

# ***Instruction Manual***



**SAB NEW SERIES**  
Mounted Forrower and Fertilizer

 **BALDAN**



## ▪ Presentation

**W**e thank you for preference and congratulate you on the the excellent choice you have just made, as you have purchased a product made with **BALDAN IMPLEMENTOS AGRÍCOLAS S/A** technology.

This manual will guide you through the procedures necessary; from purchase to operating, safety and maintenance procedures.

**BALDAN** warrants that it has delivered this implement to the retailer complete and in perfect condition.

The retailer was responsible for the custody and conservation during the period in its possession, as well as for the assembly, retightening, lubrication, and overhaul.

At the technical delivery, the retailer should advise the user customer about maintenance, safety, their obligations in any technical assistance, the strict observance of the warranty term and the reading of the instruction manual.

Any warranty service claim should be made to the retailer where the implement was purchased.

We reiterate the need for careful reading of the warranty certificate and compliance with all items in this manual, as doing so will increase the life of your implement.



# ***Instruction Manual***



## **SAB NEW SERIES**

Mounted Forrower and Fertilizer

BALDAN IMPLEMENTOS AGRÍCOLAS S/A.  
CNPJ: 52.311.347/0009-06  
Insc. Est.: 441.016.953.110



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device and access this  
Instruction Manual online.

**BALDAN**

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## ▪ Baldan Warranty

**BALDAN IMPLEMENTOS AGRÍCOLAS S/A** ensures the dealer normal performance of the implement for a period of six (6) months as of the delivery date on the retail invoice to the first final consumer.

During this period, **BALDAN** undertakes to repair defects in material and/or of manufacture of its liability, including labor, freight and other expenses of the dealer's liability.

In the warranty period, request and replacement of eventual defective parts shall be made to the dealer of the area, who will submit the faulty piece to **BALDAN** analysis.

When this procedure is not possible and the resolving capacity of the dealer is exhausted, the dealer will request the support of **BALDAN** Technical Assistance through a specific form distributed to dealers.

After analyzing the replaced items by **BALDAN** Technical Assistance, and concluding that it is not a warranty, then the dealer will be responsible for the costs related to the replacement; as well as material expenses, travel including accommodation and meals, accessories, lubricant used and other expenses arising from the call out to Technical Assistance, and **BALDAN** company is authorized to carry the respective invoice in the name of the resale.

Any repairment carried in the product within the dealer warranty deadline will only be authorized by **BALDAN** upon previous budget presentation describing parts and workforce to be executed.

The product is excluded from this term if it is repaired or modified by representatives not belonging to the **BALDAN** dealer network, as well as the application of non-genuine parts or components to the user's product.

This warranty is void where it is found that the defect or damage is caused by improper use of the product, failure to follow instructions or inexperience of the operator.

It is agreed that this warranty does not cover tires, polyethylene tanks, cardan, hydraulic components, etc., which are equipment guaranteed by their manufacturers.

Manufacturing and/or material defects, object of this warranty term, will not constitute, under any circumstances, grounds for termination of a purchase agreement, or for indemnification of any nature.

**BALDAN** reserves the right to change and/or perfect the technical characteristics of its products, without previous notice, and without obligation to proceed in the same way with the products previously manufactured.

## ▪ General Information

### • To the owner

**BALDAN IMPLEMENTOS AGRÍCOLAS S/A** is not responsible for any damaged caused by accident due to usage, transportation, or in the improper or incorrect transportation of its implement, whether by negligence and/or inexperience of any person.

Only people with complete knowledge of the tractor and the implement should carry their transportation and operation.

**BALDAN is not responsible for any damaged caused in unpredictable or unrelated situations to the normal use of the implement.**

***The incorrect handling of this equipment may result in severe or fatal accidents. Before running the equipment, carefully read the instructions contained in this manual. Make sure that the person responsible for the operation is instructed as the correct and safe handling. Also make sure that the operator has read and understood the instructions manual of the product.***

### **ATTENTION**

NR-31 - SAFETY AND HEALTH AT WORK IN AGRICULTURE, LIVESTOCK FARMING, FORESTRY, FOREST EXPLORATION AND AQUACULTURE.

This Regulatory Standard has the purpose of establishing precepts to be observed in the organization and work environment, compatible to the planning and development of agriculture, livestock, forestry, forest exploitation and aquaculture with safety and health and work environment.

MR. OWNER OR OPERATOR OF THE EQUIPMENT.

Read and carefully comply with provisions of NR-31.

For more information, refer to the site and read NR-31 in full.  
<http://portal.mte.gov.br/legislacao/normas-regulamentadoras-1.htm>



## ▪ Safety rules

### • To the operator



THIS SYMBOL INDICATES IMPORTANT SAFETY WARNING. IN THIS MANUAL, WHENEVER YOU FIND IT, READ THE FOLLOWING MESSAGE CAREFULLY AND PAY ATTENTION TO THE POSSIBILITY OF PERSONAL ACCIDENTS.

### **ATTENTION**



Carefully read the instructions manual to learn about the recommended safety practices.

### **ATTENTION**



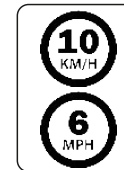
Only start to operate the tractor when you are properly seated and with the seat belt locked.

### **ATTENTION**



Do not perform adjustments while the furrower is in operation. When performing any service on the furrower, switch off the tractor first. Use appropriate tools.

### **ATTENTION**



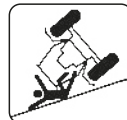
When transportation the SAB NEW SERIES, do not exceed 10 Km/h or 6 MPH, avoiding risks of injury and accident.

### **ATTENTION**



Do not work with the tractor if the front has insufficient ballast to the rear equipment. Should there be a trend to lift, add weights or ballasts to the front or the front wheels.

### **ATTENTION**



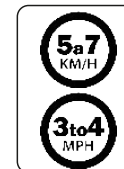
There are risks of severe injuries due to tipping when working in sloped terrains. Do not over speed.

### **ATTENTION**



When checking hoses for leaks, use a piece of cardboard or wood, never use your hands. Avoid incision of fluid in the skin.

### **ATTENTION**



For greater efficiency and safety, work with the SAB NEW SERIES at a speed of 5 to 7 Km/h or 3 to 4 MPH, avoiding the risk of damage and accidents.

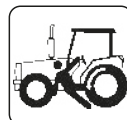
**NOTE:** It is necessary to maintain a constant speed throughout the work.

### **ATTENTION**



Do not transport people on the tractor or over the equipment.

### **ATTENTION**



Before performing any maintenance in your equipment, make sure it is properly stopped. Avoid being run over.

### **ATTENTION**



Always maintain places of access and work free of residues such as oil or grease to prevent accidents.

### **ATTENTION**



Before working on or transporting the furrower, check for people or obstructions near the machine.

## ▪ Safety rules

### **ATTENTION**

FOLLOW ALL RECOMMENDATIONS, WARNINGS AND SAFE PRACTICES RECOMMENDED IN THIS MANUAL, UNDERSTAND THE IMPORTANCE OF YOUR SAFETY. ACCIDENTS MAY LEAD TO DISABILITY OR INCLUDING DEATH. REMEMBER, ACCIDENTS CAN BE AVOIDED!

### **ATTENTION**



Avoid heating parts near fluid lines.  
Heating can lead to material brittleness, rupture, and leakage of pressurized fluid, which can cause burns and injuries.

### **ATTENTION**



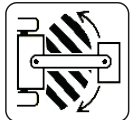
Avoid accidents caused by the intermittent action of line markers.  
When activating the furrower, check if there are people under line markers on in their action area.

### **ATTENTION**



Pressurized hydraulic oil under may cause serious injury if leaks occur. Periodically check the condition of the hoses. If there is evidence of leaks, replace them immediately. Before connecting or disconnecting hydraulic hoses, relieve system pressure by activating the control with the tractor off.

### **ATTENTION**



Keep the articulation area free while the seeder is in operation. In sharp turns, keep the tractor wheels from touching the header.

### **ATTENTION**



Be careful when handling the sowing support foot, as there is a risk of accidents.

### **ATTENTION**



Do not operate the seeder if the transmission guards are not properly attached. Only remove protections to proceed with gear replacement, put them back immediately.  
Do not make adjustments with the seeder in motion.

### **ATTENTION**



Improper waste disposal affects the environment and ecology as it will pollute rivers, canals, or the soil. Find out how to properly recycle or dispose of waste.

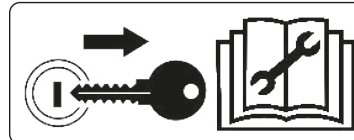
**PROTECT THE ENVIRONMENT!**

### **ATTENTION**



Always stay away from the active elements of the seeder (discs) they are sharp and cause accidents.  
When servicing discs, wear safety gloves in your hands.

### **ATTENTION**



Remove the ignition key before carrying out maintenance on the seeder. Protect yourself from injuries or death caused by an unforeseen start of the seeder. If the seeder is not properly hitched, do not start the tractor.

## ▪ Safety rules

### • PPE Equipment



### ATTENTION

DO NOT WORK WITH THE FURROWER WITHOUT FIRST WEARING PPES (SAFETY EQUIPMENT). IGNORING THIS WARNING MAY CAUSE DAMAGES TO HEALTH, SEVERE ACCIDENTS OR DEATH.

When performing certain procedures with the furrower, wear the following Safety Equipament (PPE):



### ! IMPORTANT

The safety practice must be performed in all stages of working with the furrower, thus avoiding accidents such as impact of objects, fall, noise, cuts and ergonomics, ie the person responsible for operating the furrower is subject to internal and external damage to your body.



### NOTE

All PPEs (Safety Equipment) must have an authenticity certificate.

## ▪ Warnings

- ⚠ When operating with furrower, do not allow people to remain too close or on top of it.
- ⚠ When servicing the machine, wear PPE.
- ⚠ Do not wear loose clothes, as they may get caught in the furrower.
- ⚠ When starting the tractor engine, be properly seated in the operator's seat and aware of complete knowledge of correct and safe handling of both the tractor and the furrower. Always put the shift lever in the neutral position, disconnect the control gear from the PTO and put the hydraulic controls in the neutral position.
- ⚠ Do not start the tractor engine indoors without adequate ventilation as exhaust fumes are harmful to health.
- ⚠ When maneuvering the tractor to engage the furrower, make sure you have the necessary space and that there is no one very close, always do the maneuvers at idle and be prepared to brake in an emergency.
- ⚠ Do not make adjustments while the furrower is running.
- ⚠ When working on slopes, be careful to always maintain the necessary stability. In the event of an imbalance, start reduce the acceleration, turn the wheels to the side of the slope of the terrain and never raise the furrower.
- ⚠ Always drive the tractor at safety compatible speeds, especially when working on rough or sloping terrain, always keep the tractor hitched.
- ⚠ When driving the tractor on roads, keep the brake pedals interconnected.
- ⚠ Do not work with the tractor with a light rear. If the rear tends to lift, add more weights to the rear wheels.
- ⚠ When leaving the tractor, shift to neutral and set the parking brake.
- ⚠ Any and all maintenance on the furrower must be done while it is parked and the tractor turned off.
- ⚠ All refueling or inspection must be carried out with the furrower parked and the tractor turned off, using the means of safe access.
- ⚠ Do not drive on highways, especially at night. Use warning signs all the way.
- ⚠ If it is necessary to travel with the furrower on highways, consult the traffic agencies.
- ⚠ Do not allow the furrower to be used by people who have not been trained, that is, who do not know how to operate it properly.
- ⚠ Do not carry or work with the furrower near obstacles, rivers, or streams.

## ▪ Warnings

- ⚠ Transporting people on self propelled machines and implements is prohibited.
- ⚠ Changes to the original characteristics of the furrower are not allowed, as they may alter safety, operation, and affect service life.
- ⚠ Read all safety information in this manual and in the furrower carefully.
- ⚠ Only operate the furrower if all guards are installed and correctly.
- ⚠ Do not under any circumstances remove the furrower protection components.
- ⚠ Always check that the furrower is in perfect condition. In the event of any irregularity that may interfere with the operation of the furrower, arrange for proper maintenance before any work or transport.
- ⚠ Maintenance and especially inspection in risk areas of the furrower, must be carried out only by a trained or qualified worker, observing all safety guidelines. Before starting maintenance, disconnect all drive systems from the furrower.
- ⚠ Periodically check all components of the furrower before using it.
- ⚠ According to the equipment used and the working conditions in the country or in areas of maintenance, precautions are necessary Baldan cannot directly control precautions, so it is the responsibility of the owner to put safety procedures into practice while working with furrower.
- ⚠ Check the minimum tractor power recommended for each furrower model Only use tractors with power and ballast compatible with the load and terrain topography.
- ⚠ When transporting the furrower, travel at speeds compatible with the ground and at no more than 10 km/h, this reduces maintenance and consequently increases the life of the furrower.
- ⚠ Alcoholic beverages or some medications may cause loss of reflexes and change the operator's physical condition Therefore, never operate this furrower under the use of these substances.
- ⚠ Read or explain all procedures in this manual to a user who cannot read.

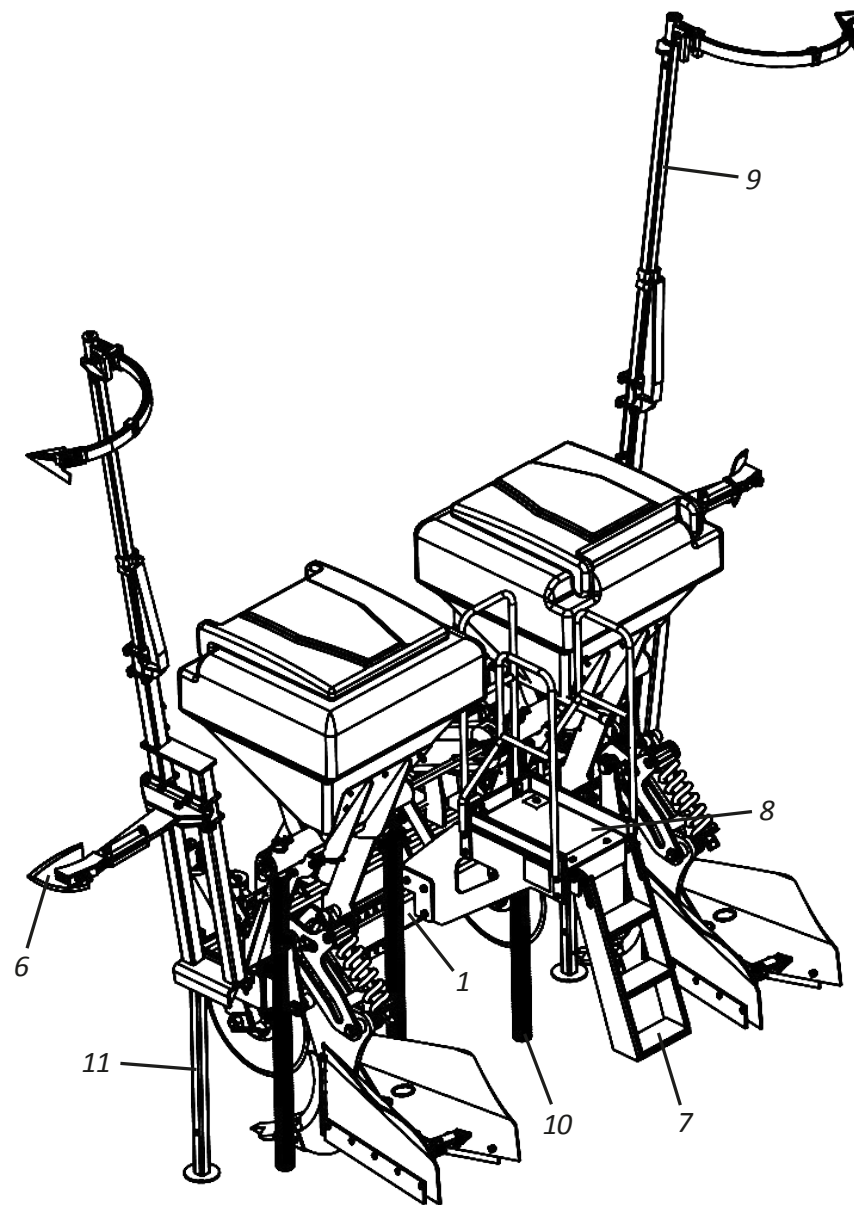
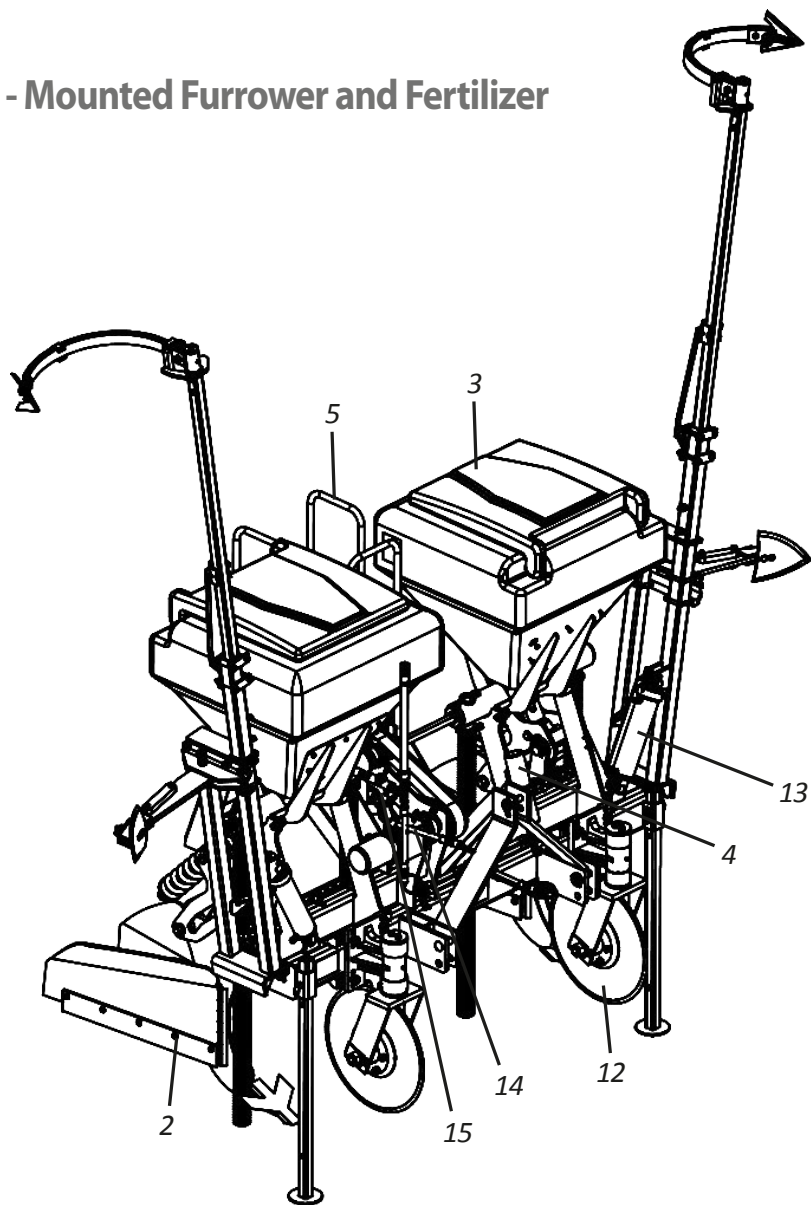
If in doubt, contact After Sales.

Telephone: 0800-152577 / E-mail: [posvenda@baldan.com.br](mailto:posvenda@baldan.com.br)

## ■ Components

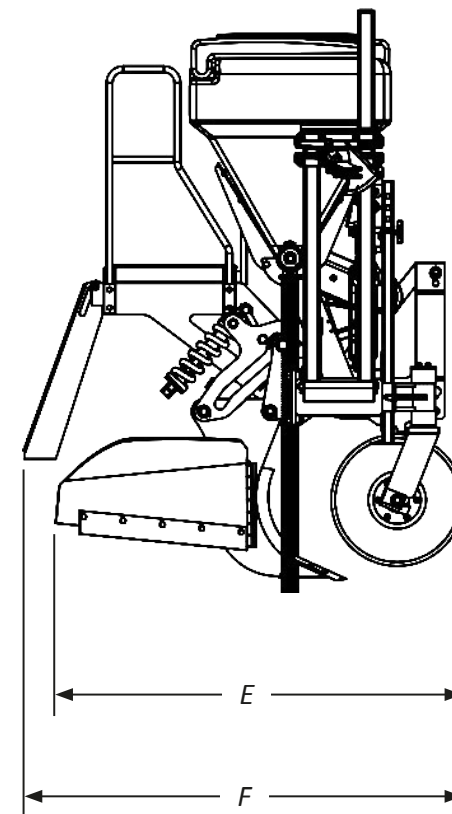
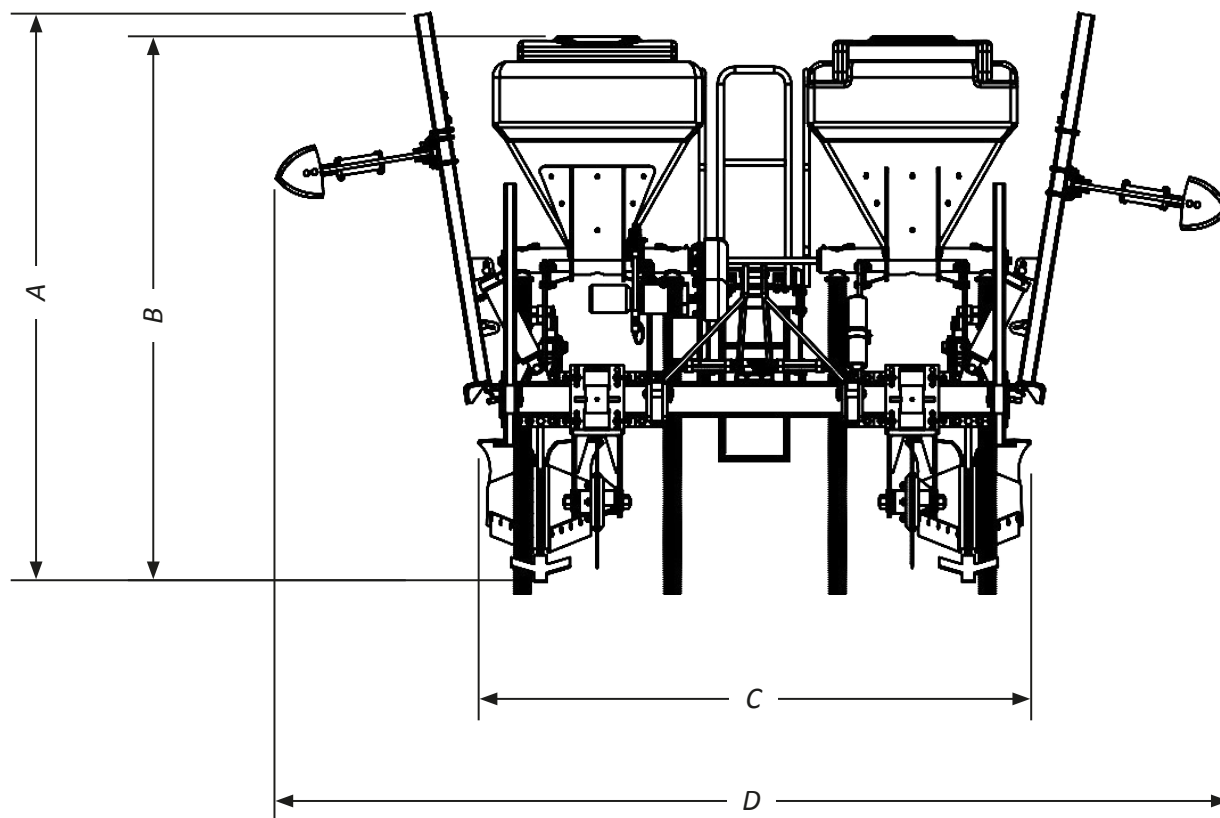
### • SAB NEW SERIES - Mounted Furrower and Fertilizer

1. Chassis
2. Subsoiler rod
3. Fertilizer tank
4. Manual container
5. Handrail
6. Stem
7. Ladder
8. Plataform
9. Goal
10. Mango
11. Support bracket
12. Cutting disc
13. Hydraulic cylinder
14. Hidraulic hose
15. Valve



## ▪ Dimensions

### • SAB NEW SERIES - Mounted Furrower and Fertilizer



Model	Measure A (mm)	Measure B (mm)	Measure C (mm)	Measure D (mm)	Measure E (mm)	Measure F (mm)
SAB NEW SERIES	2521	2418	2454	4231	1804	1946



## ▪ Specifications

### • SAB NEW SERIES - Mounted Furrower and Fertilizer

Model	No. of Rows	Tank Capacity (lts)	Spacing (mm)	Flow Fertilizer (mm)	Approx. Weight (Kg)	Tractor Power (Hp)
<b>SAB NEW SERIES</b>	2	800	1300 / 1400 / 1500	250 - 1200 kg/ha	1450	118 - 160

Average yield ..... 8,84 / 9,52 / 10,20 ha/day

*Baldan reserves the right to change and or improve the technical characteristics of its products without prior notice and without obligation to do so with previously manufactured products. Technical specifications are estimates and reported under normal working conditions.*

## INTENDED USE OF THE SAB NEW SERIES

The **SAB NEW SERIES** is used to furrow the cane plantation.

The **SAB NEW SERIES** must be driven and operated only by a properly instructed operator.

## PROHIBITED USE THE OF SAB NEW SERIES

To avoid damage, serious accident or death, DO NOT transport people over any part of the **SAB NEW SERIES**.

It is NOT permitted to use the **SAB NEW SERIES** to couple, tow or push other attachments or accessories.

The **SAB NEW SERIES** must NOT be used by an inexperienced operator who does not know all the driving, command, and operation techniques.



## ▪ Disassembly

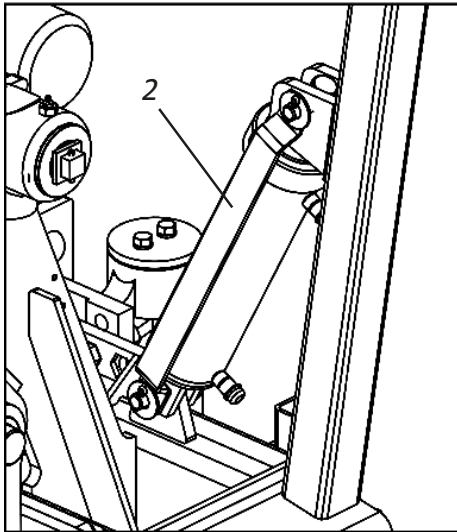
### • Safety lock

For greater safety, the **SAB NEW SERIES** when purchased with a ridge marker or with a furrow and embankment marker, the hydraulic cylinders (1) leave the factory locked with a safety lock (2). Before working or transporting the **SAB NEW SERIES** remove the safety lock (2) to do so, proceed as follows:

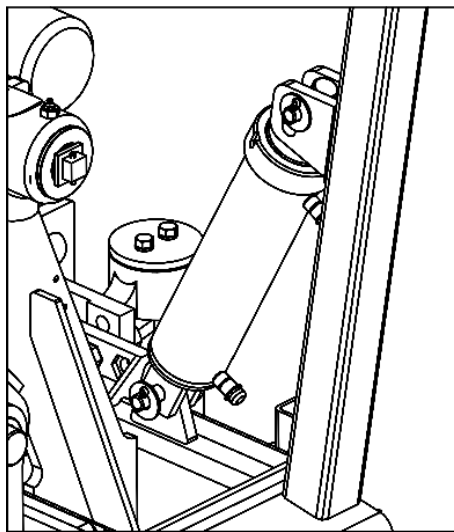
**01** - First, release the cotter pins (3) and flat washers (4).

**02** - Then, remove the safety locks (2) from the hydraulic cylinders (1).

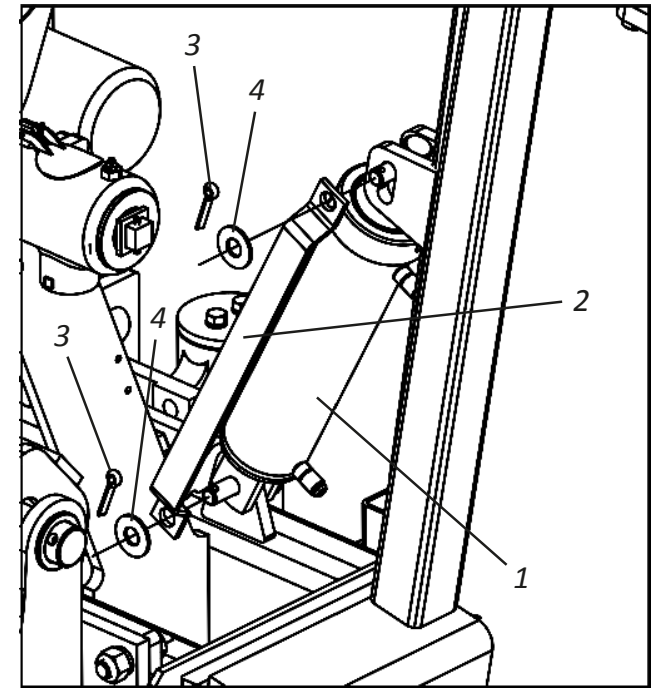
**03** - Then replace the flat washers (4) and cotter pings (3) locking the hydraulic cylinders (1).



**LOCKED CYLINDER**



**UNLOCKED CILYNDER**



Before engaging the tractor, transporting or working with SAB NEW SERIES, make sure that the hydraulic cylinders (1) have been unlocked. Do not engage the tractor, transport or work with SAB NEW SERIES with the hydraulic cylinders (1) locked. Ignoring this warning can cause accidents and damage to the furrower.

## ▪ Hitch

### • Tractor hitch

Before attaching the **SAB NEW SERIES** to the tractor, check that the tractor is equipped with a set of weights or ballast on the front or on the front wheels to avoid lifting the tractor. The rear wheels will give the tractor greater stability and traction on the ground.

To couple **SAB NEW SERIES**, proceed as follows:

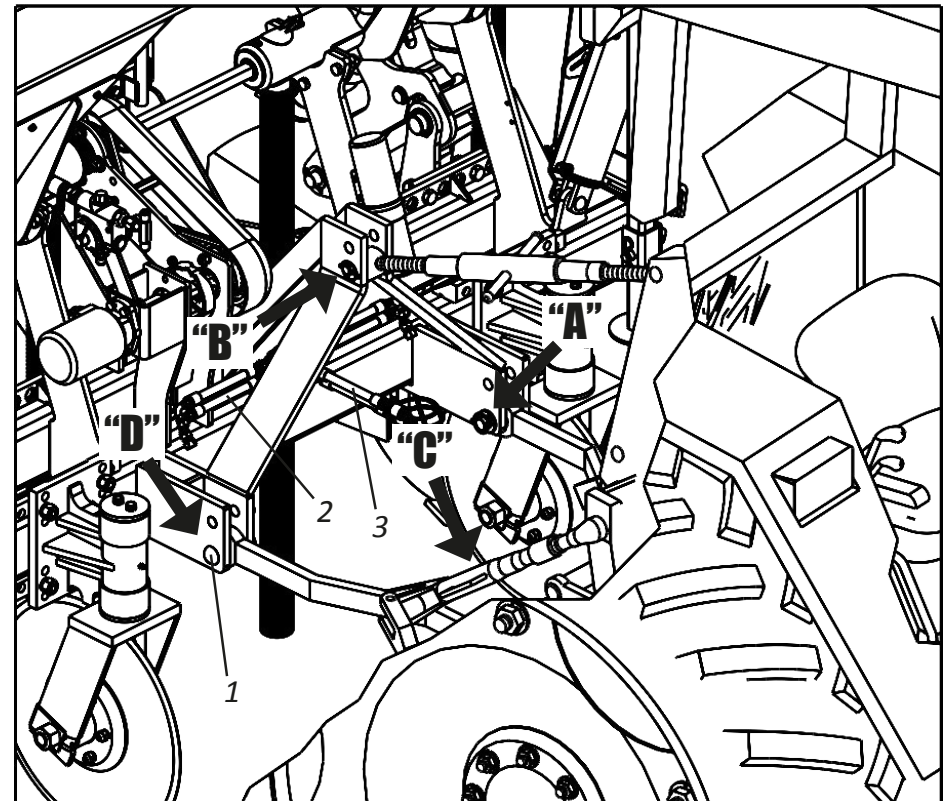
- 01** - Slowly approach the furrower to the tractor in reverse, paying attention to the application of the brakes.
- 02** - Then, use the hydraulic position control lever when approaching the furrower, leaving the lower left arm at the furrower hitch level.
- 03** - Hitch the lower left arm of the tractor through the hitch pin (1) in support “A” of the furrower.
- 04** - Engage the 3rd point of the tractor on support “B” of the furrower.
- 05** - Finally with the aid of the regulator lever “C” engage the lower right arm of the tractor in the holder “D” of the furrower.
- 06** - Finally connect the hydraulic hoses (2 and 3) to the tractor

### **ATTENTION**

Before connecting or disconnecting the hydraulic hoses, turn off the engine and relieve pressure from the hydraulic system by fully operating the control levers. When relieving system pressure, make sure that no one is close to the equipment's movement area.

### **IMPORTANT**

Do not transport a loaded furrower as it may damage the equipment.  
We recommend that you supply it only at the workplace. If the furrower is going to remain in the field for any reason, we recommend covering it with waterproof tarpaulin to avoid moisture.



### **NOTE**

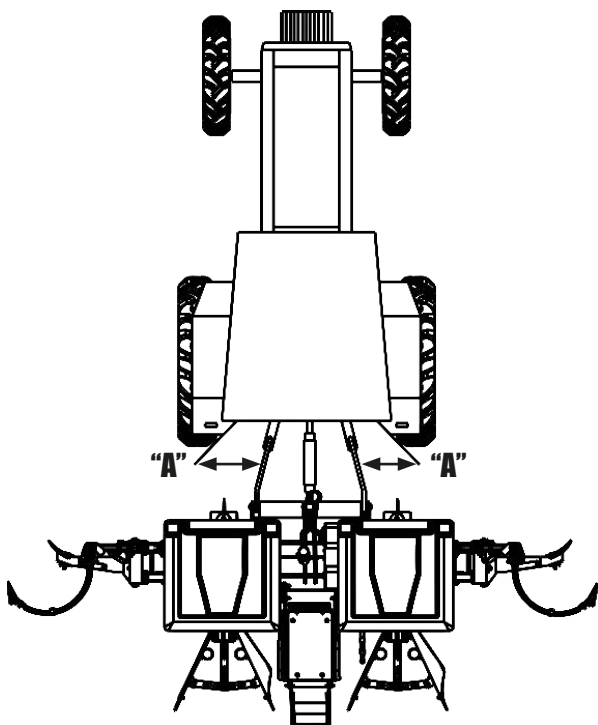
When engaging the furrower, look for a safe and easily accessible place, always use reduced gear with low acceleration.

## ▪ Hitch

### • Furrower centering

To center the **SAB NEW SERIES** in relation to the longitudinal axis of the tractor, proceed as follows:

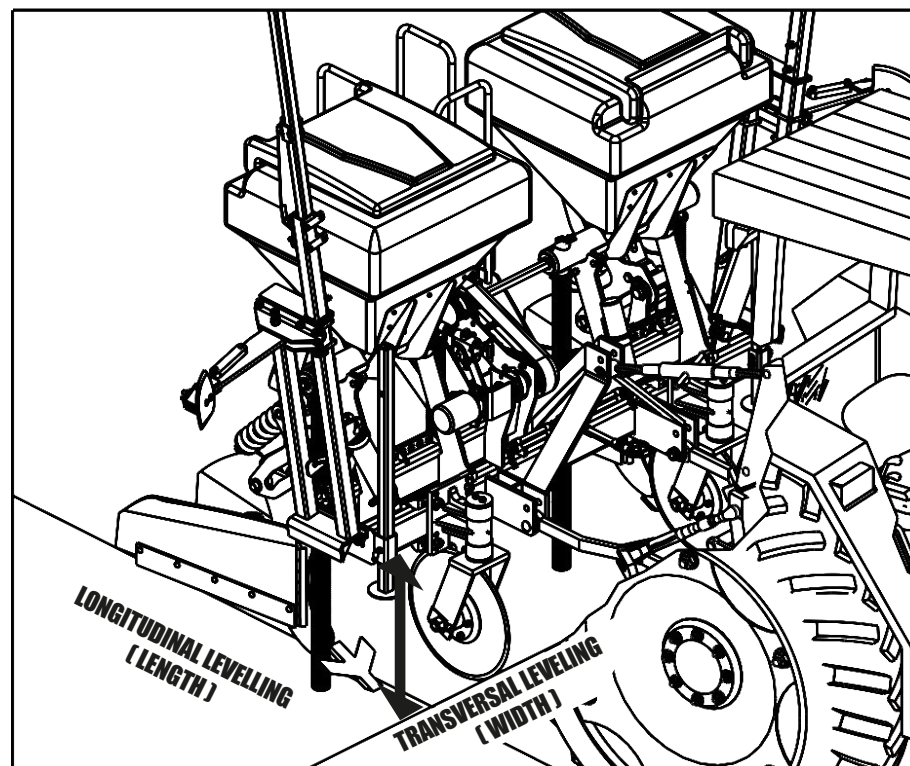
- 01** - Align the upper coupling of the seeder with the 3rd point of the tractor, checking the distances “A” of the lower hydraulic arms are equal in relation to the tractor tires. The lower arms must be level with each other.



### • Furrower levelling

To level the **SAB NEW SERIES** proceed as follows:

- 01** - Then level the furrower in the transversal direction (width) through the crank of the lower right arm of the hydraulic coupling. Watch the measurements “A” which must be the same.
- 02** - Longitudinal leveling (length) is done through the 3rd point arm. Note that the rods must be parallel to the ground.



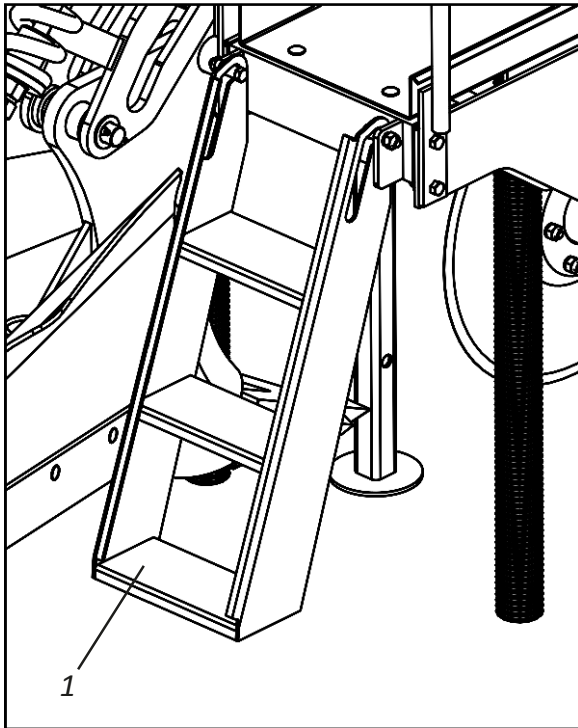
### **ATTENTION**

The leveling regulation varies according to the tractor model.

## ▪ Work/Transportation

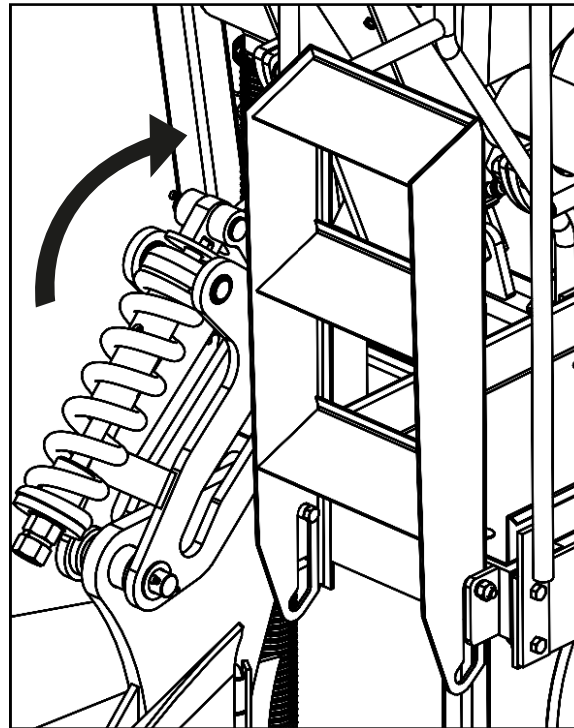
### • Use of the ladder

The articulated ladder (1) should only be used when filling or maintaining tanks of **SAB NEW SERIES**. Before using the articulated ladder (1) make sure that the furrower is parked and the tractor is switched off.



#### **OPEN POSITION:**

**FOR MAINTENANCE OR SUPPLY OF THE TANK**



#### **CLOSE POSITION:**

**FOR WORK OR TRANSPORT**

### **ATTENTION**

Do not stand on the ladder when the furrower is working or being transported.

Do not work or transport the furrower with the ladder open.

Do not carry people on the platform, ladder or any other part of the furrower. Ignoring these warnings could result in serious accidents or even death.

### **IMPORTANT**

The articulated ladder (1) should only be used when filling or maintaining tanks.

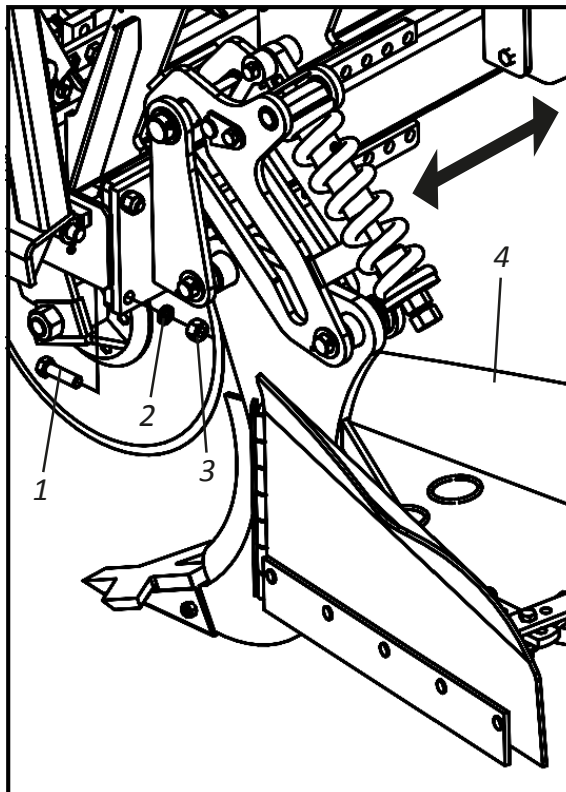
The articulated ladder (1) complies with NBR standards.

## ▪ Adjustments

### • Adjusting the spacing between rods

The **SAB NEW SERIES** is provided with spacing that can be changed according to the type of desired crop, for this, proceed as follows:

- 01** - Loosen the screws (1) lock washers (2) and nuts (3).
- 02** - Then adjust the rod (4) to the desired spacing.
- 03** - Then, fasten the screws (1) again, tightening the pressure washers (2) and nuts (3).



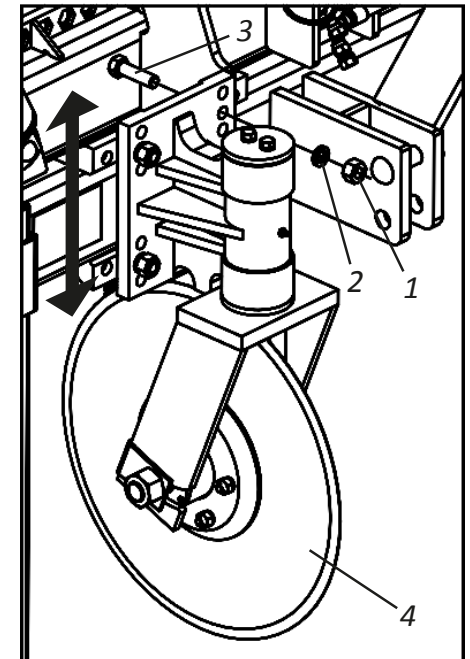
### **ATTENTION**

When finishing the adjustment, repeat the procedure above to adjust the other rod.

### • Adjusting the cutting disc depth

The **SAB NEW SERIES** has cutting discs 1 for work in areas of decreased preparation or straw of annual crops used in rotation in the reform areas, facilitating their cutting. To adjust the depth of the cutting discs, proceed as follows:

- 01** - Loosen the nuts (1) lock washers (2) and remove the screws (3).
- 02** - Then, move the cutting disc (4) to the desired setting.
- 03** - Then, replace the screws (3) fixing them through the pressure washers (2) and nuts (1).



### **ATTENTION**

When finished, proceed to the same adjustment on the other cutting disc (4) as both must have the same adjustment.

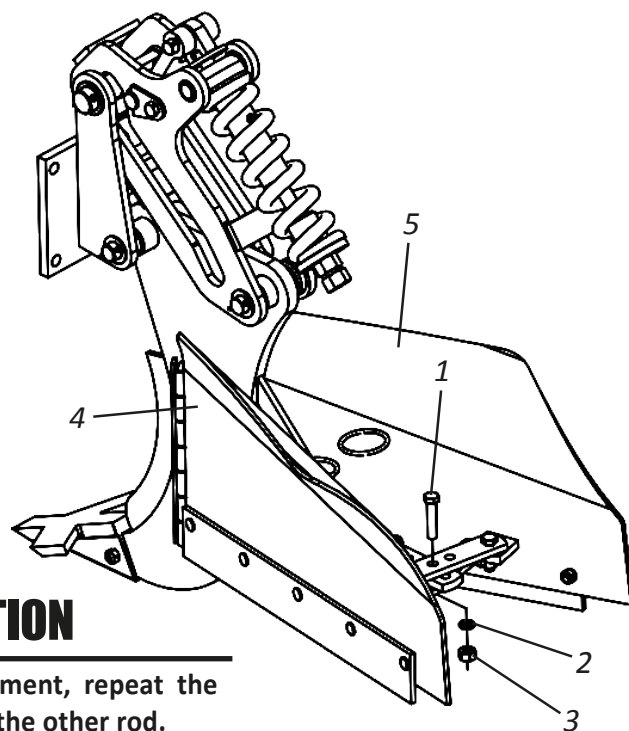


## ▪ Adjustments

### • Rod opening adjustment

The **SAB NEW SERIES** have rods that can be adjusted to openings according to the need for work. To adjust the opening of the rod, proceed as follows:

- 01** - Remove the screw (1) loosening the pressure washer (2) and nut (3).
- 02** - Then move the moldboards (4 and 5) according to the need for work.
- 03** - Then, replace the screw (1) fixing it through the pressure washer (2) and nut (3).

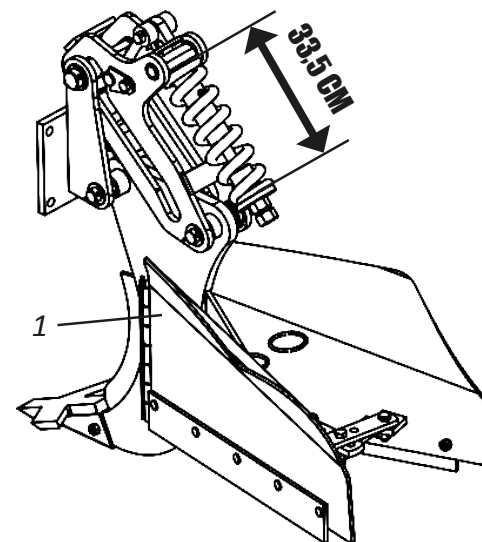


### **ATTENTION**

When finishing the adjustment, repeat the procedure above to adjust the other rod.

### • Adjusting the automatic tripping of the rods

The automatic tripping system of the rods (1) leaves the factory with the pre-load regulation determined, that is, with 33.5 cm in the length of the spring.



### **ATTENTION**

There is no need to make other adjustments to the rod release system. If it is constantly tripping, check the soil conditions, which can be very hard or have a high compaction rate.

### **NOTE**

For better use of the grooving in a vibratory way, operate with the lowest possible pressure. In normal working conditions, the rod does not tripp frequently.

## ▪ Adjustments

### • Adjustment of ridge and embankment markers

The adjustment of the ridge or embankment markers is important to obtain evenly spaced furrowing and fertilizing, so that the edge line of the furrower is at the same spacing as the last furrowed and fertilized line, facilitating future operations. To adjust the ridge or embankment markers, proceed as follows:

**01** - First of all, you must know the line spacing, the number of lines to be used in the operation and the tractor's front gauge. **Note:** In the case of embankment markers, the front gauge of the overflow is considered.

Use the formula below, followed by an example.

**Formula:** 
$$D = \frac{E \times (N+1) - B}{2}$$

**Resolve:** 
$$X = \frac{1,50 \times 3 - 1,43}{2}$$

$$D = 1,53 \text{ meter}$$

#### WHERE:

E = Spacing between rods (mts)

N = Number of furrower rows

B = Front gauge of tractor

D = Marker distance

### ⚠ ATTENTION



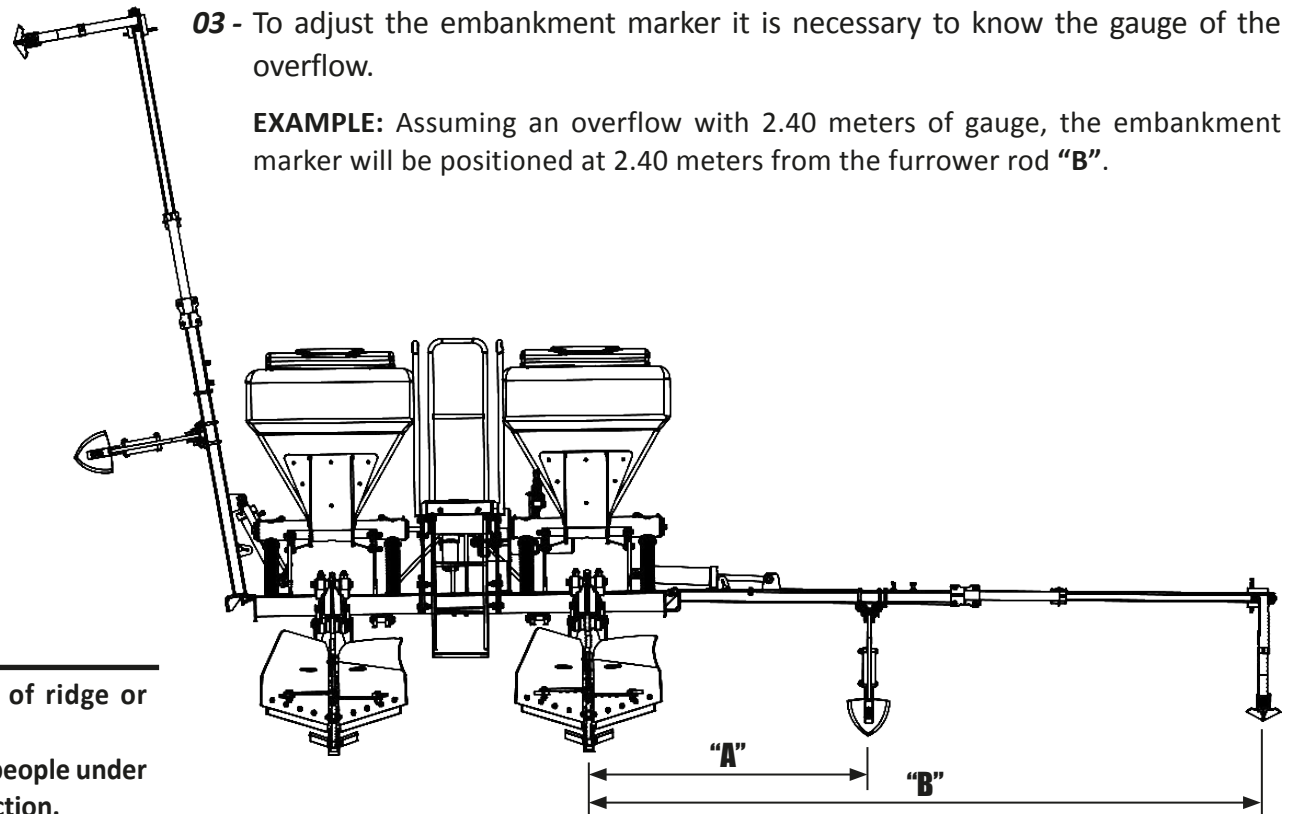
Avoid accidents caused by the intermittent action of ridge or embankment markers.

When activating the furrower, check that there are no people under the ridge or embankment markers or in their area of action.

**02** - Adjust the ridge marker 0.785 m from the furrower rod "A".

**03** - To adjust the embankment marker it is necessary to know the gauge of the overflow.

**EXAMPLE:** Assuming an overflow with 2.40 meters of gauge, the embankment marker will be positioned at 2.40 meters from the furrower rod "B".

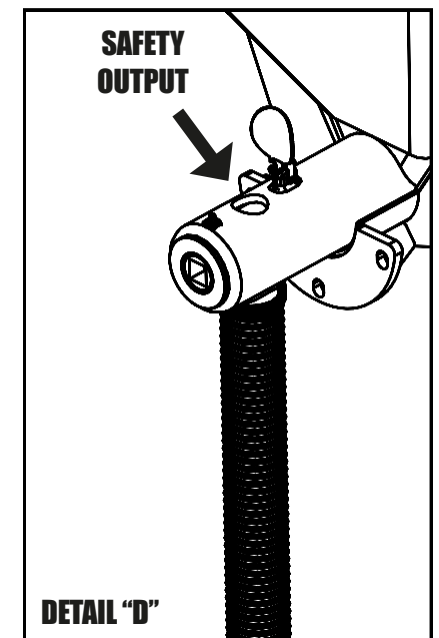
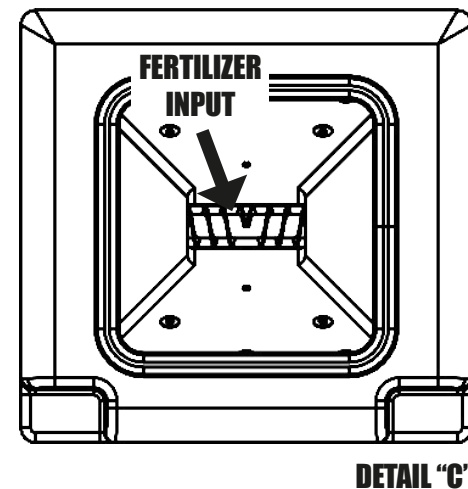
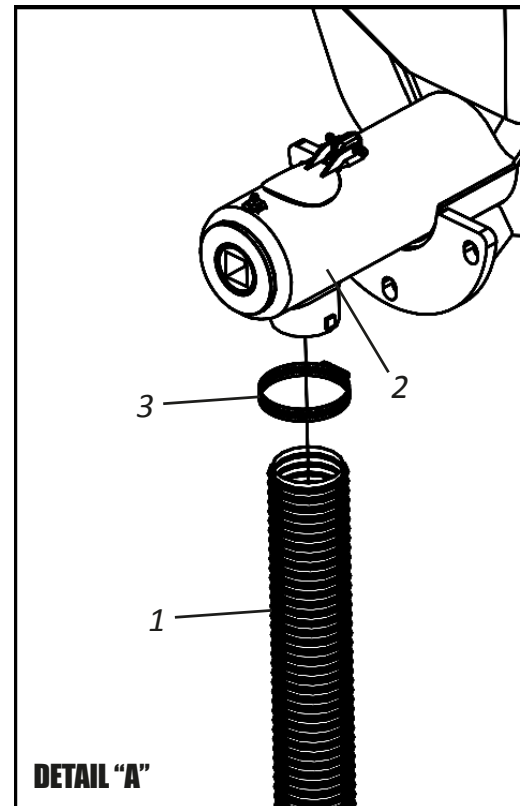
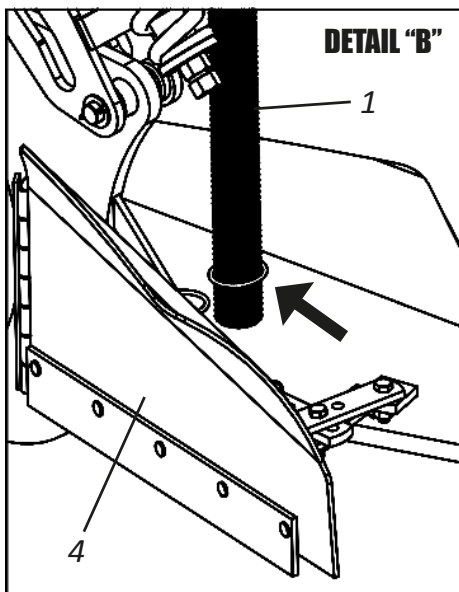


## ▪ Fertilizer dispensing system

### • Fertilizer conductor - Independent System

To carry fertilizer from the distributor to the ground, proceed as follows:

- 01** - Couple the hoses (1) at the outlets of the high flow distributor (2) fixing them through the clips (3) as shown in **detail "A"**.
- 02** - Then, pass the hoses (1) inside the rings of the rods (4) avoiding that they are crossed or bent, as shown in **detail "B"**.



The independent high flow system has safety outputs that guarantee the proper functioning of the system without damaging it. In case of clogging of the hose and the batcher, clean the batcher until the end of the hose near the furrower rod or double disc, as the system may become clogged by roots, pieces of plastic and other objects, as shown in details "C" and "D".



### **ATTENTION**

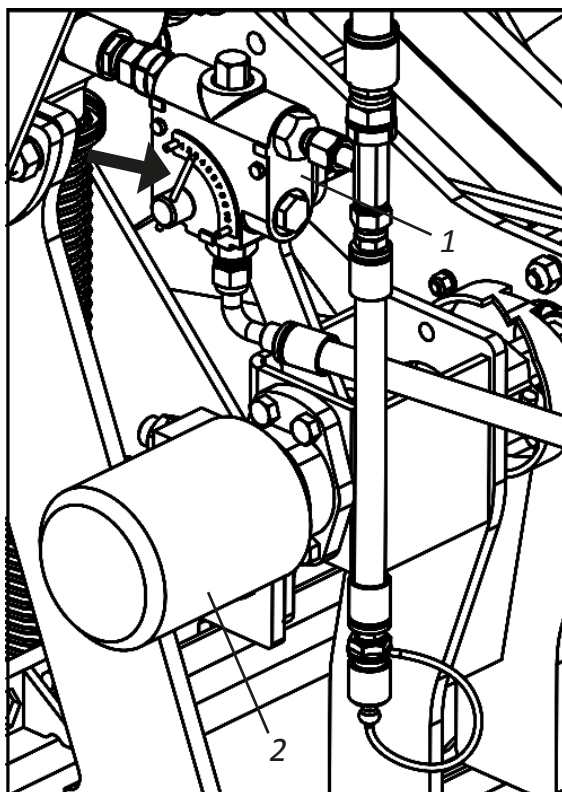
Check dispensers and hoses daily and clean their outlets. When the fertilizer has impurities or is damp, clean it more often.



## ▪ Fertilizer dispensing system

### • Adjusting the fertilizer with hydraulic motor

**01** - The fertilizer must be adjusted through the oil flow regulation valve (1) while the tractor is parked, but at the same working rotation. Collect the fertilizer during the timed time to cover 50 or 100 meters and calculate according to the example on the following page.



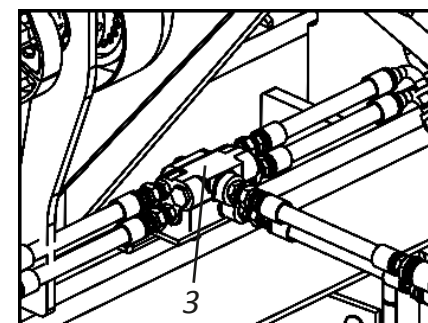
**NOTE** Wait a few seconds before starting to collect the fertilizer, so that it completely envelops the shaft. Before starting the test, heat the tractor oil to normal working temperature.

**02** - The variation in the amount of fertilizer is obtained by opening or closing the oil flow regulation valve (1).

**03** - Opening the oil flow regulation valve, the hydraulic motor (2) rotates faster, increasing the amount of fertilizer.

Fertilizer distribution table (Kg/Ha) - SAB New Series (Hydraulic Motor)				
Gears				
Hex shaft motor		38		
Moved fertilizer box		20		
		Spacing (mm)		
		Kg/Ha		
Adjustment	Grams 50 m	1300	1400	1500
2,0	2,800	431	400	373
2,1	4,000	615	571	533
2,5	4,800	738	686	640
3,0	7,200	1108	1029	960

**04** - The ridge and embankment markers are alternating, one lowers, then the other, this happens through the oil flow divider valve 3 which leaves the factory pre set.



## ! IMPORTANT

The oil flow regulating valve (1) has a pressure relief (safety system), pre regulated, which aims to interrupt the rotation of the hydraulic motor in the event of a possible blockage in the individual fertilizer distribution system (spouts). It is recommended to operate with the regulation in the position of 2 to 3 as shown in table 08, depending on the desired fertilizer distribution. Never change the valve setting (1).

## ■ Calculation

### • Practical calculation for fertilizer dispensing

To distribute other quantities of fertilizer in spacing and areas other than those shown in the distribution tables, use the formula below, to do this, proceed as follows:

**01** - Determine the spacing between lines and the amount of fertilizer to be distributed per bushel (Aa) or hectare (Ha).

**02 - Example:** Furrower with a spacing of 1500 mm, to distribute 400 kg of fertilizer per Ha, use the formula below:

Formula: 
$$X = \frac{E \times Q}{A} \times D$$

#### WHERE:

**E** = Spacing between rod (mm)

**Q** = Amount of fertilizer to be distributed (kg)

**A** = Area to be fertilizer (m<sup>2</sup>)

**D** = 50 meters distance (test)

**X** = Fertilizer grams to 50 meters

Resolve: 
$$X = \frac{1500 \times 400}{10.000} \times 50$$

$$X = 60.00 \times 50 = 3000$$

$$X = 3000 \text{ grams to 50 meters per rod}$$

#### NOTE

When obtaining the result, adjust the furrower to distribute the amount found, or the one closest to the predetermined space for the test.

## ▪ Calculations

### • Practical test to assess the quantify of fertilizer distribution

- 01** - For greater precision in the dispensing of fertilizer, make the test of the amount to be dispensed at the planting location, because there is a condition for each terrain.
- 02** - As far as possible, always use the same tractor and operator who will carry out the planting.
- 03** - Mark the test distance in the table, we opted for 50 linear meters.
- 04** - Fill the tanks of the furrower at least halfway. Travel an average of 10 meters outside the test area so that the fertilizer fill the batchers.
- 05** - Place containers for collection at the fertilizer outlets. Move the tractor in the demarcated area, always at the same speed you will plant, from 5 to 7 km/h or 3 to 4 MPH.
- 06** - After going through the demarcated space, remove the fertilizer nozzle seal and collect the fertilizer for weighing the amount collected. If necessary, increase or decrease the amounts and fertilizer to be distributed, check the table.
- 07** - When reaching the desired amount, still in the area, move the tractor at the same speed, however, letting the fertilizer reach the soil to check for uniformity in distribution later.

### **ATTENTION**

Variation in working speed affects the uniform distribution of fertilizer.  
When changing the fertilizer manufacturer, it is necessary to check again.  
After the first day of work, check all adjustments again.

### **IMPORTANT**

We suggest that a practical test be carried out on the dispensing of the fertilizer, over 50 m, to later compare the results of the fertilizer.

## ▪ Operations

### • Recommendations for operation

The preparation of the **SAB NEW SERIES** and the tractor will allow you to save time in addition to a better result in field work. The following suggestions may be helpful to you.

- 01** - After the first day of work with the **SAB NEW SERIES** retighten all bolts and nuts. Check the condition of the pins and locks.
- 02** - Do not maneuver or reverse with the lines lowered to the ground.
- 03** - Observe lubrication intervals.
- 04** - When filling the tanks make sure that there are no objects inside them, such as nuts, bolts, etc. Always use seeds free of impurities.
- 05** - Always observe the functioning of fertilizer dispensing mechanisms and also the regulations established at the beginning of planting.
- 06** - Always keep the **SAB NEW SERIES** levelled, the tractor drawbar must remain fixed and the working speed should remain constant.
- 07** - Do not disconnect any hose without first relieving circuit pressure. To do this, operate the control levers a few times with the engine off.
- 08** - After coupling and leveling, the next adjustments will be made directly in the work field, analyzing the terrain in its texture, humidity and the types of operations to be done with the **SAB NEW SERIES**.
- 09** - Respect the working and transport speeds specified on page 9. We do not recommend exceeding speeds to maintain service efficiency and avoid possible damage to the **SAB NEW SERIES**.
- 10** - When carrying out any checks or maintenance on the **SAB NEW SERIES** you must lower it to the ground and turn off the tractor engine.
- 11** - **SAB NEW SERIES** has several adjustments but only local conditions can determine the best fit.
- 12** - Right and left side indications are made by observing the **SAB NEW SERIES** from behind.
- 13** - Only fuel **SAB NEW SERIES** at the workplace
- 14** - Do not transport or work with an overloaded **SAB NEW SERIES**.
- 15** - **SAB NEW SERIES** operates with greater efficiency in the range of 5 to 7 km/h or 3 to 4 MPH.

If in doubt, never operate or handle the **SAB NEW SERIES**, consult the After Sales.  
Telephone: 0800 152577 / E mail: [posvenda@baldan.com.br](mailto:posvenda@baldan.com.br)

## ▪ Maintenance

The **SAB NEW SERIES** was developed to provide you with maximum performance under terrain conditions. Experience has shown that periodic maintenance of certain parts of the **SAB NEW SERIES** is the best way to help you avoid problems, so we suggest checking.

### • Lubrification

Lubrication is essential for good performance and longer durability of the moving parts of the **SAB NEW SERIES** contributing to savings in maintenance costs.

Before starting the operation, carefully lubricate all grease fittings, always observing the greasing intervals on the following page. Make sure of the quality of the lubricant, its efficiency and purity, avoiding the use of products contaminated by water, soil and other agents.

### • Grease table and equivalents

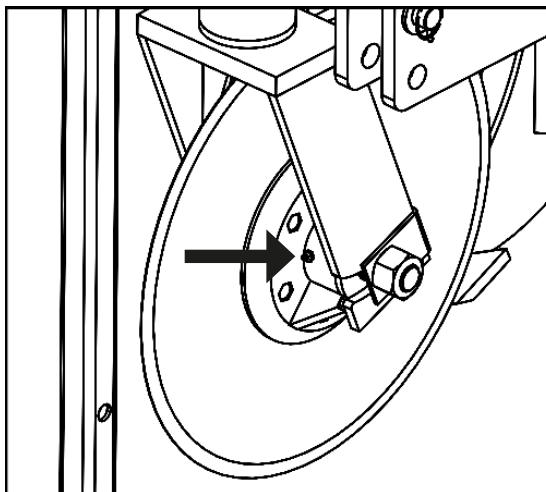
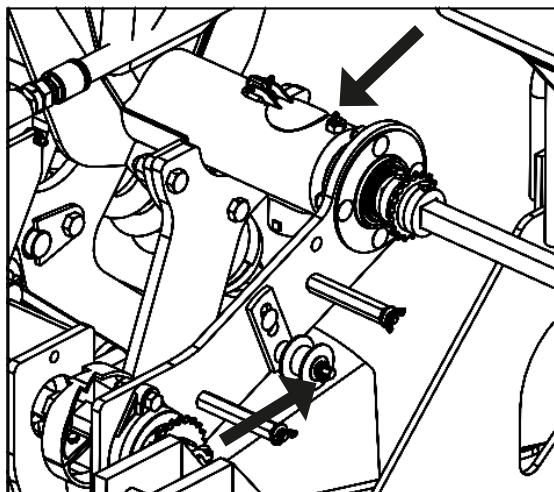
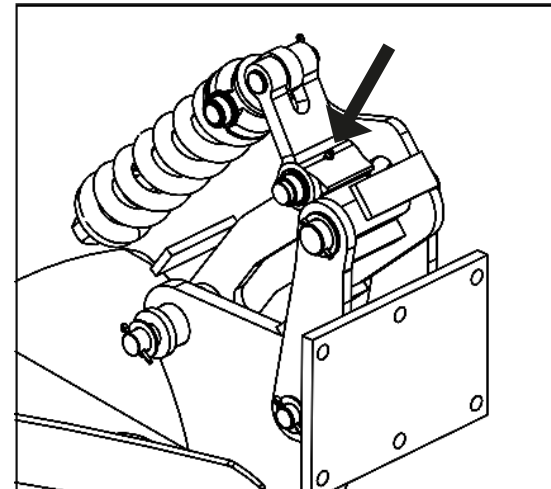
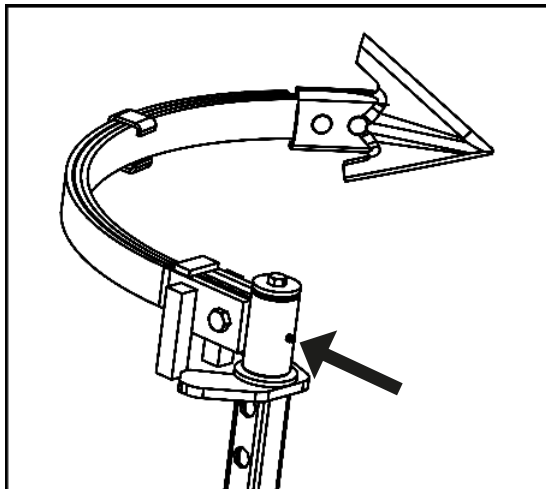
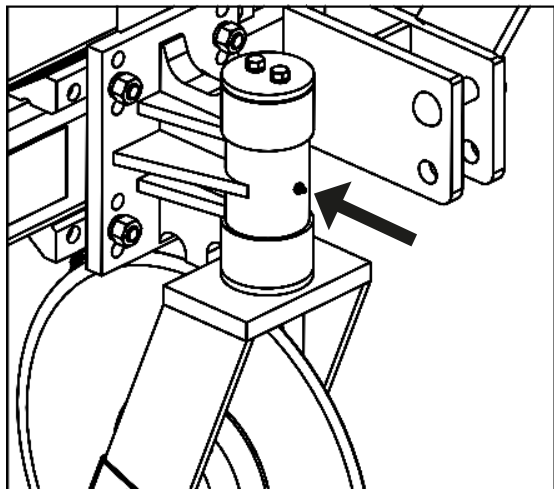
Manufacturer	Recommended grease types
Petrobrás	Lubrax GMA-2
Atlantic	Litholine MP 2
Ipiranga	Ipiflex 2
Castrol	LM 2
Mobil	Grease MP
Texaco	Marfak 2
Shell	Alvania EP 2
Esso	Multi H
Bardahl	Maxlub APG-2EP
Valvoline	Palladium MP-2
Petronas	Tutela Jota MP 2 EP
	Tutela Alfa 2K
	Tutela KP 2K

### **ATTENTION**

For manufacturers and or equivalent brands not listed in the table, see the manufacturer's technical manual.

## ▪ Maintenance

- Lubrication every 10 hours of work



### **ATTENTION**

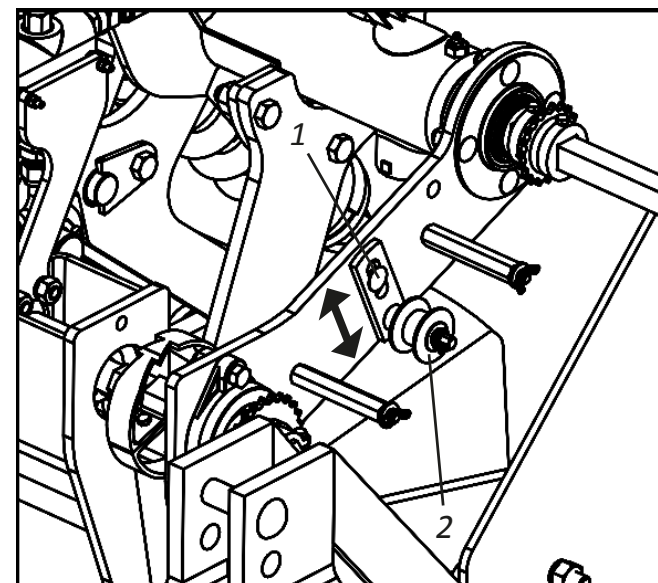
When lubricating the SAB NEW SERIES, do not exceed the amount of new grease. Insert a sufficient amount.

## ▪ Maintenance

### • Chain tension

To tension the chain, proceed as follows:

- 01** - Release the pin (1), slide the tensioner (2) until the necessary tension.
- 02** - Then, retighten the nut securing the tensioner (2).



### ATTENTION

Check chain tension daily, normal clearance should be  $\pm 1\text{cm}$  in the center of the chains.

### • Operational maintenance - Part I

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
During furrowing and fertilization, fertilizer starts to leak through the safety exits.	Clogged hoses or pieces of plastic in the conductive fertilizer coils.	Unclog the hose or remove the upper channel that gives access to the spiral, rotate the shaft in the opposite direction until the foreign body that is stuck loosens.
Fertilizer hub shaft does not rotate.	Spiral blocked by wet fertilizer or excess fertilizer in the closed line.	Unclog the spirals, check if you have a loose gutter and the fertilizer may be entering by their sides.

## ■ Maintenance

### • Operational maintenance - Part II

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Tractor rear when raising the furrower.	Lack of ballast in the front of the tractor.	Ballast the front of the tractor.
The furrower leaves on its side during furrowing and fertilizing on steep slopes.	Lower arms of the tractor hitch are loose with lateral displacement.	Attach the lower arms of the tractor hitch to eliminate lateral displacement.
Leak in hydraulic hoses.	Thread sealing material is missing.	Use thread sealant and retighten carefully.
	Insufficient tightening.	Retighten carefully.
	Damaged repairs.	Replace terminals.
Leak in quick couplers.	Insufficient tightening.	Retighten carefully without excess.
	Damaged repairs.	Replace repairs.
Quick couplings do not couple.	Couplings of different brands.	Use couplings of the same brand.
	Mixture of needle couplings with ball couplings.	Always use couplings of the same type.
	System pressure.	Relieve pressure to couple.



## ▪ Maintenance

### • Care

- 01** - Before each work, check the condition of all hoses, pins, screws, bearings, discs, and sections. When necessary, retighten or replace them.
- 02** - Movement speed must be carefully controlled according to the terrain conditions
- 03** - The **SAB NEW SERIES** is used in several applications, requiring knowledge and attention during its handling
- 04** - Only local conditions can determine the best way to operate the **SAB NEW SERIES**.
- 05** - When assembling or disassembling any part of the **SAB NEW SERIES** use appropriate methods and tools.
- 06** - Carefully observe the lubrication intervals at the various lubrication points of the **SAB NEW SERIES**. Observe the lubrication intervals.
- 07** - Always check the parts for wear. If replacement is required, always require original Baldan parts

### ❗ IMPORTANT

Proper and periodic maintenance is necessary to ensure the long life of the **SAB NEW SERIES**.

### • Care during furrowing

- 01** - The fertilizer has great moisture absorption power and this speeds up the oxidation process so, avoid spillage and accumulation of fertilizer during the filling of **SAB NEW SERIES**.
- 02** - Use a blower, compressed air or broom to remove excess fertilizer from the furrower at the end of the day.
- 03** - To avoid fertilizer effects, protect **SAB NEW SERIES** by keeping it in the shed or covering it with canvas (in the best possible way) during rain and/or night periods, to protect it from moisture.

## ▪ Maintenance

### • General cleaning

- 01** - When storing the **SAB NEW SERIES** make a general cleaning and wash it thoroughly only with water. Check that the paint has not worn out, if this has happened, apply a general coat, apply protective oil and lubricate the **SAB NEW SERIES** completely. Do not use burnt oil or other abrasive.
- 02** - At the end of the work, proceed as follows:
- Remove the transmission chains and keep them bathed in oil until the next work.
  - Remove the hoses by immediately washing them with mild soap and water. Do not use other chemicals.
- 03** - Fully lubricate the **SAB NEW SERIES**. Check all the moving parts of the **SAB NEW SERIES** if they show wear or looseness, make the necessary adjustment or replacement of the parts, leaving the furrower ready for the next job.
- 04** - After all maintenance precautions, store the furrower in a dry and properly supported place.
- Avoid:
- The discs from directly contacting the ground.
  - Springs compression.
  - That the hydraulic hoses are properly plugged.
- 05** - When connecting or disconnecting hydraulic hoses, do not let the ends touch the ground. Before connecting the hydraulic hoses, clean the connections with a clean cloth without loose threads. **Do not use tow!**
- 06** - Replace all damaged or missing stickers, especially warnings. Make everyone aware of their importance and the dangers of accidents when instructions are not followed.

- 07** - After all maintenance care, store your **SAB NEW SERIES** on a flat surface, covered and dry, away from animals and children.
- 08** - Make sure that the deposits are properly covered.
- 09** - We recommend washing the **SAB NEW SERIES** only with water at the beginning of work.



### **ATTENTION**

Do not use chemicals or abrasives to wash the **SAB NEW SERIES** as this may damage the paint and its stickers.

### • Furrower care - Part I

To extend the life and appearance of the **SAB NEW SERIES** for longer, follow the instructions below:

- 01** - Fertilizers and their additives are highly corrosive and their formulation is increasingly aggressive to the furrower components.
- 02** - Wash and clean all furrower components during and at the end of the work season.
- 03** - Use neutral products to clean the furrower, following the safety and handling guidelines provided by the manufacturer.
- 04** - Always perform maintenance at the times indicated in this manual.

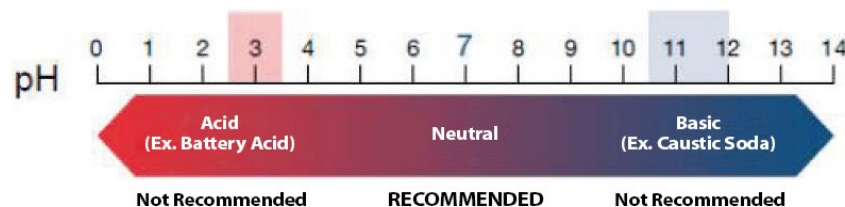
## ■ Maintenance

### • Furrower care - Part II

The practices and care below if adopted by the owner or operator make a difference for the conservation of the **SAB NEW SERIES**.

- 01** - Caution when performing high pressure washing do not direct the water jet directly at the connectors and electrical components Isolate all electrical components.
- 02** - Use only water and MILD detergent (7 pH);
- 03** - Apply the product, following the manufacturer's instructions, on the wet surface and in the correct sequence, respecting the application and washing time.
- 04** - Stains and dirt not removed with the products should be removed with a sponge.
- 05** - Rinse the machine with clean water to remove all chemical residues.
- 06** - Do not utilize:
  - Detergents with basic active principle (pH greater than 7), they can damage/stain the furrower paint.

- Detergents with acid active principle (pH less than 7) act as a paint remover/zinc plating (the protection of parts against oxidation).



- 07** - Let the machine dry in the shade so that water does not accumulate in its components. Drying too fast can stain your paint.

- 08** - After drying, lubricate all grease fittings according to the operator's manual recommendations.
- 09** - Spray the entire machine, especially galvanized parts, with protective oil, following the manufacturer's application guidelines. The guard also prevents dirt from sticking to the machine, facilitating subsequent washes.
- 10** - Observe the cure (absorption) time and application intervals as recommended by the manufacturer.



### ATTENTION

Do not use any other type of oil to protect the furrower (used hydraulic oil, "burnt" oil, diesel oil, castor oil, kerosene, etc).



### IMPORTANT

We recommend the following protective oils:

- Baldan : Agro protective 200 or 300
- ITWChemical : Zoxol DW 4000 Series



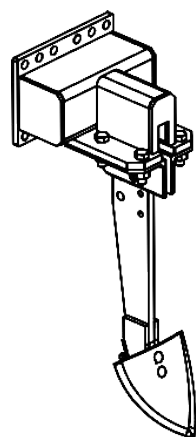
### NOTE

Ignoring the above conservation measures may result in the loss of warranty for painted or galvanized components that may be oxidized (rust).

## ▪ Optional

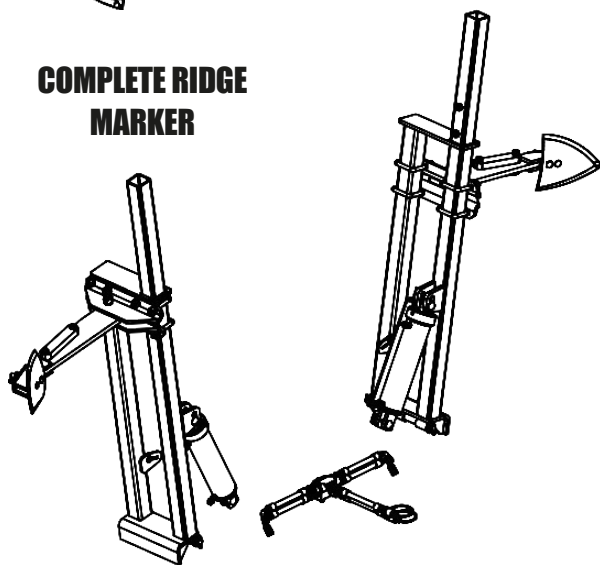
### • Optional accessories

The **SAB NEW SERIES** has options that can be purchased according to the needs of the work.

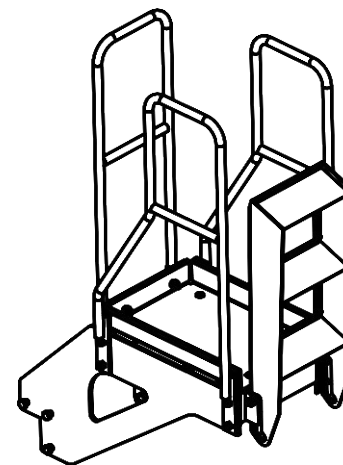
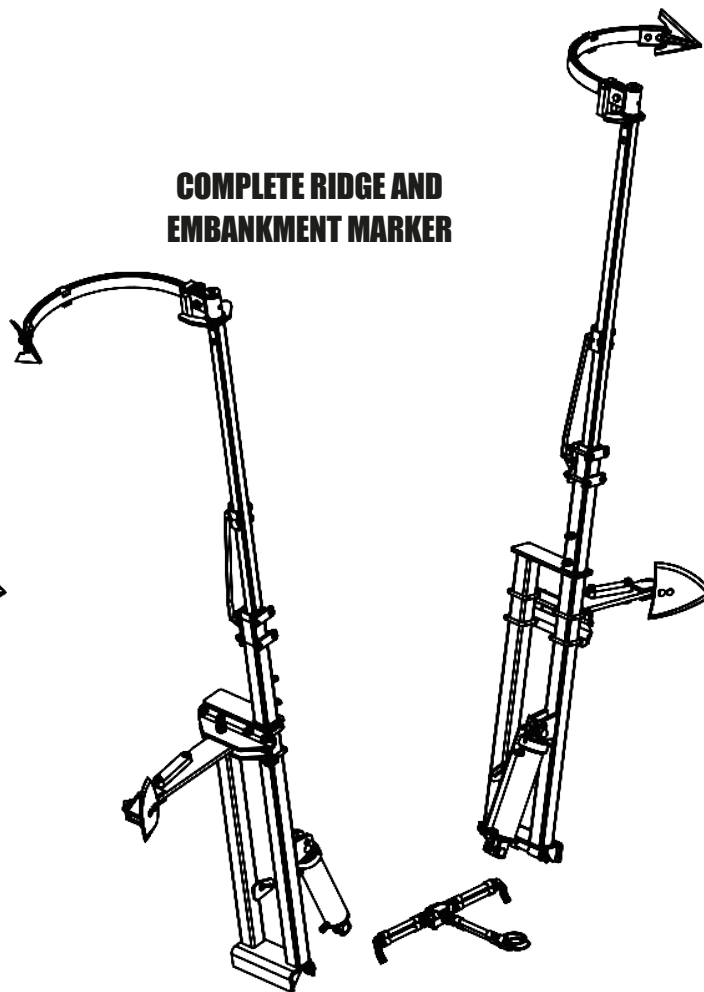


**COMPLETE HILLING  
UP ROD**

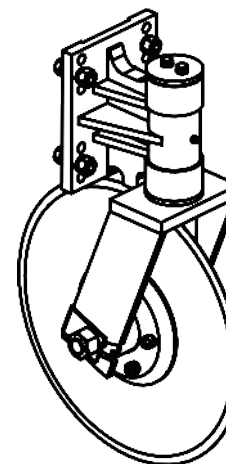
**COMPLETE RIDGE  
MARKER**



**COMPLETE RIDGE AND  
EMBANKMENT MARKER**



**COMPLETE REAR  
PLATFORM**



**COMPLETE 23" CUTTING  
DISC CART**

## ■ Identification

### • Identification plate

To see the parts catalog or to request technical assistance from Baldan, always inform model (01), serial number (02) and date of manufacture (03), which is on your **SAB NEW SERIES** nameplate.



### ATTENTION

The drawings in this Instruction Manual are merely illustrative.

### CONTACT

In case of doubts, never operate or handle your equipment without referring to Post-Sales.  
Telephone: 0800-152577  
e-mail: posvenda@baldan.com.br

### PUBLICATIONS

Code: 60550109053 | CPT: SABNS11617

### • Product Identification

Please make the correct identification of the data below, to always have information about the service life of your equipment.

Owner: \_\_\_\_\_

Dealer: \_\_\_\_\_

Property: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Certificate of Warranty no.: \_\_\_\_\_

Implement: \_\_\_\_\_

Serial No: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Invoice: \_\_\_\_\_



■ **Notes:**

[illegible]

## ■ Notes:

## ■ Certificate of Warranty

**BALDAN IMPLEMENTOS AGRÍCOLAS S/A** ensures the dealer normal performance of the implement for a period of six (6) months as of the delivery date on the retail invoice to the first final consumer. During this period, **BALDAN** undertakes to repair defects in material and/or of manufacture of its liability, including labor, freight and other expenses of the dealer's liability.

In the warranty period, request and replacement of eventual defective parts shall be made to the dealer of the area, who will submit the faulty piece for **BALDAN** analysis.

When this procedure is not possible and the resolving capacity of the dealer is exhausted, the dealer will request the support of **BALDAN Technical Assistance** through a specific form distributed to dealers. After analyzing the replaced items by Baldan Technical Assistance, and concluding that it is not a warranty, then the dealer will be responsible for the costs related to the replacement; as well as material expenses, travel including accommodation and meals, accessories, lubricant used and other expenses arising from the call out to Technical Assistance, and Baldan company is authorized to carry the respective invoice in the name of the resale. Any repair carried in the product within the dealer warranty deadline will only be authorized by **BALDAN** upon previous budget presentation describing parts and work to be performed.

The product is excluded from this term if it is repaired or modified by representatives not belonging to the **BALDAN** dealer network, as well as the application of non-genuine parts or components to the user's product. This warranty is void where it is found that the defect or damage is caused by improper use of the product, failure to follow instructions or inexperience of the operator.

It is agreed that this warranty does not cover tires, polyethylene tanks, cardan, hydraulic components, etc., which are equipment guaranteed by their manufacturers. Manufacturing and/or material defects, object of this warranty term, will not constitute, under any circumstances, grounds for termination of a purchase agreement, or for indemnification of any nature.

**BALDAN** reserves the right to change and/or perfect the technical characteristics of its products, without previous notice, and without obligation to proceed in the same way with the products previously manufactured.

## ■ Inspection and Delivery Certificate

**SERVICE BEFORE DELIVERY:** This implement was carefully prepared by the sale organization, with all its parts inspected according to the manufacturing prescriptions.

**DELIVERY SERVICE:** The user was informed about the current warranty terms and instructed on the usage maintenance precautions.

I confirm that the user has been informed about the current warranty terms and instructed on the usage maintenance precautions.

Implement: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Date: \_\_\_\_\_ Tax Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Telephone: \_\_\_\_\_ CEP: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Owner: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address: \_\_\_\_\_ Number: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

E-mail: \_\_\_\_\_

Sale date: \_\_\_\_\_

**Signature / Dealer Stamp** \_\_\_\_\_

**1st copy - Owner**



## ■ Inspection and Delivery Certificate

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Implement: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Date: \_\_\_\_\_ Tax Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Telephone: \_\_\_\_\_ CEP: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Owner: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address: \_\_\_\_\_ Number: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

E-mail: \_\_\_\_\_

Sale date: \_\_\_\_\_

*Signature / Dealer Stamp* \_\_\_\_\_

*2nd copy - Dealer*

## ■ Inspection and Delivery Certificate

**SERVICE BEFORE DELIVERY:** This implement was carefully prepared by the sale organization, with all its parts inspected according to the manufacturing prescriptions.

**DELIVERY SERVICE:** The user was informed about the current warranty terms and instructed on the usage maintenance precautions.

I confirm that the user has been informed about the current warranty terms and instructed on the usage maintenance precautions.

Implement: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Date: \_\_\_\_\_ Tax Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Telephone: \_\_\_\_\_ CEP: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Owner: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address: \_\_\_\_\_ Number: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

E-mail: \_\_\_\_\_

Sale date: \_\_\_\_\_

*Signature / Dealer Stamp* \_\_\_\_\_

*3rd copy - Manufacturer (Please send completed within 15 days).*



**BALDAN IMPLEMENTOS AGRÍCOLAS S/A.**

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Home Page: [www.baldan.com.br](http://www.baldan.com.br) | e-mail: [sac@baldan.com.br](mailto:sac@baldan.com.br)  
Export: Phone: 55 16 3321-6500 | Fax: 55 16 3382-4212 | 3382-2480  
e-mail: [export@baldan.com.br](mailto:export@baldan.com.br)

THE STAMP WILL BE PAID BY:

**RESPONSE CARD**  
NO STAMPING IS REQUIRED

1.74.05.0059-5  
AC MATÃO  
ECT/DR/SP





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