

Instruction Manual



RD / RDU 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



RD / RDU 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 normal operation of the tool to the dealer for a period of six (6) months from the delivery date on the resale invoice to the first end consumer.

During this period undertakes **BALDAN** to remedy defects in materials and/or workmanship of their responsibility, and the labour, freight and other expenses are of the responsibility of the dealer.

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

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

After analysing the items replaced by the Technical Assistance of **BALDAN**, and concluded that it is not a warranty issue, so it will be of responsibility of the reseller any costs related to replacement; as well as the cost of materials, travel including accommodation and meals, accessories, lubricant and other expenses resulting from the call to the service, with the **BALDAN** company being authorised to make its billing on behalf of the reseller.

Any repairs made to the product that is within the warranty period of the dealer will only be authorised by with **BALDAN** prior presentation of the budget describing the work of parts and labour to be performed.

It is excluded from this term the product that is repaired or modified in shops that do not belong to the dealer network of **BALDAN**, as well as the use of non-genuine parts or components in the product of the customer.

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

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

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

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

General Information

- To the owner

BALDAN IMPLEMENTOS AGRÍCOLAS S/A, is not liable for any damage caused by accidents arising from the use, transportation or improper or incorrect storage of your tool, whether due to negligence and/or inexperience of any person.

Only persons with full knowledge of the tractor and the tool may carry out the transportation and operation of the same.

BALDAN shall not be liable for any damage caused in unforeseeable or unrelated situations to the normal use of the tool.

The mishandling of this equipment can result in serious or fatal accidents. Before putting the equipment into operation, please read the instructions in this manual. Ensure that the person responsible for the operation is instructed in the correct and safe handling of it. Also make sure that the operator has read and understood the instruction manual of the product.

ATTENTION

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

The purpose of this Regulatory Standard is to establish the precepts to be observed in the organisation and in the work environment, in a manner compatible with the planning and development of agriculture, livestock, forestry, forestry exploration and aquaculture activities with safety and health and work environment.

DEAR OWNER OR OPERATOR OF THE EQUIPMENT.
Please read and follow the NR-31 standard carefully.

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

Safety Standards

- To the operator



ATTENTION

THIS SYMBOL INDICATES AN IMPORTANT SAFETY WARNING. IN THIS MANUAL, WHENEVER YOU FIND IT, PLEASE READ THE MESSAGE BELOW CAREFULLY AND BE ATTENTIVE TO THE POSSIBILITY OF PERSONAL ACCIDENTS.



ATTENTION



Read the instruction manual carefully for recommended safety practices.



ATTENTION



Only start the tractor when you are properly seated and the seat belt is locked.



ATTENTION



Do not carry personnel on the tractor and neither inside nor on the equipment.



ATTENTION



There are risks of serious injury by tipping when working in sloping terrain. Do not use excessive speed.



ATTENTION



Do not work with the tractor if the front has insufficient ballast for rear equipment. If there is a tendency to lift, add weights to the front or front wheels.



ATTENTION



Before carrying out any maintenance on your equipment, make sure that it is properly stationary. Avoid getting 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



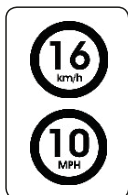
Before beginning the work or transportation of RD/RDU, check if there are people or blockages close to it.

! ATTENTION



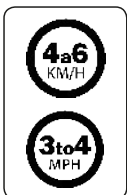
Always maintain places of access and work free of residues such as oil or grease to prevent accidents.

! ATTENTION



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

! ATTENTION



When working with RD/RDU, 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 RD/RDU is in operation. When performing any service on RD/RDU, switch off the tractor first. Use appropriate tools.

! ATTENTION

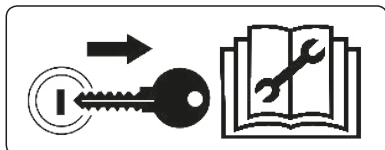


Dispose residues inappropriately affects the environment and the ecology since you will be polluting rivers, canals or the soil. Inform yourself about the proper way of recycling or disposing residues.

PROTECT THE ENVIRONMENT!

Safety rules

ATTENTION



Remove the ignition key before performing any type of maintenance in RD/RDU.

- Protect yourself against possible injuries or death caused by RD/RDU unexpected start-up.
- Do not start up the tractor if RD/RDU 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

! ATTENTION | DO NOT WORK WITH RD/RDU WITHOUT FIRST WEARING PPES (SAFETY EQUIPMENT). IGNORING THIS WARNING MAY CAUSE DAMAGES TO HEALTH, SEVERE ACCIDENTS OR DEATH.

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






















! IMPORTANT

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

















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



Warnings

-  When operating the RD/RDU, 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 RD/RDU is in operation.
-  Do not travel on highways especially at night. Use warning signs throughout the route.
-  If there is needs to traffic with RD/RDU on highways, consult first with traffic bodies.
-  Do not wear too loose clothing as they may get caught in RD/RDU.
-  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 RD/RDU.
-  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 RD/RDU, 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 RD/RDU.
-  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 RD/RDU 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 RD/RDU around obstacles, rivers or streams.
-  Only operate RD/RDU if all positions are properly installed.
-  Do not remove under any circumstance the protection components of RD/RDU.
-  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 RD/RDU coupled to the tractor in the raised position of the hydraulic system.

Warnings

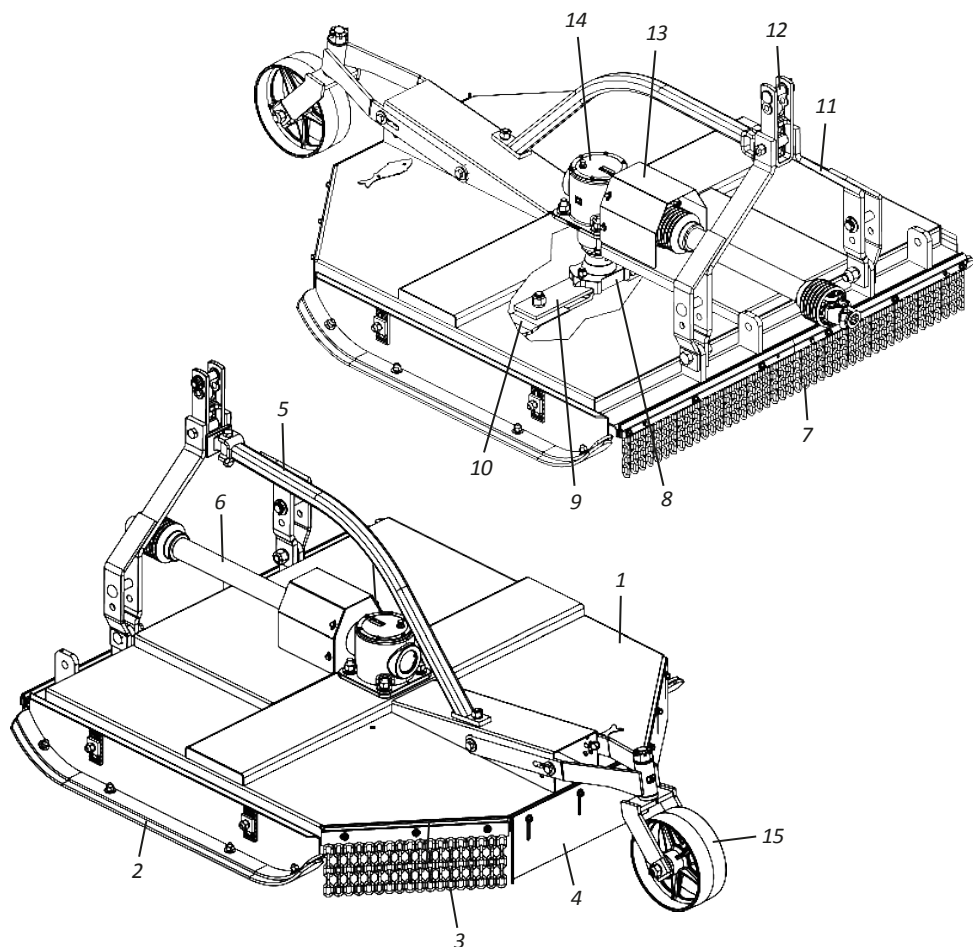
-  The transportation of people on self-propelled machines and implements is forbidden.
-  Alterations of RD/RDU' original characteristics are not authorized since they may change safety, operation and affect service life.
-  Carefully read all safety information in this manual and in RD/RDU.
-  All inspections must be performed while the RD/RDU is parked and turned off and using the safe access means.
-  Access, maintenance and especially inspection in RD/RDU risk zones should only be performed by trained and qualified worker, respecting all safety guidance.
-  Periodically check all RD/RDU 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 RD/RDU.
-  All maintenance on the RD/RDU shall be carried while the vehicle is parked and with the tractor switched off.
-  Operate the RD/RDU 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.
-  RD/RDU maintenance should only be performed by specialized persons. Before maintenance, disconnect all RD/RDU drive systems.
-  The warranty is immediately void when the RD/RDU installation, adjustment, operation and maintenance instructions are not observed.
-  Unqualified persons and children are prohibited from operating the RD/RDU.
-  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 doubt, consult the After Sales Service.
Telephone: 0800-152577 / Email: posvenda@baldan.com.br

Components

• RD - Central and Lateral Mounted Rotary Cutter

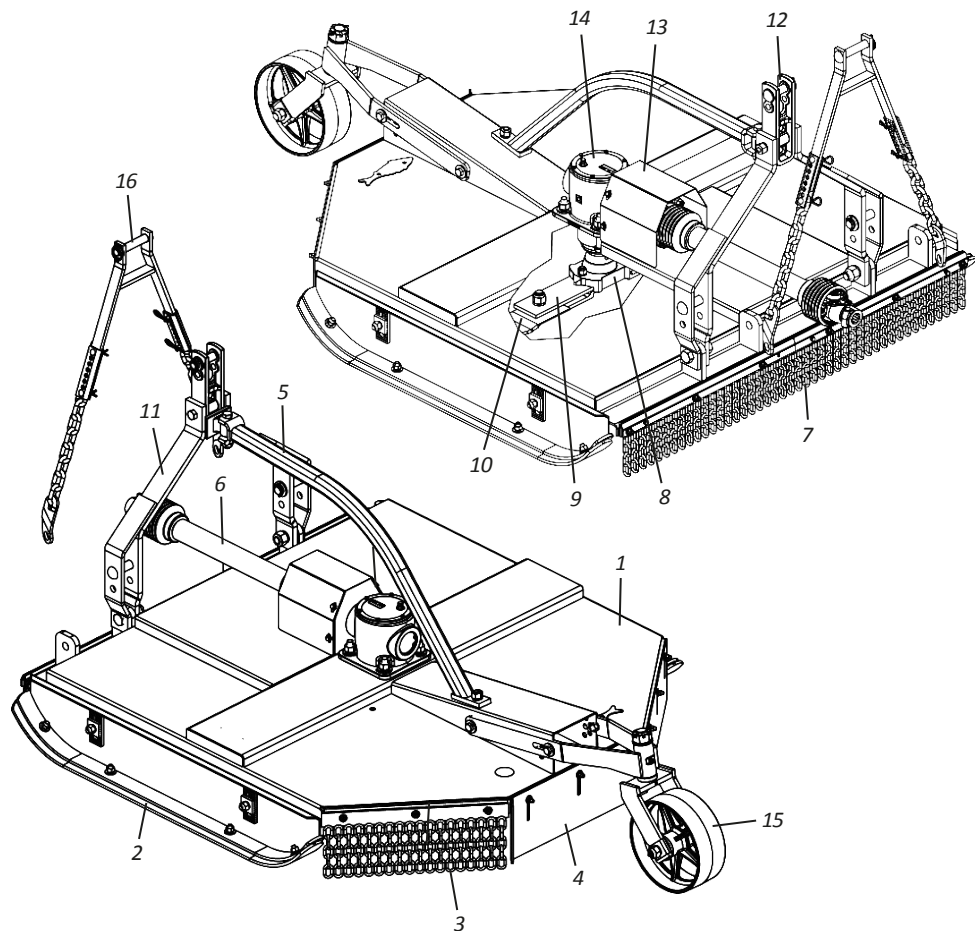
- | | |
|-------------------------------|------------------------|
| 1. Blade protection box | 9. Blade holder bar |
| 2. Cutting adjustment shoe | 10. Knife |
| 3. Back protector with chains | 11. Coupling head |
| 4. Rear protection | 12. Coupling jumbo |
| 5. head support | 13. Protective plate |
| 6. Cardan | 14. Multiplier Gearbox |
| 7. Full support with chains | 15. Depth wheel |
| 8. Blade holder | |



Components

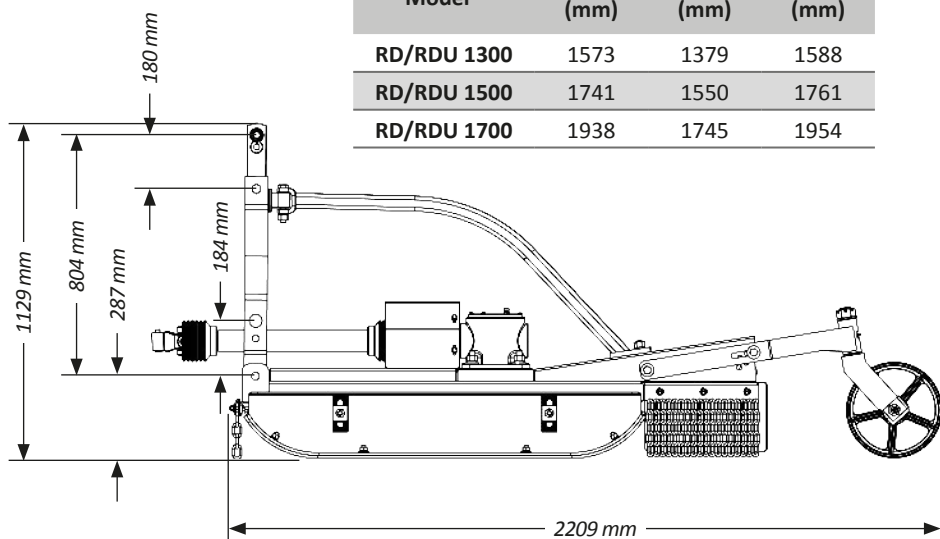
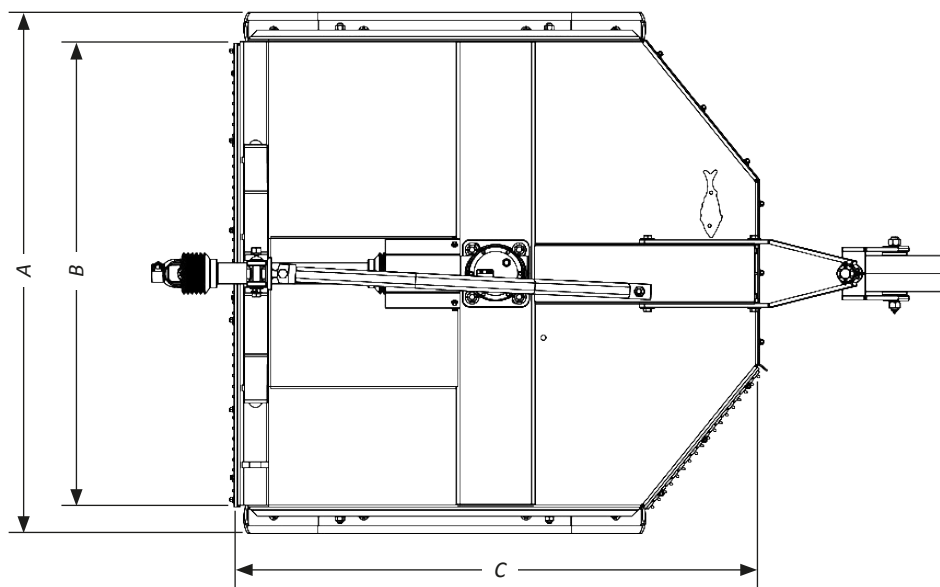
• RDU - Central and Lateral Mounted Rotary Cutter Urban

- | | |
|-------------------------------|-----------------------------|
| 1. Blade protection box | 9. Blade holder bar |
| 2. Cutting adjustment shoe | 10. Knife |
| 3. Back protector with chains | 11. Coupling head |
| 4. Rear protection | 12. Coupling jumbo |
| 5. head support | 13. Protective plate |
| 6. Cardan | 14. Multiplier Gearbox |
| 7. Full support with chains | 15. Depth wheel |
| 8. Blade holder | 16. Height-limiting coupler |



Dimensions

• RD/RDU



Model	A (mm)	B (mm)	C (mm)
RD/RDU 1300	1573	1379	1588
RD/RDU 1500	1741	1550	1761
RD/RDU 1700	1938	1745	1954

Specifications

• RD/RDU - Central and Lateral Mounted Rotary Cutter

Model	No. of Blades	Cutting Width (mm)	Height Cutting (mm)	Cardan Length (mm)	RPM in the PTO	Blades RPM	Approx. weight (kg)	Tractor Power (HP)
RD/RDU 1300	2	1300	50-200	750	540	1038	400	61
RD/RDU 1500	2	1500	50-200	750	540	1038	440	73
RD/RDU 1700	2	1700	50-200	850	540	1038	480	73

*Baldan reserves the right to modify and or improve the technical characteristics of its products without notice and without obligation so to proceed with the products previously manufactured.
The technical specifications are approximate and informed in normal working conditions.*

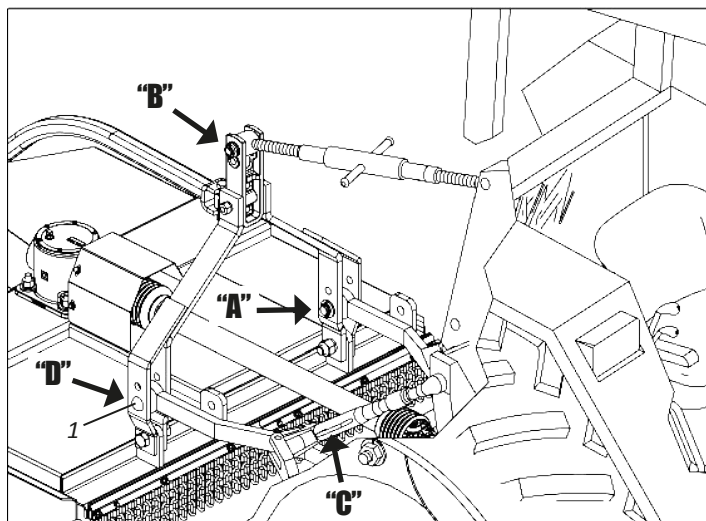
Coupler

Before attaching the **RD**, check that the tractor is equipped with a set of weights or ballasts on the front or the front wheels to avoid lifting the tractor. The rear wheels will give the tractor greater stability and traction on the ground.

• Tractor Coupling - RD

To couple the RD, proceed as follows:

- 01** - Approach the tractor slowly to the RD in reverse gear, paying attention to the application of the brakes.
- 02** - Then use the hydraulic position control lever as you approach the RD, leaving the lower left arm at the level of the trimmer engagement.
- 03** - Engage the lower left arm of the tractor through the engaging pin (1) on the bracket "**A**" of the RD.
- 04** - Engage the 3rd point of the tractor on the bracket "**B**" of the RD.
- 05** - Then, with the aid of the regulating lever "**C**", engage the lower right arm of the tractor in the bracket "**D**" of the RD.



ATTENTION

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



NOTE

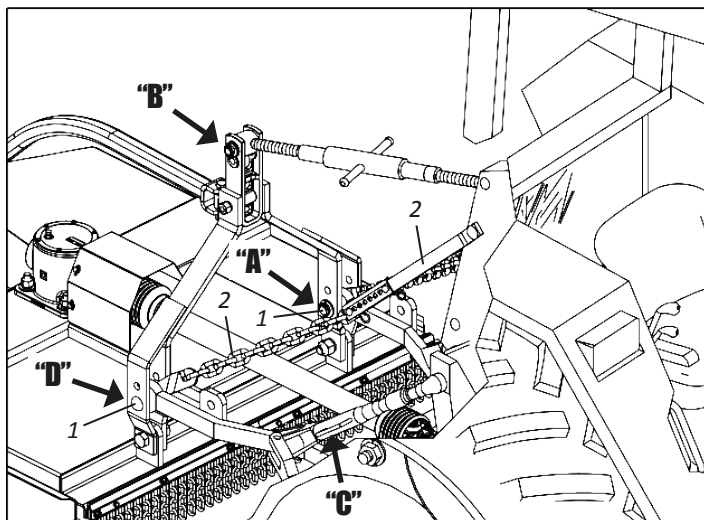
When engaging the RD, find a safe and easily accessible place, always use a low gear with low acceleration.

Before attaching the **RDU**, check that the tractor is equipped with a set of weights or ballasts on the front or the front wheels to avoid lifting the tractor. The rear wheels will give the tractor greater stability and traction on the ground.

• Tractor Coupling - RDU

To couple the RDU, proceed as follows:

- 01** - Approach the tractor slowly to the RDU in reverse gear, paying attention to the application of the brakes.
- 02** - Then use the hydraulic position control lever as you approach the RD, leaving the lower left arm at the level of the trimmer engagement.
- 03** - Engage the lower left arm of the tractor together with the limiter clutch plate (2) by fastening with the pin (1) on the bracket "A" of the RDU.
- 04** - Engage the 3rd point of the tractor on the bracket "B" of the RDU.
- 05** - Then, with the aid of the regulating lever "C", engage the lower right arm of the tractor together with the limiting coupling plate (2) by attaching the coupling pin (1) to the bracket "D" of the RDU.



ATTENTION

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

NOTE

When engaging the RDU, find a safe and easily accessible place, always use a low gear with low acceleration.

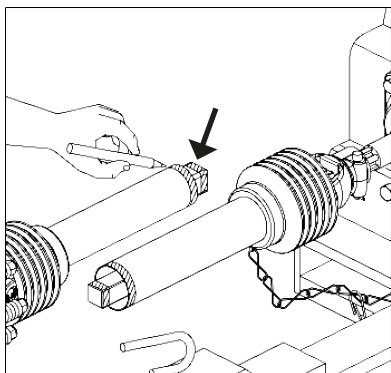
Before coupling the cardan, check its length in relation to the tractor model that will pull brushcutter.

- Adjusting the length of the cardan

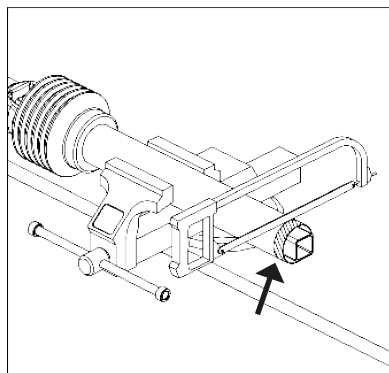
! IMPORTANT

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

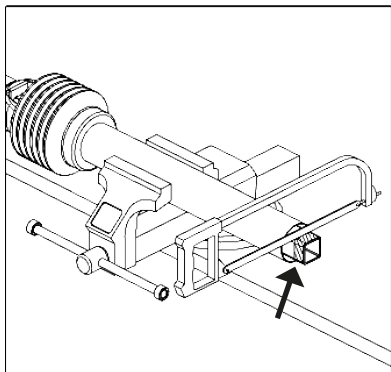
To cut the cardan, proceed as follows:



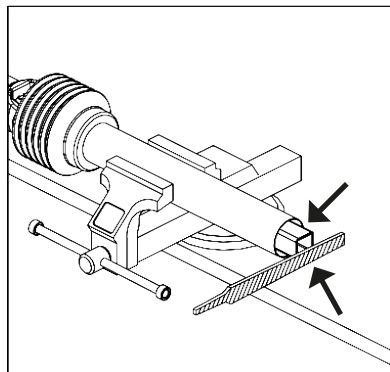
Fasten the halves of the cardan shaft close to each other in the working position and make the marking of the part to be cut.



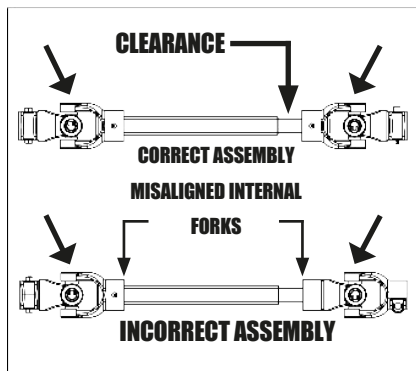
Shorten the inner and outer protective tubes of the cardan proportionally.



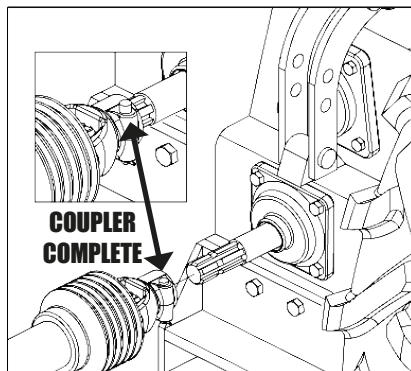
Cut the inner bars of the cardan
Same length of the protective tubes.



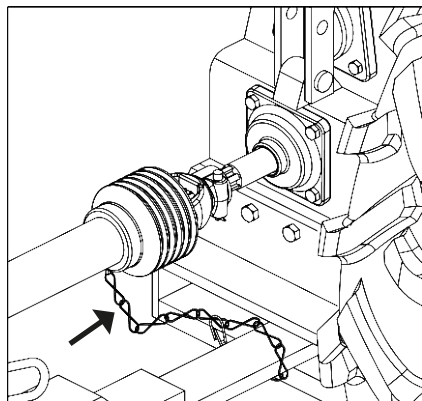
Remove all burrs and tips. Clean and
grease the sliders of the cardan.



During assembly, note that the internal and external terminals are always aligned in the same plane. Also check the clearance on the telescopic shaft, which should be 5 to 7 cm.



Attach the flange on the shaft of the TDP of the Tractor, noting that the coupling will only be complete when the latch (1) jumps.



Do not engage stretched cardan chains. Keep a gap in the installation and consider the angular movements.

! IMPORTANT

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

🔍 NOTE

Check the pivot angle of the cardan on page 29 and other recommendations for using it.

! ATTENTION

Incorrect mounting of the cardan causes excessive vibration, which is harmful to the transmission. When coupling the cardan to the TDP, the tractor must be with the engine off and the parking brake applied.

Adjustments

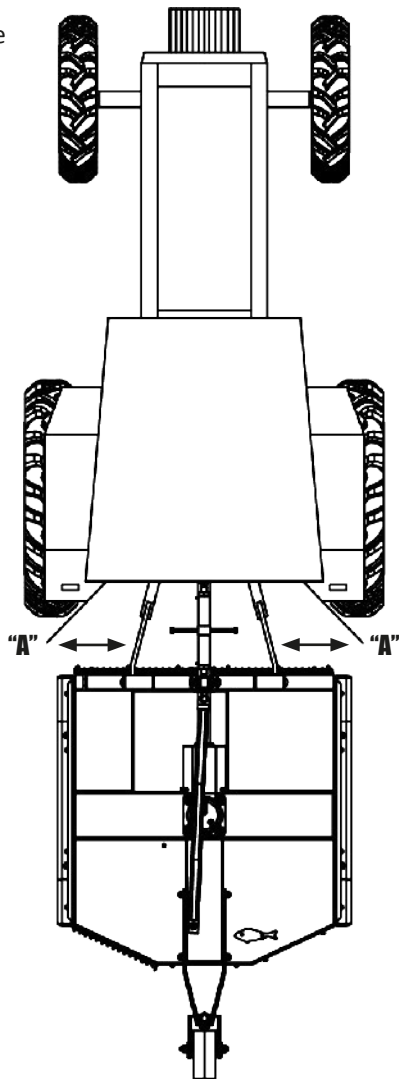
• Centralisation

To centralise the **RD/RDU** in relation to the longitudinal axis of the tractor, proceed as follows:

01 - Align the top coupling of the **RD/RDU** with the 3rd point of the tractor.

02 - Then lift the **RD/RDU**.

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



ATTENTION

Never adjust the tractor's lower hydraulic arms with the **RD/RDU** lowered.

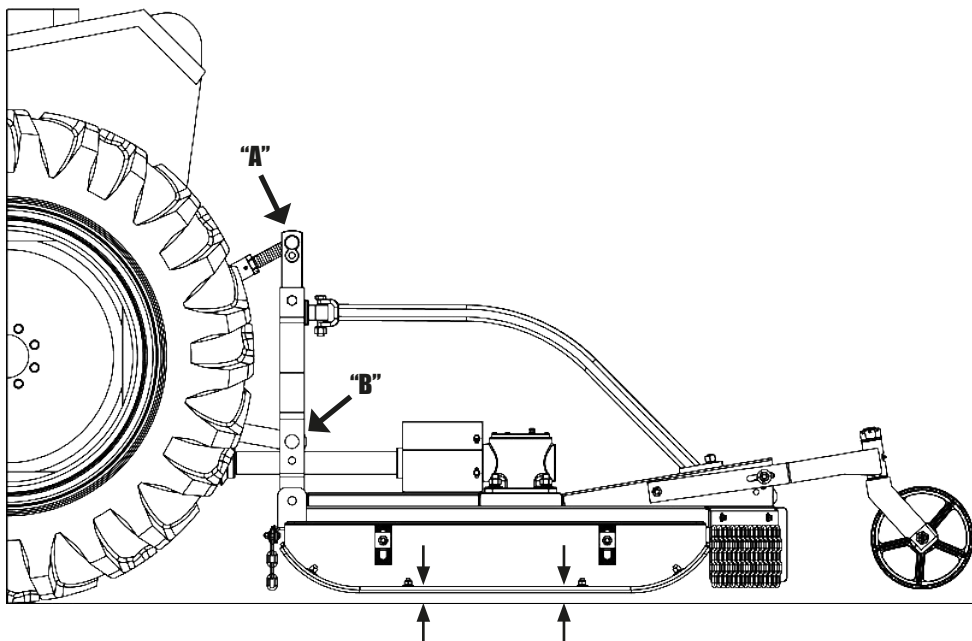
Adjustments

• Levelling

To level the **RD/RDU** in the longitudinal axis of the tractor, proceed as follows:

01 - Firstly, the tractor must be on level ground.

02 - Then, through the upper arm "A" and bottom right "B", that have adjustments, carry out the levelling of the **RD/RDU**.



ATTENTION

Check the cardan clearance, which should be 5 to 7cm. If there is no gap, adjust the length of the cardan according to the instructions on pages 21 and 22.

Adjustments

• Cutting height adjustment

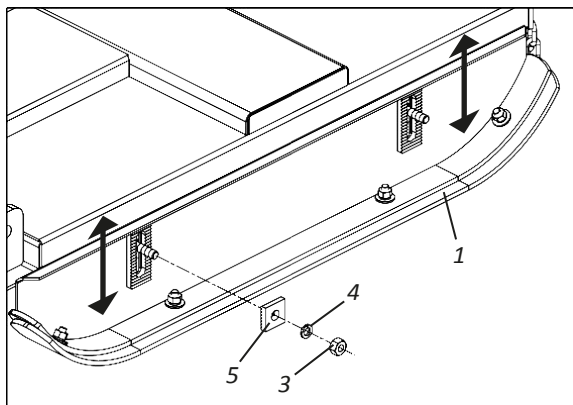
The cutting height of the **RD/RDU** is adjusted through the side shoes (1) and the rear wheel (2). To adjust the cutting height, proceed as follows:

SIDE SHOES

01 - Loosen the nuts (3), locking washers (4) and grooved plates (5).

02 - Then adjust the side shoes (1) by positioning them at the desired height.

03 - Then retighten the grooved plates (5) through the locking washers (4) and nuts (3).

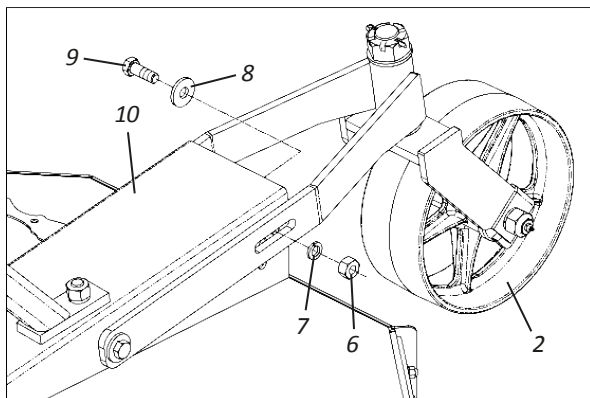


REAR WHEEL

04 - After adjusting the side shoes (1), loosen the nuts (6), lock washers (7), plain washers (8) and remove the bolts (9).

05 - Then adjust the rear wheel (2) by positioning it at the desired height through the hole in the bracket (10).

06 - Finish by replacing the bolts (9), plain washers (8), locking washers (7) and nuts (6) by tightening them.



⚠ ATTENTION

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

Adjustments

• Work position

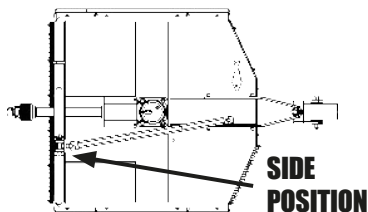
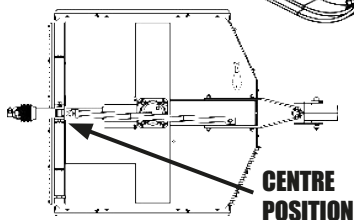
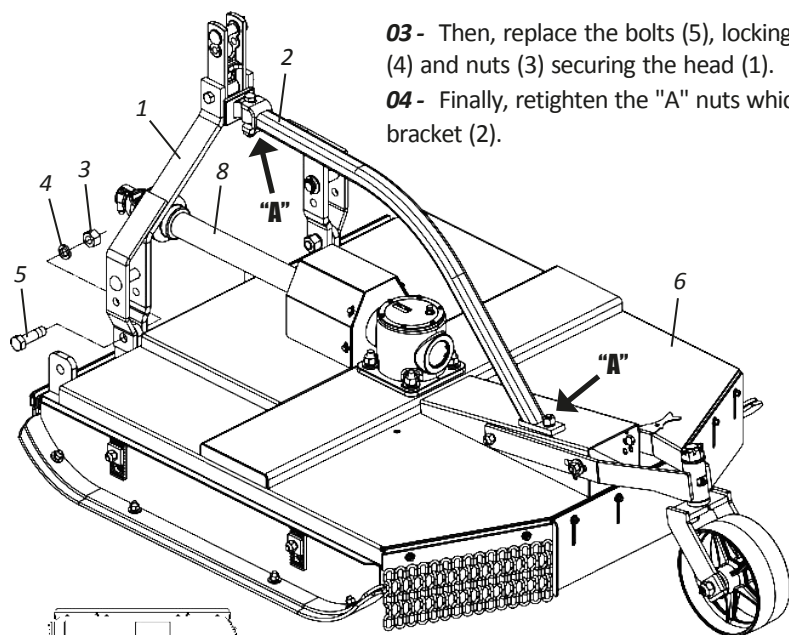
The **RD/RDU** can work in the central and lateral position in relation to the tractor. To change the position of the head (1), proceed as follows:

01 - Loosen the "A" nuts that secure the head bracket (2), it is not necessary to remove them.

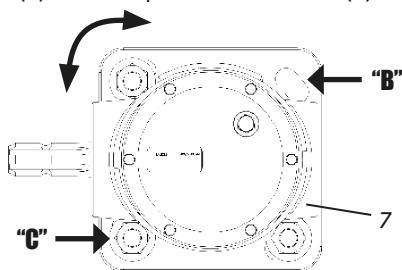
02 - Then, remove the nuts (3), pressure washers (4), bolts (5) and move the head (1) to the other support of the blades guard box (6).

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

04 - Finally, retighten the "A" nuts which fasten the head bracket (2).



The gearbox (7) has oblong holes "B". When positioning the head holder (2) in the side position, if necessary, loosen the screws "C" and rotate the gearbox (7) to better position the cardan (8).



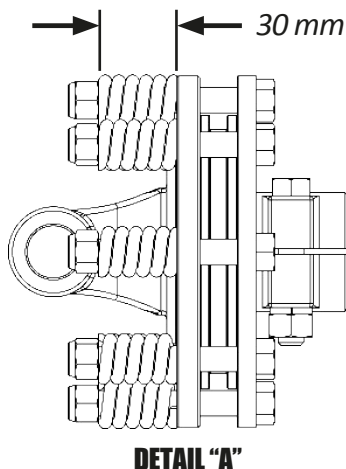
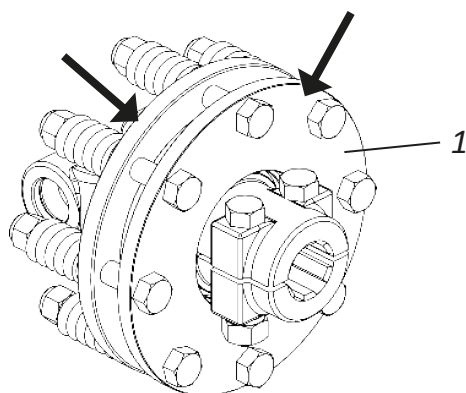
Adjustments

• friction plate

The friction plate is set at the factory, dispensing any adjustments to start using the **RD/RDU**. When overloading occurs, the friction plate starts and the work should be stopped immediately by lifting the **RD/RDU**.

- The occurrence of more frequent friction plate drives, after some time of use and without operating overloads, indicates the need to adjust the friction plate due to wear on the discs (1).

- It is important to maintain the 30 mm spring adjustment as shown in the detail "A", to compensate for the wear of the discs (1) and to maintain the smooth operation of the friction plate.

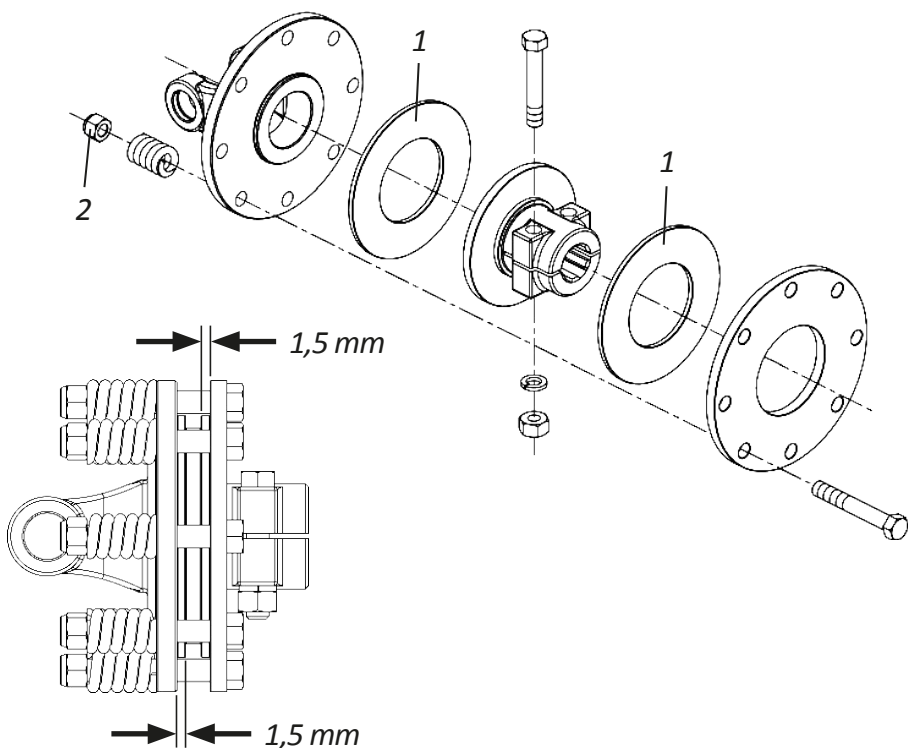


- When the mechanic (or trained person) performs the clutch adjustment in the work site, one must be careful not to tighten the springs excessively, as there will be what is known as a **CLOSED CLUTCH**, this occurrence interrupts the function of the clutch, providing a risk of rupture in pinions, crowns, axes, crosses and even in the TDP of the tractor.

- How to adjust at the work site.

- 01** - Make a visual assessment of the components of the clutch (discs, springs, etc.).
- 02** - Then tighten the springs equally, one by one, approximately 1/3 of a turn.
- 03** - Repeat this procedure every time the clutch starts activating continuously.

- Taking a base height of the springs to maintain the factory-set clutch may not be the best way to do the evaluation, as the sets have particular variables that can distort the results.



ATTENTION

If the RD/RDU is idle for some time in an uncovered place, the clutch must be dismantled and cleaned before returning to work. In direct contact with the other components of the clutch, the friction plate discs can lock and not work. Check the post-storage instructions on p. 40.

IMPORTANT

Discs (1) should be replaced as soon as they reach 1.5mm of thickness or before if they present more damage. To do this, loosen the nuts (2) and remove the friction plate.

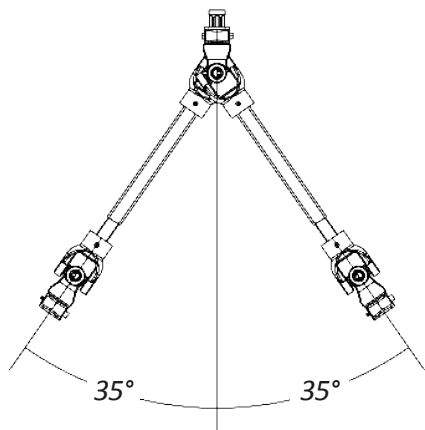
NOTE

When encountering a large volume of vegetation or if the shear strength is excessive, try to skim a narrower range or decrease the speed of operation.

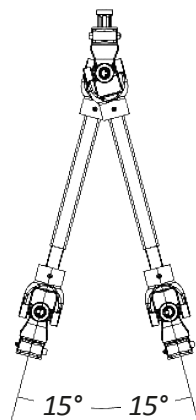
Operations

• Recommendations for the cardan

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



SHORT TIME PERIOD



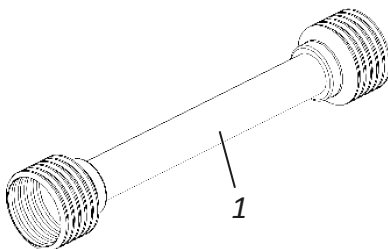
IN CONTINUOUS WORK



ATTENTION

Never engage the TDP when the joint is at an angle greater than 15°. When manoeuvring with the TDP off, never exceed 35° of pivot angle, this can occur in transport routes or manoeuvres in sheds with the cardan coupled.

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



IMPORTANT

Do not work with the RD/RDU if the cardan is not protected (1). Ignoring this warning can cause cardan damage or serious accidents.

Operations

• Recommendations for operation

- 1 - Before beginning work, make a thorough review of the **RD/RDU**. The oil level of the multiplier must be completed and retighten the nuts and bolts. Also check the locking of pins and cotter pins.
- 2 - The work rotation is **540 rpm in the TDP**. Check the corresponding rotation in the motor, in the tractor manual. The rotation of the engine varies from tractor to tractor.
- 3 - For the best performance, we recommend a **minimum cutting height 50 mm** above the ground.
- 4 - To ensure a good working result, the site that will be cleared must be free of stones and stumps.
- 5 - First, start the blades and then start cutting the vegetation.
- 6 - Do not switch on the TDP with blades caught in dirt mounds, clubs or stumps, objects may be thrown and cause serious injury.
- 7 - During work, keep the engine speed constant, avoiding the average speed variation of the tractor, in order to avoid inefficiency or failure to cut vegetation.
- 8 - To engage or uncouple the cardan, the TDP must be switched off.
- 9 - During work do not vary the speed of the tractor, this causes an inefficient cut, "faults". Maintain the average speed and keep it for the duration of your work. The recommended average working speed is **4 to 6 km/h**.
- 10 - In heavily corrugated soils, adjusting the cutting height should prevent the blades from touching the ground excessively.
- 11 - The stabilisers of the tractor's lower arms must be adjusted with the **RD/RDU** fully erected.
- 12 - In high-density vegetation, we recommend the use of reduced gear, keeping **TDP at a constant 540 rpm**.
- 13 - If friction plate is encountered during operation, stop work immediately and raise the **RD/RDU**.
- 14 - It is important to keep the adjustment of **30 mm in the springs** to compensate for the adjustment of the discs and to maintain the smooth operation of the friction plate.
- 15 - When transporting or performing servicing/maintenance, maintain the power off.
- 16 - Stop and turn off the equipment if there are people less than **50 metres** away.

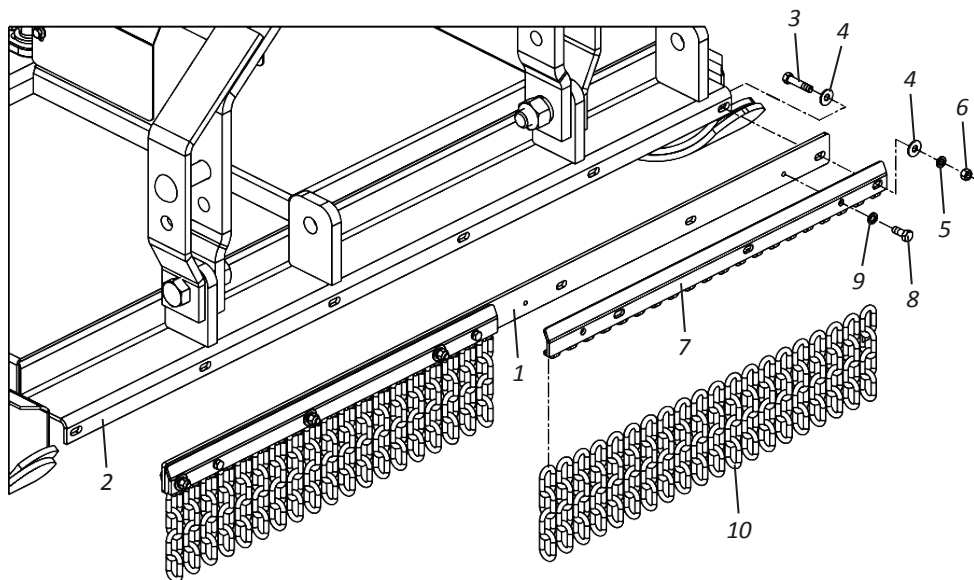
If in doubt, never operate or handle the RD/RDU, see Post Sales.
Telephone: 0800-152577 / Email: posvenda@baldan.com.br

Maintenance

• Front protection

The **RD/RDU** have front protection. Periodically check the storage condition of the unit, if necessary, replace it by doing the following:

- 1 - Loosen the bracket with chains (1) of the blades protection box (2) through the bolts (3), plain washers (4), lock washers (5) and nuts (6).
- 2 - Then release the clamp plate of the chains (7) through the screws (8) and washers (9).
- 3 - Then, replace the chains (10) that are damaged.
- 4 - Finish by reassembling the bracket with chains (1) into the blades protection box (2).



ATTENTION

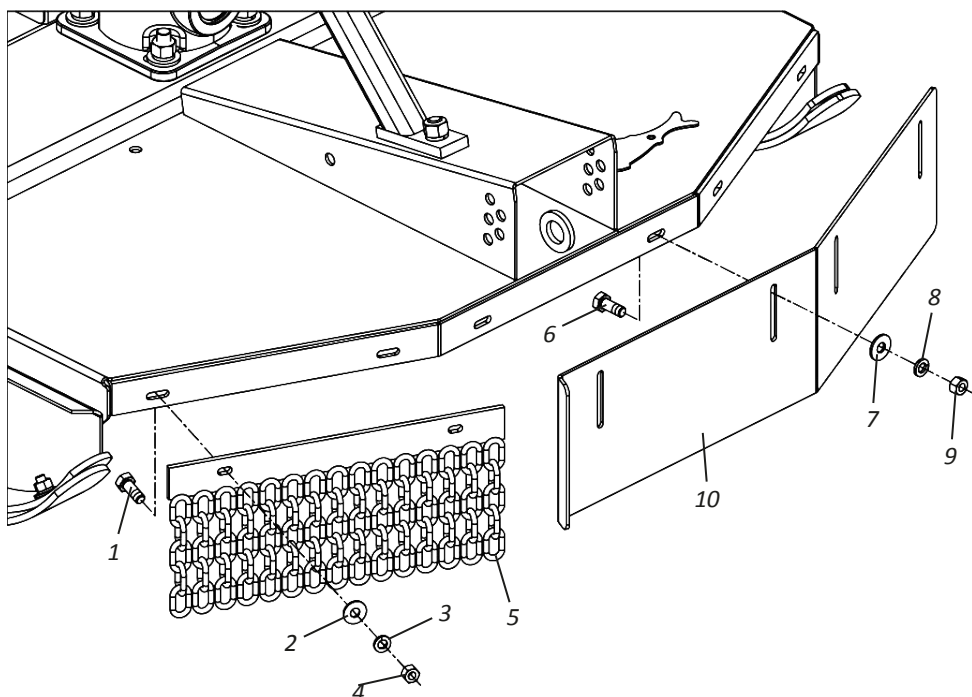
Do not operate the RD/RDU without the front protections. Ignoring this warning can result in serious injury or death.

Maintenance

• Rear protection

The **RD/RDU** have rear protections that can be composed of chain and plate or totally by chains (**optional**). Periodically check the storage condition of the units, if necessary, replace them by doing the following:

- 1 - Loosen the bolts (1), plain washers (2), lock washers (3), nuts (4) and replace the rear protector with chains (5).
- 2 - Then fasten the rear protector with chains (5) through the bolts (1), plain washers (2), lock washers (3) and nuts (4).
- 3 - Then loosen the bolts (6), plain washers (7), lock washers (8), nuts (9) and replace the plate (10).
- 4 - Finish by fastening the plate (10) through the bolts (6), plain washers (7), lock washers (8) and nuts (9).



ATTENTION

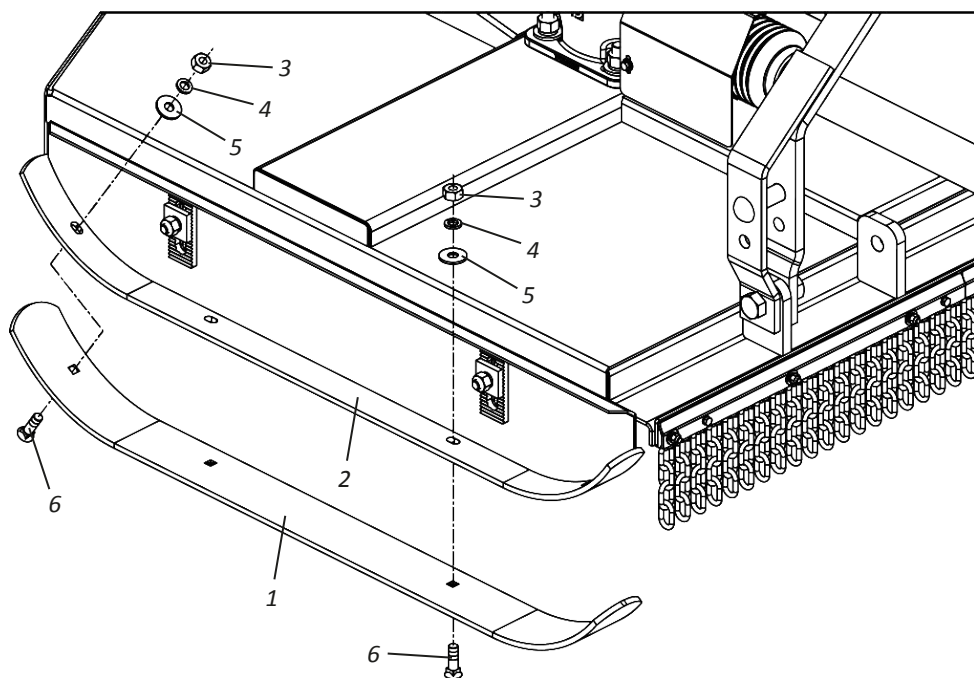
Do not operate the RD/RDU without the rear protections. Ignoring this warning can result in serious injury or death.

Maintenance

• Changing the side shoes guide plates

Check periodically for wear on the guide plates (1) of the side shoes (2) of the RD/RDU, replace if they have wear and tear. To replace the guide plates (1), proceed as follows:

- 1 - Loosen the nuts (3), lock washers (4), plain washers (5) and screws (6).
- 2 - Then replace the guide plates (1).
- 3 - Then tighten with screws (6), plain washers (5), lock washers (4) and nuts (3).



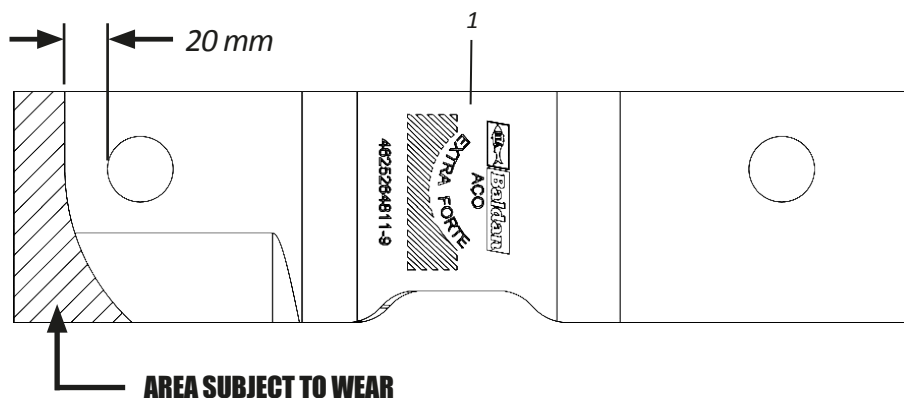
ATTENTION

If there is wear on the bolts, washers and nuts, replace them.
Ignoring this warning can result in serious injury or death.

Maintenance

• Wear of blades

The blades of the **RD/RDU**, are reversible. Before starting work, do a thorough overhaul on the brush cutter especially on the blades, so that no wear will affect the hole that should be left with a 20mm wall. If the wear affects the hole or the wall becomes very thin, we recommend the immediate replacement of the blade as it will not provide the necessary safety, thus creating a risk of accidents.



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

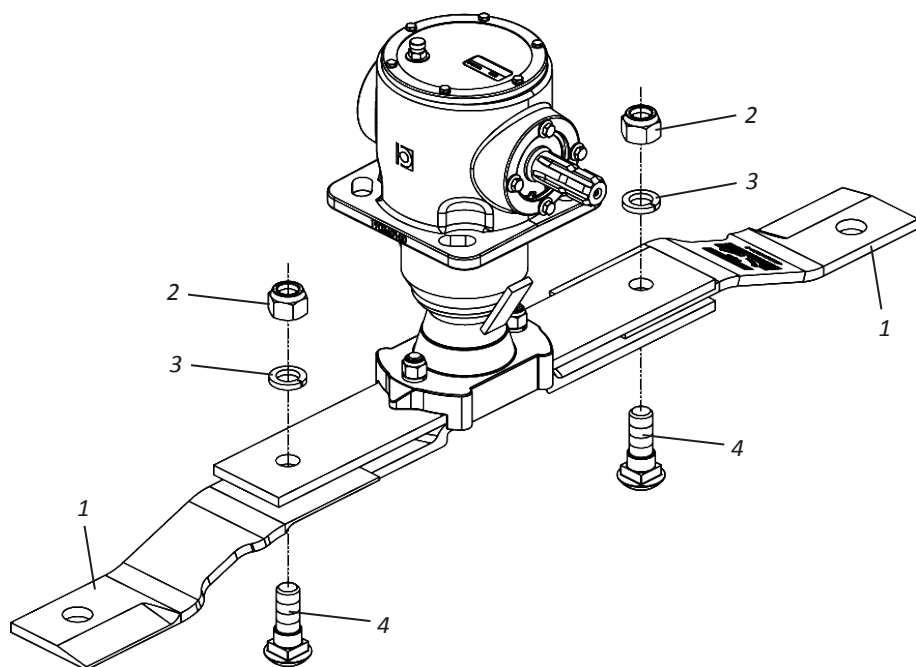
Always keep blades sharp to increase performance and require less tractor effort.

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

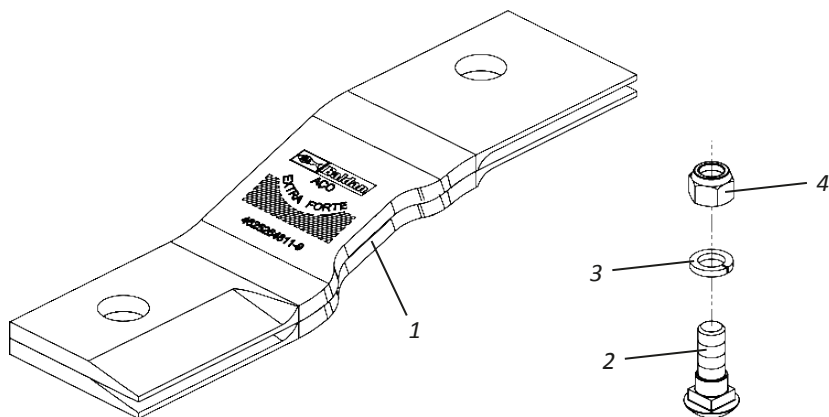
• Replacement of blades

Before each use of the **RD/RDU**, inspect the blades (1) to see if they are in good condition and properly installed. Replace blades (1) if they are broken, bent, over-worn or damaged in any way. In addition, replace the blades (1) when you notice imperfections in the cut. To replace the blades (1) proceed as follows:



! IMPORTANT

When changing blades, always change the pair of them, avoiding damage to the RD/RDU because of the imbalance. Always use original Baldan blades.



NOTE When replacing the blades (1), also replace the screws (2), pressure washers (3) and nuts (4).

ATTENTION When replacing the blades (1), note that they are supplied in pairs, which must be kept until they are mounted to the RD/RDU hub. Unbalanced knives can cause excessive vibration and damage the bearings, retainers and the gearbox. The weight variation between these blades (1) is within the tolerance limit.

Maintenance

The **RD/RDU** has been developed to provide you with maximum performance over ground conditions. Experience has shown that the periodic maintenance of certain parts of the **RD/RDU** is the best way to help you avoid problems, so we suggest their verification.



ATTENTION

Constantly check the nuts and bolts, retighten if necessary. General maintenance of the equipment must be carried out every 8 working hours.

• Lubrication

Lubrication is essential for good performance and a longer service life of the RD/RDU, contributing to the maintenance cost savings.

Before starting the operation, carefully lubricate all grease fittings, always observing the greasing intervals on the following page. Make sure about the lubricant quality, regarding its efficiency and purity, avoid using products contaminated by water, earth and other agents.

• Grease and equivalents table

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

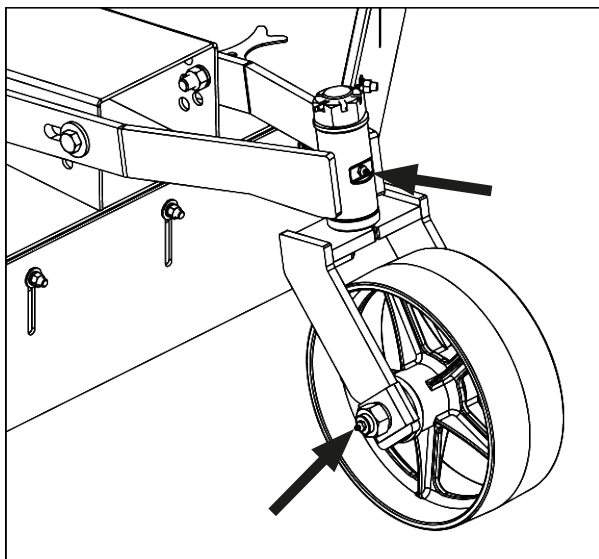


ATTENTION

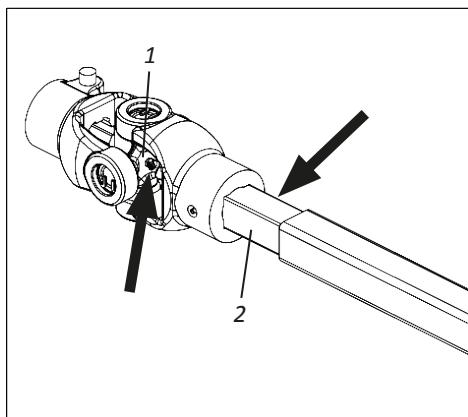
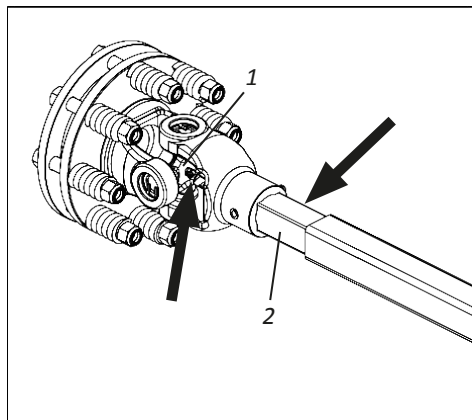
If there are manufacturers and/or equivalent brands that are not listed in the table, consult the manufacturer's technical manual.

Maintenance

- Lubricate every 8 hours of work



Lubricate the crossbars (1) with grease every 8 hours. The telescopic shaft (2) must be lubricated weekly.



ATTENTION

When lubricating the RD/RDU, do not exceed the amount of new grease. Fill-in a sufficient quantity.

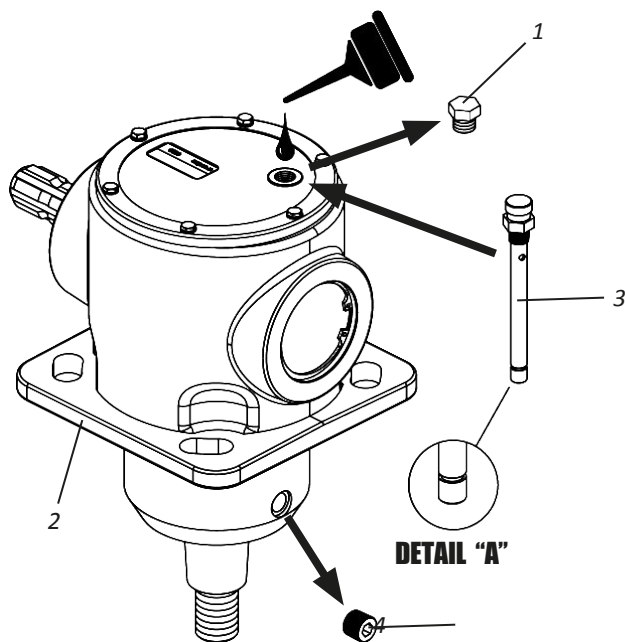
Maintenance

• Oil change

Before putting the **RD/RDU** to work, remove the plug (1) from the gearbox (2) and put the breather with the dipstick (3) in its place.

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

- 1 - Place the **RD/RDU** on level ground.
- 2 - Then place the breather with the dipstick (3) into the hole without threading it.
- 3 - Then remove the breather with the dipstick (3) and check the level marker as shown detail "A", if needed, complete or change the oil.



! ATTENTION | Replace the oil every 600 hours of work using 1.65 litres. Use only the specified oil: SAE 90EP.

! IMPORTANT | In order to drain all the oil from the gearbox (2), remove the drain plug (4).

NOTE | When a particular brand of oil is in use, avoid completing the oil level with another brand and other specification.

Maintenance

• Storage

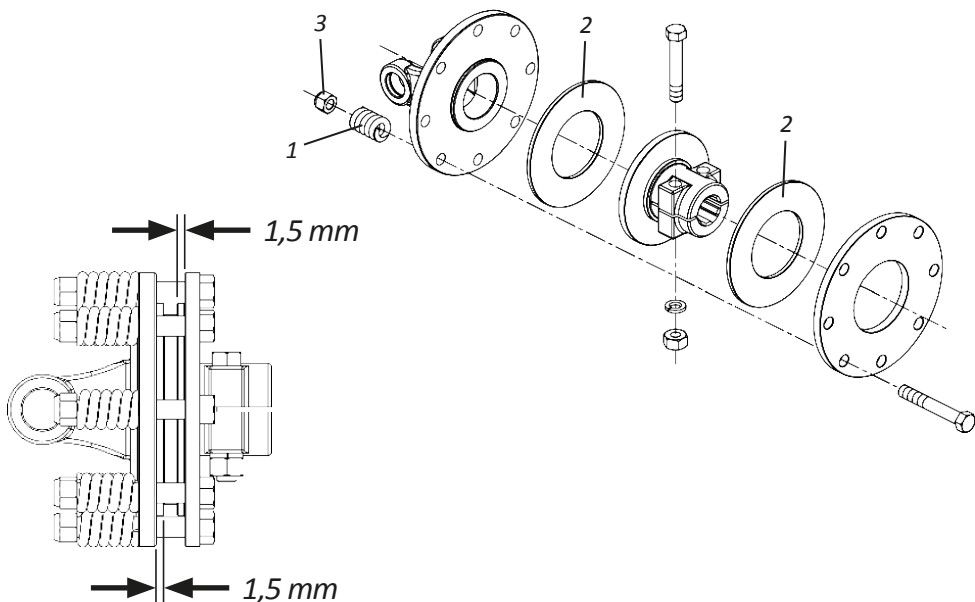
Before storing the **RD/RDU**, remove the cardan and friction plate and store them in a covered, dry place.

Check all transmission components, if necessary, replace any worn or damaged parts. Always demand original Baldan parts.

• Post storage

Before returning to with the **RD/RDU**, lubricate all components and check the oil level. With the friction plate, perform the following procedures.

- 1 - Before disassembling the friction plate, note the average length of the springs (1).
- 2 - Then, remove the friction plate and note the average length of the springs (1).
- 3 - Then, with the friction plate removed, the discs (2) must rotate freely on the metal parts.
- 4 - The (2) discs that have a thickness less than 1.5 mm need to be replaced.
- 5 - Then reassemble the friction plate.
- 6 - The springs (1) should be adjusted to have the same length as before disassembly.
- 7 - If, after preventive maintenance, the friction plate is activated continuously in normal working conditions, tighten the nuts (3) proportionally until this is no longer the case.



Maintenance

• Operational Maintenance

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
It does not cut.	Blades worn or broken.	Replace blades (pairs only) as instructed on page 35.
	TDP rotation is incorrect.	The correct rotation is 540 RPM.
	Overspeed.	Reduce the speed.
	Blades do not spin when the TDP is running	Check the drive shaft connection.
	The gearbox is not working properly.	Repair the gearbox.
	Direction of rotation of the blades.	Check the correct cutting side of the blades and the direction of rotation of the gearbox
Irregular cut.	Blades worn or broken.	Replace blades (pairs only) as instructed on page 35.
	Overspeed.	Reduce the speed.
	Excessive cutting height.	Lower the cutting height.
	Vegetation of great density and of excessive height.	Use reduced speed.
	Levelling of the brushcutter is not correct.	Correctly adjust the levelling of the brushcutter as instructed on page 24.
Slipping of the clutch with excessive friction.	Friction plate out of adjustment.	Adjust the friction plate.
	Friction plate discs worn.	Replace when the minimum thickness of 1.5 mm is reached, as instructed on page 28.
	Adjusting the friction plate springs.	Maintain a 30 mm adjustment on the friction plate springs as instructed on page 27.
Vibration.	Broken blades.	Replace the blades (pairs only) as instructed on page 35.
	Incorrect cardan length.	Check the length of the cardan.
	Cardan shaft crosshead assembly.	Check the correct mounting of the cardan brackets.

Maintenance

• Operational Maintenance

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Noisy brushcutter.	Loose components.	Check all the screws and tighten.
	Low oil level in the gearbox.	Check the oil level, as instructed on page 39.
Wear on the tip and blades too quick.	Blades touching the ground.	Adjust and operate at a height that will eliminate contact with the ground.
	The brushcutter is not operating at the correct TDP speed.	Maintain the correct TDP speed.

Maintenance

• Care

- 1 - Before each job, check the condition of all pins, bolts, gearboxes, and blades. When necessary, retighten or replace.
- 2 - Every 8 hours of work, retighten the nuts and bolts.
- 3 - The speed of movement must be carefully controlled according to the terrain conditions.
- 4 - The **RD/RDU** are used in several applications, requiring knowledge and attention during its handling.
- 5 - Only local conditions can determine the best working form of the **RD/RDU**.
- 6 - When mounting or removing any part of the **RD/RDU**, use appropriate methods and tools.
- 7 - Carefully observe the lubrication intervals at the various lubrication points of the **RD/RDU**.
- 8 - Always check the parts for wear, especially the blades. If there is a need for replacement, **always request original Baldan parts**.



ATTENTION

Proper and periodic maintenance is necessary to ensure the long life of the RD/RDU.

Maintenance

• General cleaning

- 1 - When storing the **RD/RDU**, carry out general cleaning and wash it thoroughly with water only. - Make sure the paint is not worn, if this happened, paint a full coat, use protective oil and fully lubricate the **RD/RDU**.
- 2 - Fully lubricate the brushcutter. Check all moving parts of the **RD/RDU**, if they present wear or loosening, make the necessary adjustment or replacement of the parts, leaving the brushcutter ready for the next job.
- 3 - In the period you do not use the **RD/RDU**, wipe the residues that remain on it after its use with grass, dirt, residues, etc.
- 4 - Spray the **RD/RDU** with preservative oil, never use burned oil.
- 5 - Replace all the stickers, especially warning ones that are damaged or missing. Make everyone aware of their importance and the dangers of accidents when instructions are not followed.
- 6 - Clean the cardan weekly or earlier if necessary.
- 7 - Remove the protective caps, separate "male" and "female", wash and remove crusts, dry and lubricate the sliding parts with grease and reassemble.
- 8 - After all maintenance care, store your **RD/RDU** on a flat surface, which is in a sheltered and dry place away from animals and children.
- 9 - We recommend washing the **RD/RDU** with water only at the start of work.



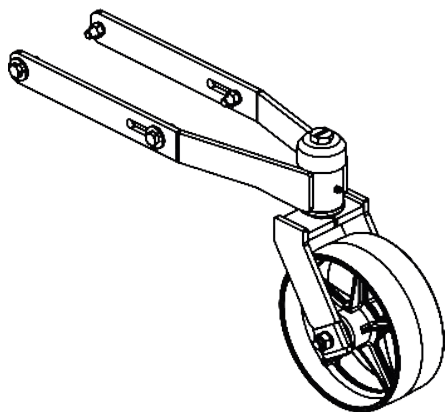
ATTENTION

Do not use chemicals to wash the **RD/RDU**, this may damage the paint on it.

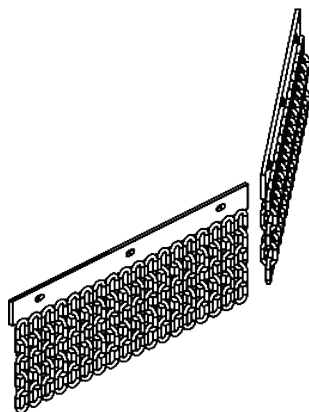
Optional

• Optional accessories

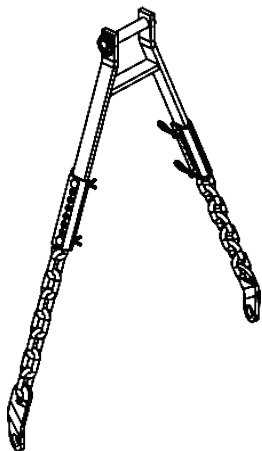
The trimmers **RD/RDU** have optional parts that can be purchased according to the need of work.



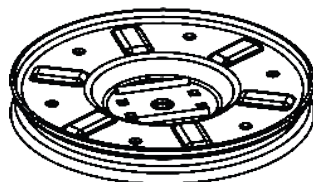
**DEPTH WHEEL WITH BEARING
(MODEL RD/RDU)**



**REAR GUARDS WITH CHAINS
(MODEL RD/RDU)**



**HEIGHT LIMITER
(MODEL RD)**



**ROTATING TRAY
(MODEL RD/RDU)**

Identification

• Identification plate

In order to consult the parts catalogue or to request technical assistance from Baldan, always indicate the model (01), serial number (02) and date of manufacture (03), which is on the nameplate of your RD/RDU.

 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 contained in this Instruction Manual are illustrative.



CONTACT

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

Phone: 0800-152577

Email: posvenda@baldan.com.br



PUBLICATIONS

Code: 60550100234 | CPT: RDU13516



Identification

• Product Identification

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

Owner: _____

Dealer: _____

Farm: _____

City: _____

State: _____

Warranty Cert. No.: _____

Tool: _____

Serial No.: _____

Date of Purchase: _____

Invoice: _____

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Notes

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

BALDAN IMPLEMENTOS AGRÍCOLAS S/A, ensures normal operation of the tool to the dealer for a period of six (6) months from the delivery date on the resale invoice to the first end consumer. During this period **BALDAN** undertakes to remedy defects in materials and/or workmanship of their responsibility, and the labour, freight and other expenses of the responsibility of the dealer.

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

When such a procedure is not possible and exhausted the resolution capacity of the dealer, the dealer will request support from the Technical Assistance of **BALDAN** through the specific form distributed to resellers. After analysing the items replaced by the Technical

Assistance of Baldan, and concluded that it is not a warranty issue, so it will be of responsibility of the reseller any costs related to replacement; as well as the cost of materials, travel including accommodation and meals, accessories, lubricant and other expenses resulting from the call to the service, with the Baldan company authorised to make its billing on behalf of the reseller. Any repairs made to the product that is within the warranty period of the dealer will only be authorised by **BALDAN** with prior presentation of the budget describing the work of parts and labour to be performed.

It is excluded from this term the product that is repaired or modified in shops that do not belong to the dealer network of **BALDAN**, as well as the use of non-genuine parts or components in the product of the customer. This guarantee will become null when it is determined that the defect or damage is the result of improper product use, failure to follow instructions or the inexperience of the operator.

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

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

BALDAN the right to modify and or improve the technical characteristics of its products without notice and without obligation so to proceed with the products previously manufactured.

Inspection and delivery certificate

SERVICE BEFORE DELIVERY: This implement was carefully prepared by the sales organisation, checked in all its parts according to the manufacturer's instructions.

DELIVERY SERVICE: The user is informed about the terms of existing warranty and instructed on the use and maintenance care.

I confirm that I was informed about the current guarantee terms and instructed about the use and proper maintenance of the implement.

Tool: _____ Serial Number: _____

Date: _____ Tax Number: _____

Dealer: _____

Phone: _____ CEP: _____

City: _____ State: _____

Owner: _____

Telephone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Sale Date: _____

Signature/Reseller Stamp _____

1st copy - Owner

Inspection and delivery certificate

SERVICE BEFORE DELIVERY: This implement was carefully prepared by the sales organisation, checked in all its parts according to the manufacturer's instructions.

DELIVERY SERVICE: The user is informed about the terms of existing warranty and instructed on the use and maintenance care.

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Tool: _____ Serial Number: _____

Date: _____ Tax Number: _____

Dealer: _____

Phone: _____ CEP: _____

City: _____ State: _____

Owner: _____

Telephone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Sale Date: _____

Signature/Reseller Stamp _____

2nd copy - Reseller

Inspection and delivery certificate

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DELIVERY SERVICE: The user is informed about the terms of existing warranty and instructed on the use and maintenance care.

I confirm that I was informed about the current guarantee terms and instructed about the use and proper maintenance of the implement.

Tool: _____ Serial Number: _____

Date: _____ Tax Number: _____

Dealer: _____

Phone: _____ CEP: _____

City: _____ State: _____

Owner: _____

Telephone: _____

Address: _____ Number: _____

City: _____ State: _____

E-mail: _____

Sale Date: _____

Signature/Reseller Stamp _____

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

1.74.05.0059-5

AC MATÃO
ECT/DR/SP

ANSWER-CARD

STAMP NOT REQUIRED

POSTAGE WILL BE PAID BY:



BALDAN IMPLEMENTOS AGRÍCOLAS S/A.

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

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