

Instruction Manual



TACR

Remote Control Terracing Plough

 **BALDAN**

■ Presentation

We appreciate the preference and would like to congratulate you for the excellent choice you just made, since you have acquired a product manufactured with **BALDAN IMPLEMENTOS AGRÍCOLAS S/A** technology.



This manual will guide you through the procedures required since its acquisition until operational procedures of usage, safety and maintenance. BALDAN assures that has delivered this implement for resale in full and in perfect conditions.

Resale was responsible for the custody and maintenance during the period in its possession, and also for the assembly, retightening, lubrication and overhaul.

During the technical delivery, dealer should guide the user regarding maintenance, safety, their obligations in eventual technical assistance, strict compliance with the warranty term and reading the instructions manual.

Any technical assistance request while in warranty should be made to the dealer from whom you have purchased it.

We reiterate the need for a careful read of the warranty certificate and compliance of all items from this manual, because by doing so you will increase the life of your device.

Instruction Manual



TACR

Remote Control Terracing Plough

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.



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▪ **Baldan Guarantee**

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

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

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

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

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

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

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

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

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

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

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

▪ General information

• To the owner

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

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

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

The incorrect handling of this equipment may result in severe or fatal accidents. Before operating the machine, carefully read the instructions contained in this manual. Ensure that the person responsible for the operation is instructed on safe and correct handling. Also ensure that the operator has read and understood the instructions manual of the product.

ATTENTION

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

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

MR. OWNER OR OPERATOR OF THE EQUIPMENT.

Read and carefully comply with provisions of NR-31.

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

▪ Safety rules

- To the operator

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

! ATTENTION



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

! ATTENTION



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

! ATTENTION



Do not transport people or equipment on the tractor.

! ATTENTION



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

! ATTENTION



Do not work with the tractor if the front has insufficient ballast to the rear equipment.

Should there be a trend to lift, add weights or ballasts to the front or the front wheels.

! ATTENTION



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

▪ Safety rules

ATTENTION

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

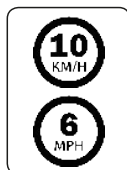
ATTENTION



Do not make adjustments to the TACR during operation.

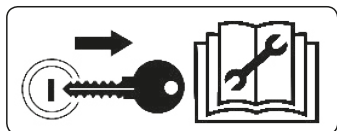
When doing any service on the TACR, turn off the tractor first. Use appropriate tools.

ATTENTION



When transporting the TACR, do not exceed the speed of 10 Km/h or 6 MPH in order to avoid risk of damage and accidents.

ATTENTION



Remove the ignition key before performing any maintenance on the TACR. Protect yourself from possible injury or death caused by suddenly starting the TACR. If the TACR is not properly engaged, do not start the tractor.

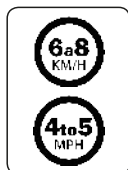
ATTENTION



When searching for a possible leakage on the hoses, use a piece of cardboard or wood,

never use your hands. Avoid incision of fluid in the skin.

ATTENTION



When working with the TACR, do not exceed the speed of 6 of 8 Km/h or 4 to 5 MPH, avoiding risk of damage and accidents.

ATTENTION



Hydraulic oil works under pressure and may cause serious injuries if there are any leakages. Periodically check the

condition of the hoses. If there are any sign of leakage, replace them immediately.

Before connecting or disconnecting the hydraulic hoses, relief the system pressure by activating the control with the tractor power switched off.

▪ Safety rules**! ATTENTION**

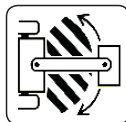
Always maintain places of access and work free of residues such as oil or grease to prevent accidents.

! ATTENTION

Before working on or transporting the TACR, check for the presence of people or obstructions near the machine.

! ATTENTION

Avoid heating parts near the fluid lines. Heating may generate fragility in the material, rupture and exit of the pressurized fluid, causing burns and injuries.

! ATTENTION

Keep the joint area free while the TACR is in operation. In closed curves, avoid the tractor wheels from touching the head.

! ATTENTION

Never weld the wheel mounted with tire, the heat may cause air pressure increase and provoke the explosion of

the tire.

When filling the tire, stand at the side of the tire, never in front of it.

When filling the tire, always use a containment device (filling cage).

! ATTENTION

Keep away from the active elements of the TACR (discs), as they are sharp and may cause accidents.

When performing any service in the discs, use safety gloves on the hands.

! ATTENTION

Dispose residues inappropriately affects the environment and the ecology since you will be polluting rivers, canals or the soil.

Inform yourself about the proper way of recycling or disposing residues.

PROTECT THE ENVIRONMENT!

▪ Safety rules

• PPE Equipment

! ATTENTION | DO NOT WORK WITH THE TACR WITHOUT WEARING PPE (SAFETY EQUIPMENT). IGNORING THIS WARNING MAY CAUSE DAMAGES TO HEALTH, SEVERE ACCIDENTS OR DEATH.

When performing certain procedures with the TACR, wear the following EPP (Safety Equipment):





















! IMPORTANT

Safety practice must be performed in all stages of working with the TACR, thus avoiding accidents such as impact of objects, falls, noise, cuts and ergonomic, in other words, the person responsible for operating the TACR is subject to internal and external damage to his/her body.
















NOTE | All PPEs (Safety Equipment) should have certificate of authenticity.



▪ Warnings

-  When operating with the TACR, do not let people stand near to or on the machine.
-  When performing any maintenance service, use PPEs equipment.
-  Before connecting or disconnecting the hydraulic hoses, relief the system pressure by activating the control with the tractor power switched off.
-  Periodically check the conservation status of the hydraulic hoses. If there are indications of oil leakage, replace the hose immediately, because the oil works under high pressure and may cause severe accidents.
-  Do not wear loose clothing, as they may get caught in the TACR.
-  When operating the tractor engine, be properly seated in the operator's seat and be aware of the full knowledge of the correct and safe handling of both the tractor and the TACR.
-  Always put the gear shift in neutral position, unplug the power take-off gear switch and place the hydraulic controls in neutral position.
-  Do not start the motor in a closed environment or with no proper ventilation since the exhaust gases are harmful to health.
-  When maneuvering the tractor to engage the TACR, make sure you have enough space and no one is too close, always maneuver at idle and be prepared to brake in an emergency.
-  Do not make adjustments to the TACR during operation.
-  When working in sloped terrains, proceed with precautions, always trying to maintain the required stability. In case of imbalance, reduce acceleration, turn the wheels to the slope side of the terrain and never lift the TACR.
-  Always drive the tractor in speeds compatible to the safety, especially during works in bumpy lands or slopes, keep the tractor always engaged.
-  When driving the tractor in highways, keep the brake pedals interconnected.
-  Do not work with the tractor with light rear. If the rear has a tendency to lift, add more weights on the rear wheels.
-  When leaving the tractor, put the gear lever in neutral position and apply the parking brake.
-  Never leave the TACR engaged in the tractor in the raised position of the hydraulic system.
-  All maintenance on the TACR must be done after stopping and turning the tractor off.
-  Do not travel on highways especially at night. Use warning signs throughout the route.

▪ Warnings

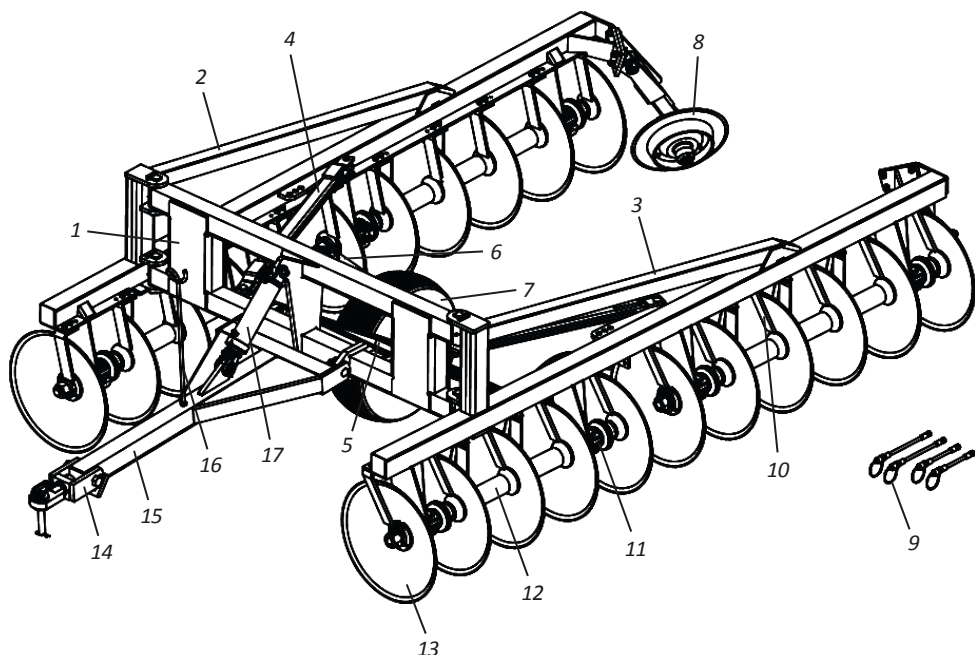
-  If you need to travel on highways with the TACR, consult the transit authorities.
-  Do not allow people who have not been trained to use the TACR, that is, people who do not know how to operate it correctly.
-  Do not transport or work with the TACR near obstacles, rivers or streams.
-  The transportation of people on self-propelled machines and implements is forbidden.
-  Changes in original TACR characteristics are not allowed, as they may change the safety, operation and life of the TACR.
-  Please read all safety information contained in this manual and the TACR carefully.
-  Read or explain all the procedures of this manual to the operator who cannot read.
-  Always check that the TACR is in perfect conditions of use. In the event of any irregularity that may interfere with the operation of the TACR, ensure proper maintenance before any work or transportation.
-  Maintenance and especially inspection in risk areas of the TACR must be done by qualified or trained workers only, observing all safety guidelines. Before starting maintenance, disconnect all TACR drive systems.
-  Periodically check all TACR components before use.
-  Due to the equipment used and work conditions on field or in maintenance areas, precautions are required. Baldan has no direct control over precautions, so it is the owner's responsibility to implement safety procedures while working with the TACR.
-  Check the recommended minimum tractor power for each TACR model. Only use tractor with power and ballast compatible with the load and topography of the terrain.
-  When transporting the TACR, walk at speeds compatible with the terrain and never exceed 16 km/h, this reduces maintenance and consequently increases the life of the TACR.
-  Alcoholic beverage or some medications may cause loss of reflexes and change the operator's physical conditions. Therefore, never operate the TACR under the influence of these substances.
-  Read or explain all the procedures of this manual to the operator who cannot read.

In case of doubts, refer to Post-Sales.
Telephone: 0800-152577 / E-mail: posvenda@baldan.com.br

■ Components

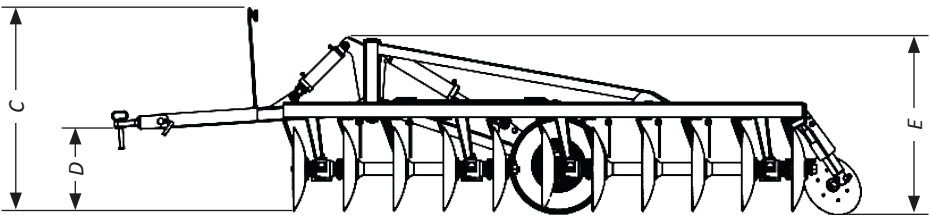
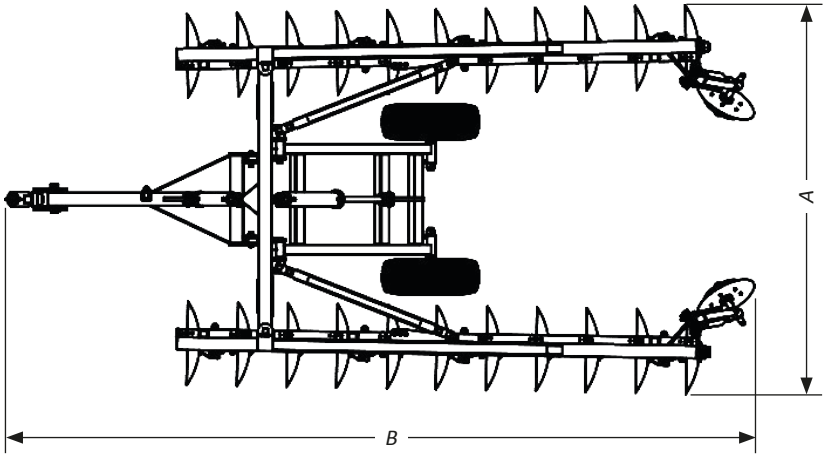
• TACR - Remote Control Terracing Plough

- | | |
|------------------------|------------------------|
| 1. Front frame | 10. Wiper |
| 2. Right side frame | 11. Bearing |
| 3. Left side frame | 12. Reel |
| 4. Regulating arm | 13. Disc |
| 5. Wheel support | 14. Hook Shackle |
| 6. Wheel lift cylinder | 15. Coupling head |
| 7. Tire | 16. Hose support |
| 8. Guide wheel | 17. Head lift cylinder |
| 9. Hydraulic hoses | |



■ Dimensions

• TACR- RemoteControlTerracingPlough



Model	Nr of Discs	Measure A (mm)	Measure B (mm)	Measure C (mm)	Measure D (mm)	Measure E (mm)
TACR	14	3028	4502	1605	668	1382
	16	3028	4892	1605	668	1382
	18	3028	5287	1605	668	1382
	20	3028	5684	1605	668	1382
	22	3028	6086	1605	668	1382

▪ Specifications

• TACR - Remote Control Terracing Plough

Model	N of Discs	U † (mm)	Working Depth (mm)	Approx. Weight (Kg)	Required Tractor Power (HP)
TACR	14	900x5450	50-300	1885	90-100
	16	900x6130	50-300	2028	104-112
	18	900x6820	50-300	2170	117-126
	20	900x7510	50-300	2390	130-140
	22	900x8200	50-300	2510	143-154

Disc diameter (ø) 26"
 Axle diameter (ø) 1.5/8"
 Disc Spacing 400 mm
 Ground wheels Single

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

Technical specifications are approximate and informed under normal work conditions.

INTENDED USE OF THE TACR


- The **TACR** was developed to raise terraces and reduce soil erosion.
- The **TACR** must be driven and operated by a properly instructed operator.

FORBIDDEN USE OF THE TACR

- To avoid damage, serious accidents or death, DO NOT transport people over any part of the **TACR**.
- It is NOT permissible to use the **TACR** to attach, tow or push other implements or attachments.
- The **TACR** should NOT be used by inexperienced operators who do not know all the driving, command and operation techniques.

▪ Assembly

The **TACR** leaves the factory disassembled. To assembly it, follow the instructions below:

 The **TACR** must be assembled by resale, by people trained, instructed and qualified for this work.

▪ Assembly

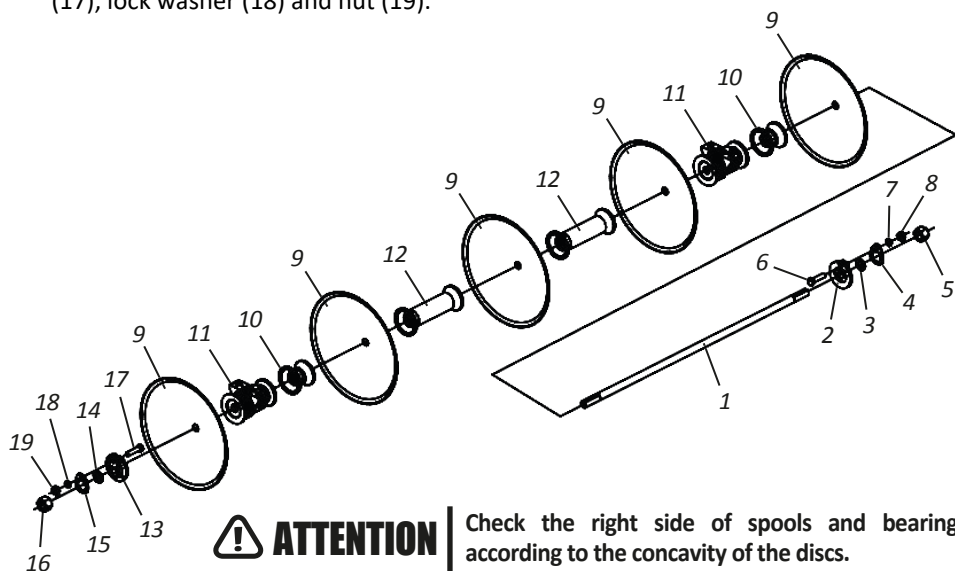
⚠ Before assembling the **TACR**, find an ideal place where you can easily identify parts and assemble them.

⚠ Do not wear loose clothing, as they may get caught in the **TACR**.

• Assembly of the discs section

When assembling the TACR, always start with its disc section, proceeding as follows:

- 01.** On the shaft (1): put the concave support washer (2), flat washer (3), locking clip (4), nut (5) and securing it with the screw (6), lock washer (7) and nut (8).
- 02.** Then place on the shaft 1 the disc 9, smaller spool 10, bearing 11, disc 9, larger spool 12, disc 9, larger spool 12, disk (9), minor wheel (10), bearing (11) and disc (9).
- 03.** When the assembly is complete with all discs, bearings, reels, fit the convex thrust washer (13), flat washer (14), lock (15), nut (16), tightening with the wrench until firm the whole.
- 04.** After that, chock the set of discs and secure the nut (16) through impacts. When tightening, tighten the locking bolt (15) with the convex washer (13), always tighten the nut until it matches the bore, secure it with the screw (17), lock washer (18) and nut (19).



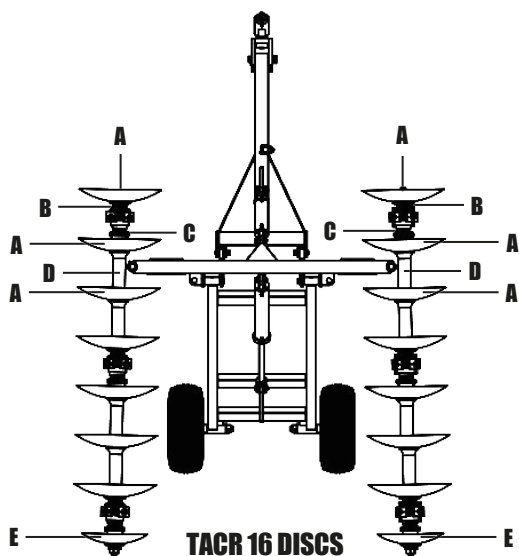
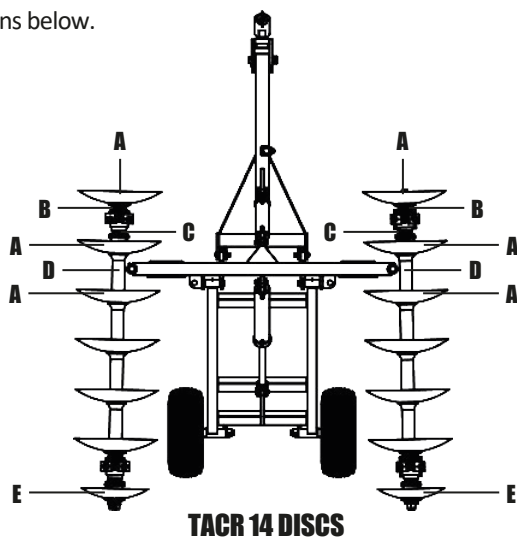
ATTENTION

Check the right side of spools and bearings according to the concavity of the discs.

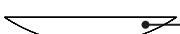
▪ Assembly

• Assembly of disc sections - 14 and 16 discs TACR

See the assembly of the TACR disk sections below.

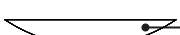


CAPTION:

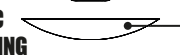
DISC  A

BEARING  B

SMALL SPOOL  C

DISC  A

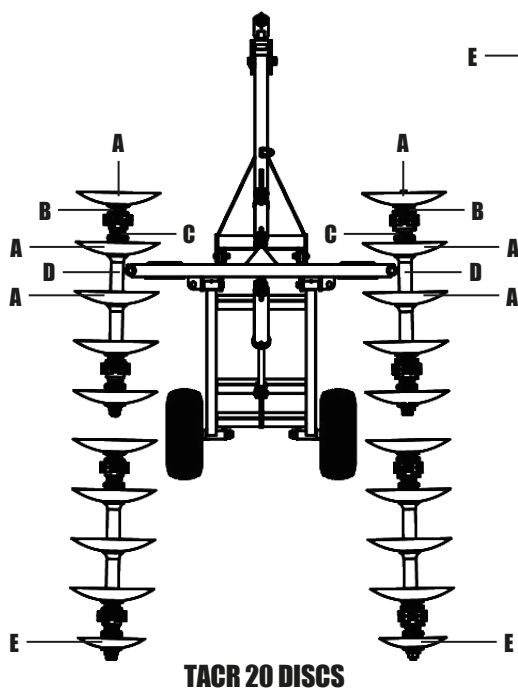
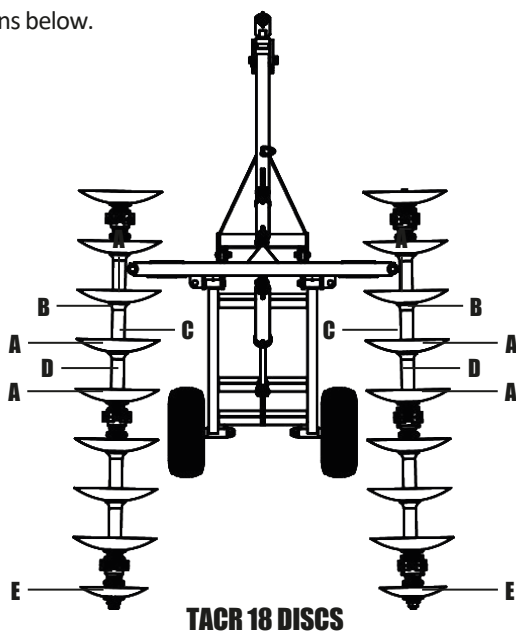
BIG SPOOL  D

DISC FINISHING  E

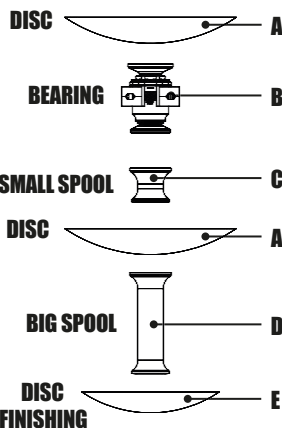
■ Assembly

• Assembly of disc sections - 18 and 20 discs TACR

See the assembly of the TACR disk sections below.



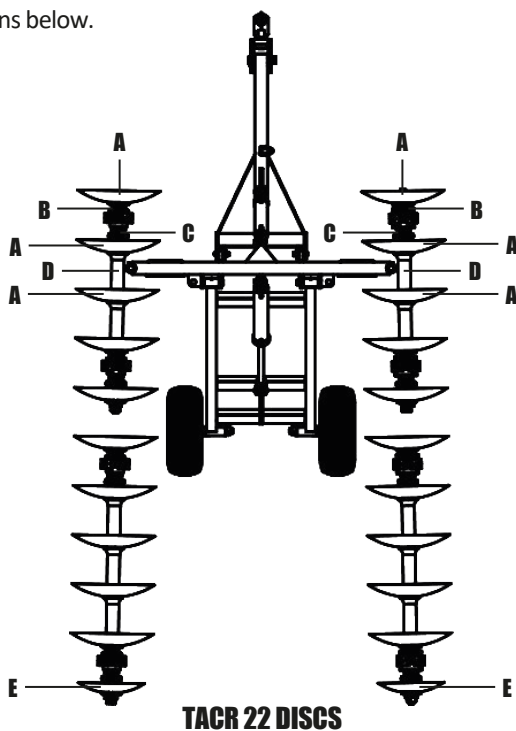
CAPTION:



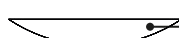
▪ Assembly

• Assembly of disc sections - 22 discs TACR

See the assembly of the TACR disk sections below.

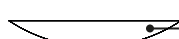


CAPTION:

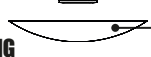
DISC  **A**

BEARING  **B**

SMALL SPOOL  **C**

DISC  **A**

BIG SPOOL  **D**

DISC FINISHING  **E**

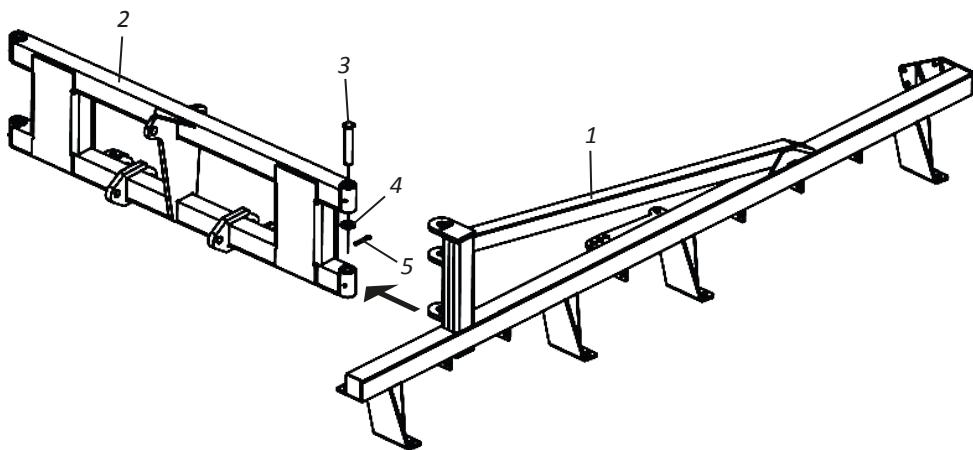
TACR 22 DISCS

▪ Assembly

• Assembly of left side frame on the front frame

To assembly the left side frame (1) to the front frame (2), proceed as follows:

- 01** - Attach the left side frame (1) to the front frame (2), securing through the pins (3), plain washers (4) and cotter pins (5).



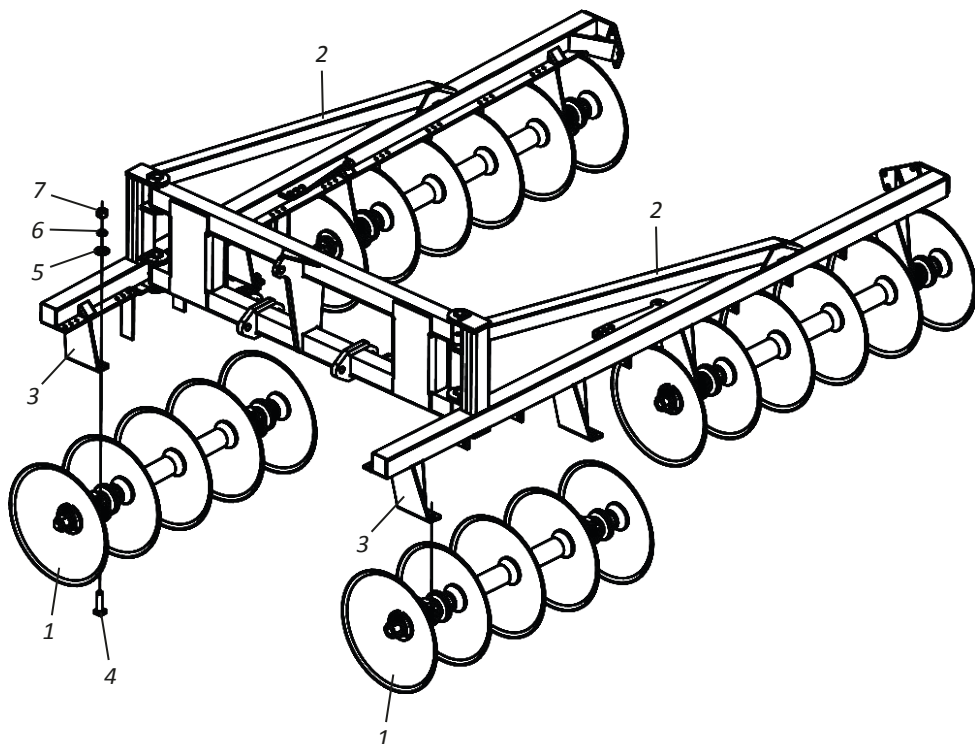
Repeat the procedure above to assembly the right side frame on the front frame.

▪ Assembly

• Assembly of disc sections on the side frames

To assembly the disc sections (1) on the side frames (2), proceed as follows:

- 01.** Lift the front or rear of the **TACR** and place the disc section (1) in line and match the drilling of the shoes (3) with the bearings and secure them with screws (4), plain washers (5), lock washers (6) and nuts (7).
- 02.** Next, lift the other part of the **TACR** and repeat the operation by checking the concavity of the disks from one section to the other that should be opposite.
- 03.** At the end of the assembly, check the shoes (3) facing the discs' concavity.



ATTENTION

When assembling the disc sections on the side frames, note that the side frame shoes should be facing the disc concavity.

▪ **Assembly**

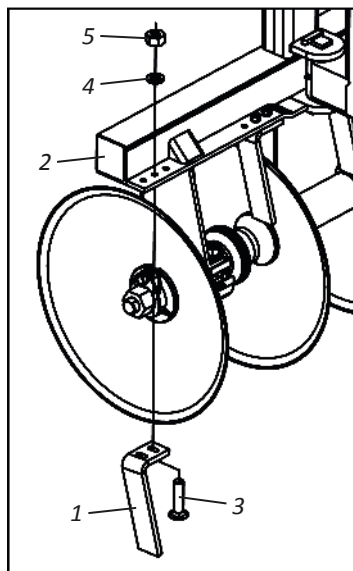
• **Assembly of front and rear wiper**

To assembly the front and rear wipers (1) on the side frames (2), proceed as follows:

- 01** - Attach the front and rear wipers (1) to the frames (2) by attaching the screws (3), lock washers (5) and nuts (6).

ATTENTION

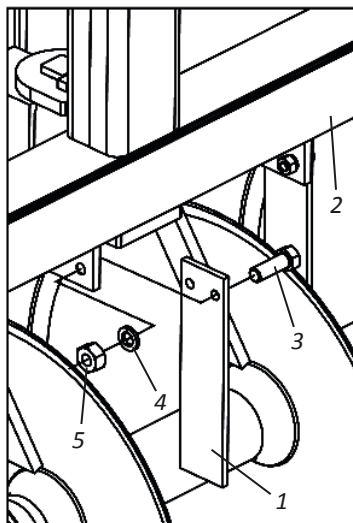
When installing the wipers, they should be 0.5 to 1.0 cm away from the discs.



• **Assembly of central wipers**

To assembly the central wipers (1) on the side frames (2), proceed as follows:

- 01** - Attach the central wipers (1) to the frames (2) by fastening them through the screws (3), lock washers (4) and nuts (5).

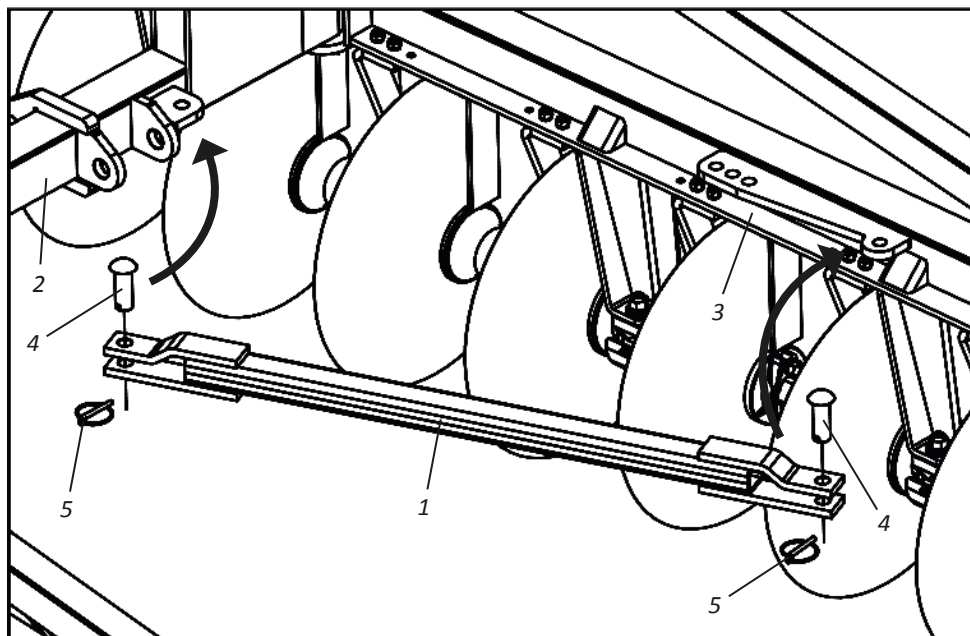


▪ **Assembly**

• **Assembly of the adjustment arms**

To assembly the adjustment arms (1), proceed as follows:

- 01** - Attach the adjustment arm (1) to the front frame (2) and to the right side frame (3) attaching with the pins (4) and locking rings (5).



NOTE

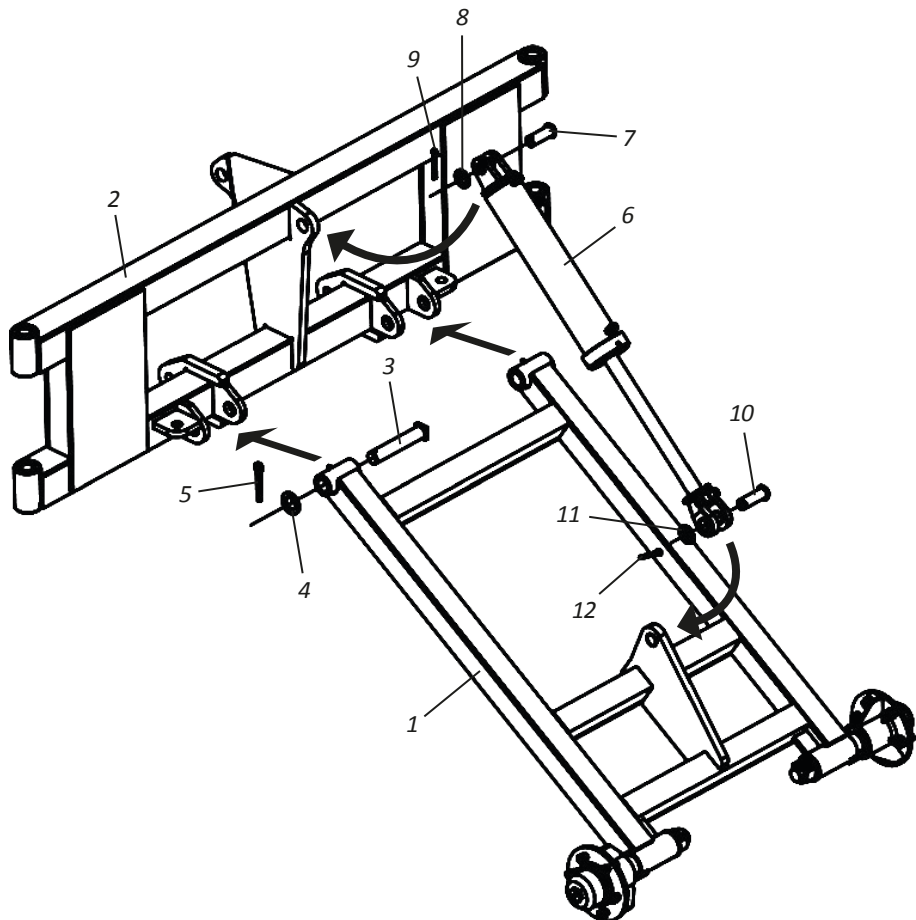
The TACR is composed of 2 adjustment arms. Repeat the procedure above to assembly the other adjustment arm on the left side frame.

▪ Assembly

• Assembly of wheel support

To assembly the wheel holder (1), proceed as follows:

- 01.** Attach the wheel holder (1) to the central frame (2) by fastening, with the pins (3), the flat washers (4) and cotter pins (5)
- 02.** Then couple the base of the hydraulic cylinder (6) to the central frame (2), by fastening, with the pin (7), the flat washer (8) and cotter pin (9).
- 03.** Then fasten the rod of the hydraulic cylinder (6) to the wheel holder (1), by fastening, with the pin (10), the flat washer (11) and cotter pin (12).

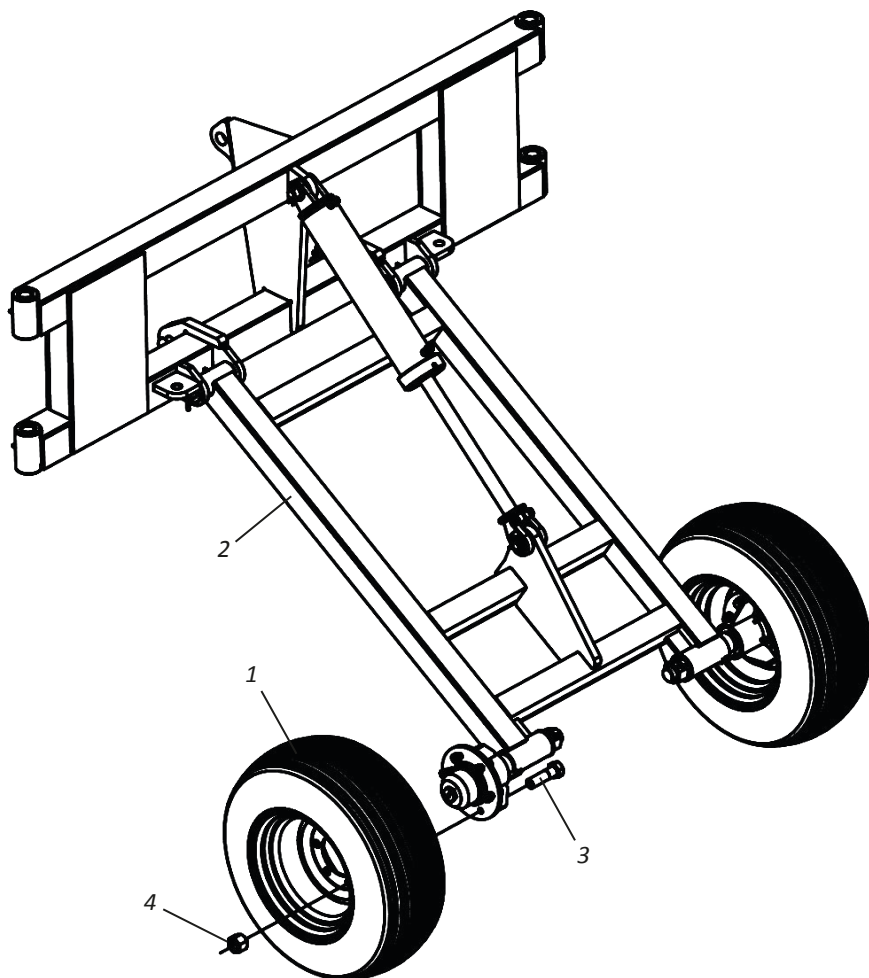


▪ **Assembly**

• **Assembly of tires**

To assembly the tires (1) on the wheel support (2), proceed as follows:

- 01** - Attach the tires (1) to the wheel support (2), securing them with the screws (3) and nuts (4).

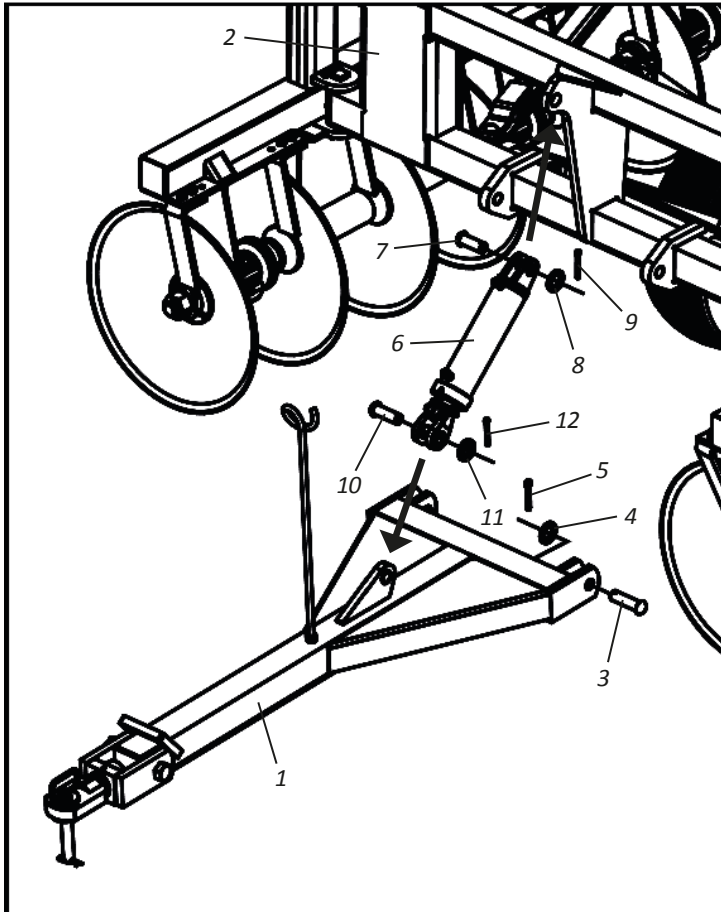


▪ Assembly

• Assembly of the coupling head

To fit the coupling head (1) to the front frame (2), proceed as follows:

- 01.** Attach the coupling head (1) to the front frame (2), securing through the pins (3), plain washers (4) and cotter pins (5).
- 02.** Then attach the base of the hydraulic cylinder (6) to the front frame (2), fixing the flat washer (8) and cotter pin (9) with the pin (7).
- 03.** Then, attach the hydraulic cylinder rod (6) to the coupling head (1), fixing a flat washer (11) and cotter pin (12) with the pin (10).

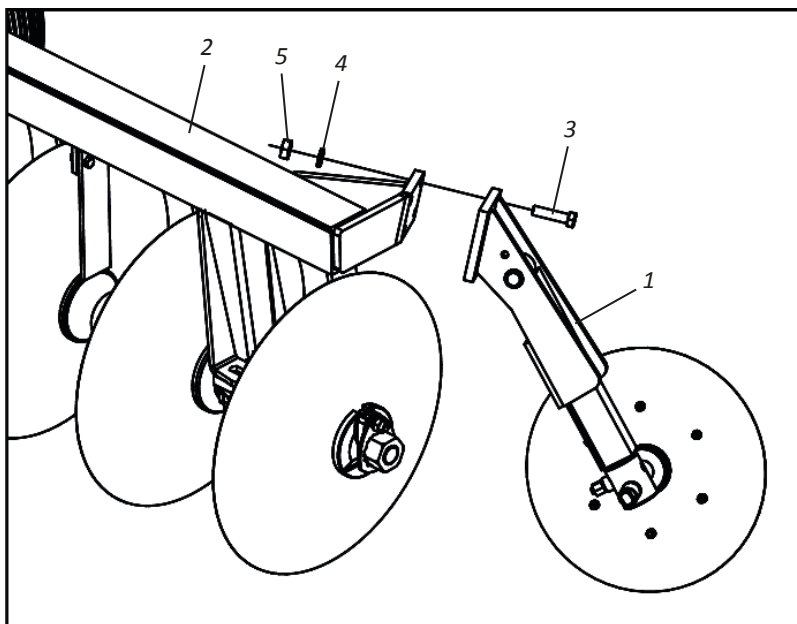


▪ **Assembly**

• **Assembly of guide wheels**

To fit the guide wheel (1) to the left side frame (2), proceed as follows:

- 01** - Attach the guide wheel (1) to the left side frame (2), securing through the screws (3), lock washers (4) and nuts (5).

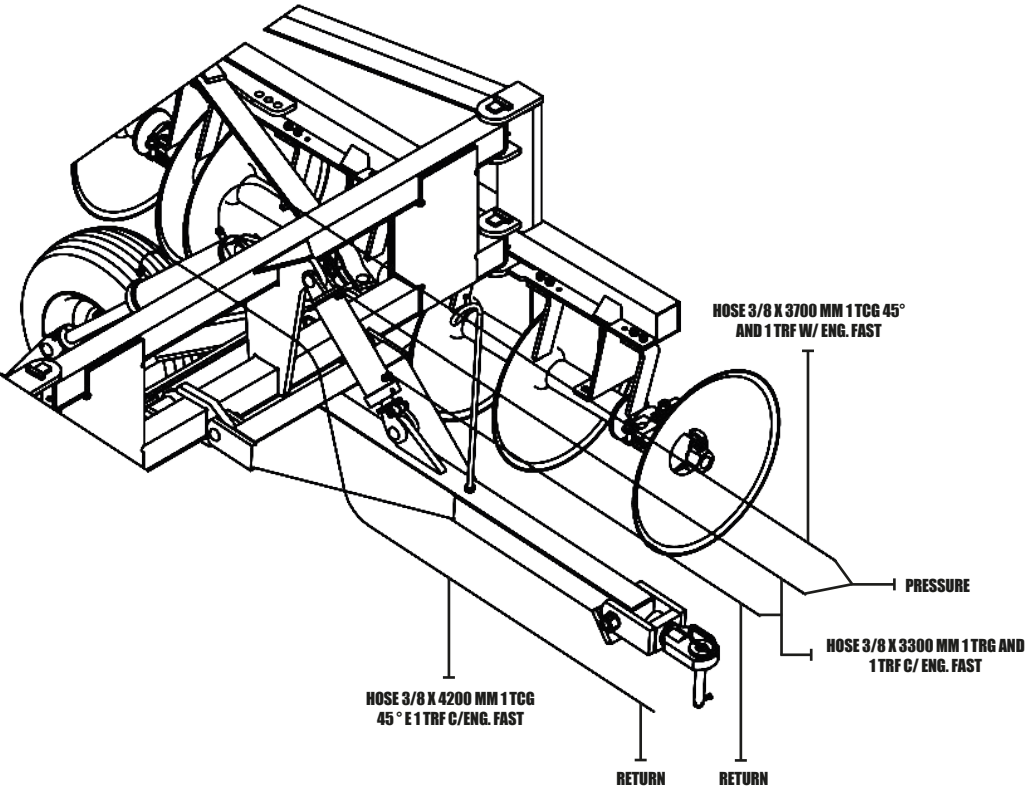


NOTE

The TACR consists of 2 guide wheels. Repeat the above procedure to assembly the other guide wheel on the right side frame.

▪ Assembly

ASSEMBLY OF THE HYDRAULIC SYSTEM - TACR 14/16/18/20/22 DISCS



▪ Hitch

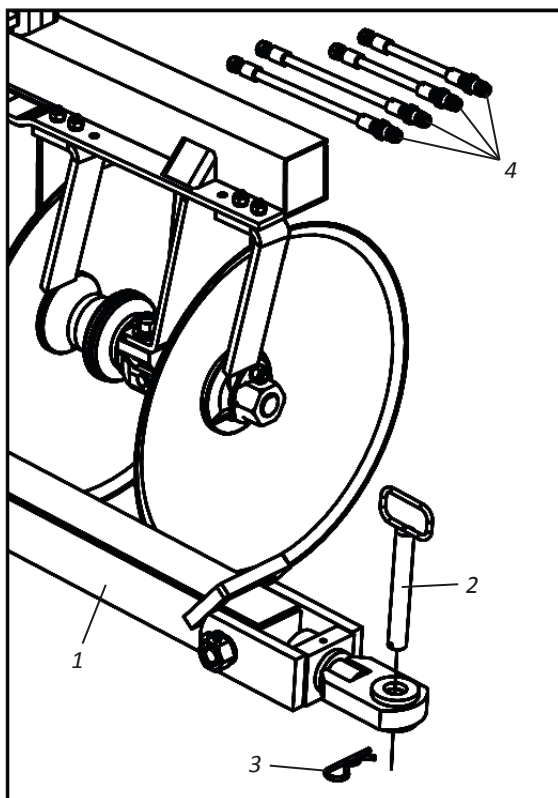
• Terrace plough hitch

To attach the TACR to the tractor drawbar, follow the instructions below:

- Before hitching the **TACR**, look for a safe and easily accessible place.
- Always use low gear with low acceleration.
- Before turning the hydraulic hoses on and off, stop the engine and relieve the pressure of the circuit by fully operating the control levers.
- Make sure that by relieving system pressure, no one will be injured by moving the equipment.

Observe the instructions above, proceed as follows:

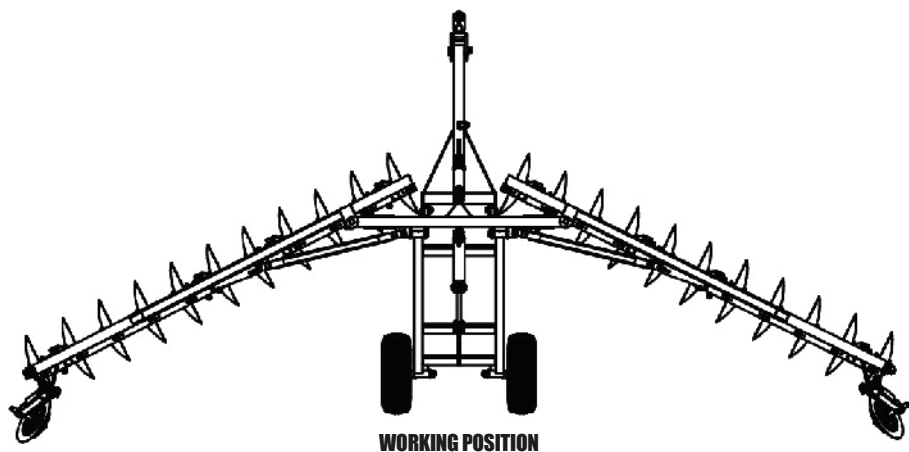
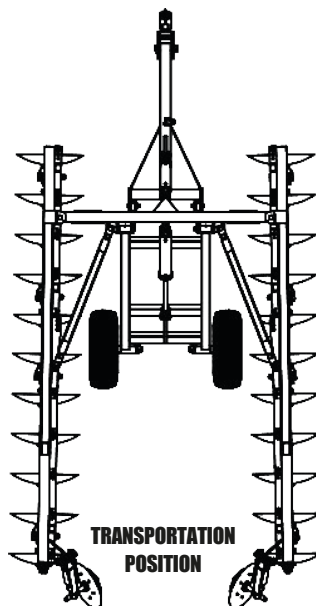
- 01.** Slowly approach the tractor to the **TACR** in reverse gear, paying attention to the application of the brakes.
- 02.** Next, attach the coupling header (1) to the tractor by attaching it through the coupling pin (2) and lock (3).
- 03.** Finish by attaching the hoses (4) to the tractor quick coupler.



▪ Adjustment

• Work and transport positions

Before transporting the **TACR**, it must be level for opening (work) or closing (transport). Check the following page for the **TACR** opening or closing adjustment bores.

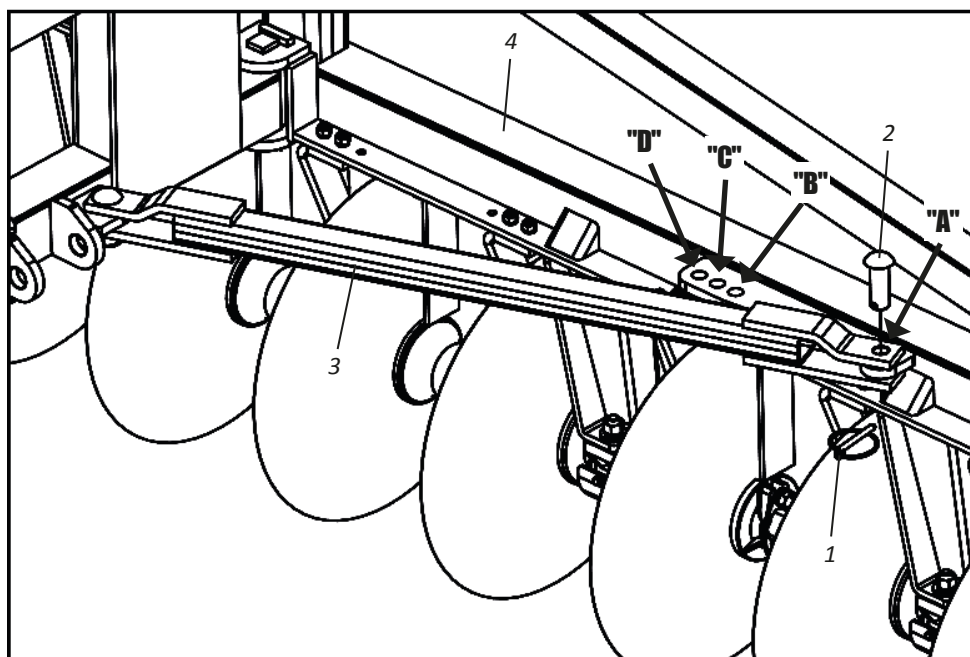


▪ Adjustment

• Opening and closing adjustment

The **TACR** opening setting varies according to the type of work to be performed. To regulate the **TACR** opening, proceed as follows:

01. Remove the locking ring (1) and pin (2).
02. Then move the adjustment bar (3) to one of the holes ("B", "C", "D") of the frame (4) by adjusting the opening of the **TACR** according to your working requirement.
03. Then, replace the pin (2) and locking ring (1).



CAPTION:

Hole A = For **TACR** transport.

Holes B, C, D = For terracing works.



NOTE

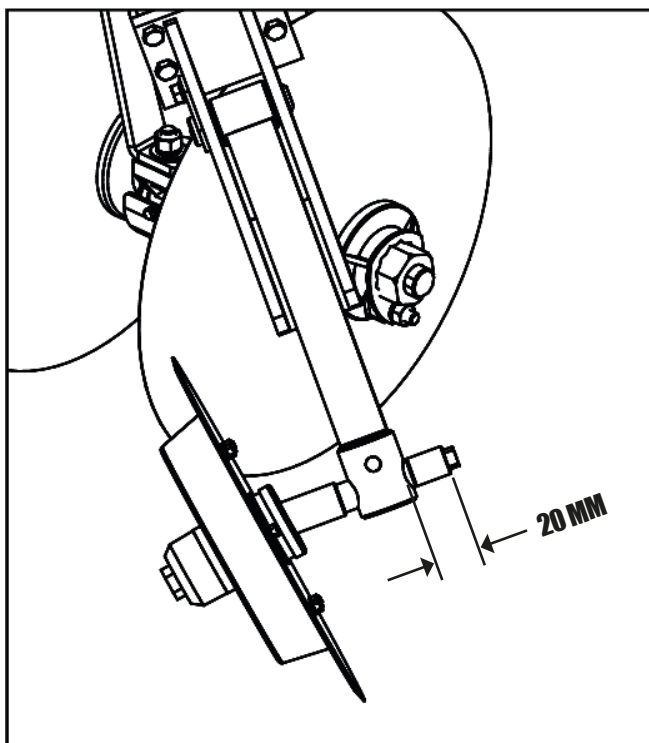
To transport the **TACR**, remove the lock (1) and pin (2), replace the adjustment bar (3) in hole "A" and lock it again.

▪ Adjustment

• Adjusting the guide wheel

The guide wheel (1) is responsible for aligning the tractor and terracing assembly, acting as a rudder to prevent lateral shifts.

Adjust the guide wheel (1) so that it is parallel to the drive assembly and the shaft is at least 20 mm from the bracket.



! ATTENTION | Do not operate the TACR with the axle mounted less than 20 mm away from the support.

! IMPORTANT | When starting the roof construction, check that the guide wheel (1) is parallel to the cutting wall made by the discs, otherwise adjust it by turning the shaft (2) to open or close the guide wheel (1).

■ **Operations**

• **Recommendations for operation - Part I**

Preparing the **TACR** and tractor will save you time and a better result in field work. The following suggestions may be useful for you.

TERRACING PLOUGH STRUCTURE

After the first day of working with the **TACR**, tighten all bolts, nuts and check the conditions of the pins and locks of the terracing plough structure. Then perform a general tightening on all bolts and nuts of the terracing plough structure every 24 hours.

DISCS SECTIONS

Pay special attention to the **TACR** disc sections. Retighten all screws and nuts of the discs sections daily during the first week of use. Then retighten all screws and nuts of the discs sections periodically.

GENERAL RECOMMENDATION

1. Adjust the tractor according to the content of the instruction manual, always using front and rear weights to stabilize the equipment.
2. Always couple to the tractor in low gear and very carefully.
3. Before starting to work with the **TACR** it is important to check the coupling system, make a complete overhaul, retighten the nuts and bolts and check the locking of the pins and cotter pins.
4. After the hitch is made, the next adjustments will be made directly in the field of work, analyzing the terrain in its texture, humidity and the types of operations to be done with the **TACR**.
5. On the tractor, choose a gear that allows to maintain a certain power reserve as a guarantee against unforeseen efforts.
6. Observe the working and transport speeds specified on page 10. We do not recommend exceeding speeds to maintain service efficiency and avoid possible damage to the **TACR**.
7. Do not decouple any hose without first relieving the circuit pressure by turning the control levers a couple of times with the engine off.
8. Remove pieces of wood or any other object that may be attached to the discs.
9. In compacted ground where the penetration of the discs is difficult, the depth can be minimal, making the work unsatisfactory. In such cases, we

▪ Operations

• Recommendations for operation - Part II

recommend before applying other more suitable products.

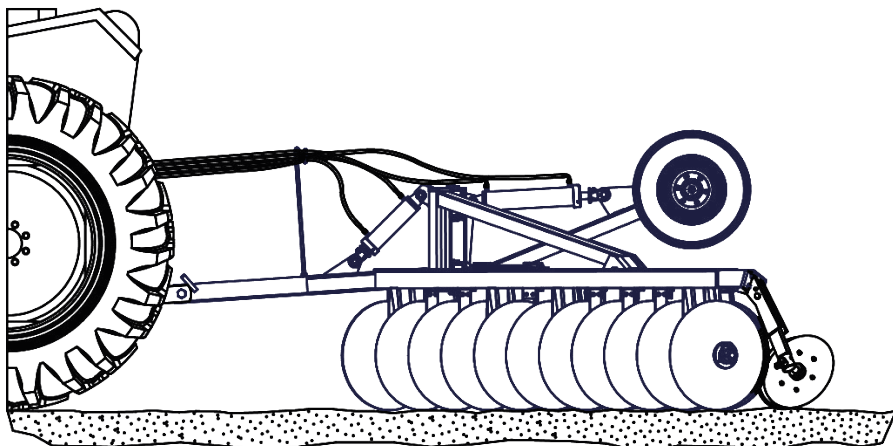
- 10.** During work or transport, the tractor's drawbar must remain fixed.
- 11.** When performing any maintenance on the **TACR**, lower it to the ground and switch the engine off.
- 12.** The **TACR** has several settings but only local conditions can determine their best adjustment.

When in doubt, never operate or handle the TACR, see After Sales.
Telephone: 0800-152577/E-mail: posvenda@baldan.com.br

▀ Operations

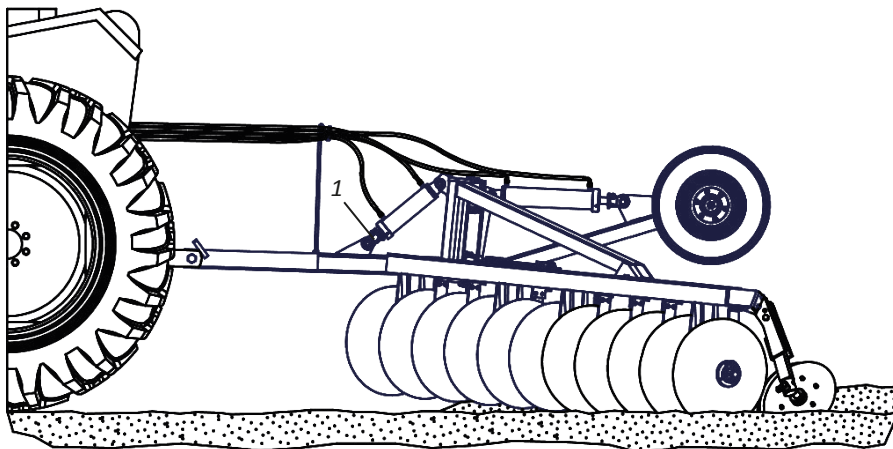
• Operations with the TACR - Part I

Before beginning terracing operations, check if the terrain has been harrowed. If not, the TACR should be passed two times in the working position, with the discs fully supported on the ground as shown below.



To begin the construction of the terrace, you should start counting the passes from now on.

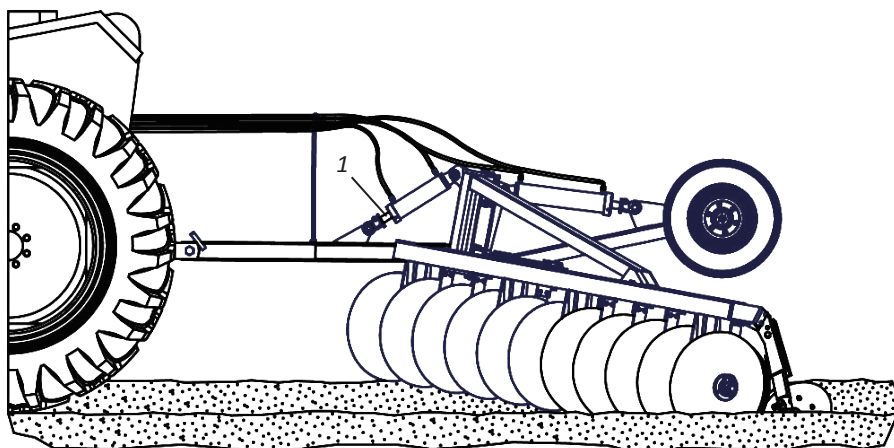
Start the first few passes with the hydraulic cylinder (1) slightly activated, leaving the first discs above the ground, as shown below.



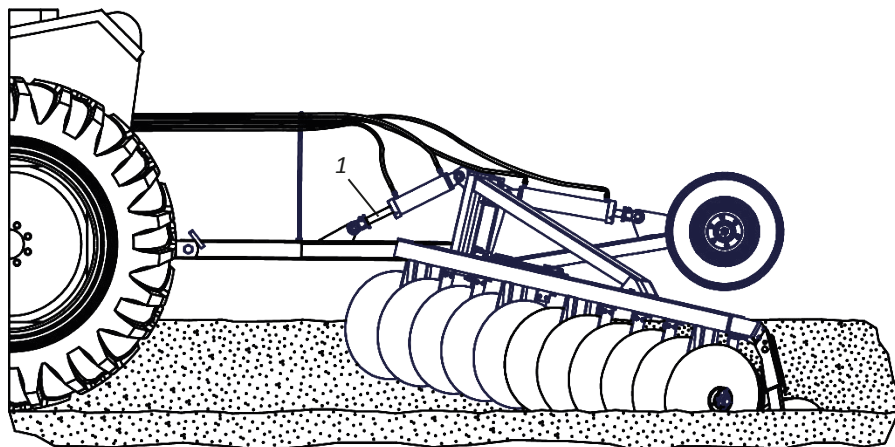
▪ Operations

• Operations with the TACR - Part II

After the 3rd or 4th step, the hydraulic cylinder (1) must be further activated, causing all the discs to touch the ground, as shown in the figure below.



In the other passes, the hydraulic cylinder (1) must be activated gradually until the terracing is completed, as shown in the figure below.



The speed of the tractor to perform the work is determined according to the conditions of the work site.

■ Operations

• Operations with the TACR - Part III

Slopes in certain year crops range from zero to 10% in most cases. Through these slopes land can be efficiently protected against water erosion if terraced.

This efficiency increases, if, rather than simple narrow terraces, by building wide base terraces and with lateral terrain slopes completely used by the crops.

The variation of the distances between terraces is according to the type of soil and slope.

This table presents suggestions of spacings for levelled terraces for annual crops, in the 2 types of soil and 1 to 10% slopes.

For the spacings recommended in the table, the section (size) of the channel must be at least 1.00 m, that is, if the channel width is multiplied by half its height, the result should be 1.00 m Minimum.

Lower values put terraces at risk of rupture by accumulation volume of water.

- This figure shows a practical way to measure the height of a wide base terrace (8 to 9m wide), without using a theodolite.

- After the terrace is finished, a string is stretched from the edge of the ravine formed by the discs, to the upper side of the ground, touching the top of the terrace.

- The "X" measure is found by measuring the distance of the wire vertically up to the edge of the ravine on the opposite side, that is, on the underside of the terrace, as shown in table 02.

- Terraces are slightly oversized at first, but they set and wilt with the first curves, obtaining ideal shape and height.

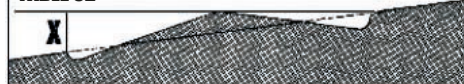
- The "X" measurements given below are sufficient to guarantee the minimum 1.00m section required for wide base terraces, according to the distances between each terrace, as shown in table 01 on the previous page.

• Distance between terraces (M)

TABLE 01

Declivity	Types of soil	
	Clay	Sand
%	Spacing	Spacing
1	35	34
2	29	28
3	24	23
4	20	19
5	17	16
6	15	14
7	14	13
8	13	12
9	12	11
10	11	10

TABLE 02



"X" VALUES FOR TERRACES OF 8 TO 9 M OF WIDTH:

GROUND WITH 1 TO 3% SLOPE X = 0.70 M
GROUND WITH 4 TO 7% SLOPE X = 0.90 M
GROUND WITH 8 TO 10% SLOPE X = 1.10 M

■ Operations

• Operations with the TACR - Part IV

- When surveying an area with a known slope, a test terrace is initially established to determine the number of passes required to reach the "X" measurement, indicated for that slope.

- If the "X" measure found in the terrace test is smaller than indicated, the terracing operation must continue, slightly rising the TACR's front until the indicated height is reached. From now on, for other terraces, only the number of passes required to obtain the indicated height must be repeated.

- If the "X" measure found is greater than indicated, a second test terrace is made, slightly lowering the TACR's front and reducing the number of passes, until the height of the terrace is indicated for the slope of the terrain. From then on, for other terrains, just repeat the number of passes used on the last test terrace. - The soil must not be so humid that it does not allow plowing or harrowing operations where the TACR is employed.

Soils with ideal humidity favors the flow of earth, helping in the formation of the terrace. One practical way to determine soil moisture is to compress a portion of the soil cut by the TACR in the first pass. If the formed lump maintains its shape, without cracks and with the particles firmly joined together, there is excess moisture, and so it will be necessary to wait another day or two to start the work. If the clod detaches easily, it is because the soil is very dry and only then it can be worked on, as long as it is not too compacted. Ideal humidity is characterized by the formation of a clod that presents cracks without crumbling after being released. In these conditions, the best performance is achieved with the implement, as the soil will not adhere to the discs, it will flow to the center of the terrace more easily requiring less tensile stress. Terraces made from compacted soils are also possible provided additional measures are put in place, such as:

- A 40 and 50cm deep subsoiling operation, in the strip to be terraced, 10m wide, should be performed

- Harrow the subsoiled strip to promote its crumbling.

Such measures ensure the best performance of your TACR, as well as preserve it from abnormal work stress.

Once the terrace has been finished, it is desirable to perform subsoiling on its upper edge for better water absorption, regardless of the type of soil.

If your land's vegetable cover is too thick, it is advisable to harrow the strips to be terraced, to avoid clogging the TACR's discs.

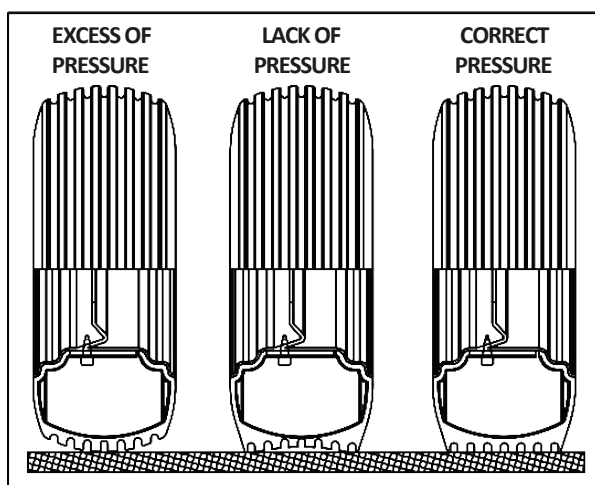
▪ Maintenance

The **TACR** is designed to provide you with maximum performance over terrain conditions. Experience has shown that periodic maintenance of certain parts of the **TACR** is the best way to avoid problems, so we suggest checks.

• Tires pressure

The tires should always be properly calibrated avoiding early wear due to excess or lack of pressure.

TIRES 11L X 15 BL 10 LINING



USE: 52 LBS/POL²

! ATTENTION

Never weld the wheel mounted with tire, the heat may cause air pressure increase and provoke the explosion of the tire.

When filling the tire, position yourself besides the tire, never in front of it.

To fill the tire, always use containment device (armor cage).

Assemble the tires with proper equipment. The service should only be performed by people qualified to do the work.

! IMPORTANT

When calibrating tires, do not exceed the recommended calibration.

🔍 NOTE

The pressure of the tractor tires should be performed according to the manufacturer's recommendation.

▪ Maintenance



ATTENTION

Check nuts and bolts, retighten them if necessary. The maintenance of general re-installation of the equipment must be performed every 8 hours of work

• Lubrication

Lubrication is essential for good performance and durability of the TACR's moving parts, saving maintenance costs.

Before starting the operation, carefully lubricate all grease cups, always observing the lubrication intervals in the following pages. Make sure of the lubricant quality regarding its efficiency and purity, avoiding products contaminated by water, dust and other agents.

• Table of greases and equivalents

Fabricante	Tipos de graxa recomendada
Petrobrás	Lubrax GMA-2
Atlantic	Litholine MP 2
Ipiranga	Ipiflex 2
Castrol	LM 2
Mobil	Grease MP
Texaco	Marfak 2
Shell	Alvania EP 2
Esso	Multi H
Bardahl	Maxlub APG-2EP
Valvoline	Palladium MP-2
Petronas	Tutela Jota MP 2 EP
	Tutela Alfa 2K
	Tutela KP 2K

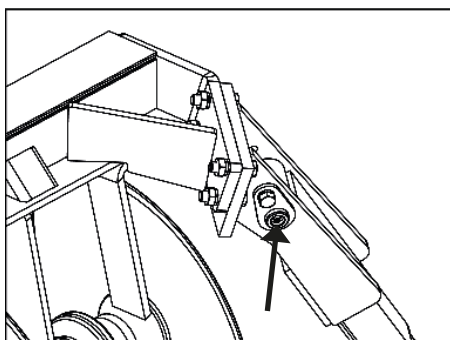
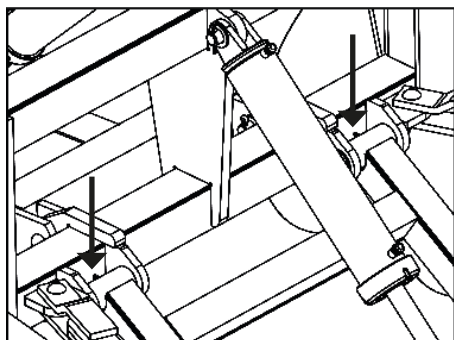
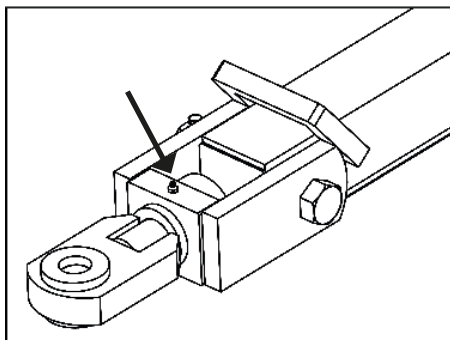
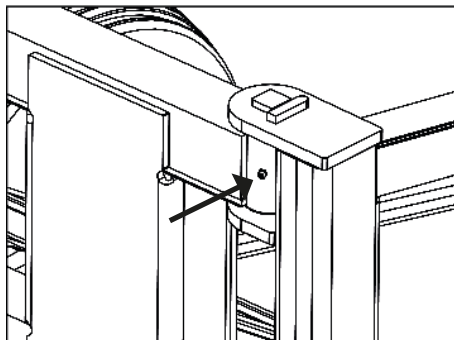


ATTENTION

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

▪ Maintenance

- Lubrication every 24 hours of work

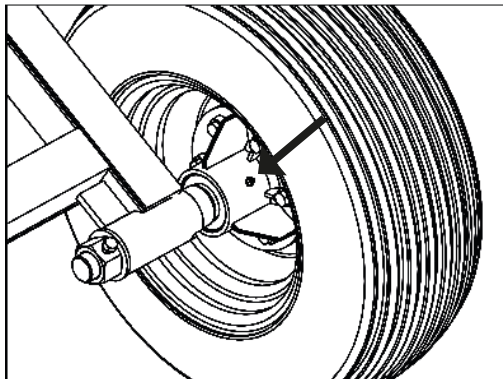


ATTENTION

When lubricating the TACR, do not exceed the amount of new grease. Put an adequate amount.

▪ Maintenance

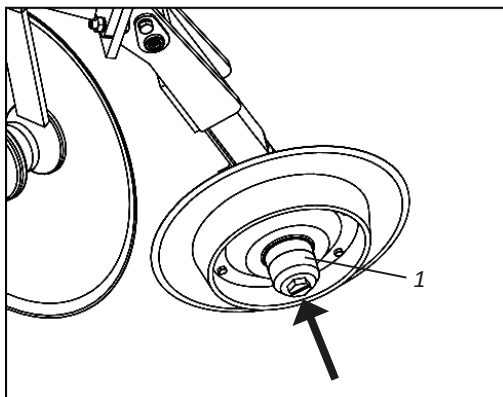
- Lubrication every 60 hours of work



- Lubrication every 100 hours of work

To grease the guide wheel, proceed as follows:

- 01** - Remove the cap (1).
- 02** - Then clean all old grease and insert new grease.
- 03** - Put the cap (1) back on the guide wheel.



ATTENTION

When lubricating the TACR, do not exceed the amount of new grease. Put an adequate amount.

▪ Maintenance

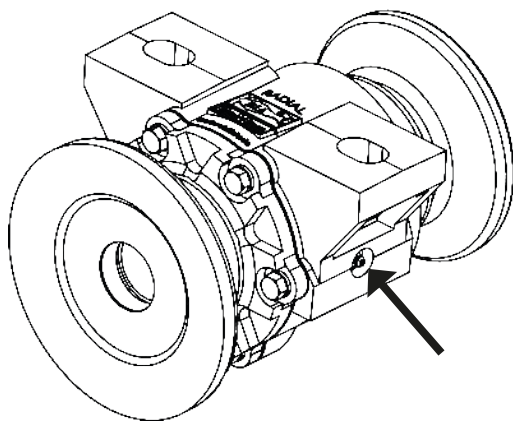
• Lubrication of grease bearings

Grease-bearings must be lubricated every 12 hours of work. Use EP grease (**DIN51825 KP00K Consistency NLGI 2/3 Specification**).

The amount of grease in each bearing is 0.300 kg.

ATTENTION

Before lubricating the bearing, wipe the grease with a clean, lint-free cloth. Replace damaged grease fittings.



• Lubrication of oil bearings

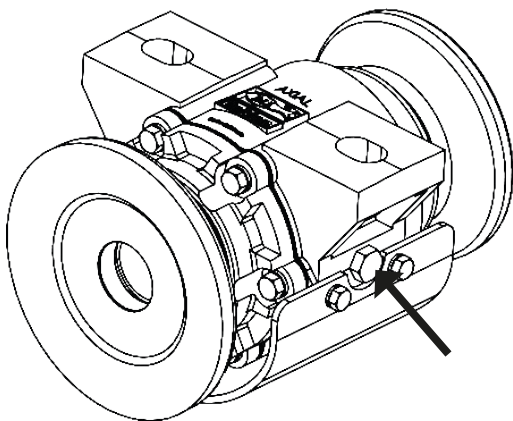
On the first days of working with the **TACR**, check the bearing oil level daily, then check every 120 hours of work.

Oil change should be done every 1200 hours of work. Use transmission oil **90 API GL4, MIL-L-2105; SAEJ306, may/81: SAE 80W, 90 and 140.**

The amount of oil in each bearing is **0.270 liters**.

ATTENTION

The ideal oil level is when it reaches the plug hole. To check the bearing oil level, search for a plain place.



▪ Maintenance

• Operational maintenance

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
The tires are damaged.	Work area with rocks, stubs or remaining of culture with stems that spike the tire.	Eliminate elements that cause damage to the tires before the period of use of the TACR.
	Tires are not with proper pressure, generating deformations.	Maintain proper tires pressure.
Weird noise on the wheels.	Loosen wheels or play in wheel hub.	Retighten the wheel nuts and adjust wheel hub bearings.
	Breaking of bearings.	Identify the occurrence and replace damaged parts.
Quick coupling does not fit.	Couplings of different types.	Change them for males and females of the same type.
Leakage in hydraulic hose	Lack of sealing material on the thread.	Use sealing tape and retighten carefully.
	Insufficient tightening.	Retighten carefully.
	Damaged repairs.	Replace hubs.
Leakage in quick couplings.	Insufficient tightening.	Retighten carefully without excess.
	Damaged repairs.	Replace hubs.
Quick coupling does not couple.	Couplings of different brands.	Use quick coupling of the same brand.
	Mixing of needle-type coupling with sphere-type coupling.	Always use quick coupling of the same type.
	Pressure on the system.	Relief the pressure to couple.

▪ Maintenance

• Precautions

1. Before each work, check the condition of all hoses, pins, screws, bearings, discs and sections. Where necessary, retighten or replace them.
2. The displacement speed should be carefully controlled according to the land's conditions.
3. The **TACR** is used in several applications, requiring knowledge and attention during its handling.
4. Only local conditions can determine the best way to operate the **TACR**.
5. When assembling or disassembling any part of the **TACR**, use appropriate methods and tools.
6. Carefully observe the lubrication intervals in the various lubrication points of the **TACR**. Respect the lubrication intervals.
7. Always check if the parts have wears. If there is a need for replacement, always demand Baldan original parts.
8. Keep the **TACR** discs always sharp.



IMPORTANT

Proper and periodic maintenance are necessary to ensure the long life of the **TACR**.

Maintenance

• General cleaning

01 - ‡	TACR	
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ATTENTION

Do not use chemicals to wash the TACR, this may damage the paint.

• Conservation of the terracing plough - Part I

To extend the life and appearance of the **TACR**, follow the instructions below:

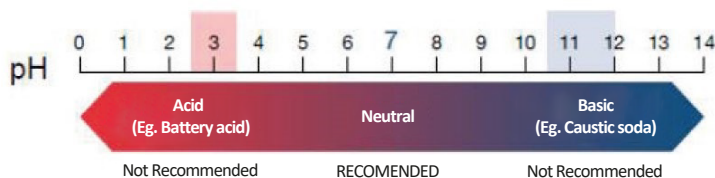
- 01** - Wash and clean all **TACR** components during and at the end of the work season.
- 02** - Use neutral products to clean the **TACR**, following the safety and handling instructions provided by the manufacturer.
- 03** - Always carry out maintenance during the periods indicated in this manual.

• Conservation of the terracing plough - Part II

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

■ Maintenance

1. Be careful when performing high-pressure washing; do not direct the water jet directly into the connectors and electrical components.
2. Use only NEUTRAL detergent and water (pH equal to 7);
3. Apply the product, following the manufacturer's instructions strictly, on the wet surface and in the correct sequence, respecting the time of application and washing;
4. Stains and dirt not removed with the products should be removed with the aid of a sponge.
5. Rinse the machine with clean water to remove any chemical residues.
6. Do not use:
 - Detergents with basic active ingredient (pH higher than 7), may attack/stain the painting of the terracing plough.
 - **Detergentes con principio activo ácido (pH menor que 7), actúan como decapante/removedor de zinc (la protección de las piezas contra la oxidación).**



7. Allow the machine to dry in the shade so that it does not accumulate water in its components. Very fast drying can cause stains on your paint.
8. After drying, lubricate all chains and greases according to the recommendations in the operator's manual.
9. Spray all the machine, especially the zinc parts, with protective oil, following the manufacturer's application guidelines. The protective also prevents dirt from adhering to the machine, facilitating subsequent washings.
10. Observe curing time (absorption) and application intervals as recommended by the manufacturer.

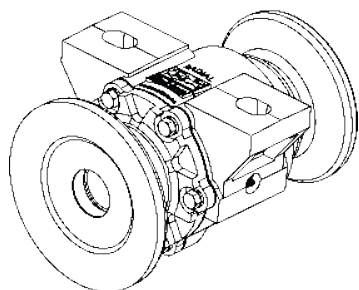
⚠ ATTENTION | Do not use any other type of oil to protect the planer (used hydraulic oil, "burnt" oil, diesel oil, castor oil, kerosene, etc.).

❗ IMPORTANT | We recommend the following protective oils:
 - Bardahl: Agro protective 200 or 300
 - ITWChemical: Zoxol DW - Series 4000

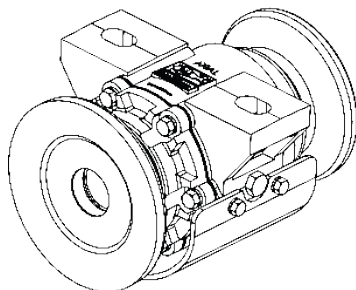
🔍 NOTE | Ignoring the conservation measures mentioned above may incur in loss of warranty on painted or galvanized components presenting oxidation (rust).

▪ Optional**• Optional accessories**

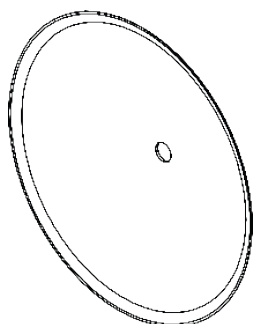
The TACR can be optionally purchased with:



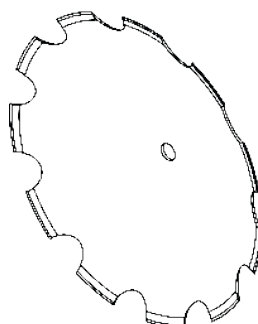
**GREASE BEARING W/ PROTECTION
AND W/O PROTECTION**



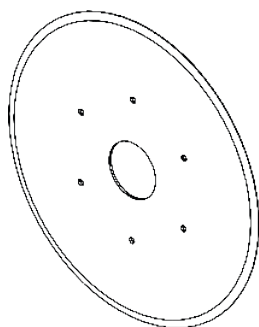
**AXIAL BEARING W/O PROTECTION
AND W/ PROTECTION**



FLAT DISC



TRIMMED DISC



**22" FLAT STRAIGHT DISK
W/ GUIDE WHEEL**

■ Identification

• Identification plate

In order to consult the parts catalog or ask Baldan for service, always indicate the model (01), serial number (02) and manufacturing date (03), which is on the nameplate of your **TACR**.



 BALDAN BALDAN IMPLEMENTOS AGRÍCOLAS S/A. AV. BALDAN, 1500 NOVA MATÃO CEP 15.993-900 MATÃO-SP BRASIL FONE: (16) 3221-6500 CNPJ: 52.311.347/0009-06 CREA/SP 0170977		
01 → Modelo / Model	Data / Date	
02 → N° de Série / Serial Number	Tipo / Type	
Capacidade / Load Capacity	Peso / Weight	



ATTENTION

The drawings herein are merely illustrative.



CONTACT

In case of doubts, never operate or handle your equipment without referring to Post-Sales.

Telephone: 0800-152577

email: posvenda@baldan.com.br



PUBLICATIONS

Code: 60550104850 | CPT: TACR13319A



▪ Identification**• Product identification**

Make the correct identification of the data below, to always have information about the life of your team.

Owner: _____

Resale: _____

Farm: _____

City: _____

State: _____

Warranty cert. No.: _____

Implement: _____

Serial No.: _____

Date of purchase: _____

Invoice: _____

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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

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

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

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

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

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

▪ Inspection and delivery certificate

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

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

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

Implement: _____ Serial No.: _____

Date: _____ Tax Number: _____

Resale: _____

Phone: _____ ZIP CODE: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Date of sale: _____

Signature/Resale Stamp _____

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Phone: _____ ZIP CODE: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Date of sale: _____

Signature/Resale Stamp _____

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

1.74.05.0059-5

AC MATÃO
ECT/DR/SP

RESPONSE CARD

NO STAMPING IS REQUIRED

THE STAMP WILL BE PAID BY:



BALDAN

BALDAN IMPLEMENTOS AGRÍCOLAS S/A.

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

Phone: (16) 3221-6500 | Fax: (16) 3382-6500

www.baldan.com.br | email: sac@baldan.com.br

Export: Phone: +55 (16) 3221-6500 | Fax: +55 (16) 3382-4212 | 3382-2480

email: export@baldan.com.br



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baldan.com.br