

Instruction Manual



SLS

Sugarcane Mounted Furrower

 **BALDAN**

INTRODUCTION

We thank you for the preference and congratulate your excellent choice in acquiring an implement of outstanding quality, manufactured in accordance with the advanced technology of **BALDAN IMPLEMENTOS AGRÍCOLAS S/A**.

This manual will assist you, in proceeds necessities, since when you bought until the operational proceeds application, security and maintenance.

The **BALDAN** guarantees that deliver this implement to the dealer, working properly, and in perfect conditions.

The dealers it's under the responsibility to keep the protection and conservation while keep the implement in your stock, and than, to assembly, tighten, lubrication and overhaul.

On time of the technical deliver, the dealer must to have conducted the user customer about the manutentation, safety, and your obligations in a possible technical assistance, the obligation to see the warranty terms and read the instruction manual. Any solicitation of warranty, please contact our Baldan technical service, by your Baldan dealer that you bought our implement. Reaffirm the necessity to read carefully of warranty certificate and note all of items from this manual, therefore you will increase the working life of your equipment.



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



Scan the QR Code on the
identification plate of your
device and access this
Instruction Manual online.

BALDAN

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01. SAFETY RULES



THIS ALERT SYMBOL INDICATES IMPORTANT SAFETY NOTES. WHENEVER YOU FIND IT IN THIS MANUAL, READ THE MESSAGE WITH ATTENTION TO AVOID ANY ACCIDENT.



WARNING

- Read this instruction manual carefully to know the recommended safety rules.



WARNING

- Only start the tractor operations, when are you properly accommodated and with the seat belt fasted.



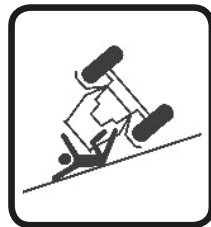
WARNING

- Never carry people over the tractor or equipment.



WARNING

- There are risks of serious injury by tipping when working on slopes.
- Never use excessive speed.



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Instruction Manual

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01. SAFETY RULES



WARNING

• Do not work with the tractor if the front bee without enough weight to the rear equipment. There is tendency to lift, add weights at front or front wheels.



WARNING

• Before any equipment maintenance, make sure that is properly stopped
• Avoid getting hit



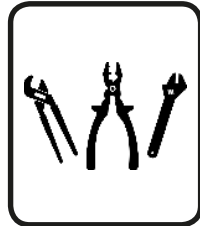
WARNING

• Keep away from the active seeder elements, they are sharp and can cause accidents.
• Whenever performing any work on the discs, wear safety gloves on your hands.



WARNING

• Do not perform adjustments while SLS is running.
• When performing any service on SLS, switch off the tractor first. Use appropriate tools.



ALCOHOLIC BEVERAGE OR SOME MEDICATIONS MAY CAUSE LOSS OF REFLEXES AND CHANGE THE OPERATOR'S PHYSICAL CONDITIONS. FOR THIS REASON, NEVER OPERATE THIS EQUIPMENT UNDER ANY OF THESE SUBSTANCES.



WARNING

The incorrect handling of the tractor engine can result in serious or fatal accidents. Before using the read carefully the instructions in this manual. Be sure that the person responsible for the operation is instructed about the correct handling and safety and has read and understood the instruction manual concerning this machine.

- 01-  When operating the implement do not allow people to stand close or on the implement.
- 02-  During assembly or disassembly of the discs section use protective gloves.
- 03-  When coupling or uncoupling the hydraulic hose relieve the hydraulic circuit pressure.
- 04-  Check out periodically the hoses condition. Where there is oil emptying change it immediately because the oil works under high pressure and may cause serious damage.
- 05-  Do not use large or daggy clothes because they can get caught on the implement.
- 06-  When you start the tractor engine, be correctly placed at the operator seat and be aware of the correct and safety handling of both tractor and implement. Always place the gearshift crank at the neutral position, turn off the gear of the power command and place the hydraulic commands at the neutral position.
- 07-  Do not turn on the tractor in a closed place without appropriate ventilation because the fumes from the fuel are is bad for health.
- 08-  While maneuvering the tractor to clamp the implement be sure that there is enough space and nobody is too close, maneuver always in slow gear and be ready to brake in case of emergency.

- 09-  Do not carry out adjustments with the implement working.
- 10-  When working over hilly areas try to keep the necessary stability. In case of instability reduce the acceleration, turn the wheels to the inclined side of the land and never lift the implement.
- 11-  Always use the tractor at safe speeds, especially when working in irregular or inclined areas, make sure the tractor is always in gear.
- 12-  When using the tractor on the road, keep the brake pedal connected.
- 13-  Do not work with the front tractor light. If there is a tendency to lift up add more weight in the front of the tractor at the front wheels.
- 14-  When leaving the tractor, place the gearshift at the neutral position and apply the park brake. Never let clamped implements be hitched to the tractor with the hydraulic system at the lifted position.
- 15-  Drugs and alcohol will affect an operator's alertness and coordination. Do not operate any engine under these conditions.
- 16-  Explain the operation, inspection and maintenance instructions to those users or operators who can not read.

SUGARCANE MOUNTED FURROWER - SLS

02. COMPONENTS

01 - Structure

02 - Plow rod

03. TECHNICAL SPECIFICATIONS

- Sugar cane plow - simple - Light / Medium / Heavy

Figure 1

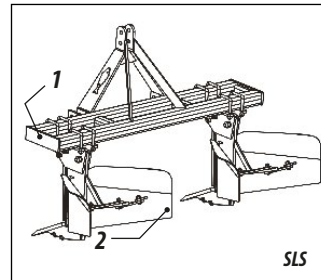
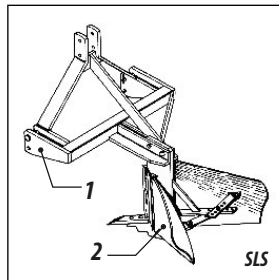


Table 1

Model	Number of Rows	Total Width (mm)	Total Height (mm)	Ground Clearance (mm)	Spacing between rows (mm)	Opening of rods (mm)	Approximate Weight (Kg)	Tractor Power (HP)
SLS-P	1	930	1415	710	-	520 / 820	190	65 - 70
SLS-P	2	2100	1515	810	1200 / 1500	520 / 820	400	85 - 90
SLS-P	3	3530	1515	810	1200 / 1500	520 / 820	500	97 - 115

Baldan reserves the right to change the specifications of this product without prior notice.
Technical specifications are approximate and valid under normal working conditions.

04. PLOW COUPLING

- Before attaching the plow to the tractor, ensure that it is ready for working, as follows:

01 - Remove the tractor drawbar;

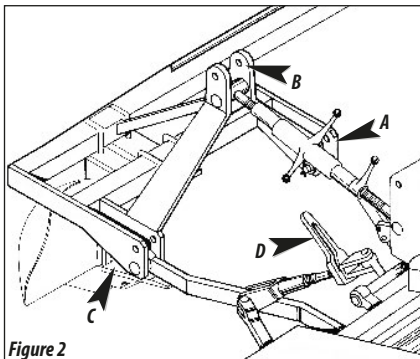
02 - Make sure the tractor is equipped with front counterweight set;

03 - It is advised to ballast the wheels according to specifications of the tractor;

- Engage the tractor's lower left arm on support "A" of the plow.

04 - Engage the arm of the tractor's 3rd point on support "B" of the plow.

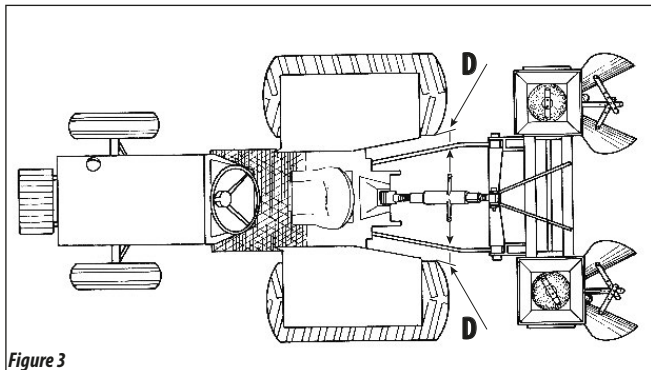
05 - With the help of the height adjustment lever "D", engage the tractor's lower right arm on support "C" of the plow as shown in Figure 2.



PLOW CENTERING

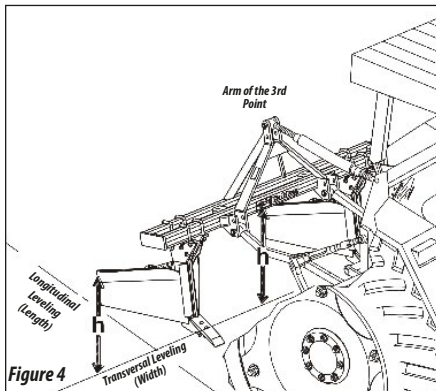
- To centralize the plow in relation to the tractor's longitudinal axis, proceed as follows:

06 - Align the upper coupling of the plow with the 3rd point of the tractor, checking if the distances "D" of the lower arms of the tractor hydraulic are equal in relation to the tractor's tires, as shown in Figure 3. The lower arms must be leveled with each other.



PLOW LEVELING

- To level the plow, proceed as follows:
- 07 - The tractor must be on level ground, then level the plow in the transverse (width) by the height adjustment lever of the tractor's lower right arm. Observe that the "h" measures must be equal, as figure 4.
- 08 - The longitudinal leveling (length) is done through the arm of the tractor's 3rd point. The rods must be parallel to the ground, as shown in Figure 4.



05. SETTINGS AND OPERATIONS

- 01 - The plow depth is regulated by the tractor hydraulic.
- 02 - The moldboards have adjustable opening so that the furrow can have variable width.

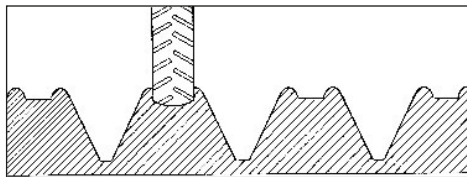


Figure 5

- 03 - Figure 6 shows a condition of non recommendable furrow because the tractor can slip.

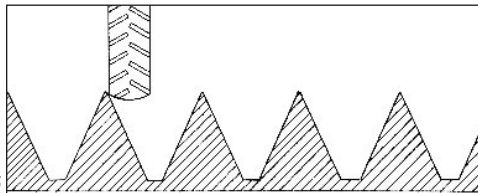
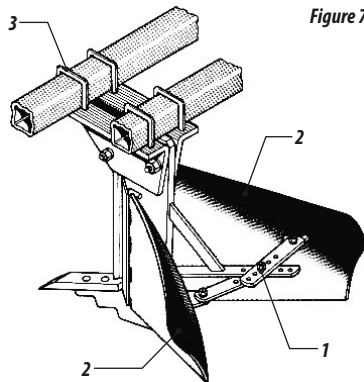


Figure 6

ROD OPENING ADJUSTMENT

04 - To regulate the furrowing, remove the screw (1), Figure 7 and move the right and left moldboards item 2 for ideal adjustment. Retighten the screw (1).



ADJUSTING THE SPACING BETWEEN RODS

05 - To increase or decrease the spacing between rods, loosen the nut clamps (3) Figure 7 and completely move the rods to the ideal position. Retighten the nuts.

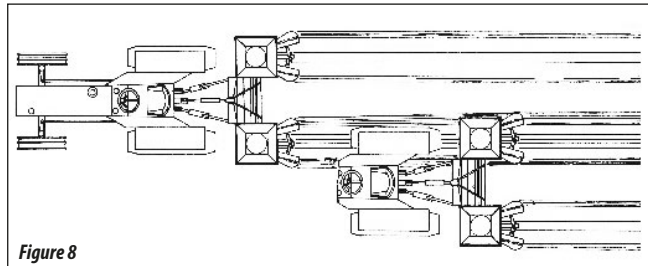
OPERATIONS

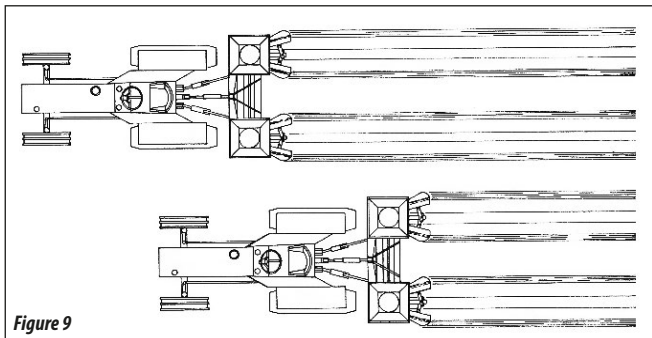
06 - Furrow systems reassembled as shown in Figure 8.

07 - This system is suitable when one desires a perfect alignment of culture and deeper furrows.

08 - System of two furrows at a time as shown in Figure 9.

09 - In this system, the culture is not aligned like the first case, but the yield is higher.

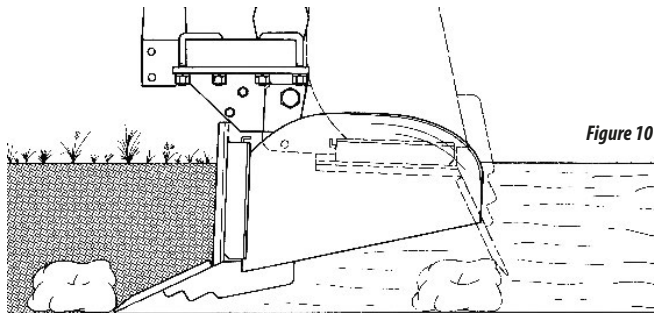




10 - The working speed varies with the terrain conditions. Average speed of 4 to 5 km / hour is recommended.

11 - The rods are fixed with a controlled resistance screw and a safety pin (fusil). During operation, if the rod finds a big and tough obstacle, safety pin breaks and rod rotates on the screw as shown in Figure 10.

12 - Choose gear that allows the tractor to a certain power reserve, ensuring against unforeseen efforts.



06. MAINTENANCE

01 - Daily check conditions and tightening of screws, nuts and pins of the plow.

02 - Daily check if no safety pin has broken.

07. APPROXIMATE PRODUCTION OF THE SLS PLOW

To calculate the approximate hourly production of the plow, use the following formula:

$$A = \frac{L \times V \times F}{X}$$

WHERE:

A = area to be worked

L = Work width (meters)

V = Average tractor's speed (in meters)

F = Production factor

X = Hectare value (10,000 m²)

- Ex: For an SLS plow with 2 rods, how many Ha or Aa it will produce in an hour of work with average speed of 7 km per hour?

A = ?

L = 1,20m

V = 7.000m/h

F = 0,90

X = 10.000m²

$$\frac{A = 1,20 \times 7.000 \times 0,9}{10.000} = 0,75 \text{ Ha/h}$$

TABLE OF APPROXIMATE HOURLY PRODUCTION SLS-P 1/2/3 RODS

<i>Model</i>	<i>Working Width (mm)</i>	<i>Average Speed (m/h)</i>	<i>Working Hours</i>	<i>Approximate Production</i>
				<i>Hectares</i>
<i>SLS-P 1</i>	<i>0,60</i>	<i>7000</i>	<i>0,90</i>	<i>0,38</i>
<i>SLS-P 2</i>	<i>1,20</i>	<i>7000</i>	<i>0,90</i>	<i>0,75</i>
<i>SLS-P 3</i>	<i>1,80</i>	<i>7000</i>	<i>0,90</i>	<i>1,14</i>

Table 2

- The formula used to calculate the approximate production refers to the calculation of the area worked or to be worked by the plow.
- If you want to know the time that will be spent working an area of known value, simply divide the value of this area by the hourly production.

$$\frac{X = 35 \text{ Ha}}{0,75} = 47 \text{ hours approximately}$$

- Example: What is the time "X" that will be spent for an SLS plow with 2 rods to produce 35 hectares at an average speed of 7 km / h?

08. IDENTIFICATION

- In order to refer parts catalogues or apply technical support from Baldan, always indicate model (1), serial number (2), manufacture date (3) located on the identification tag.

ALWAYS REQUIRE BALDAN ORIGINAL PARTS

		
BALDAN IMPLEMENTOS AGRÍCOLAS S/A. AV. BALDAN, 1500 NOVA MATÃO CEP 15.993-900 MATÃO-SP BRASIL FONE: (16) 3221-6500 CNPJ: 62.311.347/0009-06 CREA/SP 0170977		
01 —	Modelo / Model	Date / Date — 03
02 —	Nº de Série / Serial Number	Tipo / Type
	Capacidade / Load Capacity	Peso / Weight



PUBLICATIONS

Code: 6055010475-2
Revision: 02



WARNING

The drawings in this instructions manual are for illustrative purposes only. To enable a better overview and detailed instructions, on some drawings in this manual, safety devices (covers, shields, etc..) were removed. Never operate the agricultural wagon without these devices.



CONTACT

*If you have questions, never operate the SLS see the post sale.
Phone: 0800-152577
e-mail: posvenda@baldan.com.br*

PRODUCT IDENTIFICATION

- Do the identification below to always have the properly informations about your equipment life time.

Owner: _____

Dealer: _____

Farm: _____

City: _____ *Country:* _____

Model: _____

Warranty certified number: _____ *Serial number:* _____

Purchase date: _____ / _____ / _____ *Invoice. Nr:* _____

[illegible]

CERTIFICATE OF WARRANTY

- 01 - **BALDAN IMPLEMENTOS AGRÍCOLAS S/A**, guarantee the normal operation of the product for a 6 (six) months period dated from the dealers's bill of sale to the first final customer.
- 02 - During this period, **Baldan** compromise itself to repair the material or manufacturing defects, but the labour, the freight and other expenses are the dealer's responsibility.
- 03 - At the guarantee period, all the request and replacement of any defective part must be made to the dealer of the region, which will send the defective part for analysis at **Baldan**.
- 04 - When this procedure won't be possible and the dealer couldn't have the ability to solve the problem, the dealer can ask for **Baldan's Technical Assistance** using the specific form delivered to them.
- 05 - After the analysis of the items replaced by **Baldan Technical Assistance** and if we conclude that it wasn't a guarantee problem, then the dealer will be the responsible for all costs related to the replacement; as well as material expenses, travel including accommodation and meals, also the accessories, lubricant used or any other expenses after having called the Technical Assistance. And, withal, the company Baldan is authorized to issue the billing in name of the respective reseller.
- 06 - Any repair made to the product which is in warranty period by the dealer, will only be authorized by Baldan after budget previous presentation describing pieces and labour to be accomplished.
- 07 - It is out of this term the product which has repairs or modifications not made by dealers from Baldan's network, as well as pieces applications or not authentic components to the product by the user.
- 08 - This certificate of guarantee will become invalid when notice that the damage or defect is the result of incorrect use of the product, of instructions non-observance or operator's inexperience.

- 09 - It's stipulated that this guarantee don't cover tires, polyethylene deposits, universal joints, hydraulic components, etc, wich equipments are guarantee by their manufacturers.
- 10 - The material or manufacture defects, object of this certificate of guarantee, will not be, by any hypotesis, reason for cancellation of the contract of sale, or indemnity of any kind.
- 11 - For a warranty solicitation to the distributor, you have to proceed in the following manner:
- 12 - Send the technical informe detailed telling the problem (technical assistance request form to the client), you can find it send us an email to **after-sales@baldan.com.br** or acessing our website.
- 13 - If it's possible send films and photos from the requested spare parts.
- 14 - To point at the form: serial number, manufacture year, etc, that is, all information asked at the form. The damage spare parts should be available for analysis of the the after sales department in a future visit (in case of requested).
- 15 - **Baldan** keeps the right of changing and or improve the technical characteristics of its products, without notice and without the obligation of act like this way with its previously manufactured products.

INSPECTION AND DELIVERY CERTIFICATE

- **SERVICE BEFORE THE DELIVERY:** This equipment was very carefully prepared by the dealer's organization, inspected in all its parts in agreement with the manufacture's prescription.
- **DELIVERY SERVICE:** The user was informed about the current guarantee terms and instructed about maintenance care and utilization.
- I confirm that I was informed about the current guarantee terms and instructed about the correct utilization and maintenance of this product.

Product: _____ *Serial number:* _____

Date: _____ *Bill of sale:* _____ *Store:* _____

City: _____ *State:* _____ *Zip code:* _____

Owner: _____ *Phone:* _____

Adress: _____ *Number:* _____

City: _____ *State:* _____

E-mail: _____ *Date of sale:* _____

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Date: _____ Bill of sale: _____ Store: _____

City: _____ State: _____ Zip code: _____

Owner: _____ Phone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____ Date of sale: _____

3ª Page - Manufacturer

Please send this filled copy to Baldan, until 15 days after the purchase.

Signature / Store's stamp _____



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