

Instruction Manual



RP / RPU 1300/1500/1700

Central and Lateral Mounted Rotary Cutter

 **BALDAN**

■ Presentation

Wge appreciate the preference and would like to congratulate you for the excellent choice you just made, since you have acquired a product manufactured with **BALDAN**



IMPLEMENTOS AGRÍCOLAS S/A technology.

This manual will guide you through the procedures required since its acquisition until operational procedures of usage, safety and maintenance.

BALDAN assures that has delivered this implement for resale in full and in perfect conditions.

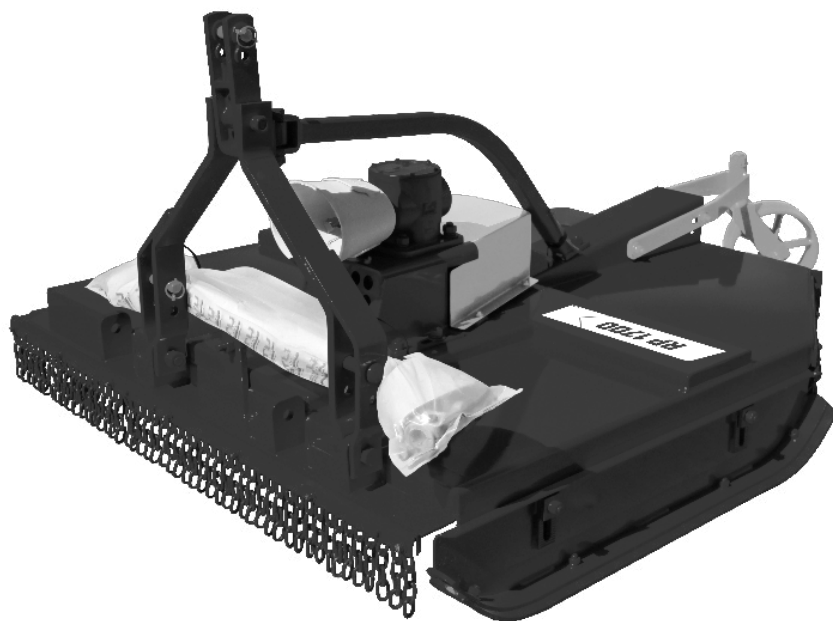
Resale was responsible for the custody and maintenance during the period in its possession, and also for the assembly, retightening, lubrication and overhaul.

During the technical delivery, dealer should guide the user client about maintenance, safety, his/her obligations in eventual technical assistance, strict compliance with the warranty term and reading the instructions manual.

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

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

Instruction Manual



RP / RPU 1300/1500/1700

Central and Lateral Mounted Rotary Cutter

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

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

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

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

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

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

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

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

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

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

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

▪ General Information

• To the owner

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

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

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

The incorrect handling of this equipment may result in severe or fatal accidents. Before running the equipment, carefully read the instructions contained in this manual. Make sure that the person responsible for the operation is instructed as the correct and safe handling. Also make sure that the operator has read and understood the instructions manual of the product.

ATTENTION

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

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

MR. OWNER OR OPERATOR OF THE EQUIPMENT.

Read and carefully comply with provisions of NR-31.

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

▪ Safety rules

- To the operator



ATTENTION

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



ATTENTION



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



ATTENTION



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



ATTENTION



Do not transport people or equipment on the tractor.



ATTENTION



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



ATTENTION



Do not work with the tractor if the front has insufficient ballast to the rear equipment. Should there be a trend to lift, add weights or ballasts to the front or the front wheels.



ATTENTION



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

▪ Safety rules

ATTENTION

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

ATTENTION



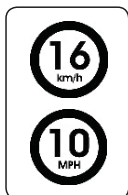
Before beginning the work or transportation of RP/RPU, check if there are people or blockages close to it.

ATTENTION



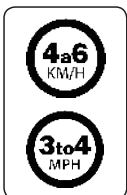
Always maintain places of access and work free of residues such as oil or grease to prevent accidents.

ATTENTION



When transporting the RP/RPU, do not exceed the speed of 16 km/h or 10 MPH, avoiding risk of damages and accidents.

ATTENTION



When working with RP/RPU, do not exceed the speed of 4 to 6 km/h or 3 to 4 MPH, avoiding risk of damages and accidents.

ATTENTION



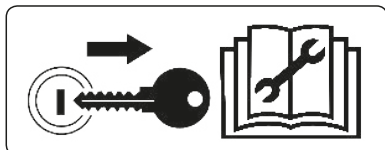
Do not perform adjustments when RP/RPU is in operation. When performing any service on RP/RPU, switch off the tractor first. Use appropriate tools.

ATTENTION



Dispose residues inappropriately affects the environment and the ecology since you will be polluting rivers, canals or the soil. Inform yourself about the proper way of recycling or disposing residues.

PROTECT THE ENVIRONMENT!

▪ Safety rules**! ATTENTION**

Remove the ignition key before performing any type of maintenance in RP/RPU.

- Protect yourself against possible injuries or death caused by RP/RPU unexpected start-up.
- Do not start up the tractor if RP/RPU is not properly coupled.

! ATTENTION

There are risks of injuries or death to the rotary cutter operator and surrounding people during operations for the following reasons:

- Body contact with rotating disks.
- Engagement of the body in the drive shaft and rotary shaft.

! ATTENTION

To prevent intoxications, injuries or death when the rotary cutter is running and its blades are spinning, proceed in the following manner:

- Stop and turn the equipment off if there are people under 50 meters.



- Do not place hands or feet under the chassis. Contact with blades can cause serious injury or death.



- Never allow people - especially children - on or under the rotary cutter.

! ATTENTION

Rotary cutters can release fragments or release objects at high speeds which can cause serious injury or death to nearby people.

▪ Safety rules

• PPE Equipment



DO NOT WORK WITH RP/RPU WITHOUT FIRST WEARING PPES (SAFETY EQUIPMENT). IGNORING THIS WARNING MAY CAUSE DAMAGES TO HEALTH, SEVERE ACCIDENTS OR DEATH.

When performing certain procedures with **RP/RPU**, wear the following PPEs (Safety Equipment):



! IMPORTANT




















Safe practice should be performed in all work steps with **RP/RPU**, thus avoiding accidents such as objects impact, fall, noises, cuts and ergonomics, that is, the person responsible for operating **RP/RPU** is subject to internal and external damages to his/her body.



















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



▪ Warnings

-  When operating the RP/RPU, do not allow people to stay very close, inside it or on it.
-  When performing any maintenance service, wear PPE.
-  Do not perform adjustments when RP/RPU is in operation.
-  Do not travel on highways especially at night. Use warning signs throughout the route.
-  If there is needs to traffic with RP/RPU on highways, consult first with traffic bodies.
-  Do not wear too loose clothing as they may get caught in RP/RPU.
-  When starting the tractor motor, be properly seated in the operator seat and aware of the complete knowledge of correct and safe handling of both the tractor and RP/RPU.
-  Always put the gear shift in neutral position, unplug the power take-off gear switch and place the hydraulic controls in neutral position.
-  Do not start the motor in a closed environment or with no proper ventilation since the exhaust gases are harmful to health.
-  When maneuvering the tractor to couple the RP/RPU, make sure you have the necessary space and that there is no one very close, always maneuver at low gear and be prepared to brake in an emergency.
-  When working in sloped terrains, proceed with precautions, always trying to maintain the required stability. In case it starts to unbalance, reduce acceleration and turn the wheels of the tractor to the downward face of the terrain and never lift the RP/RPU.
-  Always drive the tractor in speeds compatible to the safety, especially during works in bumpy lands or slopes, keep the tractor always engaged.
-  When conducting the tractor in highways, always keep the break pedals interconnected and use safety signaling.
-  Do not allow RP/RPU to be used by people who have not been trained, that is, who do not know how to properly operate it.
-  Do not transport or work with RP/RPU around obstacles, rivers or streams.
-  Only operate RP/RPU if all positions are properly installed.
-  Do not remove under any circumstance the protection components of RP/RPU.
-  Do not work with the tractor with a light rear. If the front normally raises, add weights or ballasts to the front of the vehicle or the front wheels.
-  When leaving the tractor, put the gear lever in neutral position and apply the parking brake. Never leave RP/RPU coupled to the tractor in the raised position of the hydraulic system.

▪ Warnings

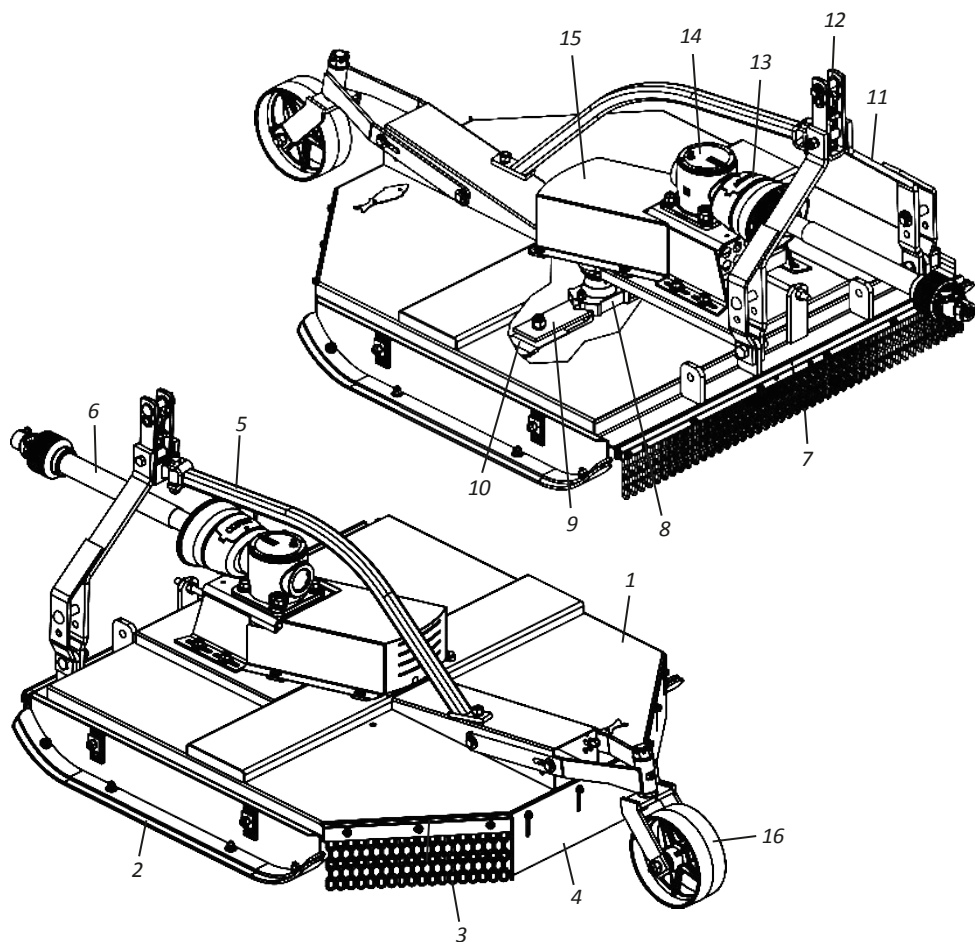
-  The transportation of people on self-propelled machines and implements is forbidden.
-  Alterations of RP/RPU' original characteristics are not authorized since they may change safety, operation and affect service life.
-  Carefully read all safety information in this manual and in RP/RPU.
-  All inspections must be performed while the RP/RPU is parked and turned off and using the safe access means.
-  Access, maintenance and especially inspection in RP/RPU risk zones should only be performed by trained and qualified worker, respecting all safety guidance.
-  Periodically check all RP/RPU components before using it.
-  Due to the equipment used and work conditions on field or in maintenance areas, precautions are required. Baldan does not have direct control over precautions, therefore, it is the owner's responsibility to put into practice the safety procedures while working with RP/RPU.
-  All maintenance on the RP/RPU shall be carried while the vehicle is parked and with the tractor switched off.
-  Operate the RP/RPU only from the driver's seat. Do not release the controls until the movements are complete.
-  Do not leave the seat before locking the controls to avoid any movement.
-  Regularly check the presence of safety pins and screws. Do not replace with other objects, such as nails, wires, etc.
-  RP/RPU maintenance should only be performed by specialized persons. Before maintenance, disconnect all RP/RPU drive systems.
-  The warranty is immediately void when the RP/RPU installation, adjustment, operation and maintenance instructions are not observed.
-  Unqualified persons and children are prohibited from operating the RP/RPU.
-  Alcoholic beverage or some medications may cause loss of reflexes and change the operator's physical conditions. For this reason, never operate this equipment under the influence any of these substances.
-  Read or explain all the procedures of this manual to the operator who cannot read.

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

Components

• RP - Central and Lateral Mounted Rotary Cutter

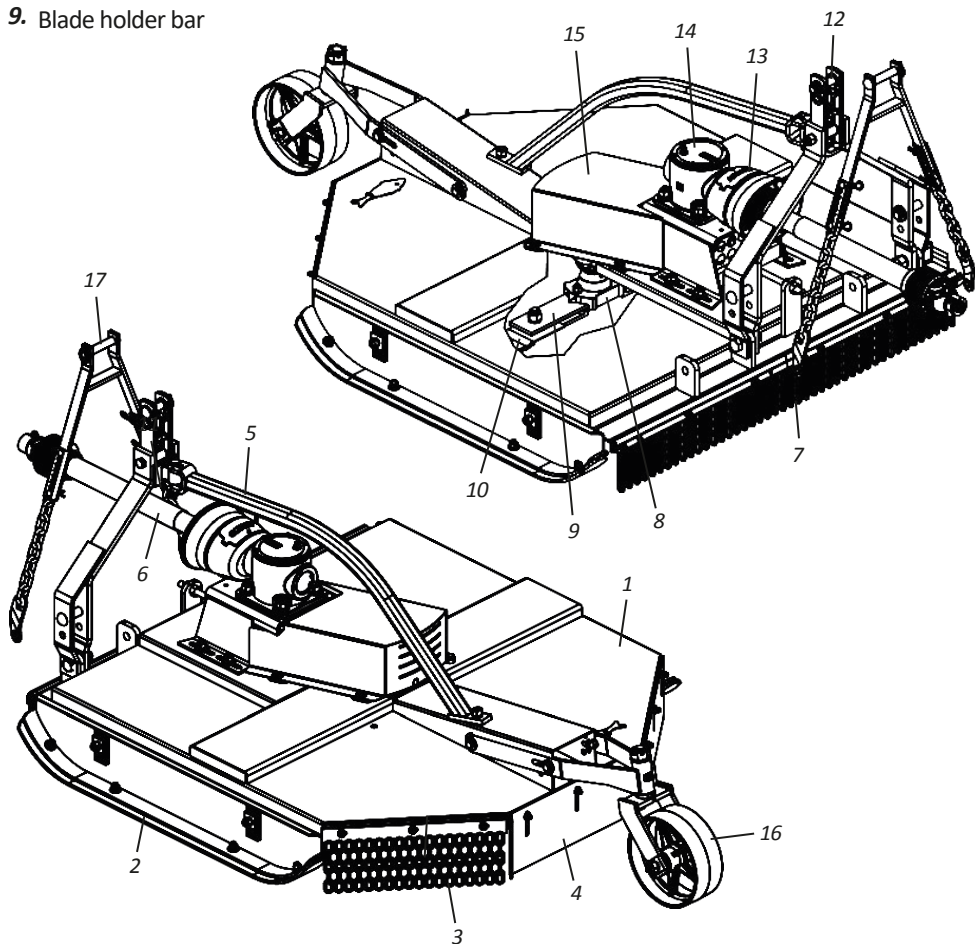
- | | |
|----------------------------|------------------------|
| 1. Blade protection box | 9. Blade holder bar |
| 2. Cutting regulation shoe | 10. Blades |
| 3. Rear guard with chains | 11. Coupling head |
| 4. Rear guard | 12. Hook Shackle |
| 5. Head bracing | 13. Guard assembly |
| 6. Cardan | 14. Multiplier gearbox |
| 7. Full stand with chains | 15. Protection plate |
| 8. Blade fixing bearing | 16. Depth wheel |



▪ Components

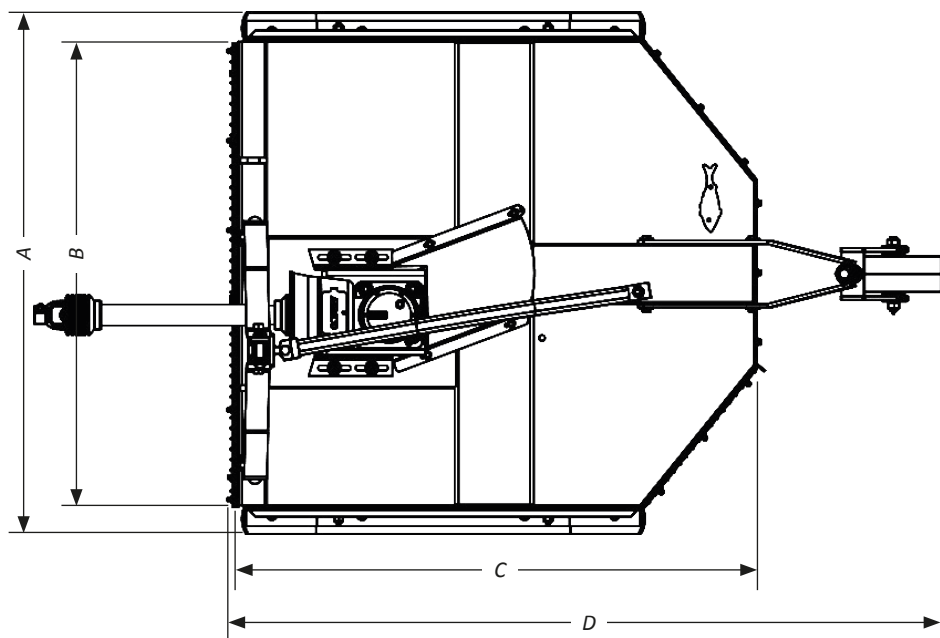
• RPU - Urban Central and Lateral Mounted Rotary Cutter

- | | |
|----------------------------|------------------------------|
| 1. Blade protection box | 10. Blades |
| 2. Cutting regulation shoe | 11. Coupling head |
| 3. Rear guard with chains | 12. Hook Shackle |
| 4. Rear guard | 13. Guard assembly |
| 5. Head bracing | 14. Multiplier gearbox |
| 6. Cardan | 15. Protection plate |
| 7. Full stand with chains | 16. Depth wheel |
| 8. Blade fixing bearing | 17. Height-limiting coupling |
| 9. Blade holder bar | |

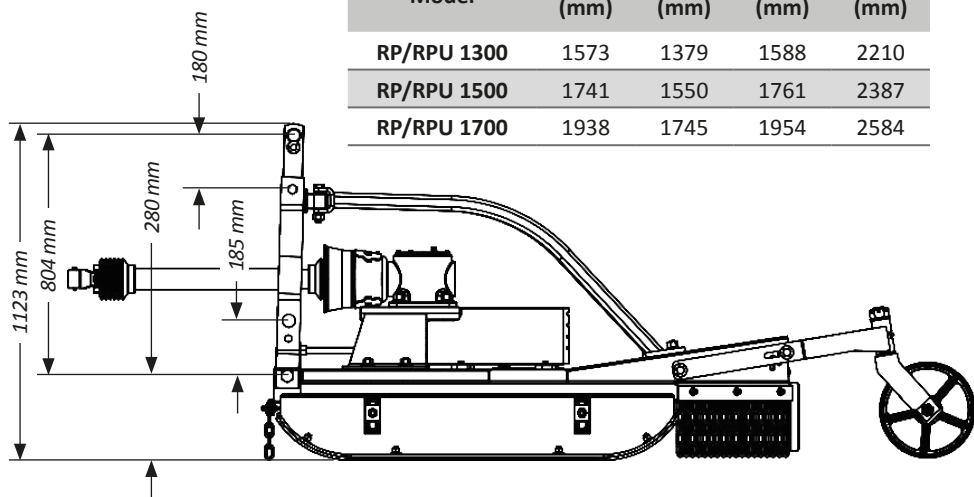


▪ Dimensions

• RP/RPU



Model	A (mm)	B (mm)	C (mm)	D (mm)
RP/RPU 1300	1573	1379	1588	2210
RP/RPU 1500	1741	1550	1761	2387
RP/RPU 1700	1938	1745	1954	2584



▪ Specifications

• RP/RPU - Central and Lateral Mounted Rotary Cutter/Urban

Model	Blade NS	Cutting width (mm)	Cutting height (mm)	Cardan Length (mm)	RPM on PTO	Blade RPM	Weight Approx. (Kg)	Tractor Power (HP)
RP/RPU 1300	2	1300	50-200	500	540	940	460	61
RP/RPU 1500	2	1500	50-200	500	540	940	500	73
RP/RPU 1700	2	1700	50-200	500	540	940	550	73

Baldan reserves the right to change and/or perfect the technical characteristics of its products, without previous notice, and without obligation to proceed in the same way with the products previously manufactured. Technical specifications are approximate and informed under normal work conditions.

RP/RPU INTENDED USE

- **RP/RPU** was developed for the most diverse types of mowing in the most varied types of vegetation.
- **RP/RPU** should only be driven and started by a properly instructed operator.

NON-ALLOWED USE OF RP/RPU

- To avoid damages, severe accidents or death, do NOT transport people on other part of **RP/RPU**.
- The **RP/RPU** may not be used to couple, tow or push other implements or accessories.
- **RP/RPU** should NOT be used by an inexperienced operator who does not knows all the driving, command and operation techniques.

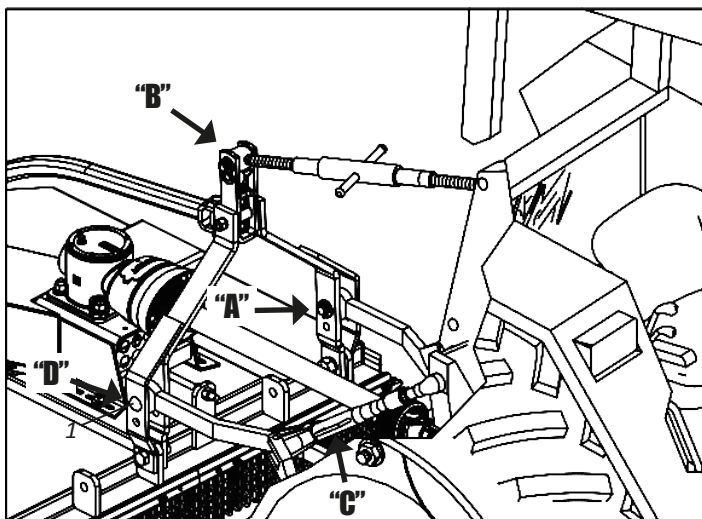
▪ Hitch

Before engaging the **RP/RPU** in the tractor, check if the tractor has weight or ballast sets in the front or rear wheels to avoid lifting the tractor. Rear wheels will give greater stability and soil traction to the tractor.

• **Tractor Hitch - RP**

To couple **RP/RPU**, proceed as follows:

1. Slowly approach the tractor to the **RP** in reverse, paying attention when to use the brakes.
2. Next, use the hydraulic position control lever as you approach the **RP**, leaving the lower left arm at the level of the mower hook.
3. Engage the lower left arm of the tractor through the engaging pin (1) on the "**A**" bracket of the **RP**.
4. Engage the 3rd point of the tractor in bracket "**B**" of the **RP**.
5. Then, using the adjusting lever "**C**", engage the lower right arm of the tractor in the "**D**" bracket of the **RP**.



ATTENTION

When lifting the tractor hydraulics, check the hydraulic height limit so that the tractor does not touch the top of the blade box. Hydraulic lift varies according to the tractor model.



OBSERVATION

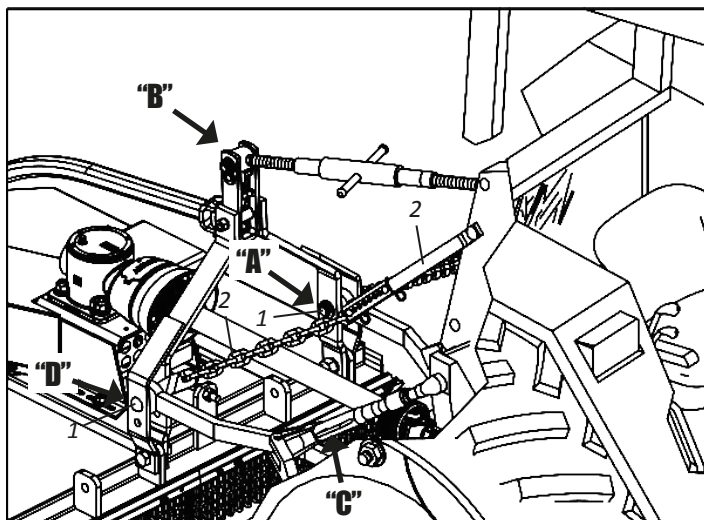
When hitching **RP/RPU** up, look for a safe place and easy access, always use low gear with low acceleration.

Before engaging **RP/RPU** in the tractor, check if the tractor has weight or ballast sets in the front or rear wheels to avoid lifting the tractor. Rear wheels will give greater stability and soil traction to the tractor.

• Tractor Hitch – RPU

To couple **RP/RPU**, proceed as follows:

1. Slowly approach the tractor to the **RPU** in reverse, being aware when to use the brakes.
2. Then use the hydraulic position control lever as you approach the **RPU**, leaving the lower left arm at the level of the mower hook.
3. Engage the lower left arm of the tractor together with the limiter clutch plate (2) securing with the pin (1) on the "A" bracket of the **RPU**.
4. Engage the 3rd point of the tractor in the "B" support of the **RPU**.
5. Then, using the adjusting lever "C", engage the lower right arm of the tractor together with the limiting coupling plate (2) by fastening with the pin (1) on the "D" side of the **RPU**.



ATTENTION

When lifting the tractor hydraulics, check the hydraulic height limit so that the tractor does not touch the top of the blade box. Hydraulic lift varies according to the tractor model.

OBSERVATION

When hitching **RP/RPU** up, look for a safe place and easy access, always use low gear with low acceleration.

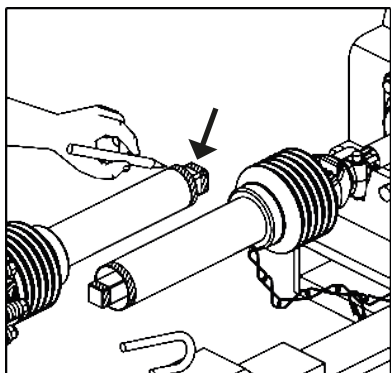
Before engaging the cardan, check the length of the tractor with respect to the tractor model that will pull the rotary cutter.

• Cardan length adjustment

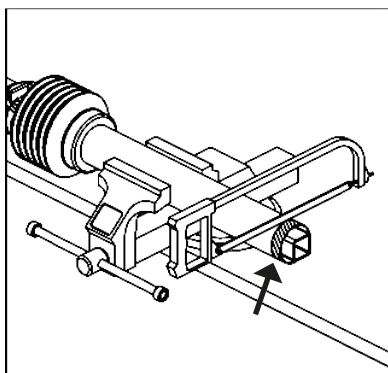
! IMPORTANT

Before cutting the cardan, check the adjustment of the tractor's drawbar, which can increase or decrease its compliance, avoiding the cardan cut.

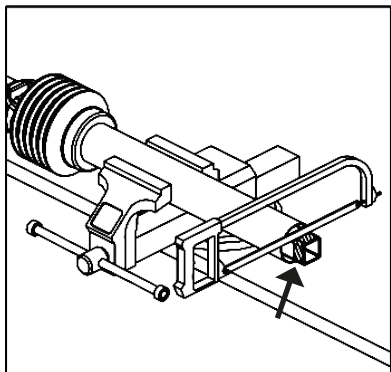
To perform the cardan cut, proceed as follows:



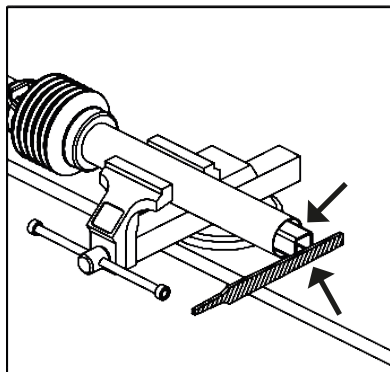
Secure the shaft halves from the shaft close to each other in the working position and mark the part to be cut.



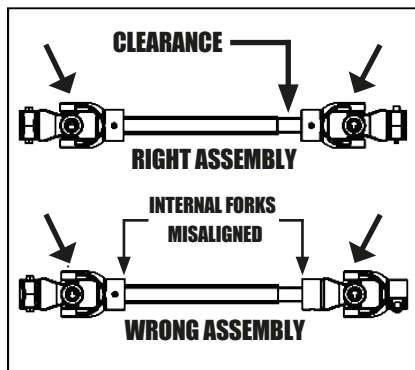
Shorten the inner and outer guards of the cardan proportionally.



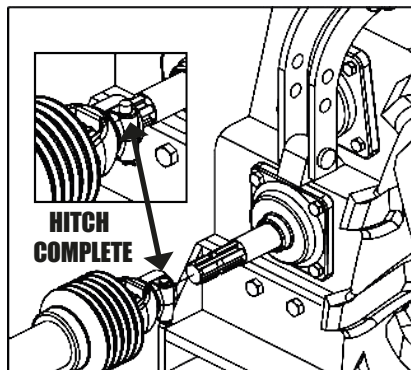
Cut the inner bars of the cardan in the same length as the protective tubes.



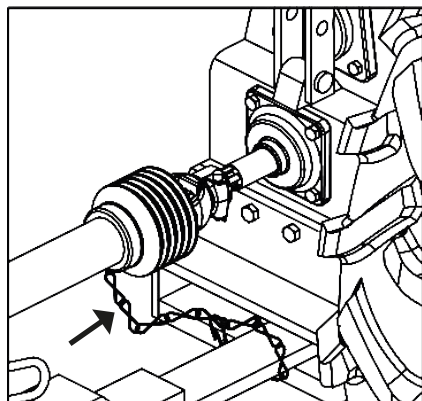
Remove all burrs and edges. Clean and grease the cardan sliding bars.



When assembling, observe that the internal and external terminals are always in the same plane, aligned. Also check the clearance on the telescopic axle, which should be of 5 to 7 cm.



Attach the flange to the TDP axle of the tractor observing that the engagement will only be completed when the lock (1) jumps out.



Do not connect the cardan chains while they are stretched. Keep a gap in the installation and consider angular movements.

! IMPORTANT

Every time you change the tractor, check the cardan shaft length again.

🔍 OBSERVATION

Check the cardan joint angle on page 25 and other recommendations for using it.

! ATTENTION

Incorrect mounting of the cardan causes excessive vibration, which is harmful to the transmission.

When engaging the cardan in the TDP, the tractor must be switched off with the parking brake applied.

▪ Adjustments

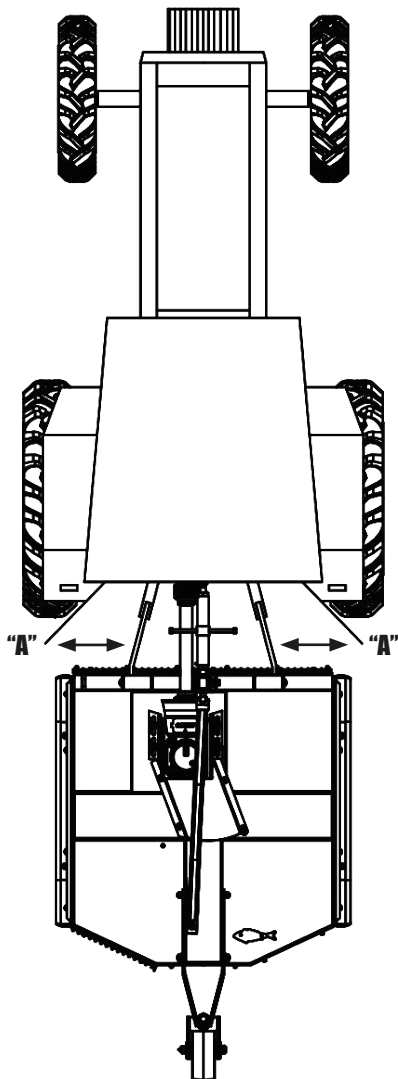
• Centralization

To center the **RP/RPU** relative to the longitudinal axis of the tractor, proceed as follows:

01 - Align the top link of the **RP/RPU** with the 3rd point of the tractor.

02 - Then lift the **RP/RPU** completely.

03 - Next, check that the distances "A" of the lower hydraulic arms are equal to the tractor tires. The lower arms should be level with each other.



ATTENTION

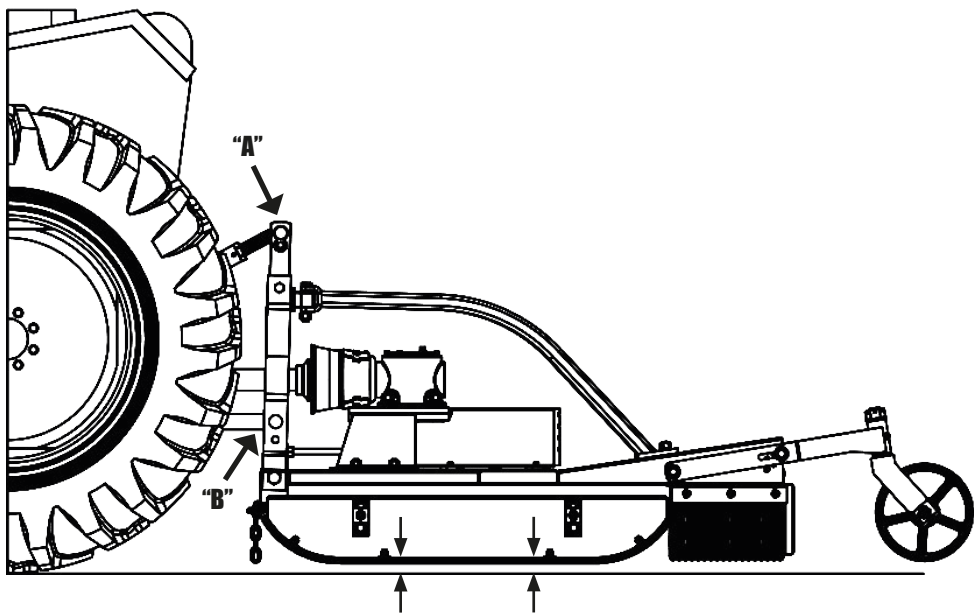
Never adjust the tractor's lower hydraulic arms with the **RP/RPU** down.

▪ Adjustments

• Leveling

To level **RP/RPU** in relation to the longitudinal axis of the tractor, proceed as follows:

- 01 - First, the tractor must be in a flat location.
- 02 - Then, through the upper arm "A" and lower right "B", which have adjustments, level the **RP/RPU**.



ATTENTION

Check the clearance on the cardan, which should be of 5 to 7 cm. If there is no gap, adjust the length of the gimbal as instructed on pages 19 and 20.

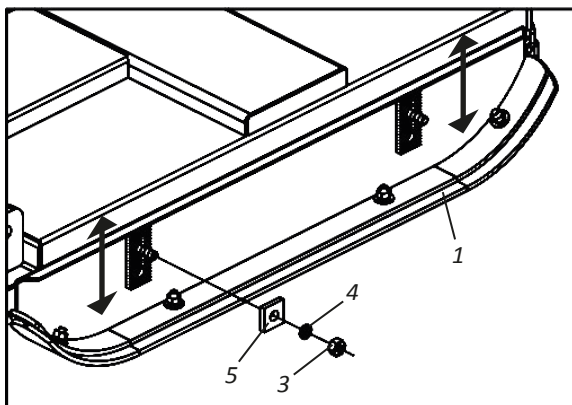
▪ **Adjustments**

• **Cutting height adjustment**

The cutting height of the **RP/RPU** is regulated by the side shoes (1) and the rear wheel (2). To adjust the cutting height, proceed as follows:

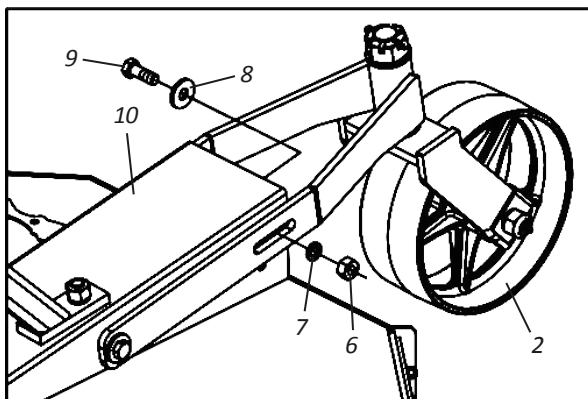
SIDE SHOES

1. Loosen the nuts (3), pressure washers (4), and grooved plates (5).
2. Then adjust the side shoes (1) by positioning them at the desired height.
3. Then, retighten the grooved plates (5) through the pressure washers (4) and nuts (3).



REAR WHEEL

- 4 - After regulating the side shoes (1), loosen the nuts (6), pressure washers (7), flat washer (8), and remove screws (9).
- 5 - Then adjust the rear wheel (2) by positioning it at the desired height through the bracket bore hole (10).
- 6 - Finish by replacing screws (9), flat washers (8), pressure washers (7), and nuts (6), retightening them.



⚠ ATTENTION

We recommend a cutting height of at least 50 mm above the ground.

▪ Adjustments

• Working position

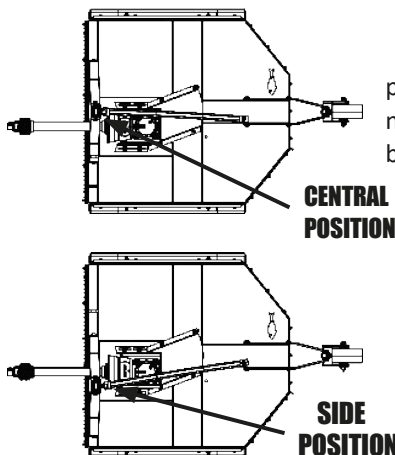
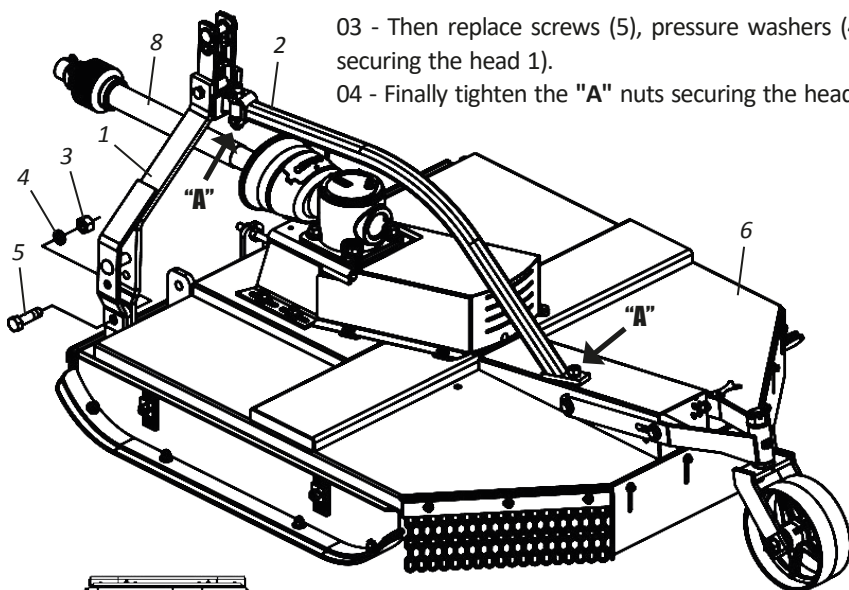
RP/RPU can work in the center and lateral position relative to the tractor. To adjust head position (1), proceed as follows:

01 - Loosen the "A" nuts securing the header holder (2) and they do not need to be removed.

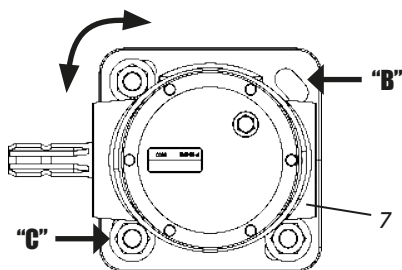
02 - Then remove the nuts (3), locking washers (4), screws (5) and move the header (1) to the other bracket of the blade box (6).

03 - Then replace screws (5), pressure washers (4) and nuts (3) securing the head 1).

04 - Finally tighten the "A" nuts securing the header bracket (2).



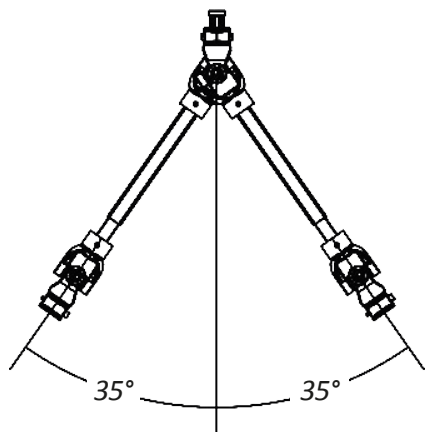
The multiplier box (7) has oblong holes "B". When positioning the header holder (2) in the lateral position, if necessary, loosen the screws "C" and turn the multiplier box (7) to better position the cardan (8).



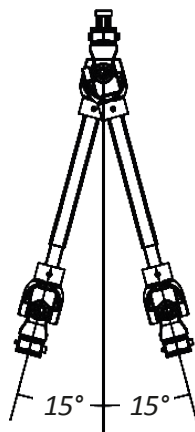
▪ Operations

• Cardan recommendations

The cardan is limited in its maximum angle of articulation. This angle, with a running cardan, can reach a maximum of 35° for a short period of time. In continuous work, it should not exceed 15° .



IN A SHORT PERIOD OF TIME



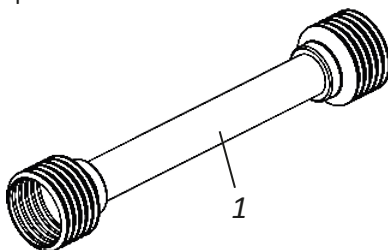
IN CONTINUOUS WORK



ATTENTION

Never engage the TDP when the joint is at an angle greater than 15° . When maneuvering with TDP off, never exceed 35° of pivot angle, this may occur in transport paths or maneuvers in warehouses with the coupled cardan.

Safety protection (1) is a fundamentally important component for the user's personal safety and for the cardan shaft's lifespan.



IMPORTANT

Do not work with the RP/RPU if the cardan is not protected (1). Ignoring this warning may cause cardan damages or severe accidents.

▪ Operations

• Recommendations for operation

- 01 - Before starting work, thorough review the **RP/RPU**. The oil level of the multiplier must be filled, and nuts and screws must be retightened. Also check the locking of pins and cotters.
- 02 - The ideal work rotation is **540 rpm for TDP**. Check the corresponding rotation on the motor, in the tractor manual. This rotation on the traction motor changes from tractor to tractor.
- 03 - For best performance, we recommend cutting height **at least 50 mm** above ground.
- 04 - To ensure a good work result, the site that will be cleared must be free of stones and stumps.
- 05 - First, put the blades in operation and then start cutting the vegetation.
- 06 - Do not connect TDP with blades caught in dirt mounds, sticks or stumps, objects can be projected and cause serious injury.
- 07 - During work, maintain a constant motor rotation, avoiding the tractor's average speed variation to avoid inefficiency or product distribution failures.
- 08 - To engage or uncouple the cardan, the TDP must be switched off.
- 09 - During work do not vary the speed of the tractor, this causes inefficient cutting. Keep the average speed and keep it in the middle of the work. Recommended average speed is **4 to 6 km/h**.
- 10 - In excessively corrugated soils, adjusting the cutting height should prevent the blades from excessively touching the ground.
- 11 - The lower arms of the tractor must be adjusted with the **RP/RPU** fully erected. In
- 12 - high density vegetation, we recommend the use of reduced gear, maintaining the rotation in the **TDP at constant 540 rpm**.
- 13 - When transporting or performing maintenance/inspection, keep the power outlet off.
- 14 - Stop and turn the equipment off if there are people within **50 meters**.

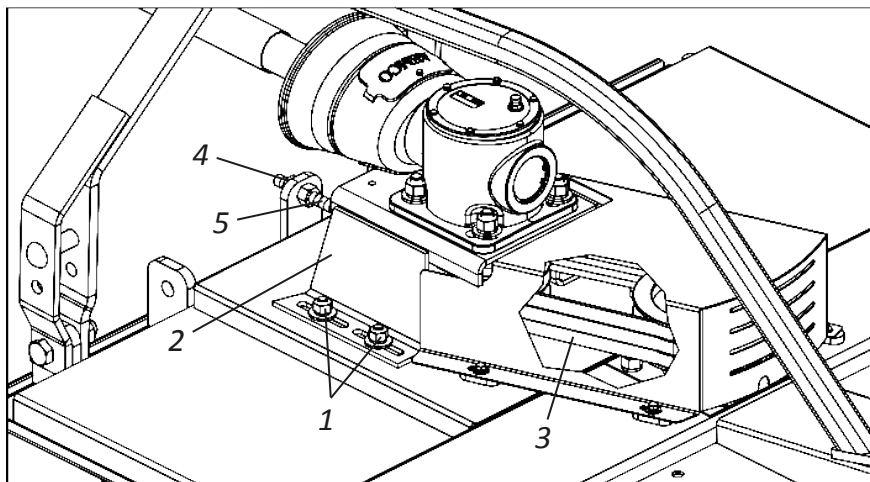
In case of doubts, never operate or handle RP/RPU, refer to Post-Sales.
Telephone: 0800-152577 / E-mail: posvenda@baldan.com.br

▪ Maintenance

• Belt tension

The **RP/RPU** have belts that should be checked daily for their tension. To adjust belt tension, proceed as follows:

- 01 - Loosen the nuts (1) by unlocking the bracket (2).
- 02 - Then tighten the belt tension (3) tightening the nut (4) of the tensioner (5).
- 03 - Then retighten the nuts (1) by locking the bracket (2).



ATTENTION

Check the belt tension in the first hours of work, then perform a daily check.

If the belts wear out, replace them immediately.

Do not run **RP/RPU** with loose chains.

The chain clearance should be of ± 1 cm in its center.



IMPORTANT

Before adjusting the tensioning of the belts, make sure that the tractor is switched off, if it is not, switch it off and remove the ignition key.



OBSERVATION

Adjusting the tension of the belts must be done to avoid excessive slippage during work.

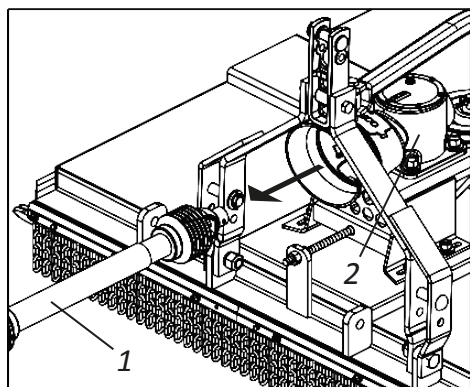
If a large volume of vegetation is encountered or if there is excessive cutting resistance, decrease the working speed or try to cut on a narrower range.

■ Maintenance

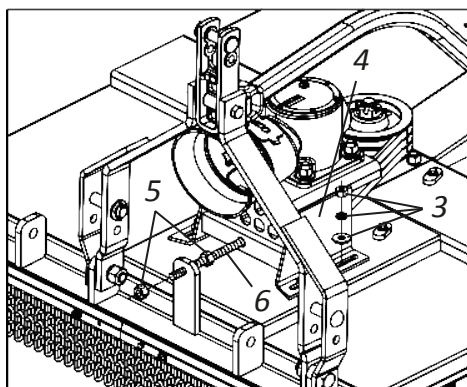
• Pulley nut adjustment

Between 50 and 70 hours of use of the **RP/RPU**, the pulley nut must be tightened. To do this, proceed as follows:

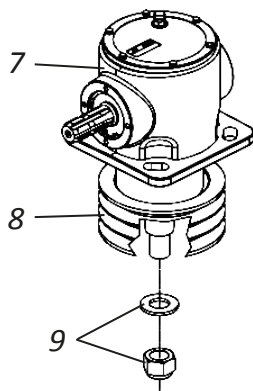
01 - Disengage the cardan (1) from the gearbox (2).



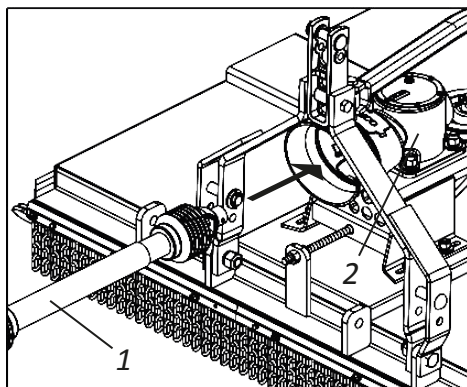
02 - Then, loosen washers and nuts (3) from the support (4) and the nut and locknut (5) together with the tensioner (6).



03 - Then, remove the gearbox (7) together with the pulley (8). Then, loosen the washer and nut (9), lock the pulley (8) and tighten the washer and nut (9) as necessary.



04 - Then reassemble all the components and finish fitting the cardan (1) in the multiplier gearbox (2).



ATTENTION

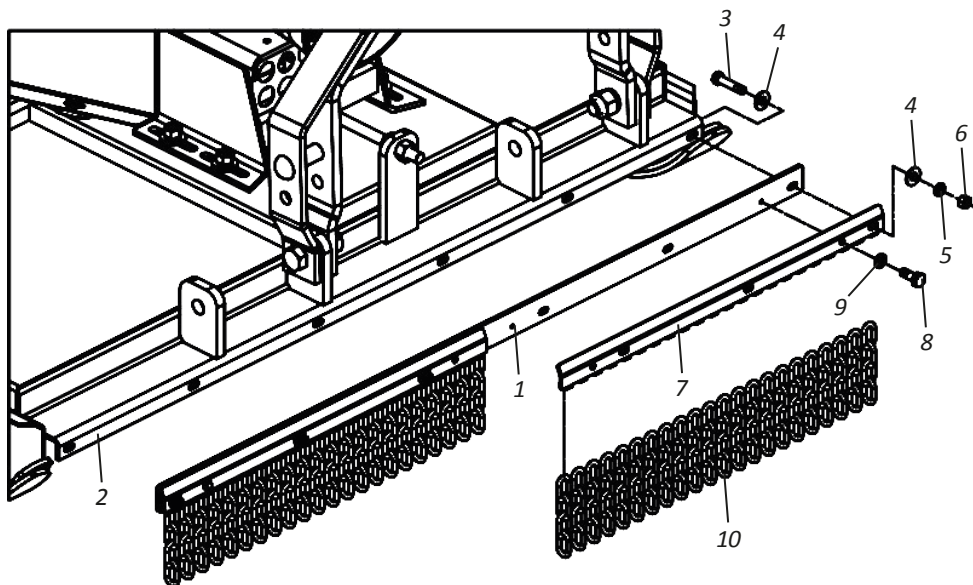
Check the pulley setting when changing the belt set.

▪ Maintenance

• Front guard

RP/RPU have a front guard. Periodically check its conservation status of the hoses, if necessary, replace it, following these instructions:

1. Loosen the chain guard (1) of the blade protection box (2) through the screws (3), flat washer (4), pressure washers (5), and nuts (6).
2. Then, release the fastening plate from the chains (7) through the screws (8) and pressure washer (9).
3. Then replace damaged chains (10).
4. Finish by reassembling the chain holder (1) into the blade guard box (2).



ATTENTION

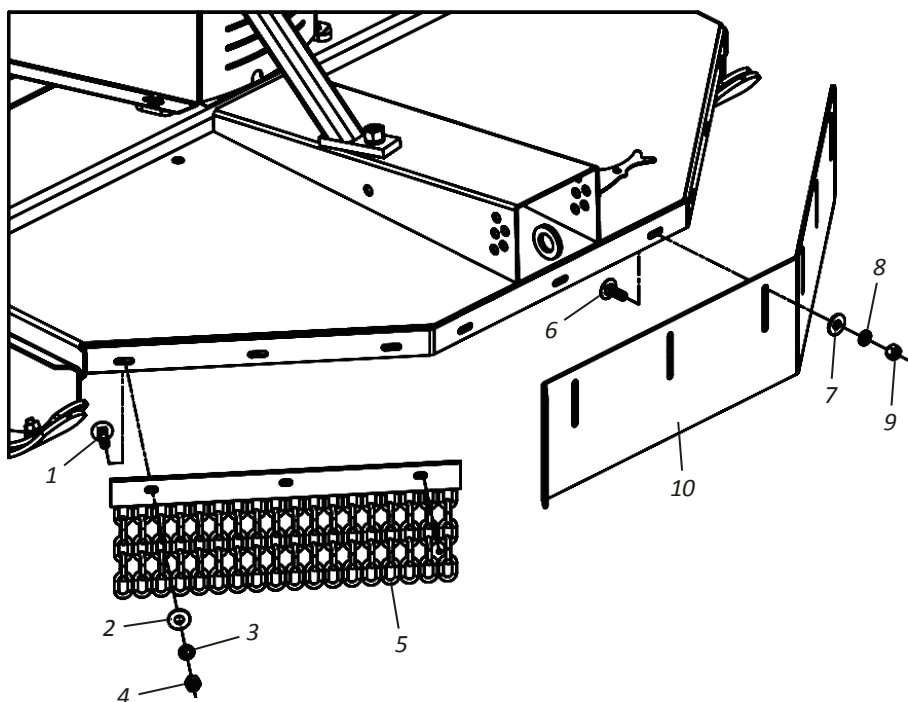
Do not operate the RP/RPU without the front guards. Ignoring these warnings may cause severe accidents or death.

▪ Maintenance

• Rear guard

RP/RPUs have back guards that can be composed of chain and plate or all chains (**optional**). Periodically check os conservation status of the hoses, if necessary, replace it, following these instructions:

1. Loosen the screws (1), flat washers (2), pressure washers (3), nuts (4) and replace the rear guard with chains (5).
2. Then, engage the rocker arms fixing bracket (5), securing them through screws (1), plain washers (2), pressure washers (3), and nuts (4).
3. Next, loosen the screws (6), plain washer (7), pressure washers (8), nuts (9) and replace the plate(10).
4. Then, secure the plate (10) through screws (6), plain washers (7), pressure washers (8), and nuts (9).



Do not operate the RP/RPU without the rear guards. Ignoring these warnings may cause severe accidents or death.

▪ Maintenance

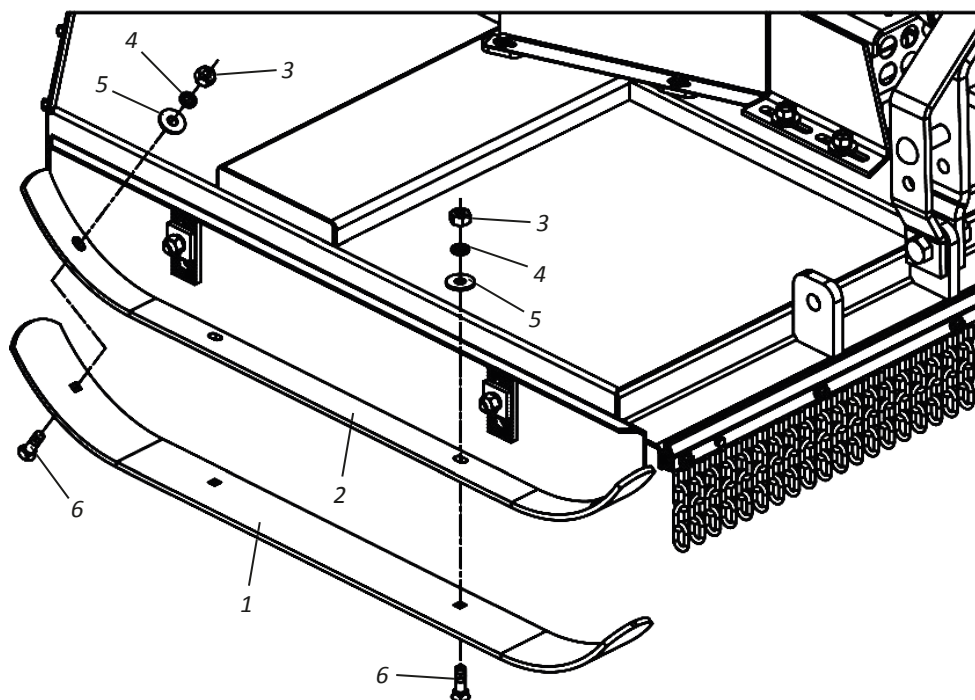
• Replacement of side shoe guide plates

Check periodically for wear on the guide plates (1) of the side shoes (2) of the RP/RPU, and replace them if necessary. To adjust the guide plates (1), proceed as follows:

01 - Loosen the screws (3), pressure washers (4), flat washer (5) and screws (6).

02 - Then replace the guide plates (1).

03 - Then secure it with screws (6), flat washer (5) and screws (6).



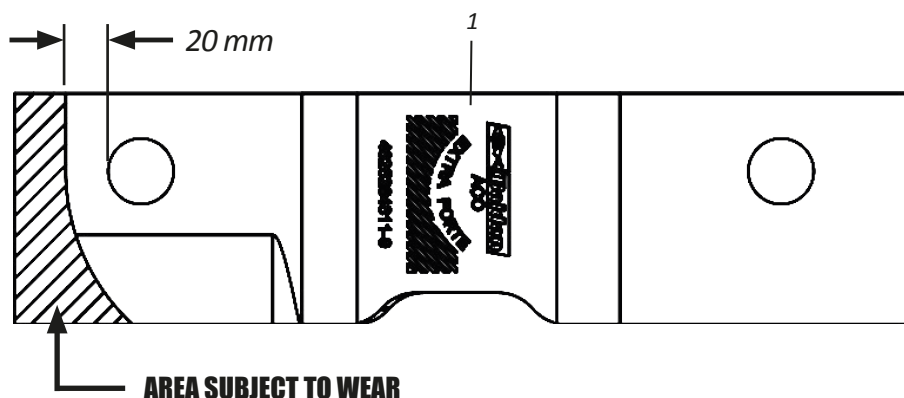
ATTENTION

If there is wear on the bolts, washers and nuts, replace them. Ignoring these warnings may cause severe accidents or death.

▪ Maintenance

• Blade wear

RP/RPU blades are reversible. Before starting the work, do a thorough review on the rotary cutter especially on the blades so that no wear will affect the hole, which should have a 20mm wall. If the wear affects the hole or the wall becomes too thin, we recommend the replacement of the blade immediately because it will not have the necessary safety, thus creating a risk of accidents.



M

ATTENTION

Keep away from the rotating elements especially of the knives until the movement of the knives is interrupted.
In the breaking of the knives, arrange the exchange immediately.
Ignoring these warnings could result in serious injury or death.

IMPORTANT

Always keep blades sharp to increase performance and require less tractor effort.
In the event of any loss or breakage of any of the rotating elements, they must be replaced immediately to avoid vibrations and consequently damage to the cutter and work failure.

▪ **Maintenance**

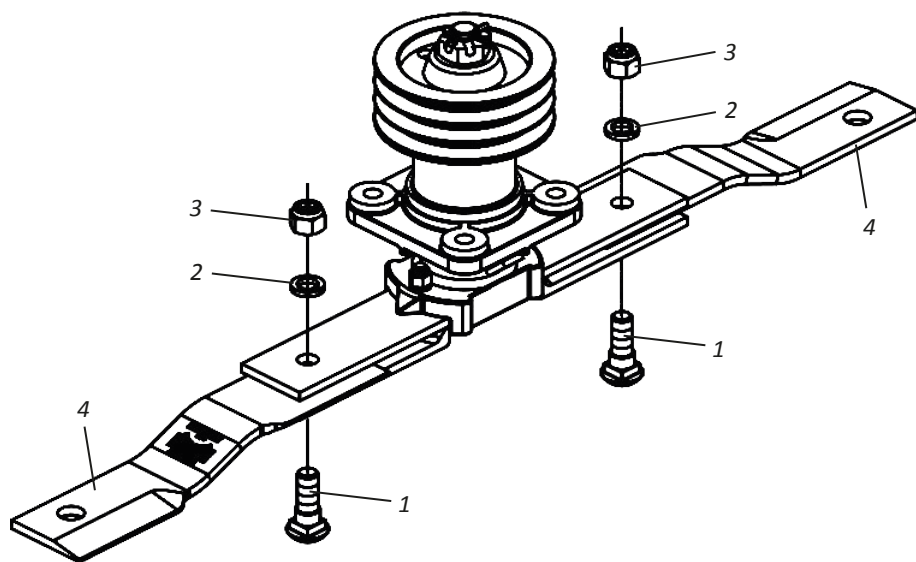
• **Blade replacement**

Before each use of the **RP/RPU**, inspect the blades for proper operation and proper installation. Have the blades replaced if they are broken, bent, over-worn, or otherwise damaged. In addition, replace the blades when you notice imperfections in the cut. To replace the blades, proceed as follows:

01 - Loosen the screws (1), pressure washers (2), and nuts (3).

02 - Then replace the blades (4).

03 - Then, secure them again with screws (1), pressure washers (2), and nuts (3).

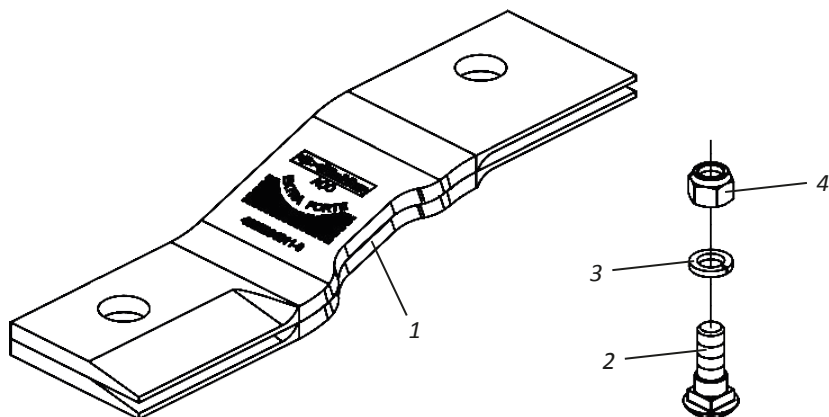


⚠ ATTENTION

When changing blades, always change torque avoiding RP/RPU damage because of unbalance. Always use original Baldan blades.

⚠ IMPORTANT

Periodically check the condition and tightness of the blades' set screws and nuts. Ignoring this warning may cause severe accidents or death.



OBSERVATION | When replacing blades (1), replace screws (2), pressure washers (3), and nuts (4).

ATTENTION | When replacing the blades (1), note that they are supplied in pairs, which must be retained until they are mounted to the RP/RPU cube. Unbalanced blades can cause excessive vibration and damage bearings, retainers and the transmission case. The weight variation between these blades (1) is within the tolerance limit.

▪ Maintenance

RP/RPU has been developed to provide you with the maximum yield on land conditions. Experience has shown that periodic maintenance of certain parts of **RP/RPU** is the best way to help you avoid problems, so we suggest verification.



ATTENTION

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

• Lubrication

Lubrication is indispensable for a good performance and greater durability of **RP/RPU** moving parts, contributing to the maintenance cost savings.

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

• Table of greases and equivalents

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

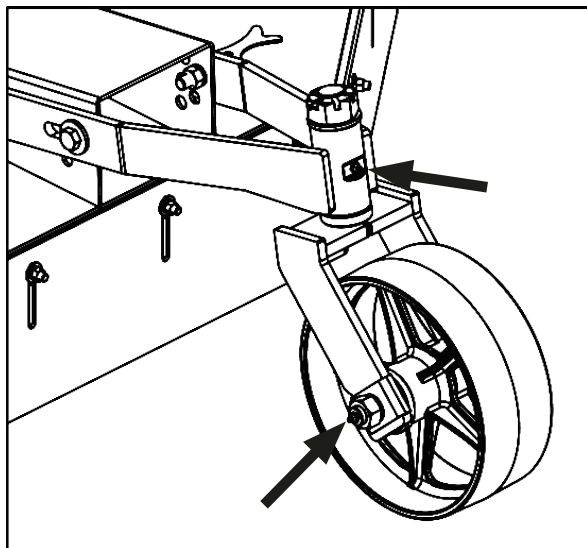


ATTENTION

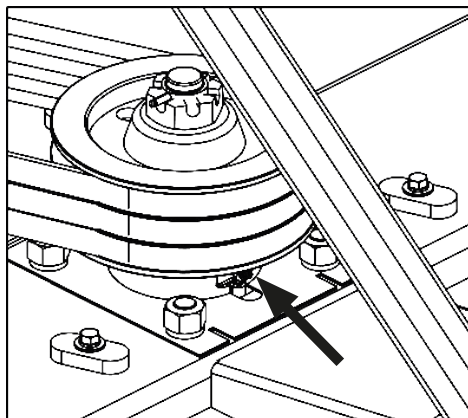
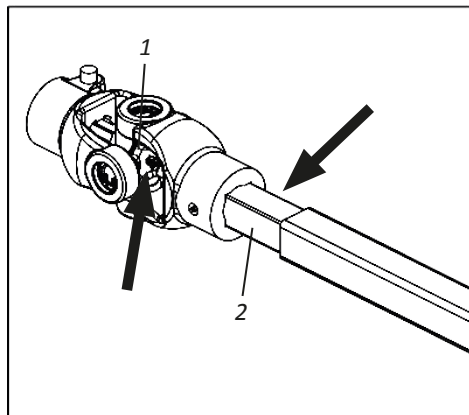
If there are equivalent manufacturers and/or brands that are not listed in the table, consult the manufacturer's technical manual.

▪ Maintenance

- Lubrication every 8 hours of work



Lubricate the crossbars (1) with grease at 8-hour intervals. The telescopic axle (2) must be lubricated weekly.



ATTENTION

When lubricating RP/RPU, do not exceed the amount of new grease. Put an enough amount.

▪ Maintenance

• Oil change

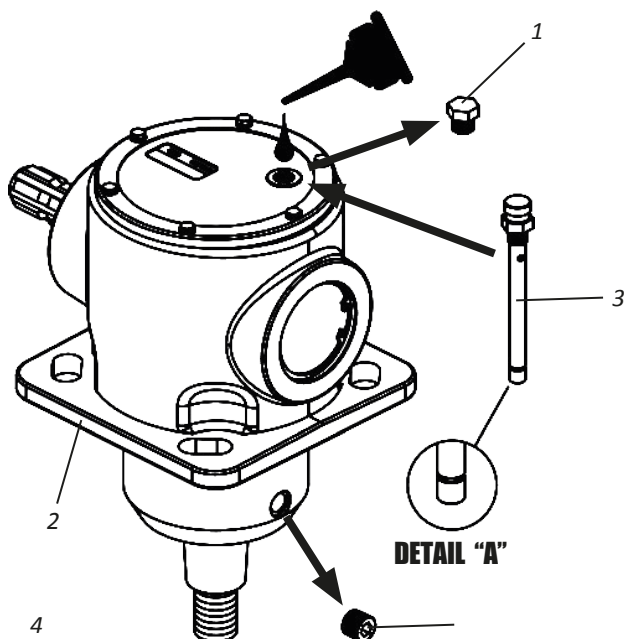
Before putting the **RP/RPU** into operation, remove the plug (1) from the gearbox (2) and place the vent with the dipstick (3) in its place.

Periodically check the level of the gearbox (2) for this, proceed as follows:

01 - Place the **RP/RPU** in a flat location.

02 - Then place the vent with dipstick (3) into the hole without threading it.

03 - Then remove the breather with dipstick (3) and check the level marker as shown in **detail "A"**, if there is a complete need or change the oil.



ATTENTION

Replace the oil every 600 hours of work using 1.65 liters. Only use the specified oil: SAE 90EP.



IMPORTANT

To drain all the gearbox oil (2), remove the drain plug (4).



OBSERVATION

When using a specific oil brand, avoid completing the oil level with different brand and specification.

▪ Maintenance

• Storage

Before storing the **RP/RPU**, remove the cardan and store it in a covered, dry place. Check all transmission components, if necessary, replace any worn or damaged parts. **Always demand Baldan original parts.**

• Post storage

Before returning work with the **RP/RPU**, lubricate all components and check the oil level.

• Operational Maintenance

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
No cutting	Blades worn or broken	Replace blades (pairs only) as instructed on pages 33 and 34
	TDP rotation is incorrect	Correct rotation 540 Rpm
	Excessive speed	Reduce work speed
	Blades do not spin when TDP is running	Check the drive shaft connection
	Multiplier box is not working properly	Repair the multiplier box
	Direction of rotation of the blades	Make sure the correct side of the cut of the blades and the direction of rotation of the multiplier box
Irregular cut	Blades worn or broken	Replace blades (pairs only) as instructed on pages 33 and 34
	Excessive speed	Reduce work speed
	Excessive cutting height	Lower cutting height
	Vegetation of great density and of excessive height	Use reduced speed
	Leveling the cutter is not correct	Correct adjustment of the trimmer according to instructions on page 22
Cutter is Noisy	Loose components	Check all the screws and tighten
	Low oil of the multiplier box	Check oil level as instructed on page 37

▪ Maintenance**• Operational Maintenance**

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Vibration	Broken blades	Replace blades (pairs only) as instructed on pages 33 and 34
	Incorrect cardan length	Check the length of the cardan
	Cardan shaft crosshead assembly	Check the correct mounting of the cardan brackets
Tip and blades wear too fast	Blades are touching the ground	Adjust and operate it at a height that will eliminate contact with the ground
	The cutter is not operating at the correct TDP speed	Keep the correct speed of the TDP

▪ Maintenance

• Cares

- 01 - Before each work, check the condition of all pins, screws, multiplier box and blades. Where necessary, retighten or replace them.
- 02 - At every 8 hours of work, retighten screws and nuts.
- 03 - The displacement speed should be carefully controlled according to the land's conditions.
- 04 - **RP/RPU** are used in several applications, requiring knowledge and attention during its handling.
- 05 - Only local conditions can determine the best method of operation of **RP/RPU**.
- 06 - When assembling or disassembling any part of **RP/RPU**, employ proper methods and tools.
- 07 - Observe the lubrication intervals carefully in the various lubrication points of **RP/RPU**.
- 08 - Always check if the parts presents wear and tear, specially the blades. If there is a need for replacement, **always demand Baldan original parts**.



IMPORTANT

Proper and periodical maintenance are necessary to guarantee a long useful life of RP/RPU.

▪ **Maintenance**

• **General cleaning**

- 01 - When storing **RP/RPU**, perform a general cleaning and thoroughly wash only with water. Make sure the paint has not worn out, if this has happened, give it a general coat, apply the protective oil and fully lubricate the **RP/RPU**.
- 02 - Completely lubricate the rotary cutter. Check all moving parts of **RP/RPU**, if they present wears or gaps, make the required adjustment or replace the parts, leaving the machine ready for the next work.
- 03 - When the **RP/RPU** is not in use, clean any residues after use as grass, dirt, crop residues, etc.
- 04 - Spray the entire **RP/RPU** with preservation oil, never use burned oil.
- 05 - Replace all adhesives, especially those about warnings, that are damaged or missing. Make everyone aware of the importance and risks of accidents when instructions are not followed.
- 06 - Clean the cardan every 15 days or sooner if necessary.
- 07 - Remove the protective caps, separate "male" from "female" threads, wash and remove crusts, dry and lubricate the sliding parts with grease and reassemble.
- 08 - After all maintenance precautions, store your **RP/RPU** in a plain surface, covered and dried location, away from animals and children.
- 09 - We recommend washing the **RP/RPU** with water only in the beginning of works.



ATTENTION

Do not use chemical products to wash **RP/RPU**, it may damage its painting.

• **Rotary cutter conservation - Part I**

To extend the service life and appearance of **RP/RPU**, follow the instructions below:

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

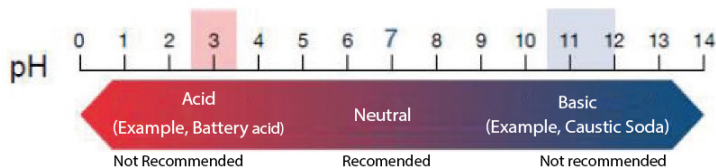
• **Rotary cutter conservation - Part II**

The practices and precautions below if adopted by the owner or operator make the difference for the conservation of **RP/RPU**.

- 01 - Be careful when performing high-pressure washing;

▪ Maintenance

- 02 - Use only NEUTRAL detergent and water (pH equal to 7);
- 03 - Apply the product, following the manufacturer's instructions strictly, on the wet surface and in the correct sequence, respecting the time of application and washing;
- 04 - Stains and dirt not removed with the products should be removed with the aid of a sponge.
- 05 - Rinse the machine with clean water to remove any chemical residues.
- 06 - Do not use:
 - Detergents with a basic active ingredient (pH less than 7) can damage/stain the paint on the harrow.
 - **Detergents with acid active ingredient (pH less than 7), act as stripper/remover of zinc coating (the protection of parts against oxidation).**



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

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

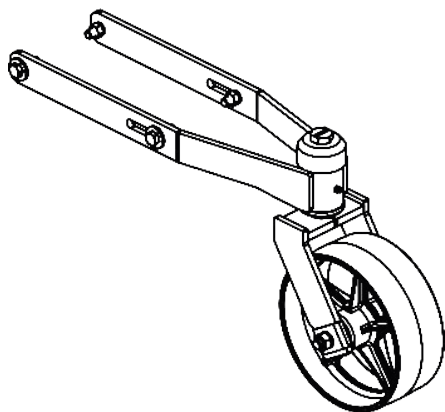
! IMPORTANT | We recommend the following protective oils:
 Bardahl: Agro protective 200 or 300
 ITWChemical: Zoxol DW - Series 4000

🔍 OBSERVATION | Ignoring the conservation measures mentioned above may result in the loss of warranty for painted or zinc-coated components which may exhibit oxidation (rust).

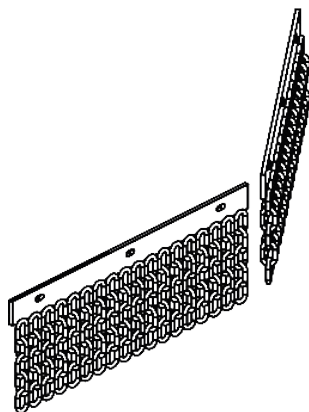
▪ Optional

• Optional accessories

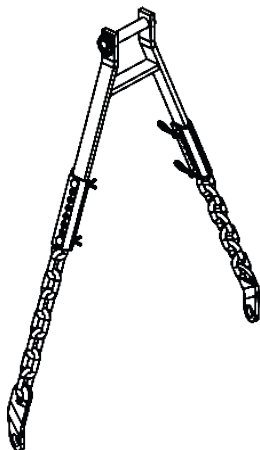
RP/RPU rotary cutters has optional features which can be acquired according to the work requirement.



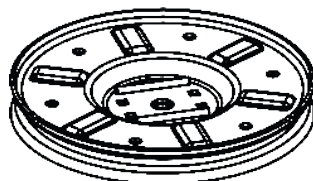
**DEPTH WHEEL WITH BEARING
(MODEL RP/RPU)**



**REAR GUARDS WITH CHAINS
(MODEL RP/RPU)**



**HEIGHT LIMITER
(MODEL RP)**



**ROTATING TRAY
(MODEL RP/RPU)**

■ Identification

• Identification plate

To consult the parts catalogue or request Baldan technical assistance, always identify the model (1), serial number (2) and manufacture date (3), which can be found on the **RP/RPU** identification plate (4).

 BALDAN BALDAN IMPLEMENTOS AGRÍCOLAS S/A. AV. BALDAN, 1500 NOVA MATÃO CEP 15.993-900 MATÃO-SP BRASIL FONE: (16) 3221-6500 CNPJ: 52.311.347/0009-06 CREA/SP 0170977		
01 → Modelo / Model		Data / Date → 03
02 → Nº de Série / Serial Number		Tipo / Type
Capacidade / Load Capacity		Peso / Weight

ATTENTION

The drawings in this Instruction Manual are merely illustrative.

CONTACT

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

Telephone: 0800-152577

Email: posvenda@baldan.com.br



PUBLICATIONS

Code: 60550100889 | CPT: RP03020L



▪ Identification**• Product identification**

Please make the correct identification of the data below, to always have information about the service life of your equipment.

Owner: _____

Reseller: _____

Farm: _____

City: _____

State: _____

Certificate of Warranty no.: _____

Implement: _____

Serial No.: _____

Date of purchase: _____

Invoice: _____

■ Notes

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■ Notes

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

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

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

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

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

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

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

▪ Inspection and delivery certificate

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

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

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

Implement: _____ Serial Number: _____

Date: _____ Fiscal Number: _____

Reseller: _____

Phone: _____ Zip Code: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City : _____ State: _____

Email: _____

Date of sale: _____

Reseller Signature / Stamp _____

1st copy - Owner

▪ Inspection and delivery certificate

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

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

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

Implement: _____ Serial Number: _____

Date: _____ Fiscal Number: _____

Reseller: _____

Phone: _____ Zip Code: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City : _____ State: _____

Email: _____

Date of sale: _____

Reseller Signature / Stamp _____

2nd copy - Dealer

▪ Inspection and delivery certificate

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

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Implement: _____ Serial Number: _____

Date: _____ Fiscal Number: _____

Reseller: _____

Phone: _____ Zip Code: _____

City: _____ State: _____

Owner: _____

Phone: _____

Address: _____ Number: _____

City : _____ State: _____

Email: _____

Date of sale: _____

Reseller Signature / Stamp _____

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

1.74.05.0059-5

AC MATÃO
ECT/DR/SP

RESPONSE CARD

NO STAMPING IS REQUIRED

THE STAMP WILL BE PAID BY:



BALDAN IMPLEMENTOS AGRÍCOLAS S/A.

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

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

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

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

email: export@baldan.com.br



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