

Translation of the original language

USE AND MAINTENANCE MANUAL

MULCHER WITH CONTAINER

Mark: BERTI Macchine Agricole
Model: PICKER KARGO



Read this manual thoroughly before using the machine



02-2015 (12.13.14.15)

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INTRODUCTION

This instruction manual contains the description of operating and the instructions necessary for performing the main use operations, routine and periodic maintenance of the mulcher with container, which will hereon be called machine.

This manual is divided into identifiable chapters, for easy reference.

The indications contained in this manual are intended for a professional user, who must have specific knowledge regarding use of the machine and must be authorised, instructed and appropriately trained,

Use of original spare parts and accessories is recommended. As well as invalidating the warranty, use of non-original spare parts could be dangerous, reducing lifespan and duration of the machine and serious injury/damage to persons, animal and objects.

In the event of transfer or re-sale, this instruction manual must always accompany the machine. If it is damaged or lost, a copy must be requested from the Manufacturer of the machine or previous owner. The manual is considered an integral part of the machine.



ATTENZIONE

For the USER: Before starting to work with the machine purchased, it is mandatory to read this instruction manual which states all of the operational technical indications relative to the correct use of the machine, paying particular attention to all provisions concerning safety. The abuse of performance and the failure to comply with the Safety Standard and use make the operator liable for damage/injury caused to the equipment, objects, persons and animals.

The machine manufacturer does not have direct control over application, method of use and maintenance and it is therefore the user's responsibility to use common sense in the operating areas, doing everything possible to safeguard his own safety and that of third parties, animals and objects, evaluating the hazard every time before starting to work.

Whenever the user delegates the use of the machine to another user, he is responsible for having this instruction manual read thoroughly and checking that it has been understood and implemented.

This instruction manual must be on hand for immediate consultation, if necessary.

For the DEALER, the RETAILER and the IMPORTER: the person assigned to delivering the machine to the final user must perform application to the tractor. Therefore he must read this instruction manual and understand the content before the machine is assigned definitively. He is also responsible for training the final user and making sure that he has understood everything stated in the instruction manual.

GLOSSARY

Machine	Mulcher with Picker Kargo container
Tractor	Vehicle equipped with an engine that is used to tow other vehicles, especially agricultural machines.
User	The user is considered as the owner and/or staff, the operator/user assigned to running the machine, cleaning it, performing maintenance and repairs and that can recognise hazards deriving from use of the machine, and therefore prevent them.
Specialised staff	Those persons especially trained and enabled to perform maintenance interventions or repairs that require particular knowledge of the machine, its operation, safety devices and methods of intervention.
Safety staff	Staff assigned to moving persons away from the working range of the machine.
Manufacturer	Company that produces the → Berti Macchine Agricole S.p.A. machine
 PERICOLO	DANGER - This sign indicates an imminent and real hazardous situation, which if not prevented leads to serious injury and even death.
 ATTENZIONE	ATTENTION - This sign indicates a potential hazardous situation, which if not prevented, could lead to serious injury and even death. Hazards identified by this sign therefore represent a smaller risk of serious injury or death with respect to those indicated by the DANGER sign.
 CAUTELA	CAUTION - This sign indicates a potential hazardous situation, which if not prevented, could lead to slight injury or moderate wounds. The symbol is used to warn that determined practices can lead to consequential events that could cause wounds and personal damage.
	NOTA BENE

Mulcher with PICKER KARGO Mod. container**1 INFORMATION REGARDING THE MANUAL**

This manual is an integral part of the machine and must accompany the same in the event of resale and until its demolition.

If this manual should be lost or damaged, request a copy from the manufacturer("BERTI macchine agricole S.p.A.", via Musi 1/A – 3, Caldiero – Vr., Tel. +39.045.6139711) or the Dealer.



The presence of this symbol indicates that maximum attention must be paid to the subject discussed.

Some devices described in the manual may not be present on your machine. This is due to the set-up selected and the market to which the machine is destined.

1.1 MANUAL UPDATES

The information, descriptions and illustrations contained in the manual correspond with the current technology at the time of marketing the machine.

The Manufacturer reserves the right to make modifications to the machine at any time for technical or marketing reasons. These modifications do not oblige the Manufacturer to intervene on vehicles marketed up to that time and do not invalidate this documentation.

Any subsequent supplements to the manual that the Manufacturer considers appropriate to supply, must be kept together with the manual and considered as an integral part of the same.

1.2 COPYRIGHT

The copyright for this manual belongs to the machine Manufacturer. This manual contains technical texts, drawings and illustrations, which must not be disclosed or transmitted to third parties in full or partially, without the written authorisation of the Manufacturer.

1.3 MACHINE IDENTIFICATION AND CE MARK

The identification plate is positioned in proximity of the chain transmission on the left side of the machine and states

"CE" Mark;

Country of manufacturer;

Name and address of the manufacturer;

Model and type;

Serial number with year of manufacturer;

Weight.



The machine is supplied as per standard with:

- Machine use and maintenance manual;
- Manufacturer's "CE" Declaration of Conformity.

Mulcher with PICKER KARGO Mod. container

1.4 IDENTIFICATION OF TYPE-APPROVAL DATA

An additional plate located on the front right of the frame gives the machine type-approval data.

Another 2 embossings relative to the chassis number are stated on the drawbar and on the right part of the chassis

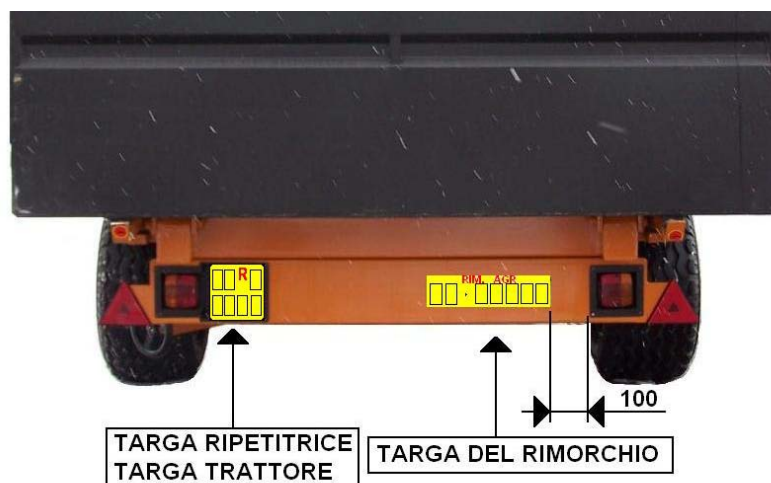
 BERTI MACCHINE AGRICOLE		CALDIERO - VR - Italy Info@bertima.it www.bertima.it
TIPO	PICKER KARGO	
OMOLOGAZIONE		
TELAIO N°		
MASSA COMPLESSIVA	6000	kg
MASSA MASSIMA SU DICHIONE	1300	kg
MASSA MASSIMA SUL 1° ASSE	5000	kg
MASSA MASSIMA SUL 2° ASSE	-----	kg
MASSA MASSIMA SUL 3° ASSE	-----	kg
COD. 328		



1.4.1 POSITIONING OF IDENTIFICATION PLATES

The repeated licence of the tractor and the trailer plate must be positioned as indicated in the layout shown below.

The trailer plate must respect the height of 100 mm from the rear right light indicated in the layout.



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1.5 MACHINE DECLARATION OF CONFORMITY

							
BERTI MACCHINE AGRICOLE S.p.A. Via Musi 1/a - 3 - 37042 CALDIERO (Verona) - ITALY Tel. +39.045.6139711 - Fax +39.045.6150251 info@bertima.it - www.bertima.it							
 Dichiarazione CE di Conformità ai sensi della direttiva 2006/42/CE EC Certificate of Conformity - conforming Directive 2006/42/CE EG Konformitätserklärung entsprechend der EU-Richtlinie 2006/42/CE Déclaration CE de conformité à la directive de la 2006/42/CE							
La Ditta / We / Wir / Nous BERTI Macchine Agricole S.p.A. 37042 CALDIERO - VERONA - ITALY							
dichiara sotto la propria responsabilità nella sua qualità di costruttore, che la macchina a cui si applica questa dichiarazione, è conforme ai requisiti essenziali di sicurezza e di tutela della salute di cui alla <u>Direttiva 2006/42/CE</u>. Per la verifica delle macchine sono state consultate le seguenti norme armonizzate: declare in sole responsibility, in quality of Manufacturer, that the product to which this certificate applies, conforms to the basic safety and health requirements of <u>Directive 2006/42/CE</u>, and according to the European harmonized standards: erklären in alleiniger Verantwortung, als Hersteller, dass das Produkt auf das sich diese Erklärung bezieht, mit den grundlegenden Sicherheits- und Gesundheitsschutzanforderungen der <u>EU-Richtlinie 2006/42/CE</u>, und mit den Anforderungen der gemeinsamen EU-Richtlinien konform ist: déclarons sous notre seule responsabilité, comme Fabricant, que le produit faisant l'objet de la déclaration est conforme aux prescriptions fondamentales en matière de sécurité et de santé stipulées dans la <u>Directive de la 2006/42/CE</u>. Nos déclarons que les normes harmonisées suivantes ont été appliquées:							
<u>UNI EN 13624:2003+A1:2009</u> <u>UNI EN ISO 16857:2009</u> <u>UNI EN ISO 3767-1/2:1998</u> <u>UNI EN ISO 12100:2010</u>							
Nonché le seguenti specifiche tecniche: And the following technical specifications: Und die folgende technische Vorstellungen: Et les spécifications techniques suivantes: <u>ISO 11684:1995</u>							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">MODELLO -- TYPE</td> <td>XXXXXXXXXX</td> </tr> <tr> <td>MATRICOLA -- N° DE SERIE</td> <td>XXXXXXXXXX</td> </tr> </table>				MODELLO -- TYPE	XXXXXXXXXX	MATRICOLA -- N° DE SERIE	XXXXXXXXXX
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Legale rappresentante e custode del fascicolo tecnico Legal representative and custodial of the technical pamphlet Gesetzlicher Vertreter und Hüter des technischen Heft Représentant juridique et dépositaire du dossier technique  BERTI Macchine Agricole S.p.A. BERTI MARIO <i>Amministratore Unico</i>							
La presente certificazione è parte integrante della macchina This EC certificate is an integral part of the unit Die hier beigelegte Erklärung ist wesentlicher Bestandteil der Maschine Cette déclaration de conformité est partie intégrative de l'appareil							
Cod. Fisc. e Reg.Impr. di VR n° 00068150234 - P.IVA : 00068150234 - R.E.A. VR 84849 - Cap. Soc. € 151.704,00 iv Società soggetta a direzione e coordinamento da parte della società HB Holding Berti S.r.l. R.L. di VR03068950241							

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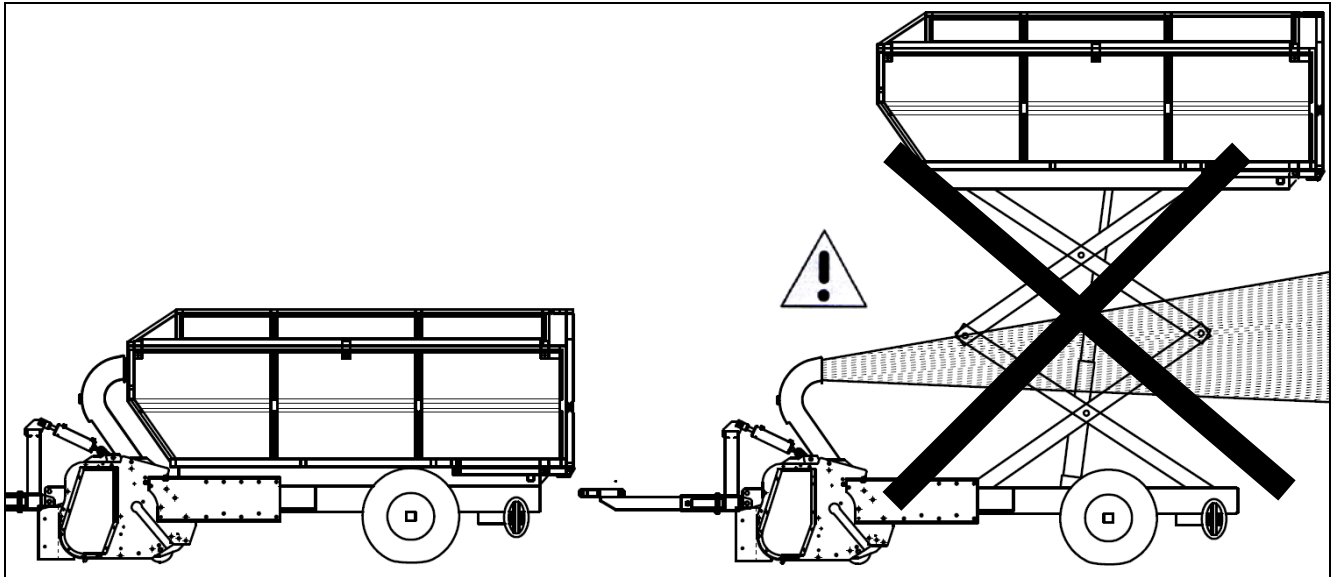
Mulcher with PICKER KARGO Mod. container**1.6 INFORMATION REGARDING THE MACHINE****1.6.1 DECLARED USE**

The Mulcher with mod. PICKER KARGO container has been designed for exclusive use in the agricultural sector, for the mulching of orchard, olive grove pruning material and woody material up to a diameter of 12 cm.

Ideal also for working on cultivated and/or stony lands. The material is loaded into its container without releasing it onto the ground. The machine is carried by the tractor using a drawbar and operates on the ground in virtue of its own weight and rotation of the rotor, activated by the tractor power take-off via cardanic connection.

The machine must be used exclusively in the agricultural sector.

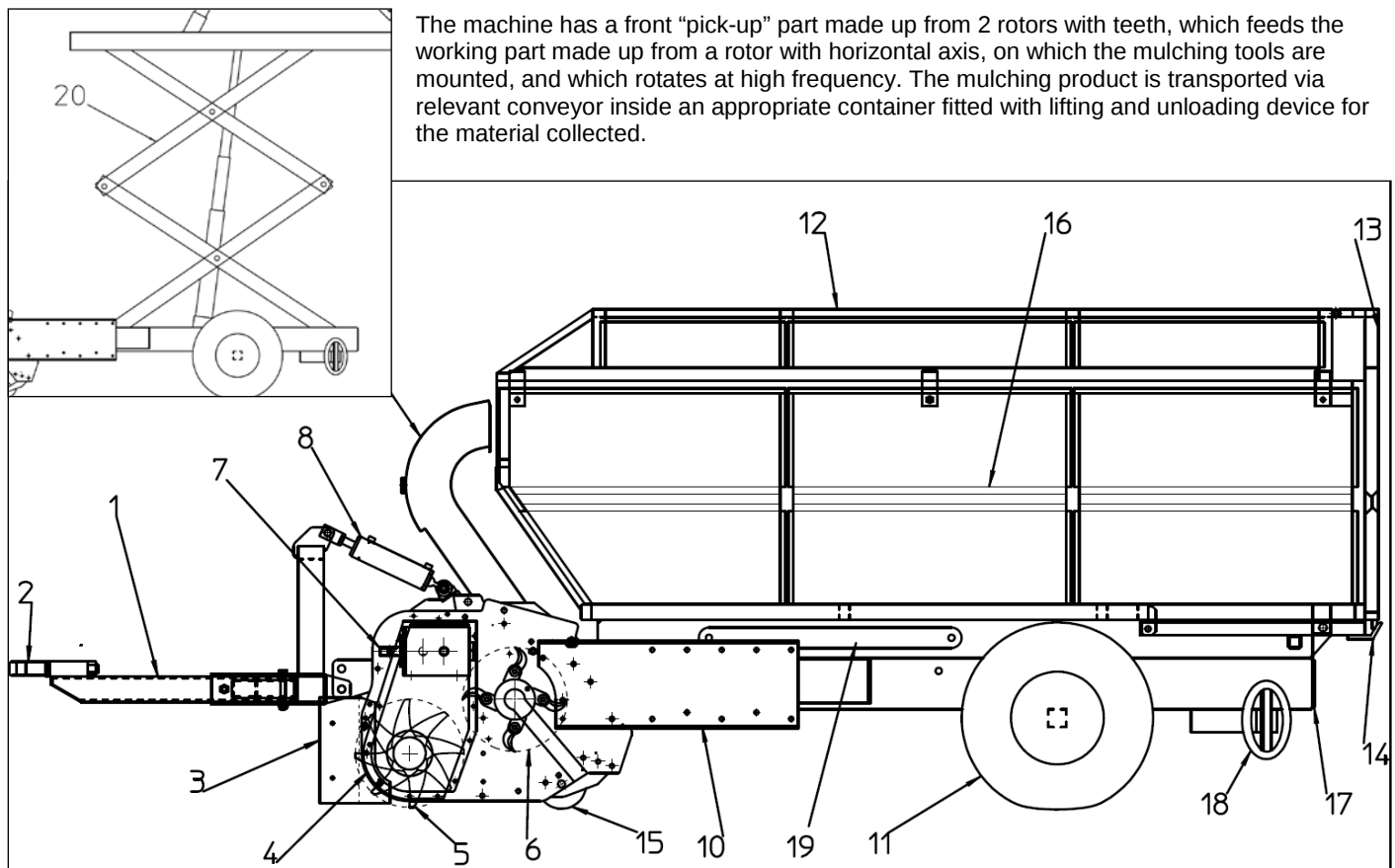
Use is prohibited if it is hitched to an undersized tractor, if coupled to an oversized tractor, to knock down trees, on land that make the tractor's equilibrium precarious, as for example steep uphill or downhill slopes, accentuated gradients, in the vicinity of a ravine, on very uneven land etc.



N.B.: work only with the container low, the material must always be collected in the container. It is prohibited to work with the container raised as indicated in the image on the right. Any use of the machine different to that indicated above is considered unauthorised and dangerous.

Mulcher with PICKER KARGO Mod. container

1.6.2 DESCRIPTION

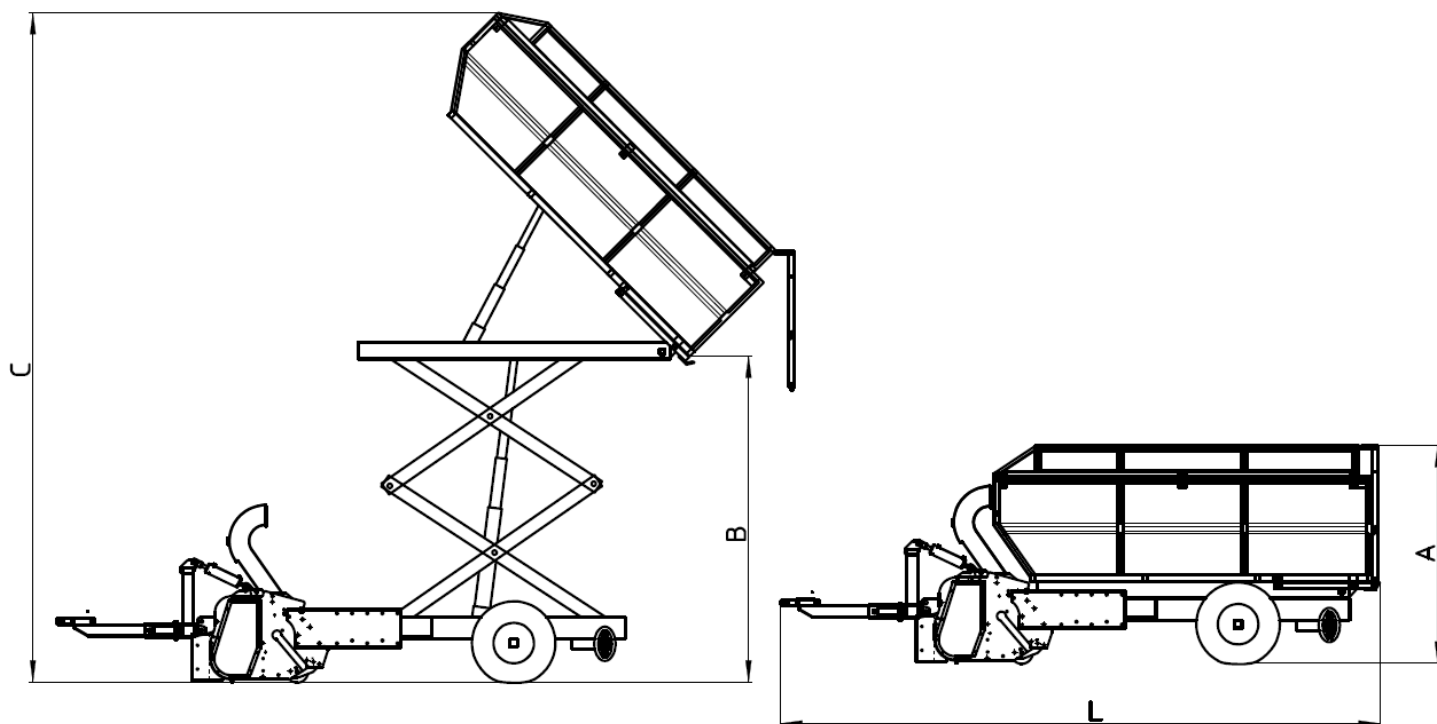


NAME OF THE PARTS MARKED:

Pos.	Name
1	Drawbar
2	Drawbar eye hitch to the tractor
3	Conveyor flap
4	PICK UP chain casing
5	Feed rotor called PICK-UP
6	Mulching rotor with lateral belt transmission (pulleys, belts, locking sets, tensioner)
7	Coupling for Cardan shaft to the transmission unit
8	Drawbar height adjustment jack
9	Product conveyor
10	Picker-container connection plate
11	Container support plate mounted on axle with braking device
12	Container lid
13	Container unload hatch
14	Unload hatch automatic retainers
15	Work depth adjustment roll
16	Mulched product container
17	Light bar
18	Parking brake hand wheel (only on models with "B" type braking)
19	Lifted machine blocking safety stands
20	Scissor lift system

Mulcher with PICKER KARGO Mod. container

1.6.3 TECHNICAL DATA



MODEL: PICKER KARGO Mod. container		140	160	200
Total width	mm	1650	1930	2200
Working width	mm	1400	1600	2000
L	mm	4800	4820	5500
A	mm	1960	2430	1960
B	mm	2900	2900	3300
C	mm	5500	5400	6150
Weight	Kg	2650	2980	3570
Load volume	m ³	4.9	6.4	7.8
Number of tools	n.	18	22	26
PTO speed	Rpm	540		
Tractor maximum power	CV	140		
Tractor minimum power	CV	90	90	100
Number of belts	n.	4	4	5

Mulcher with PICKER KARGO Mod. container

1.7 PROJECTION OF MATERIALS



Materials can be projected by the machine in certain work situations. Pay particular attention:

- check that the protections of the working parts are efficient;
- perform regular cleaning and maintenance on the working machine;
- check there are no persons, animals or objects within the working range of the machine, which could be damaged;

1.8 NOISE LEVEL AND VIBRATIONS



The machine exceeds 80dB (A) also in idle running periods and hearing must be protected from the noise generated during work processes:: use hearing protection or ear plugs.

It is mandatory for the user to measure sound emission from the tractor - mulcher unit following installation and always before commissioning the machine, in compliance with that envisioned by the Laws in force.

The noise level of the tractor - mulcher unit may increase through time due to wear: it is recommended to periodically evaluate the risk of exposure to noise.

The use of PPD is mandatory and they must guarantee the reduction of the noise level recorded in compliance with the Laws in force.

The vibrations at the tractor - mulcher system lie within the context of the vibrations produced by the tractor only. Excessive vibration can be caused by a machine fault, which must be signalled immediately and eliminated so as not to jeopardise machine reliability and/or damage the operator's health. Always work in suitable environmental conditions (e.g. with perfect visibility, with ground able to support the weight of the tractor - mulcher unit, with gradients that allow suitable vertical and lateral stability of the tractor - mulcher unit etc.).

2 SAFETY AND ACCIDENT-PREVENTION STANDARDS

2.1 GENERAL SAFETY STANDARDS

Correct use of the machine, strict observance of the Standards indicated herein and the rigorous application of all precautions aimed at preventing dangerous situations, contribute to averting accidents or injuries, ensure better and longer operation of the machine and reduce faults to a minimum.

"BERTI MACCHINE AGRICOLE S.P.A." declines any objective and subjective liability in cases where the regulations indicated in this manual have not been applied and respected.

	The machine is not designed to be used in sectors other than the agricultural sector and any use different to that specified is considered improper.
	The machine must be used by a single operator driving the tractor. It is mandatory for the user to check the correct tractor - mulcher coupling.
	Before getting off the tractor and before any maintenance on the mulcher, disconnect the PTO, engage the parking brake, switch off the engine, remove the keys from the dashboard and keep them safe and wait inside the cab for 5 minutes for the rotor and all relative tools to stop completely.
	It is prohibited to abandon and/or leave the tractor-mulcher unit when the tractor is running.
	During use, the user must have sufficient visibility of the work areas deemed dangerous. Therefore it is good practice to keep the tractor mirrors and windows in an excellent state.
	During the work phases, the user must always remain protected inside the cab. It is prohibited to work with doors/windows open. Projected objects hazard!
	The machine must only be used by authorised, educated and appropriately trained staff. As well as having read the instructions contained in this manual, the user assigned must have understood and assimilated the same, must have had sufficient preparation regarding the correct use of the machine, must have a driving license and be an adult. The operator must contact the manufacturer if in doubt regarding use of the machine and interpretation of this manual.
	Never use the machine without knowing its features.
	The manual must always be readily available so that it can be consulted when necessary. If it is lost or damaged, request a replacement copy from the manufacturer.
The user must use the safety devices and personal protection equipment (PPE) during use, maintenance, regulation, repairs and handling of the machine.	

Mulcher with PICKER KARGO Mod. container

	The machine may emit dusts during use with dry products (hay, straw, etc.). It is recommended to periodically check the cab ventilation system filter and to always use suitable protection systems for the respiratory tract, such as dust masks.
	The operator assigned to the machine must not wear clothing that can cause entanglement.
	It is prohibited to use the machine to lift persons, animals or objects.
	It is prohibited to use the machine to transport persons, animals or objects.
	It is prohibited to use the flexible hoses as handholds. These components are mobile and are not a stable support.
	The work area must be inspected before using the machine, removing any stones, scrap iron, steel cables, manholes, stumps and all materials and obstacles without limits, which can constitute a source of danger, accident and serious injury/damage to the user, persons, animals and objects.
	The user must make sure that no person or animal stops within the machine work range during operation of the same. The user is responsible for stopping the machine immediately and clearing persons and animals from the work range. Never activate the machine near to persons or animals within or transiting through the machine working range.
	If the machine is to be used on roads and public areas, all precautions must be taken to protect persons, animals and objects, for example using safety staff, warning signs, positioning them at the limits of the machine working range, in compliance with the Laws in force in the country of use.
	Never work in areas with steep counterslopes, on slippery land and in areas/zones that reduce tractor adherence to the ground. Always pay great attention when changing direction.
	Use the machine during the day and with perfect visibility.
	It is prohibited to work in adverse weather conditions such as storms, snow, high winds, rain, fog etc.
	Do not operate the machine on muddy, sandy or soft ground.
	Pay attention to the risk of unintentional contact of the machine with high voltage overhead lines.
	Do not use the machine when ill, tired or under the influence of medication, drugs or alcohol.
	Carefully check the machine each time before starting it.
	Before using the machine, ensure that all the safety devices are correctly positioned and in good working order. If these are broken or damaged, replace them immediately.
	It is prohibited to remove or tamper with all protections and/or safety devices.

Make sure that the safety pictograms are in good condition, legible and clean. If the pictograms have deteriorated, they must be replaced with other originals obtained from the manufacturer and placed in the position indicated in the instruction manual (paragraph 2.3.2). If dirty, clean them with a damp cloth.

The signs applied to the machine provide a series of important instructions: comply with them for your own safety.

It is prohibited to make any modification that alters the original state of the machine.

Any arbitrary modification made to this machine relieves the manufacturer from any liability for damage or injury, which can happen to the operators, third parties and objects.

Keep the machine clean, eliminating foreign materials (debris, tools, various objects), which may damage its functioning or harm the operator.

	The following paragraphs list other very important Safety Standards. It is mandatory to read this instruction manual entirely before using the machine.
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2.2 FIRE PREVENTION MEASURES

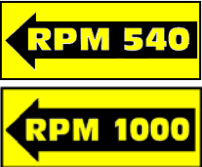
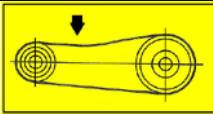
	Keep an extinguisher with suitable capacity on board the tractor and periodically service the same. The extinguisher must only be used by staff capable of operating it, therefore it is the user's responsibility to supply training courses.
	It is mandatory that staff assigned to operating the machine is informed regarding the principal procedures in the event of fire.
	Do not use the machine in areas with risk of explosions and/or fire.
	Maintenance residues, e.g. cloths or material replaced containing inflammable substances must be kept away from sources of ignition and disposed of in compliance with the Laws in force in the country of use.
	Use suitable extinguishing equipment: e.g. Carbon dioxide, foam, chemical powder.
	Do not weld in the proximity of tanks, pipes, cans, electrical cables or flammable materials in general.

When welding protect flammable parts with appropriate guards.

Mulcher with PICKER KARGO Mod. container

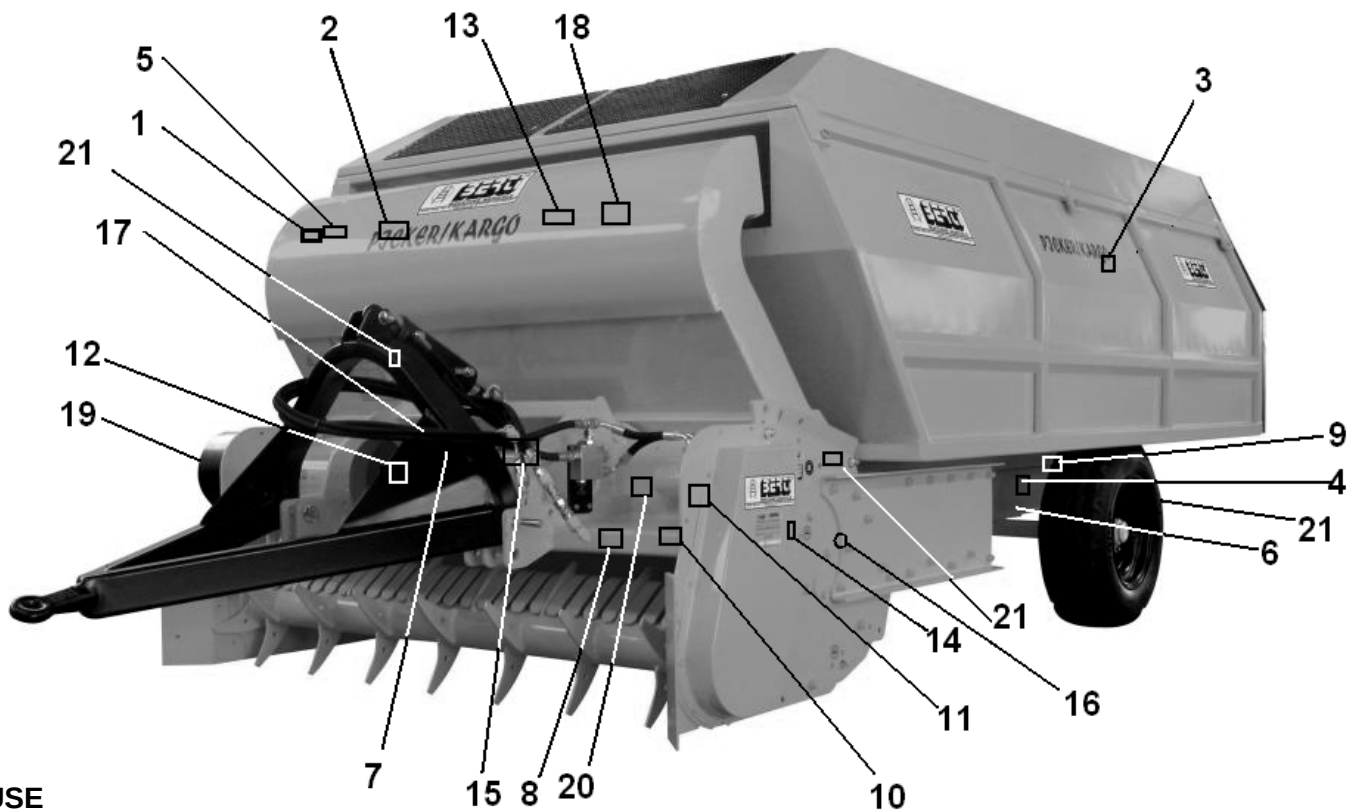
2.3 SAFETY SIGNS

Make sure that the safety pictograms are in good condition. If the pictograms have deteriorated, replace them with originals obtained from the manufacturer and place them in the position indicated in the operating and maintenance manual. Make that all safety pictograms are legible. Clean them using a cloth, water and soap.

1		ATTENTION: adjustment and maintenance operations must be performed in fully equipped workshops after the use and maintenance manual has been read. For further information, refer to chapter 3 - 4 of this instruction manual.	2		ATTENTION – DANGER: this machine must be used by just one operator.
3		ATTENTION: it is prohibited to climb onto or be transported by the machine.	4		ATTENTION – DANGER falling suspended parts. Apply mechanical blocking systems
5		ATTENTION – DANGER of projecting objects. Keep at a safe distance.	6		ATTENTION: risk of folding machine parts falling.
7		ATTENTION - DANGER of burns. Keep at a safe distance.	8		ATTENTION – DANGER of contact with rotating tools. Keep at a safe distance.
9		ATTENTION - DANGER shearing hands.	10		ATTENTION – DANGER of crushing. Do not position yourself between the tractor and the mulcher.
11		ATTENTION – DANGER of contact with moving parts. Wait for moving parts to stop.	12		ATTENTION - DANGER of entanglement and dragging. Do not place hands and feet near to moving parts.
13		PERSONAL PROTECTION DEVICES (PPD)	14		ATTENTION – DANGER of contact with moving parts. Do not place hands near transmission belts.
15		OIL LEVEL.	16		GREASING POINTS.
17		540 or 1000 rpm, normal conditions and PTO rotation direction	18		ATTENTION-DANGER minimum safety distance 50 m.
19		TENSIONED BELTS.	20		BRAKING PLANT “B”: if installed on the machine, it indicates the correct instructions
21		LIFTING POINT.			

Mulcher with PICKER KARGO Mod. container

2.4 POSITION OF THE PICTOGRAMS



3 USE

INTRODUCTION



Before using the machine, the manual must have been read thoroughly, understood and you must have familiarised with the machine. Use is recommended by skilled and suitable trained persons.

Always keep all body parts inside the tractor cab, to minimise the possibility of exposure to any external dangers, for example the projection of materials.

Before getting off the tractor and before any maintenance on the mulcher, engage the parking brake, switch off the engine, remove the keys from the dashboard and keep them safe and wait inside the cab for 5 minutes for the rotor and all relative tools to stop completely.

The safety of the user and the persons present in the vicinity depend on his capacity of judgment and caution when using the machine. It is therefore necessary to be fully aware of its functionality and all Safety Standards relative to its use.

The user must use the safety devices and personal protection equipment (PPE) during use, maintenance, regulation, repairs and handling of the machine.



PERICOLO

The machine must always be in good working order and must only be repaired using original spare parts.

Charge within the maximum capacity limits

Overturn only on flat fields

Always overturn in areas free from persons and obstacles.

In case of irregular rise of the box, lower it and check for possible causes.

Always overturn with the vehicle stopped

Never move the vehicle to help unloading of materials

Leave only with the box at standstill

Always check tyres pressure

Always work under a tipping box in equipped places and respecting security regulations.

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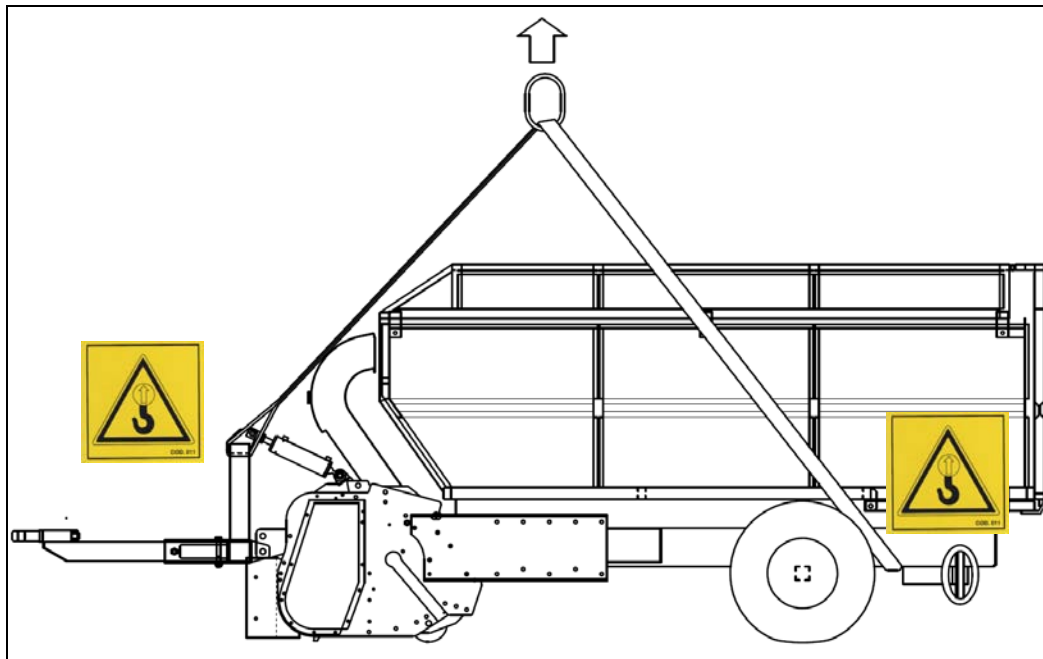
3.2 HANDLING AND TRANSPORT

Pay maximum attention to safety during loading and unloading operations, which must be performed by qualified staff (slingers, truck drivers, etc.). Check suitability of the lifting means by referring to the Technical Data table on page 9. If the mulcher must be lifted, suitable belts must be used for lifting, passing them through the relevant lifting points indicated by the pictograms.

A powerful vehicle with suitable dimensions and which is set-up appropriately to transport the machine. Once loaded, the mulcher must be fastened using anchorage ropes.



The operations stated can have dangerous situations; moreover, given the dimensions and weights of the parts, a suitable lifting means must be used.



3.3 TRANSIT ON PUBLIC ROADS

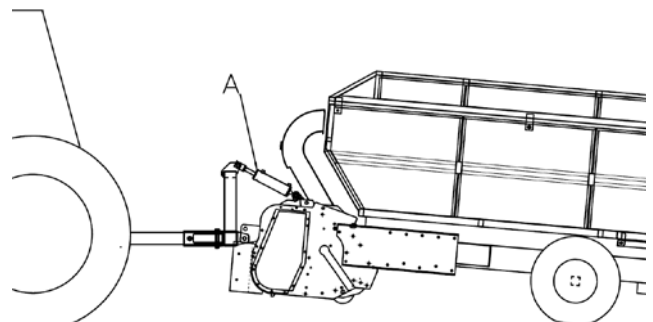


If public roads must be travelled, the Highway Code must be scrupulously observed, paying particular attention to the choice of forward speed selected.

It is mandatory to equip the vehicle with a flashing yellow or orange light. Before returning to a public road from an unpaved or dirty area, you must thoroughly clean the tyres from mud residues.

When transiting on a public road, the mulcher must remain in transport position and the tractor PTOs must be disconnected. Before transport, check that all machine parts are integral and in good working order.

Using the hydraulic jack A, adjust the drawbar until the machine is sufficiently off the ground, in a way to travel without machine parts touching the road; the tractor PTO must be disconnected.



Road transport must be performed with great attention in order to prevent dangers to persons and vehicles in transit.

Mulcher with PICKER KARGO Mod. container

3.4 MACHINE TRANSPORT PROCEDURE



ATTENZIONE

Before going onto the road, check that all machine parts are integral and in good working order.
Disengage the P.T.O. and wait until the rotor is at a complete standstill;
Lift the machine just enough (D) so that the transmission parts do not touch the ground

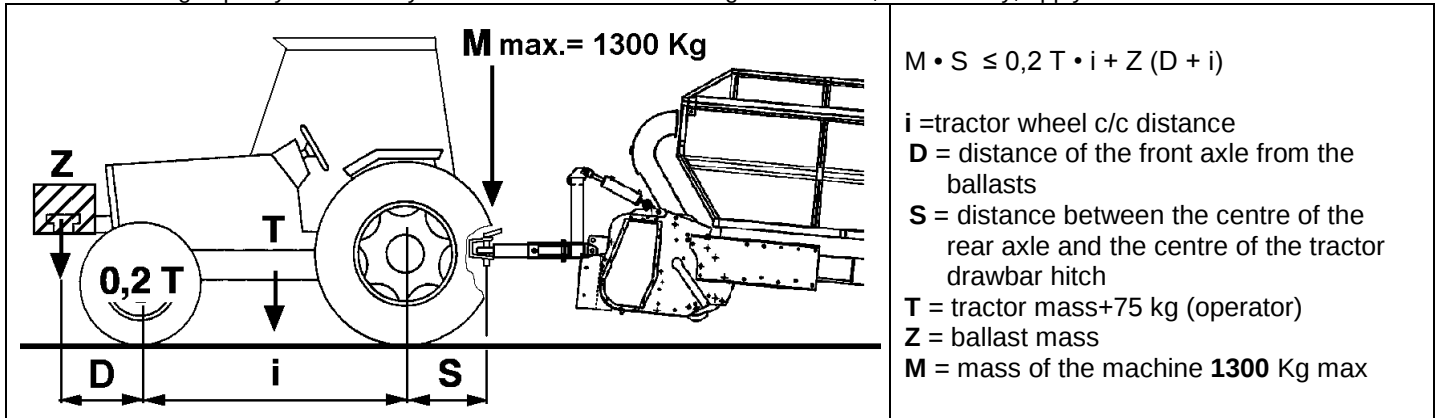


ATTENZIONE

The weight of the machine modifies the stability of the tractor-mulcher unit, affecting the ability to steer and brake, therefore you must travel at moderate speed.

In particular, remember that the front axle must always be burdened with a load equal to at least 20% of the total weight of the tractor - mulcher.

Check the lifting capacity and stability of the tractor via the following formula and, if necessary, apply ballasts to the front.



N.B.: if the machine is assembled onto tractors that were type-approved and registered before 06.05.97, check that the following formula is respected: **$M < 0.3 \times T$**

3.5 VISIBILITY

The work areas can be controlled with the tractor rear view mirrors and the operator's sight.



ATTENZIONE

When reversing dead spots may be created, which are not visible in the rear view mirrors.

3.6 HITCHING THE MACHINE TO THE TRACTOR

Before installing the machine, check that it is in perfect working order, resting on the ground and in a stable position. Check that the lubricants are at the correct level and that all parts subject to wear and/or deterioration are perfectly efficient and that the casings are integral and functioning.

 PERICOLO	It is mandatory to check the correct tractor - mulcher coupling. The lifting capacity and the stability of the tractor must respect the parameters described in chapter 3.4
 ATTENZIONE	It is prohibited to stop between the mulcher and the tractor during the hitching phase and all unauthorised persons must be moved away from the machine working range.
 ATTENZIONE	Before using the machine you need to familiarise with the controls and their operation.
 ATTENZIONE	Always keep all body parts inside the tractor cab in all circumstances, to minimise the possibility of exposure to any external dangers.
 ATTENZIONE	Before getting off the tractor and before any maintenance on the mulcher, engage the parking brake, switch off the engine, remove the key from the dashboard and keep it safe and wait for the rotor and all mobile parts to stop completely.

Mulcher with PICKER KARGO Mod. container

3.6.1 HITCHING PROCEDURE

The machine must be hitched to the tractor with PTO activated at 540 rpm. with suitable weight and power, in compliance with the legal requirements in force in the country of use.



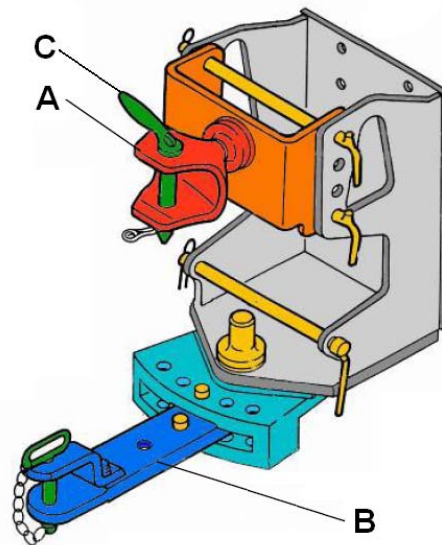
The operator must use suitable Personal Protection Devices (PPD) during use, adjustment, maintenance, repairs and handling.



The operations described below are very risky.
Do not stop in front of the mulcher during the approach of the working vehicle.
Avoid the presence of unauthorised persons.
During the installation phases, the mulcher PTO must be connected.

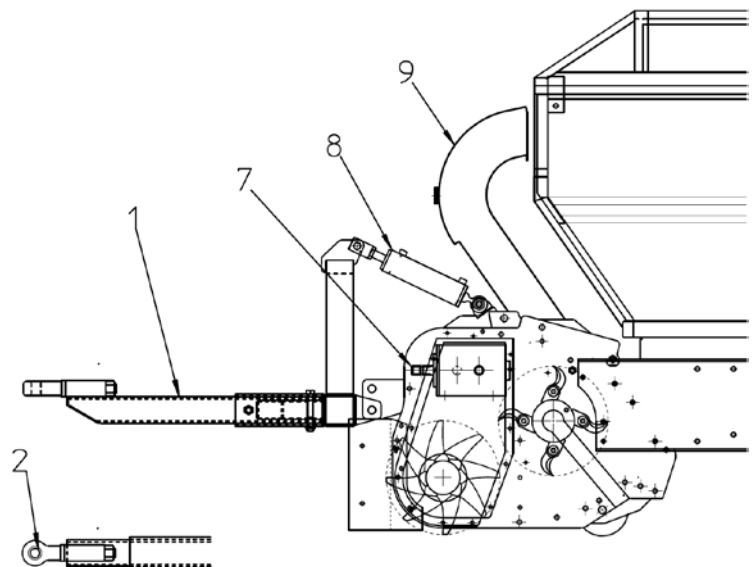
Before installing the machine, check that:

- The tractor is fitted with a relevant towing hook ref. **A** suitable to support the vertical loads produced by the machine. Never use hitch type **B**, not suitable to support vertical loads.
- The tractor drawbar hitch is fitted with drawbar eye ref.2 (see layout below), type-approved: "E3" 1407, it is therefore necessary to check compatibility with towing hook ref. **A** on the tractor.
- The tractor is set-up for the connection of all hydraulic devices



After the checks described previously, proceed as follows:

- 1- The towing hook ref. **A** on the tractor has a pin **C** that must be removed (see layout above)
- 2- Approach with extreme care with the tractor until eye 2 of the drawbar in the towing hook is centred ref. **A**
- 3- Brake and switch the tractor off;
- 4- Fix the eye ref. 2 of drawbar 1 in the towing hook ref. **A** on the tractor and fix it with the relative pin **C** and retainer pin.
- 5- Apply the cardan shaft, making sure that the buttons are inserted well in the relevant slots (see paragraph 5.3);



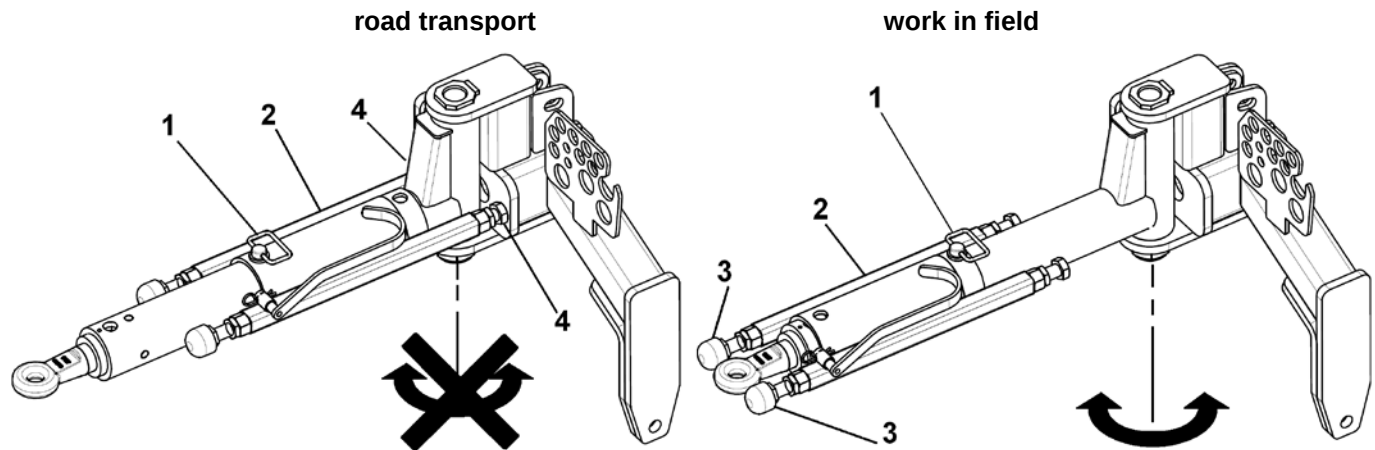
ATTENTION: MAKE SURE THE RESTRAINING DEVICES HAVE BEEN INSERTED INTO THE RELEVANT TOWING HOOK

Mulcher with PICKER KARGO Mod. container

3.6.2 STEERING DRAWBAR

The articulated drawbar is fitted with a retainer that can be adjusted in two positions, which allows to pass from the **transport on road** set-up to the **work in field** set-up. In the road transport position, the drawbar does not rotate around the axis indicated in the drawings, while in the work in field position, the steering drawbar allows rotation around the axis, reducing the manoeuvre spaces at field end.

To pass from one position to another, move the retainer 2, stopping it with the pin 1 in the desired position. In the **transport on road** position, adjust the 4 screws against the retainer in a way to keep the drawbar blocked. In the **work in field** position, adjust the 3 screws against the drawbar in a way to allow the rotation of the drawbar around the axis indicated.



ATTENZIONE

On use in the road mode, make sure that the position indicated in the relative figure is respected and check that in both positions the pin 1 and relative retainer pin are well connected and efficient.

3.7 ELECTRIC CONNECTION

For operation of the rear lights, the machine 7 pole plug must be connected to the 7 pole socket of the tractor, **the plant must be at 12 volt.**

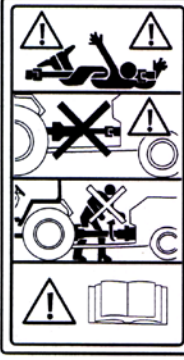
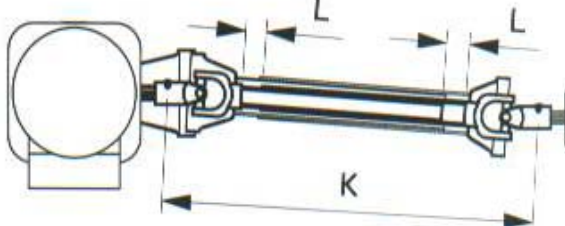
The machine 7 pole plug is connected according to the layout indicated. Before any use of the machine, check the correct operation of all bulbs.

For any replacements, only use 12 volt bulbs of the same power and dimensions of that replaced.

	N°	Use	colour	
1	L	left direction indicator	Yellow	
2	31	weight	White	
3	-	-	-	
4	R	right direction indicator	Green	
5	58 R	RH and LH position light and number plate light	Brown	
6	54	stop light	Red	
7	-	-	-	

Mulcher with PICKER KARGO Mod. container

3.8 CONNECTION OF THE CARDAN SHAFT

	During operation, the cardan shaft can cause risks and hazardous situations. Therefore: • read and keep the use and maintenance handbook attached to the cardan shaft; • check that the cardan shaft is suitable for transmitting the required power; • only use the cardan shaft supplied with the machine; • check that guards are properly installed, integral and effective; • replace worn, broken or missing guards; • switch the tractor motor off before working on the cardan shaft or on the machine itself; • never allow children or unauthorised persons come near to the machine when it is operating and/or undergoing maintenance; • when not in use, rest the cardan shaft on a relevant support; • wear suitable garments (that cannot be caught by the machine or pulled into it), especially close-fitting garments (e.g.: work overalls with safety wrists and ankles).
	On first installation of the cardan shaft, measure the distance K between the P.T.O. buttons grooves with the machine resting on the ground, level and with the overgear axially aligned with the tractor's P.T.O. If necessary, adapt the length of the cardan shaft, making sure that the telescopic tubes overlap for a length that permits between 40 and 50 mm of play. This operation must be carried out on commissioning, at every replacement and every time the machine is installed on another tractor.  After assembly of the cardan shaft, fix the guard using the appropriate chains on both sides. When the machine is put to rest, house the cardan shaft on a relevant support, envisioned on the three-point drawbar in order to prevent the accumulation of dirt, deformation and breakage on the guard. After installation of the cardan shaft, make a few up and down movements of the machine. This is to check that the pipes of the shaft itself are free to run without getting stuck.
	Grease the cardan shaft according to the recommendations envisioned in the instruction manual referring to the same. Do not work with cardan shafts that have no protections. Read the instruction handbook attached to the cardan shaft thoroughly.
	Check that the safety pins are well inserted and efficient. Make sure the restraining devices have been inserted inside the connection jack.
	DO NOT CLIMB OVER THE CARDAN SHAFT FOR ANY REASON WHETHER IT BE MOVING OR AT A STANDSTILL.

Mulcher with PICKER KARGO Mod. container

3.9 HYDRAULIC PLANT

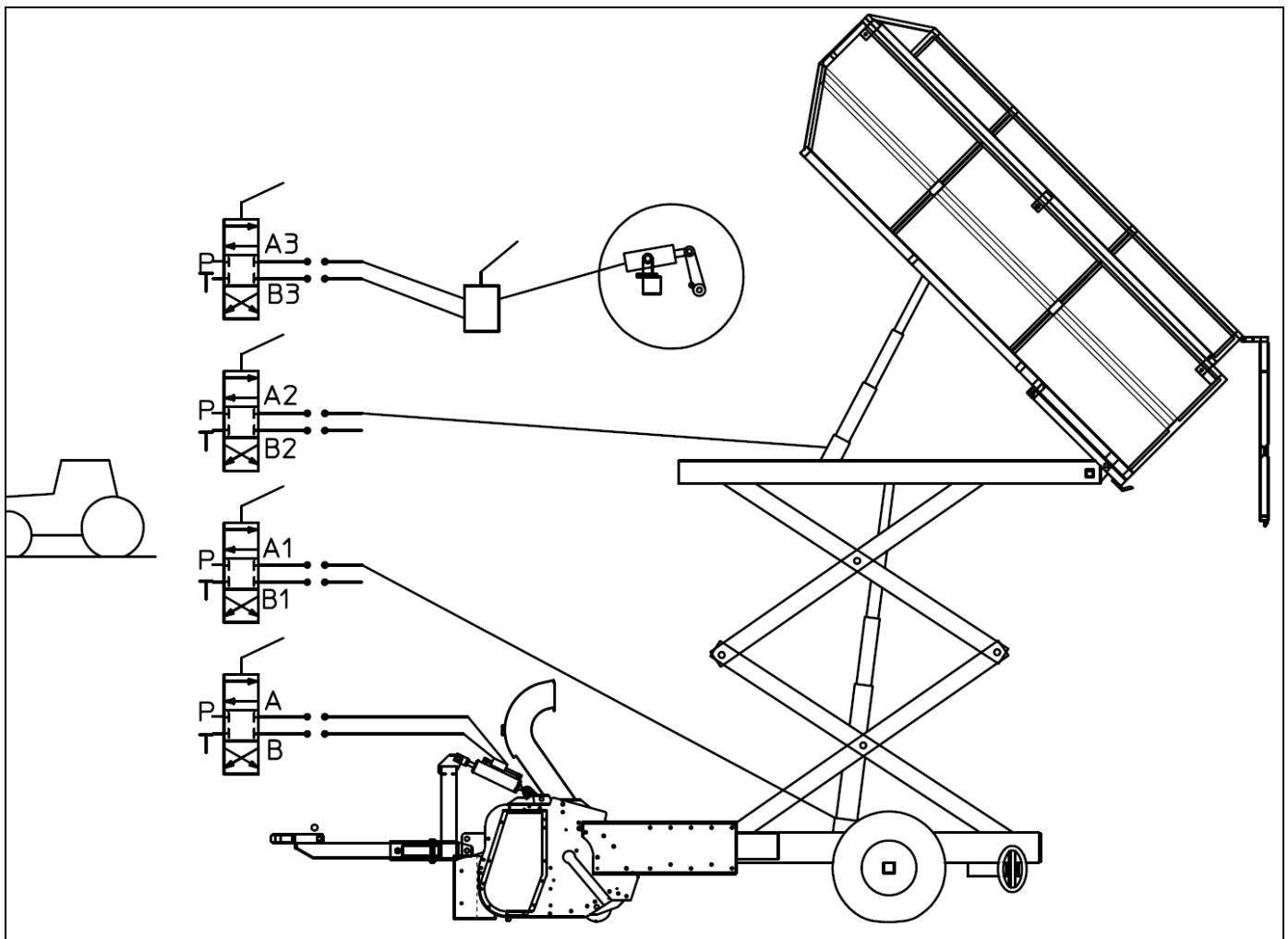
The machine is fitted with various hydraulic jacks to connect to the tractor distributors, which must guarantee the necessary pressure for correct operation (maximum pressure 160/190 bar).

Check the level of hydraulic oil and the compatibility of the machine quick couplings with those of the tractor. Connect the various cylinders respecting the layout.

- Connect the drawbar double-acting adjustment cylinder to sockets A and B of the tractor distributor
- Connect the single-acting cylinder for lifting the container to socket A1 of the tractor distributor
- Connect the single-acting cylinder for overturning the container to socket A2 of the tractor distributor

Connection of the braking plants:

- Connect the braking plant valve (type A), with double-action, to sockets A3 and B3 of the tractor distributor;
This distributor must have the lever that remains connected (see chapter 5.4)
- Connect the braking plant valve (type B) to the relevant CUNA Standard compliant socket of the tractor (see chapter 5.5)



Make sure there are no persons around the equipment; from the tractor it is possible to operate slowly on the levers of the various distributors, checking operation of all cylinders connected. Now, perform some manoeuvres to discharge any air bubbles that may have formed inside the jacks.

Mulcher with PICKER KARGO Mod. container

4 BRAKING DEVICES

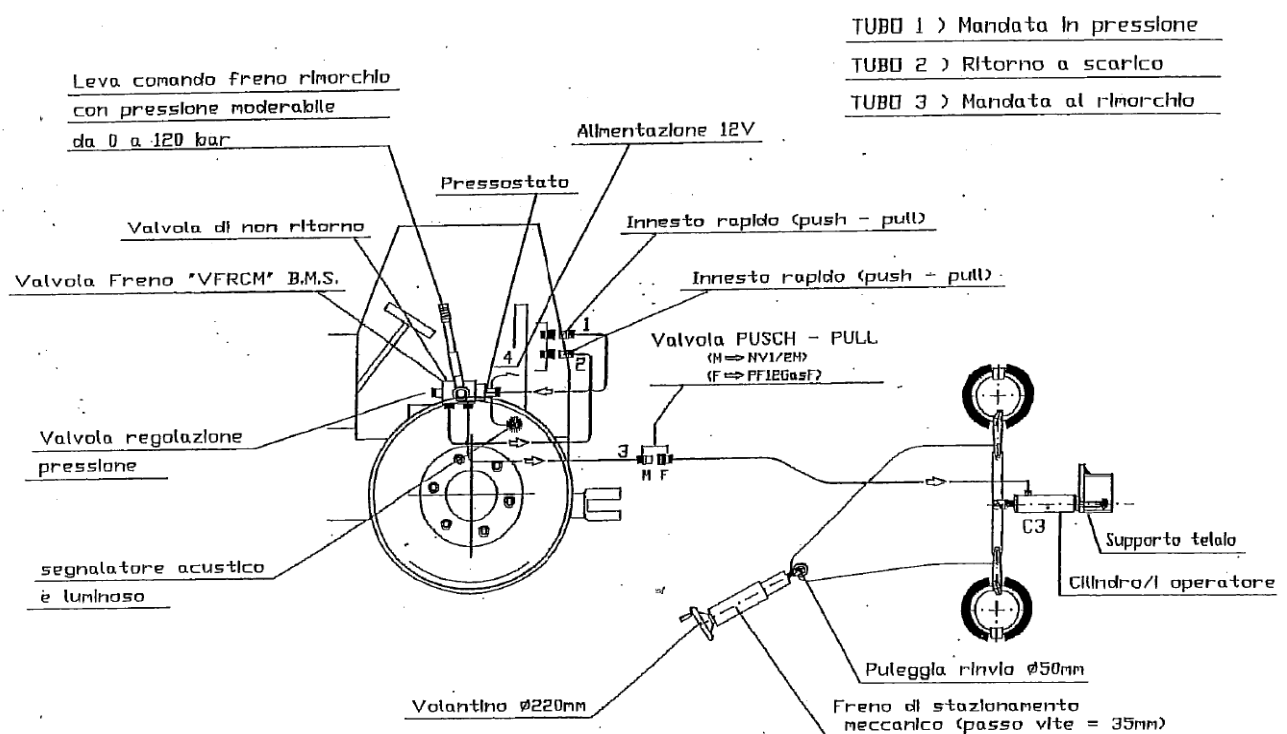
The machine is available with 2 braking plants:

- TYPE 'A': with manual control and lever activated by the operator
- TYPE 'B': with automatic command activated by the same brake pedal as the tractor

4.1 BRAKING DEVICE OPERATION: TYPE "A"

1. With the trailer hitched, connect the pipes into the relevant quick couplings -see layout-
 - DELIVERY pipe to connected to the socket A3
 - RETURN TO DISCHARGE pipe to connect to socket B3
 2. House the trailer braking valve in the relevant bracket for CUNA compliant lever.
 3. Insert the pin into the 12 volt current socket or cigarette lighter
 4. With the pin inserted and engine off, the red LED and acoustic signal must switch-on.
 5. Insert the tractor utilities lever into the flow joint block position (n.° 1). **If the lever is the type that remains inserted, it must be blocked with the relevant retainer.**
 6. Start the engine and check that the red LED and acoustic signal are off.
 7. **If the red LED and the acoustic signals remain on, there are 3 causes:**
 - Connection of inlet and exhaust pipes INVERTED,
 - Utilities lever INVERTED,
 - Fault in the tractor hydraulic plant for supply of the utilities.
 9. BEFORE starting, carry out 2 or 3 braking tests, to check that everything is normal. Whenever the optical LED and acoustic warning, positioned on the running engine braking command, should intervene, do not start or stop immediately if already in movement (the switch-on of the alarm signal indicates the lack of pressure in the trailer braking circuit).
 10. After every braking action, the lever remains inserted in said position. To RELEASE the system brake, push the same lever to the initial position.
 11. By acting on the VFR valve command lever. CM, braking is **directly proportional** to lever travel: from 10 to 120 Bar.
 12. Before disconnecting the pipes from the relevant quick couplings, switch the tractor of fin a way to reset the pressure in the circuit.
- ATTENTION: THE VALVE FUNCTIONS CORRECTLY ONLY WITH CYLINDERS CORRESPONDING TO CUNA STANDARD NC 341-01 (mounted on the machine) WITH START OF MOVEMENT AT MINIMUM PRESSURE OF 18 Bar.
 - MAX. FLOW RATE lt. 40/minute.
 - IT IS RECOMMENDED TO CONNECT PIPE n° 2 DIRECTLY TO THE FREE EXHAUST TANK
 - CAREFULLY READ AND FOLLOW THE INSTRUCTIONS BEFORE SETTING OUT ON THE ROAD.
 - THE COMPANY DECLINES ALL LIABILITY IN THE EVENT OF AN ACCIDENT DUE TO NEGLIGENCE OF THE USER OWING TO INCORRECT USE.

BRAKING PLANT LAYOUT WITH MANUAL COMMAND VALVE (type A)



Mulcher with PICKER KARGO Mod. container

4.1.1 PLANT PARKING BRAKING: TYPE "A"

When parking, the trailer brake must always be engaged as well as the tractor brake.
Turn the hand wheel on the back of the left rear wheel clockwise to block it, vice versa to release it.

4.2 BRAKING DEVICE OPERATION: TYPE "B"

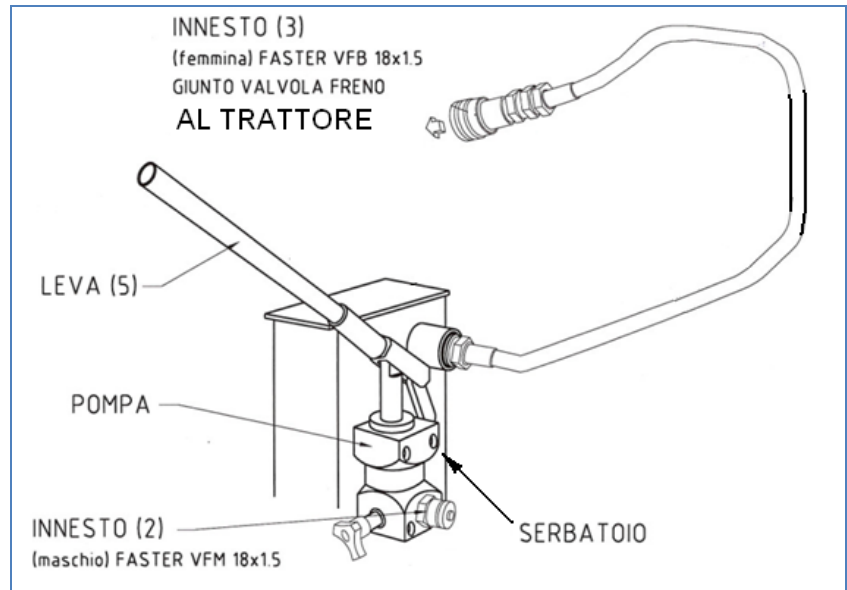
This device mounted on the tractors, set-up with relevant **braking plant complete with CUNA compliant hydraulic socket** allows to brake the machine by operating on the tractor brake pedal.
The unhitched machine normally has the brake engaged and can only move by acting on the manual pump or hitching a suitable tractor.

4.2.1 TRAILER WITH TRACTOR PARKING BRAKE RELEASE

Hitching the machine (brake engaged) to the tractor at a standstill via the coupling (3) **on the relevant CUNA compliant hydraulic distributor** will produce a pressure of approx. 10 bar in the circuit, which will allow the cylinders to be released.

The plant is now operational and the Driver will use the brake pedal to perform service braking.

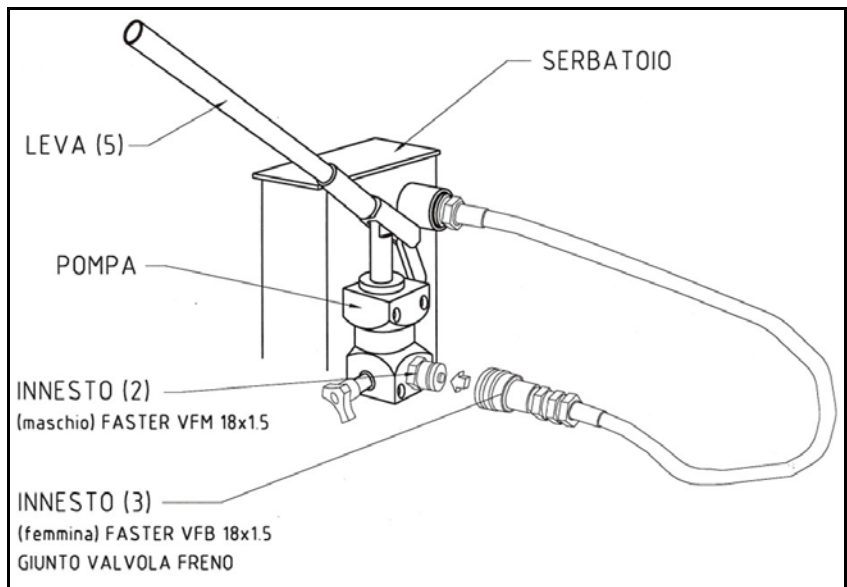
ATTENTION!! both the tractor and trailer must always have the parking brake engaged during the tractor hitching operation!



4.2.2 TRAILER WITHOUT TRACTOR PARKING BRAKE RELEASE

The operation is carried out by removing the coupling (3) from the tractor, connecting it to coupling (2) and activating the lever (5) positioned on the tank pump until a marked increase of the force necessary to lower the lever is detected.

The trailer brake will be released when the operation is completed.



Mulcher with PICKER KARGO Mod. container

4.2.3 TRAILER WITH TRACTOR PARKING BRAKE ENGAGEMENT

The trailer braking system release operation can be performed in two ways:

- 1) switching the tractor engine off
- 2) by activating the tractor parking lever and before disconnecting the joint, waiting for the oil to flow into the tractor circuit and the circuit pressure is annulled.

On completion of the operation, disconnect the coupling (3)

The trailer is now in parking position.

ATTENTION: if the tractor parking lever is not activated, the coupling (3) must not be released for any reason with the engine running.

This would make re-hitching very difficult as it would determine a "pressurised plant with trailer released" situation.

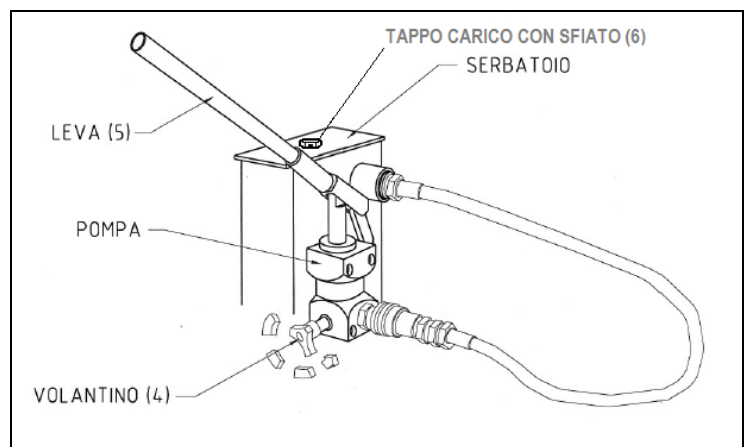
For the same reason, do not disengage the coupling (3) from coupling (2), if the plant is pressurised.

In the event of accidental unhitching of the trailer from the tractor, the release of the pipe from the tank allows the pressure in the braking circuit to be annulled.

The annulment of the pressure thus allows the intervention of the cylinders C2 in rescue braking mode.

4.2.4 TRAILER PARKING BRAKE ENGAGED WITHOUT TRACTOR

Each time the trailer brake is to be engaged, (previously not engaged), it is good practice to hitch to the tractor again. The trailer brake can be engaged again by opening the hand wheel (4) in a way to allow the oil in the circuit to flow into the pump tank, releasing the springs and therefore consequently resetting the pressure in the circuit.



IMPORTANT;

In the event of accidental unhitching of the trailer from the tractor, should occur erroneously, act as follows to restore correct hitching:

Position the end of the pipe with coupling (3) in a container and press on the pin in order to discharge the pressure present in the plant, with consequent escape of oil, paying attention not to be exposed to sprays of oil determined by the pressure.

If repairs are required, contact the manufacturer only.

4.2.5 UNCHARGED PUMP

If the manual pump lever operates without effects, this means that it is "unladen" (no pressure is created); the trailer is blocked.

Follow this procedure to "charge" the pump:

- Block handwheel 5
- Using the compressed-air gun, blow compressed air through the vent hole of cap 6, and, at the same time, operate lever 5
- After some time, the lever 5 will work normally again and the brake will be unblocked.

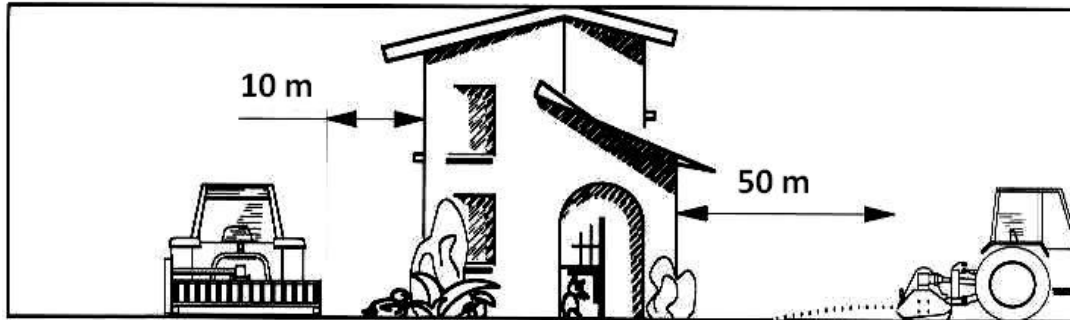
Mulcher with PICKER KARGO Mod. container

5 STARTING THE MACHINE



Before each start-up, follow that stated below:

- Make sure that there are no persons, animals and objects within the work range of the machine as there are dangers present, e.g. the projection of objects at high speed, which can cause serious injury and even death.
- Remain at a minimum safe distance, equal to the machine's work range of 50m.



- Do not allow persons, animals or objects to approach or stop in the machine's work range.
- Before using the machine you need to familiarise with the controls and their work operation.
- Always keep the guards integral, in position and perfectly efficient.
- The tractor must have the engine off, the parking brake engaged, the power take-off disengaged, the ignition key removed from the dashboard and kept in a safe place by the user.
- The rotor and relative machine tools must be at a standstill.
- Always inspect the machine, controlling tightness of all screws and nuts and the presence of damage which must be repaired before start-up, in order to take the machine back to its original state;
- Supervise the work area, removing stones, pieces of metal, steel cables and all dangerous material, without any exception. Adopt all necessary protections for your own protection and that of others. Protect the cab or the driver's position from falling/projection of material at high speed using shatterproof/strengthened/laminated windows and fixed guards (e.g. metal grid) that can resist the impact in compliance with the state-of-the-art of current technology. Contact the manufacturer to request any clarifications on the subject.
- Check that the position and the conditions of the ground in the work area do not jeopardise the stability of the tractor-mulcher unit in any way.
- Make sure that the safety pictograms are in good condition. If the pictograms have deteriorated, replace them with originals obtained from the manufacturer and place them in the position indicated in the instruction manual. Make that all safety pictograms are legible. Clean them using a damp cloth.
- The user must use the safety devices and personal protection equipment (PPE) during use, maintenance, regulation, repairs and handling of the machine.

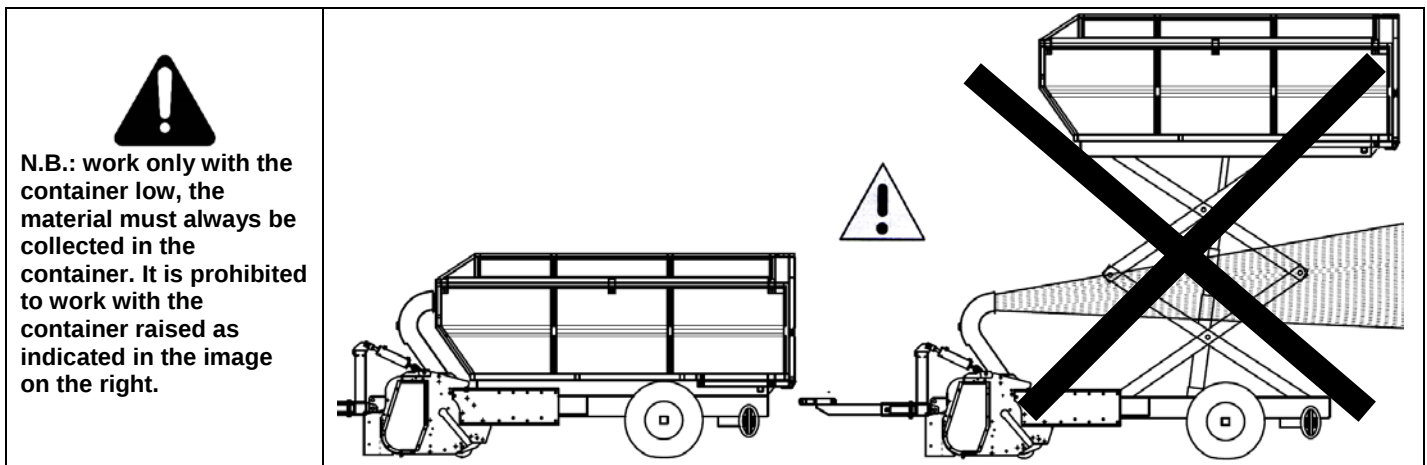


Mulcher with PICKER KARGO Mod. container

5.1 WORK PHASE

With the machine correctly attached to the tractor, approach the working area and proceed as follows:

- 1- By operating on the drawbar height adjustment jack commands, lower the machine until the rear roll rests on the ground and the teeth of the PICK – UP brush against the ground;
- 2- Engage the P. T. O. at 540 rpm and accelerate the tractor gradually until the full working capacity rotation speed of the PTO has been reached;
- 3- Engage the gear and start working;
- 4- If necessary, adjust using the work height adjustment jack, preventing the PICK-UP teeth entering the ground;
- 5- If necessary, adapt the tractor forward speed on the basis of product shredding.

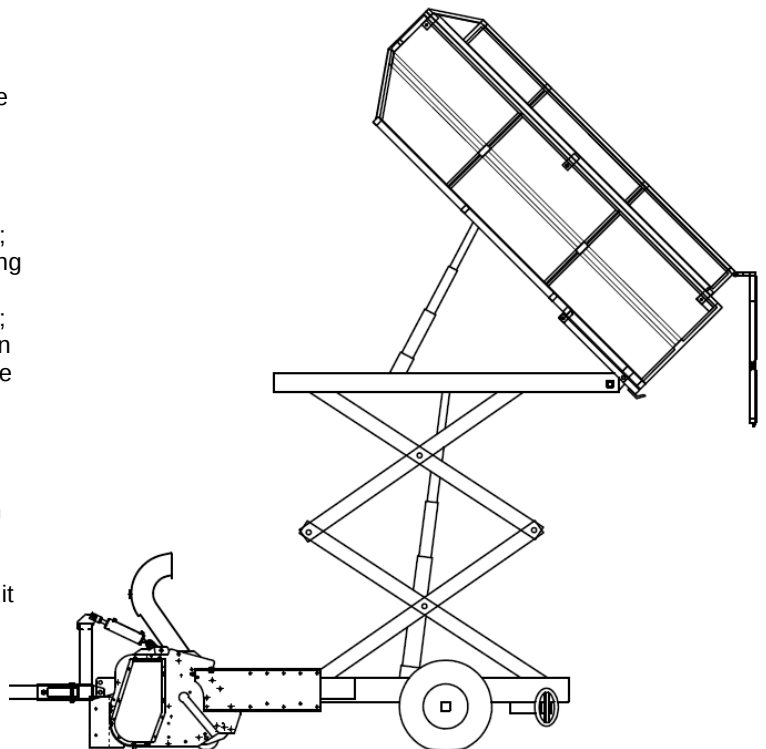


5.2 FULL CONTAINER: DESCRIPTION OF THE EMPTYING OPERATION



Before starting this operation, make sure that the ground is perfectly level and there are no persons or animals in the radius of action of the machine.
 This operation must be carried out by just one operator positioned inside the driving cab of the working vehicle. pay attention to the unintentional contact of the machine with high voltage lines.
 The machine must always be attached to the tractor

- 1- Disconnect the PTO;
- 2- Go to the place of unload and check that it is flat. If necessary, move in a way that said operation takes place in a level position;
- 3- Approach with the vehicle to the exact point in which the material is to be unloaded;
- 4- Disengage the gear, engage the hand brake;
- 5- Make sure there is no-one within the radius of 10 metres; with the tractor ticking over, operate on the container lifting jack activation lever in order to reach the desired height;
- 6- Make sure there is no-one within the radius of 10 metres; with the tractor ticking over, operate on the jack activation lever in order to rotate the container; the retainers release the side with this operation;
- 7- When rotation has been completed, the container will be completely tilted, allowing the material to escape;
- 8- When it has been emptied completely, operate in the opposite manner on the container rotation jack activation lever so that the same is taken back into the horizontal position.
- 9- Operate on the container lifting jack activation lever until it is lowered completely;
- 10- Disengage the brake, engage the gear and start working again.



Mulcher with PICKER KARGO Mod. container

5.3 UNHITCHING THE MACHINE



The operations described below can present dangerous situations: prevent the presence of unauthorised persons where the machine will be positioned and in the immediate vicinity of the same.

To unhitch from the machine, follow the indications given successively in a scrupulous manner:

1. Make sure that the working vehicle unit is on flat, stable ground;
2. Disengage the P.T.O. and wait until the rotor is at a complete standstill;
3. Brake the tractor;
4. Rest the machine completely on the ground and switch the tractor off;
5. Disconnect the drawbar fixing pin;
6. Disconnect the cardan shaft from the tractor and place it on the bracket;
7. Disconnect the jacks power pipes.

Put the hitch pins and the safety pins in the relative housings on the drawbar, so that they can be found when the machine is to be used again.

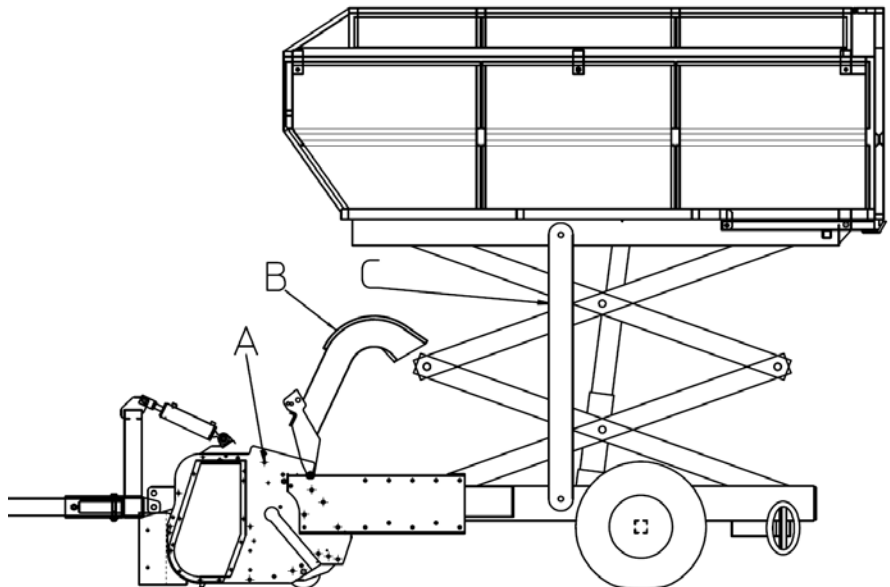
5.4 FLOODING



It must be remembered that any variation in the field conditions such as type or volume of the material to be mulched or foreign bodies, can cause the mulcher to jam.

if this is the case, follow this procedure:

1. Remove the 2 side bolts A for fixing the conveyor B
2. Lift the container just enough to allow the conveyor B to be overturned
3. Clean the grid above the rotor, visually check for the presence of any damage/wear of the rotor or sharp parts (if necessary, replace any damaged tools)
4. Re-position the conveyor B and fix it with the 2 bolts A
5. Re-start the job



During this operation, it is necessary to position the mechanical block stays "C" to prevent unexpected lowering of the suspended parts. Always perform this operation on stable and flat lands and prevent unauthorised persons approaching.



The operator must use suitable Personal Protection Devices (PPD) during use, adjustment, maintenance, repairs and handling.

Mulcher with PICKER KARGO Mod. container

6 ADJUSTMENTS

6.1 FORWARD SPEED



Remember that the forward speed of the tractor must be adapted to the type and quantity of the material to mulch as, AN EXCESSIVE SPEED, uselessly worsens the transmission parts, wearing them out before time. In this case, mulching will be poor quality, with possible expulsion of rough material, which due to the greater inertia can exceed the safety limits envisioned.

The following table contains speeds we recommend to get maximum performance from the machine, in particular:

RECOMMENDED FORWARD SPEEDS (km/h)															
TYPE OF MATERIAL	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8
Vineyard pruning															
Apple tree-pear tree pruning															
Olive-peach tree pruning															
Brush - woodland															

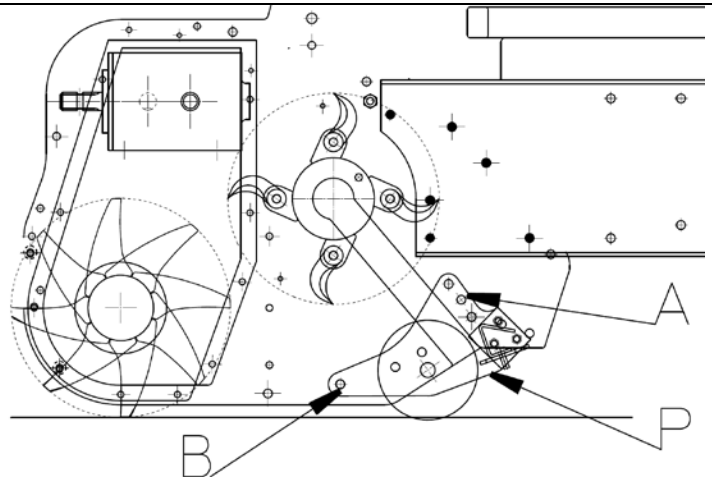


When changing direction, turning and reversing, lift the head from the ground slightly and disengage cardan shaft rotation, in order to prevent damage to the structure.

6.2 ROLL ADJUSTMENT

Normally, the roll must be regulated in line with the Pick-up collector teeth, which remember, must be adjusted flush to the ground. Proceed as follows to adjust the position of the roll:

- 1- Using a suitable lifting device (see weight indicated in paragraph 1.4.3.), lift the roll slightly from the ground
- 2- Remove the bolt A
- 3- Loosen the bolt B
- 4- Turn support plate P into one of the 3 positions available
- 5- Mount the bolt A
- 6- Tighten the bolt B



The operations must be performed on both ends of the roller

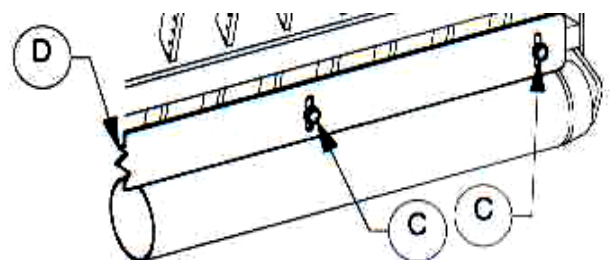


Attention: in order to perform the operations described above, ascertain that the PTO is disconnected. The tractor must have the brake engaged and off or disconnected.

6.3 ROLL-CLEANER ADJUSTMENT

Operate as follows:

- 1- loosen the bolts C on all of the adjustment slots;
- 2- adjust the distance of the roll-cleaner D, moving it away or approaching it, making sure that it is positioned parallel to the roll;
- 3- tighten all bolts C.



Mulcher with PICKER KARGO Mod. container

7 MAINTENANCE



In the event of breakdown, the operator must stop cardan rotation, wait for the sharp parts to come to a standstill, extract the ignition key, get down from the tractor and ascertain the size of the problem; he must then proceed with any interventions on the machine.



This instruction manual must have been read and understood thoroughly before performing any maintenance on the machine.

Remember that all maintenance operations must be performed by qualified and trained staff, with the machine at a standstill. The maintenance and repair operations must not be performed outdoors, but in appropriately equipped workshops.



The operator must use suitable Personal Protection Devices (PPD) during use, adjustment, maintenance, repairs and handling.

The oil used must be appropriately recovered and must not be disposed of in the environment, as, according to the Laws in force, it is classified as dangerous waste and as such, must be taken to relevant collection centres. Contact the nearest Consortium for Used Oils.

The following operations must be carried out before starting any maintenance operation:

- the machine must be placed on flat and compact land during maintenance operations;
- switch the machine engine off, engage the parking brake and extract the ignition key from the dashboard;
- carry out any maintenance operation only after the oil temperature has dropped below 60°C;
- always use relevant Personal Protection Devices (accident-prevention shoes, overall and work gloves, etc...);
- prepare all types of accident-prevention envisioned for the type of operation in progress;
- if compressed air is used to clean the machine, relevant protective goggles must be worn;
- when maintenance operations lead to access to machine parts that cannot be reached from the ground, and in all cases points higher than 1.50 m from the ground, use a ladder or platform in compliance with the Standards in force;
- do not carry out repairs of which you have no knowledge. Always follow the instructions and failing this, contact the supplier or expert staff;
- attention: replace the hydraulic pipes every time they are damaged;
- do not use lifting points different to those prescribed;
- make sure that the lifting equipment is suitable to carry out the operations in compliance with Safety Standards;
- do not keep the tractor engine running in closed places and without ventilation plant suitable to dispose of exhaust gases.
- prevent prolonged and repeated contacts of the skin with fuels/lubricants/fluids, as they could cause skin disorders or other syndromes;
- do not ingest fuels/lubricants/fluids. In the case of accidental contact with the eyes, wash the part well with water, seek medical advice;
- pay maximum attention due to the possible high temperatures of the oil/discharged fluid;
- do not weld in close or inadequately ventilated environments;
- do not weld on painted surfaces or in proximity of the same, to prevent the development of toxic vapours. Remove paint with suitable products, then wash the surfaces and leave them to dry.
- discharge the pressure from the hydraulic circuits before performing events;
- do not use the hands to identify pressurised fluid leaks. The escape of pressurised fluids can penetrate the skin and eyes with very serious consequences.

Mulcher with PICKER KARGO Mod. container

7.1 MAINTENANCE INTERVENTIONS THAT CAN BE CARRIED OUT BY THE OPERATOR

The indications described in the following points do not require any specialisation.

The operator must be aware of and accurately follow the indications and must have stopped and unhitched the machine (see paragraph 5.3).

The periodic checks and maintenance operations must be performed within the times and using the methods established and are the operator's responsibility.

Failure to comply with maintenance times and regulations jeopardises the correct operation of the machine and its duration and consequently makes warranty validity null and void.

Intensify the frequency of maintenance in heavy duty operating conditions (frequent stopping and starting, extended winter period, etc....).

To use and keep the machine in the best conditions possible, follow the indications (after the first 4 hours of working and successively every 50 hours of work):

1. check fixing of all bolts, pins and plugs; (see tables in chapter 7.1.1)
2. check tension of the transmission belts (see chapter 6.4)

7.1.1 COUPLING TORQUE TABLE

Coupling torque table for 8.8 steel screws

Coarse thread screw	M8	M10	M12	M14	M16	M20	M24
Coupling torque Nm	25	49	86	135	210	410	710
Fine pitch screw	M8x1	M10x1.25	M12x1.25	M14x1.5	M16x1.5	M20x1.5	M24x2
Coupling torque Nm	27	52	95	150	225	460	780

Coupling torque table for 10.9 steel screws

Coarse thread screw	M8	M10	M12	M14	M16	M20	M24
Coupling torque Nm	35	69	120	190	295	580	1000
Fine pitch screw	M8x1	M10x1.25	M12x1.25	M14x1.5	M16x1.5	M20x1.5	M24x2
Coupling torque Nm	38	73	135	210	315	640	1100

7.2 GREASING AND LUBRICATION

Periodic and systematic greasing and lubrication of the machine maintain its performance and increase its useful life span.

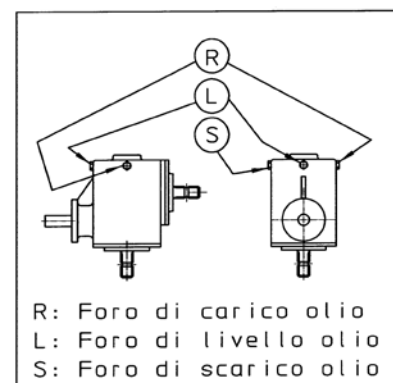
7.2.1 LUBRICATING THE TRANSMISSION SYSTEM:

Carefully clean the parts around plugs before working on transmission unit, this prevents dirt from penetrating these units.

Transmission unit requires:

- 1- During the first 20 hours of work, check the oil levels: oil must come up to the level hole. Add oil as required. Perform the next oil level checks at 50 hour intervals.
- 2- After the first 40 working hours, replace the transmission unit oil completely. Repeat this operation every 250 work hours.

Recommended lubricant : Gear oil ISO VG 460



The oil used must be appropriately recovered and must not be disposed of in the environment, as, according to the Laws in force, it is classified as dangerous waste and as such, must be taken to relevant collection centres. The "Mandatory Consortium for Used Oils" must be contacted for the collection of waste oils.

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7.2.2 GENERAL GREASING

Grease the points indicated using a relevant greasing pump.

Only use a manual greasing pump in order to prevent laceration of the bearing seals and the grease passage piping.

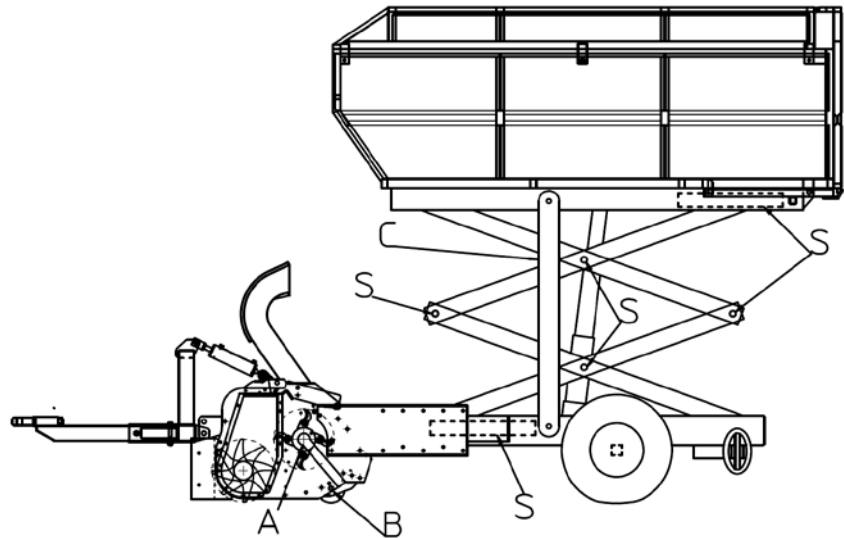
Recommended lubricant: EP2 grease

A – ROTOR: Grease every 8 working hours, giving 1-2 maximum pumps to prevent damage to the internal seals of the supports. The rotor is lubricated from the pulley side via a greaser set-up on the small pipe that escapes from the transmission casing.

B – LEVELLING ROLL grease every 8 working hours on both sides of the roll, pumping grease until it escapes.

S – Every 20 working hours, grease the articulation points highlighted.

Grease the cardan shaft as indicated in the relative use and maintenance book supplied by the manufacturer of the cardan shaft



During this operation, it is necessary to position the mechanical block stands "C" to prevent unexpected lowering of the suspended parts. Always perform this operation on stable and flat lands and prevent unauthorised persons approaching.

7.2.3 LUBRICANTS TABLE

The following table illustrates the sticker applied to the machine, the reference lubricant is highlighted with grey background

		LUBRIFICANTI RACCOMANDATI - recommended lubricant					
		empfohlenen Schmiermittel - lubrifiant recommandé					
		AGIP	IP	ESSO	SHELL	MOBIL	BP
		BLASIA 460	MELLANA OIL 460	SPARTAN EP 460	OMALA 460	MOBILGEAR 634	ENERGOL GR-XP 460
GREASE 		GREASE MU EP 2	ATHESIA EP GREASE 2	BEACON EP 2	ALVANIA GR. EP 2	MOBILUX EP 2	GREASE LTX EP 2
							TOTAL
							CARTER EP 460
							MULTIS EP 2

7.3 MACHINE HOT POINTS

Before any maintenance intervention, make sure that potentially hot parts have cooled down.

Pay attention to:

- any hydraulic engine;
- pulleys and belts;
- hydraulic hoses.

7.4 HYDRAULIC PLANT



Check the machine visually to make sure that there are no loose fittings, piping with scratches, cuts or other signs of wear. Tighten the loosened fittings and replace the worn or damaged pipes.

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7.4.1 REPLACING A HYDRAULIC PIPE

Before attempting to replace hydraulic piping, make sure all safety measures envisioned for maintenance interventions are taken, stop the machine and close the hydraulic plant valves.

Before removing a hydraulic hose, make sure that any residual pressure in the plant has been discharged.

Identify the damaged hose precisely and use a relevant wrench to loosen the two relative connection points, paying attention to the possible escape of hydraulic fluid.



Replace the damaged piping only using original spare parts.

Check the perfect condition of the hitch points (threads, gaskets, etc.), before installing the new hose.

Use an appropriate wrench to tighten the hydraulic hose fittings, which have seepage, clockwise. Do not tighten excessively so as not to ruin the threading on the fittings.



The oil used must be appropriately recovered and must not be disposed of in the environment, as, according to the Laws in force, it is classified as dangerous waste and as such, must be taken to relevant collection centres. The "Mandatory Consortium for Used Oils" must be contacted for the collection of waste oils.

7.5 CHECKING WEAR OF TOOLS

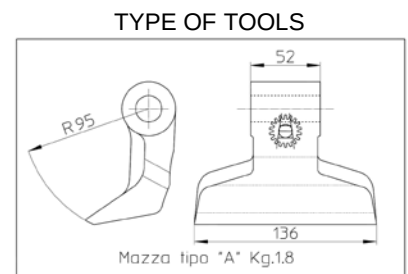
The wear control of the mulching tools is performed visually. Replace the blades when an increase in power absorption is noted or the material is not cut perfectly.

Using the machine with blunt blades compromises the quality of the job.

The dimensions and weights are strictly controlled: if they are replaced, the rotor does not have to be dynamically balanced again.

Broken tools or tools that are too worn transmit vibrations to the machine. In this case, stop the job immediately and only start again after the tools have been replaced.

The steel fixing screw with resistance class of 10.9 (UNI 3740), guarantees secure anchorage and duration in compliance of that of the tools.



ATTENTION: it is recommended only to mount original tools onto the rotor.

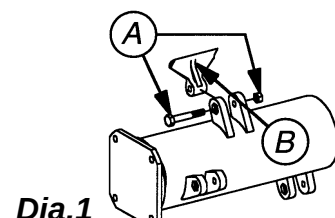
7.6 REPLACING THE TOOLS



ATTENZIONE

If a tool must be replaced, it is recommended to replace the entire series. Not using original spare parts can cause the machine to vibrate anomalously.

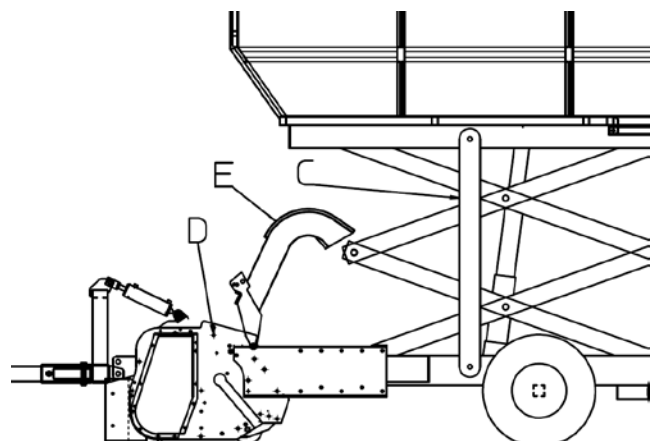
Attention: in order to perform the operations described below, ascertain that the PTO is disconnected. Work on a stable and flat surface, the tractor must have the brake engaged and be off.



Dia.1

Follow the operations below observing dia. 2:

1. Lift the container
2. Remove the 2 side bolts D for fixing the conveyor E
3. Overturn the conveyor E in a way to create sufficient access space to the rotor.
4. Remove the grid from above the rotor, at this point the rotor is accessible
5. Observing dia. 1, replace the hammer B, making sure that it has the same direction of rotation as that just removed, mount a new bolt A, making sure to insert the head of the screw into the hexagon in the support and tighten fully.
6. When all hammers B have been replaced, reposition the grid and the conveyor E, fixing it with the 2 bolts D



Dia.2

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7.6 REPLACING THE TOOLS



During this operation, it is necessary to position the mechanical block stands "C" to prevent unexpected lowering of the suspended parts. Always perform this operation on stable and flat ground and prevent unauthorised persons approaching.

If there are still vibrations when the tools have been replaced, the rotor must be dynamically balanced again in a specialised workshop.



If an individual tool must be replaced, it is recommended to replace the entire range. Not using original spare parts can cause the machine to vibrate anomalously. When mounting the tools, pay attention to the direction of assembly.

Avanzamento
macchina

Senso di montaggio
delle mazze



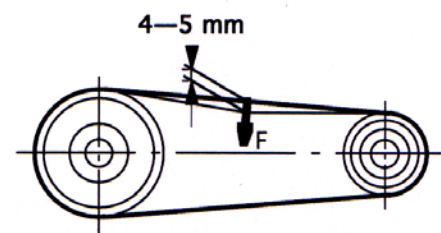
Our spare parts guarantee complete and correct use of your machine again.

7.7 TENSIONING THE BELTS

The belts are considered tensioned when, by applying a force F of approx. 4-5 Kg, to each of them, the slack at the centre of the two pulleys is measured at 4-5 cm.

All this considered, it is very important to control belt tension: if necessary, adjust until the slack is in compliance with that stated above.

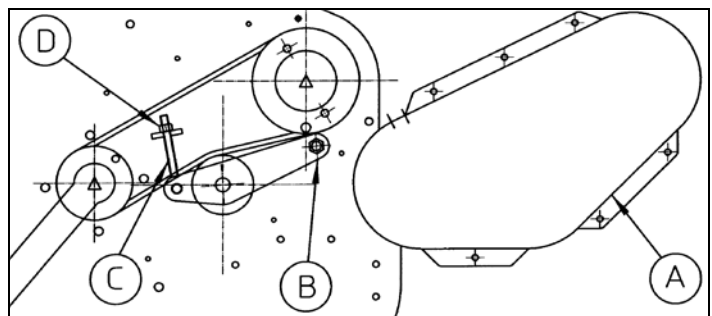
This operation must be carried out after the first 4 working hours and then every 50 hours.



Attention: in order to perform the operations described above, ascertain that the PTO is disconnected. The tractor must have the brake engaged and off or disconnected.

Proceed as follows for the adjustment:

- 1- Remove the transmission covering casing A;
- 2- Loosen the screw B;
- 3- Tension the belts by acting on the tensioning screw C and on the adjustment nut D;
- 4- Tighten the screw B;
- 5- Re-mount the casing A, fixing it with the screws.



ATTENTION: DO NOT WORK WITHOUT BELT PROTECTION CASING!

Mulcher with PICKER KARGO Mod. container

7.8 REPLACING THE TRANSMISSION BELTS

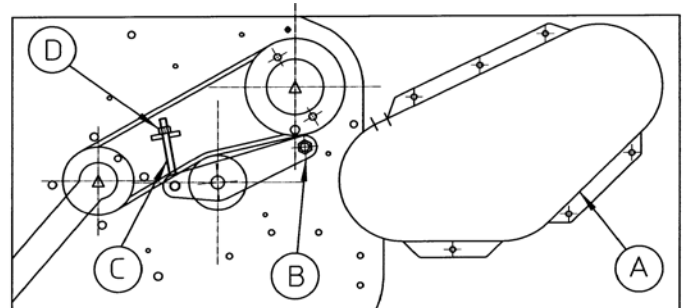


attention: in order to perform the operations described below, ascertain that the PTO is disconnected.

The tractor must have the brake engaged and off or disconnected. Never work without the guard A

To operate in this way:

- 1- Remove the casing A
- 2- Loosen the bolt B, which keeps the belt-tensioner fixed
- 3- Loosen the nut D in a way to remove tension from the belts
- 4- As the belts are no longer tensioned, they can be replaced.
- 5- When replacement has been completed, take the belt-tensioner support to the initial position, tensioning the belts correctly via nut D (see paragraph 6.4)
- 6- Tighten the bolt B
- 7- Re-mount the lateral transmission cover and the casing A.



7.9 CLEANING THE MACHINE

Clean the machine regularly using pressurised water and paying particular attention to residues of flammable materials. Ensure that the hot parts of the machine are free of straw, hay or residues of flammable materials.

7.10 STORAGE – GARAGING

If the machine is immobilised for long periods, store it in a place sheltered from the elements and protect it from damage. Before garaging, it is recommended to clean all of the machine thoroughly and suitably lubricate all mechanical parts in order to protect them from rust.

Check that the storage temperature is between 0°C and 50°C.

Before putting the machine in rest mode for long periods, it is good practice to operate as follows:

- release the rotor and the tools from any mulching residues;
- clean the machine thoroughly;
- carry out a general visual check of the machine in order to identify any structural damage, detect any deep scratches in the paintwork, check that original safety pictograms are present in their positions and that they are integral and legible;
- grease all mechanical parts and locking pins;
- if possible, store the machine in a covered place, on a level and smooth surface.

The "Mandatory Consortium for Used Oils" must be contacted for the collection of waste oils.



Check that the storage temperature is between 0°C and 50°C.

7.11 COMMISSIONING OR PUTTING INTO SERVICE AFTER A LONG PERIOD OF INACTIVITY

That stated below must be followed before using the machine for the first time or after a long period of inactivity:

- check that the machine is not damaged;
- check the mechanical parts, which must be in good working order and not rusted;
- check the state of wear of the tools;
- grease all mobile parts thoroughly;
- check there are no oil leaks coming from the fittings or piping;
- check that all protections are integral and positioned correctly.

Mulcher with PICKER KARGO Mod. container

7.12 SCRAPPING

If the machine is scrapped, it must be disposed of in the appropriate waste sites in accordance with the laws in force. Before scrapping, separate the plastic and rubber parts, electrical and electronic parts (if present). Recover any used oil and discard at the appropriate collection centres.



The oil used must be appropriately recovered and must not be disposed of in the environment, as, according to the Laws in force, it is classified as dangerous waste and as such, must be taken to relevant collection centres. The "Mandatory Consortium for Used Oils" must be contacted for the collection of waste oils.

Parts consisting only of plastic, aluminium or steel may be recycled if collected by the appropriate centres.

8 SCHEDULED MAINTENANCE TABLE

Description	Controls
GENERAL MACHINE CHECKS	
Rotor greasing	Every 8 working hours
Roller greasing	Every 8 working hours
Container scissor device pads greasing	Every 40 working hours
Container scissor joints greasing	Every 40 working hours
Check bolt tightness	After the first 4 hours and then every 50 hours
Check belts tensioning	After the first 8 hours and then every 50 hours
Check tool wear	Before every job
Tool replacement	When damaged and no longer sharp
Replace transmission belts	When too worn
HYDRAULIC PLANT	
Check tightness of hydraulic hoses	At all fluid seepage
Check tank oil level	Before every job
REDUCERS, COUPLERS	
Check oil level	Every 20 working hours
Check fixing bolts	After the first 4 hours and then every 50 hours
Oil replacement	After the first 40 hours and then every 250 hours

9 TROUBLESHOOTING

ANOMALY	CAUSE	SOLUTION
Non-uniform mulching	- Tools worn or damaged - Machine not well-adjusted - Machine clogged	- Replace the tools - Make the adjustments - start cleaning
Machine noise	- Rotor unbalanced - Tools damaged, worn or missing - Bearings worn	- Balancing in specialised workshop - Replace the tools - Replace the bearings
Excessive heating of hydraulic engine	- Oil level too low - Spent oil	- Add oil - Replace the oil

10 SPARE PARTS

Repairs and replacements must be carried out using original spare parts, which must be requested from the Authorised Dealer. Please note that the presence of spare parts should be properly accompanied by the following indications:

- type of vehicle;
- serial number;
- spare part code that can be obtained from the Spare Parts Catalogue.

If it is a component that is part of a major unit (rotor, overgear unit, casings), you should also specify the model and serial number of the unit.

Mulcher with PICKER KARGO Mod. container

11 WARRANTY

On delivery, check that the machine has not been damaged during transport and that the accessories are complete.

WARRANTY CONDITIONS:

- The manufacturer guarantees its products for a period of 12 months from the date of delivery on the condition that the attached form is filled-in in full and sent to the manufacturer within 15 days of date of delivery.
- In accordance with the aforementioned terms, the manufacturer agrees to supply all components to be replaced under warranty according to its own evaluation or the opinion of its authorised representatives regarding parts that have material or manufacturing defects. Shipping and labour costs shall in any case be charged to the customer.
- The warranty does not include payment for damage caused by improper use of the machine by the operator and for parts normally subject to wear and tear and breakage such as: hammers, blades, belts, etc.
- The manufacturer is not liable for accidents involving the operator or third parties, deriving from improper use of the machine.
- This warranty is not valid in the case in which:
 - a) the maintenance and repairs have been performed by unauthorised individuals or companies.
 - b) the machine has been previously repaired or modified with non-original spare parts.
 - c) in the event of an incorrect manoeuvre;
 - d) due to insufficient maintenance and/or lubrication;
 - e) when permissible power limits have been exceeded;
 - f) whenever the instructions given in this manual are not followed;
 - g) whenever unauthorised modifications have been made.
- Machine breakdowns during or after the warranty period shall not give rise to any right to interrupt payments for the goods that have already been delivered. No breakage or malfunction can be used as a pretext for delaying payment.
- The manufacturer reserves the right, at all times, to make any modifications in order to improve its own product and is not obliged to add these modifications to previously manufactured machines, which have already been delivered or are undergoing manufacture.
- These general warranty terms replace and cancel all previous explicit or implicit terms.

WARRANTY CERTIFICATE

CERTIFICATO DI GARANZIA GUARANTEE CERTIFICATE GARANTIESCHEIN CERTIFICAT DE GARANTIE CERTIFICADO DE GARANTÍA GARANTIBEVIS GARANTIECERTIFICAAT			
FAC-SIMILE			
Nome / Name / Nom / Nombre / Namn / Naam Indirizzo / Address / Anschrift / Adresse / Dirección / Adress / Adres		<i>Si confermo di aver ricevuto il libretto uso e manutenzione e di essere stato informato circa il trattamento dei dati personali in base al Decreto Lgs. 196/03.</i> <i>We confirm to have received the instructions manual and that we have acquired all the information of the Legislative Decree 196/03 about the treatment of personal information.</i> <i>Wir bestätigen, dass wir das Betriebs- und Wartungshandbuch erhalten haben und dass wir alle Informationen über die Verarbeitung unserer persönlicher Daten (Verordnung 196/03) gelesen haben.</i> <i>Nous confirmons d'avoir reçu la notice d'emploi et d'entretien de l'appareil et d'être informés notamment le traitement de nos coordonnées selon le décret législatif 196/2003.</i> <i>Se confirma la recepción del manual de uso y mantenimiento y haber sido informado acerca del tratamiento de los datos personales en base al Decreto legislativo 196/03.</i> <i>Undertecknad bekräftar mottagandet av användar- och underhållsmanualen och har informerats angående hantering av personuppgifter enligt lagdekret 196/03.</i> <i>Ik bevestig de handleiding voor gebruik en onderhoud te hebben ontvangen en dat ik geïnformeerd werd betreffende de behandeling van mijn persoonlijke gegevens, krachtens het Wetsdecreet 196/03.</i> Firma dell'acquirente / Purchaser's signature / Unterschrift des Käufers / Signature de l'acheteur / Firma del comprador / Köparens underskrift / Handtekening van de koper Date /Date/Datum/Fecha	

NOTES

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