

Instruction Manual



GSPCR 10-24

Wheel Type Offset Disc Harrow Remote Control - Heavy Duty

 **BALDAN**

■ Presentation

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

This manual will guide you through the procedures that are necessary from its acquisition to its operational procedures for use, safety and maintenance.

BALDAN guarantees that it has delivered this implement to the reseller complete and in perfect condition.

The retailer was responsible for the care and upkeep during the period it was in its possession, as well as for assembly, re-tightening, lubrication and general overhaul..

During technical delivery, the reseller must advise the user customer on maintenance, safety, their obligations in the event of technical assistance, strict observance of the warranty and reading of the instruction manual.

Any request for technical assistance under warranty should be made to the reseller from whom it was purchased.

We reiterate the need to carefully read the warranty certificate and comply with all the items in this manual, as this will extend the life of your implement.



Instruction Manual



GSPCR 10-24

Wheel Type Offset Disc Harrow Remote Control - Heavy Duty

BALDAN IMPLEMENTOS AGRÍCOLAS S/A.

CNPJ: 52.311.347/0009-06

State registration.: 441.016.953.110



Scan the QR Code on your device's nameplate and access this Instruction Manual online.

 **BALDAN**

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▪ **Baldan Warranty**

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

During this period, **BALDAN** undertakes to repair defects in material and/or manufacturing under its responsibility, with labor, freight and other expenses being the responsibility of the reseller.

During the warranty period, any defective parts must be requested and replaced by the local reseller, who will send the defective part to **BALDAN** for analysis.

When this procedure is not possible and the reseller's ability to resolve the problem has been exhausted, the reseller will request support from **BALDAN** Technical Assistance, using the specific form distributed to resellers.

After **BALDAN's** Technical Assistance has analyzed the replaced items and concluded that, they are not under warranty, then the reseller will be responsible for the costs related to the replacement; as well as the costs of material, travel including lodging and meals, accessories, lubricants used, and other expenses arising from the call to Technical Assistance, and **BALDAN** is authorized to make the respective billing on behalf of the resale.

Any repairs made to the product that is within the warranty deadline by the reseller will only be authorized by **BALDAN** upon prior presentation of a budget describing the parts and labor to be executed.

The product that undergoes repairs or modifications by official resellers who do not belong to the **BALDAN** reseller network, as well as the application of non-genuine parts or components to the user's product, is excluded from this term.

This warranty shall become null and void when it is established that the defect or damage is the result of improper use 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 guaranteed by their manufacturers.

Manufacturing and/or material defects, the subject of this warranty term, will not, under any circumstances, constitute a reason for termination of the purchase and sale contract, or for compensation 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.

▪ General Information

• To the owner

A BALDAN IMPLEMENTOS AGRÍCOLAS S/A, shall not be held liable for any damage caused by an accident arising from the improper or incorrect use, transportation or storage of your implement, whether due to the negligence and/or inexperience of any person.

Only people who have full knowledge of the tractor and the implement should transport and operate them.

BALDAN shall not be held liable for any damage caused by unforeseeable situations or situations outside the normal use of the implement.

Incorrect handling of this equipment can result in serious or fatal accidents. Before putting the equipment into operation, read the instructions in this manual carefully. Make sure that the person responsible for the operation is instructed in correct and safe handling. Also make sure that the operator has read and understood the product's instruction manual.

ATTENTION

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

The purpose of this Regulatory Standard is to establish the precepts to be observed in the organization and working environment, to make the planning and development of agricultural, livestock farming, forestry, logging and aquaculture activities compatible with occupational safety and health and the environment.

MR. OWNER OR OPERATOR OF THE EQUIPMENT.

Read and comply carefully with NR-31.

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

▪ Safety regulations

- To the operator



THIS SYMBOL INDICATES AN IMPORTANT SAFETY WARNING. IN THIS MANUAL, WHENEVER YOU COME ACROSS IT, READ THE FOLLOWING MESSAGE CAREFULLY AND BE AWARE OF THE POSSIBILITY OF PERSONAL ACCIDENTS.



ATTENTION



Read the instruction manual carefully to learn about the recommended safety practices.



ATTENTION



Only start operating the tractor when you are properly seated and have your seat belt fastened.



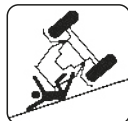
ATTENTION



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



ATTENTION



There is a risk of serious injury from tipping over when working on slopes.
Do not use excessive speed.



ATTENTION



Do not operate the tractor if the front is without sufficient ballast for the rear equipment. If there is a tendency to lift, add weights or ballast to the front or to the front wheels.



ATTENTION



Before carrying out any maintenance on your equipment, make sure it is properly stopped. Avoid being run over.



ATTENTION



Be careful when handling the GSPCR support leg, as there is a risk of accidents.

▪ Safety regulations

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

! ATTENTION



Do not make adjustments while the GSPC is running. When carrying out any work on the GSPC, switch off the tractor first. Use suitable tools.

! ATTENTION



When looking for a possible leak in the hoses, use a piece of cardboard or wood, never use your hands. Avoid incising fluid into the skin.

! ATTENTION

25
KM/H

15
MPH

When transporting the GSPC, do not exceed a speed of 25 Km/h or 15 MPH, to avoid the risk of damage and accidents.

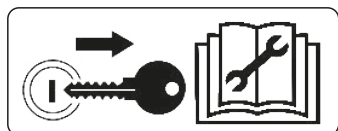
! ATTENTION

12
KM/H

7
MPH

When working with the GSPC, do not exceed a speed of 12 Km/h or 7 MPH, to avoid the risk of damage and accidents.

! ATTENTION



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

! ATTENTION



Hydraulic oil under pressure can cause serious injury if it leaks.

Periodically check the condition of the hoses. If there are signs of leaks, replace it immediately. Before connecting or disconnecting the hydraulic hoses, relieve the pressure in the system by operating the control with the tractor switched off.

▪ Safety regulations

ATTENTION



Always keep access and work areas clean of residue such as oil or grease, as this can cause accidents.

ATTENTION



Avoid heating parts near fluid lines. Heating can cause the material to become brittle, break and the pressurized fluid to escape, which can cause burns and injuries.

ATTENTION



Never weld the assembled wheel to the tire, as the heat can cause the air pressure to rise and the tire to explode.

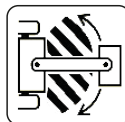
When inflating the tire, stand next to the tire, never in front of it. When inflating the tire, always use a containment device (inflation jaw).

ATTENTION



Before starting work or transporting the GSP-CR, check whether there are any people or obstructions near it.

ATTENTION



Keep the hinge area free while the GSP-CR is in operation. On sharp bends avoid the tractor wheels touching the header.

ATTENTION



Always keep away from the GSPCR's active elements (discs), as they are sharp and can cause accidents. When carrying out any work on the discs, wear safety gloves on your hands.

ATTENTION



Disposing of waste improperly affects the environment and ecology, as it pollutes rivers, canals and the soil. Find out the correct way to recycle or dispose of waste.

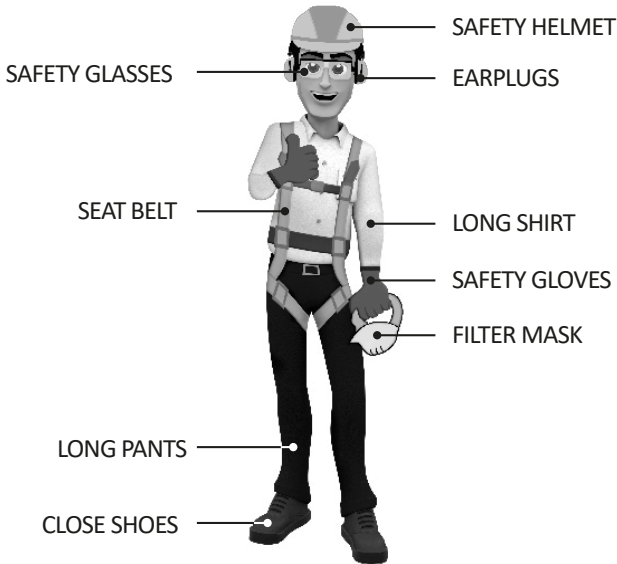
PROTECT THE ENVIRONMENT!

▪ Safety regulations

• PPE equipment

! ATTENTION | DO NOT WORK WITH THE GSPCR WITHOUT FIRST PUTTING ON THE EPIS (SAFETY EQUIPMENT). IGNORING THIS WARNING COULD CAUSE DAMAGE TO YOUR HEALTH, SERIOUS ACCIDENTS OR DEATH.

When carrying out certain procedures with the **GSPCR**, wear the following PPE (Safety Equipment):



















! IMPORTANT

Safety practices must be carried out at all stages of working with the GSPCR, thus avoiding accidents such as the impact of objects, falls, noise, cuts and ergonomics, i.e. the person responsible for operating the GSPCR is subject to internal and external damage to their body.

NOTE | All PPE (Safety Equipment) must have a certificate of authenticity.



▪ Warnings

-  When operating the GSPCR, do not allow people to stand too close to or on it.
-  Never stand near a GSPCR in operation; there is an imminent risk of trampling and lacerations.
-  Wear PPE when carrying out any maintenance work.
-  Before connecting or disconnecting the hydraulic hoses, relieve the system pressure by operating the control with the tractor switched off.
-  Periodically check the condition of the hydraulic hoses. If there are signs of an oil leak, replace the hose immediately, as oil works under high pressure and can cause serious accidents.
-  Don't wear clothes that are too loose, as they may get tangled in the GSPCR.
-  When starting the tractor engine, be properly seated in the operator's seat and fully aware of the correct and safe handling of both the tractor and GSPCR. Always put the gearshift lever in the neutral position, disconnect the PTO control gear and put the hydraulic controls in the neutral position.
-  Do not start the tractor engine in a closed space without adequate ventilation, as the exhaust gases are harmful to health.
-  When maneuvering the tractor to hitch the GSPCR, make sure you have the necessary space and that no one is too close, always maneuver at low speed and be prepared to brake in an emergency.
-  Do not make adjustments with the GSPCR in operation.
-  When working on slopes, proceed with caution and always try to maintain the necessary stability. If you start to feel unbalanced, reduce acceleration, turn the wheels to the side of the slope and never lift the GSPCR.
-  Always drive the tractor at speeds compatible with safety, especially when working on rough soil or slopes, always keep the tractor hitched.
-  When driving the tractor on roads, keep the brake pedals connected.
-  Do not operate the tractor with a light rear end. If the rear has a tendency to lift, add more weight to the rear wheels.
-  When leaving the tractor, put the gearshift lever in neutral and apply the parking brake. Never leave the GSPCR hitched to the tractor in the raised position of the hydraulic system.
-  Any maintenance on the GSPCR must be carried out when it is stationary and the tractor is switched off.

▪ Warnings

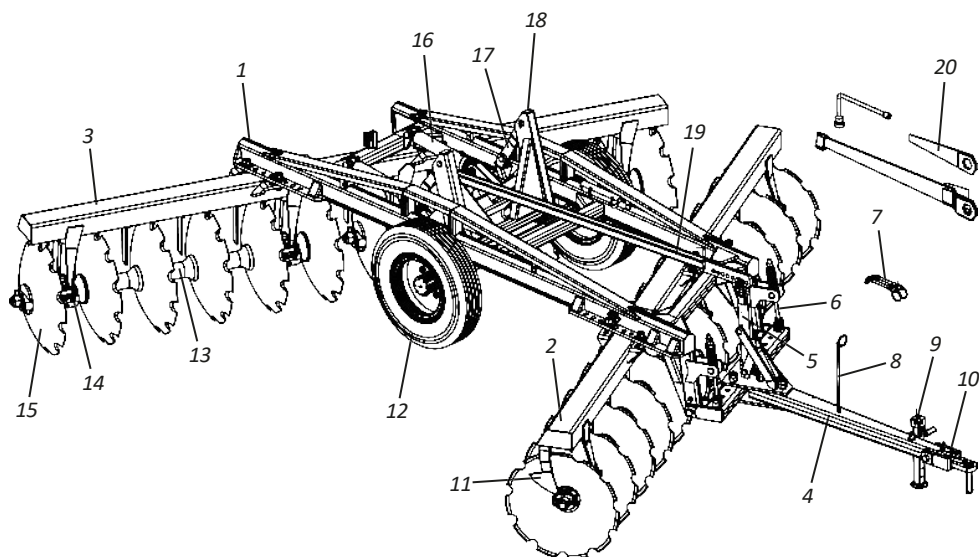
- ⚠ Do not drive on highways, especially at night. Use warning signs all along the route.
- ⚠ If you need to travel with the GSPCR on the roads, check with the traffic authorities.
- ⚠ Do not allow people to use the GSPCR who have not been trained, i.e. who do not know how to operate it correctly.
- ⚠ Do not transport or work with the GSPCR near obstacles, rivers or streams.
- ⚠ People may not be transported in self-propelled machines and implements.
- ⚠ Changes to the original characteristics of the GSPCR are not permitted, as they may alter the safety, operation and affect service life.
- ⚠ Read all the safety information in this manual and on the GSPCR carefully.
- ⚠ Read or explain all the procedures in this manual to an operator who cannot read.
- ⚠ Always check that the GSPCR is in perfect working order. In the event of any irregularity that may interfere with the operation of the GSPCR, have it serviced before any work or transportation is carried out.
- ⚠ Maintenance and especially inspection in GSPCR risk zones should only be carried out by a trained or qualified worker, observing all the safety guidelines. Before starting maintenance, disconnect all drive systems from the GSPCR.
- ⚠ Periodically check all the components of GSPCR before using it.
- ⚠ Depending on the equipment used and the working conditions in the field or in maintenance areas, precautions are necessary. Baldan has no direct control over precautions, so it is the owner's responsibility to put safety procedures into practice while working with the GSPCR.
- ⚠ Check the minimum tractor power recommended for each GSPCR model. Only use a tractor with power and ballast compatible with the load and topography of the soil.
- ⚠ When transporting the GSPCR, travel at speeds compatible with the soil and never more than 25 km/h. This reduces maintenance and consequently increases the GSPCR's lifespan.
- ⚠ Alcoholic beverages or certain medications can cause a loss of reflexes and alter the operator's physical condition. Therefore, never operate this GSPCR while using these substances.
- ⚠ Read or explain all the procedures in this manual to the user who cannot read.

If you have any questions, please contact After Sales.
Telephone: 0800-152577 / E-mail: posvenda@baldan.com.br

▪ Components

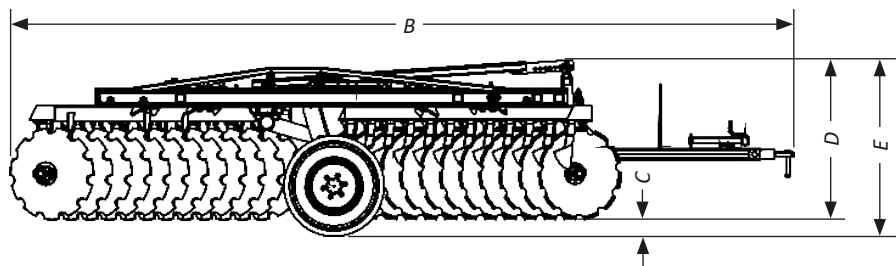
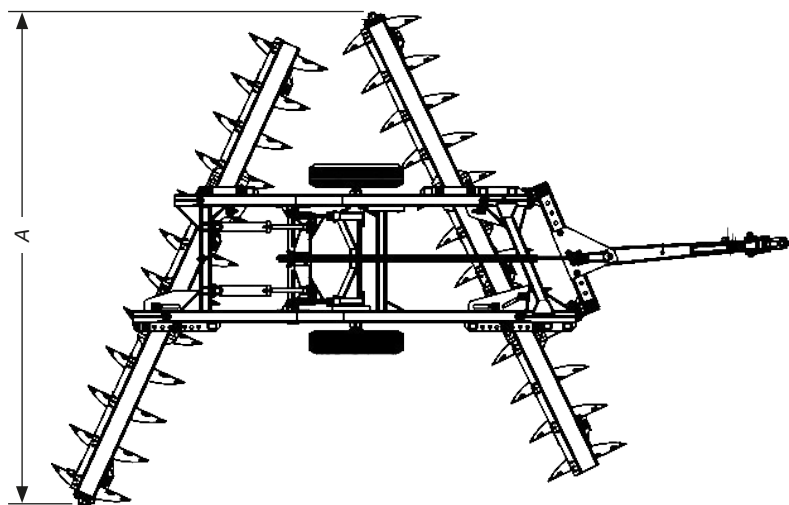
• GSPCR - Wheel Type Offset Disc Harrow Remote Control - Heavy Duty

- | | |
|-------------------------------|-----------------------------|
| 1. Upright | 11. Wiper |
| 2. Front frame | 12. Tire |
| 3. Rear frame | 13. Spool |
| 4. Hitch header | 14. Bearing |
| 5. Stabilizer bar bracket | 15. Disc |
| 6. Rod | 16. Hydraulic lift cylinder |
| 7. Hydraulic hoses | 17. Bracket bar |
| 8. Hose bracket | 18. Shaft bracket |
| 9. Mechanical jack (Optional) | 19. Stabilizer bar |
| 10. Shackle | 20. Wrenches |



▪ Dimensions

• GSPCR - 10 / 12 / 14 / 16 / 18 / 20 / 22 / 24 Discs



Model	No. of Discs	Measure A (mm)	Measure B (mm)	Measure C (mm)	Measure D (mm)	Measure E (mm)
GSPCR	10	2374	7130	274	1569	1843
	12	2795	7217	274	1569	1843
	14	3206	7290	274	1569	1843
	16	3624	7386	274	1569	1843
	18	4038	7485	274	1569	1843
	20	4461	7578	274	1569	1843
	22	4878	7675	274	1569	1843
	24	5242	7808	274	1569	1843



The lifting height "C" was obtained from the GSPCR with discs $\varnothing 36"$ x 12 mm and with a leveled chassis.

▪ Specifications

• GSPCR - Wheel Type Offset Disc Harrow Remote Control - Heavy Duty

Model	No. of discs	Working width (mm)	Shaft diameter (ø)	Disc diameter (ø)	Working depth (mm)	Tractor power (HP)
GSPCR	10	2060	2.1/2"	32" - 34" - 36"	200 - 320	150 - 160
	12	2550				180 - 192
	14	3040				210 - 224
	16	3480				240 - 256
	18	3970				270 - 288
	20	4460				300 - 320
	22	4900				330 - 352
	24	5340				360 - 384

Model	No. of Discs	Tires		Approximate weight(Kg)					
		Quantity	Model	With tires 900 x 20			With tires 400 x 60		
				32"	34"	36"	32"	34"	36"
GSPCR	10	2	900 x 20 14 tarpaulins	3638	3688	3895	-	-	-
	12			3857	3917	4166	3981	4041	4137
	14			4485	4555	4660	4260	4330	4621
	16			4950	5030	5160	4709	4789	5111
	18			4991	5081	5454	5219	5309	5415
	20			5500	5600	6015	5758	5858	5976
	22			6032	6142	6318	6003	6113	6289
	24			6331	6451	6666	6280	6400	6592

Disc spacing 450 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. The technical specifications are approximate and are given under normal working conditions.

INTENDED USE OF GSPCR

- GSPCR was developed for soil profile correction.
- The GSPCR must only be driven and operated by a properly trained operator.

UNAUTHORIZED USE OF GSPCR

- To avoid damage, serious accidents or death, DO NOT carry people on any part of the GSPCR.
- You may NOT use the GSPCR to attach, tow or push other implements or accessories.
- The GSPCR must NOT be used by an inexperienced operator who does not know all the driving, control and operating techniques.

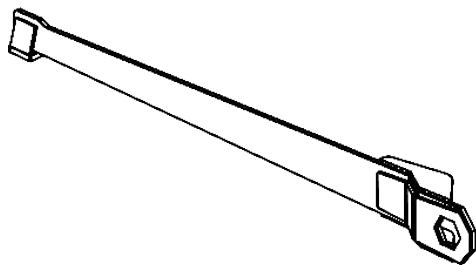
▪ Assembly

The **GSPCR** leaves the factory disassembled. To assemble it, follow the instructions below:

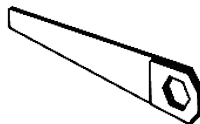
- ⚠ The assembly of the **GSPCR** must be installed by the resale, using people who are trained, enabled and qualified for this job.
- ⚠ Before starting to assemble the **GSPCR**, look for an ideal location, where it is easy to identify the parts and assemble them.
- ⚠ Do not wear baggy clothes, as they may get tangled in the **GSPCR**.

• Wrench set

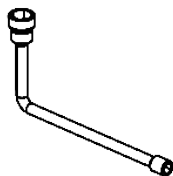
When assembling, disassembling or servicing the **GSPCR**, use the wrench set supplied with the grid. The wrench set consists of:



**WRENCH FOR HEX NUT WITH
2.1/4" AND 2.1/2" LARGER**



**WRENCH FOR HEX NUT WITH
2.1/4" AND 2.1/2" SMALLER**



**"L" WRENCH FOR HEX NUT
5/8" AND 1.1/4"**



ATTENTION

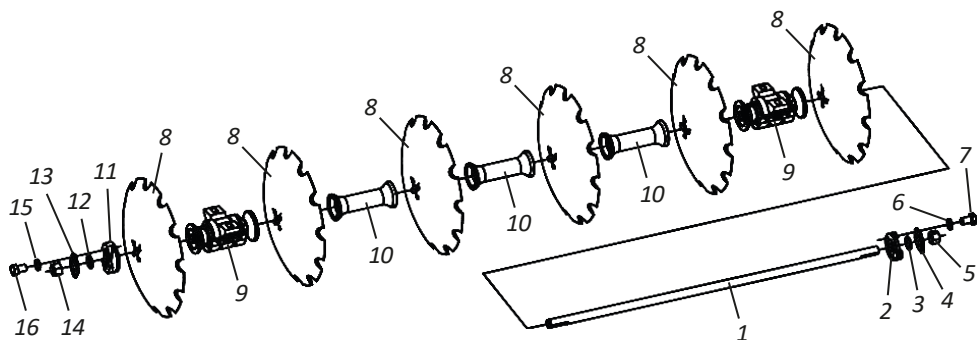
If any wrench is lost or broken, get another one immediately.
Always use original Baldan wrenches.

▪ Assembly

• Assembling the rear disc section

When assembling the **GSPCR**, always start with the discs set; to assemble the rear disc section, proceed as follows:

- 01** - Place the concave thrust washer (2), the flat washer (3), the lock (4) and the nut (5) on the shaft (1), securing it with the spring washer (6) and the screw (7).
- 02** - Then place the disc (8), the bearing (9), another disc (8), the spacer spool (10) on the shaft (1) and so on.
- 03** - When the set is complete with all the discs, bearings, spacer spools, fit the convex thrust washer (11), the flat washer (12), the lock (13), the nut (14), and tighten to the torques recommended on page 22 (high-torque tightening machine procedure) or page 23 (angled tightening procedure).
- 04** - Finish by attaching the lock (13), securing it with the spring washers (15) and the bolts (16).



ATTENTION

During the first week of using the **GSPCR**, retighten all the bolts and nuts on the disc sections daily, then retighten them periodically.

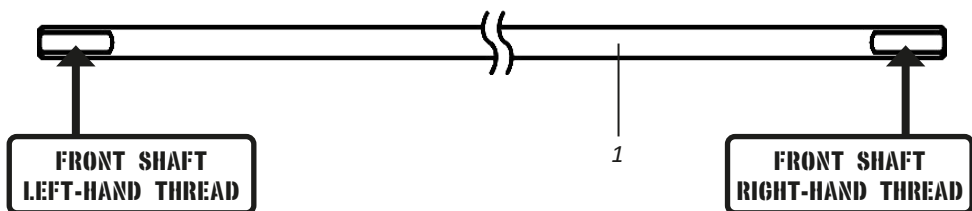
IMPORTANT

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

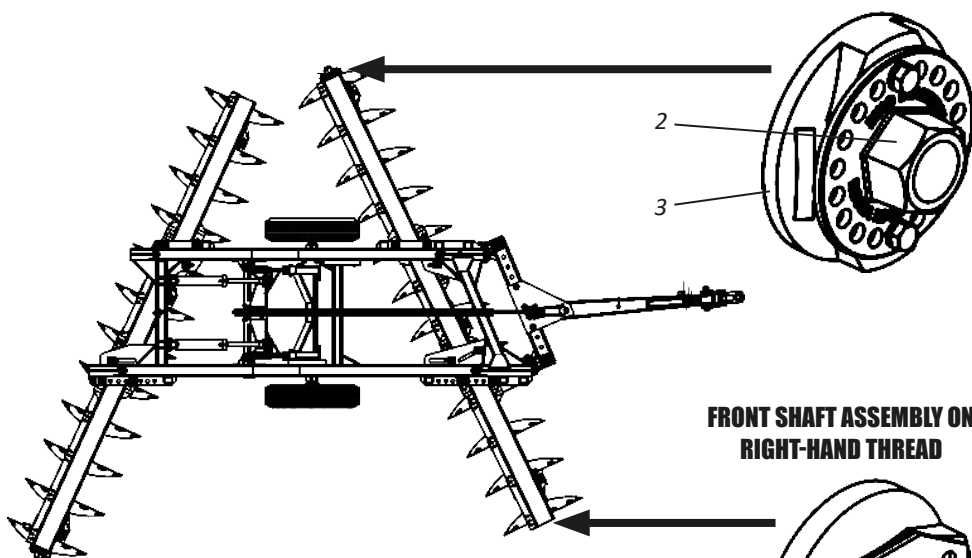
▪ Assembly

• Assembling the front disc section - Part I

Before starting to assemble the front disc section, check the milled area of the shaft (1), for the information engraved “**right-hand threaded front shaft**” and “**left-hand threaded front shaft**”, as there is the correct side for assembling it on the front disc section.



FRONT SHAFT ASSEMBLY ON LEFT-HAND THREAD



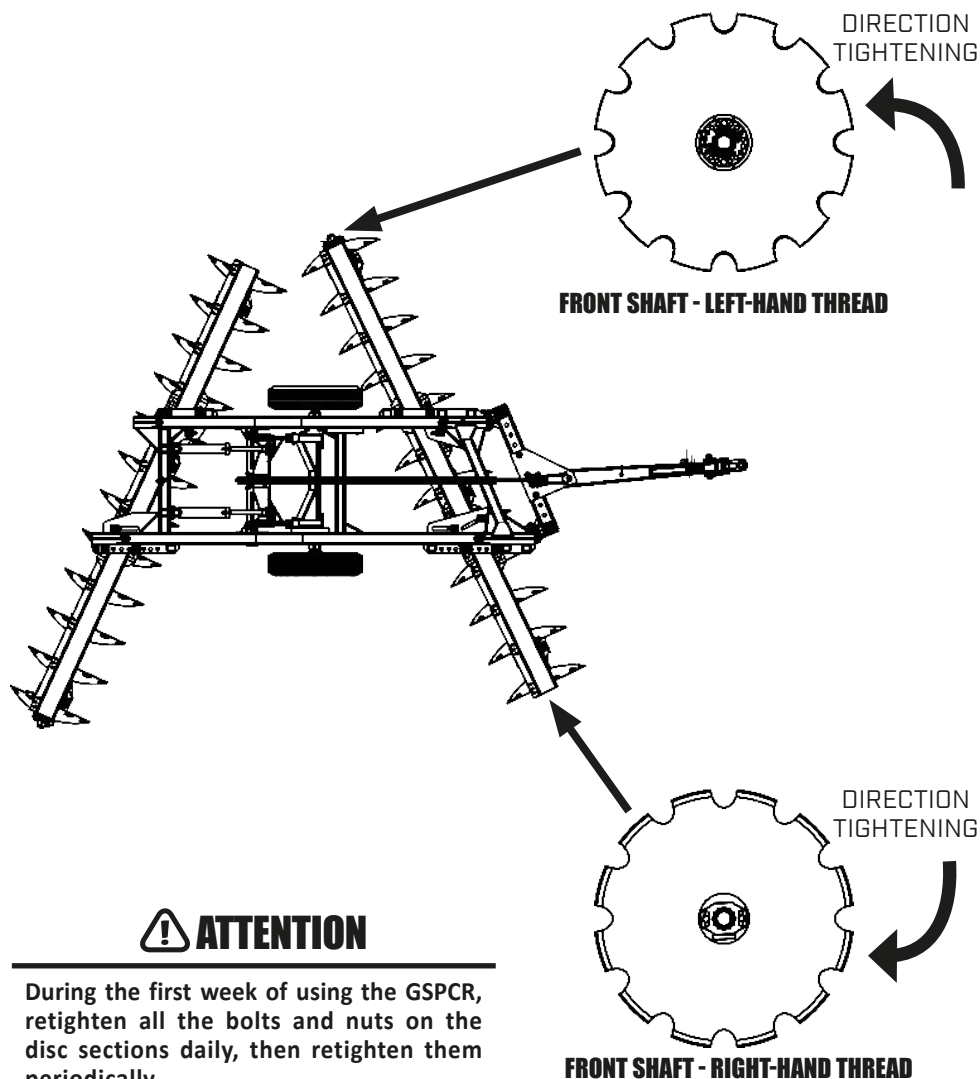
⚠ ATTENTION

The flanged nut with left-hand thread (2) will only be fitted to the front disc section together with the new concave washer (3).

▪ Assembly

• Assembling the front disc section - Part II

Next, check the tightening direction for each side of the front disc section; then assemble and tighten to the torques recommended on page 22 (high-torque tightening machine procedure) or page 23 (angled tightening procedure).



ATTENTION

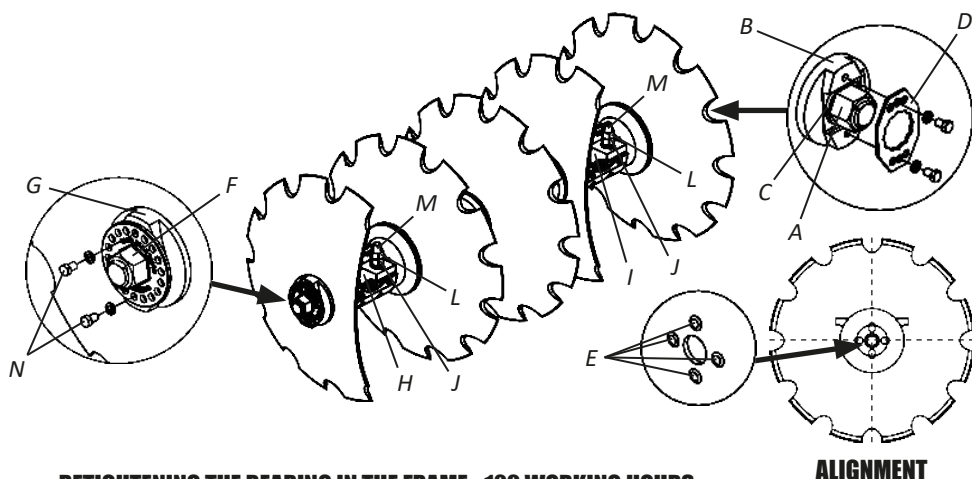
During the first week of using the GSPCR, retighten all the bolts and nuts on the disc sections daily, then retighten them periodically.

▪ Assembly

• Tightening procedure with high-torque tightening machine - Disc section

- INITIAL TIGHTENING

- 01** - I threaded the nut (A) with the concave washer (B), the flat washer (C) considering 3 to 4 threads after the nut.
- 02** - Place the lock (D) on the nut (A).
- 03** - Assemble the disc section by interleaving the discs, bearings and spacers according to the grid configuration, aligning the grooves of the discs (E) with the recesses of the thrust washers of the bearings and spacers. (Make a superficial mark with chalk or pen on the stop components on the discs to check that the alignments are correct).
- 04** - I have threaded the flanged nut (F) onto the convex washer (G) considering an initial torque of **200N.m** as a reference point;
- 05** - Following the above steps, torque the flanged nut (F) to **5000N.m**.
- 06** - Screw the disc sections onto the grid frames via the bearing bases (H and I) with a torque of **1500N.m** on the primary nut (J), loosen and repeat the procedure for adjusting the fastening components. For the lock nut (L), consider a torque of **400N.m**.



- RETIGHTENING THE BEARING IN THE FRAME - 120 WORKING HOURS

- 01** - Loosen the bolts (M) on the bearing bases (H and I).
- 02** - Loosen the bolts (N) on the flanged nut (F).
- 03** - Retighten the flanged nut (F) to a torque of **5000N.m**.
- 04** - Tighten the bolts (M) at the base of the bearings (H and I) to a torque of **1500N.m** on the primary nut (J) and **400N.m** on the lock nut (L).
- 05** - Finish by tightening the bolts (N) of the flanged nut (F).

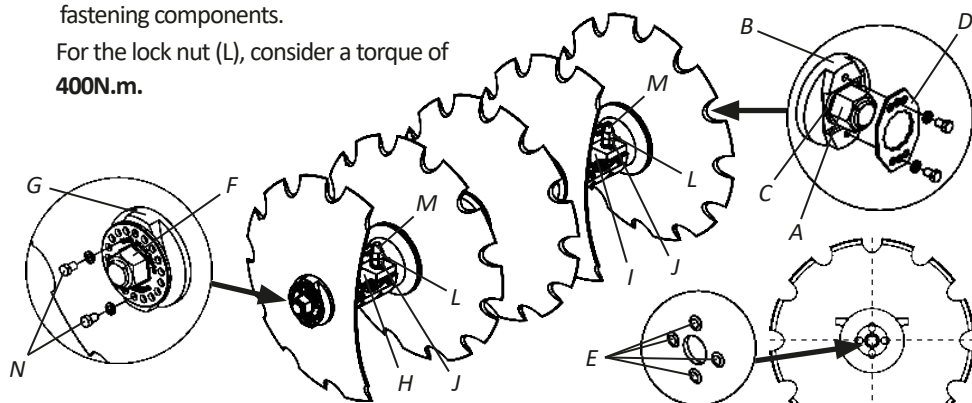
- **Assembly**

- **Angle tightening procedure - Disc section**

- INITIAL TIGHTENING

- 01** - I threaded the nut (A) with the concave washer (B), the flat washer (C) considering 3 to 4 threads after the nut.
- 02** - Place the lock (D) on the nut (A).
- 03** - Assemble the disc section by interleaving the discs, bearings and spacers according to the grid configuration, aligning the grooves of the discs (E) with the recesses of the thrust washers of the bearings and spacers. *(Make a superficial mark with chalk or pen on the stop components on the discs to check that the alignments are correct).*
- 04** - I have threaded the flanged nut (F) onto the convex washer (G) considering an initial torque of **200N.m** as a reference point;
- 05** - Following the above steps, torque the flanged nut (F) with 1 turn $360^\circ + 240^\circ$; if the center of the hole in the flanged nut (F) is not centered with the hole in the convex washer (G), torque it again until they are centered.
- 06** - Screw the disc sections onto the grid frames via the bearing bases (H and I) with a torque of **1500N.m** on the primary nut (J), loosen and repeat the procedure for adjusting the fastening components.

For the lock nut (L), consider a torque of **400N.m.**



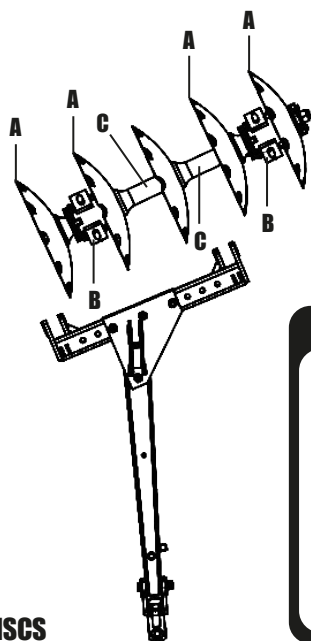
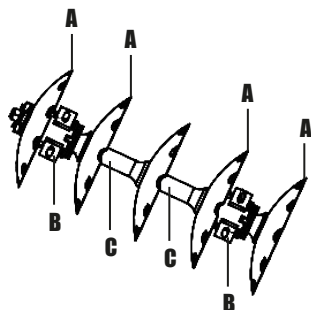
- RETIGHTENING THE BEARING IN THE FRAME - 120 WORKING HOURS

- ALIGNMENT**
- 01** - Loosen the bolts (M) on the bearing bases (H and I).
 - 02** - Loosen the bolts (N) on the flanged nut (F).
 - 03** - Retighten the flanged nut (F) to the indicated torque value.
 - 04** - Retighten the bolts (M) at the base of the bearings (H and I) to a torque of **1500N.m** on the primary nut (J) and **400N.m** on the lock nut (L).
 - 05** - Finish by tightening the bolts (N) of the flanged nut (F).

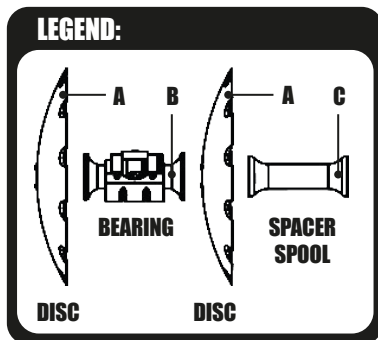
▪ Assembly

• Assembly of disc sections - GSPCR 10 discs

Check out the assembly of the **GSPCR 10 discs** sections below.



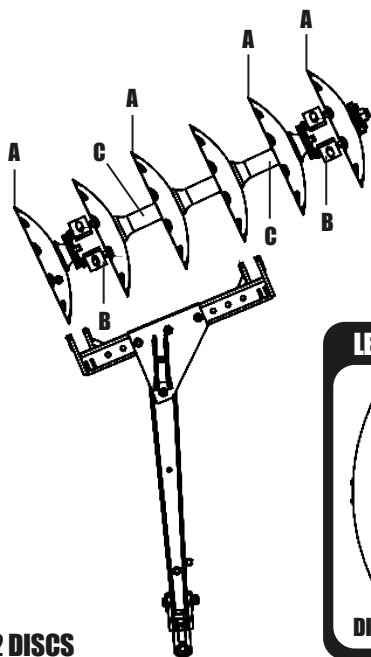
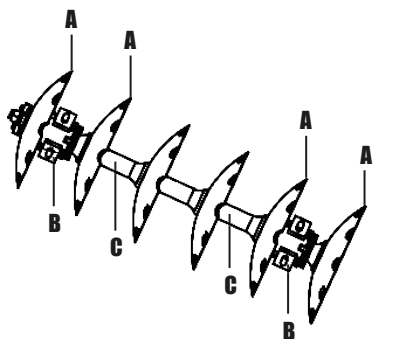
GSPCR 10 DISCS



▪ Assembly

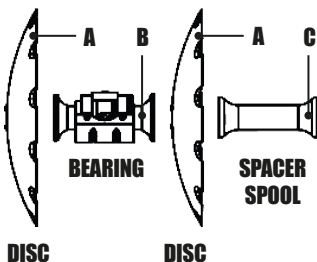
- Assembly of disc sections - GSPCR 12 discs

Check out the assembly of the **GSPCR 12 discs** below.



GSPCR 12 DISCS

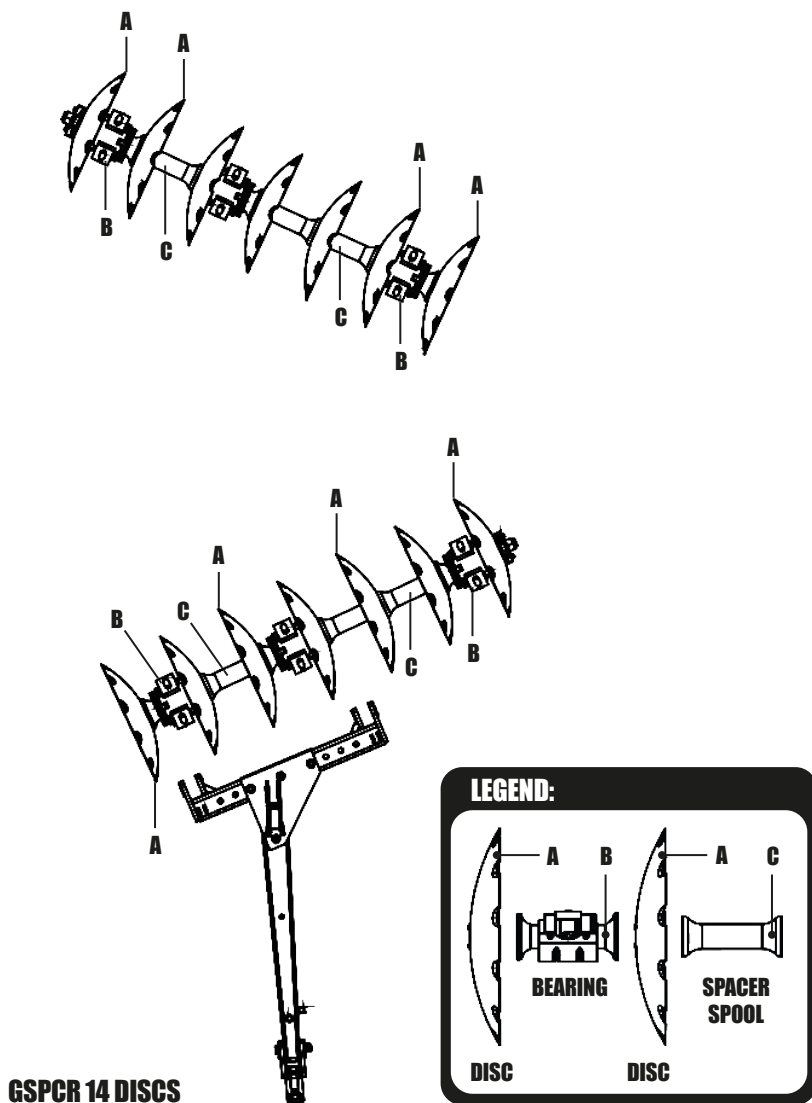
LEGEND:



■ Assembly

• Assembly of disc sections - GSPCR 14 discs

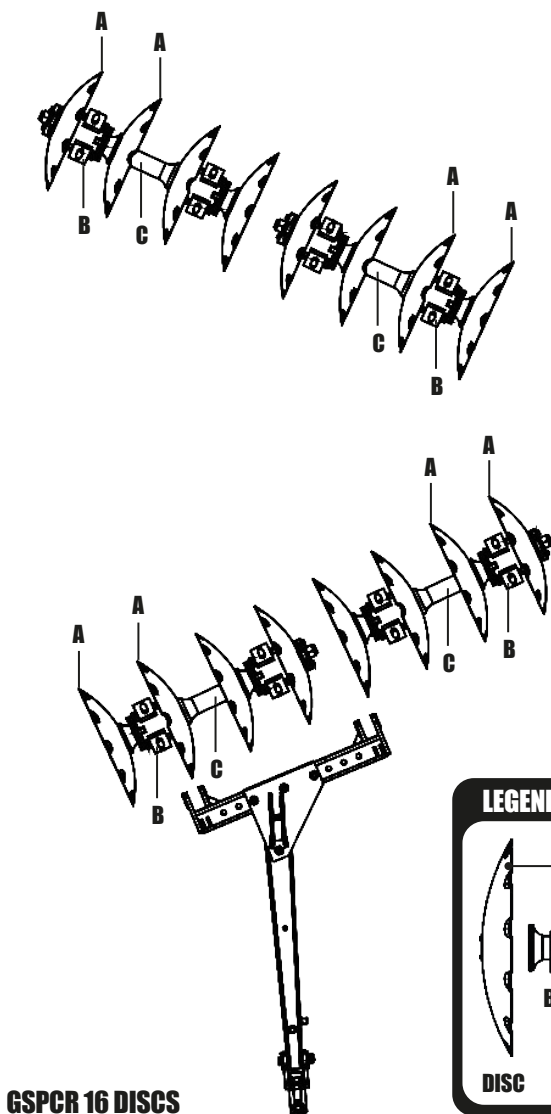
Check out the assembly of the **GSPCR 14** disc sections below.



▪ Assembly

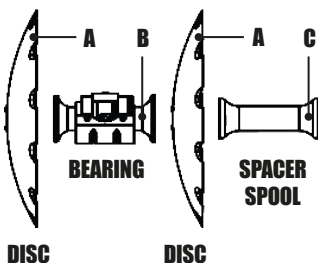
- Assembly of disc sections - GSPCR 16 discs

Check out the assembly of the **GSPCR 16** disc sections below.



GSPCR 16 DISCS

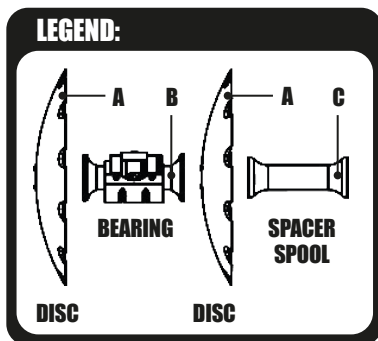
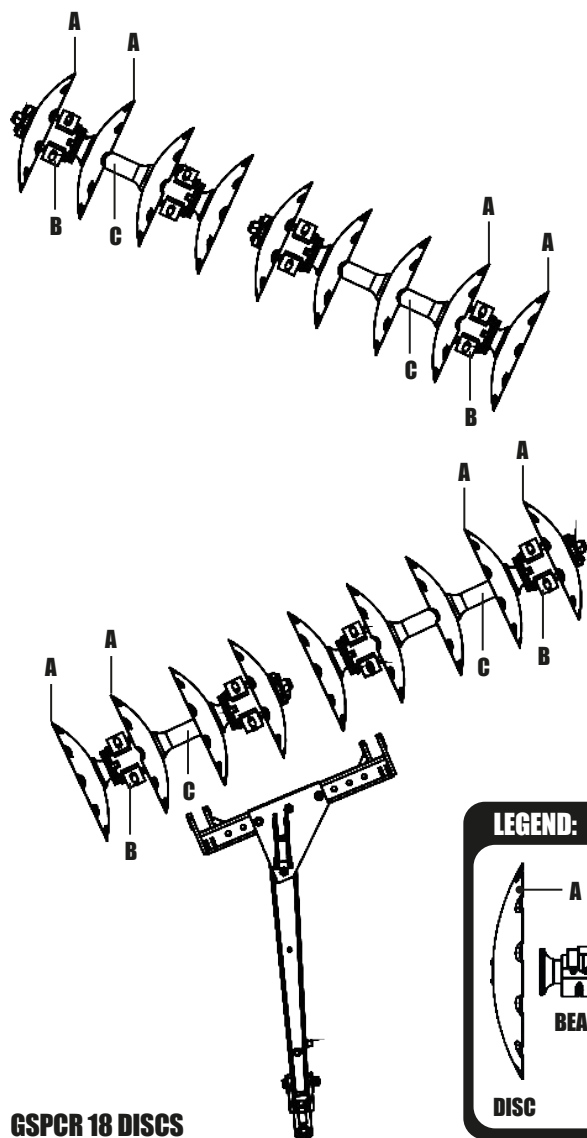
LEGEND:



▪ Assembly

• Assembly of disc sections - GSPCR 18 discs

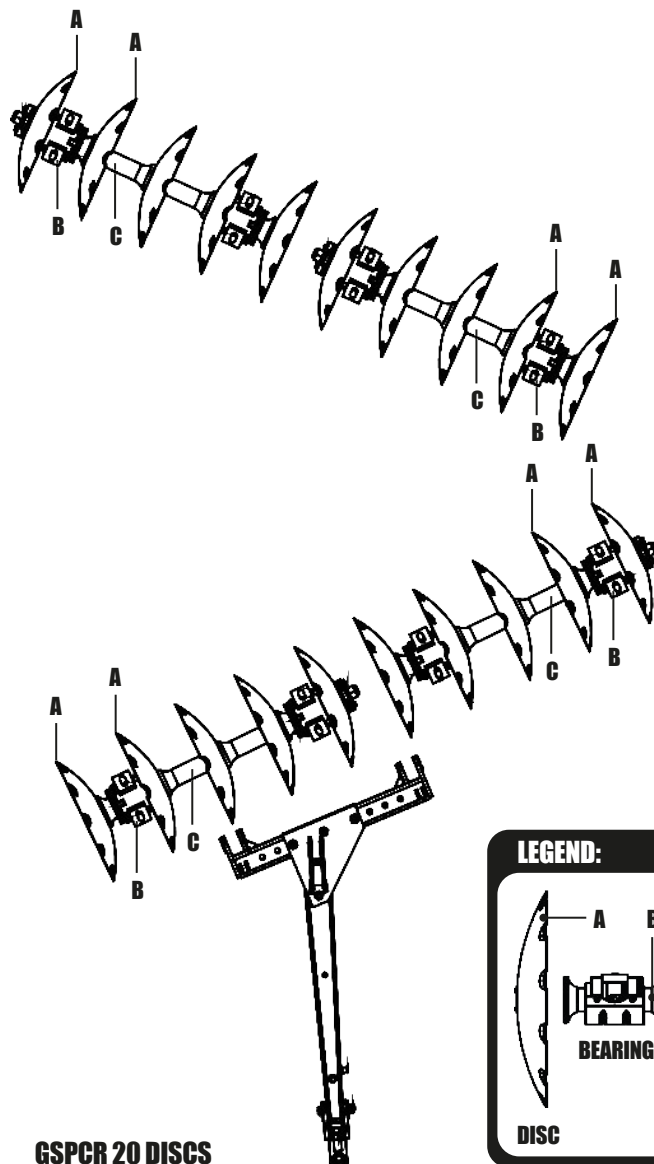
Check out the assembly of the **GSPCR 18** disc sections below.



▪ Assembly

• Assembly of disc sections - GSPCR 20 discs

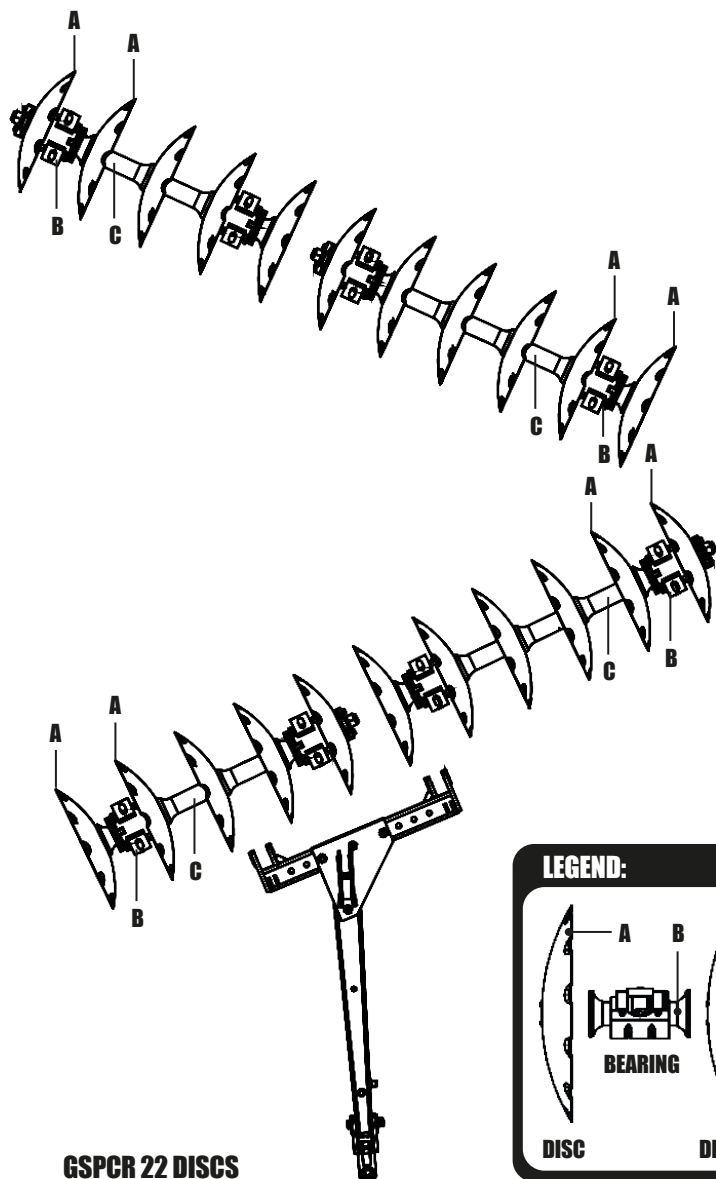
Check out the assembly of the **GSPCR** 20 disc sections below.



■ Assembly

• Assembly of disc sections - GSPCR 22 discs

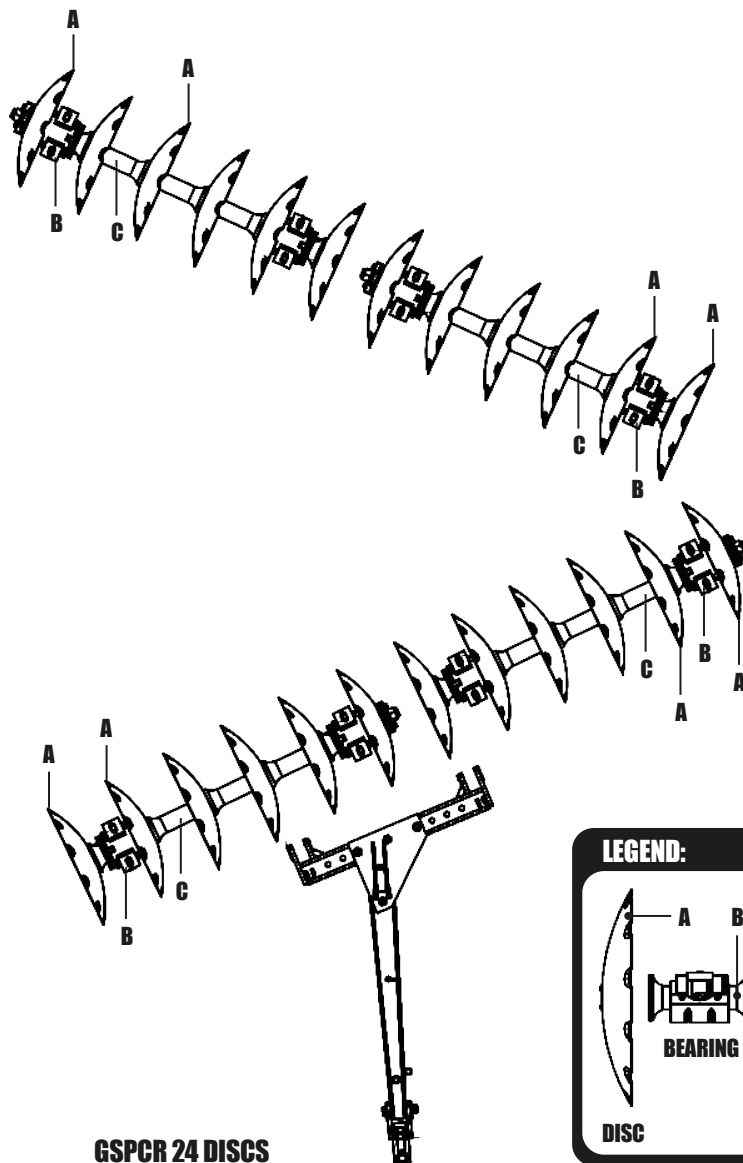
Check out the assembly of the **GSPCR 22** disc sections below.



▪ Assembly

• Assembly of disc sections - GSPCR 24 discs

Check out the assembly of the **GSPCR 24** disc sections below.



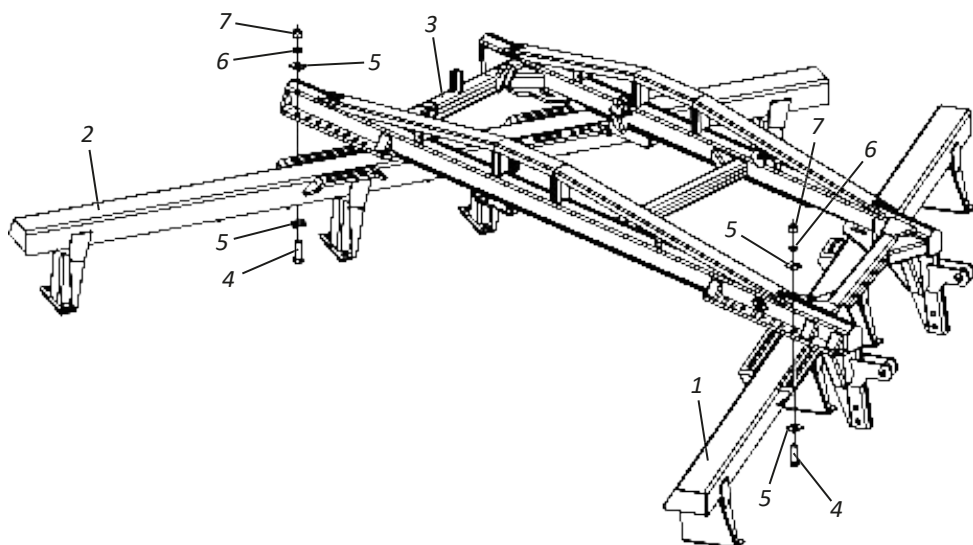
▪ Assembly

• Assembling the frames on the upright

To attach the front and rear frames to the upright, proceed as follows:

01 - Place the front (1) and rear (2) frames on a flat, clean surface.

02 - Then place the upright (3) on the front (1) and rear (2) frames, securing them using bolts (4), locks (5), nuts (6) and locknuts (7).

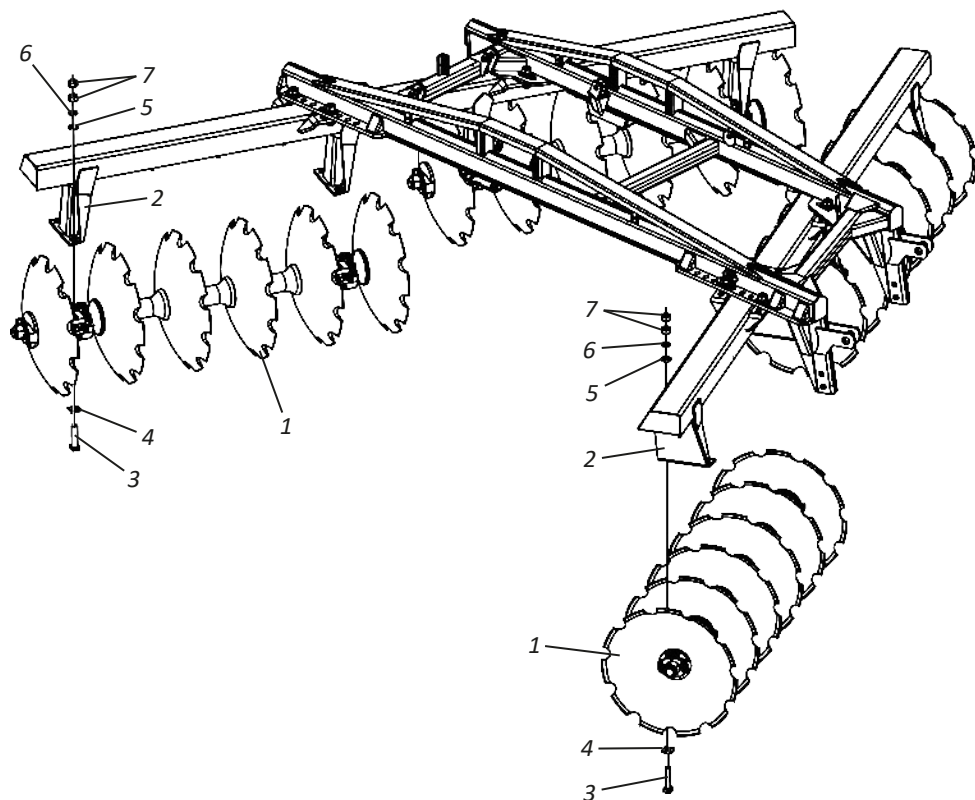


▪ Assembly

• Assembling the disc sections on the frames

After attaching the front and rear frames to the upright, attach the disc sections as follows:

- 01** - Lift the front or rear of the grid and place the disc section (1) in line and match the holes in the shoes (2) with those in the bearings and fix them using bolts (3), locks (4), flat washers (5), spring washers (6) and nuts and locknuts (7).
- 02** - Next, lift the other part of the grid and repeat the operation, checking the concavity of the discs from one section to the other, which should be the opposite.
- 03** - At the end of assembly, check that the shoes (2) are facing the concavity of the discs.



ATTENTION

To mount the disc sections on the frames, note that the frame shoes must face the concavity of the discs.

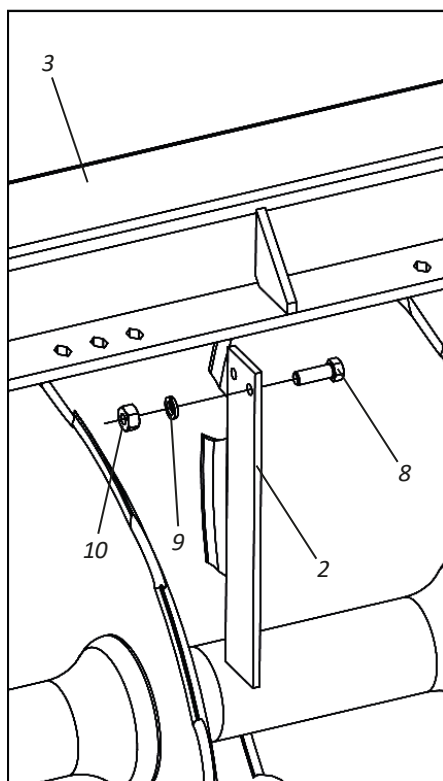
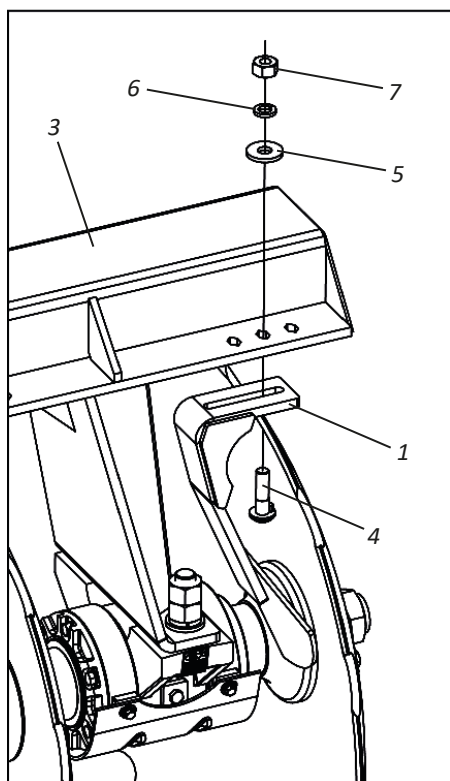
▪ Assembly

• Assembling the wipers

After assembling the disc sections on the frames, attach the wipers (1) and central wipers (2) as follows:

01 - Attach the wipers (1) to the frames (3) using bolts (4), flat washers (5), lock washers (6) and nuts (7).

02 - Then attach the central wipers (2) to the frames (3), securing them using bolts (8), lock washers (9) and nuts (10).



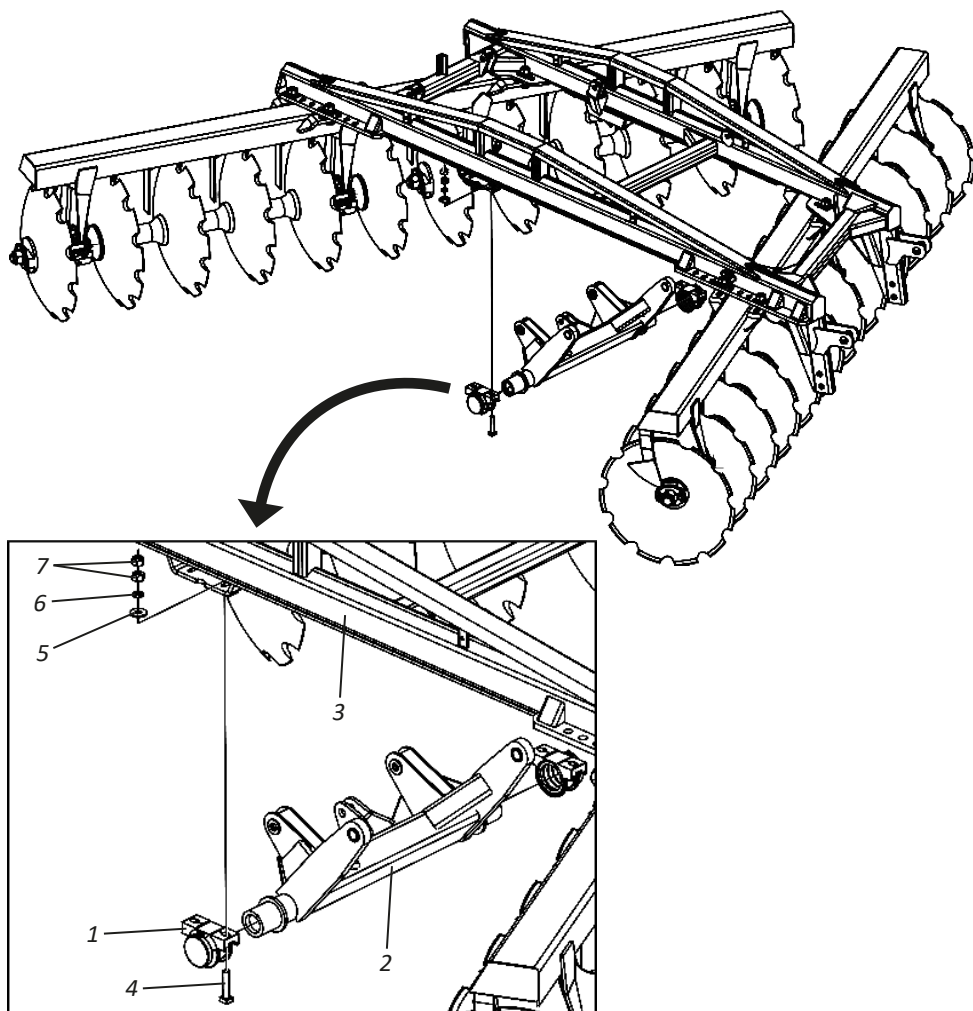
ATTENTION When assembling the wipers (1), they should be 0.5 to 1.0 cm away from the discs.

▪ **Assembly**

• **Assembly of the hinge shaft**

Once the wipers have been fitted, attach the hinge shaft as follows:

- 01** - Attach the hubs (1) to the hinge shaft (2), then secure the hubs (1) to the upright (3) using bolts (4), flat washers (5), lock washers (6) and nuts (7).

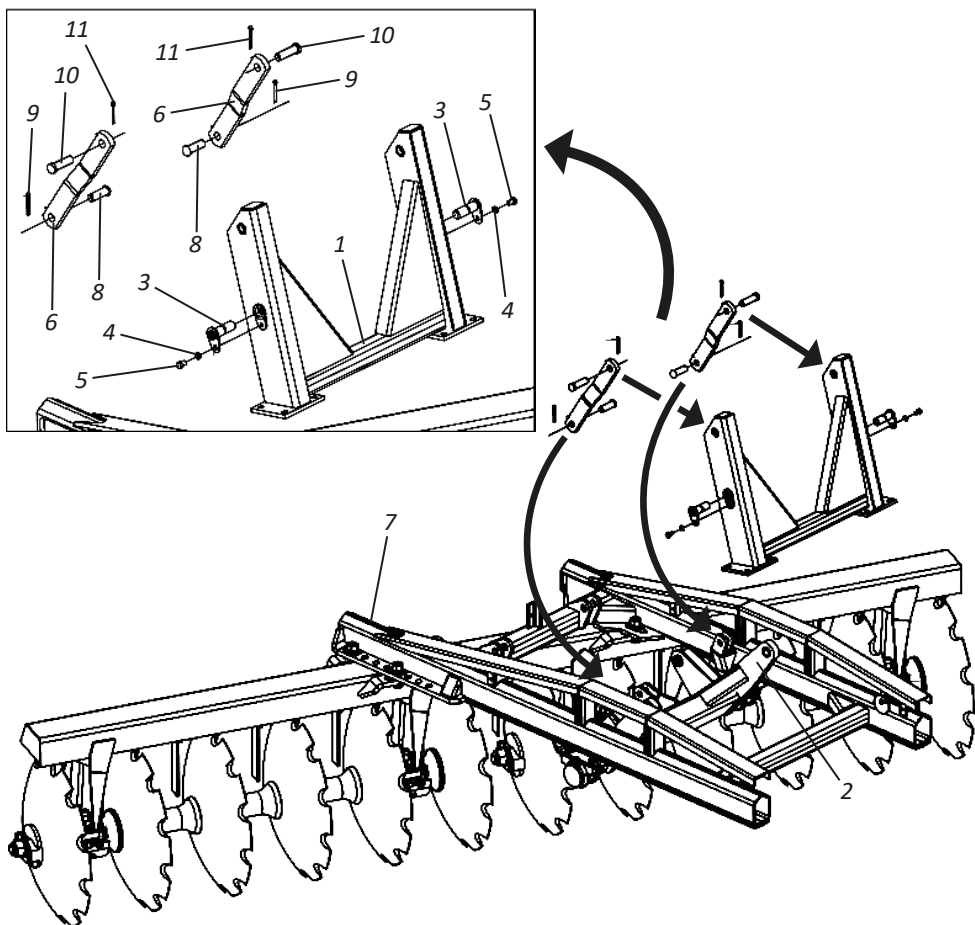


▪ Assembly

• Assembling the joint support

After assembling the hinge shaft, attach the hinge bracket as follows:

- 01** - Attach the hinge bracket (1) to the hinge shaft (2) using pins (3), lock washers (4) and bolts (5).
- 02** - Then attach the bars (6) to the upright (7) using pins (8), cotter pins (9) and to the hinge bracket (1) using pins (10) and cotter pins (11).

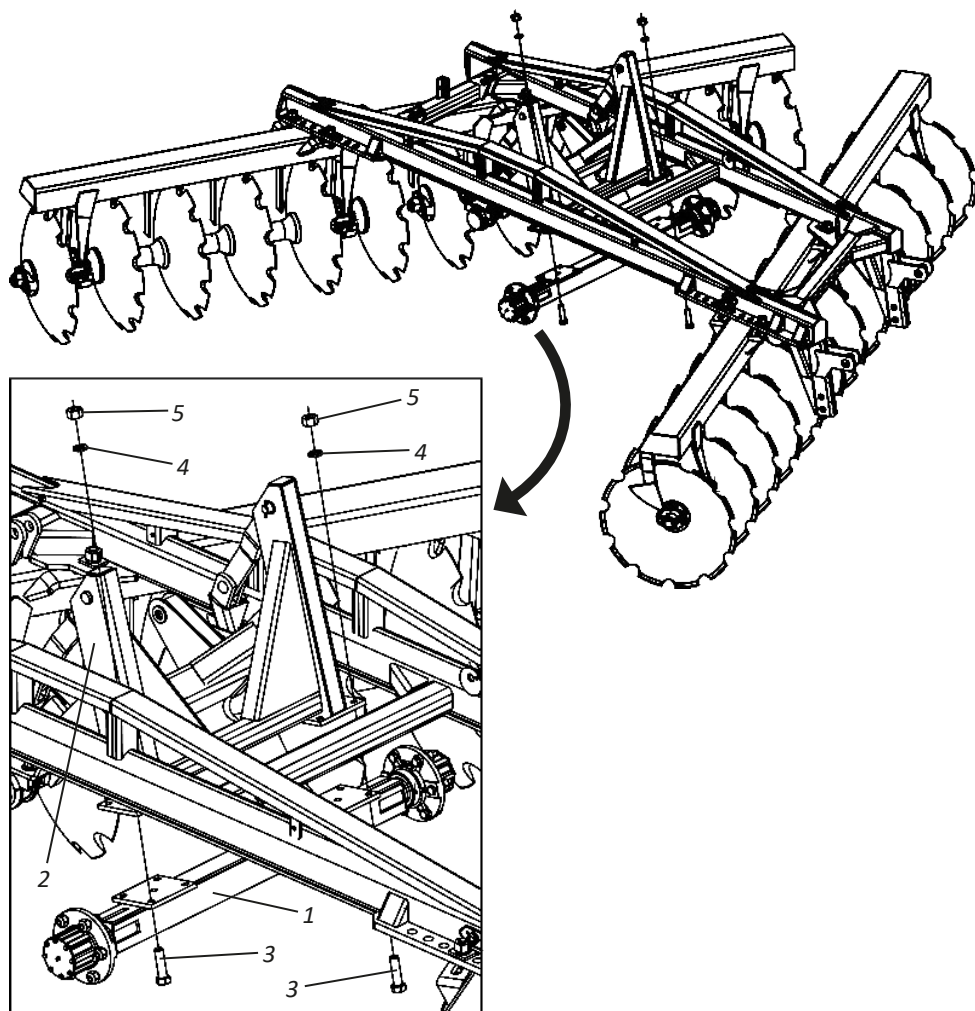


▪ **Assembly**

• **Wheel shaft assembly**

Once you have assembled the hinge bracket, attach the wheel shaft as follows:

- 01** - Attach the wheel shaft (1) to the wheel hinge shaft (2), securing it using bolts (3), lock washers (4) and nuts (5).

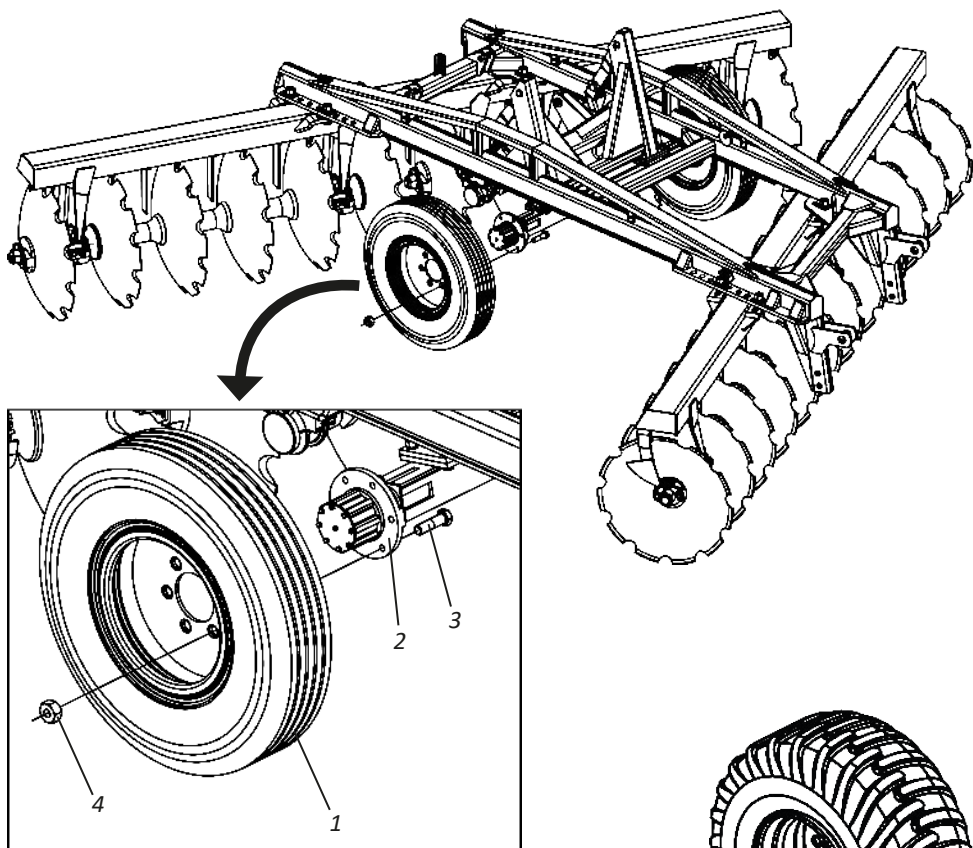


▪ Assembly

• Assembling the tires

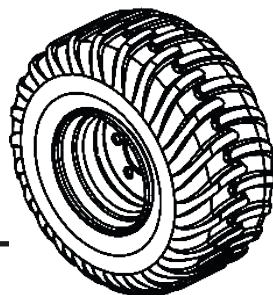
After assembling the wheel axle bracket, fix the tires (1) as follows:

01 - Attach the tires (1) to the wheel shaft bracket (2) using bolts (3) and nuts (4).



ATTENTION

When purchasing the GSPCR with 400x60 tires (optional), all tires must be assembled anti-traction, i.e. with the lugs facing the front of the GSPCR, as shown in detail "A".



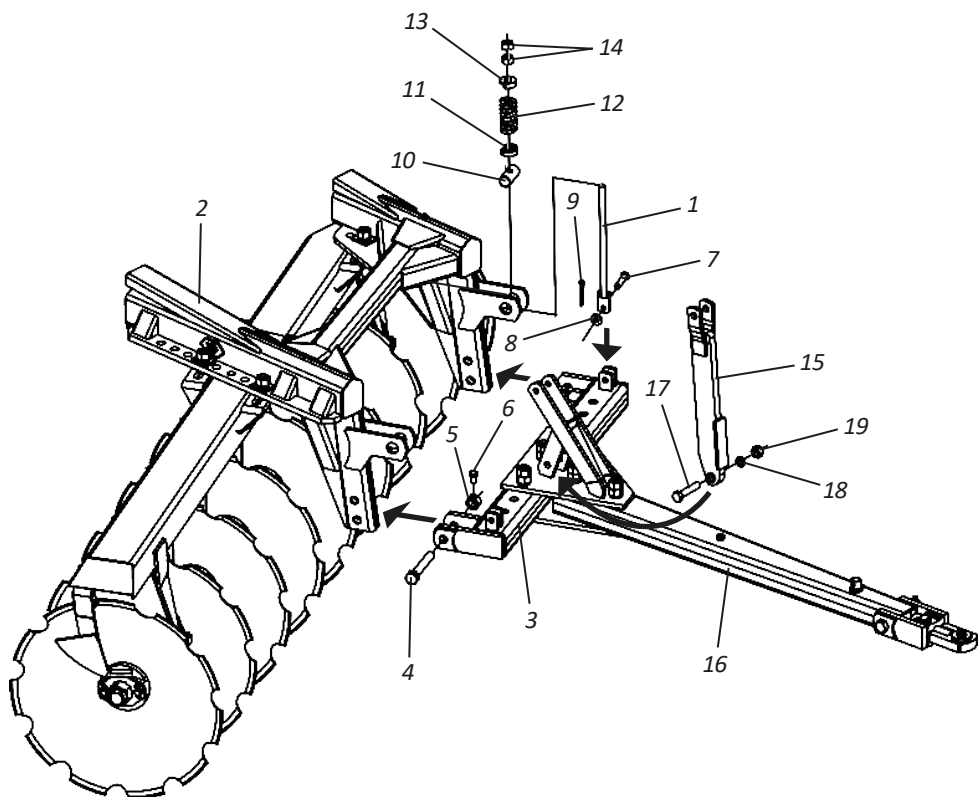
DETAIL "A"

▪ Assembly

• Assembling the coupling header

After assembling the tires, attach the hitch header as follows:

- 01** - Insert the rod (1) into the upright (2).
- 02** - Then attach the hitch crossbar (3) to the upright (2), securing it with bolts (4), nuts (5) and bolts (6).
- 03** - Then attach the rod (1) to the hitch crossbar (3) using the pin (7), flat washer (8), cotter pin (9) and fit the guide (10), stop bush (11), spring (12), stop bush (13), nut and lock nut (14).
- 04** - Finish by attaching the stabilizer bar bracket (15) to the hitching header (16) using bolt (17), lock washer (18) and nut (19).



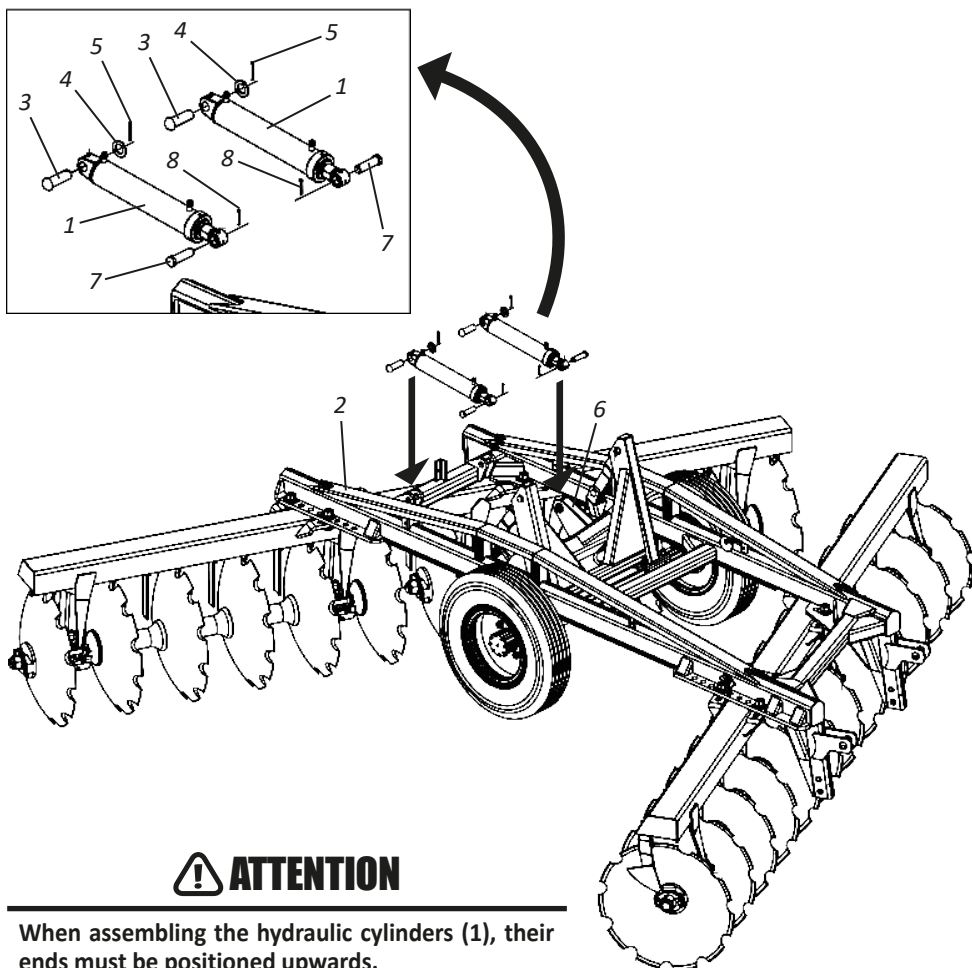
▪ Assembly

• Assembling the hydraulic cylinders on the upright

After assembling the hydraulic cylinder on the hitching header, attach the hydraulic cylinders to the uprights as follows:

01 - Attach the base of the hydraulic cylinders (1) to the upright (2), securing it with pins (3), flat washers (4) and cotter pins (5).

02 - Then attach the stem of the hydraulic cylinders (1) to the wheel shaft bracket (6), securing it with the pins (7) and cotter pins (8).

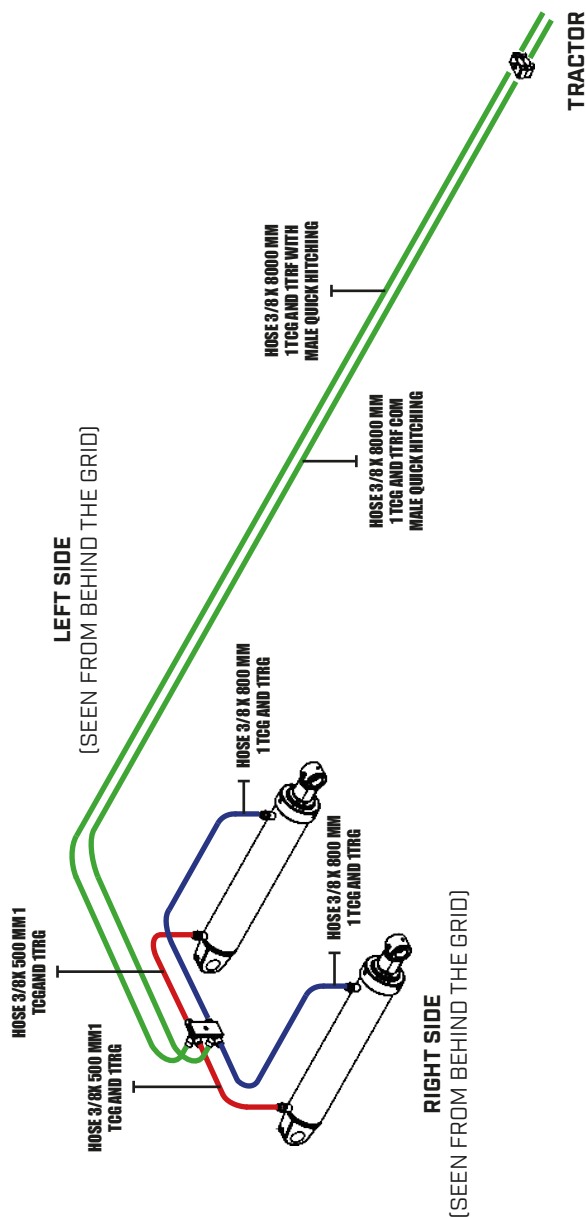


ATTENTION

When assembling the hydraulic cylinders (1), their ends must be positioned upwards.

▪ Assembly

- Hydraulics system assembly - GSPCR 10 to 24 discs

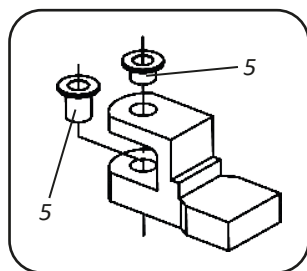
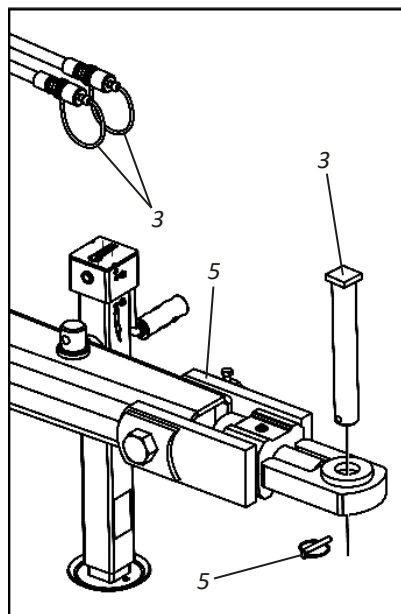


▪ Hitch

• Grid hitch - Category 4 tractors

For the perfect attaching of the **GSPCR** to **category 4** tractors, adapter bushes are supplied in the packing box. To hitch **GSPCR** on **category 4** tractors, proceed as follows:

- 01** - Take the smaller (1) and larger (2) adapter bushes from the packing box and place them on the **category 4** tractor hitch, as shown in **detail "A"**.
- 02** - Then slowly approach the tractor to the **GSPCR** in reverse gear, paying attention to the application of the brakes, and hitch the **GSPCR** to the tractor, securing it with the hitching pin (3) and lock (4).
- 03** - Finish by attaching the hydraulic hoses (5) to the tractor's quick hitching.



DETAIL "A"

NOTE

To attach the **GSPCR** to a category 5 tractor, follow the instructions on the next page.

ATTENTION

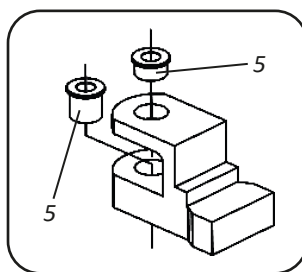
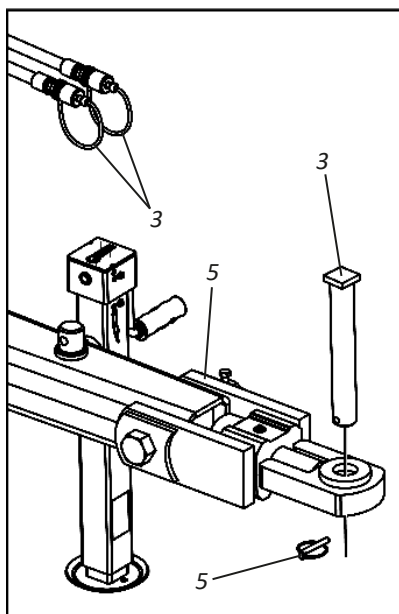
Before connecting or disconnecting the hydraulic hoses, switch off the engine and relieve the pressure in the hydraulic system by fully depressing the control levers. When relieving pressure from the system, make sure that no one is near the area where the equipment is moving. When hitching the **GSPCR**, look for a safe and easily accessible place. Always use low gear with low acceleration.

▪ Hitch

• Grid hitch - Category 5 tractors

For the perfect attaching of the **GSPCR** to **category 5** tractors, adapter bushes are supplied in the packing box. To hitch **GSPCR** on category 5 tractors, proceed as follows:

- 01** - Take the smaller (1) and larger (2) adapter bushes from the packing box and place them on the **category 5** tractor hitch, as shown in **detail "A"**.
- 02** - Then slowly approach the tractor to the **GSPCR** in reverse gear, paying attention to the application of the brakes, and hitch the **GSPCR** to the tractor, securing it with the hitching pin (3) and lock (4).
- 03** - Finish by attaching the hydraulic hoses (5) to the tractor's quick hitching.



DETAIL "A"

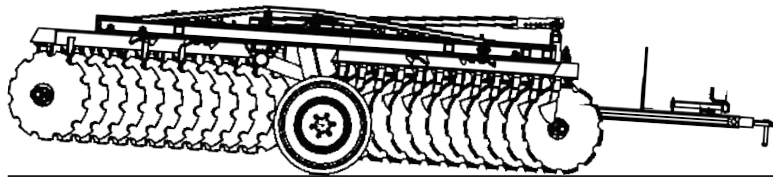
ATTENTION

Before connecting or disconnecting the hydraulic hoses, switch off the engine and relieve the pressure in the hydraulic system by fully depressing the control levers. When relieving pressure from the system, make sure that no one is near the area where the equipment is moving. When hitching the **GSPCR**, look for a safe and easily accessible place. Always use low gear with low acceleration.

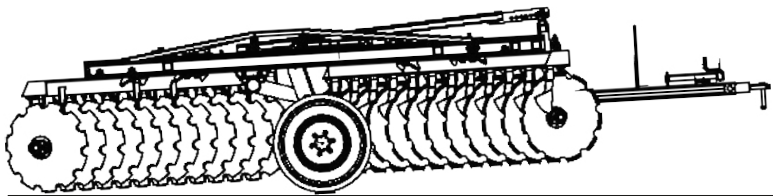
▪ Leveling

• Grid leveling - Part I

Place the tractor and **GSPCR** on level ground, lift the grid and check whether the **GSPCR** is positioned at the front or rear as shown in the images below.



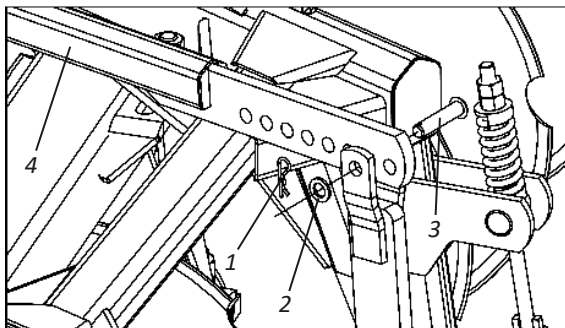
GSPCR - POSITIONED AT THE FRONT



GSPCR - POSITIONED AT THE REAR

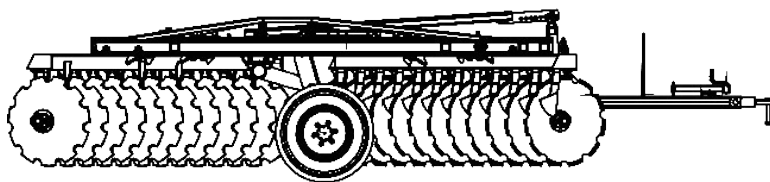
If the **GSPCR** is positioned at the front, level the grid as follows:

- 01** - Lower the **GSPCR** until it is completely above the ground.
- 02** - Then loosen the lock (1), flat washer (2) and remove the pin (3).
- 03** - Then adjust another point on the stabilizer bar (4) and secure it again.
- 04** - Lift the **GSPCR** and check that the grid is level as shown on the following page.



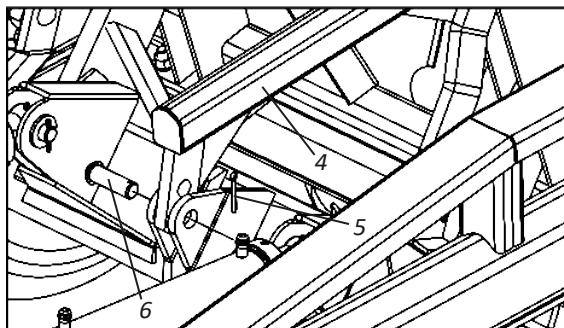
▪ Leveling

• Grid leveling - Part II



GSPCR - LEVEL POSITION

05 - If the **GSPCR** is not level, repeat the previous procedures by adjusting it at another point on the stabilizer bar (4).



ATTENTION

If necessary, loosen the cotter pin (5) and the pin (6), adjust another point on the base of the stabilizer bar (4) and secure it again.

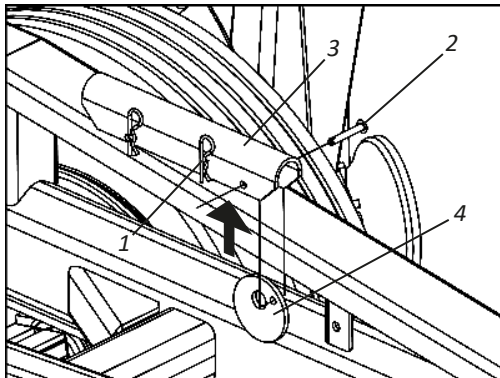
▪ Adjustments

• Adjustments for transportation

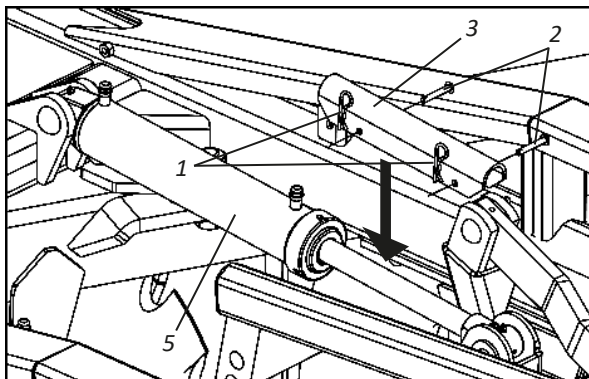
Before transporting the **GSPCR**, proceed as follows:

01 - Fully actuate the stroke of the hydraulic cylinders for lifting the wheelset.

02 - Then release the locks (1) and pins (2) and remove the locks (3) from the upright (4).



03 - Then place the locks (3) on the hydraulic cylinders (5) for lifting the wheelset, securing them with pins (2) and locks (1).



ATTENTION

Do not transport the GSPCR without attaching the locks (3) to the hydraulic cylinders (5) for lifting the wheelset. Ignoring this warning could cause damage to the hydraulic cylinders.

IMPORTANT

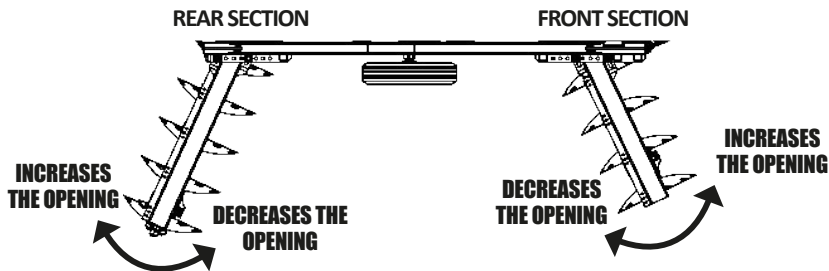
When you have finished transporting the GSPCR, remove the locks (3) from the hydraulic cylinders (5) for lifting the wheelset and reattach them to the upright (4).

▪ Adjustments

• Grid opening adjustment

To achieve optimum disc penetration, the grid opening must be adjusted, which varies according to the type of soil:

- **SOILS THAT ARE MORE DIFFICULT TO PENETRATE:** The opening of the grid should be increased.
- **LIGHT AND LOOSE SOILS:** The opening of the grid should be reduced.



INCREASES THE OPENING: Greater depth.

DECREASES THE OPENING: Less depth.

To increase or decrease the grid opening, proceed as follows:

- 01 - Loosen the nuts (1), spring washers (2), remove the locks (3) and bolts (4).
- 02 - Then adjust the frames (5) by decreasing or increasing their opening.
- 03 - Next, reattach the frame (5) to the upright (6) using the bolts (4), locks (3) spring washers (2) and nuts (1).

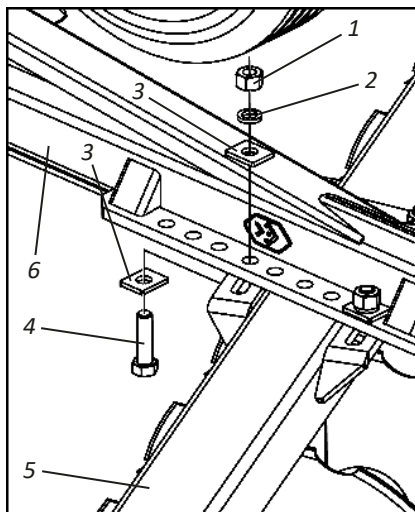
! IMPORTANT

To start work, we recommend using a medium opening in the disc sections. If you need more penetration, increase the opening angle of the rear section.

The front section generally does not operate with a larger opening than the rear section. The wheels also help to control the depth of the discs.

NOTE

We recommend controlling the working depth of the GSPCR by opening the disc sections and only using the tires in places where the GSPCR penetrates too far.

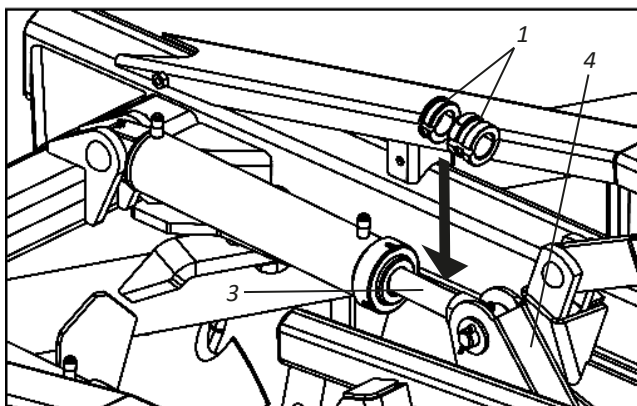
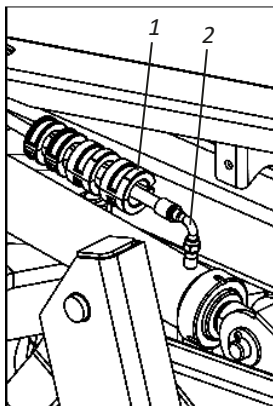


▪ Adjustments

• Working depth adjustment

In order to adjust the working depth through the tires, the circlips (1) are used, which are placed on the stems of the hydraulic cylinders, giving numerous working depth adjustments. To adjust the working depth, proceed as follows:

- 01** - Remove the circlips (1) from the hydraulic hoses (2).
- 02** - Then drive the rods of the hydraulic cylinders (3) of the wheel (4) to the required length.
- 03** - Then place the circlips (1) on the stems of the hydraulic cylinders (3) until you have filled the entire space between the steam hitching and the hydraulic cylinder clutch (3).



- 04** - When you have finished work, remove the circlips (1) from the hydraulic cylinders (3) of the wheelset (4) and reattach them to the hydraulic hoses (2).

! ATTENTION Always put the same number of circlips (1) on the hydraulic cylinders (3) of the wheelset (4).

! IMPORTANT

After adjustment, the GSPCR will always operate at the same depth, on both hard and loose soil, because the limiting rings (1) are limiting the travel of the hydraulic cylinder (3) of the wheelset, i.e. preventing the wheels from oscillating.

NOTE

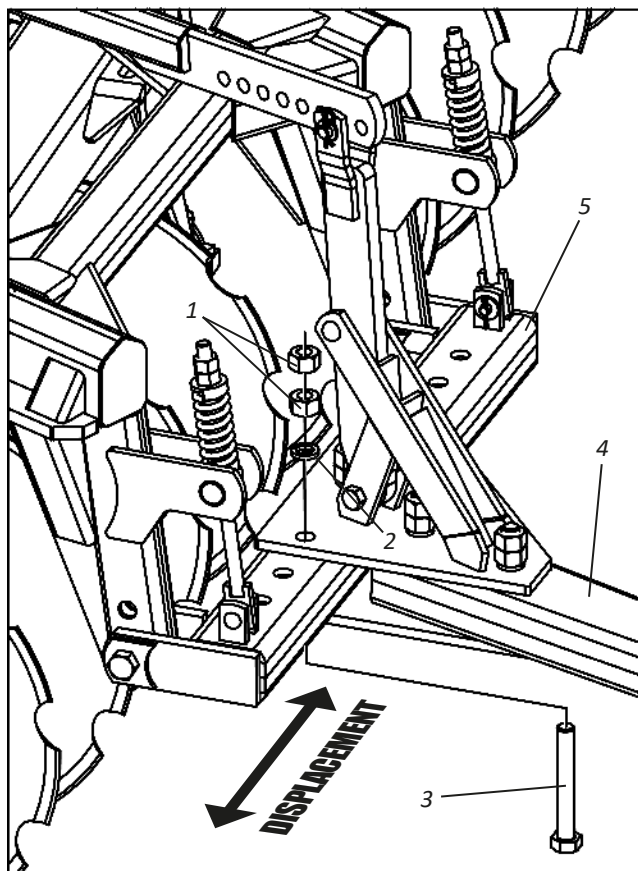
The circlips (1) that come with the GSPCR come in different sizes, which in combination offer various depth adjustments.

▪ Adjustments

• Grid displacement adjustment

The **GSPCR** should be moved when the grid is not finishing perfectly, i.e. leaving a tractor track. For the grid to work centrally with the tractor's drive line, proceed as follows:

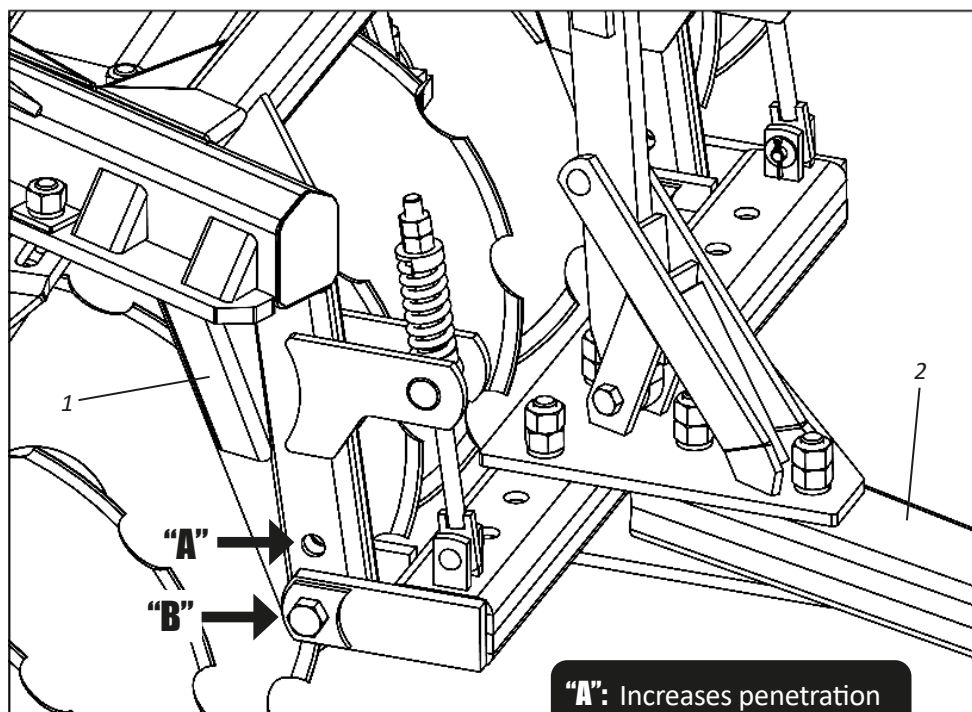
- 01** - Loosen the nuts and locknuts (1), spring washers (2) and remove the bolts (3).
- 02** - Then move the hitching header (4) on the cross bar (5), making the optimum adjustment.
- 03** - Finish by reattaching the bolts (3), lock washers (2), nuts and cotter pins (1).



▪ Adjustments

• Crossbar adjustment

The upright (1) of the **GSPCR** has two (2) holes “A” and “B” on each side, the main purpose of which is to level the grid header (2) in relation to the tractor drawbar.



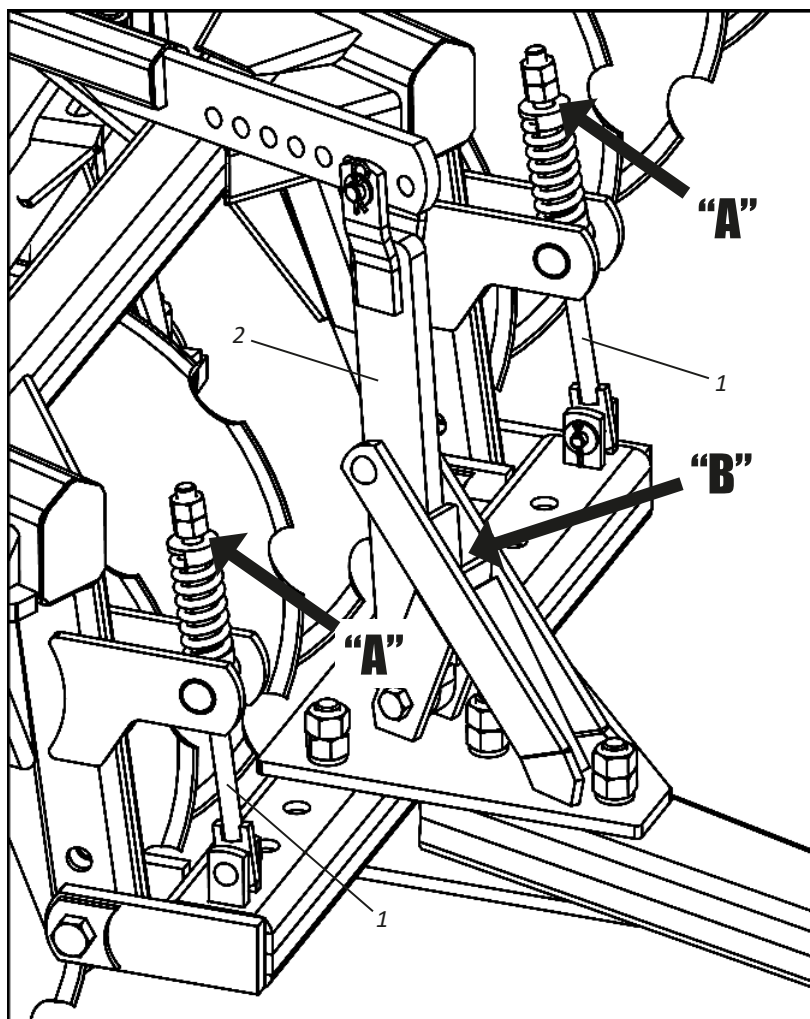
“A”: Increases penetration
“B”: Decreases penetration

▪ Adjustments

• Adjustment of the stabilizer rod and stabilizer bar bracket

On the stabilizer rod (1), leave a gap of **10 to 20 mm** between the nut and the spring backrest, according to **points "A"**.

On the stabilizer bar bracket (2), leave a gap of **10 to 20 mm** between the stabilizer bar bracket and the backrest of the header top plate, as per **point "B"**.



▪ Operations

• Recommendations for operation - Part I

Preparing the **GSPCR** and the tractor will save you time and give you better results in the field work. You may find the following suggestions useful.

GRID STRUCTURE

After the first day of working with the **GSPCR**, retighten all the bolts and nuts and check the condition of the pins and locks on the grid frame. Then retighten all the bolts and nuts on the grid structure every 24 working hours.

DISC SECTIONS

Pay special attention to the disc sections of the **GSPCR**. During the first week of use, tighten all the bolts and nuts on the disc sections every day. Then retighten the bolts and nuts on the disc sections periodically.

GENERAL RECOMMENDATIONS

- 01** - Adjust the tractor according to the contents of the instruction manual, always using the front and rear weights to stabilize the equipment.
- 02** - Always attach it to the tractor at low speed and be very careful.
- 03** - When using the **GSPCR**, it is important to check the hitching system and transverse leveling to make sure that the discs have the same depth of penetration in the soil.
- 04** - After hitching and leveling, the next adjustments will be made directly in the work field, analyzing the soil in terms of its texture, humidity and the types of operations to be carried out with the **GSPCR**.
- 05** - On the tractor, choose a gear that allows you to maintain a certain reserve of power, guaranteeing yourself against unforeseen stresses.
- 06** - Observe the working and transport speeds specified on page 10. We do not recommend exceeding the speeds in order to maintain the efficiency of the service and avoid possible damage to the **GSPCR**.
- 07** - When maneuvering the headlands, first operate the hydraulic cylinders gradually, lifting the disc sections.
- 08** - Do not disconnect any hoses without first relieving the pressure in the circuit. To do this, press the control levers a few times with the engine switched off.
- 09** - Remove any sticks or other objects that might get stuck in the discs.

▪ Operations

• Recommendations for operation - Part II

- 10** - In compacted soil where it is difficult for the discs to be penetrated, the depth can be minimal, making the work unsatisfactory. In these cases, it is recommended to apply other, more suitable products instead.
- 11** - During work or transportation, the tractor drawbar must remain fixed.
- 12** - When carrying out any maintenance on the **GSPCR**, lower it to the ground and switch off the engine.
- 13** - The GSPCR has several adjustments, but only local conditions can determine the best adjustments.

If in doubt, never operate or handle the GSPCR, consult After Sales.
Phone: 0800-152577 / E-mail: posvenda@baldan.com.br

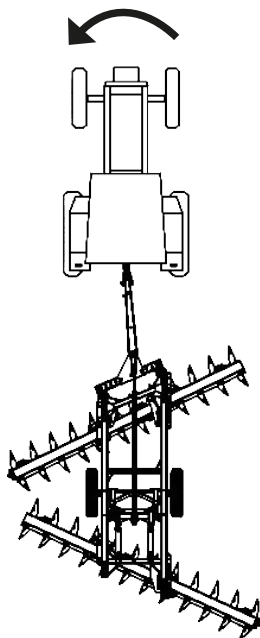
• Direction of maneuvers

When harrowing (with the discs on the ground), DO NOT maneuver to the right, as the angles formed by the disc sections will transmit a great deal of stress to the equipment, especially the traction components.



ATTENTION

With the disc sections on the ground, it is necessary to maneuver to the left (closed side of the GSPCR) to avoid overloading and the formation of large undesirable furrows at the maneuvering points.



■ Operations

• How to start grating

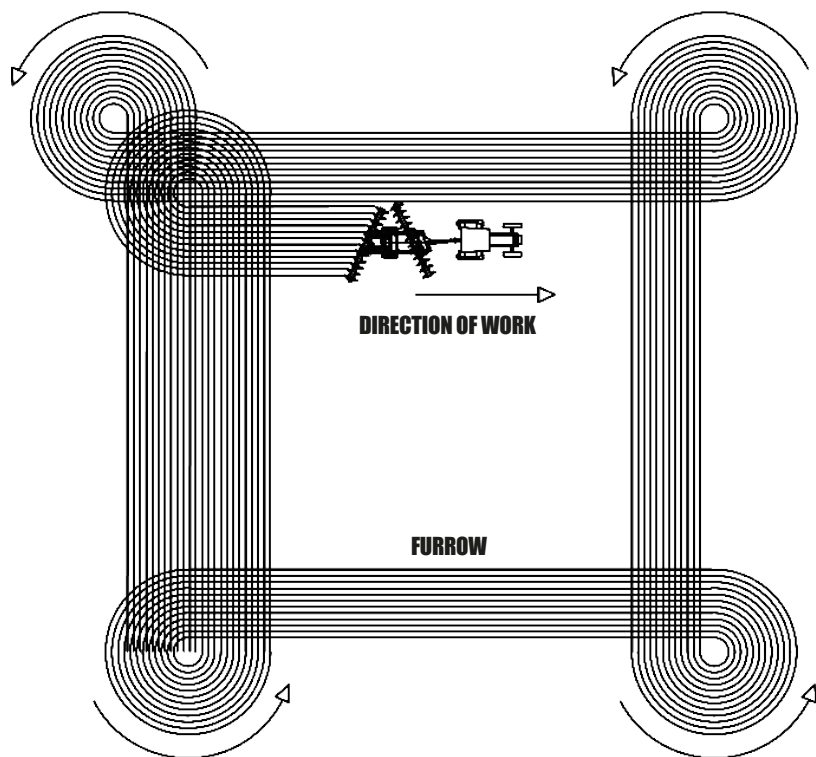
When starting grating, you should always follow the terraces or contour cordon, starting the operation so that the terrace is always on the tractor driver's left.



NOTE

Before starting operations with the GSPCR-E, check it thoroughly, retightening all bolts, nuts, hose terminals, shafts and especially the disc sections.

• Grid from the outside in



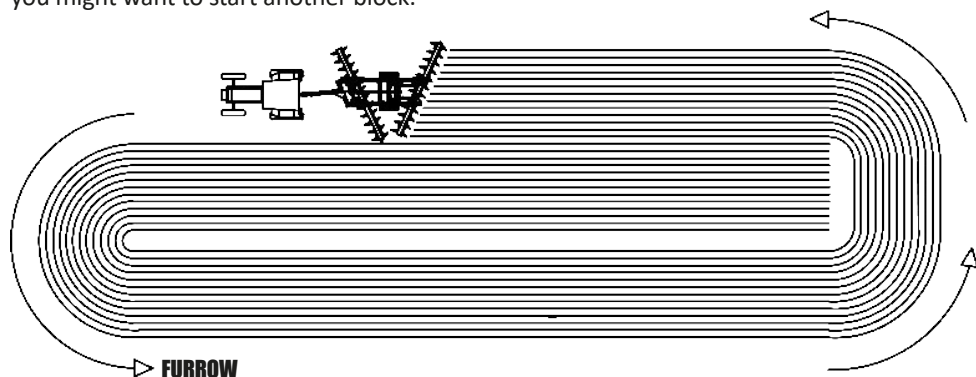
! IMPORTANT

Try to drive the tractor in such a way as to achieve good performance between passes of the GSPCR-E. Avoid forming beds or strips without grating.

▀ Operations

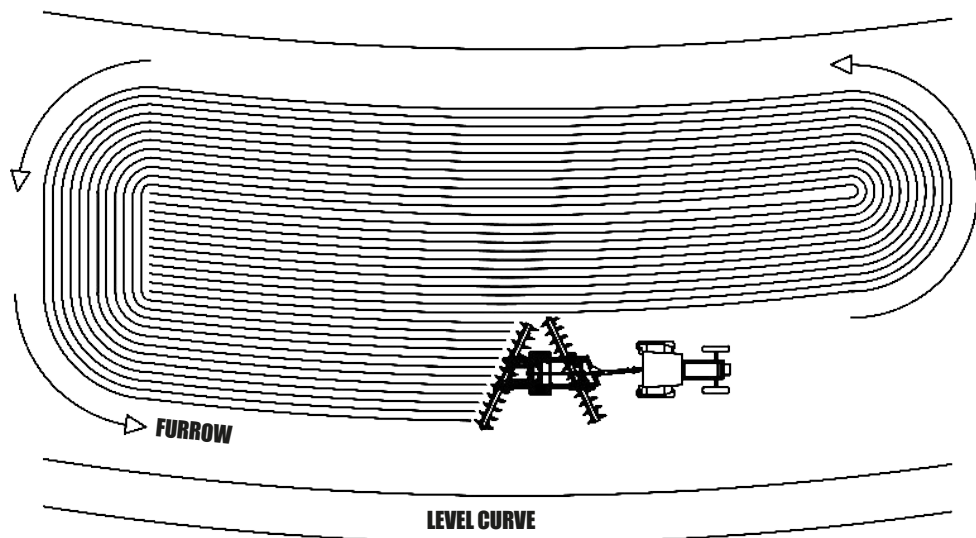
• Grid from the inside out

In this sense, greater perfection is achieved. When you're walking a lot on the headlands, you might want to start another block.



• Fields with contours

On soil with a contour, it is usual to start two fields at a time, taking care to start the work with the contour on the tractor driver's left. When you reach the middle of the contour line, you may want to start another field to reduce fuel costs.

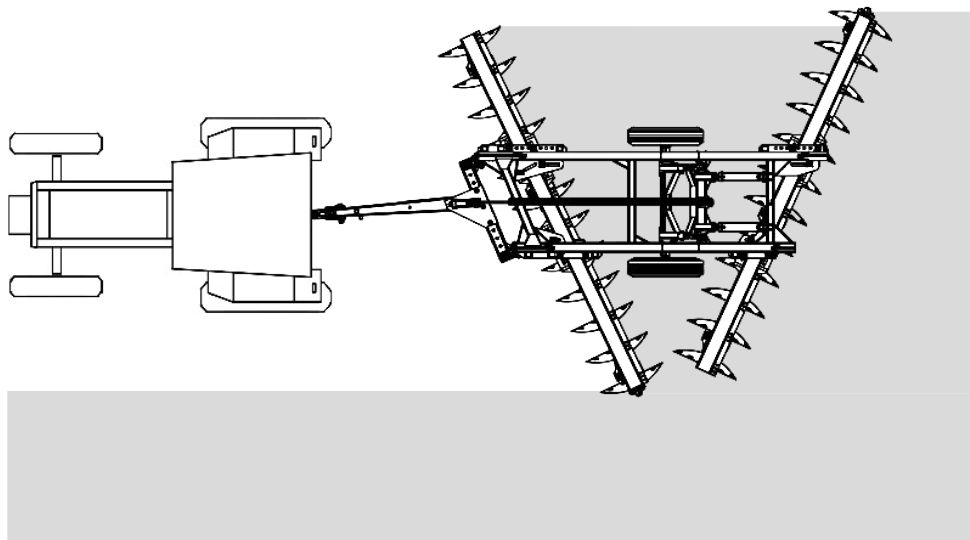


■ Operations

• Correct way of working

When working with the **GSPCR**, the tractor should drive over the unworked soil and close to the previous furrow.

CORRECT WAY OF WORKING



ATTENTION

Do not work with the tractor tires on the area that has already been grated.

▪ Calculations

• Approximate hourly output - Part I

To calculate the **GSPCR's** approximate hourly output, use the following formula:

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

WHERE:

A = Area to be worked

L = Grid working width (in meters)

V = Average tractor speed (in meters/hour)

F = Production factor: 0.90

X = Value of the hectare: 10,000 m²

Example: A **GSPCR 24 discs**, how much Ha it will produce in one hour of work at an average speed of 7 km/h.

A = ?

L = 5,34 m

V = 7.000 m/h

F = 0,90

X = 10.000 m² (Calculated in hectare)

$$A = \frac{5,34 \times 7.000 \times 0,90}{10.000} = 3,36 \text{ Ha/h}$$

Model	No. of Discs	Working width (mm)	Average Speed (m/h)	Product on Factor	Approximate Production in Hectare Hours
GSPCR	10	2060	7.000	0,90	1,29
	12	2550			1,60
	14	3040			1,91
	16	3480			2,19
	18	3970			2,50
	20	4460			2,80
	22	4900			3,08
	24	5340			3,36

The formula for calculating approximate production refers to the calculation of areas to be worked or worked by the **GSPCR**. If you want to know the time it will take to work an area of known value, simply divide the value of this area by the hourly output of the **GSPCR**.

▪ Calculations

• Approximate hourly output - Part II

Example: What time “X” will it take for a **GSPCR 24 disc** grid to produce 35 hectares at an average speed of 7km/h?

$$X = \frac{35 \text{ Ha}}{3,36 \text{ Ha/h}} = 10,41 \text{ hours approximately to work 35 hectares.}$$



ATTENTION

The hourly output of the GSPCR can vary due to factors that alter the pace of work, such as (soil moisture and hardness, slope of the soil, inadequate adjustments and working speed).

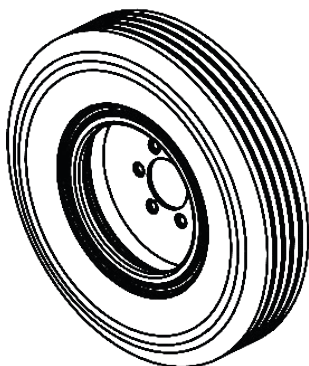
▪ Maintenance

The **GSPCR** has been developed to give you maximum performance in soil conditions. Experience has shown that periodic maintenance of certain parts of the **GSPCR** is the best way to help you avoid problems, so we suggest checking.

• Tire pressure

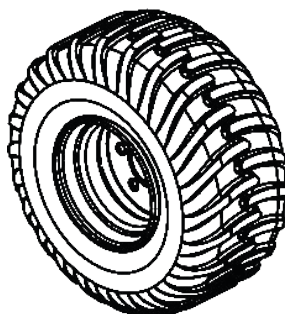
Tires must always be properly inflated to avoid premature wear due to over or underinflation.

STANDARD: TIRES 900 X 20 14 LONAS



USE: 50 LBS/POL²

OPTIONAL: TIRES 400 X 60 14 LONAS



USE: 52 LBS/POL²

ATTENTION

Never weld the assembled wheel to the tire, as the heat can cause the air pressure to rise and the tire to explode.

When inflating the tire, stand next to the tire, never in front of it.

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

Assembly the tires with suitable equipment. The work should only be carried out only by people trained for the job.

IMPORTANT

When inflating your tires, do not exceed the recommended inflation.

NOTE

The tractor tires should be inflated according to the manufacturer's recommendations.

▪ Maintenance

The **GSPCR** has been developed to give you maximum performance in soil conditions. Experience has shown that periodic maintenance of certain parts of the **GSPCR** is the best way to help you avoid problems, so we suggest checking.

• Lubrication

Lubrication is essential for good performance and greater durability of the **GSPCR's** moving parts, helping to save on maintenance costs.

Before starting the operation, carefully lubricate all the grease fittings, always observing the lubrication intervals on the following page. Ensure the quality of the lubricant in terms of its efficiency and purity, and avoid using products contaminated by water, dirt and other agents.

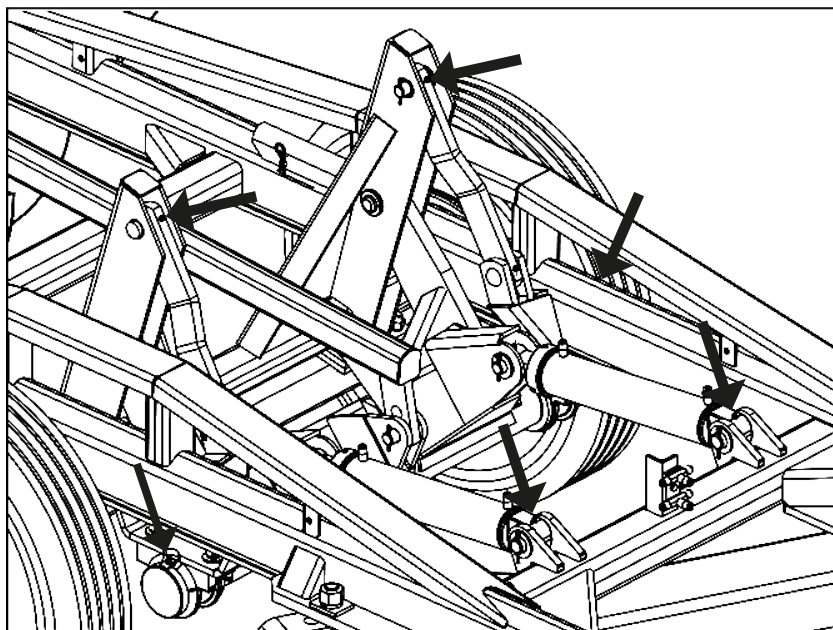
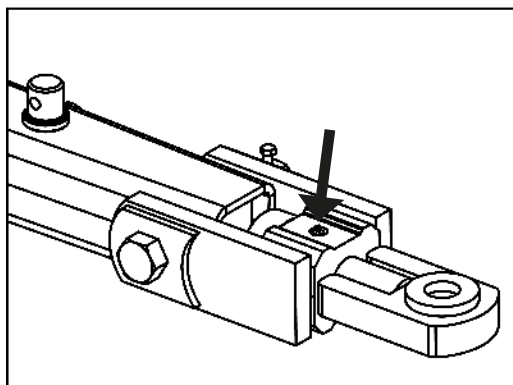
• Table of greases and equivalents

Manufacturer	Recommended types of grease
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 or brands that are not listed in the table, consult the manufacturer's technical manual.

▪ Maintenance

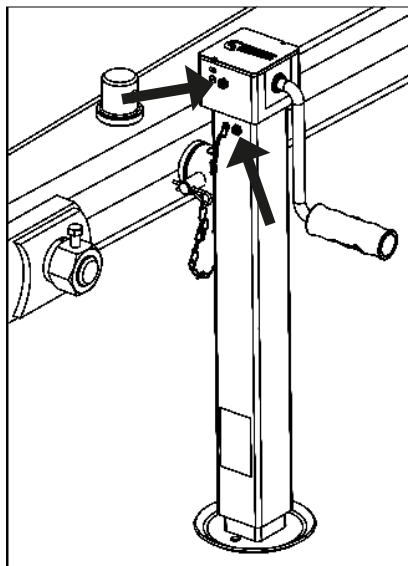
- Lubricate every 24 working hours

**⚠ ATTENTION**

When lubricating the GSPCR, do not exceed the amount of new grease. Insert a sufficient amount.

▪ Maintenance

- Lubricate every 60 working hours



ATTENTION

When lubricating the GSPCR, do not exceed the amount of new grease. Insert a sufficient amount.

▪ Maintenance

• Disc Section Bearing Adjustments

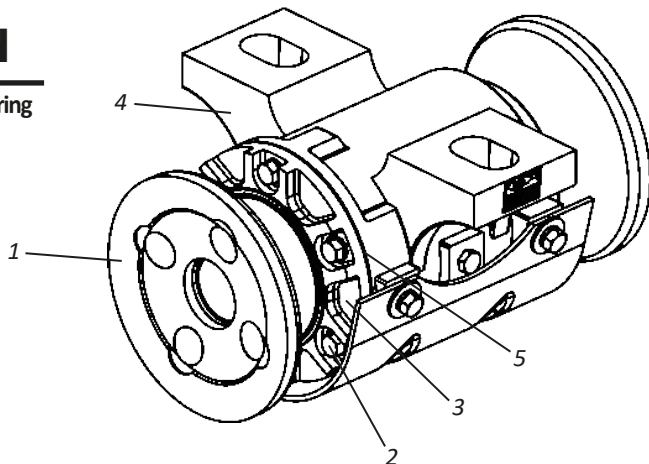
When the bearings in the disc sections show backlash, proceed as follows to adjust them:

- 01** - Remove the washer (1).
- 02** - Then loosen the bolts (2) and remove the cover (3) from the bearing (4).
- 03** - Then remove one or two gaskets (5) from the bearing cover (3) (4). Replace the cover (3) and tighten it.
- 04** - If the backlash persists, you can face the cover (3) to increase the adjustment, then assembly it on the bearing with as many gaskets as necessary.
- 05** - The bearing must rotate freely, i.e. without backlash.



ATTENTION

Do not assembly the bearing without the gaskets (5).



• Bearing oil

In the first few days of working with the **GSPCR**, check the oil level in the bearings daily, then check it every 120 hours.



ATTENTION

Change the oil every 1200 working hours using 0.900 liters.

Use transmission oil: 90 API GL4, MIL-L-2105; SAEJ306, May/81: SAE 80W, 90 and 140.



NOTE

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

■ Maintenance

• Periodic Maintenance

Parts description	Number of grease fittings								Oil change	Lubricate with grease	Retightening	Replace	Check	Maintenance interval
	GSPCR 10	GSPCR 12	GSPCR 14	GSPCR 16	GSPCR 18	GSPCR 20	GSPCR 22	GSPCR 24						
Shackle	1	1	1	1	1	1	1	1	X					24 hours
Lift cylinder base	2	2	2	2	2	2	2	2	X					
Lifting cylinder steam	2	2	2	2	2	2	2	2	X					
Wheel hub	2	2	2	2	2	2	2	2	X					
Wheel brackey bearing	2	2	2	2	2	2	2	2	X					
Mechanical jack	1	1	1	1	1	1	1	1	X					60 hours
Bearings	-	-	-	-	-	-	-	-	X					1200 hours
Hydraulic system	-	-	-	-	-	-	-	-					X	40 hours
Bearings	-	-	-	-	-	-	-	-			X		X	120 hours
Shaft bolts and nuts	-	-	-	-	-	-	-	-			X			200 hours
Bolts and nuts	-	-	-	-	-	-	-	-			X			100 hours
Retainers	-	-	-	-	-	-	-	-				X		1500 hours
Rolling bearings	-	-	-	-	-	-	-	-				X		
Discs	-	-	-	-	-	-	-	-				X		When necessary
Tires	-	-	-	-	-	-	-	-				X		

▪ Maintenance

• Operational Maintenance- Part I

PROBLEMS	PROBABLE	SOLUTIONS
The tires are damaged.	Work area with stones, stumps or crop residues with stems that cause the tires to crunch.	Eliminate the elements that cause damage to the tires before the GSPCR is used.
	The tires are not inflated properly, causing deformation.	Maintain proper tire pressure.
Strange noise in the wheels.	Loos wheels or hubcaps.	Retighten the wheel nuts and adjust the wheel hub rolling bearings.
	Rolling bearings break.	Identify the incident and replace the damaged parts.
Quick hitching does not fit.	Different types of hitching.	Replace them with males and females of the same type.
Leaking hydraulic hoses.	The thread is missing sealing material.	Use thread seal tape and carefully retighten.
	The thread is missing sealing material.	Re-tighten carefully.
	Damaged terminals.	Replace terminals.
Leaking quick hitching.	The thread is missing sealing material.	Use thread seal tape and carefully retighten.
	Insufficient tightening.	Retighten carefully without excess.
	Damaged repairs.	Replace repairs.
Leak in the hydraulic cylinder.	Damaged repairs.	Replace the repairs.
	Damaged stem.	Replace the stem.
	Oil with impurities.	Replace oil, repairs and filter elements.
	Working pressure higher than recommended.	Adjust the control via the relief valve using a pressure gauge. Normal pressure 180 Bar.

■ Maintenance

• Operational Maintenance- Part II

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Quick hitching do not engage.	Different brand hitching.	Use quick hitching of the same brand.
	A mixture of needle and ball hitching.	Always use the same type of quick hitching.
	Pressure in the system.	Ease the pressure to hitching.
Tractor pulling to the right.	Angle too large in the front section or too small in the rear section.	Reduce the angle of the front section or increase that of the rear section.
	Oscillating drawbar leaning against the stop to the left.	Move the drawbar to the left.
Furrow being left open on the left.	Very low speed for soil conditions.	Increase the speed.
	Tractor being positioned too far to the right.	Position the tractor so that the left front disc is at the edge of the furrow.
	Incorrect adjustment of the disc sections laterally.	Move the rear section to the left or the front section to the right.
Formation of tracks on the left.	Insufficient overlap. Incorrect rear section adjustment.	In the event of track formation, move the front section to the left or the rear section to the right.
Sections are not at grid level.	Front and rear sections are not operating at the same depth.	Adjust the angle of the disc sections.
Locked sections.	Very wet field.	Let the field dry or penetrate the disc superficially to help it dry.
	Adjustment of the sections with maximum angle.	Reduce the angle.
	Very deep grading in damp soil.	Use toppers to reduce the depth. Lift the disc to reduce penetration.
	Wipers worn or incorrectly adjusted.	Adjust or change the wipers when necessary.

▪ Maintenance

• Care

- 01** - Before each job, check the condition of all hoses, pins, bolts, bearings, discs and sections. If necessary, retighten them.
- 02** - Displacement speed must be carefully controlled according to the soil conditions.
- 03** - **GSPCR** is used in various applications, requiring knowledge and attention during its handling.
- 04** - Only local conditions can determine the best way to operate the **GSPCR**.
- 05** - When assembling or disassembling any part of the **GSPCR**, use appropriate methods and tools.
- 06** - Carefully observe the lubrication intervals at the various lubrication points on the **GSPCR**. Respect the lubrication intervals.
- 07** - Always check parts for wear. If a replacement is needed, always demand original Baldan parts.
- 08** - Always keep the **GSPCR** discs sharp.



IMPORTANT

Proper and regular maintenance is necessary to ensure the long life of the **GSPCR**.

• General cleaning - Part I

- 01** - When storing the **GSPCR**, clean it thoroughly and rinse it only with water. Check that the paint hasn't worn off, if it has, give it a general coat, apply the protective oil and fully lubricate the **GSPCR**. Do not use burnt oil or any other type of abrasive.
- 02** - Fully lubricate the **GSPCR**. Check all the moving parts of the **GSPCR**. If they show wear or looseness, make the necessary adjustment or replace the parts, leaving the grid ready for the next job.
- 03** - After all maintenance work, store the grid in a covered, dry place, properly supported.

Avoid: - Discs coming into direct contact with the soil.

- The compression of the springs.

- Hydraulic hoses must be properly capped.

▪ Maintenance

• General cleaning - Part II

- 04** - When connecting or disconnecting hydraulic hoses, do not let the ends touch the soil. Before connecting the hydraulic hoses, clean the connections with a clean, lint-free cloth. **Do not use towels!**
- 05** - Replace all stickers, especially warning stickers that are damaged or missing. Make everyone aware of their importance and the dangers of accidents when instructions are not followed.
- 06** - After all maintenance work, store your **GSPCR** on a flat surface in a covered, dry place, away from animals and children.
- 07** - We recommend rinsing the **GSPCR** only with water when starting work.



ATTENTION

Do not use chemicals or abrasives to wash the **GSPCR**, as this could damage its paintwork and adhesives.

• Grid conservation - Part I

To prolong the lifespan and appearance of the **GSPCR** for longer, follow the instructions below:

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

• Grid conservation - Part II

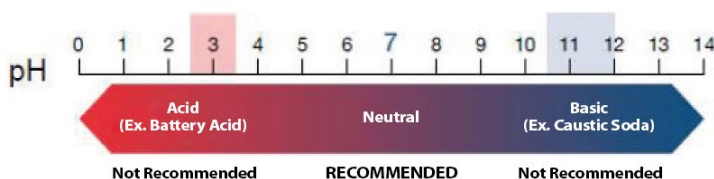
The following practices and precautions, if adopted by the owner or operator, make a difference to the conservation of the **GSPCR**.

- 01** - Take care when pressure washing; do not direct the water jet directly at connectors and electrical components. Isolate all electrical components;
- 02** - Use only NEUTRAL water and detergent (pH equal to 7);
- 03** - Apply the product, strictly following the manufacturer's instructions, on the wet surface and in the correct sequence, respecting the time of application and washing;
- 04** - Stains and dirt that cannot be removed with the products should be removed with a sponge.
- 05** - Rinse the machine with clean water to remove all chemical residues.


▪ Maintenance


• Grid conservation - Part III

- 06 - Do not use:** - Detergents with a basic active ingredient (pH greater than 7), may damage/stain the grid paintwork.
- Detergents with acidic active ingredient (pH less than 7), act as zinc plating stripper/removal agent (the protection of parts against oxidation).




- 07 -** Let the machine dry in the shade, so that no water accumulates on its components. Drying too quickly can cause stains on your paintwork.
- 08 -** After drying, lubricate all chains and grease fittings according to the recommendations in the operator's manual.
- 09 -** Spray the entire machine, especially galvanized parts, with protective oil, following the manufacturer's application guidelines. The protectant also prevents dirt from sticking to the machine, making it easier to wash later.
- 10 -** Observe the curing time (absorption) and application intervals as recommended by the manufacturer.

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

 **IMPORTANT** | We recommend the following protective oils:

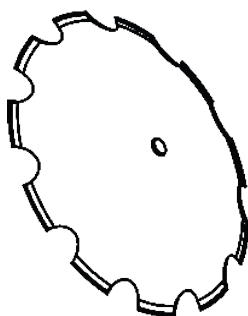
- Bardahl: Agro-protective 200 or 300
- ITWChemical: Zoxol DW - Series 4000

 **NOTE** | Failure to comply with the above maintenance measures may result in the loss of warranty on painted or galvanized components that may show oxidation (rust).

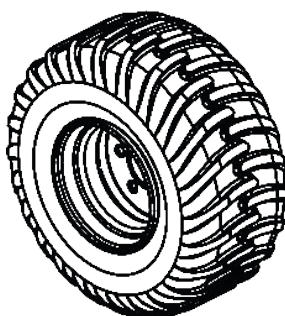
▪ Optional

• Optional accessories

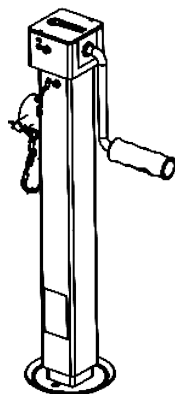
GSPCR has options that can be purchased according to your work requirements.



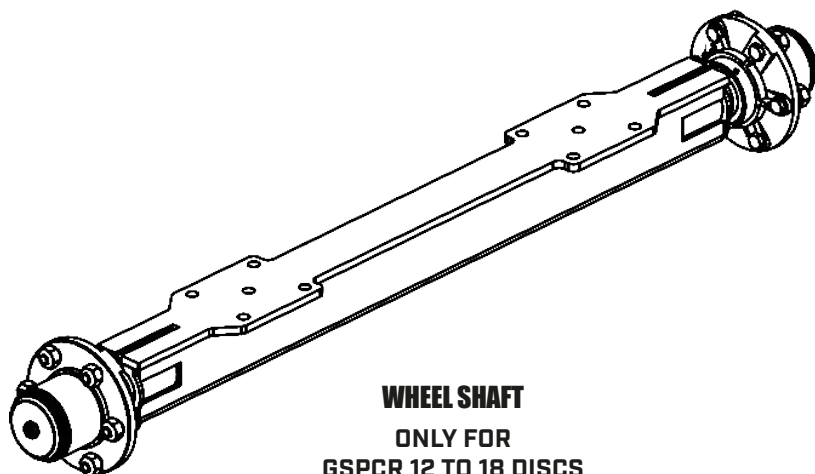
CUT-OUT DISC
32" / 34" / 36"



TIRE 400 X 60 14 LONAS
ONLY FOR
GSPCR 12 TO 18 DISCS



LIFT BRACKET



WHEEL SHAFT
ONLY FOR
GSPCR 12 TO 18 DISCS

▪ Identification

• Identificate plate

To consult the parts catalog or request technical assistance from Baldan, always indicate the model (01), serial number (02) and date of manufacture (03) on the nameplate of your GSPCR.



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

QR Code

01 — Modelo / Model

02 — N° de Série / Serial Number

03 — Data / Date

Tipo / Type

Capacidade / Load Capacity

Peso / Weight



ATTENTION

The drawings contained in this Instruction Manual are for illustrative purposes only.



CONTACT

If in doubt, never operate or handle your equipment without consulting After Sales.

Phone: 0800-152577

e-mail: posvenda@baldan.com.br



PUBLICATIONS

Code: 60550105929 | CPT: GSPCR102411823A



▪ Identification

• Product identification

Identify the data below correctly so that you always have information about the life of your equipment.

Owner: _____

Resale: _____

Farm: _____

City: _____

State: _____

Warranty certificate No: _____

Implement: _____

Serial No: _____

Date of purchase: _____

Invoice: _____

■ Notes

This image shows a single sheet of white paper with horizontal blue or grey 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 guarantees the normal operation of the implement to the reseller for a period of six (6) months from the date of delivery on the resale invoice to the first end consumer. During this period, **BALDAN** undertakes to repair material and/or manufacturing defects for which it is responsible, with labor, freight and other expenses being the responsibility of the reseller.

During the warranty period, any defective parts must be requested and replaced by the local reseller, who will send the defective part to **BALDAN** for analysis.

When this procedure is not possible and the reseller's ability to resolve the issue has been exhausted, the reseller will request support from **BALDAN Technical Assistance**, using the specific form distributed to resellers. Once Baldan Technical Assistance has analyzed the replaced items and concluded that they are not under warranty, the reseller will be responsible for the costs related to the replacement, as well as the costs of materials, travel including accommodation and meals, accessories, lubricant used and other expenses arising from the call to Technical Assistance, and Baldan is authorized to invoice the reseller. Any repairs made to the product that is within the warranty deadline by the reseller will only be authorized by **BALDAN** upon prior presentation of a budget describing the parts and labor to be executed.

This term does not apply to products that have been repaired or modified by officials who do not belong to the **BALDAN** reseller network, or to the application of non-genuine parts or components to the user's product. This warranty shall become null and void when it is established that the defect or damage is the result of improper use 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 guaranteed by their manufacturers. Manufacturing and/or material defects, the subject of this warranty term, will not, under any circumstances, constitute a reason for termination of the purchase and sale contract, or for compensation 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 DELIVERY: This implement has been carefully prepared by the sales organization, inspected in all its parts according to the manufacturer's instructions.

DELIVERY SERVICE: The user has been informed of the warranty terms in force and has been instructed in the use and maintenance of the product.

I confirm that I have been informed of the warranty terms in force and instructed on the correct use and maintenance of the implement.

Implement: _____ Serial No: _____

Date: _____ Tax No: _____

Resale: _____

Phone: _____ Zip Code: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Date of sale: _____

Resale's Signature / Stamp _____

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Implement: _____ Serial No: _____

Date: _____ Tax No: _____

Resale: _____

Phone: _____ Zip Code: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Date of sale: _____

Resale's Signature / Stamp _____

2nd copy - Resale

▪ Inspection and delivery certificate

SERVICE BEFORE DELIVERY: This implement has been carefully prepared by the sales organization, inspected in all its parts according to the manufacturer's instructions.

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Implement: _____ Serial No: _____

Date: _____ Tax No: _____

Resale: _____

Phone: _____ Zip Code: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Date of sale: _____

Resale's Signature / Stamp _____

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

1.74.05.0059-5

AC MATÃO
ECT/DR/SP

REPLY CARD

NO NEED TO SEAL

THE STAMP WILL BE PAID BY:



BALDAN IMPLEMENTOS AGRÍCOLAS S/A.

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

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

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