Instruction
Manual

GIGA AIR - SELENIUM

Precision Row Crop Planter

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 required from your purchase to the operational use procedures, safety and maintenance.

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

The dealer undertook responsibility for its safekeeping and conservation during the period it was in their possession, and also for its assembly, retightening, lubrication, and general overhaul.

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

Any request for warranty service should be made to the dealer where it was purchased.

We reiterate the necessity of carefully reading the warranty certificate and complying with all the items in this manual, as this will extend the lifespan of your implement.

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Precision Row Crop Planter

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

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

BALDAN

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▪ Baldan Warranty

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

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

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

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

After **BALDAN's** Technical Assistance has analyzed the replaced items and concluded that they are not under warranty, then the dealer 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 dealer.

Any repairs made to the product that is within the warranty period by the dealer 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 in officials that do not belong to the **BALDAN** dealer network is excluded from this term, as well as the application of non-genuine parts or components to the user's product.

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

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

The manufacturing and or material defects, object of this warranty term, will not constitute, under any hypothesis, reason for rescission of the purchase and sale contract, or for indemnity of any nature.

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

▪ General Information

• To the owner

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 its improper or incorrect storage of its 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 carry out its transport and operation.

BALDAN is not responsible for any damage caused in unforeseeable situations or outside the normal use of the implement.

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

⚠ ATTENTION

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

The purpose of this Regulatory Standard is to establish the precepts to be observed in the organization and working environment, so that the planning and development of agricultural, livestock, forestry, logging and aquaculture activities are 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, visit 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 FIND IT, PLEASE READ THE FOLLOWING MESSAGE CAREFULLY AND BE AWARE OF THE POSSIBILITY OF PERSONAL ACCIDENTS.

⚠ ATTENTION

Carefully read the instructions manual for recommended safety practices.

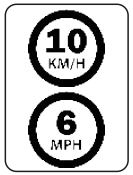
⚠ ATTENTION

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

⚠ ATTENTION

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

⚠ ATTENTION



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

⚠ ATTENTION

Do not transport people on the tractor, neither inside nor over the equipment.

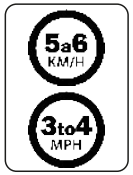
⚠ ATTENTION

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

⚠ ATTENTION

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

⚠ ATTENTION



When working with the seeder, do not exceed a speed of 5 to 6 Km/h or 3 to 4 MPH, to avoid the risk of damage and accidents.

⚠ ATTENTION

Do not operate the tractor if the front lacks sufficient ballast for the rear equipment.
If there is a tendency to lift, add weights or ballast to the front or front wheels.

⚠ ATTENTION

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

⚠ ATTENTION

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

⚠ ATTENTION

Before starting work or transporting the seeder, check for people or obstructions near it.

▪ 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

Avoid heating parts near fluid lines.
Heating can cause material fragility, rupture and release of pressurized fluid, which can cause burns and injuries.

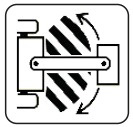
⚠ ATTENTION

Avoid accidents caused by the intermittent action of the row markers.
When starting the seeder, make sure there are no people under the row markers or in their area of action.

⚠ ATTENTION

Hydraulic oil under pressure can cause serious injury if it leaks. Periodically check the state of repair of the hoses. If there are signs of leaks, replace them immediately. Before connecting or disconnecting the hydraulic hoses, relieve the pressure in the system by operating the control with the tractor switched off.

⚠ ATTENTION



Keep the work area clear while the seeder is in operation.
On sharp turns, avoid having the tractor wheels touch the header.

⚠ ATTENTION

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

⚠ ATTENTION

Do not operate the seeder if the transmission guards are not properly attached.
Only remove the guards when changing gears and replace them immediately..
Do not make adjustments while the seeder is moving.

⚠ ATTENTION

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

PROTECT THE ENVIRONMENT!

⚠ ATTENTION

Always keep away from the active parts of the seeder (discs), as they are sharp and cause accidents.
When carrying out any work on the disc, wear safety gloves on your hands.

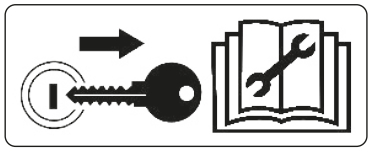
⚠ ATTENTION

Never weld the mounted 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).

▪ 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!

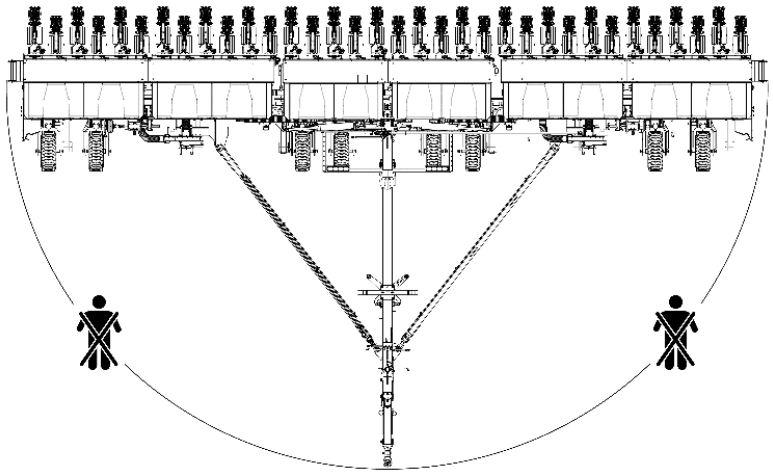
⚠ ATTENTION



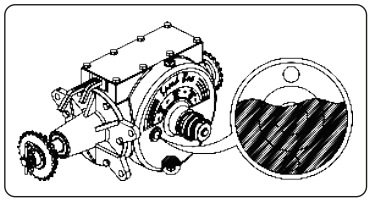
Remove the ignition key before carrying out any maintenance on the seeder. Protect yourself from possible injury or death caused by the seeder starting up unexpectedly.
If the seeder is not properly engaged, do not start the tractor.

⚠ ATTENTION

When operating the GIGA AIR to open or close it, do not allow people to stand too close. Ignoring this warning could lead to serious accidents or death.



⚠ ATTENTION



Check the oil level daily.
Change the oil in the Speed Box after the first 30 hours of operation, then every 1500 hours, always using ISO VG 150 mineral oil at 40° C (1.8 liters of oil used). Use only the original factory fuse, as only this has a controlled hardness.

⚠ ATTENTION

The turbine can expel residues of toxic products used to treat the seeds.

- Do not be exposed to the air coming out of the turbine when it is running.

Carefully read the label of the product used for seed treatment.

- During handling, application and planting, use personal protective equipment (PPE).
- Wash your hands thoroughly after handling the products.
- Treated seeds must not be exposed to people outside the service, domestic animals, birds or in contact with products for human or animal consumption.
- In the event of poisoning by inhalation or aspiration, keep the person in fresh air and seek medical attention immediately, taking the label or packaging of the chemical product with you.

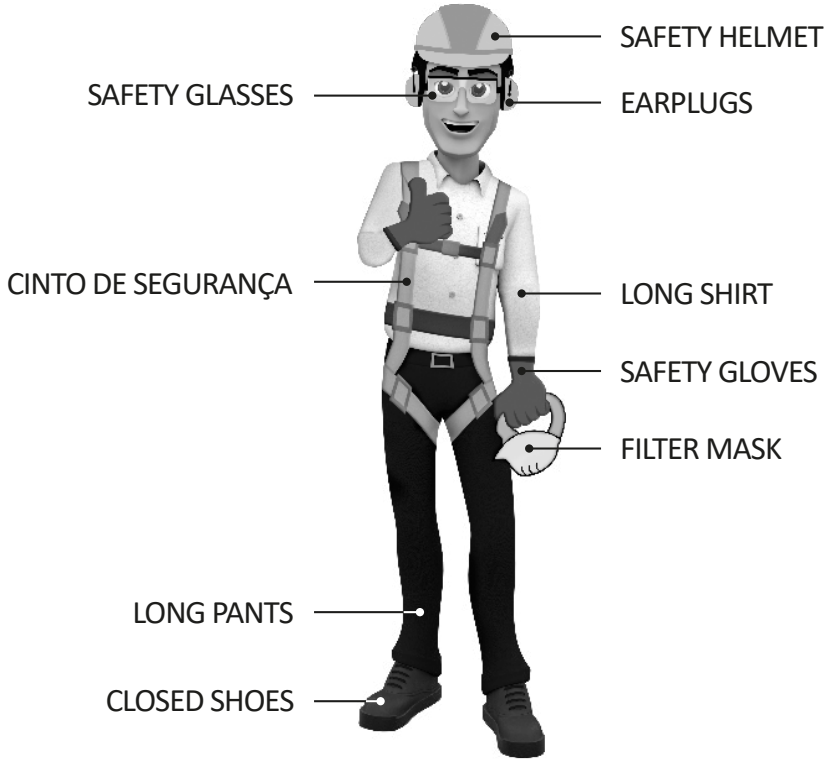
⚠ | SYMPTOMS OF POISONING: Weakness, headache, pressure in the chest, blurred vision, non-reactive pupils, profuse salivation, sweating, nausea, vomiting and abdominal cramps.

▪ Safety Regulations

• PPE Equipment

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

When carrying out certain procedures with the seeder, wear the following PPEs (Safety Equipment):



🔍 NOTE | **All PPEs (safety equipment) must have a certificate of authenticity.**

❗ IMPORTANT

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

▪ Warnings

⚠ When operating the seeder, do not allow people to stand too close to it or on it.

⚠ Wear PPE when carrying out any maintenance work.

⚠ Don’t wear clothes that are too loose, as they could get tangled in the seeder.

⚠ When starting the tractor engine, make sure you are properly seated in the operator’s seat and are fully aware of the correct and safe handling of both the tractor and the seeder. 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 engage the tractor engine in an enclosed space without adequate ventilation, as the exhaust fumes are harmful to your health.

⚠ When maneuvering the tractor in order to hitch the seeder, make sure you have the necessary space and that no one is too close, always maneuver in low gear and be prepared to brake in an emergency.

⚠ Do not make adjustments while the seeder is running.

⚠ 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 seeder.

⚠ Always drive the tractor at speeds that are compatible with safety, especially when working on rough terrain or slopes.

⚠ 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.

⚠ ny maintenance on the seeder must be carried out when it is stationary and the tractor is switched off.

⚠ Any refueling or inspection must be carried out with the seeder stopped and the tractor switched off, using safe means of access.

⚠ Do not drive on highways, especially at night. Use warning signs all along the route.

⚠ If you need to take the seeder on the road, check with the traffic authorities.

⚠ Do not allow the seeder to be used by people who have not been trained, i.e. who do not know how to operate it correctly.

⚠ Do not transport or work with the seeder near obstacles, rivers or streams.

▪ Warnings

⚠ It is forbidden for people to be transported in self-propelled machines and implements.

⚠ Changes to the original characteristics of the seeder are not authorized, as they may alter safety, operation and affect service life.

⚠ Carefully read all the safety information in this manual and on the seeder.

⚠ Only operate the seeder if all the guards are correctly installed.

⚠ Do not, under any circumstances, remove the seeder's protective components.

⚠ Always check that the seeder is in perfect working order. In the event of any irregularity that could interfere with the operation of the seeder, provide the due maintenance before any work or transportation.

⚠ Maintenance and, above all, inspection of the seeder's risk zones should only be carried out by a trained or qualified worker, observing all safety guidelines. Before starting maintenance, disconnect all drive systems from the seeder.

⚠ Periodically check all the components of the seeder before using it.

⚠ Depending on the equipment used and the working conditions in the field or 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 seeder.

⚠ Check the minimum recommended tractor power for each seeder model. Only use a tractor with power and ballast compatible with the load and topography of the terrain.

⚠ When transporting the seeder, travel at speeds compatible with the terrain and never higher than 10 Km/h. This reduces maintenance and consequently increases the lifespan of the seeder.

⚠ Alcoholic beverages or certain medications can cause a loss of reflexes and alter the operator's physical condition. Therefore, never operate this seeder while using these substances.

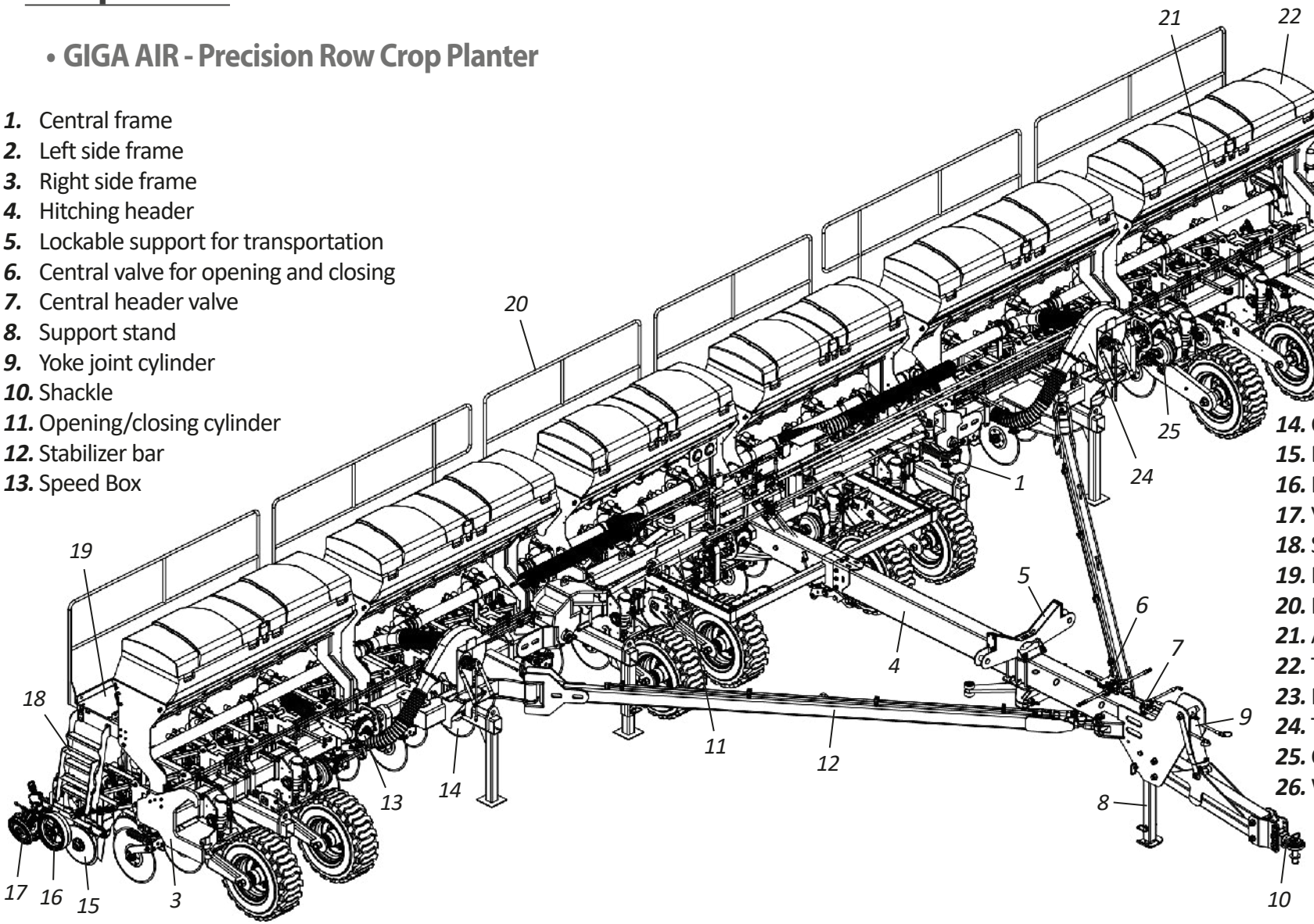
⚠ Read or explain all the procedures in this manual to the user who cannot read.

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

▪ Components

• GIGA AIR - Precision Row Crop Planter

1. Central frame
2. Left side frame
3. Right side frame
4. Hitching header
5. Lockable support for transportation
6. Central valve for opening and closing
7. Central header valve
8. Support stand
9. Yoke joint cylinder
10. Shackle
11. Opening/closing cylinder
12. Stabilizer bar
13. Speed Box

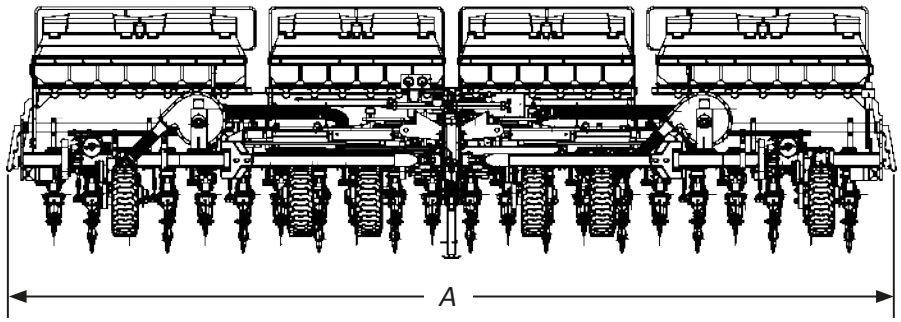


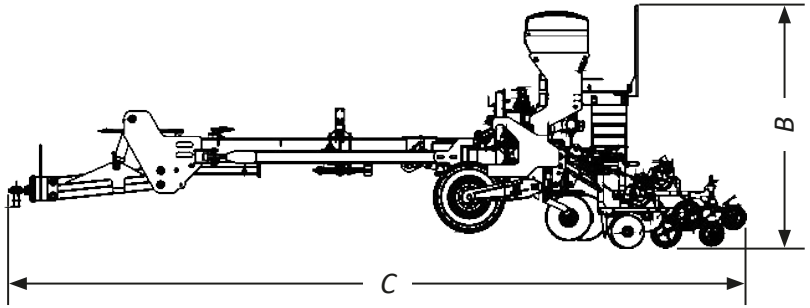
14. Cutting disc
15. Double seed disc
16. Productivity limiting wheel
17. V-shaped wheel
18. Stairs
19. Platform
20. Platform handrail
21. Air pipe
22. Top seed tank
23. Manual container
24. Turbine
25. Clutch system
26. Wheeler

▪ Dimensions

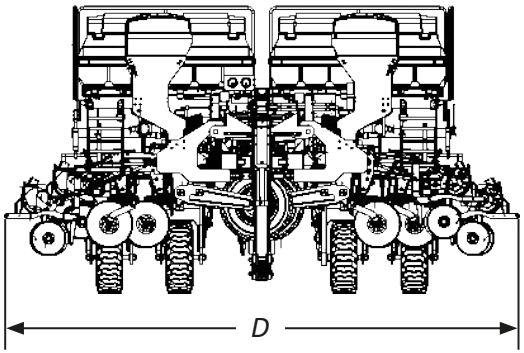
• GIGA AIR - Precision Row Crop Planter

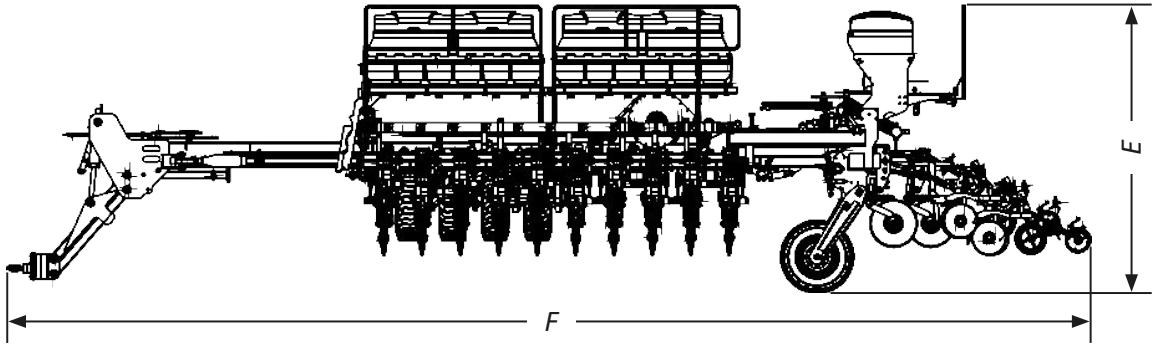
WORKING MODULE





TRANSPORT MODULE





Model	No. of Rows	Measure A (mm)	Measure B (mm)	Measure C (mm)
GIGA AIR	22	10600	2700	8600
GIGA AIR	30	14100	2700	9600
GIGA AIR	34	16000	2700	9600
GIGA AIR	42	19600	2720	13600

Model	No. of Rows	Measure D (mm)	Measure E (mm)	Measure F (mm)
GIGA AIR	22	6500	3280	10000
GIGA AIR	30	6500	3280	12200
GIGA AIR	34	6500	3280	12200
GIGA AIR	42	6500	3300	17700

▪ Specifications

• GIGA AIR - Precision Seeder

Model	Nr of Lines	Overal width (mm)	Height (mm)		Lenght (mm)		Number of wheels (unit)	Seed tank Capacity (L)	Approximate power (cv)		Approximate weight (Kg)		Tires
			Total	Tranport	Total	Transport			Direct	Conventional	Without transport support	With transport support	
GIGA AIR	22	10600	2700	3280	8600	10000	6	3340	160*	180*	11500	12400	300/70 R16.5
GIGA AIR	30	14100	2700	3280	9600	12200	8	4500	210*	240*	15200	15500	300/70 R16.5
GIGA AIR	34	16000	2700	3280	9600	12200	8	5180	240*	270*	15900	17000	300/70 R16.5
GIGA AIR	42	19600	2720	3300	13600	17700	8	6340	300*	340*	20200	21200	14-17,5 14 Canvas

*Transport width (mm) 6500/6700***
Usable width (mm) ..... 9450 a 19000
Working depth (mm) 0-120

(*) Approximate power (hp) depends on normal planting situations and may vary according to the type of soil, topography, etc.
(**) The transport width of the seeder with depth system on the double disc hub (optional) will be 6700 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 GIGA AIR - SELENIUM

The **GIGA AIR - SELENIUM** was developed to deliver great cost-benefit.
The **GIGA AIR - SELENIUM** should only be driven and operated by a properly trained operator.

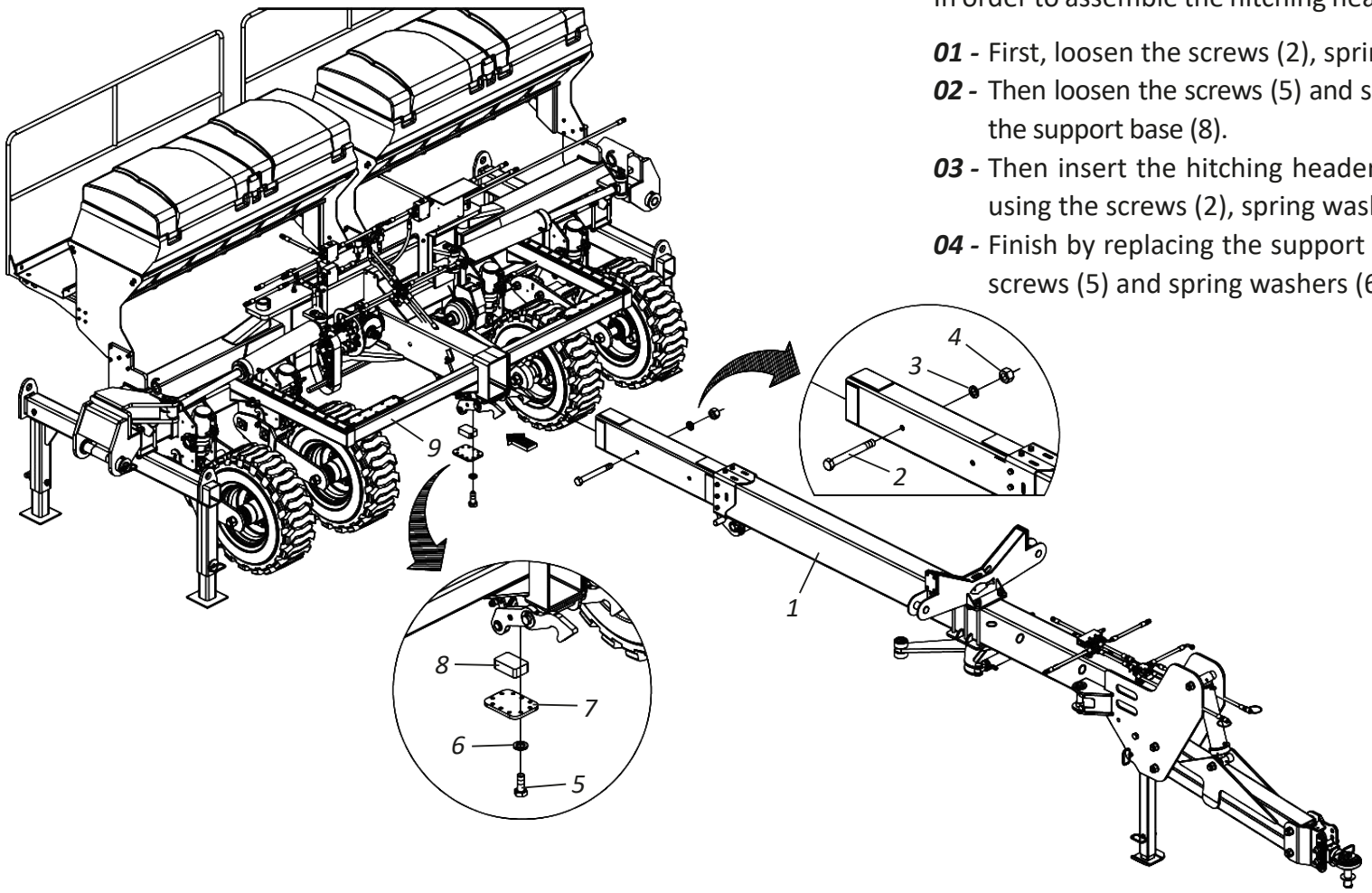
UNAUTHORIZED USE OF GIGA AIR - SELENIUM

In order to avoid damage, serious accidents or death, DO NOT transport people on any part of the **GIGA AIR - SELENIUM**.
It is NOT PERMITTED to use the **GIGA AIR - SELENIUM** to attach, tow or push other implements or accessories.
The **GIGA AIR - SELENIUM** must NOT be used by an inexperienced operator who does not know all of the driving, control and operating techniques.

▪ Assembly

The **GIGA AIR** leaves the factory semi-assembled, with some components still to be assembled according to the instructions below.

• Assembling the hitching header



In order to assemble the hitching header (1) on the **GIGA AIR**, proceed as follows:

01 **-** First, loosen the screws (2), spring washers (3) and nuts (4).

02 **-** Then loosen the screws (5) and spring washers (6), removing the plate (7) and the support base (8).

03 **-** Then insert the hitching header (1) into the central chassis (9), securing it using the screws (2), spring washers (3) and nuts (4).

04 **-** Finish by replacing the support base (8), the plate (7) and fixing it with the screws (5) and spring washers (6).

IMPORTANT

Before starting to assemble the hitching header (1), look for an ideal location where it is easy to identify the components and assemble the hitching header.

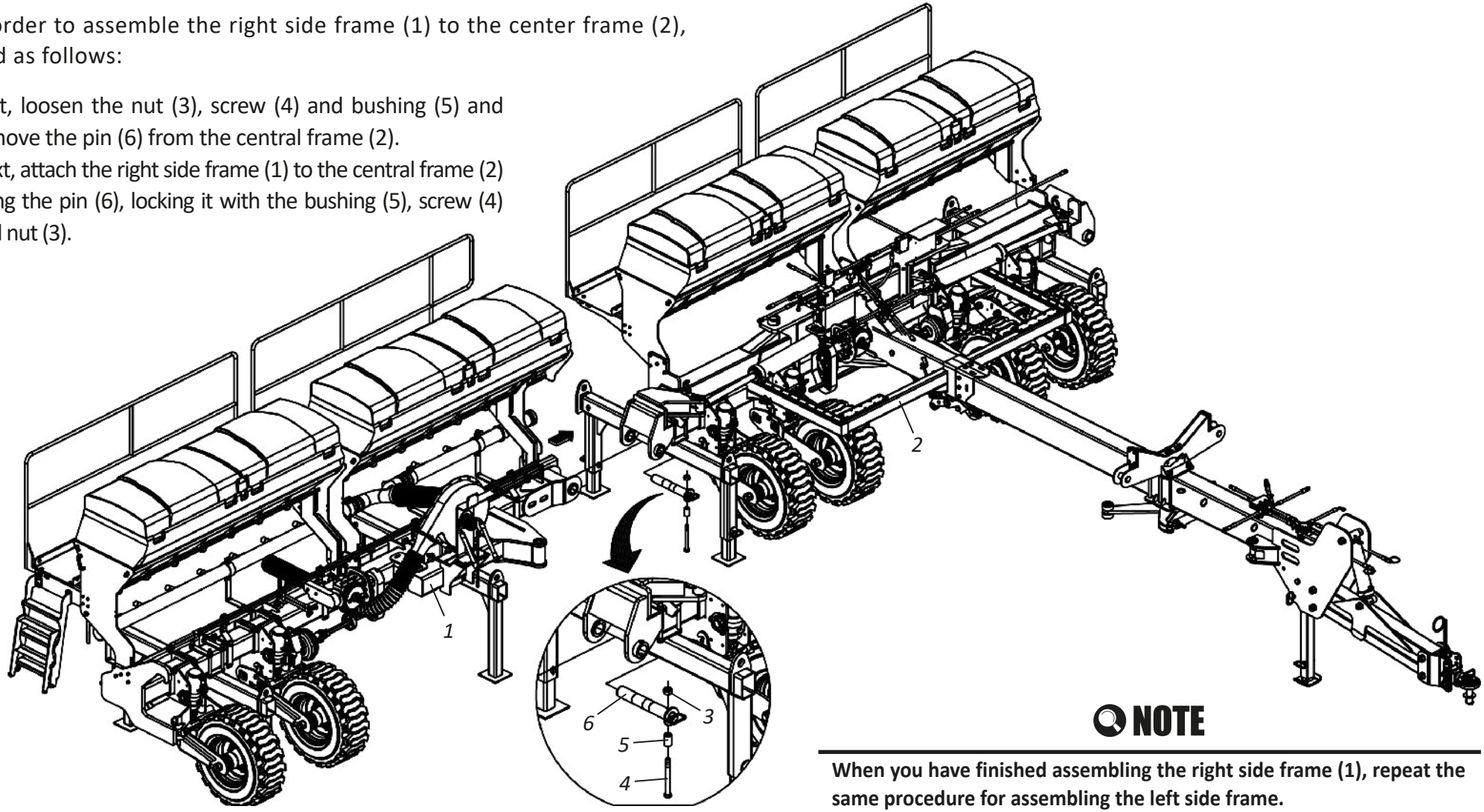
▪ Assembly

• Assembling the side frame

In order to assemble the right side frame (1) to the center frame (2), proceed as follows:

01 - First, loosen the nut (3), screw (4) and bushing (5) and remove the pin (6) from the central frame (2).

02 - Next, attach the right side frame (1) to the central frame (2) using the pin (6), locking it with the bushing (5), screw (4) and nut (3).



NOTE

When you have finished assembling the right side frame (1), repeat the same procedure for assembling the left side frame.

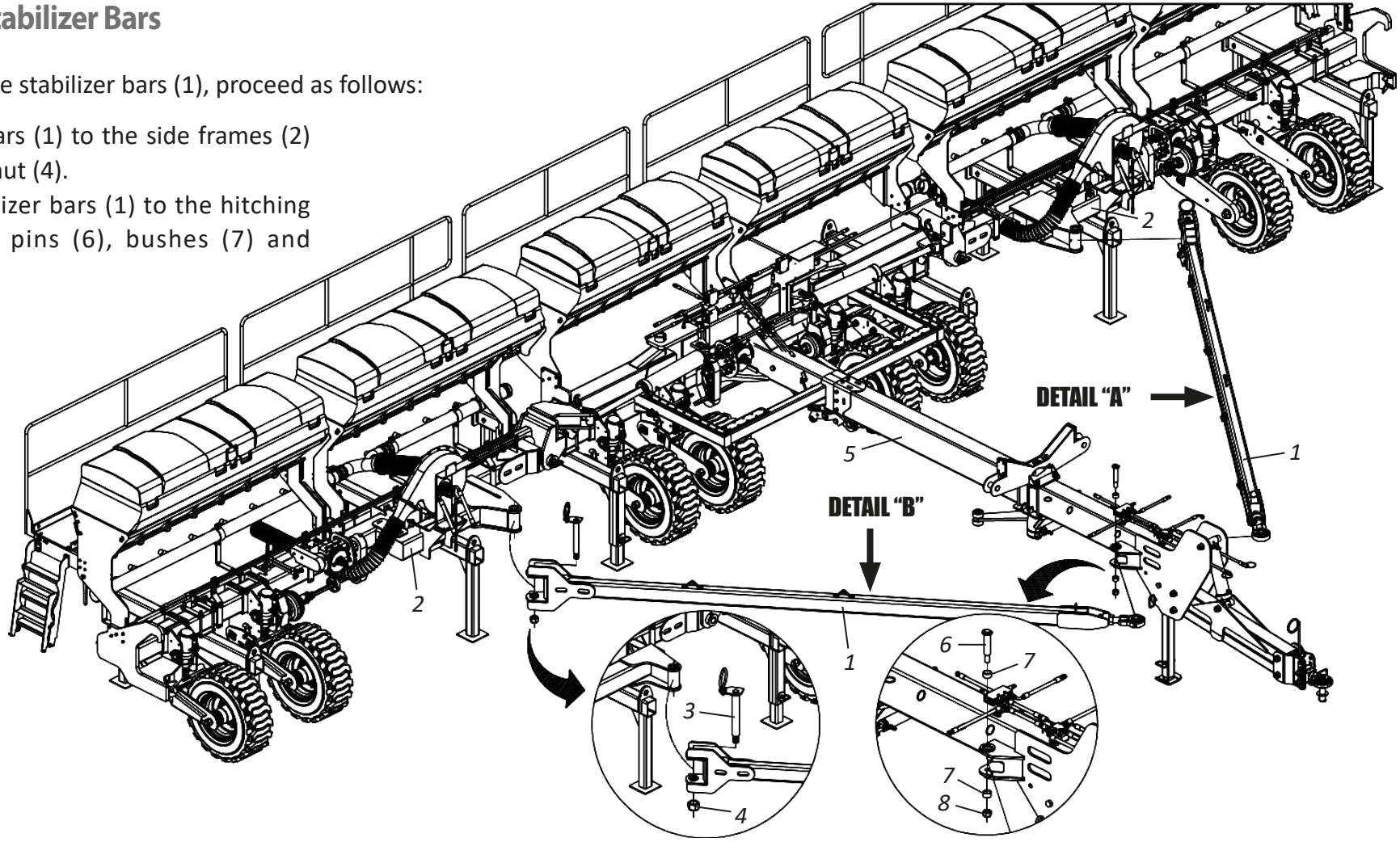
▪ Assembly

• Assembling the Stabilizer Bars

In order to assemble the stabilizer bars (1), proceed as follows:

01 - Attach the stabilizer bars (1) to the side frames (2) using the bolt (3) and nut (4).

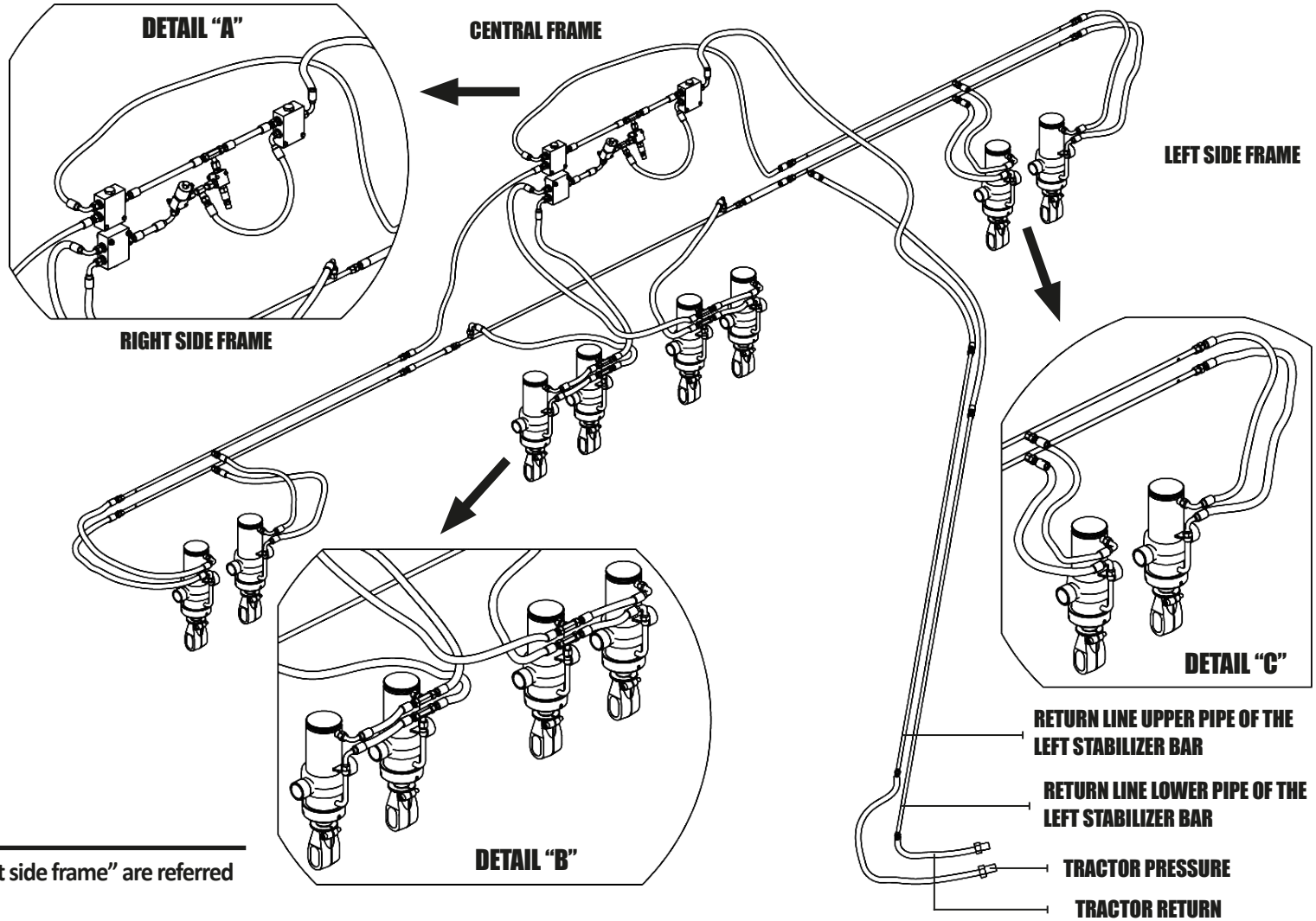
02 - Then attach the stabilizer bars (1) to the hitching header (5) using the pins (6), bushes (7) and nuts (8).



⚠ ATTENTION **When assembling the stabilizer bars (1), make sure that the hoses attached to them are on the inside, as shown in details "A and B". Ignoring this warning can lead to serious accidents.**

▪ Assembly

• Assembling the hydraulic lift system

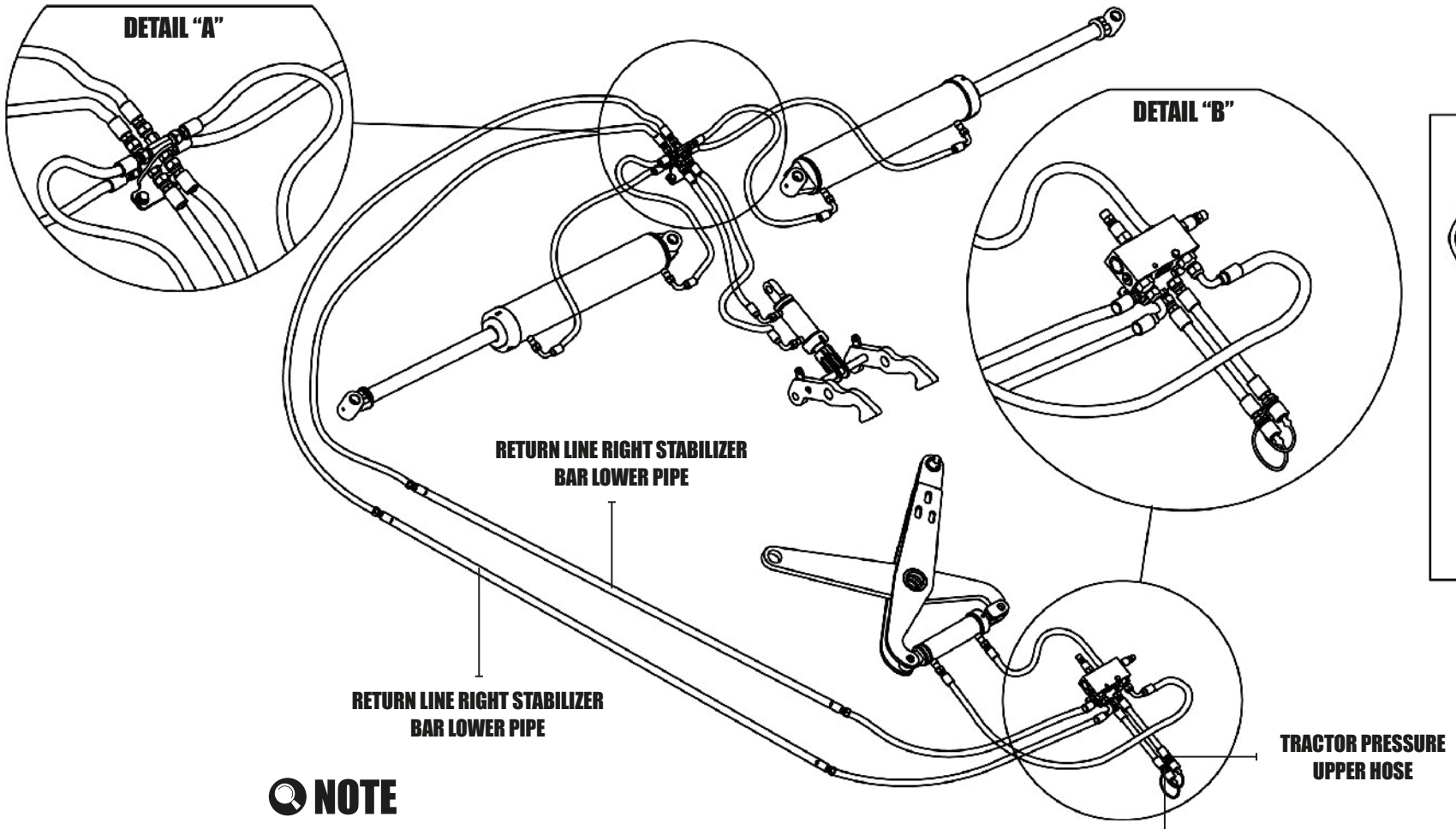


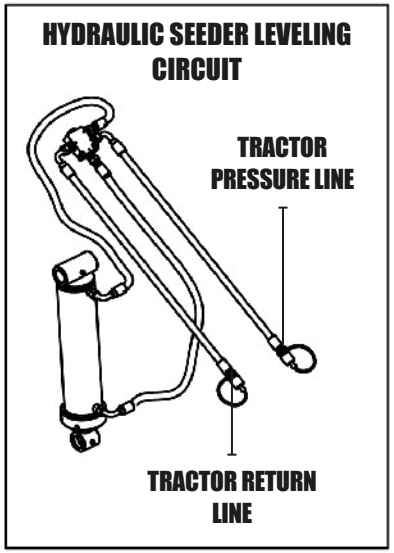
NOTE

The terms "left stabilizer bar" and "right and left side frame" are referred to as looking behind the seeder.

▪ Assembly

• Assembling the hydraulic opening system



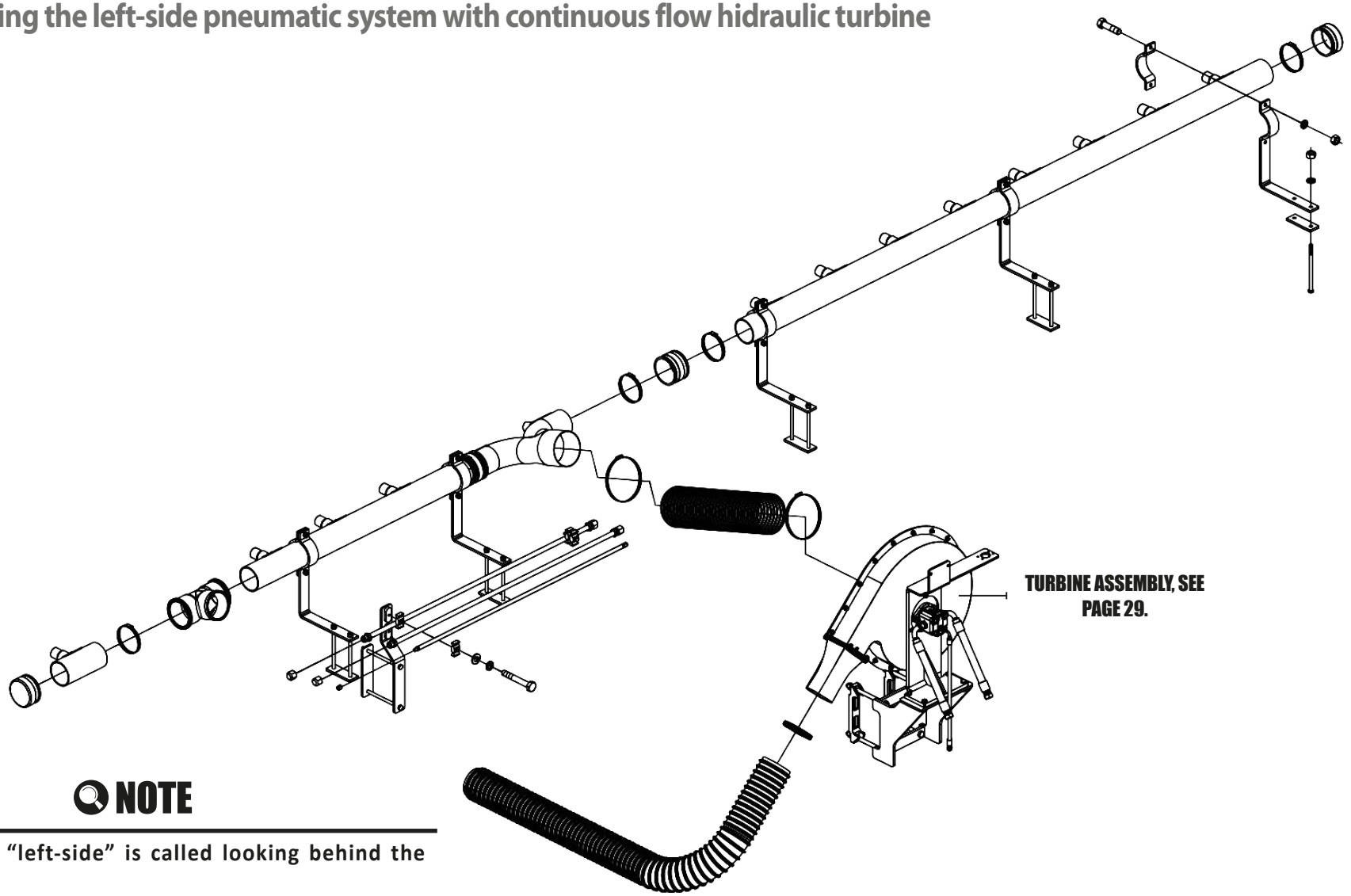


NOTE

The expression "right stabilizer bar" is called looking behind the seeder.

▪ Assembly

• Assembling the left-side pneumatic system with continuous flow hidraulic turbine

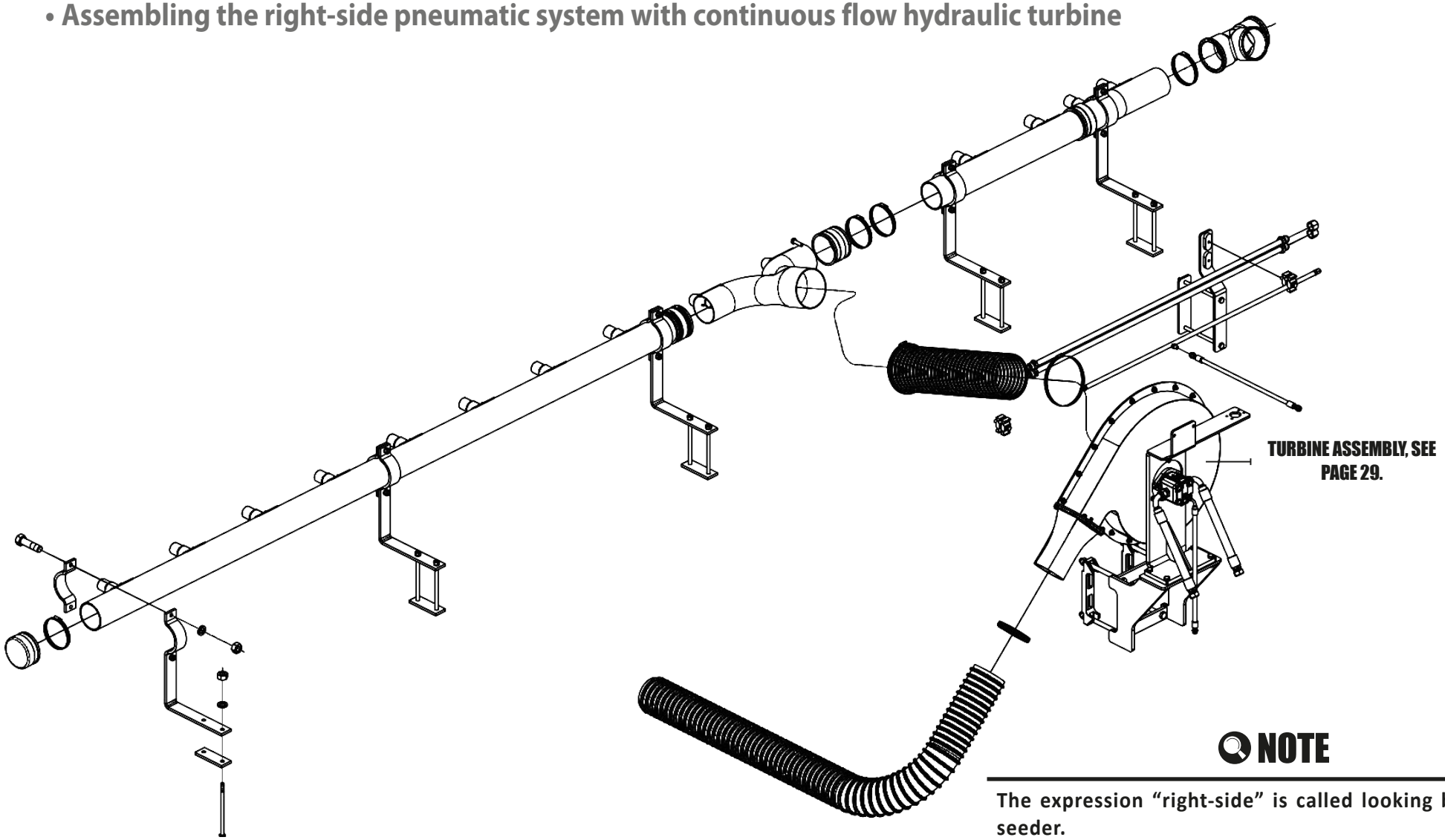


NOTE

The expression “left-side” is called looking behind the seeder.

▪ Assembly

• Assembling the right-side pneumatic system with continuous flow hydraulic turbine

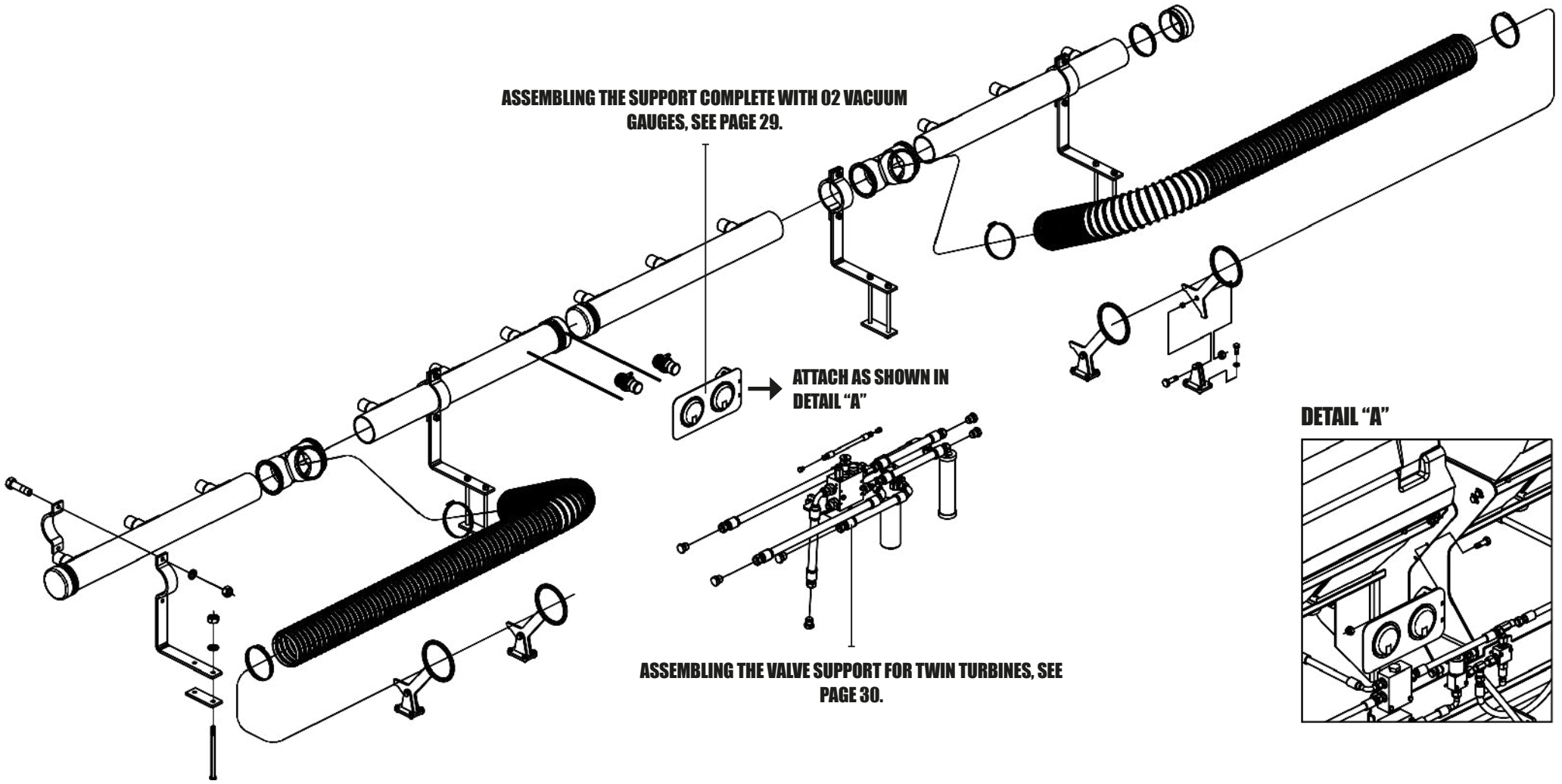


NOTE

The expression “right-side” is called looking behind the seeder.

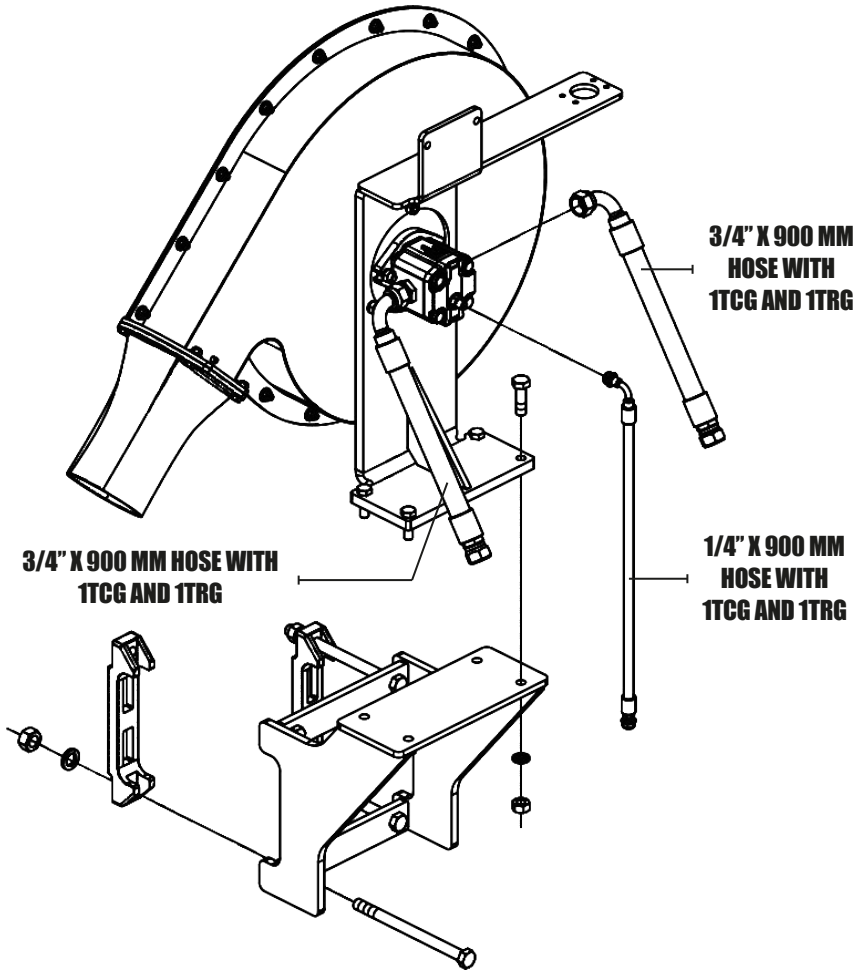
▪ Assembly

• Assembling the central pneumatic system

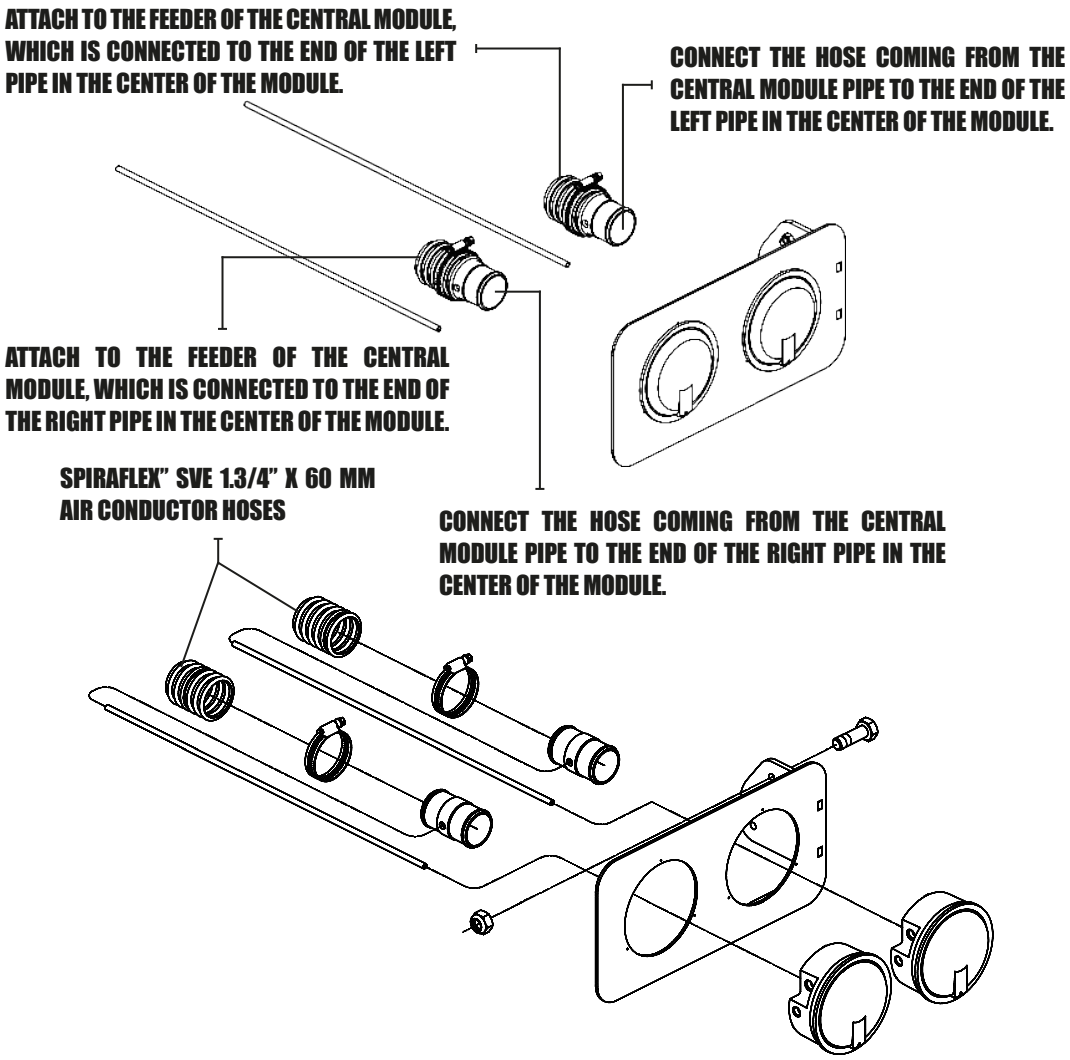


▪ Assembly

- Assembling the continuous flow lateral hydraulic system with gear motor turbine

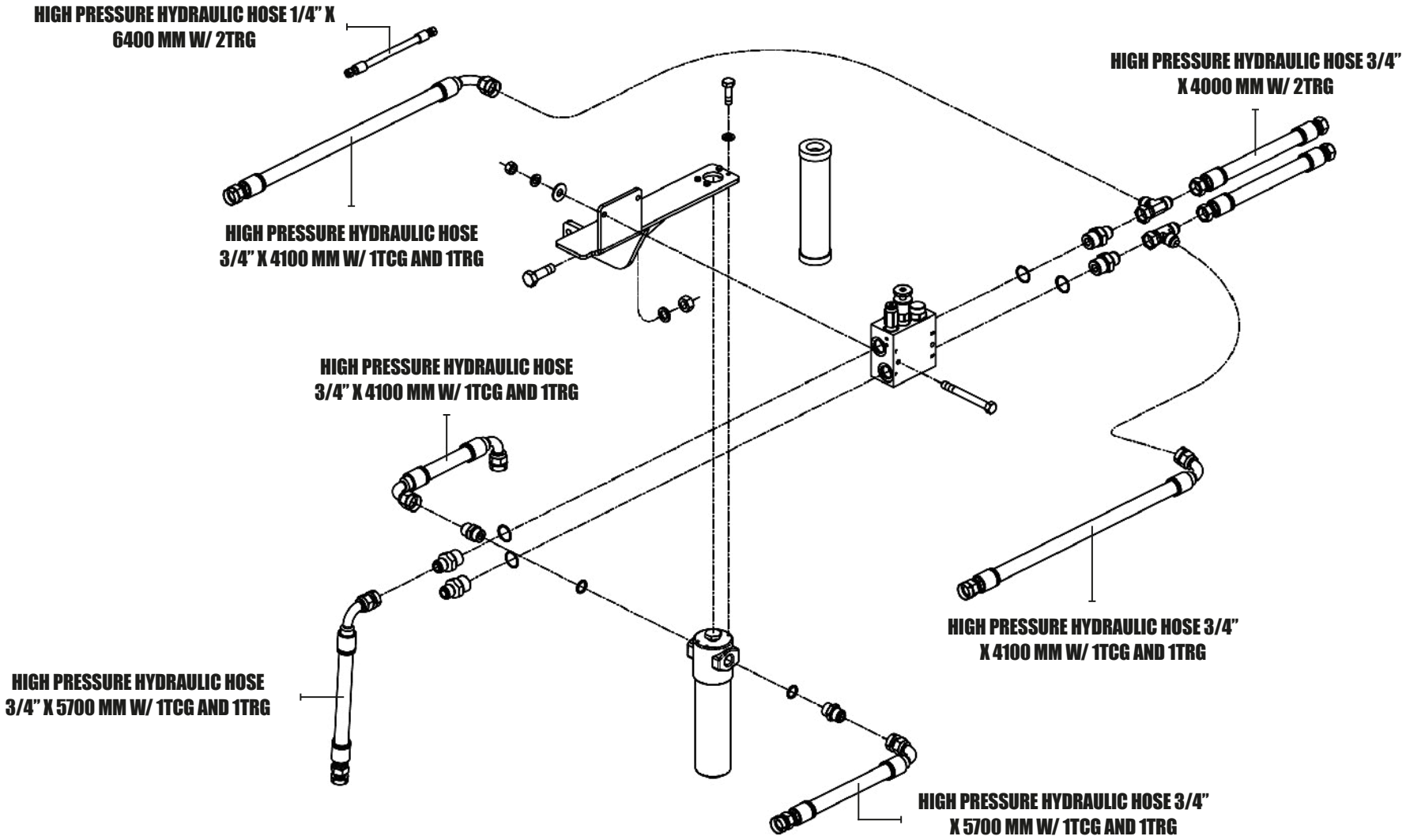


- Assembling the complete support with 2 vaccum gauges



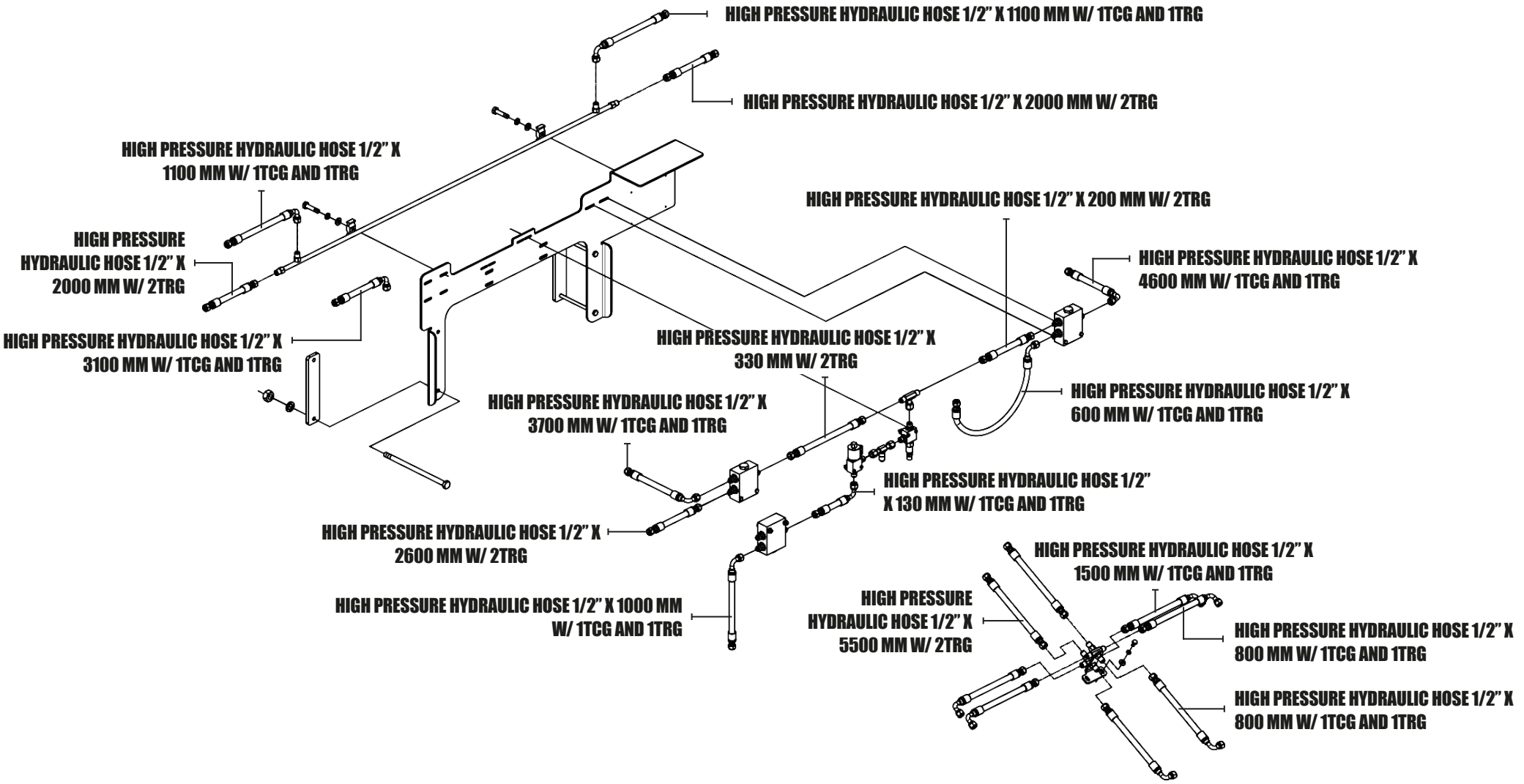
▪ Assembly

- Assembling the valve support for twin turbines



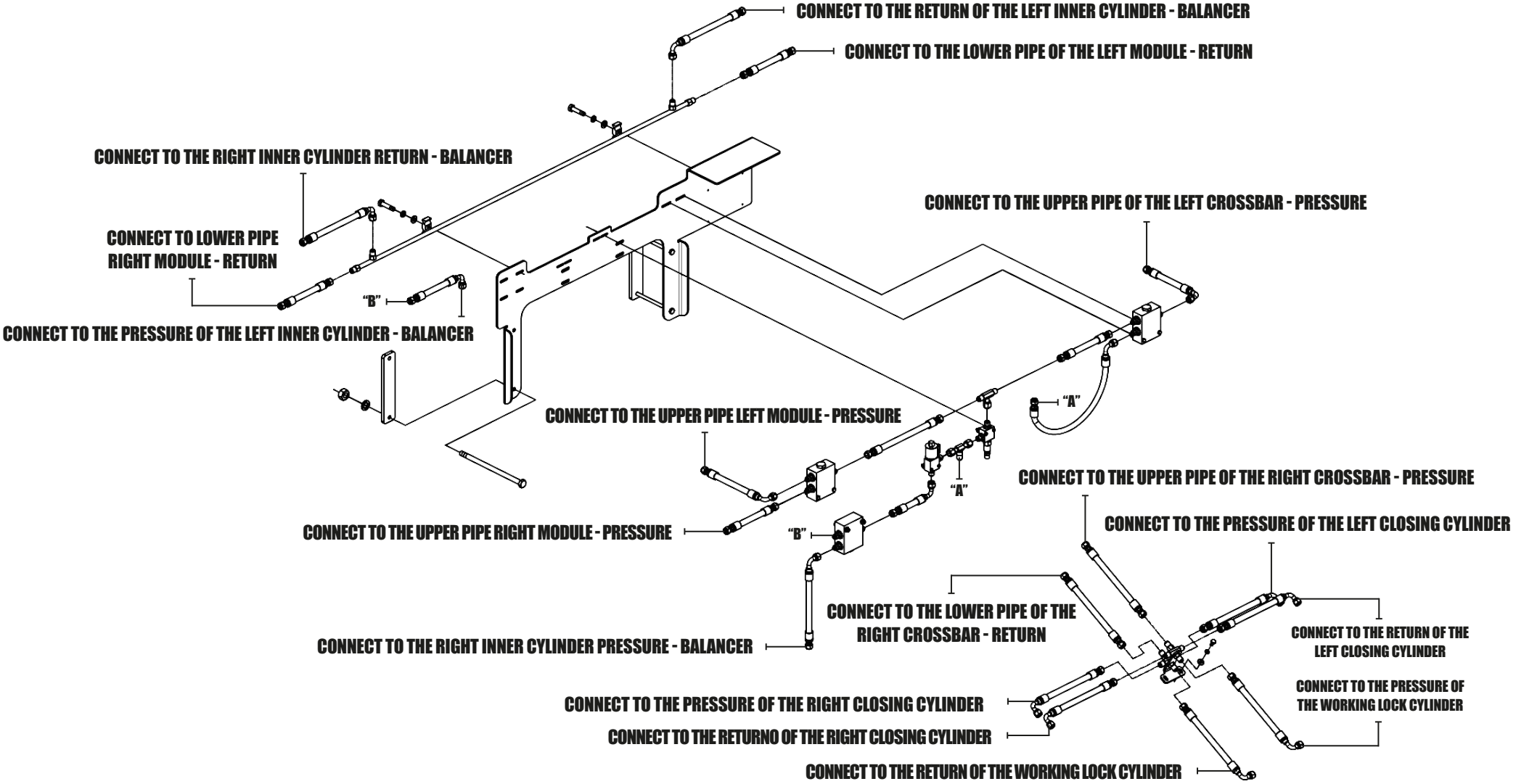
▪ Assembly

• Assembling the complete central hydraulic system - Part I



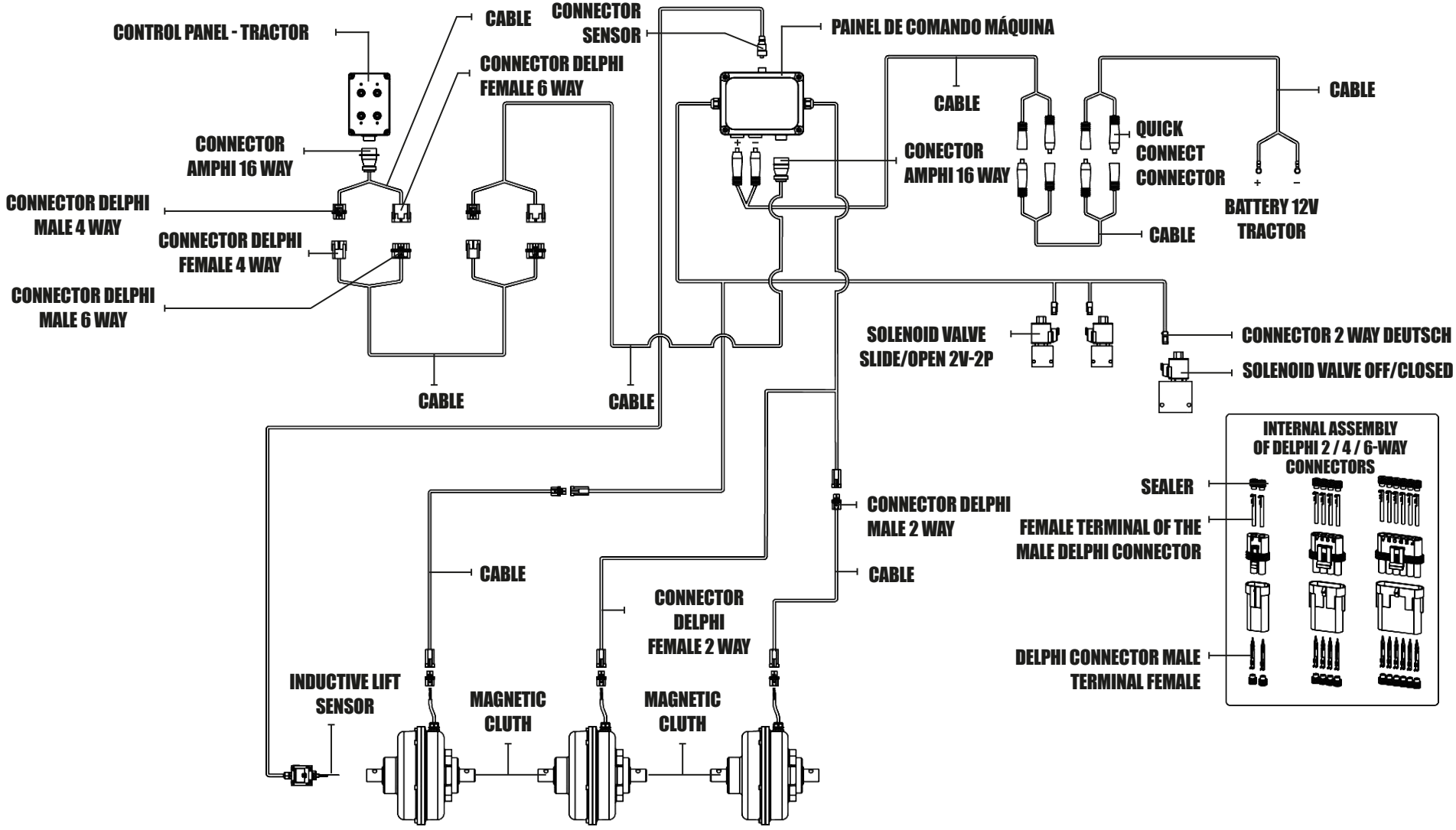
▪ Assembly

• Assembling the complete central hydraulic system - Part II



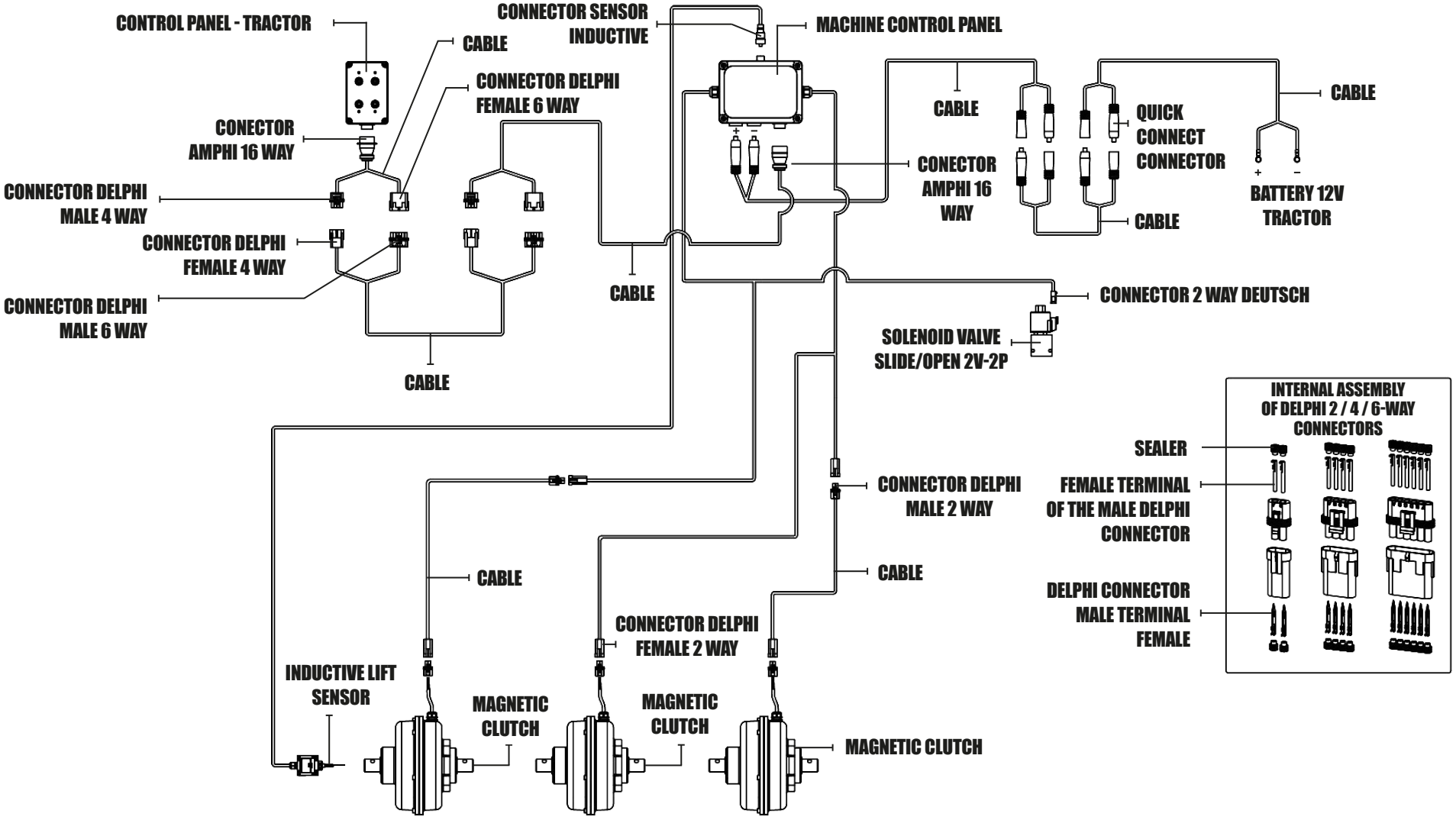
▪ Assembly

• Assembling the BCE electrical system to drive the clutches - GIGA AIR 22 and 30 rows



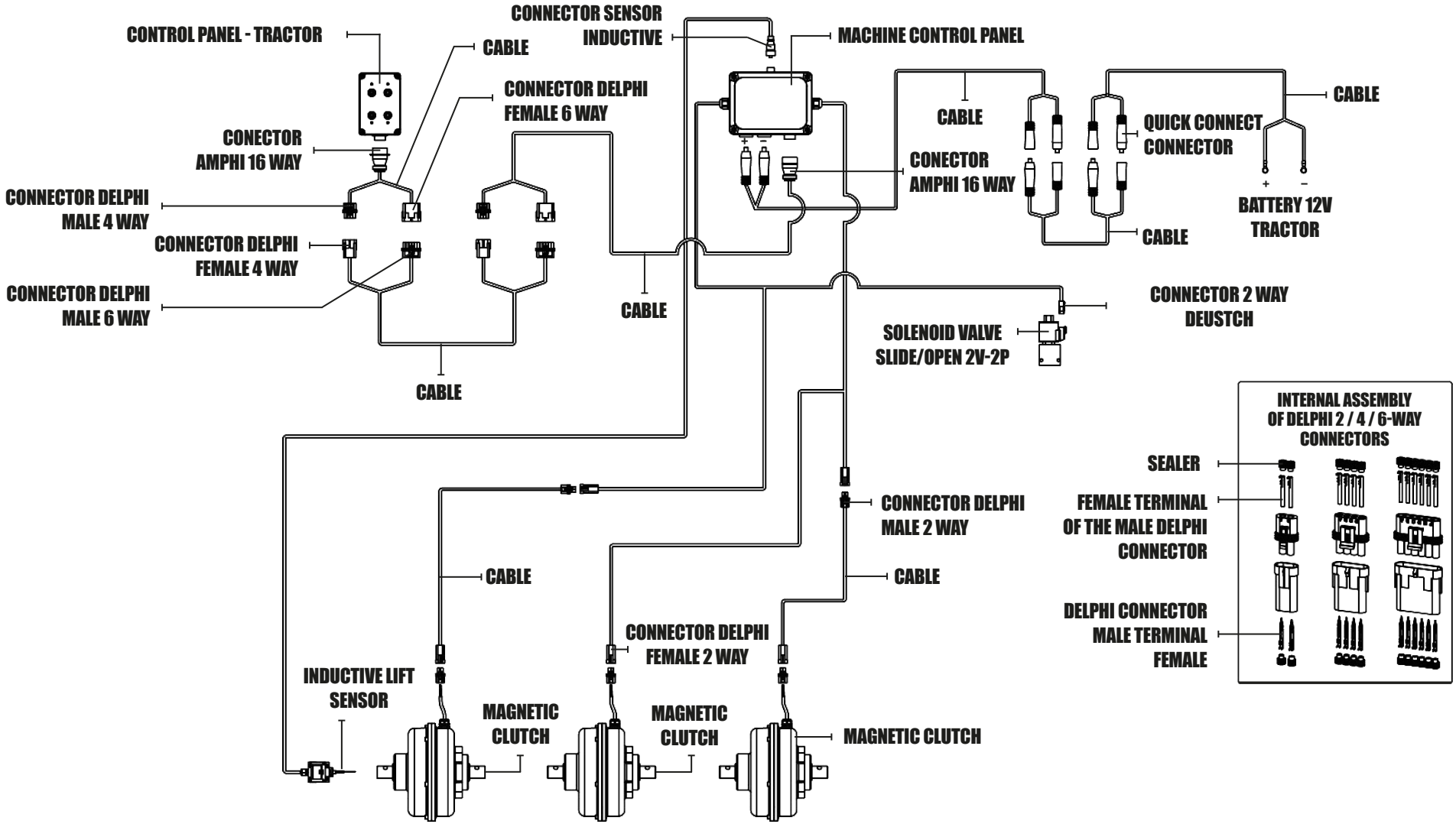
Assembly

- Assembling the BCE electrical system to drive the clutches - GIGA AIR 22 and 30 rows



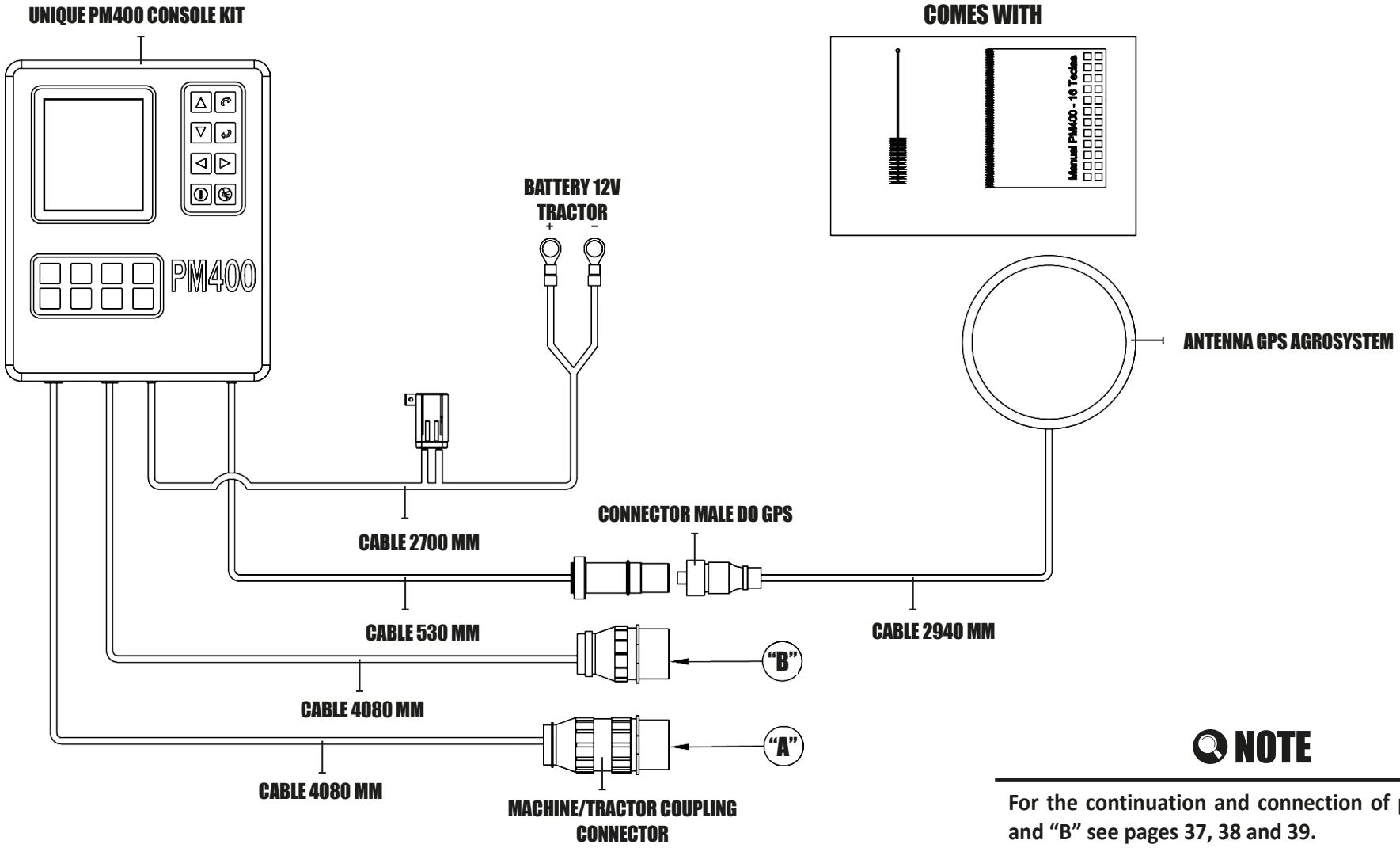
▪ Assembly

• Assembling the BCE electrical system to drive the clutches - GIGA AIR 42 rows



▪ Assembly

• Assembling the PMB 400 electronic system - GIGA AIR 22, 30 and 34 rows

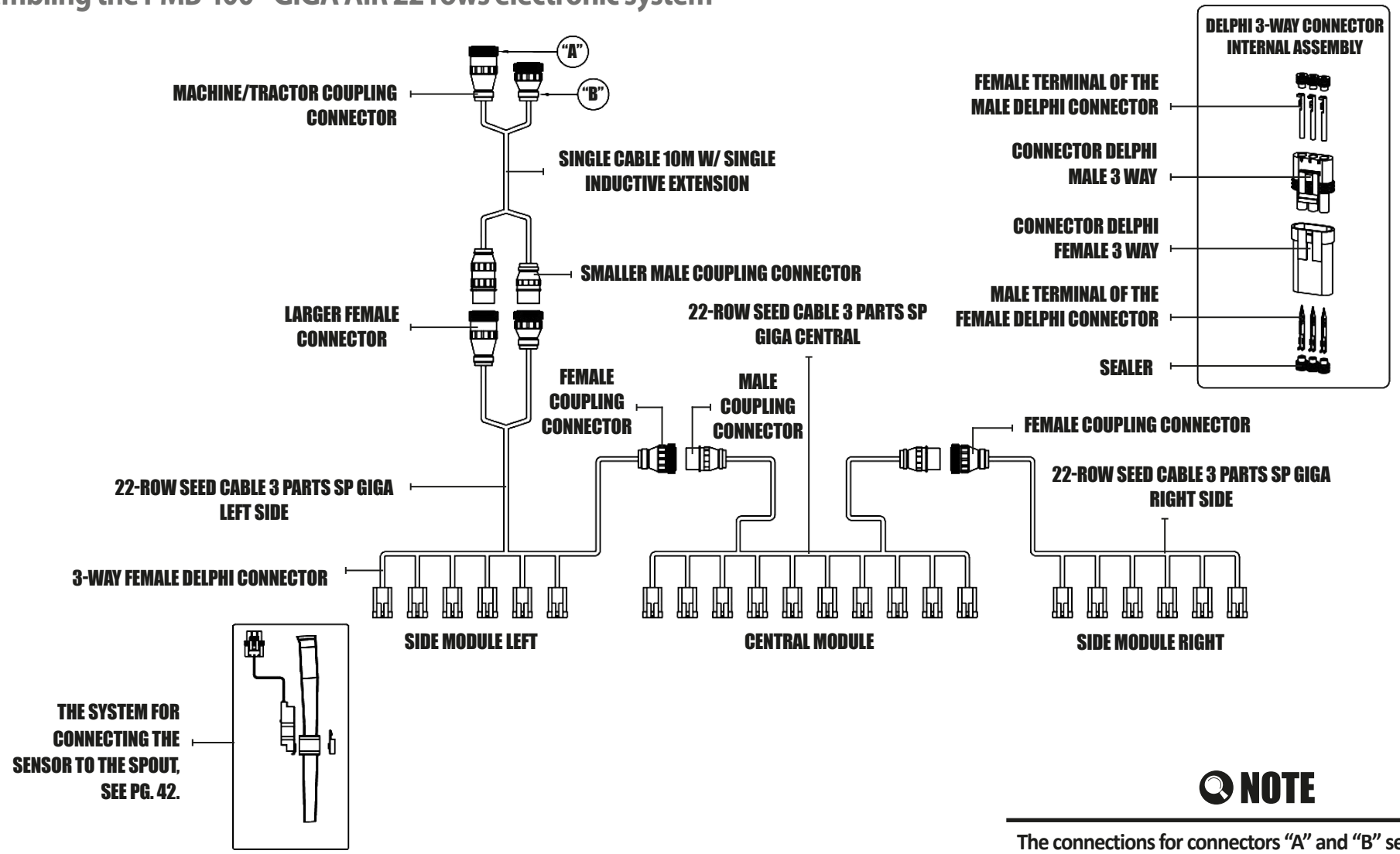


NOTE

For the continuation and connection of points “A” and “B” see pages 37, 38 and 39.

Assembly

• Assembling the PMB 400 - GIGA AIR 22 rows electronic system

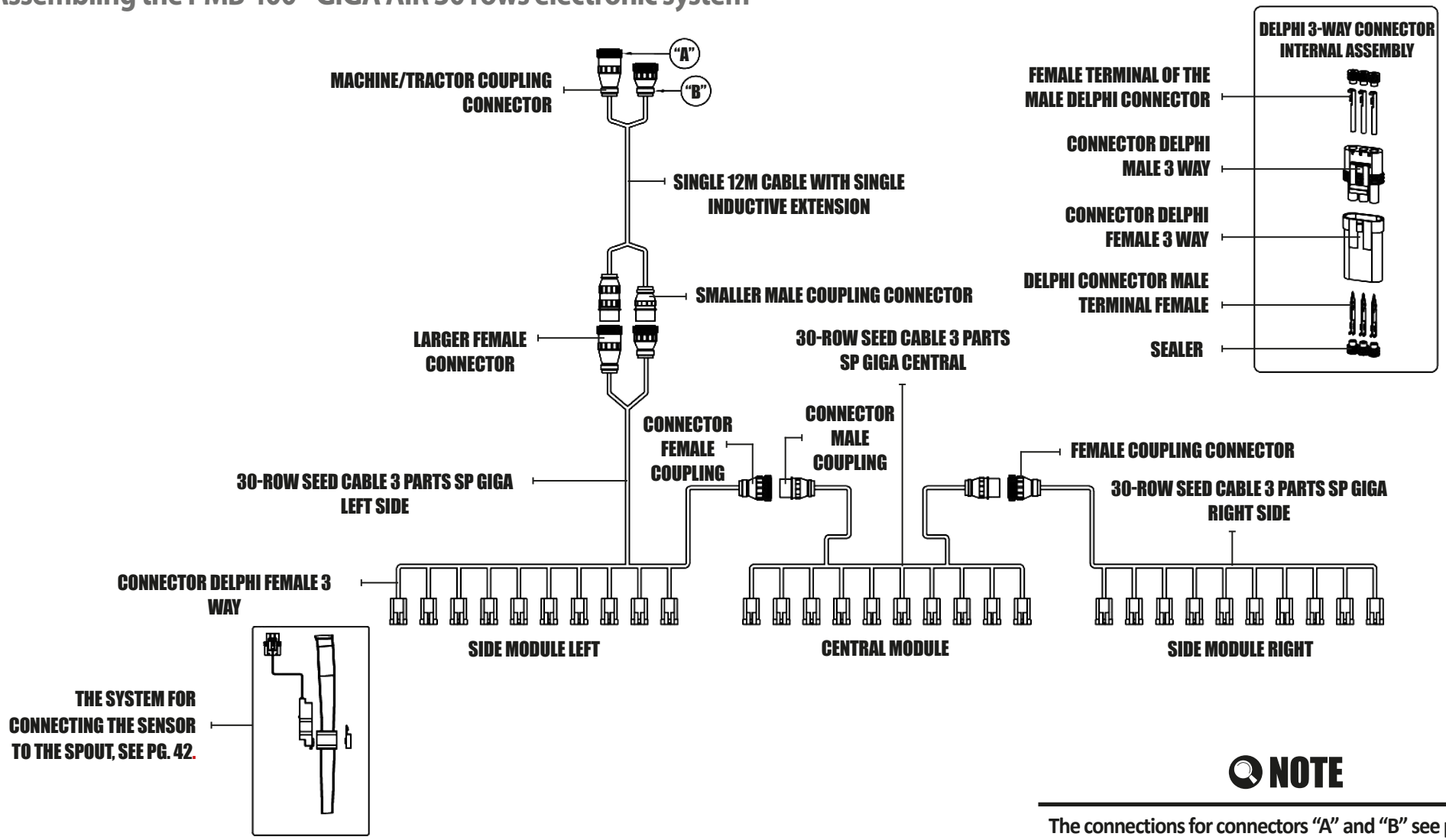


NOTE

The connections for connectors "A" and "B" see page 36.

Assembly

• Assembling the PMB 400 - GIGA AIR 30 rows electronic system

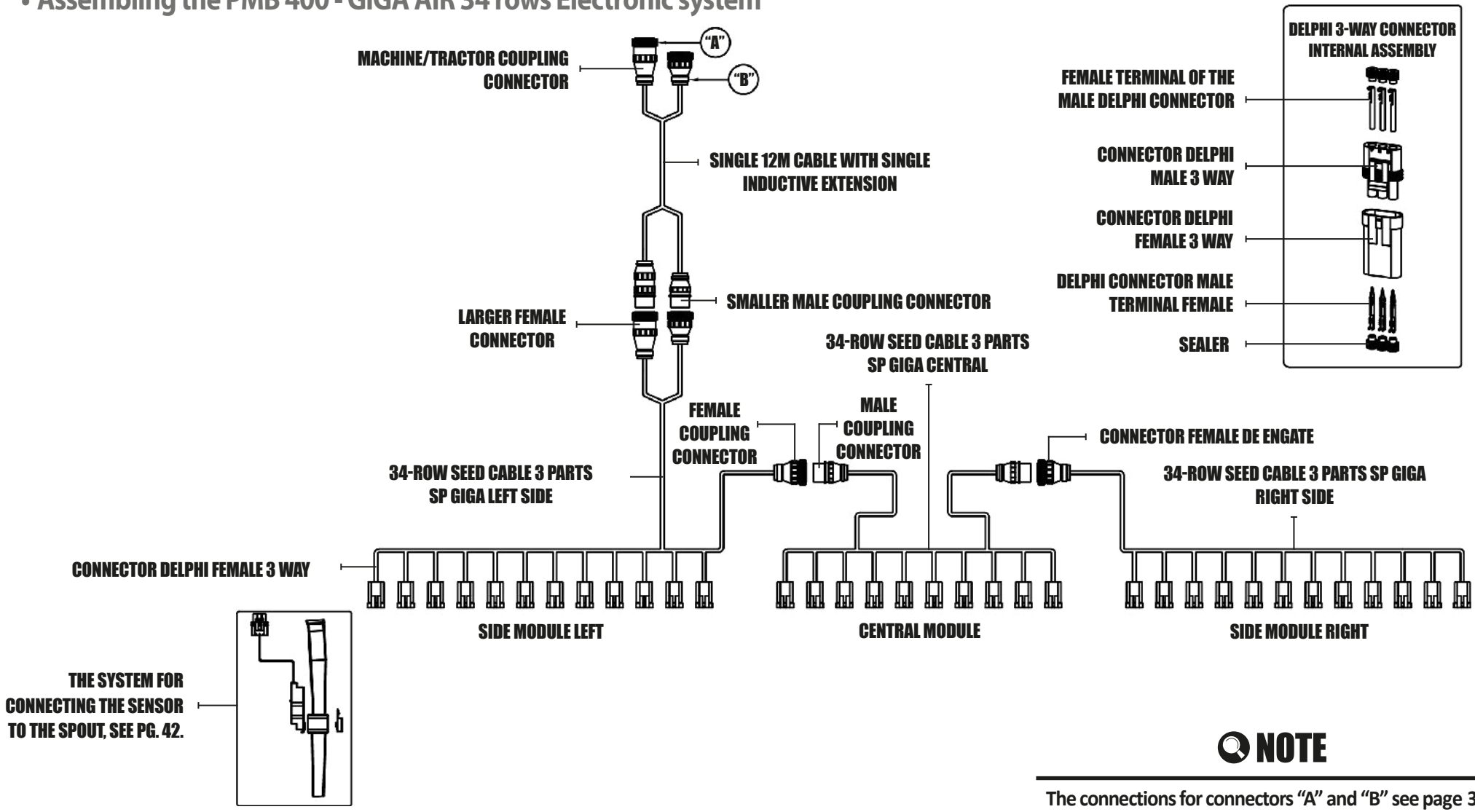


NOTE

The connections for connectors "A" and "B" see page 36.

▪ Assembly

• Assembling the PMB 400 - GIGA AIR 34 rows Electronic system

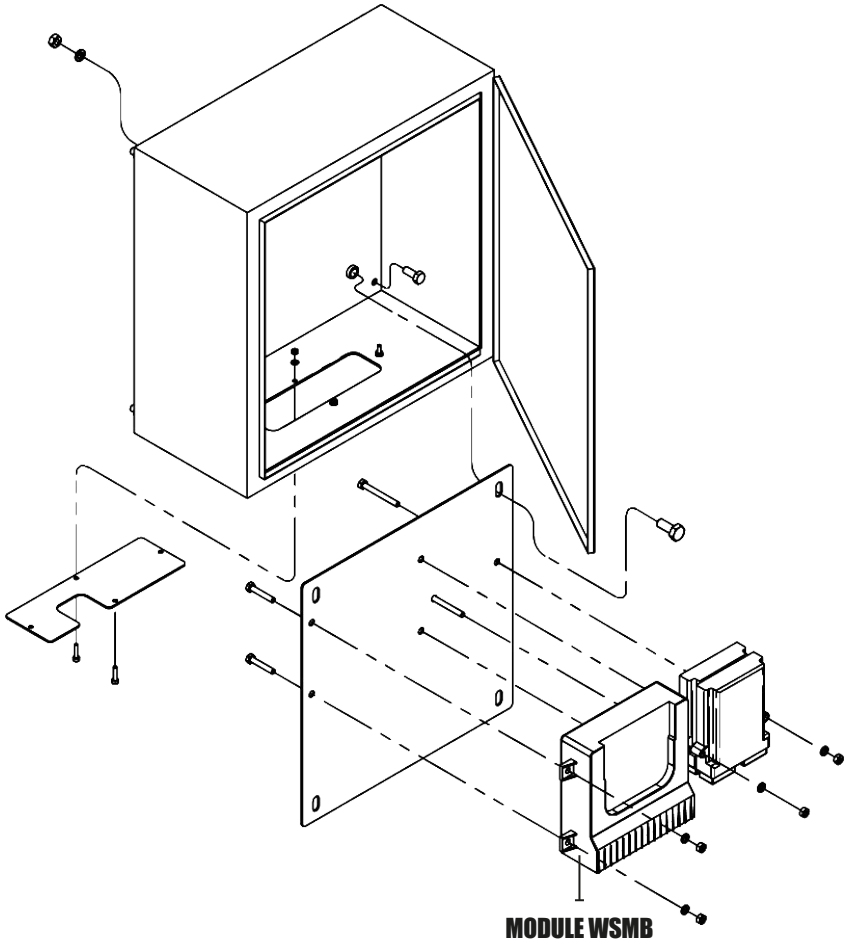


NOTE

The connections for connectors "A" and "B" see page 36.

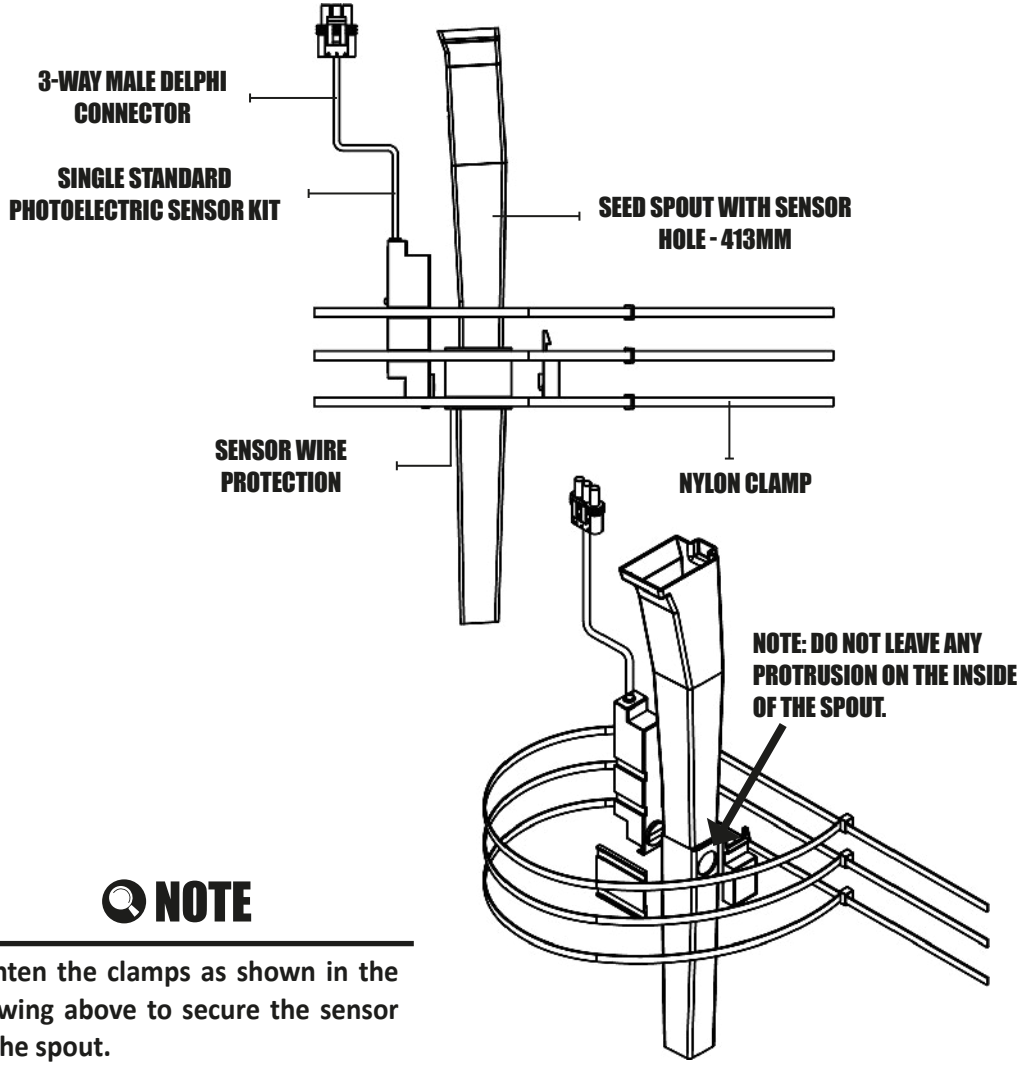
▪ Assembly

• Internal assembly of the box modules



NOTE | Screw the WSMB modules one on top of the other.

• Assembling the sensor connection system on the spout



NOTE

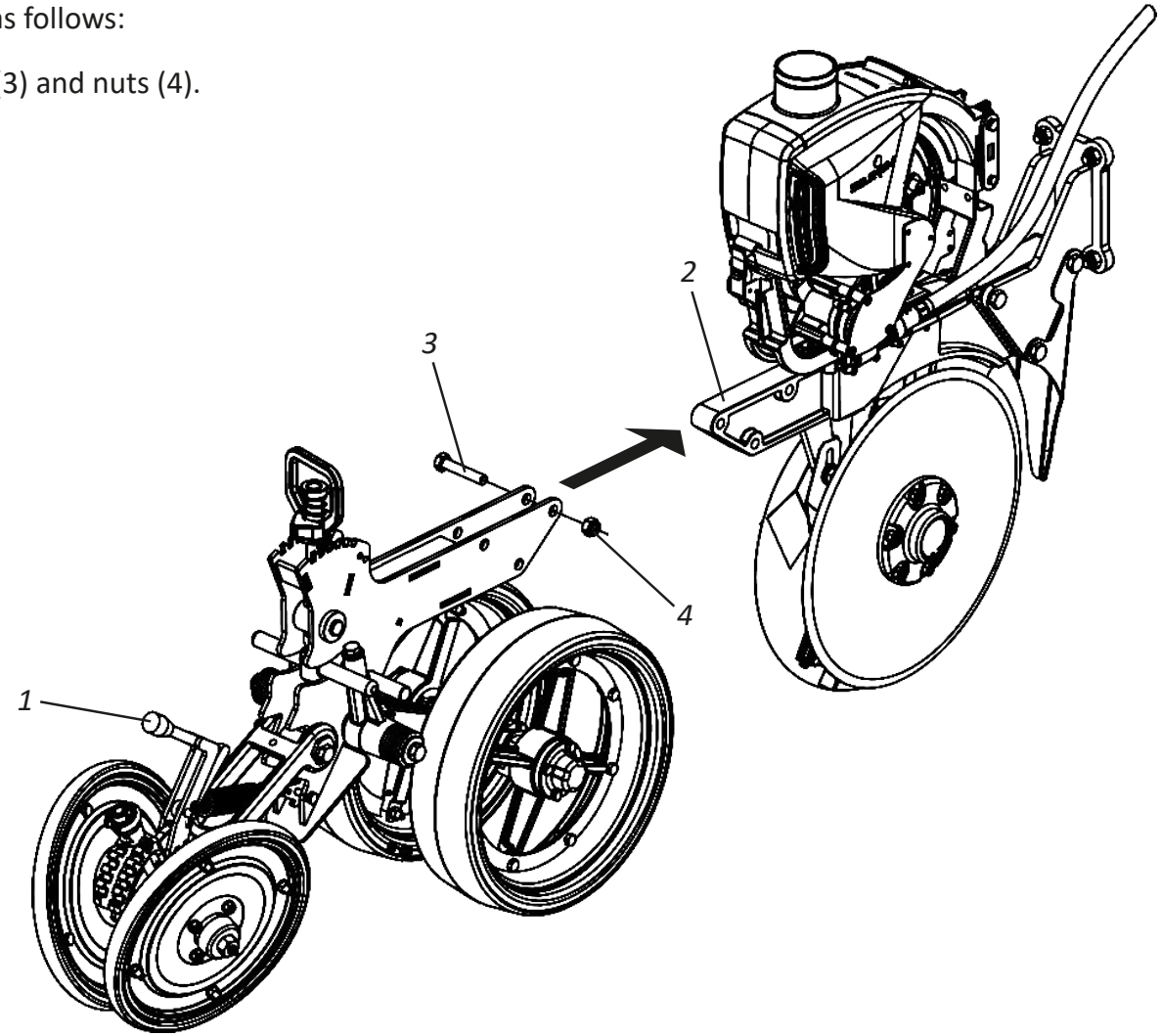
Tighten the clamps as shown in the drawing above to secure the sensor to the spout.

▪ Assembly

• Assembling the trolley on the row

In order to assemble the oscillating trolley on the row, proceed as follows:

01 - Attach the oscillating trolley (1) to the row (2) using the screws (3) and nuts (4).



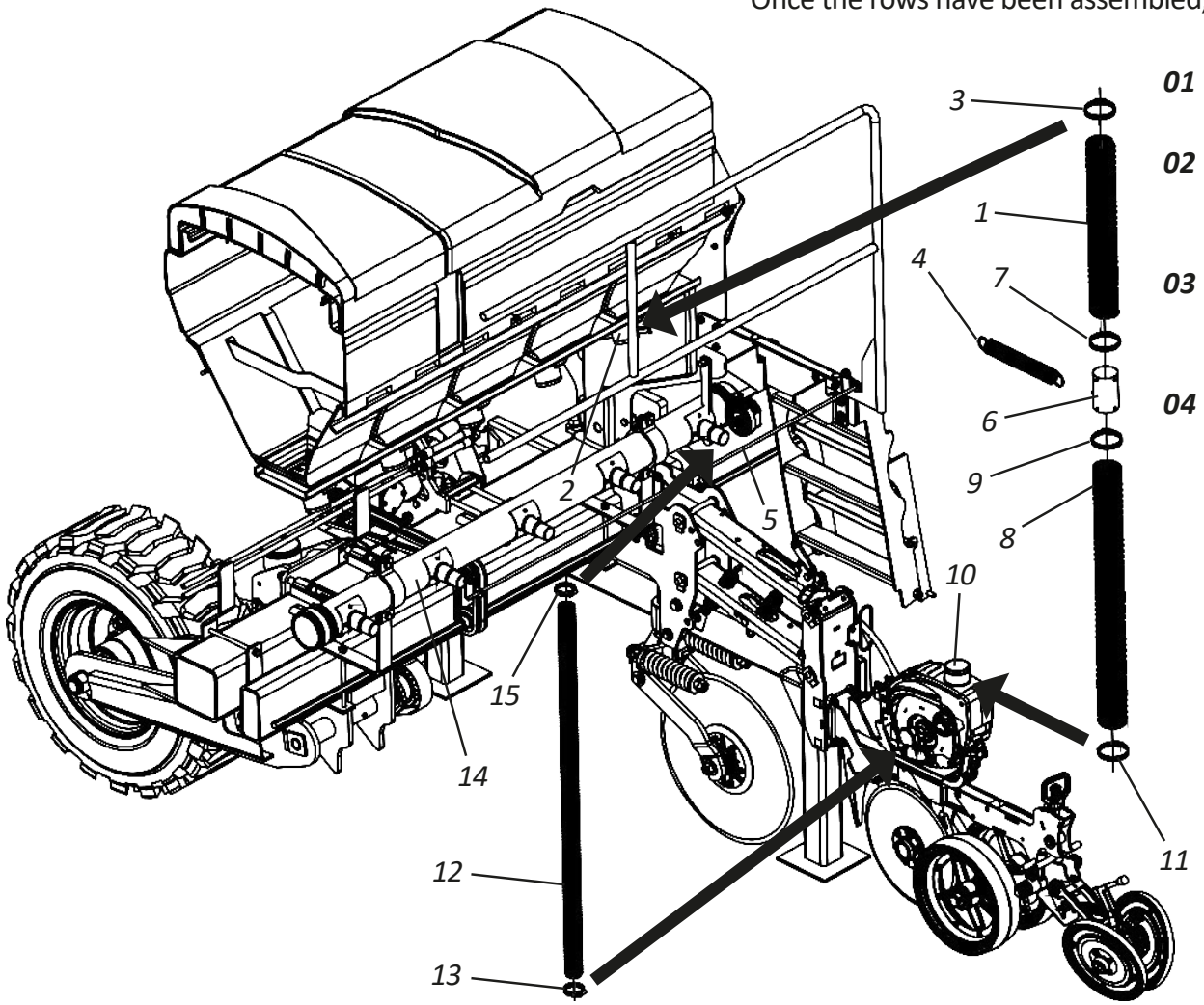
NOTE

When you have finished assembling the oscillating trolley (1) on the row (2), carry out the same procedure on the other rows.

▪ Assembly

• Assembling the seed conducting hoses and air hoses

Once the rows have been assembled, attach the seed conductor hoses (1) as follows:



01 - Attach the seed hose (1) to the seed tank (2), securing it with the clip (3).

02 - Next, attach the spring (4) to the support (5) and the conductor clip (6), then attach the seed conductor hose (1) to the conductor clip (6) and secure it with the clip (7).

03 - Then attach the seed conductor hose (8) to the conductor clamp (6), securing it with the clamp (9), and to the selenium feeder (10), securing it with the clamp (11).

04 - Finish by attaching the air-conducting hose (12) to the selenium dispenser (10), securing it with the clip (13) and to the tube (14), securing it with the clip (15).

⚠ ATTENTION

When you have finished assembling the seed hoses (1), carry out a general check on the planter, making sure that there are no objects (nuts, bolts or others) inside the tanks. Retighten all the bolts and nuts, check all the pins, cotter pins and locks, check all the hoses.

NOTE

When you have finished assembling the seed conductor hoses (1), carry out the same procedure on the other rows.

▪ Disassembly

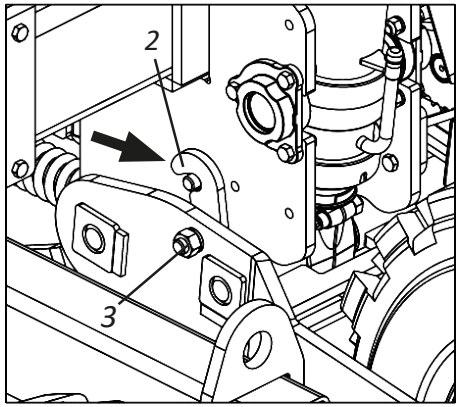
• Wheel lock

To make loading easier, the **GIGA AIR** leaves the factory with the wheels (1) locked. Before removing the support brackets in accordance with the instructions on the following page, release the locks (2) on the wheels (1) as follows:

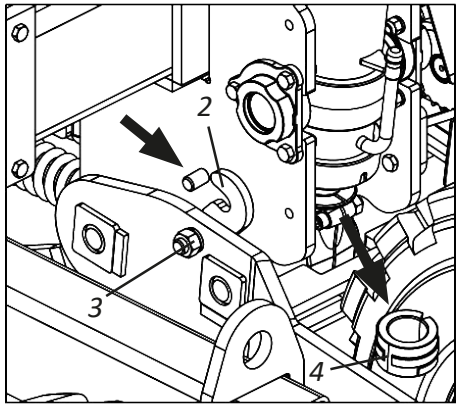
01 - First loosen the nuts (3) and move the locks (2), unlocking the wheels (1), as shown in **DETAIL "A".**

02 - Then, retighten the nuts (3) by securing the locks (2) again, as shown in **DETAIL "B"**.

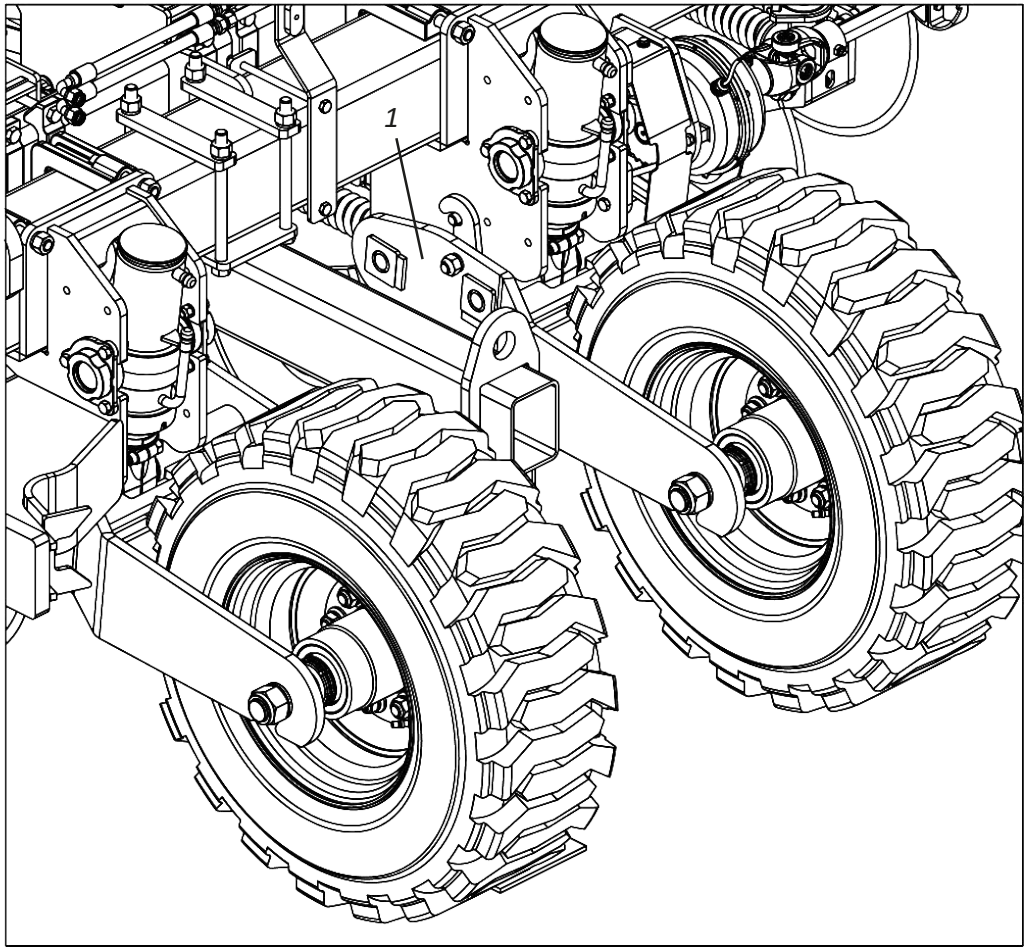
03 - Finish by removing the 50mm shims (4).



DETAIL "A" - WHEELSET LOCKED



DETAIL "B" - WHEELSET UNLOCKED



ATTENTION

Repeat the procedure on all the seed drill's wheels.
Do not remove the 50mm shims (4) before unlocking the latches (2) for loading.

NOTE

Before starting work with the GIGA AIR, make sure that the wheels have been unlocked. Do not operate the seeder with the wheels locked. Ignoring this warning could lead to serious accidents and damage to the seeder.

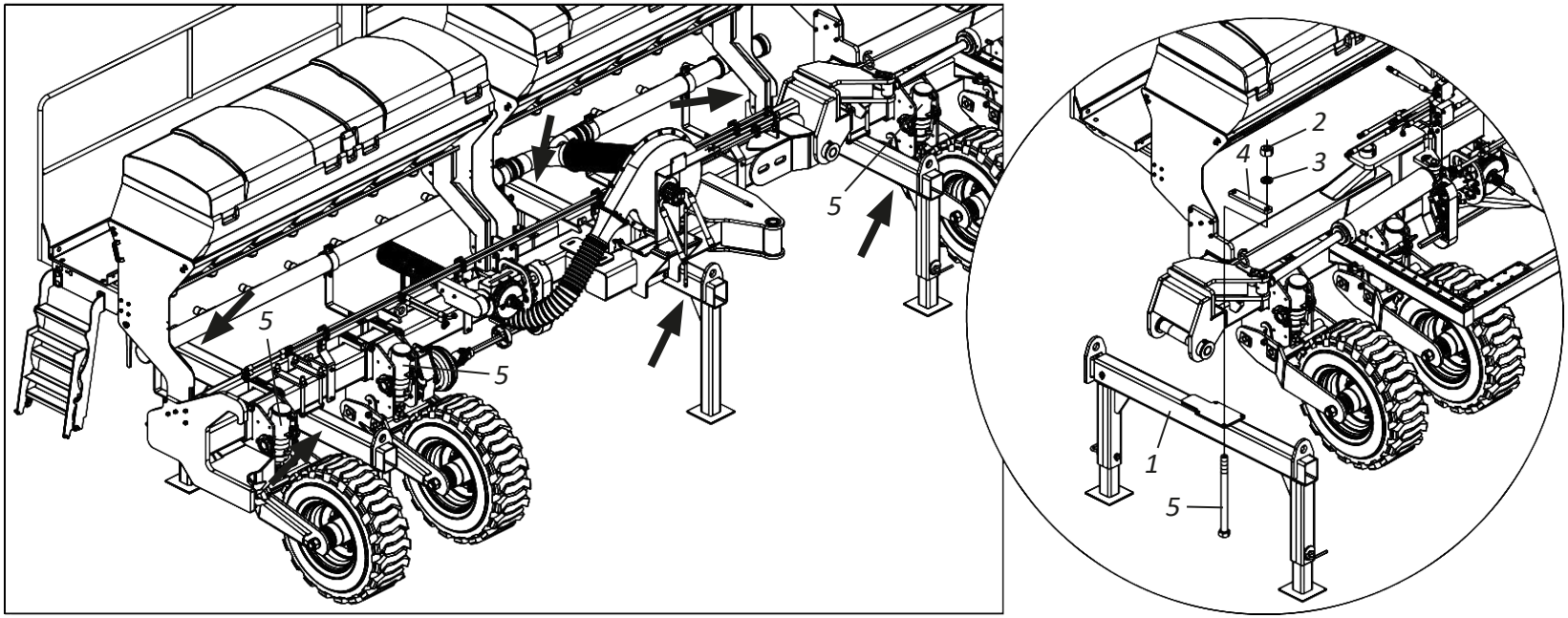
▪ Disassembly

• Supports stand

After releasing the wheel locks, as instructed on the previous page, remove the support brackets (1), which have been factory-fitted to the side and center frames, for easier and safer transportation. To remove the support brackets (1), proceed as follows:

01 - Loosen the nuts (2), spring washers (3), remove the plates (4) and screws (5).

02 - Then, with the seeder fully engaged, activate the hydraulic cylinders (6) and lift it up to remove the support brackets (1).



⚠ ATTENTION

Before operating, transporting or working with the GIGA AIR, remove the support brackets (1). Ignoring this warning can lead to serious accidents and damage to the seeder.

❗ IMPORTANT

If you dismantle the GIGA AIR in the future, separating the side frames from the central one, assemble the support brackets on them first to ensure stability and support for the frames, avoiding serious accidents.

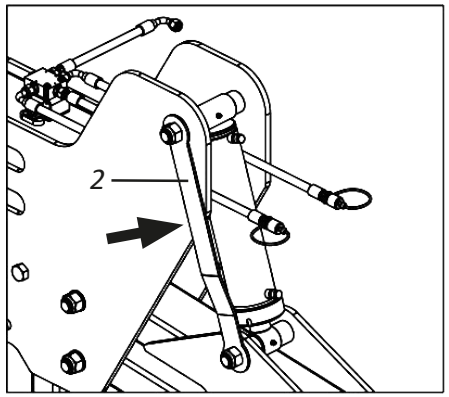
▪ Disassembly

• Header Lock

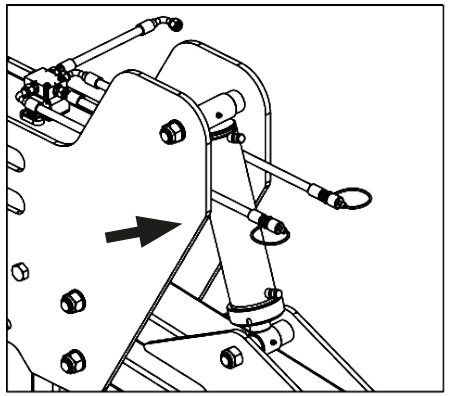
To make loading easier, **GIGA AIR** seed drills leave the factory with the hitch header (1) locked. Before hitching to the tractor, transporting or working with the **GIGA AIR**, remove the lock (2) from the hitching header (1) as follows:

01 - Loosen the nuts (2), spring washers (3), remove the plates (4) and screws (5).

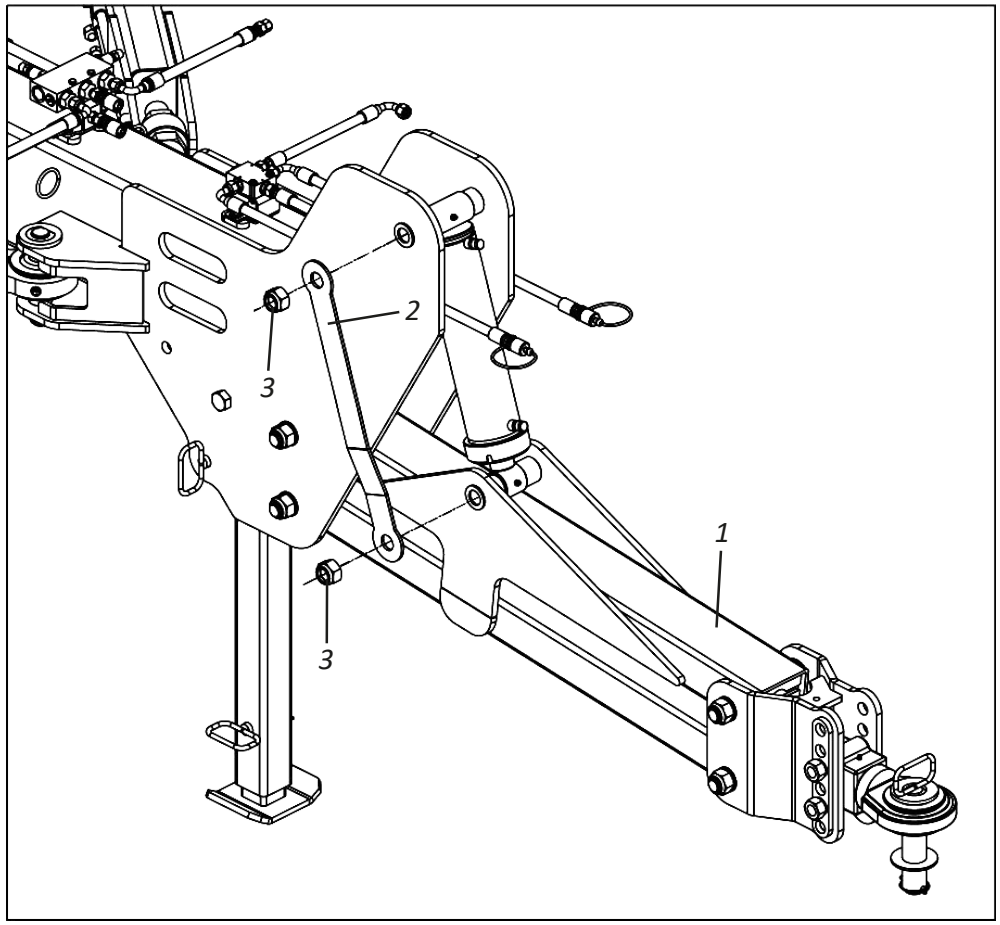
02 - Then, with the seeder fully engaged, activate the hydraulic cylinders (6) and lift it up to remove the support brackets (1).



LOCKED HEADER



UNLOCKED HEADER



⚠ ATTENTION

Before hitching to the tractor, transporting or working with the GIGA AIR, make sure that the hitching header (1) has been unlocked. Do not hitch to the tractor, transport or work with the GIGA AIR with the attachment header (1) locked. Ignoring this warning could lead to accidents and damage to the seeder.

▪ Hitching

• Hitching to the tractor - Part I

Before attaching the **GIGA AIR** to the tractor, check that the tractor is equipped with a set of weights or ballasts on the front or front wheels so as not to lift the tractor. The rear wheels will give the tractor greater stability and traction on the ground. To attach the **GIGA AIR**, proceed as follows:

01 - Slowly approach the tractor with the seeder in reverse, paying attention to the application of the brakes.

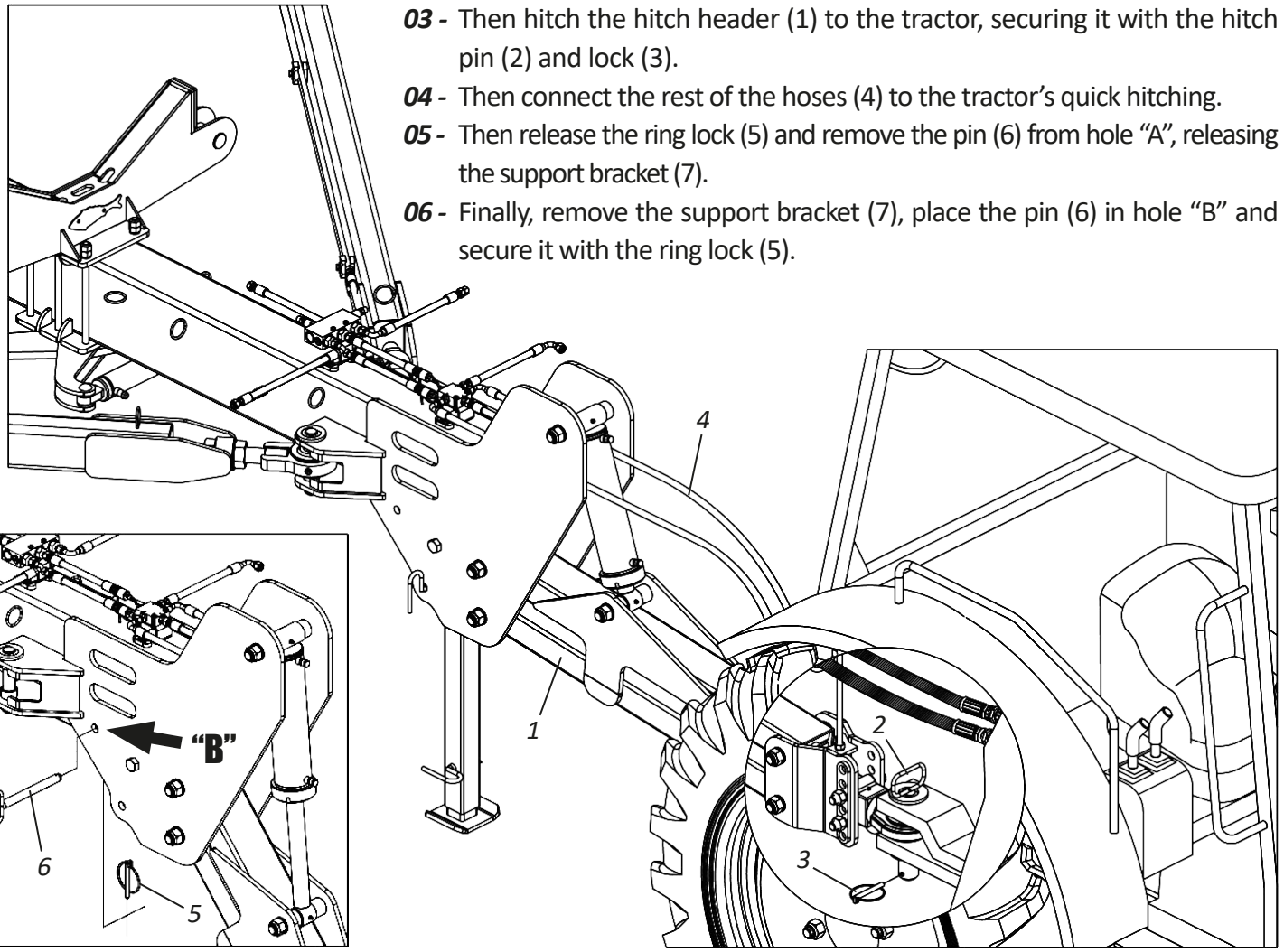
02 - Then connect two hoses to level the yoke on the tractor hitch.

03 - Then hitch the hitch header (1) to the tractor, securing it with the hitch pin (2) and lock (3).

04 - Then connect the rest of the hoses (4) to the tractor's quick hitching.

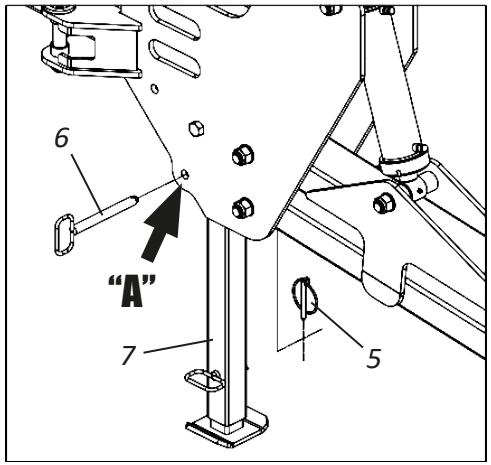
05 - Then release the ring lock (5) and remove the pin (6) from hole "A", releasing the support bracket (7).

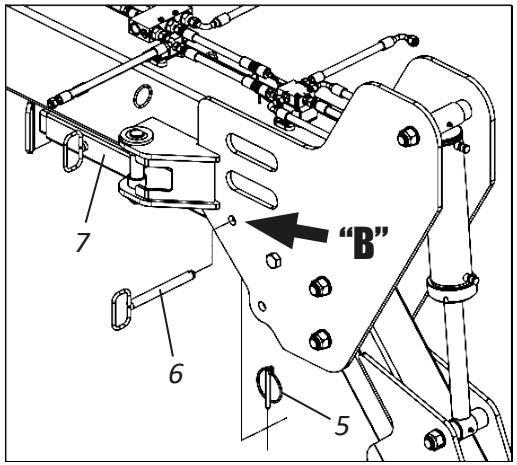
06 - Finally, remove the support bracket (7), place the pin (6) in hole "B" and secure it with the ring lock (5).



⚠ ATTENTION

Do not operate or transport the SP GIGA Air without first removing the support bracket (7).
Failure to do so will result in serious accidents or damage to the seeder.

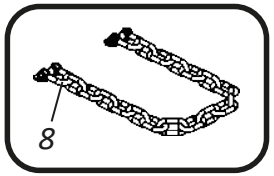




▪ Hitching

• Hitching to the tractor - Part II

⚠ ATTENTION



Once the GIGA AIR has been hitched to the tractor, attach the safety chain (8) between the hitching header and the tractor. The safety chain (8) provides greater safety during transportation with the seeder.

❗ IMPORTANT

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 seeder's movement area.

🔍 NOTE

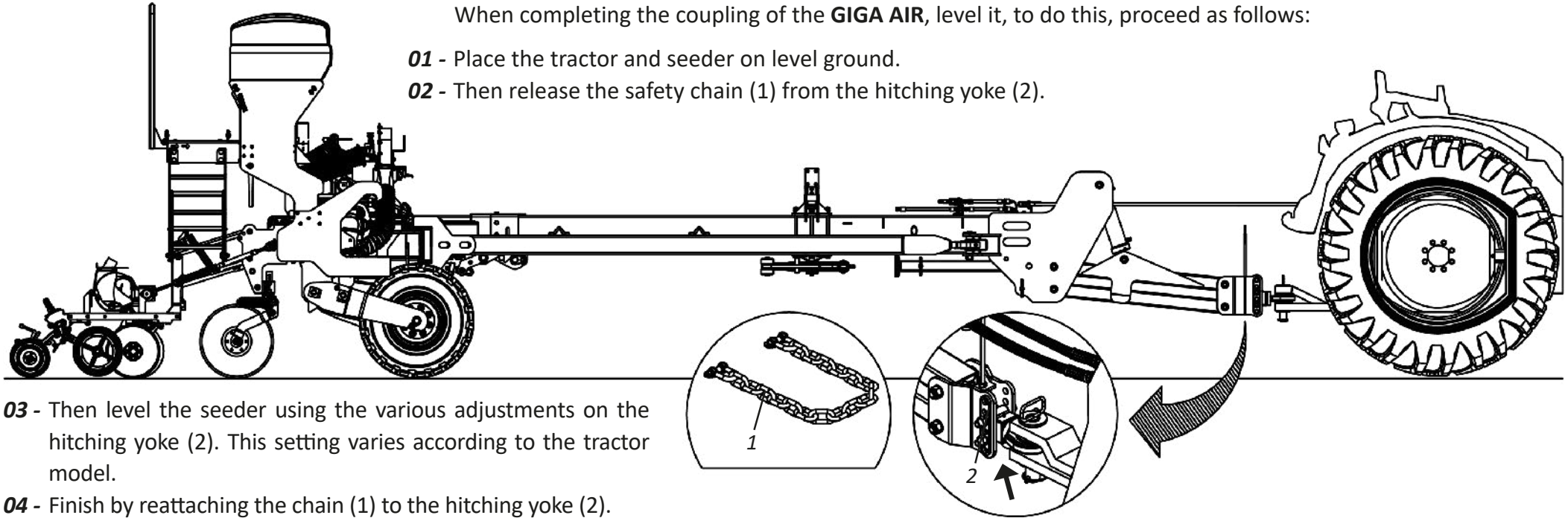
When engaging the seeder, look for a safe and easily accessible place, always use reduced gear with low acceleration.

• Leveling

When completing the coupling of the **GIGA AIR**, level it, to do this, proceed as follows:

01 - Place the tractor and seeder on level ground.

02 - Then release the safety chain (1) from the hitching yoke (2).



03 - Then level the seeder using the various adjustments on the hitching yoke (2). This setting varies according to the tractor model.

04 - Finish by reattaching the chain (1) to the hitching yoke (2).

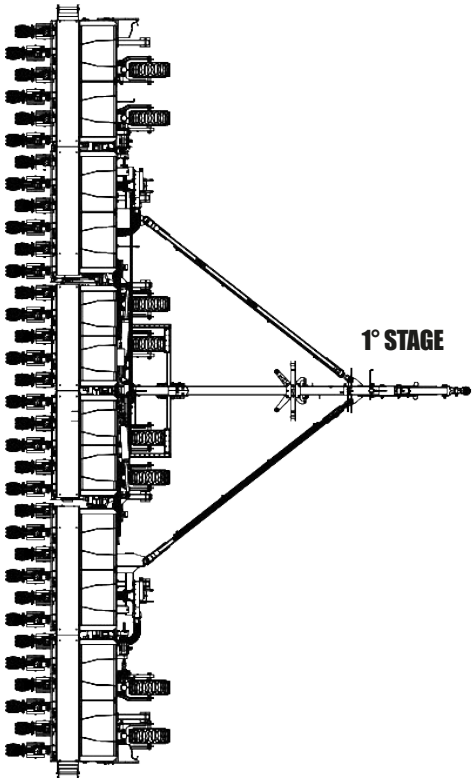
▪ Transport

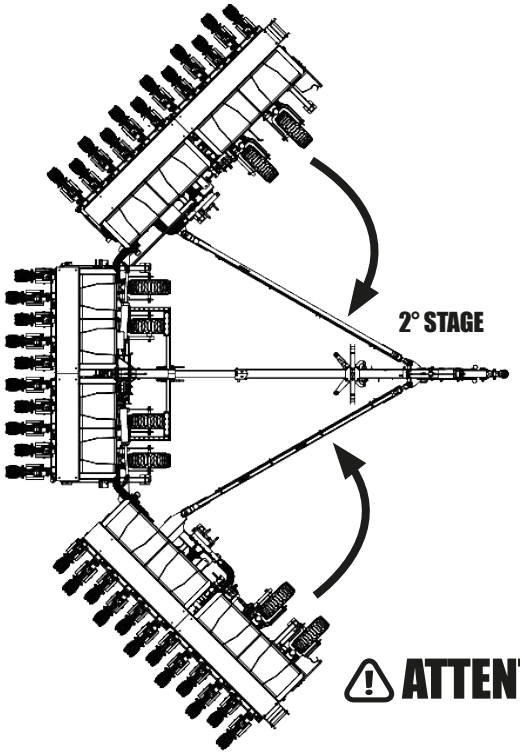
• Transport stages

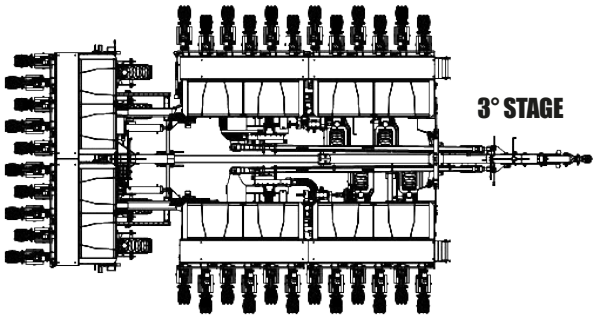
From work to transport, the **GIGA AIR** seeder has 3 stages:

1st stage: OPEN seeder (working position).
2nd stage: SEMI-OPEN seeder (Preparation for transportation).
3rd stage: CLOSED seeder (position for transport).

To place the **GIGA AIR** in a transport module, follow the procedures on pages 49 to 52.







⚠ ATTENTION

During the closing operation of the seeder for transportation, do not allow people to stand near the GIGA AIR.
Do not allow people to stand on the GIGA AIR during the closing procedure.

▪ Transport

• Mandatory row adjustment

Before starting the procedures on the following pages to place the **GIGA AIR** on the transport module, first adjust the rows (1) of the frames **(right, left and center)** as follows:

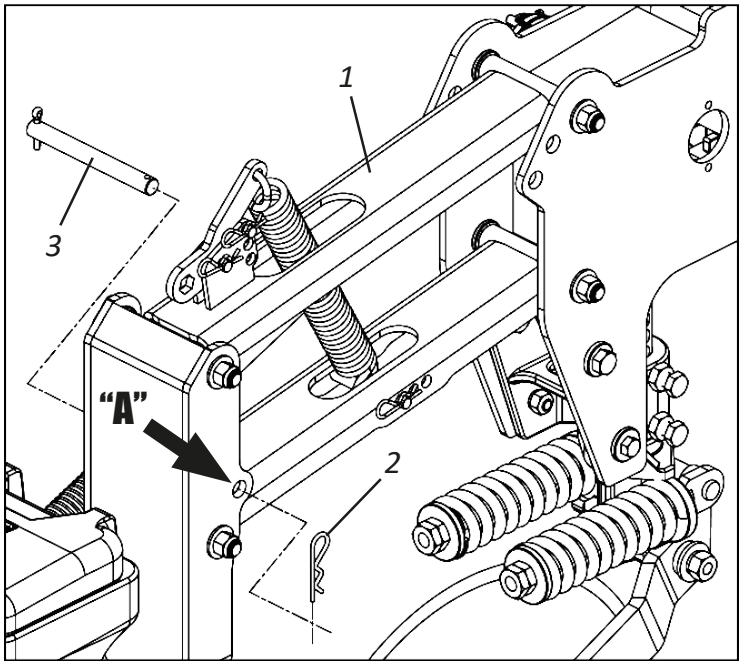
01 - Place the seeder on a flat area and make sure that all rows (1) are completely on the ground.
02 - Then release the lock (2) and remove the pin (3) from hole **"A".**
03 - Then place the pin (3) in hole **"B"** and secure it with the lock (2).

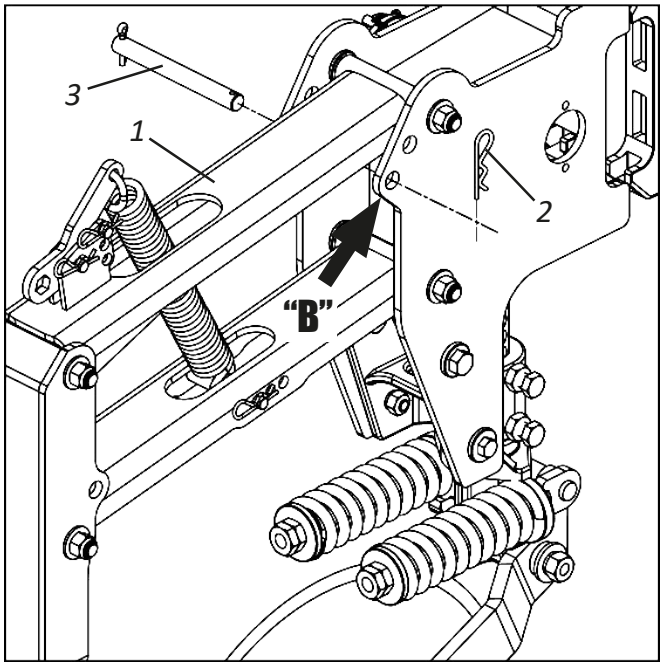
⚠ ATTENTION

This adjustment is mandatory so that there is sufficient height between the rows and the ground when transporting the seeder, avoiding damage to the rows. Do not operate the GIGA AIR without turning pin (3) to position "B".

NOTE

When you have finished adjusting the row, repeat this procedure on all the frame rows (right, left and center).





IMPORTANTE **Make sure that the GIGA AIR is on a flat area to reach the point where the rows are released. If you don't reach this point, remove the shims from the hydraulic cylinders so that you can lower the seeder further.**

▪ Transport

• Preparing for transport - Part I

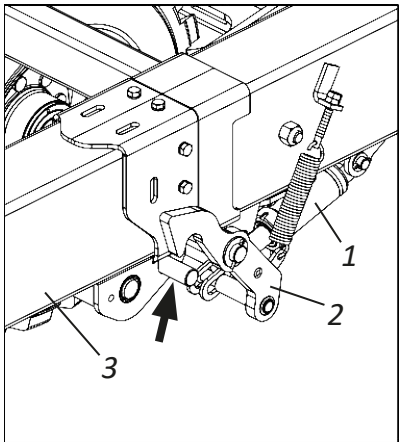
After adjusting the rows according to the instructions on the previous page, place the **GIGA AIR** on the transport module:

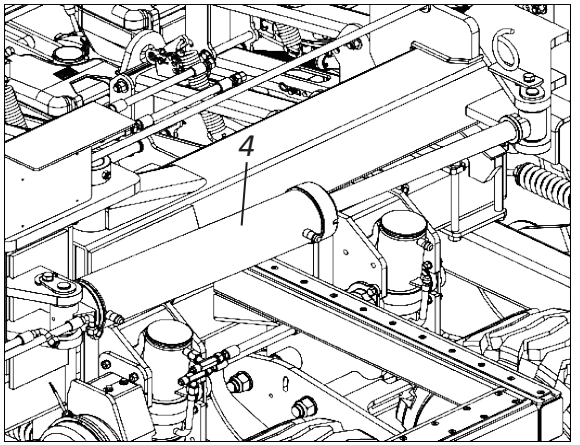
Before starting the procedures below, make sure that the tractor is disengaged and that the handbrake is released **(failure to do so could cause damage to the seeder).**

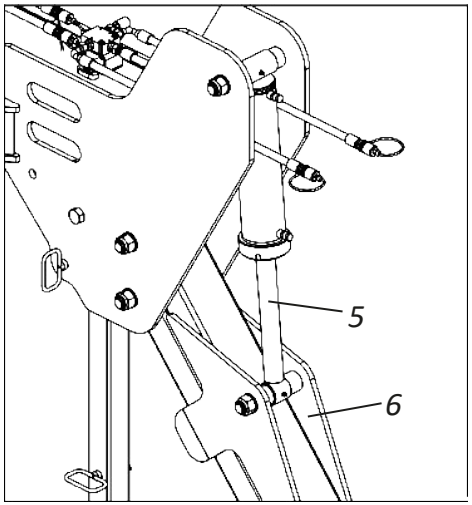
01 - Fully raise the seeder.

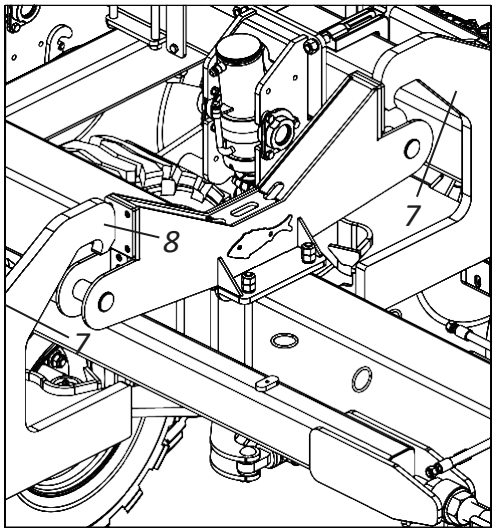
02 - Then activate the tractor lever, which will simultaneously activate the following hydraulic cylinders: First, the hydraulic cylinder (1) will open by lifting the trigger (2) to lock the header (3), then the seeder's closing hydraulic cylinders (4) will activate.

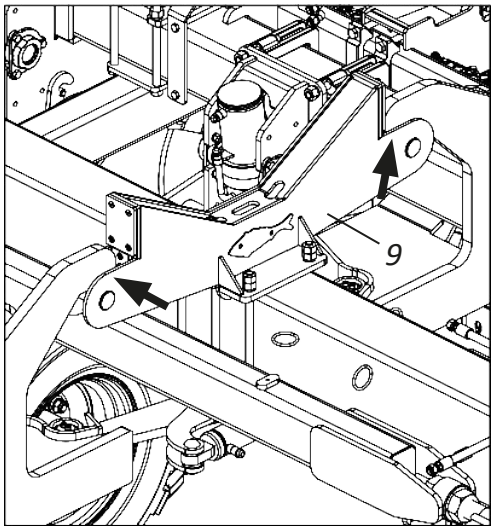
03 - Next, operate the hydraulic cylinder (5) of the header (6), leveling it at the height of the couplings (7), where, when it touches the stops (8), open the hydraulic cylinder (5) of the header (6) so that the couplings (7) fit into the locking support (9).











⚠ ATTENTION

The opening of the hydraulic cylinder (5) of the header (6) varies according to the tractor model used.

NOTE **Depending on the terrain, assistance must be given to move the tractor forward when closing for transport.**

▪ Transport

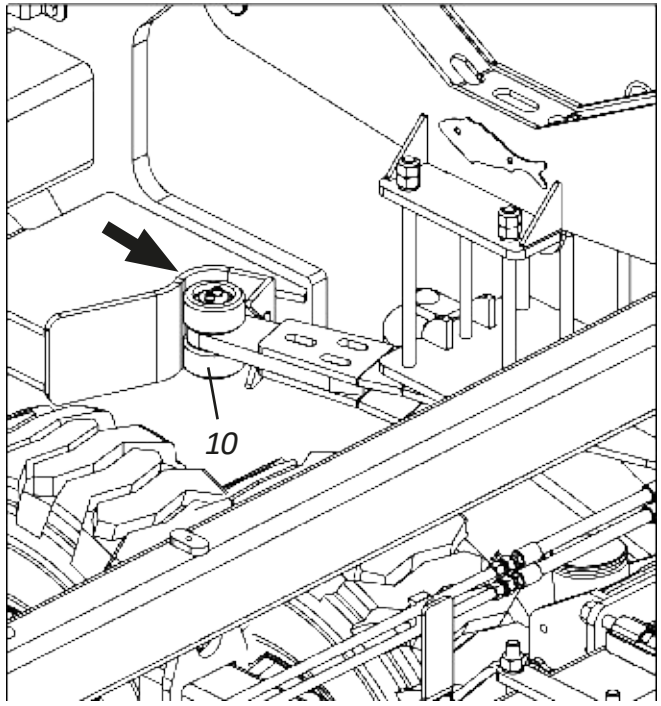
• Preparing for transport - Part II

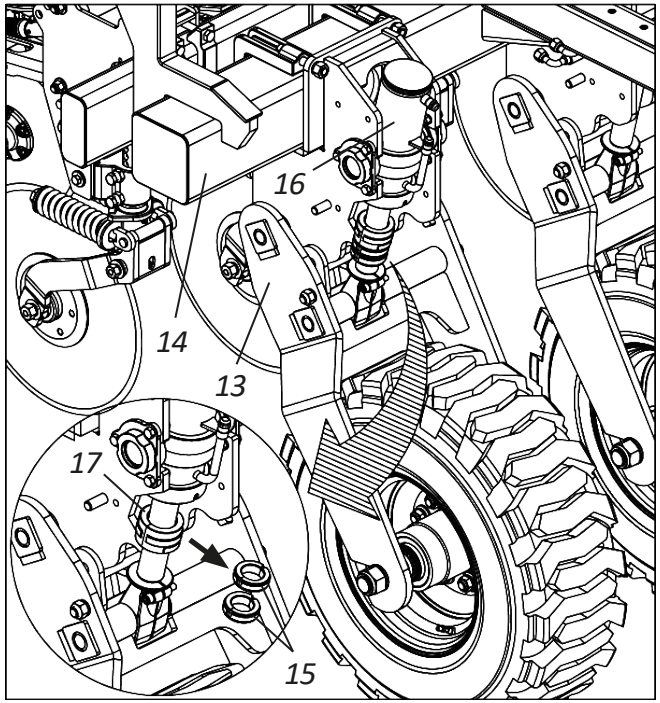
04 - Next, operate the hydraulic lever as if you were going to open the seeder, where the pulleys (10) will lock.

05 - Then press the **"Lift"** button (11) on the control panel (12) to **"lock "** the seeder's central module.

06 - Next, operate the tractor's hydraulic lever as if you were lowering the seeder in order to lift the wheels (13) from the side frames (14).

07 - Remove the two 25mm shims (15) from the hydraulic cylinders (16) on the side frames (14), leaving only 1 50mm shim (17).



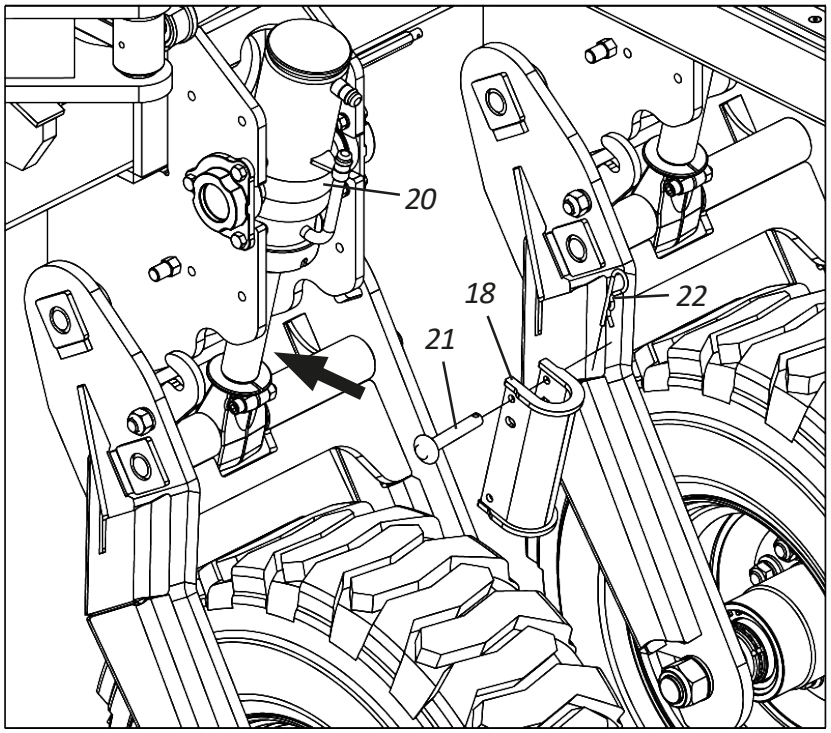


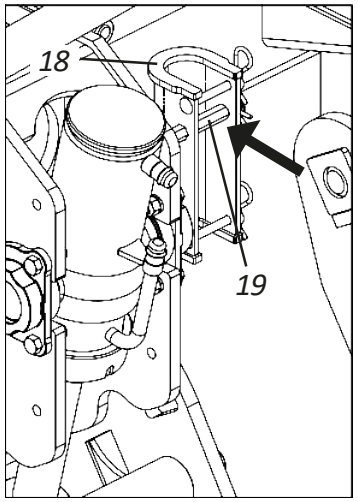
⚠ ATTENTION **Don't forget to remove the two 25mm shims (15) from the hydraulic cylinders (16) on the side frames (14) before transporting the GIGA AIR. Failure to do so could result in the wheels (13) touching the ground during transport, causing serious accidents or damage to the seeder.**

❗ IMPORTANT **Failure to press the button (11) on the control panel (12) will cause the wheels of the central module to lower, so that the seeder cannot be transported.**

▪ Transport

• Preparing for transport - Part III





IMPORTANT

Do not transport the seeder loaded, as this could damage it. We recommend refueling it only at the workplace. If the seeder is to remain in the field for any reason, we recommend covering it with a waterproof canvas to prevent damp.

ATTENTION

When you have finished closing the seeder, before starting transport, remove the locks (18) from the fixing point (19) and place them on the hydraulic cylinders (20) of the central module and lock them with the pins (21) and locks (22).
Before starting transport with the GIGA AIR, make sure that there are no people near the seeder. Failure to do so can lead to serious accidents or even death.

NOTE

When transporting the GIGA AIR, do not allow people to stand on the seeder. Do not stand on the platform while the seeder is moving. Failure to do so can lead to serious accidents or even death.

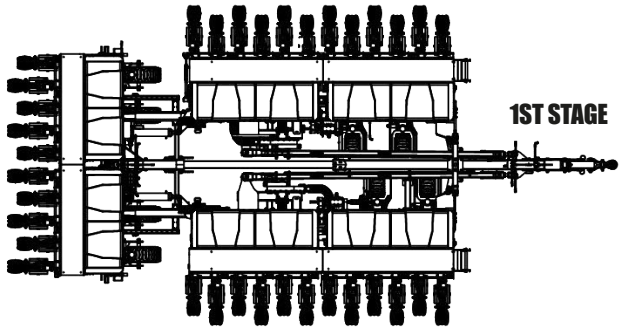
▪ Work

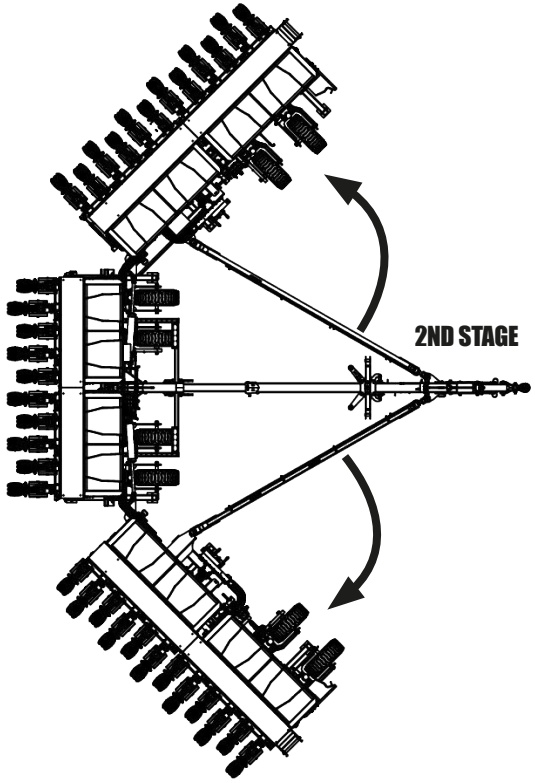
• Stages for work

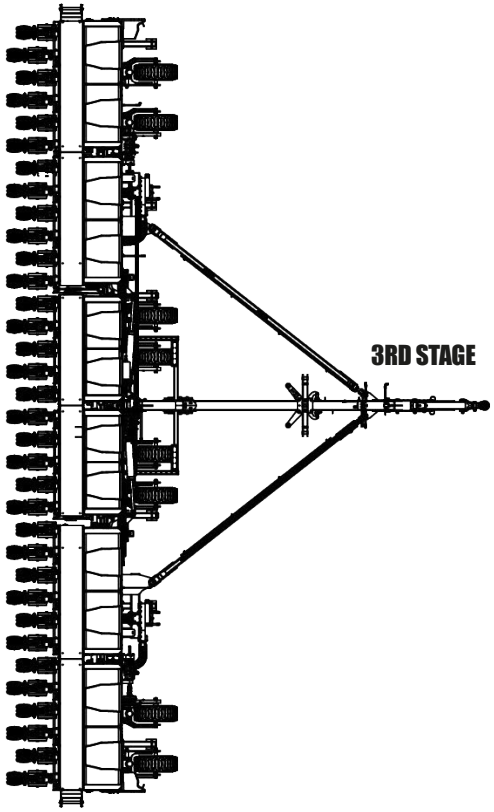
From transport to work, the **GIGA AIR** seeder has 3 stages:

1st stage: CLOSED seeder (position for transport).
2nd stage: SEMI-open seeder (preparation for work).
3rd stage: OPEN seeder (working position).

To put the **GIGA AIR** into a work module, follow the procedures on pages 54 to 57.







⚠ ATTENTION

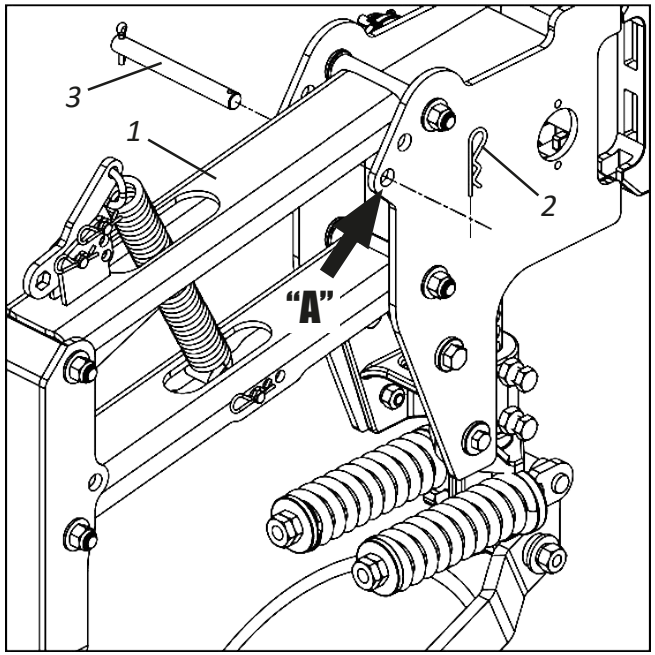
During the operation of opening the seeder for work, do not allow people to stand near the GIGA AIR. Do not allow people to stand on the GIGA AIR during the opening procedure.

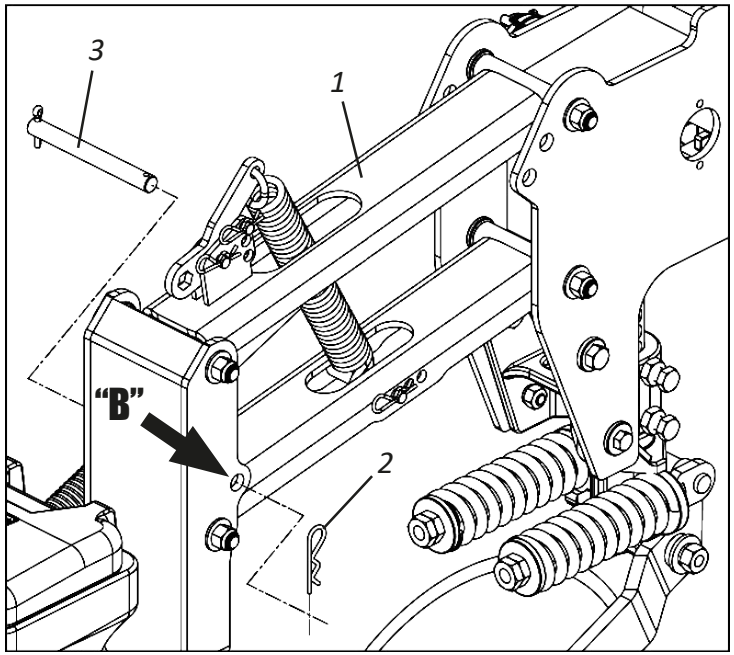
▪ Work

• Mandatory row adjustment

Before starting the procedures on the following pages to place the **GIGA AIR** on the work module, first adjust the rows (1) of the frames **(right, left and center)** as follows:

01 - Place the seeder on a flat area.
02 - Then release the lock (2) and remove the pin (3) from hole **"A"**.
03 - Then place the pin (3) in hole **"B"** and secure it with the lock (2).





⚠ ATTENTION

This adjustment is mandatory so that all the rows (1) are completely on the ground when working with the seeder. Do not operate the GIGA AIR without turning pin (3) to position "B".

NOTE

When you have finished adjusting the row, repeat this procedure on all the frame rows (right, left and center).

IMPORTANTE

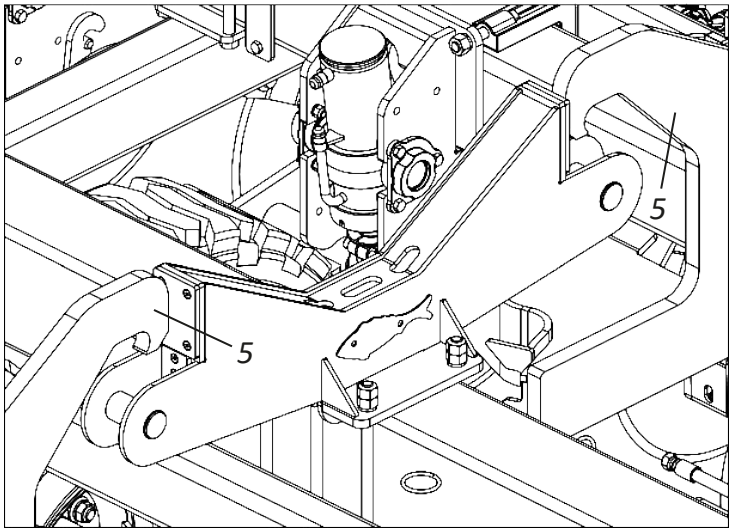
Make sure that the GIGA AIR is on a flat area in order to reach the locking point of the rows. If you don't reach this point, remove the shims from the hydraulic cylinders so that you can lower the seeder further. To put the pin (3) in the "B" position, the GIGA AIR must be in the working position, i.e. with the rows on the ground.

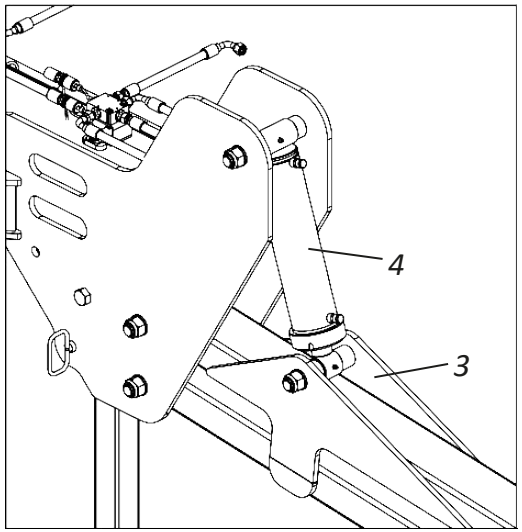
▪ Work

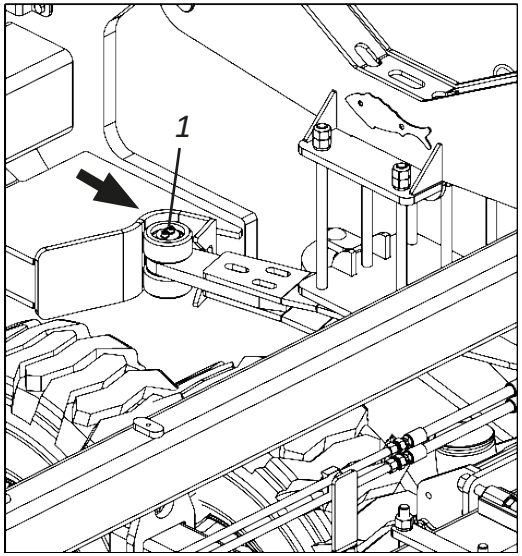
• Preparing for work - Part I

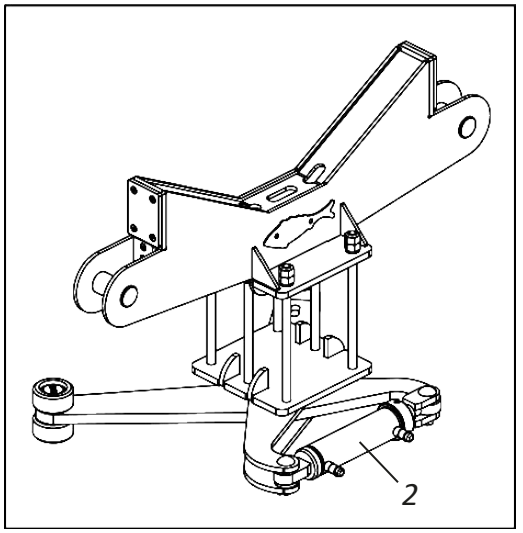
After adjusting the rows according to the instructions on the previous page, place the **GIGA AIR** in the work module, proceed as follows:

01 **-** Fully raise the seeder.
02 **-** Then unlock the pulleys (1) by actuating the hydraulic cylinder (2), **(as if you were closing the seeder).**
03 **-** Then lower the header (3) using the hydraulic cylinder (4) to disengage the side frames (5) **(right and left).**









NOTE **Depending on the terrain, you should help by moving the tractor backwards into the work opening.**

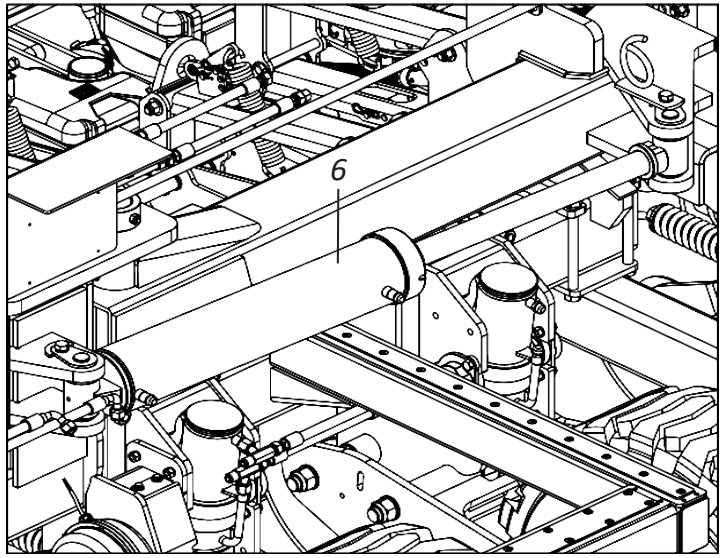
▪ Work

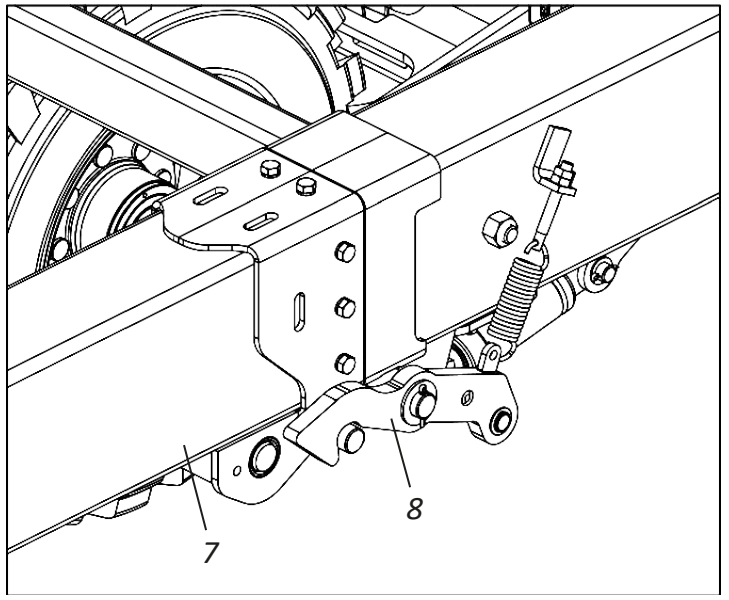
• Preparing for work - Part II

04 - Next, before activating the hydraulic cylinders (6) to open the seeder, make sure that the tractor is disengaged with the handbrake released **(failure to do so could cause damage to the seeder).**

05 - Then, gently begin to fully open the seeder using the hydraulic cylinders (6).

06 - FFinish this operation by pressing the “Lift” button (9) on the control panel (10) to **“release the lift cylinders in the seeder’s central module and lower it”.**





⚠ ATTENTION

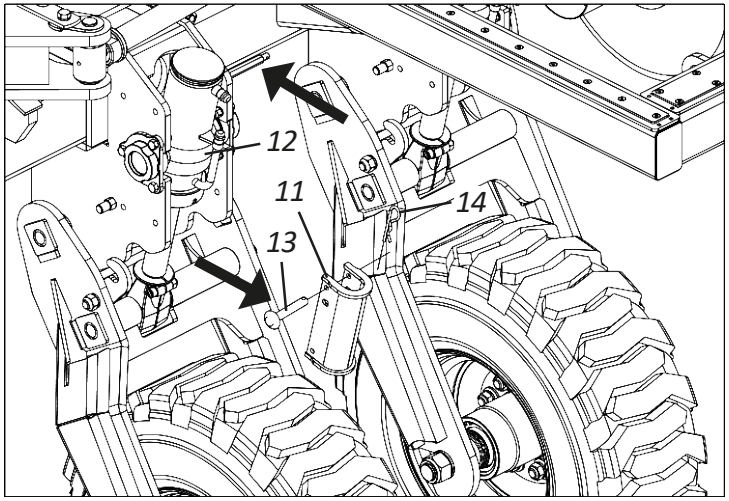
At the end of this operation, don’t forget to press the “Lift” button (9) on the control panel (10) to unlock the seeder’s central module. Failure to do so could result in malfunction and damage to the seeder.

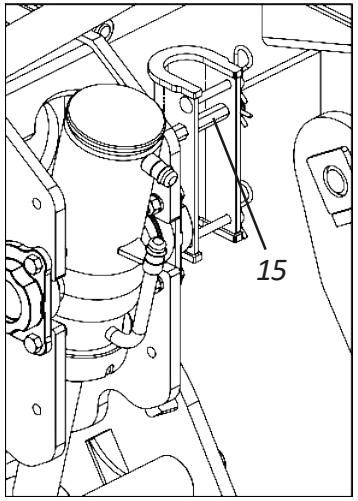
❗ IMPORTANT

When you have completed the above procedures, make sure that the header bar (7) is locked through the trigger (8). Failure to do so can lead to serious accidents.

▪ Work

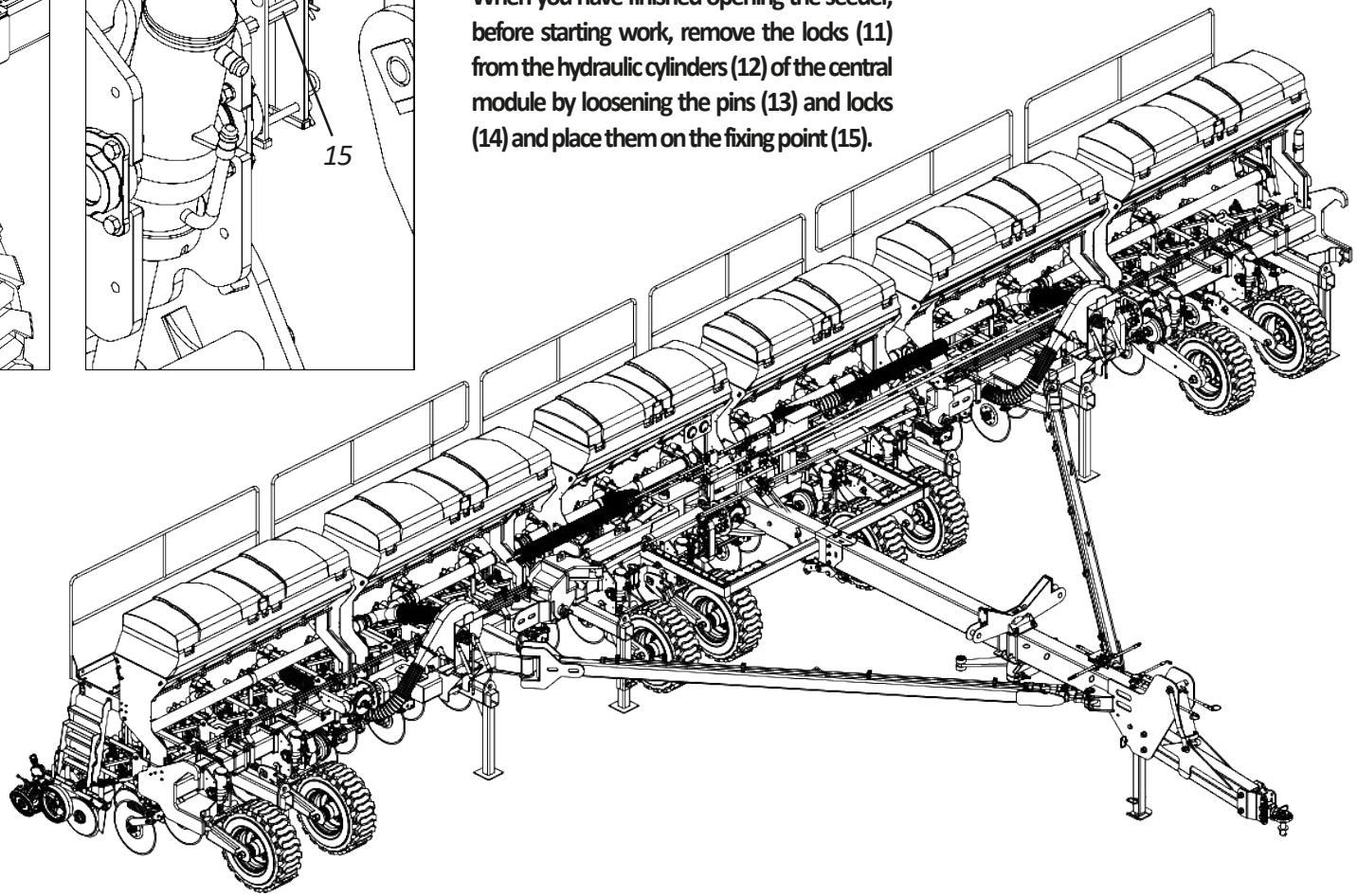
• Preparing for work - Part III





⚠ ATTENTION

When you have finished opening the seeder, before starting work, remove the locks (11) from the hydraulic cylinders (12) of the central module by loosening the pins (13) and locks (14) and place them on the fixing point (15).



❗ IMPORTANTE

Before starting work with the GIGA AIR, make sure there are no people near the seeder. Failure to do so can lead to serious accidents or even death.

🔍 NOTE

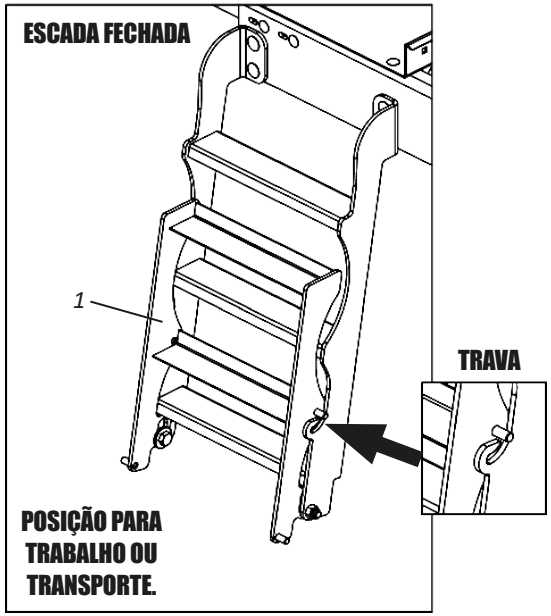
When working with the GIGA AIR, do not allow people to stand on the seeder. Do not stand on the platform while the seeder is moving. Failure to do so can lead to serious accidents or even death.

▪ Transportation / Work

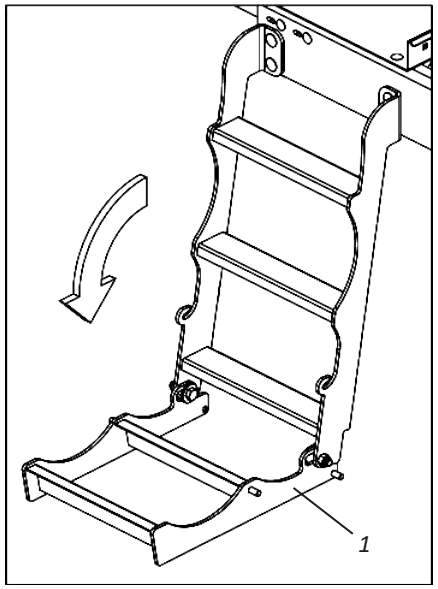
• Using the stairs

The **GIGA AIR** has an articulating ladder (1), which should only be used when refueling or servicing its tanks. In order to use it, proceed as follows:

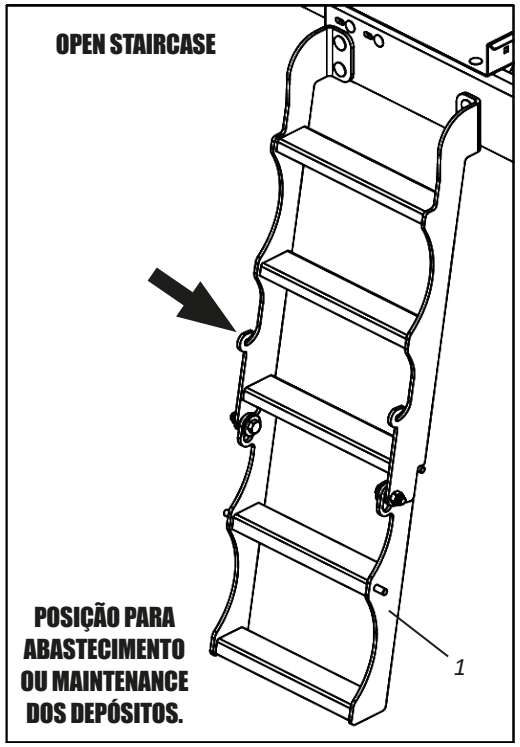
01 - Lift the articulating ladder (1) and unlock it.



02 - Next, articulate the ladder (1) by lowering it.



03 - When you have finished using the ladder (1), do the reverse, closing and locking it.



⚠ ATTENTION

Do not stand on the ladder when the seeder is working or being transported. Do not work or transport the seeder with the ladder open.
Do not carry people on the platform, ladder or any other part of the seeder. Ignoring these warnings could result in serious accidents or even death.

❗ IMPORTANT

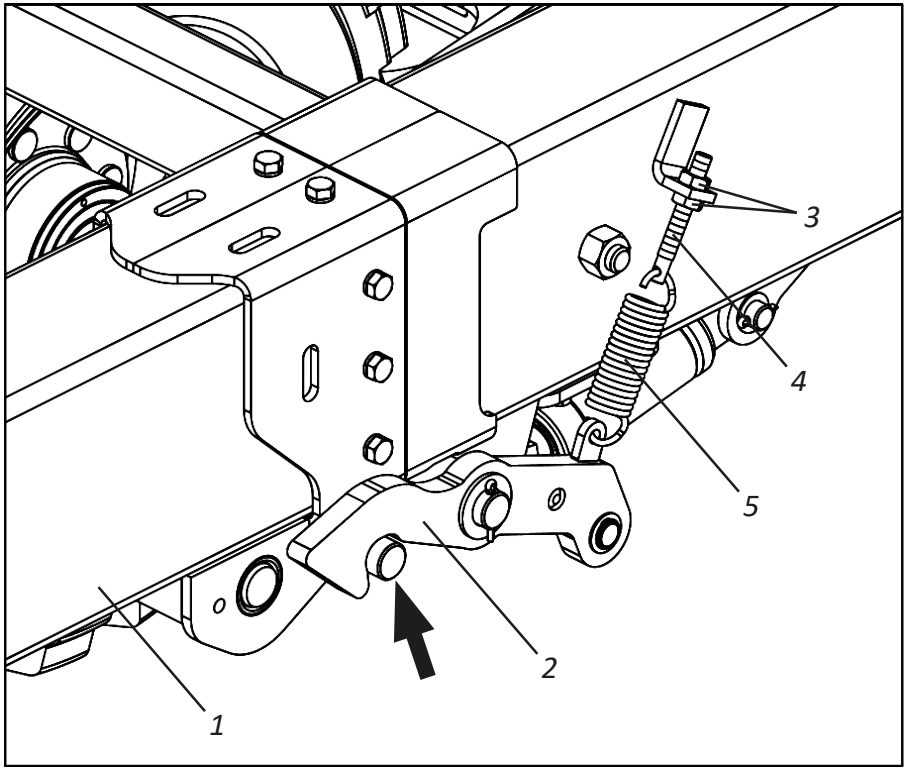
To access or fill the tank, always use the articulating ladder (1).
The articulating ladder (1) complies with NBR standards.

▪ Transportation / Work

• Header locking system

The **GIGA AIR** has a locking system (2) on the hitching header (1) which can be adjusted according to need, giving greater or lesser pressure when disarming and rearming. To adjust the pressure of the locking system (2), proceed as follows:

01 - Tighten or loosen the nut and lock nut (3) so that the spindle (4) adjusts the tension of the spring (5), giving more or less pressure to the locking system (2).



⚠ ATTENTION

The locking system (2) leaves the factory with the pressure setting pre-set, so only adjust it if necessary.

❗ IMPORTANT

When making the adjustment on the locking system (2), make the same adjustment on both sides of the hitching header (1).

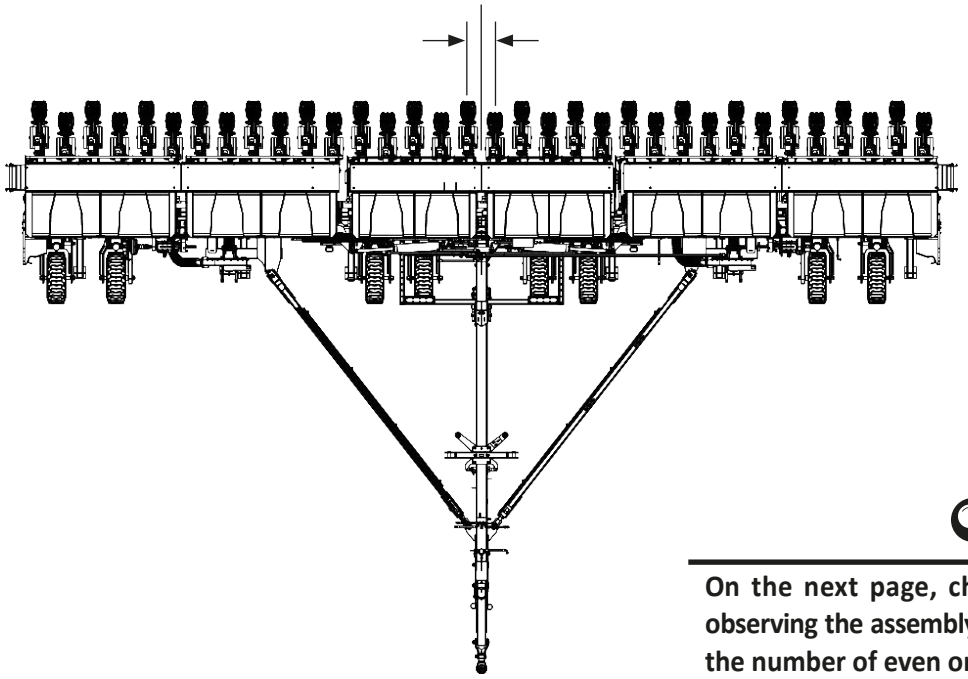
▪ Spacing

• Row spacing

GIGA AIR is supplied with spacing according to the number of rows requested, and new spacings can be made according to the type of crop desired.

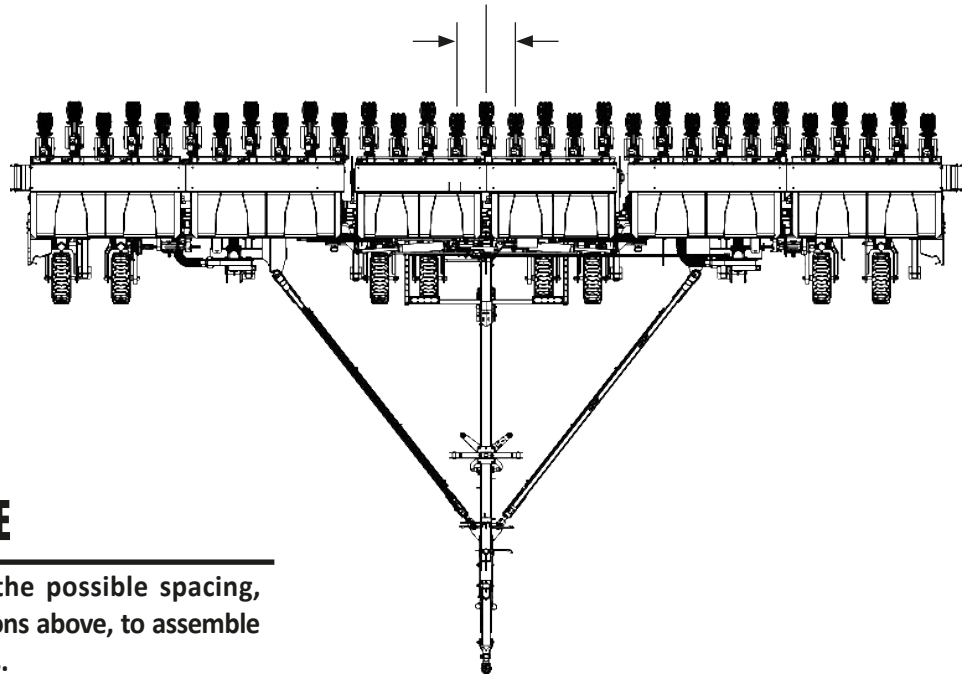
• Number of even rows

Mark the center of the **GIGA AIR** chassis and divide the spacing 1/2 (half) to the left and 1/2 (half) to the right, fixing the first two rows at these points. Then, starting from these, assemble the other rows with the desired spacing.



• Numbe of odd rows

Attach a row to the center of the **GIGA AIR** chassis and, starting from there, assemble the other rows with the desired spacing.



NOTE

On the next page, check out the possible spacing, observing the assembly instructions above, to assemble the number of even or odd rows.

▪ Spacing

• Spacing tables in millimeters

GIGA AIR are supplied with spacing according to the number of rows requested, and new spacings can be made according to the type of crop desired.

Model	*Rows*	*Spacing (mm)*	*Usable width (mm)*
GIGA AIR 22 Rows	22	450	9450
	21	500	10000
	20	500	9500
	19	550	9900
	18	550	9350
	16	600	9000
	14	760	9880

Model	*Rows*	*Spacing (mm)*	*Usable width (mm)*
GIGA AIR 30 Rows	30	450	13050
	29	450	12600
	27	500	13000
	26	500	12500
	24	550	12650
	22	600	12600
	18	760	12920

Model	*Rows*	*Spacing (mm)*	*Usable width (mm)*
GIGA AIR 34 Rows	34	450	14850
	33	450	14400
	31	500	15000
	30	500	14500
	28	550	14850
	26	600	15000
	20	760	14440

Model	*Rows*	*Spacing (mm)*	*Usable width (mm)*
GIGA AIR 42 Rows	42	450	18450
	39	500	19000
	34	550	18150
	32	600	18600
	26	760	19000

⚠ ATTENTION | **If the spacing differs from that shown on this page, the product engineering department should be consulted.**

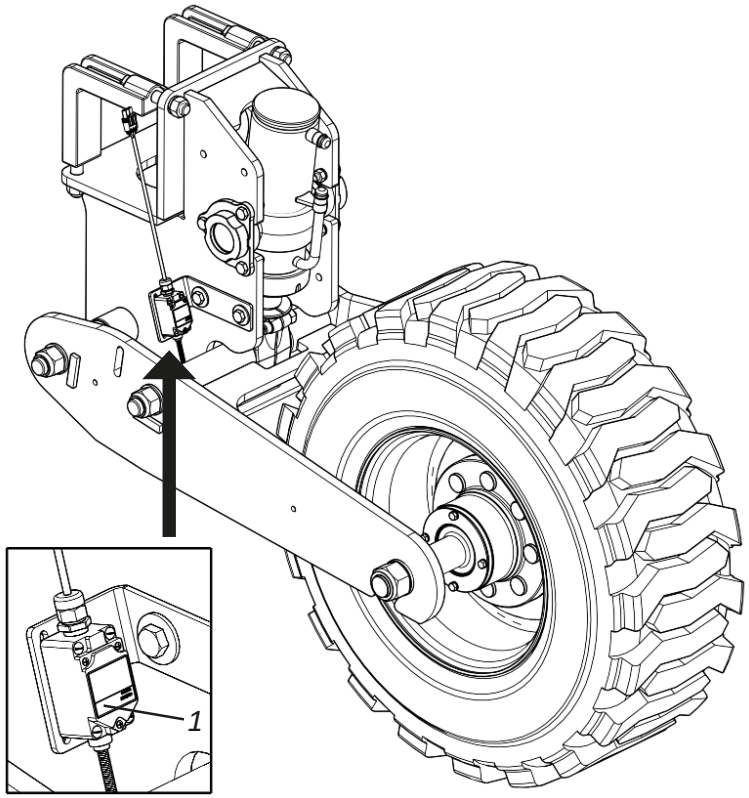
Systems

• Integrated systems

GIGA AIR has a number of systems that are factory-installed. These systems are made up of:

• Sensor

When the **GIGA AIR** is maneuvered or transported, the sensor (1) stops distributing the seed so that it is not wasted.



• Electric control

The electrical control is made up of switches that manually turn each seeder module on and off for possible adjustments.

This electric control also has a key that allows the central wheels to be locked for transport.

▪ Systems

• PMB 400, MP36 PRO or ETD

GIGA AIR can be purchased as an option with the **PMB 400, MP36 PRO** or **ETD** systems**.**

PMB 400

- Check the spacing between seeds per row (cm) and the seeder's average (cm).
- Monitoring of travel speed (km/h).
- Population per row (sem/ha) and se der average (sem/ha).
- Total planted area (ha) and Partial (ha) (2 partial areas).
- It reports 02 partial areas and 01 total.
- Yield (ha/h).
- Resettable to zero seed counter.

MP36 PRO - PLANTING MONITOR

- It has two operating modes:
  1. Monitoring seed drop or fertilizer flow.
  2. Planting rate in seeds per meter and hectare;
- Compatibility with DICKEY-john and Agrosystem seed sensors.
- Identifies rows in need of maintenance.
- Monitors tractor speed and hectarimeter (planted area).
- Simple conFIGURE tion and operation.

ETD - ELECTRONIC DOSAGE TABLE

- Assists the operator in setting the best gear ratio.
- It registers hectares planted.
- It records the hours actually worked.
- It registers planting speeds that are higher than specified.

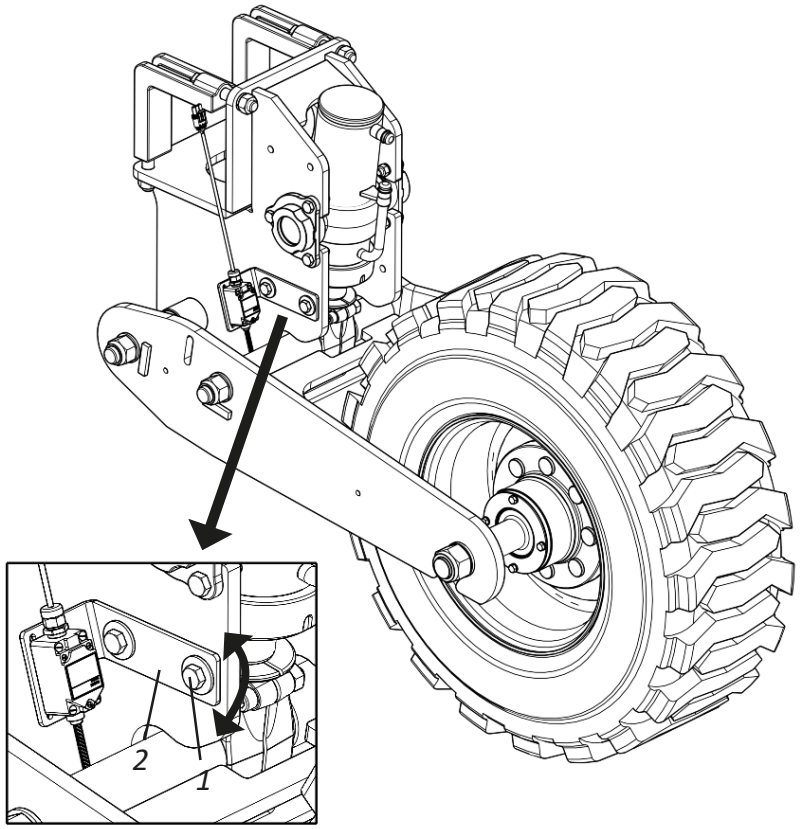
▪ Adjustments

• Sensor adjustment

Before starting work, when fitting or removing the hydraulic cylinder shims, adjust the sensor as follows:

01 - Loosen the screw (1) and adjust the support (2) so that the seeder enables or disables the transmission at the desired height.

02 - Then retighten the screw (1).

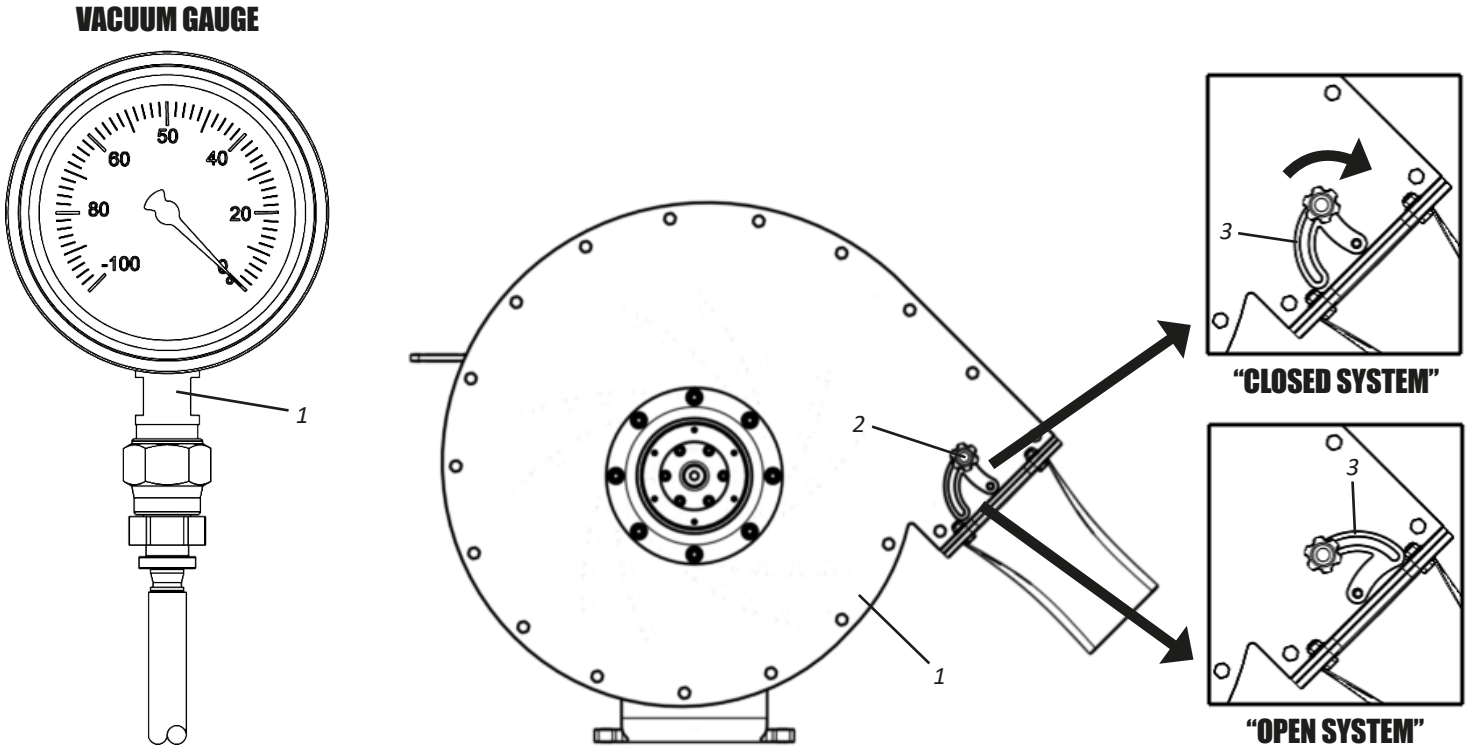


▪ Adjustments

• Sluice gate adjustment

The turbine must generate a specific negative pressure (vacuum), depending on the specific weight of the seed to be used; to adjust the pressure, proceed as follows:

01 - Check the level of the vacuum generated according to the guidelines on page 90. The vacuum is indicated in mbar (millibar) by the vacuum gauge (1).
02 - To increase or decrease the vacuum, release the knob (2) by turning it counterclockwise.
03 - Then move the plate (3), the greater or lesser the displacement, the greater or lesser the level of vacuum generated.
04 - The vacuum must be adjusted according to the type of culture, as shown in the table below.



Type of crop	Vacuum level
Corn / Bean	70 to 80 mbar
Soybeans	60 to 80 mbar
Cotton without lint	50 to 60 mbar
Sunflower / Sorghum	40 to 50 mbar

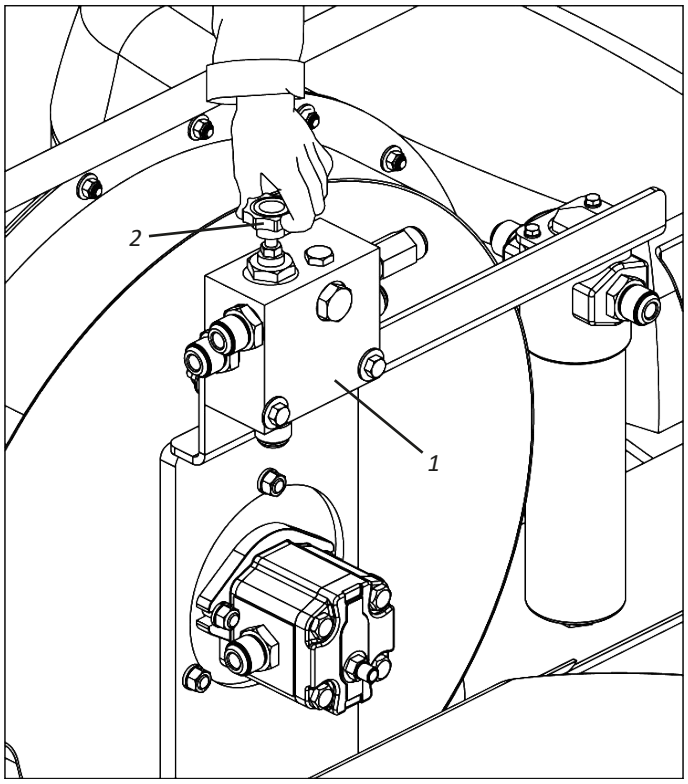
▪ Adjustments

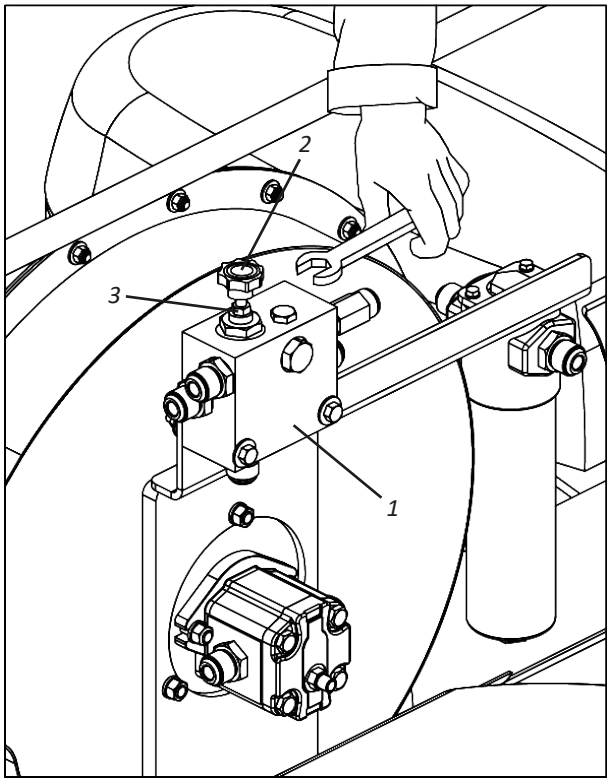
• Adjusting the continuous flow system

GIGA AIR has a continuous flow system. In this system, when you notice the seeds falling from the disc when maneuvering the seeder, open the disc gradually from the flow regulator valve (1), in order to do this, proceed as follows:

01 - Turn the handle (2) of the flow regulating valve (1) counterclockwise until you see that this is no longer the case.

02 - When the adjustment is complete, lock the flow regulator valve (1) by means of the lock nut (3) on the handle (2), turning clockwise with one hand using an appropriate tool so that the system does not eventually suffer maladjustment.





⚠ ATTENTION

Before starting work, check the flow setting according to the type of seed used, via the flow valve (1) or the turbine gate (previous page).

▪ Seed distribution system

• Feeder SELENIUM

The **GIGA AIR** comes standard with the **SELENIUM** seed feeder.

• Technical specifications

Pneumatic feeder.
No need for adjustments.
It has a display to monitor operation in real time.
Dimensions: 414 mm (A) x 206 mm (L) x 373 mm (C).
Weight: 3 Kg.
Diameter of vaccum nozzle: 36,5 mm.
Seed nozzle diameter: 74 mm (gravity) or 32 mm (positive pressure).

• Available crops

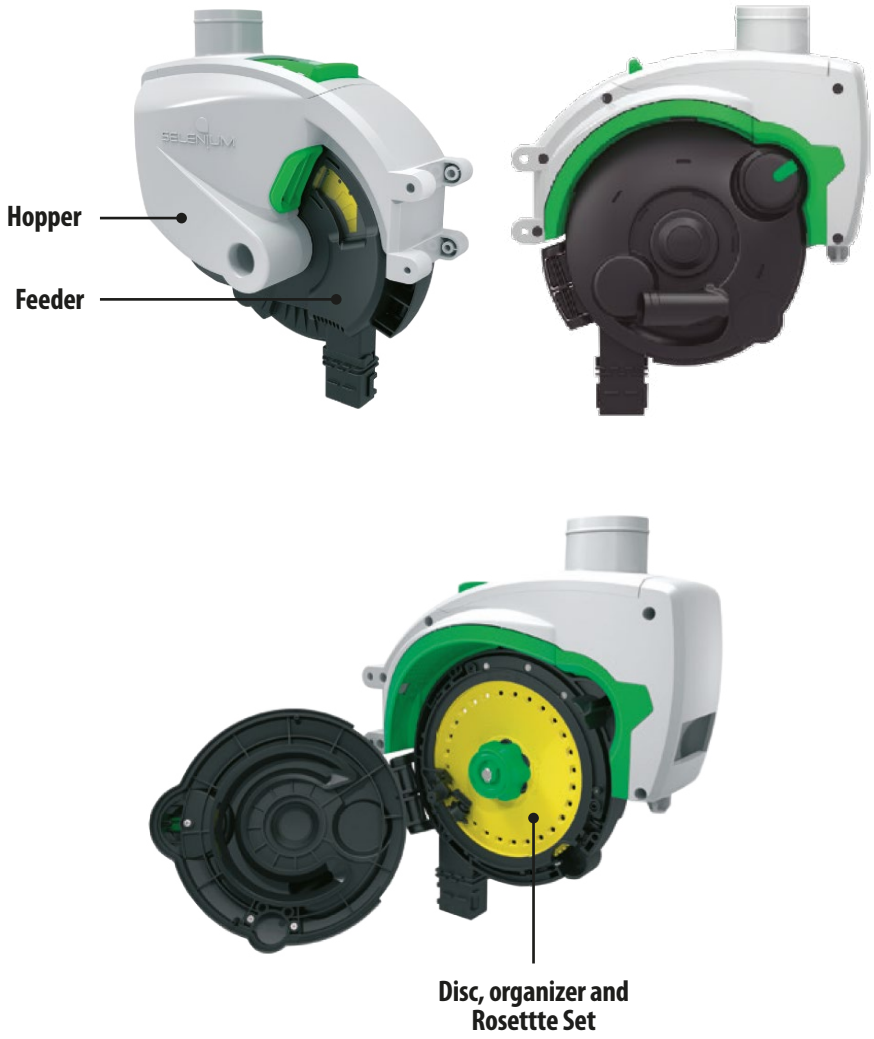
COTTON | CORN | BEAN CARIOQUINHA | SORGUM | SOYBEANS

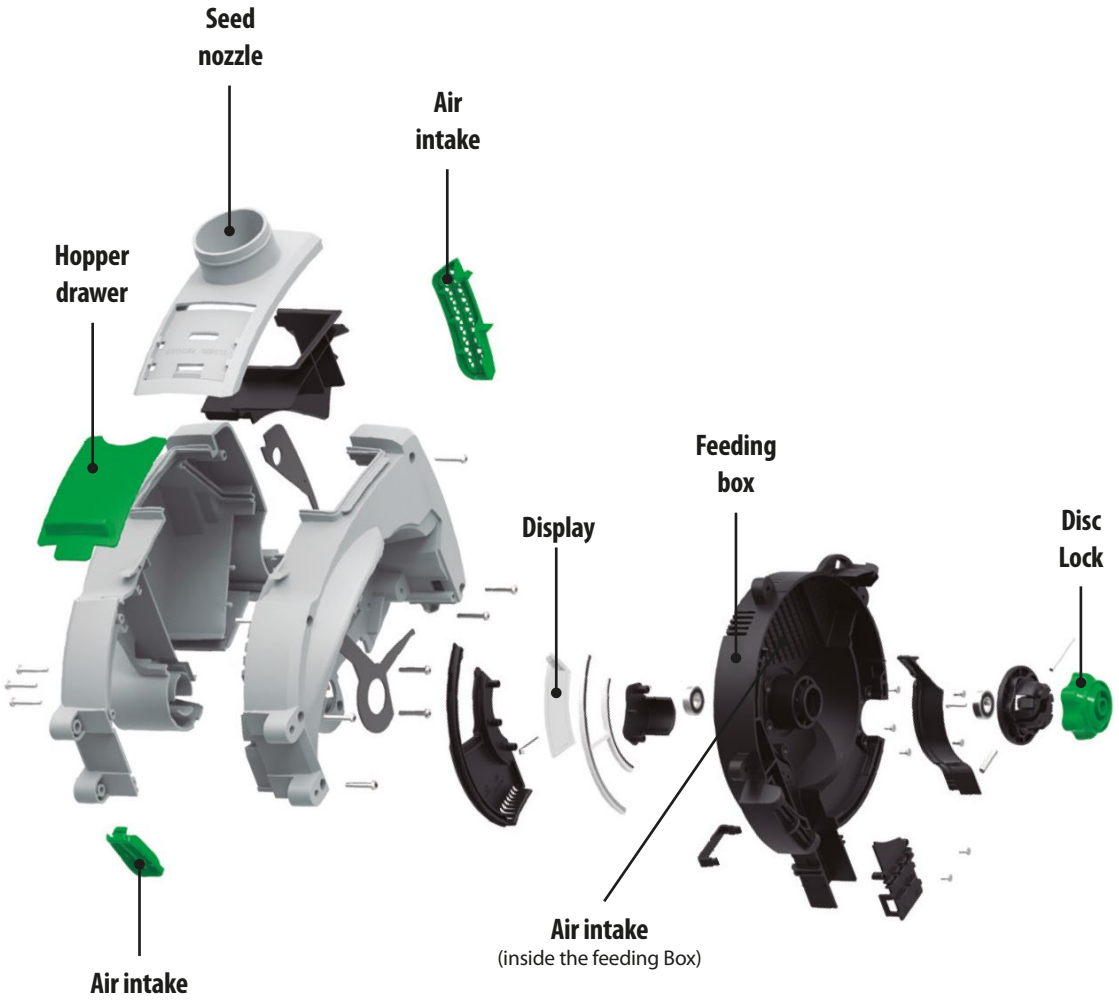
CONDUCTOR

Coupled with Selenium, it protects and guides the seed into the seed into the soil.

▪ Seed distribution system

• SELENIUM feeder components





▪ Seed distribution system

• Choice of crop

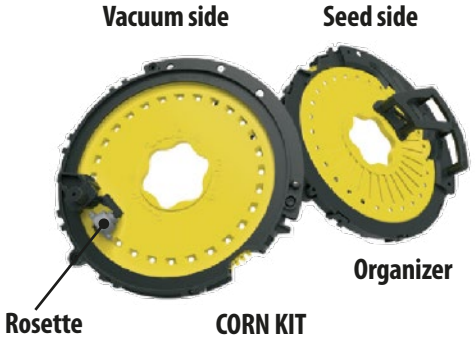
The **SELENIUM** feeder has **three different sets of discs** with their respective organizer and rosette; for planting **corn, flow soybeans and soybeans**.

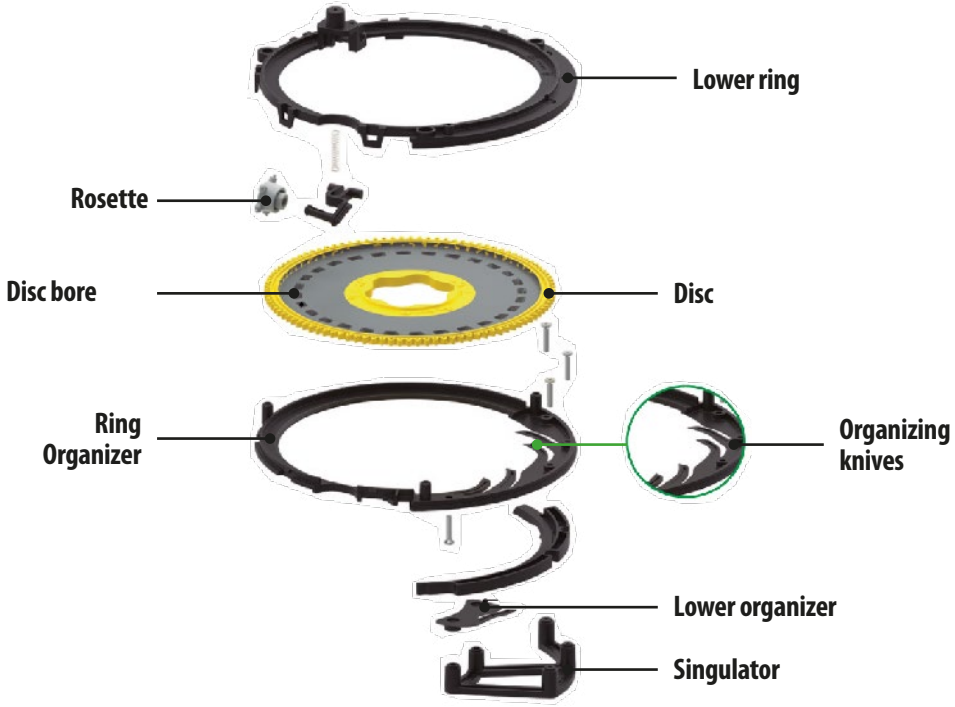
NOTE **The disc assembly is not adjustable and should not be disassembled.**

Choose the specific set for the desired crop according to the colors **of the discs**. The table below relates the color of the disc to the crop planted.

CULTURES	CODES	NUMBER OF HOLES	HOLE DIAMETER
CORN	YELLOW	28	4,5 mm
SOY FLOW	LILÁC	40	4,0 mm
SOYBEANS	ORANGE	55	4,0 mm

Discription of the 3 (three) kits (consisting of disc, organizer and rosette) and their respective cultures.





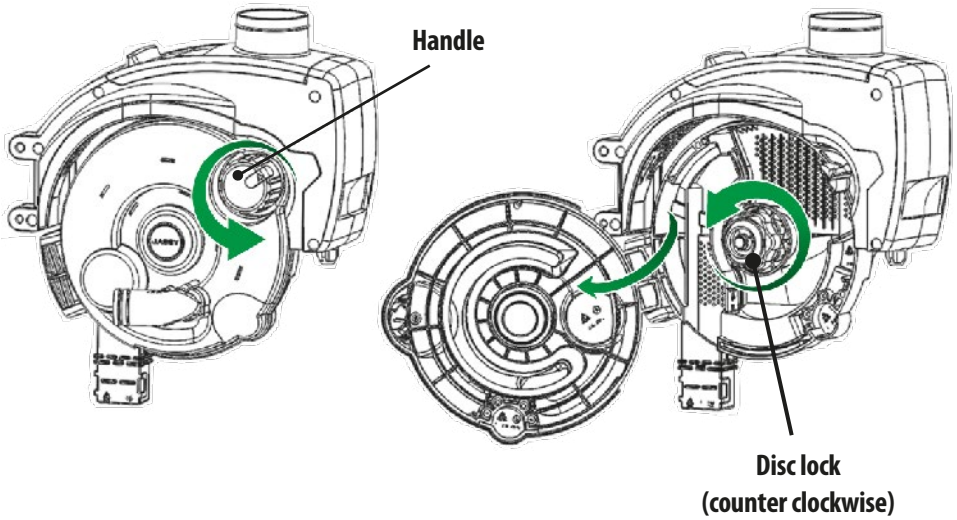
▪ Seed distribution system

• Choice of disc

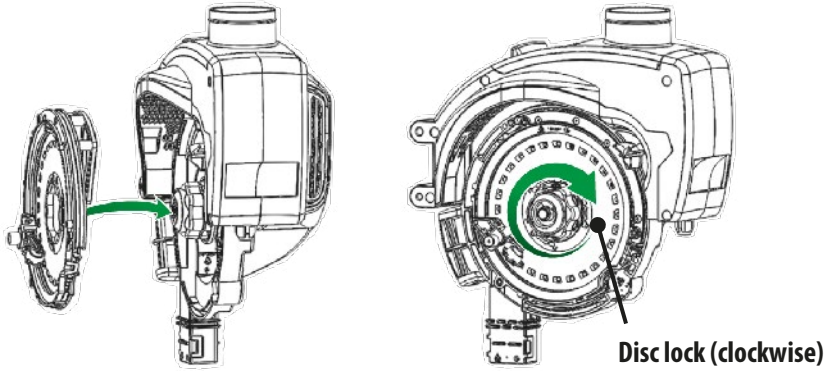
In order to assemble the selected disc set on the Feeder, it is not necessary to remove the **Hopper Feeder.**

01 - Open the feeding cap by turning the **handle counterclockwise.**

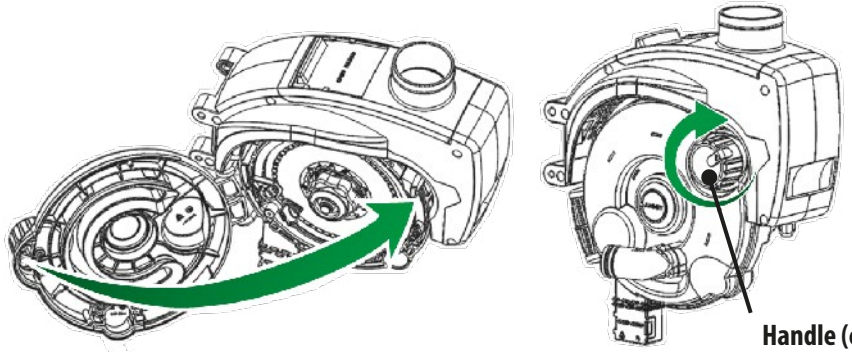
02 - Turn the disc lock **counterclockwise** until it reaches the end of its stroke.



03 - Mount the disc assembly with the **Singulator** (Organizers) facing inwards towards the feeder. After positioning the assembly, **turn the disc lock clockwise** to lock the assembly.



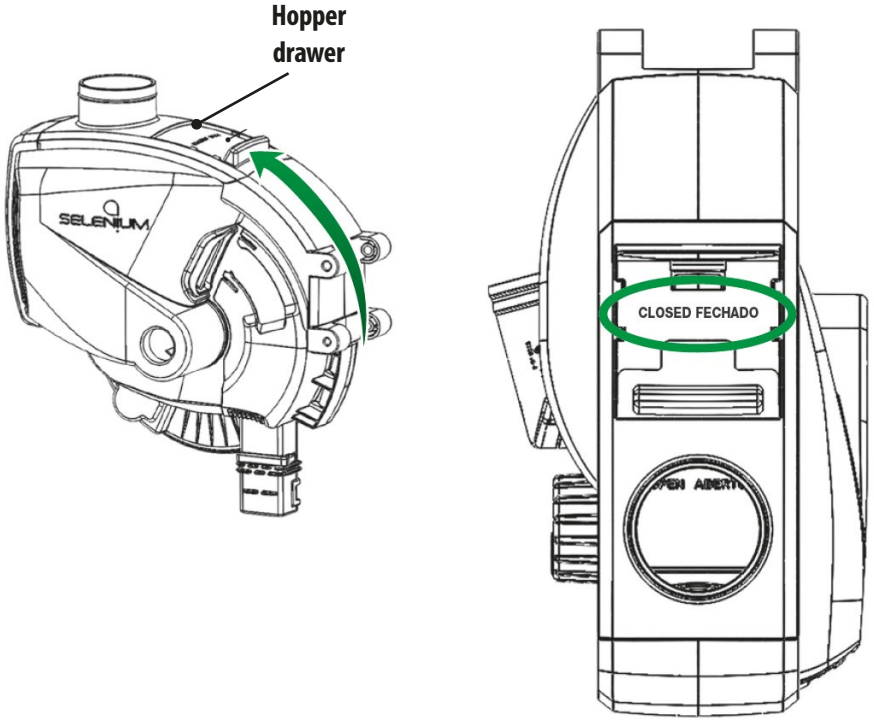
04 - Close the lid by pressing it against the dispenser box until the **Handle** locks into place. Make sure the lid latch is closed properly.



▪ Seed distribution system

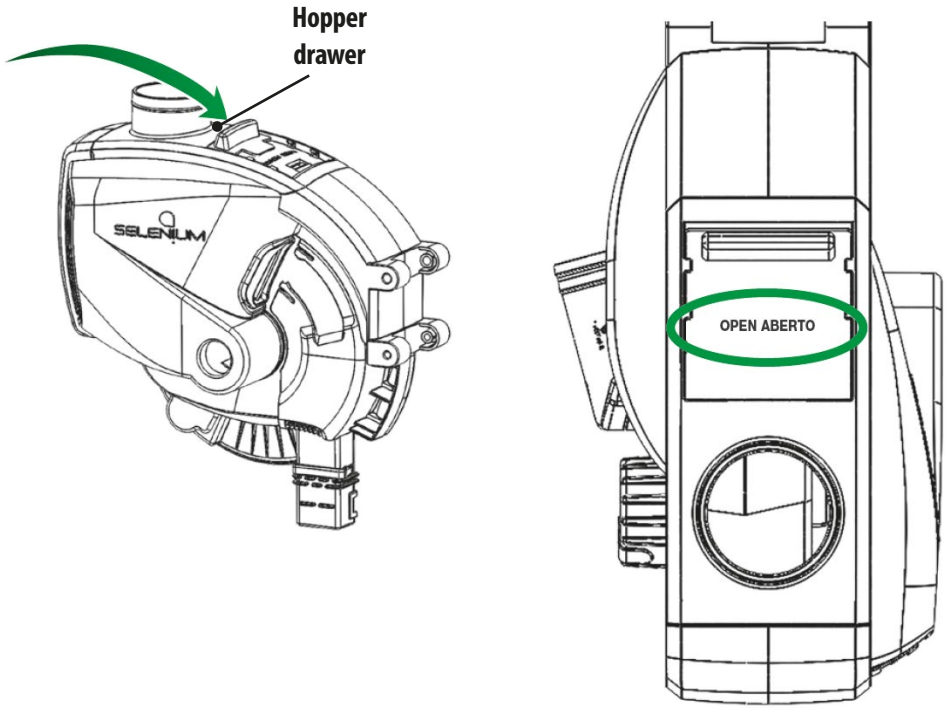
• Changing crops with the SELENIUM feeder full of seeds

01 - Push the **Hopper** drawer in the direction shown in the image below until it reaches the end of its stroke. In this position, the **Hopper** will be closed, displaying the indication "**CLOSED CLOSED".**



02 - Repeat the operations in the **"Disc set"** section of this manual.

03 - Reopen the **Hopper Drawer**, in the direction shown below, until the end of the stroke. In this position, the Hopper will be open, displaying the indication **"OPEN OPEN"**.



▪ Seed distribution system

• Display

The **SELENIUM** feeder has a display that makes it possible to follow the results of the organization of the seeds inside the feeder. To open the display, simply slide it as shown.

After checking the singularization, keep the display closed.

▪ Seed distribution system

• Troubleshooting (SELENIUM Feeder) - Part I

1 - TOO MANY FAILURES

FAILURES are characterized by the lack of seeds in the holes of the discs (they are checked by the display). Its incidence can be reduced with the following actions:

a) Check that the disc pack has been chosen correctly (page 48) in this manual.
b) Check that there are no fragments lodged in the holes in the discs.
c) Check that the seeds are correctly graphitized. **The use of powdered and dry graphite, applied to the seeds and mixed evenly, is essential to ensure that the seeds move easily within the feeder**. In this way, the seeds are more easily captured by the hole in the disc.
d) Make sure the **vacuum pressure** is set correctly. If the faults (lack of seeds) persist, try to increase the working pressure until the faults are reduced as much as possible. Then check that **no doubles have appeared**.
e) Check the **seal**, make sure it's in good condition.

2 - TOO MANY DOUBLES

DOUBLES are characterized by the presence of two or more seeds in the holes of the discs (they are checked by the display). Its incidence can be reduced with the following actions:

a) Check that the **disc set has been chosen** correctly (page 48).
b) Check the **organizing knives** to make sure they haven't been worn down by excessive use.
c) The **seeds must be correctly graphitized**. The use of powdered and dry graphite applied to the seeds and mixed evenly is essential to ensure that the seeds move easily within the feeder. This will make it easier for the organizer to separate them from each other.
d) Make sure the **vacuum pressure** is set correctly. **If the doubles persist, reduce the working pressure until the doubles are as low as possible**. Then check that there are no faults appearing.

▪ Seed distribution system

• Troubleshooting (SELENIUM Feeder) - Part II

3 - SPACING FAILURE

If the **spacing between seeds in the soil** is impaired, we recommend the following actions:

a) Check the **seed outlet of the feeder and the seed conductor**. Debris lodged in their walls can divert the course of the seeds.

b) Check the traction system. Make sure the system is in good condition and well lubricated.

c) Try turning the feeder by hand. Look for any unusual signs or sounds as it turns. If it is spinning with difficulty, remove the disc, organizer and rosette assembly and look for any debris that is making it difficult to turn.

d) Look for marks or evidence of where the seed is coming into contact with the seed conductor. Make sure that the Selenium is positioned so that the seed falls in the middle of the seed conductor.

e) Check that the **feeder's air inlets are free** (see pages 46 and 47), to allow free air flow into the feeder.

f) Check that the seeds are graphitized correctly. The use of powdered and dry graphite, applied to the seeds and mixed evenly, is essential to ensure that the seeds move easily within the feeder. This way, they will detach from the disc at the right time. **In wet weather, increase the dosage of graphite in the seeds.**

g) Slow down to check if the problem is caused by excessive vibration of the planting row.

h) If there is a seed sensor in the conductor, check that it is installed correctly. The sensor must not extend beyond the inner wall of the conductor.

4 - INCORRECT POPULATION

If the seed population in the soil is not in line with what is desired, the following actions can be taken:

a) If the feeder is driven by a **hydraulic motor or electric motor**, check that the **number of holes in the disc is set correctly** on the terminal that controls the motors. Also check that the **population indicated on the display** is correct.

b) If the feeder is mechanically driven by the planter's drag wheel, check in the feeding table that the correct gears are being used in the gearbox (which moves the seed metering units).

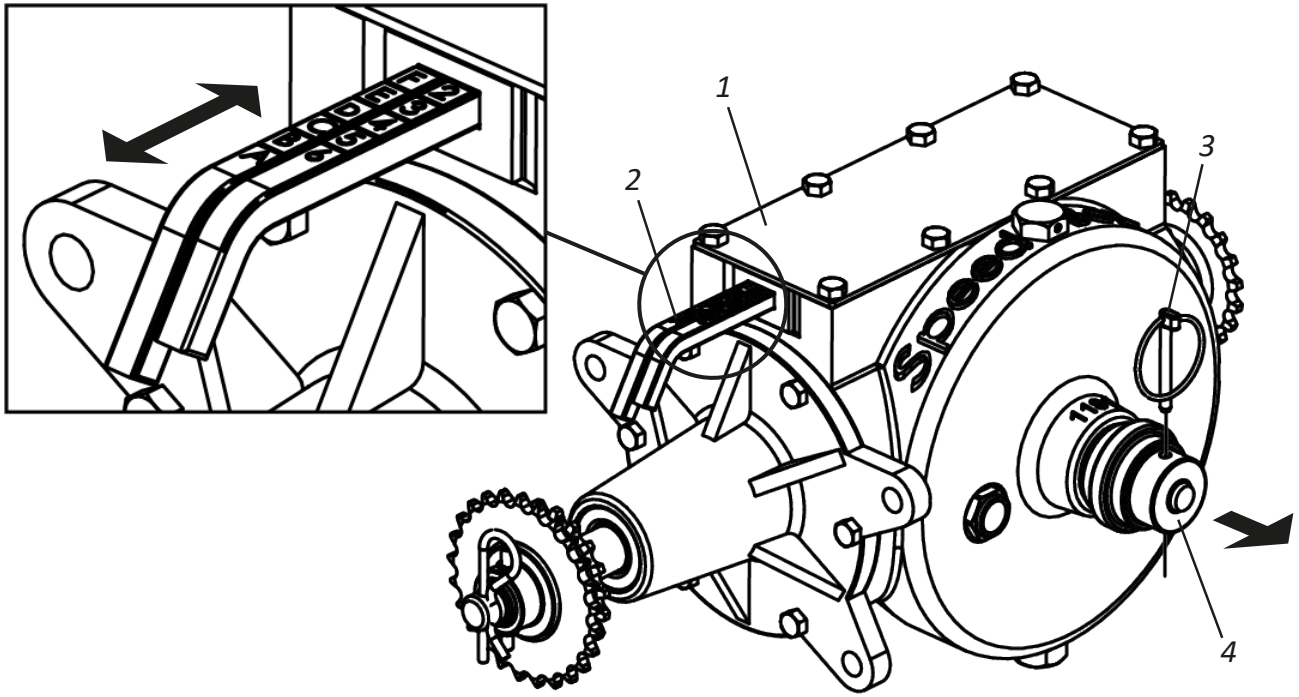
▪ Seed distribution system

• Speed Box

The **GIGA AIR** is equipped with the Speed Box system (1), which drives the distribution system with simple adjustments, guaranteeing fast gear changes. To adjust the seeds, proceed as follows:

01 - Select the desired quantity from the tables and check the corresponding combination on the levers (2). **EXAMPLE**: Position **F2** in the table indicates that the lever with letters must be in position **"F"** and the lever with numbers must be in position **"2"**.

02 - To move the levers, remove the lock (3), pull the handle (4), then adjust the levers according to the example above. When the combination is complete return the handle (4) and replace the lock (3).



▪ Seed distribution system

• Seed distribution settings

The seed is adjusted via the Speed Box (1). For further adjustment, reverse the chain on the **"A"** drive and **"B"** driven gears. To reverse the chain on the gears, proceed as follows:

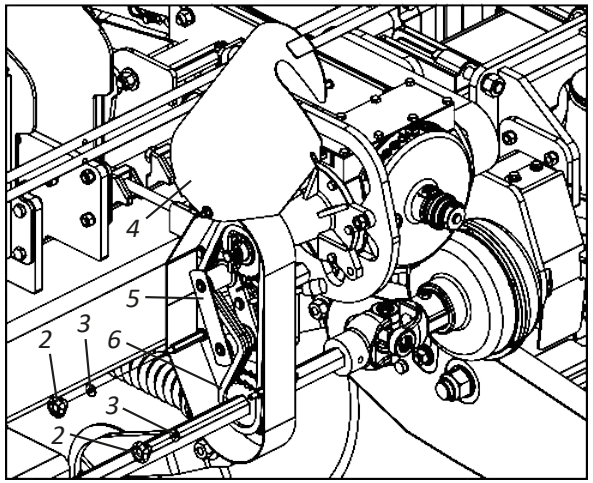
01 - First, loosen the handles (2), flat washers (3) and turn the protective cover (4).

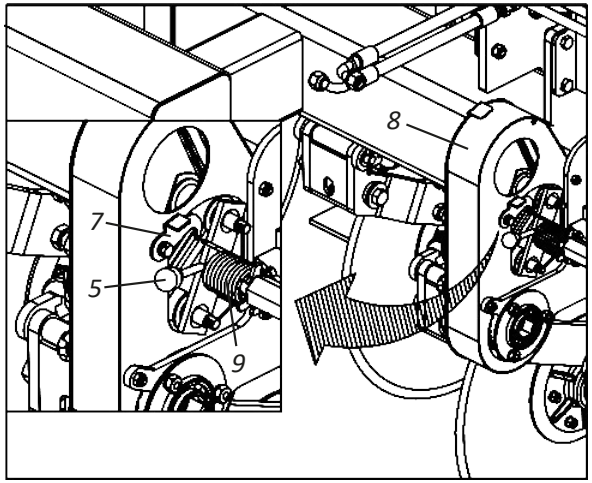
02 - Then turn the tensioner (5), removing the tension from the chain (6) and lock the tensioner (5) by means of the lock (7) located on the back of the protective cover (8).

03 - Then reverse the chain (6) according to your work requirements

04 - Next, hold the tensioner (5), release the lock (7), releasing it, returning the tension to the chain (6).

05 - Finish by replacing the protective cover (4), securing it with the flat washers (3) and knobs (2).





⚠ ATTENTION

Do not operate the seeder without closing the protective cover (4). Ignoring this warning could result in serious accidents and damage to the seeder.

❗ IMPORTANT

After changing the gears, check the chain tension. The tensioner (5) has a torsion spring (9) for greater flexibility. If more pressure is required on the tensioner, proceed as instructed on page 97.

• Seed distribution table

The seed distribution table is made according to the number of holes in the distributor disc, the gear change and the number of seeds to be distributed.

⚠ ATTENTION | **If you need to check the seeds distributed on the ground, open the furrow and count the first seed found in 5 linear meters. Then take the result (number of seeds) and divide it by the 5 linear meters and you will have the result of the distribution of seeds per linear meter.**

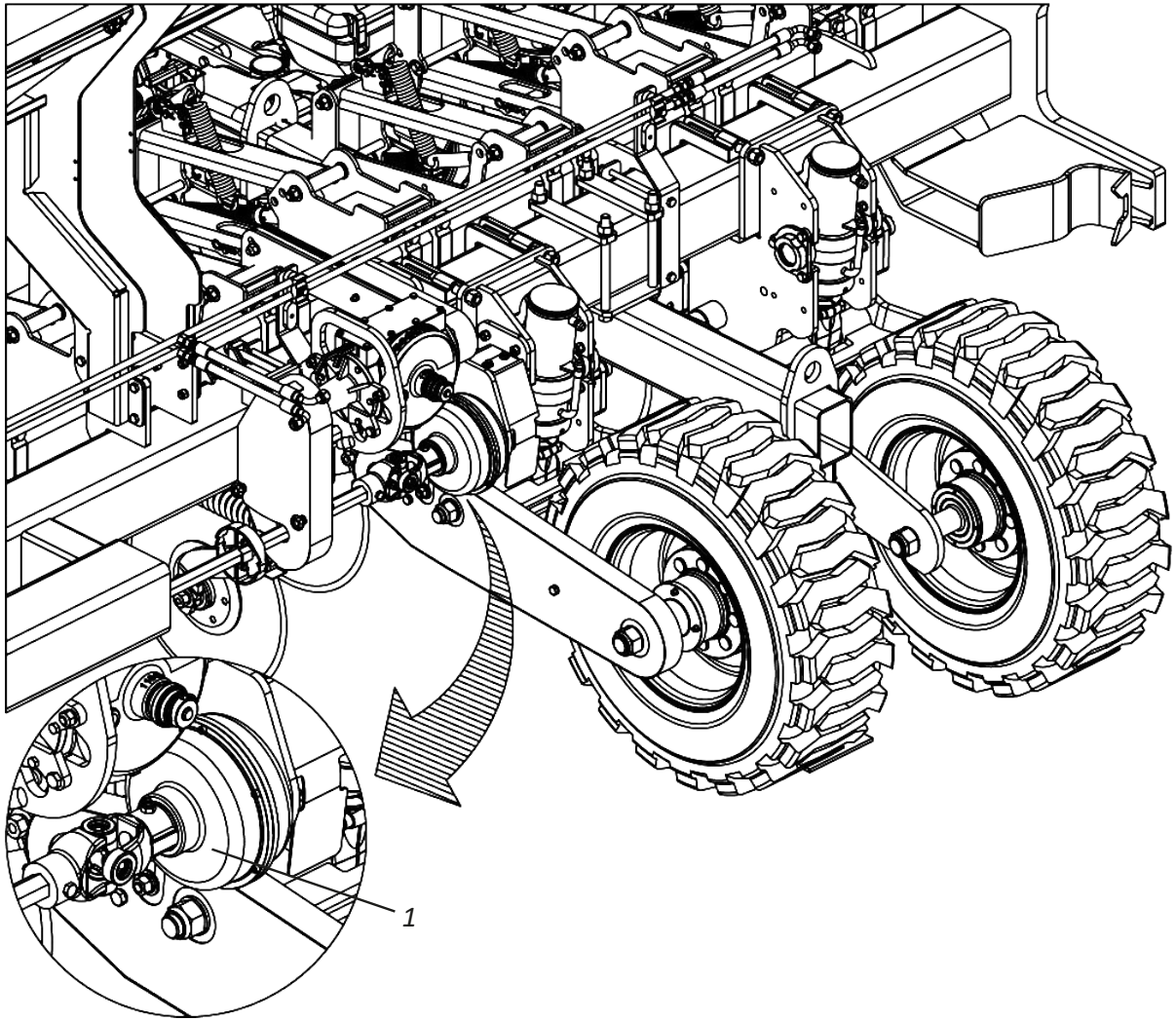
Seed Distribution Table per linear meter - GIGA AIR - SELENIUM			
Hexagon axis shaft gear	20	Speed Box input gear	25
Speed Box Combination	Number of holes in the seed distributor disc		
	28	40	55
F - 1	2,0	2,9	4,0
F - 2	2,3	3,3	4,5
E - 1	2,5	3,6	5,0
F - 3	2,6	3,7	5,1
E - 2	2,9	4,1	5,6
D - 1	3,0	4,3	6,0
F - 4	3,0	4,3	6,0
E - 3	3,3	4,7	6,4
D - 2	3,4	4,9	6,7
C - 1	3,5	5,1	7,0
F - 5	3,6	5,2	7,2
E - 4	3,8	5,4	7,5
D - 3	3,9	5,6	7,7
C - 2	4,0	5,7	7,8
B - 1	4,1	5,8	8,0
A - 1	4,6	6,5	9,0
A - 2	5,1	7,3	10,1
B - 3	5,2	7,4	10,2
C - 4	5,3	7,6	10,5
D - 5	5,5	7,8	10,7
E - 6	5,7	8,1	11,2
A - 3	5,9	8,4	11,5
B - 4	6,1	8,7	11,9
C - 5	6,4	9,1	12,5
D - 6	6,8	9,8	13,4
A - 4	6,8	9,8	13,4
B - 5	7,3	10,4	14,3
C - 6	8,0	11,4	15,7
A - 5	8,2	11,7	16,1
B - 6	9,1	13,0	17,9
A - 6	10,3	14,7	20,2

Seed Distribution Table per linear meter- GIGA AIR - SELENIUM			
Hexagon axis shaft gear	25	Speed Box input gear	20
Speed Box Combination	Number of holes in the seed distributor disc		
	28	40	55
F - 1	3,2	4,5	6,2
F - 2	3,6	5,1	7,0
E - 1	4,0	5,7	7,8
F - 3	4,1	5,8	8,0
E - 2	4,5	6,4	8,7
D - 1	4,8	6,8	9,3
F - 4	4,8	6,8	9,3
E - 3	5,1	7,3	10,0
D - 2	5,3	7,6	10,5
C - 1	5,5	7,9	10,9
F - 5	5,7	8,1	11,2
E - 4	5,9	8,5	11,7
D - 3	6,1	8,7	12,0
C - 2	6,2	8,9	12,2
B - 1	6,3	9,0	12,4
A - 1	7,1	10,2	14,0
A - 2	8,0	11,5	15,7
B - 3	8,1	11,6	16,0
C - 4	8,3	11,9	16,3
D - 5	8,6	12,2	16,8
E - 6	8,9	12,7	17,5
A - 3	9,2	13,1	18,0
B - 4	9,5	13,6	18,7
C - 5	10,0	14,3	19,6
D - 6	10,7	15,3	21,0
A - 4	10,7	15,3	21,0
B - 5	11,4	16,3	22,4
C - 6	12,5	17,8	24,5
A - 5	12,8	18,3	25,2
B - 6	14,3	20,4	28,0
A - 6	16,0	22,9	31,5

▪ Clutch

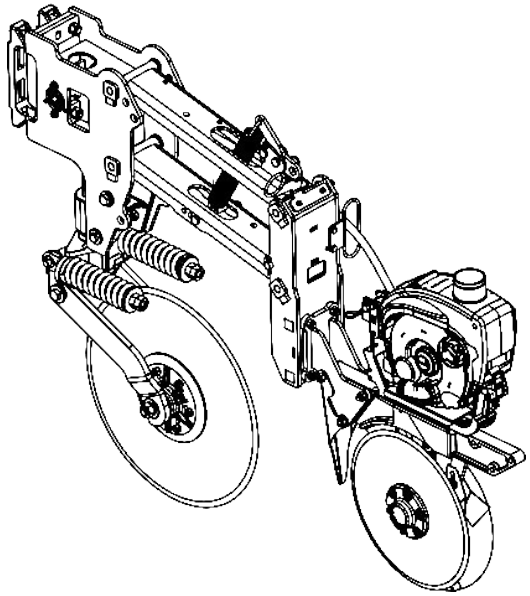
• Electromagnetic clutch

GIGA Air has an electromagnetic clutch system (1), which drives the transmission system for seed distribution, activated by lifting the machine, by sensor in the case of maneuvering or transport and also manually in the case of section cutting for trimming.

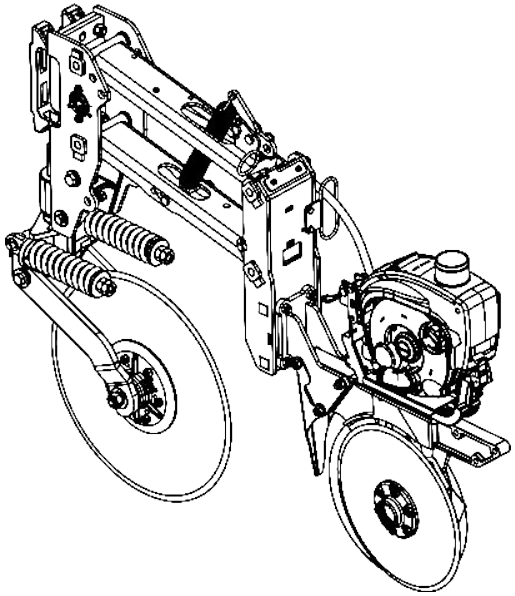


▪ Planting rows

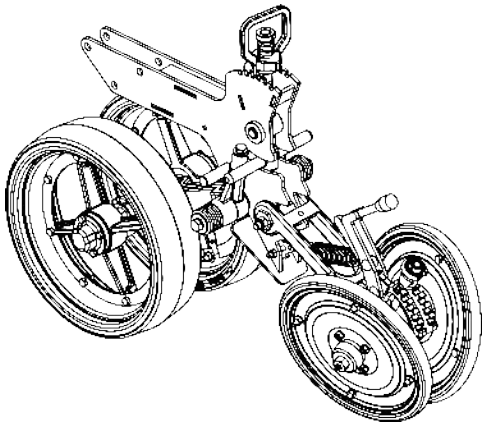
• Planting row models



LARGER LEFT-HAND PANTOGRAPH ROW WITH SELENIUM SYSTEM WITH 22” FLAT CUTTING DISC



SMALLER RIGHT-HAND PANTOGRAPH ROW WITH SELENIUM SYSTEM WITH 22” FLAT CUTTING DISC



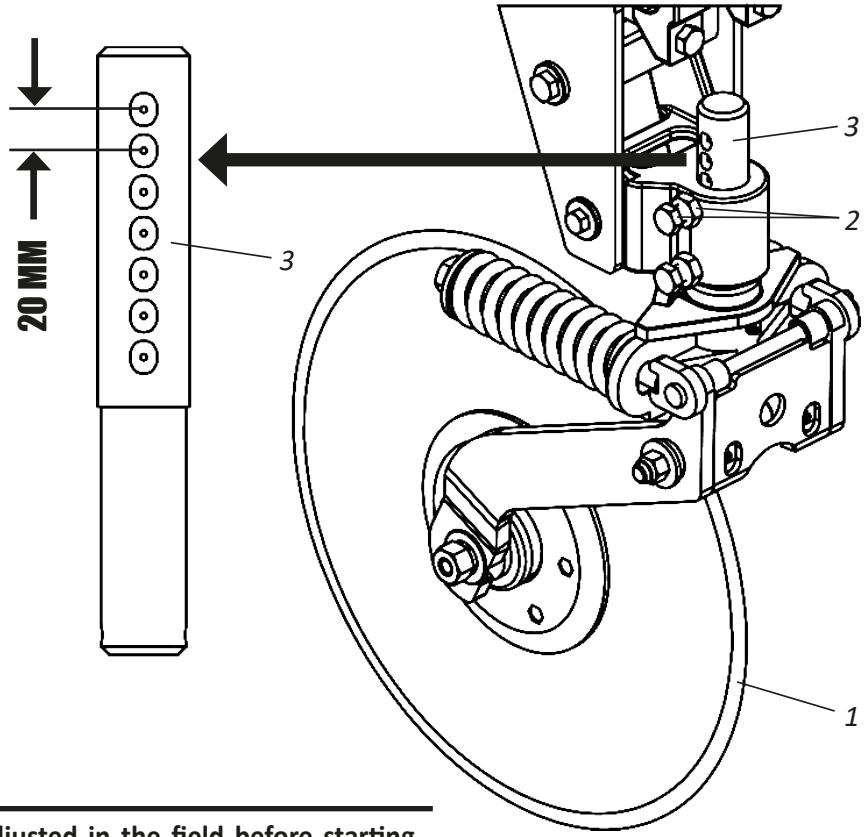
TROLLEY WITH ECCENTRIC/OSCILLATING DEPTH WHEEL WITH “V” WHEEL

▪ Row adjustment

• Cutting blade depth and pressure adjustment

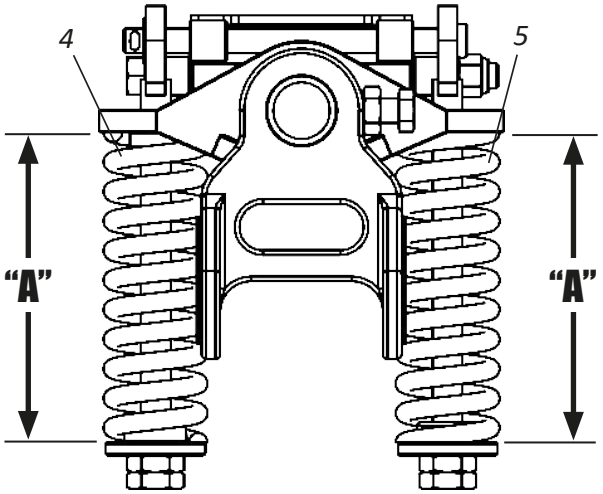
To adjust the depth and pressure of the cutting blade (1), proceed as follows:

01 - Loosen the screws and locknuts (2).
02 - Then move the shaft (3) to the desired setting.
03 - Then tighten the screws and locknuts (2).



IMPORTANT

Each hole in the shaft (3) lowers or raises the disc (1) by 20mm. When you have finished adjusting the depth and pressure of the cutting blade, repeat this procedure for all the blades.



"A" = IDEAL WORKING PRESSURE: **190 MM**

NOTE

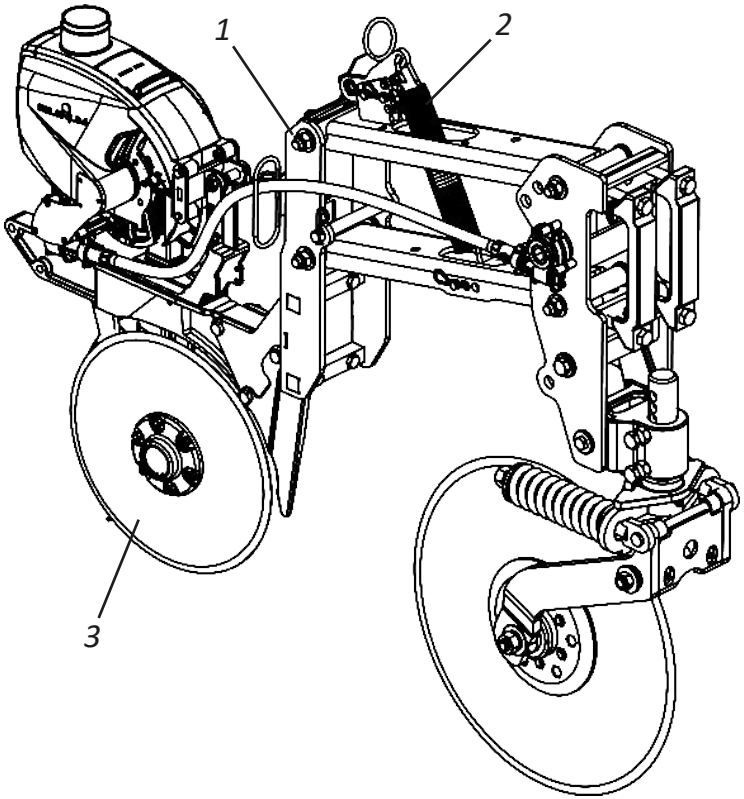
The depth of the cutting disc (1) should be adjusted in the field before starting work, taking into account the type of soil to be worked in order to obtain the best performance from the GIGA AIR.

ATTENTION **Do not change the pressure of the springs (4 and 5), as they leave the factory set to the ideal pressure for the job, as shown in measurement "A". Changing the pressure of the springs (4 and 5) can cancel out the articulation action of the cutting disc.**

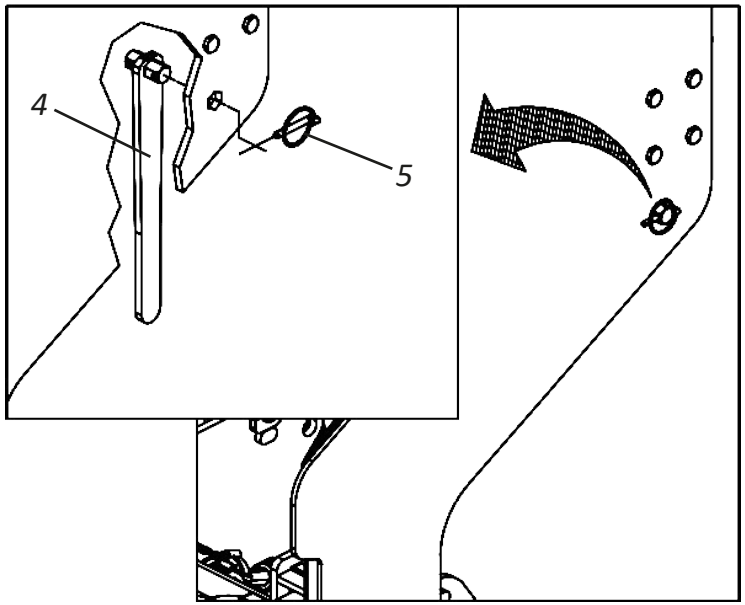
▪ Row adjustment

• Spring pressure adjustment - Part I

The row (1) has a pressure spring (2) which, when adjusted to a higher or lower pressure, will increase or decrease the force on the double disc (3). To adjust the spring pressure, proceed as follows:



01 - Take the key (4) attached to the side of the seeder and release it using the ring lock (5).



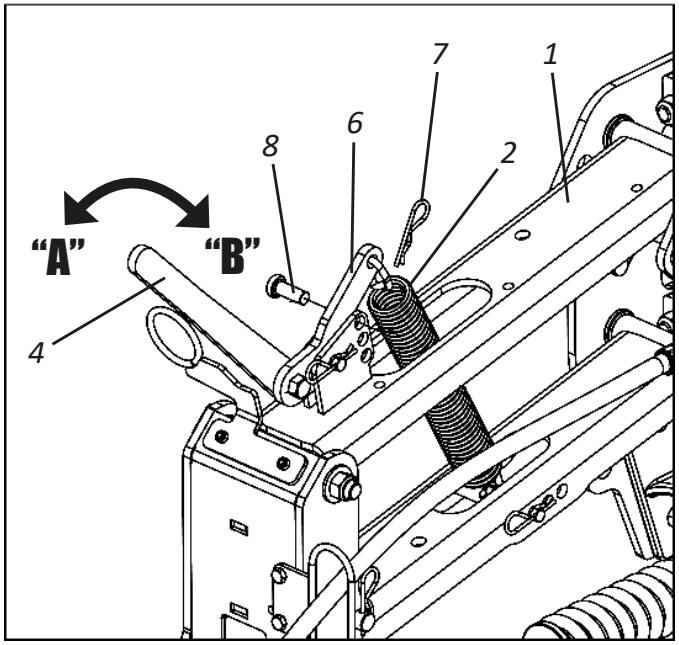
⚠ ATTENTION | **When you have finished adjusting the spring, repeat the above procedure for all the rows.**

▪ Row adjustment

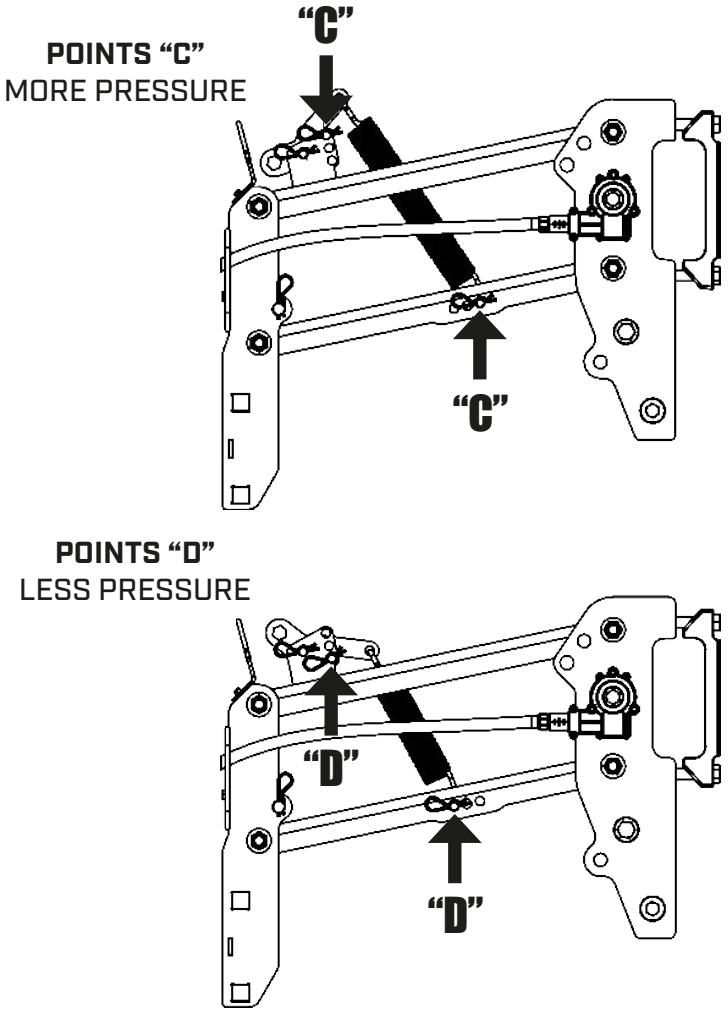
• Spring pressure adjustment - Part II

02 - Then place the key (4) on the lever (6) of the row (1), release the lock (7), remove the pin (8). Then move the key (4) and adjust the lever (6) to the desired position.

03 - Finish by locking the lever (6) again with the pin (8) and lock (7).



LEVER POSITION "A"	GREATER PRESSURE ON THE SPRING.
LEVER POSITION "B"	LOWER SPRING PRESSURE



⚠ ATTENTION

When adjusting the spring pressure (2), check which of the adjustment points "C" and "D" best suits your work requirements. This adjustment should be made in the field before starting work, taking into account the type of soil to be worked.

❗ IMPORTANT

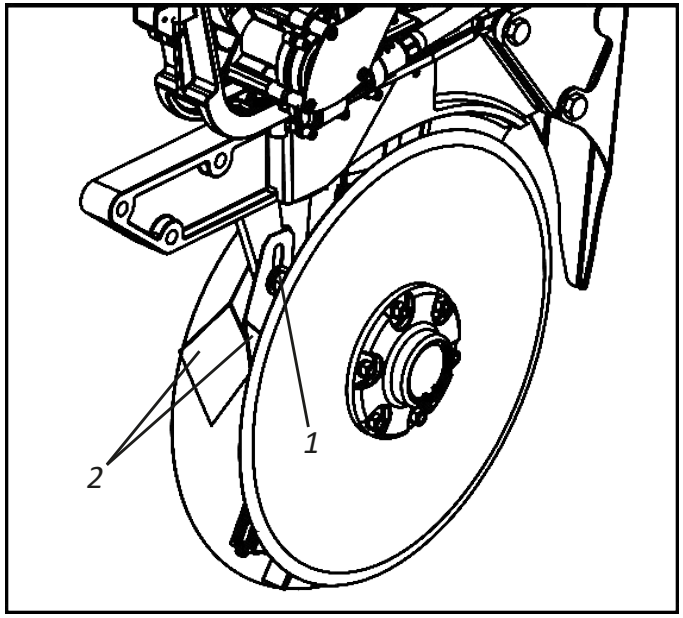
Check the working depth of each row several times during planting, especially in areas where there are variations in humidity, soil or other factors.

▪ Row adjustment

• Adjustment of the double disc wipers

The double disc has flexible, adjustable wipers to remove the dirt that adheres to the discs. To adjust the wipers, proceed as follows:

01 - Loosen the screw (1), adjust the wipers (2) to the ideal position and retighten the screw.



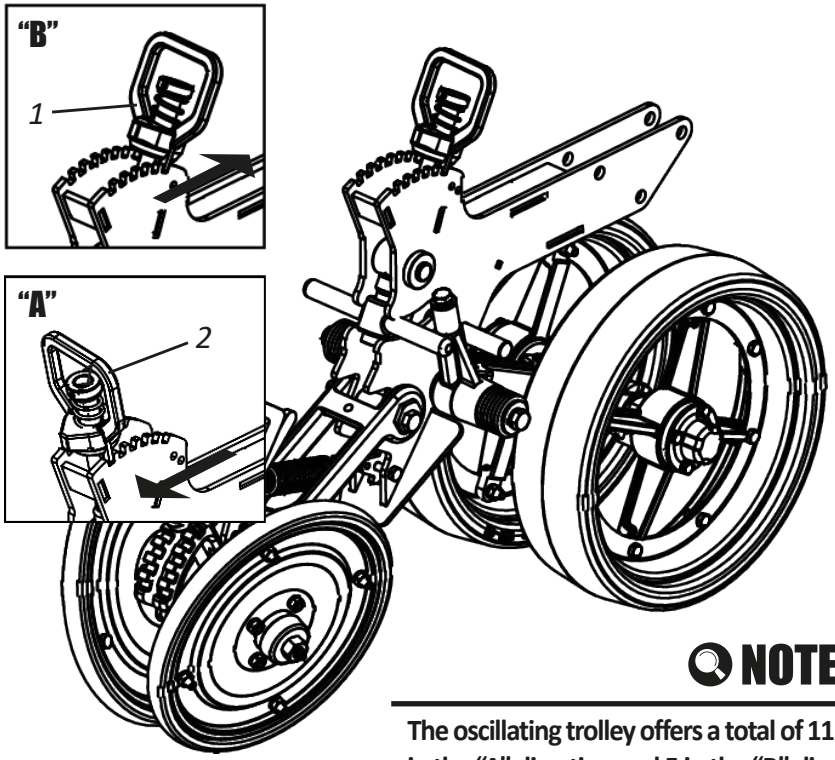
IMPORTANT

When the adjustment is complete, repeat the procedure on all the rows, avoiding any variation between them.

• Oscillating depth wheel adjustment

The oscillating depth limiting wheels have a single point of support that allows them to oscillate. If an obstacle arises in the course of one of them or irregularities in the ground, it will rise to overcome it, immediately returning to its initial position without lifting the double disc from its position. The depth of the seed is set individually by the depth limiting wheels. For this setting, proceed as follows:

01 - Pull the handle (1) upwards, move the regulator (2) to the desired point by adjusting the depth wheel (3) wheel (3), then lower the handle (1), locking the regulator (2).



NOTE

The oscillating trolley offers a total of 11 adjustment points, with 6 in the "A" direction and 5 in the "B" direction interspersed.

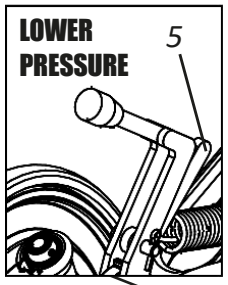
▪ Row adjustment

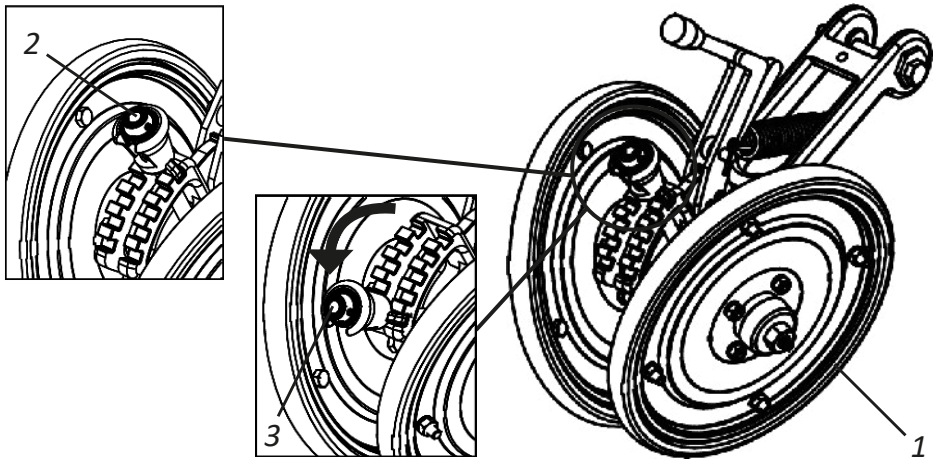
• Adjusting the "V" shaped compactor wheel - Part I

The V-shaped compactor wheels (1) are used to close the furrow laterally, so that the soil is immediately placed over the seed, avoiding excess compaction and removing air pockets, facilitating germination and plant development. To adjust the closing angle of the V-shaped compactor wheels (1) to a greater or lesser degree, pull up the handle (2), move the regulator (3) to the desired point, then lower the handle (2), locking the regulator (3). The V-shaped compactor wheels have 5 adjustment points.

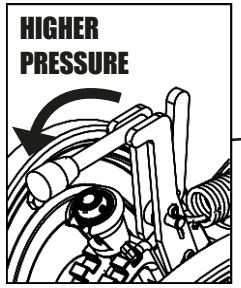
GREATER PRESSURE:	MOVE THE HANDLE (2) BACKWARDS, PUTTING MORE PRESSURE ON THE WHEEL (1).
LOWER PRESSURE:	MOVE THE HANDLE (2) FORWARD, PUTTING LESS PRESSURE ON THE WHEEL (1).

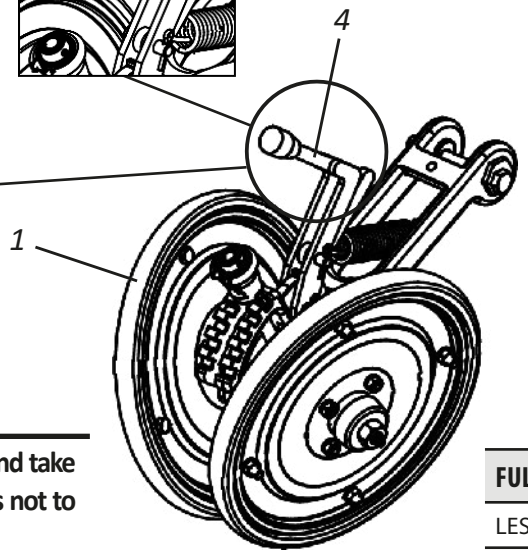
The V-shaped compactor wheel (1) can also be adjusted for pressure using the lever (4), as **shown in the figure below.**



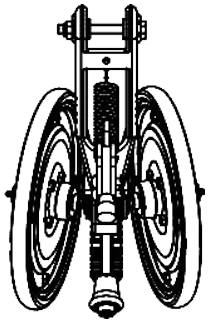


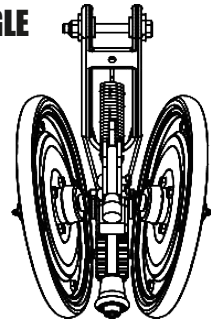
GREATER PRESSURE:
MOVE THE LEVER (4) BACKWARDS, PUTTING MORE PRESSURE ON THE WHEEL (1).
LOWER PRESSURE:
TIGHTEN THE LEVER (5) MOVE THE LEVER (4) FORWARD, GIVING LESS PRESSURE ON THE WHEEL(1).





V-SHAPED WHEEL ANGLE





FULLY CLOSED ANGLE POSITION
LESS SOIL ON THE SEED.

OPEN ANGLE POSITION
MORE SOIL ON THE SEED.

⚠ ATTENTION

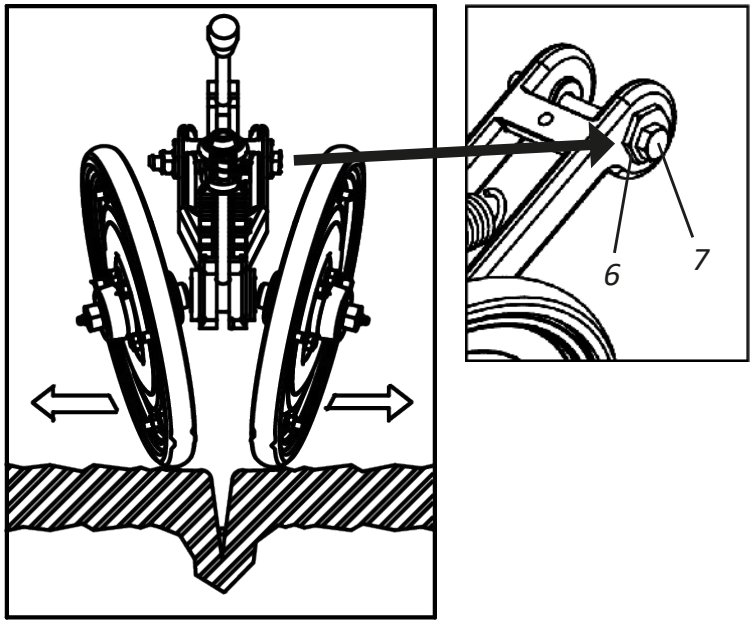
Make the same settings for all the "V" compactor wheels and take into account the type of soil, seed and planting depth, so as not to affect the free emergence of the plants.

▪ Row adjustment

• Adjusting the "V" shaped compactor wheel Part II

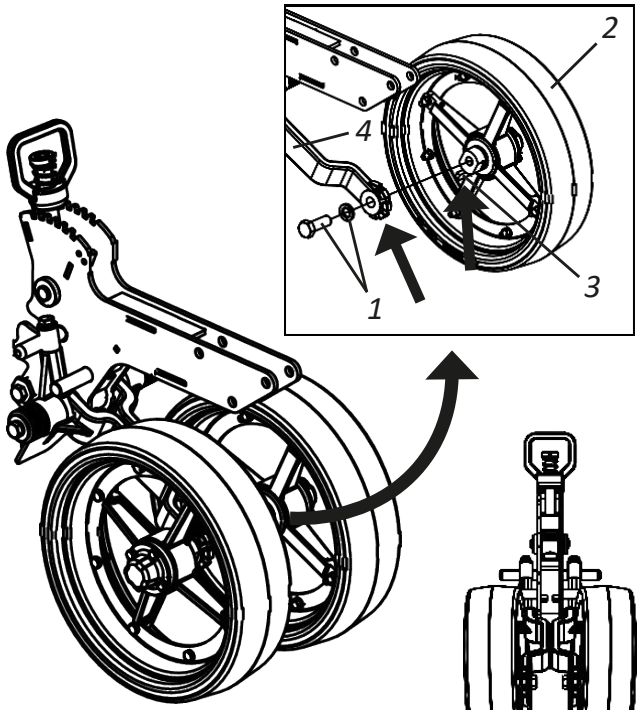
To move the wheels horizontally, they were designed with eccentric bushings (5). For this setting, proceed as follows:

01 - Loosen the screws (7), turn the bushings (6) with a wrench to actuate the wheels and align them with the furrow, positioning a greater or lesser amount of soil to the side of the seed.



• Oscillating depth wheel angle adjustment

The angle of the depth limiting wheels (1) is designed to press the furrow so that the soil is immediately placed over the seed, avoiding excessive compaction and facilitating germination and plant development. To obtain the wheel settings, proceed as follows:

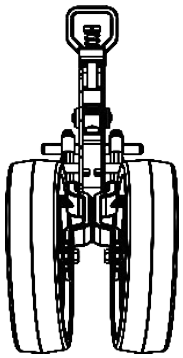


01 - Loosen the screws and washers (1), remove the wheel (2), set the wheel adjustment point (3) to the wheel support axle adjustment (4), then reattach the wheel (2) with the washers and screws (1).

⚠ ATTENTION

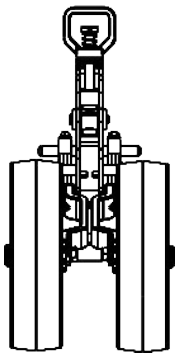
Carry out the same procedure for the other wheel support (4) and for all the wheels with oscillating depth.

WHEEL ANGLE



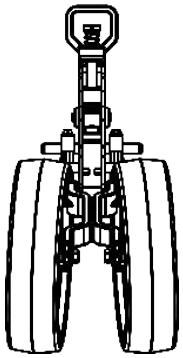
FULLY CLOSED ANGLE POSITION

LESSE SOIL ON THE SEED.



PARALLEL POSITION

ONLY FOR DEPTH CONTROL.



OPEN ANGLE POSITION

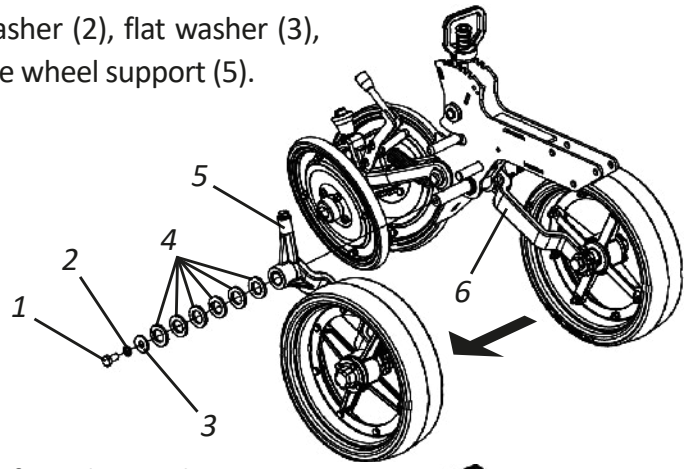
MORE SOIL ON THE SEED.

▪ Row adjustment

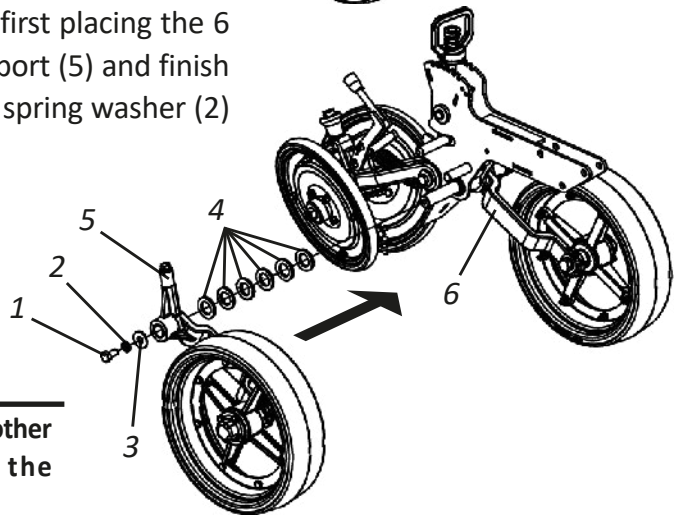
• Opening adjustment of the oscillating depth wheel

The oscillating depth wheels have an opening and closing system to better adapt to terrain with dense straw or higher and lower humidity. The oscillating depth wheels leave the factory in the closed position. To open the oscillating depth wheels, proceed as follows:

01 - Loosen the bolt (1), spring washer (2), flat washer (3), remove the 6 shims (4) and the wheel support (5).

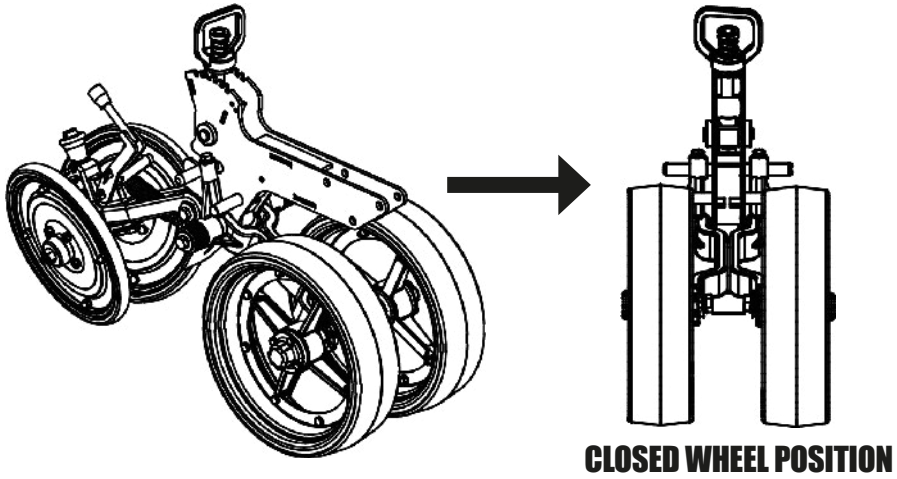


02 - Next, do the reverse process, first placing the 6 shims (4), then the wheel support (5) and finish by placing the flat washer (3), spring washer (2) and screw (1) by tightening it.

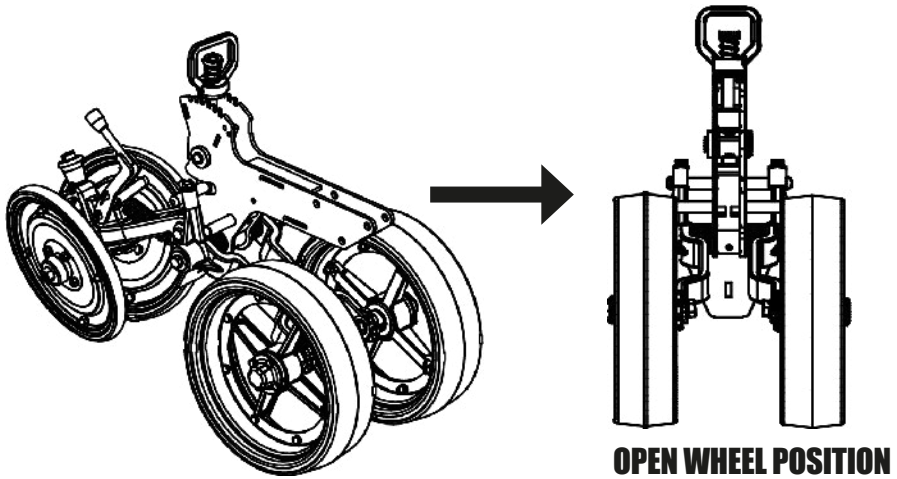


NOTE

Carry out the same procedure for the other wheel support (6) and for all the swing-depth wheels.



CLOSED WHEEL POSITION



OPEN WHEEL POSITION

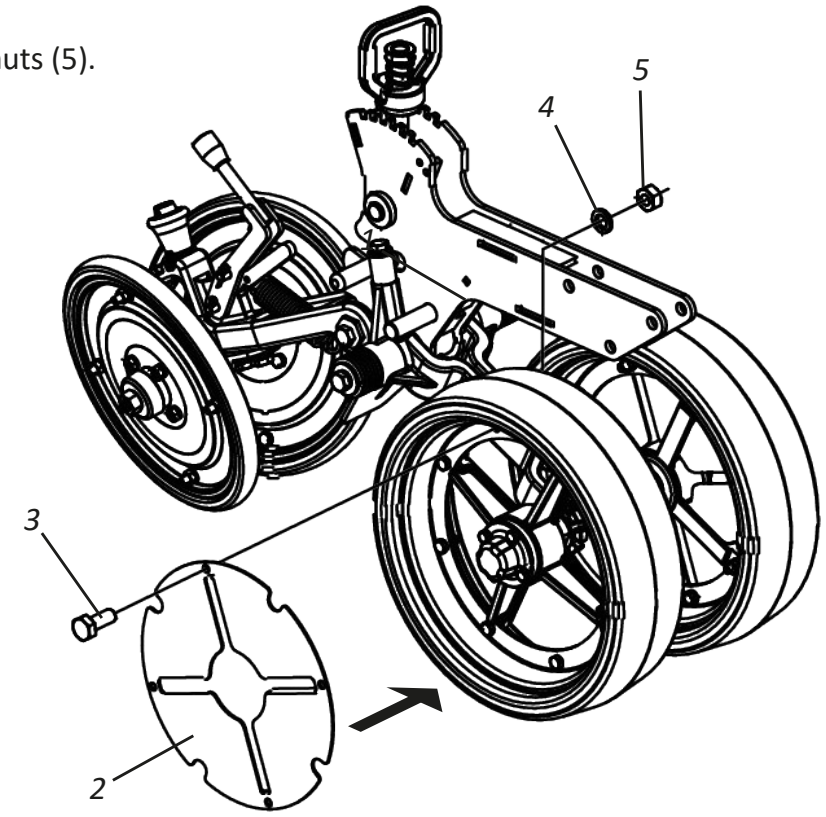
▪ Row adjustment

• Oscillating trolley with protective rim (Optional)

The **GIGA AIR** planting rows can be purchased with an oscillating trolley with a protective ring (1). The oscillating trolley with protective rim has been developed for no-till situations in which the corn cane has been harvested at a high cut, preventing it from entering the wheel rims during planting by braking it.

If you have purchased **GIGA AIR**, with the oscillating trolleys without the protective rim, you can only purchase the protective rim (2) to attach it to the wheels:
To install the protective ring (2), proceed as follows:

01 - Loosen the screws (3), spring washers (4) and nuts (5).
02 - Then fit the protective cover (2) and secure it using the screws (3), spring washers (4) and nuts (5).



⚠ ATTENTION

If you only buy the protection ring (2), attach it to all the oscillating trolleys (1) of the seeder.

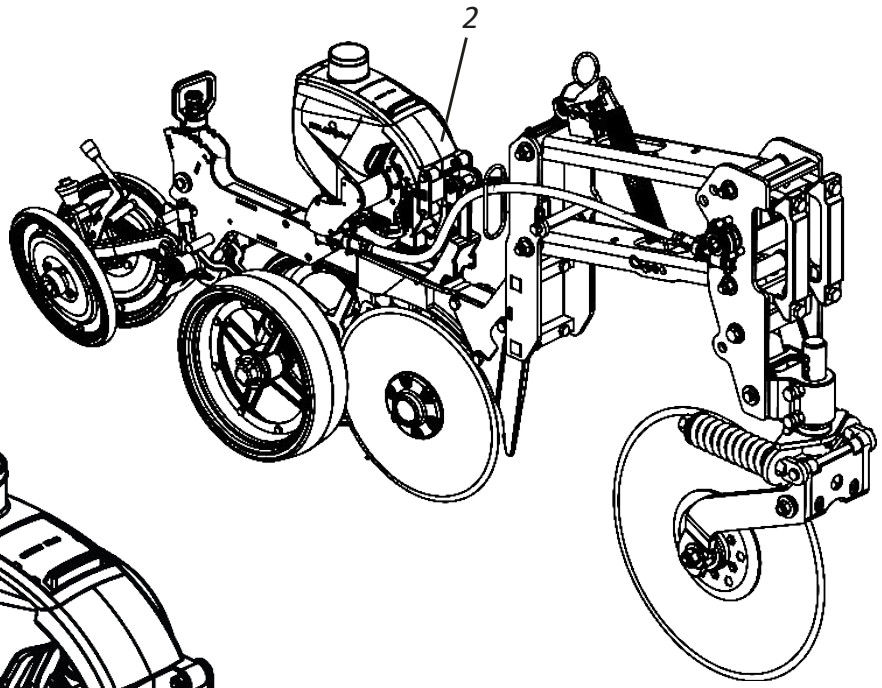
▪ Row adjustment

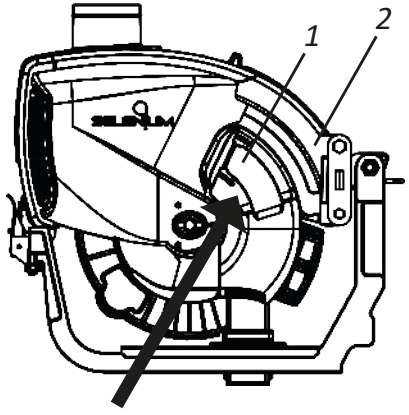
• Vacuum pressure in the feeders

IMPORTANT **To check the vacuum pressure in the SELENIUM feeders, first place the seeder in working condition, i.e. the SELENIUM feeders must be loaded with seed; then activate the turbine, move the seeder until all the holes in the seed discs are filled. Then do the procedure below.**

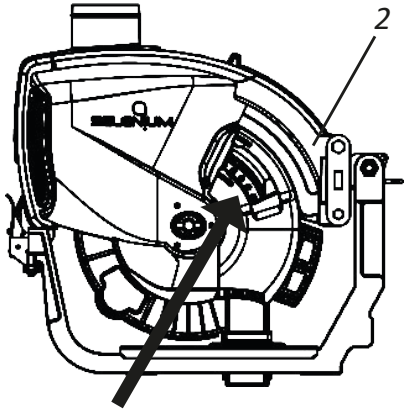
To check the vacuum pressure in SELENIUM dispensers, proceed as follows:

01 - Start the turbine at working speed.
02 - Then open the lid (1) of the SELENIUM dispenser (2).
03 - Then, take the vacuum gauge (3), connect the end of the hose to one of the holes in the SELENIUM feeding disc (2) and check the vacuum pressure, which should be the same as the working pressure, although there may be a slight variation.
04 - After checking the vacuum pressure, disconnect the vacuum gauge hose (3) from the disc and close the lid (1) of the SELENIUM feeder (2).

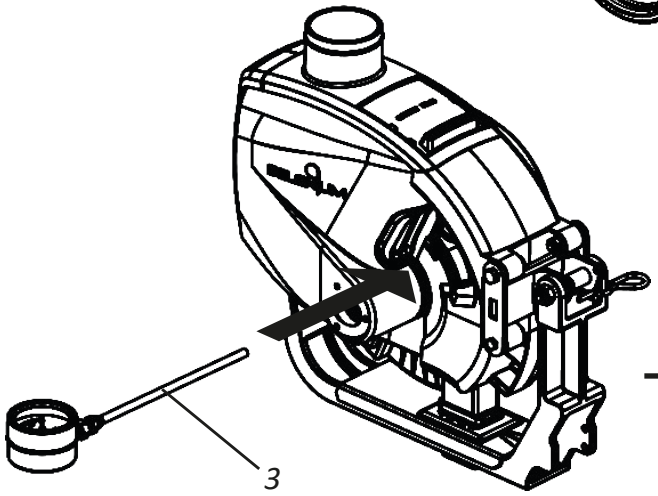




CLOSED LID



OPEN LID



ATTENTION

If you need to regulate the vacuum pressure, adjust the opening or closing of the turbine damper according to the instructions on page 65.

▪ Operations

• Recommendations for operation

Preparing **GIGA AIR** and the tractor will save you time and give you better results in the field. The following suggestions may be helpful to you.

01 - After the first day working with the **GIGA AIR**, retighten all the screws and nuts. Check the condition of the pins and locks.
02 - Do not maneuver or reverse with the rows down on the ground.
03 - Observe the lubrication intervals.
04 - When filling the tanks, check that there are no objects inside, such as nuts, bolts, etc. Always use seeds free of impurities.
05 - Always check the functioning of the seed distributor mechanisms and also the settings set at the start of planting.
06 - Keep the **GIGA AIR** level at all times, the tractor drawbar must remain fixed and the working speed must remain constant.
07 - Always check the depth of the seed and the pressure of the compactor wheels.
08 - Observe the position of the fertilizer in relation to the seed in the soil.
09 - Do not make sharp turns with the **GIGA AIR** while working, especially on no-till. Row components can be damaged.
10 - Do not partially actuate the hydraulic cylinders. The **GIGA AIR** must always be raised and lowered completely.
11 - 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.
12 - After hitching and leveling, the next adjustments will be made directly in the field, analyzing the terrain in terms of its texture, humidity and the types of operations to be carried out with the **GIGA AIR**.
13 - Observe the working and transport speeds specified on page 12. We do not recommend exceeding speeds in order to maintain the efficiency of the service and avoid possible damage to **GIGA AIR**.
14 - When carrying out any checks or maintenance on the **GIGA AIR**, it must be lowered to the ground and the tractor engine switched off.
15 - The **GIGA AIR** has several settings, but only local conditions can determine the best setting.
16 - The right and left side indications are made by looking at the **GIGA AIR** from behind.
17 - Only refuel the **GIGA AIR** at the workplace.
18 - Do not transport or work with excessive loads on the **GIGA AIR**.
19 - **GIGA AIR** operates most efficiently in the 5 to 6 km/h range.

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

▪ Maintenance

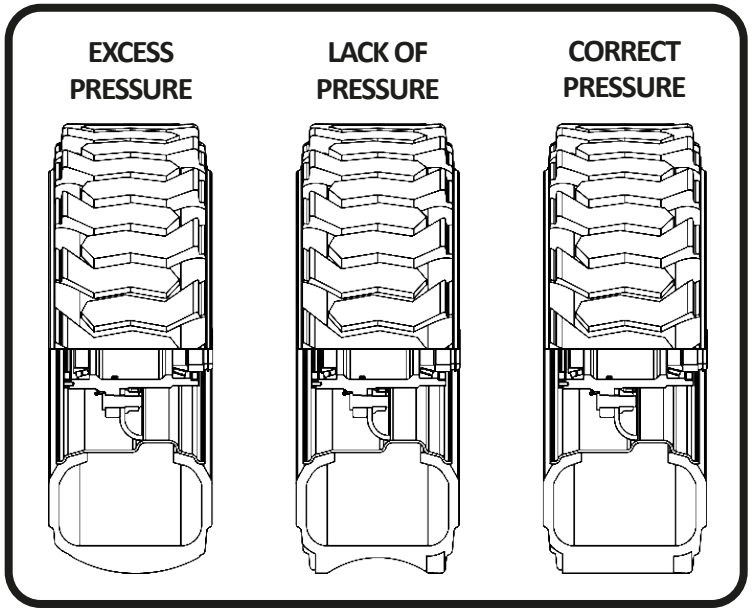
The **GIGA AIR** has been developed to give you maximum performance in terrain conditions. Experience has shown that periodic maintenance of certain parts of the **GIGA-AIR** is the best way to help you get out of trouble, so we suggest checking it out.

• Tires pressure

Tires must always be properly inflated so as to prevent premature wear due to excess or lack of pressure and ensuring precision in distribution.

The calibration of **GIGA AIR** tires varies according to the model used. The tires vary according to the size of the seeder, as shown in the table opposite.

Model	Nr of lines	Number of wheels (unit)	Tires	Tire pressure (lbs/pol²)
GIGA AIR	22	6	300/70 R16.5	73
GIGA AIR	30	8	300/70 R16.5	73
GIGA AIR	34	8	300/70 R16.5	73
GIGA AIR	42	8	14-17,5 14 Canvas	80



⚠ ATTENTION

Never weld the mounted 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).

Assemble the tires with suitable equipment. The work should only be carried out 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

• Lubrication

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

Before starting the operation, carefully lubricate all the grease fittings, always observing the lubrication instructions 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.

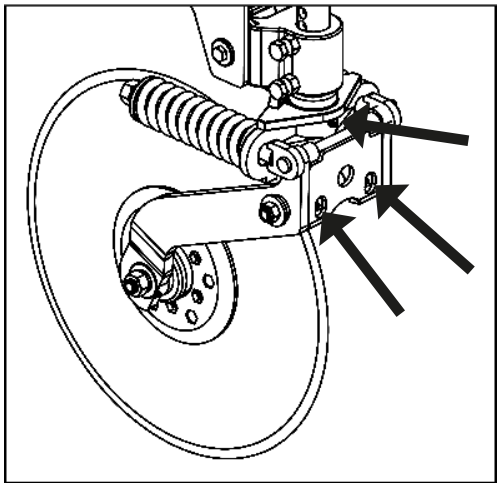
• Table of greases and equivalents

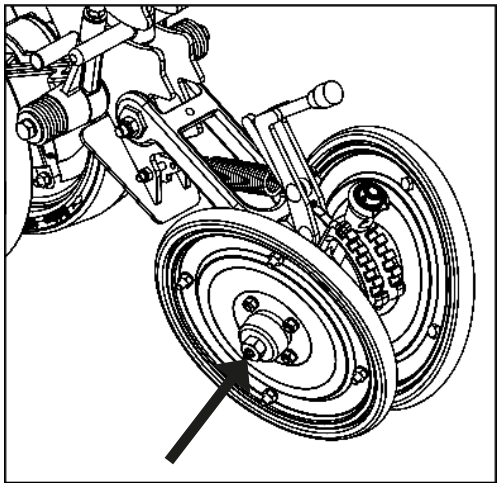
Manufacturer	Recommended types of grease
Petrobrás	Lubrax GMA-2
Atlantic	Litholine MP 2
Ipiranga	Ipiflex 2
Castrol	LM 2
Mobil	Grease MP
Texaco	Marfak 2
Shell	Alvania EP 2
Esso	Multi H
Bardahl	Maxlub APG-2EP
Valvoline	Palladium MP-2
Petronas	Tutela Jota MP 2 EP
	Tutela Alfa 2K
	Tutela KP 2K

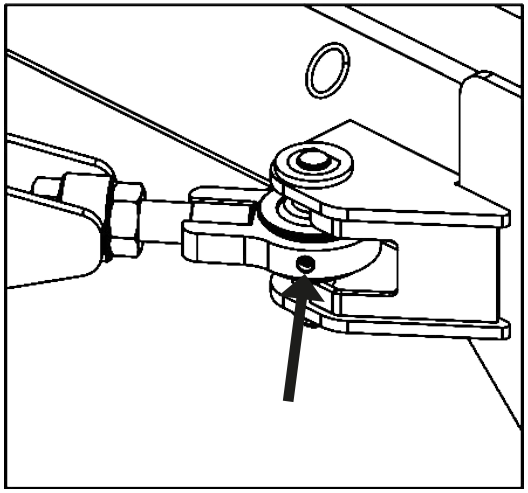
⚠ ATTENTION

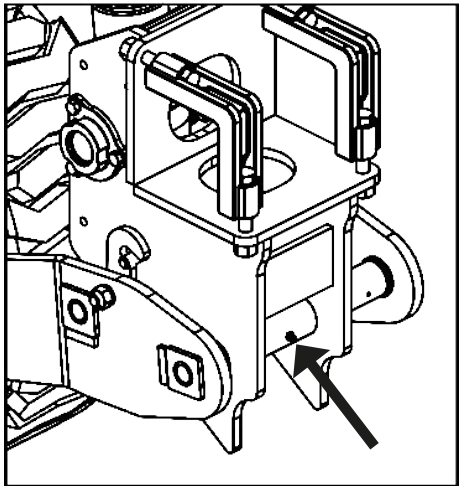
If there are equivalent manufacturers or brands that are not listed in the table, consult the manufacturer's technical manual.

• Lubrication every 10 working hours



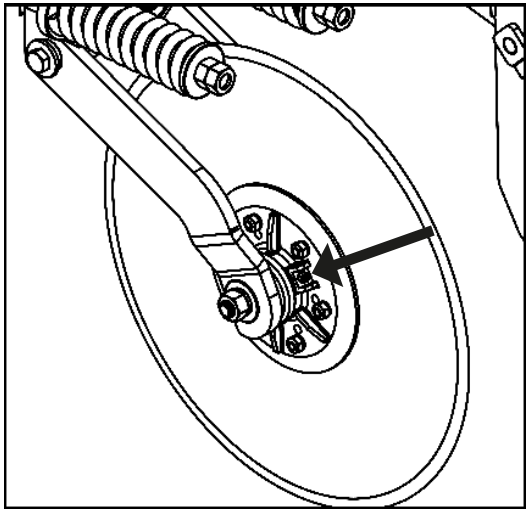


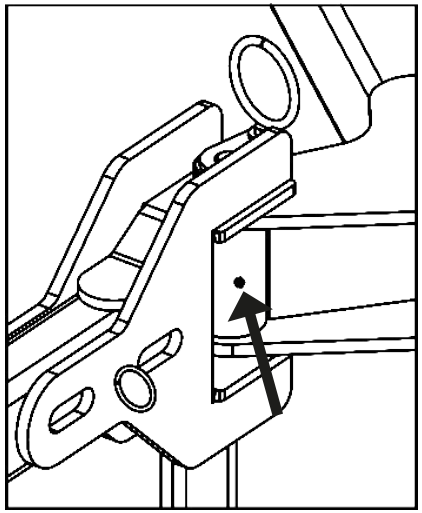


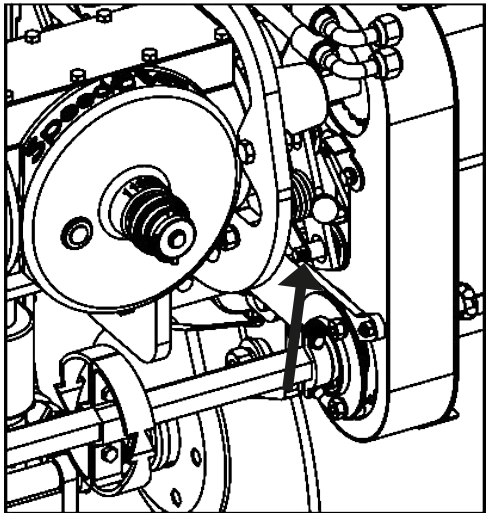


▪ Maintenance

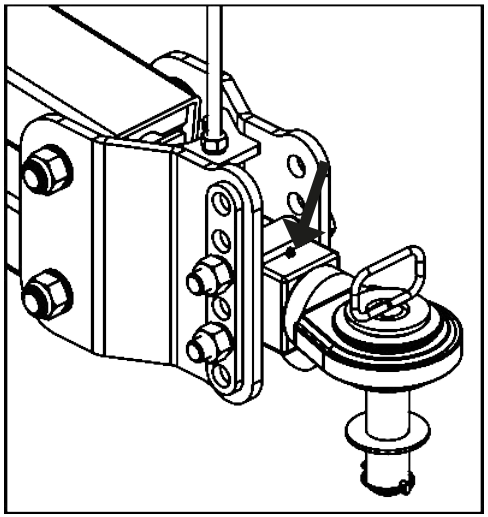
• Lubrication every 10 working hours

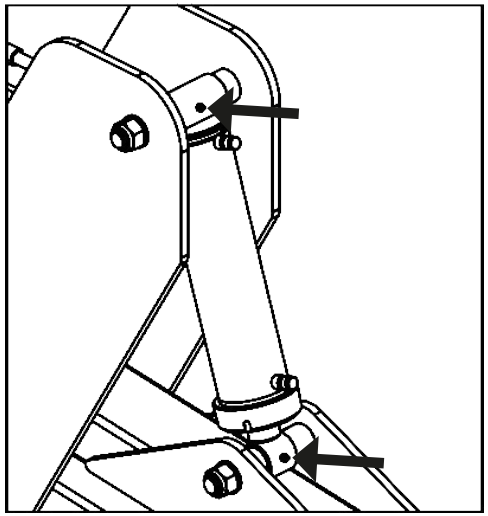






• Lubrication every 30 working hours



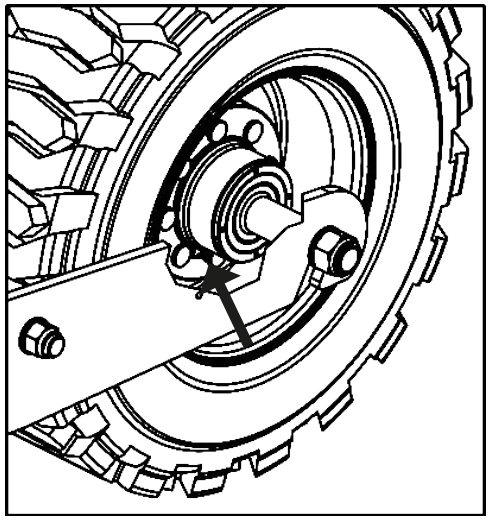


⚠ ATTENTION

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

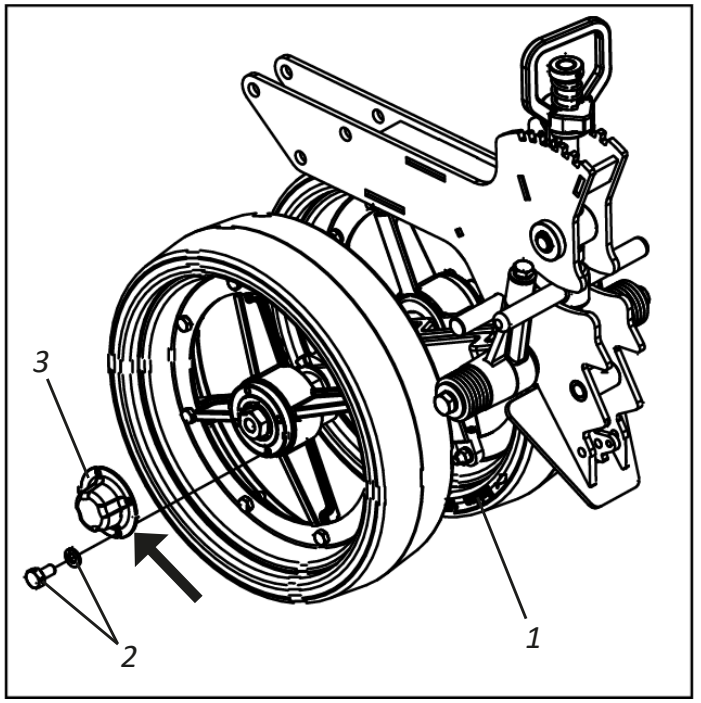
▪ Maintenance

• Lubrication every 60 working hours



• Lubrication every 200 working hours

To grease the compactor wheels (1), loosen the screws and washers (2), remove the hubcap (3) and insert new grease. Replace the hubcap (3) on the compactor wheels (1) and secure it with the screws and washers (2).



⚠ ATTENTION | **When lubricating the GIGA AIR, do not exceed the amount of new grease. Insert a sufficient amount.**

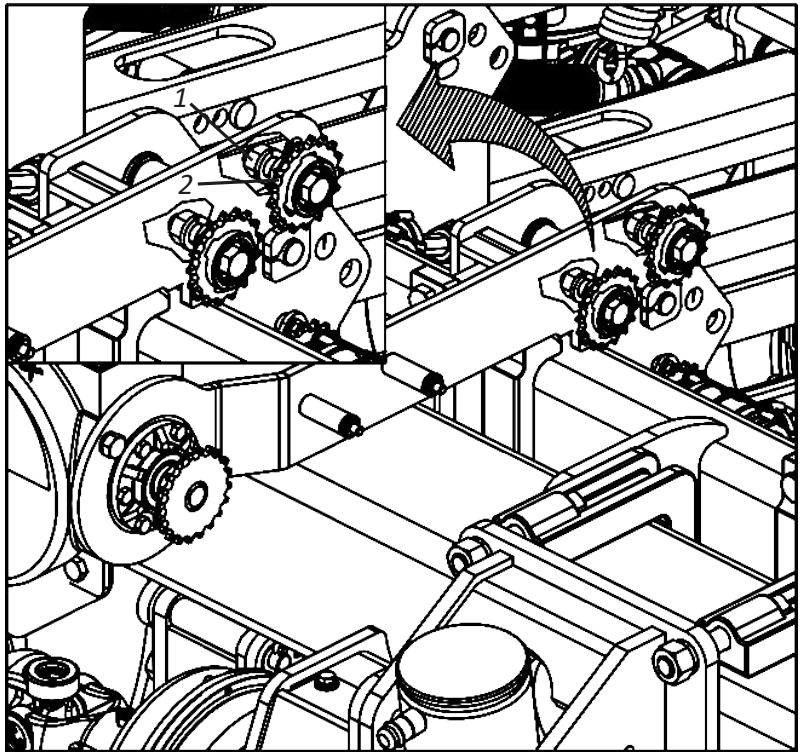
❗ IMPORTANT | **Before opening the hubcap (8), clean the outside of it.**

▪ Maintenance

• Current voltage

To tension the chain (1), proceed as follows:

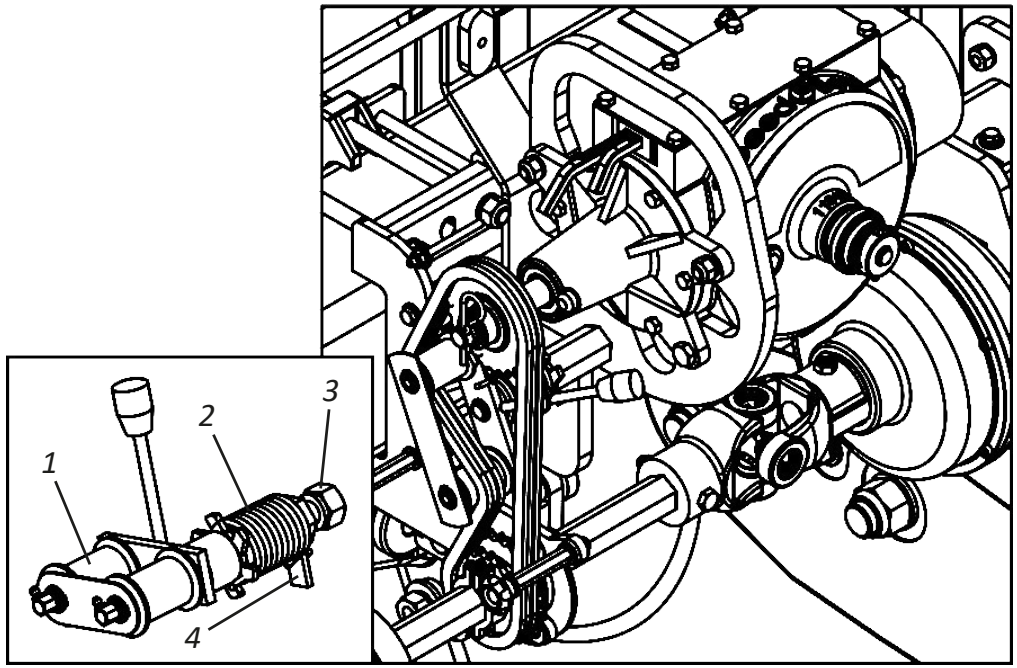
01 - Loosen the nut (1), slide the tensioner (2) to the required tension.
02 - Then tighten the nut (1).



⚠ ATTENTION **Check the tension of the chains daily, the normal slack should be + - 1 cm in the center of the chains.**

• Oscillating tensioner

The tensioner (1) has a torsion spring (2) for greater flexibility. If more pressure is needed on the tensioner, loosen the internal nut (3), turn the shaft (4) so that the spring (2) engages with the other tooth of the shaft rosette and retighten the internal nut (3).



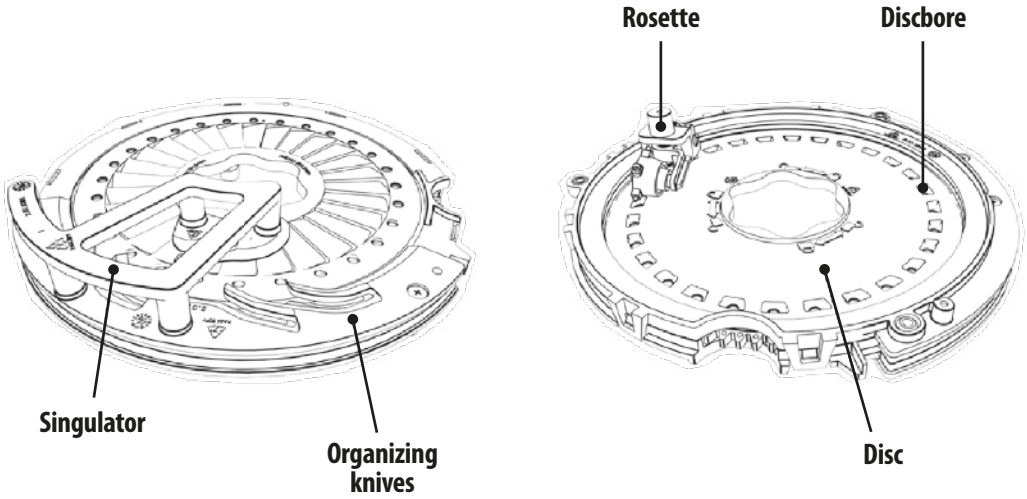
▪ Maintenance

• Preventive maintenance on the SELENIUM feeder before planting - Part I

Carry out preventive maintenance on the **SELENIUM** feeder before planting according to the following instructions:

1 - DISC, ORGANIZER AND ROSETTE SET

01 - Check the **disc, organizer and rosette assembly**. Replace the assembly when there is excessive wear on any of the following parts:

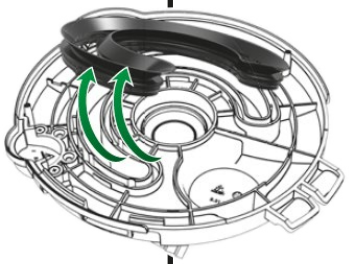


2 - SEALING

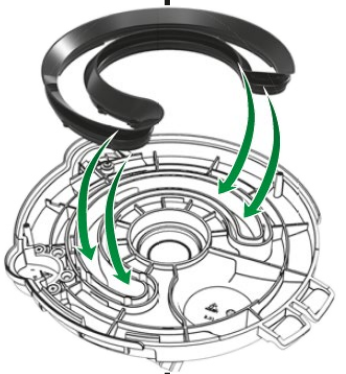
Check the vacuum seal for excessive wear, cracks or holes. If any of the above items are present, replace the seal.

STEP BY STEP
TO REPLACE THE SEALING

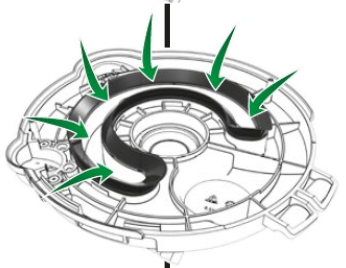
01 - Remove the rubber seal from the feeding cap by pulling it **upwards**.



02 - First assemble the **ends** of the new seal on the feeding cap.



03 - Fit the entire **rubber into the dosing cap**, pressing it **downwards**.



▪ Maintenance

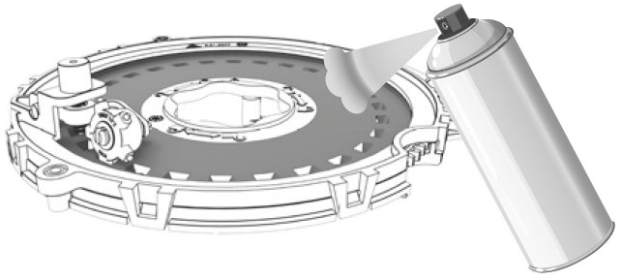
• Preventive maintenance on the SELENIUM feeder before planting - Part II

3 - POWDERED GRAPHITE IN THE FEEDER

Check that **the feeder is well lubricated with powdered graphite before each planting**, if not, apply powdered graphite to the feeder **before filling it with seed**.

4 - GRAPHITE ON THE DISC

Check whether the graphite on the back of the disc (side with the rosette) is worn and, if so, apply **J.Assy's Graphite Lubricant Spray** to the entire surface of the disc.

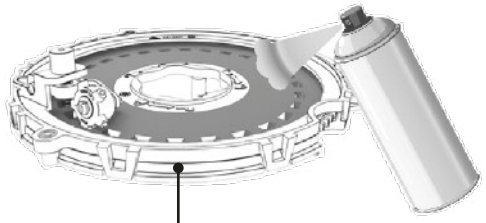


IMPORTANT:

To maintain the lifespan of the seal, always keep the back side of the disc well greased.

STEP BY STEP
FOR APPLYING GRAPHITE TO THE DISC

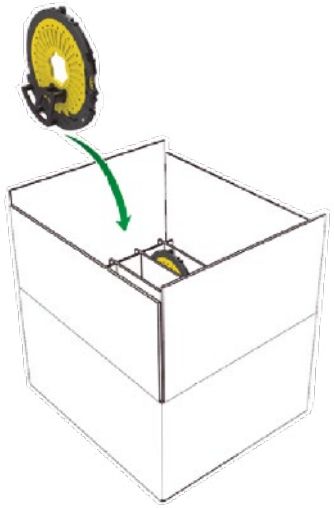
Position the **disc assembly horizontally** and then apply **J.Assy's Graphite Lubricant Spray all over the disc**. Wait for it to dry (it is not necessary to dismantle the disc assembly). See here.



Position the set horizontally

5 - STORAGE

When not in use, store the disc set in its original case for protection.



6 - CLEANING

If residue and dust accumulate in the dispenser, clean it to ensure the correct functioning of the product.

▪ Maintenance

• Operational maintenance - Part I

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
During planting, the fertilizer starts to eak from the safety outlets.	Clogged hoses or pieces of plastic in the fertilizer spirals.	Unblock the hoses or remove the upper channel that gives access to the spiral, turn the shaft upside down until the foreign body that is entangled comes out.
Fertilizer hub shaft does not rotate.	Spiral blocked with wet fertilizer or excess fertilizer in the closed row.	Unclog the spirals, check for loose gutters and fertilizer may be entering from the sides.
One planting row has less depth than the other.	Different pressure settings on the depth stop wheels or row springs.	Adjust all the wheels to the same depth and the pressure of the springs.
The furrow is opening up too much during planting.	Sticky soil sticking to the discs or excessive working speed.	Slows down work speed.
Strange noise when operating or walking with the seeder loaded.	Loose wheels or wheel hub in play.	Retighten the wheel nuts. Adjust the wheel hub bearings.
The seeder leaves the planting row either on one side, or the other side in the width.	Loose tractor drawbar.	Use the pin that comes with the seeder. Attach the tractor drawbar to the center hole.
It’s not covering the furrow.	Poorly adjusted covering wheels or damp ground.	Adjust the covering wheel by moving it sideways in relation to the furrow.
Adjust the covering wheel by moving it sideways in relation to the furrow.	Different quick hitchings, ball-type male and needle-type female or vice versa.	Replace the quick hitching with the same type the same type.
Broken seeds.	High planting speed.	Decrease work speed.
	Inadequate disc thickness.	Use a suitable disc (thickness and hole diameter).
	Disc misplaced. The seed sieve is not suitable for the disc used.	Place the disc properly (note the phrase: **THIS SIDE DOWN).**
	Using wet seed.	Use dried seeds.

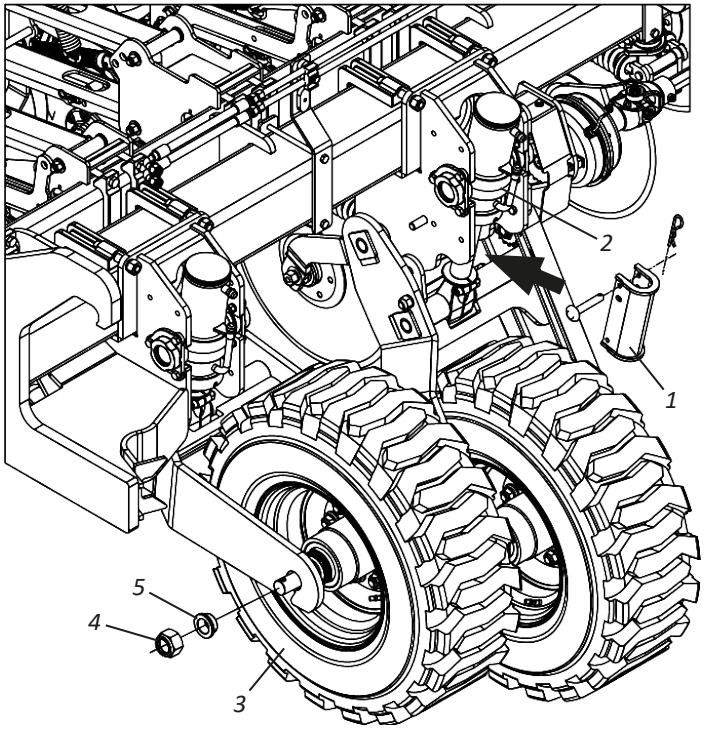
▪ Maintenance

• Operational maintenance - Part II

PROBLEMS	PROBABLE CAUSES	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 **GIGA AIR** is used.
	The tires are not inflated properly, causing deformation.	Maintain proper tire pressure.
Strange noise in the wheels.	Loose wheels or hubcaps.	Retighten the wheel nuts and adjust the wheel hub bearings.
	Bearings breaking.	Identify the incident and replace the damaged parts.
Quick hitching does not fit.	Different types of couplings.	Replace them with males and females of the same type.
“Doubled” spaced apart seeds in distribution.	The metering drive chain is skipping gear teeth.	Adjust the current voltage according to the instructions on page 95.
Leaking hydraulic hoses.	The thread is missing sealing material.	Use thread sealing tape and carefully retighten.
	Insufficient tightening.	Re-tighten carefully.
	Damaged repairs.	Replace terminals.
Leaking quick hitchings.	Insufficient tightening.	Retighten carefully without excess.
	Damaged repairs.	Replace repairs.
Quick hitchings do not engage.	Different brand couplings.	Use quick hitchings of the same brand.
	A mixture of needle and ball couplings.	Always use the same type of quick coupler.
	Pressure in the system.	Ease the pressure to engage.

▪ Maintenance

• Changing tires



If necessary, change or repair the tires as follows:

01 - Fully raise the seeder.

02 - Then place the lock (1) on the hydraulic cylinder (2), leaving the tire (3) to be repaired free and unlocked.

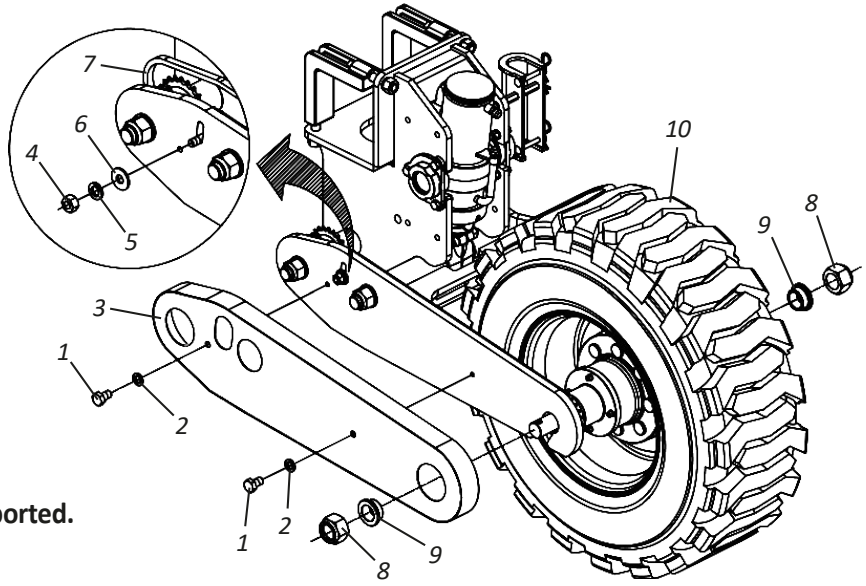
03 - Then loosen the nuts (4), bushings (5), remove the tire (3) and service it.

04 - After maintenance, replace the tire (3), securing it with the bushings (5) and nuts (4).

WHEN REPAIRING THE TIRE WITH TRANSMISSION, PROCEED AS FOLLOWS:

01 - Loosen the screws (1) and spring washers (2) and remove the protective cover (3).

02 - Then loosen the nut (4), spring washer (5) and flat washer (6), releasing the tensioner.



03 - Then loosen the chain (7), nuts (8), bushes (9), remove the tire (10) and service it.

04 - After maintenance, replace the tire (10), the protective cover (3) and secure it using the bushings (9), nuts (8), spring washers (2) and screws (1).

⚠ ATTENTION **Before changing or repairing the tire, make sure that the GIGA AIR is properly supported. Failure to comply can lead to damage, serious accidents or even death.**

▪ Maintenance

• Care

01 - Before each work, check the condition of all hoses, pins, screws and discs. When necessary, retighten or replace them.
02 - Travel speed must be carefully controlled according to the terrain conditions.
03 - **GIGA AIR** is used in a variety of applications, requiring knowledge and attention when handling it.
04 - Only local conditions can determine the best way to operate **GIGA AIR**.
05 - When assembling or disassembling any part of the **GIGA AIR**, use appropriate methods and tools.
06 - Carefully observe the lubrication intervals at the various lubrication points on the **GIGA AIR**. Respect the lubrication intervals.
07 - Always check parts for wear. If there is a need for replacement, always demand original Baldan parts.
08 - Keep **GIGA AIR** tires inflated at all times.
09 - Keep the **GIGA AIR** discs sharp at all times.

IMPORTANT | **Proper and regular maintenance is necessary to ensure the long life of the GIGA AIR.**

▪ Maintenance

• General cleaning

01 - When storing the **GIGA AIR**, 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 **GIGA AIR**. Do not use burnt oil or other abrasives.

02 - When you have finished planting, proceed as follows:

- Remove the drive chains and keep them bathed in oil until the next planting.
-Remove the hoses by washing them immediately with mild soap and water. Do not use other chemical products.

03 - Fully lubricate the **GIGA AIR**. Check all the moving parts of the **GIGA AIR**. If they show any wear or looseness, make the necessary adjustment or replace the parts, leaving the seeder ready for the next work.

04 - After all maintenance, store the seeder in a covered, dry place, properly supported.

Avoid: - Disc coming into contact with the ground.
- That the hydraulic hoses become bent.

05 - When connecting or disconnecting hydraulic hoses, do not let the ends touch the ground. Before connectiong the hydraulic hoses, clean the connections with a clean, lint-free cloth. **Do not use oakum!**

06 - Replace all stickers, especially warnings stickers that are damaged or missing. Make everyone aware of their importance and about the dangers of accidents when instructions are not followed.

07 - After all maintenance work, store your **GIGA AIR** on a flat surface in a covered, dry place, away from animals and children.

08 - Make sure the tanks are properly covered.

09 - We recommend washing the **GIGA AIR** only with water when starting work.

⚠ ATTENTION | **Do not use chemicals or abrasives to wash the GIGA AIR, as this could damage its paintwork and adhesives.**

▪ Maintenance

• Seeder maintenance - Part I

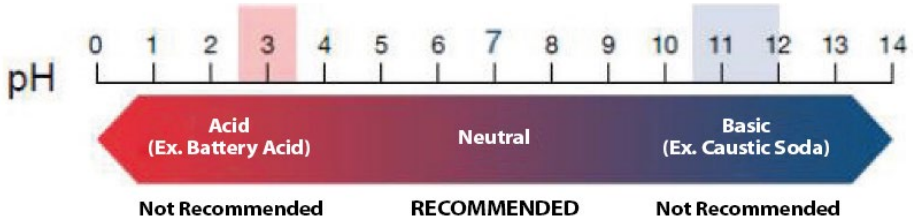
To prolong the lifespan and appearance of your **GIGA AIR** for longer, follow these instructions:

01 - Fertilizers and their additives are highly corrosive and their formulation is becoming increasingly aggressive towards seeder components.
02 - Wash and clean all seeder components during and at the end of the working season.
03 - Use neutral products to clean the seeder, following the safety and handling guidelines provided by the manufacturer.
04 - Always carry out maintenance at the times indicated in this manual.

• Seeder maintenance - Part II

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

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 application time and rinsing;
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.
06 - Do not use: - Detergents with a basic active ingredient (pH greater than 7) can damage/stain the paint of the seeder.
- Detergents with an acidic active ingredient (pH less than 7), act as a stripper/removal of zinc plating (the protection of parts against oxidation).



▪ Maintenance

• Seeder maintenance - Part III

07 - Let the machine dry in the shade so that no water accumulates in 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 seeder (used hydraulic oil, "burnt" oil, diesel oil, castor oil, kerosene, etc.).

IMPORTANT

We recommend the following protective oils:
- Bardahl: Agro protetivo 200 or 300
- ITWChemical: Zoxol DW - Serie 4000

NOTE

Ignoring the conservation measures mentioned above can result in the loss of warranty for painted or galvanized components that present eventual oxidation (rust).

Optional

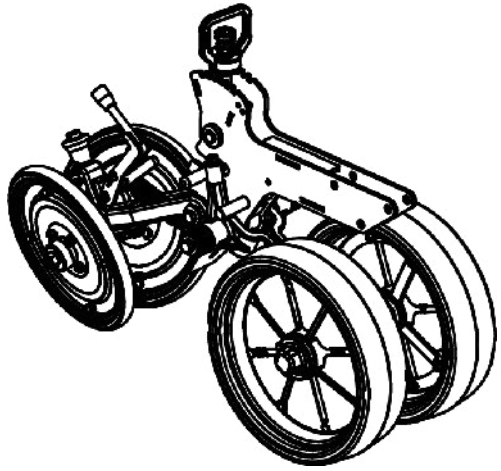
• Optional accessories

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

PMB 400

MP36 PRO - PLANTING MONITOR

ETD - ELECTRONIC DOSAGE TABLE

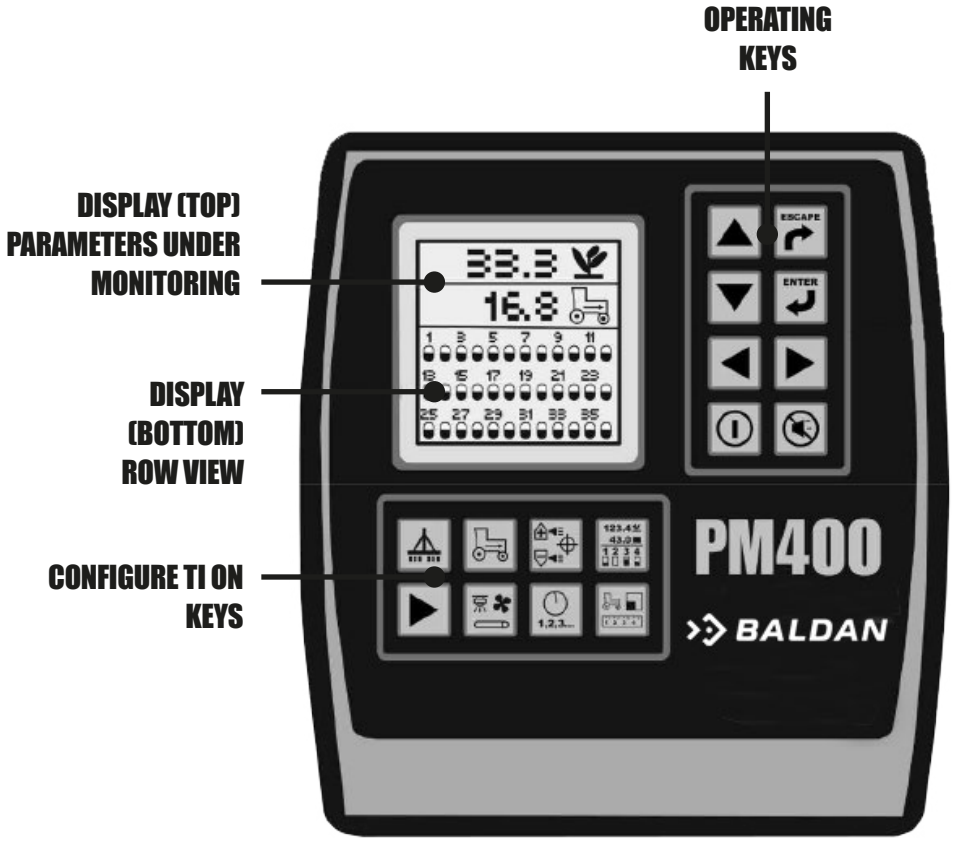


TROLLEY WITH ECCENTRIC/OSCILLATING DEPTH WHEEL AND "V" WHEEL WITH PROTECTIVE RIM

▪ Manual PM 400 - Optional

• PM 400

• Monitor overview



FRONT VIEW OF THE MONITOR

▪ Manual PM 400 - Optional

• Navigation keys - Part I

 **ON / OFF**

Press  to activate the monitor. When switched on, the monitor performs internal tests, illuminates the display, sounds an alarm and determines which.
Pressing the key for one second when the display is on will turn the system off regardless of what is shown on the display.

 **ALARM CANCELLATION**

By pressing the key during normal operation, the monitor recognizes the alarm conditions being shown on the display.
If you press the key during an alarm event, the audible warning will be canceled but the visual information will continue to be displayed.

ENTER (ENTER)

Pressing 

takes you from the main operating screen to the main menu or to the selected screen. Once the item has been selected, pressing the 

key will change the navigation mode to change the data.

 **NOTE:** Once you have changed the data, the ESC key will accept the change.

▪ Manual PM 400 - Optional

• Navigation keys - Part II

ESC (EXIT)

When you press the key 

for two seconds on the OPERATION SCREEN, the accumulated area at the top of the screen will be reset to zero. The key 

be used to return to OPERATION mode.

NOTE: Once you have changed the data, the ESC key will accept the change.

UP ARROW AND DOWN ARROW

On the OPERATION SCREEN, the arrow keys are used to manually select the parameters that are being shown at the top of the display.

NOTE: These keys will be inactive if all the configured parameters are being displayed.
When in a conFIGURE tion screen, the ARROW keys are used to navigate between options or change a digit/option.

LEFT ARROW AND RIGHT ARROW

On the OPERATION SCREEN, the arrow keys are used to manually select the rows being displayed at the bottom of the display.

NOTE: These keys will be inactive if all the configured parameters are being displayed.
When in a conFIGURE tion screen, the ARROWS are used to navigate between the options.

▪ Manual PM 400 - Optional

• Configuration keys - Part I

PLANTER CONFIGURE TION

This key is used for setting:

- Number of rows;
- Row spacing;
- Planter width (optional)
- Row status (seed, fertilizer, blocked or disabled).

See “Planter conFIGURE tion” for more information.

TRAVEL SPEED SETTING

This key is used for:

- Calibrating the travel speed;
- Entering the manual travel speed data (used if no speed sensor is available);
- Setting the speed limit alarm.

For more information, see “Setting the travel speed”.

▪ Manual PM 400 - Optional

• Configuration keys - Part II

SETTING THE LIMITS

This key is used for setting:

- Maximum/Minimum Population Variation Limits (optional).
- Estimated target population (optional).
- Population adjustment factor, for sensors with less than 100% of the total number of seeds (optional).
- Response rate, to increase or decrease the response rate (optional).

For more information, see “Configuring limits”.

DISPLAY AND SERVICE CONFIGURE TION

For more information, see “Configuring limits”.

- Access functions, row indicators, services and security sub-menus;
- Selection of Metric/English units;
- Intensity of display illumination;
- Alarm volume;
- Size of letters and icons;
- Sound Intensity.

For more information, see “Setting the travel speed”.

▪ Manual PM 400 - Optional

• Configuration keys - Part III

OPERATION

This key is used to return the user to the OPERATION SCREEN.
See “Operation” for more information.

ACCESSORY CONFIGURE TION

This key is used to configure the selection of Fan (RPM), Shaft (RPM) or Flow (Grains per minute).
See “Accessory ConFIGURE tion” for more information.

ACCESSORY CONFIGURE TION

This key takes the user to the SEED COUNTING screen.
This mode allows the user to test the planter before operation in the field and shows the seed count of each row in use.
See “Seed Count Mode” for more information.

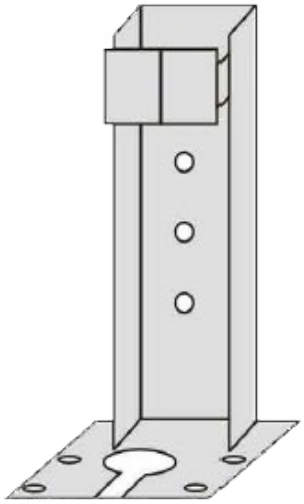
AREA, SPEED AND DISTANCE MODE

This key takes the user to the SPEED, AREA and DISTANCE screens.
This mode allows the user to use the monitor for no-till operations. This mode is also used to start, to clear the three independent area markers (planting area 1, planting area 2 and total area) and distance (linear meter).
See “Speed Area Mode” for more information.

▪ Manual PM 400 - Optional

• Installation and configure - Part I

Before being shipped, the monitor is tested and inspected to ensure that the unit is operating in full condition and meets all measurement specifications. After unpacking the product, inspect it for any damage that may have occurred during transportation. Keep all materials in the packaging until the inspection has been completed. If any damage is found, immediately file a complaint with the carrier. Also notify your sales representative.
Install the mounting support in the chosen location using suitable tools. Then install the support on the console by sliding it into the grooves until the lock engages.



SUPPORT

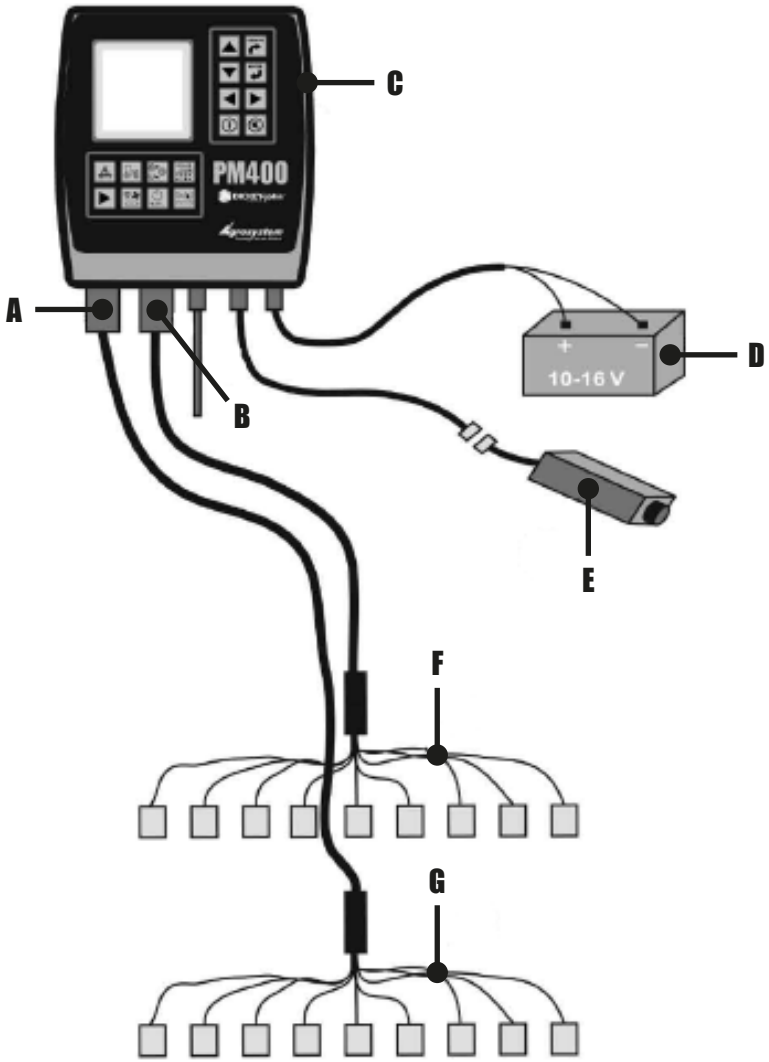
NOTE: The console must not obstruct or interfere with the operation of the tractor.
When assembling on a vertical surface, a strap can be used to hold the cables to the underside of the support.

⚠ ATTENTION | **To prevent damage, make sure that the console fits correctly in the holder.**

▪ Manual PM 400 - Optional

• Installation and configuration - Part I

The planting monitor has two inputs for connecting the planter's electrical harnesses. Input **(A)** monitors from the 1st to the 24th sensor. Input **(B)** monitors from the 25th to the 36th sensor.



MONITOR INSTALLATION DIAGRAM

⚠ ATTENTION

The configuration of the planter and the setting of the travel speed are essential for the operation of the planting monitor.
To make these settings, see "Setting up the planter" and "Setting the travel speed".

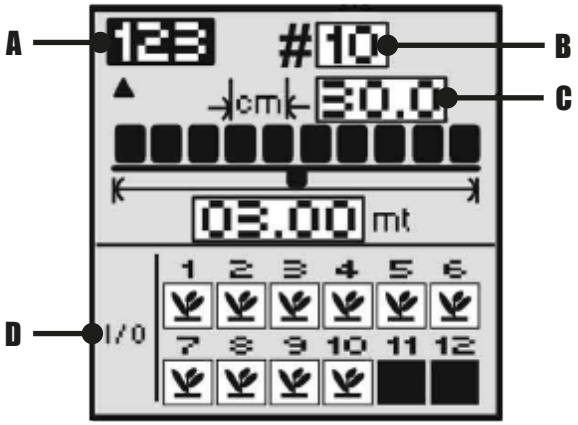
If you have an 11-row planter and a monitor with two electrical harnesses with 12 sensors each: The wiring harness for the seed row sensors must be connected to connection **(A)** and the wiring harness for the fertilizer sensors to connection **(B)**. But if you have an 11-row planter and a monitor with an electrical harness with 24 sensors: You connect the harness to connection **(A)**, sensors 1 to 12 to the seed rows and sensors 13 to 24 to the fertilizer feeders.

NOTE: You can monitor up to 36 rows of seed using two whips or up to 18 rows of seed and 18 rows of fertilizer.

▪ Manual PM 400 - Optional

• Planter configuration - Part I

To select the “Planter Configuration” screen, press , membering that the monitor stores up to 03 different planter conFIGURE tions.



SCREEN: PLANTER CONFIGURE TION

01 -In field **A** press , elect a planter conFIGURE tion number using and confirm by pressing again;

02 - In field **B** use to select the number of rows and press to change the number of rows;

NOTE: Only enter the number of SEED rows to be monitored.

03 - Use to select digits and increase or decrease values;

04 - Press to accept the new number;

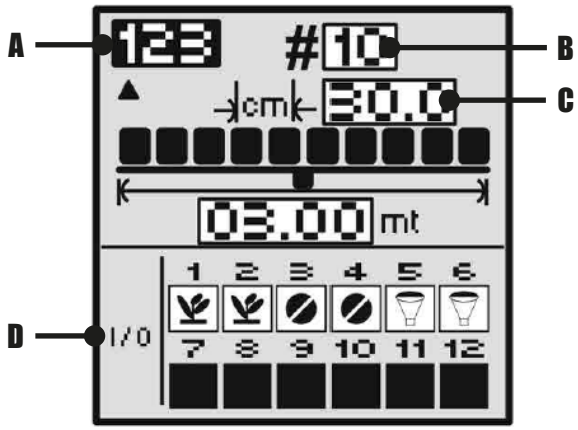
05 - In field **C**, row spacing, proceed in the same way as in field **B**.

06 - In field D, use to select the row to be monitored, to specify the type of monitoring and press to confirm:

- Used to monitor seed dosage;
- Used when the sensor is installed on the row, but the row itself is disconnected;
- Used for monitoring fertilizer dosage (flow);
- Used when the row is removed.

▪ Manual PM 400 - Optional

• Planter configuration - Part II



SCREEN: PLANTER CONFIGURE TION

At the end of the conFIGURE tion, press ENTER or ▶ (operation) to return to the OPERATION SCREEN.

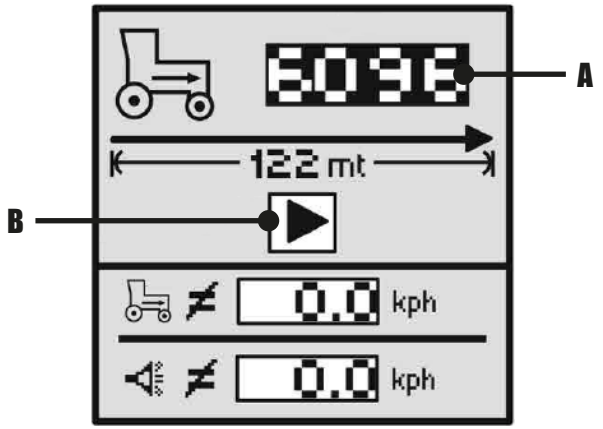
• Setting the Travel Speed - Part I

To select the Travel Speed Configuration screen, press .

To carry out a new configuration:

⚠ ATTENTION | **The tractor must be moving when you START the calibration.**

01 -Select ▶ **(B)** and press ENTER, to start the 122 meter of calibration.



SCREEN: SPEED SETTING

✓ **NOTE:** Once calibration has started, the button will switch to ■ **(B).**

▪ Manual PM 400 - Optional

• Setting the Travel Speed - Part I

02 -Drive for 122 meters (400 feet) and press 

to STOP the calibration.

03 - The new calibration factor will be displayed in the window. Press 

accept this value or 

to reject the value.

At the end of the conFIGURE tion press 

or  (operation) to return to the PROTECTION SCREEN.

To enter a travel speed constant manually:

01 - Press  to highlight the value of the travel speed constant **(A)**.

02 - Press 

to change the constant.

03 - Press  to select the digits, increasing or decreasing the values.

04 - Press 

to accept the new number.

When the new values have been entered, press 

or  (operation) to return to the OPERATION SCREEN.

 **NOTE:** It is important to set the travel speed in the planting area.

⚠ ATTENTION | **Any value other than zero will activate the scroll speed. Set the speed manually to zero to disable it.**

 **NOTE:** To check that the calibration number obtained is correct, go to the speed/area/distance screen and check that the speed indicated on the tractor indicator is correct.

We recommend averaging the values of the constants from 3 calibrations.

 **NOTE:** Calibration on smooth soil is different from calibration on soil with straw.

Every time you plant in a different soil to the one you calibrated, perform the calibration process again.
If your planter is not equipped with a travel speed sensor, the operator can enter a value for planting with simulated speed by manually changing the value in the speed field **(C)**.
In the limit field **(D)**, the operator can enter the limit value for excess travel speed.

▪ Manual PM 400 - Optional

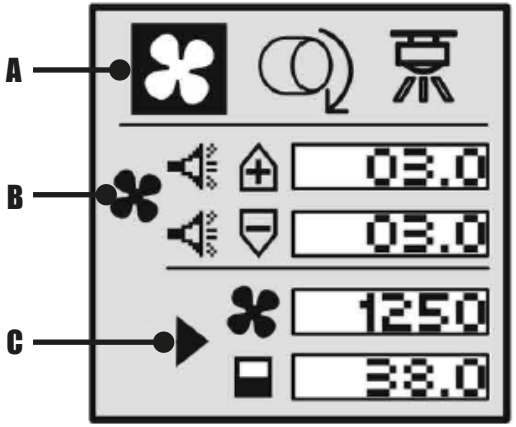
• Accessories configuration - Part I

To add an auxiliary sensor with its performance characteristics (calibration values, limits, etc.) for monitoring, it must be activated via the calibration constant.
If minimum and maximum alarms are desired, limits can be added to the calibrated sensors. The fan, shaft or flow sensor can be monitored with high or low alarm values or no value at all.

• Shaft and Fan

01 - Select the accessory **(A)**, go to the START button **(B)** and press 

. Once the calibration has started, the button will switch to STOP **(B)** and the factor will start to accumulate.



SCREEN: SPEED SETTING

02 - During the rotation count, rotate the shaft or fan by the total number of revolutions.

03 - Stop the calibration by pressing 

. The factor will stop accumulating.

04 - Using  select the number of laps box (under the number calibration) and change the number of turns with  .

05 - Set the maximum/minimum limits **(B).**

When the new values have been entered, press 

or  (operation) to return to the OPERATION SCREEN.

▪ Manual PM 400 - Optional

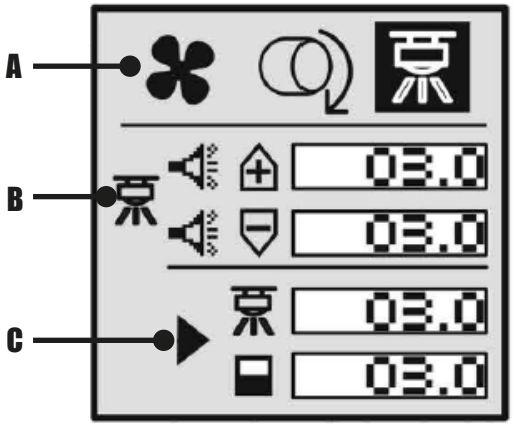
• Accessories configuration - Part II

• Flow

It is worth remembering that a suitable method for determining the volume of material (balance, graduated glass or a scoop) is required to calibrate the monitor.

01 - Select the accessory **(A),** go to the START button **(B)** and press 

. Once the calibration has started, the button will switch to STOP **(B)** and the factor will start to accumulate.



SCREEN: SPEED SETTING

02 - Once the desired quantity has been dispensed, stop dispensing. The factor will stop accumulating.

03 - Measure the amount of material that has been distributed.

04 - Using  ect the reservoir volume box (below the calibration number) and change the dispensed volume with  .

05 - Set the maximum/minimum limits **(B).**

When the new values have been entered, press 

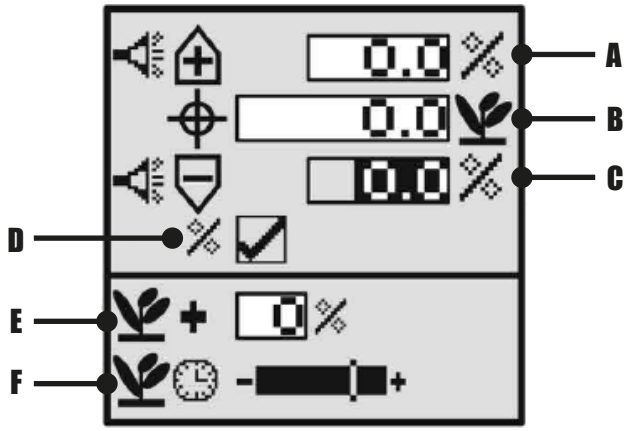
or  (operation) to return to the OPERATION SCREEN.

▪ Manual PM 400 - Optional

• Seed Population Configuration

Press  to access the SEED POPULATION SETUP screen. This screen allows the user to define various population characteristics.

01 - Define the desired target seed population **(B).**



SCREEN: POPULATION CONFIGURE TION

NOTE: If no population value is selected, the monitor will use the population average as the calculation basis for alarm and row indicators.

02 - Define the values for the maximum **(A)** and minimum **(C)** limits that can be accepted as percentages or basic values;

NOTE: If you use basic values, it is important to emphasize that the comma indicates thousands.

03 - Define, if necessary, the adjustment factor **(E)** for more or less population;

NOTE: The population adjustment factor is available to provide the result and show the population as close to the real one as possible. This is useful when the sensors don't detect doubles, triples, etc.

04 - In the **(F)** field, swipe to the right for a high population response rate and to the left for a low population response rate.

NOTE: This characteristic is used to ensure uniformity in the display of the seed population for planters with few rows versus planters with many rows.

▪ Manual PM 400 - Optional

• Configuring Auxiliary Modes

The lift switch can be used to monitor the area accumulator more precisely. It automatically disables the counter while the planter is not planting, thus avoiding the accumulation of unplanted area.

⚠ ATTENTION | **Alarms are disable in these modes.**

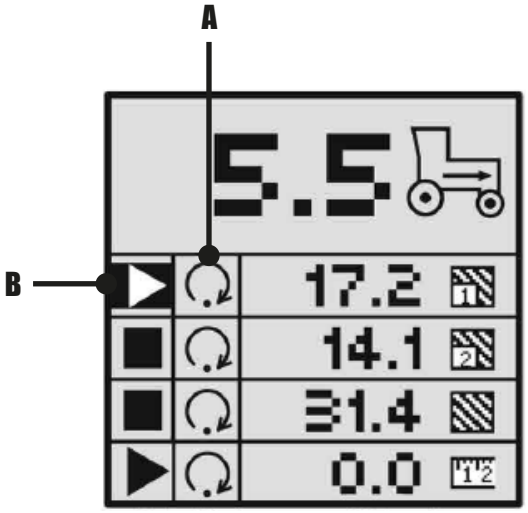
• Speed, Area and Distance

In this mode you can see the speed of movement, the area and the distance traveled. The mode includes start/stop/reset for monitoring.

To enter this mode, press  .

01 - Select the button  **(B)**;

02 - Start counting by pressing  . Once the count has started, the button will switch to  (STOP) and the factor will start to accumulate;



SCREEN: SPEED, AREA AND DISTANCE

03 - Press  (the count will pause).

04 - Press  again. The factor will accumulate again.

To reset the counter:

01 - Press  to select the  (RESET) button;

02 - Press  .

▪ Manual PM 400 - Optional

• Seed Count

The seed count mode can be used to determine row performance when operating the planter in stationary mode.

To enter this mode, press 

.

01 - Select the button  **(B)**;

02 - Start counting by pressing 

Once the count has started, the button will switch to  (STOP) and the factor will start to accumulate;

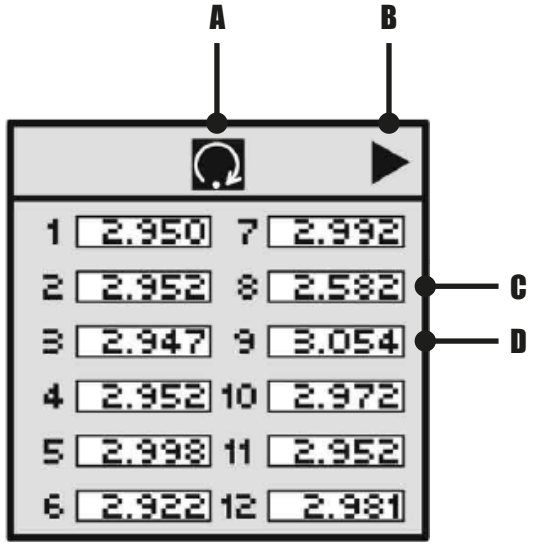
03 - Press 

(the count will pause).

04 - Press 

again. The factor will accumulate again.

In the example opposite, row 8 **(C)** is marking fewer seeds than desired, while row 9 **(D)** is marking more seeds.



SCREEN: SEED COUNT

To reset the counter:

Há dois modos de reinicialização do contador.

01 - Press  to select the  (RESET) button and press 

;

02 - Press 

to exit seed counting mode and press 

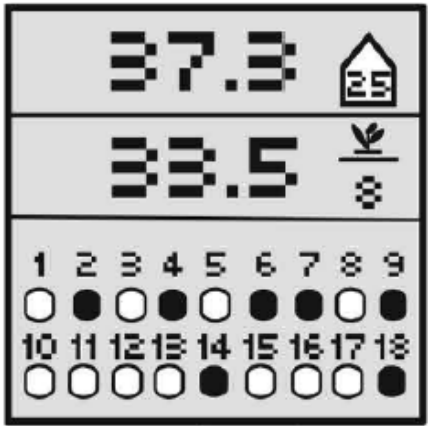
.

▪ Manual PM 400 - Optional

• Display Configuration - Top Half of the Operating Screen

Through the user interface settings you can select the functions that can be displayed on the screen. If more functions are selected than there are screens available, then the  keys are used to scroll between the functions, making it possible to view up to 25 functions. Here's an example. If 8 functions are selected:

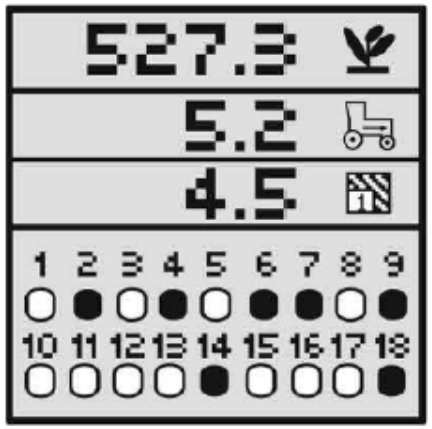
- Average Plant Population.
- Travel speed.
- Planting area 1.
- Total area.
- Fan RPM.
- Maximum/Average/Minimum Population.
- Seed spacing.
- Verification of Seed Variation by Distance.



SCREEN: TOP DISPLAY

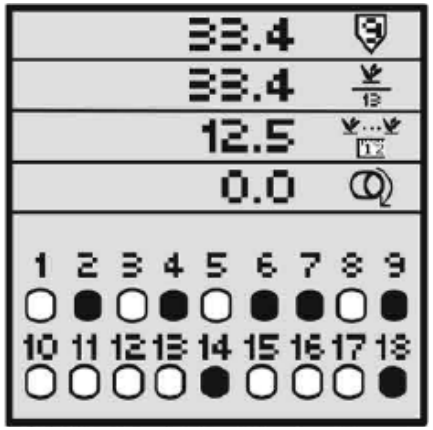
If the screen is set to display 3 functions, the operating screen will display functions 1, 2 and 3.

When  is pressed, the screen will show functions 2, 3 and 4.



SCREEN: TOP DISPLAY

The next tap on the  screen will display functions 3, 4 and 5. Returning to item 1 when the screen is showing functions 7, 8 and 1.

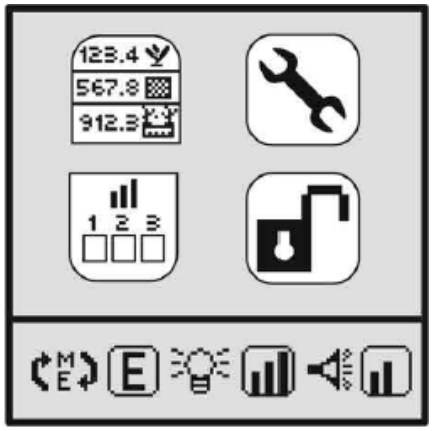


SCREEN: TOP DISPLAY

▪ Manual PM 400 - Optional

• Number of functions to display

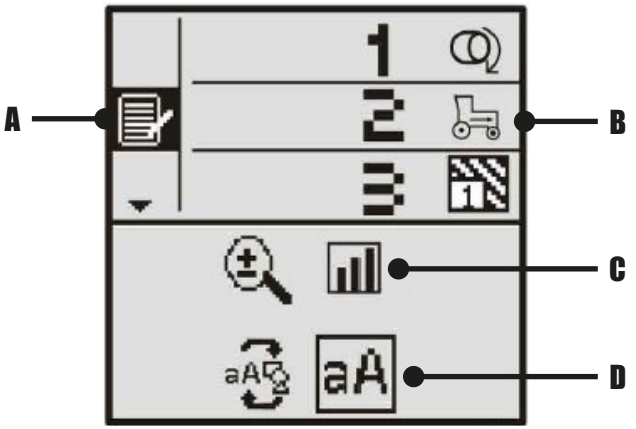
01 - Press  to enter the display conFIGURE tion screen;



SCREEN: UPPER DISPLAY CONFIGURE TION

02 - Press  to enter the conFIGURE tion screen;

03 - Select the functions to display option **(A)** and press  ;



SCREEN: NUMBER OF FUNCTIONS

04 - Use the arrows  to choose the functions **(B)** that will be visible on the operating screen;

05 - Select the option for the number of functions to display **(C)**;

06 - Press  ;

07 - Use  to change the number of functions to display on the screen.

08 - Select graphic/text mode **(D)**;

09 - Press  ;

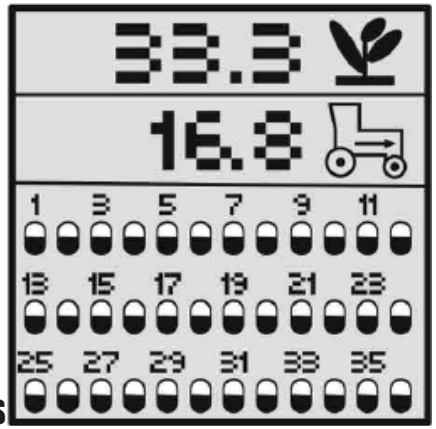
10 - Use  to change the mode.

When the new values have been entered, press  (operation) to return to the OPERATION SCREEN.

▪ Manual PM 400 - Optional

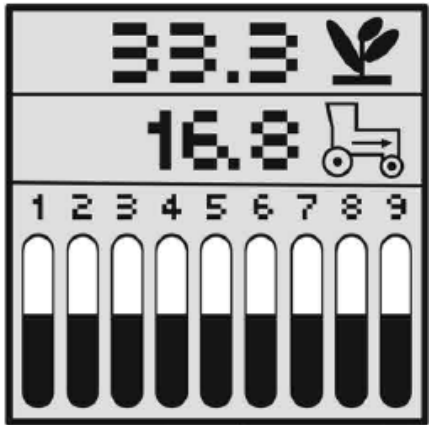
• Display Configuration - Lower Half of the Operating Screen

The number of connected rows shown in the lower half of the screen is user-definable, so you can vary the size of the numbers.



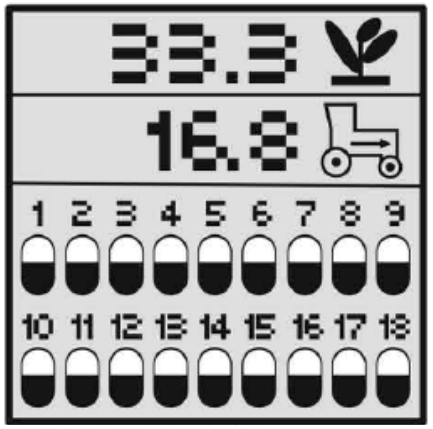
SCREEN: CHART WITH 36 ROWS

The monitor will automatically count through the rows at 3-second intervals when the row is connected.



SCREEN: CHART WITH 09 ROWS

The operator can  to manually select which row they want to monitor. The automatic count will restart in 10 seconds after manual selection.



SCREEN: CHART WITH 18 ROWS

▪ Manual PM 400 - Optional

• Type of indicator to display

01 - Press  to enter the display conFIGURE tion screen.

02 - Select  to enter the conFIGURE tion screen and choose the indicator display mode option;

03 - Press  ;

04 - Use  to change the indicator mode:

 - Bar chart

 - Symbols

 - Symbols flashing in proportion to the planting rate

 - Cleaning pressure gauge

05 - Select the option for the number of indicators to display **(A)** on the operating screen;

06 - Press  ;

07 - Use  to change the number of indicators to display (A) on the operating screen.

When the new values have been entered, press  or  (operation) to return to the OPERATION SCREEN.

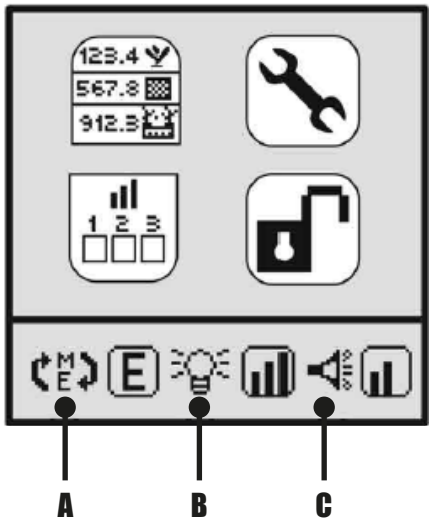
▪ Manual PM 400 - Optional

• Configuration of the Measurement System, Display Lighting and Alarm Volume

Press  to configure the measurement system, display illumination and alarm volume.

NOTE: At the bottom of the screen are the icons for settings.

SCREEN: ADJUSTMENTS



01 - Press  to configure the measurement system, display illumination and alarm volume.

02 - Switch between METRIC and ENGLISH as desired;

03 - Press  to accept the new conFIGURE tion;

04 - Select the display illumination icon **(B)** using  and press  ;

05 - Use  to select the level of the display illumination. There are 03 lighting levels to choose from.

06 - Press  to accept the new conFIGURE tion;

07 - Select the alarm volume icon **(C)** using  and press  ;

08 - Use  to select the volume level of the alarms. There are 03 volume levels to choose from;

09 - Press  to accept the new conFIGURE tion.

When the new values have been entered, press  or  (operation) to return to the OPERATION SCREEN.

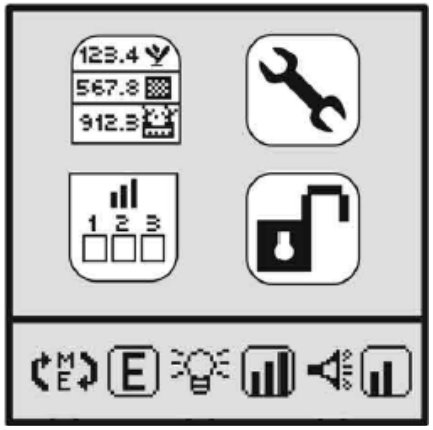
▪ Manual PM 400 - Optional

• Security Password Configuration - Part I

The monitor's security system allows a security password to be entered, protecting the system from unauthorized access to modify conFIGURE tion data.

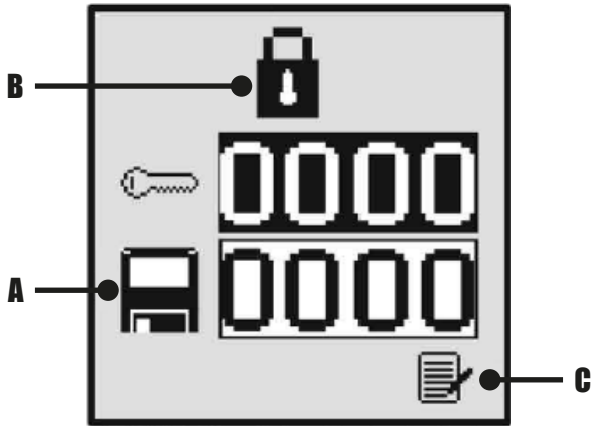
NOTE: A list of screens allows the operator to lock screens individually to ensure that they are not modified.

Press  to enter the display conFIGURE tion screen and choose  :



SCREEN: DISPLAY CONFIGURE TION

01 - Select the disc icon **(A)** using  ;



SCREEN: PASSWORD SETTING

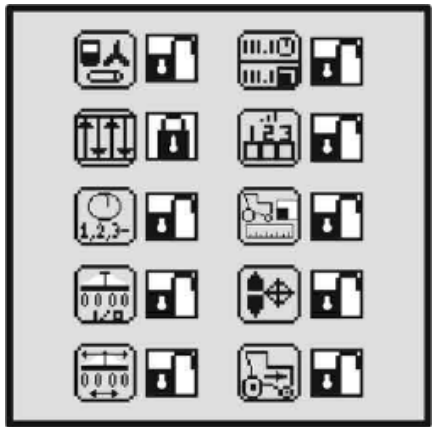
02 - Press  to enter the password;

03 - Change the digits with  press  to accept the new password;

04 - To lock screens individually, select the icon **(B)** and press to enter the list  of screens;

▪ Manual PM 400 - Optional

• Security Password Configuration - Part II



SCREEN: PASSWORDS BY FUNCTION

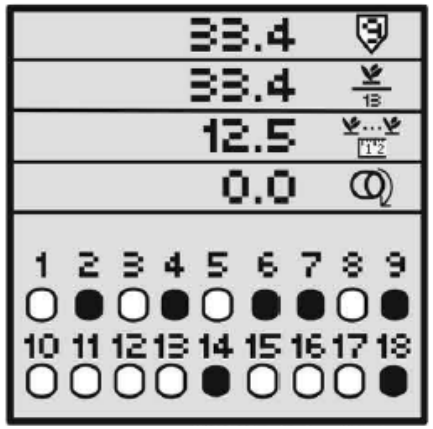
05 - Using  , lock or unlock the screens you want by closing or opening the padlock icon next to each screen;

06 - Press  to return to the passwords screen;

07 - Select the lock **(C)** and press  to change it from unlocked to locked. The selected screens will be locked and will need to enter the password to make changes.

• General Information on Function Monitoring - Part I

The operator can choose 2, 3 or 4 functions for simultaneous monitoring and can select several others to be displayed.



SCREEN: DISPLAY

The monitor's operating screen provides the monitoring functions. No matter where the user has navigated in the conFIGURE tion, security or, auxiliary modes screens, repeatedly pressing the key  will return the system to the operation screen. The operating screen is divided into two halves, top and bottom.
The top half provides user-definable output parameters (population, area, speed, etc.) while the bottom half is dedicated to row information.

▪ Manual PM 400 - Optional

• General Information on Function Monitoring - Part II

NOTE: For more information and how to configure the operating screen, see “Settings on the Operating Screen”.

AVERAGE PLANT POPULATION

The function shows the average number of plants per row in seeds per hectare or seeds per acre that are set for the population. The population response rate and population adjustment can be modified on the target conFIGURE tion screen.

NOTE: This function can be labeled with a symbol or text, depending on the text/graphic setting.

MAXIMUM/AVERAGE/MINIMUM POPULATION

The function alternates the display in minimum, average and maximum population every 2 seconds, indicating the corresponding row.
When the maximum or minimum populations are being displayed, the corresponding symbol is shown with the row number.

ROW POPULATION CHECK

The function shows the population of each row of the planter. The monitor switches between the active rows every 2 seconds. After the last row is displayed, the monitor returns to the first active row and starts another check sequence.

SEED SPACING

The function shows variation in seed spacing. This function can be identified with a symbol or text, depending on the text/graphic setting.

MAXIMUM/MEDIUM/MINIMUM SPACING

The function alternates the display in minimum, medium and maximum spacing every 2 seconds.
When the maximum or minimum spacing is being displayed, the corresponding symbol is shown with the row number.

▪ Manual PM 400 - Optional

• General Information on Function Monitoring - Part III

CHECKING SEED SPACING

The function shows the spacing between the seeds in each row. The monitor switches between the active rows every 2 seconds. After the last row is displayed, the monitor returns to the first active row and starts another check sequence.

SEED VARIATION BY DISTANCE

The function shows the variation of the seed population of each row of the planter in seed spacing by distance according to the conFIGURE tion. This function can be identified with a symbol or text, depending on the text/graphic setting.

MAXIMUM/AVERAGE/MINIMUM SEED VARIATION BY DISTANCE

The function switches the display between minimum, medium and maximum variation every 2 seconds.
When the maximum or minimum variations are being displayed, the corresponding symbol is shown with the row number.

CHECKING SEED VARIATION BY DISTANCE

The function shows the variation between the seeds in each row. The monitor switches between the active rows every 2 seconds. After the last row is displayed, the monitor returns to the first active row and starts another check sequence.

PLANTING AREA 1

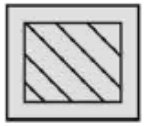
The function shows the planting area in hectares or acres, depending on the unit selected.
This function will identify a planting area chosen for marking, where can be reset or stored.
It can be identified with a symbol or text, depending on the text/graphic setting.

▪ Manual PM 400 - Optional

• General Information on Function Monitoring - Part IV

PLANTING AREA 2

The function shows the planting area in hectares or acres, depending on the unit selected.
This function will identify another planting area chosen for marking, as the operator can choose any area, independent of Planting Area 1, and can also reset or store this area.
It can be identified with a symbol or text, depending on the text/graphic setting.



TOTAL PLANTING AREA

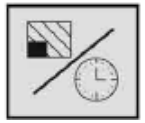
The function shows the total planting area in hectares or acres, depending on the unit selected.
The Total Area can also be reset to zero, so you can start marking again. This function can be identified with a symbol or text, depending on the text/graphic setting.

NOTE: The Total Planting Area is stored under the Tools option in the "Display and Service ConFIGURE tion" menu 

.

TRAVEL SPEED

The function displays the planter's travel speed in Miles per hour (mph) or Kilometers per hour (Km/h), depending on the unit selected.
This function can be labeled with a symbol or text, depending on the text/graphics setting.



AREA PER HOUR

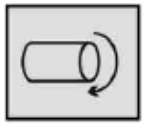
The function shows the area rate per hour in hectares per hour (Ha/h) or acres per hour (AC/h), depending on the unit selected. This function can be labeled with a symbol or text, depending on the text/graphic setting.

FAN RPM

The function displays the fan speed in revolutions per minute (rpm). This function can be identified with a symbol or text, depending on the text/graphic setting.

▪ Manual PM 400 - Optional

• General Information on Function Monitoring - Part V



AXIS RPM

The function shows the shaft speed in revolutions per minute (rpm). This function can be identified with a symbol or text, depending on the text/ graphic setting.

FLUXO

The function shows the material flow rate in gallons per acre (g/ac) or liters per hectare (l/ha).
This function can be labeled with a symbol or text, depending on the text/ graphic setting.

• Alarms

Two audible alarm beeps are emitted during navigation or data entry, indicating any illegal operation or wrong keystroke.
The illegal operation warning screen appears on the display, informing the operator of the type of problem.
Every audible alarm is accompanied by a visual alarm, which informs you of the type of problem that is occurring.

Whenever an audible warning or a warning screen appears on the display, it indicates that a problem is occurring. Correct the problem before continuing planting.

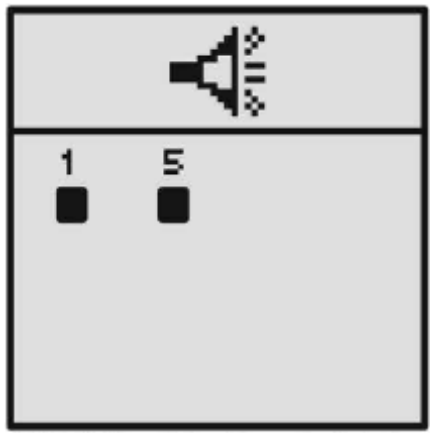
⚠ ATTENTION

The  **key can be used to override this alarm, but not to solve the problem.**

• Types of Alarm - Part I

• Row blocking

When there is a blockage in the fertilizer row or a blockage in the seed drop, two alarm beeps are emitted and the warning screen shows the faulty rows.



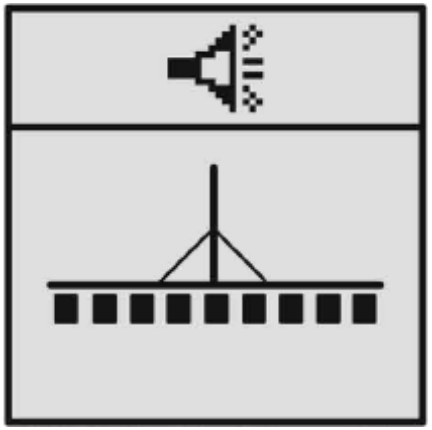
SCREEN: ROW BLOCKING

▪ Manual PM 400 - Optional

• Types of Alarm - Part II

• All Rows Faulty

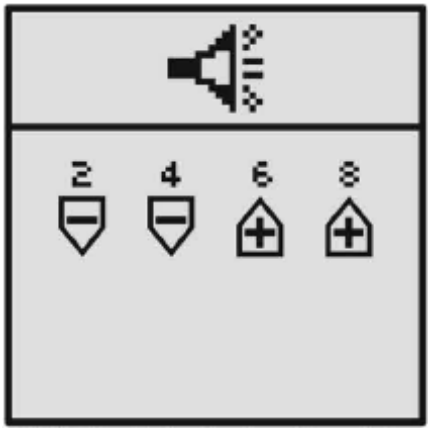
Eight audible alarm beeps are emitted and the fault warning screen on all rows will be displayed, which may indicate that the planter has been lifted.



SCREEN: FAULT IN THE ROWS

• High/Low Population Limits Exceeded

The alarm will sound like a whistle and the exceeded limits warning screen will be displayed.



SCREEN: HIGH AND LOW LIMITS

Symbols shown on the screen alert if the limit has been exceeded for (more) or for  (less) and the numbers indicate which seed rows have exceeded the limits.

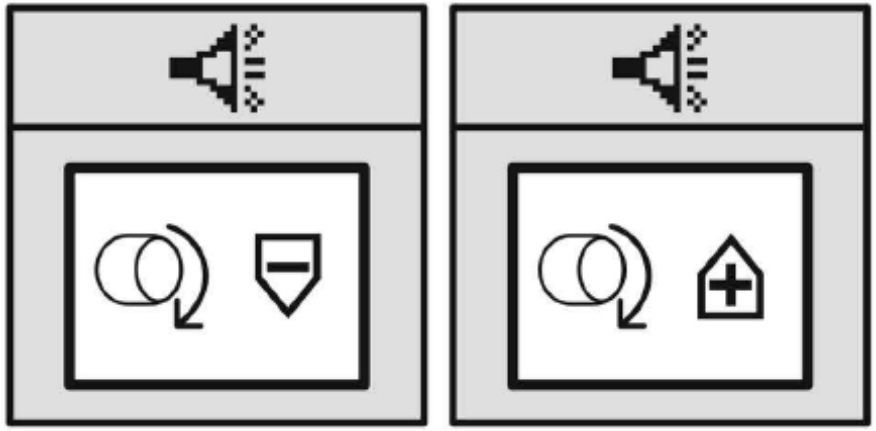
▪ Manual PM 400 - Optional

• Types of Alarm - Part III

• Accessory High/Low Limits Exceeded (Optional)

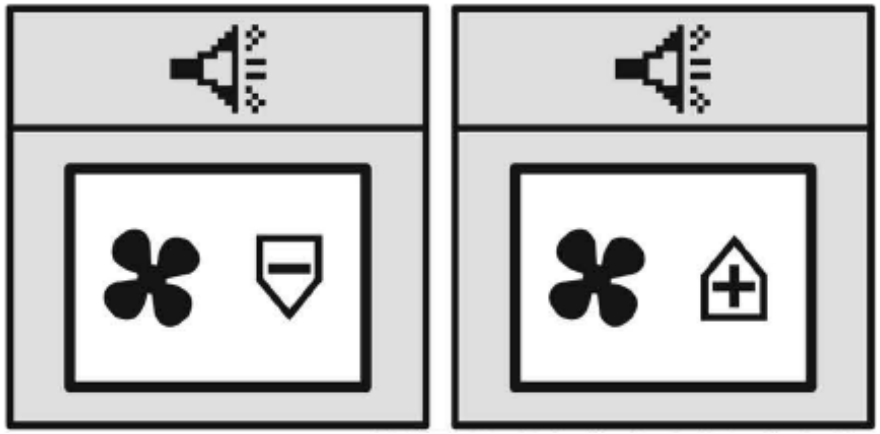
The alarm sounds constantly until the symptom is resolved and the exceeded limits warning screen is displayed:

- Warning display of fan speed limit exceeded;



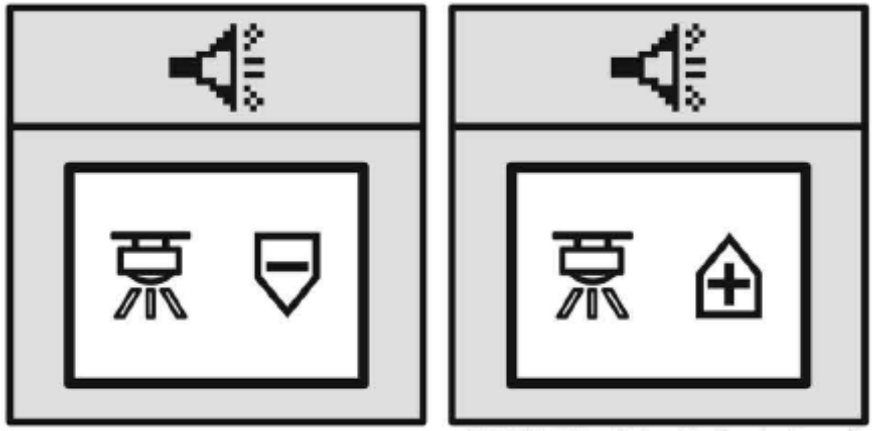
SCREEN: FAN SPEED LIMIT

- Warning display of exceeded shaft rotation limit;



SCREEN: SHAFT ROTATION LIMIT

- Pressure limit exceeded warning display;



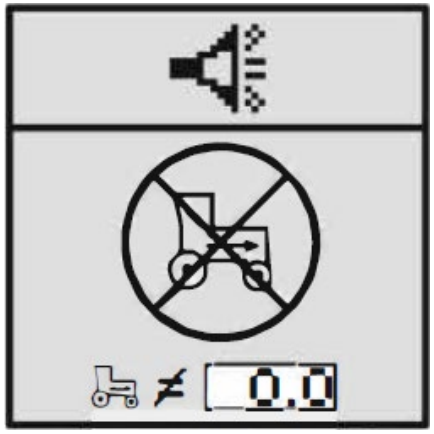
SCREEN: PRESSURE LIMIT

▪ Manual PM 400 - Optional

• Types of Alarm - Part IV

• Lack of travel speed

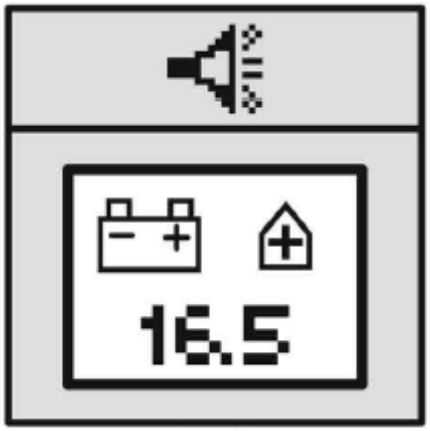
When planting is detected without marking the machine's movement, the alarm sounds until the problem is solved. The lack of travel speed warning screen will be displayed.



SCREEN: LACK OF SPEED

• Self-test failure

When it is detected that the battery voltage is not sufficient or exceeds the maximum voltage limit, the self-test alarm sounds. The self-test failure warning screen will be displayed.



SCREEN: SELF-TEST FAILURE

• Maximum Travel Speed Exceeded

When detected, the audible alarm sounds until the travel speed is adjusted to within the set range. The Maximum Speed Exceeded warning screen will be displayed.

SCREEN: SPEED FAILURE

▪ Manual PM 400 - Optional

• Troubleshooting - Part I

ERROR: THE MONITOR WON'T TURN ON.

PROBABLE CAUSE: Monitor fuse blown.

CORRECTIVE ACTION: Check the fuse (located next to the battery). If necessary, replace with a fuse of no more than 7.5 A. If the fuse blows again, inspect all harnesses for dents or breaks that could cause a short circuit with earth ground.

PROBABLE CAUSE: Bad battery connection.

CORRECTIVE ACTION: Make sure the connections are clean and properly tightened. Inspect the harnesses for damage.

PROBABLE CAUSE: Low battery voltage.

CORRECTIVE ACTION: The monitor voltage must be at least 10V. If smaller, recharge or replace the battery.

ERROR: ROW FAILURE OR HIGH/LOW ALARM IN ROW PLANTING CORRECTLY.

PROBABLE CAUSE: Seed sensor covered in dirt.

CORRECTIVE ACTION: Clean the sensor using the brush supplied with the equipment.

PROBABLE CAUSE: Faulty sensor or wiring harness.

CORRECTIVE ACTION: Switch on the sensor and observe the troubleshooting LED. If the sensor does not have an LED, swap the harness connection with a nearby sensor to determine if the sensor is damaged.

PROBABLE CAUSE: Defective monitor.

CORRECTIVE ACTION: Get in touch with Agrosytem.

▪ Manual PM 400 - Optional

• Troubleshooting - Part II

ERROR: THE RESERVOIR ALARM DOES NOT SOUND WHEN IT IS EMPTY.

PROBABLE CAUSE: Reservoir sensor covered in dirt.

CORRECTIVE ACTION: Clean the sensor using the brush supplied with the equipment.

PROBABLE CAUSE: Sensor fault or short-circuited harness.

CORRECTIVE ACTION: Swap the harness connection with another sensor to determine whether the problem is with the sensor or the harness.

PROBABLE CAUSE: Defective monitor

CORRECTIVE ACTION: Get in touch with Agrosystem

ERROR: THE RESERVOIR ALARM SOUNDS WHEN IT IS FULL.

PROBABLE CAUSE: Faulty sensor or broken harness.

CORRECTIVE ACTION: Monitor has detected a different number of sensors than the I/O row conFIGURE tion. Make sure that all rows are being detected during the self-test. Replace faulty sensors.

PROBABLE CAUSE: Defective monitor.

CORRECTIVE ACTION: Get in touch with Agrosystem.

▪ Manual PM 400 - Optional

• Troubleshooting - Part III

ERROR: SYSTEM VOLTAGE ALARM.

PROBABLE CAUSE: Low battery voltage.

CORRECTIVE ACTION: The monitor voltage must be at least 10V. If smaller, recharge or replace the battery.

PROBABLE CAUSE: Bad battery contact.

CORRECTIVE ACTION: Check that the connections are clean and tight.

PROBABLE CAUSE: Damaged whip.

CORRECTIVE ACTION: Inspect all harnesses for damage or breaks that could cause a short circuit.

ERROR: THE AUXILIARY MODE ALARM SOUNDS WHEN THE AXIS, FAN OR FLOW IS IN PROGRESS.

PROBABLE CAUSE: Sensor failure.

CORRECTIVE ACTION: Shaft, fan or flow sensor not working. Replace the faulty sensor.

PROBABLE CAUSE: Wrong calibration number.

CORRECTIVE ACTION: Incorrect calibration sensor number. Check the calibration number on the accessory conFIGURE tion screen.

PROBABLE CAUSE: Incorrect sensor limits.

CORRECTIVE ACTION: Sensor limits are incorrect. Check the limits on the accessories conFIGURE tion screen.

PROBABLE CAUSE: Defective monitor.

CORRECTIVE ACTION: Get in touch with Agrosystem.

▪ Manual PM 400 - Optional

• Troubleshooting - Part IV

ERROR: THE TRAVEL SPEED ALARM SOUNDS WHEN THE MACHINE IS MOVING.

PROBABLE CAUSE: Failure of the travel speed sensor.

CORRECTIVE ACTION: Travel speed sensor not detected. Replace the faulty sensor.

ERROR: MONITOR FAILURE.

PROBABLE CAUSE: Defective monitor.

CORRECTIVE ACTION: Get in touch with Agrosystem.

ERROR: MAXIMUM SPEED EXCEEDED ALARM SOUNDING.

PROBABLE CAUSE: Maximum travel speed alarm set to slow.

CORRECTIVE ACTION: Set the scroll speed limit to faster or zero to disable.

PROBABLE CAUSE: Incorrect speed constant.

CORRECTIVE ACTION: The speed sensor has not been calibrated, the angle of the RADAR sensor has been altered, or an incorrect constant has been entered. Use the SPEED - AREA - DISTANCE mode to determine if the speed is correct. If incorrect, recalibrate the speed constant.

ERROR: SELF-TEST ALARM.

PROBABLE CAUSE: Defective monitor.

CORRECTIVE ACTION: Get in touch with Agrosystem.

▪ MP36 PRO Operating manual

• Presentation

The new Agrosystem MP36 PRO planting monitor has a modern design and user-friendly interface. It was developed to meet the farmer's necessity of monitoring the planting process. With monitoring for up to 36 rows, it has a monitoring mode for seed rate per unit area or fertilizer flow. In order to monitor the population, the Agrosystem Velocity Sensor (AVS) must be used.

The console has adjustable limits, an audible and visual alarm, fault identification and a voltage surge alert. It is easy to install, compatible with all models of planter and tractor, and with most of the seed and fertilizer sensors available on the market. It is also compatible with the Climate Field View drive (optional).

⚠ ATTENTION **To use the MP36 PRO, see the instructions manual on the following pages.**

MP36 PRO Operating manual

• Technical specifications

Food	10 to 16VDC, 3A max.
Operating temperature	-10 to 70° C
Dimensions	186x150x81 mm
Weight	6,8 kg
Entry	Up to 36 sensors / SVA
Sensors	Complatible with Agrosystem sensors and DICKEY-John sensors.
Assembly	Support with rear fixing and veertical tilt adjustment.

• Installation

FIGURE 1

Install the monitor mounting support in the tractor cab in a place that does not obstruct the operator's view of the planted area. We usually recommend installing it on the side opposite the access door.

Adjusting the tilt of the console can be done by loosening the knobs located on the back (figure 1) and then tightening them so that they lock the console in the right position for the operator.

The power cable must be connected to the battery or to another power point (12VDC) inside the cabin, observing polarity and allowing access to the fuse holder (red cable).

▪ MP36 PRO Operating manual

• Configuration

FIGURE 2

When you turn on the console using the key in the top left-hand corner, the start screen is displayed and the system automatically checks the sensors (figure 2). The sensors are then identified and their respective rows are stored in memory. At the next start-up, any sensor that is not found, or that does not respond to the monitor's identification, will be indicated as a faulty element and highlighted in the alarm window (figure 7, page 10).

OPERATING KEYS:

The operating keys (up, down, right and left) are used to navigate between the fields in the configuration windows. The "enter" key has the function of validating the choices or allowing you to edit the values of the allowed configuration fields. When editing these fields, the "up" or "down" keys add or subtract values from the fields (we'll go into detail in the "Configuration" subheading).

SHORTCUT KEYS:

The up/down direction keys also provide shortcuts to the configuration and alarm history screens. The right key switches off the audible alarm for a period of 30 seconds.

SHORTCUT CONNFIGURATION

ALARM SHORTCUTS

SILENCE ALARMS

▪ MP36 PRO Operating manual

• Configuration

ROW CONFIGURATION:

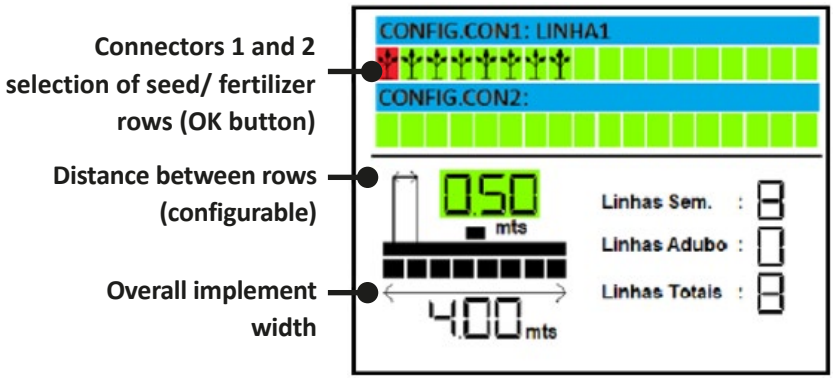


FIGURE 3

From the main window (figure 3) you can access the configuration routine by pressing the “up“ ▲ shortcut key for two seconds.

The first configuration window allows us to edit, include or exclude planting rows and determine which type of sensor is associated with this row, among seed or fertilizer sensors selected by pressing OK.

You can also change the distance between rows. Only editable fields are accessible, highlighted in green.

After filling in the data on the configuration screen, proceed to the next screen, which deals with alarms and operating mode. The data can be edited using the navigation ◀ ▶ ▼ ▲ and OK selection keys.

Once the selection has been made, you can add or subtract values using the up/down keys ▲ ▼ .

▪ MP36 PRO Operating manual

• Configuration

ALARM CONFIGURATION:

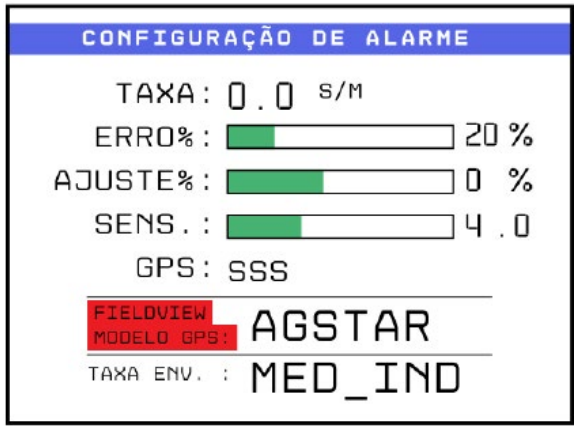


FIGURE 4

The alarm configuration screen (figure 4) is presented as a mandatory sequence of the device configuration process and allows you to choose the operating mode and the fault treatments encountered during operation.

RATE*: The rate (with SVA) allows the desired population to be defined via the “OK” button, and the target value to be raised or lowered. If the value is set to zero, the system takes the average number of seeds per meter (average of all rows) as the target, and any discrepancy from the average is highlighted.

PERCENTAGE ERROR*: defines the admissible tolerance in relation to the target rate. For example, if we set it to 20% it means that differences between the target rate and the measured rate of less than 20% will be ignored and larger differences will be alarmed.

PERCENTUAL ADJUSTMENT*: allows percentage adjustment of the rate displayed on the main screen in the event of known differences in the sensor reading process, common in very small seed crops (sorghum, for example).

SENSITIVITY: defines the maximum time limit where a fault event is ignored before generating an alarm, with high and low population faults being considered.

***Options only available when using the SVA speed sensor.**

GPS - (S/N): Sets the operating mode. With the use of the speed sensor (SVA), we will have population monitoring, and without speed, only the verification of planting or fertilizer application failures (fall/no fall).

MP36 PRO Operating manual

• Configuration

COMMUNICATION WITH FIELDVIEW DRIVE

In order for the MP36 PRO to communicate with FieldView, the following settings must be made:

1. In “FIELDVIEW GPS MODEL” set the GPS model to AGSTAR.
2. In “RATE SENT” you define the type of seed rate sent to the FieldView, there are 3 options:

- INSTAN: sends the instantaneous rate of individual row alignments to FieldView.
- MED_IND: sends the individual average rate row by row to FieldView.
- MED_GER: sends the overall average rate of all rows to FieldView.

This functionality is available as an option, just purchase the items below:

Novatel AG-Star Antenna	product code - 030210003
Field View whip	product code - 020012654

MP36 PRO Operating manual

• Work screen

RATE MONITORING

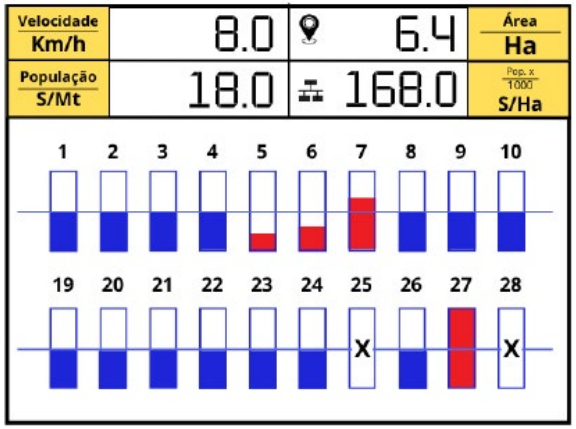


FIGURE 5

Figure 5 shows the operating mode with rate or population monitoring (with SVA). The display shows speed in km/h, planted area in hectares, seed rate per meter and seeds per hectare (x 1000). The hectarimeter does not remain in memory and is reset every time it is powered up. The totaled distances are only taken into account when the device checks for seed drops on valid rows.

At the bottom, we have the bar chart of the rows, which represent the individual rates per row. The rows that are within the defined percentage limits are represented by the color blue, those that have exceeded the control limits are represented by the color red. Rows with no seed drops are represented by X (rows 25 and 28).

All rows that do not meet the limits set on the alarm screens are highlighted and included in the alarm history records. If the monitor detects a seed drop while the machine is at rest, the row is also represented as a fault.

Changes in the seed rate for longer than the alarm limit are signaled audibly and visually (red LED), and rows that interrupt the flow of seed or fertilizer are alarmed immediately.

MP36 PRO Operating manual

• Work screen

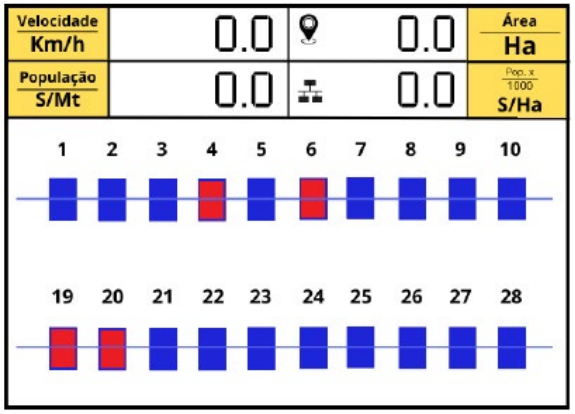


FIGURE 6

Figure 6 shows the work screen in operation mode without speed, i.e. without a speed sensor. In this mode, no speed data is displayed (speed, rate and hectare meter).

The rows are represented using rectangles filled with the colors blue (with flow) and red (without flow).

Faults with audible and visual alarms also comply with the time criterion structured in the alarm configuration screen. Fertilizer rows are only monitored for the presence or absence of material flow, and are represented by colored rectangles (red/blue) even in rate monitoring mode.

MP36 PRO Operating manual

• Fault Screen

FAULT SCREEN

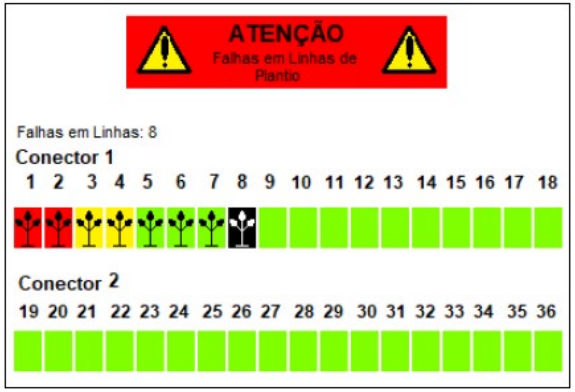


Figure 7 shows the fault indication screen, which displays the frequency of alarm events generated by planting or fertilizer rows on a color scale. An overall average of events is generated and the rows that are within this average will be shown in **green**, the rows with quantities of events below the average will be represented in **yellow** and those above the average in **red**. The rows that are faulty at the time the screen is displayed will be represented in **black**.

FIGURE 7

SHORT-CIRCUIT WARNING:

Figure 8 represents the voltage surge alert screen, and it will remain on this screen until the short-circuit problem is resolved.

FIGURE 8

▪ ETD Manual (Electronic Dosage Table) - Optional

• Presentation

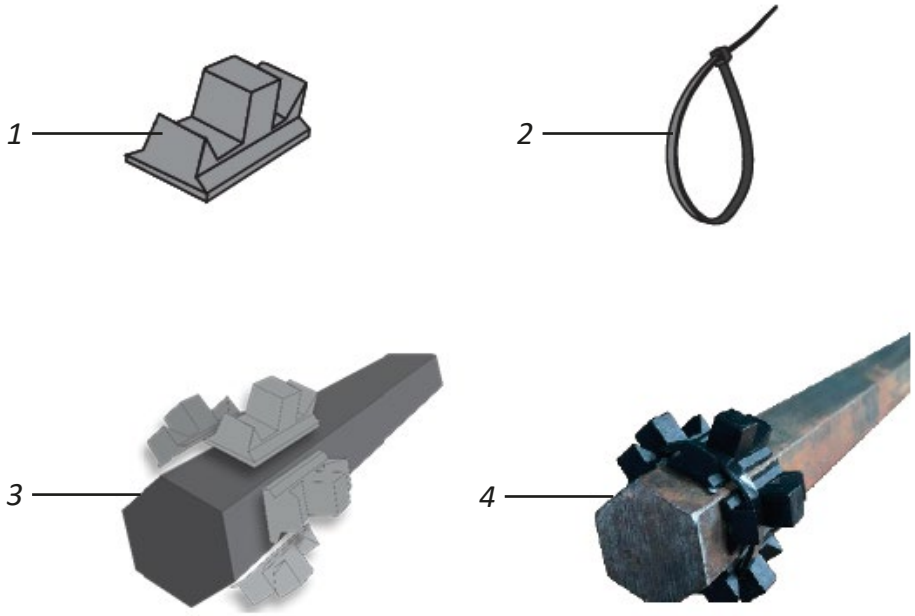
The **ETD** is an electronic device that can be attached to planters, seeders and fertilizers to help the operator set the best gear ratio for the correct dosage of seeds and fertilizers, according to the needs of each area/plot, based on adjustments made in the field and calibrations before planting. It allows you to perform other additional functions such as recording hectares planted, hours actually worked and planting speeds above specifications, with this important information being recorded and shown on the display of the **ETD** electronic device.

⚠ ATTENTION | **To use the ETD (Electronic Dosage Table), consult the instructions manual on the following pages.**

▪ ETD Manual (Electronic Dosage Table) - Optional

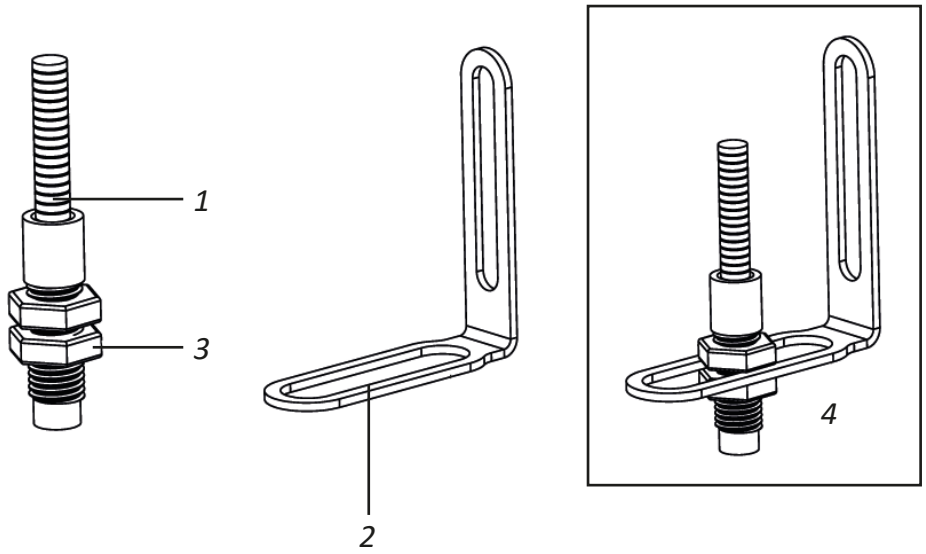
• Assembling the magnets on the mais shaft

The magnets (1) must be installed on the primary axle of the planter, after the shutdown ratchet, as this will not account for hours and hectares when the machine is in transport. A magnet must be installed on each face of the axis (3), securing them with two nylon clamps (4) so that they are properly fixed and positioned (4).



• Assembling the speed sensor

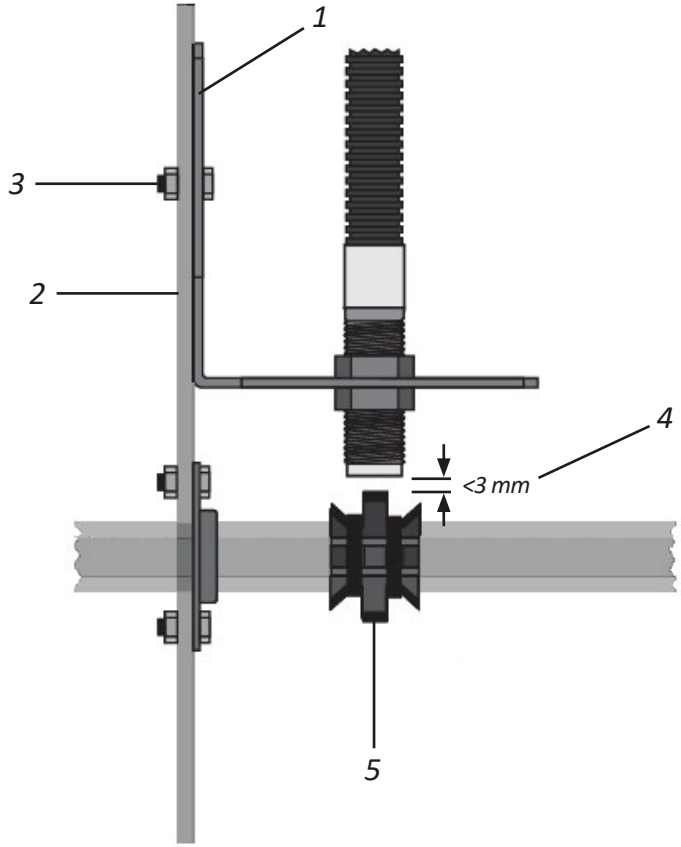
Assemble the sensor (1) on the support (2) using the nuts (3) according to the image (4).



▪ ETD Manual (Electronic Dosage Table) - Optional

• Installing the speed sendor

Attach the sensor support (1) to the machine chassis (2) using the M8x30 screw (3), making sure that the distance between the sensor and the magnets is less than 3 mm (4). The alignment of the speed sensor and the magnets on the primary shaft (5) is extremely important.



• Identification

A - Display
B - Function key
C - Decrease item
D - Enter
E - Increase item

The ETD has four keys
Function key F **The F function key is used to switch between the four main functions of the:** **F1: Seed rate** **F2: Fertilizer rate** **F3: Hour meter** **F4: Hectarimeter** **Within the menus, the F function key takes on the function of "back", which makes navigation easier.**

Keys
The keys▼and ▲are used to increase or decrease numerical items on the interface. The arrow icon above and below the interface indicates the item to be controlled by the keys. 025 **Keys ▶** **The key ▶ is used as the "enter" function. This key allows you to enter the options that are displayed in the bottom right-hand corner of the interface.**

▪ ETD Manual (Electronic Dosage Table) - Optional

• Settings menu

The settings menu (1) can be accessed by pressing the F function key for more than 2 seconds.

The settings menu has 7 items. The keys ▲▼ (2) are used to navigate between the menu items.

The Select key ▶ (3) is used to select the highlighted item. Simply click on the “F” key (4) to exit the settings menu.

To select the start of calibration click ‘Yes’ ▶ (1).

• Sensor Calibration

When starting the sensor calibration (2), the machine must be moved for exactly 100 meters (3) and stop.

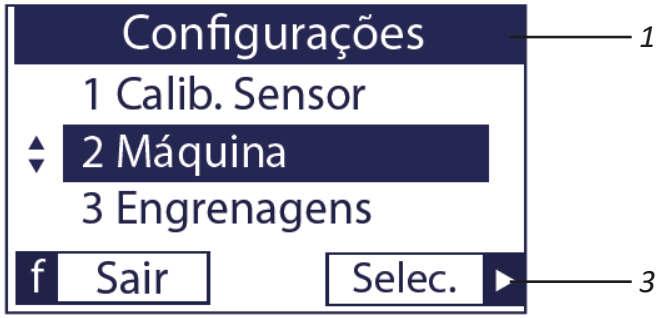
The number of pulses (4) counted by the sensor is shown on the screen. To complete the calibration, the operator must press the “Done” ▶ key (5).

Calibrating the sensor is important for the ETD to determine the number of hectares worked, the working speed of the machine and also the distance traveled when calibrating the fertilizer.

If the number of pulses corresponding to the end of the 100m is not displayed during travel, the sensor or magnets may have moved, making it impossible to read the pulses during travel. In this case, it is necessary to adjust these components according to the assembly diagram, item 4 “SPEED SENSOR INSTALLATION”, previous page.

▪ ETD Manual (Electronic Dosage Table) - Optional

• Machine



In the machine configuration (1), click on 'Select ▶(2) to enter the number of rows using the buttons ▲▼ (3).

Number of rows, range of values: 01 ~ 80.

After selecting the number of rows in the machine, press the 'Next' key ▶ to select the row spacing using the buttons ▲▼ (5).

• Sensor calibration

When you click on "Save" ▶ (6), the system saves the settings and displays the following message.

This information is very important for showing the hectares worked and also for calibrating fertilizer rates.

▪ ETD Manual (Electronic Dosage Table) - Optional

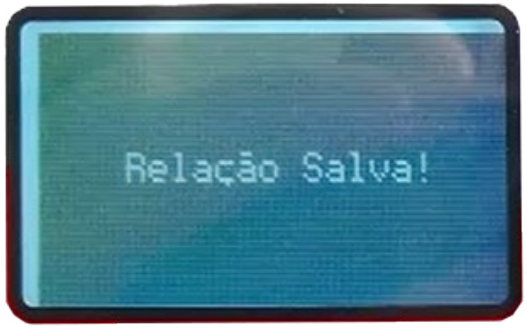
• Seed rate - Part I

1) Select Seed Rate and click Select.

2) Then select CD Gears and click on Select.

3) Then keep the list below.

4) Click Fn to save.



5) Then select CD Gears and click on Select.

6) Then select Seed Rate and click on Select.

▪ ETD Manual (Electronic Dosage Table) - Optional

• Seed rate - Part II

7) Then select Change Disc and click

8) Then insert the number of holes in the disc according to the crop to be worked on.

9) Then click on save. under Select.

10) Next, select Register Table and click on Select.

11) IMPORTANT: Look at the physical Seed table on the disc you will be working on and choose the average value. **Example:** B1.

12) Then type B1 and click on Next.

▪ ETD Manual (Electronic Dosage Table) - Optional

• Seed rate - Part III

13) Then keep the CxD Ratio and click next.

14) Next, keep the number of holes you placed earlier and click next.

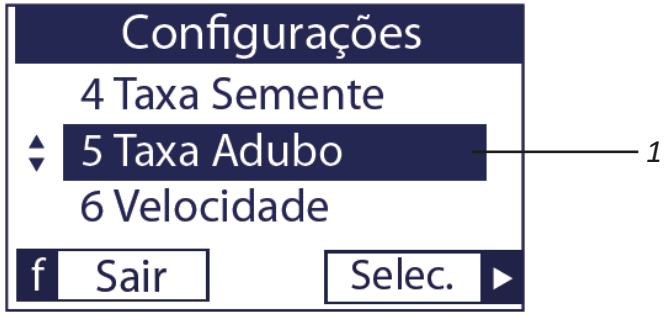
15) **NOTE:** Note that the seed rate value 4.9 corresponds to the B1 ratio in the SPEED BOX table; if it is different, redo the previous steps.

16) Next, if the value is correct, click on save.

Then select Fn (exit) and go to the FERTILIZER settings according to the instructions on the following pages.

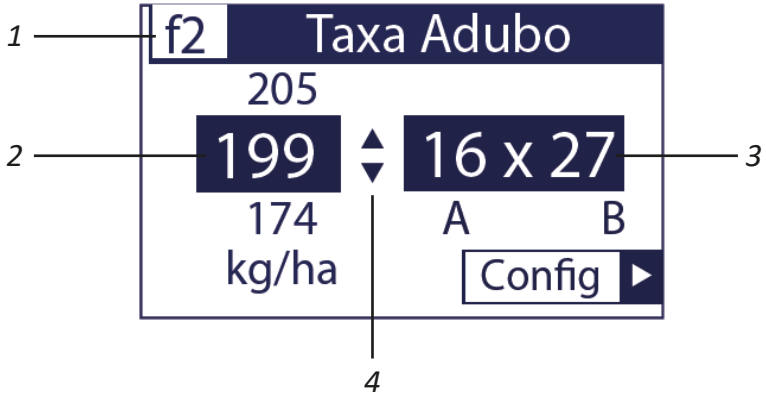
▪ ETD Manual (Electronic Dosage Table) - Optional

• Fertilizer rate

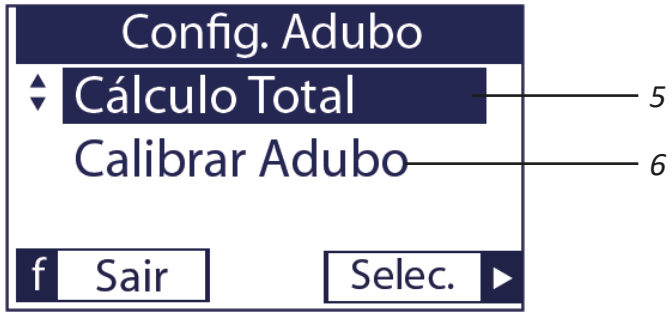


The F2 display (1) indicates the fertilizer rate (2) in kg per hectare obtained with a given gear ratio. Fertilizer rates are calculated according to fertilizer calibration, gear setting (3) and row spacing. The keys▼and▲ (4) allow the user to navigate between the rate options in Kg/ha.

Fertilizer rate: ETD

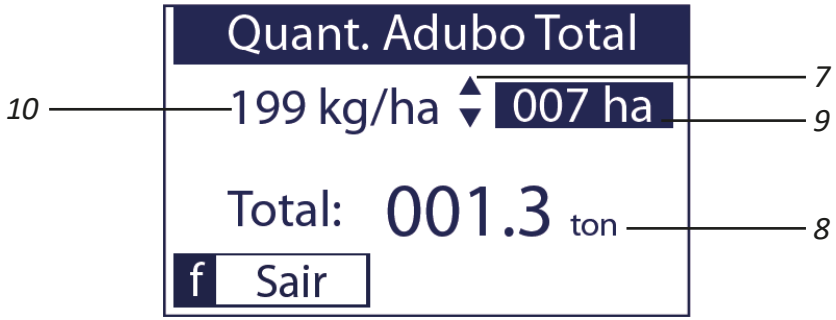


The fertilizer rate menu has two items: Total Calculation (5) and Calibrate Fertilizer (6).



• Total calculation

Under total calculation (5), the user can calculate the total amount of fertilizer in tons (8) needed for planting in a certain area, in hectares. The last fertilizer rate selected on the F2 function screen (9), selected via the key ▲▼ (10) is used as the reference for the calculation.

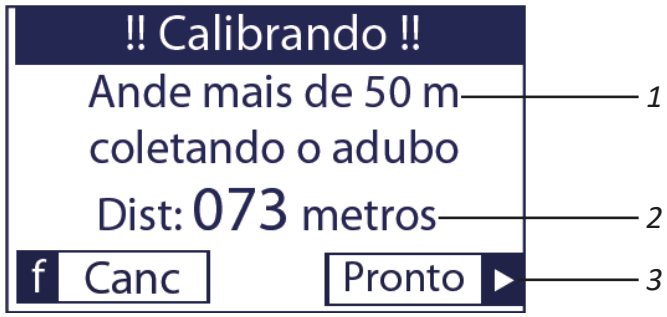


ETD Manual (Electronic Dosage Table) - Optional

• Calibrating fertilizer - Part I

Fertilizer calibration (11) has 3 stages. First of all, the list of gears (12) used on the machine at the time of calibration must be entered. **EXAMPLE:** In the SPEED BOX, set the Mot **6** and Mov **F** option, then enter the same setting in the ETD; then walk 50 m collecting at least 3 fertilizer outputs, take the average and enter the value in the electronic table).

On the next screen, the operator must walk with the machine collecting the fertilizer for a distance greater than 50 meters (1). It is important that the sensor is already calibrated so that the distance traveled is measured correctly. The distance traveled is displayed instantly (2).



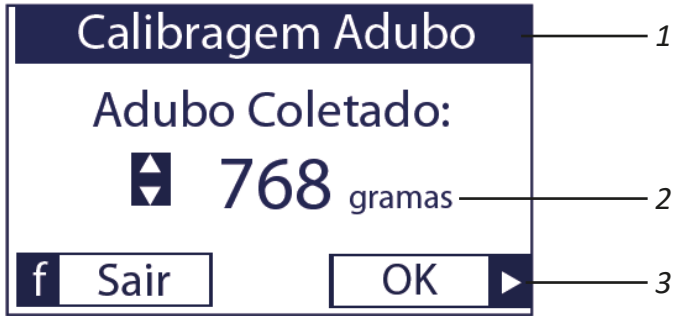
After traveling the required distance, click on Done (3).

NOTE: The minimum distance to be covered is 50 meters. If this distance is insufficient, the screen for entering the collection weight will not be enabled and the following warning will be displayed:

▪ ETD Manual (Electronic Dosage Table) - Optional

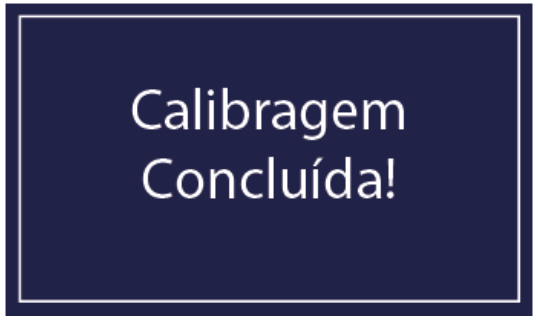
• Calibrating fertilizer - Part II

The next screen (1) shows the total weight of the fertilizer collected (2) in a row or the average of the collection, always in grams.

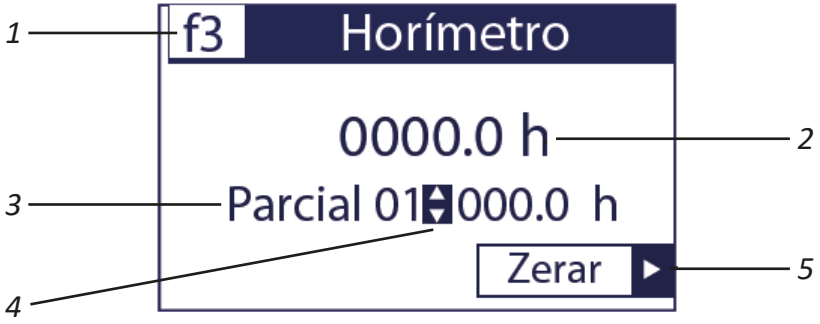


Collected fertilizer, range of values: 10 ~ 9000 grams.

Click on 'OK' (3) and the 'calibration complete' message is displayed.



• F3 Horímetro



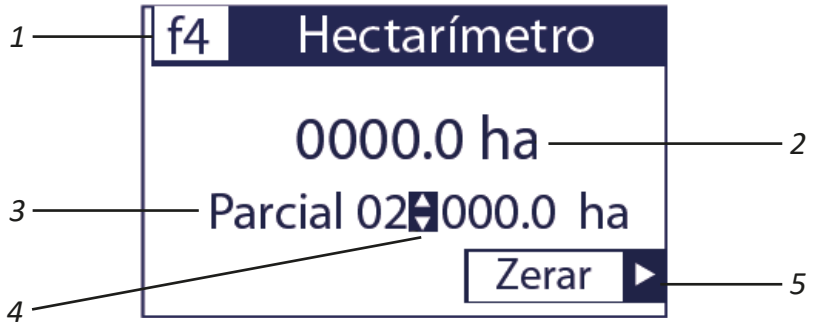
The F3 screen (1) shows the total number of hours (2) worked with the ETD in three parts (3), which can be listed using the keys ▲▼ (4).

To reset a certain section, press and hold the reset key (5) for more than 2 seconds.

The hours counted relate only to the time the machine was actually working, i.e. with the turnstile on. Therefore, hours spent handling the ETD or moving the machine in the transport position will not be counted.

▪ ETD Manual (Electronic Dosage Table) - Optional

• F4 Hectarimeter



The F4 screen (1) shows the total number of hectares worked (2) with the ETD, also in 3 partials (3), which can be selected using the keys ▲▼ (4).

• Settings menu - Part I

The settings menu (1) can be accessed by pressing the F function key for more than 2 seconds.

The settings menu has 7 items. The keys ▲▼ (2) are used to navigate between the menu items.

The Select key ▶ (3) is used to select the highlighted item. Simply click on the “F” key (4) to exit the settings menu.

▪ ETD Manual (Electronic Dosage Table) - Optional

• Settings menu - Part II

To select the start of calibration click 'Yes' ▶ (1).

• Sensor Calibration

When starting sensor calibration (2), the machine must be moved by exactly 100 meters (3) and stop

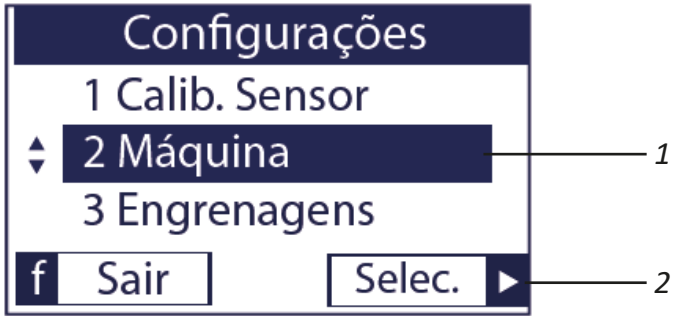
The number of pulses (4) counted by the sensor is shown on the screen. To complete the calibration, the operator must press the "Done" ▶ key (5).

Calibrating the sensor is important for the ETD to determine the number of hectares worked, the working speed of the machine and also the distance traveled when calibrating the fertilizer.

If the number of pulses corresponding to the end of the 100m is not displayed during travel, the sensor or magnets may have moved, making it impossible to read the pulses during travel. In this case, these components must be adjusted in accordance with the assembly diagram, item 4 "SPEED SENSOR INSTALLATION", page 151.

▪ ETD Manual (Electronic Dosage Table) - Optional

• Machine



In the machine configuration (1), click on 'Select' ▶ (2)to enter the number of rows using the buttons ▲▼ (3).

Number of rows, range of values: 01 ~ 80.

After selecting the number of rows in the machine, press the 'Next' ▶ (4) to select the row spacing using the buttons ▲▼ (5).

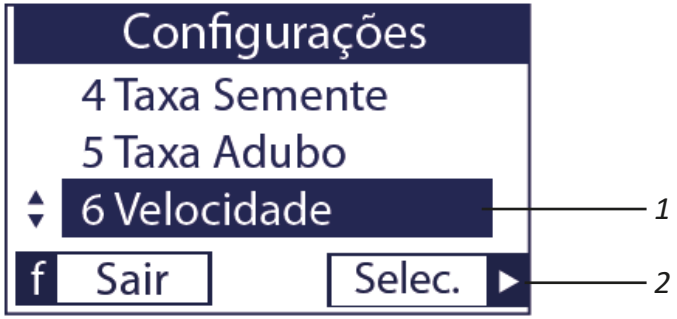
Spacing, range of values: 01 ~ 99 cm.

When you click on "Save" ▶ (6), the system saves the settings and displays the following message.

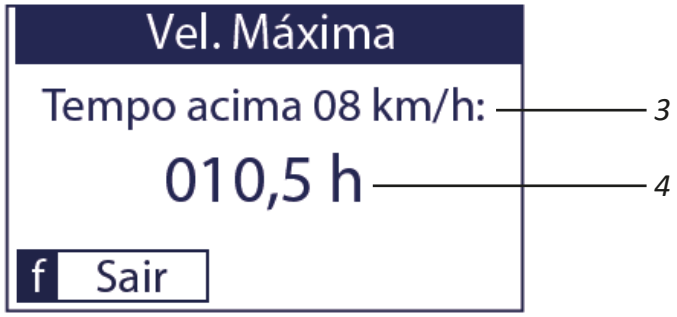
This information is very important for showing the hectares worked and also for calibrating fertilizer rates.

▪ ETD Manual (Electronic Dosage Table) - Optional

• Time above maximum speed



By clicking on 'Select' ▶ (2) in the 'Speed' setting (1) it will be displayed how many hours (4) the machine has been working above the limit speed (3).



Identification

• Identification tag

To consult the parts catalog or request Baldan's technical assistance, always indicate the model (01), serial number (02) and date of manufacture (03), which can be found on the nameplate of your **GIGA AIR**.

⚠ ATTENTION

The drawings contained in this instructions 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: 60550109975 | CPT: SPGIGAAIR07217

• Product identification

Identify the data below correctly so that you always have information about the lifespan of your seeder.

Owner: _____

Dealer: _____

Farm: _____

City: _____

State: _____

Warranty certificate no: _____

Implement: _____

Serial no.: _____

Date of purchase: _____

Invoice: _____

PEÇAS® ORIGINAIS BALDAN
ORIGINAL PARTS · PIEZAS ORIGINALES

▪ Notes:

▪ Baldan Warranty

BALDAN IMPLEMENTOS AGRÍCOLAS S/A, guarantees the normal operation of the implement to the dealer for a period of 6 (six) months from the date of delivery on the resale invoice to the first end consumer. During this period **BALDAN** undertakes to repair defects in material and or manufacture of its responsibility, with labor, freight and other expenses being the responsibility of the dealer.

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

When this procedure is not possible and the dealer's ability to resolve the issue has been exhausted, the dealer will request support from **BALDAN Technical Assistance**, using the specific form distributed to dealers. Once Baldan Technical Assistance has analyzed the replaced items and concluded that there is no warranty, the dealer 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 dealer. Any repairs made to the product within the warranty period by the dealer will only be authorized by **BALDAN** upon prior presentation of a quotation describing the parts and labor to be performed.

The product that undergoes repairs or modifications in officials that do not belong to the **BALDAN** dealer network is excluded from this term, as well as the application of non-genuine parts or components to the user's product. This warranty will become void when it is found that the defect or damage is the result of improper use of the product, failure to follow instructions, or inexperience of the operator.

It is agreed that this warranty does not cover tires, polyethylene tanks, cars, hydraulic components, etc., which are equipment guaranteed by their manufacturers. The manufacturing and or material defects, object of this warranty term, will not constitute, under any hypothesis, reason for rescission of the purchase and sale contract, or for indemnity of any nature.

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

▪ Inspection and delivery certificate

SERVICE BEFORE 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 current warranty terms and instructed on the use and care of maintenance.

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.: _____

Dealer: _____

Phone: _____ ZIP CODE: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Date of sale: _____

Dealer's signature/ Stamp _____

1st copy - Owner

▪ 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 current warranty terms and instructed on the use and care of maintenance.

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.: _____

Dealer: _____

Phone: _____ ZIP CODE: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Date of sale: _____

Dealer's signature/ Stamp _____

2nd copy - Dealer

▪ 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 current warranty terms and instructed on the use and care of maintenance.

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.: _____

Dealer: _____

Phone: _____ ZIP CODE: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Date of sale: _____

Dealer's signature/ Stamp _____

3rd copy - Manufacturer (Please send completed form 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: 15993-900 | Matão-SP | Brasil

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

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

Export: Phone: 55 16 3321-6500 | Fax: 55 16 3382-4212 | 3382-2480

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