



# SM-1909

## STARTING MANUAL

MAINTENANCE  
DOSAGE  
SPARE PARTS

*Please read and follow this operating manual before putting the machine into operation.*



MAQUINARIA AGRÍCOLA



SOLA

SOLÀ seed drills and fertilizer spreaders are manufactured in a highly specialized environment and our factory has a vast customer-endorsed experience.

SOLÀ machines use highly advanced technology and are guaranteed to work without malfunctions in a great variety of conditions. They are provided with easy-to-use and efficient devices. SOLÀ machines perform excellently with only minimum operator maintenance.

This manual will help you use your SOLÀ product with the upmost efficiency.



Certified quality system

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Created by: Maquinaria Agrícola SOLÁ, S.L.

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Specifications are subject to change or modification without notice.  
The pictures included do not necessarily show the standard version.

# **SOLÀ SM1909**

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PLEASE, READ THIS MANUAL CAREFULLY BEFORE USING THE MACHINE

# 1. INTRODUCTION

It is essential to read and follow the instructions and recommendations in this manual before operating the machine. Careful reading enables maximum operator efficiency, prevents accidents and damage, and increases the seed drill's capacity and life expectancy.

Please ensure that this manual has been read by any person involved in performing operational tasks, (including preparation, dealing with mechanical problems and supervising the machine), maintenance (inspection and technical assistance) and transport.

For your safety, please follow these technical safety instructions as SOLÀ will not be responsible for damages caused by not observing the information provided.

In the first chapters you will find the Technical Characteristics and Safety Instructions, as well as some essential sowing concepts. Basic concepts that are required to operate the machine are explained in the Starting and Maintenance sections. The last part of this manual consists of Dosage Tables, detailed by seed type.



SOLÀ RETAINS THE RIGHT TO MODIFY ILLUSTRATIONS, TECHNICAL DATA AND WEIGHTS INDICATED IN THIS OPERATING MANUAL, IF THESE CHANGES HELP TO IMPROVE THE QUALITY OF THE SEED DRILLS.

## 2. SAFETY INSTRUCTIONS

### 2.1 SAFETY SYMBOLS

In this operating manual you will find three different symbols relating to safety:



TO FACILITATE OPERATION WITH THE SEED DRILL.



TO AVOID DAMAGES ON THE SEED DRILL OR IN THE OPTIONAL EQUIPMENTS.



THIS SYMBOL WARNS OF THE RISK OF INJURY.

On the machine, you will find the following symbols:



READ THE INSTRUCTIONS CAREFULLY AND OBSERVE THE SAFETY ADVICE GIVEN IN THE OPERATING MANUAL.



DURING THE COUPLING MANOEUVRE, STAY AWAY FROM THE REAR PART OF THE TRACTOR. RISK OF SERIOUS PHYSICAL INJURY.



DURING MAINTAINING OR REPAIRING THE SEED DRILL, YOU MUST STOP THE TRACTOR'S ENGINE COMPLETELY, IT MUST NOT BE STARTED.



RISK OF BEING CRUSHED WHEN WORKING UNDER THE MACHINE, PLEASE SECURE THE MACHINE TO PREVENT THIS RISK.



NEVER USE THE LADDER TO ACCESS THE PLATFORM WHEN THE MACHINE IS RUNNING. IT IS FORBIDDEN TO RIDE ON THE MACHINE DURING OPERATION. RISK OF SERIOUS PHYSICAL INJURIES.



DANGER OF INFECTION FROM ESCAPING HYDRAULIC FLUID AT HIGH PRESSURE! THIS CAN INFILTRATE SERIOUS INJURIES WITH POTENTIALLY FATAL CONSEQUENCES IF IT PASSES THROUGH THE SKIN AND INTO THE BODY. KEEP THE HOSE LINES IN GOOD CONDITION. RISK OF SERIOUS PHYSICAL INJURIES.



NEVER STAND UNDER TRACK MARKERS OR IN THEIR OPERATIONAL AREA. RISK OF SERIOUS PHYSICAL INJURIES.



COUPLING POINT FOR TRANSPORT BY CRANE.

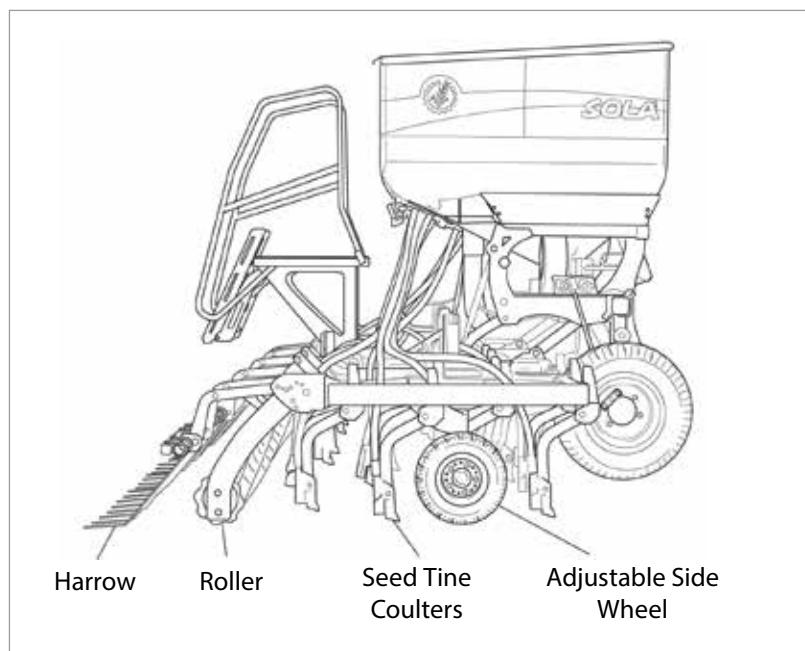


PTO SHAFT'S SPEED AND TURNING DIRECTION (ONLY IN MACHINES WITH MECHANICAL FANS).

### 3. TECHNICAL CHARACTERISTICS

#### 3.1 TECHNICAL CHARACTERISTICS

TYPE / ROWS	ROWS SPACING	WORKING WIDTH	SEED HOPPER CAPACITY	WEIGHT (KGS)	TYRES TYPE	TRANSPORT WIDTH
500/31	16 cm	5 m	1.600 / 2.000 L.	2.250 kg	340/55-16	3 m
600/37	16 cm	6 m	1.600 / 2.000 L.	2.540 kg	340/55-16	3 m
700/43	16 cm	5 m	1.600 / 2.000 L.	2.830 kg	340/55-16	3 m



#### 3.2 STANDARD EQUIPMENT

- 1.600 or 2.000 L Seed Hopper
- Sieve
- Kit for dosing test
- Monitor displaying: fan r.p.m., seed distributor shaft r.p.m., hopper level low and hectare counte.
- Signalling light equipment
- Working Lamps
- Adjustable side wheels
- Rear roller
- Harrow
- Mechanical fan with PTO shaft at 1000 rpm or hydraulic fan
- Tine coulters with tungsten carbide tips.

#### 3.3 OPTIONAL EQUIPMENT

- Total sowing shut-off
- Shut-off sowing from folding parts
- Tramlines
- Hydraulic kit: hydraulic pump fitted on the tractor's universal joint shaft, refrigerated oil tank
- Hydraulic horizontal-folding track markers
- Pre-emergency track markers
- Monitor, radar and electric motor to control dosing
- Track erasers

### 3.4 USE ACCORDING TO DESIGN

The Seed Drill SM-1909 has been designed for normal use in agricultural work, especially cereal and other kind of grain seeds.

If the machine is used in circumstances other than the above, the manufacturer will not be held responsible for any damage caused.

The user must observe all regulations concerning safety, traffic and hygiene.

If the machine is modified by the user, the manufacturer's warranty is cancelled. SOLÁ will not be held responsible for any damage caused.

### 3.5 GENERAL SAFETY INSTRUCTIONS

Before starting the machine, please check the machine is in good condition for work and is safe for road use.

In thoroughfare, please observe traffic signs and regulations.

It is forbidden to ride on the machine or climb into the machine when it is running.

Before using the machine, the user must be familiar with all operating elements.

Please be extremely careful when coupling and uncoupling the machine to the tractor.

Please check that the PTO shaft is in good condition and well protected.

Prevent the protective tube from turning by holding both the tube and chain provided for this purpose.

Mount the PTO shaft's transmission only when the tractor's engine is off.

Before connecting the PTO shaft, be sure that the danger zone surrounding the machine is clear.

Never leave the tractor's driver's seat while the machine is in operation.

Do not deposit external elements inside the hopper.

When maintaining the hydraulic system of the seed drill, make sure that it is depressurised and the tractor's engine is off.

Please regularly check the condition of the tubes and hosepipes in the hydraulic system. These parts age naturally and their life should not surpass six years. Please replace when necessary.

When raising the seed drill, the front axle is unloaded. Ensure that the machine has enough load to prevent it overturning. At this time you must ensure that the condition of both the steering and the brakes is optimal.

During transit with the raised seed drill, block the lowering switch. Before leaving the tractor, lower the seed drill onto the ground and remove the tractor's starting key.

Always use enough supporting elements when maintaining the machine in a raised position to prevent the machine from lowering or falling.

### 3.6 LOADING AND UNLOADING INSTRUCTIONS

Use a bridge crane to load and unload the truck. A specifically designed hook, as shown in figure 1, should be used to prevent damage caused by the weight of the machine itself. Tow ropes should be fastened to the machine's tripod as well as to the fasten points situated in the tine coulters' chassis.

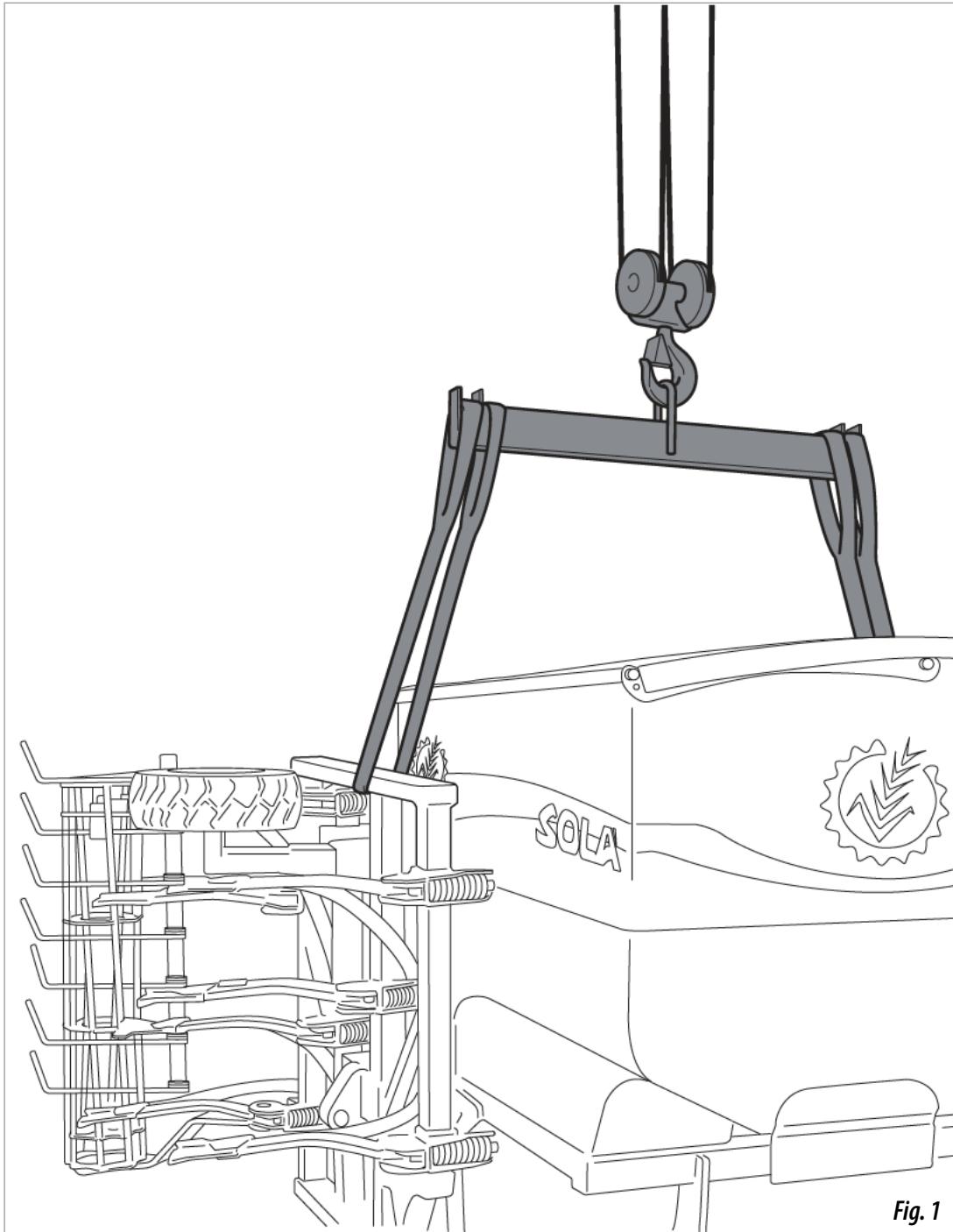


Fig. 1

## 4. ESSENTIAL SOWING CONCEPTS

### 4.1 TERRAIN

The better the soil condition, the better the sowing quality. Work is more difficult on big clods or uneven furrows.

Although SOLÀ machines resist harsh conditions, if the seedbed does not satisfy appropriate conditions then the sowing quality will suffer.

### 4.2 THE SEED

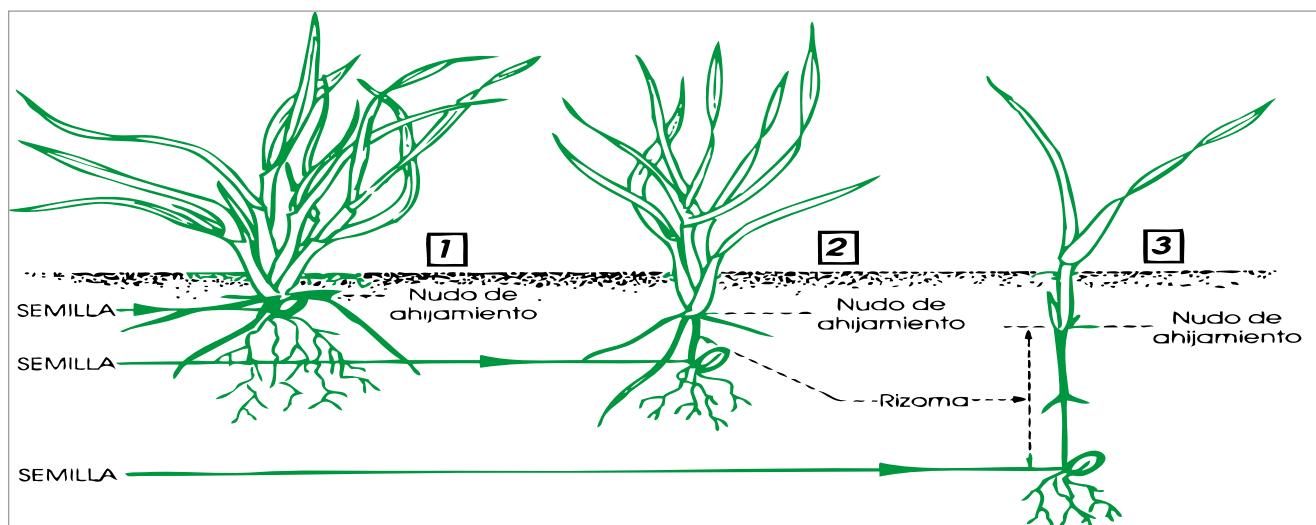
It is essential that seeds are well maintained and clean. Barley seeds should be trimmed.

### 4.3 SEED PLANTING DEPTH

The recommended seed planting depths are from three to five centimetres. Planting too deep causes problems as rhizome cannot reach the surface and the plant will die. It does not matter that some grains are visible because the harrow's tines will cover them eventually.

The seed planting depth has consequences for tillering, as well as for the plant's strength and its ability to resist frostbite or drought. The parent shoot grows from 1 to 2 cm under the ground, whatever the depth of the seed.

Planting deeper does not necessarily mean getting deeper roots. Only a few roots grow from the lower part of the seed. Most of them grow from a parent shoot close to ground level.



#### **Normal Planting Depth: from 2 to 4 cm.**

*Thick stem, short rhizome, resistant to frostbite*

*Multiple tillering providing from 3 to 6 shoots and a lot of blades, from 6 to 10.*

*Deep and thick roots, approximately 5 cm in width and 10-12 cm in depth.*

*With less grains per sowing square metre, more ears are obtained.*

#### **Deeper Planting: from 5 to 6 cm.**

*Fine stem, rhizome exposed to frostbite.*

*Late and weak tillering, 1 or zero shoots and only a few blades, 3-4 approx.*

*Medium quality roots of approximately 3 cm in width and 5 cm in depth*

*More grains per sowing square metre are required to obtain the same number of ears as in the previous case.*

#### **Very deep planting: from 8 to 10 cm.**

*Very fine stem. No tillering and only one blade.*

*Seed runs out of supplies by growing a long rhizome which frostbite can easily cut.*

*The plant takes weak roots, approximately 1 cm in width and 3 cm in depth.*

*Twice the number of grains per sowing metre are required to obtain the same number of ears as in the first case.*



IN VERY COLD PLACES, REPEATED FROSTBITE CAN HAVE A HONEYCOMB EFFECT ON THE GROUND'S MOST SUPERFICIAL LAYER. IN THIS CASE THE PLANT'S VERY FIRST ROOTS CAN LOSEN AND THE PLANT WILL DIE. SLIGHTLY DEEPER PLANTING IS RECOMMENDED AND IF POSSIBLE, THE USE OF ROLLERS TO COMPACT THE EARTH TO BETTER PROTECT THE SEEDS.



IN ALL SOLÀ MACHINES, THE RIGHT SIDE WHEEL ACTIVATES THE SEED DISTRIBUTOR'S MECHANICAL TRANSMISSION. CONSEQUENTLY, SHARP CURVES SHOULD BE PERFORMED TOWARDS THE LEFT SIDE, SINCE USING THE GROUND WHEEL DRIVE WOULD CAUSE A LESSER SEED DISTRIBUTION.



WHEN STARTING THE MACHINE, FURROWS WILL NOT CONTAIN ANY SEEDS FOR A METRE. WHEN STOPPING THE MACHINE, SEEDS WHICH WERE PREVIOUSLY INSIDE THE SEED HOSES, SLIDE FROM THE MACHINE AND END UP PILED ON THE GROUND. TAKE THIS INTO ACCOUNT WHEN STOPPING AND STARTING THE MACHINE IN ORDER TO ACHIEVE MORE ACCURACY.

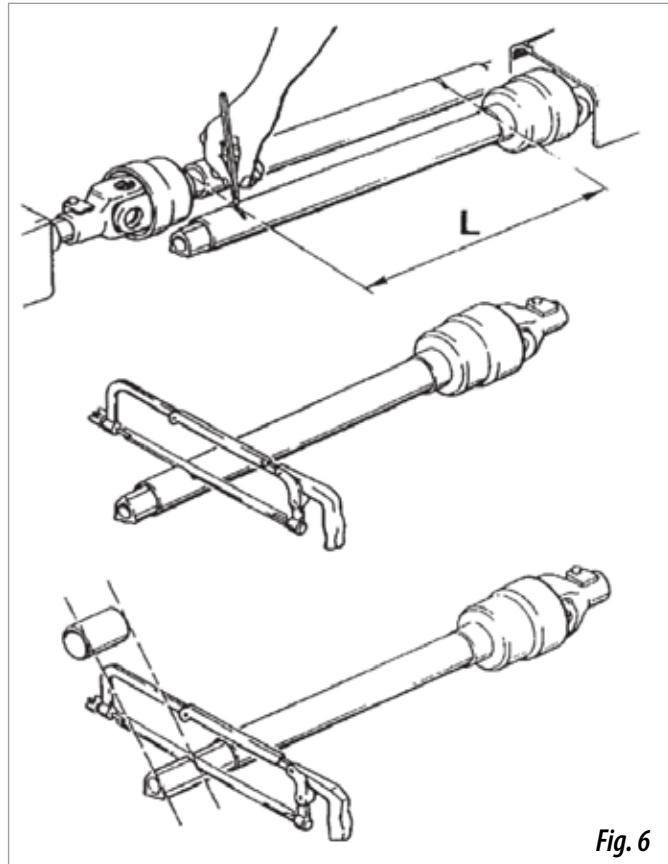
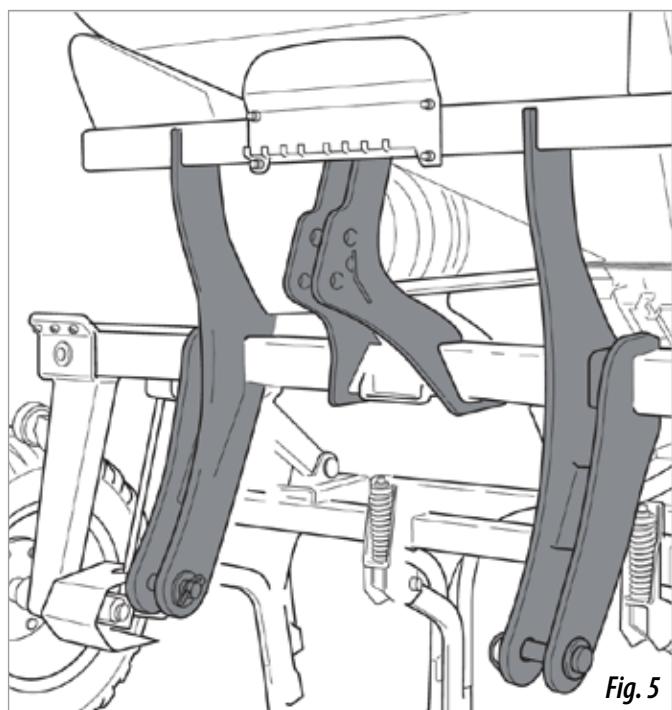


ALWAYS WORK AT A UNIFORM SPEED AS SUDDEN ACCELERATING AND SLOWING DOWN WILL CAUSE AN IRREGULAR SEED DISTRIBUTION.

## 5. STARTING

### 5.1 COUPLING THE SEED DRILL

Seed drill SM-1909 is supplied with a three-point linkage of category 3.



BE ESPECIALLY CAREFUL DURING COUPLING AND UNCOUPLING THE MACHINE.

Once the seed drill is coupled with the tractor, the PTO shaft should be adapted. First dismount and insert one end into the tractor's universal joint shaft and the other end into the seed drill. Look for the minimal movement length "L" (fig. 6) by raising and lowering the hydraulic lift.

Cut the spare plastic and metal into parts of the same length and remount the PTO shaft.

Operate the hydraulic lift and check that the PTO shaft's movement is correct.



WHEN OPERATING THE PTO SHAFT CHECK THAT THE ENGINE IS OFF. ALWAYS WORK WITH THE PTO SHAFT PROTECTED AND IN GOOD CONDITION. PREVENT THE PTO SHAFT'S TUBE FROM TURNING BY SECURING IT WITH THE CHAIN PROVIDED.



WHEN LOWERING THE SEED DRILL TO THE GROUND, UNPLUG THE TRACTOR'S UNIVERSAL JOINT SHAFT SO THAT THE PTO SHAFT DOES NOT HAVE AN EXCESSIVE INCLINATION (MAX. 35°).



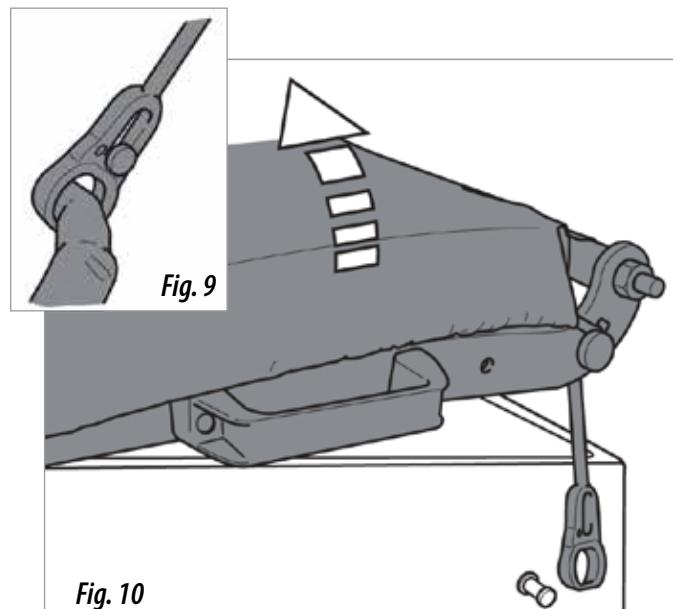
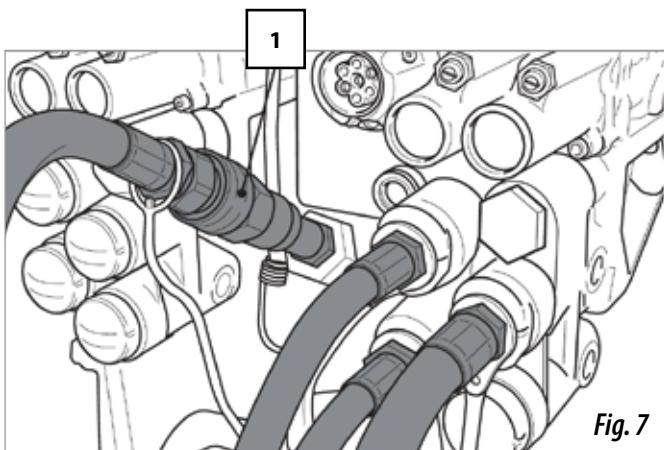
WHEN HOLDING THE TRACTOR UNIVERSAL JOINT SHAFT'S CLUTCH IN, PERFORM IT GENTLY. STARTING SUDDENLY COULD SERIOUSLY DAMAGE THE SEED DRILL.

## 5.2 HYDRAULIC CONNECTIONS

To use the machine's hydraulic connections you will need:

When folding the machine: a double-acting.

If the machine has hydraulic fan: one single-acting and free return line.



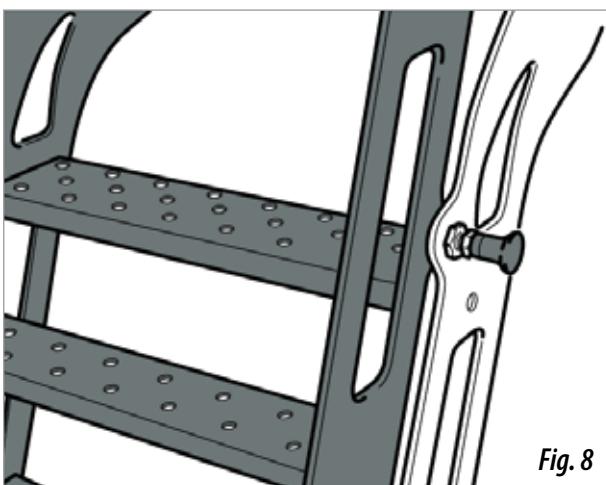
FOR THE FREE RETURN LINE CONNECTION  
USE THE PLUG-ADAPTER PROVIDED (FIG. 7/1)

## 5.3 LOADING THE SEED DRILL

For access to the hopper, the access ladder should be unfolded.

Pull the trigger to free the folding flight to the ground.

To fold, return the folding flight until the safety trigger is secured.

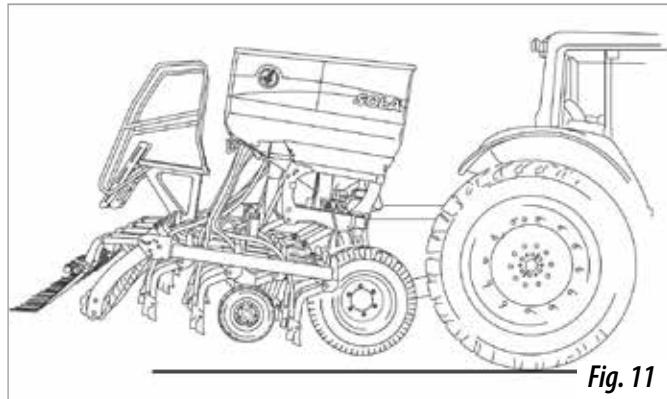


Retirar la goma de sujeción de la lona y replegarla hacia la  
Remove the tension element of the hopper's folding cover  
and fold it over to the left using the handle.

## 5.4 TRANSPORT POSITION

To set up the transport position, follow these steps:

1. Folding the track markers (optional equipment).
2. Raise the machine until tine coulters are detached from the ground.

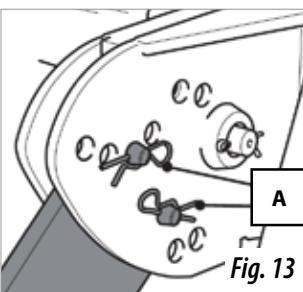


AFTER COUPLING THE MACHINE TO THE TRACTOR, CHECK THE ROAD HOLDING IS CORRECT AND THE STEERING IS WORKING PROPERLY.



PREVENT THE MOBILE ELEMENTS FROM MOVING.

3. Raise folding parts and check that the hydraulic safety trigger (fig. 12) is correctly fastened. This will prevent the folding parts from falling during transit.
4. Place the 2 side rollers' bolts (fig. 13) in the holes to block their movement.

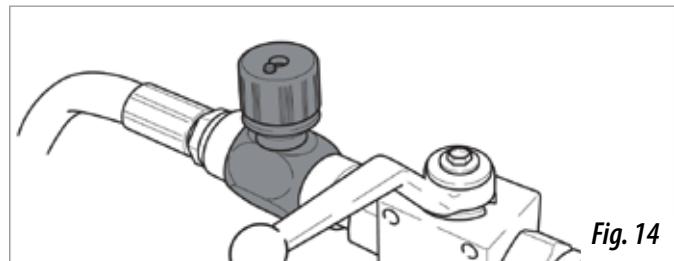


## 5.5 HYDRAULIC SYSTEM

### FLOW REGULATORS

To smoothly hydraulically fold and unfold the seed drill, there are two flow regulators (fig. 14) that perform both actions respectively. They should be adjusted depending on the

hydraulic flow supplied by the tractor. Starting with an almost completely closed flow regulator is recommended to prevent folding too fast, which could damage the seed drill.



NEVER STAND UNDER THE MACHINE'S EXTENSION ARMS OR IN THEIR SWIVEL AREA.

The machine is also provided with hydraulic safety triggers to secure the folding parts during transit. The figure shows the trigger in the safety position.



BEFORE UNFOLDING THE FOLDING PARTS TO START WORK, AS WELL AS AFTER PRESSURISING THE SYSTEM, MAKE SURE THE TRIGGERS HAVE BEEN UNFASTENED.

## 6. DOSAGE

There are two ways of dosing:

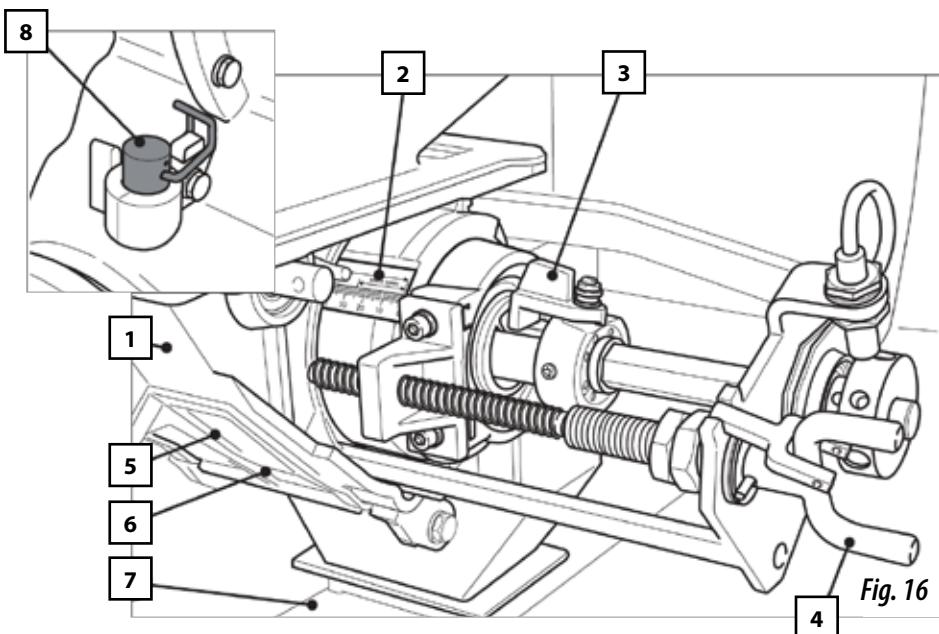
**For regular seeds**

**For fine seeds with minimum flow rate**



WHEN CHANGING THE POSITION BOLT AND THE CLIP PIN OF THE AIR OUTLET TO THE FAN, IT IS ESSENTIAL THAT THE SEED DOSING ROLLER CAN TURN FREELY AND THE HOPPER IS EMPTY.

<b>1.Seed distributor</b>
<b>2.Dosing adjusting scale</b>
<b>3.Bolt</b> N= regular seed F= fine or small seed
<b>4.Spindle</b>
<b>5.Trap-door to empty the hopper and the seed distributor</b>
<b>6.Trap-door to empty the hopper and the seed distributor</b>
<b>7.Venturi injector sluice</b>
<b>8.Clip pin of the air outlet to fan</b> N= regular seed F= fine or small seed



### 6.1 REGULAR SEEDS

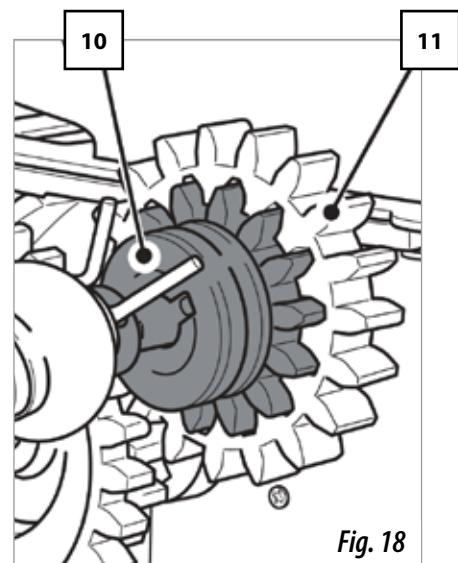
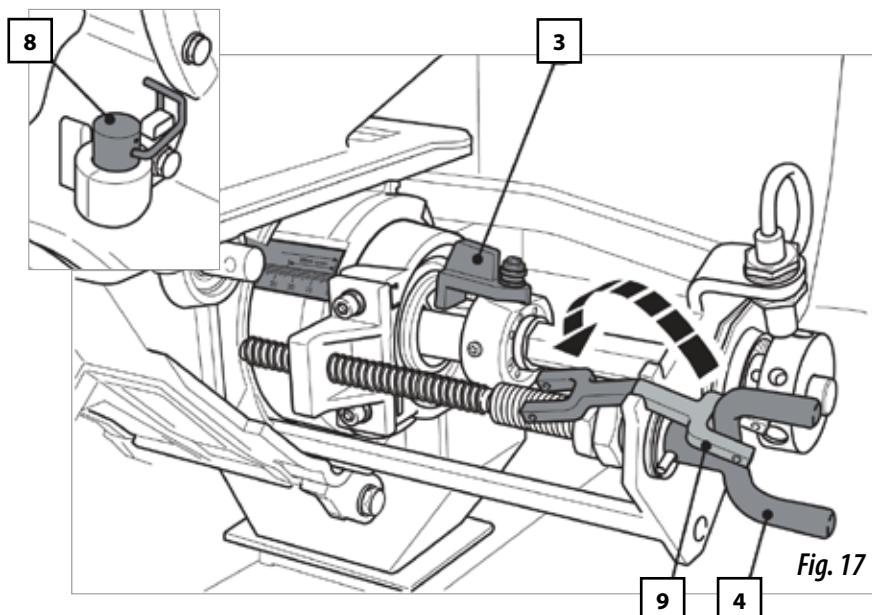
Remove the safety fork (fig. 17/9)

Keep the bolt (fig. 17/3) in the position as indicated in the figure.

Turn the spindle (fig. 17/4) to adjust dosing.

Place the clip pin of the air outlet to fan (fig 17/8) in position N (regular seed)

Pinion gear n°10 must be fit into pinion gear n°11 (fig. 18).



## DOSAGE

### 6.2 FINE SEEDS (microdosing)

Remove the safety fork (fig. 19/9).

Turn the spindle (nº4, fig. 19) to position 0 on the scale (fig. 19/4).

Place the clip pin of the air outlet to fan (fig 19/8) in position F (fine seed).

Turn the spindle (fig. 19/4) to adjust dosing between 0 and 25.

Turn the bolt (fig. 19/3) until it is inserted into axle slot.

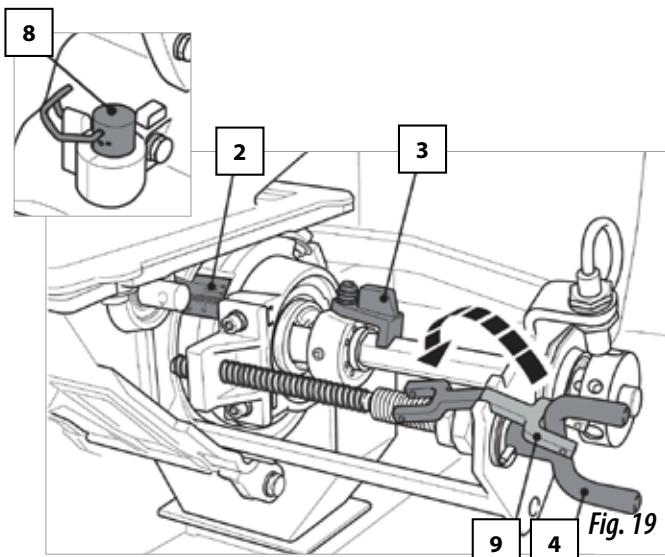


Fig. 19



WHEN MICRODOSING FINE SEEDS, DO NOT EXCEED NUMBER 25 IN ADJUSTING SCALE (FIG 19/2)

The aim of microdosing is to better distribute both fine and regular seeds in small numbers.

#### Micro position

Pull the pinion gear n°10 until it is released from the pinion gear n°11 and fit it into pinion gear n°12 (fig. 20).

The correct value for using microdosing M-system in fine seeds can be found in the dosing tables (see section).



CHECK THE CLEANING BRUSH IS IN GOOD CONDITION BEFORE BEGINNING TO SOW FINE SEEDS.

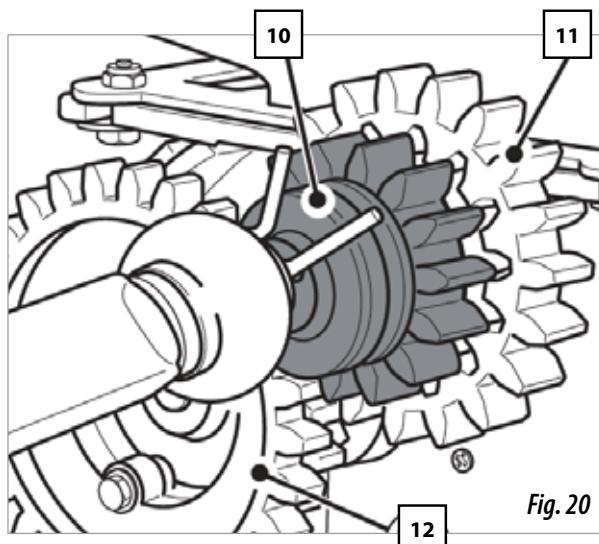


Fig. 20

### 6.3 PREVIOUS FLOW TEST



YOU MUST TURN THE WHEEL UNIFORMLY USING THE CRANK AT APPROXIMATELY ONE REVOLUTION PER SECOND, DEPENDING ON THE LAND'S CHARACTERISTICS, TYRE'S MANUFACTURER OR TYRE PRESSURE. IT IS HIGHLY RECOMMENDED TO PERFORM A FIELD TEST AS DESCRIBED IN THIS MANUAL.



IT IS DANGEROUS TO TURN THE WHEEL WITH YOUR HANDS AS THE MUD SCRAPER CAN CAUSE INJURIES.

Accurately weigh the collected seeds.

At a selected opening, you can obtain the kilograms per hectare distributed by the machine, by multiplying the weight by 40.

For ease of performing these operations the machine should be coupled to the tractor in a slightly elevated position (wheels should not be in contact with the ground). It is also necessary that the hopper is only half-filled with seeds to alleviate difficulty in turning the wheel with the crank.

If seeds show excess treatment powder, flow can be reduced, consequently a second control is recommended after sowing approximately three hoppers.

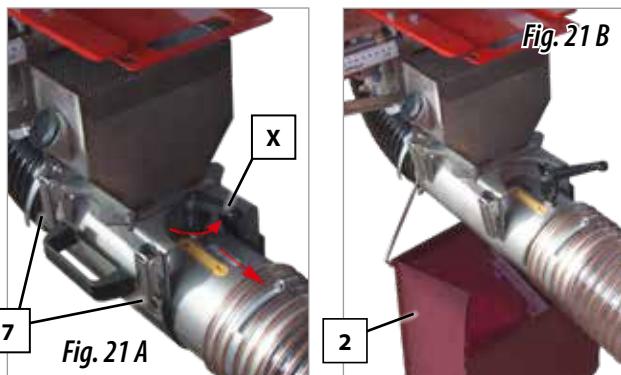
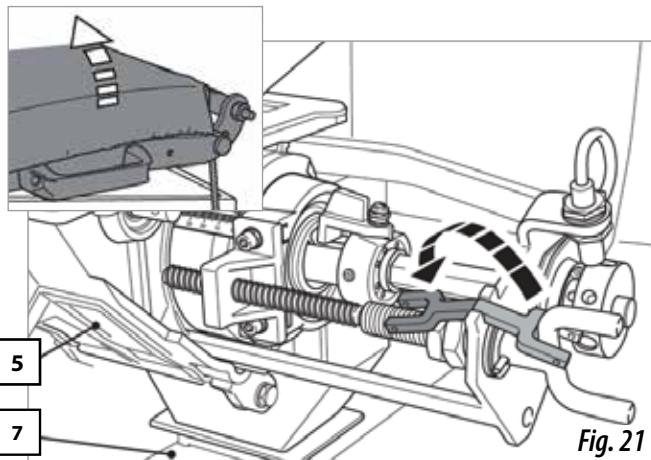


TO PERFORM THE PREVIOUS FLOW TEST IT IS ESSENTIAL THAT THE MACHINE, THE TRACTOR AND THE UNIVERSAL JOINT SHAFT ARE ALL SWITCHED OFF.

Close the trap-door (fig. 21/5)

Open the hopper's folding cover (fig. 21) and fill the hopper with seeds.

Open the lower trap-door (fig. 21/7)



Turn the handle for unblock him (X, Fig. 21 A) and move it to position "NO" (Test position).

Place a sack or a container under the exit of the venturi injector sluice which has previously been opened.

Place the crank in the right wheel of the seed drill and turn it clockwise as many times as indicated below.

TYPE MACHINE	ROUE 340/55-16
SM 400/25	26,5 tours
SM 450/29	23,5 tours
SM 500/31	21 tours
SM 600/37	17,6 tours

**WHEN YOU END THE TEST, CLOSE THE COVER OF VENTURI INJECTOR, MOVE HANDLE IN POSITION "OK" AND LOCK IT.**



## 6.4 COMPLEMENTARY DOSING TESTS

### 1- Test to determine the number of wheel turns.

If differences exist between the test and the actual dose distribution (due to a very uneven or light soil, low pressurised tyres, etc.), an experimental test can be performed.

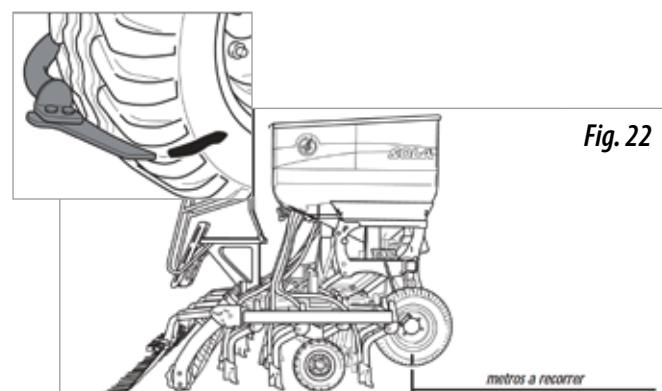
First of all, the distance (in metres) as shown in the table below should be marked on the field's ground using a tape measure:

WORKING WIDTH	METRES TO COVER
SM 400	62,5
SM 450	55,6
SM 500	50,0
SM 600	41,7

Next, the seed drill in working position should cover that distance.

By means of a mark made previously on the tyre, count the number of turns performed in the covered distance. A good place whereby which to count could be the wheel's mud scraper.

By following these steps we can obtain the actual number of turns performed in the seed dosing test. By performing the test, we will know the actual kilograms per hectare distributed by the machine.



### 2- Seed dosing adjustments.

When using high quality certified seeds it is not enough to know the weight in kilograms distributed by the machine, as the final result of the harvest will depend on the number of plants which eventually ripen.

## DOSAGE

Every plant requires a certain amount of land from which nutrients will be absorbed. Therefore, both a low or an excessive plant density can be detrimental. To determine how many kilograms per hectare are to be sown, you should know the number of plants per square metre that are going to be planted. As a guidance, the recommended number of plants per square metre when sowing wheat or barley in un-irrigated land can be found in following table:

AUTUMN	SPRING
Premature sowing, 200 plants per m <sup>2</sup>	Premature sowing, 310 plants per m <sup>2</sup>
Late sowing: 265 plants per m <sup>2</sup>	Late sowing: 445 plants per m <sup>2</sup>

Please note that in spring there is less tillering so more seeds should be sown.



MAQUINARIA AGRÍCOLA SOLÁ, S.L. RECOMMENDS THAT THE FARMER SEEKS PROFESSIONAL ADVICE ABOUT THIS SUBJECT FROM A TECHNICAL SOWING CENTRE



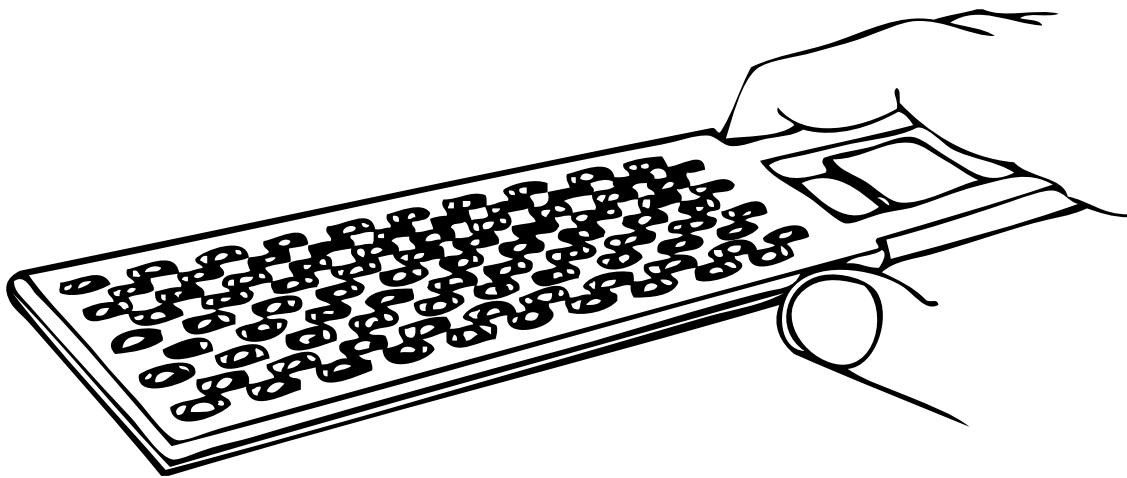
SEED DOSING SHOULD BE ADJUSTED TO EACH TERRAIN, DEPENDING ON THE: TEXTURE, FERTILIZING LEVEL, PLUVIOMETER RESULTS AND SOWING SEASON, GRAIN QUALITY, GERMINATING AND TILLERING POWER, ETC

It should be taken into account that a seed's germinating power is variable and dependant on multiple factors. It can be experimentally calculated to be between 70% and 80%, which is practically equivalent to multiplying the number of grains to be sown by 1,43 or 1,25 respectively.

Next, we describe a practical method to determine the number of kilos per hectare to be distributed once we know how many plants per square metre we want to obtain.

**1-** Place seeds on the "seed counter" (fig. 23)

Wipe seed counter with your hand to make sure that there is only one grain per slot (100 grains in total). Do the same 10 more times to obtain 1000 grains



**2-** Weigh 1000 grains with the precision scales. We call the result the OPERATIVE WEIGHT

**3-** Once we know how many seeds per square metre we are going to sow, we should adjust the following kilograms per hectare in the dosing control:

$$\text{Kilograms per hectare} = (\text{grains per m}^2 \times \text{OPERATIVE WEIGHT}) / 100$$

## 7. ADJUSTING SEED PLANTING DEPTH



SEED DRILL SHOULD ALWAYS WORK HORIZONTALLY, WITH BOTH THE REAR AND FRONTAL TINE COULTERS EQUALLY PENETRATING THE LAND.



**VERY IMPORTANT:** THE TRACTOR'S CONTROLLER THAT MOVES THE FOLDING PARTS' CYLINDER MUST BE IN FLOTATION MODE, TO BETTER ADAPT TO THE GROUND.

### 7.1 ADJUSTING RATCHETS AND SPINDLES

There are two ratchets in the machine's central body and two spindles in the side wheels. All of them have an adjusting scale to indicate their position. Their adjustment positions in the respective scales should be the same.

After adjustments, the control lever of the ratchet should be pulled back towards the inner part of the machine.



WHEN SOWING ON TILLED OR NON-COMPACT GROUND, TAKE THE PRECAUTION OF SELECTING ONE OR TWO POINTS LOWER IN THE ADJUSTING SCALE ON THE SIDE WHEELS IN ORDER TO AVOID SINKING INTO THE GROUND.

To adjust the side wheels, use the crank provided (1, fig. 25).

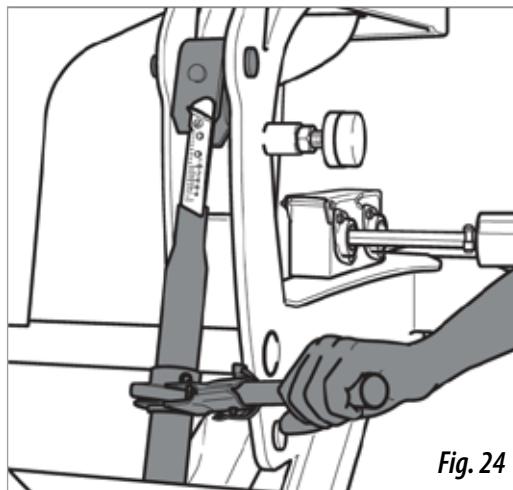


Fig. 24

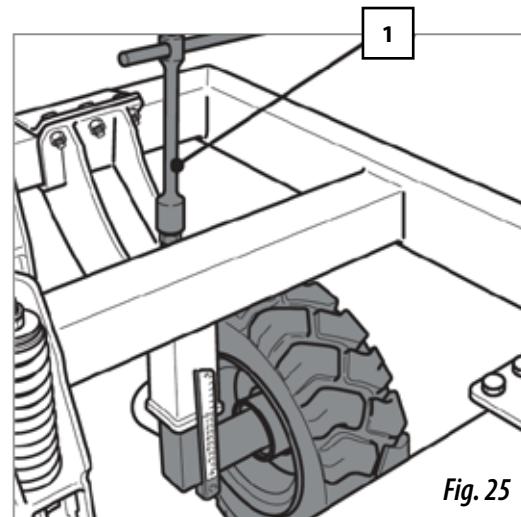
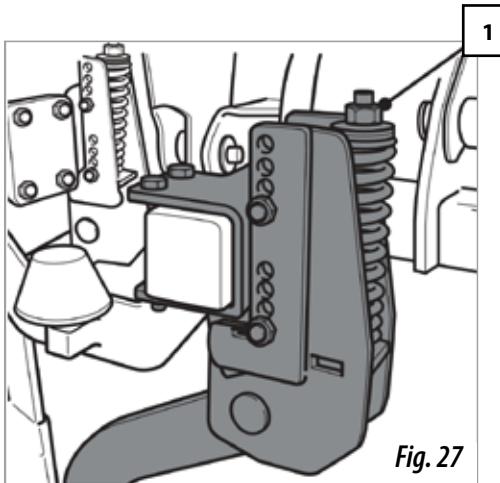


Fig. 25

## 7.2 HEIGHT-ADJUSTABLE TINE COULTERS

Tine coulters which are aligned with both the tractor's wheels and the seed drill, have an adjustable height by means of a slide with holes which allows them to be lowered up to 7 cm. This allows to compensate the track mark effect and to achieve a more uniform seed planting depth. Pressure performed by the tine coulters can be adjusted by using the nut on top of the spring (fig. 27/1)



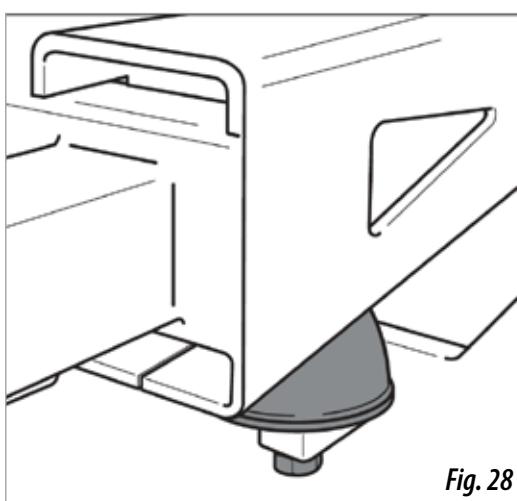
EXCESSIVE LOOSENING OF THE NUT COULD CAUSE THE SPRING TO JUMP OUT DANGEROUSLY DUE TO PRELOADING.

## 7.3 INCLINATION OF THE FOLDING PARTS

At the connection point between the folding parts and the central chassis, there are adjustable stops (two each side) which allow the folding parts' inclination angle to change.

During normal sowing conditions, the folding parts should be slightly lower than usual to adapt to terrain irregularities.

In very tilled or loose land, as well as in soils with high humidity, the folding parts should be levelled to stay horizontal.



## 7.4 ADJUSTING THE ROLLER

The arms that support each roller have two bolts to perform the following adjustments:

- a. By using the upper bolt (nº1, fig. 29), the depth of the tine coulters equipment can be adjusted and therefore the pressure on the ground can be controlled.
- b. By using the lower bolt (nº2, fig 29), the roller's penetration into the ground can be controlled and the roller can also be secured ready for transit..

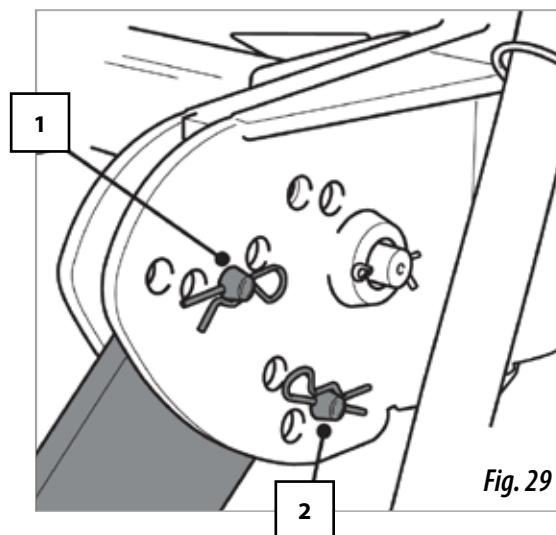


Fig. 29



WHEN USING PNEUMATIC MACHINES, THE AIR PRESSURE ALONG WITH ABSENCE OF STOPS IN THE TINE COULTERS' SOWING SHOES WILL CAUSE A GREATER PLANTING DEPTH THAN ACHIEVED USING CONVENTIONAL MACHINES. AFTER SOME MINUTES WORKING, CHECK THAT THE PLANTING DEPTH IS ADEQUATE.

## 8. TYPES OF DISTRIBUTION

### 8.1 SEED DISTRIBUTION BY MECHANICAL FAN

To ensure that seeds are supplied to the tine coulters' sowing shoes, it is essential that the fan speed is between 4200 and 4500 rpm. For this purpose, the PTO shaft must be plugged into the 1000 rpm vent. If the turning speed is lower than some seeds are likely to remain in the seed hoses.

Before the wheel controlling the distributor's transmission starts turning, please ensure that the fan's turning speed is between 4200 and 4500 rpm. When raising the machine, never decrease the fan's turning speed until the wheel is detached from the ground.

Please note that if you work with the machine while the fan is off, seeds will block the collecting pipe of the venturi injector sluice. In case this happens, the collector should be taken out and emptied before using the seed drill again.



IF THE FAN'S TURNING SPEED IS ABOVE OR BELOW 4200 AND 4500 RPM, THEN TURNING THE WHEEL THAT CONTROLS THE DISTRIBUTOR'S TRANSMISSION CAN CAUSE A BLOCKAGE INSIDE THE SEED HOSES.

### 8.2 SEED DISTRIBUTION BY HYDRAULIC FAN

MACHINE TYPE	HYDRAULIC MOTOR		OIL SUPPLY		
	Absorbing capacity (cm³)	Speed (rpm)	Minimum output pressure (bars)	Maximum return pressure (bars)	Oilflow (L/min)
400/450	8	4.200	130	1,5	36
500/600	8	4.500	160	1,5	40

#### CONNECTIONS

Connect the fan's small hydraulic hose line to a pressurised tractor control unit.

The fan's 1/2" hydraulic hose line should be connected to a depressurised return tractor control unit.



IN THE RETURN LINE THE PRESSURE MUST BE A MAXIMUM OF 1,5 BAR. A HIGHER PRESSURE CAN CAUSE DAMAGE TO THE TRACTOR'S MOTOR.

#### ADJUSTMENT

The fan's rpm is adjusted by regulating the tractor control unit.

The fan's turning speed must be adjusted to 4200 rpm or to 4500 rpm as shown in table above.



IF OIL IS OVERHEATED DUE TO AN EXCESSIVE FLOW OR DUE TO LOW OIL SUPPLY, THEN AN ADDITIONAL OIL TANK WILL BE REQUIRED.



IF THE FLOW OF THE TRACTOR'S HYDRAULIC PUMP IS NOT HIGH ENOUGH IT WILL NOT BE ABLE TO POWER THE FAN'S MOTOR OR ACTIVATE THE OTHER ELEMENTS REQUIRED. IN THIS CASE AUXILIARY EQUIPMENT CONSISTING OF A HYDRAULIC PUMP FITTED ON THE TRACTOR'S UNIVERSAL JOINT SHAFT THAT DRIVES THE FAN'S HYDRAULIC MOTOR AS WELL AS A REFRIGERATED OIL TANK WILL BE REQUIRED.

## 9. OPTIONAL EQUIPMENT

### 9.1 HARROW

Some adjustments can be performed on the harrow so that it can adapt to all types of ground :

- 1- Height adjustment, by operating the lower nut (fig 30/1)
- 2- Pressure adjustment, by using the spindle's upper nut (fig 30/2)
- 3- Tines's inclination, by operating the slide (fig 30/7) which holds the tines' chassis

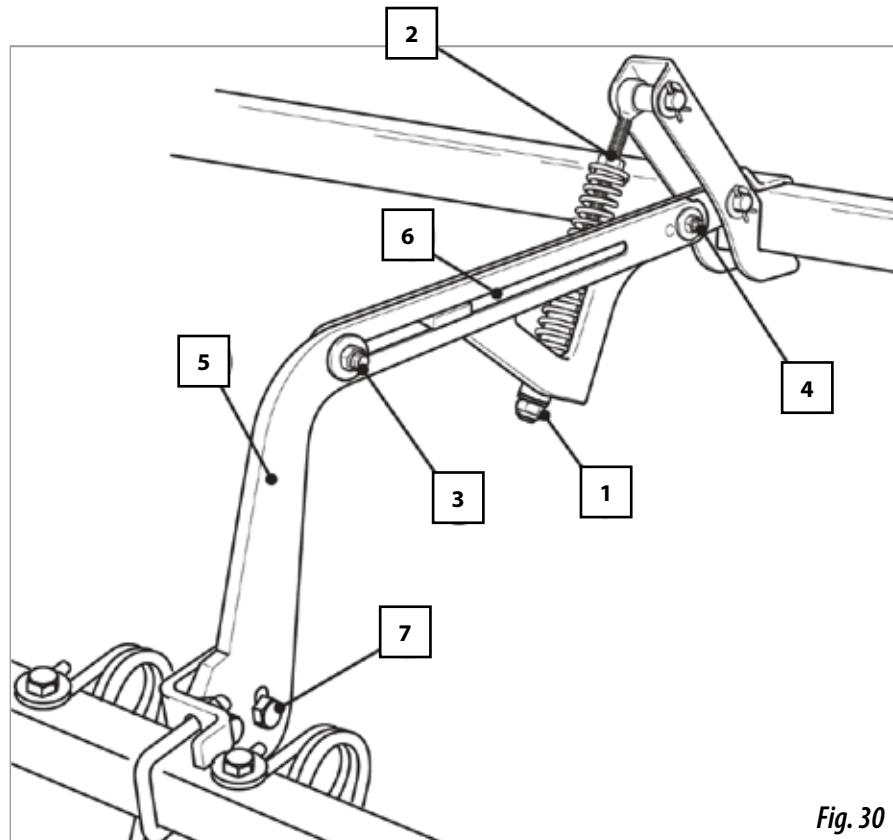


Fig. 30

If you raise the roller so that it becomes inactive, the harrow must be recoiled by following these instructions :

- Loosen the nut (fig. 30/3)
- Take out both the screw and the nut (fig. 30/4)
- Pull back the bar (fig. 30/5) and place both the screw and the nut in the hole that is in the middle of the bar (fig. 30/6).

## 9.2 HYDRAULIC TRACK MARKERS

Track markers should be assembled in the sides of the folding parts. They are hydraulic and should be connected to tractor control unit. It is essential to fold the track markers before folding the machine for transit.

Track discs can be orientated to achieve the correct penetration angle and their supporters are extensible in order to be correctly adjusted.



**PLEASE NOTE:** PERFORM THE CALCULATION USING MEASUREMENTS IN CENTIMETRES.



IT IS NOT RECOMMENDED TO INCLINE THE TRACK DISCS TOO MUCH THUS PREVENTING SERIOUS DAMAGE TO THE MACHINE.



HIGH PRESSURE OIL MAY ESCAPE, PASS THROUGH THE SKIN AND INGRESS INTO THE BODY, CAUSING SERIOUS INJURIES. KEEP HYDRAULIC HOSE LINES IN GOOD CONDITION.



NEVER STAND UNDER THE TRACK DISCS OR WITHIN THEIR OPERATIONAL AREA.

## 9.2.1 Adjusting track marker's LENGTH

To calculate the horizontal spacing between track discs and the last lateral tine coulter, use following formula:

$$B = \frac{A \times (\text{number of tine coulters} + 1) - C}{2}$$

**A**= distance between tine coulters

**B**= horizontal distance between track disc and the the last lateral tine coulter.

**C**= track width of the tractor.



PERFORM THE CALCULATION USING MEASUREMENTS IN CENTIMETRES.

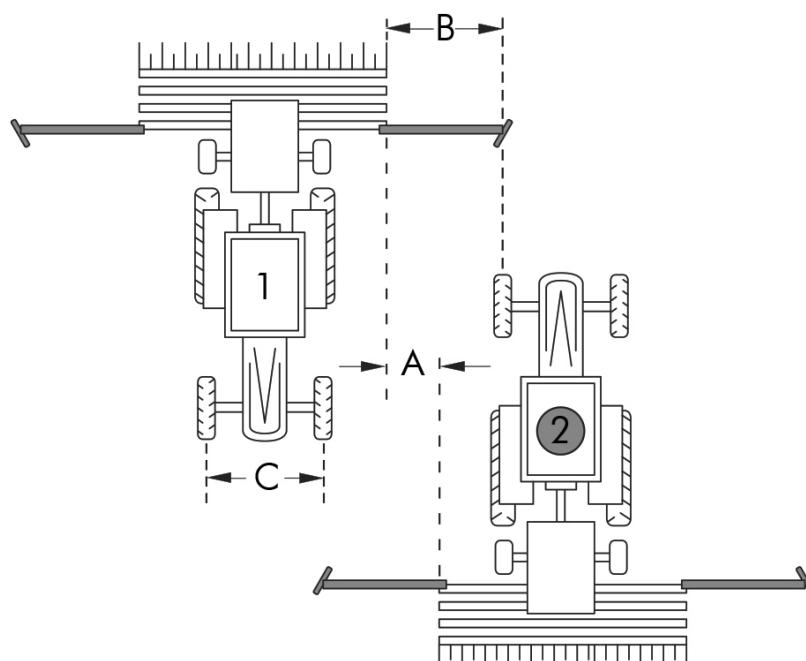


Fig. 31

To adjust the distance of the track disc, proceed as following:

- 1- Loosen the 2 nuts (1, fig. 33).
- 2- Place track disc at the distance B previously calculated.



**B**= DISTANCE BETWEEN THE TRACK DISC AND THE LAST LATERAL TINE COULTER.

- 3- Tight the 2 nuts (1, fig. 33) after finishing these operations.

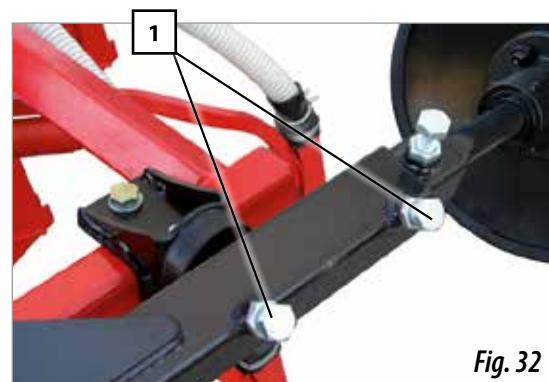


Fig. 32

## 10. ELECTRONICAL CONTROLLER

### 10.1 FRONT PANEL DESCRIPTION

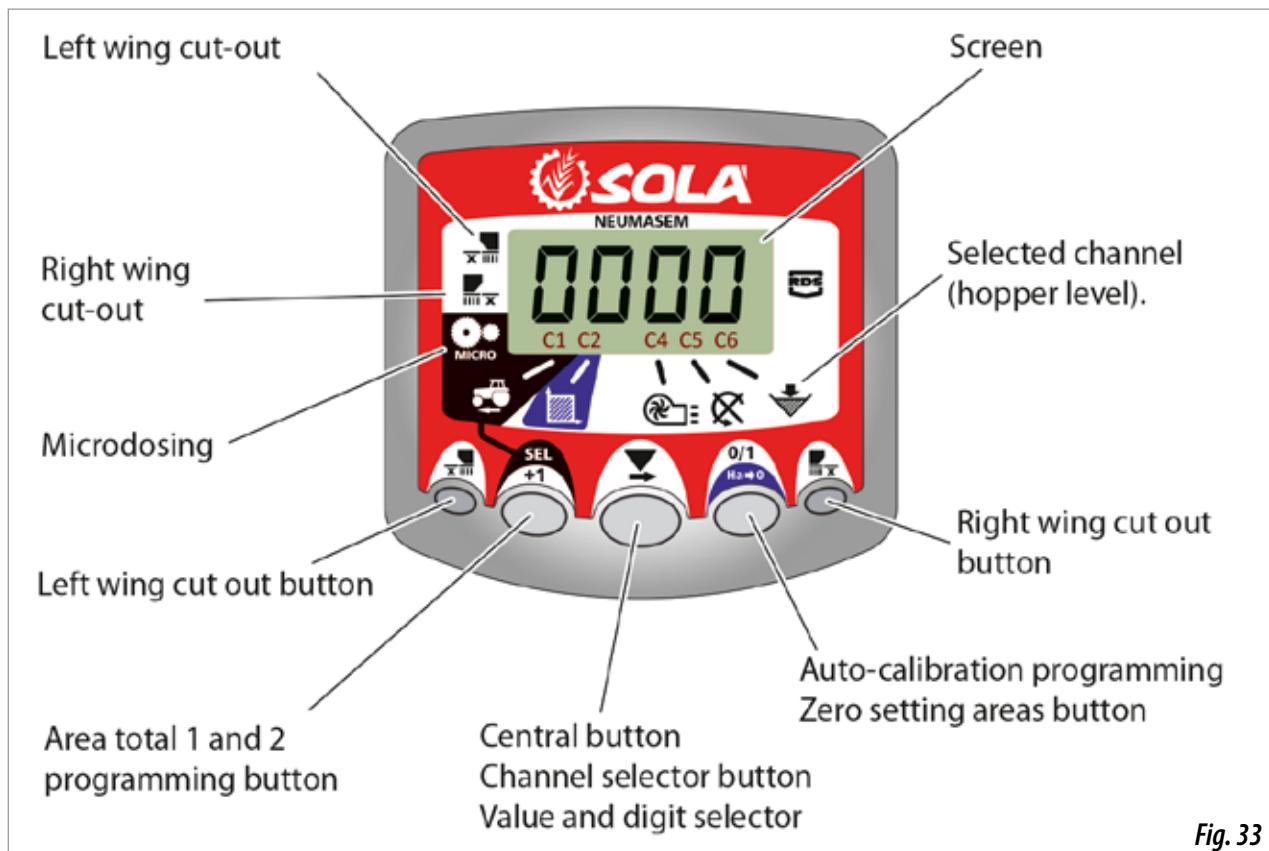


Fig. 33

The monitor provided comes programmed especially for your model of seed drill. The user will only need to observe the displayed values and no extra programming is required.

The monitor shows 6 different channels or readings, as well as 3 different arrows showing the states.

**C1** shows forward speed in m/sec.

**C2** shows two different hectares (for example on partial and one total hectare).

**C3** not in use.

**C4** shows the fan's rpm.

**C5** shows the turning speed of the distributor's axle's in rpm.

**C6** shows if the hopper's seed level is too low.

By default the forward movement speed is displayed on the monitor. When some abnormal readings are shown, the screen will display "Alarm" intermittently, the alarm will sound and the corresponding malfunction channel will be activated. The alarm will not stop until the malfunction is fixed.

To display a desired reading, press the central button and scroll to the required channel. After 10 seconds, the reading will change back to C1 again.

### 10.2 FORWARD SPEED – C1

Select a channel by using the central button. The alarm is activated when the speed is under 2.6 km/h and can be turned off using programming mode 2.

#### Calibrating the speed sensor

Theoretical calibration is achieved by entering a calibration factor in programming mode 2, as indicated in the following table.

MODEL	4M	4.5M	5M	6M
CALIBRATION FACTOR	1,818	1,574	1,449	1,258

#### Selecting speed channel (C1)

1- Press to switch to mode 1. While holding the button, press the central button to modify the digit.

2- Hold the central button for some seconds to modify the flickering digit.

3- When the buttons are released, the monitor will return to its normal state.



**PLEASE NOTE:** THE IMPULSE NUMBER AUTO-CALIBRATION MODE IS MORE ACCURATE AND A FIELD TEST PERFORMANCE IS REQUIRED.

### Auto-calibrating the speed sensor

- 1- Mark 100 metres.
- 2- Select channel 1 (speed).
- 3- Press and hold it while pressing . The screen will display "Auto". Release it.
- 4- Cover the 100 marked metres. The monitor will count the sensor's impulses.
- 5- After finishing, press again. By doing this, the monitor retains the impulse number in the memory.

### 10.3 TOTAL AREA / SEED DRILL WIDTH – C2

Two independent total areas can be marked.

#### Displaying the total area

- 1- Select channel 2.
- 2- Press to display total areas 1 and 2 on the screen. First, "tot. 1" will be displayed and immediately afterwards the value in Ha will be shown.

#### Setting to zero the total areas

- 1- Select channel 2.
- 2- Press to display.
- 3- Press and hold for more than 5 seconds..

#### Programming the working width

- 1- Select channel 2 of the area.
- 2- Press and hold for more than 5 seconds until the width value is displayed and, without releasing it, press the central button to modify the flickering digit.
- 3- Press and hold the flickering digit for more than 5 seconds to modify its value.
- 4- Release all buttons to return to the normal state.

### Working in micro mode

When working with the distributor in the micro-dosing mode (for small hoppers and minimal doses), press and hold button for more than 3 seconds until the arrow indicating the micro mode is displayed. In this situation, the monitor will keep the speed and actual real working area.

Press and hold for more than 5 seconds until the indicating arrow disappears to resume normal position.

### 10.4 FRONT PANEL WITH MARKER PATHS (OPTIONAL)

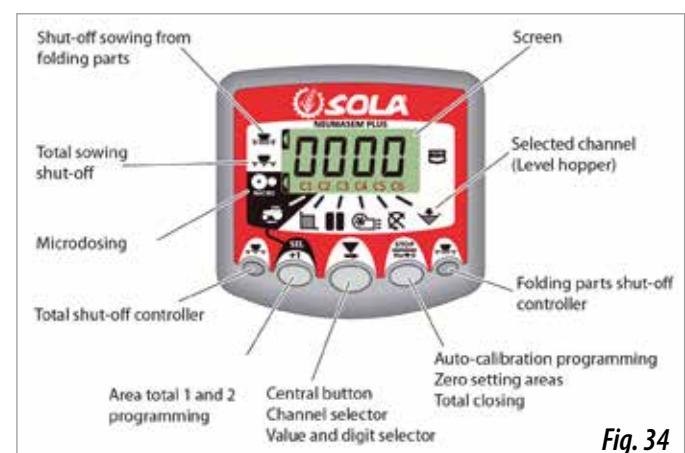


Fig. 34

The monitor provided comes programmed especially for your model of seed drill. The user will only need to observe the displayed values and no extra programming is required.

The monitor shows 6 different channels or readings, as well as 3 different arrows showing the states.

- C1** shows forward speed in m/sec.
- C2** shows two different hectares (for example on partial and one total hectare).
- C3** tramlining.
- C4** shows the fan's rpm.
- C5** shows the turning speed of the distributor's axle's in rpm.
- C6** shows if the hopper's seed level is too low.

### 10.4.1 TRAMLINING - C3

The displays defaults to the  channels after 10 seconds (unless the Area Total was selected).

There are five systems of tramlining - symmetric, asymmetric left, asymmetric right, 10 bout and 18 bout. The tramline bout is programmable from 1 to 15 in symmetric, asymmetric left and asymmetric right sequences.

Selection of asymmetric tramlining is denoted by a decimal point on the display between the current bout number on the left and the tramline bout number on the right. Left or right asymmetric tramlining is selected in the programming mode.

#### Manually advance the bout number

Press  to advance the current bout number by 1.



#### Hold the bout number

Press  to "hold" the current bout when the drill goes out of work.

The display will flash 'STOP'.

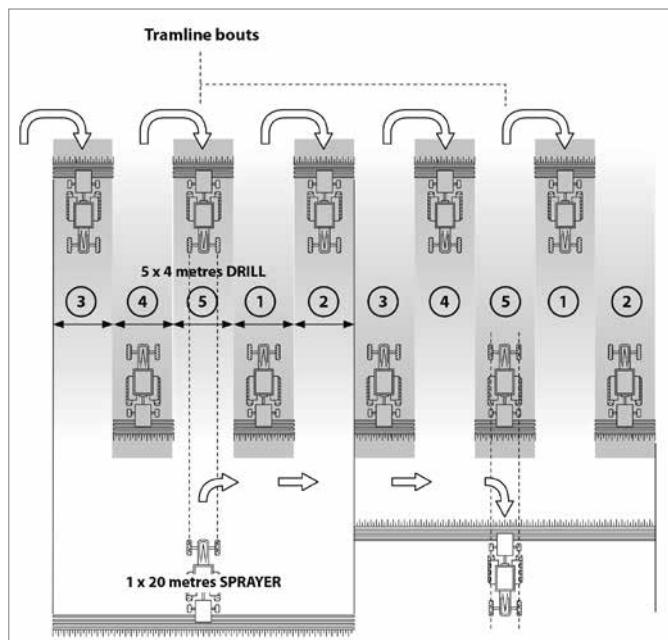
Press  again to resume the normal bout sequence.



#### Symmetric Tramlining Sequence

2+2 seed spouts are closed during the tramline bout only.

The instrument will beep once the beginning of the tramline bout, and the display will continue flashing for the duration of the bout.

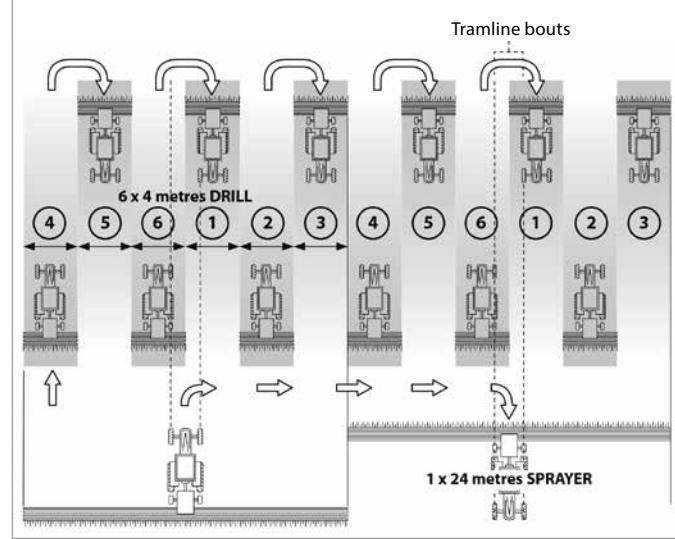
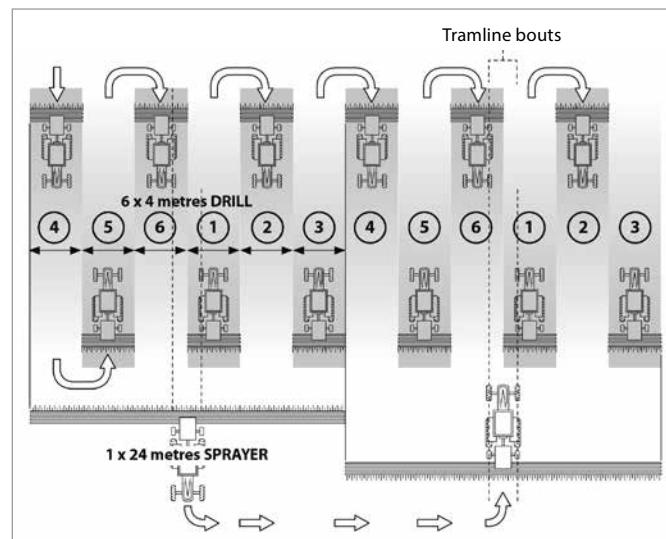


**Asymmetric Left Tramlining Sequence**

Two seed spouts are closed on the left hand side of the drill on the tramline bouts. The instrument will beep once the beginning of each tramline bout, and the display will continue flashing for the duration of the bout.

**Asymmetric Right Tramlining Sequence**

Two seed spouts are closed on the right hand side of the drill on the tramline bouts. The instrument will beep once the beginning of each tramline bout, and the display will continue flashing for the duration of the bout.



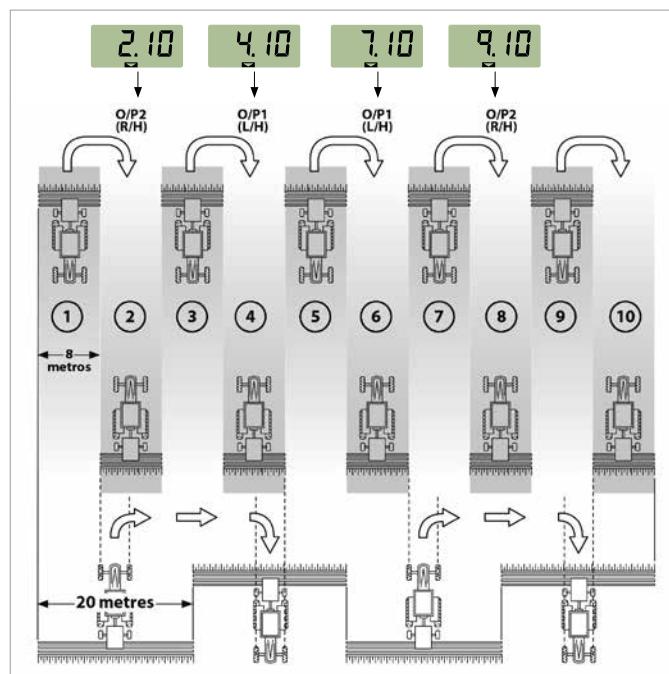
## ELECTRONICAL CONTROLLER

### 10 Bout Tramlining Sequence

For use with 4 metre drill/10 metre sprayer, or 8 metre drill/20 metre sprayer combinations. (2 x 2 left hand seed spouts are closed on bouts 4 and 7, and 2 x 2 right hand seed spouts closed on bouts 2 and 9). Starting on bout 1 requieres turning RIGHT at the end of the first bout.



**NOTE:** TO TURN LEFT AT THE END OF THE FIRST BOUT, ADVANCE THE BOUT NUMBER TO 6 BEFORE COMMENCING DRILLING.



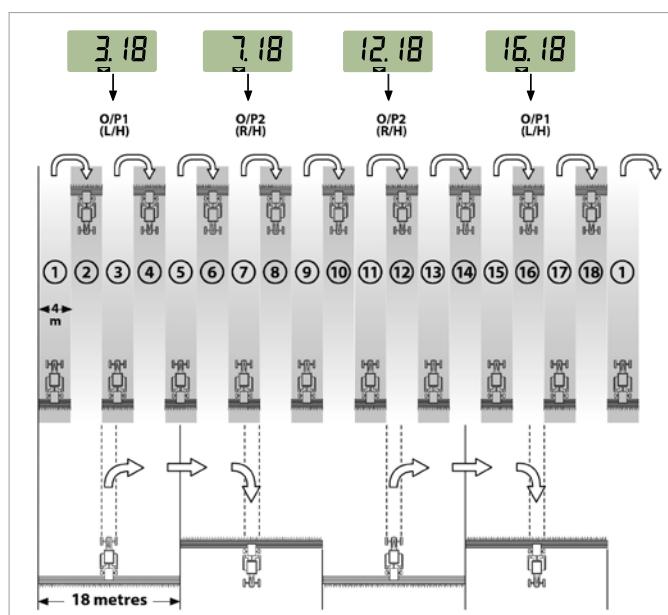
### 18 Bout Tramlining Sequence

For use with 4 metre drill and an 18 metre sprayer. (2 x 2 left hand seed spouts are closed on bouts 3 and 16, and 2 x 2 right hand seed spouts closed on bouts 7 and 12). Starting on bout 1 requieres turning RIGHT at the end of the first bout.



**NOTE:** TO TURN LEFT AT THE END OF THE FIRST BOUT, ADVANCE THE BOUT NUMBER TO 10 BEFORE COMMENCING DRILLING.

The instrument will beep once the beginning of each tramline bout and the display will flash for the duration of the tramline bout.



### Selecting the Tramline Sequence

1- Select the channel.

2- Hold to enter programme mode 1.

After 5 seconds the first two digits flash, indicating the tramline sequence currently set:

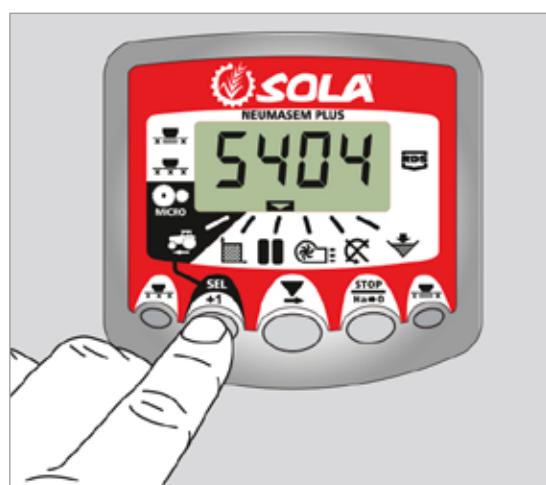
'SY' = Symmetric

'AL' = Asymmetric Left

'AR' = Asymmetric Right

'AS' = Special Asymmetric sequence e.g. 10 bout and 18 bout.

3- Continue holding the button and press and HOLD the button to select the required sequence.



### Setting the Tramline Bout

- 1-** PRESS and RELEASE the  button to toggle between the tramline sequence and tramline bout number display.

The 3rd and 4th digits flash indicating the tramline bout number currently set.

- 2-** PRESS and RELEASE the  button to cycle the tramline bout from 1 to 15.



### 10.5 FAN RPM / FAN ALARMS – C4

#### To display the fan's speed in rpm

Select channel 4 using the central button .

#### Fan alarms

The fan's minimum turning speed can be programmed. Under 2 Km/h these alarms will deactivate.

#### Fan's minimum speed

- 1-** Select channel 4.

- 2-** Press and hold  button for more than 5 seconds.

- 3-** Hold it and press the  to change value and digits as explained in former cases. Default speed is 3800 rpm.

- 4-** Release all buttons to resume the normal position.

Selecting the fan's number of impulses per revolution (default value is set to 2).

**PLEASE NOTE:** FAN'S NUMBER OF IMPULSES PER REVOLUTION SHOULD ALWAYS BE 2. ONLY USE THIS PROGRAMMING MODE IN CASE OF MALFUNCTION.

- 1-** TO SELECT PROGRAMMING MODE 2, PRESS  (MONITOR NEUMASEM) OR  (MONITOR NEUMASEM PLUS) BUTTON WHILE SWITCHING ON THE SCREEN USING REAR SWITCH.

- 2-** PRESS  (MONITOR NEUMASEM) OR  (MONITOR NEUMASEM PLUS) TO CHANGE THE CHANNEL AND SELECT CHANNEL 4 (FAN).

- 3-** PRESS AND HOLD THE  TO MODIFY THE FLICKERING DIGIT (IT SHOULD ALWAYS BE 2).
- 4-** RELEASE THE BUTTON TO CHANGE BACK TO NORMAL POSITION.

### 10.6 SEED SHAFT RPM – C5

Select channel 5 using the central button .

40 seconds after the seed shaft stops turning, an alarm beeps 5 times consecutively. If it remains still, this alarm will repeat every 30 seconds.

To turn off the beeping, switch off the screen and switch it on again. This alarm will deactivate under 2 Km/h.

The seed shaft's alarm can be deactivated by pressing the

 button for more than 5 seconds on the selected channel. The screen will display "Off". In this situation the alarm will not be activated even if the screen is switched off and on again.

### 10.7 HOPPER LOW LEVEL ALARM – C6

When the seed level is below the sensor, an alarm is activated and beeps 5 times consecutively. In this case the screen will display «ALA».

#### Activate and deactivate hopper level alarm

- 1-** Select channel 6 using the central button .

- 2-** Press and hold  button and...

- 3-** Press the central button to select "0" (alarm is off) or "1" (alarm is on).

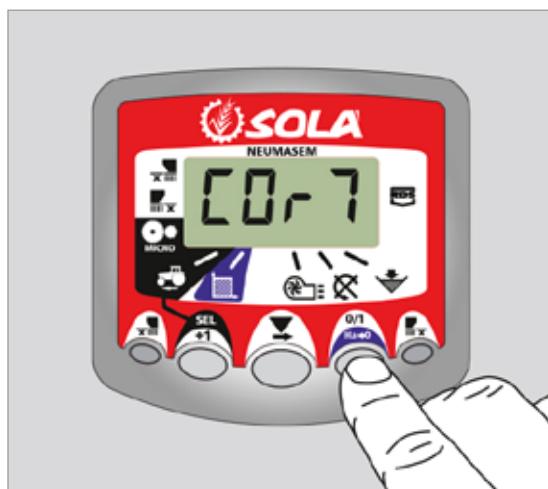
- 4-** Release the buttons to change back to the normal position.

## 10.8 TOTAL SOWING SHUT-OFF (OPTIONAL)

### NEUMASEM electronical controller

Press  to **lock** the seed's exit. The screen will display the flickering text «**CORT**».

Press  again to **unlock** the seed's exit and return to a normal working position. The screen will display the flickering text «**OPEN**».



### NEUMASEM PLUS electronical controller

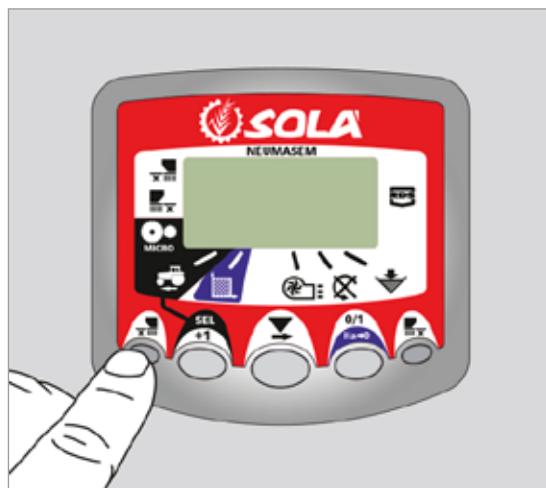
Press  to **lock** the seed's exit. The screen will display the indicating arrow and the text “**CORT**” will be displayed every 2 seconds «**CORT**». Press  again to **unlock** the seed's exit and return to a normal working position. The screen will display the flickering text «**OPEN**».



## 10.9 SHUT-OFF SOWING FROM FOLDING PARTS (OPTIONAL)

### NEUMASEM electronical controller

Press  to **lock** the seed's exit from the arms on the folding parts (exits on the left and right sides of the folding parts will lock). The screen will display the indicating arrow. Press  again to **unlock** the seed's exit and change back to normal position.



Press or again to **unlock** the seed's exit and change back to normal position.



#### NEUMASEM electronical controller for independent folding parts

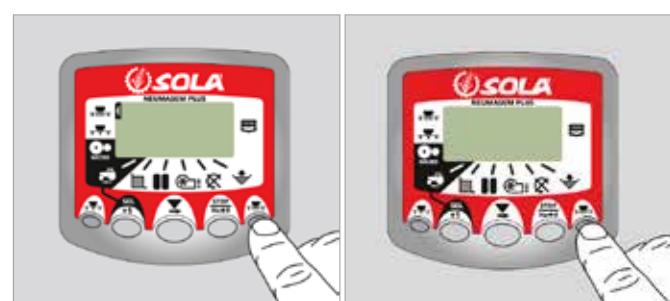
To **lock** the seed's exit from the arms on the folding parts, press (to **lock** the left side in the driving direction) or (to **lock** the right side in the driving direction). The screen will display the indicating arrow.



#### NEUMASEM PLUS electronical controller

Press to **lock** the seed's exit from the arms on the folding parts. The screen will display an arrow indicating the selected mode.

Press again to **unlock** the seed's exit and change back to normal position.



## 11. MAINTENANCE

### 11.1 LUBRICATION

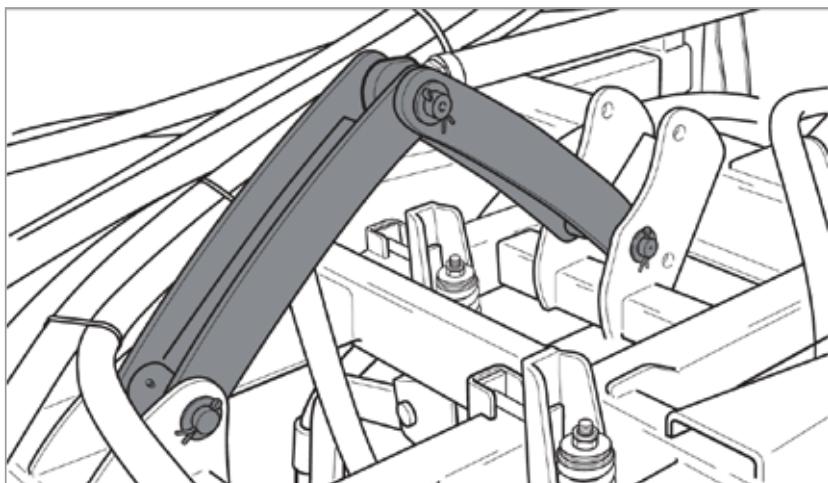
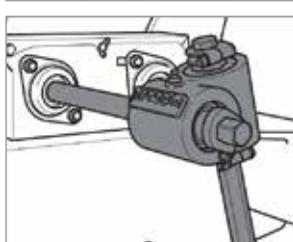
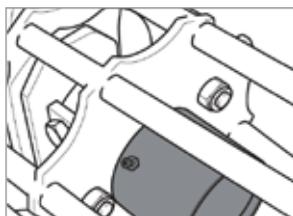
The following parts should be lubricated with solid calcium grease :

All the joints of the cardan shaft should be greased daily.

The joints of the folding parts should be greased every 100 Ha.

Both the wheel's and transmission's bushings should be greased every 400 Ha.

After finishing a sowing season, chains should be cleaned and greased with special chain grease.



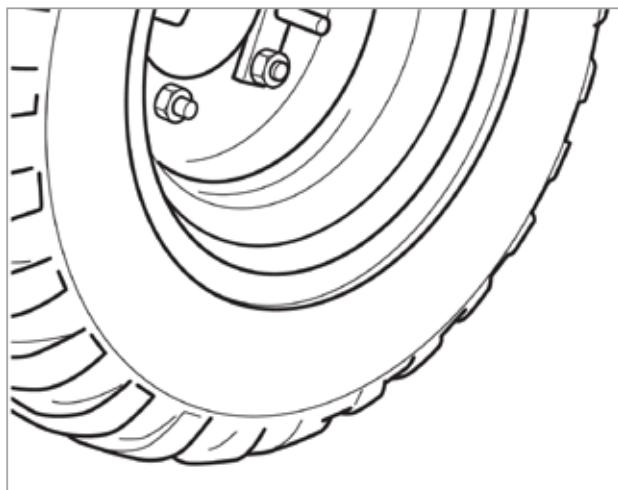
### 11.2 TYRES PRESSURE

**Tyres 340/55-16 ----- 3,75 kg/cm<sup>2</sup>**

**Side wheels 18x7"-8" 14 PR ----- 9 kg/cm<sup>2</sup>**

Indicated pressures are provided by the manufacturer, at maximum load.

In general use and especially when working on irregularly tilled terrains, it is recommended to use a slightly lower pressure to absorb the ground's irregularities and get a higher regularity in sowing.



### 11.3 SCREWS

All the screws used in the seed drill SM1909 are size 8.8

After working for some hours, all screws should be checked and tightened.

### 11.4 DISTRIBUTOR HEAD AND SEED HOSES

Before starting work, check that the distributor head and the seed hoses are not blocked. Before performing this check, make sure that the fan is on and the hopper is full. Now use the crank provided to turn the wheel controlling the distributor's transmission a few times and check that the seeds are coming out from every tine coulter. In case of a failure, stop the machine so that the fan is off and take apart the distributor head's cap to check that there are no foreign bodies inside

## 12. DOSAGE TABLE



INDICATED QUANTITIES SHOWN IN THE FOLLOWING TABLE SHOULD BE CONSIDERED FOR GUIDANCE ONLY, FORESEEN FLOWS CAN VARY DEPENDING ON THE ACCIDENTAL PRESENCE OF DISINFECTING PRODUCTS, UNEVEN SEED SIZE, DENSITY, HUMIDITY, ETC.



FOR PRECISION SOWING, FOLLOW DOSING PROCESS DESCRIBED IN SECTION 6 OF THIS MANUAL.

	WHEAT	RYE	BARLEY	OATS	BEANS	PEAS	LUPIN	CAROB	CORN	CORN		RAPE	FIELD CLOVER	GRASS	TURNIPS					
Spec. weight (kg/l)	0,77	0,74	0,68	0,5	0,85	0,81	0,76	0,83	0,79	0,36	Spec. weight (kg/l)	0,65	0,77	0,39	0,7					
Adj. dosing scale value	Regular seeds kg/ha (Bolt in position N)										Adj. dosing scale value	Fine seeds kg/ha (Bolt in position F)								
<b>10</b>	31	31	29,8	22	21	19,8	26	29,8	7,44	-	2,5	1,98	0,99	2,11	1,07	-	-	2,36	1,12	
<b>15</b>	47,1	45,9	44,6	32	38,4	37,2	42,2	47,1	22,3	17,4	5	4,22	2,11	4,84	2,36	-	-	4,22	2,23	
<b>20</b>	64,5	62	59,5	43	57	54,6	57	64,5	43,4	23,6	7,5	6,32	3,1	7,94	3,97	2,6	1,3	6,94	3,43	
<b>25</b>	79,5	76,9	73,2	53	73,2	71,9	73,2	83,1	64,5	31	10	8,43	4,22	11,2	5,58	4,84	2,36	9,3	4,65	
<b>30</b>	96,7	93	88	66	90,5	90,5	89,3	100	85,6	38,4	12,5	10,5	5,33	14,3	7,07	6,7	3,35	11,7	5,83	
<b>35</b>	114	109	103	76	108	109	105	118	107	45,9	15	12,8	6,32	16,7	8,43	8,56	4,28	13,9	6,94	
<b>40</b>	130	124	118	87	125	126	120	135	128	-	17,5	14,8	7,32	19,7	9,8	10,4	5,21	16,2	8,13	
<b>45</b>	146	140	133	98	143	144	136	154	145	-	20	16,9	8,43	22,3	11,2	12,3	6,08	18,6	9,3	
<b>50</b>	161	156	148	109	160	161	153	171	162	-	22,5	19,1	9,55	24,7	12,3	13,9	6,94	20	9,99	
<b>55</b>	179	171	161	120	177	180	169	188	180	-	25	21,2	10,5	25,5	12,8	15,1	7,56	21,4	10,7	
<b>60</b>	195	186	177	131	195	198	184	206	197	-		N	F	N	F	N	F	N	F	
<b>65</b>	212	202	191	143	212	216	201	224	215	-		N= regular speed F= microdosing								
<b>70</b>	229	218	206	154	229	233	217	242	232	-		PREVIOUS FLOW TEST								
<b>75</b>	246	234	221	165	247	250	233	259	348	-		Seed drill	Turns							
<b>80</b>	262	250	234	176	263	268	249	277	265	-		400	26,5							
<b>85</b>	277	267	249	186	280	288	265	294	283	-		450	23,5							
<b>90</b>	294	280	264	197	298	305	280	312	300	-		500	21							
<b>95</b>	311	296	279	208	314	322	298	330	317	-		600	17,6							
<b>100</b>	327	312	294	219	331	340	312	347	335	-		Number of turns performed to the small wheel to simulate the sowing of 250m <sup>2</sup> . Flow in kg/ha is obtained by multiplying collected weight by 40.								
<b>105</b>	343	329	309	231	347	358	329	366	353	-										
<b>110</b>	360	345	324	242	366	376	345	383	370	-										

TABLE FOR SM 1909 WITH FLOTATION WHEELS 340-50.16

If you want to sow small quantities (seeding roller <= 25mm), you can obtain a most uniform sowing through the micro-dosage, even in normal sowing (cereal and thick seeds)

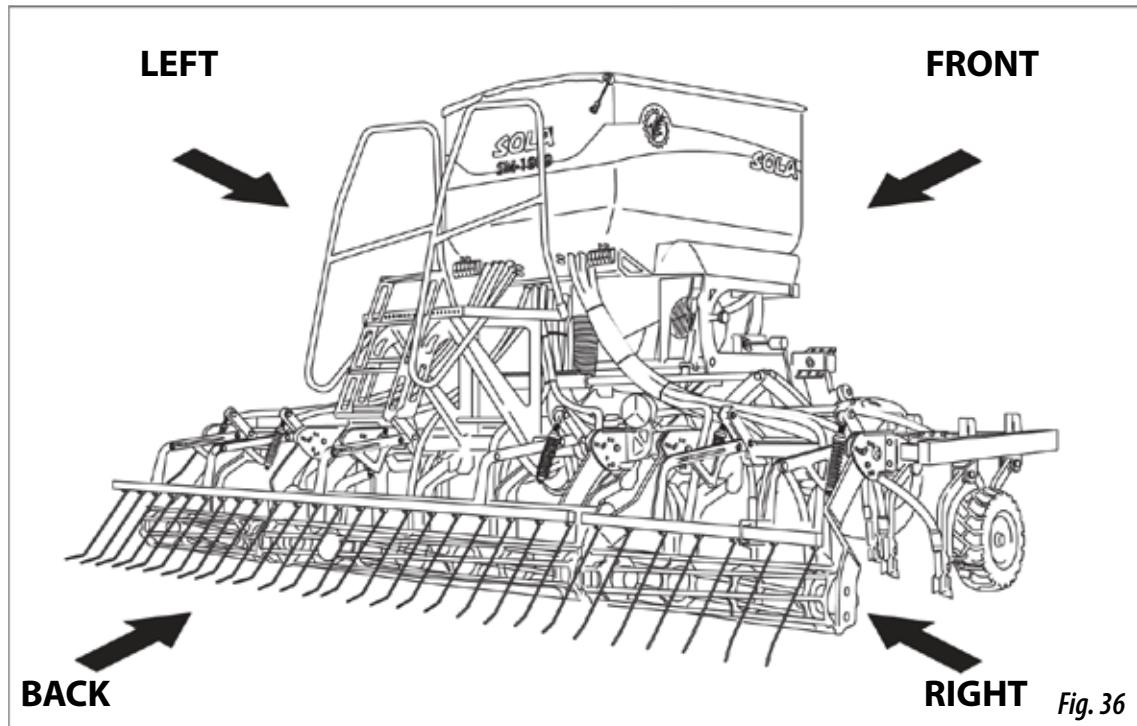
## DOSAGE TABLE

## 13. SPARE PARTS

The terms RIGHT, LEFT, FRONT and REAR refer to the machine in its starting direction (fig. 36).

When guidance describes parts that have a matching pair (symmetrical handles, wheels etc) only one will be demonstrated in the drawings shown. Please search for the distinguishing reference in the spare parts list.

The number and type of the machine can be found on the machine's IDENTIFICATION PLATE.



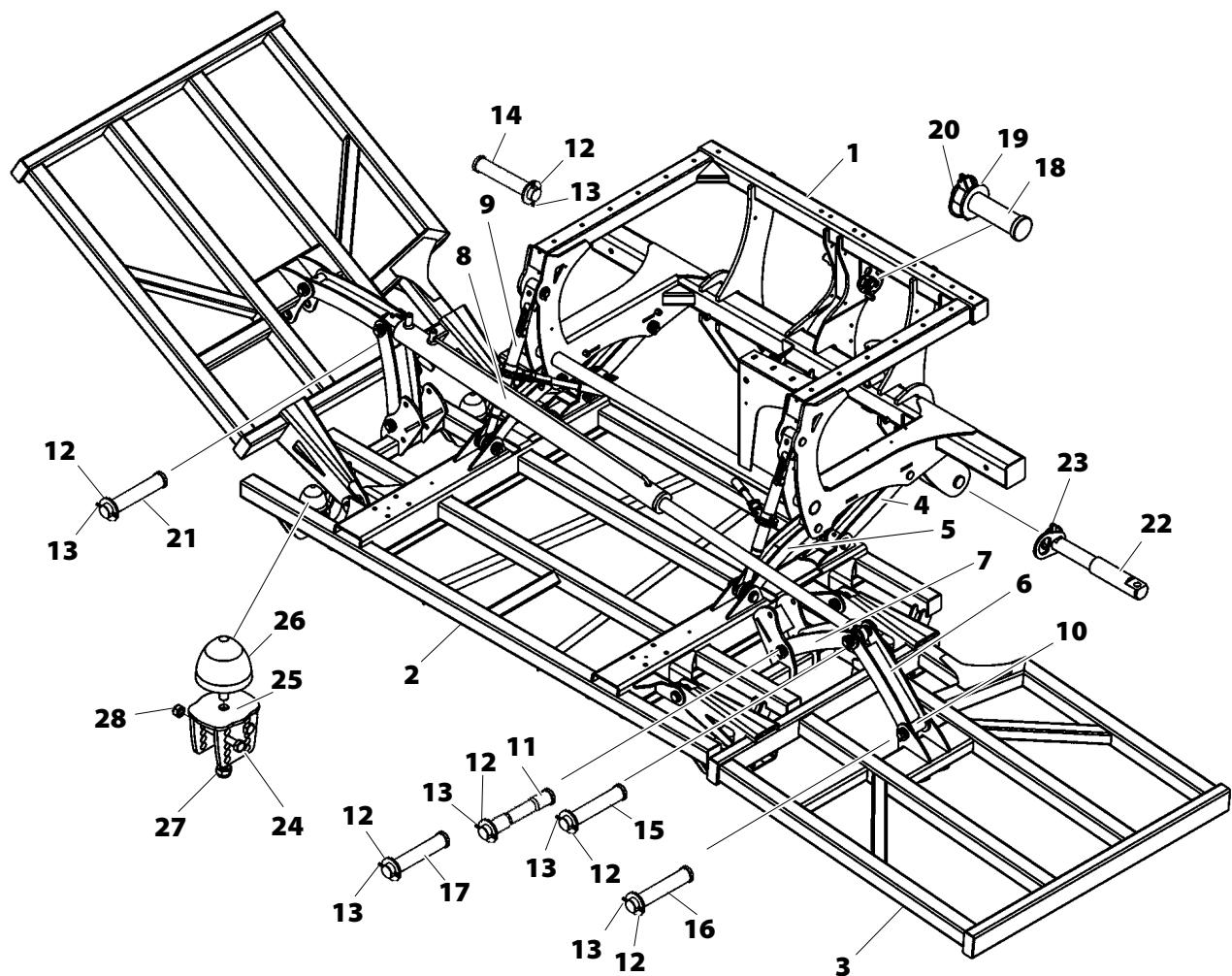
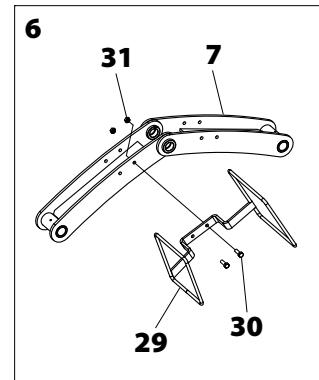
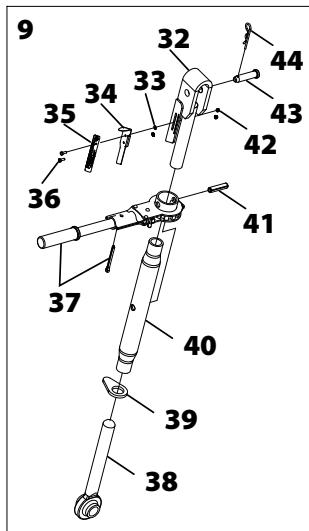
BE CAREFUL WHEN MAINTAINING THE SEED DRILL,  
SHARP EDGES CAN CAUSE INJURY.



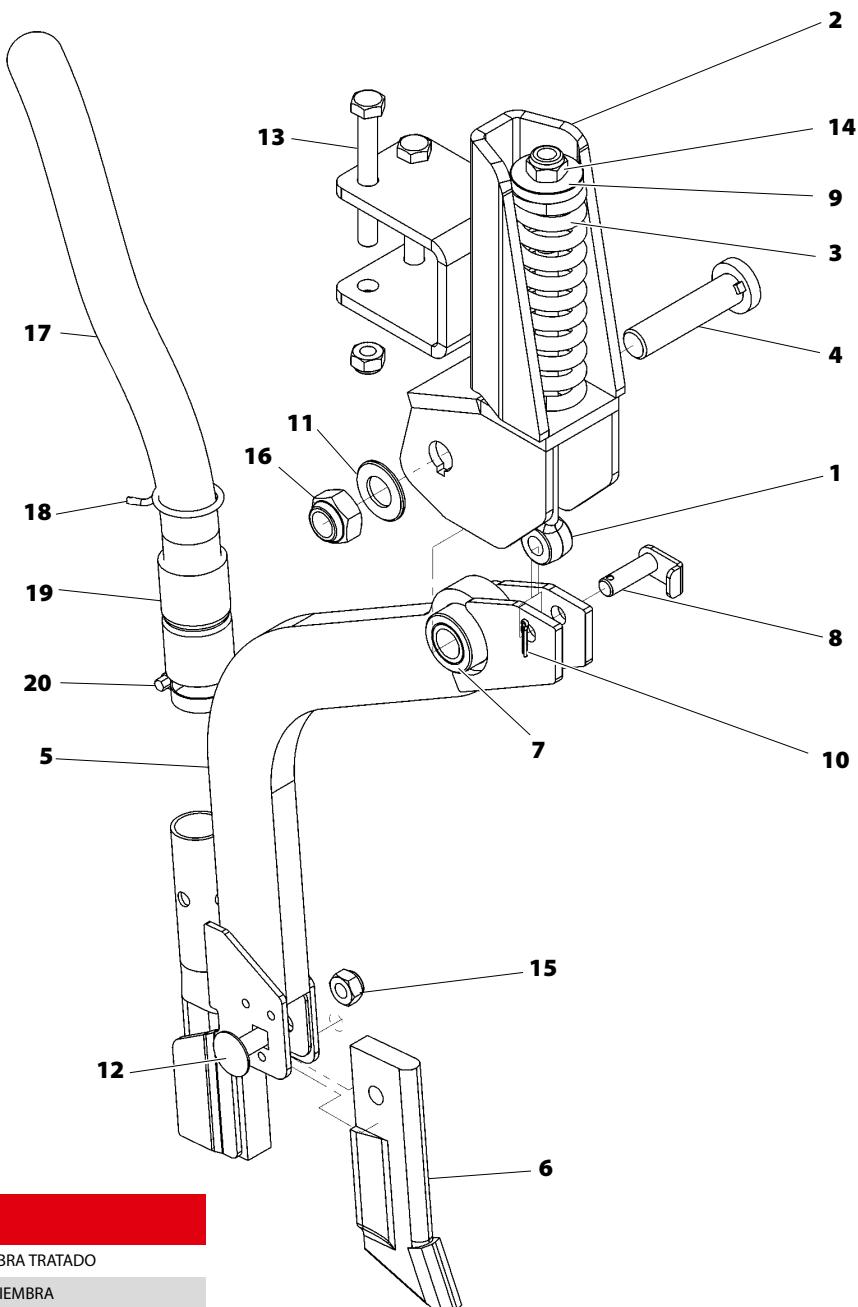
DO NOT WORK UNDER THE MACHINE WHEN IT IS RAISED. ALWAYS SECURE THE MACHINE PROPERLY  
TO PREVENT IT FROM COLLAPSING AS A PRESSURE LOSS IN THE TRACTOR CAN OCCUR.

## 13.1 CHASSIS

Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	PS-012801	CHASIS SM-1909 2011
<b>2</b>	PS-052818	CHASIS CENTRAL EQUIPO SIEMBRA 2011
<b>3</b>	PS-052825	CHASIS LATERAL EQUIPO SIEMBRA 500
<b>3</b>	PS-052827	CHASIS LATERAL EQUIPO SIEMBRA 400
<b>3</b>	PS-052828	CHASIS LATERAL EQUIPO SIEMBRA 450
<b>3</b>	PS-052829	CHASIS LATERAL EQUIPO SIEMBRA 600
<b>4</b>	PS-012802	BIELA SUSPENSIÓN SIMPLE
<b>5</b>	PS-012803	BIELA SUSPENSIÓN GUÍA
<b>6</b>	PS-052821	BARRA EXTERIOR ELEVACIÓN EQUIPO LATERAL
<b>7</b>	PS-052822	BARRA INTERIOR ELEVACIÓN EQUIPO LATERAL
<b>8</b>	CO-052802	CILINDRO EQUIPO SIEMBRA 2011
<b>9</b>	MO-052808	TENSOR 1 1/8" L=500/770 COMPLETO
<b>10</b>	FE-603001	ENGRASADOR RECTO M-6
<b>11</b>	BU-052800	BULÓN ARTICULACIÓN CHASIS BARRA ELEVACIÓN
<b>12</b>	125 25 BI	ARANDELA DIN 125 M25 BICROMATADA
<b>13</b>	94 5X40 BI	PASADOR DE ALETAS DIN 94 5X40 BICROMATADO
<b>14</b>	BU-052805	BULÓN RÓTULA CILINDRO
<b>16</b>	BU-052802	EJE PARALELOGRAMO EQUIPO SIEMBRA
<b>17</b>	BU-052804	BULÓN TENSOR GUÍA EQUIPO SIEMBRA
<b>18</b>	BU-012802	BULÓN ENGANCHE CAT. III SM-1909
<b>19</b>	125 36 BI	ARANDELA DIN 125 M36 BICROMATADA
<b>20</b>	FE-610011	PASADOR ANILLA DE 16
<b>21</b>	BU-052801	EJE ARTICULACIÓN CHASIS CENTRAL-LATERAL
<b>22</b>	BU-012801	BULÓN TERCER PUNTO CAT. II/III SM-1909
<b>23</b>	FE-610008	PASADOR ANILLA DE 12
<b>24</b>	931 12X80 8.8B	TORNILLO DIN 931 M12X80 8.8 BICROMATADO
<b>25</b>	PS-052835	TOPE CHASIS LATERAL
<b>26</b>	FE-660014	TOPE PROGRESIVO CÓNICO GOMA M16
<b>27</b>	985 16	TUERCA DIN 985 M16
<b>28</b>	985 12	TUERCA DIN 985 M12
<b>29</b>	PS-201300-I	SOPORTE PASATUBOS SEMILLA IZQUIERDA
<b>29</b>	PS-201300-D	SOPORTE PASATUBOS SEMILLA DERECHA
<b>30</b>	933 8X25 8.8 B	TORNILLO DIN 933 8X25 8.8 BICROMATADO
<b>31</b>	985 8	TUERCA DIN 985 M8
<b>32</b>	PS-052819	GUÍA TENSOR ROSCADO
<b>33</b>	125 4 BI	ARANDELA PLANA DIN 125 M4 BICROMATADA
<b>34</b>	PX-052854	BASE FIJACIÓN NIVEL TENSOR
<b>35</b>	AD-052800	NIVEL CONTROL PROFUNDIDAD TENSOR
<b>36</b>	933 4X12 8.8 B	TORNILLO DIN 933 M 4X12 8.8 BICROMATADO
<b>37</b>	FE-613011	TRINQUETE PARA TENSOR 1 1/8" S-13049
<b>38</b>	FE-613020	FINAL TENSOR CON ROSCA DER. 1 1/8" L=247
<b>39</b>	FE-613019	CONTRATUERCA BLOQUEO TENSOR
<b>40</b>	FE-613018	CUERPO TENSOR 1 1/8" L=368
<b>41</b>	1481 12X50 BI	PASADOR ELÁSTICO DIN 1481 12X50 BICROMATADO
<b>42</b>	985 4	TUERCA DIN 985 M-4
<b>43</b>	BU-052803	BULÓN SEGURO GUÍA TENSOR
<b>44</b>	FE-610002	PASADOR "R" DE 3 MM

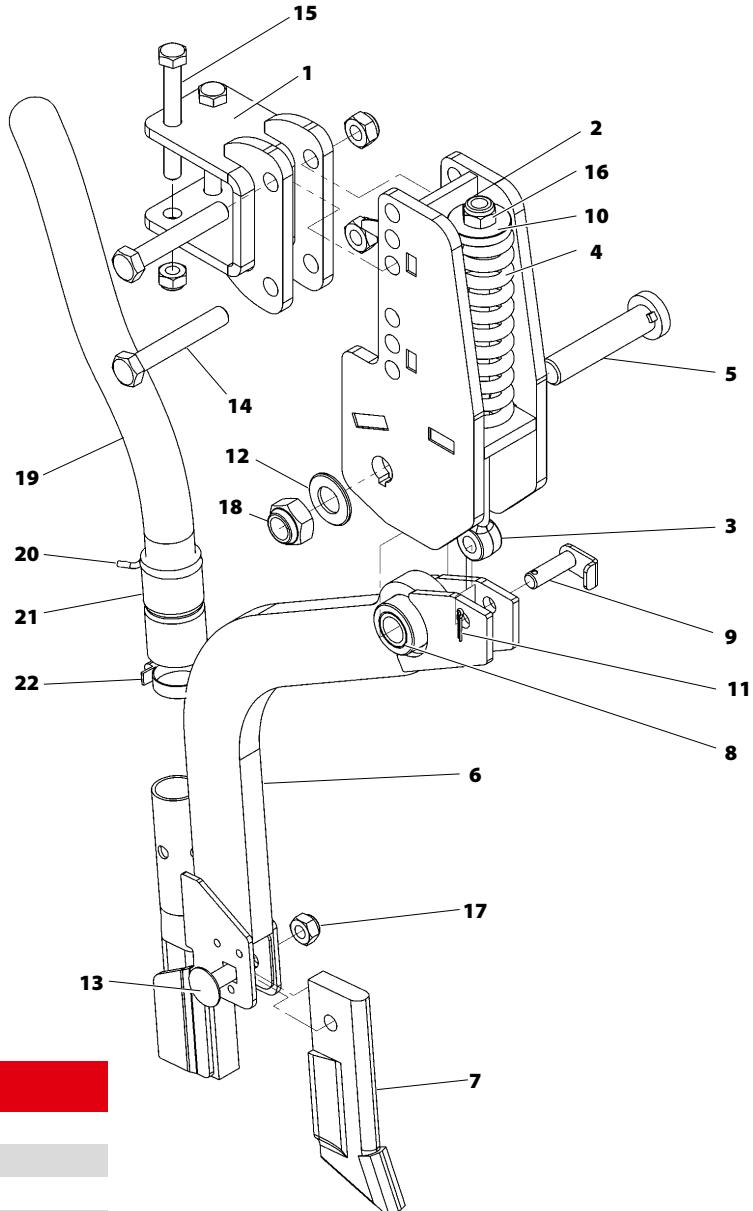


## 13.2 TINE COULTER



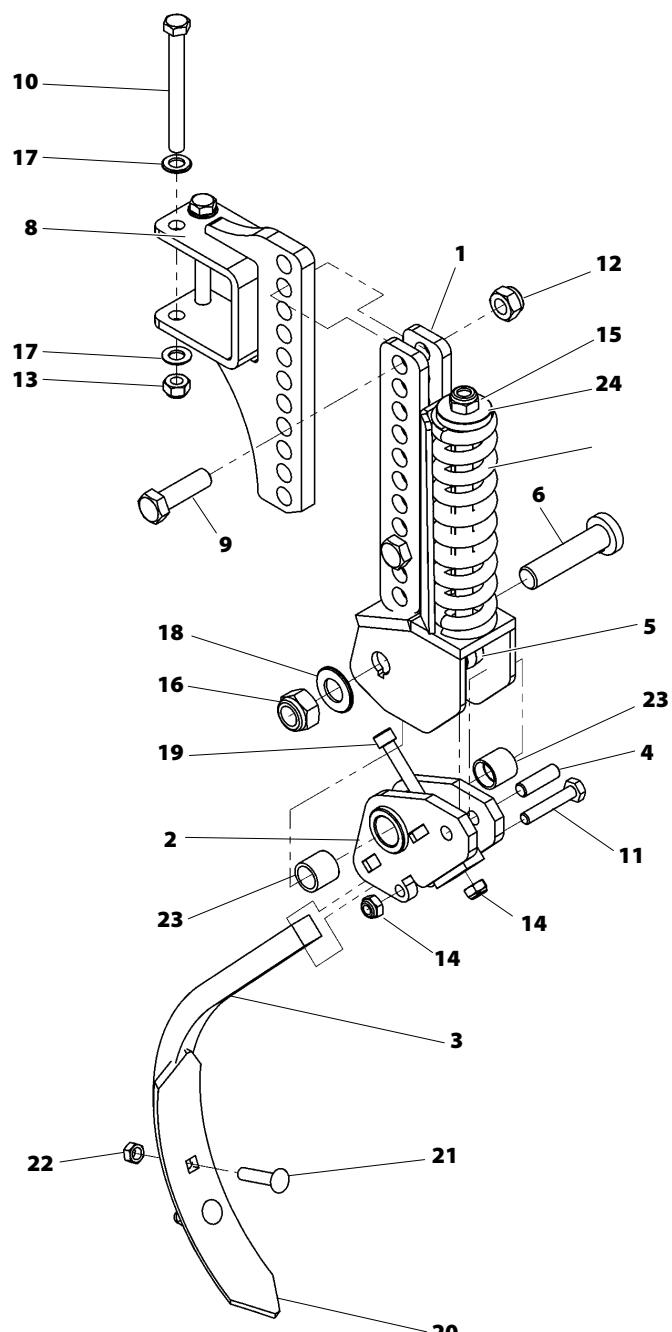
Nº	REFERENCIA	DENOMINACIÓN
1	TS-052802	TENSOR MUELLE BRAZO SIEMBRA TRATADO
2	PS-052806	SOPORTE SOLDADO BRAZO SIEMBRA
3	ML-052802	MUELLE BRAZO LARGO SM-1909
4	TS-052801	TORNILLO SOPORTE BRAZO SIEMBRA SM TRATADO
5	PS-052815	CUERPO BRAZO SIEMBRA 2010
6	CO-052803	CUCHILLA CON PUNTERA ANTIDESGASTE
7	PL-050302	CASQUILLO ARTICULACIÓN BRAZO
8	PS-052801	BULÓN ANTIIGIRO MUELLE BRAZO SIEMBRA
9	ME-052812	CAQUILLO TOPE MUELLE ML-052802
10	94 3,5X20 BI	PASADOR DE ALETAS DIN 94 3,5X20 BICROMATADO
11	125 20 BI	ARANDELA DIN 125 M-20 BICROMATADA
12	603 12X40 BI C-C	TORNILLO DIN 603 M12X40 BI CUELLO CORTO
13	931 12X100 8.8B	TORNILLO DIN 931 M12X100 8.8 BICROMATADO
14	985 14	TUERCA DIN 985 M14
15	985 12	TUERCA DIN 985 M12
16	985 20-150	TUERCA DIN 985 M 20
17	MP-907018	"MTS. MANGUERA SOLA 30 ANTIESTATICA (ROLLO 50MT"
18	ML-051301	CLIP SUJECCION TUBO SEMILL NEUMASEM
19	PL-051301	MANGUITO UNION TUBO SEMILLA NEUMASEM 699
20	FE-606023	BRIDA MIKALOR 25/40

### 13.3 REGULABLE TINE COULTER



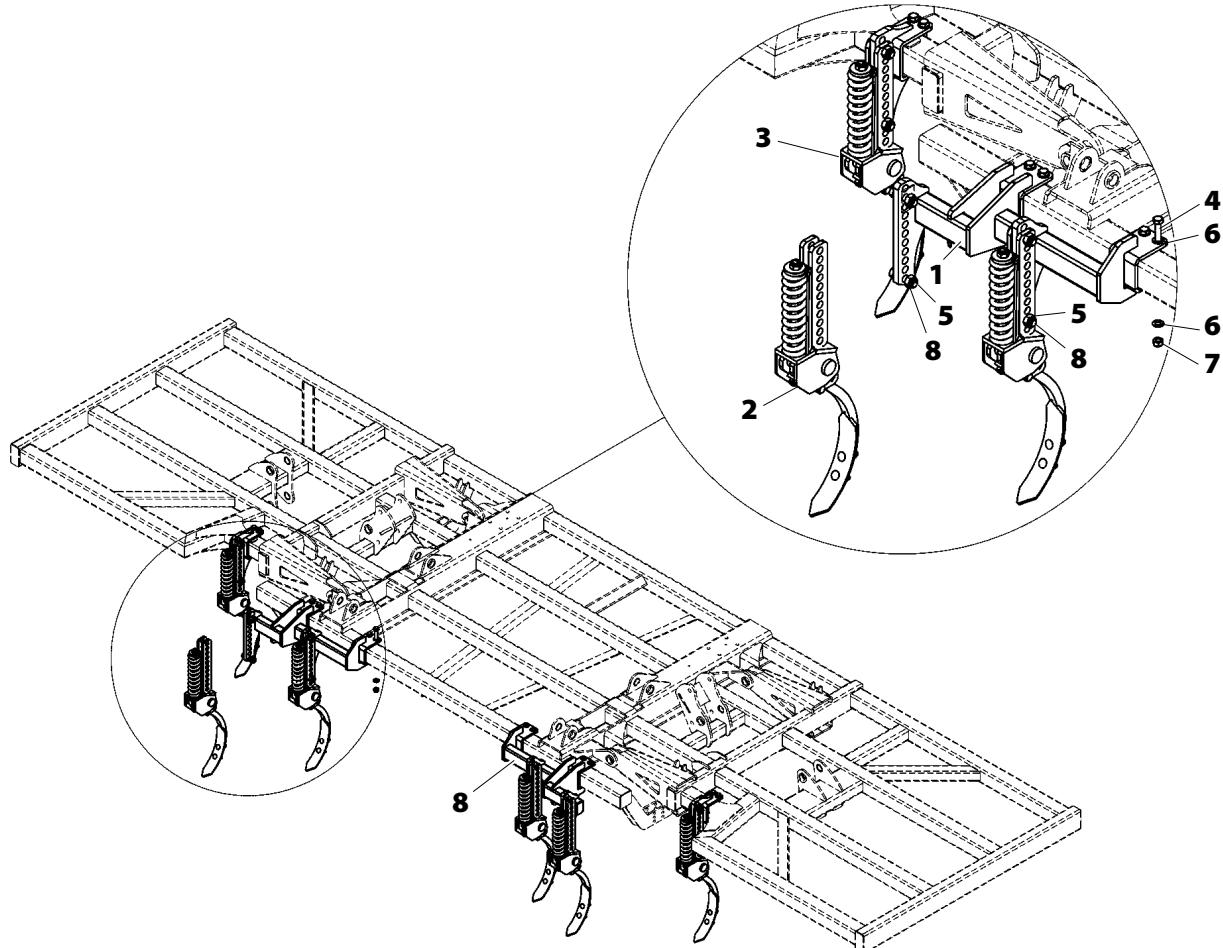
Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	PS-052831	BRIDA SOPORTE BRAZO REGULABLE
<b>2</b>	PS-052839	SOPORTE SOLDADO BRAZO SIEMBRA
<b>3</b>	TS-052802	TENSOR MUELLE BRAZO SIEMBRA TRATADO
<b>4</b>	ML-052802	MUELLE BRAZO LARGO
<b>5</b>	EE-052804	TORNILLO DEL SOPORTE M20/150X95
<b>6</b>	PS-052815	CUERPO BRAZO SIEMBRA 2010
<b>7</b>	CO-052803	UCHILLA CON PUNTERA ANTIDESCGASTE
<b>8</b>	PL-050302	CASQUILLO ARTICULACIÓN BRAZO
<b>9</b>	PS-052801	BULÓN ANTIGIRO MUELLE BRAZO SIEMBRA
<b>10</b>	ME-052812	CAQUILLO TOPE MUELLE ML-052802
<b>11</b>	94 3,5X20 BI	PASADOR DE ALETAS DIN 94 3,5X20 BICROMATADO
<b>12</b>	125 20 BI	ARANDELA DIN 125 M-20 BICROM.
<b>13</b>	603 12X40 BI C-C	TORNILLO DIN 603 M12X40 BI CUELLO CORTO
<b>14</b>	931 14X90 8.8B	TORNILLO DIN 931 M14X90 8.8 BICROMATADO
<b>15</b>	931 12X100 8.8B	TORNILLO DIN 931 M12X100 8.8 BICROMATADO
<b>16</b>	985 14	TUERCA DIN 985 M14
<b>17</b>	985 12	TUERCA DIN 985 M12
<b>18</b>	985 20-150	TUERCA DIN 985 M 20
<b>19</b>	MP-907018	"MTS. MANGUERA SOLA 30 ANTIESTATICA (ROLLO 50MT"
<b>20</b>	ML-051301	CLIP SUJECCION TUBO SEMILL NEUMASEM
<b>21</b>	PL-051301	MANGUITO UNION TUBO SEMILLA NEUMASEM 699
<b>22</b>	FE-606023	BRIDA MIKALOR 25/40

## 13.4 TRACK ERASERS



Nº	REFERENCIA	DENOMINACIÓN
1	PS-062800	SOPORTE BRAZO BORRAHUELLAS SM-1909
2	PS-062100	BASTIDOR BRAZO BORRAHUELLAS
3	FO-061303	BRAZO CULT. TRAS. NEUMASEM
4	BU-062100	BULÓN TENSOR BRAZO CULT/BH
5	FO-062100	TENSOR MUELLE BRAZO B.H. Y CULT. TRAS.
6	EE-050312	TORNILLO DEL SOPORTE TRI-194 M20/150X85
7	ML-062100	MUELLE BRAZO B.H.
8	PS-062803	SOPORTE TERCER BRAZO BORAHUELLAS
9	931 16X55 8.8B	TORNILLO DIN 931 M16X55 8.8 BICROMATADO
10	931 12X120 8.8B	TORNILLO DIN 931 M12X120 8.8 BICROMATADO
11	931 10X55 8.8B	TORNILLO DIN 931 M10X55 8.8 BICROMATADO
12	985 16	TUERCA DIN 985 M16
13	985 12	TUERCA DIN 985 M12
14	985 10	TUERCA DIN 985 M10
15	985 14	TUERCA DIN 985 M14
16	985 20-150	TUERCA DIN 985 M20/150
17	125 12 BI	ARANDELA DIN 125 M-20 BICROMATADA
18	125 20 BI	ARANDELA DIN 125 M-20 BICROMATADA
19	912 10X60 8,8 B	TORNILLO ALLEN DIN 912 M10X60 8,8 BICROMATADO
20	FO-060300	REJITA 5/7 AGUJEROS A 45 MM S-3/A
21	608-934 9X40	TORNILLO DE ARADO M-9X40 CON TUERCA
22	934 10 BI	TUERCA DIN 934 M10 BICROMATADA
23	PL-050302	CASQUILLO ARTICULACIÓN BRAZO
24	ME-052812	CAQUILLO TOPE MUELLE ML-052802

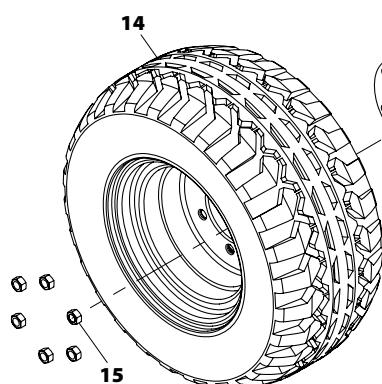
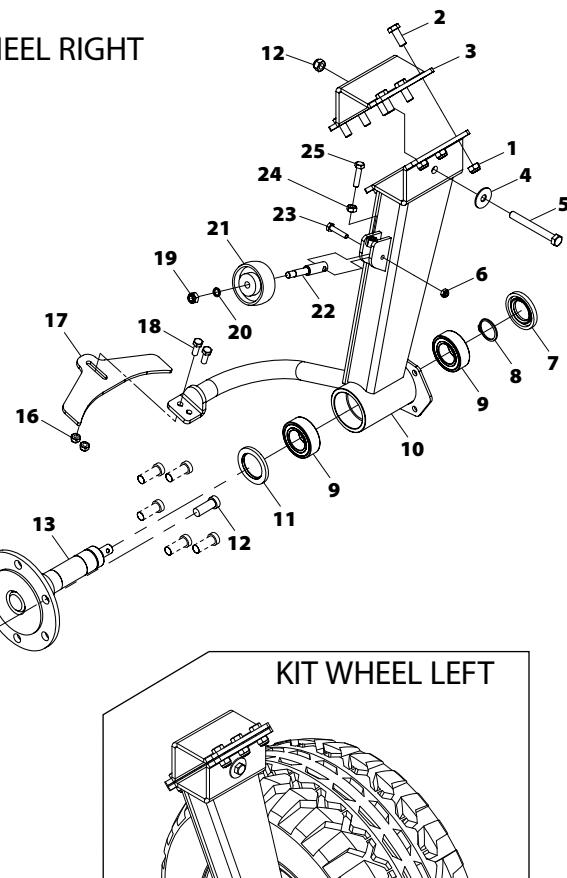
## 13.5 TRACK ERASERS TRACTOR



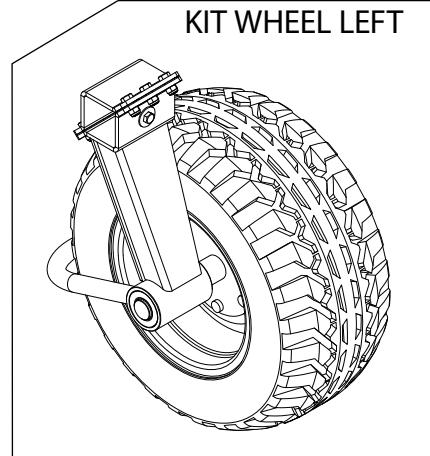
Nº	REFERENCIA	DENOMINACIÓN
1	PS-062801-D	CHASIS BORRAHUELLAS DER. SM-1909
2	MO-062801	BRAZO BORRAHUELLAS SM SIN BRIDA 2010
3	MO-062800	BRAZO BORRAHUELLAS SM SIN BRIDA 2010
4	931 12X110 8.8B	TORNILLO DIN 931 M12X110 8.8 BICROMATADO
5	931 16X55 8.8B	TORNILLO DIN 931 M16X55 8.8 BICROMATADO
6	125 12 BI	ARANDELA DIN 125 M-20 BICROMATADA
7	985 12	TUERCA DIN 985 M12
8	985 16	TUERCA DIN 985 M16
9	PS-062801-I	CHASIS BORRAHUELLAS IZQ. SM-1909

## 13.6 WHEEL FLOATING

KIT WHEEL RIGHT



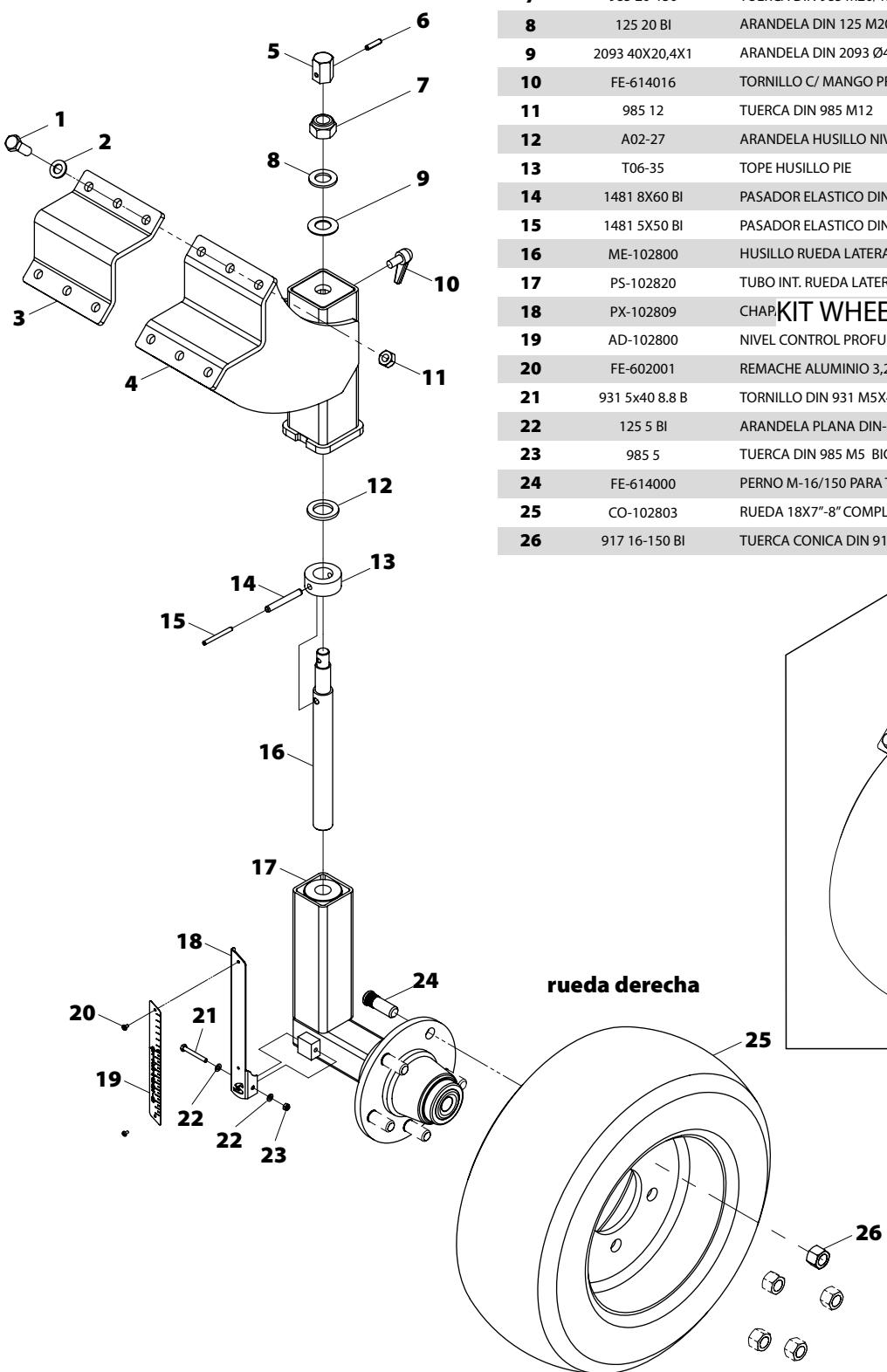
KIT WHEEL LEFT



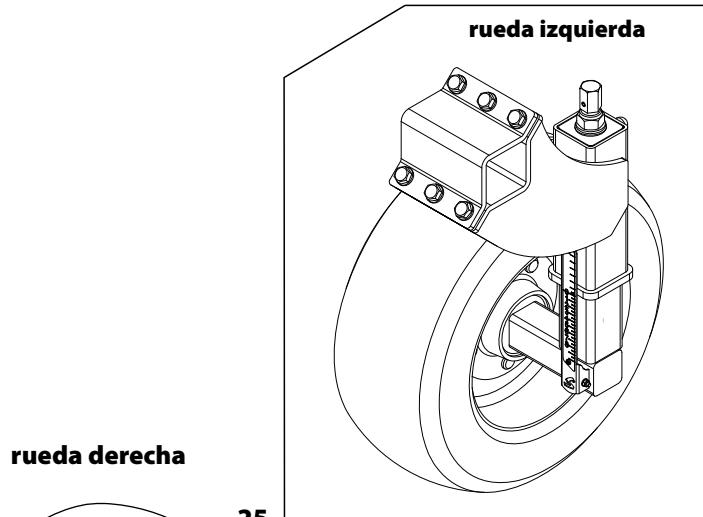
Nº	REFERENCIA	DENOMINACIÓN
1	985 16	TUERCA DIN 985 M16
2	933 16X40 8.8 B	TORNILLO DIN 933 M16X40 8.8 BICROMATADO
3	PX-012812	BRIDA 100 DIAGONAL 10E 3 AGUJ
4	9021 16 BI	ARANDELA PLANA DIN 9021 M16 BICROMATADA
5	931 16X140 8.8 B	TORNILLO DIN 931 16x140 8.8 BICROMATADO
6	985 10	TUERCA DIN 985 M10
7	FE-601085	RETEN DOBLE LABIO 50X90X10
8	471 50X3	ANILLO SAEGER REFORZADO DIN-471 Ø50X3MM
9	FE-600619	RODAMIENTO 3210-B-2RSR-TVH
10	PS-042819-D	SOPORTE RUEDA DER. CHASIS SM-1909
10	PS-042819-I	SOPORTE RUEDA IZQ. CHASIS SM-1909
11	FE-601086	RETEN DOBLE LABIO 60X90X8
12	FE-610020	PERNO M20/150 PARA AGUJERO 22 MM
13	MO-042810/D	MANGUETA LARGA BUJE DER.
13	MO-042810/I	MANGUETA LARGA BUJE IZQ
14	CO-041300	RUEDA 340/55-16 TL 133 A8 FLOTATION COMPLETA
15	917 20/150 BI	TUERCA CONICA DIN 917 M20/150 BICROMATADA
16	985 12	TUERCA DIN 985 M12
17	PX-041338	PLETINA RASCADOR NEUMASEM
18	931 12X35 8.8 B	TORNILLO DIN 931 12X35 8.8 BICROMATADO
19	985 14	TUERCA DIN 985 M14
20	PX-042808	ARANDELA ESPESOR Ø20x14x3
21	CN-850070	RUEDA POLIAMIDA Ø100XØ15X40 C/RODAMIENTOS
22	ME-042810	EJE FRENO RUEDA
23	931 10X50 8.8 B	TORNILLO DIN 931 M10X50 8.8 BICROMATADO
24	934 12 BI	TUERCA DIN 934 M12 BICROMATADA
25	933 12X50 8.8 B	TORNILLO DIN 933 M12X50 8.8 BICROMATADO

## 13.7 SIDE WHEEL

### KIT WHEEL RIGHT

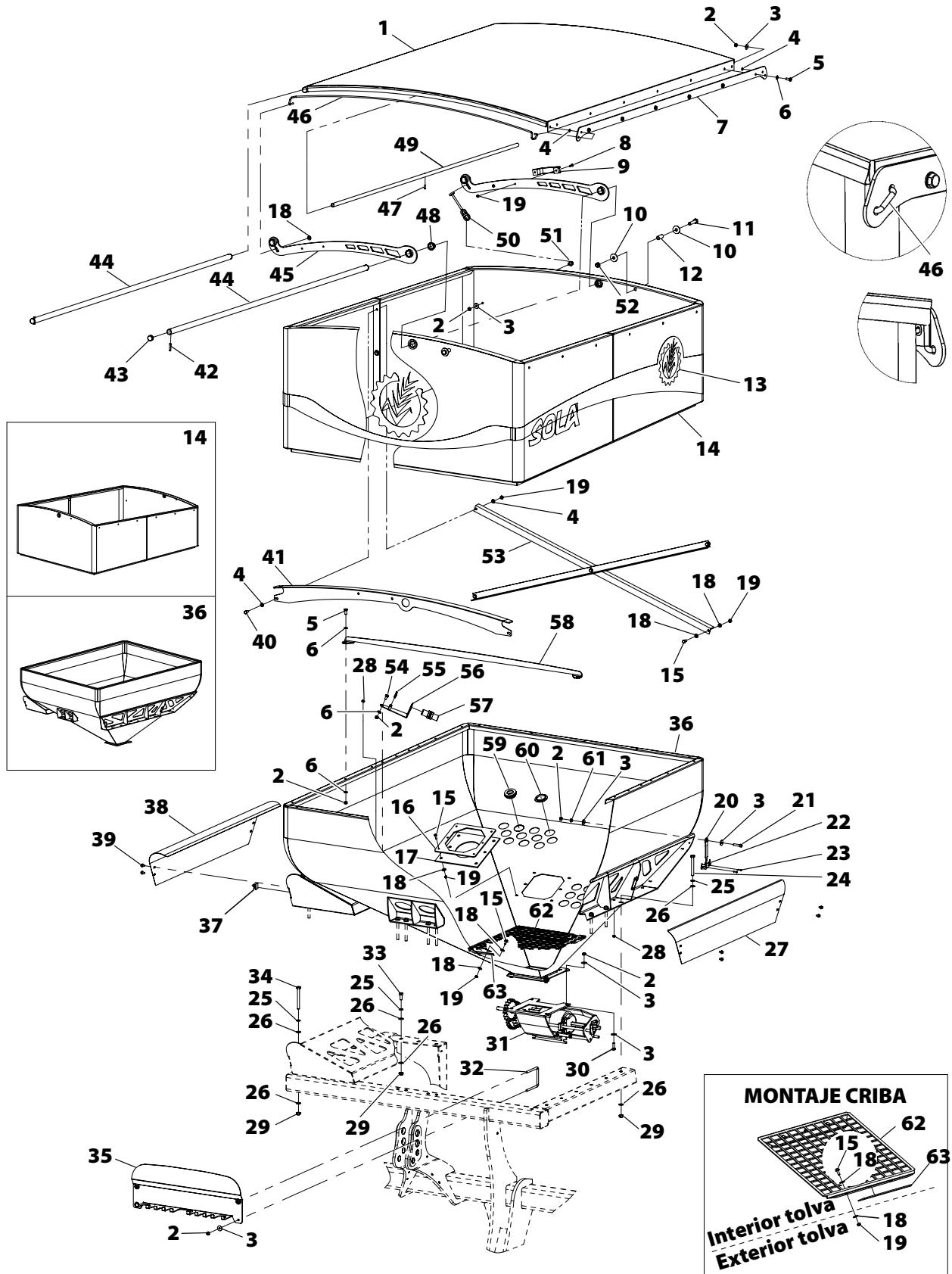


Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	933 12X35 8.8 B	TORNILLO DIN 933 M 12X35 8.8 BICROMATADO
<b>2</b>	125 12 BI	ARANDELA PLANA DIN 125 12 BICROMATADA
<b>3</b>	PX-102800	BRIDA DIAGONAL TUBO CUADRADO 70 SM-1909
<b>4</b>	PS-102805	SOPORTE RUEDA CENTRAL 2011
<b>5</b>	ME-102801	FINAL REGULACION HUSILLO
<b>6</b>	1481 6X25 BI	PASADOR ELASTICO DIN 1481 M 6X25 BICROMATADO
<b>7</b>	985 20-150	TUERCA DIN 985 M20/150
<b>8</b>	125 20 BI	ARANDELA DIN 125 M20 BICROMATADA
<b>9</b>	2093 40X20,4X1	ARANDELA DIN 2093 Ø40XØ20,4X1
<b>10</b>	FE-614016	TORNILLO C/ MANGO PROSEM P
<b>11</b>	985 12	TUERCA DIN 985 M12
<b>12</b>	A02-27	ARANDELA HUSILLO NIVELAD. EURO
<b>13</b>	T06-35	TOPE HUSILLO PIE
<b>14</b>	1481 8X60 BI	PASADOR ELASTICO DIN 1481 8X60 BICROMATADO
<b>15</b>	1481 5X50 BI	PASADOR ELASTICO DIN 1481 M 5X50 BICROMATADO
<b>16</b>	ME-102800	HUSILLO RUEDA LATERAL
<b>17</b>	PS-102820	TUBO INT. RUEDA LATERAL C/HUSILLO
<b>18</b>	PX-102809	<b>KIT WHEEL LEFT</b>
<b>19</b>	AD-102800	NIVEL CONTROL PROFUNDIDAD RUEDA LATERAL
<b>20</b>	FE-602001	REMACHE ALUMINIO 3,2X6
<b>21</b>	931 5x40 8.8 B	TORNILLO DIN 931 M5X40 8.8 BICROMATADO
<b>22</b>	125 5 BI	ARANDELA PLANA DIN-125 M5 BICROMATADA
<b>23</b>	985 5	TUERCA DIN 985 M5 BICROMATADO
<b>24</b>	FE-614000	PERNO M-16/150 PARA TUERCA CONICA BUJE
<b>25</b>	CO-102803	RUEDA 18X7"-8" COMPLETA 14PR 1320 KG
<b>26</b>	917 16-150 BI	TUERCA CONICA DIN 917 M16/150 BICROMATADA



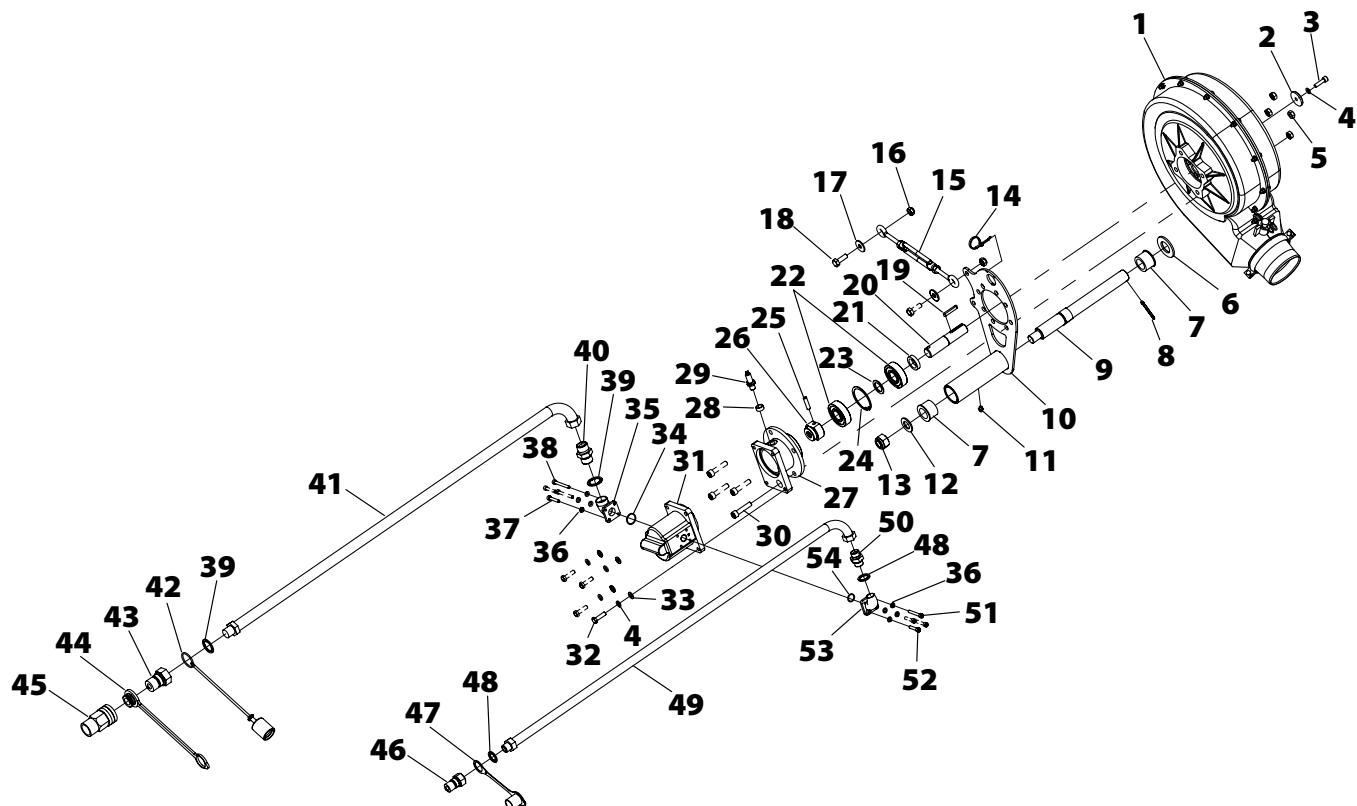
## 13.8 HOPPER

Nº	REFERENCIA	DENOMINACIÓN	Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	MV-032800	LONA TOLVA SM-1909	<b>31</b>	CT-042806	DOSIFICADOR SEMILLA COMPLETO SM-1909 MISTRAL
<b>2</b>	985 8	TUERCA DIN 985 M8	<b>32</b>	EE-071700	BRIDA "U" 80 M8 PROSEM
<b>3</b>	9021 8 BI	ARANDELA PLANA DIN 9021 M8 BICROMATADA	<b>33</b>	933 10x25 8.8 B	TORNILLO DIN 933 M10X25 8.8 BICROMATADO
<b>4</b>	125 6 BI	ARANDELA PLANA DIN 125 M6 BICROMATADA	<b>34</b>	931 10X100 8.8B	TORNILLO DIN 931 10X100 8.8 BICROMATADO
<b>5</b>	933 8X20 8.8 B	TORNILLO DIN 933 M8X20 8.8 BICROMATADO	<b>35</b>	PX-072814	EMBELLECEDOR CARGADOR LATIGUILLOS
<b>6</b>	125 8 BI	ARANDELA PLANA DIN-125 M8 BICROMATADA	<b>36</b>	PS-022800	CONO INFERIOR TOLVA SM-1909 1080 L
<b>7</b>	PX-022835	PLETINA LARGA FIJACIÓN LONA	<b>37</b>	FE-606007	ABRAZADERA AUTOADHESIVA 7,9-10,3 - SR-1789/460307
<b>8</b>	912 6X20 8.8 B	TORNILLO DIN 912 M6X20 8.8 BICROMATADO	<b>38</b>	PX-072815	TAPA DER. EMBELLECEDOR TOLVA SOLDADA
<b>9</b>	FE-614044	MANILLA MFE/117 Ø6,5	<b>39</b>	6921 6X10 8.8 B	TORNILLO DIN 6921 M6X10 8.8 BICROMATADO
<b>10</b>	9021 12 BI	ARANDELA DIN 9021 M12 BICROMATADA	<b>40</b>	933 6X25 8.8 B	TORNILLO 933 M 6X25 8.8 BICROMATADO
<b>11</b>	933 12X60 8.8 BI	TORNILLO DIN 933 12X60 8.8 BICROMATADO	<b>41</b>	PS-022802	ARCO CENTRAL TOLVA
<b>12</b>	CT-032801	SEPARADOR TOPE BRAZO LONA	<b>42</b>	1481 6X35 BI	PASADOR ELÁSTICO DIN 1481 M 6X35 BICROMATADO
<b>13</b>	AD-072806	ADHESIVO SM 1909 PARTE DELANTERA	<b>43</b>	FE-611018	TAPÓN PLÁSTICO NEGRO Ø25 e=3
<b>13</b>	AD-072802	ADHESIVO SM-1909 PARTE TRASERA	<b>44</b>	TA-032800	TUBO TAPA TOLVA
<b>13</b>	AD-072801-D	ADHESIVO LATERAL DERECHA TOLVA	<b>45</b>	PS-032801	PALANCA APERTURA LONA
<b>13</b>	AD-072801-I	ADHESIVO LATERAL IZQUIERDA TOLVA	<b>46</b>	VA-032802	GOMA AJUSTE LATERALES LONA
<b>14</b>	PS-022801	ALZA SUPERIOR TOLVA SM-1909 920 L	<b>47</b>	FE-602013	REMACHE ALUMINIO Ø3,2X20
<b>15</b>	933 6X20 8.8 B	TORNILLO DIN 933 M6X20 8.8 BICROMATADO	<b>48</b>	FE-600018	CASQUILLO DE FRICCIÓN 25/28/16,5
<b>16</b>	PX-022830	CIERRE UNIÓN TOLVA SM-1909	<b>49</b>	TA-022807	VARILLA CENTRAL LONA
<b>17</b>	PL-022800	GOMA UNIÓN TUBO TOLVA Ø135	<b>50</b>	PL-031300	GOMA CIERRE TAPA TOLVA
<b>18</b>	9021 6 BI	ARANDELA PLANA DIN 9021 M6 BICROMATADA	<b>51</b>	ME-021702	TETÓN SUJECION TAPA TOLVA NEUMASEM
<b>19</b>	985 6	TUERCA DIN 985 M6	<b>52</b>	985 12	TUERCA DIN 985 M12
<b>20</b>	PX-072802	AGUJA NIVEL MÁQUINA	<b>53</b>	TA-022810	ANGULO CRUZ TOLVA
<b>21</b>	912 8X35 8.8 BI	TORNILLO DIN 912 M8X35 8.8 BICROMATADO	<b>54</b>	933 8X16 8.8 B	TORNILLO DIN 933 M 8X16 8.8 BICROMATADO
<b>22</b>	PX-072820	ESCALA NIVEL MÁQUINA	<b>55</b>	FE-606013	BRIDA NYLON 4,8X200
<b>23</b>	FE-602013	REMACHE ALUMINIO Ø3,2X20	<b>56</b>	PX-101358	SOPORTE SENSOR NIVEL TOLVA NEUMASEM
<b>24</b>	931 10X90 8.8 B	TORNILLO DIN 931 M10X90 8.8 BICROMATADO	<b>57</b>	FE-650026	SENSOR CAPACITIVO NIVEL TOLVA RDS
<b>25</b>	127 10 BI	ARANDELA GROWER DIN 127 M10 BICROMATADA	<b>58</b>	PX-022812	TIRANTE SIMPLE TOLVA
<b>26</b>	125 10 BI	ARANANDELA PLANA DIN 125 M10 BICROMATADA	<b>59</b>	PL-021301	PASAMANGUERAS TOLVA NEUMASEM
<b>27</b>	PX-072816	TAPA IZQ. EMBELLECEDOR TOLVA SOLDADA	<b>60</b>	PL-021300	TAPÓN AGUJERO PASAMANGUERAS NEUMASEM
<b>28</b>	CN-803290	ARO PASACABLE Ø 6,4 CHAPA 9,5	<b>61</b>	FE-606013	BRIDA NYLON 4,8X200
<b>29</b>	985 10	TUERCA DIN 985 M10	<b>62</b>	PX-022832	CHAPA CRIBA SM-1909
<b>30</b>	933 8x25 8.8 B	TORNILLO DIN 933 8X25 8.8 BICROMATADO	<b>63</b>	VA-032800	ESPUMA CRIBA SM-1909



## 13.9 SMALL HYDRAULIC FAN

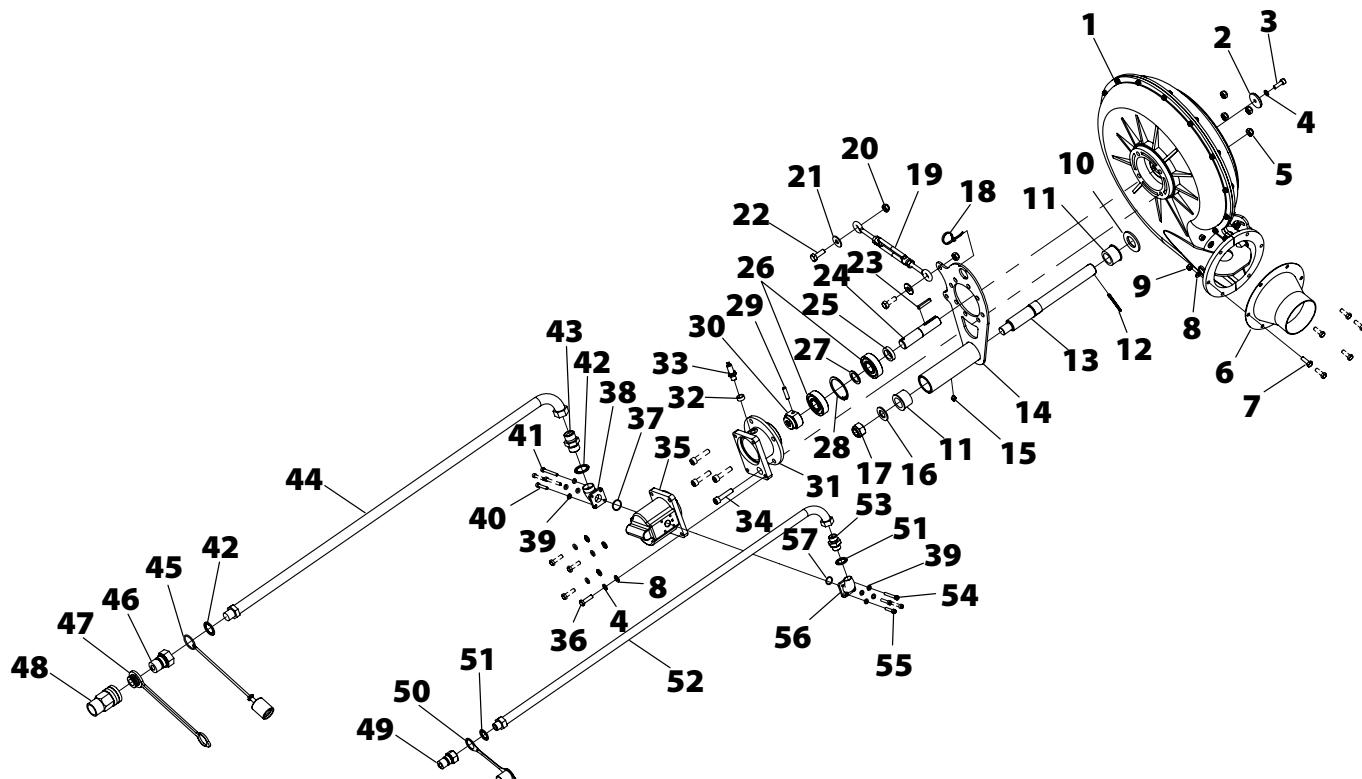
Nº	REFERENCIA	DENOMINACIÓN	Nº	REFERENCIA	DENOMINACIÓN
1	CO-041502	TURBINA D320 MISTRAL SIN BUJE	28	ME-041335	ANILLO SENSOR TURBINA NEUMASEM
2	ME-041351	ARANDELA 40X8.5X6	29	FE-650025	SENSOR INDUCTIVO TURBINA RDS
3	912 8X25 BI	TORNILLO DIN 912 M8X25 BICROMATADO	30	912 10X45 8.8 B	TORNILLO ALLEN DIN 912 M10X45 8.8 BICROMATADO
4	127 8 BI	ARANDELA DIN 127 M8 BICROMATADA	31	HI-708055	MOTOR HIDRÁULICO 8,3CM ANTIRRETORNO INCORPORADO
5	985 10	TUERCA DIN 985 M10	32	933 8X30 8.8 B	TORNILLO DIN 933 M8X30 8.8 BICROMATADO
6	125 30 BI	ARANDELA DIN 125 M30 BICROMATADA	33	125 8 BI	ARANDELA PLANA DIN-125 M8 BICROMATADA
7	PL-041306	CASQ. DE FRICCIÓN Ø40x28x26 C/VALONA	34	FE-601092	JUNTA TÓRICA Ø 24X2
8	94 5X40 BI	PASADOR DE ALETAS DIN 94 M 5X40 BICROMATADO	35	HI-708057	BRIDA ACODADA 3/4" SALIDA MOTOR CON ANTIRRETORNO
9	ME-042801	EJE SOPORTE TURBINA HIDRÁULICA	36	127 6 BI	ARANDELA DIN 127 M6 BI
10	PS-042814	SOPORTE TURBINA HIDRÁULICA	37	912 6X35 8.8 BI	TORNILLO ALLEN DIN 912 M6X35 8.8 BICROMATADO
11	FE-603001	ENGRASADOR RECTO M-6	38	912 6X55 8.8 BI	TORNILLO ALLEN DIN 912 M6X55 8.8 BICROMATADO
12	125 20 BI	ARANDELA DIN 125 M20 BICROMATADA	39	HI-705004	ARANDELA METALBUNA 3/4"
13	985 20	TUERCA DIN 985 M20	40	HI-704012	RACOR UNION MF3/4"MF3/4"
14	FE-606013	BRIDA NYLON 4,8X200	41	HI-700152	TUBO R1AT 5/8" L=2M M 3/4"-H90°G 3/4"
15	FE-613015	TENSOR M10 CON AGUJERO Ø14 L=213/296	42	HI-707011	TAPÓN H PARA MACHO ENCHUFE RÁPIDO 3/4"
16	985 10	TUERCA DIN 985 M10	43	HI-701014	ENCHUFE RÁPIDO DE PUNZÓN MACHO 3/4"
17	9021 10 BI	ARANDELA DIN 9021 M10 BICROMATADA	44	HI-707010	TAPÓN M PARA HEMBRA ENCHUFE RÁPIDO 3/4"
18	933 10X30 8.8 B	TORNILLO DIN 933 M10X30 8.8 BICROMATADO	45	HI-701015	ENCHUFE RÁPIDO DE PUNZÓN HEMBRA 3/4"
19	6885-A 6X6X35	CHAVETA DIN 6885-A 6X6X35	46	HI-701000	ENCHUFE RÁPIDO MACHO 1/2" CETOP ISO A - TIPO FASTE
20	ME-041360	EJE TURBINA HIDRÁULICA D.320 MISTRAL	47	HI-707001	PROTECTOR P/ACOPLAMIENTO HIDR. RÁPIDO MACHO 1/2
21	ME-041350	SEPARADOR 22X36X8	48	HI-705002	ARANDELA METALBUNA 1/2"
22	FE-600078	RODAMIENTO 6305 2RS CLASE A	49	HI-700151	TUBO R2AT 5/8" L=2M M 1/2"-H90°G 1/2"
23	ME-041349	ARANDELA 25X36X2.2	50	HI-704004	RACOR UNIÓN MF1/2-MF1/2
24	472 62	ANILLO SAEGER DIN 472 62	51	912 6X45 8.8 BI	TORNILLO ALLEN DIN 912 M6X45 8.8 BICROMATADO
25	7343 8X32	PASADOR ELASTICO ESPIRAL DIN 7343 8X32	52	912 6X30 BI	TORNILLO ALLEN DIN 912 M-6X30
26	ME-041347	ADAPTADOR EJE MOTOR-TURBINA NEUMASEM	53	HI-708056	BRIDA ACODADA 1/2" ENTRADA MOTOR CON ANTIRRETORNO
27	ME-041346	BUJE ADAPTADOR MOTOR HIDR. TURBINA NEUMASEM	54	FE-601091	JUNTA TÓRICA Ø 16X2



## 13.10 BIG HYDRAULIC FAN

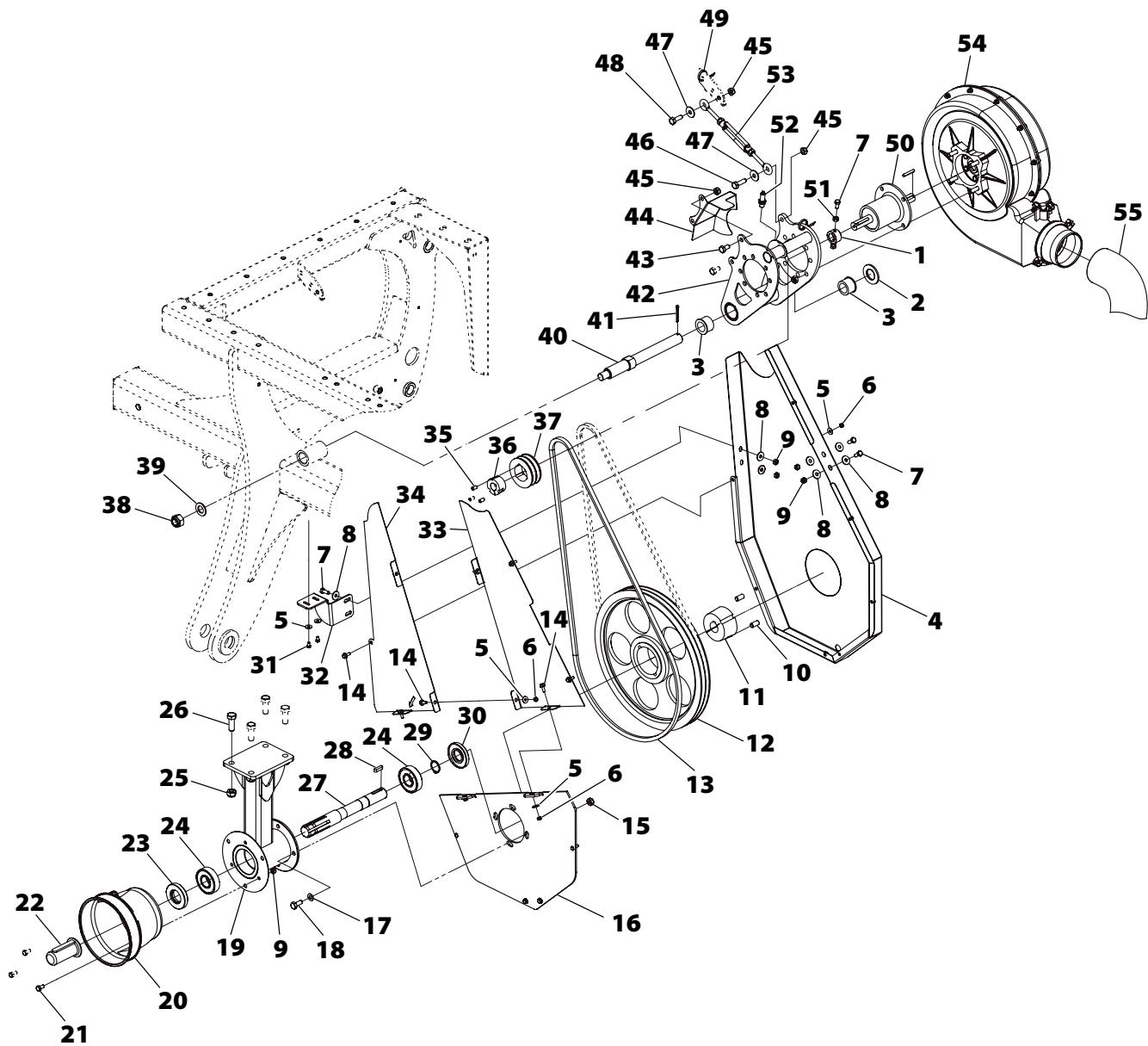
Nº	REFERENCIA	DENOMINACIÓN
1	CO-041502	TURBINA D320 MISTRAL SIN BUJE
2	ME-041351	ARANDELA 40X8.5X6
3	912 8X25 BI	TORNILLO DIN 912 M8X25 BICROMATADO
4	127 8 BI	ARANDELA DIN 127 M8 BICROMATADA
5	985 10	TUERCA DIN 985 M10
6	PS-041335	TOBERA ADAPTADOR TURBINA Ø135/Ø100
7	933 8X25 8.8 B	TORNILLO DIN 933 8X25 8.8 BICROMATADO
8	125 8 BI	ARANDELA PLANA DIN-125 M8 BICROMATADA
9	985 8	TUERCA DIN 985 M8
10	125 30 BI	ARANDELA DIN 125 M30 BICROMATADA
11	PL-041306	CASQ. DE FRICCIÓN Ø40x28x26 C/VALONA
12	94 5X40 BI	PASADOR DE ALETAS DIN 94 M 5X40 BI
13	ME-042801	EJE SOPORTE TURBINA HIDRÁULICA
14	PS-042814	SOPORTE TURBINA HIDRÁULICA
15	FE-603001	ENGRASADOR RECTO M-6
16	125 20 BI	ARANDELA DIN 125 M20 BICROMATADA
17	985 20	TUERCA DIN 985 M20
18	FE-606013	BRIDA NYLON 4,8X200
19	FE-613015	TENSOR M10 CON AGUJERO Ø14 L=213/296
20	985 10	TUERCA DIN 985 M10
21	9021 10 BI	ARANDELA DIN 9021 M10 BICROMATADA
22	933 10X30 8.8 B	TORNILLO DIN 933 M10X30 8.8 BICROMATADO
23	6885-A 6X6X35	CHAVETA DIN 6885-A 6X6X35
24	ME-041360	EJE TURBINA HIDRAULICA D.320 MISTRAL
25	ME-041350	SEPARADOR 22X36X8
26	FE-600078	RODAMIENTO 6305 2RS CLASE A
27	ME-041349	ARANDELA 25X36X2.2
28	472 62	ANILLO SAEGER DIN 472 62
29	7343 8X32	PASADOR ELASTICO ESPIRAL DIN 7343 8X32

Nº	REFERENCIA	DENOMINACIÓN
30	ME-041347	ADAPTADOR EJE MOTOR-TURBINA NEUMASEM
31	ME-041346	BUJE ADAPTADOR MOTOR HIDR. TURBINA NEUMASEM
32	ME-041335	ANILLO SENSOR TURBINA NEUMASEM
33	FE-650025	SENSOR INDUCTIVO TURBINA RDS
34	912 10X45 8.8 B	TORNILLO ALLEN DIN 912 M10X45 8.8 BICROMATADO
35	HI-708055	MOTOR HIDRAULICO 8,3CM ANTIRETORNO INCORPORADO
36	933 8X30 8.8 B	TORNILLO DIN 933 M8X30 8.8 BICROMATADO
37	FE-601092	JUNTA TORICA Ø 24X2
38	HI-708057	BRIDA ACODADA 3/4" SALIDA MOTOR CON ANTIRRETORNO
39	127 6 BI	ARANDELA DIN 127 M6 BICROMATADA
40	912 6X35 8.8 BI	TORNILLO ALLEN DIN 912 M6X35 8.8 BICROMATADO
41	912 6X55 8.8 BI	TORNILLO ALLEN DIN 912 M6X55 8.8 BICROMATADO
42	HI-705004	ARANDELA METALBUNA 3/4"
43	HI-704012	RACOR UNIÓN MF3/4"MF3/4"
44	HI-700152	TUBO R1AT 5/8" L=2M M 3/4"-H90°G 3/4"
45	HI-707011	TAPÓN H PARA MACHO ENCHUFE RÁPIDO 3/4"
46	HI-701014	ENCHUFE RÁPIDO DE PUNZÓN MACHO 3/4"
47	HI-707010	TAPÓN M PARA HEMBRA ENCHUFE RÁPIDO 3/4"
48	HI-701015	ENCHUFE RÁPIDO DE PUNZÓN HEMBRA 3/4"
49	HI-701000	ENCHUFE RÁPIDO MACHO 1/2"CETOP ISO A - TIPO FASITE
50	HI-707001	PROTECTOR P/ACOPLAMIENTO HIDR. RÁPIDO MACHO 1/2
51	HI-705002	ARANDELA METALBUNA 1/2"
52	HI-700151	TUBO R2AT 5/8" L=2M M 1/2"-H90°G 1/2"
53	HI-704004	RACOR UNIÓN MF1/2-MF1/2
54	912 6X45 8.8 BI	TORNILLO ALLEN DIN 912 M6X45 8.8 BICROMATADO
55	912 6X30 BI	TORNILLO ALLEN DIN 912 M-6X30
56	HI-708056	BRIDA ACODADA 1/2" ENTRADA MOTOR CON ANTIRRETORNO
57	FE-601091	JUNTA TÓRICA Ø 16X2



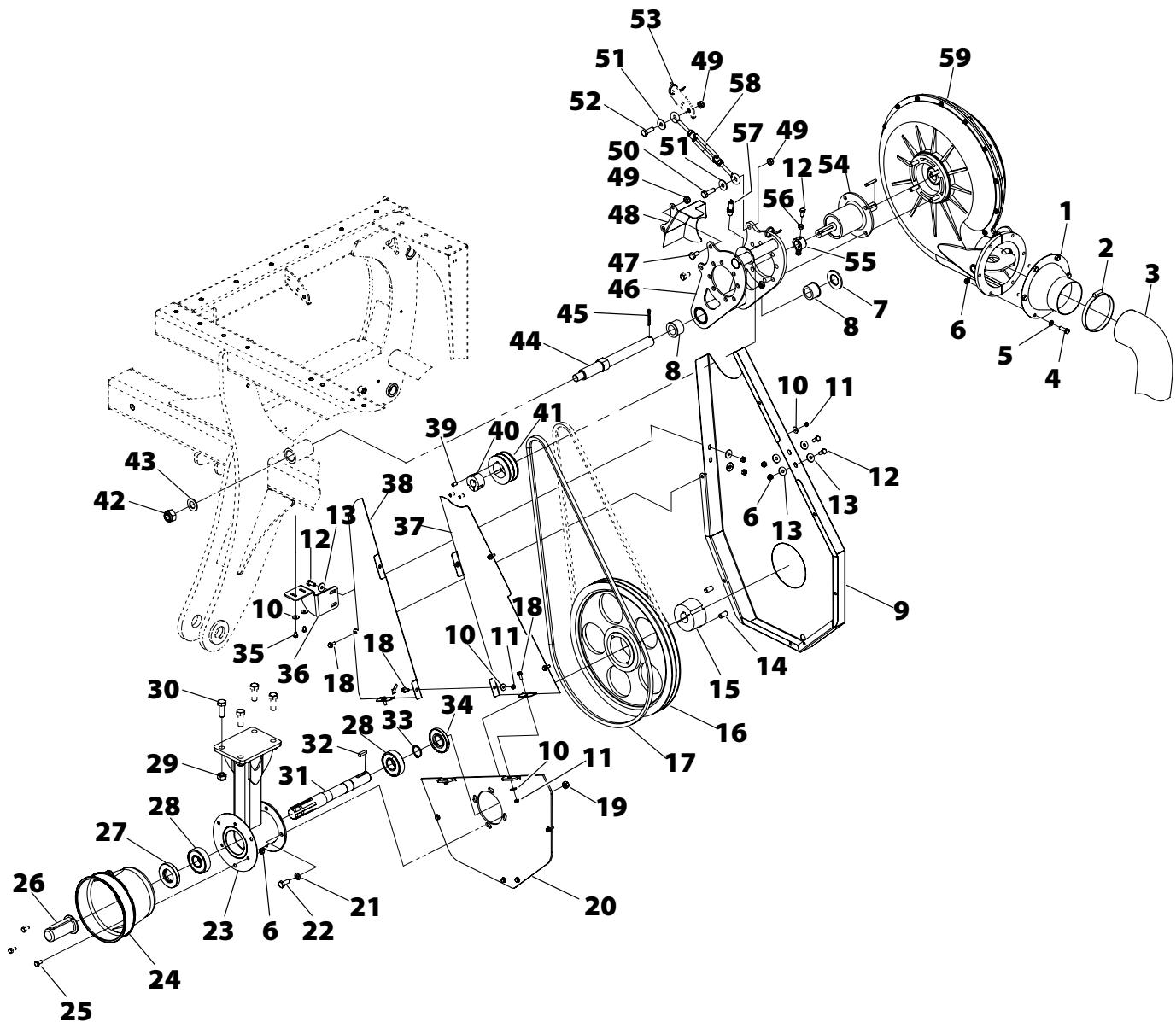
## 13.11 SMALL MECHANICAL FAN

Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	ME-041334	ANILLO SUJECCIÓN RODAMIENTO POLEA
<b>2</b>	125 30 BI	ARANDELA DIN 125 M30 BICROMATADA
<b>3</b>	PL-041306	CASQ. DE FRICCIÓN Ø40x28x26 C/VALONA
<b>4</b>	PX-042813	CHAPA CAJA PROTECCIÓN CORREA
<b>5</b>	9021 6 BI	ARANDELA PLANA DIN 9021 M6 BICROMATADA
<b>6</b>	985 6	TUERCA DIN 985 M6
<b>7</b>	933 8X20 8.8 B	TORNILLO DIN 933 M8X20 8.8 BICROMATADO
<b>8</b>	9021 8 BI	ARANDELA PLANA DIN 9021 M8 BICROMATADA
<b>9</b>	985 8	TUERCA DIN 985 M8
<b>10</b>	913 12X25 BI	TORNILLO DIN 913 M12X25 BICROMATADO
<b>11</b>	FE-604019	CASQUILLO CÓNICO Ø30 PARA POLEA 400- SPA-2 (ACERO)
<b>12</b>	FE-604016	POLEA 400-SPA-2 2517 C. CASQUILLO CON 2517-30
<b>13</b>	FE-604055	CORREA TRAPECIAL XPA 2057 SM-1909
<b>14</b>	6921 6X16 8.8B	TORNILLO DIN 6921 M6X16 8.8 BICROMATADO
<b>15</b>	985 10	TUERCA DIN 985 M10
<b>16</b>	PX-042843	TAPA FRONTEL INFERIOR PROTECCIÓN CORREA
<b>17</b>	125 10 BI	ARANDELA PLANA DIN 125 M10 BICROMATADA
<b>18</b>	933 10X25 8.8 B	TORNILLO DIN 933 M10X25 8.8 BICROMATADO
<b>19</b>	PS-042800	SOPORTE POLEA TRAPECIAL 1000RPM
<b>20</b>	TA-041306	PROTECTOR TDF TURBINA MEC.
<b>21</b>	933 8X16 8.8 B	TORNILLO DIN 933 M 8X16 8.8 BICROMATADO
<b>22</b>	CN-817016	PROTECTOR EJE TRANSMISIÓN DE 35
<b>23</b>	FE-601041	RETÉN 35X72X12
<b>24</b>	FE-600051	RODAMIENTO 6306 2RS CLASE A
<b>25</b>	985 14	TUERCA DIN 985 M14
<b>26</b>	933 14X40 8.8 B	TORNILLO DIN 933 M14X40 8.8 BICROMATADO
<b>27</b>	ME-041332	EJE ESTRIADO POLEA TRAPECIAL NEUMASEM
<b>28</b>	6885-A 8X7X30	CHAVETA DIN 6885-A 8X7X30
<b>29</b>	471 30	ANILLO SAEGER DIN 471 30
<b>30</b>	FE-601042	RETÉN 30X72X10
<b>31</b>	933 6X10 8.8 B	TORNILLO DIN 933 M6X10 8.8 BICROMATADO
<b>32</b>	PX-042816	CHAPA ANGULA PROTECCIÓN CORREA
<b>33</b>	PX-042846	TAPA FRONTEL B PROT CORREA
<b>34</b>	PX-042845	TAPA FRONTEL A PROT CORREA
<b>35</b>	913 8X15 BI	TORNILLO DIN 913 M8X15 BICROMATADO
<b>36</b>	FE-604020	CASQUILLO CÓNICO Ø22 PARA POLEA 80-SPA-2
<b>37</b>	FE-604017	POLEA 80-SPA-2 1210 C. CASQUILLO CON. 1210-22
<b>38</b>	985 20	TUERCA DIN 985 M20
<b>39</b>	125 20 BI	ARANDELA DIN 125 M20 BICROMATADA
<b>40</b>	ME-042801	EJE SOPORTE TURBINA HIDRÁULICA
<b>41</b>	94 5X40 BI	PASADOR DE ALETAS DIN 94 M 5X40 BICROMATADO
<b>42</b>	PS-042802	SOPORTE TURBINA MECÁNICA
<b>43</b>	933 10X20 8.8	TORNILLO DIN 933 M10X20 8.8
<b>44</b>	PX-042825	TAPA CORREAS SUPERIOR PEQUEÑO
<b>45</b>	985 10	TUERCA DIN 985 M10
<b>46</b>	933 10X35 8.8 B	TORNILLO DIN 933 M10X35 8.8 BICROMATADO
<b>47</b>	9021 10 BI	ARANDELA DIN 9021 M10 BICROMATADA
<b>48</b>	933 10X30 8.8 B	TORNILLO DIN 933 M10X30 8.8 BICROMATADO
<b>49</b>	FE-606013	BRIDA NYLON 4,8X200
<b>50</b>	CO-041313	BUJE COMPLETO TURBINA MEC. MISTRAL CON CHAVETAS
<b>51</b>	934 8 BI	TUERCA DIN 934 M8 BI
<b>52</b>	FE-650025	SENSOR INDUCTIVO TURBINA RDS
<b>53</b>	FE-613015	TENSOR M10 CON AGUJERO Ø14 L=213/296
<b>54</b>	CO-041310	TURBINA MECÁNICA MISTRAL SIN BUJE
<b>55</b>	VA-042802	TUBO DISTRIBUCIÓN ENTRADA VENTURI Ø100

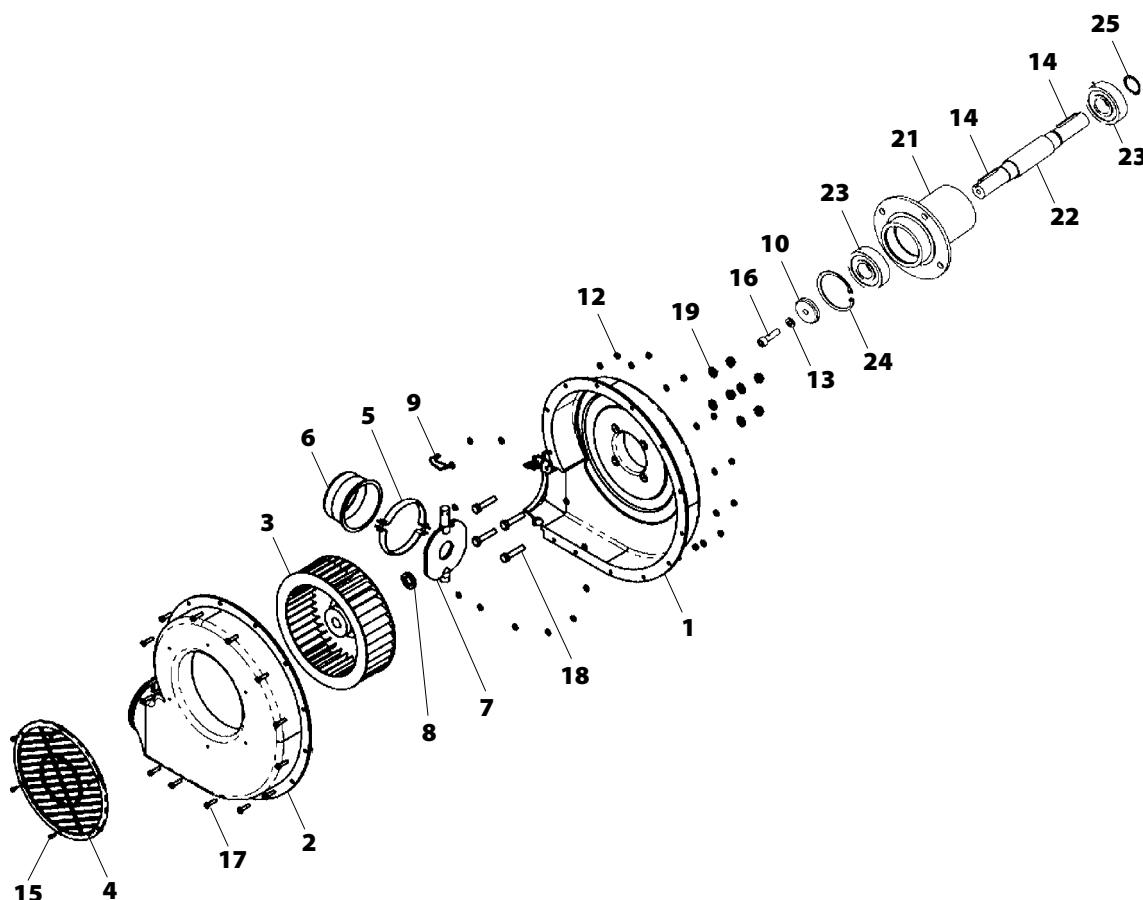


## 13.12 BIG MECHANICAL FAN

Nº	REFERENCIA	DENOMINACIÓN	Nº	REFERENCIA	DENOMINACIÓN
1	PS-041335	TOBERA ADAPTADOR TURBINA Ø135/Ø100	31	ME-041332	EJE ESTRIADO POLEA TRAPECIAL NEUMASEM
2	FE-606008	ABRAZADERA 90-110/12 W1 TORRO	32	6885-A 8X7X30	CHAVETA DIN 6885-A 8X7X30
3	VA-042802	TUBO DISTRIBUCIÓN ENTRADA VENTURI Ø100	33	471 30	ANILLO SAEGER DIN 471 30
4	933 8X25 8.8 B	TORNILLO DIN 933 8X25 8.8 BICROMATADO	34	FE-601042	RETÉN 30X72X10
5	125 8 BI	ARANDELA PLANA DIN-125 M8 BICROMATADA	35	933 6X10 8.8 B	TORNILLO DIN 933 M6X10 8.8 BICROMATADO
6	985 8	TUERCA DIN 985 M8	36	PX-042816	CHAPA ANGULA PROTECCIÓN CORREA
7	125 30 BI	ARANDELA DIN 125 M30 BICROMATADA	37	PX-042846	TAPA FRONTAL B PROT CORREA
8	PL-041306	CASQ. DE FRICCIÓN Ø40x28x26 C/VALONA	38	PX-042845	TAPA FRONTAL A PROT CORREA
9	PX-042813	CHAPA CAJA PROTECCIÓN CORREA	39	913 8X15 BI	TORNILLO DIN 913 M8X15 BICROMATADO
10	9021 6 BI	ARANDELA PLANA DIN 9021 M6 BICROMATADA	40	FE-604020	CASQUILLO CÓNICO Ø22 PARA POLEA 80-SPA-2
11	985 6	TUERCA DIN 985 M6	41	FE-604017	POLEA 80-SPA-2 1210 C. CASQUILLO CON. 1210-22
12	933 8X20 8.8 B	TORNILLO DIN 933 M8X20 8.8 BICROMATADO	42	985 20	TUERCA DIN 985 M20
13	9021 8 BI	ARANDELA PLANA DIN 9021 M8 BICROMATADA	43	125 20 BI	ARANDELA DIN 125 M20 BICROMATADA
14	913 12X25 BI	TORNILLO DIN 913 M12X25 BICROMATADO	44	ME-042801	EJE SOPORTE TURBINA HIDRÁULICA
15	FE-604019	CASQUILLO CÓNICO Ø30 PARA POLEA 400- SPA-2 (ACERO)	45	94 5X40 BI	PASADOR DE ALETAS DIN 94 M 5X40 BICROMATADO
16	FE-604016	POLEA 400-SPA-2 2517 C. CASQUILLO CON 2517-30	46	PS-042802	SOPORTE TURBINA MECÁNICA
17	FE-604055	CORREA TRAPECIAL XPA 2057 SM-1909	47	933 10X20 8.8	TORNILLO DIN 933 M10X20 8.8
18	6921 6X16 8.8 B	TORNILLO DIN 6921 M6X16 8.8 BICROMATADO	48	PX-042825	TAPA CORREAS SUPERIOR PEQUEÑO
19	985 10	TUERCA DIN 985 M10	49	985 10	TUERCA DIN 985 M10
20	PX-042843	TAPA FRONTAL INFERIOR PROTECCIÓN CORREA	50	933 10X35 8.8 B	TORNILLO DIN 933 M10X35 8.8 BICROMATADO
21	125 10 BI	ARANDELA PLANA DIN 125 M10 BICROMATADA	51	9021 10 BI	ARANDELA DIN 9021 M10 BICROMATADA
22	933 10X25 8.8 B	TORNILLO DIN 933 M10X25 8.8 BICROMATADO	52	933 10X30 8.8 B	TORNILLO DIN 933 M10X30 8.8 BICROMATADO
23	PS-042800	SOPORTE POLEA TRAPECIAL 1000RPM	53	FE-606013	BRIDA NYLON 4,8X200
24	TA-041306	PROTECTOR TDF TURBINA MEC.	54	CO-041313	BUJE COMPLETO TURBINA MEC. MISTRAL CON CHAVETAS
25	933 8X16 8.8 B	TORNILLO DIN 933 M 8X16 8.8 BICROMATADO	55	ME-041334	ANILLO SUJECIÓN RODAMIENTO POLEA
26	CN-817016	PROTECTOR EJE TRANSMISIÓN DE 35	56	934 8 BI	TUERCA DIN 934 M8 BICROMATADA
27	FE-601041	RETÉN 35X72X12	57	FE-650025	SENSOR INDUCTIVO TURBINA RDS
28	FE-600051	RODAMIENTO 6306 2RS CLASE A	58	FE-613015	TENSOR M10 CON AGUJERO Ø14 L=213/296
29	985 14	TUERCA DIN 985 M14	59	CO-041502	TURBINA D320 MISTRAL SIN BUJE
30	933 14X40 8.8 B	TORNILLO DIN 933 M14X40 8.8 BICROMATADO			

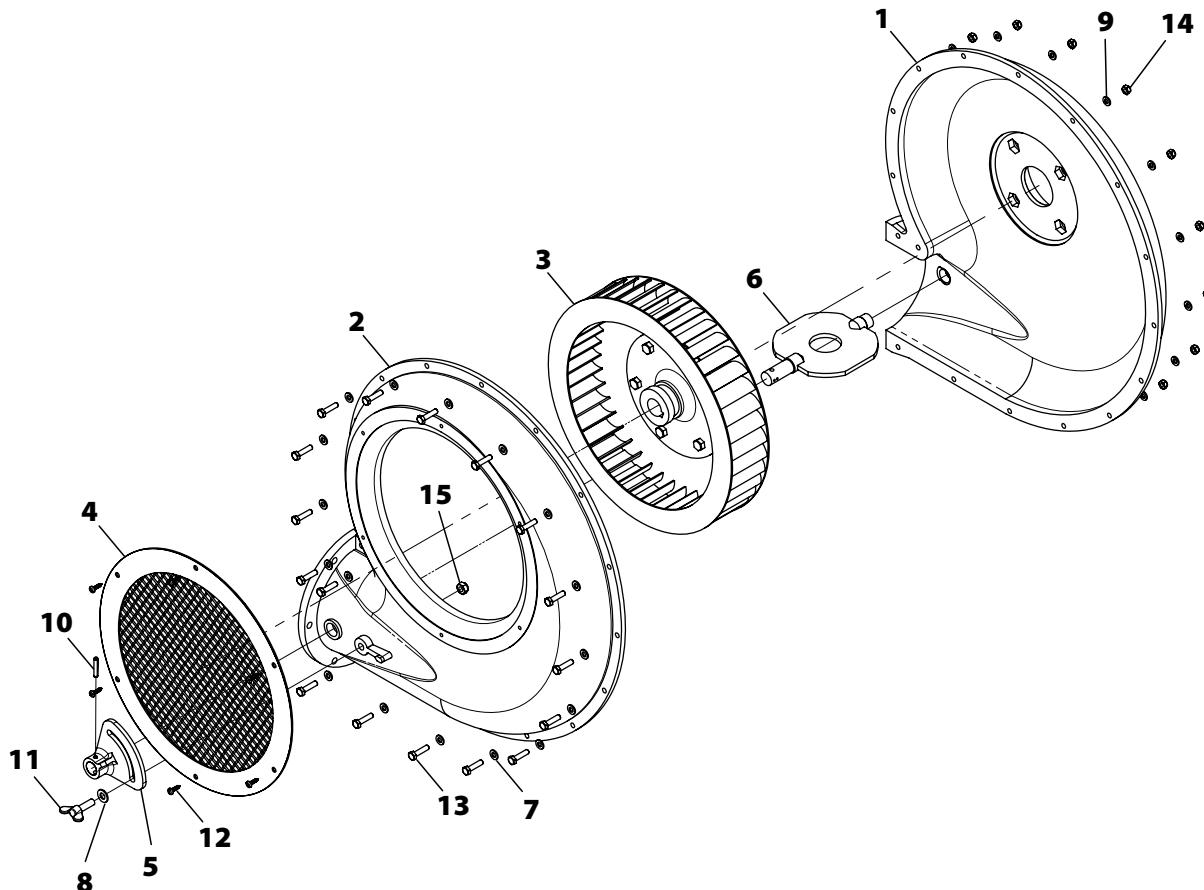


## 13.13 SMALL FAN WITH WHEEL HUB



Nº	REFERENCIA	DENOMINACIÓN
1	CO-041310/01	CUERPO TURBINA
2	CO-041310/02	TAPA CUERPO TURBINA
3	CO-041310/03	ROTOR TURBINA
4	CO-041310/04	REJILLA PROTECCIÓN TURBINA
5	CO-041310/05	BRIDA TURBINA (TORN Y TUERCA INCL.)
6	CO-041310/06	BOQUILLA REDUCCIÓN TURBINA
7	CO-041310/07	OBTURADOR TURBINA
8	CO-041310/08	SEPARADOR ROTOR BUJE TURBINA
9	CO-041310/09	ARANDELA FIJACIÓN BUJE TURBINA (4)
10	ME-041351	ARANDELA 40X8.5X6
11	125 10 BI	ARAN PLANA DIN 125 M10 BICROMATADA
12	125 6 BI	ARANDELA PLANA DIN 125 M6 BICROMATADA
13	127 8 BI	ARANDELA DIN 127 M8 BICROMATADA
14	6885-A 6X6X35	CHAVETA DIN 6885-A 6X6X35
15	7971 4,2X16 B	TORNILLO DIN 7971 4,2X16 BICROMATADO
16	912 8X30 8.8	TORNILLO DIN 912 M8X30 8.8
17	933 6X25 8.8 B	TORNILLO 933 M 6X25 8.8 BICROMATADO
18	933 10X50 8.8 B	TORNILLO DIN 933 M10X50 8.8 BICROMATADO
19	985 6	TUERCA DIN 985 M6
20	985 10	TUERCA DIN 985 M10
21	CO-041313/01	CARCASA BUJE TURBINA MEC.
22	CO-041313/02	EJE BUJE TURBINA MEC.
23	FE-600078	RODAMIENTO 6305 2RS CLASE A
24	472 62	ANILLO SAEGER DIN 472 62
25	471 25	ANILLO SAEGER DIN 471 25

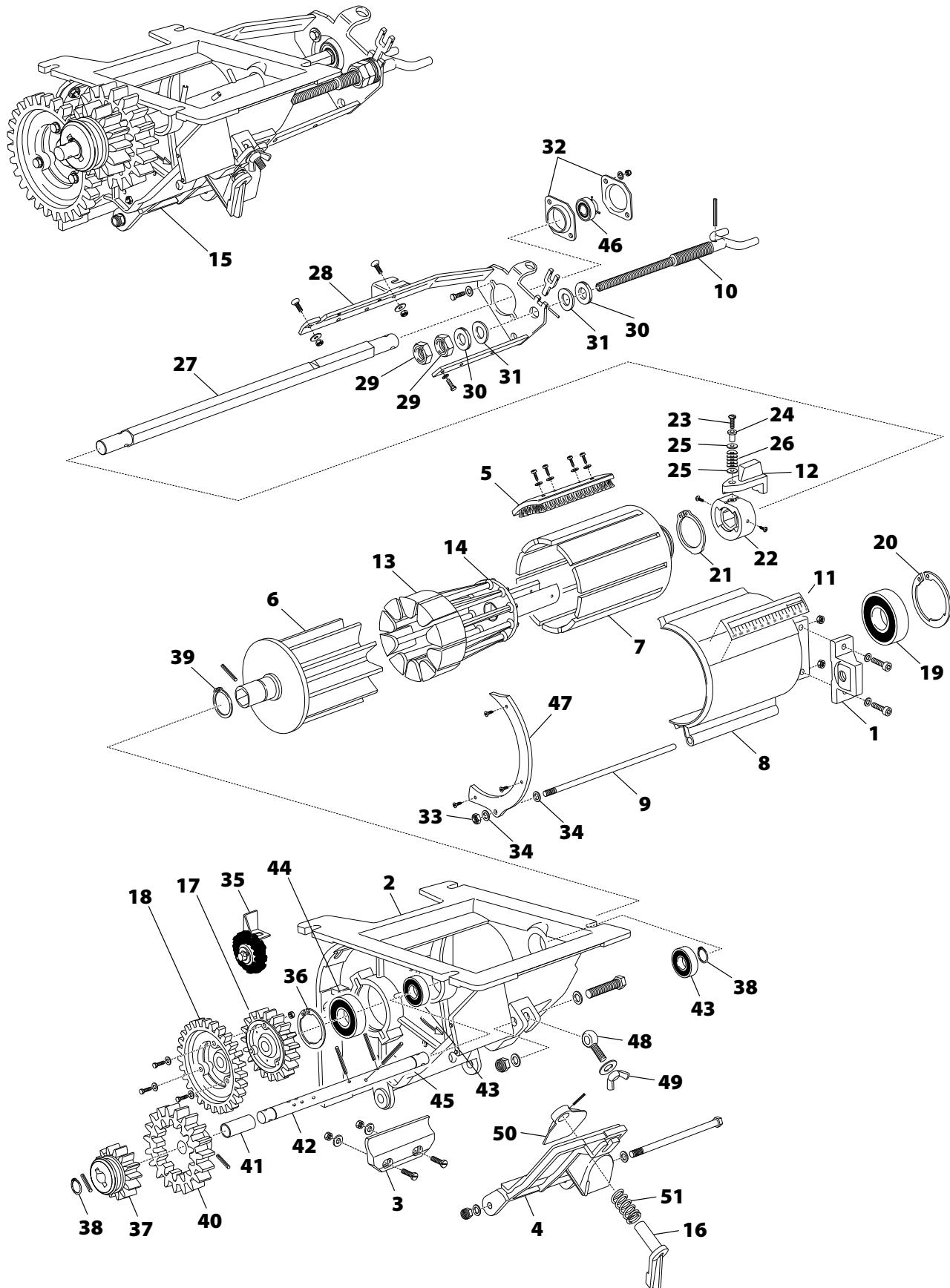
## 13.14 BIG MECHANICAL FAN D320



Nº	REFERENCIA	DENOMINACIÓN
1	CO-041502-00	CUERPO TURBINA MISTRAL D340
2	CO-041502-01	TAPA CUERPO TURBINA MISTRAL D340
3	CO-041502-02	ROTOR TURBINA MISTRAL D340
4	CO-041502-03	REJILLA PROTECCIÓN TURBINA MISTRAL D340
5	CO-041502-04	REGULADOR DE CAUDAL TURBINA D340
6	CO-041502-05	OBTURADOR TURBINA MECÁNICA D 320 MISTRAL
7	125 6 BI	ARANDELA DIN 125 M6 BICROMATADA
8	125 8 BI	ARANDELA DIN 125 M8 BICROMATADA
9	127 6 BI	ARANDELA GROWER DIN 127 6 BICROMATADA
10	1481 5X28 BI	PASADOR ELÁSTICO DIN 1481 Ø5x28 BICROMATADO
11	316 8x25 BI	PALOMILLA DIN 316 M8 BICROMATADA
12	7971 4,2X16 BI	TORNILLO DIN 7971 4,2x16 BICROMATADO
13	933 6X25 8.8B	TORNILLO DIN 933 M6x25 8,8 BICROMATADO
14	985 6	TUERCA DIN 985 M6
15	985 8	TUERCA DIN 985 M8

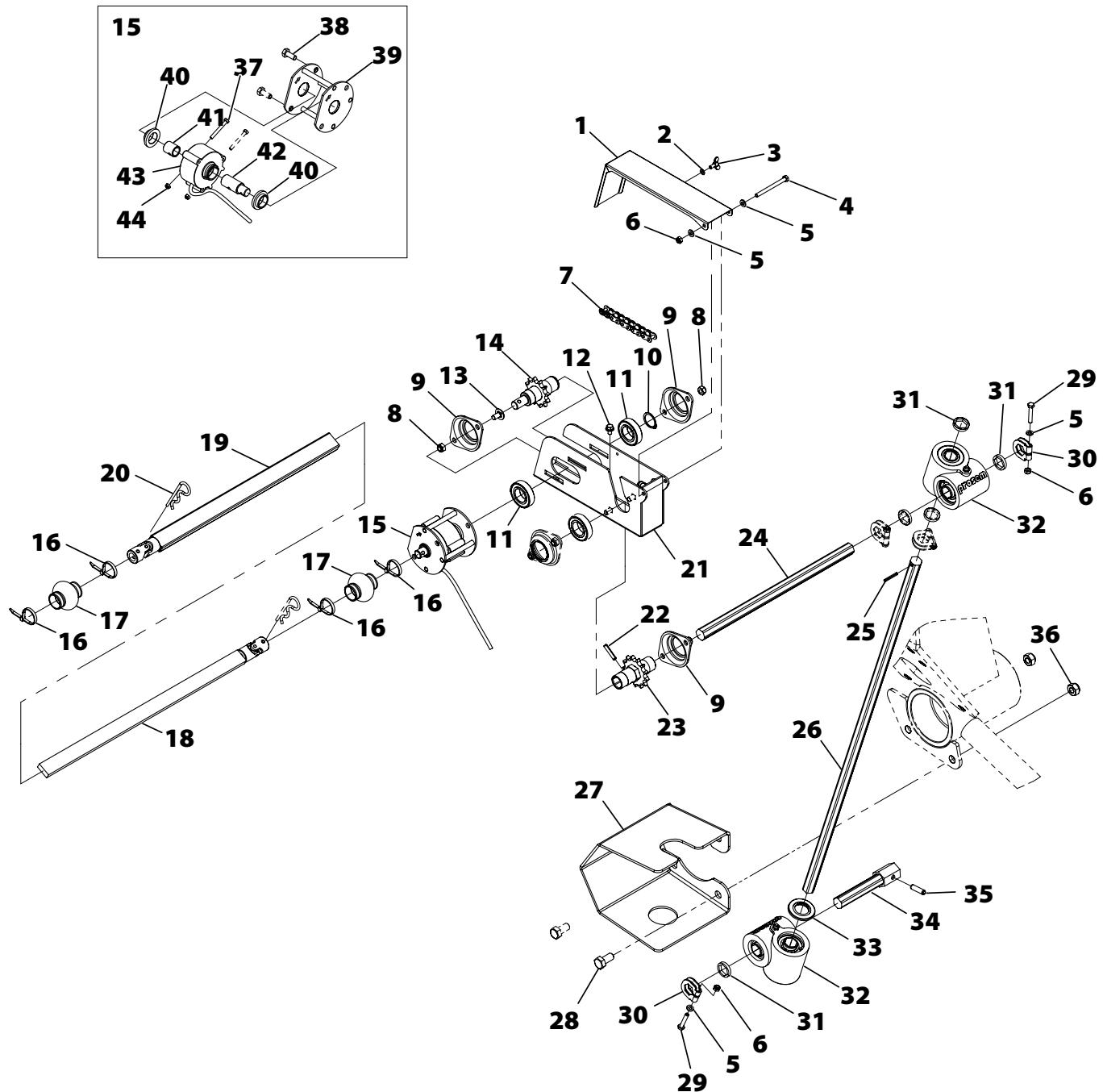
## 13.15 DISTRIBUTOR

Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	AG-041300	TUERCA CORREDERA HUSILLO DISTRIBUIDOR
<b>2</b>	AG-041340	CARCASA DISTRIBUIDOR 2010
<b>3</b>	AG-041302	GOMA INFERIOR DISTRIBUIDOR
<b>4</b>	AG-041341	TRAMPILLA VACIADO DISTRIBUIDOR 2010
<b>5</b>	AG-041304	CEPILLO CIERRE DISTRIBUIDOR
<b>6</b>	AG-041305	RODILLO DISTRIBUIDOR
<b>7</b>	AG-041306	JAULA DISTRIBUIDOR
<b>8</b>	AG-041307	SEMITUBO DISTRIBUIDOR
<b>9</b>	AG-041308	EJE DISTRIBUIDOR
<b>10</b>	AG-041309	HUSILLO DISTRIBUIDOR
<b>11</b>	AG-041310	GRADUADOR DISTRIBUIDOR NEUMASEM
<b>12</b>	AG-041315	LLAVE CIERRE DISTRIBUIDOR SEMILLAS FINAS
<b>13</b>	AG-041316	UÑAS CIERRE RODILLO SEMILLAS FINAS
<b>14</b>	AG-041317	DISCO PORTAUÑAS MISTRAL
<b>15</b>	CO-041305	DOSIFICADOR SEMILLA COMPLETO NEUMASEM
<b>16</b>	AG-041342	MANETA APERTURA TRAMPILLA VACIADO
<b>17</b>	AG-041319	PIÑÓN DE 19 Z DISTRIBUIDOR C/TALADROS
<b>18</b>	AG-041320	PIÑÓN DE 28 Z DISTRIBUIDOR MISTRAL
<b>19</b>	FE-600064	RODAMIENTO 6009 2RS CLASE B
<b>20</b>	472 75	ANILLO SAEGER DIN 472 75
<b>21</b>	471 45	ANILLO SAEGER DIN 471 45
<b>22</b>	AG-041321	ANILLO BLOQUEO DISTRIBUIDOR
<b>23</b>	920 4X20 BI	TORNILLO M 4X20 DISTRIBUIDOR
<b>24</b>	AG-041322	DISTANCIADOR TORNILLO DISTRIBUIDOR
<b>25</b>	125 6 BI	ARANDELA PLANA DIN 125 M6 BICROMATADA
<b>26</b>	137B 6	ARANDELA DE MUELLE DIN 137B M6
<b>27</b>	AG-041323	EJE RODILLO DISTRIBUIDOR
<b>28</b>	AG-041324	BRAZO SOPORTE DISTRIBUIDOR
<b>29</b>	AG-041336	TUERCA BRAZO SOPORTE DISTRIBUIDOR
<b>30</b>	125 18 BI	ARANDELA DIN 125 M18 BICROMATADA
<b>31</b>	137B 18	ARANDELA M 17 (BRAZO DISTRIBUIDOR)
<b>32</b>	AG-041325	SOPORTE RODAMIENTO DISTRIBUIDOR
<b>33</b>	934 5 BI	TUERCA DIN 934 M5 BICROMATADA
<b>34</b>	125 5 BI	ARANDELA PLANA DIN-125 M5 BICROMATADA
<b>35</b>	AG-041326	CEPILLO ROTATIVO DISTRIBUIDOR
<b>36</b>	472 47	ANILLO SAEGER DIN 472 47
<b>37</b>	AG-041328	PIÑÓN DE 14 Z ROJO DISTRIBUIDOR
<b>38</b>	471 15	ANILLO SAEGER DIN 471 Ø15
<b>39</b>	471 25	ANILLO SAEGER DIN 471 Ø25
<b>40</b>	AG-041331	PIÑÓN DE 19 Z DISTRIBUIDOR
<b>41</b>	AG-041332	CASQUILLO DISTRIBUIDOR
<b>42</b>	AG-041333	EJE AGITADOR DISTRIBUIDOR
<b>43</b>	CO-042404/11	RODAMIENTO 6002 2RS TRANSM.
<b>44</b>	FE-600047	RODAMIENTO 6005 2RS CLASE C CNR
<b>45</b>	1481 5X50 BI	PASADOR ELÁSTICO DIN 1481 M 5X50 BICROMATADO
<b>46</b>	AG-041334	RODAMIENTO AY15 2RS
<b>47</b>	AG-041335	PROTECTOR MEDIA LUNA DISTRIBUIDOR
<b>48</b>	444 8X35 BI	TORNILLO DIN 444 M-8X35 BICROMATADO
<b>49</b>	315 8 BI	PALOMILLA DIN 315 M8 BICROMATADA
<b>50</b>	AG-041343	TAPETA TRASERA TRAMPILLA VACIADO DISTRIBUIDOR
<b>51</b>	AG-041344	MUELLE TRAMPILLA VACIADO DISTRIBUIDOR



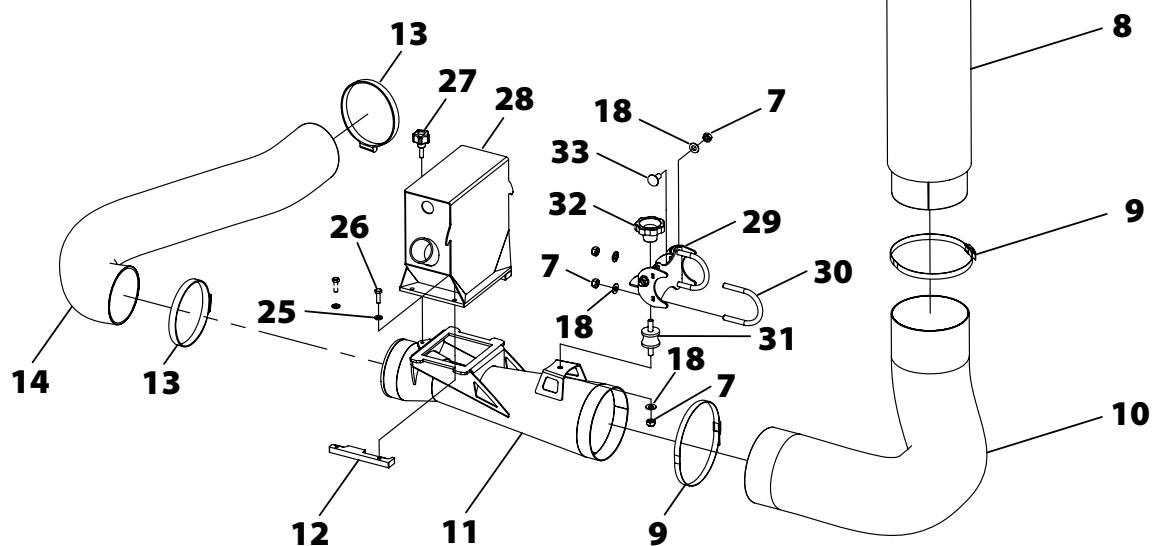
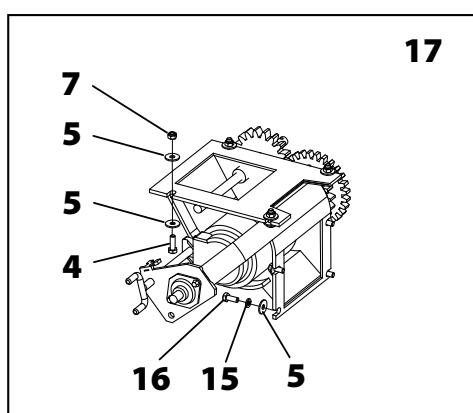
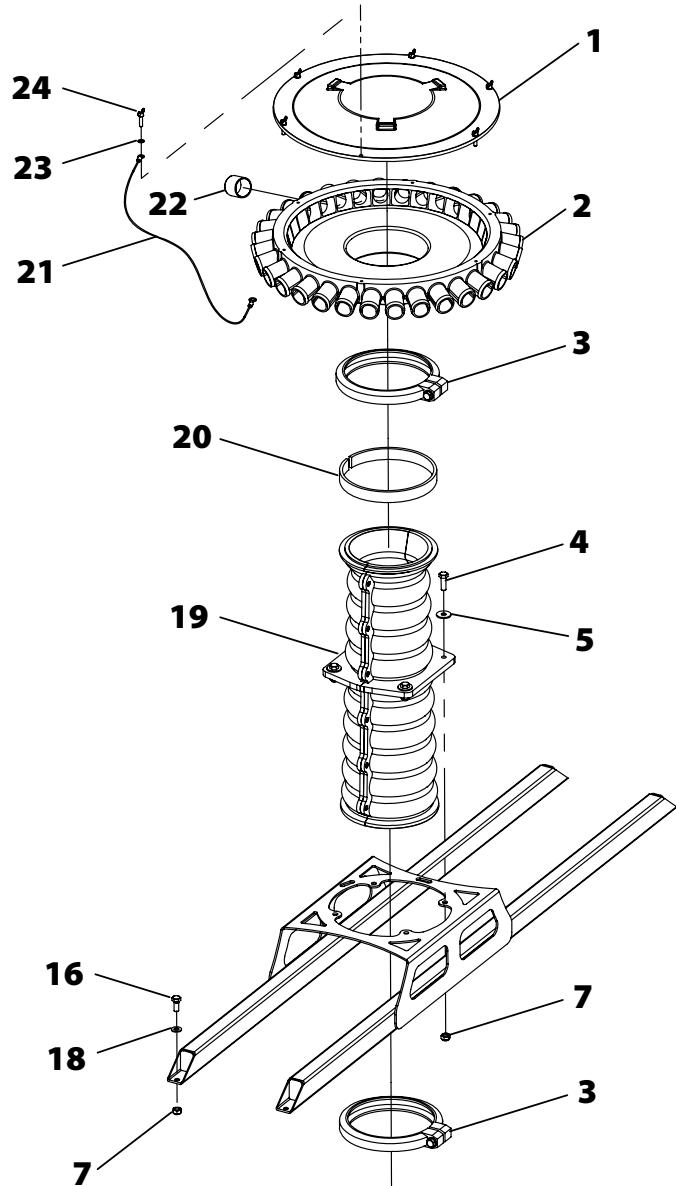
## 13.16 MECHANICAL TRANSMISSION

Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	PX-042805	TAPA PROTECCIÓN CAJA TRANSMISIÓN
<b>2</b>	125 5 BI	ARANDELA PLANA DIN-125 M5 BICROMATADA
<b>3</b>	316 5x10 BI	TORNILLO MARIPOSA DIN-316 M-5X10 BICROMATADO
<b>4</b>	931 6X70 8.8 B	TORNILLO DIN 931 M 6X70 8.8 BICROMATADO
<b>5</b>	125 6 BI	ARANDELA PLANA DIN 125 M6 BICROMATADA
<b>6</b>	985 6	TUERCA DIN 985 M6
<b>7</b>	FE-605107	CADENA 1/2" ISO 08B-1 L=457,2 35P+1E ABIERTA
<b>8</b>	985 8	TUERCA DIN 985 M8
<b>9</b>	EE-041701	SOPORTE RODAMIENTO 6005 PROSEM
<b>10</b>	471 25	ANILLO SAEGER DIN 471 25
<b>11</b>	FE-600047	RODAMIENTO 6005 2RS CLASE C CNR
<b>12</b>	6921 6X10 8.8 B	TORNILLO DIN 6921 M6X10 8.8 BICROMATADO
<b>13</b>	603 8X15 BI C-C	TORNILLO DIN 603 M8X15 CUELLO CORTO BICROMATADO
<b>14</b>	PS-042810	PIÑÓN CONDUCIDO 12Z 450/500/600
<b>14</b>	PS-042811	PIÑÓN CONDUCIDO 15Z 400
<b>15</b>	EO-102802	CORTE TOTAL SIEMBRA SM-1909
<b>16</b>	FE-606013	BRIDA NYLON 4,8X200
<b>17</b>	PL-041714	FUELLE JUNTA UNIVERSAL 104G
<b>18</b>	PS-041324	PASAMANO MACHO TRANSM. TELESC. NEUMASEM
<b>19</b>	PS-041325	TUBO HEMBRA TRANSM. TELESC. NEUMASEM
<b>20</b>	FE-610003	PASADOR "R" DE 4 MM
<b>21</b>	PX-042803	CHAPA INFERIOR CAJA TRANSMISIÓN
<b>22</b>	1481 6X30 BI	PASADOR ELÁSTICO DIN 1481 M 6X30 BICROMATADO
<b>23</b>	PS-042809	PIÑÓN MOTRIZ 13Z 400/500
<b>23</b>	PS-042805	PIÑÓN MOTRIZ 12Z 450
<b>23</b>	PS-042804	PIÑÓN MOTRIZ 15Z 600
<b>24</b>	TA-042800	EJE HORIZONTAL HEXAGONAL 19
<b>25</b>	1481 4X30 BI	PASADOR ELÁSTICO DIN 1481 M 4X30 BICROMATADO
<b>26</b>	TA-042801	EJE VERTICAL HEXAGONAL 19
<b>27</b>	PX-012840	PROTECCIÓN TRANSMISIÓN RUEDA MÁQUINA
<b>28</b>	933 12X25 8.8 B	TORNILLO DIN 933 M12X25 8.8 BICROMATADO
<b>29</b>	931 6X35 8.8 B	TORNILLO DIN 931 M6X35 8.8 BICROMATADO
<b>30</b>	PX-141726	BLOQUEADOR HEX. 19 E=5
<b>31</b>	PX-042820	DISTANCIADOR HEX. 19 E=5
<b>32</b>	CO-141736	TRANSMISIÓN 90° HEX. 19 1:1 (S.W. 2023)
<b>33</b>	FE-601074	RETÉN SIMPLE LABIO 25X47X5
<b>34</b>	PS-042806	EJE ADAPTADOR RUEDA MÁQUINA
<b>35</b>	1481 8X30 BI	PASADOR ELÁSTICO DIN 1481 M 8X30 BICROMATADO
<b>36</b>	985 12	TUERCA DIN 985 M12
<b>37</b>	931 5X40 8.8 BI	TORNILLO DIN 931 M-5X40 8,8 BICROMATADO
<b>38</b>	933 8X20 8.8 B	TORNILLO DIN 933 M8X20 8.8 BICROMATADO
<b>39</b>	PS-042812	SOPORTE EMBRAGUE
<b>40</b>	PL-020204	CASQUILLO 20,2X25X10
<b>41</b>	ME-102802	CASQUILLO ADAPTADOR CORTE TOTAL SIEMBRA
<b>42</b>	ME-101333	MACHO CORTE TOTAL SIEMBRA 08
<b>43</b>	MV-100603	MOTOR MARCADOR DE CAMINOS Ø20 IZDA FIJACIÓN PASAD
<b>44</b>	985 5	TUERCA DIN 985 M5 BICROMATADO



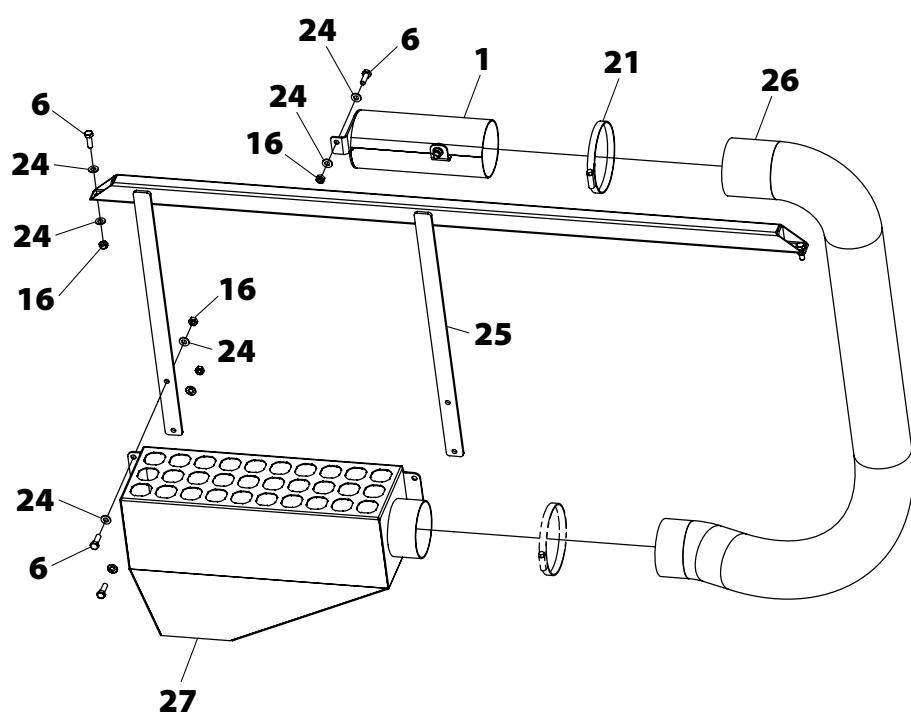
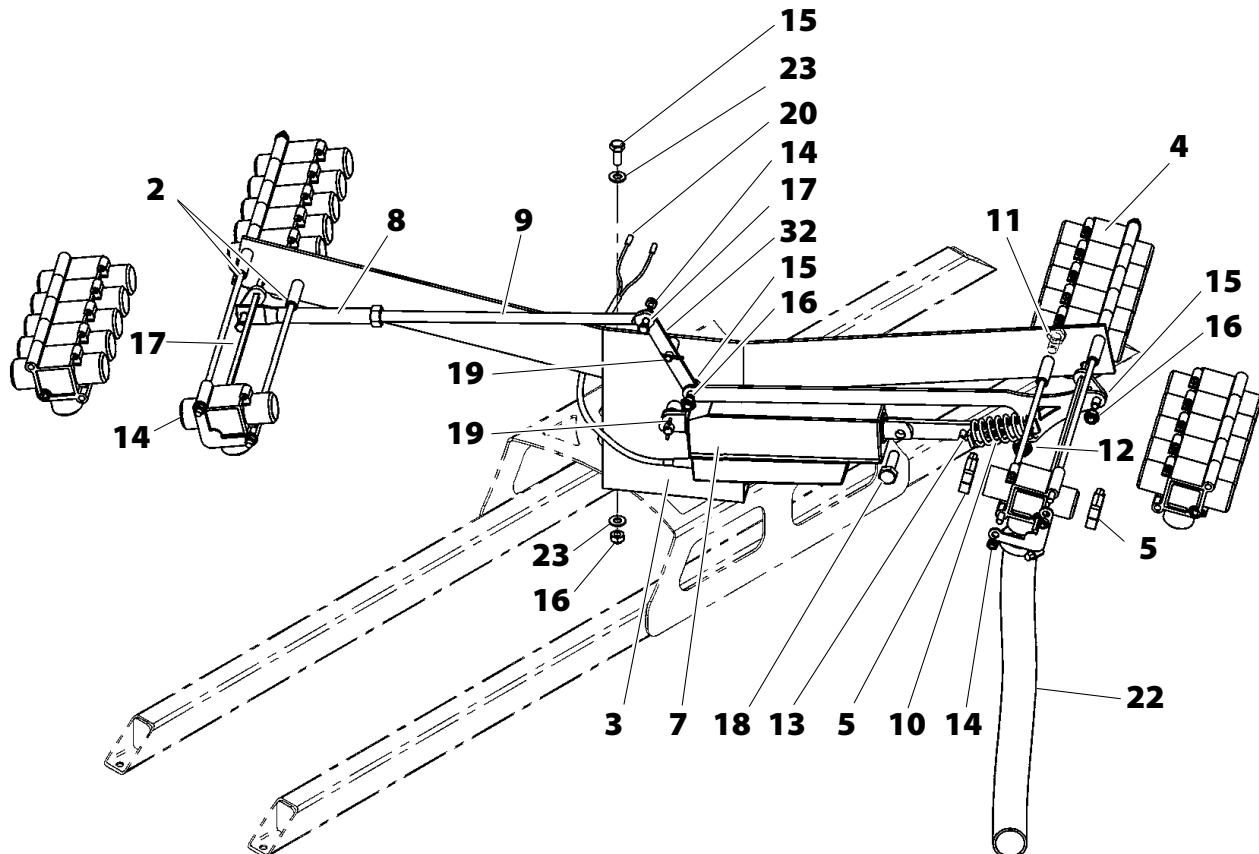
## 13.17 NEUMATIC DISTRIBUTION

Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	ME-041353	TAPA CABEZAL DISTRIBUIDOR Ø135-32 SALIDAS
<b>1</b>	ME-041355	TAPA CABEZAL DISTRIBUIDOR Ø135-40 SALIDAS
<b>2</b>	ME-041352	BASE CABEZAL DISTRIBUIDOR Ø135-32 SALIDAS
<b>2</b>	ME-041354	BASE CABEZAL DISTRIBUIDOR Ø135-40 SALIDAS
<b>3</b>	PL-041302	BRIDA PARA TUBO Ø135
<b>4</b>	933 8X25 8.8 B	TORNILLO DIN 933 8X25 8.8 BICROMATADO
<b>5</b>	9021 8 BI	ARANDELA PLANA DIN 9021 M8 BICROMATADO
<b>6</b>	PS-022807	CONJUNTO SOPORTE DISTRIBUCIÓN TOLVAS 2000 L
<b>7</b>	985 8	TUERCA DIN 985 M8
<b>8</b>	PS-042803	TUBO TRANSMISIÓN SEMILLA
<b>9</b>	FE-606019	BRIDA SINFÍN 130/150-9
<b>10</b>	VA-042801	TUBO DISTRIBUCIÓN SALIDA VENTURI Ø130
<b>11</b>	PS-042816	VENTURI SM-1909 2011
<b>12</b>	ME-042812	GUÍA A FIJACIÓN VENTURI
<b>13</b>	FE-606008	ABRAZADERA 90-110/12 W1 TORRO
<b>14</b>	VA-042802	TUBO DISTRIBUCIÓN ENTRADA VENTURI Ø100
<b>15</b>	127 8 BI	ARANDELA DIN 127 M8 BICROMATADA
<b>16</b>	933 8X20 8.8 B	TORNILLO DIN 933 M8X20 8.8 BICROMATADO
<b>17</b>	CT-042806	DOSIFICADOR SEMILLA COMPLETO SM-1909 MISTRAL
<b>18</b>	125 8 BI	ARANDELA PLANA DIN 125 M8 BICROMATADA
<b>19</b>	PL-041303	TUBO DIFUSOR SEMILLA Ø 135
<b>20</b>	VA-022800	ESPUMA AJUSTE CABEZAL DISTRIBUIDOR
<b>21</b>	RE-041313	CABLE MASA 2,5 MM2 CON TERMILANES DE AISLAMIENTO
<b>22</b>	CN-817040	TAPÓN CAPERUZA PARA TUBO Ø 32
<b>23</b>	125 5 BI	ARANDELA PLANA DIN 125 M5 BICROMATADA
<b>24</b>	316 5X20 BI	TORNILLO MARIPOSA DIN-316 M-5X20 BICROMATADO
<b>25</b>	125 6 BI	ARANDELA PLANA DIN 125 M6 BICROMATADA
<b>26</b>	933 6X20 8.8 B	TORNILLO DIN 933 M6X20 8.8 BICROMATADO
<b>27</b>	FE-614069	VOLANTE MACHO Ø40 M6x20
<b>28</b>	PS-042817	CAJA ENTRADA SEMILLA VENTURI 2011
<b>29</b>	PS-042818	SOPORTE SILENTBLOCK VENTURI
<b>30</b>	EE-042802	BRIDA C 50 M8 L=66
<b>31</b>	FE-660023	SILENTBLOCK DIABOLO 30/25 M8
<b>32</b>	PL-101700	POMO GATILLO SEGURO TRANSPORTE TRAZADOR
<b>33</b>	603 8X20 8.8 BI	TORNILLO DIN 603 M8X20 8.8 BICROMATADO



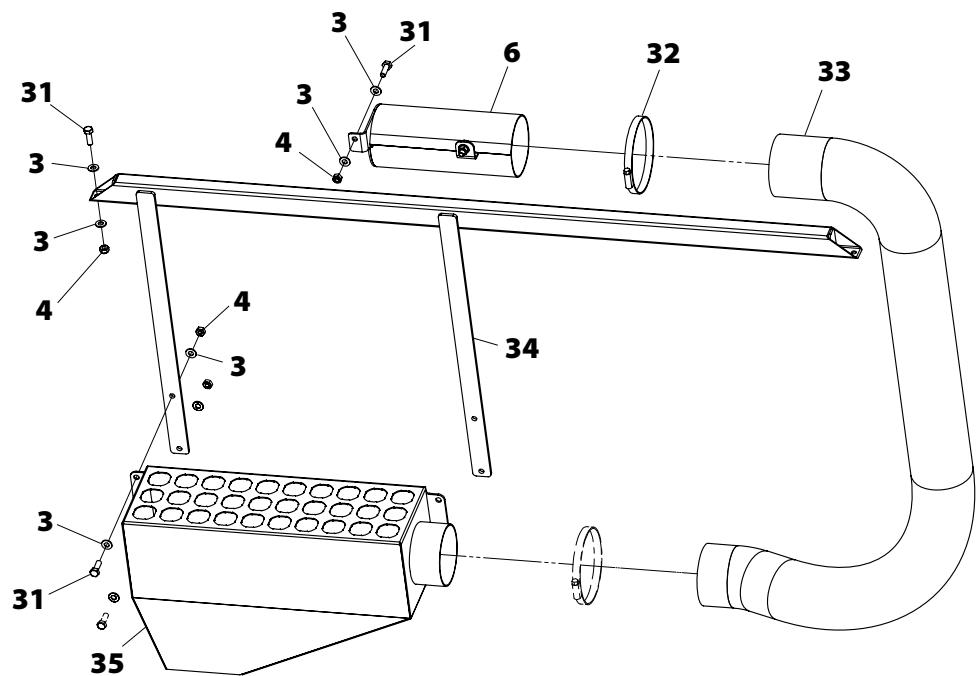
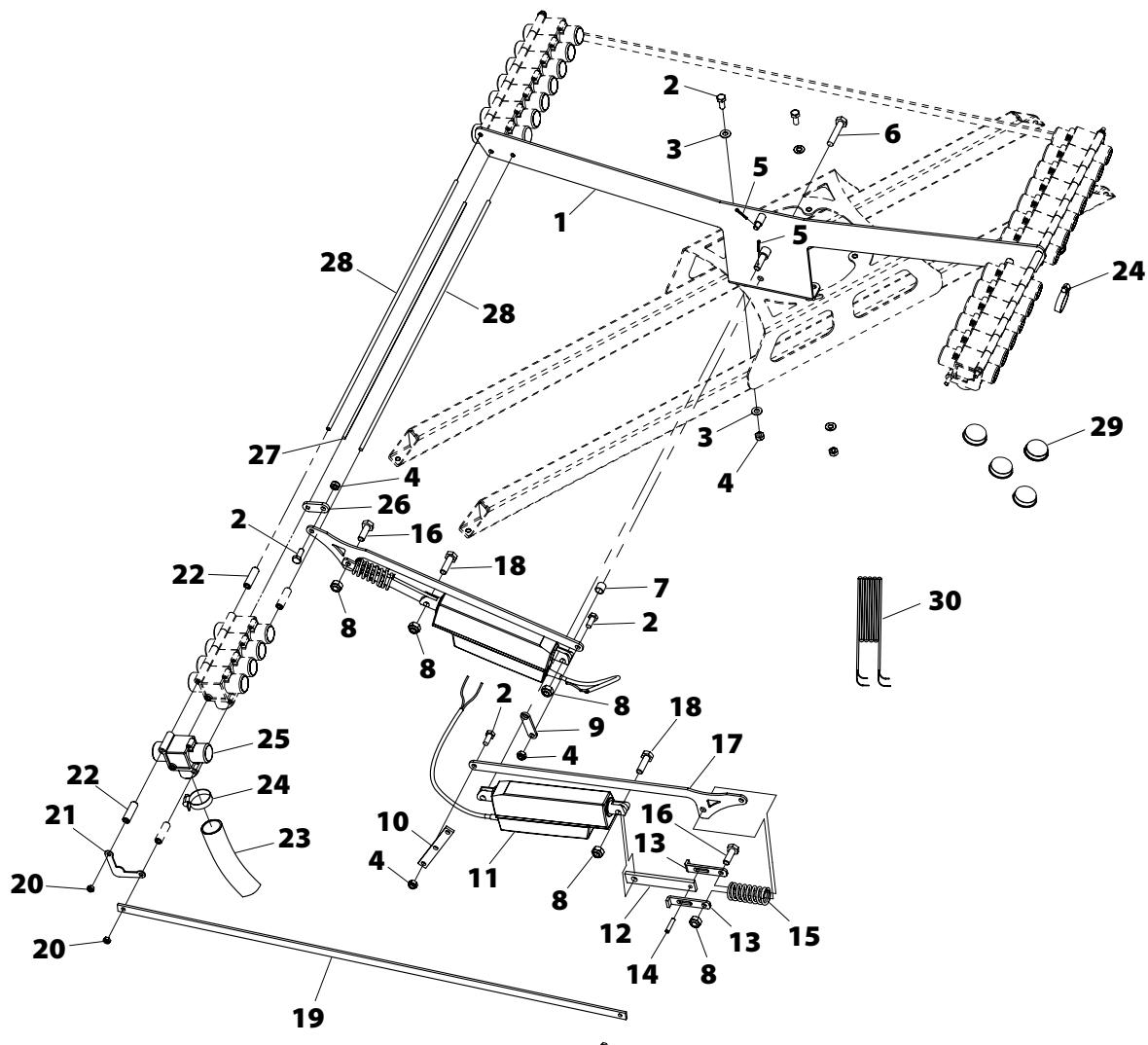
## 13.18 SEED HOSES CLOSING SYSTEM IN FOLDING PARTS

Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	PS-102830	FILTRO SALIDA AIRE PARTES PLEG.
<b>2</b>	ME-102815	SEPARADOR VÁLVULA DE CIERRE SM-1909
<b>3</b>	PS-101309	SOPORTE VÁLVULAS CIERRE
<b>4</b>	MO-041305	VÁLVULA CIERRE COMPLETA NEUMASEM
<b>5</b>	985 8	TUERCA DIN 985 M8
<b>6</b>	933 8X25 8.8 B	TORNILLO DIN 933 8X25 8.8 BICROMATADO
<b>7</b>	CO-101301	CILINDRO ELÉCTRICO
<b>8</b>	CO-101303	TUBO ROSCADO BIELA UNIÓN VÁLVULAS
<b>9</b>	934 12	TUERCA DIN 934 M 12
<b>10</b>	ML-101301	MUELLE PROLONGACIÓN CILINDRO ELEC.
<b>11</b>	933 10X25 8.8 B	TORNILLO DIN 933 M10X25 8,8 BICROMATADO
<b>12</b>	985 10	TUERCA DIN 985 M10
<b>13</b>	1481 6X30 BI	PASADOR ELÁSTICO DIN 1481 Ø6X30 BICROMATADO
<b>14</b>	985 6	TUERCA DIN 985 M6
<b>15</b>	VA-102802	TUBO SALIDA AIRE CAJA SEMILLA
<b>16</b>	PS-102829	CAJA RECOGIDA SEMILLA PARTES PLEG.
<b>17</b>	933 6X20 8.8B	TORNILLO DIN 933 M6X20 8,8 BICROMATADO
<b>18</b>	933 10X35 8.8	TORNILLO DIN 933 M10X35 8,8
<b>19</b>	94 3X20 BI	PASADOR DE ALETAS DIN 94 3X20 BICROMATADO
<b>20</b>	FE-650016	CONT. MACHO REDONDO CON AISLAMIENTO Ø 2,5
<b>21</b>	FE-606036	BRIDA SINFÍN DIN 3017 W1 Ø110/130
<b>22</b>	MP-907018	MTS. MANGUERA SOLA 30 ANTIESTÁTICA
<b>23</b>	125 8 BI	ARANDELA DIN 125 M8 BICROMATADA
<b>24</b>	125 8 BI	ARANDELA PLANA DIN-125 M8 BICROMATADA
<b>25</b>	PS-102831	SOPORTE CAJA RECOGIDA SEMILLA CIERRE PLEG.
<b>26</b>	VA-102802	TUBO SALIDA AIRE CAJA SEMILLA
<b>27</b>	PS-102829	CAJA RECOGIDA SEMILLA PARTES PLEG.



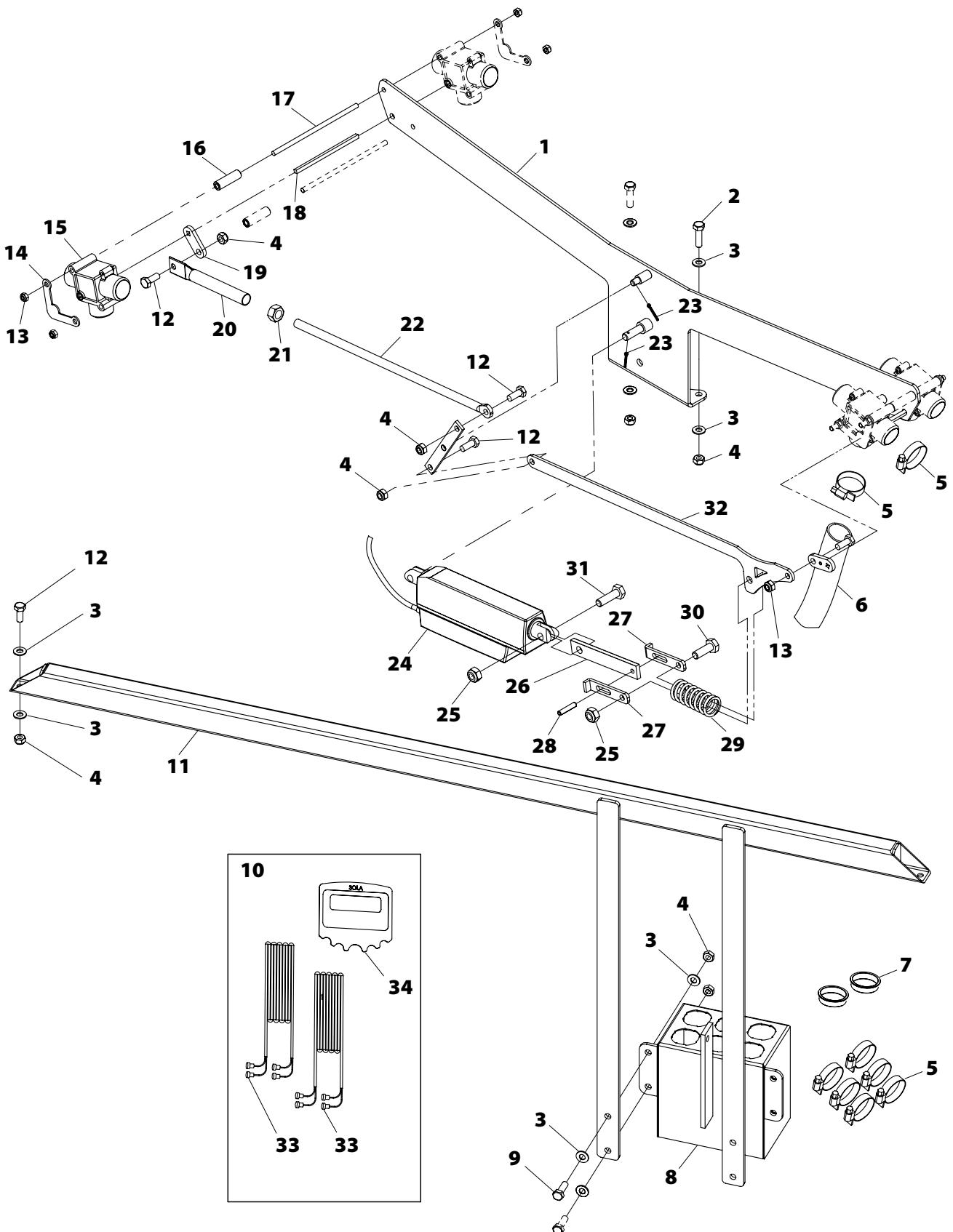
## 13.19 SEED HOSES CLOSING SYSTEM IN FOLDING PARTS INDEPENDENT

Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	PS-101309	SOPORTE VÁLVULAS CIERRE NEUMASEM
<b>2</b>	933 8x20 8.8 B	TORNILLO DIN 933 M8X20 8.8 BICROMATADO
<b>3</b>	125 8 BI	ARANDELA PLANA DIN-125 M8 BICROMATADA
<b>4</b>	985 8	TUERCA DIN 985 M8
<b>5</b>	94 3x20 BI	PASADOR DE ALETAS DIN 94 M3X20 BICROMATADO
<b>6</b>	931 10x50 8.8 B	TORNILLO DIN 931 M10X50 8.8 BICROMATADO
<b>7</b>	CT-101372	SEPARADOR ØINT 10 PARA CILINDRO EMPUJE
<b>8</b>	985 10	TUERCA DIN 985 M10
<b>9</b>	PX-201324	BIELA SEGUNDO PISTÓN VÁLVULAS
<b>10</b>	EE-101314	EXCENTRICA BIELAS UNIÓN VÁLVULAS CIERRE NEUMASEM
<b>11</b>	CO-101301	CILINDRO ELECTRICO LA 12.1-44-12-01 IP65
<b>12</b>	EE-101325	PROLONGACIÓN CILINDRO ELE NEUMASEM
<b>13</b>	PX-101318	MEDIACAÑA PROLONGACIÓN CILINDRO ELEC. NEUMASEM
<b>14</b>	1481 6X30 BI	PASADOR ELASTICO DIN 1481 M 6X30 BICROMATADO
<b>15</b>	ML-101301	MUELLE PROLONGACIÓN CILIN ELECTRICO NEUMASEM
<b>16</b>	933 10x30 8.8 B	TORNILLO DIN 933 M10X30 8.8 BICROMATADO
<b>17</b>	PX-102833	BIELA UNIÓN VÁLVULAS SM 1909
<b>18</b>	933 10X35 8.8 B	TORNILLO DIN 933 M10X35 8.8 BICROMATADO
<b>19</b>	EE-101339	TIRANTE UNIÓN VÁLVULAS NEUMASEM 600/48
<b>20</b>	985 6	TUERCA DIN 985 M6
<b>21</b>	PX-102832	TAPETA FINAL SOPORTE VÁLVULAS DE CIERRE SM-1909
<b>22</b>	ME-102815	SEPARADOR VÁLVULA DE CIERRE SM-1909
<b>23</b>	MP-907018	MTS. MANGUERA SOLA 30 ANTIESTATICA (ROLLO 50 MTS.)
<b>24</b>	FE-606023	BRIDA MIKALOR 25/40
<b>25</b>	MO-041305	VÁLVULA CIERRE COMPLETA NEUMASEM
<b>26</b>	PX-102834	BIELA B CIERRE VÁLVULAS SM-1909
<b>27</b>	CT-101341	CUADRADO UNIÓN VÁLVULAS NEUMASEM 600/48
<b>28</b>	CT-101342	VARILLA ROSCADA UNIÓN VÁLVULAS NEUMASEM 600/48
<b>29</b>	FE-611024	TAPÓN AGUJERO Ø36,5
<b>30</b>	MV-101335	CONTROLADOR RDS - KIT 2 CORTE TOTAL/PARCIAL
<b>31</b>	933 8X25 8.8 B	TORNILLO DIN 933 8X25 8.8 BICROMATADO
<b>32</b>	FE-606036	BRIDA SINFÍN DIN 3017 W1 Ø110/130
<b>33</b>	VA-102802	TUBO SALIDA AIRE CAJA SEMILLA
<b>34</b>	PS-102831	SOPORTE CAJA RECOGIDA SEMILLA CIERRE PLEG.
<b>35</b>	PS-102829	CAJA RECOGIDA SEMILLA PARTES PLEG.

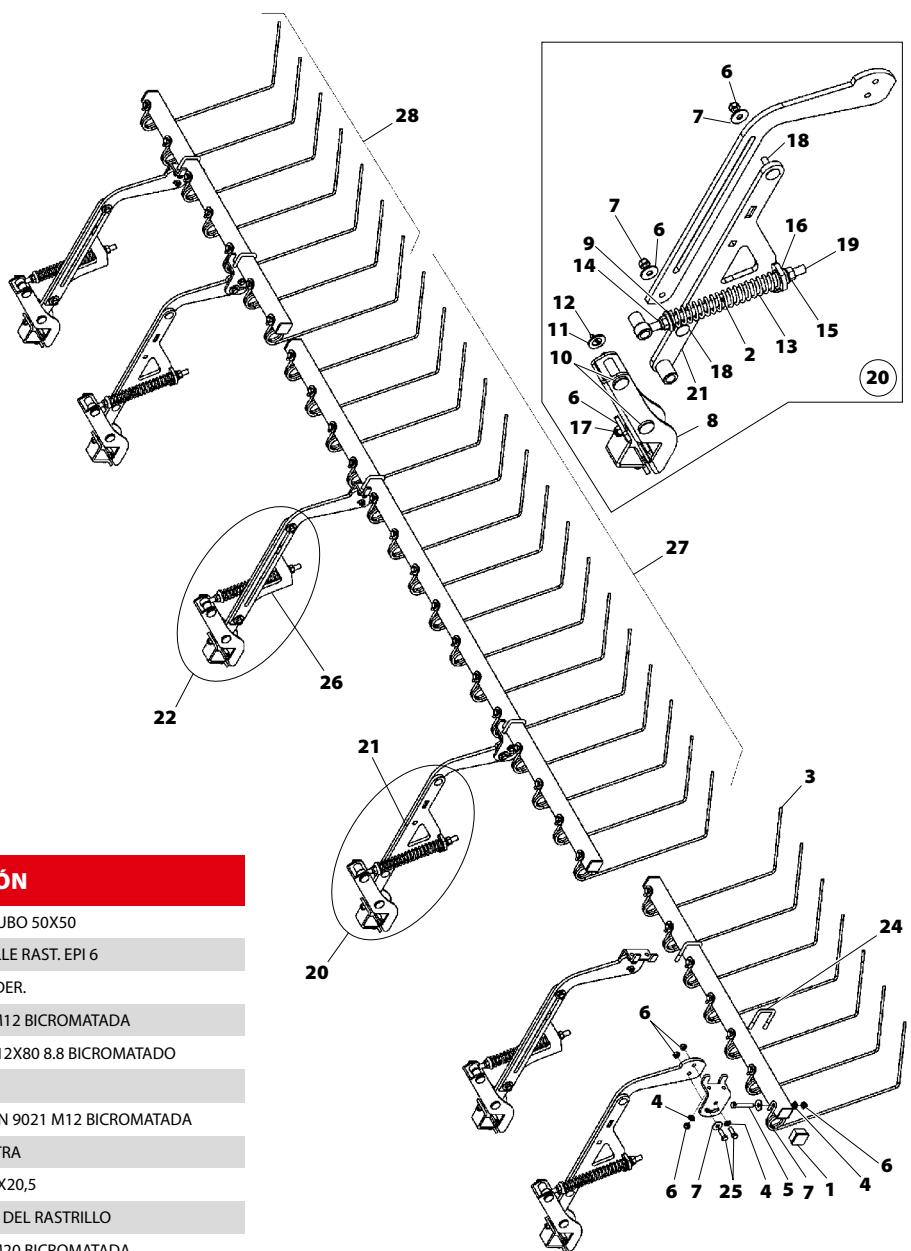


## 13.20 TRAMLINES

Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	PS-101309	SOPORTE VÁLVULAS CIERRE NEUMASEM
<b>2</b>	933 8X30 8.8 B	TORNILLO DIN 933 M8X30 8.8 BICROMATADO
<b>3</b>	125 8 BI	ARANDELA PLANA DIN-125 M8 BICROMATADA
<b>4</b>	985 8	TUERCA DIN 985 M8
<b>5</b>	FE-606023	BRIDA MIKALOR 25/40
<b>6</b>	MP-907018	MTS. MANGUERA SOLA 30 ANTIESTATICA (ROLLO 50 MTS.)
<b>7</b>	FE-611024	TAPÓN AGUJERO Ø36,5
<b>8</b>	PS-101347	RECOLECTOR INFERIOR 6 BOCAS NEUMASEM
<b>9</b>	933 8X25 8.8 B	TORNILLO DIN 933 8X25 8.8 BICROMATADO
<b>10</b>	MV-101336	CONTROLADOR RDS - KIT 3 SISTEMA TRAMLINES
<b>11</b>	PS-201315	SOPORTE CAJA RECOGIDA SEMILLA TRAMLINES
<b>12</b>	933 8X20 8.8 B	TORNILLO DIN 933 M8X20 8.8 BICROMATADO
<b>13</b>	985 6	TUERCA DIN 985 M6
<b>14</b>	PX-102832	TAPETA FINAL SOPORTE VÁLVULAS DE CIERRE SM-1909
<b>15</b>	MO-041305	VALVULA CIERRE COMPLETA NEUMASEM
<b>16</b>	ME-102815	SEPARADOR VALVULA DE CIERRE SM-1909
<b>17</b>	CT-101370	EJE VÁLVULAS
<b>18</b>	CT-101371	EJE CUADRADO GUIADO
<b>19</b>	PX-102834	BIELA B CIERRE VÁLVULAS SM-1909
<b>20</b>	EE-101318	TUBO BIELA UNIÓN VÁLVULAS NEUMASEM
<b>21</b>	934 12	TUERCA DIN 934 M12
<b>22</b>	EE-101337	BIELA ROSCADA UNIÓN VALV. NEUMASEM 600/48
<b>23</b>	94 3x20 BI	PASADOR DE ALETAS DIN 94 M 3X20 BICROMATADO
<b>24</b>	CO-101301	CILINDRO ELÉCTRICO LA 12.1-44-12-01 IP65
<b>25</b>	985 10	TUERCA DIN 985 M10
<b>26</b>	EE-101325	PROLONGACIÓN CILINDRO ELE NEUMASEM
<b>27</b>	PX-101318	MEDIACAÑA PROLONGACIÓN CILINDRO ELEC. NEUMASEM
<b>28</b>	1481 6X30 BI	PASADOR ELASTICO DIN 1481 M 6X30 BICROMATADO
<b>29</b>	ML-101301	MUELLE PROLONGACIÓN CILIN ELÉCTRICO NEUMASEM
<b>30</b>	933 10x30 8.8 B	TORNILLO DIN 933 M10X30 8.8 BICROMATADO
<b>31</b>	933 10X35 8.8 B	TORNILLO DIN 933 M10X35 8.8 BICROMATADO
<b>32</b>	PX-102833	BIELA UNIÓN VÁLVULAS SM 1909
<b>33</b>	MV-101336-01	CARATULA MONITOR NEUMASEM-PLUS
<b>34</b>	MV-101336-02	SENSOR MAGNÉTICO TRAZADOR C/CABLE (1 UNIDAD)



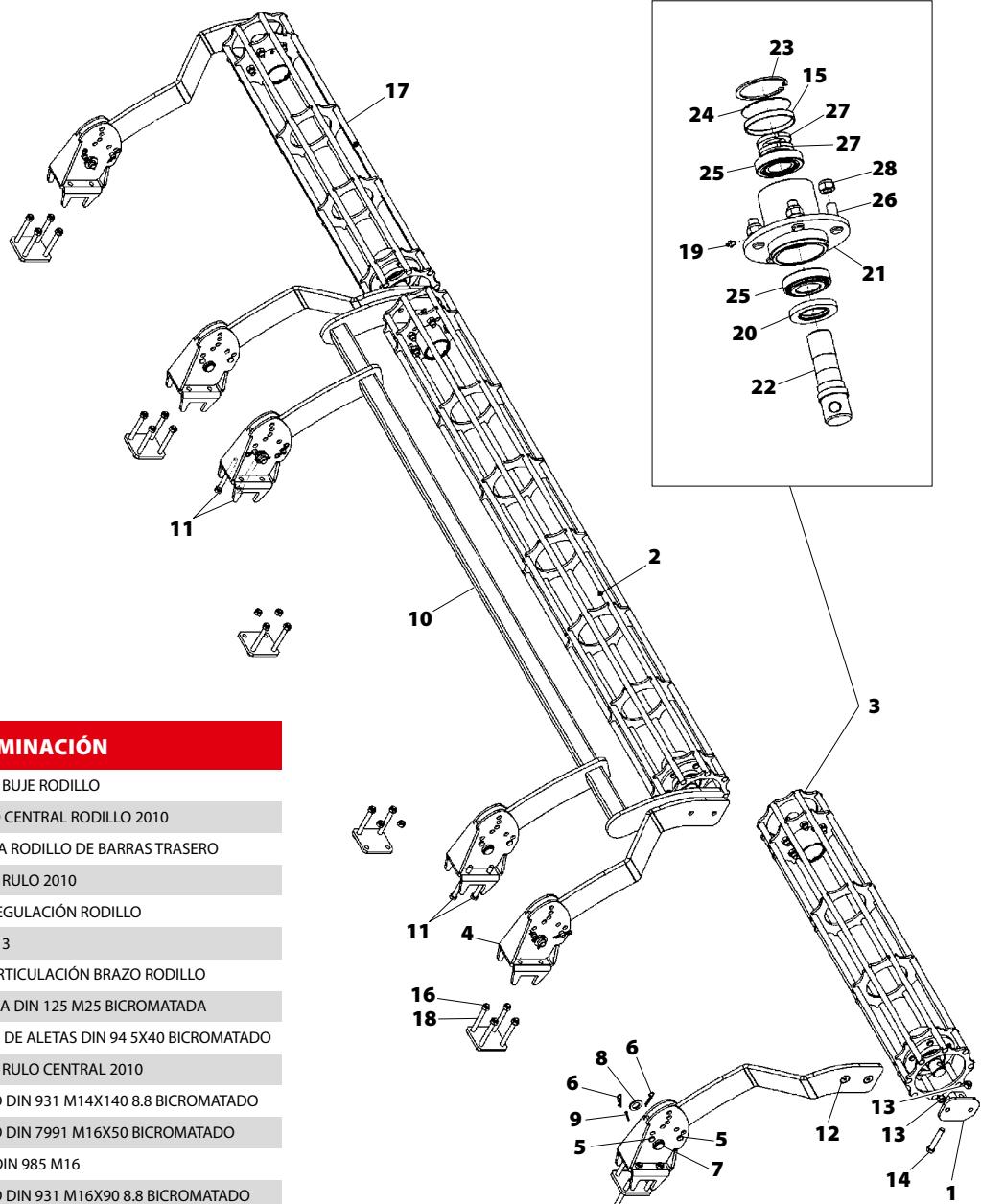
## 13.21 HARROW



Nº	REFERENCIA	DENOMINACIÓN
1	CN-817001	TAPÓN CUADRADO TUBO 50X50
2	PS-1735	TUBO INTERIOR MUELLE RAST. EPI 6
3	ML-080402-D	MUELLE PÚA LARGA DER.
4	125 12 BI	ARANDELA DIN 125 M12 BICROMATADA
5	931 12X80 8.8B	TORNILLO DIN 931 M12X80 8.8 BICROMATADO
6	985 12	TUERCA DIN 985 M12
7	9021 12 BI	ARANDELA PLANA DIN 9021 M12 BICROMATADA
8	PS-082808	"U" GUÍA BRAZO RASTRA
9	EE-080306	TAPETA MUELLE Ø 40X20,5
10	B03-177	BULÓN LARGO 20X78 DEL RASTRILLO
11	125 20 BI	ARANDELA DIN 125 M20 BICROMATADA
12	94 5X40 BI	PASADOR DE ALETAS DIN 94 5X40 BICROMATADO
13	ML-080104	MUELLE BRAZO RASTRA
14	985 16	TUERCA DIN 985 M16
15	934 16 BI	TUERCA DIN 934 M16 BICROMATADA
16	125 16 BI	ARANDELA DIN 125 M16 BICROMATADA
17	603 12X35 BI	TORNILLO DIN 603 M12X35 BICROMATADO
18	603 12X45 BI	TORNILLO DIN 603 M12X45 BICROMATADO
19	PS-082805	TENSOR MUELLE RASTRA EPI
20	MO-082808/I	BRAZO RASTRA IZQ. 2010
21	PS-082812/I	BRAZO RASTRA IZQUIERDA 2010
22	MO-082808/D	BRAZO RASTRA DER. 2010
23	MO-082817	BARRA LATERAL RASTRA 600
24	EE-101346	BRIDA 50 M-12X80
25	933 12X35 8.8B	TORNILLO DIN 933 M12X35 8,8 BICROMATADO
26	PS-082812/D	BRAZO RASTRA DERECHA 2010
27	MO-082804	BARRA CENTRAL RASTRA
28	MO-082803	BARRA LATERAL RASTRA 500
28	MO-082815	BARRA LATERAL RASTRA 400
28	MO-082816	BARRA LATERAL RASTRA 450

## 13.22 ROLLER

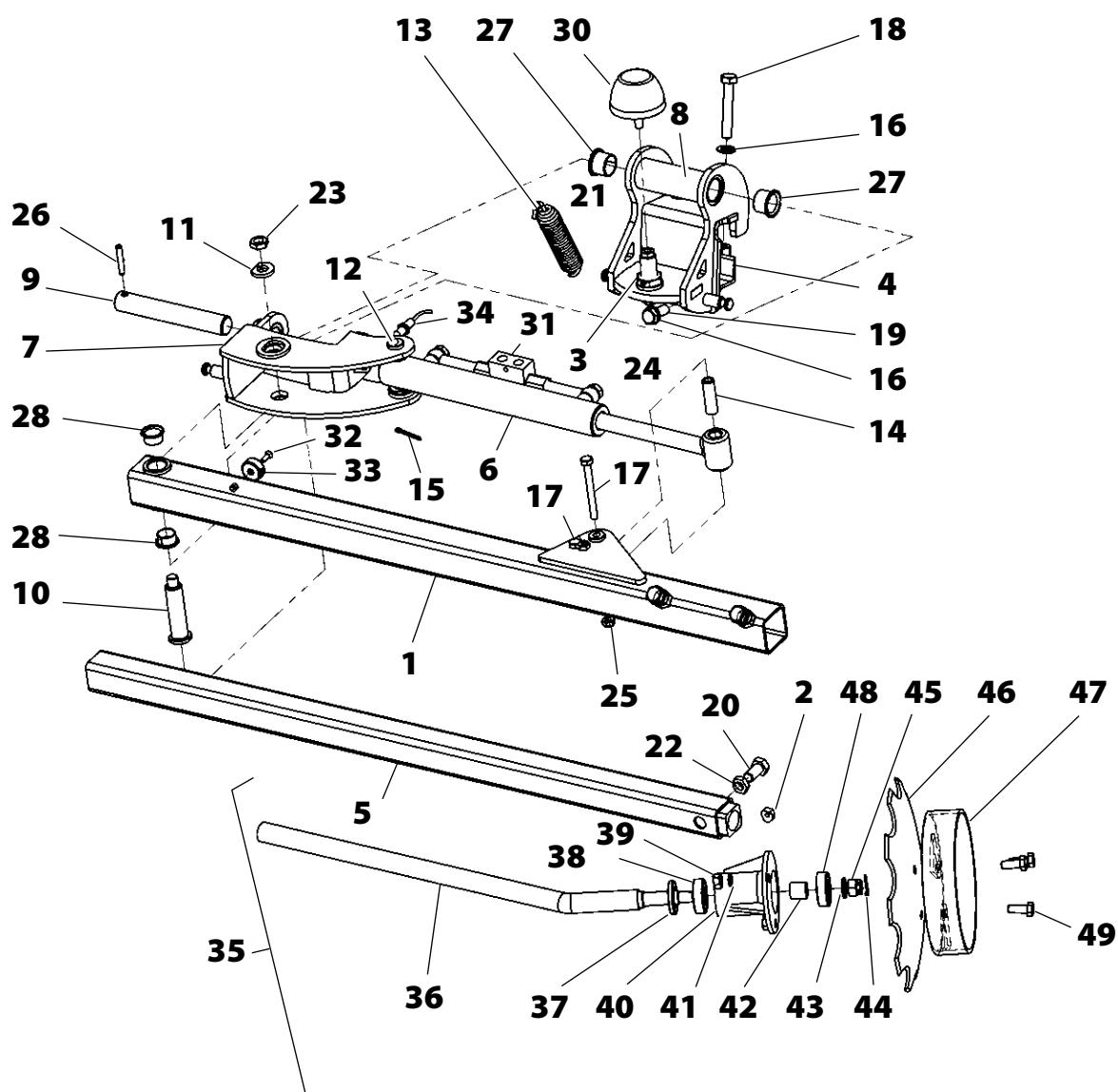
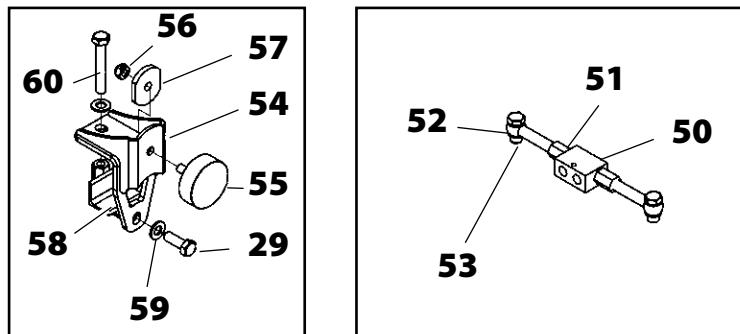
Nº	REFERENCIA	DENOMINACIÓN
1	PS-082809	SOPORTE BUJE RODILLO
2	PS-052823	CILINDRO CENTRAL RODILLO 2010
3	CO-082800	BUJE PARA RODILLO DE BARRAS TRASERO
4	PS-082811	SOPORTE RULO 2010
5	BU-082800	BULÓN REGULACIÓN RODILLO
6	FE-610002	CLIP R DE 3
7	BU-082802	BULÓN ARTICULACIÓN BRAZO RODILLO
8	125 25 BI	ARANDELA DIN 125 M25 BICROMATADA
9	94 5X40 BI	PASADOR DE ALETAS DIN 94 5X40 BICROMATADO
10	PS-082810	SOPORTE RULO CENTRAL 2010
11	931 14X140 8.8B	TORNILLO DIN 931 M14X140 8.8 BICROMATADO
12	7991 16X50 BI	TORNILLO DIN 7991 M16X50 BICROMATADO
13	985 16	TUERCA DIN 985 M16
14	931 16X90 8.8B	TORNILLO DIN 931 M16X90 8.8 BICROMATADO
15	FE-601067	RETÉN CIEGO Ø85X10
16	985 14	TUERCA DIN 985 M14
17	PS-052824	CILINDRO LATERAL RODILLO 500 2010
17	PS-052826	CILINDRO LATERAL RODILLO 600 2010
17	PS-052833	CILINDRO LATERAL RODILLO 450 2010
17	PS-052834	CILINDRO LATERAL RODILLO 400 2010
18	931 14X130 8.8B	TORNILLO DIN 931 M14X130 8.8 BI
19	FE-603001	ENGRASADOR RECTO M-6
20	FE-601066	RETÉN 45X80X10
21	CO-082800-1	BUJE SOLDADO RODILLO TRASERO
22	CO-082800-2	EJE BUJE RODILLO TRASERO
23	472 85	ANILLO SAEGER DIN 472 Ø85
24	CO-082800-3	TAPA FINAL BUJE RODILLO
25	FE-600048	RODAMIENTO RODILLOS CÓNICOS 30208
26	CO-082800-4	PERNO M16/150 X50 PARA BUJE
27	981 40-150 BI	TUERCA DIN 981 40/150 BI KM8
28	985 16-150	TUERCA DIN 985 M16/150



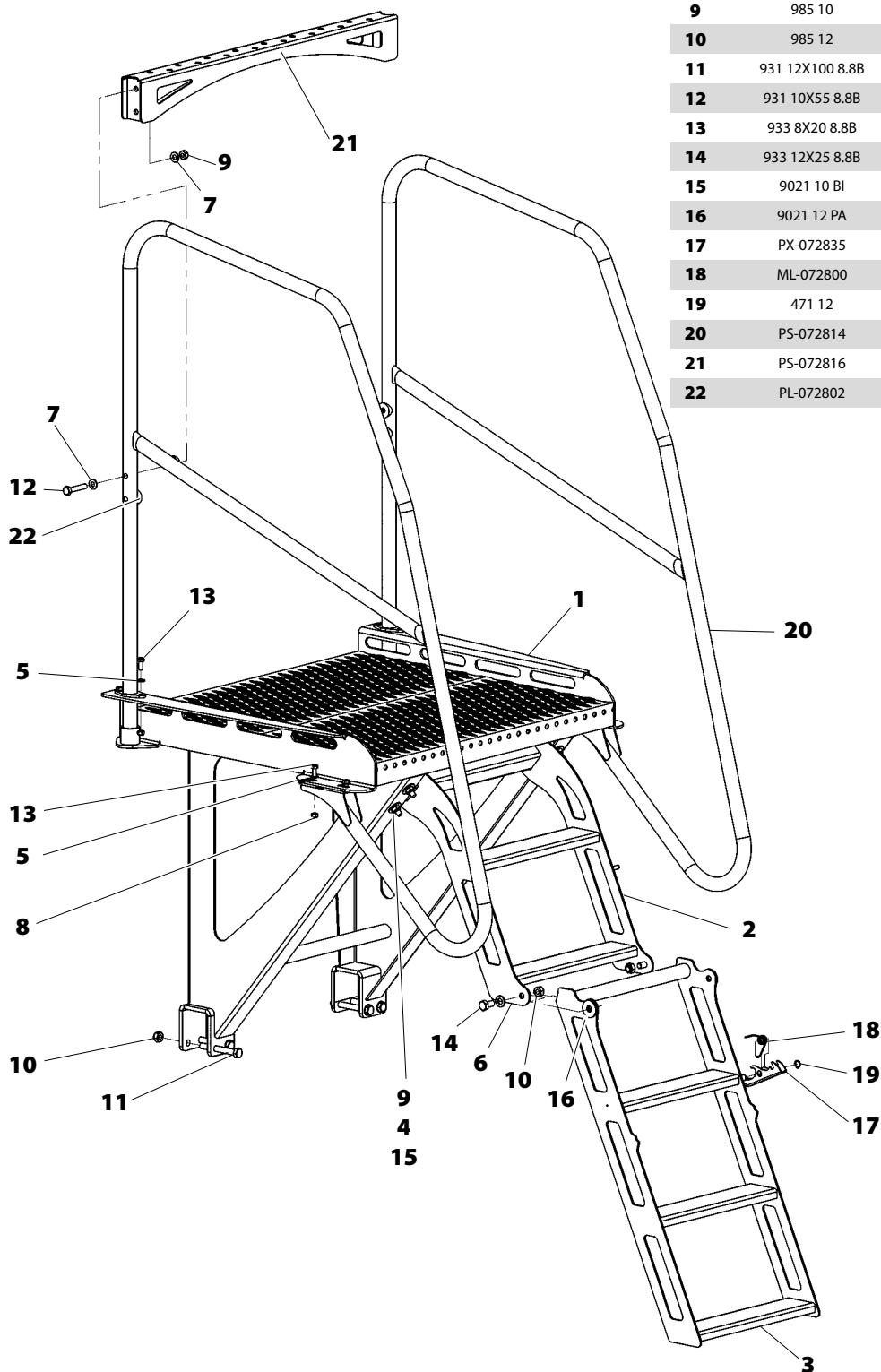
## 13.23 TRACK MARKER 400/450/500/600

Nº	REFERENCIA	DENOMINACIÓN
1	PS-102807	TUBO 60 TRAZADOR
2	ME-102805	PASTILLA APRIETE EJE DISCO TRAZADOR
3	ME-102813	REGULACIÓN M24 TOPE GOMA TRAZADOR
4	PS-102802	BRIDA SOPORTE TRAZADOR
5	PS-102808	TUBO 50 TELESCÓPICO TRAZADOR
6	CO-052801	CILINDRO D.E. Ø40-25 / 580-820
7	PS-102811	SOPORTE CILINDRO TRAZADOR
8	PS-102809	SOPORTE TRAZADOR
9	BU-102800	BULÓN ARTICULACIÓN
10	BU-102801	BULÓN ARTICULACIÓN TUBO 60
11	PX-102825	ARANDELA ANTIGIRO SOPORTE TRAZADOR
12	BU-051303	BULÓN Ø20 X 100
13	ML-042800	MUELLE TENSOR CORREA TURBINA
14	ME-102811	BULÓN ALOJAMIENTO FUSIBLE TRAZADOR
15	94 5X40 BI	PASADOR DE ALETAS DIN 94 5X40 BICROMATADO
16	125 14 BI	ARANDELA DIN 125 M14 BICROMATADA
17	931 10X100 8.8B	TORNILLO DIN 931 M10X100 8.8 BICROMATADO
18	931 14X90 8.8B	TORNILLO DIN 931 M14X90 8.8 BICROMATADO
19	933 14X40 8.8B	TORNILLO DIN 933 M14X40 8.8 BICROMATADO
20	933 16X30 8.8B	TORNILLO DIN 933 M16X30 8.8 BICROMATADO
21	936 12 BI	TUERCA DIN 936 M12 BICROMATADA
22	936 16 BI	TUERCA DIN 936 M16 BICROMATADA
23	936 16-150 BI	TUERCA DIN 936 M16 BICROMATADA
24	936 24	TUERCA DIN 936 M24
25	985 10	TUERCA DIN 985 M10
26	1481 8X50 BI	PASADOR ELÁSTICO DIN 1481 Ø8X50 BICROMATADO
27	FE-600129	CASQUILLO DE FRICCIÓN 30X34X26
28	FE-600018	COJINETE 25/28/16,5
29	933 14X40 8.8B	TORNILLO DIN 933 M14X40 8.8 BICROMATADO
30	FE-660017	TOPE PROGRESIVO CÓNICO PLANO GOMA M12
31	HI-706031	VÁLVULA ANTIRRETORNO PILOTADA D.E 3/8" L=280
32	7991 6X20 BI	TORNILLO DIN 7991 M6X20 BICROMATADO
33	MV-101320-06	IMÁN Ø33X15

Nº	REFERENCIA	DENOMINACIÓN
34	FE-650008	SENSOR TRAZADOR
35	MO-102203	EJE TRAZADOR CORTO CON DISCO DENTADO Y TOPE
35	MO-102804	EJE TRAZADOR CORTO CON DISCO LISO
35	MO-102809	EJE TRAZADOR LARGO CON DISCO LISO
35	MO-102808	EJE TRAZADOR LARGO CON DISCO DENTADO Y TOPE
36	PR-100201	EJE DISCO TRAZADOR PRENSA
36	PR-100202	EJE DISCO TRAZADOR LARGO PRENSADO
37	FE-601000	RETÉN DOBLE LABIO 25X52X7
38	FE-600005	RODAMIENTO 6304 2RS -GPZ
39	934 12 BI	TUERCA DIN 934 M12 BICROMATADA
40	B07-30	BUJE DISCO TRAZADOR
41	7980 12 BI	ARANDELA GROWER DIN 7980 M12 BICROMATADA
42	CT-100800	SEPARADOR BUJE TRAZADORES
43	125 16 BI	ARANDELA DIN 125 M16 BICROMATADA
44	94 3,5X28 BI	PASADOR DE ALETAS DIN 94 M 3,5X28 BICROMATADO
45	935 16 BI	TUERCA DIN 935 M16 BICROMATADA
46	EE-102200	DISCO DENTADO TRAZADOR SD
46	EE-100217	DISCO BRAZO TRAZADOR
47	PS-101718	CONTROL PROFUNDIDAD TRAZADOR
48	FE-600005	RODAMIENTO 6304 2RS -GPZ
49	933 12X30 8.8 B	TORNILLO DIN 933 M12X30 8.8 BICROMATADO
50	HI-706001	VÁLVULA ANTIRRETORNO PILOTADA DOBLE EFECTO
51	ESFERICO 3-8	ESFÉRICO 3/8
52	HI-705003	ARANDELA METALBUNA 3/8"
53	HI-702001	TORNILLO SIMPLE DE 3/8"
54	PS-102817	SOPORTE TOPE TRAZADOR
55	FE-660009	TOPE GOMA Ø 75X25 M12X37
56	985 12	TUERCA DIN 985 M12
57	PX-102837	ARANDELA Ø13/60-8
58	PS-102818	BRIDA TOPE TRAZADOR
59	125 14 BI	ARANDELA DIN 125 M14 BICROMATADA
60	931 14X90 8.8B	TORNILLO DIN 931 M14X90 8.8 BICROMATADO

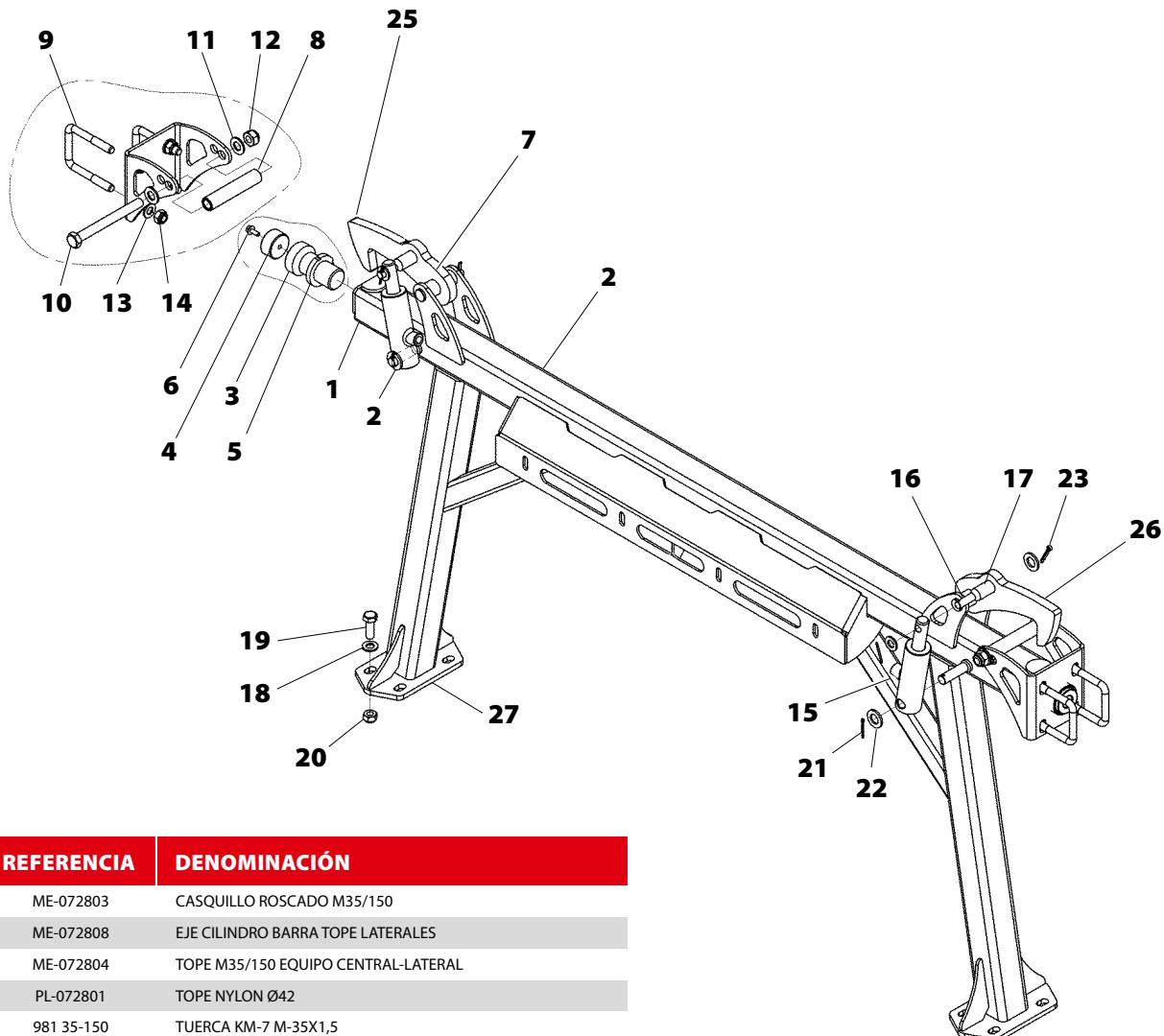


## 13.24 STAIR



Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	PS-072817	PLATAFORMA ACCESO TOLVA SM-1909 2011
<b>2</b>	PS-072806	ESCALERA SUPERIOR FIJA
<b>3</b>	PS-072805	ESCALERA INFERIOR MÓVIL
<b>4</b>	EE-101717	BRIDA 50 SOPORTE MICRO
<b>5</b>	125 8	ARANDELA DIN 125 M8
<b>6</b>	125 12 BI	ARANDELA DIN 125 M12 BICROMATADA
<b>7</b>	125 10 BI	ARANDELA DIN 125 M10 BICROMATADA
<b>8</b>	985 8	TUERCA DIN 985 M8
<b>9</b>	985 10	TUERCA DIN 985 M10
<b>10</b>	985 12	TUERCA DIN 985 M12
<b>11</b>	931 12X100 8.8B	TORNILLO DIN 931 M12X100 8.8 BICROMATADO
<b>12</b>	931 10X55 8.8B	TORNILLO DIN 931 M10X55 8.8 BICROMATADO
<b>13</b>	933 8X20 8.8B	TORNILLO DIN 933 M8X20 8,8 BICROMATADO
<b>14</b>	933 12X25 8.8B	TORNILLO DIN 933 M12X25 8,8 BICROMATADO
<b>15</b>	9021 10 BI	ARANDELA PLANA DIN 9021 M10 BICROMATADA
<b>16</b>	9021 12 PA	ARANDELA PLANA DIN 9021 M12 PA
<b>17</b>	PX-072835	SEGRO ESCALERA SM-1909
<b>18</b>	ML-072800	MUELLE TORSION SEGRO ESCALERA
<b>19</b>	471 12	ANILLO SAEGER DIN 471 Ø12
<b>20</b>	PS-072814	SIDE SAFETY GUARD (BARANDA SEGURIDAD LATERAL 2011)
<b>21</b>	PS-072816	TOP HANDRAIL CONNECTION (PELDAÑO SUPERIOR UNIÓN BARANDAS)
<b>22</b>	PL-072802	CURVED M10 LOCKING WASHER (ARANDELA CURVADA M10 PARA Ø30-34)

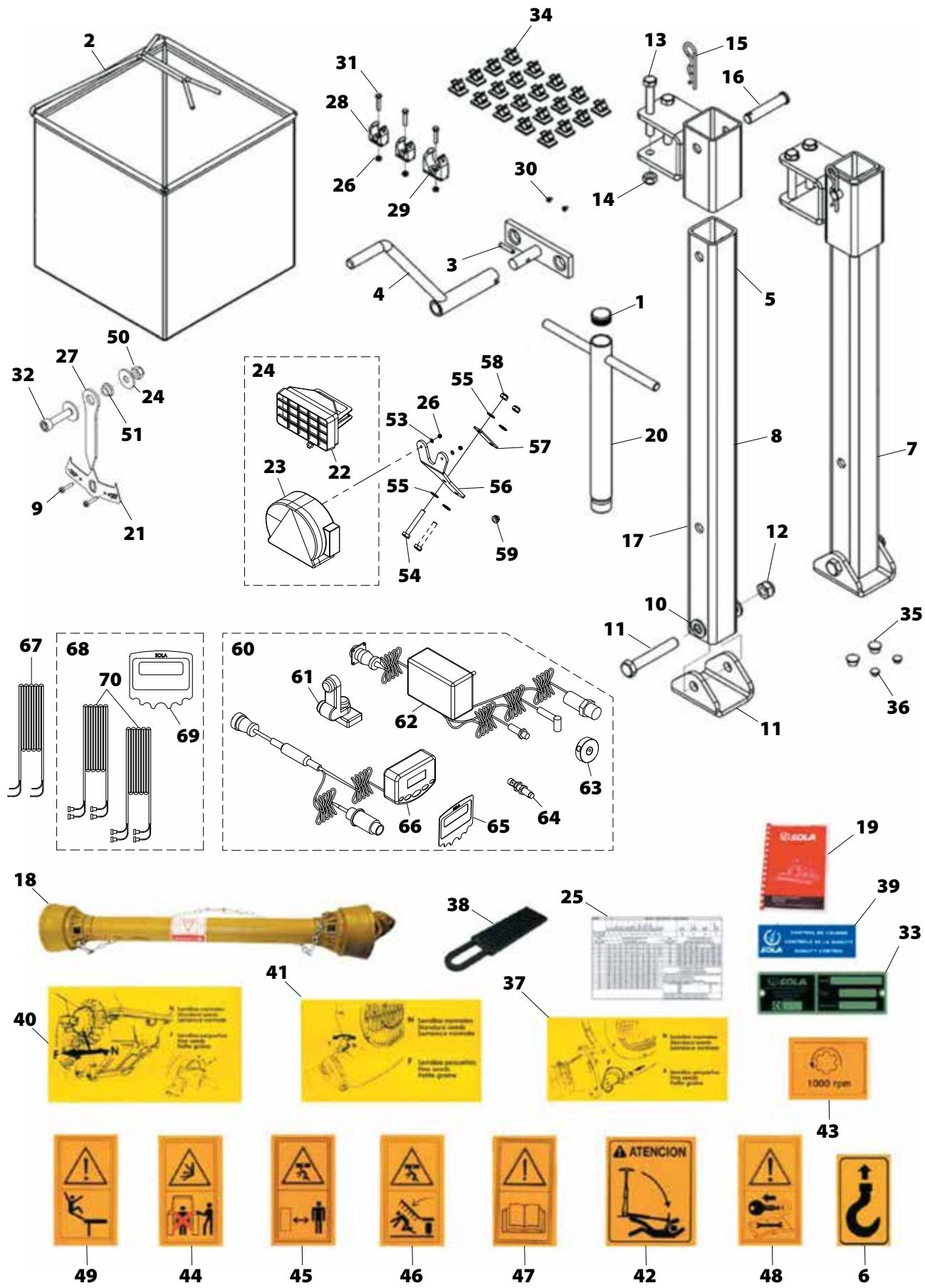
## 13.25 CLOSURES MACHINE



Nº	REFERENCIA	DENOMINACIÓN
1	ME-072803	CASQUILLO ROSCADO M35/150
2	ME-072808	EJE CILINDRO BARRA TOPE LATERALES
3	ME-072804	TOPE M35/150 EQUIPO CENTRAL-LATERAL
4	PL-072801	TOPE NYLON Ø42
5	981 35-150	TUERCA KM-7 M-35X1,5
6	6921 6X16 8.8B	TORNILLO DIN 6921 M6X16 8.8 BICROMATADO
7	BU-050203	BULÓN DE 16X89 ESTAMPADO
8	ME-072805	SEPARADOR Ø15/22-109
9	EE-053110	BRIDA TUBO 60 M-12X88 LAMUSA
10	931 14X140 8.8B	TORNILLO DIN 931 M14X140 8.8 BICROMATADO
11	125 14 BI	ARANDELA DIN 125 M14 BICROMATADA
12	985 14	TUERCA DIN 985 M14
13	125 12 BI	ARANDELA DIN 125 M12 BICROMATADA
14	985 12	TUERCA DIN 985 M12
15	CO-072800	CILINDRO S.E.M. Ø15/130-158
16	ME-072806	BUJE Ø25/16,25-59
17	ME-072807	EJE CILINDRO CHAPA SEGURO
18	125 12 BI	ARANDELA DIN 125 M12 BICROMATADA
19	933 12X35 8.8B	TORNILLO DIN 933 M12X35 8,8 BICROMATADO
20	985 12	TUERCA DIN 985 M12
21	94 3,5X28 BI	PASADOR DE ALETAS DIN 94 3,5X28 BICROMATADO
22	125 16 BI	ARANDELA DIN 125 M16 BICROMATADA
23	94 5X32 BI	PASADOR DE ALETAS DIN 94 5X32 BICROMATADO
24	PS-072812	ESTRUCTURA TOPE EQUIPOS LATERALES MOD.2010
25	PS-072815-I	SEGURO EQUIPOS LATERALES IZQUIERDA
26	PS-072815-D	SEGURO EQUIPOS LATERALES DERECHA

## 13.26 FINISHES

Nº	REFERENCIA	DENOMINACIÓN	Nº	REFERENCIA	DENOMINACIÓN
<b>1</b>	PS-041312	ALOJAMIENTO MANIVELA RUED. FLOTATION	<b>36</b>	PL-021303	TAPÓN FORMA BARRIL Ø9.3
<b>2</b>	MO-072812	BOLSA CALIBRACIÓN SEMILLA 30X30X30	<b>37</b>	AD-041303	ADHESIVO PASO N-F TURBINA GRANDE
<b>3</b>	1481 6X30 BI	PASADOR ELÁSTICO DIN 1481 Ø6X30 BICROMATADO	<b>38</b>	AD-072810	TABLA DOSIFICACIÓN DISTRIBUIDOR SM-1909
<b>4</b>	CO-070300	MANIVELA HUSILLOS 888 - TRI - SD	<b>39</b>	AD-070211	ADHESIVO CONTROL CALIDAD SOLA - TRILINGÜE
<b>5</b>	PS-072811	SOPORTE PIE DE MÁQUINA	<b>40</b>	AD-041304	ADHESIVO POSICIONES N-F DISTRIBUIDOR NEUMASEM
<b>6</b>	AD-075104	ADHESIVO "ENGANCHE AQUÍ"	<b>41</b>	AD-041302	ADHESIVO PASO N-F TURBINA PEQUEÑA NEUMASEM
<b>7</b>	MO-072813	PIE DE MÁQUINA SM-1909	<b>42</b>	AD-100200	ADHESIVO PELIGRO TRAZADORES
<b>8</b>	TA-072804	TUBO PIE DE MÁQUINA	<b>43</b>	AD-071307	ADHESIVO 1000 RPM NEUMASEM
<b>9</b>	FE-602013	REMACHE ALUMINIO Ø3,2X20	<b>44</b>	AD-070214	ADHESIVO PELIGRO "MANIOBRA ENGANCHE"
<b>10</b>	125 16 BI	ARANDELA DIN 125 M16 BICROMATADA	<b>45</b>	AD-070207	ADHESIVO "PELIGRO APLAST"
<b>11</b>	931 16X100 8.8B	TORNILLO DIN 931 M16X100 8.8 BICROMATADO	<b>46</b>	AD-071302	ADHESIVO «PELIGRO DESCENSO EQUIPO»
<b>12</b>	985 16	TUERCA DIN 985 M16	<b>47</b>	AD-070206	ADHESIVO "LEER LIBRO DE INSTRUCCIONES"
<b>13</b>	931 12X100 8.8B	TORNILLO DIN 931 M12X100 8.8 BICROMATADO	<b>48</b>	AD-070227	ADHESIVO "PARAR MOTOR"
<b>14</b>	985 12	TUERCA DIN 985 M12	<b>49</b>	AD-070215	ADHESIVO "PELIGRO CAÍDA"
<b>15</b>	FE-610003	PASADOR R 4	<b>50</b>	985 8	TUERCA DIN 985 M8
<b>16</b>	BU-072800	BULÓN PIE DE MÁQUINA	<b>51</b>	PL-072800	CASQUILLO 16X12X8
<b>17</b>	PS-102806	BARRA LLAVE RUEDAS LATERALES	<b>52</b>	MV-071306	LUCES NEUMASEM 2010 (FAROS + PILOTOS + CABLEADO)
<b>18</b>	FE-608006	TRANSMISIÓN 2C04/1000/KH/X300-X300	<b>53</b>	125 5 BI	ARANDELA PLANA DIN-125 M5 BICROMATADA
<b>19</b>	CN-811054	MANUAL INSTRUCCIONES SOLA SM-1909	<b>54</b>	931 10X70 8.8 B	TORNILLO DIN 931 M10X70 8.8 BICROMATADO
<b>20</b>	FE-611012	TAPÓN PLÁSTICO NEGRO Ø34 E=3	<b>55</b>	125 10 BI	ARANDELA PLANA DIN 125 M10 BICROMATADA
<b>21</b>	PX-072805	CHAPA PORTALUCES FIJ. RULO	<b>56</b>	PX-201344	PORTALUCES CARRETERA NS-PLUS DISCOS
<b>22</b>	MV-071301	FARO DE TRABAJO RECTANGUL	<b>57</b>	PX-201345	PLETINA COLLADO LUCES CARRETERA
<b>23</b>	MV-071306-03	LUZ NEUMASEM 2010 DER	<b>58</b>	985 10	TUERCA DIN 985 M10
<b>23</b>	MV-071306-01	LUZ NEUMASEM 2010 IZQ	<b>59</b>	MV-071306-02	GOMA PASACABLES NEUMASEM 2010
<b>24</b>	9021 8 BI	ARANDELA PLANA DIN 9021 M8 BICROMATADA	<b>60</b>	MV-101334	CONTROLADOR SEMBRADORA RDS NEUMÁTICA - KIT BASE
<b>25</b>	PL-100204	CUENTA SEMILLAS	<b>61</b>	MV-101334-06	SOPORTE ANCLAJE MONITOR NEUMASEM RDS
<b>26</b>	985 5	TUERCA DIN 985 M5	<b>62</b>	MV-101334-03	CABLEADO KIT BASE
<b>27</b>	PX-072802	AGUJA NIVEL MÁQUINA	<b>63</b>	MV-101334-04	IMÁN RDS
<b>28</b>	FE-611015	ABRAZADERA PLÁSTICO Ø20	<b>64</b>	MV-101334-05	SENSOR INDUCTIVO TURBINA
<b>29</b>	FE-611014	ABRAZADERA PLÁSTICO Ø32	<b>65</b>	MV-101334-02	CARÁTULA MONITOR NEUMASEM
<b>30</b>	FE-602001	REMACHE ALUMINIO Ø3.2 X 6	<b>66</b>	MV-101334-01	MONITOR NEUMASEM - NEUMASEM PLUS RDS
<b>31</b>	933 5X25 8.8B	TORNILLO DIN 933 M5X25 8.8 BICROMATADO	<b>67</b>	MV-101335	CONTROLADOR RDS - KIT 2 CORTE TOTAL/PARCIAL
<b>32</b>	912 8X35 8.8 B	TORNILLO DIN 912 M8X35 8.8 BICROMATADO	<b>68</b>	MV-101336	CONTROLADOR RDS - KIT 3 SISTEMA TRAMLINES
<b>33</b>	AD-070217	PLACA PATENTE 100X33 ALUMINIO MATE	<b>69</b>	MV-101336-01	CARÁTULA MONITOR NEUMASEM-PLUS
<b>34</b>	FE-606007	ABRAZADERA AUTOADHESIVA Ø7.9-10.3	<b>70</b>	MV-101336-02	SENSOR MAGNÉTICO TRAZADOR C/CABLE (1 UNIDAD)
<b>35</b>	FE-611013	TAPÓN FORMA BARRIL T1 PARA ROSCA 3/8"BSP			



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