

# ***Instruction***

## ***Manual***



**GTCR-C**

Sugarcane Offset Disc Harrow Remote Control

 **BALDAN**



# INTRODUCTION

**W**e 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.



# *Instruction Manual*



## **GTCR-C**

Sugarcane Offset Disc Harrow Remote Control

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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## WARRANTY

### PRODUCT WARRANTY

**BALDAN IMPLEMENTOS AGRÍCOLAS S/A**, warrants the normal operation of the implement to the dealer for a period of six (6) months from the date of delivery of the resale invoice to the first consumer.

During this period **BALDAN** undertakes to fix any defects in materials or workmanship of its responsibility, the labor, the freight and other expenses being of the dealer's liability.

During the warranty period, the request and the replacement of any defective parts must be made to the dealer of the region, which will send the defective part for analysis by **BALDAN**.

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

After analyzing the items replaced by the **BALDAN** Technical Assistance, and if the conclusion is that it is not a case of warranty, then the costs related to the replacement will be supported by the dealer; as well as the material costs, travel including stays and meals, accessories, lubricant used and other expenses deriving from the request to the Technical Assistance, in this case, **BALDAN** is authorized to make the billing on behalf of the dealer's name.



Any repair done by the dealer on the product within the warranty period, will only be authorized by **BALDAN** upon prior presentation of the budget describing the parts and the works to be performed.

Is excluded from this warranty the product that is repaired or modied in workshops that do not belong to the **BALDAN** dealers network, as well as the application of non-genuine parts or components on the user product.

This warranty will become void if it is determined that the defect or damage is the result of misuse of the product, failure to follow the instructions or the inexperience of the operator.

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

Defects in workmanship and or material, object of this warranty shall not be, under any circumstances, grounds for the termination of the contract of sale, or for compensation of any nature.

**BALDAN** reserves the right to change and or improve the technical characteristics of its products without notice and without the obligation to do so with the products previously manufactured.

## GENERAL INFORMATION

### OWNER

- 01 - **BALDAN IMPLEMENTOS AGRÍCOLAS S/A**, will not be responsible for any damage caused by an accident due to the use, transport or improper or incorrect storage of your implement, whether in case of negligence and/or inexperience of any person.
- 02 - Only persons who have the full knowledge of the tractor and the implement must perform their transportation and operation.
- 03 - **BALDAN** will not be responsible for any damage caused due to unpredictable situations or beyond the normal use of the implement.

*The mishandling of this equipment can result in serious or fatal accidents. Before switching on the equipment, carefully read the instructions of this manual. Make sure that the person responsible for the operation is instructed on the proper and safe handling of the equipment. Also make sure that the operator has read and understood the product instructions manual.*



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

02- This Regulatory Norm aims to establish the principles to be observed in the organization and the work environment, in a way consistent with the planning and development of the agriculture, livestock, forestry, forest exploitation and aquaculture activities regarding the safety and health and the working environment.

**IF YOU ARE THE OWNER OR THE OPERATOR OF THE EQUIPMENT.**  
Read and carefully follow the NR-31 provisions.

*For more information, visit the website and read the complete NR-31.  
<http://portal.mte.gov.br/legislacao/normas-regulamentadoras-1.htm>*

## SAFETY RULES



THIS SYMBOL INDICATES AN IMPORTANT SAFETY WARNING. WHENEVER YOU FIND IT IN THIS MANUAL CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF PERSONAL INJURIES.



### ATTENTION

- Read the instructions manual carefully to learn about the recommended security practices.



### ATTENTION

- Only begin operating the tractor, when you are properly installed and with the seatbelt buckled.



### ATTENTION

- Do not carry passengers on the tractor and not inside or on the equipment.



### ATTENTION

- There are risks of serious injuries in case of overturning when working on slopes.
- Do not use excessive speed.



## SAFETY RULES



### ATTENTION

- Do not operate the tractor if the front has no enough ballast to balance the rear equipment.
- With a tendency to lift, add weights or ballast in the front of the tractor or on the front wheels.



### ATTENTION

- Before performing any maintenance on your equipment, make sure it is properly stopped.
- Avoid getting hit.



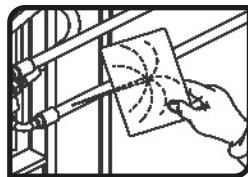
### ATTENTION

- Keep yourself away from the active elements of the machine (Discs), they are sharp and can cause accidents.
- When carrying any service on the discs, use safety gloves on your hands.




### ATTENTION

- When looking for a possible leak on the hoses, use a piece of cardboard or wood, never use your hands.
- Avoid fluid incision on the skin.



## SAFETY RULES

 **THIS SYMBOL INDICATES AN IMPORTANT SAFETY WARNING. WHENEVER YOU FIND IT IN THIS MANUAL CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF PERSONAL INJURIES.**

### **ATTENTION**

• When transporting this equipment, do not exceed a speed of 16 km / h or 10 MPH, avoiding the risk of damage and accidents.












### **ATTENTION**

• Hydraulic oil works under pressure and can cause serious injuries if leaks occur. Periodically check the condition of the hoses. If there is evidence of leakage, replace it immediately.








• Before connecting or disconnecting the hydraulic hoses, relieve the system pressure by activating the command with the tractor off.



## WARNINGS

- 01-  When operating the implement, do not allow people to stay close to it or on it.
- 02-  When performing any discs assembly and disassembly service, use gloves to protect your hands.
- 03-  Before connecting or disconnecting hydraulic hoses, relieve the system pressure triggering the command with the tractor turned off.
- 04-  Periodically check the hydraulic hoses conditions. If there is evidence of oil leaks, immediately replace the hose because the oil works under high pressure and can cause serious accidents.
- 05-  Do not wear loose clothing as they can curl up on the implement.
- 06-  When you turn the tractor engine on, be properly seated on the operator's seat and be sure that you have full aware about the proper and safe handling for both the tractor and the implement. Always place the gearshift lever on the neutral position, turn off the command gear of the energy plug and put the hydraulic commands on the neutral position.
- 07-  Do not turn on the tractor engine indoors without a proper ventilation, because the exhaust gases are harmful to health.
- 08-  When maneuvering the tractor for the implement coupling, make sure that you have the necessary space and that no one is close to it, always maneuvering at slow speed and be prepared to brake at any emergency.
- 09-  Do not make adjustments with the implement in operation.

## WARNINGS

- 10-  When working on slopes, be careful always looking to maintain the necessary stability. In case of early unbalance reduce the acceleration, turn the wheels toward the slope side of the land and never lift the implement.
- 11-  Always drive the tractor at speeds compatible with safety, especially when working on uneven lands or slopes, keep the tractor always engaged.
- 12-  When driving the tractor on roads, keep the brake pedals interconnected.
- 13-  Do not operate the tractor with a lightweight front. If the front has a tendency to lift, add more weight on the front or on the front wheels.
- 14-  When leaving the tractor place the gearshift lever in neutral position and apply the parking brake. Never leave the implements coupled to the tractor in the hydraulic system raised position.
- 15-  Alcoholic beverages and some medications can cause a loss of reflexes and change the operator physical conditions. Therefore, never operate this equipment when using these substances.
- 16-  Read or explain all the above procedures to the user who cannot read.

*If case of doubt, ask the After-sales.  
Telephone: 0800-152577 / E-mail: posvenda@baldan.com.br*

## COMPONENTES

### SUGARCANE OFFSET DISC HARROW REMOTE CONTROL GTCR-C

- 01- Main Frame
- 02- Front gang
- 03- Rear gang
- 04- Hitch drawbar
- 05- Hitch shackle
- 06- Stabilizer bar support
- 07- Hoses
- 08- Stabilizer rod
- 09- Scrappers
- 10- Discs
- 11- Stabilizer bar
- 12- Articulation shaft
- 13- Tyres
- 14- Articulation shaft hub
- 15- Hydraulic Cylinder

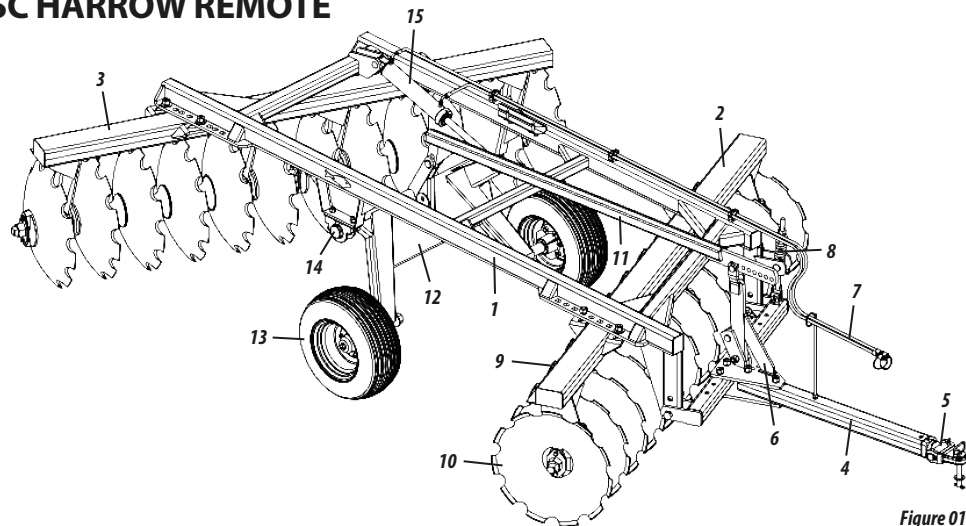


Figure 01



## TECHNICAL SPECIFICATIONS

### GTCR-C

Table 01

<i>Model</i>	<i>Nr of Discs</i>	<i>Discs Diameter (ø)</i>	<i>Total width (mm)</i>	<i>Total length (mm)</i>	<i>Weight Approximate (kg)</i>	<i>Power of Tractor (Cv)</i>
GTCR-C	16	28" ou 30"	2400	6100	2600	130 - 145
GTCR-C	18	28" ou 30"	2700	6200	2850	150 - 160
GTCR-C	20	28" ou 30"	3000	6300	3020	165 - 180
GTCR-C	22	28" ou 30"	3300	6400	3200	180 - 200
GTCR-C	24	28" ou 30"	3600	6500	3480	210 - 220




*Shaft Diameter* ..... 2.1/4" (ø)

*Disk Spacing*..... 300 mm

*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 approximate and reported under normal working conditions.*

## ASSEMBLY

The **GTCR-C** leaves the factory disassembled. To assemble it, follow the instructions below:

- 1 -  *Before starting the GTCR-C Assembly, look for an ideal location, where it facilitates Assembly.*
- 2 -  *When performing any Assembly and desAssembly service on the disks, wear gloves in your hands.*
- 3 -  *Do not wear loose clothing, as they may get caught in the equipment.*

### DISCS SECTION ASSEMBLY ( FIGURE 03 )

When starting the **GTCR-C** Assembly, always start with the disk assembly, for this, proceed according to the instructions on the following page:

## ASSEMBLY

- 01 - Place the concave thrust washer (2) on the shaft (1), then the nut (3), the lock (4) fixing it with the pressure washer (5) and screw (6).
- 02 - Then, place the disc (7), bearing (8), another disc (7), separator spool (9) on the shaft (1), and so on, as shown in Figure 03.
- 03 - When the set is complete with all the discs, bearings, separating reels, place the convex thrust washer (10), the other nut (3), tightening the wrench until the whole set is firm.
- 04 - Once this is done, put on the disc set and tighten the nut (3) with impacts. When you are almost getting maximum tightness, adjust the lock (4) with the convex washer (10), always tightening the nut until the drilling coincides, fix it with the pressure washer (5) and screw (6).

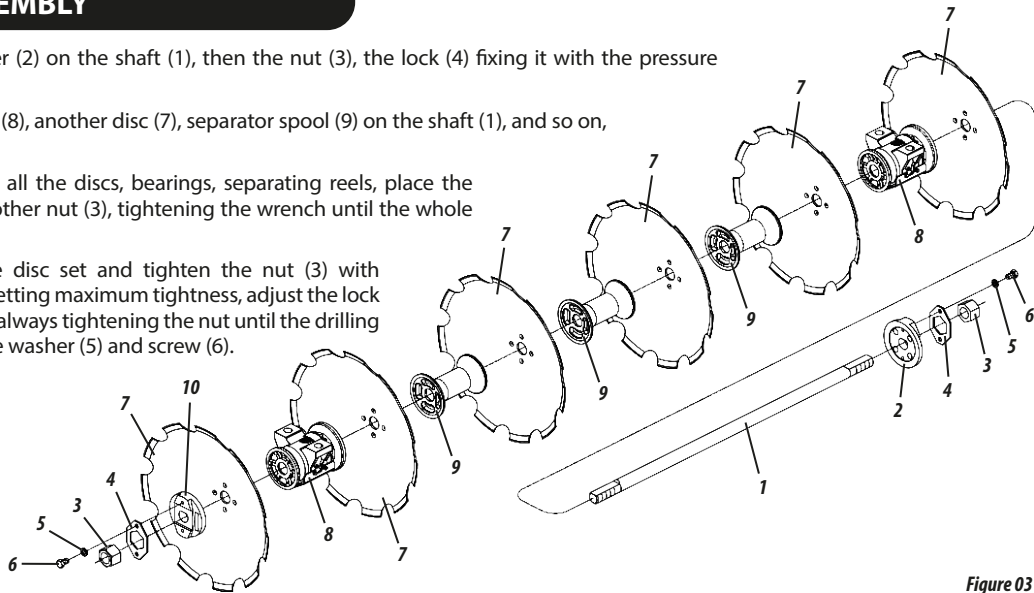
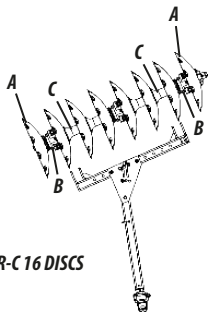
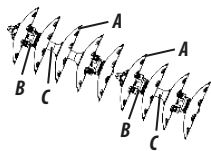
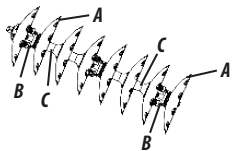


Figure 03

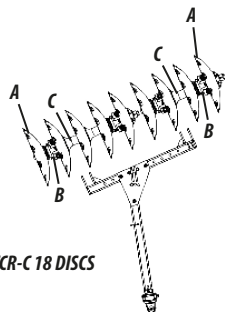
# ASSEMBLY

## DISCS SECTION ASSEMBLY ( FIGURES 04 )

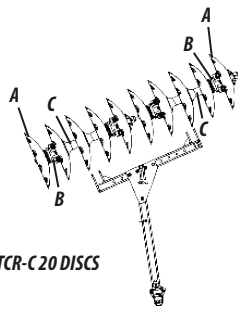
Figures 04



GTCR-C 16 DISCS

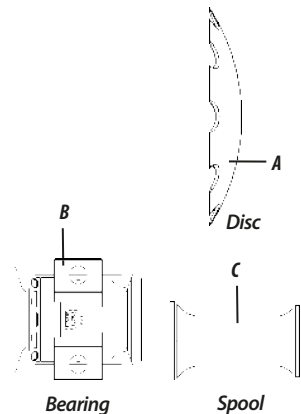


GTCR-C 18 DISCS



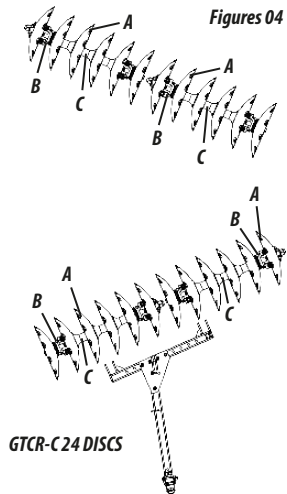
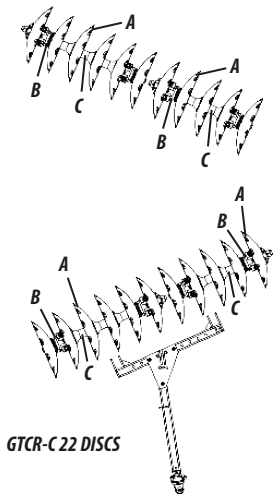
GTCR-C 20 DISCS

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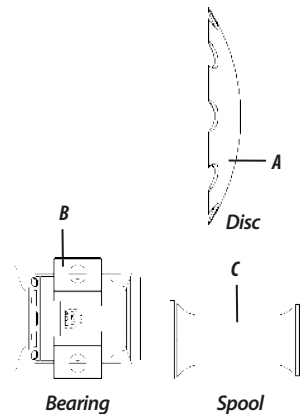
# ASSEMBLY

## DISCS SECTION ASSEMBLY ( FIGURES 04 )



Figures 04

SUBTITLE:



## ASSEMBLY

### ASSEMBLY - GANG IN MAIN FRAME ( FIGURE 05 )

Start the **GTCR-C** Assembly by the frames, for this, proceed as follows:

- 01 - Place the front frame (1) and rear frame (2) in a flat, clean place.
- 02 - Then, place the upright (3) on the front (1) and rear (2) frames, fixing them using screws (4), locks (5), plain washers (6), lock washers (7) and nuts (8).

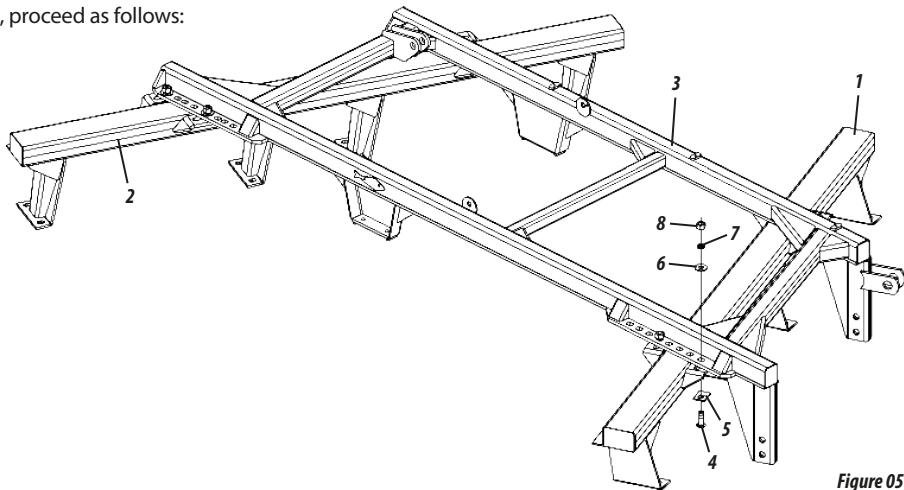


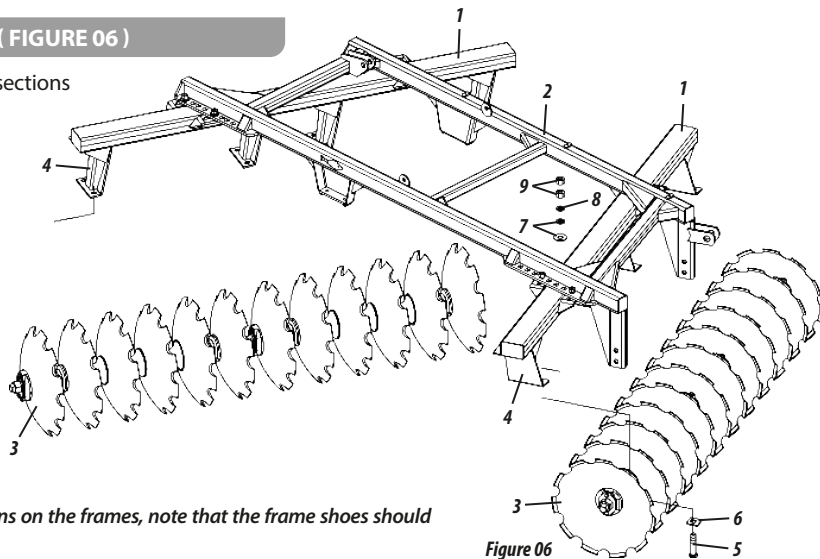
Figure 05

## ASSEMBLY

### ASSEMBLY - DISC SECTION IN GANG ( FIGURE 06 )

After fixing the frames (1) on the upright (2), fix the disk sections (3), to do this, proceed as follows:

- 01-Lift the front or rear part of the Disc Harrow and place the disc section (3) in line and match the drilling of the shoes (4) with those of the bearings and make the fixation through the screws (5), plates (6), plain washers (7), lock washers (8) and nuts (9).
- 02-Then, lift the other part of Disc Harrow and repeat the operation, checking the concavity of the discs from one section to the other, which should be opposite.
- 03-When finishing the Assembly, check that the shoes (4) were facing the concavity of the discs.



### ATTENTION

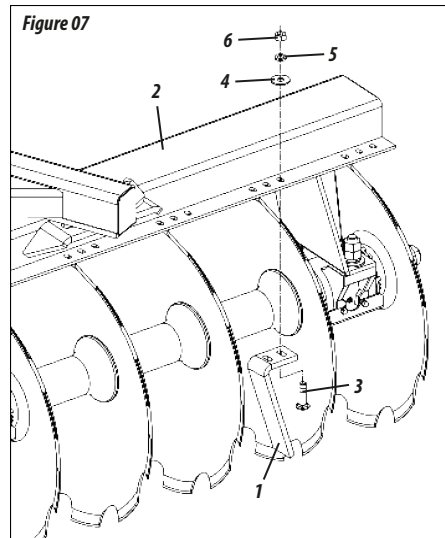
*When mounting the disc sections on the frames, note that the frame shoes should face the disc's concavity.*

## ASSEMBLY

### SCRAPPERS ASSEMBLY ( FIGURE 07 )

After mounting the disk sections on the frames, fix the wipers (1), to do this, proceed as follows:

- 01-Place the wipers (1) on the frames (2), fixing using the screws (3), plain washers (4), pressure washers (5) and nuts (6).



### ATTENTION

*When installing the cleaners, they should be 0.5 to 1.0 cm away from the discs.*



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## ASSEMBLY

### ASSEMBLY - WHEEL SUPPORT IN MAIN FRAME ( FIGURE 08 )

To mount the wheel support (1) of the main frame (2), proceed as follows:

- 01 - Couple the hub (3) to the wheel support (1) and secure the hub (3) to the upright (2) using the screws (4), lock washers (5) and nuts (6).
- 02 - Then, attach the rear of the hydraulic cylinder (7) to the upright (2), fixing through the pin (8), washer (9) and cotter pin (10).
- 03 - Then, attach the front part of the hydraulic cylinder (7) to the wheel support (1), through the pin (11), flat washer (12) and cotter pin (13).

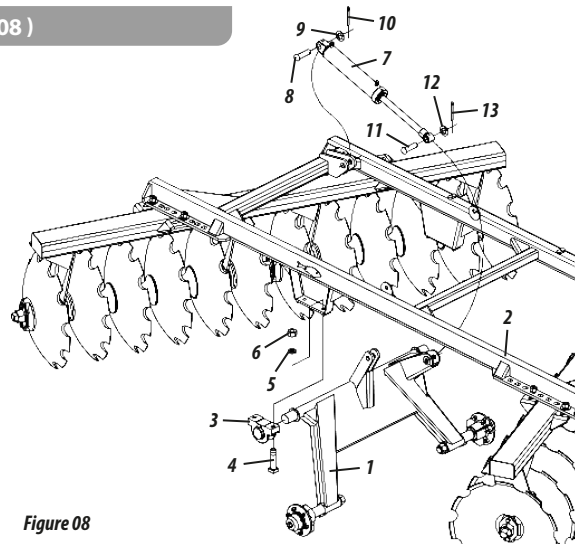


Figure 08

## ASSEMBLY

### WHEELS ASSEMBLY ( FIGURE 09 )

After mounting the wheel supports on the uprights, fix the tires (1). To do this, proceed as follows:

- 01 - Couple the tires (1), on the wheel support (2) fixing through the screws (3) and nuts (4).

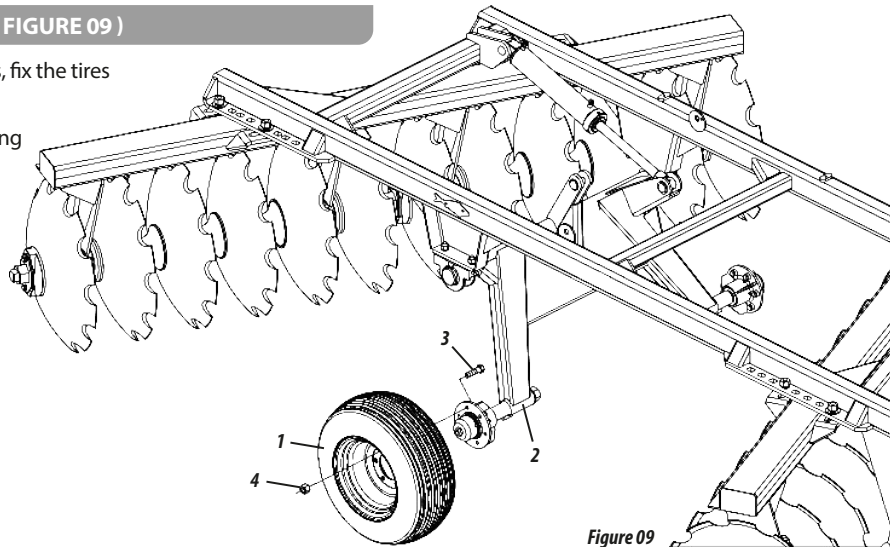


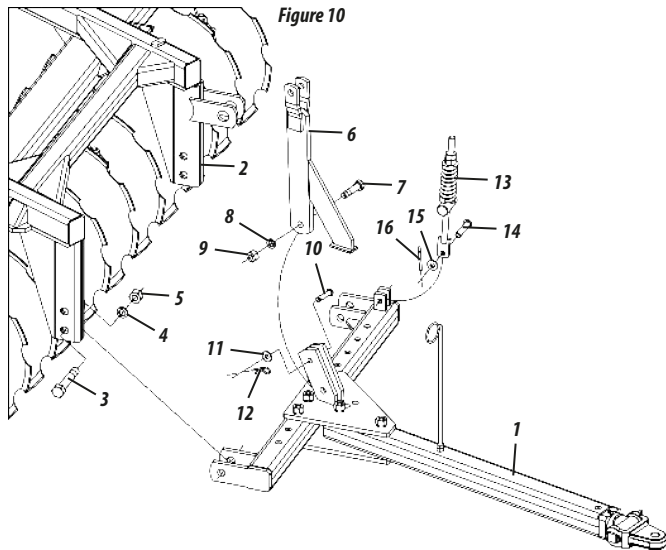
Figure 09

## ASSEMBLY

### HITCH DRAWBAR ASSEMBLY ( FIGURE 10 )

To assemble the hitch drawbar, proceed as follows:

- 01 - Engage the hitch drawbar (1), in the upright (2) through the screws (3), lock washers (4) and nuts (5).
- 02 - Then, attach the stabilizer bar support (6) to the header (1) using the screw (7), pressure washer (8) and nut (9).
- 03 - Then, fix the pin (10) to the header (1), locking the stabilizer bar support (6) through the flat washer (11) and lock (12).
- 04 - Finally, fix the spring rod (13) to the header (1) and the upright (2) through the pin (14), flat washer (15) and cotter pin (16).



## ASSEMBLY

### STABILIZER BAR ASSEMBLY ( FIGURE 11 )

To assemble the stabilizer bar (1), proceed as follows:

- 01 - Fix the rear part of the stabilizer bar (1), on the wheel support (2), through the pin (3), flat washer (4) and cotter pin (5).
- 02 - Then, fix the front part of the stabilizer bar (1), on the support (6) through the pin (7), flat washer (8) and lock (9).

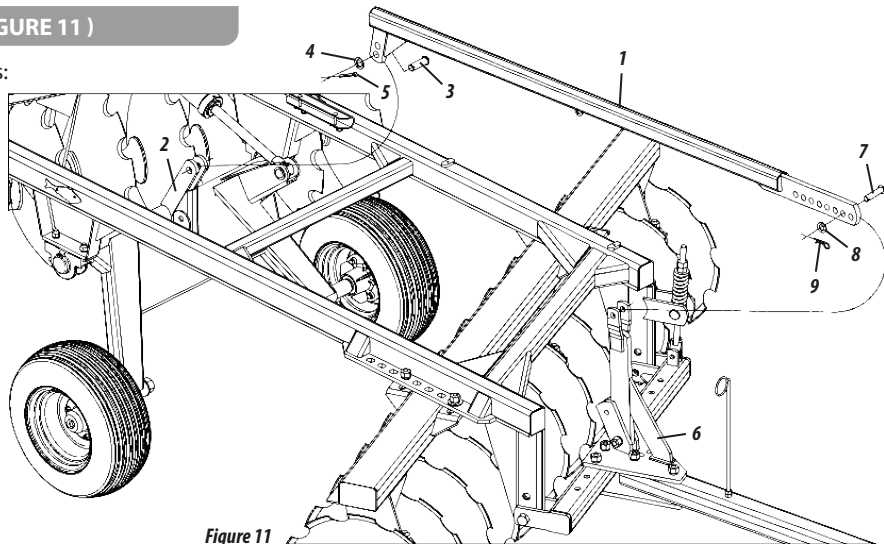


Figure 11

# HITCH

## DISC HARROW COUPLING TO TRACTOR DRAWBAR ( FIGURE 12 )

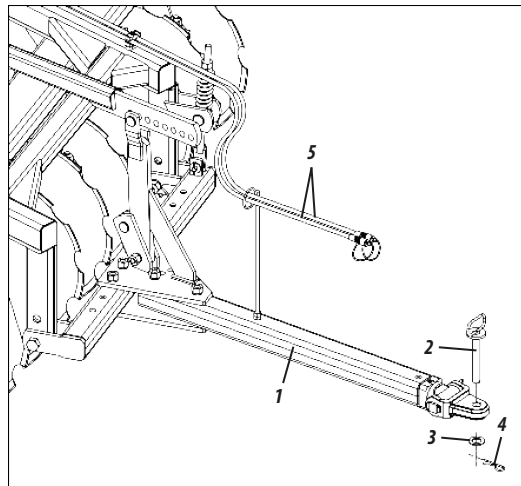
To attach the **GTCR-C** to the tractor drawbar, follow the instructions below:

- 01 - Before engaging the GTCR-C, look for a safe and easily accessible place.
- 02 - Always use low gear with low acceleration.
- 03 - Before connecting and disconnecting the hydraulic hoses, stop the engine and relieve the pressure from the circuit by fully activating the control levers.
- 04 - Make sure that, when relieving the pressure of the system, no one is injured when the equipment is moved.

- Observing the following instructions, proceed as follows:

- 01 - Level the **GTCR-C** hitch header (1) in relation to the tractor hitch. Then, slowly approach Disc Harrow in tractor in reverse, paying attention to the application of the brakes.
- 02 - Proceed with the coupling of the **GTCR-C** to the tractor, fixing it through the coupling pin (2), flat washer (3) and lock (4).
- 03 - Finally, attach the hoses (5) to the tractor's quick coupling.

Figure 16

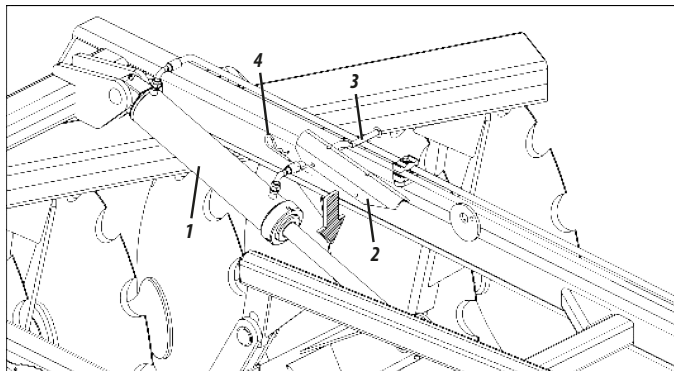


## TRANSPORTATION/WORK

### TRANSPORTATION ( FIGURES 13 )

Before starting to transport the **GTCR-C**, proceed as follows:

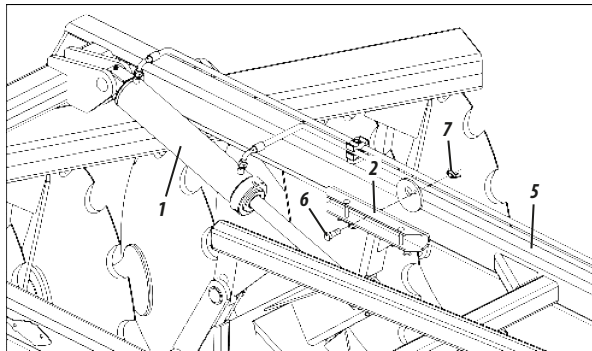
- 01 - Operate the rod of the hydraulic cylinder (1) until the necessary measure.
- 02 - Then, place the lock (2) on the hydraulic cylinder rod (1) until the entire space



between the rod hitch and the hydraulic cylinder piston (1) is filled and fix it through the pin (3) and lock (4).

- 03 - At the end of the transport of the **GTCR-C**, remove the lock (2) from the hydraulic cylinder (1) and fix it to the upright (5) using the screw (6) and the butterfly nut (7).

Figures 13



**ATTENTION**

Do not transport the GTCR-C without placing the lock (2) on the hydraulic cylinder (1).

### WORK ( FIGURE 14 )

To limit the depth of the **GTCR-C**, before starting work with Disc Harrow, proceed as follows:

01 - Operate the rod of the hydraulic cylinder (1) until the necessary measure.

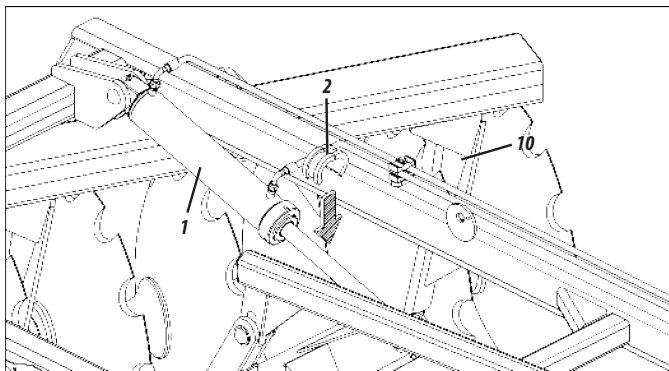


Figure 14

02 - Then, place the limiting rings (2) on the hydraulic cylinder rod (1) until the space between the rod engagement and the hydraulic cylinder piston (1) is filled.

03 - When finishing work with GTCR-C, remove the limiting rings (2) from the hydraulic cylinder (1).



### ATTENTION

*After adjustment, the GTCR-C will always operate at the same depth, both in hard and loose terrain, because the limiting rings (2) are limiting the travel of the hydraulic cylinder (1), that is, preventing the wheels from oscillating..*

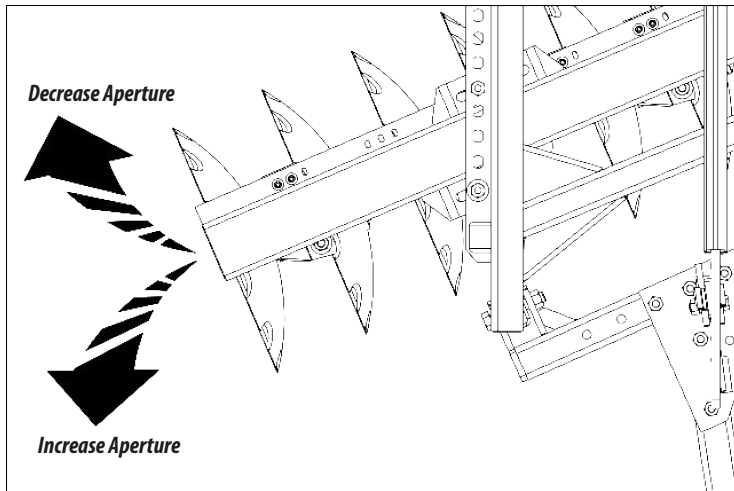
## ADJUSTMENTS

### DISC HARROW OPENING ADJUSTMENTS ( FIGURES 15 )

To obtain the ideal penetration of the discs in the soil, the opening of the Disc Harrow must be regulated, which varies according to the type of soil:

- 01 - In the areas with greater difficulty of penetration, the opening of Disc Harrow is increased.
- 02 - In light and loose terrain, the opening of Disc Harrow decreases.

To open or close Disc Harrow **GTCR-C**, proceed as instructed on the following page:



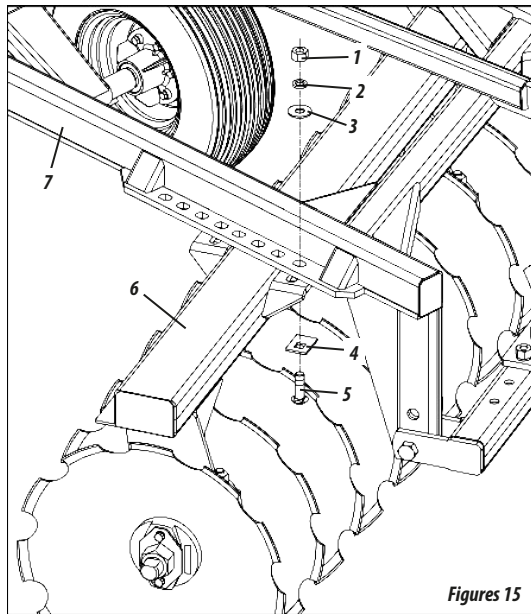
Figures 15



## ADJUSTMENTS

### DISC HARROW OPENING ADJUSTMENTS ( FIGURES 15 )

- 01 - First, loosen the nuts (1), lock washers (2), plain washers (3), remove the locks (4), screws (5).
- 02 - Then adjust the frames (6) by decreasing or increasing their opening.
- 03 - Then, fix it again to the amount (7).



Figures 15



### ATTENTION

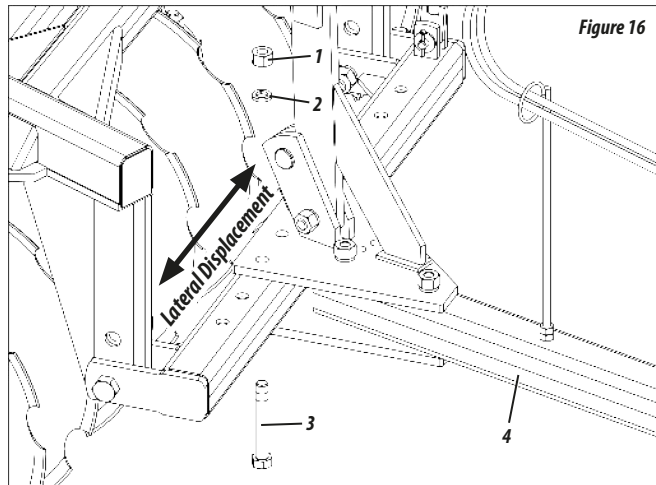
*The wheels also assist in disc depth control.*

## ADJUSTMENTS

### ADJUSTMENT OF DISC HARROW DISPLACEMENT ( FIGURE 16 )

The displacement of the Disc Harrows **GTCR-C** must be done when the Disc Harrows are not giving a perfect finish, that is, leaving a trail of the tractor. For Disc Harrows to work centrally with the tractor's traction line, proceed as follows:

- 01 - Loosen the nuts (1), lock washers (2), remove the screws (3) and move the header (4) making the ideal adjustment.



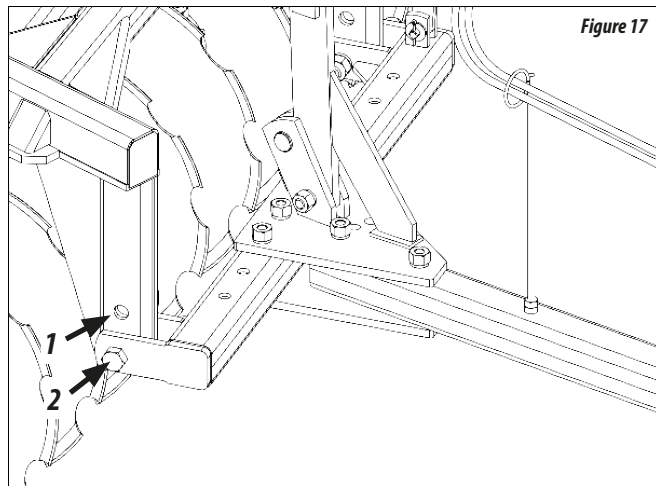
## ADJUSTMENTS

### TRANSVERSAL BAR ADJUSTMENT ( FIGURE 17 )

The **GTCR-C** upright has two holes on each side, whose main purpose is to level the Disc Harrow header in relation to the tractor drawbar.

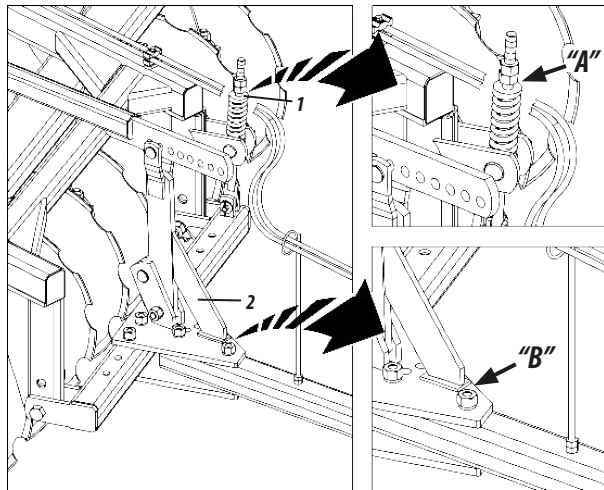
01 - Increases Penetration.

02 - Decreases Penetration.



## ADJUSTMENTS

### ADJUSTMENT OF THE STABILIZER ROD AND STABILIZER BAR SUPPORT ( FIGURES 18 )



#### *Detail "A"*

On the stabilizing rod (1), leave a gap of 10 to 20mm between the nut and the spring back, **as shown in detail "A"**.

#### *Detail "B"*

On the stabilizer bar support (2), leave a clearance of 10 to 20mm between the support of the stabilizer rod and the back of the upper header plate, **as shown in detail "B"**.

Figures 18

## CALCULATIONS

### APPROXIMATE HOURLY PRODUCTION

- To calculate the approximate hourly production of Disc Harrows **GTCR-C**, use the following formula:

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

#### BEING:

**A** = Area to be worked

**L** = Width of the work of the crane (in meters)

**V** = Average tractor speed (in meters / hour)

**F** = Production factor - 0.90

**X** = Value of the hectare - 10,000 m<sup>2</sup> (the value varies according to the region)

**Example: A Disc Harrow with 20 discs, how many Ha will it produce in an hour of work at an average speed of 7km / h?**

**A** = ?

**L** = 2,85 m

**V** = 7.000 m/h

**F** = 0,90

**X** = 10.000 m<sup>2</sup>(Calculated in hectare)

$$A = \frac{2,85 \times 7.000 \times 0,90}{10.000} = 1,79 \text{ Ha/h}$$



Hourly production of Disc Harrow GTCR-C can vary due to factors that change the rhythm of work such as (humidity and hardness of the soil, slope of the terrain, inadequate adjustments and working speed).

## CALCULATIONS

### APPROXIMATE HOURLY PRODUCTION TABLE

Model	Width of Job (mm)	Velocity Average (m/h)	Production Factor	Approximate production in:
				Hectares
GTCR-C 16	2,25	7.000	0,90	1,41
GTCR-C 18	2,55	7.000	0,90	1,60
GTCR-C 20	2,85	7.000	0,90	1,79
GTCR-C 22	3,15	7.000	0,90	1,98
GTCR-C 24	3,45	7.000	0,90	2,17

Table 02

The formula for calculating the approximate production, refers to the calculation of areas to work or worked by Disc Harrow. If you want to know the time it will take to work an area of known value, just divide the value of that area by the hourly production of Disc Harrow.

**Example: How much time "X" will it take for a 22-disc Disc Harrow GTCR-C to produce 35 hectares, at an average speed of 7km / h?**

$$X = \frac{35 \text{ Ha}}{1,98 \text{ Ha/h}} = 17,67 \text{ hours approximately to work 35 hectares.}$$



Hourly production GTCR-C can vary due to factors that change the rhythm of work such as (humidity and hardness of the soil, slope of the land, inadequate adjustments and speed of work), factors that differ from the table above, which we obtain with work in the field on soils under normal conditions.

## OPERATIONS

### RECOMMENDATIONS FOR OPERATION

- Preparing the tractor will save you time and a better result in the field. The following suggestions may be useful to you.

- 01 - After the first day of work with the **GTCR-C**, retighten all screws and nuts, check the condition of the pins, and locks. Then, perform a general tightening of all bolts and nuts every 10 hours of work.
- 02 - Adjust the tractor according to the contents of the instruction manual, always using the front and rear weights to stabilize the equipment.
- 03 - When using the **GTCR-C**, it is important to check the coupling and cross leveling system to make sure that the discs will have the same depth of penetration into the ground.
- 04 - 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 **GTCR-C**.
- 05 - Make sure that the Disc Harrow operator is trained and qualified to operate Disc Harrow.
- 06 - The speed of travel of the Disc Harrow must be carefully controlled according to the conditions of the terrain.
- 07 - If in doubt, never operate or handle Disc Harrow, consult After Sales.  
**Telephone: 0800-152577 or email: posvenda@baldan.com.br**

## OPERATIONS

### WORK



Before starting operations with Disc Harrow, check it completely, retightening all screws, nuts, hose terminals, shafts and especially the disc sections.

- When starting the Disc Harrowação, you must always follow the terraces or contour cord, starting the operation in the sense that the terrace is on the left side of the tractor.
- Do not turn to the right, the Disc Harrowado terrain must always be to the left of the tractor driver.



### ATTENTION

*Before starting operations with Disc Harrow, check it completely, retightening all screws, nuts, hose terminals, shafts and especially the disc sections.*



**BALDAN**

**Instruction Manual**

### WORKING FROM THE OUTSIDE IN ( FIGURE 19 )

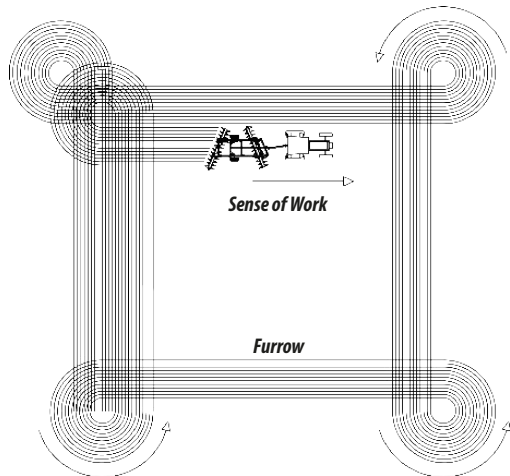


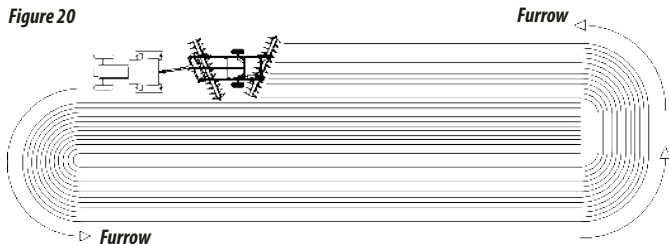
Figure 19



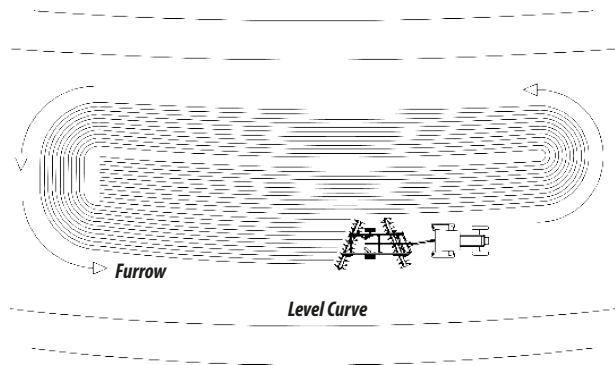
## OPERATIONS

### WORKING FROM THE INSIDE OUT ( FIGURE 20 )

- In this sense, greater perfection is achieved. When you are walking a lot at the headlands, it is advisable to start another court.



reach the middle of the contour, it is advisable to start another half of the contour, it is advisable to start another field to reduce fuel consumption.



*Figure 21*

### PLOTS WITH CONTOUR LINES ( FIGURE 21 )

-On terrain with a contour line, it is usual to start two plots at a time, taking care to start work with the contour line on the tractor's left side. When you

## MAINTENANCE

The **GTCR-C** was developed to provide you with the maximum return on land conditions. Experience has shown that periodic maintenance of certain parts of Disc Harrow is the best way to help you avoid problems, so we suggest checking.

**⚠ ATTENTION** | *Constantly check the nuts and bolts, if necessary retighten them.  
Maintenance of general tightening of the equipment must be done every 8 hours of work.*

### TIRE PRESSURE ( FIGURE 22 )

The tires must always be correctly calibrated, avoiding premature wear due to excess or lack of pressure and ensuring precision in distribution.

**⚠ ATTENTION**

*The recommended calibration of 52 lbs / in<sup>2</sup> is for tires model 11L-15 tarpaulins supplied with the GTCR-C. When calibrating the GTCR-C tires, do not exceed the recommended calibration. When purchasing Disc Harrow without tires, we recommend that you consult the manufacturer about the ideal tire size for the tire model that will be used in Disc Harrow.*

**🕒 NOTE** | *The tire pressure of the tractor must be made according to the manufacturer's recommendations.*

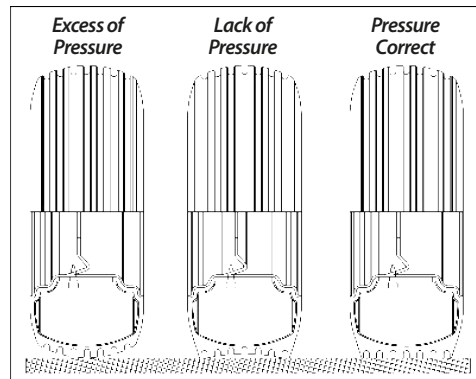


Figure 22

## MAINTENANCE

### LUBRICATION ( TABELA 03 )

Lubrication is indispensable for the good performance and durability of Disc Harrow moving parts, helping to save maintenance costs.

Before starting the operation, carefully lubricate all grease fittings, always observing the lubrication intervals on the following pages. Make sure the quality of the lubricant, as to its efficiency and purity, avoiding using products contaminated by water, earth and other agents.

### TABLE OF GREASE AND EQUIVALENTS

<i>Manufacturer</i>	<i>Recommended grease types</i>
Petrobrás	Lubrax GMA 2
Atlantic	Litholine MP 2
Ipiranga	Super Graxa Ipiranga Ipiranga 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



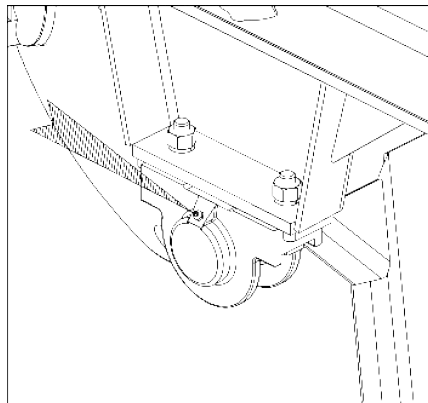
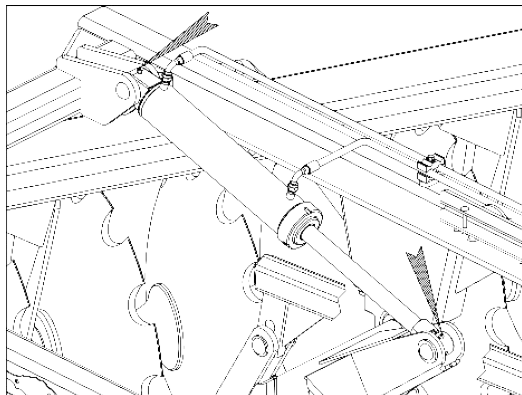
### IMPORTANT

*If there are manufacturers and / or equivalent brands that are not listed in the table, consult the manufacturer's technical manual.*

Table 03

## MAINTENANCE

LUBRICATE EVERY 24 HOURS OF WORK ( FIGURES 23 )



Figures 23



**ATTENTION**

*When lubricating the GTCR-C, do not exceed the amount of new grease. Enter a sufficient amount.*

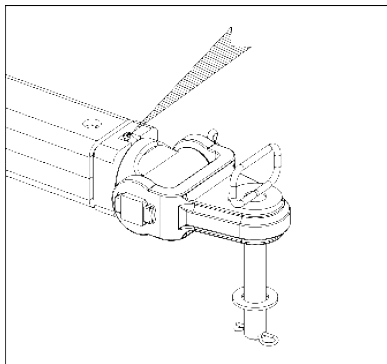


**BALDAN** *Instruction Manual*

**GTCR-C - 42**

## MAINTENANCE

LUBRICATE EVERY 24 HOURS OF WORK  
( FIGURES 23 )



Figures 23

LUBRICATE EVERY 60 HOURS OF WORK  
( FIGURE 24 )

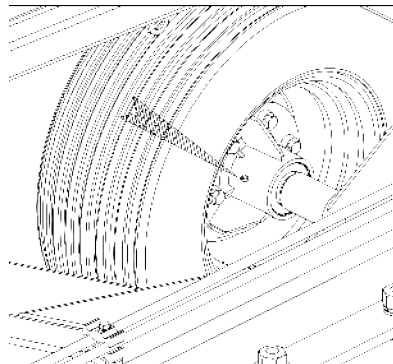


Figure 24



### ATTENTION

*When lubricating the GTCR-C, do not exceed the amount of new grease. Enter a sufficient amount.*

## MAINTENANCE

### BEARING ADJUSTMENT ( FIGURE 25 )

When the bearings have gaps, proceed as follows to adjust them:

- 01 - Remove the washer (1).
- 02 - Then, loosen the screws (2) and remove the bearing cover (3).
- 03 - Then, remove one or two gaskets (4) from the bearing cover (3). Replace the bearing cover (3) and retighten it.
- 04 - If the gap persists, you can face the bearing cover (3) to increase the adjustment, then mount it on the bearing with as many joints as necessary.
- 05 - The bearing must rotate freely, that is, without looseness.



*Do not mount the bearing without the joints (4).*

### BEARINGS LUBRICATION

- In the first days of work with the GTCR-C, check the oil level of the bearings daily, then proceed to check every 120 hours of work.
- The oil change must be done every 1200 hours of work. Use oil for transmission 90 API GL4, MIL-L-2105; SAEJ306, May / 81; SAE 80W, 90 and 140.



*The ideal oil level is when it reaches the plug hole. To check the oil level of the bearing, look for a flat place.*

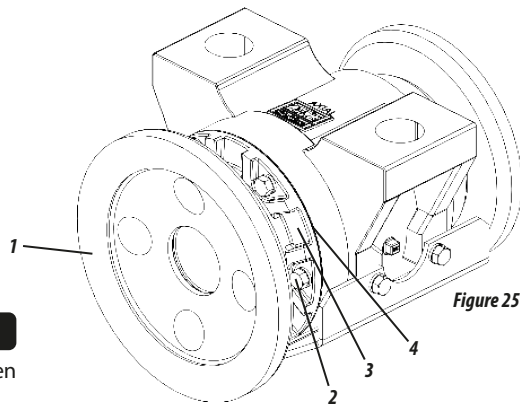


Figure 25

## MAINTENANCE

### CARE

Before each job, check the condition of all pins, screws, bearings, discs and sections. When necessary, retighten them.

The speed of travel must be carefully controlled according to the conditions of the terrain.

The **GTCR-C** is used in several applications, requiring knowledge and attention during its handling.

Only local conditions can determine the best way of operating the **GTCR-C**.

When assembling or disassembling any part of the **GTCR-C**, employ suitable methods and tools.

Always check if the parts show wear. If replacement is required, always require original Baldan parts.

Keep the **GTCR-C** discs sharp at all times.



**IMPORTANT**

*Proper and periodic maintenance is necessary to ensure the long life of the equipment.*

### GENERAL CLEANING

When storing the **GTCR-C**, do a general cleaning and wash it. Check that the paint has not worn out, if this has happened, apply a general coat, apply protective oil and lubricate the **GTCR-C** completely.

Fully lubricate Disc Harrow. Check all moving parts of the **GTCR-C**, if they show wear or looseness, make the necessary adjustment or replacement of the parts, leaving Disc Harrow ready for the next job.

After all maintenance care, store your **GTCR-C** on a flat surface, covered and dry, away from animals and children.

We recommend washing the **GTCR-C** at the beginning of the work.

## IDENTIFICATION

### PRODUCT IDENTIFICATION ( FIGURE 26 )

- To consult the parts catalog or request technical assistance at Baldan, always indicate the model (1), serial number (2) and date of manufacture (3), which can be found on the **GTCR-C** nameplate.

**ALWAYS DEMAND ORIGINAL BALDAN PARTS**



Figure 26



*The drawings contained in this instruction manual are for illustrative purposes only. In order to provide a better view and detailed instructions, some drawings in this manual have removed the safety devices (covers, guards, etc.). Never operate the seeder without these devices.*



**PUBLICATIONS** | Code: 60550107352  
CPT: GTCRC13319A



**CONTACT**

*In case of doubt, never operate or handle the GTCR-C, consult the After Sales.  
Phone: 0800-152577  
Email: posvenda@baldan.com.br*



## IDENTIFICATION

### PRODUCT IDENTIFICATION

Identify the data below to always have correct information about the life of your **GTCR-C**.

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

Resale: \_\_\_\_\_

Farm: \_\_\_\_\_

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

Warranty Certificate No.: \_\_\_\_\_

Model: \_\_\_\_\_

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

Purchase Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Invoice No.: \_\_\_\_\_

### NOTES

## CERTIFICATE OF WARRANTY

**BALDAN IMPLEMENTOS AGRÍCOLAS S / A**, guarantees the normal operation of the implement to the dealer for a period of 6 (six) months from the date of delivery on the resale invoice to the first final consumer.

During this period, **BALDAN** commits itself to repair material and / or manufacturing defects under its responsibility, with labor, freight and other expenses incurred by the dealer.

During the warranty period, the request and replacement of any defective parts must be made to the dealer in the region, who will send the defective part for analysis to **BALDAN**.

When such a procedure is not possible and the reseller has no capacity for resolution, he will request support from **BALDAN** Technical Assistance, using a specific form distributed to resellers.

After analyzing the items replaced by Baldan's Technical Assistance, and concluding that this is not a warranty, then the reseller will be responsible for the costs related to the replacement; as well as material, travel expenses including accommodation and meals, accessories, used lubricant and other expenses arising from the call for Technical Assistance, the company Baldan being authorized to make the respective billing in the name of the resale.

Any repairs made to the product that are within the warranty period by the dealer will only be authorized by **BALDAN** upon presentation of a budget describing parts and labor to be performed.

Excluded from this term is the product that undergoes repairs or modifications to officers who do not belong to the **BALDAN** dealer network, as well as the application of non-genuine parts or components to the user's product.

This warranty will become void when it is found that the defect or damage is the result of improper use of the product, failure to observe instructions or inexperience of the operator.

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

Defects in manufacturing and or material, which are the subject of this warranty term, will not, under any circumstances, constitute grounds for termination of the purchase and sale contract, or for indemnity of any nature.

**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.

## 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:* \_\_\_\_\_

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

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

*E-mail:* \_\_\_\_\_ *Date of sale:* \_\_\_\_\_



## INSPECTION AND DELIVERY CERTIFICATE

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*Product:* \_\_\_\_\_ *Serial number:* \_\_\_\_\_

*Date:* \_\_\_\_\_ *Bill of sale:* \_\_\_\_\_ *Store:* \_\_\_\_\_

*City:* \_\_\_\_\_ *State:* \_\_\_\_\_ *Zip code:* \_\_\_\_\_

*Owner:* \_\_\_\_\_ *Phone:* \_\_\_\_\_

*Adress:* \_\_\_\_\_ *Number:* \_\_\_\_\_

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

*E-mail:* \_\_\_\_\_ *Date of sale:* \_\_\_\_\_

*2nd Page - Store*

*Signature / Store's stamp* \_\_\_\_\_



## 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: \_\_\_\_\_

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

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

E-mail: \_\_\_\_\_ Date of sale: \_\_\_\_\_

3rd Page - Manufacturer

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

Signature / Store's stamp \_\_\_\_\_

1.74.05.0059-5

AC MATÃO  
ECT/DR/SP

## ANSWER CARD

NO SEALING NEEDED

POSTAGE WILL BE PAID BY:



**BALDAN IMPLEMENTOS AGRÍCOLAS S/A.**

Av. Baldan, 1500 | Nova Matão | CEP: 15993-900 | Matão-SP | Brazil

Phone: (0\*\*16) 3321-6500 | Fax: (0\*\*16) 3382-6500

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