



FLAIL MOWER SL / SL-Q

095•110•125•140•155

USE AND MAINTENANCE MANUAL



SIGMA[®]

TRANSLATION OF ORIGINAL INSTRUCTIONS
90366007~00



MADE IN ITALY

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Congratulations on your purchase of the

FLAIL MOWER

The SL Flail Mower, as well as the SL/Q model, was built by SICMA S.p.A, which has been producing agricultural machinery for more than 40 years. This machine meets all the safety and quality requirements imposed for this type of equipment.

Remember, however, that to obtain the best performance and to maximise the productivity features, it is necessary to familiarise yourself with the instructions and information in this manual and to follow them.

1. INTRODUCTION

1.1 SOME NOTES REGARDING THE USER MANUAL

Remember that the USER MANUAL is not an accessory of the Flail Mower but is an INTEGRAL part and a SAFETY MEASURE (EN 12100-1).

For this reason:

- Keep the manual in a good state;
- Keep it near the equipment itself;
- Deliver it to any new operator, user, maintenance technician, handler or owner (in case of change of ownership).

In this way, the Flail Mower can be used in the best way possible, for all the purposes for which it was designed and in the safest conditions.

The manual must not be damaged, must remain intact, complete with all its pages, and must be kept away from moisture and heat; during its consultation, prevent it from become wet or reducing its readability.

In case of loss or deterioration of this manual, request a copy from the manufacturer or from the nearest Dealer communicating the identification code on the cover.

To facilitate consultation, the manual has been divided into parts so that every phase is well described.

With these measures, SICMA intends to draw unequivocally the operator's attention on the dangerous situations that may arise.

WARNING!

The drawings and any other documents delivered together with the Flail Mower are the property of SICMA, which reserves all rights and reminds you that they cannot be made available to third parties without its written approval. Therefore, any reproduction, even partial, of the text and illustrations is prohibited.

The information, descriptions and illustrations contained in this manual reflect the state of the art of the machine at the moment it was put on the market.

The Manufacturer reserves the right to make, at any time, any changes to the machines for technical or commercial reasons. Such modifications do not oblige the Manufacturer to intervene on machines sold up until that moment, nor to consider this publication inadequate.

Any additions that the Manufacturer deems appropriate to provide later, will need to be kept with the manual and considered to be part of it.



1.2 DECLARATION OF CONFORMITY

The machine is delivered accompanied by the following Declaration of Conformity.

EC DECLARATION OF CONFORMITY

The company

Sicma s.p.a. - C.da Cerreto, 39 - 66010 Miglianico (Ch) - Italy
Tel.: +39 0871 95841 - Fax: +39 0871 950295
e-mail: info@sicma.it - http://www.sicma.it

hereby declares that:

Product: SHREDDER
Model: SL
Serial number:

complies with the essential requirements for safety and health of Directive 2006/42/CE.

To fulfil the above mentioned Directive have been applied the following harmonised standards:

- UNI EN 745:2010, UNI EN ISO 4254-1:2010, UNI EN ISO 12100-1:2009, UNI EN ISO 12100-2:2009

and the technical standards and specifications

- ISO 11684:1995, ISO 13852:1996, UNI 9456:1989.

The person authorised to compile the technical file is Mr. Lorenzo Aurora



Miglianico, 10-01-2019

Lorenzo Aurora
AMMINISTRATORE UNICO





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USE AND MAINTENANCE MANUAL



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1.3 FLAIL MOWER IDENTIFICATION AND MANUAL CODE

For any after-sales requests or information regarding the Flail Mower, contact SICMA or its after-sales centres always stating the model and the serial number stated on the CE plate.

The identification code of this manual, indicated on the cover, must be recorded in a safe place so that, in case of loss or deterioration of this manual, a copy can be requested from SICMA or from the nearest Dealer.



SICMA SPA - C.da Carreto, 39 - 66100 Miglianico (Ch) - Italy
Tel.:+39 0871 95841 Fax:+39 0871 950295 - info@sicma.it - www.sicma.it

Type:	Shredder	
Model:	SL 095	
Year:	2018	
Mass (Kg):	315	Input (rpm): 540
Serial No		
#4134216002#		

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1



1.4 GENERAL DELIVERY NOTES

The Flail Mower, its parts and its accessories are normally delivered by truck or container and can sometimes be placed in separate containers.

Upon receipt of the machine, check that the delivery is consistent with the order specifications (see the packing slip or packing list) and that the Flail Mower and its accessories are not damaged.

In the event of damage or missing parts, inform SICMA or its local representatives, the shipper or its insurance company immediately, in detail and/or with photos.

The Flail Mower is delivered by SICMA with the following equipment:

- 1 - UNIVERSAL JOINT
- 2 - FLAIL MOWER USE AND MAINTENANCE MANUAL
- 3 - CARDAN SHAFT USE AND MAINTENANCE MANUAL
- 4 - CE DECLARATION OF CONFORMITY

2



FLAIL MOWER SL / SL-Q 095•110•125•140•155 USE AND MAINTENANCE MANUAL



TRANSLATION OF ORIGINAL INSTRUCTIONS
903660007-00



3

PM14 • PM57 • PM80E



ENG • Users manual

D • Bedienungsanleitung

F • Manuel d'utilisation

I • Manuale d'istruzioni

ES • Manual de instrucciones

P • Manual de instruções

GR • Руководство по эксплуатации

SL • Navodila za uporabo



Cod:1140917_D

4

EC DECLARATION OF CONFORMITY

The company
Sicma s.p.a. - C.da Ceresolo 39 - 66010 Miglianico (Ch) - Italy
Tel: +39 0871 95841 - Fax: +39 0871 950295
e-mail: info@sicma.it - http://www.sicma.it

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The person authorised to compile the technical file is Mr. Lorenzo Aurora



Miglianico, 10-01-2019

Lorenzo Aurora
AMMINISTRATORE UNICO

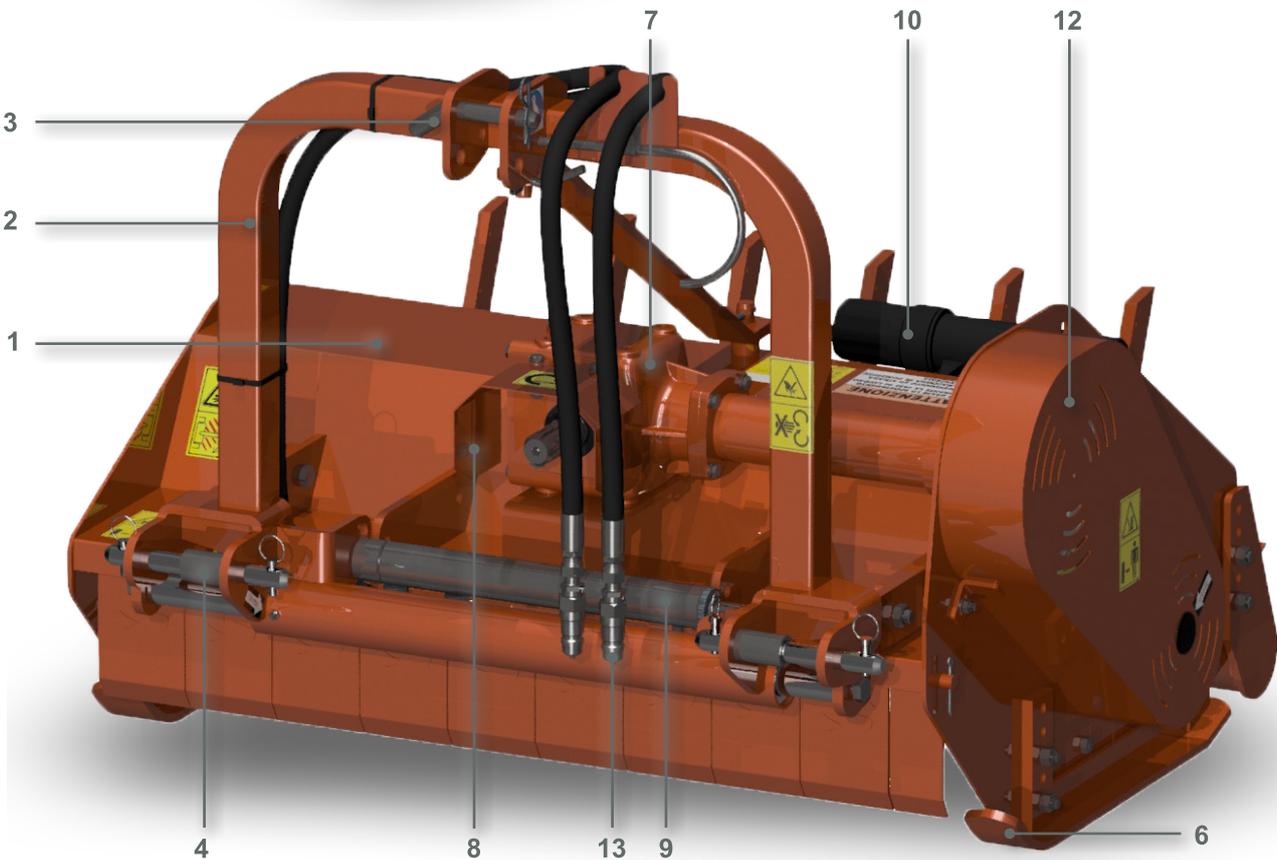
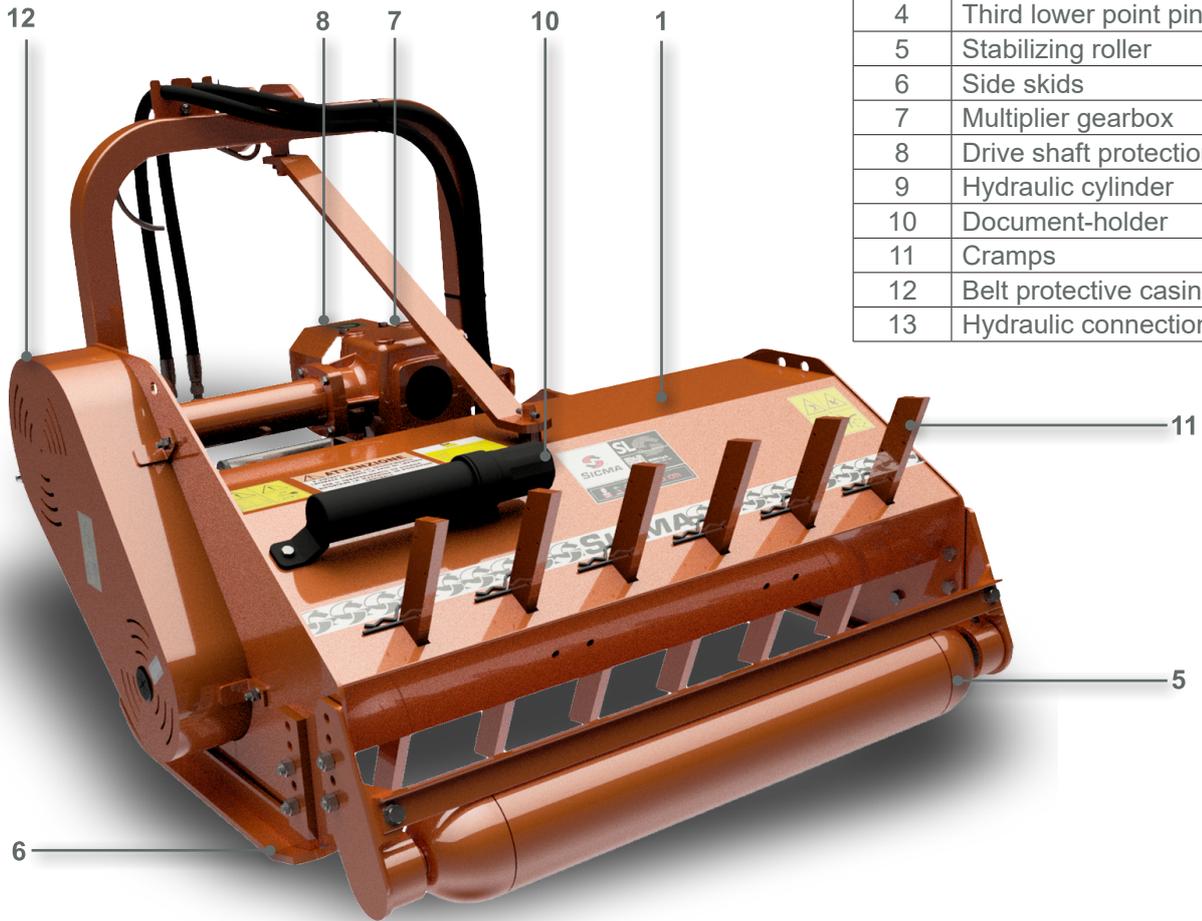
Lorenzo Aurora



1.5 TERMINOLOGY OF THE MAIN PARTS

10

No.	Description
1	Body
2	Three-point hitch arch
3	Third upper point pin
4	Third lower point pin
5	Stabilizing roller
6	Side skids
7	Multiplier gearbox
8	Drive shaft protection
9	Hydraulic cylinder
10	Document-holder
11	Cramps
12	Belt protective casing
13	Hydraulic connection



2.3 DEFINITIONS

DANGER:

A potential source of physical injury or damage to health.

DANGEROUS AREA:

Any area within and/or in proximity of a machine in which the presence of a person constitutes a risk for the safety of the same. The hazardous area is the area around the machine (connected to the tractor) up to a distance of 1 metre.

EXPOSED PERSON:

Any person that is found wholly or partly in a dangerous area.

CRITICAL AREA:

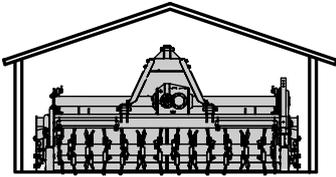
The critical area is that between the tractor and the equipment (Cardan shaft area).

ZERO ENERGY STATE:

The "zero energy state" is defined as the state in which the Flail Mower must be brought during storage, before carrying out any cleaning, lubrication and maintenance operation.

To bring the Flail Mower to the "zero energy state" the operator must:

- Position the Flail Mower on non-yielding, flat ground with a maximum inclination of 3°;
- Disable the power take-off;
- Apply the tractor parking brake;
- Switch off the tractor, remove the key and store it;
- Climb down off the tractor and disconnect the cardan shaft from the PTO of the tractor;
- Disconnect the hydraulic outlets;
- Disconnect the 3-point hitch.



2.4 CONVENTIONAL SYMBOLS

Within this user and maintenance manual a number of symbols are found whose meaning is illustrated below.



RECOMMENDATION!

It refers to a working method implemented in the field, knowing well that each operator will then develop their own way of working.



NOTE:

Draws the attention of staff to information considered to be of high importance.



WARNING:

Draws the attention of staff to information, which, if not respected may cause slight injury to persons or damage to the machine.



CAUTION DANGER:

Informs the staff assigned that the operation described has the risk of physical injury if not performed with respect to the Safety Standards.



MACHINE OPERATOR OR DRIVER:

Identifies the qualified staff, i.e. with specific skills, as the operations are completely manual. Therefore, the preparation and sensitivity of the machine operator are referred to in order to obtain the best qualitative results. The operator is therefore strictly forbidden from performing tasks that should be performed by the maintenance technician.



MECHANICAL MAINTENANCE TECHNICIAN:

Qualified technician who works on mechanical components to carry out all the necessary adjustments, maintenance operations and repairs.



EXTRAORDINARY INTERVENTIONS:

Any maintenance interventions highlighted by the symbol on the side must be requested to the Manufacturer or directly to authorized service centres.



PERSONAL PROTECTION EQUIPMENT (P.P.E.):

If any of these symbols are present on the side panel, suitable personal protective equipment must be worn by the operator as the risk of accident is implicit.

2.5 OPERATOR REQUIREMENTS

The machine must only be used by authorised personnel, educated and properly trained.

The operator, in addition to having read and understood the instructions contained in this manual, must have gained a sufficient preparation on the proper use of the machine and must be in possession of a driving license. We remind the operator to contact the retailer or the manufacturer if they are unsure about the use of the machine and the interpretation of this manual.

Do not use the machine if you are tired, ill or under the effects of alcohol, medicines or drugs.

2.6 CLOTHING AND PPE



Personnel should use safety equipment and personal protective equipment during use and maintenance of the equipment.

The correct clothing to be worn during maintenance operations and use of the Flail Mower is:

- Gloves;
- Accident-prevention shoes or boots with iron toe-cap;
- Goggles;
- Overalls with elasticated wrists, ankles and waist.

Furthermore:

- Given that the machine can generate emissions of dust during working, if the tractor does not have a closed cab, the operator must wear an anti-dust mask (especially on dry and dusty land);
- In the event that the tractor is not equipped with a soundproof cab, the operator must wear protective headphones (especially on stony ground);
- The operator assigned to using the machine must not wear garments that could cause entanglement (scarves, belts, wide sleeves, etc.).



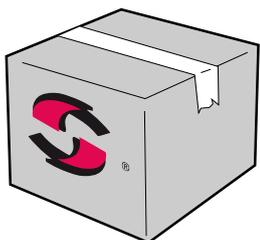
2.7 INTENDED USE

The SL Flail Mower, like the SL-Q, has been designed to be used exclusively in the agricultural sector, for the shredding of grass, stalks, corn and branches up to a diameter of approximately 6 cm, depending on the type of tool being used. The SL and SL-Q Flail Mowers have been built to be combined with tractors that can withstand their weight, equipped with a hydraulic lifter, with universal 1st category three-point hitch and driven by the tractor's power take-off via cardan transmission.

The machine is not suitable for use in sectors other than in agriculture.

RISK OF INJURY!

Given the particular stress to which the equipment is subjected, if it is necessary to replace certain parts of the components, request only original spare parts.





WARNING!

The use of non-original spare parts exempts SICMA from any responsibility for damage or injuries caused to operators, third parties and property and causes immediate forfeiture of the warranty.

USE ENVIRONMENT

The Flail Mower works:

- In open fields, on land that is non friable, not excessively stony and with a maximum slope of 3°;
- In environments with a temperature of between 0° and 50°C.

IMPROPER USE

Any use different to that declared is to be considered improper.

The operator must NEVER:

- Use a cardan shaft with unsuitable transmission capacity;
- Work in reverse gear;
- Connect the Flail Mower to means having inadequate weight or power;
- Use the Flail Mower without blocking the anti-rebound tie-rods of the three-point hitch of the tractor's lifter;
- Lift the equipment when the power take-off is rotating;
- Performing steering or reversing with the Flail Mower running and resting on the ground.

Note that the Flail Mower must be used strictly for its intended purpose. Any other use is to be considered improper.

2.8 SAFETY DEVICES

Before using the machine, make sure that all safety devices are properly in place and in good condition. If there are failures or damage to the guards, replace them immediately.

Do not tamper with or bypass the safety devices for any reason. After every cleaning and maintenance intervention, all of the safety devices must be restored and/or all protection housings closed. Also verify that there are no tools, rags or other materials inside the transmission compartments.

The signs applied to the machine provide a series of important indications: their observance preserves the operators' safety and the efficiency of the machine. Therefore, make sure that the safety pictograms are in a good condition and if they are damaged, replace them with other originals to be requested from the manufacturer, which must be replaced in the position indicated in the use and maintenance manual (para. 2.10 "Location of the pictograms").

2.9 HYDRAULIC SYSTEM

Check daily the good condition of the hydraulic pipes and, if necessary, replace them as described in para. 10 "Routine maintenance".

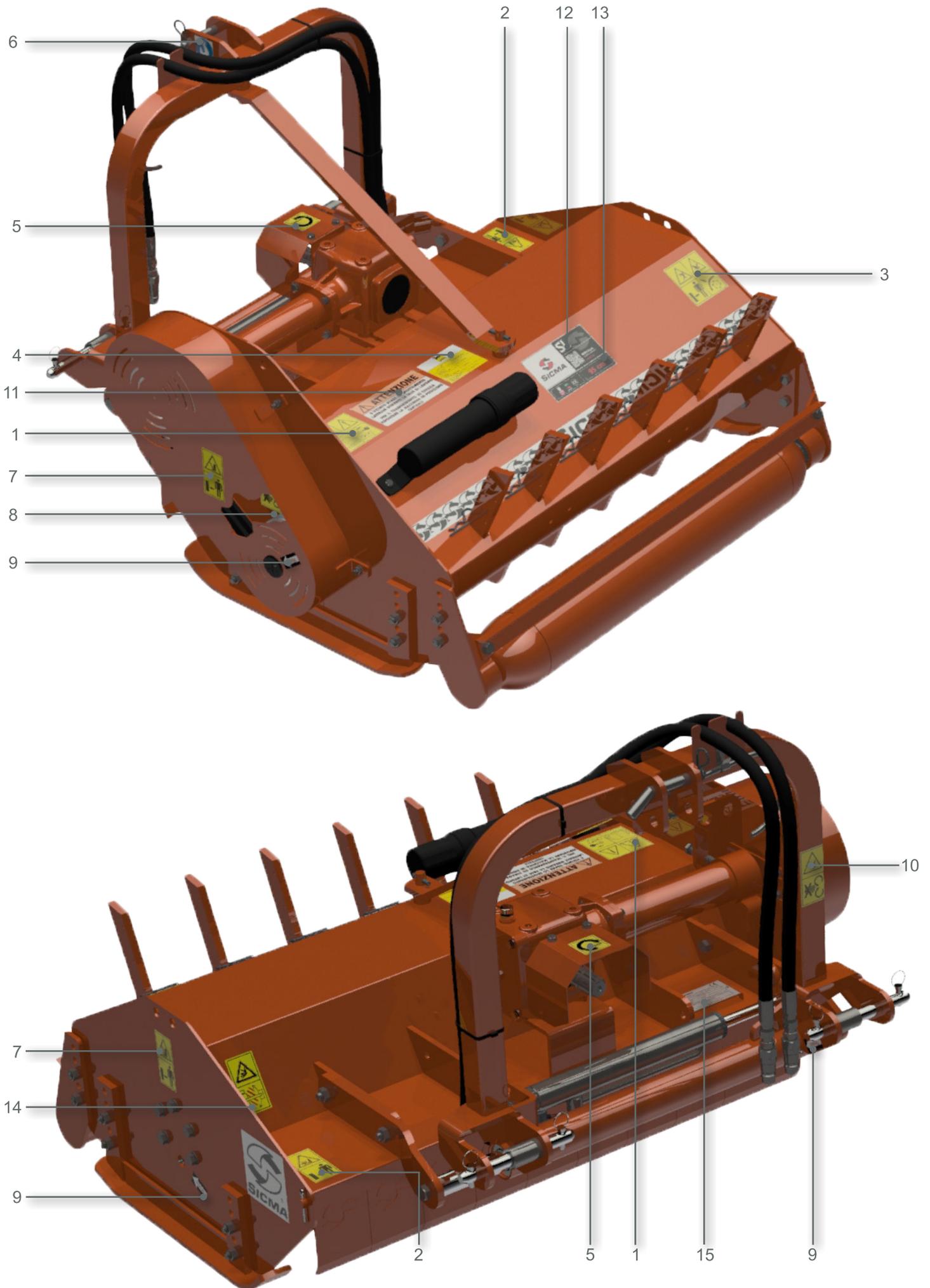
The operator must ensure that there are no oil leaks and, if necessary, immediately repair them.

During maintenance or repair, the operator must not spill oil on the ground. Also check the couplings and their correct connection to the tractor utilities before putting the hydraulic lines under pressure.

Before working on the hydraulic system, make sure that it has been depressurised and that it does not contain any hot fluid.



2.10 LOCATION OF THE PICTOGRAPHS



SAFETY DECALS

REF.	DECAL	DESCRIPTION	CODE								
1		<p>CAUTION Read all instructions and safety rules carefully before using the machine. Switch off the engine and remove the key before carrying out maintenance or repairs.</p>	4781029								
2		<p>FOOT INJURY HAZARD Rotating tools: maintain a safe distance from the machine.</p>	4781011								
3		<p>OBJECTS PROJECTED ONTO ENTIRE BODY Keep a safe distance from the machine. Risk of injury to the hands: do not open or remove the safety guards while the machine is in motion.</p>	4781019								
4	<table border="1" style="margin: auto; border-collapse: collapse; text-align: center;"> <tr> <td colspan="2">usare esclusivamente use only / user exclusivement</td> </tr> <tr> <td>olio idraulico hydraulic oil huile hydraulique</td> <td>OSO 15-32-46-68</td> </tr> <tr> <td>riduttore gear oil huile pour engranages</td> <td>Blasia 150</td> </tr> <tr> <td>lubrificazione a grasso grease lubrication graissage</td> <td>Grease MU EP 2</td> </tr> </table>	usare esclusivamente use only / user exclusivement		olio idraulico hydraulic oil huile hydraulique	OSO 15-32-46-68	riduttore gear oil huile pour engranages	Blasia 150	lubrificazione a grasso grease lubrication graissage	Grease MU EP 2	<p>ENI LUBRICANTS Types of lubricants to be used.</p>	4781099
usare esclusivamente use only / user exclusivement											
olio idraulico hydraulic oil huile hydraulique	OSO 15-32-46-68										
riduttore gear oil huile pour engranages	Blasia 150										
lubrificazione a grasso grease lubrication graissage	Grease MU EP 2										
5		<p>INPUT 540 RPM Use of a 540 rpm power take-off.</p>	4781010								
6		<p>HOOKING POINT For lifting the machine.</p>	4781031								
7		<p>FOOT INJURY HAZARD Keep a safe distance from the machine.</p>	4781012								
8		<p>ENTANGLEMENT HAZARD Keep safety guards in place during operation.</p>	5782708								
9		<p>GREASE Indication for injection of lubricating grease.</p>	4781009								
10		<p>RISK OF INJURY TO THE HANDS Rotating parts: maintain a safe distance from the machine.</p>	4781013								

11	 <p>ATTENZIONE E' VIETATO USARE LO SPOSTAMENTO LATERALE DURANTE LA FASE DI LAVORO PER IL TRASFERIMENTO SU STRADA RIPORTARE LA MACCHINA IN POSIZIONE CENTRALE</p>	RISK OF DAMAGE TO THE MACHINE Do not use shifting during the working phase.	4781802
12		MACHINE INFO	5786701
13		LENGTH INFO	From 000-095 to 000-155
14		RISK OF IMPACT Pay attention when moving the machine body.	4781005
15		CE plate Stating the main data with serial number and CE mark	4780001

3. UNLOADING AND UNPACKING THE FLAIL MOWER



CAUTION RISK OF INJURY!

Read and understand the entire manual, especially the "Safety prescriptions" part (para. 2.2) before proceeding with unloading, unpacking and moving of the Flail Mower. These operations must only be performed by qualified personnel, using personal protective equipment and under the supervision of a manager, who must make sure that there are no persons, animals or objects in the area of unloading.

The Flail Mower is usually transported on a truck, sometimes unpacked, sometimes protected by heat shrink and sometimes in wooden crates.

3.1 FLAIL MOWER PROTECTED BY HEAT-SHRINK FILM



NOTE!

Before unloading the equipment from the truck, read this entire sequence in order to be prepared for all possible events.

Release the Flail Mower from any fixing devices used to fasten it to the means of transport.



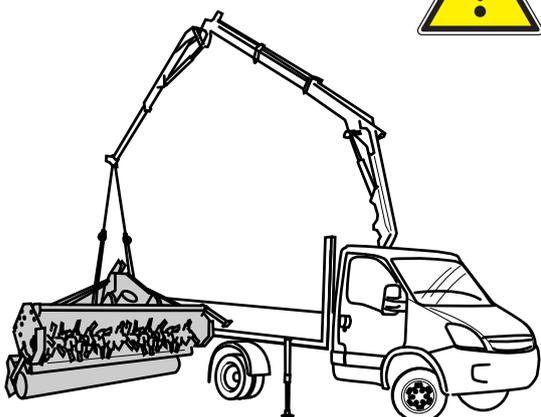
DANGER OF TILTING AND CRUSHING!

The Flail Mower unloading operations must be carried out slowly and with the utmost meticulousness, in an area completely free from persons and objects.

Before proceeding with lifting check the good state of preservation of all the locking mechanisms (hooks, shackles, etc.) and of the ropes/chains used; each must be able to lift the weight of the machine (see weight in para. 4 "Technical characteristics").

After having harnessed the Flail Mower, lift it a few centimetres to check the correct weight distribution: if the machine is unbalanced during the lifting phase, place it back on the platform, adjust the harness and the length of the ropes/chains appropriately and repeat the operation.

Lift the Flail Mower from the walking surface of the means of transport by a maximum height of 30 cm, unless hindered by obstacles, so that it does not tilt. Place the Flail Mower on the ground near the tractor.



Free the Flail Mower from ropes and chains.
Once on the ground, unpack the equipment as described below.



DANGER OF CUTTING!

In the event that the Flail Mower arrives wrapped in a protective film, remove it with the help of a cutter after wearing anti-cut gloves; be careful not to hurt yourself and not to damage the Flail Mower itself.



CONTAMINATION HAZARD!

Once the Flail Mower is unpacked, do not dispose of it in the environment but contact specialist collection agencies. Check the transport document or packing list supplied and, if necessary, act as described in section 1.4 "General notes on delivery".

3.2 FLAIL MOWER IN WOODEN CRATE



NOTE!

Before unloading the equipment from the truck, read this entire sequence in order to be prepared for all events.

If the Flail Mower is contained inside a wooden crate, use a forklift truck with a suitable capacity or use the truck lifting arm (to check the weight of the Flail Mower, refer to the table of technical characteristics in para. 4).

Release the Flail Mower from any fixing devices used to fasten it to the means of transport.

CRUSHING HAZARD!

The Flail Mower unloading operations must be carried out slowly and with the utmost in an area completely free from persons and objects.

Insert the forklift forks into the appropriate slots on the platform.

Lift the box from the walking surface of the means of transport by a maximum height of 30 cm, unless hindered by obstacles.

Place the crate on the ground in the vicinity of the tractor.

With a suitable tool and wearing protective gloves, remove the wooden crate.

Harness the Flail Mower with ropes and/or chains of adequate capacity, lift the equipment by a few centimetres and remove the lower part of the wooden crate.

Place the Flail Mower on the ground and approach the tractor in reverse so that the tractor PTO is positioned on the front of the Flail Mower.

Couple the Flail Mower to the tractor using the 3-point hitch according to para. 5.1.

Check the transport document or packing list supplied and, if necessary, act as described in section 1.4 "General notes on delivery".

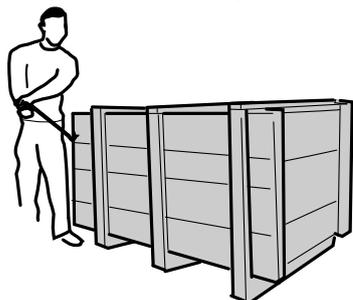
CONTAMINATION HAZARD!

Once the Flail Mower has been unpacked, do not dispose of it in the environment but contact specialist collection agencies or keep it for other transportations.

DANGER. THE Flail Mower CAN BE DAMAGED BY THE TRUCK!

Remember that no matter how stable the equipment, during successive transport operations, it must ALWAYS be:

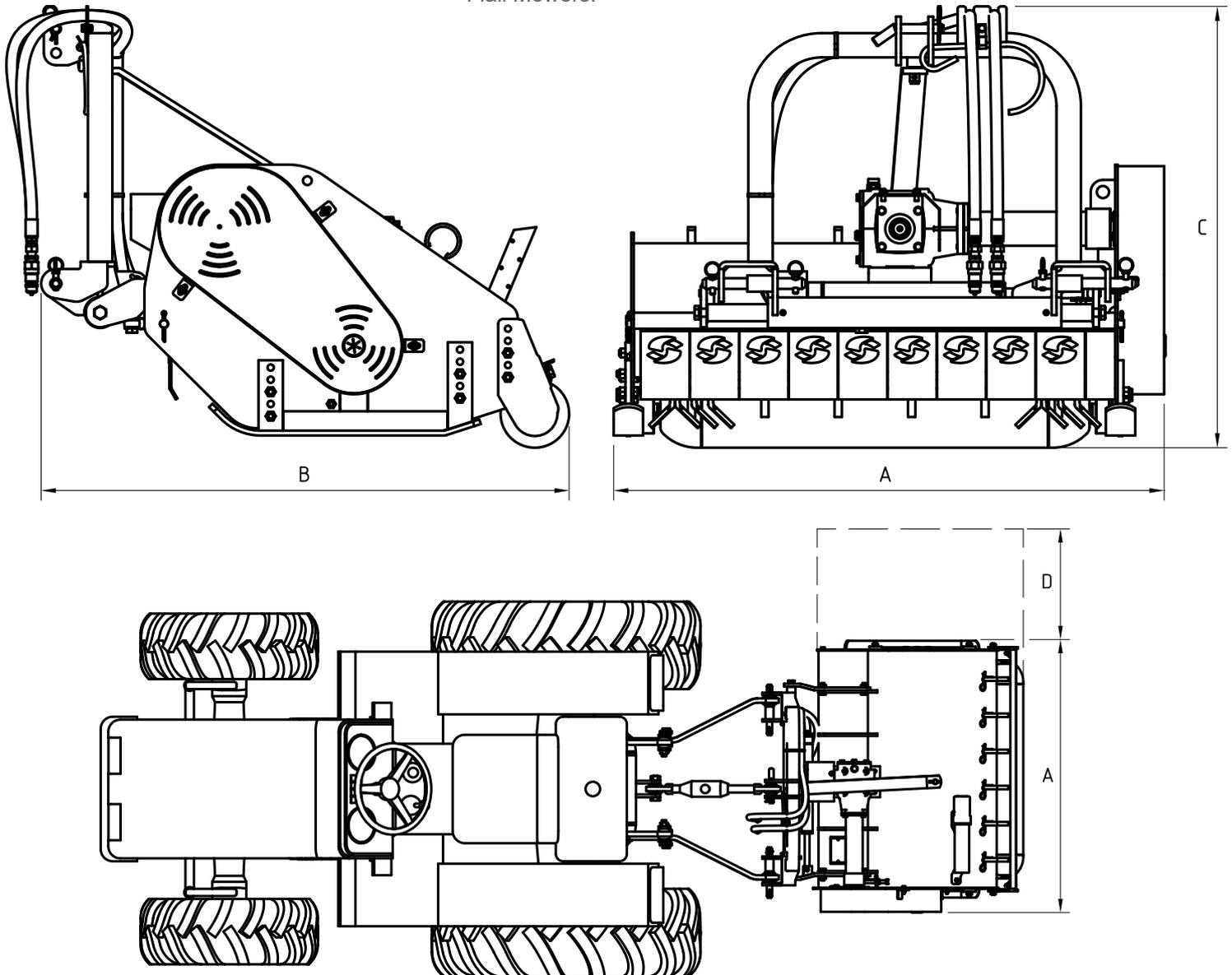
- Well secured to the truck, taking care not to crush any hydraulic pipes;
- Positioned in the centre of the truck floor, not on the edges, to avoid a situation whereby if the Flail Mower is overturned due to bends or bumps, it could fall onto the road with very serious consequences.



4. TECHNICAL FEATURES

The equipment is taken from the tractor by means of a 1st category universal three-point hitch; this acts on the material to be processed due to the high-speed rotation of the tool-holder shaft driven by the tractor power take-off via a universal connection.

The table below contains the main technical characteristics of the SL and SL/Q Flail Mowers.



			SL; SL-Q/095	SL; SL-Q/110	SL; SL-Q/125	SL; SL-Q/140	SL; SL-Q/155
Work width		mm	950	1100	1250	1400	1550
Total width A		mm	1125	1225	1425	1525	1725
Total length B		mm	1080	1080	1080	1080	1080
Height C		mm	910	910	910	910	910
Shifting D		mm	180	180	250	250	250
Number of PTO revs		Revs/min	540	540	540	540	540
Number of rotor revs		Revs/min	2315	2315	2315	2315	2315
Required power		HP	25 - 55	25 - 55	25 - 55	25 - 55	25 - 55
Required power		Kw	18 - 40	18 - 40	18 - 40	18 - 40	18 - 40
Standard Y Knives		n.	24	32	32	40	40
Smooth/cogged hammer		n.	6	8	8	10	10
Weight	Fixed	Kg	223	245	267	289	311
	Shifting		226	249	270	292	315
Noise level	No-load noise detection	LpAm (A) dB	90,4				
		LwA (A) dB	103				

5. START-UP



CAUTION RISK OF INJURY!

Only qualified operators having read and understood the safety instructions can perform the operations described below. Moreover, they must check that there are no persons, animals and properly exposed in the area where the connection is made to the tractor.



The operator and any assistants must have PPE (Personal Protective Equipment) available and use them as required.

The Flail Mower can be moved only if connected to the tractor; to be able to connect it, carefully follow the instructions listed below in the order indicated:

- 3-POINT HITCH CONNECTION TO THE TRACTOR
- CARDAN SHAFT CONNECTION

5.1 3-POINT HITCH CONNECTION

The machine must be connected to tractors of adequate weight and power and with a 1st category 3-point connection.

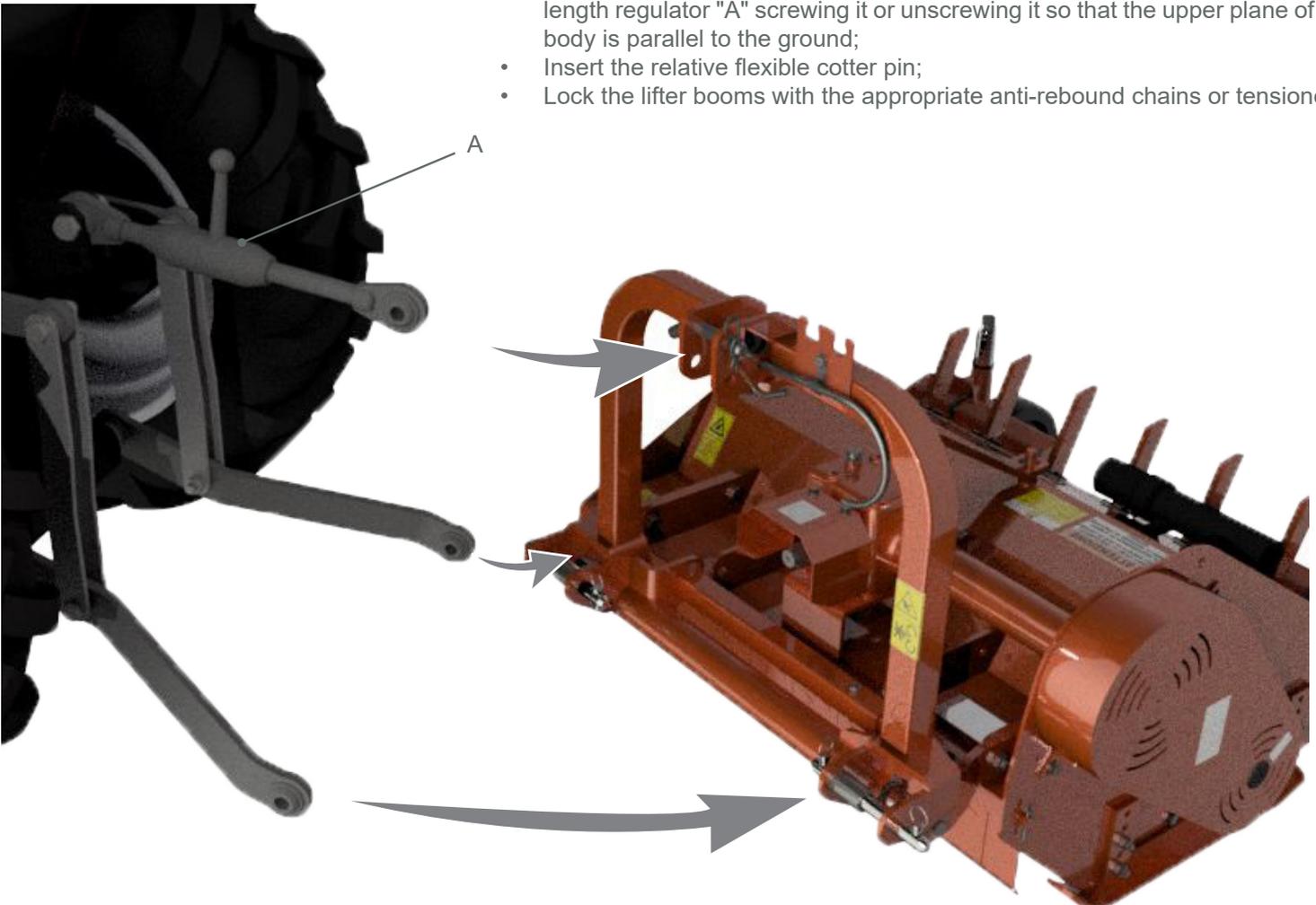


WARNING!

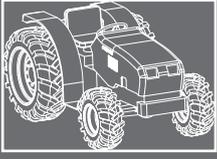
The operation must be performed on compact and flat surfaces.

To connect the Cutter to the tractor using the 3-point hitch:

- Slowly approach the tractor with the lift arms pointing towards the arch with 3-point hitch of the Flail Mower;
- First connect the lower arms to the 3-point coupling pins of the Flail Mower;
- Connect the cotter pins to the pins;
- Fix the upper third point with the relevant pin acting, if necessary, on the length regulator "A" screwing it or unscrewing it so that the upper plane of the body is parallel to the ground;
- Insert the relative flexible cotter pin;
- Lock the lifter booms with the appropriate anti-rebound chains or tensioners.



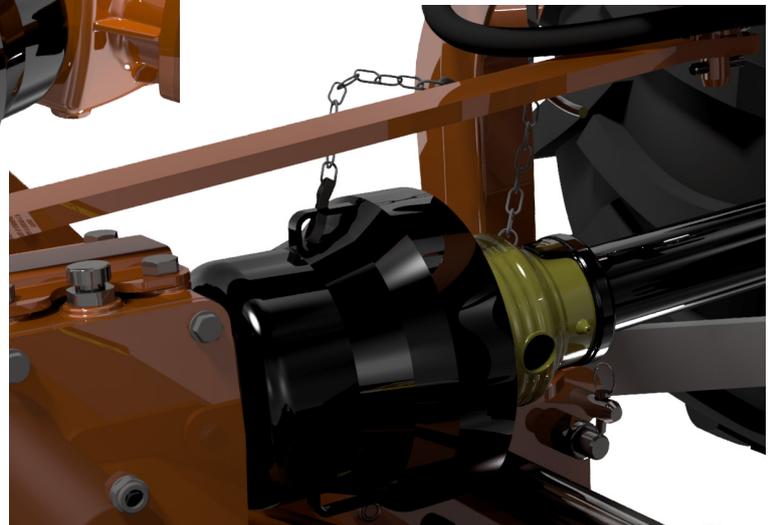
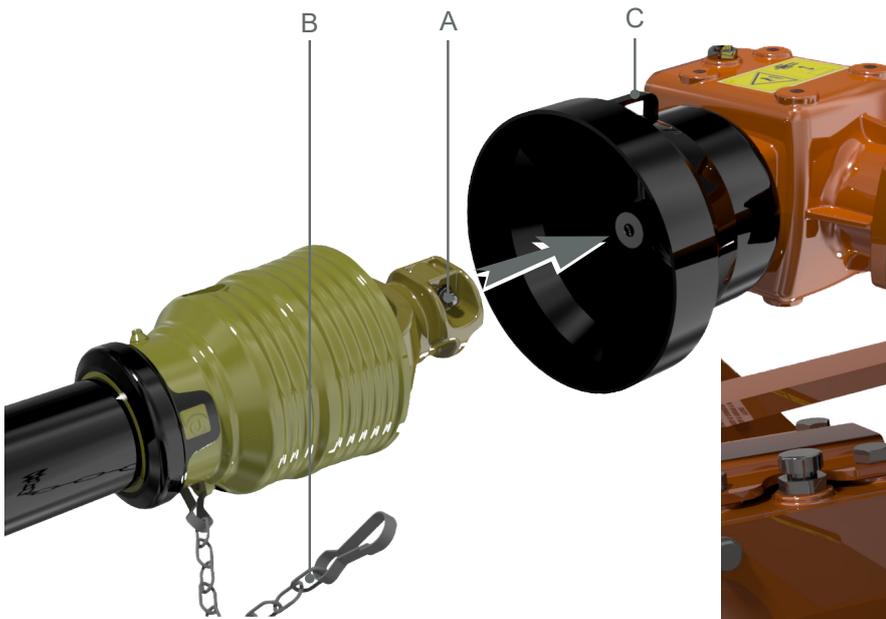
Manual tractor

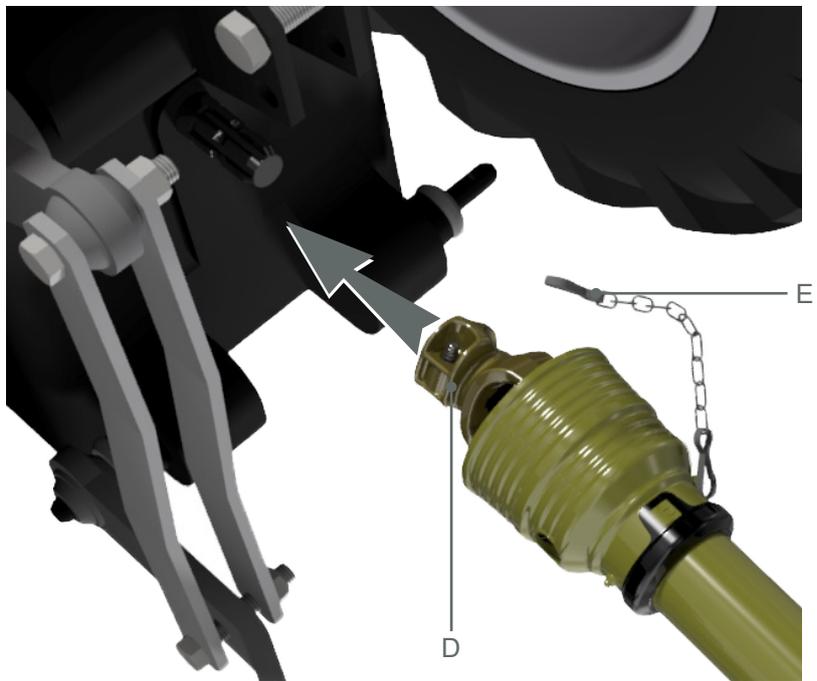


5.2 CARDAN SHAFT CONNECTION

Before assembling the cardan shaft, the operator must:

- Read the manual of both the cardan shaft and the tractor;
- Make sure that the number of the tractor PTO rotations correspond to those of the Flail Mower. If this is not the case, contact after-sales;
- Check that the maximum and minimum length of the PTO shaft is that required for the Flail Mower - tractor coupling. Remember that when at maximum extension, the pipes must overlap at least 1/3 of the length of the internal pipe. Moreover, in the maximum closure position of the pipes, the minimum clearance allowed of the plastic protections must be at least 20mm. in order to prevent damage to the protections and to the gearbox. If this is not the case it is necessary to shorten it appropriately, cutting it as necessary; consult the use and maintenance manual of the PTO shaft or contact the authorised dealer who will perform this;
- Use cardan shafts with power/torque transmission capacity and rotational speed in line with the recommended values;
- Check that the cardan shaft protection is intact, otherwise proceed accordingly by consulting the relevant user manual;
- Orient the cardan shaft in the correct direction referring to the tractor figure stamped on the external protection tube.
- Insert the first hub of the PTO shaft on the Flail Mower PTO shaft while keeping the "A" pin pressed until it stops; release it and move it back with the cardan shaft until it engages with an audible "clack" in its housing.
- Hook the snap-hook of the anti-rotation chain "B" into its slot "C" on the shaft guard of the transmission unit;
- Then repeat the operation with the opposite hub "D" of the shaft by inserting it into the tractor PTO and then attaching its hook "E" to the tractor.



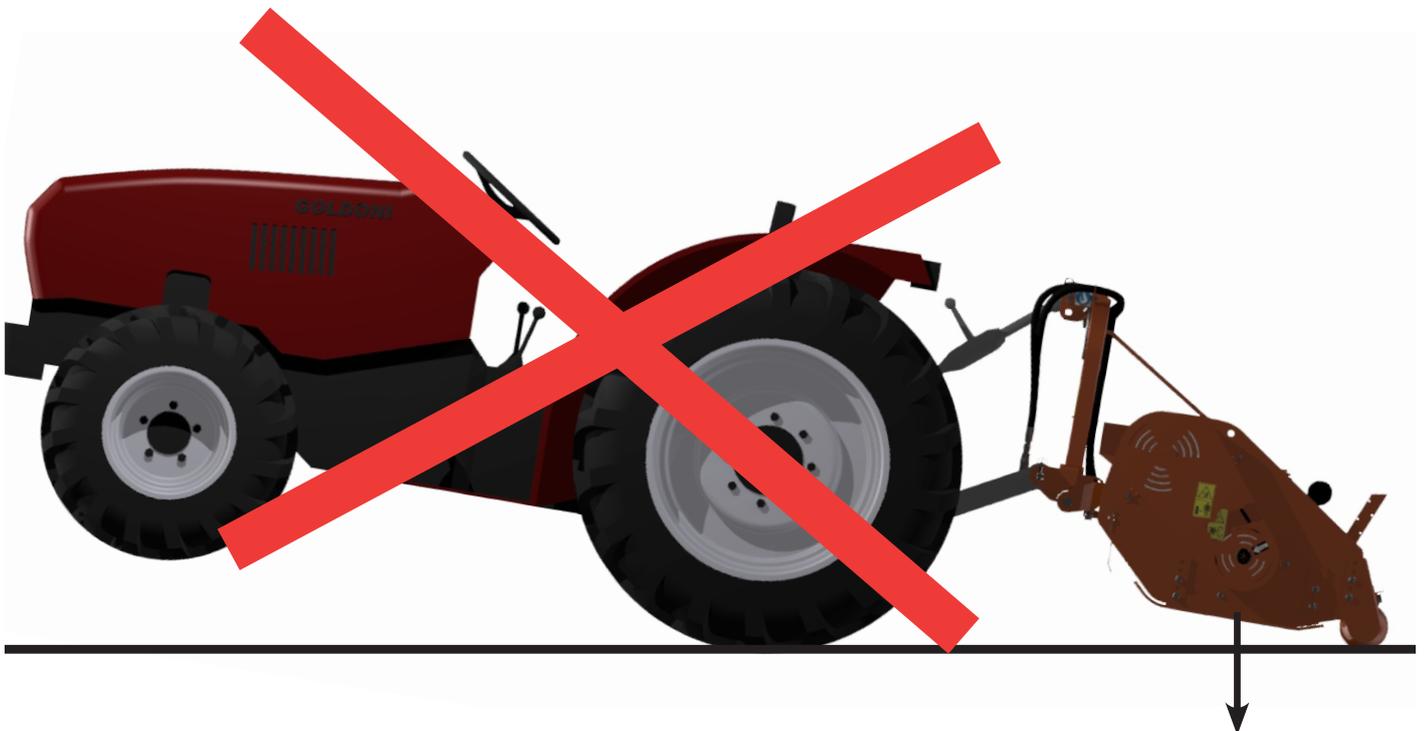


5.3 CHECK THE STABILITY OF THE TRACTOR-FLAIL MOWER ASSEMBLY



INSTABILITY AND TIPPING HAZARD!

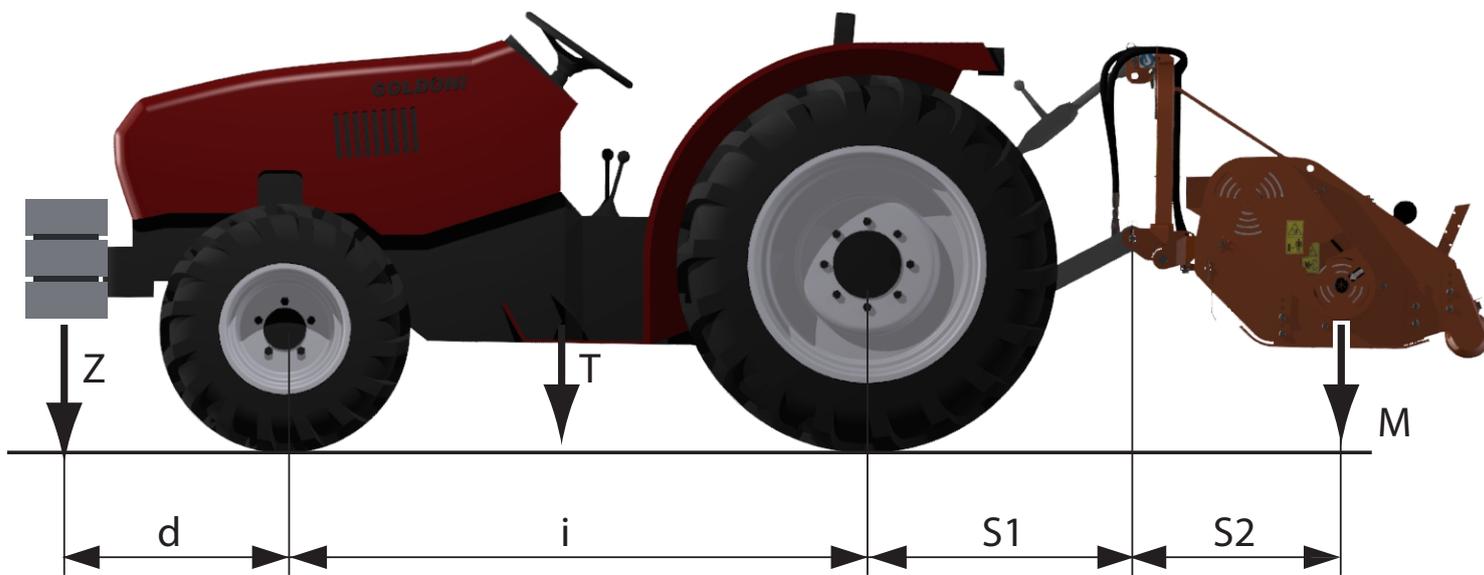
The weight of the Flail Mower modifies the stability of the tractor-Flail Mower unit, affecting its steering and braking capacity; as such, it is necessary to proceed at a moderate speed. In particular, it should be noted that the front axle must always be loaded with a load of at least 20% of the weight of the tractor-Flail Mower unit. Check the stability of the tractor using the following formula and, if necessary, apply ballast anteriorly.



$$M \times (S1 + S2) \leq 0.2 T \times i + Z \times (d + i)$$

$$M \leq 0.3 T$$

i	= wheelbase
d	= distance between centre of front axle and centre of gravity of weights
S1	= distance between centre of the rear axle and centre of the lower connection points
S2	= distance between the centre of lower coupling points and centre of gravity of the Flail Mower
T	= weight of the tractor + 75Kg (operator)
Z	= mass of the ballast
M	= the mass of the machine

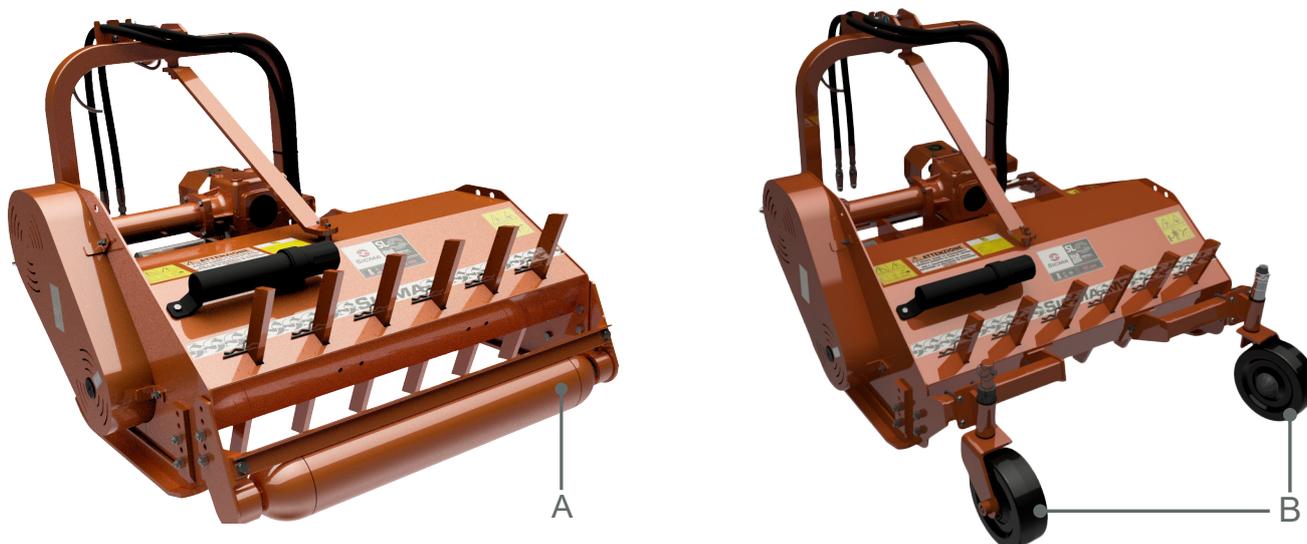


5.4 ROAD TRANSPORT

Before transport on public roads it is essential to consult the Highway Code, and in particular art. 61 and 104. For other countries, refer to the respective codes in force.

6. ADJUSTMENTS

6.1 WORKING HEIGHT



The working height of the machine is determined by the vertical position of the rear roller "A" or swivel wheels "B" (optional).

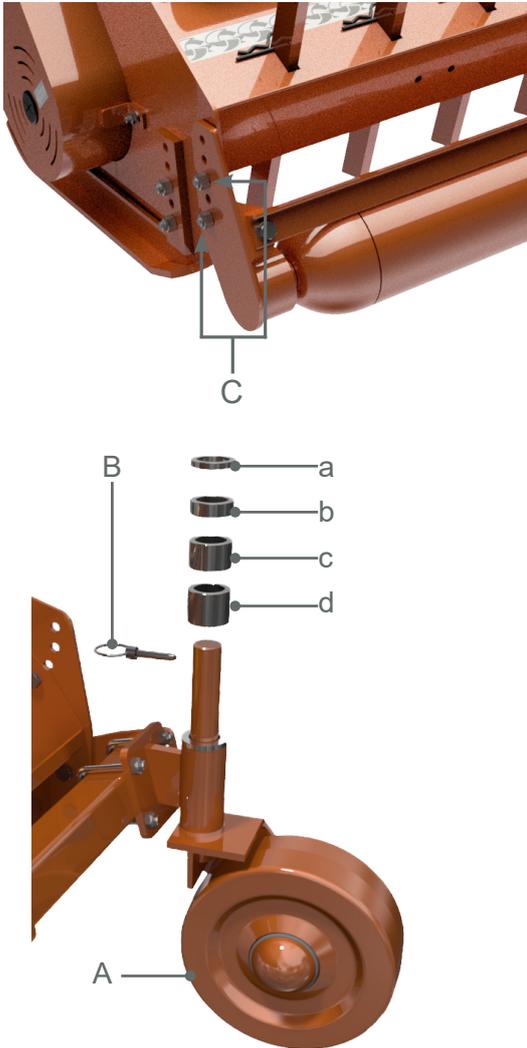
When the roller or wheels are lifted, the tools approach the ground. Vice versa, when these are lowered, the tools move away from the ground. After adjusting the working height, make sure the tools are not touching the ground; direct contact may cause rapid wear.



CAUTION RISK OF CUTTING AND SHEARING HANDS AND FEET!
The roller must be adjusted by at least two expert operators equipped with gloves, who, positioned near the side supports will lift or lower the roller together.

To adjust the height of the roller, the operators must:

- Disengage the power take-off and disconnect the cardan shaft;
- Using the tractor's hydraulic lifter, lift the Flail Mower and secure it on sturdy supports to ensure stability;
- Unscrew and extract the "C" bolts on both sides of the Flail Mower;
- Position the roller according to your needs by consulting the diagram below;
- Reinsert and tighten bolt "C" on both sides, making sure the two side supports are both positioned at the same height.



Position	Illustration	Height
1		37 mm
2		62 mm
3		87 mm

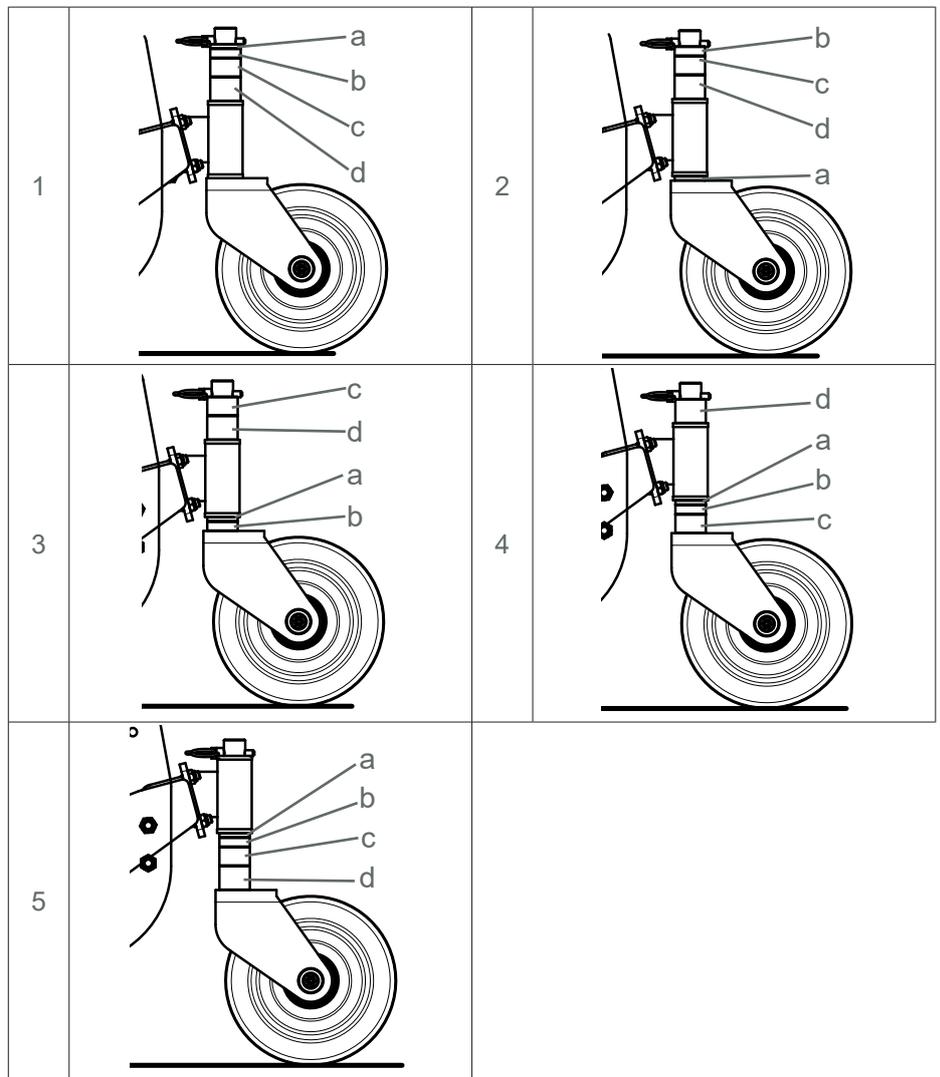
To adjust the height of the rear wheels (optional):

- Disengage the power take-off and disconnect the cardan shaft;
- Lift the Flail Mower and place it on supports to ensure stability;
- Keep wheel "A" forcefully high, and its entire support "A";
- Remove the snap-pin "B";
- Pull out the wheel complete with support "A" and the spacers regulating the height;
- Reposition the spacer into the lower part of the wheel support pin in order to properly adjust the height (see diagrams and tables below);
- Insert the wheel support pin in its seat and reposition the spacer at the top of the pin;
- Reinsert the snap-pin "B";
- Repeat the operation for the opposite wheel, repositioning the spacers as those of the first wheel.

Height of swivel wheels spacers (mm)	
Ref.	Height
a	6
b	12.5
c	25
d	32



Cutting height of the rear wheels (mm)	
Pos.	Height
1	48
2	54
3	66
4	90
5	123



6.2 SIDE SKIDS (optional)

The side skids, in the presence of a stabilizer roller or swivel wheels, have the sole function of protecting the side frame plates from any direct contact with the ground. Therefore, except in the case of special requirements, we recommend they be left in their factory configuration.

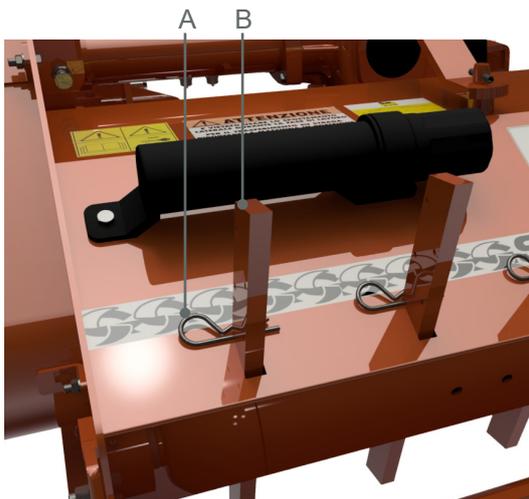
6.3 RAKES

The rakes are only supplied with the Flail Mower with hammers and have the function of obtaining finer shredding retaining it more inside the shredding chamber.

Their adjustment must be performed after having adjusted the cutting height of the Flail Mower, except in the case of specific requirements.

To do this, the operator must:

- Pull out the cotter of one of the side rakes;
- Push the rake downward until it touches the ground;
- Lift the rake until the first pin hole of the cotter is exposed;
- Insert the cotter into the exposed hole;
- Check which hole is used for the cotter, by counting the holes from the top;
- Adjust all the rakes by inserting the cotters in the same hole as that of the previously identified rake.



6.4 LATERAL MOVEMENT (optional)

The moveable SL and SL/Q Flail Mowers can be configured in the manual or hydraulic versions.

To adjust the side position of the machine with manual jack, the operator must:

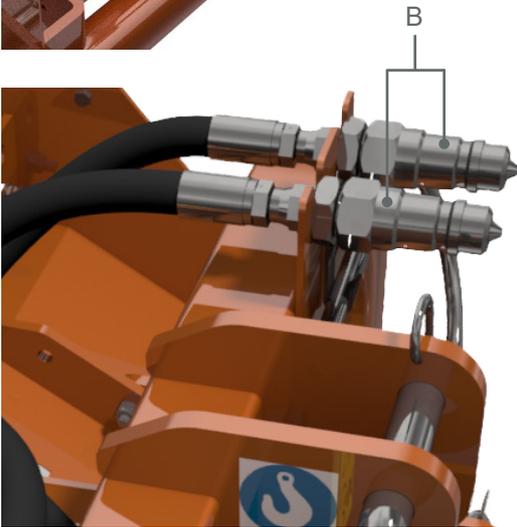
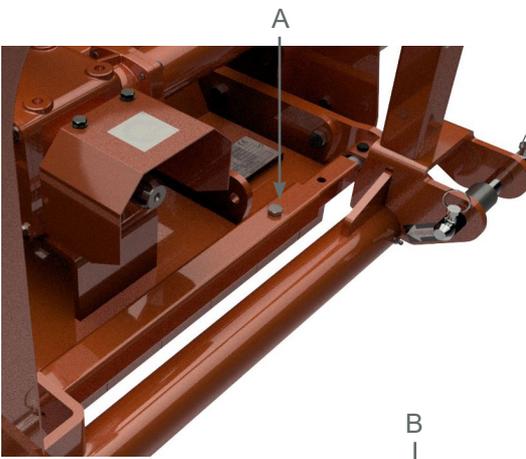
- With PTO disengaged and without a cardan shaft, lift the Flail Mower;
- Unscrew and remove bolt "A";
- Manually move the body by pushing it from its end until it reaches its optimum position aligned with the holes in the outer tube with those of the inner tube;
- Reinsert the bolt extracted earlier and tighten it.

If the Flail Mower has a mobile arch with hydraulic cylinder, its position can be regulated simply using the tractor's manual controls, after connecting the quick couplings "B" to their hydraulic connections.



WARNING!

The adjustment of the lateral displacement must be carried out only and exclusively with the machine lifted from the ground, on the work surface, with power take-off disengaged and handbrake applied, in order to preserve own and others' physical safety.



6.5 BELT TENSIONING

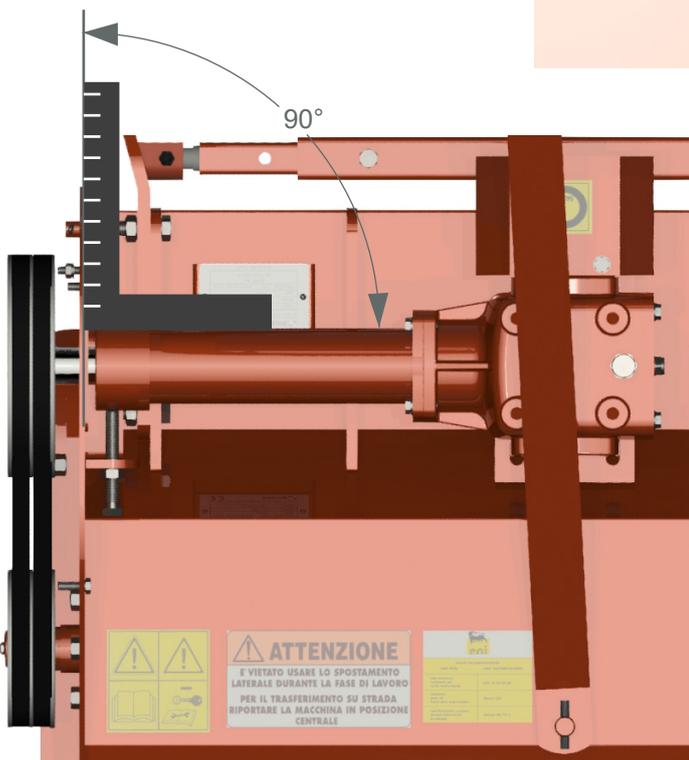
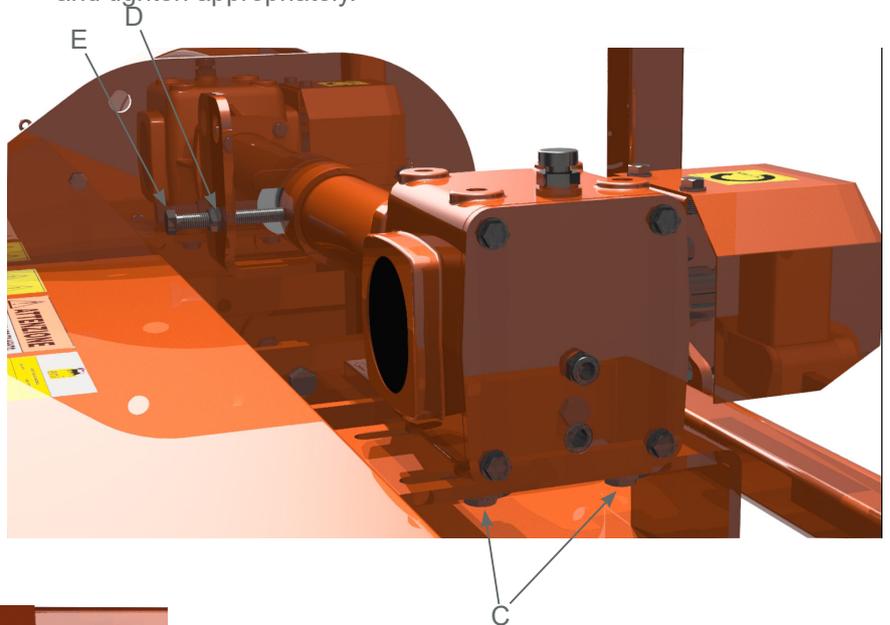
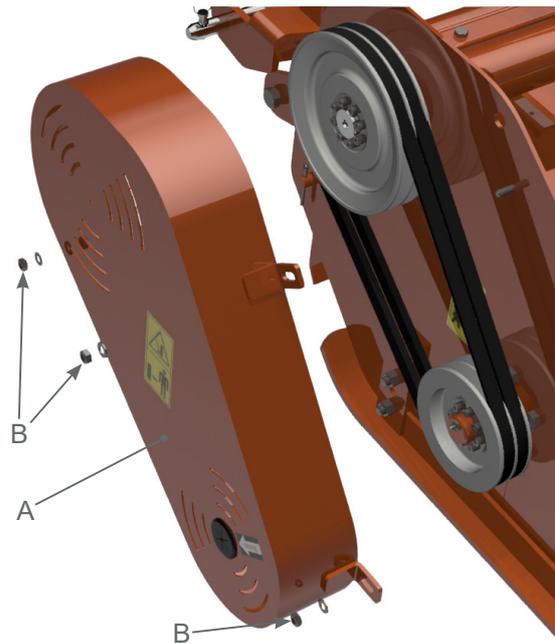
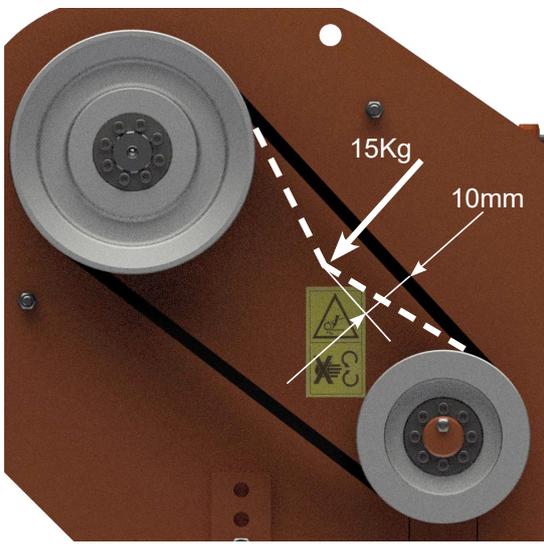
The tool rotor of the SL and SL/Q Flail Mowers is driven in rotation by a belt drive with manually adjustable fixed tensioner.

Frequently check the tensioning of the belts and, if necessary, adjust them.

Tensioning of the belts is correctly adjusted if, applying a force of approximately 15 kg on one of the taut sides of the belt set, these are deflected by around 10 mm.

To adjust the tension of the transmission belts, the operator must:

- Remove the guard "A" of the belts by unscrewing the 3 nuts "B" that secure it, keeping the respective screws on the opposite side of the plate;
- Loosen the bolts "C" that fix the transmission group in the part below it;
- Loosen the lock nut "D" while keeping the tensioning screw "E" still;
- Tighten the tensioning screw "E" if the belts are slow; loosen it if they are too tight;
- Tighten the tensioning screw "E" if the belts are slow; loosen it if they are too tight;
- When the tensioning is completed, tighten the lock nut "D";
- Then check that the transmission extension tube is perpendicular to the plate, using a metal bracket;
- Tighten the nuts "C";
- Reposition the protective cover of the belts, refit the washers and nuts "B" and tighten appropriately.



7. PREVENTIVE MAINTENANCE

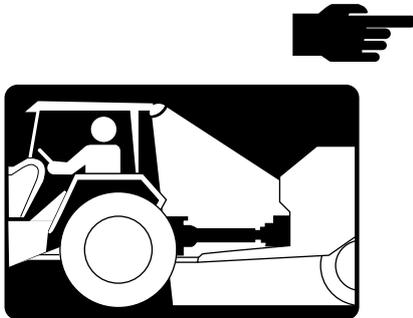
Before using the machine for the first time, or after a lengthy period of inactivity, the operator must:

- Check that the machine is not damaged;
- Check that the mechanical parts are in good condition and are not rusted;
- Check that the tools are not excessively worn;
- Carefully grease all mobile parts;
- Make sure that there are no oil leaks from the transmission group or from the hydraulic system (if present);
- Check that all safety guards are properly positioned;
- Check the tightness of the nuts and bolts, if necessary, according to the torque table (para. 15.1);
- Check the oil level in the multiplier gearbox and top it up to the correct level if necessary (par. 10.1);
- Grease the supports of the rotor and of the rear roller or of the rotating wheels (para. 10.2).

Use the following products for lubrication:

- Oil: **AGIP-ENI BLASIA 150**
- Grease: **AGIP GREASE MU EP 2**

8. MACHINE USE



NOTE!

Before using this machine, read this entire sequence to make sure you are properly prepared for all possible events.

A single operator, driving the tractor, must manage the operations necessary for operation of the Flail Mower by acting on the hydraulic controls of the tractor console itself, referring to its use and maintenance manual.

The machine is usually used during the day. If night use is exceptionally required or in conditions of reduced visibility, the tractor's lighting system or any auxiliary lighting system must be used.



WARNING!

It is absolutely forbidden to tamper with the equipment for any reason. Any arbitrary modification made to this machine, or any operation made in contrast to what is contained in this manual, especially failure to comply with the safety regulations, exempts SICMA from any responsibility for damage or injuries caused to operators, third parties and property and will result in immediate forfeiture of the warranty.

The machine must not be left unattended when the tractor is running. When the tractor engine is switched off, the ignition keys must always be removed from the console and kept by the operator's.

Once the various adjustments have been made, with the tractor connected to the Flail Mower (using the three-point hitch, but with the PTO shaft disengaged), start the tractor and move to the work area, remembering to keep the Flail Mower raised ensuring that it does not touch the ground (at least 20 cm).

Before starting the Flail Mower:

- Make sure that the hooks of the chains retaining the PTO shaft guard are hooked to the appropriate slots so that the plastic guard remains fixed and does not rotate with the cardan shaft itself;
- Inspect the ground to be worked and remove any objects that could damage the Flail Mower such as large stones, metal objects, etc.



WARNING!

Before starting work, make sure that no persons or animals are within the radius of action of the machine.

Having arrived at the workplace the operator must:

- Engage the parking brake;
- Stop the engine;
- Remove the ignition key and keep possession of it;
- Connect the cardan shaft to the tractor PTO (see para. 5.2).



RECOMMENDATION:

It is good practice to start the equipment at low speed, especially in cold environments, to allow the system to run-in and to prevent Flail Mower malfunctioning.

Once the cardan shaft is connected, with the Flail Mower raised, the operator must:

- Start the Flail Mower engine;
- Release the parking brake;
- Start the Flail Mower by operating the tractor PTO, bringing the engine to an adequate number of revolutions;
- Using the hydraulic lifting mechanism, lower the Flail Mower;
- Start the tractor with a speed not exceeding 6 km/h and keep the engine of the tractor at a speed that ensures the supply of power necessary to perform the work;
- Travel a short distance with the Flail Mower activated and check the quality of the work performed; if the result is not satisfactory, review the adjustment operations of the machine (chap. 6).



RISK OF INJURY!

When the machine is running, the tools rotate rapidly: keep a safe distance to prevent accidental contact with the tools and to avoid being struck by any objects thrown by the Flail Mower.

Make sure that animals and persons are at least 5 meters away from the Flail Mower in action.

When changing direction, turning and reversing, switch off the power take-off and lift the Flail Mower slightly from the ground to prevent damage to the equipment.

When work is complete, the operator must:

- Engage the parking brake;
- Stop the engine;
- Remove the ignition key and keep it on themselves;
- Disconnect the cardan shaft from the tractor PTO and place it in the relevant support hook;
- Release the parking brake and, when necessary, restart the tractor engine;
- Bring the Flail Mower to storage taking care, during handling, that there are no persons, animals or objects exposed.

Having reached the depot, the operator must:

- Rest the Flail Mower on the ground;
- Engage the parking brake;
- Switch the engine off;
- Remove the ignition key and keep it on themselves;
- Arrange to clean the Flail Mower (chap. 10);
- Check that there are no oil leaks and if necessary repair them;
- Check and if necessary, replace any worn parts (chap. 8).

NOTE



If the equipment stops unexpectedly during working, see the following chapter (chap. 9).

9. STOPS



CAUTION RISK OF INJURY!

Only qualified operators that have read and fully understood the safety prescriptions (chap. 2) can perform the operations described below. Moreover, they must check that there are no persons, animals and objects exposed in the dangerous area.

The equipment must be stopped in the following ways:

- Temporary stop;
- Day end stop;
- Long downtime period;
- Emergency stop.

TEMPORARY STOP

For temporary stopping of the Flail Mower simply deactivate rotation of the tractor PTO by acting on the control of its console.

If the operator needs to climb down off tractor, they must:

- Engage the parking brake;
- Rest the Flail Mower on the ground;
- Switch the engine off;
- Remove the ignition key and keep it on themselves;

DAY END STOP

- Engage the parking brake;
- Rest the Flail Mower on the ground;
- Stop the engine;
- Remove the ignition key and keep it on themselves;
- Arrange for cleaning of the equipment (chap. 10);
- Check that there are no oil leaks and if necessary repair them;
- Check and if necessary, replace any worn parts (chap. 8).

LONG DOWNTIME PERIODS

When parking the Flail Mower for long periods, it is necessary to:

- Engage the tractor parking brake;
- Rest the Flail Mower on the ground;
- Stop the tractor engine,
- Remove the ignition key and keep it on themselves;
- Disconnect the cardan shaft and place it in the support hook;
- Remove the cotter pin and the 3° coupling pin;
- Start the engine and move away carefully;
- Arrange for cleaning of the equipment (chap. 10);
- Lubricate all non-painted parts of the Flail Mower with an anti-corrosion product.



WARNING!

It is necessary that the ground on which the Flail Mower is parked is flat and inside a protected area that prevents unauthorised persons from approaching.

EMERGENCY STOP

- Deactivate rotation of the tractor PTO by acting on the control of the tractor console;
- Engage the parking brake;
- Stop the engine of the tractor;
- Remove the ignition key and keep it on themselves;
- Identify the cause behind the emergency stop; if necessary, see par. 15.2 "Troubleshooting".

Decide:

- Whether it is necessary to place the equipment in a zero energy state;
- Whether to call for technical assistance;
- Whether it is possible to repair the equipment.

Once the cause that generated the emergency stop has been eliminated, restart the equipment and complete the shredding work.

10. ORDINARY MAINTENANCE



DANGER OF INJURY AND DAMAGE!!

Only qualified operators that have read and understood the safety requirements (Chap. 2) may perform the operations described below. Moreover, they must check that there are no persons, animals and objects exposed in the dangerous area.

The operator must know and scrupulously follow the indications and must have placed the machine out of service.

The periodic controls and the maintenance operations described in this chapter should be performed in the times and ways established and are the operator's responsibility.

Failure to comply with the standards and maintenance times jeopardises efficient functioning of the machine and its duration and as a consequence validity of the warranty.



For all other maintenance, see par. 15.2 "Troubleshooting" or contact the manufacturer or the after-sales centres.



Given the complexity of the equipment, all repairs, modifications, special maintenance operations other than those listed below should NOT be performed without consulting the manufacturer or its service centres. Depending on the circumstances, these will provide authorisation and all necessary instructions, or alternatively they will recommend an intervention by one of their own technicians.

Incorrect or improper operation can cause malfunctions, damage to the equipment and possible risks to personnel.

DANGER OF INJURY AND DAMAGE!!

Before performing maintenance, read this entire section to be prepared for all possible events.

RISK OF OVERHEATING, CRUSHING!

Ensure the stability of the equipment before carrying out any maintenance work (the maximum slope of the ground must not exceed 3°).

Before carrying out any maintenance operation, the operator must take the Flail Mower to the zero energy state (para. 2.3).

The maintenance technician and any assistants must have the relevant Personal Protection Equipment (P.P.E.) available and use them as required.

Do not carry out repairs, the details of which are unknown. Always follow the instructions and in the absence of these, contact the supplier or expert personnel.

Do not use lifting points other than those prescribed.

Make sure that the lifting device chosen is suitable to perform the operations in accordance with the safety regulations.

Do not keep the tractor engine running in closed rooms without a ventilation system suitable for the disposal of harmful exhaust gases that are concentrated in the air.

Avoid prolonged and repeated skin contact with lubricants as they could cause skin disorders or other types of syndromes.

Do not swallow fuels, lubricants or other fluids. In case of accidental contact of these substances with particularly delicate skin areas such as eyes, wash thoroughly with running water.

Do not weld in closed or inadequately ventilated areas.

Welding painted surfaces generates toxic vapours: first remove the paint with suitable products, then wash and dry.





Discharge the circuit pressure before working on the hydraulic system.

CAUTION OIL EJECTION!

Do not use hands to identify leakage of fluids under pressure; fluid leaks under pressure can penetrate the skin and eyes, with very serious consequences.

10.1 CHECKING AND CHANGING THE OIL IN THE MULTIPLIER GEARBOX

BURNS HAZARD!

Wait until it has sufficiently cooled before touching the transmission box.

DANGER OF POLLUTION OF SOIL AND GROUNDWATER!

The operator must immediately repair any oil leaks and furthermore, they must not pour lubricating liquid onto the ground when topping up or replacing the oil.

WARNING!

Collect any waste oil and dispose of it at appropriate collection centres. According to current legislation, these must not be disposed of in the environment because they are classified as hazardous waste. It is therefore necessary to contact the "Waste Oil Mandatory Consortium" (www.coou.it, Toll Free Number 800-863048). For the other countries, refer to the relative anti-pollution regulations in force.

The oil level in the multiplier gearbox must be visually checked, making sure the oil level is clearly visible from the sight glass of cap "A".

If it is necessary to top up oil, the operator must:

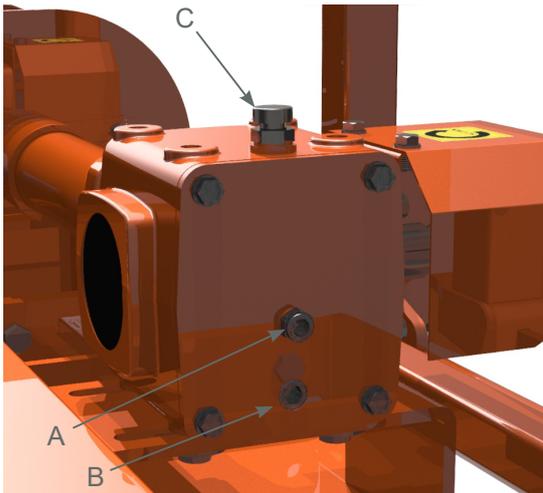
- Unscrew the oil filling/drain cap "C"
- Refill oil type **AGIP-ENI BLASIA 150**, using a funnel until the oil level is visible through the sight glass of cap "A";
- Reinsert and tighten the filling cap "C".

The oil in the multiplier gearbox must be replaced:

- The first time after the first 50 working hours;
- Every 500 working hours.

To replace the oil the operator must:

- Place a container under the oil drain "B" (lower part of the sump);
- Unscrew the oil filling/drain cap "C";
- Unscrew the oil drain cap "B" and drain the oil completely;
- Dispose of the drained oil in appropriate containers for waste oils;
- Screw the previously unscrewed oil drain cap "B";
- Using a small funnel, refill with oil type **AGIP-ENI BLASIA 150**, pouring it into the hole in cap "C" until the desired level is reached;
- Top up the oil and tighten cap "C".



10.2 GREASINGS

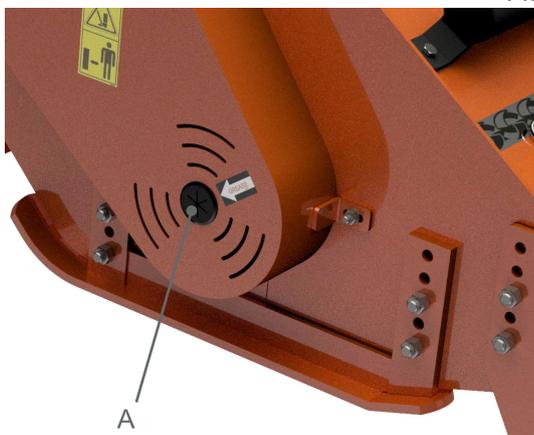
Greasing must be carried out with a dedicated lubricant pump HYDRAULIC TYPE FORM "A" UNI 7663 using **AGIP GREASE MU EP 2** grease after having thoroughly cleaned the grease nipples.

GREASING TOOL HOLDER ROTOR SUPPORTS

(Every 20 working hours)

To grease supports, the operator must:

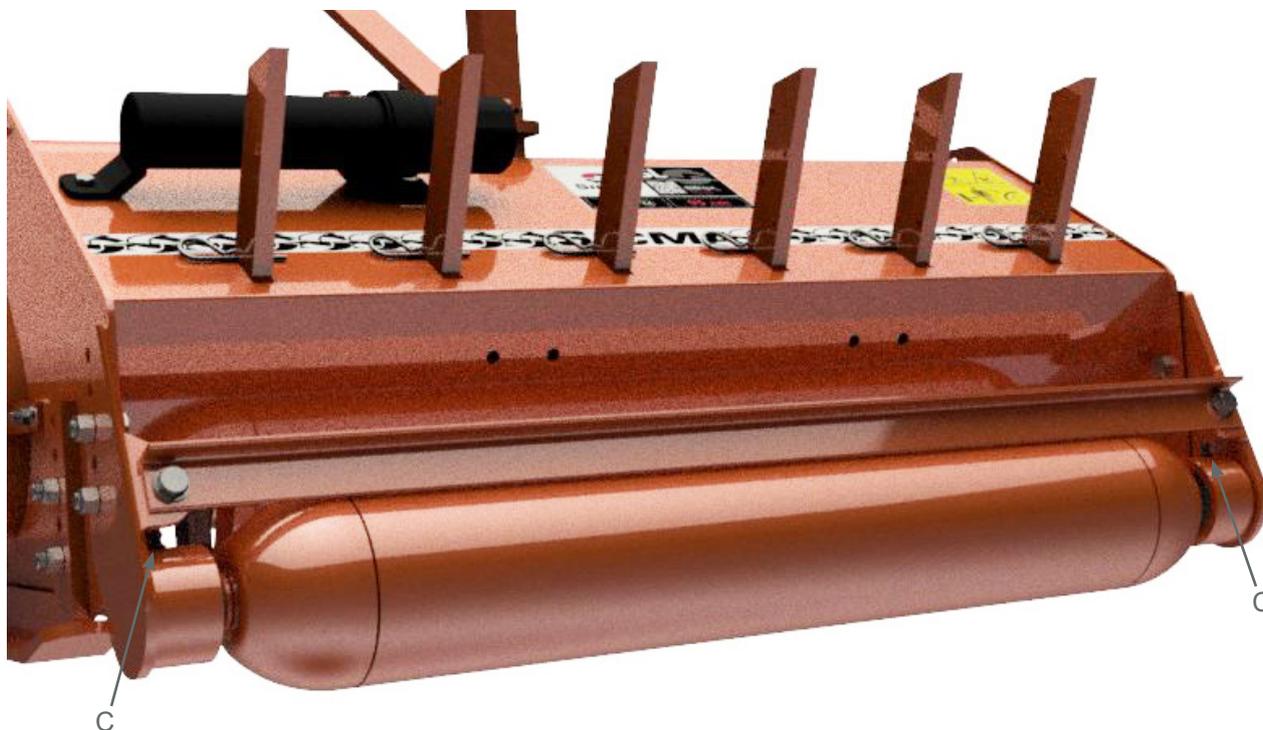
- Remove plastic cap "A" on the transmission casing and inject the specific grease through the nipple underneath;
- Inject grease into the grease fitting "B" located on the opposite side of the Flail Mower.



REAR ROLLER SUPPORTS GREASING

(Every 20 working hours)

Inject grease into grease nipples "C" located on the top inside of the supports of the rear roller.



SWIVEL WHEELS SUPPORTS GREASING (OPTIONAL)

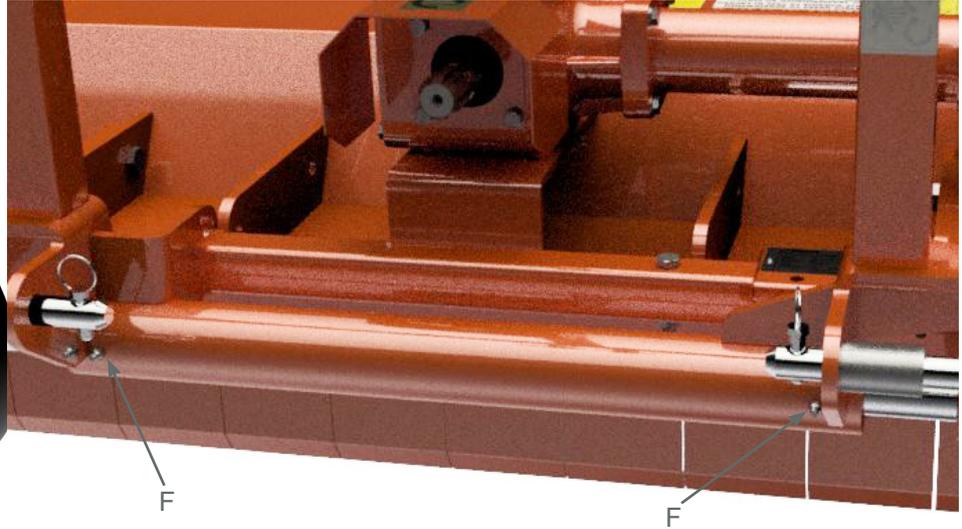
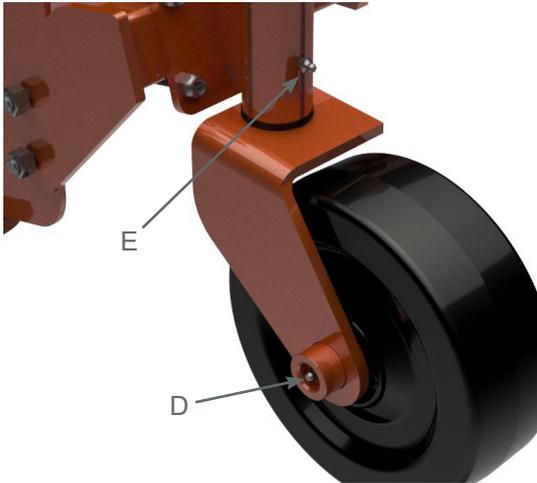
(Every 50 working hours)

Inject grease into the grease fittings "D" of the wheel pins and "E" of the rotating supports.

3-POINT COUPLING DISPLACEMENT GUIDES GREASING (if any)

(Every 20 working hours)

Inject grease into the lubricators "F" located on the front of the guide slide tube.



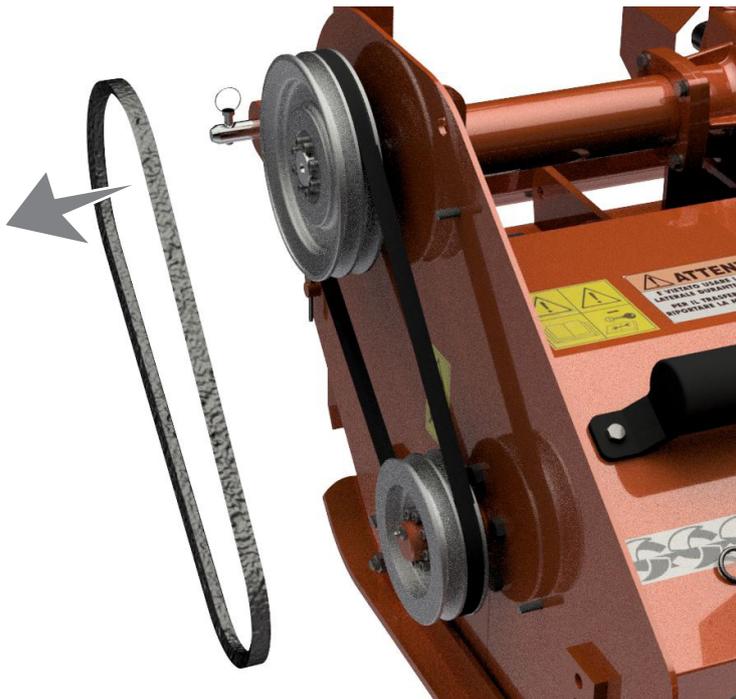
10.3 REPLACING THE TRANSMISSION BELTS

Frequently check the state of wear of the belts and if one or more of these prove deteriorated, replace throughout the whole set.

Replace the belts every 1000 working hours.

To replace the drive belts, the operator must:

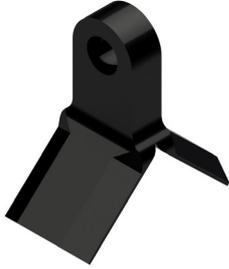
- Loosen the belts completely as described in para. 6.5;
- Remove the belts by first removing the outer one and then the other ones;
- Replace all the belts with a new set, carrying out the assembly steps in reverse starting from the previous point (spare parts on www.sicma.it);
- Tension the belts as described in para. 6.5;
- Reposition the protective casing and tighten its bolts.



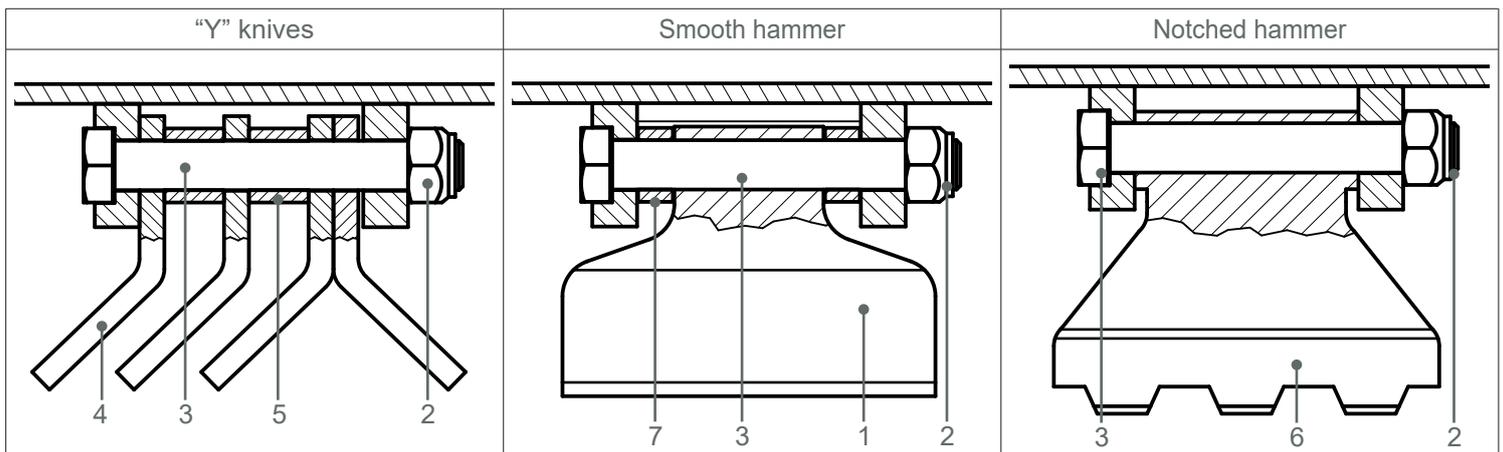
10.4 REPLACING KNIVES/HAMMERS

The SL and the SL/Q, can be equipped with blades or hammer flails depending on the work to be performed:

- “Y” knives;
- Smooth hammer flails;
- Cogged hammer flails.

“Y” knives	Smooth hammer	Notched hammer
		
Grass, hay and bushes	Grass, corn and cereals	Grass, shrubs and pruning

To obtain perfect operation of the machine it is necessary to check frequently (at least every 50 hours of work) that the Flail Mower hammers or blades are all in a good condition and perfectly secured by their tightening bolts; if even one is broken or worn, it is essential to replace them all with new and original spare parts (spare parts on www.sicma.it).



TOOLS LIST

Ref.	Description	Code	Quantity				
			SL-SL/Q 095	SL-SL/Q 110	SL-SL/Q 125	SL-SL/Q 140	SL-SL/Q 155
1	Smooth hammer	5715104	6	8	8	10	10
2	Nut M16 UNI 7473	3464101020	6	8	8	10	10
3	Screw M16x95 UNI 5737	5716003	6	8	8	10	10
4	Knife	5816274	24	32	32	40	40
5	Knife spacers	5536128	12	16	16	20	20
6	Notched hammer	5706109	6	8	8	10	10
7	Hammer spacer	5535001	12	16	16	20	20



CAUTION CRUSHING HAZARD!

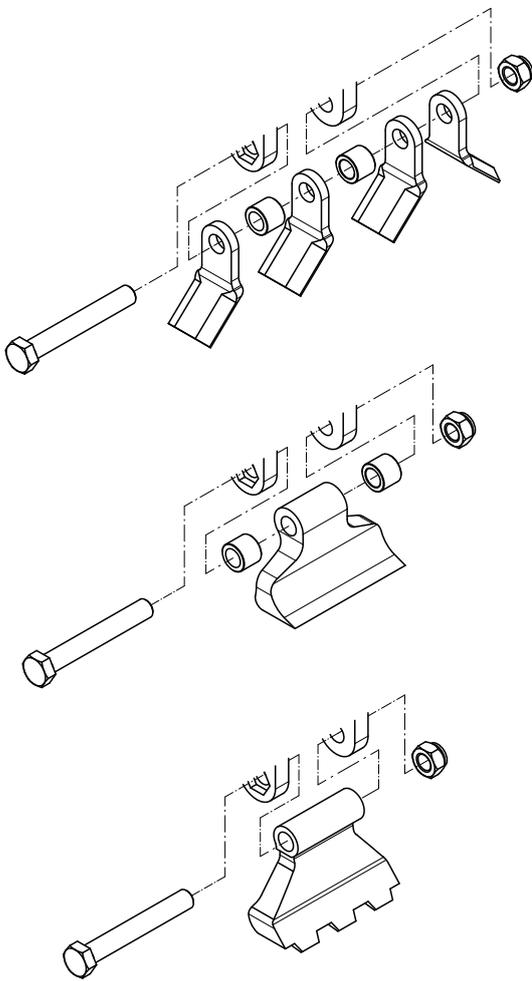
Ensure the stability of the equipment before carrying out any maintenance work, working on flat and non-yielding surfaces after having brought the Flail Mower to "Zero energy status" (para. 2.3).



CAUTION CUTTING HAZARD!

When replacing tools, safety gloves and footwear must be worn.





WARNING!

When even one tool is worn out, replace the entire tool set: replacing only some of them can cause damage to the structures and put the operator's physical safety at serious risk, due to unsafe imbalance of the shaft.



To carry out work to replace blades or hammers, contact the nearest SICMA service centre or instruct skilled personnel who will assemble the tools carefully following the assembly instructions described below. Please remember to mount tools with the cutting edge facing the direction of rotation of the rotor. Furthermore, to avoid any assembly errors, it is advisable to reassemble all the tool groups in the exact original arrangement.



NOTE!

It is reiterated that the use of non-original tools may cause anomalous vibrations of the machine thereby compromising the operator's safety and the efficiency of the Flail Mower.

Always use original SICMA spare parts to be sure of a limited tolerance on the weight of the tools and to avoid forfeiture of the warranty (spare parts on www.sicma.it).



RECOMMENDATION!

SICMA **does not recommend** changing the type of tools originally mounted on the shaft, such as replacing smooth hammers with blades, or vice-versa: if the user intends to proceed with this operation, it is essential, after installing the new tools, to rebalance from the complete shaft, carried out by an authorised SICMA centre, in order to avoid dangerous vibrations; in this case, remember to remove the additional weights of the original balancing.



WARNING!

SICMA declines all responsibility for damage resulting from failure to comply with the above instructions.



11. CARDAN SHAFT

For lubrication as well as for maintenance of the PTO shaft, follow the instructions provided in the use and maintenance manual for which the shaft is fitted.

12. CLEANING



RISK OF INJURY!

Only qualified operators that have read and understood the safety requirements (Chap. 2) may perform the operations described below. They must also ensure that there are no people, animals and objects exposed within the danger zone.



DANGER OF CUTTING!

The Flail Mower must be cleaned by wearing gloves and safety shoes. The maintenance technician must operate on a flat and not yielding surface with the Flail Mower at zero energy (para. 2.3).



If compressed air is used, suitable goggles must be worn.

At the end of use of the Flail Mower it is advisable to wash the equipment with a jet of water (pressure washer) in particular:

- The body;
- The three-point hitch;
- The tool-holder rotor and its tools;
- The rotor compartment.

After cleaning, dry with compressed air and then with a clean cloth. Then brush on some lubricating oil to protect the unvarnished metal parts.

13. STORAGE AND WINTERING

If the machine will not be used for long periods of time:

- Clean it thoroughly again;
- Check that the rotor turns freely;
- Lubricate the mechanical parts suitably to prevent oxidation.
- Identify the possible presence of structural faults and proceed appropriately to resolve them;
- Check the presence, correct placement, integrity and legibility of all the original safety pictograms and, if necessary, proceed appropriately to restore them;
- Store it in a place sheltered from atmospheric agents and not accessible by unauthorised persons.

14. SCRAPPING

In the event of scrapping, the machine must be disposed of in suitable waste disposal sites, in compliance with the Law in force.

In Italy, prior to scrapping, plastic or rubber parts must be separated from metal parts. Parts made up of only plastic, aluminium and steel materials can be recycled, if collected by dedicated centres.

Collect any waste oil and dispose of it at the appropriate collection centres. Used oil must be properly recovered and must not be released into the environment, as, according to the current law, it is classified as hazardous waste and as such must be taken to appropriate collection centres. For the collection of waste oil it is required to consult the "Waste Oil Mandatory Consortium" (www.coou.it, Green no. 800-863048);

For the other countries, refer to the relative anti-pollution regulations in force.



15. QUICK CONSULTATION TABLES

The following paragraphs state the information necessary to speed up the interventions described up to this point in table form, both regarding maintenance and troubleshooting.

15.1 TABLE OF TIGHTENING TORQUES

Check the tightness of nuts and bolts daily. If necessary, replace them by repositioning them (screws, washers, nuts) respecting the disassembly sequence.

COUPLING TORQUE				
Threading	Bolt class			
	8.8		10.9	
	Nm	Lb-ft	Nm	Lb-ft
M6	11	8.5	17	12
M8	28	20	40	30
M10	55	40	80	60
M12	95	70	140	105
M14	150	110	225	165
M16	240	175	305	225
M18	330	250	475	350

15.2 TROUBLESHOOTING TABLE



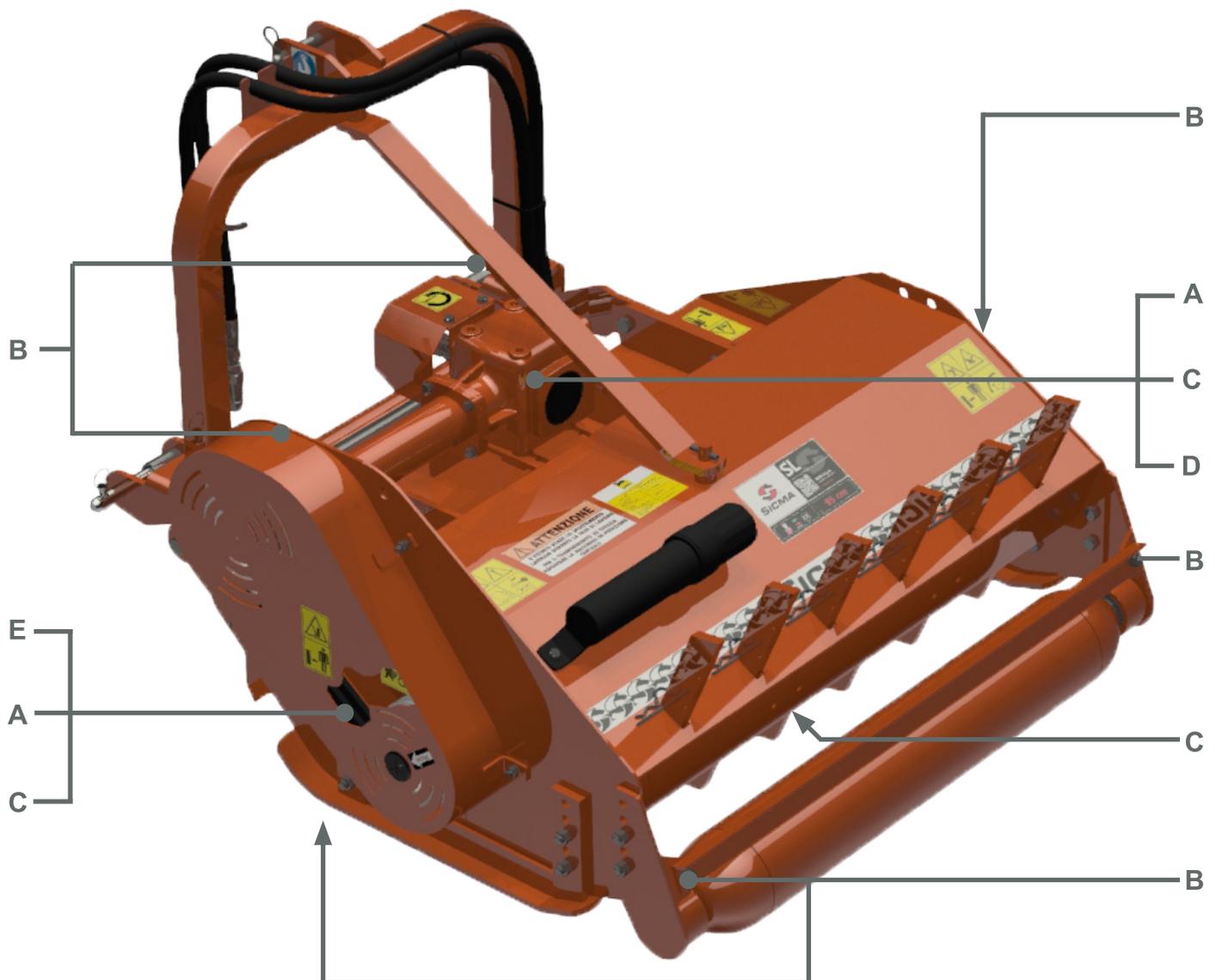
NOTE!

Before applying the suggested solutions, check, by a further attempt, if the anomaly persists. In this case, begin to adopt the most elementary remedies. If the fault persists despite having taken the necessary measures, contact the service centre.

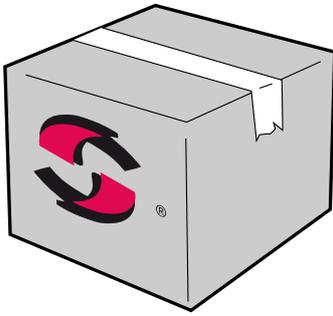
FAULT	CAUSE	REMEDY
Oil leakage from the box multiplier	<ul style="list-style-type: none"> Excessive quantity of oil in the box Breather plug with faulty valve Caps loading/unloading /slow levels Damaged gaskets 	<ul style="list-style-type: none"> Restore the proper oil level Replace the breathing cap Tighten the caps of loading/unloading/level Replace the gaskets
Uneven shredding	<ul style="list-style-type: none"> Tools worn or damaged Roller/wheels are not properly adjusted Machine clogged 	<ul style="list-style-type: none"> Replace the tools Carry out adjustments Decrease tractor advancement speed Clean shredding chamber
Multiplier gearbox overheated	<ul style="list-style-type: none"> Insufficient oil Finished oil Material hard to shred 	<ul style="list-style-type: none"> Restore the oil level Reduce advancement speed
Premature tool wear	<ul style="list-style-type: none"> Stony ground Setting the cutting height of the tools too low 	<ul style="list-style-type: none"> Clean the ground beforehand Adjust the cutting height
Machine noise or vibrations	<ul style="list-style-type: none"> Unbalanced rotor Rotor bearings worn Tools damaged, worn or missing 	<ul style="list-style-type: none"> Perform balancing in a specialist workshop Replace the bearings Replace the tools

15.3 MAINTENANCE INTERVALS

	INTERVAL IN HOURS	DESCRIPTION OF THE INTERVENTION
A	AFTER THE FIRST 50 WORKING HOURS	<ul style="list-style-type: none"> • Check the correct tension of the drive belts • Check the correct tightness of the nuts and bolts • Replace the oil in the multiplier gearbox
B	EVERY 20 WORKING HOURS	<ul style="list-style-type: none"> • Grease the supports of the rear roller • Grease the supports of the shaft • Grease the mobile arc supports
C	EVERY 50 WORKING HOURS	<ul style="list-style-type: none"> • Check the correct tension of the drive belts • Check the correct tightness of the nuts and bolts • Check the wear of the knives/hammers • Check the oil level in the multiplier gearbox and eventually fill to restore the level • Grease the rear wheel supports (if any)
D	EVERY 500 WORKING HOURS	<ul style="list-style-type: none"> • Check the correct tightness of the nuts and bolts • Replace the oil in the multiplier gearbox
E	EVERY 1000 WORKING HOURS	<ul style="list-style-type: none"> • Replace the drive belts



RECOMMENDED LUBRICANTS	
Oil	AGIP-ENI BLASIA 150
Grease	AGIP GREASE MU EP 2



16. SPARE PARTS

Repairs and any replacement of damaged components must be carried out using original spare parts, which must be requested from the Dealer or directly from the Manufacturer through the website www.sicma.it in the "Spare Parts" section. Remember that the spare parts order must be properly filled in and complete with the following information:

- Machine Type;
- Serial number;
- Code and description of the item to be replaced available from the spare parts explosion (www.sicma.it);
- Requested quantity.

In case of replacement of worn or damaged parts, given the particular stress to which the equipment is subjected and for safety reasons, use only original spare parts.



WARNING!

The use of non-original spare parts exempts SICMA from any responsibility for damage or injuries caused to operators, third parties and property and causes immediate forfeiture of the warranty.

17. WARRANTY

In order to claim under the contractual warranty supplied by the manufacturer, the operator must strictly comply with the instructions provided in the Use and Maintenance Manual, in particular:

- Respect the limits for use set forth by the Manufacturer;
- Must not make any changes or modifications to the machine without the written approval of the Manufacturer;
- Must always perform all the maintenance required;
- Must only use original spare parts;
- Must ensure that the personnel engaged in the use of the vehicle meet the necessary requirements in terms of skills and training.

The warranty shall not apply if the above conditions are not complied with, even if only partially.

The use of spare parts not approved by the manufacturer will void any warranty and exempts the Manufacturer or the Retailer from liability for malfunctions or accidents.

The removal or the modification of guards and protections relieves the Manufacturer from all liability due to damage/injury caused to objects and/or persons.







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