

MASCAR

Use & Maintenance manual



Round baler

TUAREG 525/555

TUAREG-CUT 525/555



*Vor Inbetriebnahme
der Maschine die
Bedienungsanleitung
lesen*

CE

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Details mentioned in the identification plate

Machine model

Serial number

Year of production

Machine weight

*Authorised **MASCAR** repair centre to contact for service in*

SECTION 1

Description and main features

1.1 PRESENTATION

This manual features information, instructions and all other data deemed necessary for the user to gain familiarity with the «TUAREG TUAREG-CUT 525-555», its proper operation and routine maintenance. The Tuareg Cut Round Baler, hereinafter also referred to as the machine, is manufactured by MASCAR of Grumolo delle Abbadesse (Vicenza) Italy, hereinafter referred to more simply as the Manufacturer.

The contents of this manual do not constitute a detailed description of the various components and their operation. Herein, the user will nonetheless find everything he/she will normally need to know in order to operate the machine safely and look after it properly.

The regular operation, lasting efficiency and economical running of the machine depend on the observance and application of the procedures described herein, together with careful and thorough maintenance.

Failure to comply with the instructions given herein, negligent operation, incorrect use of the machine and the performance of unauthorized modifications may result in the loss of any rights under the warranty provided by the Manufacturer.



WARNING

Consequently, the Manufacturer declines all responsibility for damage resulting from negligence or failure to observe the instructions herein.

When in need of repairs or an overhaul entailing somewhat complex operations, you must contact the authorized Service Centres who have their own skilled personnel, or get in touch with the Manufacturer directly. Remember the Manufacturer is on hand to ensure a prompt and precise technical service and any other element required to get the most out of the machine.



DANGER

This manual is an integral part of the machine and must be kept with it at all times, even when it is moved to a new location or sold. It must be kept in a safe place known to the personnel authorized for its operation/servicing. It is up to said personnel to make sure it is kept safe and intact for future consultation for the entire duration of the machine's service life.

Should it be damaged or lost, apply to the Manufacturer for a new copy without delay.

1.1.1 INTENDED USERS OF THE MANUAL

This manual represents the fundamental instrument for the personnel authorized to perform various operations concerning the machine, i.e.

- Personnel in charge of the transportation and handling of the machine.
- Personnel in charge of operating the machine;
- Maintenance personnel;
- Personnel in charge of scrapping.

1.2 WARRANTY

The Manufacturer warrants its brand-new products for a period of 12 (twelve) months from the date of purchase. On receiving the machine, check to make sure it is intact and all parts accounted for.

Any complaints must be made in writing within 8 (eight) days of receipt of the machine. The user's sole remedy under warranty shall consist in the repair or replacement free of charge of any parts proving to be defective subsequent to a thorough examination by the Manufacturer's engineering department (and does not include electrical parts or any implements).

Under no circumstances shall the repair or replacement of parts covered by the warranty extend the warranty period.

The purchaser may only enforce the warranty if the conditions concerning the warranty service, also featured in the supply contract, have been met.

1.2.1 EXCLUSION FROM WARRANTY

The warranty becomes void (in addition to those situations featured in the supply contract):

1. In the event of an incorrect manoeuvre attributable to the operator.
2. In the event the damage can be attributable to poor maintenance.
3. In the event the machine is altered, following repairs carried out by the user without the Manufacturer's permission or subsequent to the fitting of non-original spare parts, and the damage is the result of said alterations.
4. In the event the instructions featured in this manual have not been followed. Neither shall the warranty cover any damage resulting from negligence, carelessness, bad operation or improper use of the machine.

Neither shall the warranty cover any damage resulting from negligence, carelessness, bad operation or improper use of the machine.



WARNING

The removal of the safety devices supplied with the machine shall automatically cause the warranty to become void and relieve the Manufacturer of any liability.

In addition, the warranty shall become void in the event non-original spare parts are used.

The machine, or parts of it, must be returned carriage free, even when under warranty.

1.3 MARKINGS

Each machine features an identification plate (13 Fig. 1) featuring the following data:

- CE marking;
- Name and address of the Manufacturer;
- A) Machine model;
- B) Serial number;
- C) Year of manufacture;
- D) Weight in kg.

The data featured on the machine's identification plate are given on page 2 of this manual and must be quoted whenever you are ordering spare parts and/or requesting servicing.

The round baler comes complete with the following standard-issue documents:

- Machine's user manual;
- CE declaration of conformity.

1.4 DESCRIPTION AND USE OF THE MACHINE

The Tuareg Cut Round Baler manufactured by MASCAR is a machine bearing the CE marking in conformity with the provisions of the directive 98/37/EC, as described in the declaration of conformity each round baler comes with.

The machine is basically made up of a self-contained structure of metal panels fitted on a bearing frame. Inside, it houses various mechanisms for picking up the agricultural products and for pressing them into cylindrical bales. The entire assembly is supported by an axle with tyres so that it can be transported, and features a height-adjustable drawbar for hitching to and towing by the tractor.

The motive power required for the machine's operation is transmitted from the tractor by means of the power-takeoff shaft (bearing CE marking) and the connection of the round baler's electrical system to the tractor's 12V power socket. The round baler's electrical system controls the control unit and the lighting system.

The round baler's hydraulic system is controlled by means of a tractor-mounted hydraulic unit connected to the round baler by means of two quick-release flexible hoses attached to the couplings located on the tractor. The hydraulic unit features two levers that enable the various operations to be selected from the tractor.

The levers control the cylinders opening and closing the round bale unloading gate as well as the pickup cylinder.

The round baler is a machine designed solely for use in farming, for the picking up of hay, straw, maize stubble and green forage and their pressing into cylindrical-shaped bales.

A single operator seated in the tractor seat can perform the various operations

1.5 USE FOR WHICH THE MACHINE IS NOT DESIGNED



DANGER

The operator must use the machine in conformity with the instructions herein, bearing in mind the standards in force regarding accident prevention, the conditions of use and the technical features of the actual machine.

ANY USE OTHER THAN THAT FOR WHICH THE MACHINE HAS BEEN DESIGNED, AND NOT PROVIDED FOR IN THIS MANUAL, SHALL RELIEVE THE MANUFACTURER FROM ANY LIABILITY FOR INJURY TO PERSONS OR ANIMALS OR DAMAGE TO PROPERTY.

1.6 SOUND LEVEL

The sound level (airborne noise) • has been measured with the machine running unladen, giving the following results:

- Sound pressure level LpAm (A) dB 82
- Sound power level LwA (A) dB 102



WARNING

The values measured reveal that the machine has a high noise level. When operating the machine, the operator must use ear protection, such as appropriate safety earmuffs or ear plugs, to prevent damage to hearing (including long-term effects).

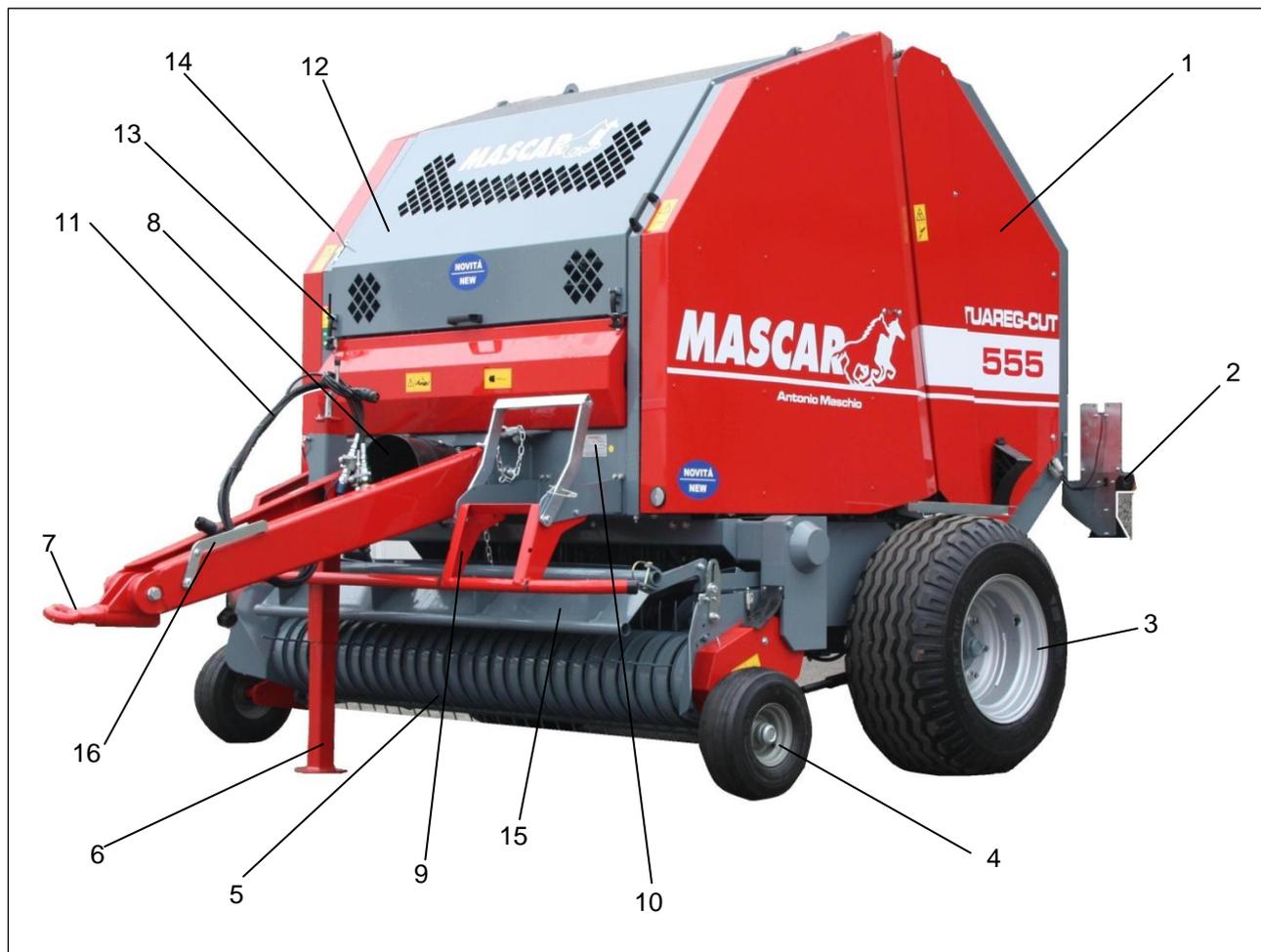


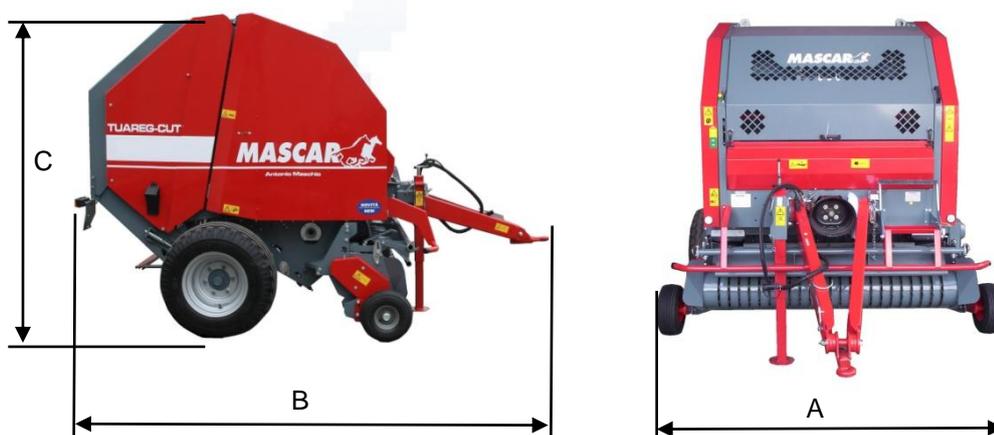
Fig.1 – View overall machine with its main groups

1. Rear door for unloading bales
2. Rear light
3. Wheels
4. Wheels on pick-up (PICK-UP)
5. Harvesting roll (PICK-UP)
6. Standing foot
7. Towing link/draw bar with adjustable height
8. Link with protection for P.T.O. shaft
9. Ladder
10. Identification plate
11. Flexible pipes oil-pressure installation
12. Front bonnet
13. Rubber hooks for fixing front bonnet
14. Adjustable lever bale density
15. Rake or baffle plate pick-up
16. Support P.T.O. shaft

1.7 TECHNICAL DATA

MODEL	TUAREG 525	TUAREG-CUT 525
Chamber type	Fixed	Fixed
Bale dimension (cm)	120x125	120x125
Chamber system	Rolls+chains	Rolls+chains
Rolls numbers	6	6
Cross bar number	22	22
Teeth cutting number	-	14
Cutting length (cm)	.	7,5
Minimum power Kw(CV)	53 (70)	53(70)
Harvesting width pick-up (cm)	200 (optional 225)	200 (optional 225)
Rod teeth holder/teeth per rod	4/23 (4/29)	4/23 (4/29)
Adjustment bale density	Mechanic 3 position	Mechanic 3 position
Electric installation	12 volt	12 volt
Tyres (optional)	11.5/80-15 (15.0/15-17 19.0/45-17)	11.5/80-15 (15.0/15-17 19.0/45-17)
Rpm (g/m')	540	540
P.T.O. shaft	Big angle 1700 Nm	Big angle 1700 Nm
Empty weight	2500	2590

Fig.2 – Overall dimensions of the machine



DIMENSIONS

A= 230 cm(*)

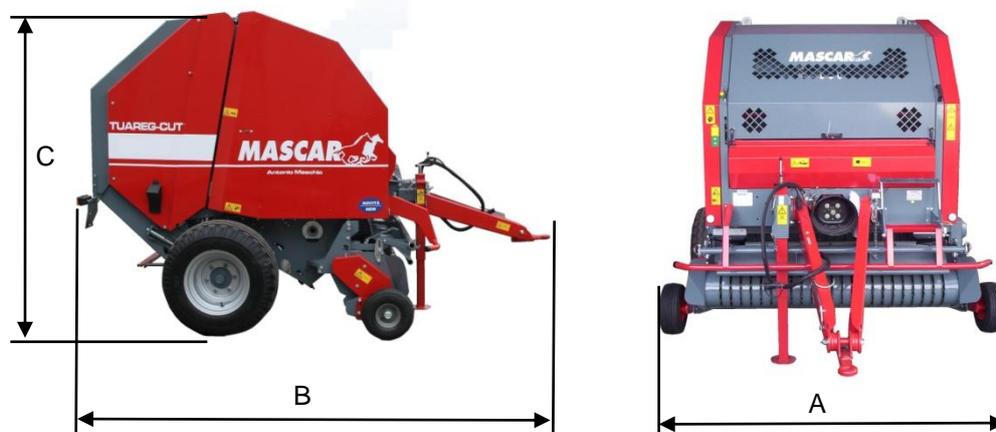
B=350

C=217 cm

(*) with wheels 19.0/45-17 A=268 cm and pick-up 2,25 A= 248 cm

MODEL	TUAREG 555	TUAREG-CUT 555
Chamber type	Fixed	Fixed
Bale dimensions (cm)	120x155	120x155
Chamber system	Rolls+chains	Rolls+Chains
Rolls numbers	7	7
Cross bars	29	29
Number cutting teeth	-	14
Cutting length (cm)	.	7,5
Minimum power Kw(CV)	53 (70)	53(70)
Harvesting width of pick-up (cm)	200 (optional 225)	200 (optional 225)
Rod teeth holder/teeth per rod	4/23 (4/29)	4/23 (4/29)
Adjustment bale density	Mechanic 3 positions	Mechanic 3 positions
Electric installation	12 volt	12 volt
Tyres (optional)	11.5/80-15 (15.0/15-17 19.0/45-17)	11.5/80-15 (15.0/15-17 19.0/45-17)
Number rpm (g/m')	540	540
P.T.O. shaft	Big angle 1700 Nm	Big angle 1700 Nm
Empty weight	2950	3000

Fig.2 – Overall dimensions of the machine



DIMENSIONS

A= 230 cm(*)

B=380

C=240 cm

(*) with wheels 19.0/45-17 A=268 cm and pick-up 2,25 A=248 cm

SECTION 2

Safety and accident prevention

2.1 SAFETY

The user is responsible for making sure the personnel is instructed on the hazards deriving from accidents, the devices fitted for the operator's safety and the general safety requirements prescribed by the directives and legislation of the country where the machine is used. The safety of the operator is one of the primary concerns of a manufacturer of machinery. In designing and producing a new machine, the manufacturer tries to foresee all the possible hazards and, of course, adopt appropriate safety measures. Nonetheless, the level of accidents caused by careless or inexperienced use of various machines is still high. Distraction, thoughtlessness and overconfidence often lead to accidents, as can fatigue and drowsiness. Consequently, this manual, and the safety rules in particular, must be read very carefully.



DANGER

The Manufacturer declines all responsibility for the non-observance of the safety rules and requirements prescribed by the legislation of the country where the machine is used, and of the instructions herein.

Pay attention when you see this symbol in the manual: it indicates a potentially hazardous situation.



DANGER

Pay attention when you see this symbol in the manual: it indicates a potentially hazardous situation.

THERE ARE THREE POSSIBLE HAZARD LEVELS:



DANGER

The word **DANGER** indicates the most hazardous situation and warns the reader that, if the operations described are not performed properly, this will result in serious bodily injury, death or long-term health hazards.



WARNING

The **WARNING** symbol warns the reader that, if the operations described are not performed properly, this may result in serious bodily injury, death or long-term health hazards.



CAUTION

This symbol warns the reader that, if the operations described are not performed properly, the machine may be damaged and/or persons injured.

2.1.1 TERMINOLOGY USED

Below are the definitions of the figures and specific situations that might directly involve the machine and/or persons in direct contact with said machine.

- ¥ **USER:** The user is the person, or body or company, that has purchased or hired the machine and that intends using it for the purposes for which it was designed. The user is responsible for the machine and for training those working on and around the machine.
- ¥ **HAZARD ZONE:** Any area inside and/or near the machine in which the health and safety of any exposed person is at risk.
- ¥ **EXPOSED PERSON:** Any person to be found in a hazard zone, whether fully or partially.
- ¥ **OPERATOR:** Description of the people, in a general sense, in charge of installing, operating, adjusting, performing routine maintenance, cleaning, performing minor repairs and transporting a machine.
- ¥ **SKILLED PERSONNEL:** The term used to describe people specially trained and qualified to perform any maintenance or repairs calling for specific knowledge of the machine, its operation, the safety devices, the operating procedures, and who are aware of the hazards deriving from the use of the machine and, consequently, are able to avoid them,
- ¥ **AUTHORIZED SERVICE CENTRE:** The Authorized Service Centre is the structure legally authorized by the Manufacturer employing skilled personnel qualified to perform all servicing, maintenance and repair work, including complex operations, who must be called in to keep the machine running efficiently.

2.2 GENERAL SAFETY RULES



WARNING

Failure to comply with the rules described in Section 2 – Safety and accident prevention – and any tampering with the safety devices, shall relieve the Manufacturer from any liability in the event of accidents, damage of malfunctioning of the machine.

General warnings:

- The user undertakes to place the round baler in the hands of skilled and trained personnel only.
- The user is obliged to take all necessary measures to deny unauthorized personnel access to the machine.
- The personnel must comply with the instructions herein without exception, and observe the general safety requirements prescribed by the legislation of the country where the machine is used.
- The user undertakes to suitably instruct his/her personnel on the application and observance of the safety rules. To this end, the user undertakes to ensure that anybody operating the machine is aware of the operating instructions and safety rules in force.
- The user must inform the Manufacturer in the event any defects or malfunctioning of the safety systems are detected, and whenever any potentially hazardous situations are encountered.
- The personnel must use personal safety gear, as prescribed by local legislation, at all times, as well as follow the relevant instructions herein.
- The personnel must observe all the hazard and caution signs and emblems applied on the machine.
- The authorized personnel must not take it on themselves to perform any operations or work that do not fall within their specific sphere of competence.
- The personal is obliged to report any problem or hazardous situation that might be encountered to the person concerned.
- Personnel in training must always be supervised by expert personnel.
- The round baler has been manufactured in conformity with the current state of technology and will assure safe operation provided it is

used properly. The fitting of parts of a different make or any modifications may alter the machine's features and hence compromise operating safety. In this case, therefore, the Manufacturer declines all responsibility for any damage that might be caused as a result of the use of non-original spare parts.

- The machine must be used only for the purpose for which it was designed.
- The machine must not be operated with the guards removed.



WARNING

- The operation of the machine by anyone who has not read and assimilated the instructions herein, as well as by unskilled personnel, or by personnel not in good health or not holding the right driving licence, is strictly forbidden.
- Observe the hazard symbols featured in this manual and applied on the actual machine.
- Before starting up the machine, make sure all the safety devices and the actual machine itself are perfectly intact.
- Before commencing work, familiarize yourself with the control devices and how they work.
- The area in which the machine is used is to be considered a **hazard zone**, especially for people not trained in the machine's use. Before starting up the machine, make sure there are no people, animals or obstacles of any nature around the work area.
- When a person is **exposed**, i.e. when he/she is standing in a **hazard zone**, the operator must take appropriate measures to immediately stop the machine and, where necessary, make sure the person is moved clear.
- During the operation of the machine, the operator must be seated in the tractor seat so that he/she cannot fall accidentally and so that the whole machine is under his/her control, and that appropriate action can be taken whenever the need arises.
- It is strictly forbidden to park the machine near or under: terraces, balconies, haylofts, and platforms of any kind that can be reached by people and/or animals.
- If work is to be performed on the twine binder, apart from complying with all the general safety rules, it is essential that the knife first be retracted and hence made inaccessible.
- Before installing a new roll of netting, the rear gate must be opened to prevent the knife intervening accidentally.
- Before performing any work on the machine's net wrap binder, disengage the cutting device, then shut off the tractor's engine, making sure

- the brake is pulled on, and disengage the power takeoff.
- During the machine's operation, it is strictly forbidden to let any part of your body get near the moving mechanical parts.
 - During the machine's operation, the unloading device, when activated, represents a crushing hazard.
 - When work near electricity pylons is unavoidable, it is advisable to ensure all parts of the machine are kept at a minimum safety distance from them. Contact the competent electricity board if you have any enquiries. The machine is mainly made from metal and, consequently, any contact with a power line would result in either a discharge between the line and the machine, or in the operator being involved, with possibly lethal consequences.
 - It is strictly forbidden to carry people or animals on the machine and on the tractor.
 - It is strictly forbidden to leave the driver's seat whilst the tractor is running.
 - It is strictly forbidden to remove or tamper with the safety devices.
 - The use of the machine may only be controlled via the power-takeoff shaft (bearing CE marking) complete with the necessary safety devices and shields fastened with the relevant chains.
 - Take care around the PTO shaft whilst it is turning. Carefully read the PTO shaft instruction manual supplied with each shaft.
 - In order to attach and disconnect the PTO shaft, the fixed protection element located on the round baler must be removed. Following attachment and disconnection, the protection element must always be refitted.
 - The attachment and disconnection of the PTO shaft must always be performed with the engine shut off.
 - Take extreme care to fit the PTO shaft properly on the tractor's power takeoff.
 - Do not engage the power takeoff with the engine shut off.
 - Before engaging the power takeoff, make sure the rpm of the tractor's power takeoff corresponds to the rpm prescribed for the use of the round baler.
 - Never exceed the prescribed rotation at the power takeoff.
 - Always disengage the power takeoff when the PTO shaft is at too wide an angle (never over 10-15 degrees) and when it is not in use.
 - Do not perform any work on the hydraulic system without first relieving the pressure.
 - It is strictly forbidden to stand between the tractor and round baler with the engine running and the PTO shaft engaged (Fig. 3), and likewise when the parking brake is not pulled on.
 - If, for any reason, work must be performed with the rear gate open, it is essential that both safety bars designed for this purpose is inserted and that the two hydraulic cocks located downstream from the lift cylinder be closed.
 - In the event the part of the machine jammed is where the product is fed in, remember it is strictly prohibited to clean the machine while it is running. The power takeoff must first be disengaged, the engine shut off and the tractor's brake pulled on.
 - Before performing any work on the round baler, disengage the power takeoff, shut off the tractor's engine and make sure its brake is pulled on. Remove the keys from the dashboard and wait until all the moving parts have stopped completely.
 - Before starting up the machine, make sure all the safety devices for the machine's transportation and use are intact.
 - The machine is not approved for driving on roads. In the event it is in the future, you must follow the traffic laws of the Highway Code in force in the country where the machine is used.
 - It is essential to bear in mind that road holding and the steering and breaking ability may be affected considerably by the load being towed. Consequently, pay special attention, especially when turning, to the centrifugal force exerted owing to the shift in the centre of gravity.
 - The round baler must only be taken on roads completely unladen.
 - Before leaving the tractor seat, shut off the machine and pull on the parking brake.
 - Check periodically to make sure the machine itself and all safety devices are intact.
 - Only use recommended oils.
 - Do not commence maintenance or cleaning until the machine has been disconnected from the tractor and its wheels blocked with suitably sized chocks.
 - During the maintenance and repair work, the operator must wear safety gear, i.e. safety glasses, cut-proof gloves, and non-slip safety boots.
 - In the event the covers must be removed, make sure they are refitted properly before the machine is reused.
 - Perform maintenance thoroughly as indicated herein; have all damaged or worn parts replaced by skilled personnel.
 - The spare parts must meet the requirements defined by the Manufacturer. **Use original spare parts only.**

The operating instructions contained in this manual must be read and committed to memory, and the manual itself kept safe for the entire service life of the actual machine.

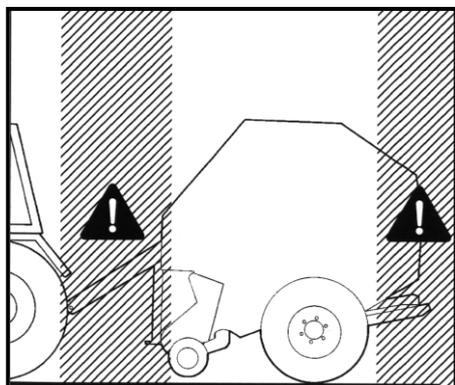


Fig. 3 – Hazard zone



WARNING

Periodically control the tightening of screws and nuts.

For doing this operation use a dynamometric key respecting the following couple values of tightening:

Ø	class	
	8.8	10.9
• M 4	3.0	4.4
• M 5	5.9	8.7
• M 6	10	15
• M 8	25	36
• M 10	49	72
• M 12	85	125
• M 14	135	200
• M 16	210	310
• M 18	300	430
• M 20	425	610

This manual for instruction of use must be read memorized and keeps it till the life of the machine.

2.3 SAFETY SIGNS (PICTOGRAMS)

The machine has been designed and manufactured in compliance with every possible safety standard to assure the safety of the operator. Nonetheless, there are a still number of

residual hazards involved in the use of the machine, i.e. those hazards that it has not been possible to eliminate altogether owing the specific nature of the work the machine is designed for and certain operating conditions. These potential hazards are marked on the machine with stickers (pictograms) that provide a summary indication of the various unsafe and hazardous situations.



WARNING

Keep stickers clean and replace them immediately should they start peeling damaged.

Referring to figure 4, carefully read the instruction below and commits their meanings to memory.



WARNING

All the safety signs positioned on one side the round baler and illustrated in Fig. 3 are applied in exactly the same position on the other side as well.

- 1) Before commencing cleaning and maintenance, stop the round baler and the operating instructions.
- 2) **Crushing hazard.** During maintenance with the gate open, insert the safety bars supplied for the purpose on the hydraulic cylinders.
- 3) **Crushing hazard/cutting of upper limbs.** Do not remove the guards and do not go near moving part.
- 4) **Hooking hazard.** It is strictly forbidden to go near rotating parts the power-take off shaft in particular) whilst the tractor is in.
- 5) **High noise level.** Protect hearing with suitable ear muffs or ear plugs.
- 6) **Ranger of crushing by sudden movements.** When the round baler is disconnected from the tractor, wedge appropriate additional chocks under the wheels.
- 7) **Danger of hooking to pick-up's moving parts.** Do not go near rotating parts whilst the round abler is moving or the tractor is running.
- 8) **Crushing hazard.** Do not go near the machine whilst it is working and, in particular do not place any part of the body between any of the barriers and the rear of the round baler.
- 9) **Crushing hazard.** Do not ginger within the round baler's range. Especially while the baler being expelled from the rear of the round baler.
- 10) **Crushing hazard.** Do not linger within the round baler's range, especially under the

open rear gate.

- 11) **Hooking points**, for lifting the round baler. See "Section 3 – Transportation and handling" for their location.
- 12) **Oil filling points**
- 13) **Greasing points**
- 14) **Rpm 540**
- 15) **Danger owing to the rotation of the auger.**

2.4 CLOTHING



WARNING

1. Use suitable clothing. Avoid wearing ties, necklaces, baggy or fluttery clothing as they might get caught up in the rotating parts. Long hair should be tied back.
2. During the maintenance and repair work, the use of personal safety gear is compulsory: cut-proof gloves, non-slip safety boots.

2.5 ECOLOGY AND POLLUTION

- Paragraph "1.6 Noise level" contains the values of the airborne noise measured on the round baler. The user is responsible for informing personnel authorized to operate and service the baler of the hazards deriving from noise and is obliged to comply with the relevant national standards in force.



WARNING

Since the noise level is nevertheless higher, with the machine working, than that permitted by the relevant standards, appropriate ear protection must be worn.

- Observe the laws in force in the country where the machine is used relating to the use and disposal of products used for cleaning and servicing the machine, and comply with the procedures recommended by the manufacturers of said products.
- Dispose of any special waste through appropriate companies authorised to handle the relevant waste products and issuing receipts attesting to their disposal.
- Dispose of any waste packaging from the machine in the relevant waste sorter containers.

- In the event the machine is to be scrapped, comply with the prescribed standards on pollution in the country of use, taking particular care with lubricants and electrical and electronic components (batteries and capacitors).

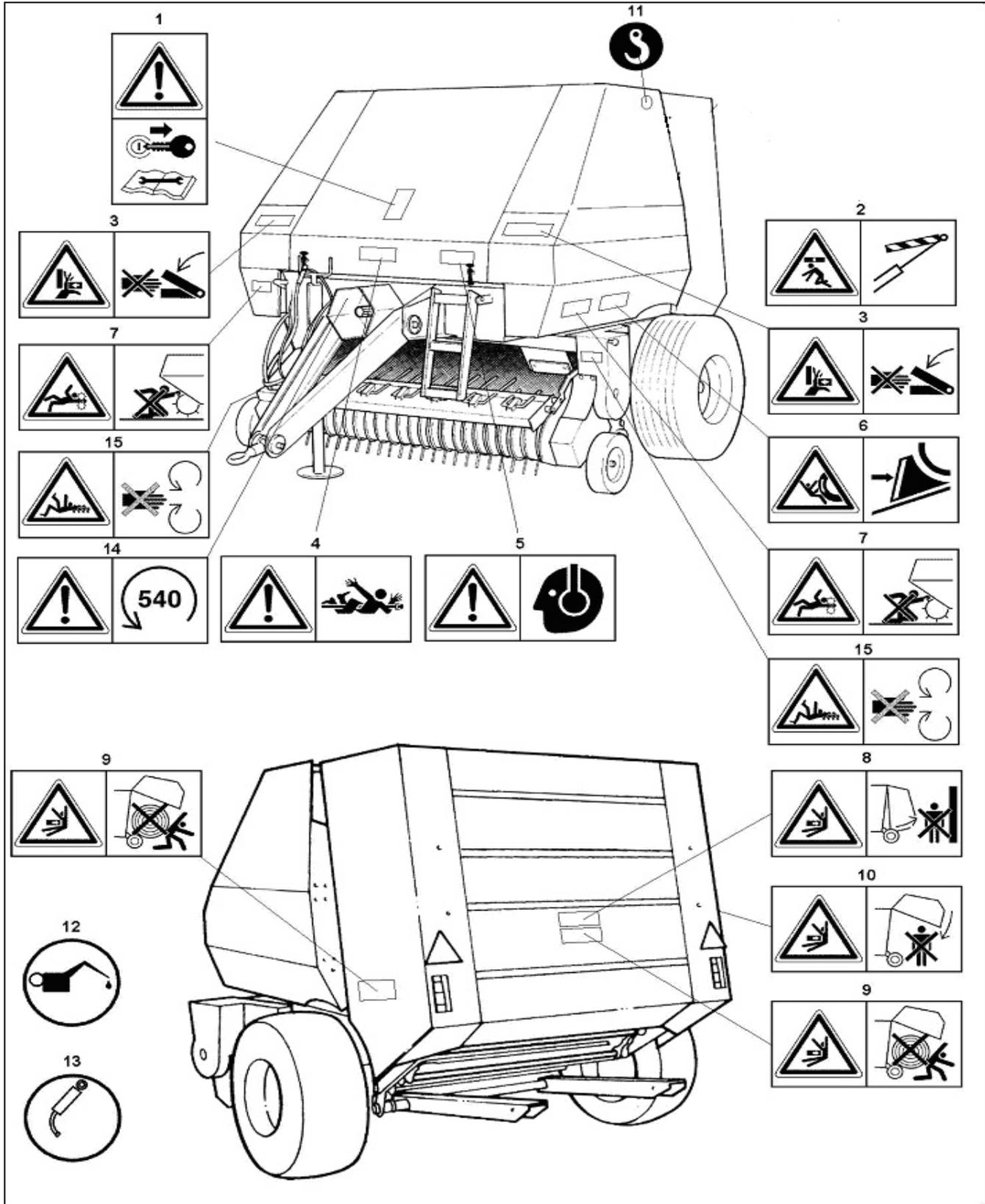


Fig. 4 – Safety signs and their location on the machine

SECTION 3

Transport and handling

3.1 TRANSPORT AND HANDLING

3.1.1 GENERAL WARNINGS



CAUTION

Should the machine be approved for driving on public roads, follow the traffic laws of the Highway Code in force in the country where the machine is used.



DANGER

The operations for the unloading, lifting and handling of the machine must be carried out by skilled personnel.

The user and his/her personnel undertake to read the instructions herein beforehand and follow them.

The user undertakes to make sure his/her personnel wear appropriate personal safety gear (gloves, safety boots, hard hat etc.) and are given the correct equipment before commencing operations for the unloading, lifting and handling of the machine.

Avoid uncoordinated actions between a numbers of operators working on the same machine, as this may give rise to hazardous situations.

Control the dimensions and weight of the round baler. Make sure the hoisting cables are fitted with a belt, feature a label containing all the manufacturer's data and that their capacity is clearly readable.

Inspect the cables prior to their use: they must not be damaged, have snapped strands or feature signs of wear.

Do not twist or knot the cables, and follow the operating procedures indicated by the manufacturer.

The round baler must only be transported unladen.

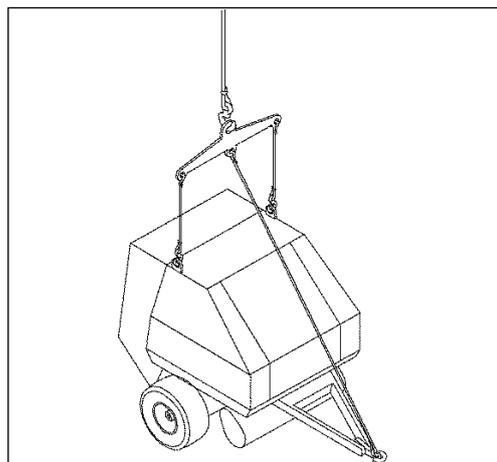


Fig.5 – Lifting points

Should the machine have to be taken a long way, it can be loaded on a lorry or freight car. To this end, consult 1.7 “Technical data” for the weight and dimensions. The dimensions are particularly important in determining the feasibility of transport through tunnels or tight passages. When lifting the machine from the ground onto the level where it is to be loaded, if no suitable ramps are available (Fig. 5) cranes with an appropriate hosting power can be used by hooking up the machine in the relevant lifting points marked with the hook symbol (Fig. 6)

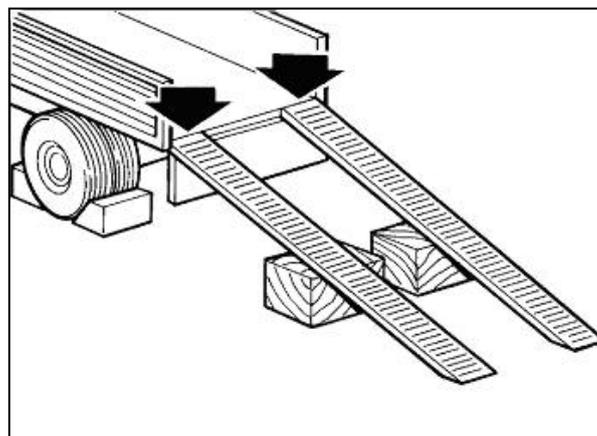


FIG 6 – Loading ramps



CAUTION

Before stating lifting operation, make sure the round balers has been emptied of any possible load.



DANGER

The surface onto which the machine is to be loaded must be perfectly fault to avoid the load shifting about.

Loading using loading ramps. Hitch the machine to a tractor, tow it up the ramps and transfer it onto the lorry or freight car, manoeuvring with extreme care to avoid sudden movements. Make sure the ramps are solid enough and, where necessary, back up and try again.

Crane loading. Make sure the crane with counterweight has a hoisting power appropriate for lifting the machine. The hook-up points for the lifting is clearly visible and marked with relevant stickers (Fig. 5). Lift the machine with extreme care and transfer it slowly, without sudden movements, onto the lorry or freight car.

! DANGER

The lifting and transportation operations can be very dangerous if not performed with the utmost care. Have all personnel not involved in the operations removed from the area; clear and cordon off the transfer area; make sure the means available are in perfect working order and suitable for the task in hand; do not touch overhead loads and keep a safe distance from them.

During transfer, the loads must not be lifted off the ground by more than 20 centimetres. Make sure that the area involved in the operation is clear and that there is a sufficient "escape space", i.e. a free and safe area personnel can rush into should the load look about to fall.

! WARNING

The surface onto which the machine is to be loaded must be perfectly fault to avoid the load shifting about.

Once the round baler has been transferred onto the lorry or freight car, make sure it is firmly secured in place. The wheels must be secured by wedging suitable chocks under them. Fasten the machine securely to the surface on which it is set using the points intended for this purpose, marked with the "hook" sticker (fig. 6): use cables or chains appropriate for the weight of the round baler, pulled tight and fastened to the hold-down point on the surface to prevent the baler shifting around.

After have done the transport and before releasing the machine make sure its current state and position are not liable to constitute a hazard before releasing the machine from all the restraints.

Remove the cables, chocks and unload the machine using the same means and procedures used for its loading.

! DANGER

Control before starting and working that the axle must be in correct position and that the screws (1) and (2) Fig. 7 are locked.

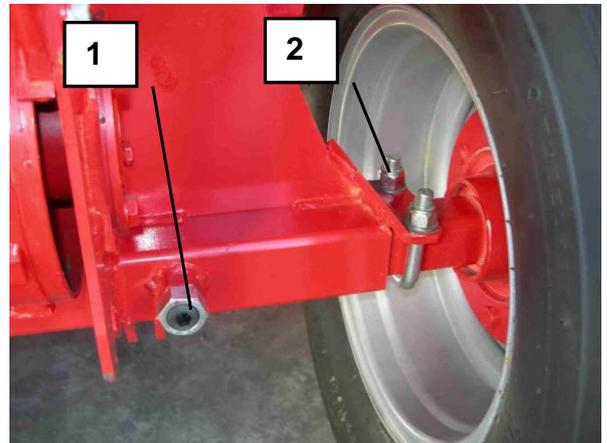


Fig 7 -Axle

SECTION 4

Operating instructions

4.1 BEFORE USE



WARNING

Before putting the round baler into operation, the user must make sure the operator in charge of the machine has read, committed to memory and understood every part of this manual, “Section 2 – Safety and accident prevention” in particular. The operator must make sure the machine is intact and in a good state of repair, that the lubricating oils are at the right level and that all the parts subject to wear and deterioration are in proper working order.



DANGER

Any adjustments and setup work must always be performed with the round baler shut off and secured.

4.1.1 WORKING POSITION



DANGER

When the machine is working, the operator **MUST** be seated in the driver’s seat since all necessary action is only possible from this position. Before getting down from the driver’s seat, the operator **MUST** stop the round baler, pull on the parking brake and shut off the tractor’s engine.

4.2 HOOKING TO THE TRACTOR



DANGER

Hitching the round baler to the tractor is a potentially hazardous operation. Take extreme care and perform the whole operation according to the instructions given below.

Pay attention and make the whole operation following the following instructions.

Make sure the power of the tractor used is sufficient to tow the round baler (look 1.7 – technical details – TRACTOR CHARACTERISTICS).

Make sure no objects have been and down on the baler and that no people and/or animals are in the immediate

vicinity of the baler’s range, and that the power takeoff is disengaged.

- Make sure the round baler is in a stable, horizontal position and that the tractor’s towing hitch is positioned at the same height as the towing eye of the drawbar (2 Fig. 7) which can be adjusted by means of the joints (A Fig. 7). Where necessary, lower or raise the drawbar towing eye using the support leg (1 Fig. 7) .
- Next, start the tractor up and carefully back it up to the round baler, lining the towing hitch up with the drawbar towing eye. Once they have been successfully engaged, insert the hitch pin in the towing eye.
- Pull on the parking brake and shut off the tractor’s engine.
- Connect the power takeoff shaft complete with shields to the tractor’s power takeoff, making sure it is firmly secured in place.

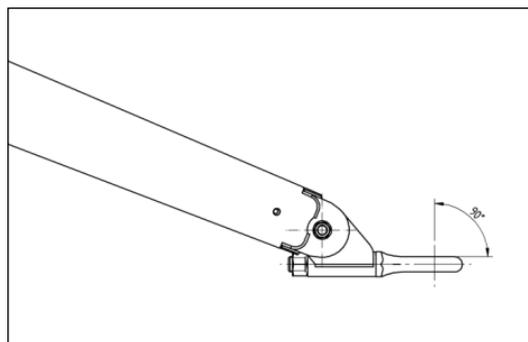


fig. 8 – Towing link’s position



DANGER

Please make sure that the towing link is mounted as shown on fig. 8, otherwise it can become very dangerous.

4.3 P.T.O. SHAFT



DANGER

The P.T.O. shaft applied to a tractor is a mechanic part that, when in operation, constitutes a potential source of bodily harm anyone working nearby. Consequently, great care must be taken when performing any operations involving said mechanical part. Read the instruction manual supplied with the P.T.O. shaft carefully. If up are not sure it is working properly, should it come without shields, or should it appear worn or broken, replace it with a new shaft that must bear the CE marking. Do not modify or otherwise adapt the P.T.O. shaft. Should this prove necessary, call in the Manufacturer's Service Centre.

Therefore it is necessary pay attention to the operations that involve this mechanic part.

Read carefully the use & maintenance manual of P.T.O. shaft. If there are dubious on its function, replace it with a new one marked «CE».

Don't make modifications and different adaptations on the P.T.O. shaft. If it will be necessary call the Manufacturer.

Since the P.T.O. shaft is a part that turns at high speed, it is subjected to balancing during testing. Consequently, any subsequent modifications to the shaft any result in lack of balance and might have a negative effect on the workings of the actual machine as well as marking the P.T.O. shaft unreliable.

The angle at which the power-takeoff shaft works must be as small as possible (max. 10°-15°), as this helps to prolong the service life of both the shaft and the round baler.

When the P.T.O. shaft is drawn out as far as it will go, whatever the working conditions, the telescopic tubes must overlap by at least 1/3 of their length (A Fig. 8).

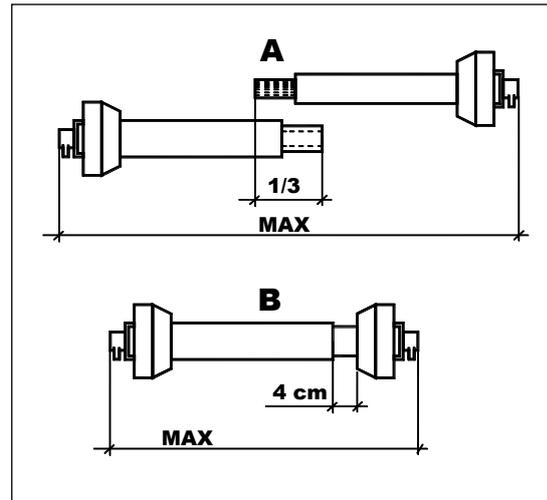


Fig. 9 – P.T.O. shaft

When it is inserted as far as it will go, the minimum clearance must be 4 cm (B Fig. 9). If this is not possible, contact the Manufacturer's Service Department.

- Make sure the PTO shaft is appropriate for transmitting the power required by the round baler (see technical data on the PTO shaft's instruction manual). If in any doubt, contact the Manufacturer's Service Centre.
- Before starting any work, make sure the shields are in a perfect state of repair and that the relevant safety chains are fitted. Fasten one of these chains to the machine and the other to the tractor to prevent the shields turning with the P.T.O. shaft.



CAUTION

Before engaging the P.T.O. shaft, make sure the speed of rotation corresponds to that prescribed by the machine (540 g/min).

4.4 CARRIAGE WAY ADJUSTMENT

For working in mountain, hill and in presence of high slopes, for obtaining a wider carriage-way, release the screws of U-bolt (2 fig.7) and unscrew the screw (1 Fig.7), take of the hub in the necessary position and screw again.



DANGER

Pay attention in this operation check that the axle's hub is good blocked

4.5 HYDRAULIC CONNECTION



Fig. 10 – Connectors

The round baler «**TUAREG - TUAREG CUT 525/555**» can be connected to tractors featuring hydraulic systems with 2-way coupling. The hydraulic system opening and closing the rear gate is fitted with a fixed throttle valve to prevent the gate from dropping too quickly. The gate opening control hoses and the hoses for lifting the pick-up must be connected to the two single-acting distributors.

Main components of hydraulic installation of the machine are:

- 1 - Pick-up roller control cylinder;
- 2 - Cylinders control rear door;
- 4 Control cylinder insertion/exclusion cutting system.



DANGER

It is strictly forbidden to camper with the above-mentioned throttle valve, under any circumstances. When in doubt, contact the Manufacturer's Service Centre.

The hydraulic system is filled with AGIP SUPER TRACTOR UNIVERSAL 15V40.

The lever of tractor's hydraulic system distributor must be secured in the "open" position (hydraulic oil circulating).

The flexible pipes pick-up lifting, opening rear door and tension harm must be connected using female of ½" installed on tractor.

On the flexible pipe harvesting control, is installed a tap blockage that must be:

- OPENED: with the baler in working
- CLOSED: with the pick-up lifted in transport position or in case of transport



WARNING

before do operations stating under the pick-up lifted, close the tap and avoid the lowering with a proper support.

4.6 ELECTRIC INSTALLATION

The baler is equipped of lights installation. It is necessary that the tractor has an electric plug of 12 Volt, to which insert the feeding plug electric light circuit of baler. It is also necessary to install on the tractor a plug with two poles (connected to the battery and supplied with the switch board), for feeding the controls switch board.



WARNING

Periodically it is necessary to control the lights and if not in function replace them.

4.7 SWITCH BOARD

The whole operating cycle for the binding is managed by an electrical control unit whose controls enable/disable the following functions (Fig. 11)

- 1- BUTTON SELECTION TWINE OR NET
- 2- BUTTON STRATING BINDING
- 3- STOP LIGHT FULL CHAMBER
- 4- FEEDING PLUG SWITCH BOARD



Fig. 11 Electric switch board

4.8 TWINE BINDING



Fig. 12 twine holders

In order to prepare the machine for twine binding (refer to Fig. 12), proceed as follows:

1. – Lift the bonnet and block it in lifted position through the support bar.
2. – Place the twine reels in the proper boxes and joints them together, feeding the twine through the fixed holes.
3. –Feed the twine through the twine-guide ring and them by the adjustable brake 83). When the brake's two screws are tightened (3), the twine is pulled out.

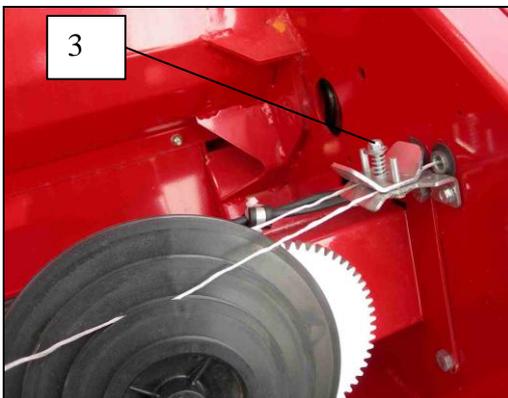


Fig.13- twine brake

4 – Wind only one twine around the pulley (Fig. 14) for a tour, while the second twine directly on the proper drive-twine rings (5 fig. 14) sliding them between the small wheels (6 fig. 4.8.3), FROM THIS LAST ONE THE TWINES MUST LEAN OUT FOR ABOUT 15 CM

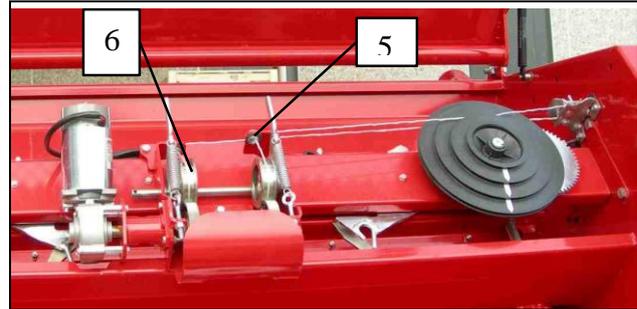


Fig. 14-Twine binding

The pulley is equipped of 3 grooves. On the basis of groove chosen increase or decrease the pass of twine wind around the cylindrical bale.

Pulley diameter	Winding pass
Big	Tight
Medium	Medium
Reduced	Wide

Pay attention that the twine not winded on the pulley is the same that is cut firstly from the knife respect the other one of twine, if it isn't in this way invert the twines.

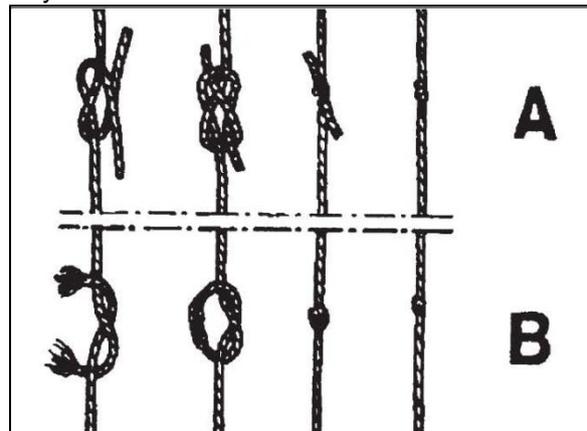


Fig. 15 - knots

4.8.1 TWINE JUNCTION

In order to make easier the sliding of twine in the different passages, it is necessary to do the knots like as follows:

- A – Knot for synthetic twine 500/700 m/kg.
- B – Knot for vegetal twine SISAL 200/400 m/kg.

4.8.2 SIDE ADJUSTING BINDING

The regulation of binding distance from the bale side is adjustable through two driving-twine screws placed in the rear right side of binding (Fig. 18)



Fig. 16- Side adjusting

4.9 NET BINDING

For preparing the machine to net binding it necessary:

1 – Fit in the net reel in the proper support net pipe (Fig 17), and settle it in order that the net follows the shape like indicated in Fig. 18



Fig.17- Insertion net

2 –After insert the border of net for about 15 cm between the rubber roll and the metallic roller (Fig. 18).

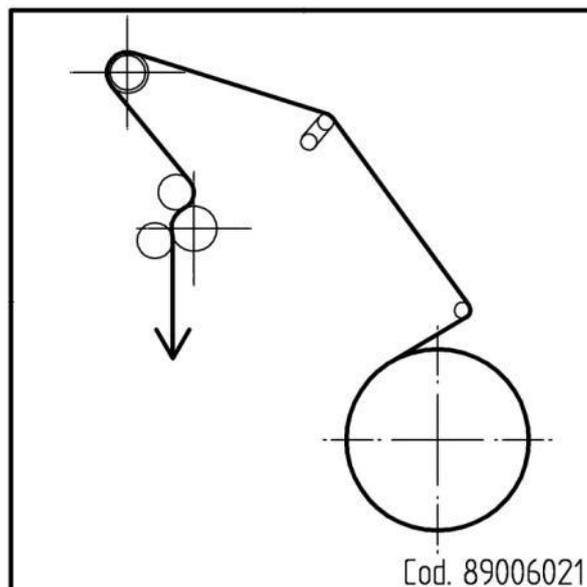


Fig. 18 Schema rete



DANGER

For avoiding the casual click of knife, during this operation, keep open the rear door of the baler. It is absolutely forbidden put the hands between the knife and the counter-knife.

- 1 Control the correct insertion of net.
- 2 Cut the portion of net in excess. The unloading can be done actionning the rear door of baler. During the working on the field, the reload of knife occur automatically every opening of rear door for unloading of bale.
- 3 Remember at the end of the installation operations of the roll of the net to enter the brake of net

4.9.1 REARMEMENT OF KNIFE NET BINDING (Fig. 19)

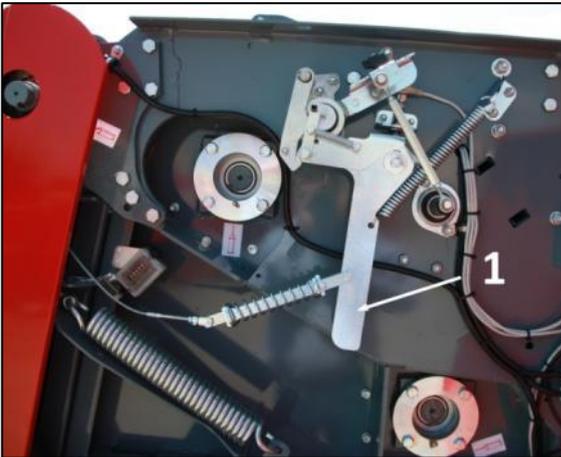


Fig. 19 Rearment knife

The rearment of net binding's knife is through the steel rope (1) when the rear door is opening, if don't happen this, operate on the nut placed near the hinge of door

4.9.2 NUMBER OF NET TURNING ON THE BALE

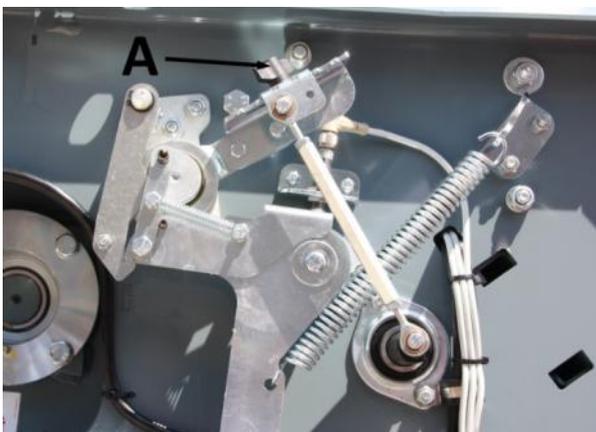


Fig.20 – Net tours

There is the possibility to adjust the net quantity used for wrapping the bale, operate on the staff position (1 Fig. 20), and on the lever (2 Fig. 20). Possible tours:

Positiom	Net tours
1	2
2	2,5
3	3,0
4	3
5	3,5

Tab. 1

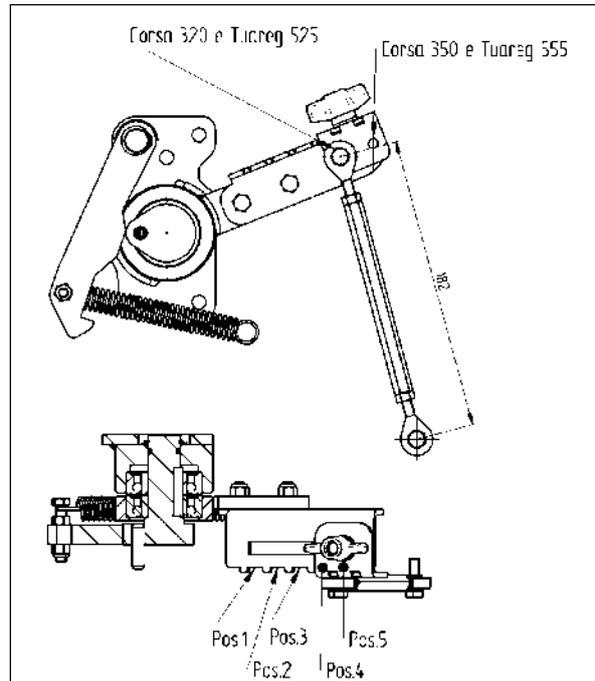


Fig. 20a



For obtaining a good binding it is suggested a minimum tour of 2,5 wrapping.

4.10 HARVESTING ROLL (Pick-up)

The harvesting roll is equipped of wheels (4 Fig. 1) with adjustable height. This adjustment can be done slacking the screws and adjusting height according to the requirements of working.

4.11 CUTTING DEVICE

The baler is equipped of a device that allows cutting the product. The cutting device is equipped with a roll and 14 knives. The cutting device allows adjusting the passage of product to the chamber and increases the density of the bale improving the silage quality. Thanks to a hydraulic distributor placed in the tractor it is possible to insert or release the cutting.



Fig. 21- Lever for replacing the knives

4.11.1 REPLACEMENT OF KNIVES

It is possible to access the knives of chamber.

- Open the rear door



CAUTION

Block the rear door with the safety in order to avoid that accidentally closes it.

- Lower the knives by the hydraulic distributor of tractor
- turn the knob (2) fig. 21
- Turn the lever (1) like indicated in figure 21
- Remove the knives from their position (pulling out them from the front part of rotor) and put them on their place
- finished the operation settle the lever (1) (fig. 21) in horizontal position



Fig. 22- knives replacement

4.12 IN WORKING

For the operation of harvesting and pressing, it is necessary:

- Connect the baler to the tractor like described to paragraph «4.2 – Linkage to tractor ».
- Low the harvesting roll (pick-up) at the working height required, control that the twine or net are installed on the binding device.
- By the control lever of oil-dynamic distributor action the different movement verifying the correct function.

Keep in pressure the cylinders closing/opening rear door and release the rpm of tractor adjusting the speed rotation of about 380÷400 tours/1'.



CAUTION

Don't exceed in any case 540 tours/1'.



DANGER

Must be sure that around the machine aren't people and/or animals.

- Put in function the tractor with the baler till Reach a correct working speed, according to The product type but in any case between 5 And 12 Km/hours.
- When the binding is starting reduce the speed for obtaining a better result.
- The twine, by the dragging of baler and the running of escort returns in front of the knife after one binding cycle.
- After the cut, the binding is ready for the next cycle.
- Finished the binding, decrease the rpm and action the opening of the door.
- The harvesting rolls eject the bale that will be followed by the kick off. (optional).
- When the bale is out, close the rear door, keeping in pressure the cylinders.
- At this point the baler is ready for preparing

the next bale. In case of big windrows is suggested to decrease the speed and increase the rpm of P.T.O. shaft.

4.13 FLOODING OF THE MACHINE

In working phase can happen that the machine "flood".

If happen it is necessary to stop immediately, and proceed, with the following operations described.



ATTENTION

in case of flooding in the front of the machine it is forbidden to clean it when is in function. It is necessary to disengage the P.T.O. shaft, stop the motor and action the stationary brake.

In order to proceed with the operation of unlocking it is necessary:

1. Switch off the P.T.O. shaft, stop the tractor and action the stationary brake.
2. Wait that all the devices in movement are completely stopped and wear proper gloves.
3. Open the side carter of chains protection, insert the key (1) fig.23 (in equipment), in the rotor shaft and turn it in anticlockwise
4. Finished the operation, take off the key and put it in the support forecast for transport, close the side carter



ATTENTION

Remove always the key from the rotor shaft

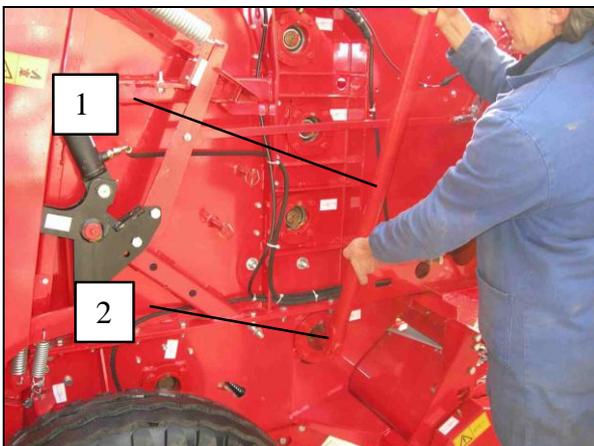


Fig. 23- lever for flooding

4.13.1 REGOLAZIONE DENSITÀ ROTOBALLA

The baler is equipped of a graduated staff and manual adjustment (1 Fig. 24), for having bales more or less compacted, according to the harvesting requests. Placing the lever towards the top (red zone) you get a more pressing of bales, positioning it down (green zone) are obtained softer bales.



Fig. 24 Adjustment density

4.14 STOP OF BALER

End of work the user must:

- Stop the running of tractor and action the stationary brake. Disengage the P.T.O. shaft and stop the electric feeding of switch board. Lift the pick-up stop the motor. Fix in lifted position the pick-up with the chain (1 Fig. 16).
- Verify that the rear door is closed and that the all devices of the machine are completely stopped.
- Lower the standing foot till the contact to the soil. Disconnect the different connections: oil dynamic pipes and electric cables.
- unthread the P.T.O. shaft from the tractor. Take off the plug inserted to the towing link of draw bar. At this point it is possible to move the tractor to other place.

4.15 PARKING

- Before to place the baler in its store makes sure that the product is completely unloaded.

- Lay the standing foot to the soil.
- Fix the wheels with proper stumps and assure that all the present protections on the machine is in correct position.
- Stop the tractor and insert the stationary brake.
- With the tractor stopped and the devices Completely stationary, take of the P.T.O. shaft from the tractor.
- Put the P.T.O. shaft on the proper supports in order that the same shaft and its protections aren't damaged.
- Unload the pressure of hydraulic circuit.
- Disengage the connection pipes of tractor hydraulic installation.
- Disengage the cables of electric feeding.
- Take off the tractor to the draw bar of the baler.
- Lubricate and grease every forecast point like the chains.



ATTENTION

Parking the baler is very important that the place is:

- Dry;
- **Repaired from atmospheric agents; Controlled or closed in order that persons not qualified have access for using the machine.**

4.16 SLOPES ADMITED

The stability of baler depends to the soil conditions and to the tractor type that tow it. The presence of bale inside the chamber modify in ranger way the function of tractor and of the baler.

Therefore it is important that the user knows well the nature of soil where he works and pay attention to the conditions he will use the machine.

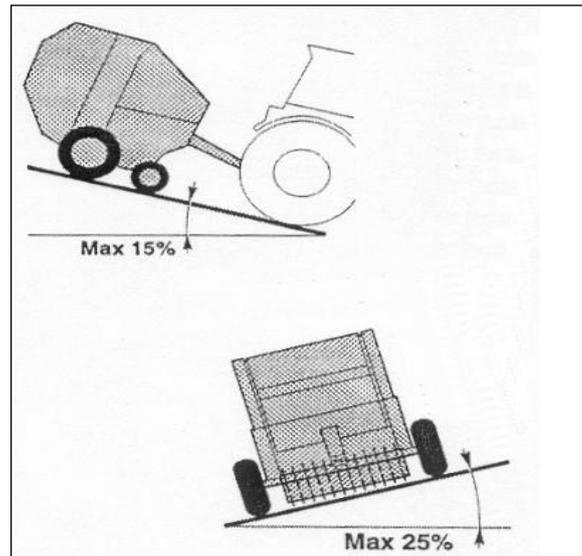


Fig.25—Slopes admitted

4.17 SAFETY DEVICE

The devices installed must result always correctly positioned.

- Safety bolt of P.T.O. shaft: this device is installed on the P.T.O. shaft side baler. In case of overloaded the screw shears blocking the transmission
- The safety bolt for the rotary comb feeder: protect the rotor from big effort that can damage it (screw M2x45 class 12.9)
- Safety blocks: in case of maintenance and/or adjustments with the opened door, action the blocks on the hydraulic jacks.
- Blocks for wheels: must be used for avoiding dangerous movements of the machine when is disconnected from the tractor.
- Safety protections: the side protection of the machine, in conformity with the European rules, are equipped of safety closing that enter automatically in function when the protections are closed. For opening these protections, the user must operate with a proper device.



ATTENTION

Make sure always that all the protections are closed before to leave the machine or during transport phase.

- P.T.O. shaft support: the function of support is to keep it when the machine is stationary. The machine cannot put in function or transported when the P.T.O. shaft is connected to this support.

4.18 CONTROLS AND TEST

- Control the correct locking of screws and that all the components are fixed properly.
- Make sure that all the components are lubricated.
- Control the tyres pressure: 3.7 bar (for the wheels of pick-up 2 bar)
- Put in function for a couple of minutes the machine empty for controlling the correct function
- Action the P.T.O. shaft at lower rpm and open/close the rear door for some minutes
- Switch off the tractor and verify the general conditions of the machine every time that doesn't work for long period.

SECTION 5

Instructions for harvesting

5.1 GENERAL INSTRUCTIONS

The working conditions of baler change always according to the characteristics of products and the field. The good function of baler depends from the preparation of windrow. Before starting to harvest, assure that the humidity percentage present in the product is exact in order to avoid loss.

The best results obtained with a bale well pressed are: about 20% humidity with hay and about 40% ÷55% with silage.

If the windrow is low and large the bale is perfect. For example: with a windrow width of 1.10 m and 0.30 ÷0.40 m of height, you avoid loss of product and you allow a well formation of bales.

5.2 ADVANTAGES WITH A WINDROW LOW AND LARGE

- Fast speed
 - Low power absorption
 - More weight
 - Reduced loss of product
 - Outer impermeability
 - Good preservation
 - Well shape of bale also after the preservation
-
- Easiness for driving tractor because you avoid to zigzag on the windrow
 - Easiness to keep in line the belts

5.3 DISADVANTAGES WITH A WINDROW HIGH AND NARROW

- Slow speed
- Low compression
- High power absorption
- Reduced weight
- Loss of product
- Infiltration of water
- Poor preservation
- Possible deformation of bale after the preservation
- Difficult drive for keeping a winding direction

following the indication of switch board

5.4 STARTING

Starting with a narrow windrow

When the windrow is narrow it is necessary to feed the baler going to the sides and not to the centre. For obtaining this must go alternately 7 ÷12 m on the right side and after to move on the left side for the same distance. The feeding must warranty a uniform distribution of product on the whole chamber width.

5.4.1 STARTING TO HARVEST

Put the power takeoff at 540 tours/min. If the windrow is well prepared and the field is good you can go around 10-12 km/hours

With short and brittle materials it is necessary to work at reduced power takeoff and to harvest driving before to right and then to left. The harvested product in this case will fill the centre of baler.

It is necessary to observe the pick-up and to adapt the speed to the type of windrow in order to avoid to delay or to anticipate the action of it in the same windrow. The flux of product that enters must be steady. Change lightly, if necessary, the adjustment of baffle of pick-up. The diligent and expert user will do the correct adjustments and important for the proper product harvesting.



ATTENTION

In case of machine blockage, it absolutely forbidden to make free the pick-up with the power takeoff in rotation

Control that the pick-up teeth don't touch the soil in order to avoid a overload of transmission and a early wear of the inside devices

5.4.2 UNLOADING OF BALE

Once finished the harvesting of product and binding process open the rear door for unloading the bale.



ATTENTION

Make sure that anybody is around the machine and unload the bale in flat field.

The bale ejector is used for putting away the bale during the unloading phase and for allowing closing the rear door without having done before the reverse gear.

**ATTENTION**

Don't use the bale ejector in presence of field with slights

5.5 STOP OF BALER

At the end of working the user must:

- stop the tractor and action the stationary brake
 - Switch off the power takeoff
 - Break off the electric feeding of switch board.
 - Lift the pick-up
 - Switch off the motor
 - Fix in lifted position the pick-up by the chain
 - Verify that the rear door is closed and that all the components of the machine are completely switch off.
 - Lower the standing foot till to touch the soil
 - Disconnect the oil dynamic pipes and the electric cables.
 - Slip off the P.T.O. shaft from the power takeoff of tractor.
 - Switch off the plug inserted in the towing link.
- After this operation it is possible to move the tractor.

5.6 PARKING

- Before to park the baler in different place makes sure that the product is completely discharged.
- Lay down the standing foot on the ground.
- Fix the wheels with stumps and makes sure that all the protections present on the machines are in correct position.
- Stop the tractor and insert the stationary brake.
- When the tractor is completely steady and the components too take off the P.T.O. shaft from the power takeoff of it.
- Place the P.T.O. shaft on proper supports in order that the same and its protections aren't damaged.
- Discharge the pressure from the hydraulic circuit.
- Disengage the pipes of connection from the tractor's hydraulic installation.

- Disengage the feeding cables from the electric installation.
- Take off the tractor from the draw bar of baler.
- Lubricate and grease every point forecast included the chains.

**ATTENTION**

For parking the baler it is very important that the place is:

- Dried;
- Sheltered from atmospheric agents;
- Guarded or closed for avoiding the access to the machine to person not authorized.

SECTION 6

Maintenance

6.1 MAINTENANCE

Here below are mentioned the different operations of ordinary maintenance.

It is important remember that the less cost of exercise and the long life of baler depend to the respect of these rules.

If the operations of maintenance are made with care, the advantage will be at favour of the user because at the re-starting of working will find a machine in optimal conditions.

The intervention times mentioned in this manual have informative character and are referring to normal working conditions that in any case can change according to different matters....



ATTENTION

Before to proceed with every operation, make sure that the machine is in level and blocked with proper stumps under the wheels. The maintenance operation, adjustment and preparation for working must be done with the tractor and the P.T.O. shaft disengaged from the baler.



CAUTION

The greasing points in the machine are indicated with a label "greaser". Before starting to grease clean all the parts interested. Don't put too much grease into the greasers with high pressure in order to avoid damaging the protection of bearings.



DANGER

Keep out of kid greases, oils, paints. Ready carefully the cautions indicated on the blow cases of liquids used.

After the use wash you well.

Treat the oils used according to the rules antipollution.

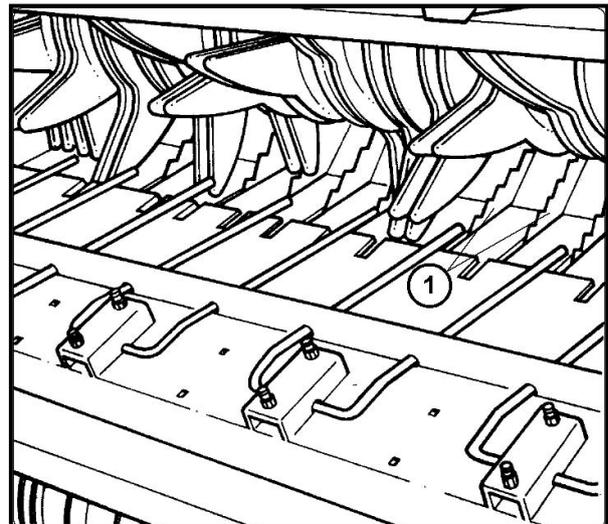
6.2 PTO SHAFT

As regards the maintenance of P.T.O. shaft it is necessary to follow the instructions of

Manufacturer and of the use & maintenance manual included.

6.3 MAINTENANCE OF CUTTING SYSTEM (TUAREG-CUT)

Control periodically the wear statement of knives installed in the cutting system (Fig. 19) . These knives can be sharpened again, or if worn can be replaced.



DANGER The replacement of knives is an operation really dangerous therefore it is necessary that it must be done from specialised person.

6.4 AFTER THE FIRST 8 WORKING HOURS



ATTENTION

In case of maintenance or cleaning of chamber, after lifted the rear door insert the proper safety hooks in order to avoid a possible accidental fall of it.

- After 8 working hours control:
- Control the general statement of baler.
- The fastening of all nuts and bolts.
- The tension of transmission chains.
- The absence of oil's leaks from the hydraulic installation.
- The inflation pressure of tyres.
- The lubrication of transmission component.

6.5 EVERY 8 WORKING HOURS

- Control the general statement of baler.
- Verify the wear statement of knives.
- Make a complete greasing operation of all the points indicated with the label “greaser” .

Periodically repeat the following controls to do at the beginning of every season:

- Verify the oil level of gear box eventually add it.
- Make a complete greasing operation of all the points marked with the label “greaser”.
- Restore the correct chains tension.
- Verify the tightening of all the nuts and bolts.
- Verify the correct function of electric installation.
- Verify the absence of leaks in oil-dynamic circuit and the correct function of driving gears.
- Control the pressure of tyres inflation.
- Make a complete operation of greasing of all the points marked with label “greaser”
- Control the tightening of all the nuts and bolts (par. 2.2).

6.6 EVERY 24 WORKING HOURS

Every 24 working hours, lubricate and/or grease all the parts in rotation:

- The cylinder junctions of rear door;
- The cylinder junctions of main tightened harm;
- The junctions of pick-up;
- The hinges of door ;
- The hinges of tightened;

6.7 AFTER THE FIRST 50 WORKING HOURS

Replace after the first 50 working hours the oil of gear box following the procedure showed in paragraph 6.8.

6.8 EVERY 50 WORKING HOURS

Control every 50 working hours or also more frequently the oil level of gear box through the proper window inspection

6.9 EVERY 400 WORKING HOURS

Every 400 working hours replace the oil of gear box Agip OSO type.

For doing this, it is necessary:

- Unscrew the filling plug;
- Place a box under the gear box for recycling the exhaust oil;
- Unscrew the plug of discharging paying attention

- that the oil goes to the box;
- At the end of operation, shut again the plug of discharging;
- Unscrew the plug of level and insert the new oil through the hole of filling plug. A correct level must skim the lower rim of hole of level plug.
- Use oil SAE 90 EP. Gear box capacity; around 2 litres.
- Shut again the plug of level and the filling plug.

6.10 LUBRICATION

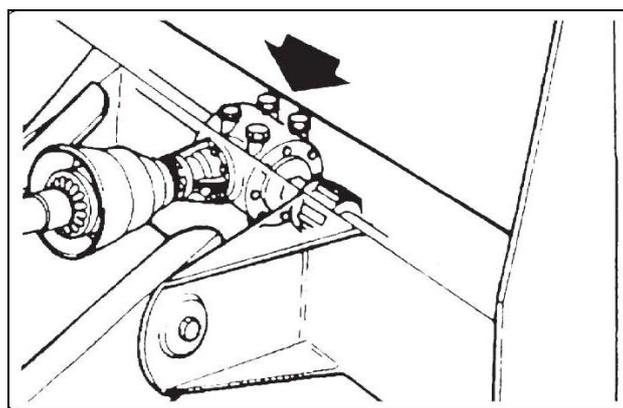


Fig. 25 – Gear Box

The lubrication of every machine with the components in rotation and/or friction is a very important operation for the function and the life of the machine- Therefore make the lubrication operation in systematic and periodically way.

6.11 STOP OF THE MACHINE

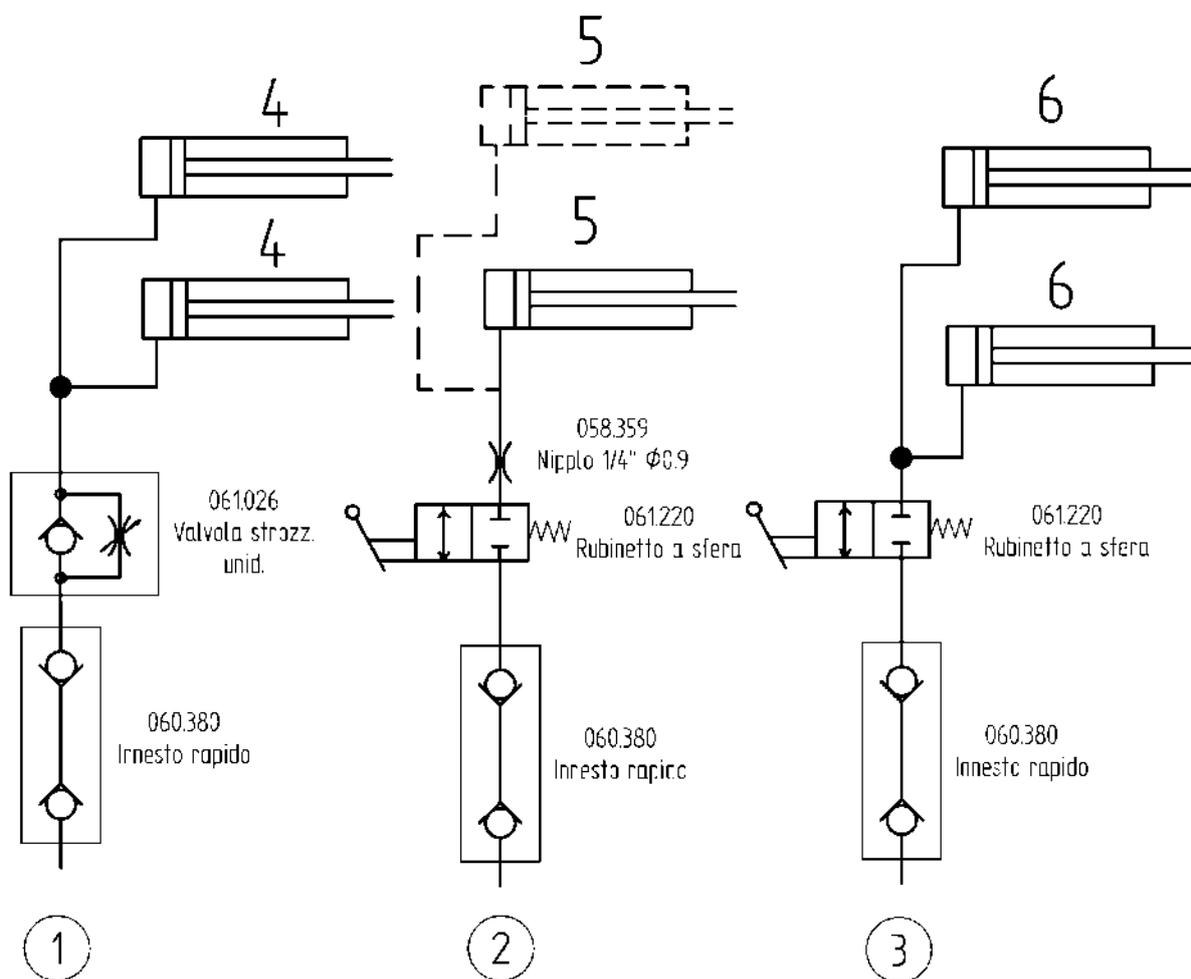
At the end of season or if it is forecast a long period of stopping it is necessary:

- Make sure that the product inside the machine has been completely discharged.
- Place the machine on a proper and flat surface.
- Put proper stump under the wheels of the machine and make sure that all the protections present on the machine are in correct position.
- Wash the machine removing the dirt.
- Make a control and eventually replace the damaged and worn parts.
- Screw well nuts and bolts.
- Make a good lubrication on each point forecast included the chains.
- Put anti-rust in the ruined and scrapped parts.
- Protect the machine in a covered area.

If this operation has been done with care, the advantage will only for the user that will find a machine in optimal conditions for his next

season. In case of demolishing of the machine, follow the antipollution rules and in particular, take away the oils and the different elements in function of their components.

6.12 HYDRAULIC SCHEME



POS	MEANING	POS	MEANING
1	Tractor (single acting) Max 210 bar	2	Tractor (single acting) Max 210 bar
3	Tractor (single acting) Max 210 bar	4	Rear door opening cylinder
4	Pick-up cylinder	6	Knives insertion cylinder

6.13 INCONVENIENCES AND REMEDIES

INCONVENIENCE	CAUSE	REMEDY
Excessive chain's rumour	-Low lubrication	-Restore the oil's level
The chamber don't close correctly	-Hydraulic inconvenience - There are material residuals that block the closing	-Control the installation -Remove the residuals
Closing hooks not synchronised	-Bar of hooks connection not set	-Adjust the relative registers
The main chain turn but don't enter the product	-Safety bolt sheared	-Replace the safety bolt
During the binding the twine isn't cut	-The knife don't cut -Twine brake don't set	-Replace the knife -Increase the tension of twine
The twine is caught from the bale, but the trolley of binding don't move	-Twine not wrapped in the pulley -Break of driving chain pin	-Adjust the wrapping on the pulley - Replace the broken link or the whole chain
Light bale	-Not correct adjustment pressure -Low rpm -Harvesting with fast reverse -Bigger windrow	-Adjust the pressure of exercise -Increase the power takeoff of the baler -Reduce the working speed -Modify window dimensions
The bale doesn't go out from the the chamber	-High pressure of baling -Much side windrow	-Reduce the pressure of baling -Correct the tractor speed
Malformed bale	-Irregular feeding	-Correct the tractor speed
Irregular harvesting	-Higher pick-up	-Modify the high position of pick-up wheels
Flooding in the pick-up	-Big and irregular windrow -Much side windrow -Harvesting with very fast speed -Low power takeoff	-Modify the dimensions of windrow -Correct the tractor speed -Stop and recede with the power takeoff inserted, lift and lower the pick-up. Re-start with a low speed -Increase the tours of power takeoff
Irregular net on the surface of the bale	-The net isn't stretched between the support and the binding	-Control the tension of net
Electric binding control	-Absence of electric feeding -Excessive twine stretching	-Verify the fusible in the tractor -Decrease the twine stretching
Motor gear box doesn't function automatically	-Wrong setting in the computer	-Modify the function in the panel of electronic control

	-Sensor doesn't function	-Replace the sensor
Product doesn't cut correctly	-Blades not inserted -Hydraulic installation doesn't work	-Action the hydraulic device -Control the position on the hydraulic switch

SECTION 7

Spare parts

7.1 SPARE PARTS

All the components of the baler can be requested to the Manufacturer specifying:

- Machine model.
- Serial number of the machine.

- Production year. Code of the part you need (you will find it in the spare parts book), description and quantity.
- Transport device. In case that this voice isn't mentioned, the Manufacturer doesn't reply in case of delay in the delivery. Freight costs are always at charges forward.
- The goods is always delivered EX-WORKS our Company.

The Manufacturer is always available for every kind of commercial and technical request you may have.



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