

UK

03/09



*Instruction Manual*

***BIO-SHREDDER***

***R225T***



Original instructions.





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## **1 INTRODUCTION**

This instruction manual must be considered as a part of the machine. The suppliers of both new and old machines must prove through documentations that the present manual has been delivered with the machine.

THE OPERATOR MUST READ THE PRESENT INSTRUCTION MANUAL AND ALL ITS SECTIONS CAREFULLY, BEFORE PERFORMING ANY KIND OF OPERATION ON THE MACHINE.

## **2 MACHINE'S USE**

Bio-shredder R225 is a machine used to shred in small pieces any kind of vegetable waste.

The machine is provided with a grinding assembly, combined with blades and hammers, that has a high production capacity and a large and handy hopper that makes the machine suitable for a professional use.

## **3 SAFETY INSTRUCTIONS**

During the machine's start up, use and maintenance, the following safety rules must be observed:

### *3.1 OPERATOR'S SAFETY*

- Under-sixteens are not allowed to use bio-shredders.
- During the machine's use, the user is responsible against third parties.
- During the grinding, it is compulsory to wear gloves and protective spectacles; it has been proved that, with a constant use of the machine, the sound level allowed is exceeded; it is highly recommended to wear an ear protector.
- During the machine's use, it is necessary to wear stout shoes and long trousers all the time.
- Hair must be tied above the shoulders.
- Do not use the machine, if you are tired, ill, or after having ingested alcoholic drinks, medicines or drugs.
- Do not enter the operation zone of the cardan transmission in movement
- Use cardan transmissions with a free wheel to be connected to the machine that meet the regulations of the machinery directive.
- Never use stools, ladders, etc. to reach for the drive roller at the back of the hopper, if the machine is not turned off.
- While the machine is being used on public roads, follow the safety regulation concerning road sites valid in the country where the machine is being used.

### *3.2 MACHINE'S SAFETY*

- During the start up of the tractor, make sure all the parts of the machine have been perfectly mounted in a correct way.
- Before using the tool, replace broken or damaged parts.
- The machine must be placed on a flat and resistant base.
- Before leaving the bio-shredder, turn the tractor off, disconnect the machine and the transmission shaft from the tractor.
- It is compulsory to use the machine with all its safety devices mounted correctly.
- Do not put any material into the bio-shredder before having turned on and brought to its maximum speed the engine.
- Rotate the exhaust pipe in the opposite direction with respect to the introduction hopper, before starting to introduce the material.
- Do not ever modify the machine.
- Do not use the machine for functions others than those for which it has been conceived.

### *3.3 SAFETY DURING GRINDING*

- During the use of the bio-shredder, the operator must wear individual protective devices, always be close to the hopper where he puts the material to be grinded, and make sure that nobody is within a 20 metres radius.
- It is forbidden to introduce branches whose dimensions exceed those prescribed (9 cm as indicated by the pictogram on the hopper) .
- Do not introduce in the bio-shredder stones, metals, glasses, plastic, earth, packs of newspapers, ect. but vegetable waste only.

- When the machine is working, do not ever remove any protective guard
- During operation, the operator must never be close to the discharge pipe of the material.
- No body part must be put within the protective guards.
- When the tractor is operating, no body part must be close to the cardan shaft.
- The power takeoff of the tractor must rotate at a speed not exceeding 540 rpm.
- Use cardan shafts with a minimum power of 26 KW at 540 rpm.
- Make sure that the length of the cardan shaft can compensate for the machine movements; in any case, the telescopic tubes must overlap for at least 1/3 of their length in the position of maximum elongation.
- Connect the retainers (chains) to the hitch points both on the tractor and on the machine

### 3.4 SAFETY OF MAINTENANCE

- For any maintenance activity of the tool, please refer to the procedures indicated in the section *Maintenance*.
- Use original spare parts only.
- Upon replacement of the blades and cleaning of the machine, be careful not to cut yourselves: "CUTTING TOOLS ARE DANGEROUS".
- No particular device is foreseen to prevent accidental movements of the cutting elements while carrying out maintenance activities.
- Do not perform any kind of maintenance activity before having worn protection gloves and safety shoes.
- Stop the engine and disconnect the cardan shaft from the tractor: wait for the machine's rotor to be completely stopped.

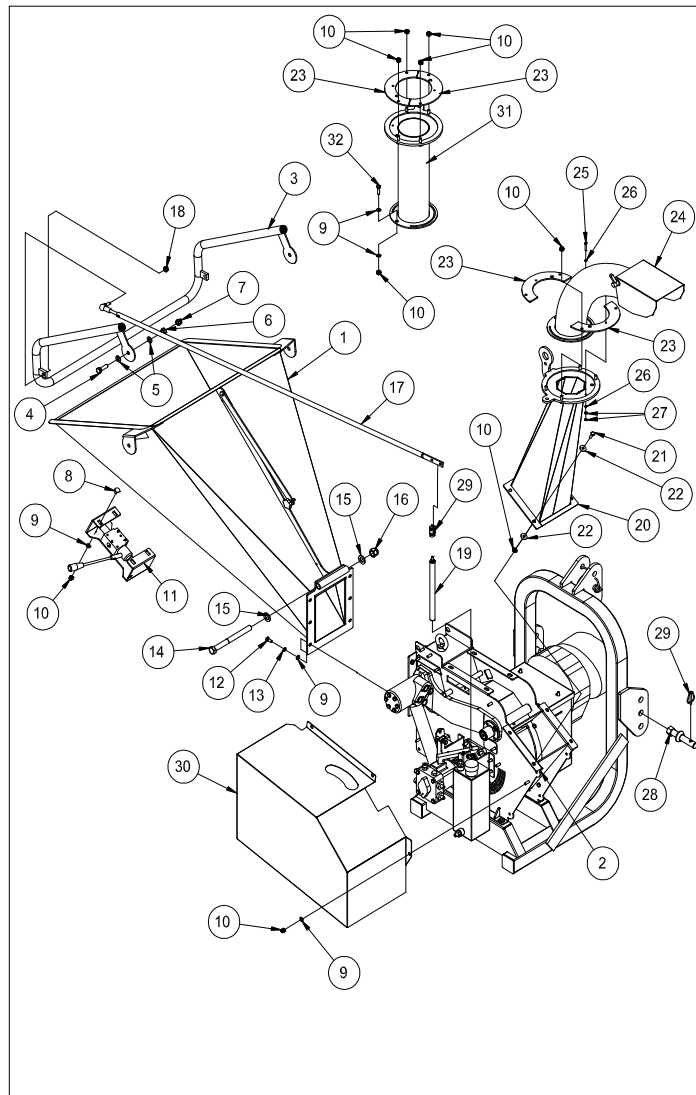
### 3.5 SAFETY OF TRANSPORT AND STORAGE

- Make sure all parts of the shredder are perfectly welded to the machine, in order to prevent any objects from being lost during transport.
- Transport the tool carefully and with the transmission disconnected.
- Use the special hooks to lift the machine (see the paragraph *Transport*).
- Disconnect the power takeoff before transporting the machine coupled to the tractor.
- At the end of every use, turn the tractor off, disconnect both the cardan shaft and the machine from the tractor and place the cardan shaft still inserted in the machine on the support hook.

## 4 INSTALLATION

Bio-shredder R225 is usually provided already mounted and ready to be used; if the shredder is provided with some parts that still need to be mounted, for packing or delivery reasons, wear the gloves and follow the drawings and the list to install the machine correctly.

1	Hopper	17	Control rod of grip
2	Machine body	18	Lower galvanized self-locking nut M10
3	Grip	19	Extension of the control rod of grip
4	Galvanized screw M12x40	20	Launch pipe
5	Galvanized plain washer 12	21	Galvanized screw M8x25
6	Galvanized nut M12	22	Galvanized plain washer 8x25
7	Galvanized self-locking nut M12	23	Closing flange of the launch pipe
8	Galvanized screw M8x20 DIN603	24	Adjustable conveyor
9	Galvanized plain washer 8	25	Galvanized screw M4x30
10	Galvanized self-locking nut M8	26	Galvanized plain washer 4
11	Emergency valve	27	Galvanized nut M4
12	Galvanized screw M8x20	28	Pivot for 3 point coupling
13	Galvanized spring washer 8	29	Tripping plug
14	Galvanized screw M18x200	30	Protection
15	Galvanized plain washer 18	31	Extension
16	Galvanized nut M18	32	Screw M8 x 30



Pic. 1 – Installation R225 T

Place the machine body (2) with its three point-coupling on a solid and flat base.

Mount the launch pipe (20) on the body (2) so that the matching is as hermetic as possible; fasten the two pieces with the 4 screws (21), washers (22) and nuts (10).

Fasten the adjustable conveyor (24) on the launch pipe by means of the two closing flanges (23) and the self-locking nuts (10).

Once the conveyor has been fastened on the pipe, insert the screw (25), the washers (26) and the nuts (27). The locking must allow for the rotation of the conveyor. By means of a slot, the system allows for the rotation of the conveyor of an angle of 270°, in order to prevent the accidental throwing of shredded material towards the operator who is in front of the hopper (12).

Use the screws (12), spring washers (13) and plain washers (9), to fasten the hopper (1) to the machine body (2). It is important that the bottom of the machine body and the hopper form a unique plan so as not to create steps.

Introduce the screw (14) and block it by means of washers (15) and nut (16). The locking must allow for the rotation of the hopper to take it in its transport position.

Then mount the grip (3) on the exterior couplings of the hopper and fasten it by means of screws (4), washers (5), galvanized nut (6) and self-locking nut (7). Here as well, the locking of nuts must allow the operator to operate the grip with no excessive effort and at the same time guarantees a stable position during the use of the machine. The grip (3) must be adjusted so that by pushing it completely towards the hopper, it always remains above the edge of the hopper, in order to guarantee an emergency stop (pos. E Fig. 4).

Assemble the control rod of grip (17) that has an end with a swivel head, which will be fastened to the grip on the hopper by means of a lower self-locking nut (18). The other end will be fastened to the extension (19) with the tripping plug (29). The plug will be screwed on the control grip connected to the pump.

Mount at the bottom of the hopper the safety valve with its support (11) by means of four screws (8), washers (9) and self-locking nuts (10). Block the hydraulic pipes under the hopper (1) by using the special collars.

Mount the pivots for the three point coupling (28) outwards and introduce into the hole the tripping plug (29).

Cover the hydraulic part with the protective guard (30) and fasten it to the body by means of nuts (10) and washers (9).

The Bio-shredder R225 has (optional) an extension for the ejecting pipe (31). To assemble it is necessary to put it on the ejecting pipe (20) and fix it to the latter by the closing flange (23) and the nuts (10). In order to avoid the complete rotation, the extension presents at the base an hole which has to tie in with the one that is on the ejecting pipe. Put the screw (32) in this hole and block it with the washers (9) and the nuts (10). Put on the higher part of the extension the turnable pipe (24) and fix it to the extension as described above.

## 5 TRANSPORT

The machine's transport can be carried out by authorized means only. Fasten the machine to the means of transport making sure that the profile of the machine does not exceed the limits of dimensions of the means of transport.

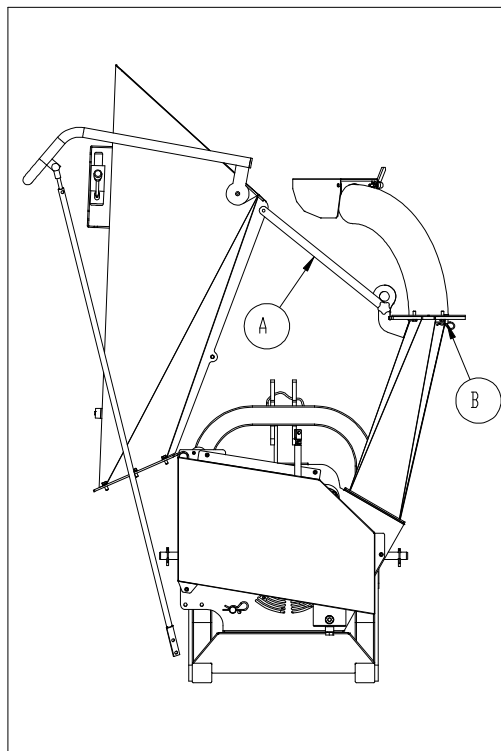
Before the transport of the machine, fastened to the tractor, disconnect the power takeoff. If you need to transport the machine with the tractor in narrow spaces, it is possible to reduce the dimensions by bending the hopper on the launch pipe, unscrewing the six screws that fasten it to the machine body and unhooking the control rod of the grip from the extension. **Do not ever start up the bio-shredder if the hopper is inclined; in this configuration there is a risk of being dragged into the machine.**

The hopper will be fastened to the pipe by the blocking rod of the hopper (A), as shown in Pic. 2.

Rotate the adjustable conveyor towards the hopper and block it by using the pivot (B).

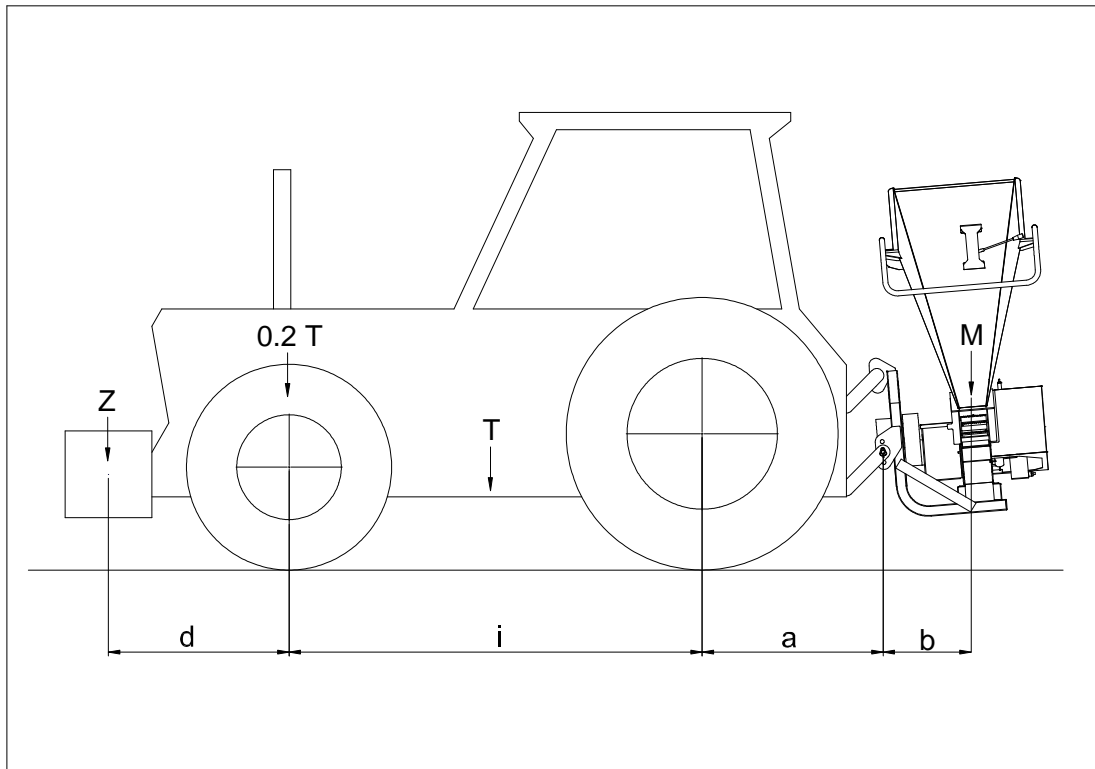
Once the transport has been completed, it is extremely important bring both the hopper and the adjustable conveyor back to their previous positions, before starting to work.

Should the machine be lifted, place the hopper in its operating position, use simultaneously the two lifting hooks present on the structure and bands 1500 mm and 2000 mm long, respectively. The first band will be fastened to the hook present on the launch pipe, the second band, on the contrary, will be fastened to the eye bolt welded on the machine body in order to avoid the deformation of some parts of the machine and the falling of the machine.



Pic. 2 – Position of transport

It is possible to calculate precisely the ballast to be applied to the tractor for a safe transport of the machine, as shown in Pic. 3.



Pic. 3 – Ballast calculation

$$Z \geq \frac{M \cdot (a + b) - 0.2(T \cdot i)}{d + i}$$

- i = axle base of the tractor's wheels
- d = distance of front axle from ballast
- a = distance of back axle from the fulcrum of the 3 point coupling of the machine
- b = distance of the fulcrum of the 3 point coupling from the barycenter of the machine
- T = tractor's mass + operator whose weight is 75 Kg
- M = mass of the machine
- Z = ballast

In the bio-shredder R225T, the nut "b" is 470 mm, the mass "M" is 225 Kg.

## 6 USAGE INFORMATION

### 6.1 WORKING TIME

According to the rules about the protection against noises, the shredders can only be used in predetermined time periods established by the existing law of the country where the machine is used.

### 6.2 MACHINE START UP

Place the bio-shredder on a dry and flat ground, let it coupled to the tractor. Make sure that all protection guards are closed. Rotate the adjustable conveyor to the desired position.

Make sure the level of both the hydraulic oil and oil of the multiplier unit (see paragraph *Maintenance*) are not below the level admitted.

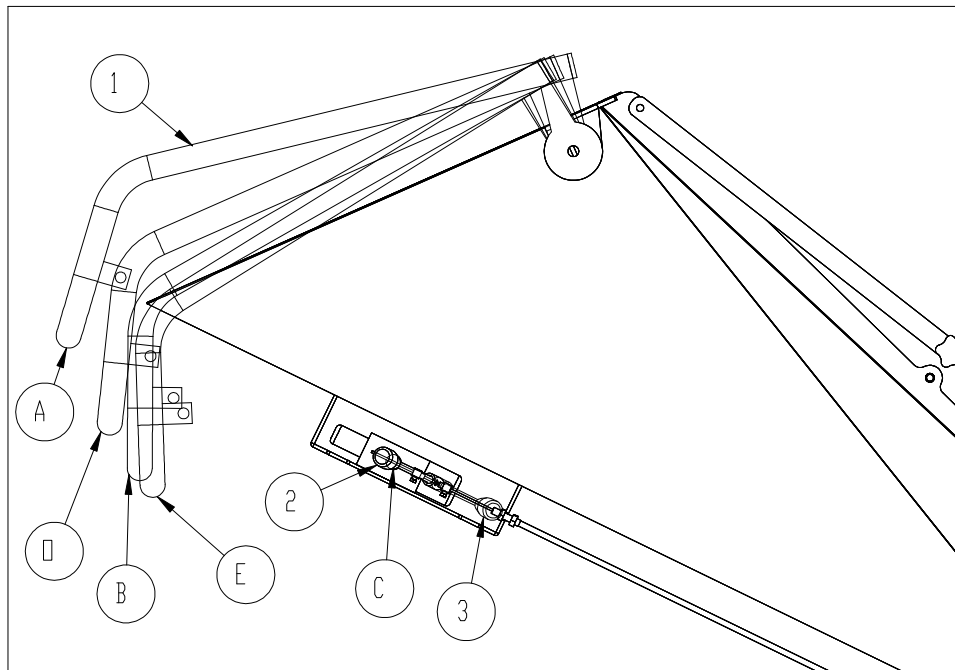
Connect the cardan joint to the tractor, and make sure the safety locks are correctly introduced into their housings; then fasten the safety chains to a fixed part of both the shredder and tractor so that the exterior protection does not rotate. Turn the tractor on at minimum speed and insert the power takeoff of the

cardan, slowly release the clutch so that the shredder slowly starts to rotate, then accelerate progressively until you reach the number of revolutions necessary to the power takeoff to obtain 540 rpm.

### 6.3 USAGE

Use the machine at an ambient temperature between -15°C and 40°C.

After having worn the gloves, the spectacles and the protective cap, the operator moves the control grip (1) towards himself (Pic. 4) and make sure that the rod of the emergency valve (C) is in its position (2). The grip establishes both the direction of rotation and the speed of the feed roller.



Pic. 4 – Positions of the control grip

The following positions are possible:

A→ maximum speed to introduce the material;

O→ stop position;

B→ maximum speed to reject the material;

E→ emergency stop position.

Every time the grip is in an emergency stop position (E), the lever of the valve (C) is automatically dragged to the position 3 and the drive roller stops; in order to start working again, it is necessary to move the grip from the emergency position to any other position (B,O,A) and to move the rod of the emergency valve (C) from position 3 to position 2.

The operator can introduce within the hopper, leaves and branches whose diameter does not have to be higher than 90 mm.

90 mm is the maximum diameter that can be shredded and relative to a single piece, considering a wood of medium/low hardness; it is therefore clear that if a very hard wood is used, the diameter that can be used decreases.

In order to achieve excellent working conditions of the machine, it is highly recommended to use an introduction speed of the material that allows the engine to operate always above its maximum torque.

If wet fibrous material like that of the lime, pine, palms must be shredded, it is necessary to reduce the introduction speed to avoid any clogging of the machine. If the machine is operated by the Honda iGX440 engine, the drive roller is automatically managed by the No stress electronic system, patented by NEGRI srl based on the grinding effort.

### 6.4 ACCIDENTAL CASES AND BEHAVIOURS TO FOLLOW

#### ▪ The bio-shredder does not work loadless

Make sure the cardan joint is correctly connected to both the tractor and the shredder: the safety locks must be inserted into their housings. If the problem persists, contact a technician.

#### ▪ Blocking of the cutting assembly due to the fact that too much material has been introduced into the machine or to an accidental fall of stones or metals

Turn off the engine of the tractor, extract the key from the panel, disconnect the transmission shaft from the tractor's power takeoff and wear safety gloves. Clean the bio-shredder as explained in the paragraph "*Maintenanc-Cleaning of the bio-shredder*". Every time a blocking of the bio-shredder occurs due to the above mentioned causes, always check the correct efficiency of both the transmission belts and shredding assembly, checking also the integrity of the blades, hammers and shafts.

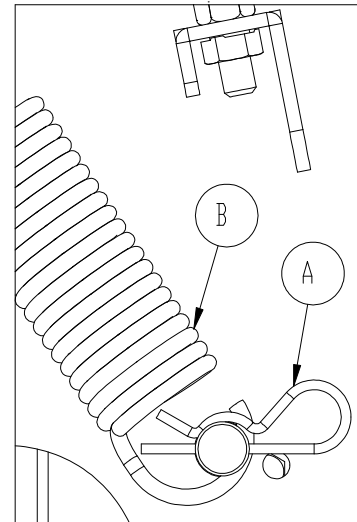
Blocking of the machine due to some materials jammmed between the drive roller and the rotor

Turn off the engine of the tractor,extract the key from the panel, disconnect the transmission shaft from the tractor's power takeoff, and wear safety gloves. Remove the protective guard. Remove the split pin (A) and unhook the spring (B) (Pic. 5). Lift the drive roller and remove the jammed material. Reassemble

Blocking of the bio-shredder due to a lack of fuel in the tractor.

Fill the tank with the suitable fuel but DO NOT start up the machine immediatly after, since the machine might break down because of the overheating of both clutch and belts.

Before starting up the machine, remove any material that might be jammed under the drive roller as shown in the previous paragraph. If necessary, clean the bio-shredder as explained in the paragraph "*Maintenance–Cleaning of the bio-shredder*".



Pic. 5 – Unlocking of the roller

▪ Blocking of the introduction hydraulic systems

If the roller is blocked, make sure no emergency stop has been activated by the control grip; if that is the case, move the control grip from the position of emergency stop and pull towards yourself the lever of the safety valve (see paragraph 6.3) If the problem persists, make sure that there are no wood pieces jammed within the movements: if any, remove them. Make sure the toothed drive roller is not blocked due to a contact with other parts of the machine, if that is the case, lift the roller by using the special register (see *paragraph 7.6*) until there are 5 mm of light between the teeth of the roller and the bottom of the machine's body. If after these checks, the problem is not solved, make sure that there are no leaks in the hydraulic system, that the level of hydraulic oil is correct (50 mm / 70 mm below the replenishing hole). Make sure that the elastic pin of the control rod of the distributor is not broken. Make sure the flexible coupling is in perfect conditions and that it can transmit the movement to the pump. If the problem persists, contact an authorized technician.

▪ Excessive vibrations

The causes of excessive vibrations can be: unbalance of the cutting assembly due to a strong impact, breaking of a blade or serious damage of the hammers, seizure of a support or loose trasmission components. Find out the exact cause of this problem and contact an authorised technician for the repair.

## 7 MAINTENANCE

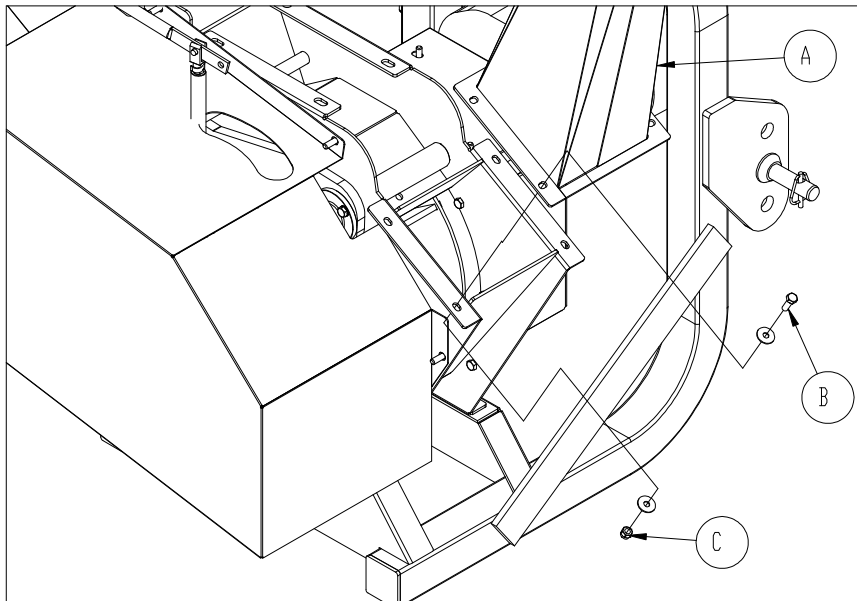
Before any check, maintenance or cleaning activity to be carried out at the end of every process, turn the tractor's engine off, extract the key from the panel, disconnect the cardan shaft and wear safety gloves.

### 7.1 *CLEANING OF THE BIO-SHREDDER*

Remove the launch pipe by unscrewing the four screws (A), the washers (B) and their nuts (C) and remove some possible waste. Do not cut yourself with the cutting components.



**CUTTING TOOLS ARE DANGEROUS !!!**



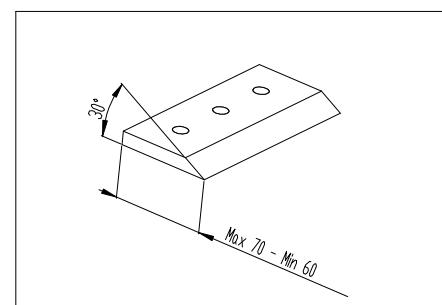
Pic. 6 – Cleaning of the bio-shredder

### 7.2 *CHECK AND REPLACEMENT OR SHARPENING OF BLADES*

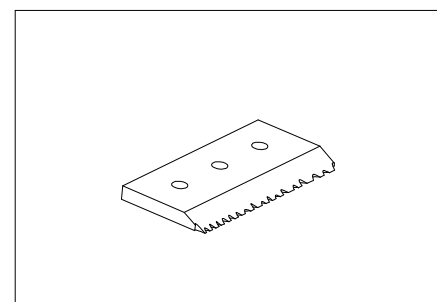
**Blades must always be checked before using them.** In order to guarantee the good working of the machine, to achieve the best working conditions and avoid any damage of the machine, blades must always be intact and sharp (Pic. 7). The duration of the cutting wire depends on the nature and type of the shredded material and it is therefore impossible to give a precise datum. If the machine is used to shred material containing dust, sand, or earth, the cutting wire of blades will deteriorate very quickly.

**ATTENTION: USING THE MACHINE WITH BLADES IN BAD CONDITIONS CAN CAUSE MECHANIC DAMAGES IMPUTABLE TO THE USER.**

In order to check the conditions of the blades, you need to have access to the rotor as indicated in the paragraph “*Maintenance-Cleaning of the bio-shredder*”, when the blades are like in Pic. 8, they need to be sharpened.

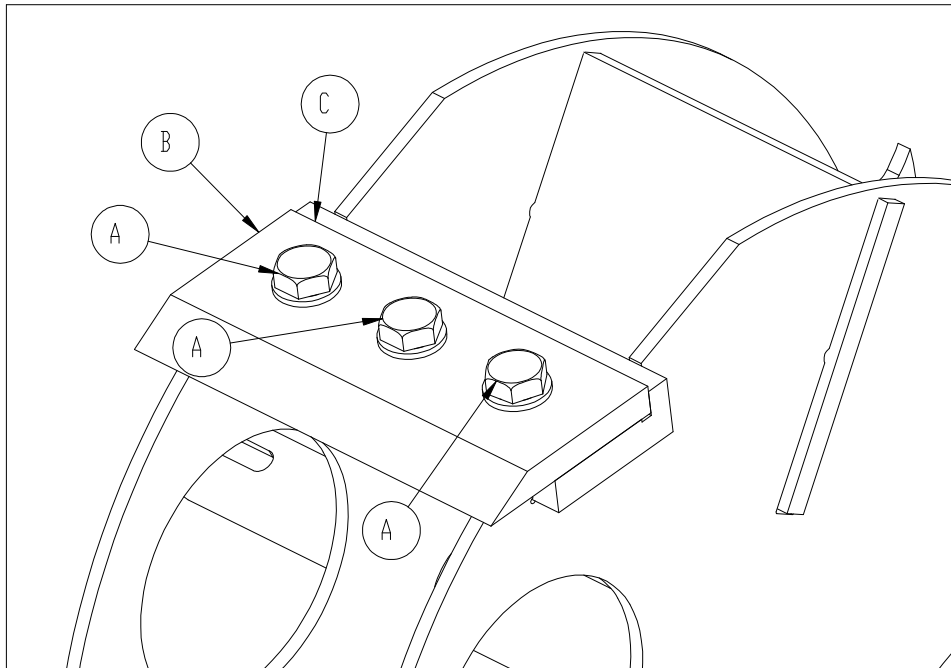


Pic. 7 – Sharp blade



Pic. 8 – Worn blade

In order to disassemble the blades, it is necessary to unscrew the screws (A) by using a wrench of 17  $\varnothing$  (Pic. 9). Remove the blade and sharp it (it is important to respect the values indicated in Pic. 7) or replace it, if necessary. Reassemble the blade (B) by placing it on the ledge (C); the supporting surface must be perfectly clean. Then screw the screws (A) at 73 Nm. Should the screws (A) be worn, replace them by using screws with a resistance category of 10.9 or higher.



Pic. 9 – Replacement of blades

Use original spare parts only (branded with the name of the manufacturer) and easily available at NEGRI SRL. Should the hammers be subject to strong impacts or hits, let a technician examine them.

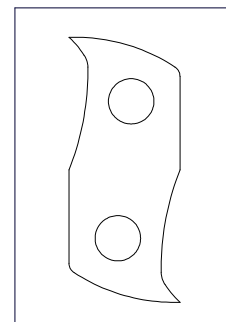
### 7.3 CHECK AND REPLACEMENT OR ROTATION OF HAMMERS

**Hammers must always be checked before using them.** In order to guarantee the good working of the machine, to achieve the best working conditions and avoid any damage of the machine, hammers must always be intact (Pic. 10). The duration of hammers depends on the nature and type of the shredded material and it is therefore impossible to give a precise datum. If the machine is used to shred material containing dust, sand, or earth, hammers will deteriorate very quickly.

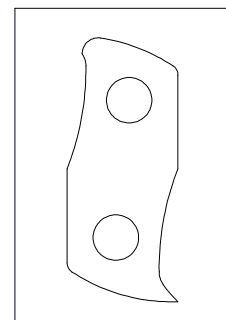
**ATTENTION: USING THE MACHINE WITH HAMMERS IN BAD CONDITIONS CAN CAUSE MECHANIC DAMAGES IMPUTABLE TO THE USER.**

In order to check the conditions of the hammers, you need to have access to the rotor as indicated in the paragraph “Maintenance-Cleaning of the bio-shredder”,

when the hammers are like in Pic. 11, they need to be rotated or replaced



Pic. 10 – New hammer

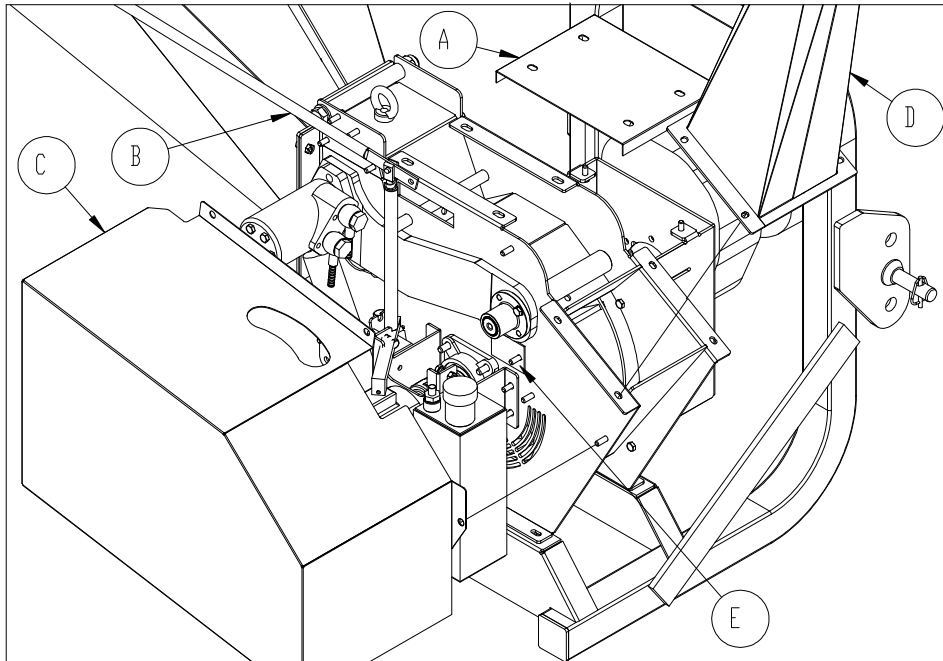


Pic. 11 – Worn hammer

In order to rotate or replace the hammers, remove the lid of the support assembly (A *Pic. 12*) by unscrewing the four nuts, unhook the control rod of the grip (B) by acting on the tripping fork, remove the protective guards of the pump (C), disassemble the launch pipe (D) and remove the lids (E) on the machine body.

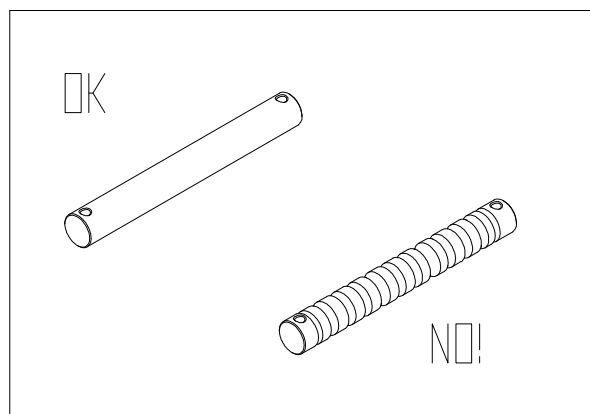
By using the two holes obtained, block with pliers the pivot (1 *Pic. 14*) and with the other pliers, extract the split pin (2).

Remove the pivot to take all the hammers and distance spacers.



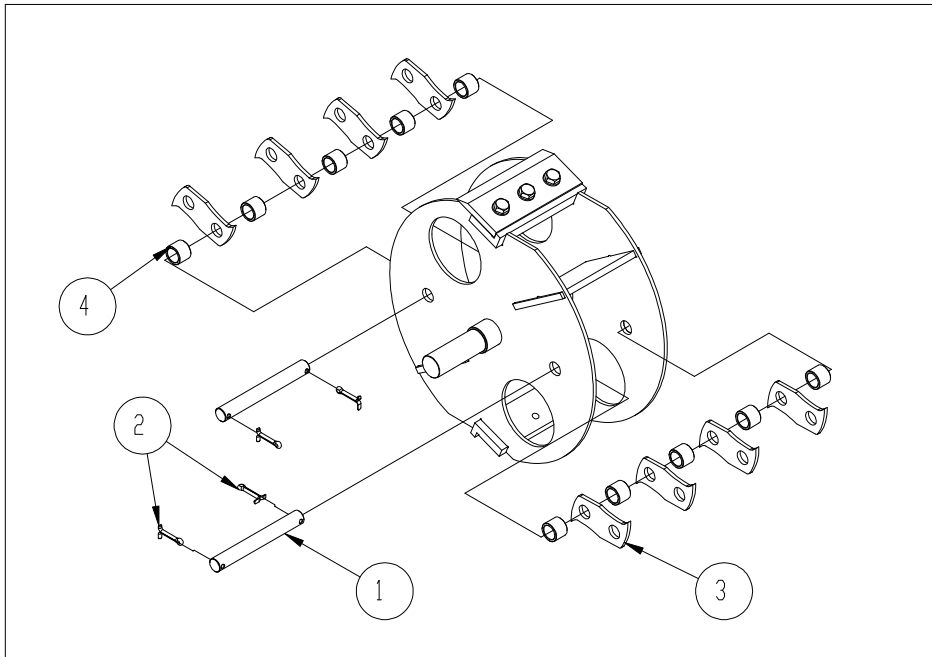
Pic. 12 – Replacement of hammers

Before rotating or replacing the hammers, check the surface status of pivots; if the hammers' friction reduces of 1 mm the diameter of pivots, it is highly recommended to replace them (*Pic. 13*). Always replace the split pins with new ones. (*Pic. 14*).



Pic. 13 – Wear of pivots

Reassemble by placing both hammers and distance spacers in a correct way; a wrong assembly of hammers and distance spacers can cause damaging vibrations to the machine.



Pic. 14 – Assembling of the rotor

Use original spare parts only (branded with the name of the manufacturer) and easily available at NEGRI SRL. Should the hammers be subject to strong impacts or hit, let a technician examine them.

To ask for spare parts or simply technical information to our After Sales Service, it is necessary to provide the MODEL, the REGISTRATION NUMBER and the YEAR OF CONSTRUCTION of the machine in order to make its identification easier and therefore provide a rapid and precise service.

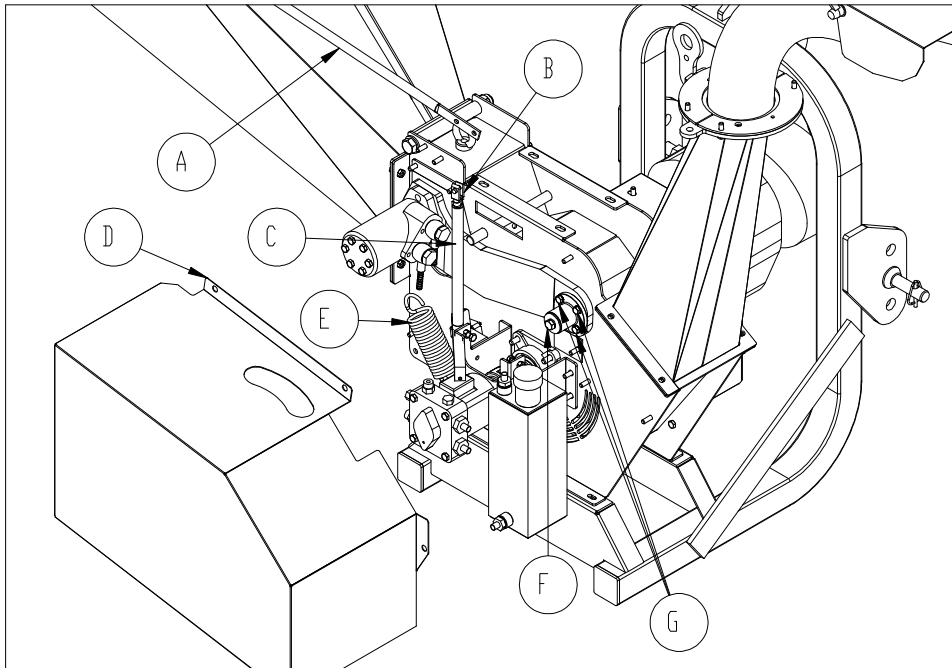
The above mentioned information can be found on the identification plate (see label n. 9 in the paragraph *Safety instructions* at the end of the manual)

#### 7.4 CHECK OF THE CLEARANCE OF THE ROLLER'S ARM AND REPLACEMENT OF BUSHES

Unhook the control rod of the grip (A) by acting on the tripping fork (B Pic.15), remove the protective guard of the pump (D) by unscrewing the four nuts and unhook the spring (E). Check, by manually pressing, whether the roller's arm shows axial clearance or radial clearance that might cause some contact between the roller and the machine body. Should there be some interferences, replace the two bushes. Unscrew the screw (F) on top of the joint and the 4 screws (G) that keep it fastened to the arm, remove it and extract the two worn bushes.

Replace the two bushes and reassemble following the opposite process.

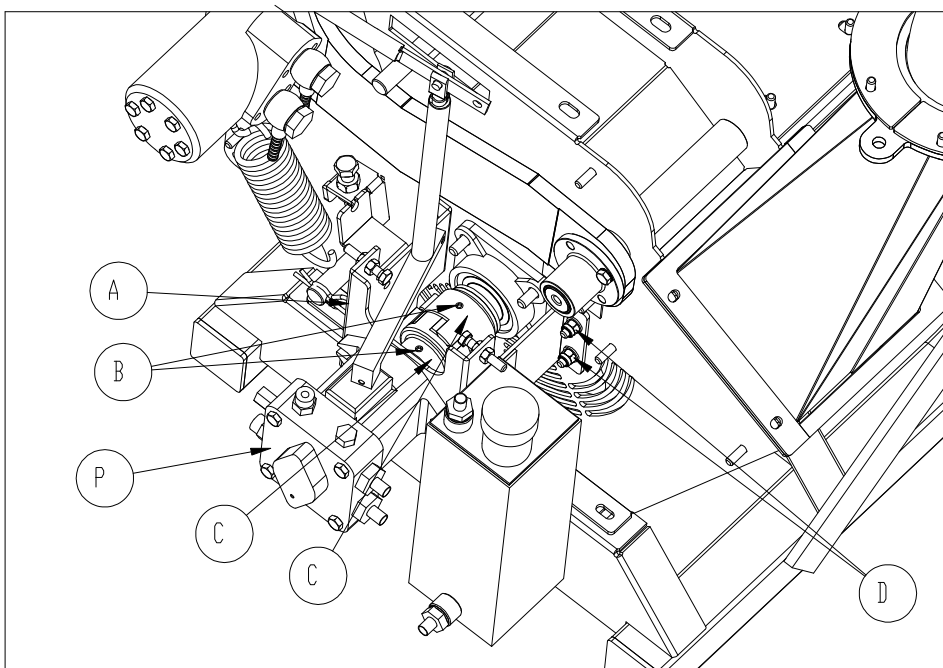
In case of replacement, it is highly recommended to use a press to introduce the bushes.



Pic. 15 – Replacement of bushes

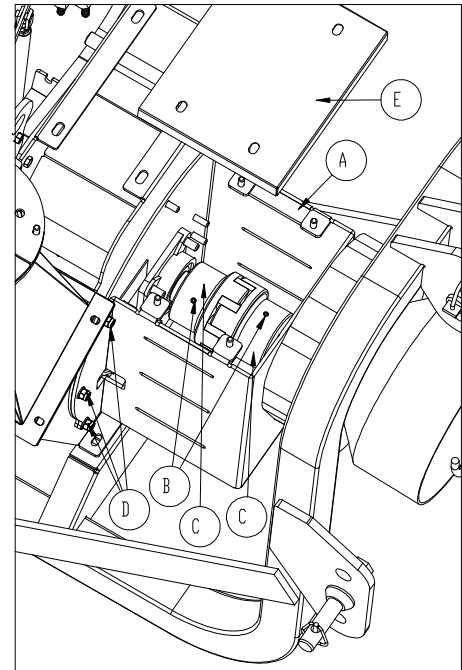
**7.5 CHECK OF THE FLEXIBLE COUPLINGS**

In order to check the wear of the coupling (C Pic.16), disassemble the protective guard of the pump as indicated in the paragraph 7.4. By manually moving the coupling make sure there is no clearance. If there is some clearance, the coupling must be replaced. In order to replace the flexible coupling, unscrew the 2 grains (B), 4 nuts (D) and disassemble the support of the pump (P) without removing the pump. Extract the two flexible couplings (C). Replace the complete flexible coupling by reassembling it following the opposite process.



Pic. 16 – Check of the pump's coupling

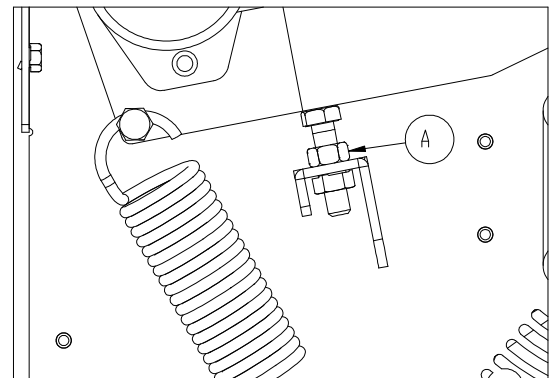
In order to check the wear of the transmission joint against tearings, disassemble the lid for support assembly (E). Here as well, manually move the joint (C) in order to check the clearance. Should it be replaced, disassemble the support group (A), by unscrewing the six nuts (D), loose the grains (B), disassemble the support group (A) with the multiplier unit still connected, and extract the two joints (C). Per verificare l'usura del giunto parastrappi di trasmissione smontare il coperchio per supporto gruppo (E). Replace the complete flexible coupling by reassembling it following the opposite process.(Pic.17)



Pic. 17 – Check of flexible coupling

### 7.6 CHECK OF THE HEIGHT OF THE DRIVE ROLLER

Every six months it is highly recommended to make sure that, by looking inside the loading hopper, there are at least 5 mm space between the feed roller and the bottom of the hopper. Should it be necessary to adjust the height, remove the protection guard of the belts (A Fig.11) and act on the straightedge (A), at the side of the machine, by using a wrench of 22  $\varnothing$  (Pic. 18).



Pic. 18 – Adjustment of the height of the roller

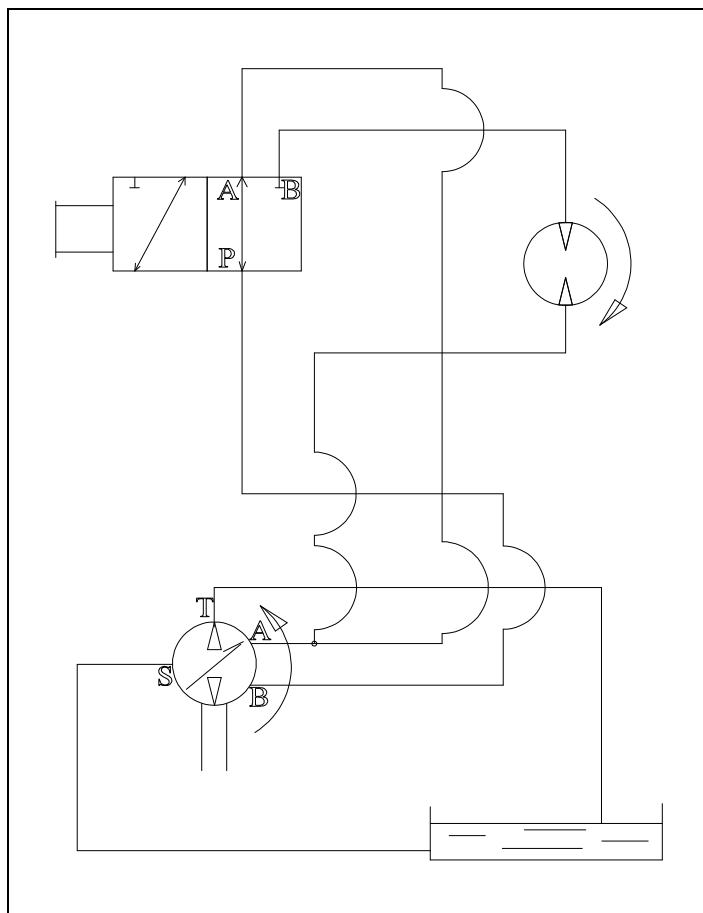
### 7.7 VARIOUS LEVELS

- Hydraulic oil: it is possible to check the oil level through the replenishing hole (50-70 mm below the replenishing hole). In case of replenishing, use an oil of the type ISO VG 46. Capacity of the installation is about 3.5 litres.
- Oil of the multiplier unit: it is possible to check the oil level through the inspection hole on the right of the shaft. In case of replenishing, use an oil of the type SAE 80W-90. Capacity of the unit is about 0,45 litre.

7.8 MAINTENANCE DIAGRAM

	ORDINARY	EVERY 50 HOURS	EVERY 300 HOURS	EVERY 600 HOURS	EVERY 6 MONTHS	1 YEAR	EVERY 2 YEARS
Machine cleaning	■						
Check of the locking of screws and nuts	■						
Check of the protection guard	■						
Check of hammers	■						
Check of blades	■						
Check of the clearance of the roller's arm			■				
Greasing of the rotor's bearings		■			■		
Check of wear and clearance of joints			■				
Replacement of hydraulic oil ISO VG 46				■			■
Replacement of the oil of the multiplier unit SAE 80W-90				■			■

7.9 HYDRAULIC DIAGRAM



## 8 STORAGE

At the end of every use, turn the tractor off, disconnect the cardan shaft and the machine from the tractor and place the cardan shaft still inserted in the machine on the support hook, clean the cutting assembly and check the tension of the transmission belts as explained in the paragraph "*Maintenance-Check and replacement of transmission belts*".

Store the machine in a dry and covered place. If the machine is stored in a place where temperature is low and is not used for awhile, it is highly recommended to loose the transmission belts.

## 9 GUARANTEE

NEGRI SRL guarantees the machine against manufacturing and material defects for a period of 2 years from the purchase date, to any person that does not use the machine for their business or profession.

Guarantee conditions meet the European Directive 1999/44/CE.

One year guarantee is granted to those people that use the product for a professional aim. The guarantee is valid only if shown together with the sales receipt or the certificate guarantee (enclosed with the present manual) filled in by the seller upon purchase and sent within 10 days from the purchase date.

As far as the explosion and electric engines are concerned, the guarantee granted by the manufactures of the engine is valid for 1 year.

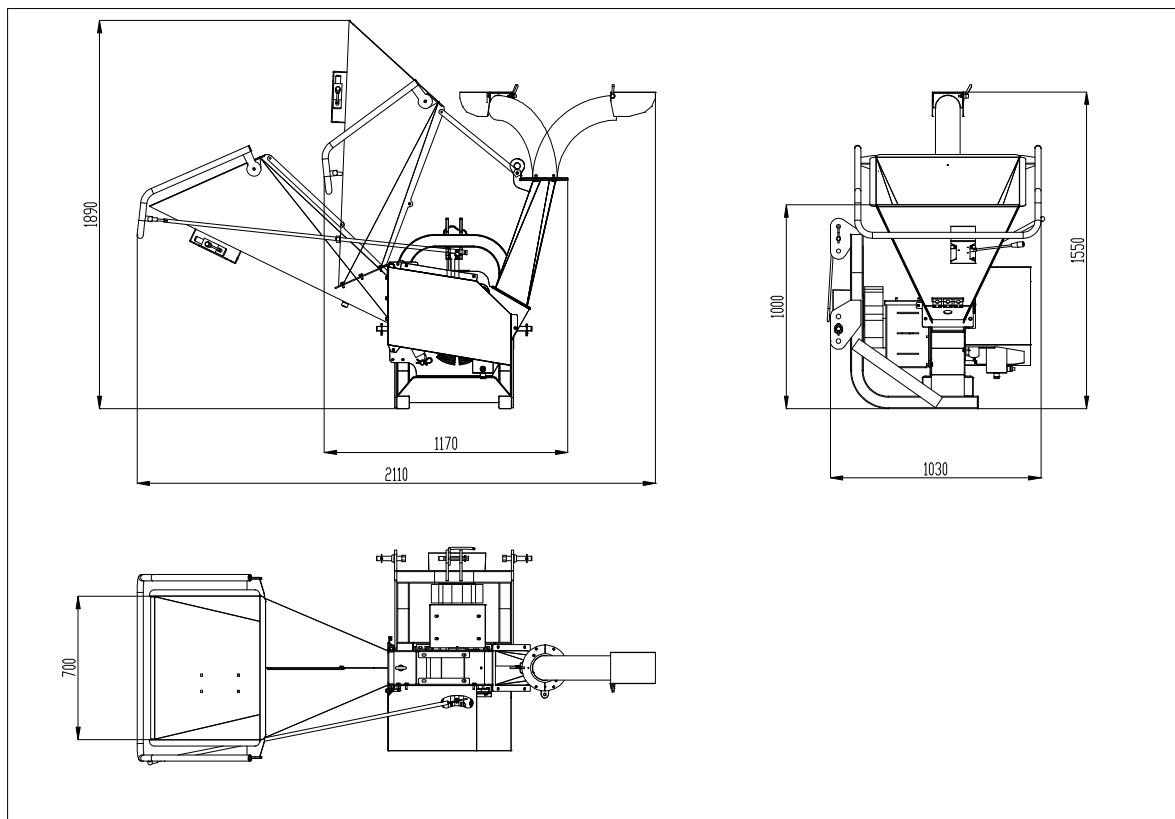
The guarantee excludes any responsibility for direct or indirect damages to people or things and is no longer valid when the pieces given back appear to have been disassembled, manipulated or repaired in non authorized centres. Damages due to the non observance of the instructions are not covered by the guarantee.

Those parts that are often used and therefore are subject to a rapid wear, such as gaskets, chains, belts, valves, bearings, hydraulic pipes, blades, etc., are not covered by the guarantee.

The guarantee excludes all transport, inspection, disassembly and reassembly costs due after the intervention of one of our technicians upon the client's request for defects we are not responsible for.

In case of failure, please contact an authorized centre and use original spare parts, by specifying the model and the version. If non original parts are monted, then the guarantee is no longer valid

## 10 OVERALL DIMENSIONS DRAWINGS



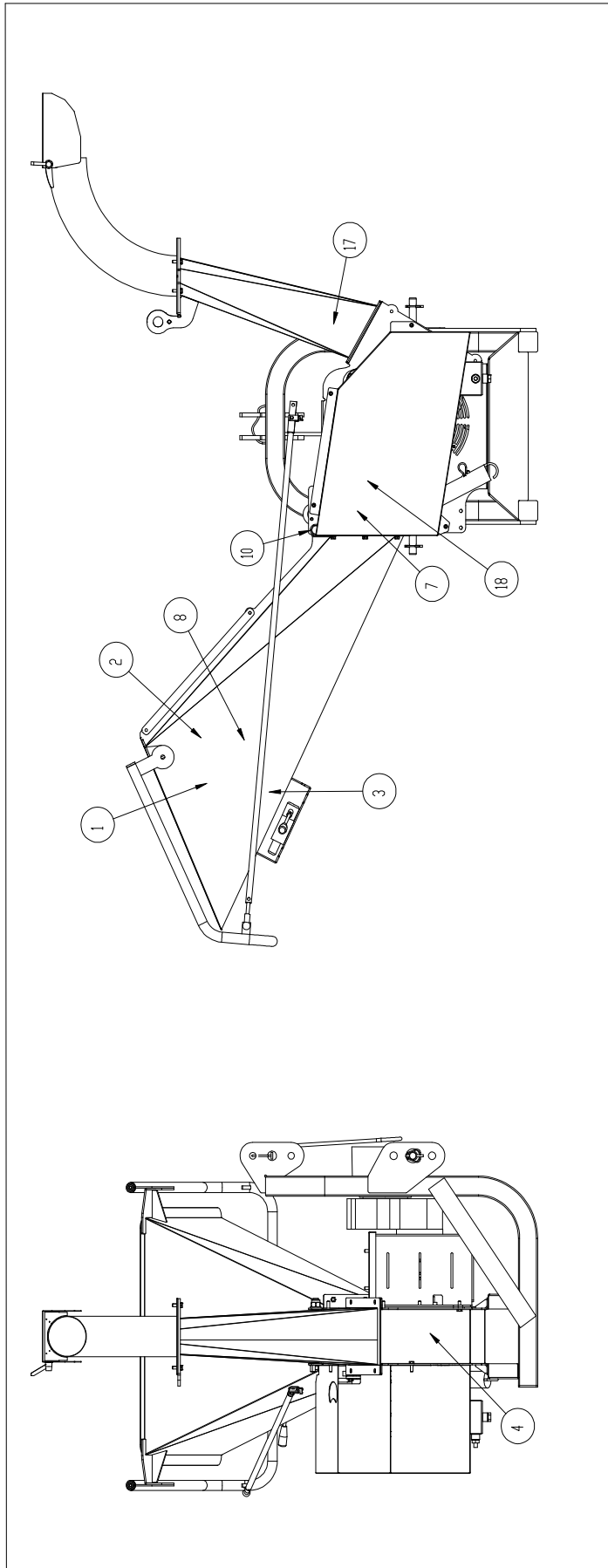
## **11 TECHNICAL DATA**

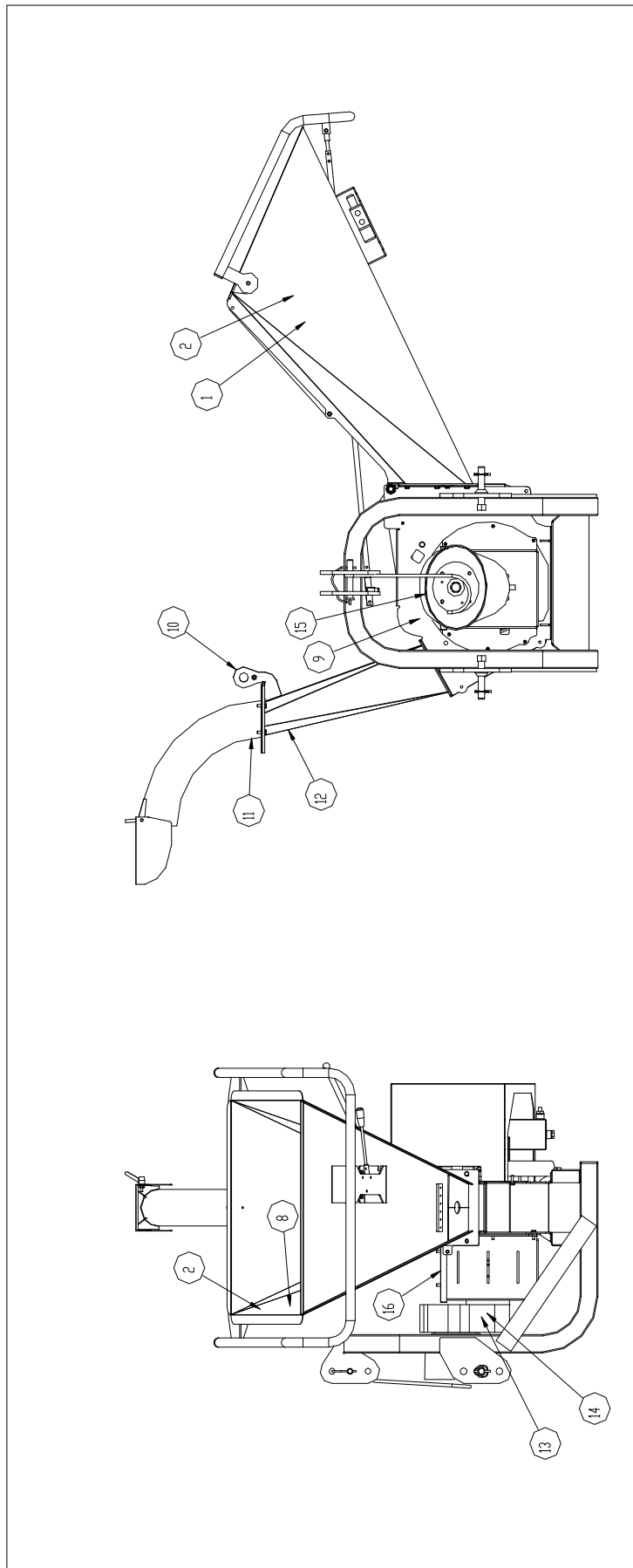
Noise emission.

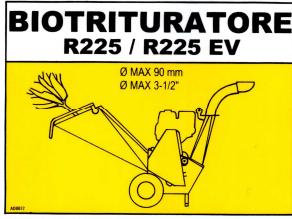




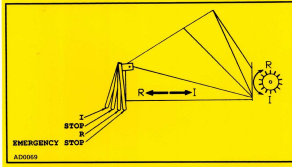

Acoustic pressure at the operator's ear meets EN ISO 11201 requirements modified by the rules concerning the machine: 117dB (A)







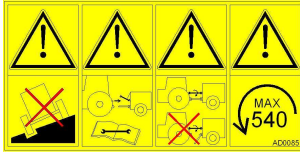

<b>MODEL</b>	<b>R225T</b>
Power [kw/hp]	9.6/13
Overall length [mm]	2110/1170
Overall width [mm]	1030
Overall height [mm]	1550/1890
Introduction height [mm]	1000
Discharge height [mm]	1550
Introduction width [mm]	700
Mass [kg]	225
Number of blades	2
Number of hammers	8
Max. diameter to shred [mm]	90
Number of rpm of the rotor [rpm]	2680/2780

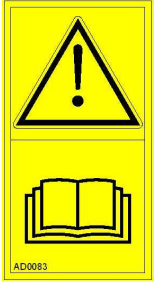
## 12 SAFETY INSTRUCTIONS





N°	CODE	PICTURE	DESCRIPTION
1	AD0072		Bio-shredder R225
2	AD0095		Negri srl – Use personal protective equipment – It's forbidden to climb – Read the instruction manual – Cutting tools – Rotating rollers.
3	AD0073		Reset
4	AD0088		Attention – Cutting tools
7	AD0084		Attention – Moving belts
8	AD0069		Controls of the discharge system
9	AD0028		Identification plate

<p>10</p>	<p>AD0062</p>		<p>Lifting hook</p>
<p>11</p>	<p>AD0026</p>		<p>Transport position</p>
<p>12</p>	<p>AD0027</p>		<p>Reference to the transport position</p>
<p>13</p>	<p>AD0025</p>		<p>Oil level</p>
<p>14</p>	<p>AD0056</p>		<p>Oil box gears</p>
<p>15</p>	<p>AD0024</p>		<p>Rotation direction</p>
<p>16</p>	<p>AD0085</p>		<p><b>Attention – Disconnect the PTO for maintenance – Do not place the machine on a steep or soft ground – Upon operation, keep the machine fastened to the tractor – Maximum speed PTO 540 rpm</b></p>
<p>17</p>	<p>AD0037</p>		<p><b>Attention – Throwing of objects</b></p>

18	AD0083		<b>Attention – Read the instruction manual</b>
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# CERTIFICATO DI GARANZIA

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DA COMPILARE DA PARTE DEL RIVENDITORE  
A REMPLIR PAR LE DÉTAILLANT  
TO FILL BY THE SUPPLIER  
FÜR DEN VERKÄUFER: BITTE, FULLEN SIE DAS AUS  
VOOR DE VERKOPER: GELIEVE DIT IN TE VULLEN

---

NOME E INDIRIZZO DEL RIVENDITORE  
NOM ET ADRESSE DU DÉTAILLANT  
NAME AND ADDRESS OF SUPPLIER  
NAME UND ADRESSE DES VERKÄUFERS  
NOMBRE Y SEÑAS DEL REVENDEDOR  
NAAM EN ADRES VAN DE DEALER

NOME E INDIRIZZO DEL CLIENTE  
NOM ET ADRESSE DU CLIENT  
CUSTOMER'S NAME AND ADDRESS  
NAME UND ADRESSE DES KUNDEN  
NOMBRE Y SEÑAS DEL CLIENTE  
NAAM EN ADRES VAN DE KLANT

DATA DI VENDITA  
DATE DE VENTE  
DATE OF PURCHASE  
VERKAUFSDATUM  
DATA DE VENTA  
DATUM VAN DE VERKOOP

MODELLO  
MODÉLE  
MODEL  
MODELL  
MODELO  
MODEL

TIMBRO E FIRMA DEL RIVENDITORE  
TIMBRE ET SIGNATURE DU DÉTAILLANT  
STAMP AND SIGNATURE OF SUPPLIER  
FIRMENSTEMPEL UND UNTERSCHRIFT DES VERKÄUFERS  
SELLO Y FIRMA DEL REVENDEDOR  
STEMPEL EN HANDTEKENING VAN DE DEALE

**La ditta NEGRI in qualunque momento si riserva il diritto di apportare alla propria produzione modifiche e miglioramenti ritenuti necessari a suo insindacabile giudizio.**

**NEGRI reserves the right to make any modifications and improvements to its products that it considers necessary at any time.**

**La Maison Negri se garde le droit de changer à n'importe quel moment les données, les poids et les mesures.**

**Negri tiene el derecho de cambiar datos, pesos y medidas en cualquier momento.**

**Die Firma Negri kann in jedem Moment Daten, Gewichte und Maße ändern.**

**Negri bedhout zich het recht voor om gegevens, gewichten en maten te wijzigen zonder aankondiging vooraf.**

**Le immagini presenti in questo libretto istruzioni hanno scopo puramente illustrativo.**

**The picture shown in this manual only have an illustrative purpose.**

**Les photos qui se trouvent danf ce livret d'instructions sont purement illustratifs.**

**Las imàgenes presentes en este manual de instrucciones tienen un fin exclusivamente ilustrativo.**

**Die in diesen Gebrauchsanweisungen enthaltenen Bilder haben nur einen erläuternden Zweck.**

**De afbeeldingen in dit instructieboekje hebben alleen maar een illustratieve betekenis.**

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