CAMB-MP HD

Instruction Manual

BIA® Baldan

www.baldan.com.br

INTRODUCTION

We thank you for your preference and wish to congratulate you on your excellent choice you just made, as you purchased a product manufactured with the **BALDAN IMPLEMENTOS AGRÍCULAS S/A** technology.

This manual will instruct you in the necessary procedures ranging from your purchase to operating procedures for utilization, safety, and maintenance of the equipment.

BALDAN guarantees the delivery of this implement to the reseller complete and in perfect operating conditions.

The reseller is held responsible for the storage and conservation during the period it is in his/her possession, and even for the assembly, retightening, lubrication, and overall revision.

The reseller must instruct the customer on maintenance, safety, its obligations regarding any eventual technical support, strict adherence to the warranty agreement and reading of the manual at the time of technical delivery.

Any request for warranty technical support service, must be made at the reseller where the implement was purchased.

We reiterate the necessity for careful reading of the warranty certificate and adherence to all the items in this manual, as that will increase the useful lifetime of your implement.

Instruction Manual

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WARRANTY

PRODUCT WARRANTY

BALDAN IMPLEMENTOS AGRÍCOLAS S/A, guarantees normal operation of the implement to the reseller for a period of 6 (six) months counted from the delivery date on the reseller's bill of sale to the first final consumer.

During this period **BALDAN** is committed to repair any defects in materials and/or manufacturing at its own responsibility, as labor, shipping, and other expenses are the responsibility of the reseller.

During the warranty period, the request and replacement of any defective parts will be done at the regional reseller, and thereafter ship the defective part to **BALDAN** for analysis.

When it is not possible to perform such procedure and the capacity for resolving the problem is exhausted by the reseller, the same shall request support from the **BALDAN** Technical Support Service, by filling out the specific form distributed to resellers.

After analysis of the replaced items by the **BALDAN** Technical Support Services is concluded and the replacement is not covered by the warranty, then it will be the responsibility of the reseller to pay all the related costs for the replacement; as well as expenses on materials, travel, including lodging and meals, accessories, lubricates used, and other expenses originating from the Technical Support Service call, thereby the **BALDAN** company is authorized to charge for the respective bill to the reseller's name.

Any repair done on the product within the validity date of the warranty period, will only be authorized by **BALDAN** by previous presentation of the quotation describing the parts and labor charges that will be performed.

It is excluded from this agreement, whenever the product undergoes official repairs or modifications from service centers that do not belong to the **BALDAN** reseller network, as well as the installation of aftermarket parts or components in the user's product.

This warranty will be nullified if the defect or damage is the result from improper usage that is noncompliant to the instructions or inexperience of the operator.

It is agreed to that this present warranty does not cover tires, polyethylene storage compartments, drive shafts, hydraulic components, etc. as the warranty coverage is from their own manufacturers.

Manufacturing or material defects, as stated in the purpose of this warranty agreement, does not constitute, under any hypothesis, a reason for purchase and sale contract termination, or the payment of indemnities of any nature.

BALDAN reserves the right to change and or perfect the technical characteristics of its products, and without any obligation to proceed in previously manufactured products.

THE OWNER

BALDAN IMPLEMENTOS AGRÍCOLAS S/A, shall not be held responsible for any damages caused by an accident arising from its improper or incorrect usage, transport, or storage of its implement, whether it is by negligence and/or inexperience of any party.

Only personnel who are completely knowledgeable of tractors and the implement are capable of transporting and operating them.

BALDAN shall not be held responsible for any damages caused by unforeseeable or similar situations when routinely operating the implement.

Incorrect handling of this equipment can result in serious or fatal accidents. Before starting to operate the equipment, carefully read the instructions contained in this manual. Certify that the person who is responsible for operating it has been instructed regarding safe and correct handling. Also, certify that the operator has read and understood the instruction manual of this product.

NR-31 – SAFETY AND HEALTH IN AGRICULTURAL, LIVESTOCK, SILVACULTURE, FORESTRY EXPLOITATION, AND AQUICULTURE WORK.

The purpose of this Regulation Standard is to establish precepts on health and safety in the occupational environment to be abided by in the organization and occupational environment, so that they are compatible with the planning and performance of agricultural, livestock, forestry, forestry exploitation, and aquiculture activities.

MR. OWNER OR EQUIPMENT OPERATOR.
Carefully read and comply with the provisions in NR-31.

For further information, consult the site and completely read NR-31.
http://portal.mte.gov.br/legislacao/normasregulamentadoras-1.htm

OVERALL INFORMATION

SAFETY STANDARDS

THIS SYMBOL INDICATES AN IMPORTANT SAFETY WARNING IN THIS MANUAL, WHENEVER THE READER FINDS IT, CAREFULLY READ THE FOLLOWING MESSAGE AND PAY ATTENTION REGARDING THE POSSIBILITY OF PERSONAL ACCIDENTS.

CAUTION

- Carefully read the instructions to know the recommended safety practices.

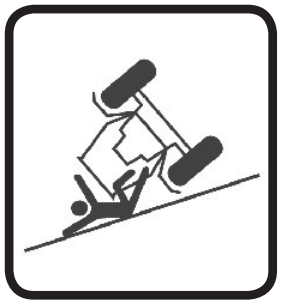
CAUTION

- Only start operating the tractor, when the operator is property seated and wearing the latched seat belt.

CAUTION

- Do not operate the tractor if the front is light. If there is a tendency for lifting, then add weights or ballasts on the front wheels.

CAUTION



- There are risks of serious injuries by tipping over when working on sloped terrain.
- Do not operate at excessive speeds.

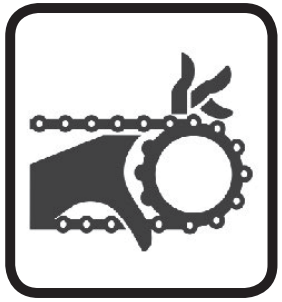
CAUTION

- Do not transport people on the tractor or equipment.

CAUTION

- Before performing any maintenance on the equipment, certify it is properly stopped in order to avoid being run over.

⚠ CAUTION



- Do no operate the seeder, if the transmission shield is not properly fastened.
- Only remove the shield when changing gears, but replace it immediately afterwards.
- Do not make adjustments on the seeder when it is moving.

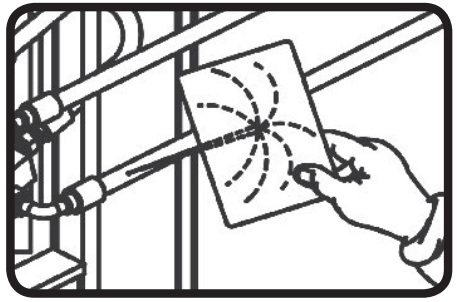
⚠ CAUTION

- The hydraulic oil operates pressurized and can cause serious injuries, in case of leakage. Periodically verify the condition of the hoses. If there are any signs of leakage, replace them immediately.
- Before connecting or disconnecting hydraulic hoses, release the pressure from the system, activating the control when the tractor is turned off.

⚠ CAUTION

- Keep away from the active seeder elements (discs), they are sharp and can cause accidents.
- Whenever performing any work on the discs, luvas de segurança nas mãos.

⚠ CAUTION



- Whenever looking for any possible leakage on the hoses, use a piece of cardboard or wood, and never your hands.
- Avoid letting the fluid come in contact with your skin.

⚠ *THIS SYMBOL INDICATES AN IMPORTANT SAFETY WARNING IN THIS MANUAL, WHENEVER THE READER FINDS IT, CAREFULLY READ THE FOLLOWING MESSAGE AND PAY ATTENTION REGARDING THE POSSIBILITY OF PERSONAL ACCIDENTS.*

SAFETY STANDARDS

SAFETY STANDARDS

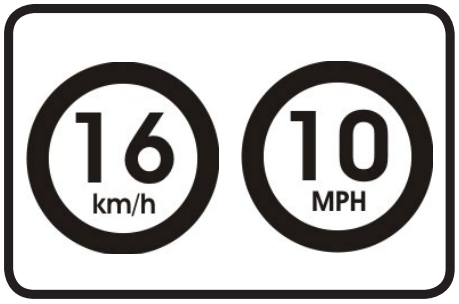
⚠ CAUTION

- Do not perform adjustments on the seeder when it is moving.
- Whenever doing any work on the seeder, turn off the tractor.

⚠ CAUTION

- Whenever operating the seeder do not let people stay on the machine.
- Do not stay on the platforms when the seeder is moving.

⚠ CAUTION



- When transporting this equipment do not exceed a speed of 16km/hrs. or 10 MPH, thereby avoiding any risks of damages and accidents.

⚠ *DRINKING ALCOHOLIC BEVERAGES OR SOME MEDICATIONS CAN CAUSE DECREASED REFLEXES AND MODIFY THE PHYSICAL CONDITION OF THE OPERATOR. FOR THIS REASON, NEVER OPERATE THE EQUIPMENT, UNDER THE INFLUENCE OF THESE SUBSTANCES.*

01 - ⚠ Do not let people stay too close or on it, when operating the equipment.

02 - ⚠ Whenever performing any assembly and disassembly work on the discs, wear safety gloves on your hands.

03 - ⚠ Do not wear loose clothing, and it can get stuck in the equipment.

04 - ⚠ The operator must be sitting in the operator's seat and be completely aware of correct handling and safety for the tractor as well as the the implement, when operating the tractor engine. Always place the gear shift in the neutral position, turn off the power take-off and place the hydraulic controls in the neutral position.

05 - ⚠ Do not turn on the engine in a closed place or without proper ventilation, as the gases from the exhaust are harmful to health.

06 - ⚠ When maneuvering the tractor towards the implement coupler, certify there is enough space and no people are nearby. Always maneuver at a speed and be prepared to brake if there is any emergency.

07 - ⚠ Do not make any adjustments when the implement is operating.

08 - ⚠ When working on sloped terrains, proceed with caution, and always maintain necessary stability. In case, there is any loss of balance, reduce acceleration and turn the tractor wheels towards the sloped side of the terrain.

09 - ⚠ Drive the tractor at compatible safe speeds, especially on uphill or downhill slopes. Always keep the tractor engaged.

10 - ⚠ When driving the tractor on highways, keep the brake pedals interconnected and utilize safety signalization.

11 - ⚠ Do not operate the tractor if the front is light. If there is any tendency for the front to lift, add weights to the front or front wheels.

12 - ⚠ When leaving the tractor, engage the gearshift in neutral and press the parking brake.

13 - ⚠ Drinking alcoholic beverages or some medications can cause decreased reflexes and modify the physical condition of the operator. For this reason, never operate the equipment, under the influence of these substances.

14 - ⚠ Read or explain the above procedures to any user who is illiterate

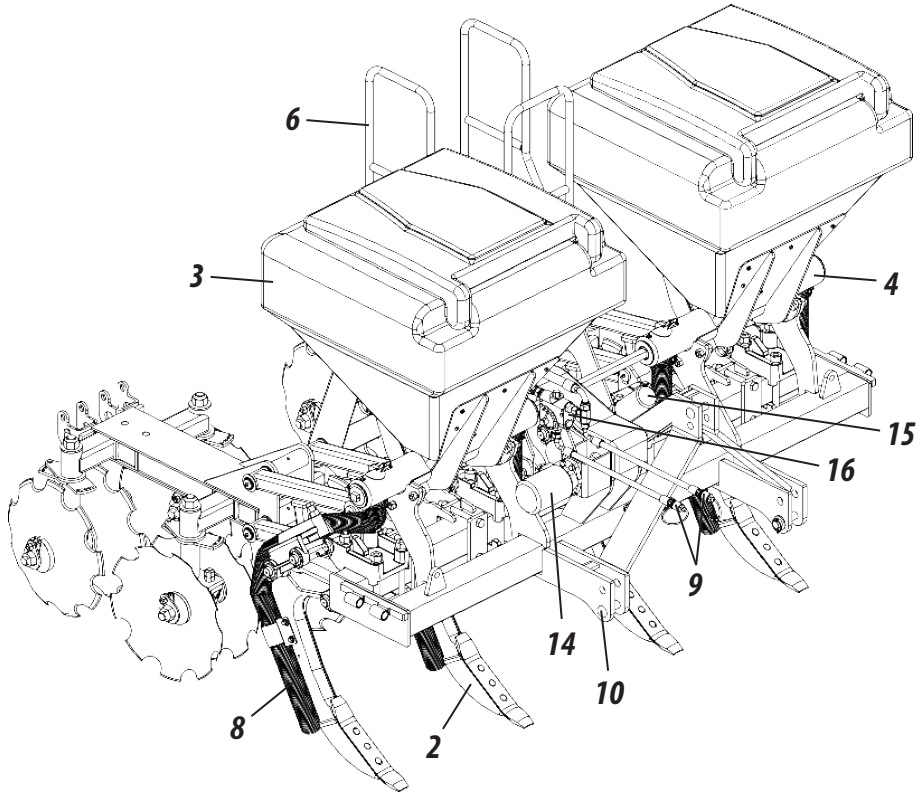
In case of doubts/questions, consult with the After Sales department
Telephone: 0800-152577 / E-mail: posvenda@baldan.com.br

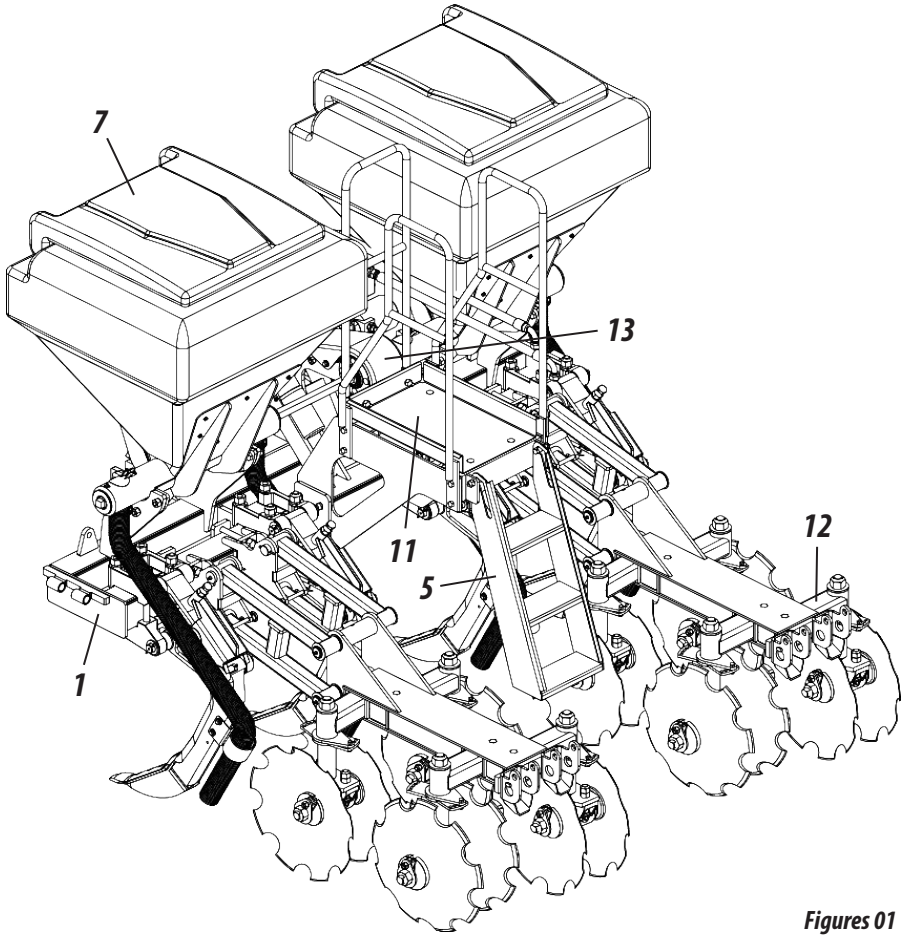
WARNINGS

COMPONENTS

MULTIPLE BALDAN CAMB-MP HD FERTILIZER SEEDER

1 - Chassis
2 - Subsoiler Tine
3 - Fertilizer Storage Tank
4 - Fertilizer Spout
5 - Ladder
6 - Handrail
7 - Fertilizer Storage Tank Cover
8 - Hose
9 - Hydraulic Hoses
10 - Coupling Pin Cat. II
11 - Platform
12 - Pantographic Grid System
13 - Chain Cover
14 - Hydraulic Motor
15 - Manual Container
16 - Oil Flow Valve Controller





Figures 01

Table 01

Model	Nr of Rows	Space between Rows (mm)	Total Width (mm)	Total Height (mm)	Total Length (mm)	Fertilizer Storage Capacity	Fertilizer Flow (kg/Ha)	Approx. Weight (kg)	Approx. Power (hp)
						Polyethylene			
CAMB-MP HD	02	1300 / 1400 / 1500	2330	2200	2688	800	250 - 1200	1600	100 - 140

Baldan reserves the right to change or improve the technical characteristics of its products, without previous notice, and without any obligation to apply to previously manufactured products. The technical specifications are approximate and based on normal operating conditions.

TECHNICAL SPECIFICATIONS

ASSEMBLY

The **CAMB-MP HD** is shipped from the factory semi-assembled, as just some components need to be assembled as explained below:

DISC CART ASSEMBLY (FIGURE 02)

Proceed as follows to assemble the disc carts (1):

1- Mark the mounting platform (2) where the disc carts (1) will be attached.

2- Then couple the disc cart (1) to the mounting platform (2) by fastening the screws lock washers (4) and nuts (5).

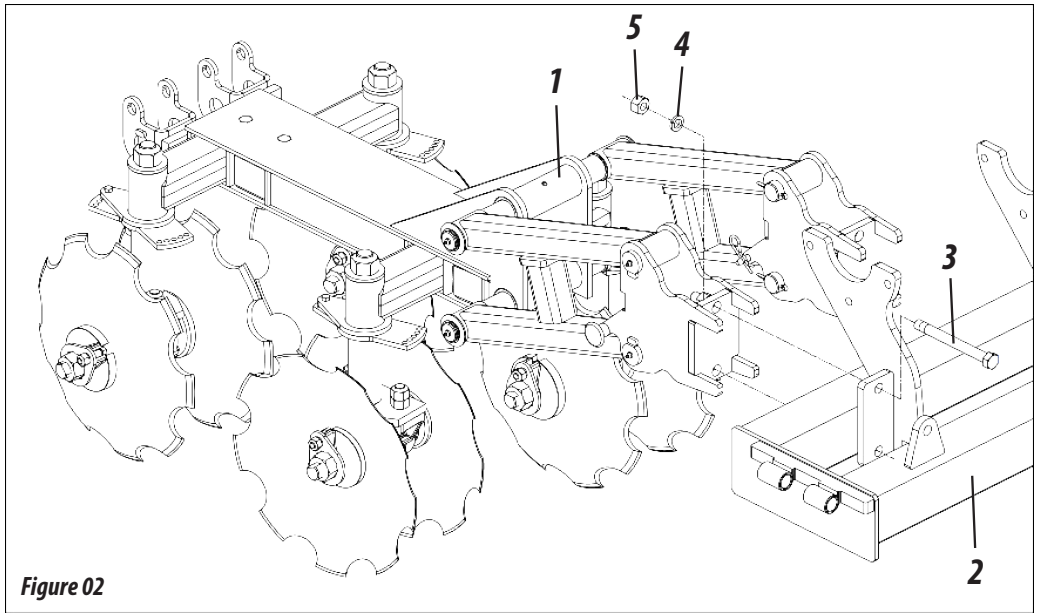


Figure 02

CAUTION

After finishing the assembly of the disc carts, do an overall revision of the seeder, check if there are any objects (nuts, screws, or other hardware) inside the storage tanks. Retighten all the screws and nuts, check the pins, cotter pins, and latches, verify the condition of 1 all hoses.

IMPORTANT

Before starting to assemble the disc carts, look for a location where it will be easy to identify the components/parts and then assemble them.

COMMENT

Perform the same procedure for assembling the other disc cart.

LEVELER ASSEMBLY - OPTIONAL (FIGURE 03)

Proceed as follows to assemble the leveler (1):

1- Couple the leveler (1) to the disc cart (2) fastening it using the pins (3), flat washers (4) and cotter pin (5).

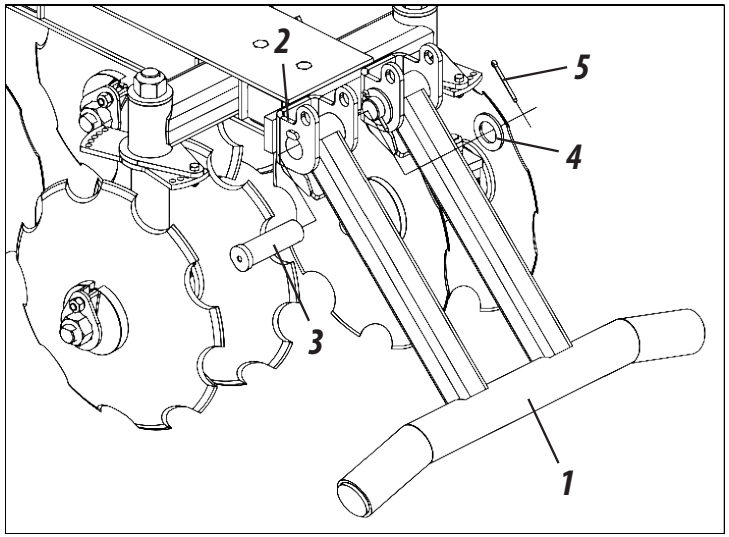


Figure 03

COUPLING TO THE TRACTOR (FIGURE 04)

Before coupling the seeder to the tractor, verify if the tractor is equipped with weights or ballasts in the front, so that it does not lift up the tractor. The rear wheels will provide increased stability and traction on the soil..

Proceed as follows to couple the seeder:

1- Approach the tractor slowly to the seeder in reverse, pay close attention to applying the brakes.

2- Then, use the hydraulic position control lever to approach the seeder, while leaving the left lower seeder coupling arm level.

3- Couple the lower left arm of the tractor using the coupling pin (1) in the holder "**A**" on the seeder.

4- Couple the 3rd point linkage of the tractor to the holder "B" on the seeder.

5- After, using the help of the control lever "**C**", couple the right lower arm on the tractor to the holder "D" on the seeder.

6- Finally couple the hydraulic hoses (2 and 3) from the tractor.

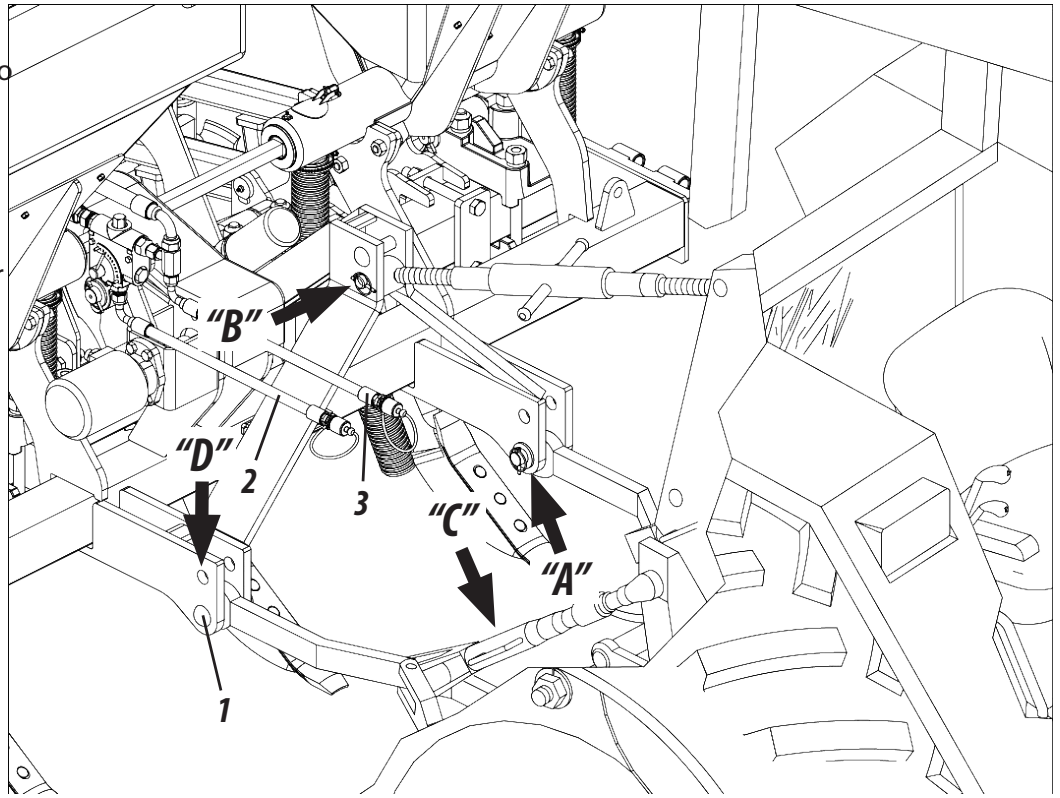


Figure 04

CAUTION

Before connecting or disconnecting the hydraulic hoses, turn off the motor and release the pressure from the hydraulic system by completely actuating the control levers. When releasing the pressure from the system, certify that nobody is nearby the movement area of the equipment.

IMPORTANT

Do not transport the seeder when loaded, as that can damage the equipment. We recommend loading it only in the actual location where it will be operated. If the seeder remains in the field for any reason, we recommend covering it with a waterproof tarp dampness.

COMMENT

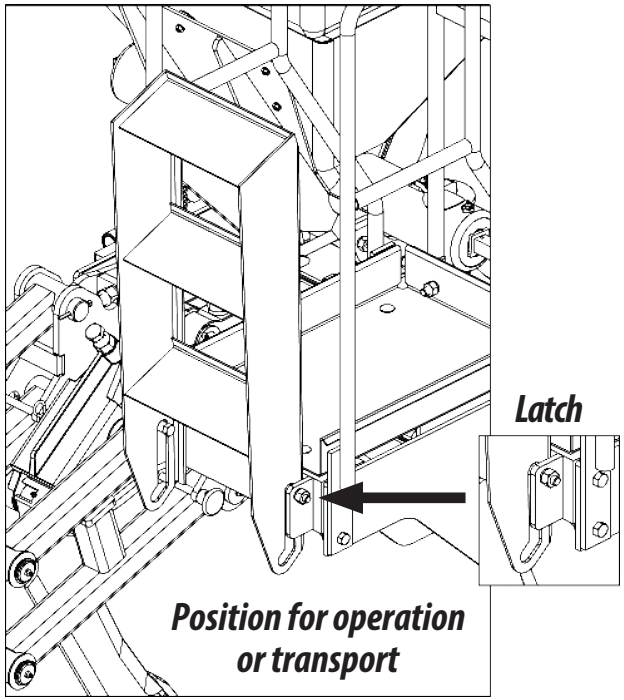
Whenever coupling the seeder, look for a safe and easy accessible location, use a avoid low gear and slow acceleration.

TRANSPORT / OPERATING

LADDER USAGE (FIGURES 05)

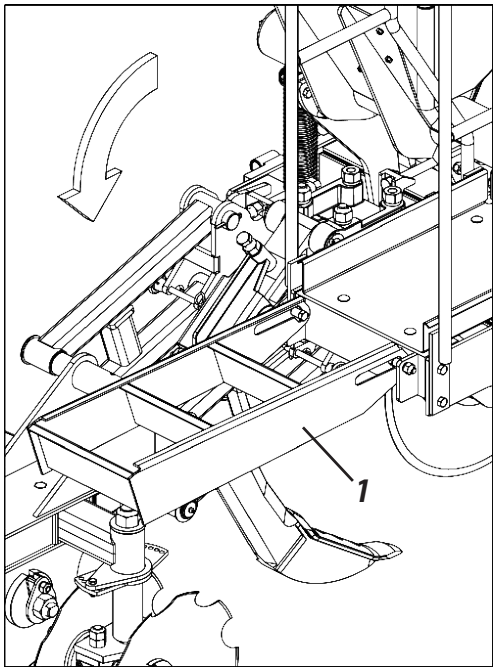
The **CAMB MP HD**, is equipped with an articulating ladder (1), that must only be used when loading or performing maintenance on the storage tanks. Proceed as follows to use it:

1- Lift the articulating ladder (1), by unlatching it.



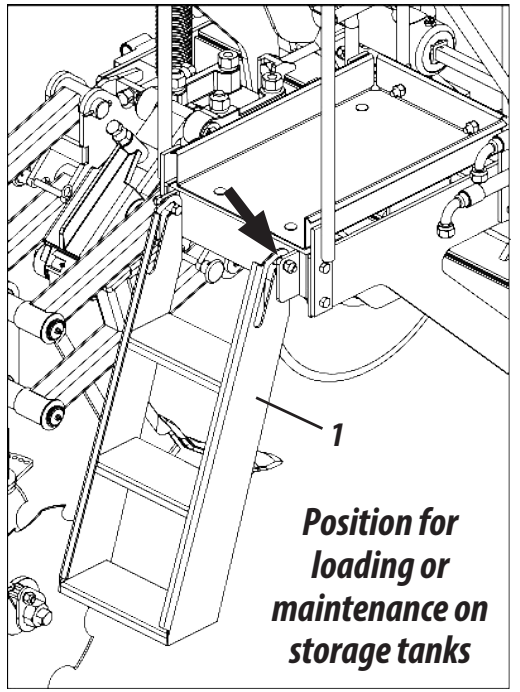
Ladder is closed

2- Then, articulate the ladder (1) to lower it.



Figures 05

3- After using the ladder (1), do the reverse process, closing and latching it.



Ladder is open

⚠ CAUTION

Do not remain on the ladder when the seeder is operating or being transported.
Do not operate or transport the seeder when the ladder is opened.
Do not transport people on the platform, ladder, or any other part of the seeder.
Ignoring these warnings can result in serious accidents or even death.

IMPORTANT

Always use the articulating ladder (1) for accessing or loading compartments. The articulating ladder (1) complies with NBR safety standards.

CENTRALIZING (FIGURE 06)

Proceed as follows to centralize the **CAMB MP HD** seeder as related to the longitudinal axle of the tractor;

1- Align the upper coupler of the seeder to the 3rd linkage point of the tractor, make sure that distances "A" of the lower hydraulic arms are equal to the tractor tires. The lower arms must both be respectively leveled to each other.

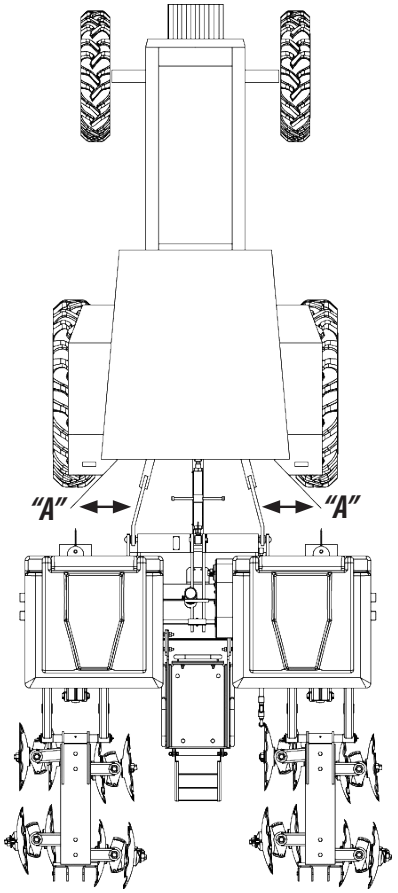


Figure 06

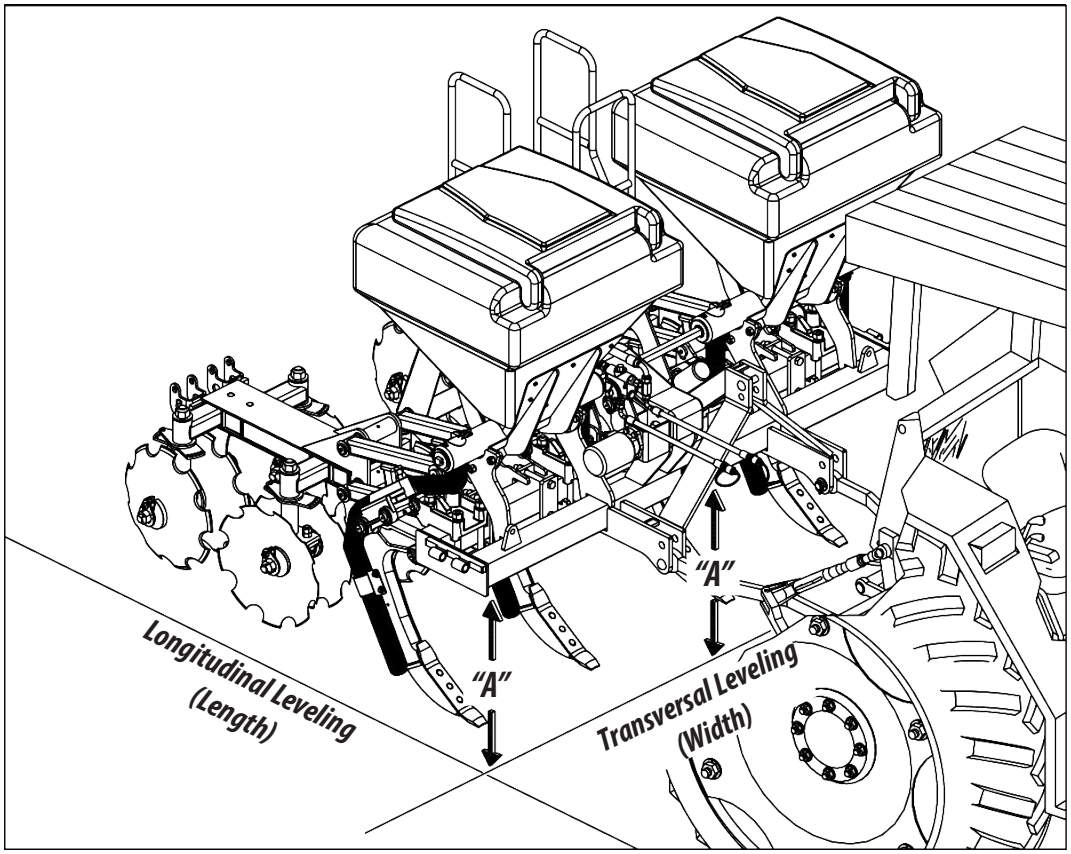
NIVELAMENTO (FIGURA 07)

Proceed as follows to level the **CAMB MP HD** seeder:

1- The tractor must be in a level location; Then level the furrow tine in the transversal (width) using the hand crank on the lower arm of the hydraulic coupler. Pay attention to the measurements "A" as they must be equal.

2- The longitudinal leveling (length) is done by the 3rd point linkage arm. See how the shafts are parallel to the soil.

Figura 07



ADJUSTMENTS

SPACING (FIGURE 08)

The **CAMB MP** seeder is supplied with an adjustable spacing based on the type of desired crop. Proceed as follows to adjust the spacing of the disc carts (1):

1- Remove the screws (2) using the lock washers (3) and nuts (4).
2- Then adjust the disc cart (1) to the desired spacing.
3- After, fasten the screws again (2), tightening the lock washers (3) and nuts (4).

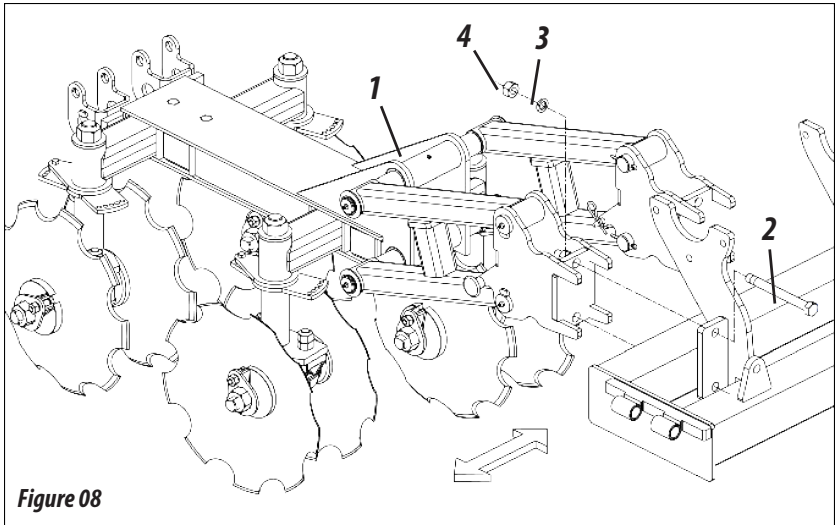


Figure 08

⚠ CAUTION | ***After concluding this procedure, proceed in performing the same adjustment on the other disc cart (4), as both must be adjusted the same way***

ADJUSTING THE LOAD FOR AUTOMATIC DISABLING OF THE TINE (FIGURES

The automatic disabling of the furrowing tines (1), is shipped from the factory with a pre-adjusted pressure.

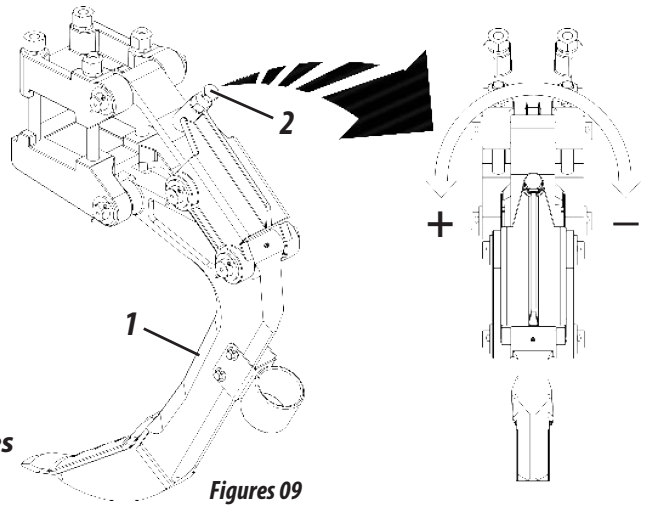
To decrease or increase that pressure load, proceed as follows:

Turn the screw (2), 90º (1/4 of a turn) to the right (clockwise direction).

That will decrease the disabling load pressure by 5kgs.

Turning the screw (2), 90º (1/4 of a turn) to the left (counter-clockwise direction).

That will increase the load pressure by 5kgs.



Figures 09

IMPORTANT

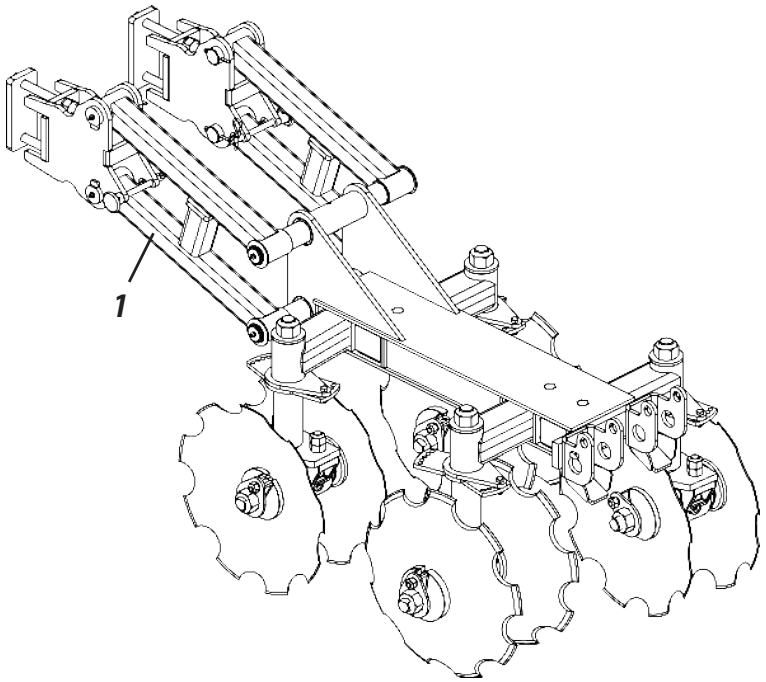
Do the adjustment of the pressure load always in ¼ turn intervals, so that the pressure will change by 5 kg each adjustment until the ideal adjustment or correct operation is achieved.

⚠ CAUTION | ***Increase the load pressure only if the tine is disabling all the time. Decrease the load pressure if the tine does not disable when it touches obstacles.***

COMMENT | ***These adjustments must be done in the field before starting operation, paying close attention to the type of soil being work, in order to obtain the best seeding performance.***

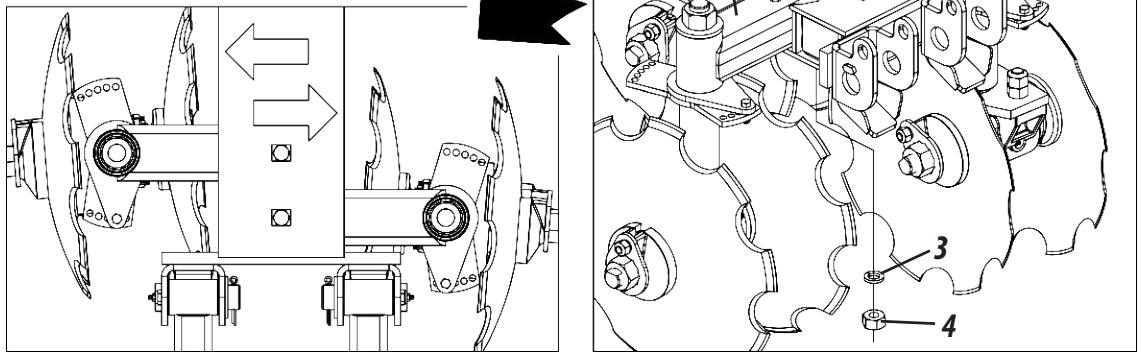
PANTOGRAPHIC DISC CART ADJUSTMENT "BURNT SUGARCANE SYSTEM" (FIGURES 10)

The "burnt sugarcane system" can be employed after optionally purchasing the **CAMB MP HD** (1) for seeding the area after the sugarcane crop is concluded that is composed of two 18" pantographic recutting disc assemblies and the leveler. Proceed as follows to adjust the "burnt sugarcane system" pantographic disc cart (1):



1- Remove the screws (2), lock washers (3) and nuts (4).

2- Then move the tubes (5) to the desired width and retighten them.



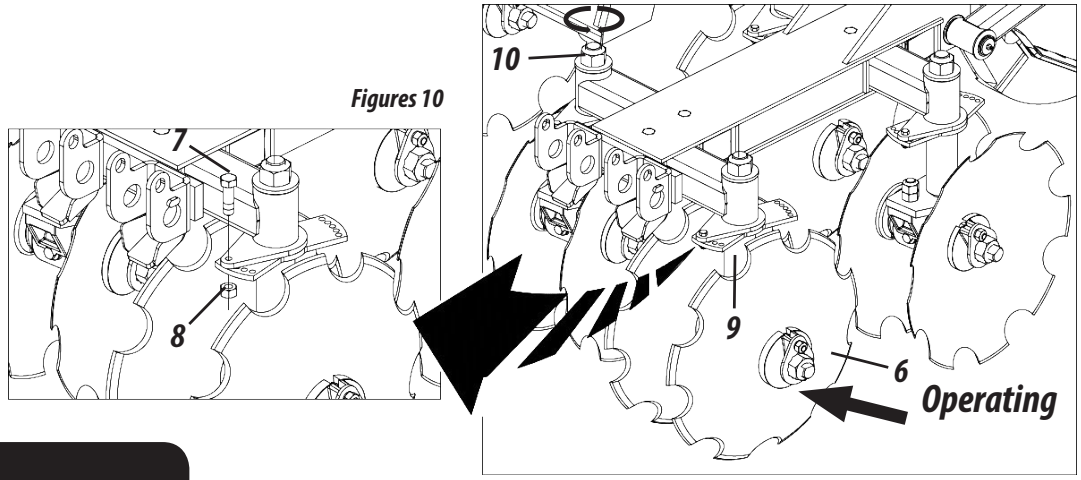
Figures 10

3- After making the adjustment of the cutting disc angle (6), remove the screws (7) and nuts (8) that fasten the disc base.

4- Then remove the nut (10), turn the disc cross section to the desired position.

5- Conclude by retightening the nut (10) and inserting the screws (7) and nuts (8) again.

Figures 10



⚠ CAUTION

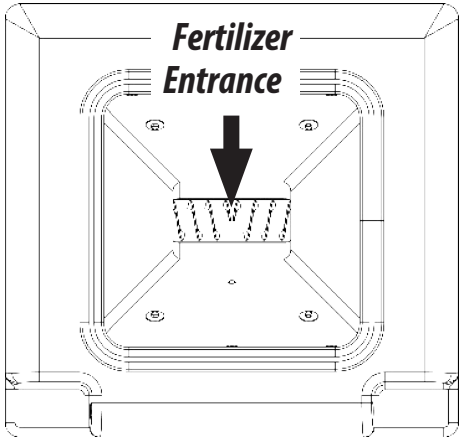
After concluding, perform the same adjustment on the other disc cart (1), so that both are equally adjusted.

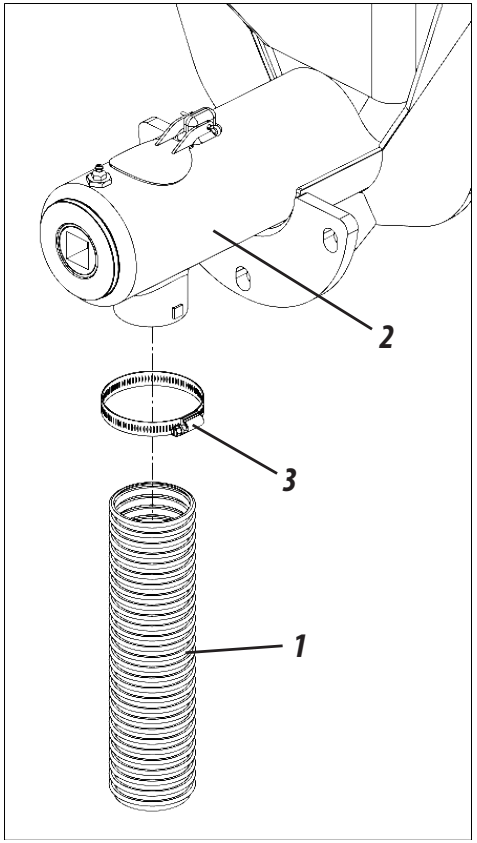
FERTILIZER SPREADING SYSTEM

FERTILIZER CONDUCTOR – INDEPENDENT SYSTEM (FIGURES 11/12)

Proceed as follows to conduct the fertilizer spreading to the soil:

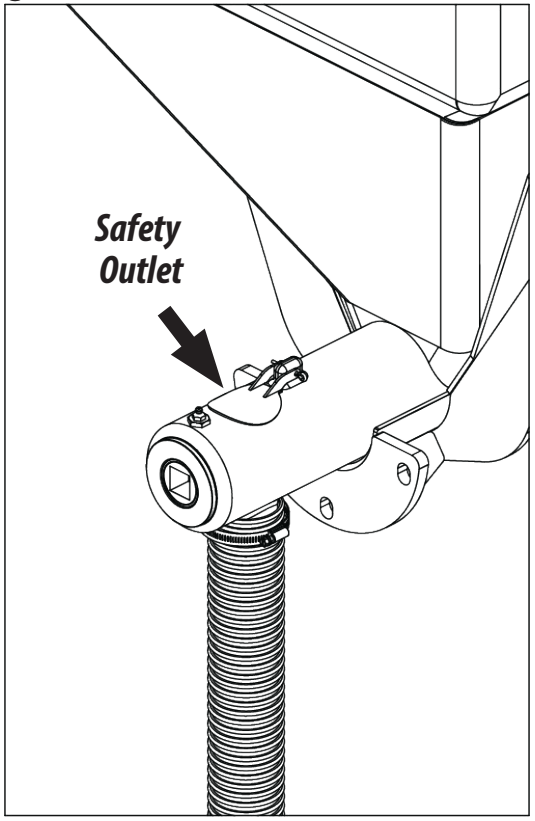
1- Couple the hoses (1) to the outlets of the high flow spreader (2), fastening them using the clamps (3), **as shown in figures 11.**





Figures 11

2- The individual high pressure flow spreading system is equipped with a safety outlet, as if the hose becomes clogged, when the fertilizer is in the dispenser, then it will discharge from the safety output, thereby guaranteeing the operation of the system without any danger of damaging it, **as shown in figure 12.**



Figures 12

⚠ CAUTION | ***Verify the spreaders and hoses daily and proceed in cleaning their outlets. When fertilizer is impure, proceed in cleaning them more frequently.***

FERTILIZER ADJUSTMENT USING THE HYDRAULIC MOTOR (FIGURE 13)

1- Fertilizer adjustment can be done by using the oil flow adjustment valve (1), when the tractor is stopped, however operating at the same operating rotation. Collect fertilizer for a timed period when moving 50 or 100 meters in the field and then calculate as shown in the example on the following page

COMMENT

It is necessary to wait for a few seconds before beginning collecting fertilizer, so that there is a complete rotation of the axle. Before beginning the test heat the tractor oil to normal operating temperature.

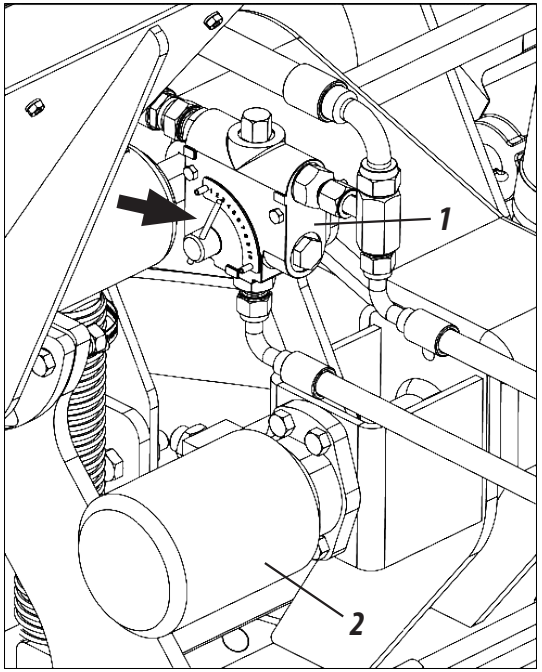


Figure 13

2- Vary the amount of fertilizer by opening or closing the oil flow adjustment valve (1).

3- When you open the oil flow adjustment valve, the hydraulic motor (2) turns faster, thereby increasing the amount of fertilizer.

IMPORTANT

The oil flow adjustment valve (1), is equipped with a pressure relief valve (safety system) that is pre-adjusted for the purpose of stopping the rotation of the hydraulic motor in case of any possible clogging of the individual fertilizer spreading system (nozzles). It is recommended to operate the system in position 2 or 3, depending on the desired amount of fertilizer spreading.
Never change this valve adjustment (1).

FERTILIZER SPREADING TABLES (TABLES 02)

Hydraulic coupling by Remote Control - 1800 rpm			
Adjustment	Spacing (mm)		(Kg / Ha)
	1300	1400	1500
2.3	263	244	227
2.4	388	360	335
2.5	513	477	443
3.0	535	497	462
3.5	555	515	479
4.0	574	534	496
4.5	750	697	648
5.0	927	862	801
5.5	1213	1128	1048
6.0	1500	1394	1296

Hydraulic coupling by Continual Flow - 1800 rpm			
Adjustment	Spacing (mm)		(Kg / Ha)
	1300	1400	1500
2.3	141	131	122
2.4	199	185	172
2.5	256	238	221
3.0	484	450	418
3.5	505	470	436
4.0	524	487	453
4.5	670	626	582
5.0	823	765	711
5.5	774	905	841
6.0	1124	1044	971

Tables 02

CALCULATION

CALCULATION PRACTICE FOR SPREADING FERTILIZER

- Use the formula below for spreading other quantities of fertilizers in different areas and spacing:

1- Define the spacing between rows and the quantity of fertilizer to be spread per acre (Aa) or hectare (Ha).

2- *Example*: Use the following formula to calculate the spreading of 400 kgs. of fertilizer and grown in spacing of 1.40m:

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

Formula Data:
S = Spacing between rows (m)
Q = Quantity of fertilizer spread [kg]
A = Area being fertilized [m^2]
D = Distance 50 meters (test)
X = Grams of fertilizer spread in 50 meters

Solution: $X = \frac{1400 \times 400}{10.000} \times 50$

$X = 56{,}00 \times 50 = 2800$

X = 2800 grams in 50 meter per tine.

COMMENT

Adjust the seeder to spread the quantity defined or as close as possible to the defined space for the test to obtain the solution.

PRACTICAL TEST FOR CALCULATING THE QUANTITY FOR SPREADING FERTILIZER

1- Perform the test to calculate the quantity for spreading fertilizer in the respective crop location to achieve greater precision for spreading fertilizer. Proceed as follows:

2- Always use the same tractor as much as possible when doing the work.

3- Mark the distance for the test on the table, we chose 50 linear meters.

4- Fill the seeder storage tank at least halfway. Move about 10 meters outside of the test area on an average, so that the fertilizer fills the dispensers.

5- Place the recipients for the collection in the fertilizer outlets. Move the tractor to the marked area always at the same speed as when seeding from 5 to 7 Km/hr

6- After moving to the marked space, remove the recipients from the fertilizer spout to weigh the collected quantity. If necessary, increase or decrease the amount of fertilizer being spread, check the table.

7- When the desired amount is reached, while still in the seeding area, move the tractor at the same speed, but letting the fertilizer fall on the ground in order to check the spreading uniformity.

IMPORTANT

We suggest performing a practical test spreading fertilizer moving 50 mts, in order to afterwards compare the fertilizer results.

CAUTION

The variation in the operating speed affects the uniform spreading of fertilizer. Whenever changing fertilizer brands, it is necessary to perform this test again. After the first day of work, check all the adjustment again.

OPERATING

01 - After the first work operating the seeder, retighten all the screws and nuts. Verify the condition of the pins and latches.

02 - Do not maneuver or go in reverse when the disc cart is touching the ground.

03 - Pay attention to lubrication maintenance intervals.

04 - When filling the storage tanks check to see if there are any objects inside of them, such as nuts, screws, etc. Always use fertilizer that is free of impurities.

05 - Always pay attention to the operation of the fertilizer spreading mechanisms and also the adjustments defined at the beginning of the seeding.

06 - Always keep the seeder leveled, the tow bar of the tractor must remain fastened and the operating speed must be constant.

07 - Notice the position of the fertilizer related to the seed in the soil.

08 - Whenever performing any verification or maintenance on the seeder, It must be lowered to the ground and the tractor motor must be turned off.

09 - Do not make sharp turns when operating the seeder.

10 - The seeder provides several adjustments but only the local soil conditions will define the best adjustment for operating it.

11 - Fill the seeder only in the location where is will be operated.

12 - Do not move or operate the seeder when there is an excessive load.

13 - The instructions for the right side and the left side are based on looking at the seeder from behind.

14 - The **CAMB MP HD** seeder operates most efficiently at a range from 5 to 7 km/hrs.

15 - In case of any doubts or questions, never operate or handle the seeder, consult with the After-Sales support service.

16 - Call: 0800-152577 or e-mail: posvenda@baldan.com.br

MAINTENANCE

MAINTENANCE

LUBRICATION

1- Lubrication is essential for good performance and increased durability of the moving parts of the seeder, contributing to maintenance cost savings.

2- Before beginning operation, carefully lubricate all the grease fittings and always abide by the lubrication interval periods on the following pages.
Certify the quality of the lubricant, regarding its efficiency and purity, avoiding the use of products contaminated by water, soil, or other agents.

GREASE AND EQUIVALENT TABLE

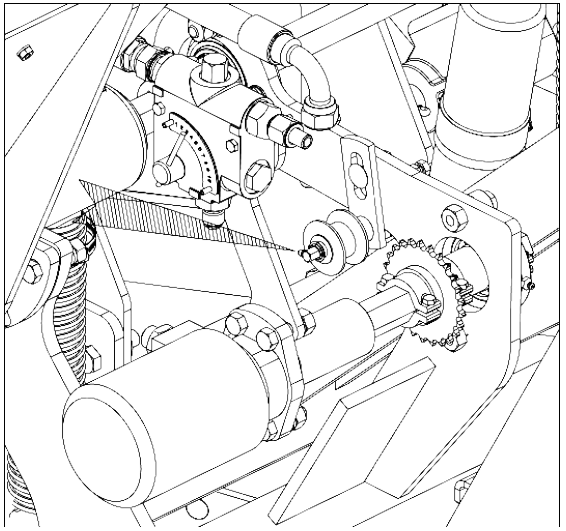
MANUFACTURER	*TYPE OF RECOMMENDED GREASE*
Petrobrás	Lubrax GMA 2
Atlantic	Litholine MP 2
Ipiranga	Super Graxa Ipiranga Ipíranga Super Graxa 2 Ipiflex 2
Castrol	LM 2
Mobil	Mobilgrease MP 77
Texaco	Marfak 2 Agrotex 2
Shell	Retinax A Alvania EP 2
Esso	Multipurpose grease H
Bardahl	Maxlub APG 2 EP

Table 03

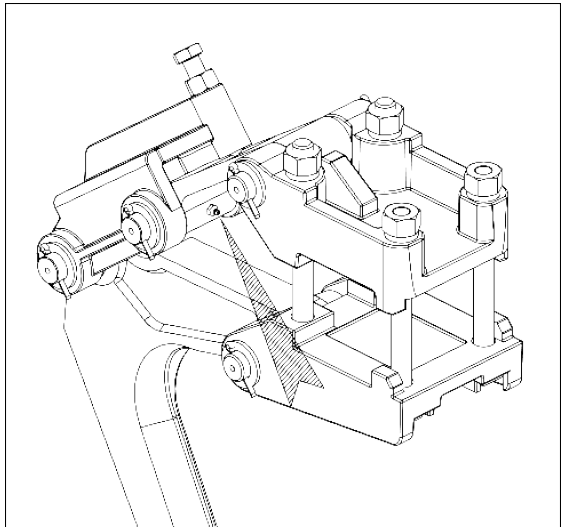
IMPORTANT

If there are other lubricants and/or brands of grease equivalent to those listed on this table, consult the technical manual from the respective manufacturer.

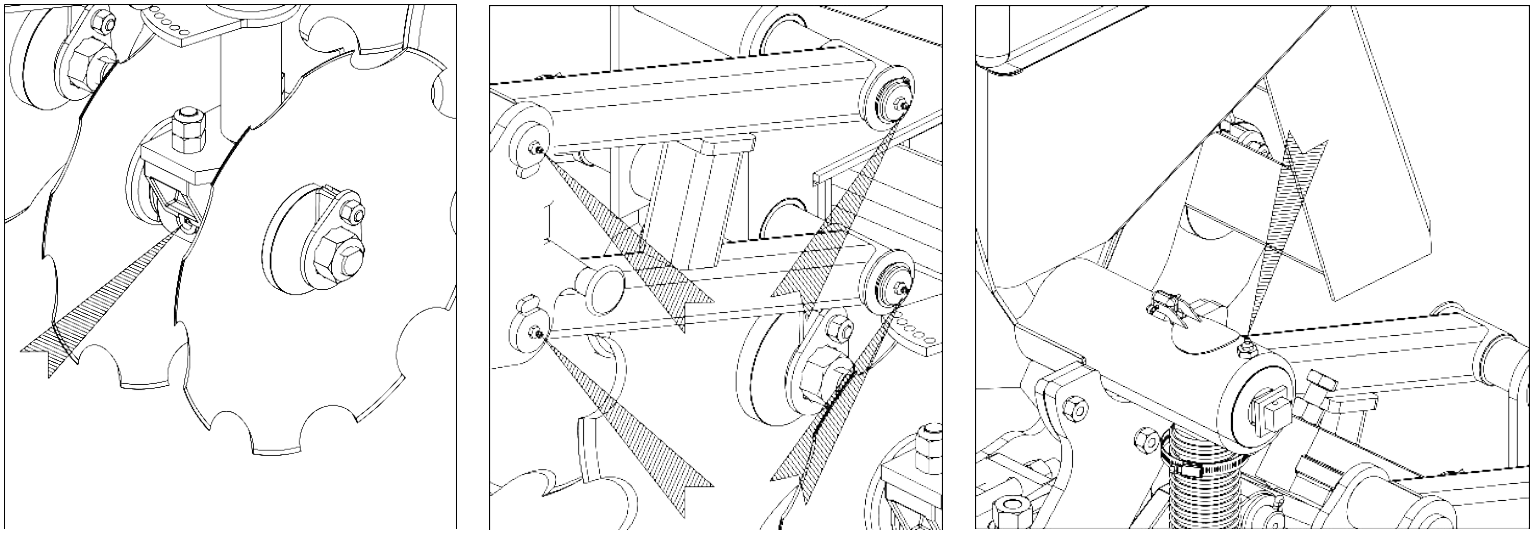
LUBRICATE AFTER EVERY 10 HOURS OF OPERATION (FIGURES 14)



Figures 14



LUBRICATE AFTER EVERY 10 HOURS OF OPERATION - CONTINUATION (FIGURES 14)



⚠ CAUTION

Do not apply excessive grease and abide by the lubrication interval periods again.

Figures 14

CHAIN STRETCING (FIGURA 15)

Proceed as follows to tighten the chain:

1- Loosen the screw (1), slide the stretcher (2) until achieving the necessary tightness. Then, retighten the nut, as shown in **figure 15.**

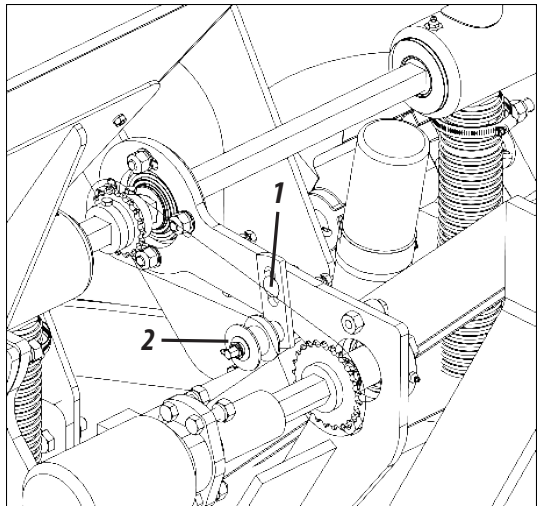


Figure 15

⚠ CAUTION | ***Check the tightness of the chains daily, the normal play must be + - 1cm from the middle of the chains***

OPERATING MAINTENANCE

PROBLEMS	*PROBABLE CAUSES*	*SOLUTIONS*
When seeding start by discharging fertilizer from the safety outlets.	Clogged hoses or pieces of plastic in the fertilizer conductor spirals.	Unclog the hoses or remove the upper tubing in order to access the spiral, turn the axle in the opposite direction until the foreign body is removed.
The axle of the fertilizer hub does not turn.	The spiral is clogged from wet or excessive fertilize in the clogged row.	Unclog the spirals; check if the channel came off and if fertilizer is entering from its sides.
The tractor lifts off the ground when it lifts the seeder.	There is no ballast in the front of the tractor.	Place ballast in the front of the tractor.
The seeder moves over to the side while seeding on fields where there are accentuated slopes.	The lower arms of the tractor coupler are loose due to the sideways motion.	Fasten the lower arms of the tractor coupler in order to eliminate the sideways motion.
The tines are frequently disabled.	Improper adjustment of the screws.	Adjust the screws correctly.
	There are obstacles in the field (sticks, rocks). The field is very compacted.	Reduce the operating speed or avoid the obstacles.

Table 04

PRECAUTIONS

1- Verify the status of all pins and screws before starting to operate the seeder.

2- The moving speed must be carefully controlled based on the conditions of the terrain.

3- Baldan seeders are used for various applications, then knowledge and attention is required while handling the equipment.

4- Only the local conditions can define the best manner for operating the seeder.

5- Whenever assembling or disassembling any part of the seeder, employ appropriate methods and tools.

6- Carefully pay attention to the lubrication intervals, for different parts of the seeder.

7- Always check for worn out parts. If any parts needs to be replaced, **always demand original Baldan parts.**

OVERALL CLEANING

1- Whenever storing the seeder, perform overall cleaning and wash only with water. Verify if any paint is worn, if this happens, apply a coat of paint and protective oil and lubricate the seeder. Do not use burnt oil for this purpose.

2- After finishing the seeding process, proceed as follows:

- Remove the power transmission chains and keep them bathed in oil until the next crop.

- Remove all conductor hoses from the seeder, washing them immediately using only water and mild soap. Do not use chemical products.

3- Completely lubricate the seeder. Check the moving parts and if there is any worn parts or play, make the necessary adjustments or replace the worn parts, making the ready for the next crop season.

4- After performing all the maintenance procedures, store the seeder in a covered and dry location, properly supported. Avoid letting the discs come into direct ground.

5- Whenever connecting or disconnecting the hydraulic hoses to/from the seeder, clean the connections using a dry and clean cloth, absent from any lint **(do not use rags).**

6- Replace any labels, especially warnings that are damaged or missing. Make everyone aware of the importance of them and the dangers of accidents if the instructions are not followed.

7- We recommend washing the seeder only with water at the beginning of a new crop seeding season.

⚠ CAUTION

Do not use chemical products for washing the seeder, as those can damage the paint and the labels.

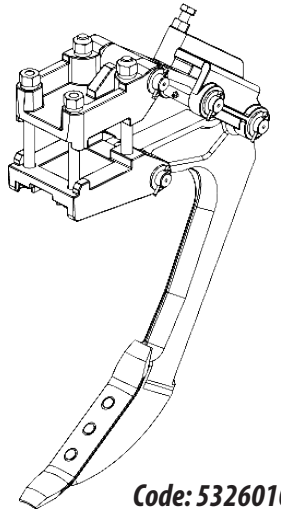
MAINTENANCE

OPTIONS

OPTIONAL EQUIPMENT (FIGURES 16)

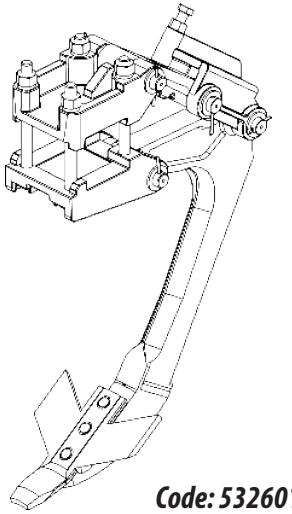
The CAMB MP HD seeder provides the following optional equipment that can be purchased based on the necessities

SUBSOILER TINE



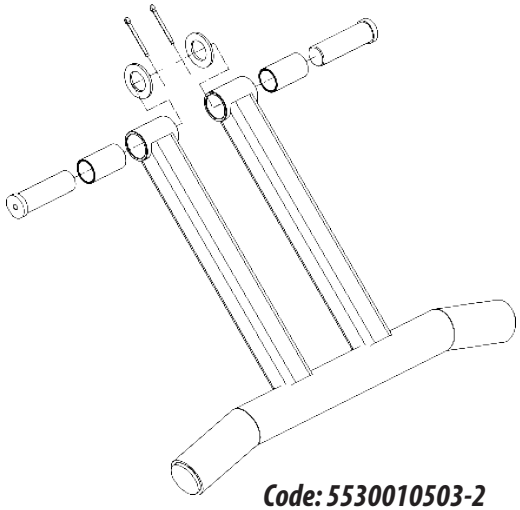
Figures 16 ***Code: 5326010439-6***

WING TYPE TINE



Code: 5326010523-6

LEVELER ASSEMBLY



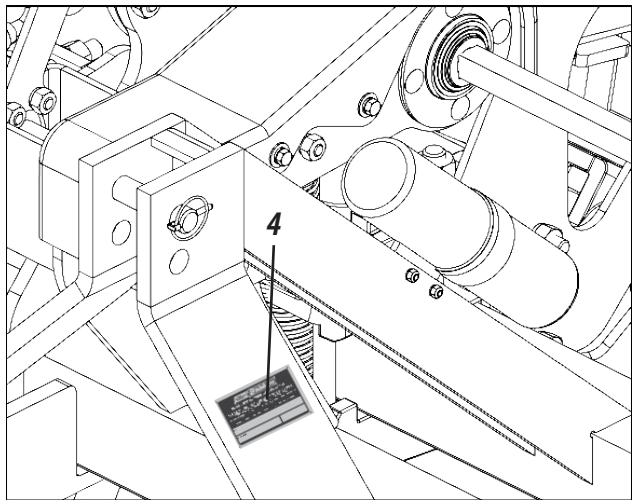
Code: 5530010503-2

PRODUCT IDENTIFICATION (FIGURAS 17)

1- Whenever consulting the part catalog or requesting technical support from Baldan, always identify the model (1), serial number (2), and manufacturing date (3) found on the identification label (4) of the seeder.

2- **ALWAYS DEMAND ORIGINAL BALDAN PARTS.**

Figures 17



Identify the following data so that you will always have correct information available on the life of your seeder.

Owner: _____

Reseller: _____

Farm: _____

City: _____ State: _____

Warranty Certificate #: _____

Model: _____

Serial #: _____

Purchase Date: _____ Invoice #: _____

CAUTION

The drawings in this Instruction Manual are merely illustrative. In order to provide a better overview and detailed instructions, some drawings have been removed from the manual, as well as safety shielding devices (covers, shields, etc.). Never operate the seeder without installing these devices.

MARKETING
Catalog and Manual Publishing

Code: 60550106216
Revision: 00
CPT:CAMBHD08914

CONTACT

In case of any doubts/questions, consult After-Sales. Telephone: 0800-152577
E-mail: posvenda@baldan.com.br

NOTATIONS

WARRANTY CERTIFICATE

BALDAN IMPLEMENTOS AGRÍCOLAS S/A, guarantees normal operation of the implement to the reseller for a period of 6 (six) months counted from the delivery date on the reseller's bill of sale to the first final consumer.

During this period ***BALDAN*** is committed to repair any defects in materials and/or manufacturing at its own responsibility, as labor, shipping, and other expenses are the responsibility of the reseller.

During the warranty period, the request and replacement of any defective parts will be done at the regional reseller, and thereafter ship the defective part to ***BALDAN*** for analysis.

When it is not possible to perform such procedure and the capacity for resolving the problem is exhausted by the reseller, the same shall request support from the ***BALDAN Technical Support Service***, by filling out the specific form distributed to resellers.

After analysis of the replaced items by the BALDAN Technical Support Services is concluded and the replacement is not covered by the warranty, then it will be the responsibility of the reseller to pay all the related costs for the replacement; as well as expenses on materials, travel, including lodging and meals, accessories, lubricates used, and other expenses originating from the Technical Support Service call, thereby the BALDAN company is authorized to charge for the respective bill to the reseller's name.

Any repair done on the product within the validity date of the warranty period, will only be authorized by ***BALDAN*** by previous presentation of the quotation describing the parts and labor charges that will be performed.

It is excluded from this agreement, whenever the product undergoes official repairs or modifications from service centers that do not belong to the ***BALDAN*** reseller network, as well as the installation of aftermarket parts or components in the user's product.

This warranty will be nullified if the defect or damage is the result from improper usage that is noncompliant to the instructions or inexperience of the operator.

It is agreed to that this present warranty does not cover tires, polyethylene storage compartments, drive shafts, hydraulic components, etc. as the warranty coverage is from their own manufacturers.

Manufacturing or material defects, as stated in the purpose of this warranty agreement, does not constitute, under any hypothesis, a reason for purchase and sale contract termination, or the payment of indemnities of any nature.

BALDAN reserves the right to change and or perfect the technical characteristics of its products, and without any obligation to proceed in previously manufactured products.

INSPECTION AND DELIVERY CERTIFICATE

- ***SERVICE BEFORE DELIVERY:*** Este implemento foi preparado cuidadosamente pela organização de venda, vistoriado em todas as suas partes de acordo com as prescrições do fabricante.
- ***DELIVERY SERVICE***: The user was informed as to the terms of the applicable warranty and instructed on its usage and maintenance procedures.
- I hereby confirm I have been informed on the terms of the applicable warranty and instructed on its usage and maintenance procedures of the implement.

Implement: _____

Serial #: _____

Date: _____ *Invoice #:* _____

Reseller: _____ *City:* _____

State: _____ *POSTAL CODE:* _____

Owner:: _____ *Phone:* _____

Address: _____ *Number:* _____

City: _____ *State:* _____

E-mail: _____

Sales Date: _____

Signature / Reseller Stamp _____

1ª - Owner

CERTIFICATE

CERTIFICATE

INSPECTION AND DELIVERY CERTIFICATE

- ***SERVICE BEFORE DELIVERY***: This implement was carefully prepared by the sales organization; all it parts were inspected according to the instructions from the manufacturer.
- ***DELIVERY SERVICE***: The user was informed as to the terms of the applicable warranty and instructed on its usage and maintenance procedures.
- I hereby confirm I have been informed on the terms of the applicable warranty and instructed on its usage and maintenance procedures of the implement.

Implement: _____

Serial #: _____

Date: _____ *Invoice #:* _____

Reseller: _____ *City:* _____

*State:*_____*POSTAL CODE:* _____

Owner: _____ *Phone:* _____

Address: _____ *Number:* _____

City: _____*State:* _____

E-mail: _____

Sales Date: _____

Signature/Reseller's Stamp _____

2ª - Reseller

INSPECTION AND DELIVERY CERTIFICATE

- ***SERVICE BEFORE DELIVERY***: Este implemento foi preparado cuidadosamente pela organização de venda, vistoriado em todas as suas partes de acordo com as prescrições do fabricante.
- ***DELIVERY SERVICE:*** O usuário foi informado sobre os termos de garantia vigentes e instruído sobre a utilização e cuidados de manutenção.
- I hereby confirm I have been informed on the terms of the applicable warranty and instructed on its usage and maintenance procedures of the implement.

Implement: _____

Serial #: _____

Date: _____ *Invoice #:* _____

Reseller: _____ *City:* _____

State: _____*POSTAL CODE:* _____

*Owner:*_____*Phone:* _____

Address: _____ *Number:* _____

City: _____*State:* _____

E-mail: _____

Sales Date: _____

Signature/Reseller's Stamp _____

3ª - Manufacturer *Please send a filled out copy in a maximum period of 15 days to BALDAN.*

1.74.05.0059-5

AC MATÃO
ECT/DR/SP

REPLY LETTER

NO STAMP IS NECESSARY FOR MAILING

THE STAMP WILL BE PAID BY:

BALDAN IMPLEMENTOS AGRÍCOLAS S/A.

Av. Baldan, 1500 | Nova Matão | CEP: 15993-000 | Matão-SP | Brasil

Phone: (016) 3221-6500 | Fax: (0**16) 3382-6500**

Home Page: www.baldan.com.br | e-mail: sac@baldan.com.br

Exportation: Phone: 55 16 3321-6500 | Fax: 55 16 3382-4212 |

3382-2480 e-mail: export@baldan.com.br

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