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# ***CENTRIFUGAL PULL TYPE SPREADER FOR ATV - Mod. PTP***

## **OWNER'S MANUAL**

 Read the Operator's manual entirely before using the machine 

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## 1. INTRODUCTION

*The centrifugal pull type spreaders are machines used for the distribution of solid, granular fertilizers and seeds in the field. They can be used whether with tractors of small/medium power or with atv-quad.*

It is recommended to **carefully read this operator's manual of use and maintenance**, and follow the recommendations to help ensure safe and efficient operation with and on the machine. This manual has been written, in order to give the customer all the information and safety rules on the machine, as well as use and maintenance instructions that let to make good use of the potentialities of the machine.

The manual must always be handy, so as to consult it, in order to check the operational cycle. If it gets lost or damaged, it will be necessary to ask for a substitutive copy.

In case of some difficulties of interpretation on texts or tables, or if the drawings/sketches are not clear enough, please get immediately in touch with the manufacturer or dealer of the machine for having all the clarifications through the experts in the working/maintenance or through the person who wrote the manual.

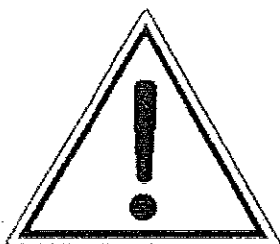
We are completely available for a real collaboration in order to improve the understanding of the whole manual.

## 2. GENERAL INFORMATION

### 2.1. USING THIS MANUAL

This manual gives all the information for the use and maintenance of the machine. The good working and its life depends on the good maintenance and to the attention during the use. Some pictures in this manual show details or accessories that could be different from those of your machine, some components could be removed, in order to assure the clearness of the pictures.

Some signal words are put on the machine and the operator shall see to keep them in a perfect visual condition, replacing them when they are not readable anymore.



The symbol on the left, joined to the words under shown:

DANGER!

ATTENTION!

WARNING!

Are used in this manual to draw your attention on the safety and good work of the machine. Therefore, it is necessary to observe all the written rules.

We recommended to use the original spare parts and accessories. The not original parts, besides to decline the guarantee, could be dangerous reducing the length and the performances of the machine.

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## 2.2. INFORMATION ON THE MACHINE

The models introduced in this manual have been designed and made exclusively allowing the distribution of solid, granular fertilizers and of seeds in the field. Their use is particularly indicated for the gardening and for golf courses.

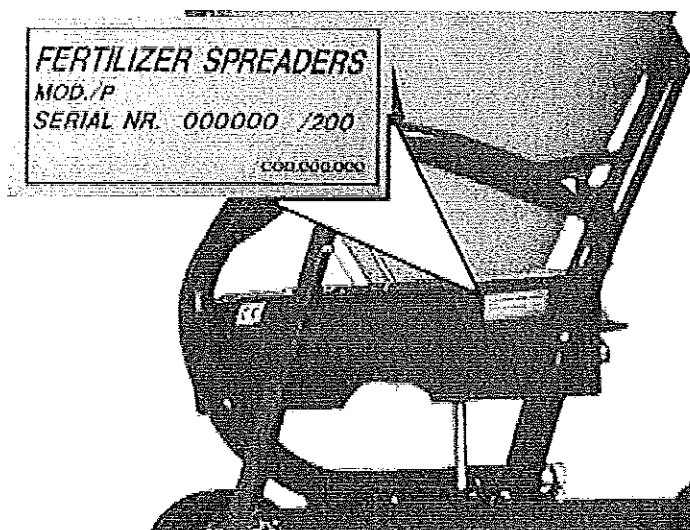
These machines are usually used during the day. If it is required the nocturnal use or with poor visibility, it must use the lighting system of the tractor or of the equipment to which the machine is connected.

A different use, like the above mentioned one is considered improper. Any arbitrary modification made to this machine relieve the manufacturer from any responsibility for damages or lesions, also serious, that can be caused to the operators, to third parties or to things.

### 2.2.1. NAME PLATE

On the hopper of every machine a name plate is fixed showing the model, the number of series and the year of construction of the machine.

When some spare parts are required, it is always necessary to refer to the type of machine, to the serial number and to the manufacturing year.



*Where to place the name plate*

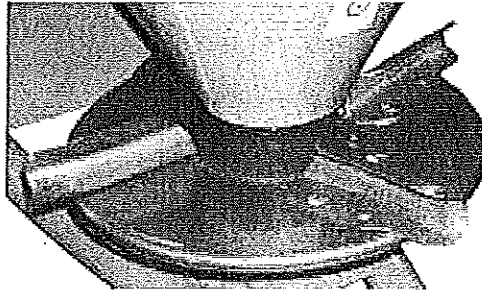
### 2.2.2. CHARACTERISTICS OF THE MACHINE

The hardness of the steel welded frame, together with the remarkable life of the plastic hopper, lets to obtain a highest quality level of the pull type spreaders.

The painting is made by an epoxy varnish with successive backing at 150 °c with the application of the primer bath, assuring a great protection and long life of the machine.

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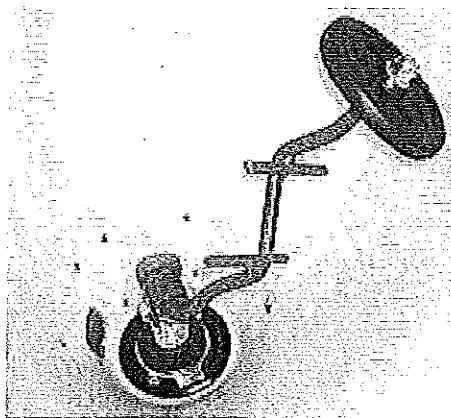
The pull-type spreader mod. PTP has a distributor of fertilizer completely in stainless steel equipped with a spreader disc with four adjustable vanes in four different positions, in order to obtain the maximum spreading precision and uniformity in the distribution, depending on the kind of product that must be spreaded.



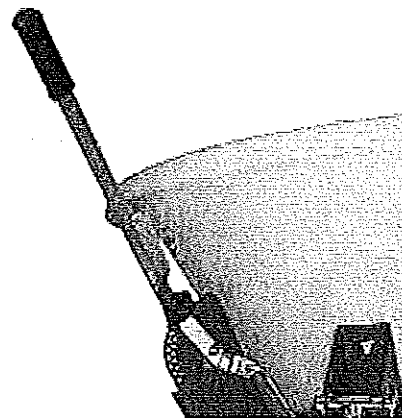
*Distributor disc*

The feeding of the disc is by gravity through an opening, located on the bottom of the hopper, inside of which a mix/agitator is applied, in order to prevent the fertilizer lumps formation.

A sheet case is placed in front of the disc, in order to prevent the spreading in the front side of the machine.



*Agitator*



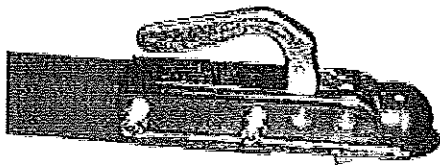
*Regulating lever*

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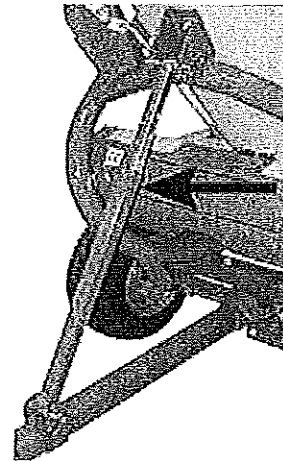
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The fertilizer delivery is controlled by properly opening of the shutters in the hopper bottom, through lock devices operated by a levers. The fertilizer spreader and the agitator are connected through a gear box with the wheels, so as to allow a speed of the disc, directly proportionate to the speed of the machine. The switch on and off the motion is made putting or removing the split pin on the axle.

The machines can be set, on demand, with a ball hitch 45 millimetres (1<sup>7</sup>/<sub>8</sub>) or 50 millimetres (2"). An adjustable tongue in height can be assembled on all models for keeping the disc parallel to the field.



*Tongue connection*



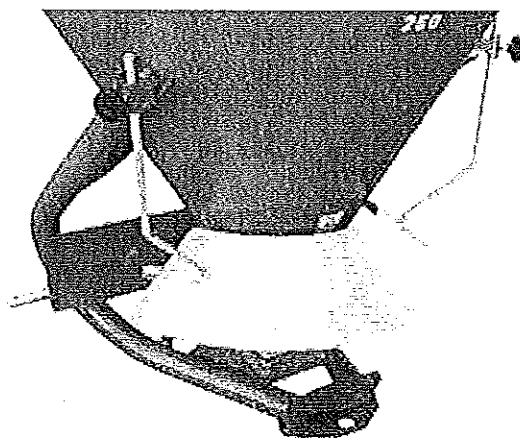
*Rod for tongue adjustment*

The spreading limiter is supplied with two brackets, equipped by lock knobs and it needs be fixed to the hopper by two screws TTQST 8x16 (supplied with the kit).

The holes for locking need to be realized by the user.

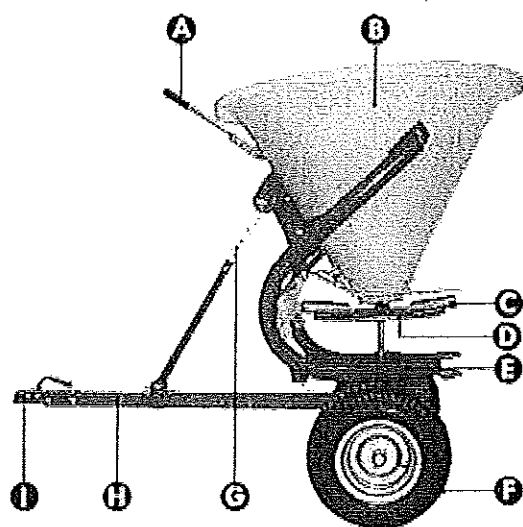
The knobs were used to the downward lock or the upward lock of the spreading limiter, depending on the arranged radius of distribution.

More the spreading limiter has been locked downward, more the radius of spreading will be reduced and vice versa.



*Salt spreader limiter*

### 2.2.3. TERMINOLOGY

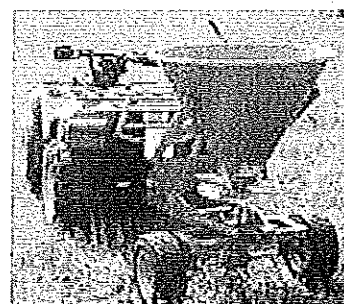


- A. Regulating lever
- B. Plastic hopper
- C. Distributor vanes
- D. Spreader disc
- E. Steel frame
- F. Tyres
- G. Rod for tongue adjustment
- H. Tongue
- I. Tongue connection

### 2.2.4. TECHNICAL DATA

#### TECNICAL CHARACTERISTICS

	PTP 180	PTP 300
HOPPER CAPACITY (litres/gallons)	165/43,6	260/68,7
Weight of the machine (kg/lbs)	80/175	84/183
Width (wheel – wheel, outside side) (metres/inches)	1,05/41"	1,05/41"
Loading height (meters/inches)	1,30/51"	1,44/57"
Length (meters/inches)	1,50/59"	1,50/59"
Hopper width (meters/inches)	0,90/35"	1,05/41"
Ball hitch Ø (cm/inches)	5 / 1"7 / 8	5 / 1"7 / 8
Tyres (type – bar)	6,5 x 3,2	6,5 x 3,2
Spreading width (meters/ft)	8 – 12 / 26' – 40'	8 – 12 / 26' – 40'
Ground covered per hour	from 10 ha/h to 15 ha/h from 25 acres/h to 37 acres/h	from 10 ha/h to 15 ha/h from 25 acres/h to 37 acres/h



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### 3. IMPORTANT SAFETY INFORMATION

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THE FOLLOWING SAFETY RECCOMENDATIONS ARE TO SAFEGUARD YOUR INCOLUMITY: THEREFORE IT IS NECESSARY TO READ THEM CAREFULLY, MEMORIZING AND ALWAYS APPLYING THEM.

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*The present warnings in this manual regard exclusively the allowed uses and reasonably foreseeable. All below instructions must be integrated by the common sense and by the experience of who works, indispensable measures to prevent accidents.*

The machine must be used by a single operator. It is forbidden the use of the machine to under-ages.

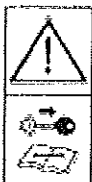
All the listed instructions must be carefully respected.

Possible changes on the machine not preventively authorized by the manufacturer (by written copy), exclude his responsibility.

Check the correct functioning of the machine, before every employment.

#### General advices

- Read carefully this manual before proceeding to start, operate, employ or maintenance on the machine.
- Watch, in addition to the warnings of this manual, all the safety , accident prevention rules and of general nature.
- The manual must always be handy , so as to consult it, in order to check the working cycle and safety information. In case of loss or damage, it will be necessary to ask for a substitutive copy.



#### ATTENTION!

Any work of maintenance, regulation and cleaning must be done with the machine on the ground (in stable conditions), turning off the tractor engine and removing the key.

- Read carefully the safety signal words applied on the machine and follow the instructions. In case of wear and tear or insufficient readability of the safety signal words, clean them up or replace them, placing the signal words in the right position, as shown in paragraph 3.1.



#### ATTENTION! - WARNING!

The operator, during the period of use, maintenance, repair, handling or storing of the machine, must wear accident prevention shoes and safety gloves. Moreover, it is necessary that he wears suitable hearing protections such as earmuffs or earplugs, dust masks and protective glasses.

- During loading phase, there is the danger of powders inhalation produced by fertilizer mixing. It is suggested to use tractors with filters on the ventilation system of the cabin, to use suitable safety systems of breathing, like powder masks or masks with filter.



- The machine is designed for being used by a single operator who, during the use, must always stay in the stationing control on tractor.
- Never work with this machine if you are tired, sick or after having took drinks, drugs or medicines.



#### **DANGER!**

It is forbidden to climb or to transport somebody when the machine is in motion.  
Do not let inside the hopper for any reason.

- Keep the machine cleaned up from foreign bodies (detritus, tools, miscellaneous), as they could damage the operations or the operator. Generally the fertilizers are rather corrosive. For this reason, it is important that any particle of the fertilizer stay in the machine for a long period of time. Clean the hopper and the distributor after each use of the machine.
- If during cleaning operations it is used air or water with pressure, it is necessary to wear glasses and safety masks keeping away possible persons or animals from the machine.
- Before connecting the machine to the tractor or to other self-moving means check that this is in good conditions and that brakes work correctly, especially if you work on sloping grounds.
- Switch off the machine from tractor only on a compact and level ground (with empty hopper), checking that the machine is stable.



#### **WARNING!**

During transport operations, stocking and employment of the fertilizers, the operators must follow all the label indications and particularly to the content of the written risks and the precaution suggestions.



#### **ATTENTION!**

The Manufacturer does not answer to possible damages caused by a improper and unforeseen use of the machine.

The Manufacturer is not responsible in case of:

- improper use of the machine, use by not trained staff;
- serious deficiencies in the foreseen maintenance;
- changes or not allowed interventions;
- use of not original or specific spare parts;
- total or partial inobservance of the instructions;
- inobservance of the common safety rules during work;
- unusual cases.

### Operation of the machine

- Make a check of the machine before switching it on. Start to work only if the machine is in perfect conditions.
- Before using the machine, please be sure that all the safety devices are correctly placed and in good state; in case of breakdowns or damages to the protections, please replace them immediately.



#### **ATTENTION!**

During work, please be sure that for a radius of 50 meters there are not any person or animals. When you work in proximity of roads or public places, it is **ABSOLUTELY OBLIGATORY** to keep away persons and to increase the precautions.



#### **ATTENTION!**

Anybody who comes up to the machine is in a danger area, therefore he becomes "AN EXPOSED PERSON". The operator must prevent anybody to come into the danger area and to work with the maximum caution. If somebody comes up, please stop immediately the tractor engine.

- Before every use of the pull type spreader, please always check the wear of the vanes and of the spreader disc. Check that all the fixing components (screws, bolts etc.) are in and fixed.
- The machine must never be unattended when it is moving.
- Keep always the machine in good operating conditions and make regularly the maintenance.

### Transfer on the road

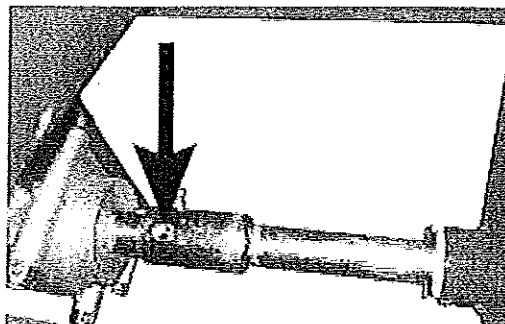


#### **ATTENTION!**

Please follow scrupulously the Highway code in force in the country of use. During moves on public roads, it is obligatory to empty the hopper.

Remember that during moving on public roads, special attention must be done, besides to possible and special regulations noted on the registration book of the tractor, choosing an appropriate speed especially when the street is crowded, winding or sloping. If the pull type spreader hides, with its shape, the back signalling lights of the tractor, it is necessary to put a lights bar and/or some back signalling signs.

Engage the axle with the pin, so that the spreader can be set in action by the turning wheels, only in the moment in which the spreading operation has to be carried out.



### 3.1. SAFETY SIGNALS



#### ATTENTION!

Be sure that the safety labels are readable. Clean them up using a cloth, water and soap. Replace the damaged labels placing them in the right position, as subsequently described.

The safety signs on the machine supply the most important indications: their observance helps your safeness.



#### 1. ATTENTION!

Before making any operation on the machine, stop the engine of the tractor or of the self-moving means, remove the key, put on the parking brake and read carefully the operator's manual.



#### 2. ATTENTION! - DANGER!

Possible throwing of material and/or objects, please do not stop or come up to the machine. Keep a safety distance of 50 meters, at least, from the machine.



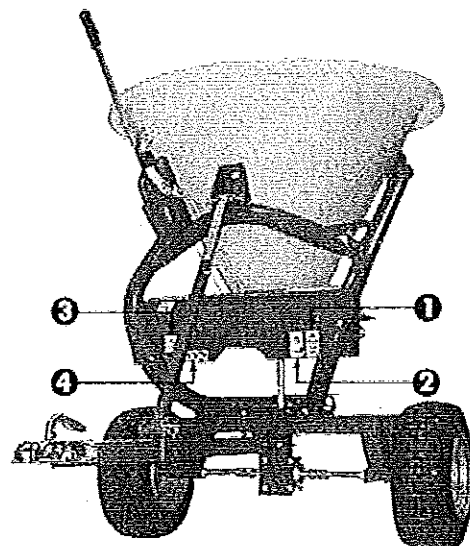
#### 3. ATTENTION! - DANGER!

Forbidden to go inside the hopper or to transport somebody with the machine.



#### 4. ATTENTION!

Use the Devices of Individual Protection required.



## 4. PULL TYPE SPREADER USE



### ATTENTION!

Before use, please check that gears are adequately greased (see paragraph 5.1).



### ATTENTION!

During the use of the machine, please be sure that for a radius of 50 meters there are not any person or animals. If somebody comes up, please stop immediately the tractor engine.

### Recommendations for a correct distribution

- Please test always the kg/ha that you wish to spread before starting to work.
- Use a fertilizer in perfect conditions: a humid fertilizer could not be spreaded uniformly and correctly.
- Avoid to spread the fertilizer during windy days, in order to improve the uniformity of the distribution.

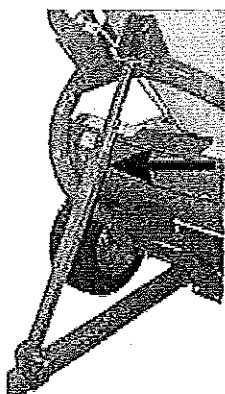
### 4.1. CONNECTIONS

The pull type spreaders mod. PTP can be hitched to every type of tractor or atv-quad with ball of 45 millimetres (13/4") or 50 millimetres (2").

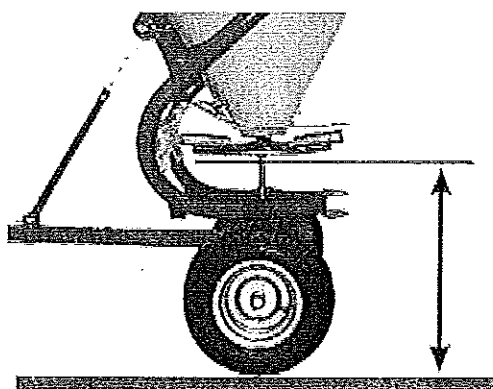
To make the connection, it is necessary to put the ball hitch in the coupler on the pull type spreader, locking it pushing the lock handle towards the bottom.

Check and regulate the length of the regulation tongue rod, so that the spreader disc is, as parallel as possible, to the ground, in order to get a uniform and regular distribution of the fertilizer.

Unscrew the locking bolt, as shown with the arrow in the picture below and move the rod in the optimal position, in correspondence of the present holes and lock the bolt in the new position.



*Shaft regulation bar*



*Correct position of the spreading disc*

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## 4.2. ADJUSTMENTS

It is not possible to have an exact spreading chart for equipment that make use of the centrifugal principle, as the distributed quantity depends on the speed, on the radius of distribution, on the quality and humidity of the fertilizer and on the roughness of the land.

The fertilizer must always be stored and conserved adequately, so as to keep its physical characteristics unchanged.

It is necessary to set the speed of the pull type spreader, before starting the operation of distribution, trying, in the possible limits, to keep it constant for all its duration.

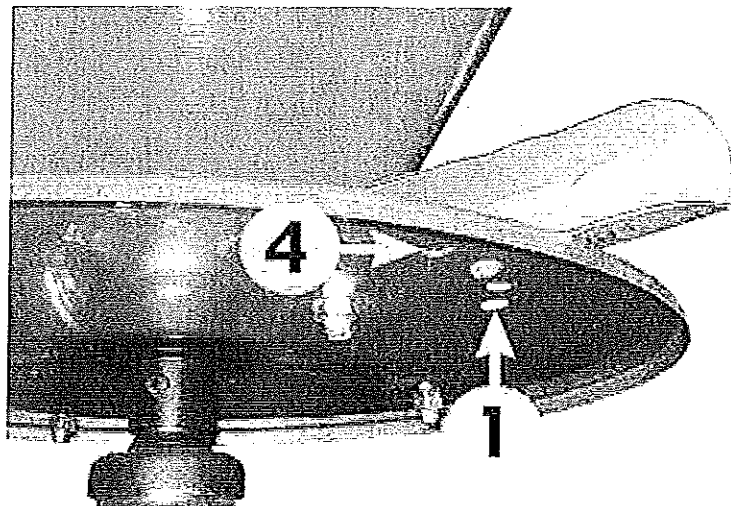
The spreading charts contain the indicative information, in order to determine the quantity to spread in the field; these must be completed by the experience and competence of the operator.

### 4.2.1. HOW TO ADJUST THE SPREADER VANES

In order to assure a homogenous distribution on both sides of the centrifugal pull type spreader, depending on the different specific weight of the used fertilizer, the distributor vanes on the disc can have different positions.

When all the vanes are put in hole 1 (as shown in the picture), the distribution of the product is increased towards left, compared to the way of the tractor moving. On the contrary, if the vanes are put in hole 4, the distribution will be more towards right.

Moreover, moving the vanes from position 1 to position 4, at the same speed, there will be an increase of the distributing width of fertilizer distribution. This regulation must be made compared to the type of used fertilizer and to the experience of the operator.

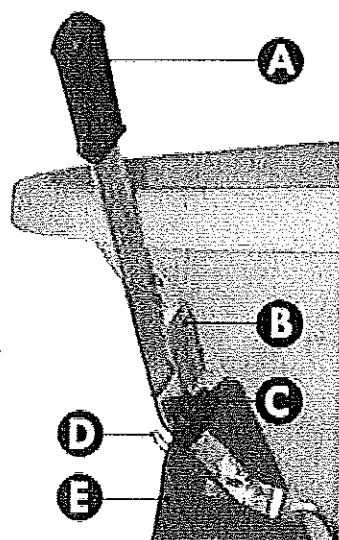


*Spreading disc's vanes regulation*

Such a regulation must be done in accordance with the fertilizer type that is used and the operator's experience.

#### 4.2.2. HOW TO ADJUST THE SPREADING

The fertilizer spreading is regulated through the regulation lever that moves the opening section on the bottom of the hopper. In order to carry out the regulation, after having consulted the spreading table, according to the type of product to spread and to the ATV speed, it is necessary to move the lever "A" along the graduated scale "E" and blocking it in the chosen position with the pin "D".



# SPREADING CHART

## SPREADING CHART FOR FERTILIZER

SPREADING RATE (kg/ha)

SPREADING RATE (kg/ha)

	2	3	4	5	6	7	8	9	10	11
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
UREA	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
AMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
DIAMMONIUM	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
GRANULATED	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8
PERLITE</										

#### 4.3. HOPPER LOAD

It is advised not to carry out the hopper loading manually but using a lifter or suitable mechanical means.



##### ATTENTION!

The hopper must be loaded only after having hitched the spreader to ATV.

Do not drive for very long distances with a full load and do not put full bags of the fertiliser loaded in the hopper during the transport to the field or during the working, in order not to overload the capacity of the machine and to compress the fertilizer.



##### WARNING!

During the operations of transport, stock and use of fertilizers, the operator must be behaved in compliance with the indications on the label of the product and in particular with the content of the sentences of risk and the precaution advices.

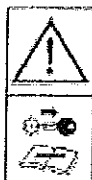
#### 4.4. SPREADING OF THE FERTILIZER IN THE FIELD



##### ATTENTION! - WARNING!

The operator, during the period of use, maintenance, repair, transport or storing of the machine, must wear accident-prevention shoes and gloves of security. If it is necessary, he will have, moreover, to wear headset, mask and glasses.

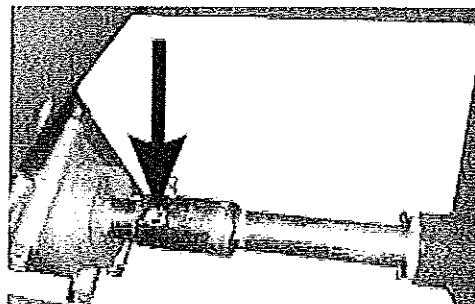
After having hitched the machine to the tractor and having carried out the necessary regulations, it is possible to begin to work.



##### ATTENTION!

Before getting off from the ATV and before every operation of maintenance and regulation, set in action the parking brake, turn off the engine and remove the ignition key from the dashboard and await the stop of all the moving parts.

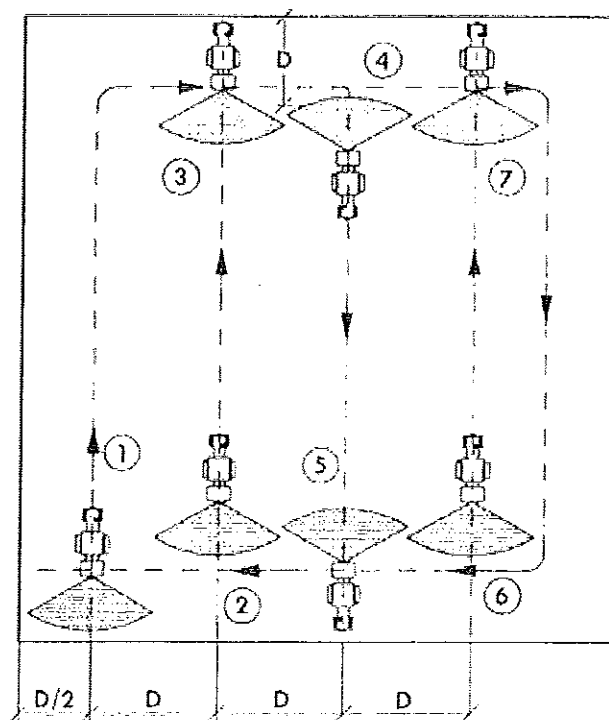
Engage the axle with the pin, so that the spreader can be set in action by the turning wheels, only in the moment in which the spreading operation has to be carried out.





Various ways exist to spread the fertilizer in the field. One of the simplest methods is, as follows:

- Positioning the ATV at the beginning of the field you intend to fertilise, to a distance ( $D/2$ ) that is the half of the working width that is used (point 1);
- Driving in the field distributing the fertilizer on all the perimeter;
- Stopping the tractor at one distance ( $D$ ) from the point 1, equivalent to the set working width (point 2);
- Beginning the spreading proceeding in line, straight to point 3;
- Turn the tractor and drive a  $D$  distance, equal to the working width (point 4);
- Repeat such procedure until all the plot will be covered.





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#### 4.4.1. SPREADING MISTAKES

##### Mistakes of use

- Drive speed;
- Incorrect spreading width;
- The spreading disc is not in a horizontal position compared to the land;
- Drive speed is different to those suggested by the spreading tables, or however not suitable for that particular type of fertilizer;
- Drive mistakes (lack of superimposition of the spreading surfaces);
- Lack of cleaning of distributing discs.

##### Mistakes due to the fertilizer

- Fertilizer of poor quality.
- Wet or excessive humid fertilizer;
- Incorrect fertilizer composition or it does not correspond to what declared from the vendor;
- Presence of excessive fertilizer lumps or with particular great dimensions that influence negatively on the yield of the spreading;
- Foreign body in the fertilizer.

##### Mistakes due to the spreader.

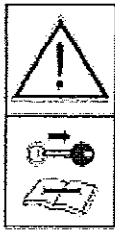
- Spreading exits clogged;
- Parts of the spreading disc worn away or damaged.

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## 5. GENERAL MAINTENANCE

The ordinary maintenance criteria we suggest, are based on the company experience and on the advices and suggestions from our customers.

Such criteria are not exhaustive can be further integrated also with the collaboration of the customers that we thanks in advance. A good ordinary maintenance maintains the operating costs of the machine low and provide an integral exploitation of its potentialities.



### ATTENTION!

Whichever work of maintenance, regulation and cleaning must be carried out with the machine on the ground (in stability conditions), engine turned off, handbrake set, key of ignition off and removed from the ignition board.

In damage case, the operator must stop the machine immediately, assess the entity of the problem and proceed with eventual actions on the machine.

If pressure water or compressed air is used for the cleaning of the machine, it is necessary to protect oneself with proper glasses or protection masks and to remove eventual persons or animals near the machine. Do not use inflammable fluids.



### ATTENTION!

For the maintenance operations, always use the fit Individual Protection Devices (accident-prevention footwear and gloves) and to prepare all the accident-prevention steps for the type of operation in course.

Every 8 hours of effective job, control the tightness of all nuts and bolts.

In case of anomalous vibrations, verify the status of wear of the vanes of the spreading disc, the corrected tightness of all the nuts and bolts and the lubrication of the gear box. The excessive vibration of the machine, besides the specific annoyance, is dangerous and damaging for the entire structure subjecting the mechanical parts to more and more stress cycles compared to the advice pictures.

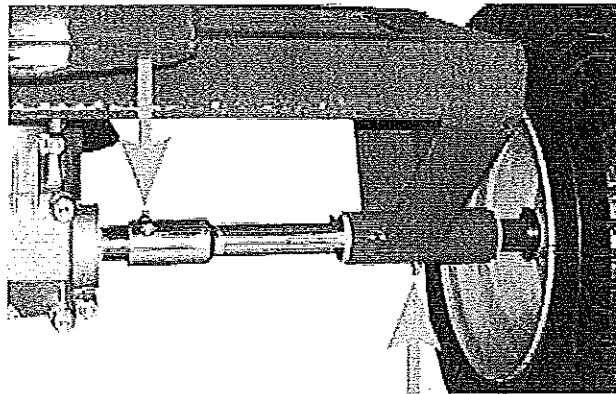
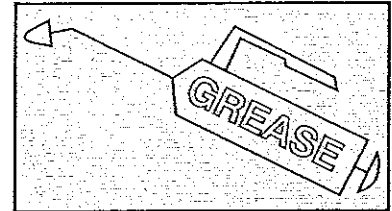
As regards particular actions that the user does not know or regarding broken parts replacing which are not shown in this manual, it is necessary to consult specialised personnel, making use of the Assistance service by the manufacturer or its distributors.

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## 5.1. LUBRICATION

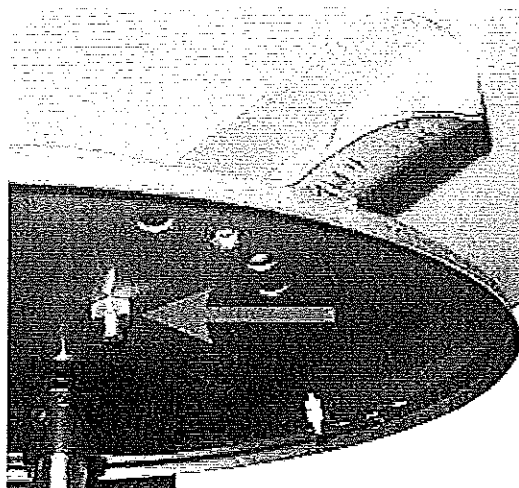
Before every use and after every 8 hours of effective work, carry out the greasing of the machine.

It is a good use that the greasing nipples are well cleaned up from mud or other residuals before using them for inject lubricating grease. Lubricate with lithium grease the points, shown in the picture.



## 5.2. REPLACEMENT OF THE SPREADER VANES

In case the spreading vanes of the disc brake or get damaged, it is necessary to substitute them with new ones.



Unscrew the nut and replace the damaged vane.

The fixing items (nuts and bolts) must be of the same type of those prescribed from the manufacturer.

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### 5.3. STORAGE

It is a good use not to wait for using the machine to carry out repairing and maintenance.

To repair and to replace the parts that are broken or damaged before the storage, in order to have always the machine ready for being used. To store the machine in a sheltered place away from atmospheric agents and protect it in order to avoid deteriorations.

The fertilizers are generally corrosive. For this reason it is important that no particles of fertiliser remains on the machine for long period of time.

Before storing the machine for long periods, it is opportune to operate as follows:

- accurately wash the machine and the inside of the hopper;
- to carry out a general control by sight of the machine in order to check eventual structural damages, to find eventual deep abrasions on the paint;
- to verify that the safety pictograms are present in their positions, that they are integral and readable, and in case they are deteriorated or unreadable, carry out immediately their substitution (see par. 3,1);
- to grease all the mechanical parts (to see par. 5,1);
- store, if possible, the machine in a sheltered place.

### 5.4. SPARE PARTS

For the replacement of parts of the centrifugal pull type spreader Mod. PTP, the customer must use just original parts, ordering them directly to the manufacturer of the machine or to authorized dealers.

Carrying out the order, it is necessary to specify what the identification label brings, in particular:

- serial number;
- model;
- manufacturing year;
- number of frame.

## 7. PARTS BREAKDOWN

Table 01

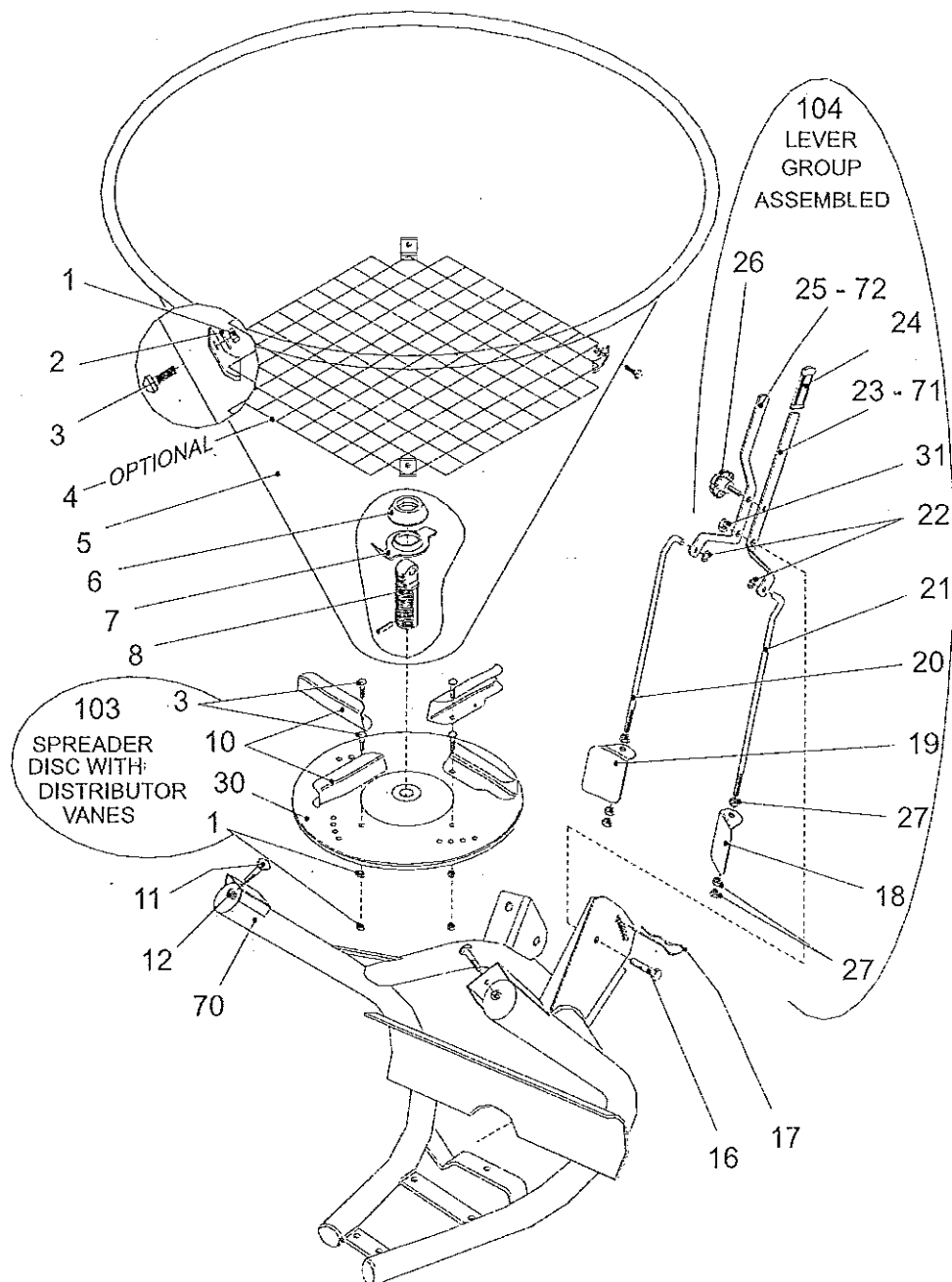


Table 02

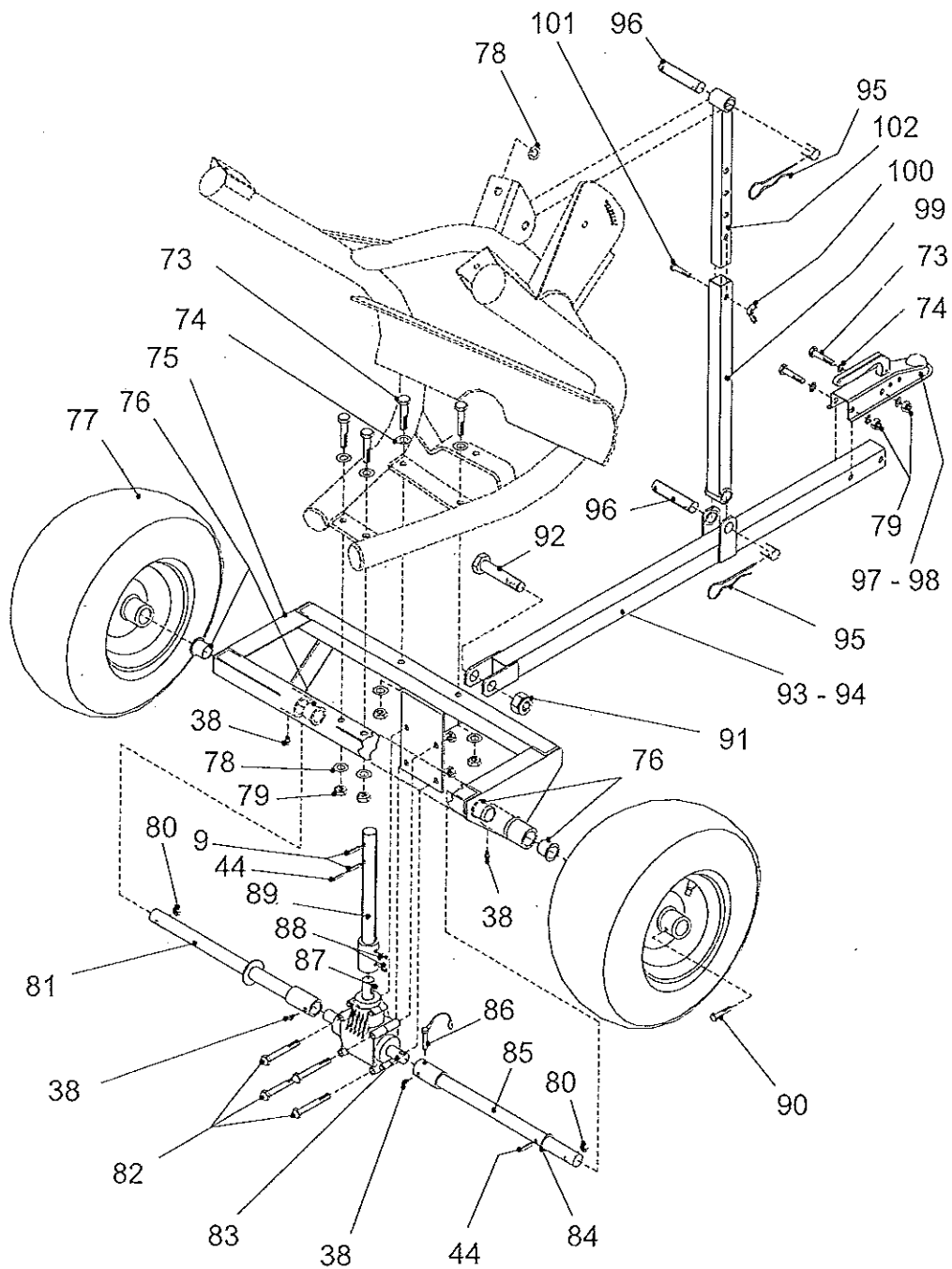


Table 03

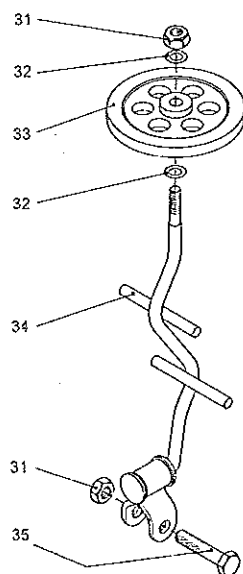
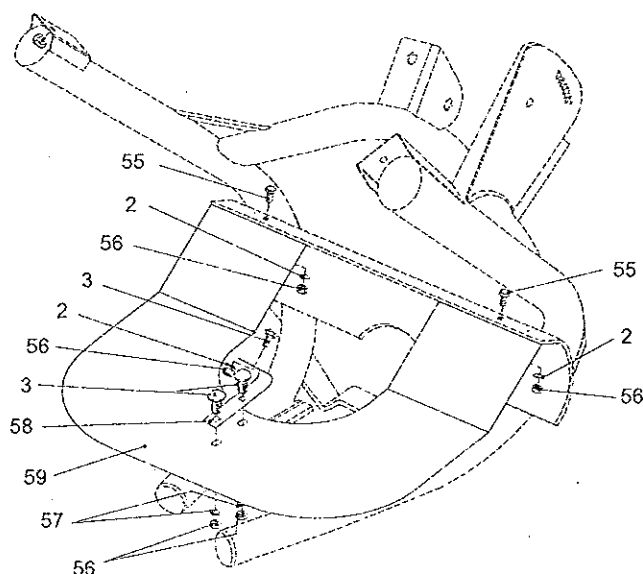


Table 04



POS.	QTY	CODE	DESCRIPTION
1	4	301.012	NUT M8 UNI 5588
1	4	301.012	NUT M8 UNI 5588 for grill
2	3	303.007	WASHER 8X17 UNI 6592
2	4	303.007	WASHER 8X17 UNI 6592 for grill
3	7	300.030	SCREW TTQST 8X16 UNI 5731
3	4	300.030	SCREW TTQST 8X16 UNI 5731 for grill
4	1	642.010	PROTECTIVE GRILL CE
5	1	609.008	HOPPER 180
5	1	609.038	PLASTIC HOPPER 180
5	1	609.011	HOPPER 300
5	1	609.033	PLASTIC HOPPER 300
6	1	304.013	RUBBER RING
7	1	619.002	LOWER AGITATOR
8	1	330.001	ENTRAINER
9	2	305.001	SPRING PIN 8X40
10	4	601.001	DISTRIBUTOR VANE
11	3	300.023	SCREW TTQST 10X20 UNI 5731
12	3	301.010	NUT M10 UNI 5588
16	1	300.024	SCREW TE 12X35 UNI 5739
17	1	307.001	SPLIT PIN 4,5
18	1	605.004	LEFT SHUTTER
19	1	605.003	RIGHT SHUTTER
20	1	602.001	RIGHT TIE ROD
21	1	602.002	LEFT TIE ROD
22	2	303.009	FLAT WASHER 10,5X21 UNI 6592 GR
23	1	604.002	LEFT LEVER SHORT VERSION
71	1	604.006	LEFT LEVER LONG VERSION
24	1	304.008	RUBBER GRIP
25	1	604.001	RIGHT LEVER SHORT VERSION
72	1	604.005	RIGHT LEVER LONG VERSION

POS.	QTY	CODE	DESCRIPTION
26	1	302.003	LEVER LOCK KNOB 8X25
27	6	301.014	NUT M10 UNI 5589 GR
30	1	610.003	SPREADER DISC without vanes
30	1	610.013	STAINLESS STEEL DISC without vanes
31	1	301.008	SELF LOCKING NUT M12
38	4	306.002	GREASE NIPPLE M8
44	2	305.003	SPRING PIN 5X40
55	2	300.029	SCREW TE 8X20 UNI 5739
56	5	301.012	NUT M8 5588
57	2	303.013	WASHER 8X24 UNI 6593
58	1	606.009	SUPPORT BRACKET
59	1	606.010	SHEET GUARD
70	1	613.026	PTP FRAME
73	6	300.020	SCREW TE 10X70 UNI 5737
74	8	303.015	WASHER 10X20 UNI 6592
75	1	613.025	PTP SUPPORT FRAME
76	4	325.024	SMOOTH BEARING W/FLANGE
77	2	620.079	PTP TYRE
78	5	303.025	WASHER 10X30 UNI 6593
79	10	301.013	SELF LOCKING NUT M10
80	2	301.001	SELF LOCKING NUT M8
81	1	620.082	PTP RIGHT AXLE
82	4	300.018	SCREW TE 10X100 UNI 5737
83	1	322.008	GEAR BOX WITHOUT PTO
84	1	303.035	WASHER 25X351,5
85	1	620.083	PTP LEFT AXLE
86	1	302.006	PIN MM8
87	1	326.003	KEY 8X7X20
88	2	305.015	DOWEL M6
89	1	323.013	OUTPUT SHAFT WITH BUSHING
90	2	300.027	SCREW TE 8X50 UNI 5737
91	1	301.006	SELF LOCKING NUT M22
92	1	300.021	SCREW TE 22X80 UNI 5739
93	1	613.030	TOW TUBE FOR 1" 7/8 HOOK
94	1	613.031	TOW TUBE FOR 2" HOOK
95	2	305.008	SPRING PIN R 3
96	2	633.003	PTP PIVOT diam. 22
97	1	620.080	TOW HITCH 1" 7/8
98	1	620.090	TOW HITCH 2"
99	1	606.061	OUTER TUBE LEVEL STOP WITH BUSHING
100	1	301.005	TONGUE NUT M8
101	1	300.019	SCREW TE 8X40 UNI 5737
102	1	606.060	INNER TUBE LEVEL STOP WITH BUSHING
103		610.001	SPREADER DISC with vanes
103		610.014	STAINLESS STEEL DISC with vanes
104		618.006	LEVER GROUP ASSEMBLED RH+LH short vers.
104		618.013	LEVER GROUP ASSEMBLED RH+LH long vers.
		619.004	AGITATOR PTP MODEL