due to misuse or mishandling by the user. The warranty doesn't include material subject to natural wear such as blades, counter blades, hammers, belts, pulleys, etc.

The acceptance of any warranty claim and the right credit will take place upon receipt and verification of the defective part.

Ventura

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