



# BOOM MOWER GENERAL USER, SPARE PARTS, MAINTENANCE AND SAFETY MANUAL

10.DL.1000C / 10.DL.1000 3,5 m/11,48 ft - 4,5 m/14,76 ft

MODEL:	
SERIAL Nº:	





# **NOTES**



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# **0.- INTRODUCTION**

#### **Purpose of the Boom Mowert**

This Boom mower is designed solely for the use in road maintenance, street maintenance, grass cutting, and similar operations. The Boom Mower is not designed for a heavy forestry maintenance. Use in any other way is considered contrary to the intended use. Compliance with and strict adherence to operation, service and repair conditions, as specified by the manufacturer, are also essential elements of the intended use.

#### Contacting Implement Sales/ Dealer

If you have any questions about information in this manual or need to order parts, please contact your dealer. For help with installation, operation or maintenance procedures, contact our Technical Service. Direct product questions and parts orders to our Sales Department. When ordering parts or accessories, be prepared to give the following information:

- Attachment model, serial number and date of purchase
- Prime Move machine.
- Part number, description and quantity.

#### **Terms Used in Manual**

Right-hand, left-hand, front and rear are determined from the operator's perspective (either the operator's seat or standing behind a walk-behind unit), facing forward in the normal operating position.

#### Warranty

To validate the warranty for this unit, fill out the warranty card or warranty pages located in the back of this manual.

Then send this information to your dealer.



# 1.- SAFETY STATEMENTS



#### DANGERI

THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH WILL RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



#### **WARNING!**

THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



#### CAUTION!

THIS STATEMENT IS USED WHERE MINOR INJURY COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

#### **NOTICE!**

THIS STATEMENT IS USED WHERE EQUIPMENT OR PROPERTY DAMAGE COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

THIS SYMBOL BY ITSELF OR USED WITH A SAFETY SIGNAL WORD THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



#### 2.- GENERAL SAFETY PRECAUTIONS



THIS MANUAL MUST BE READ, UNDERSTOOD AND MUST BE FOLLOWED ESTRICTLY BY THE OPERATOR.

- Befote starting using the boom mower read and understand the whole manual. First of all, read also the manual of the prime mover machine to which the attachment is connected.
- An unqualified operator can cause serious accidents and could cause death.

#### SECURITY IS RESPONSIBILITY OF THE OPERATOR

The optimal attachment has been designed to give maximum security but a machine design cannot foresee negligence or errors of the operator.



#### WARNING!

#### **READ MANUAL PRIOR TO INSTALL**

Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual as well as all manuals related to this equipment and the prime mover thoroughly before beginning installation, operation, or maintenance. FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND THE PRIME MOVE MACHINE MANUAL.



#### **WARNING!**

#### **READ AND UNDERSTAND ALL SAFETY STATEMENTS**

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all OSHA regulations, local laws and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing or operating this equipment.

#### **KNOW YOUR EQUIPMENT**

Know your equipment's capabilities, dimensions and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to assure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they become worn and hard to read.





#### PROTECT AGAINST FLYING DEBRIS

Always wear proper safety glasses, goggles or a face shield when driving pins in or out or when operation causes dust, flying debris, or any other hazardous material.



#### WARNING!

#### **LOWER OR SUPPORT RAISED EQUIPMENT**

Do not work under raised booms without supporting them. Do not use support material made of concrete blocks, logs, buckets, barrels or any other material that could suddenly collapse or shift positions. Make sure support material is solid, not decayed, warped, twisted, or tapered. Lower booms to ground level or onto blocks. Lower booms and attachments to the ground before leaving the cab or operator's station.



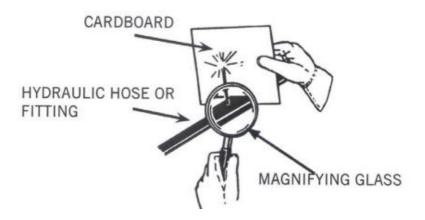
#### WARNING!

#### **USE CARE WITH HYDRAULIC FLUID PRESSURE**

Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible. Before connecting or disconnecting hydraulic hoses, read your prime movers operator's manual for detailed instructions on connecting and disconnecting hydraulic hoses or fittings:

- Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.
- If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research immediately to determine proper treatment.
- Wear safety glasses, protective clothing, and use a sound piece of cardboard or wood when searching for hydraulic leaks. **DO NOT USE YOUR HANDS! SEE PICTURE.**







- Don't remove hydraulic parts of the attachment. This operation is reserved to the authorized people of the dealers. Don't carry out maintenance operations when boom mower is working. In case of damaged parts being identified or there were oil leackages, noise, etc. Please contact to the authorized agent.



#### WARNING!

#### DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the attachment and may impair the function, safety, life and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. Never modify any ROPS (Roll Over Protection System) equipment or device. Any modifications must be authorized in writing by the manufacturer.



#### WARNING!

#### SAFELY MAINTAIN AND REPAIR EQUIPMENT

- Do not wear loose clothing, or any accessories that can catch in moving parts. If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use properly grounded electrical outlets and tools.
- Use the correct tool for the job at hand. Make sure they are in good condition for the task required.
- Wear the protective clothing equipment specified by the tool manufacturer.







#### **SAFELY OPERATE EQUIPMENT**

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements. See your prime movers manual for these instructions.

- Keep all step plates, grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating.
- Do not allow riders on the attachment or the prime mover.
- Do not operate the equipment from anywhere other than the correct operators position.
- Never leave equipment unattended with the engine running or with this attachment in a raise position.
- Do not alter or remove any safety feature from the prime mover or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.

# 3.- SAFETY SIGNS & DECALS

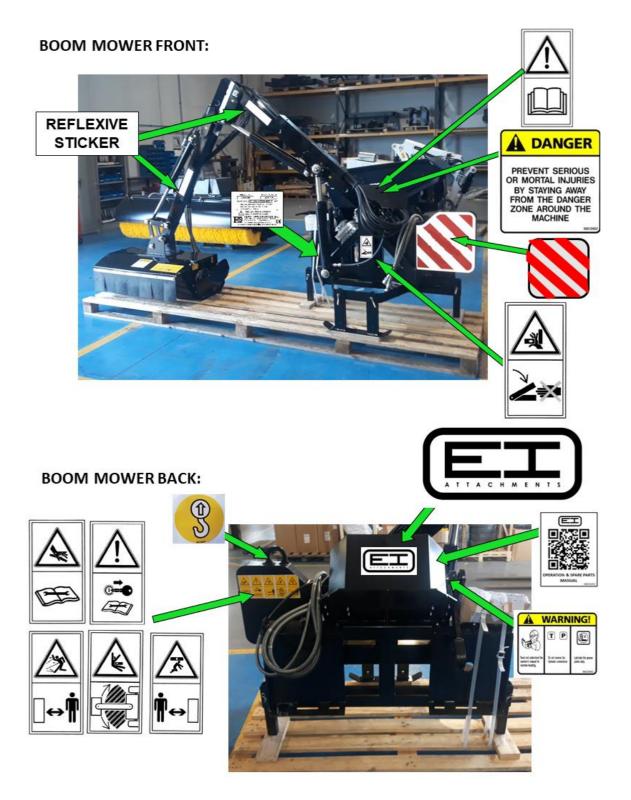
**DECALS ITEMS FOR ORDER:** 





Placement or replacement of Safety decals procedure:







#### **HEAD OF CUTTING EDGE FRONTALN VIEW:**





PREVENT SERIOUS OR MORTAL INJURIES BY STAYING AWAY
FROM THE DANGER
ZONE AROUND THE
MACHINE















#### BACK:













## 4.- SERVICE & REPAIR - SAFETY



#### DO NOT MODIFY THE BOOM MOWER IN ANY WAY.

Personal injury could result. If you have questions, contact your dealer.

Repair or adjust the boom mower in a safe and flat area, away from traffic and other hazards.

Before adjusting or servicing the boom mowert, lower boom mower to the ground, stop the prime mover engine, set the brakes and remove the key from the ignition.

When working on or around the boom mower, lower it to the ground or secure it with transport chains or cylinder-stop locks.

Stop the prime mover engine and cycle control levers to release hydraulic pressure before servicing or adjusting boom mower hydraulic systems.



#### WARNING!

**ESCAPING HYDRAULIC FLUID CAN HAVE ENOUGH PRESSURE TO PENETRATE THE SKIN,** causing serious personal injury.

Do not bend high pressure lines. Do not strike high pressure lines. Do not install bent lines, bent tubes, or kinked hoses. Do not install damaged lines, tubes, or hoses. Repair damaged or loose lines, tubes and hoses. Leaks can cause fires. See your dealer for repair or replacement parts.

Replace the parts if any of the following conditions are present:

- The hose has been pulled or stretched. Make sure that all clamps, guards, and shields are installed correctly.
- The end fittings are damaged or leaking.
- The outer covering is chafed or cut.
- The reinforcing wire layer is exposed.
- The outer covering is ballooning locally.
- The hose is kinked or crushed.



## **5.- OPERATION**



#### A BOOM MOWER IS A DEMANDING MACHINE.

Only fully trained operators or trainee operators under supervision of a fully trained person should use this attachment.

#### Before operating Boom mower:

- •Learn boom mower and prime mover controls in an off-road location.
- •Be sure that you are in a safe area, away from traffic or other hazards.
- •Check all hardware holding the boom mower to the host machine, making sure it is tight.
- Replace any damaged or fatigued hardware with properly rated fasteners.
- Make sure all hydraulic hardware and hydraulic fittings are tight.
- Replace any damaged or fatigued fittings or hoses.
- •Check all tire pressures before starting boom mower Works.
- •Check tire ratings to be sure they match the prime mover load. Weigh the boom mower end of the prime mover, if necessary, to insure proper tire rating.
- •Remove from the cutting area all property that could be damaged by flying debris.
- •Be sure all persons not operating the boom mower are clear of the boom and the cutting edge motor area.
- •Always wear proper apparel such as a long sleeved shirt buttoned at the cuffs; safety glasses, goggles or a face shield; ear protection; and a dust mask.

#### **Installation Procedure and Use:**

- Check pins, bolts, etc that are placed and wellfixed. Check oil lackages are not visible. If you observe oil lackages, please contact to an official agent to proceed to repair them.
- Connect the attachment to the prime mover machine by the own system of each model. Check that it remains firmly fixed.
- Connect the hydraulic tubes to the machine checking that the flowing coincidates (pressure and return). Before connecting them, clean the connections properly.
   Dirt can harm seriously the hydraulic circuit. When disconnecting the attachment place the corresponding caps on the quick couplers.
- Before operating the attachment check that it works correctly.
- o Do not carry out different applications with the attachment than those for which it is designed.
- Keep the appropriate boom position and prime mover machine engine rpm.



- Hold tied to a safety surface to access to the prime mover machine, put the feed onto the top of the boom mower frame (that must be clean and dry), when the prime mover machine (host machine) is a SSL.
- Remove hydraulic oil pressure from the auxiliar line of the SSL, stop engine and connect quick fit connectors from the boom mower to the prime mover machine.
   Be sure that the prime mover machine is completely stopped (brakes ON).
- Connect boom mower using the joisticks of the prime mover machine. Never connect it, if people are closer than 65 ft. Be sure that there is no pressure between the arms of the host machine to the grown when the connecting operation of the boom mower to the prime mover machine is carried out.



- Never start operating the attachment before first having read the operating manual.
- Do not allow anyone to stand in the operating area of the machine.
- Keep always the machine leveled when you operate in areas with tilt.
- Before going through dangerous areas check carefully all the obstacles that could be in the area.
- Check the attachment's plate to verify maximum pressure: Never work up to the maximum pressure. Boom Mower cannot permit counter-pressure into the return back oil line. If there is "High Flow Line" or "High Pressure" installed to the prime mover machine / SSL, never use them for the work of the boom mower.
- Check that cutting edges can move correctly.
- When transportation, retract the booms of the boom mower as much as possible.
   Take care when passing throw bridges or low passages to avoid contact with the boom, it could damage the boom mower or create a hazarouse situation.
- Ensure the working area free of people, holes, or irregular surfaces that could be dangerous for the operator.

#### While operating the boom mower:

- •When operating boom mower, adhere to all government rules, local laws and other professional guidelines for your grass cutting application.
- •Before leaving the operators area for any reason, lower the booms till stand the cutting device to the ground. Stop the prime mover engine, set the brakes and remove the key from the ignition.
- Minimize flying debris use the slowest rotating speed that will do the job.





- Never allow people near the boom mower motor. Ensure there is a minimum distance of 45 ft from people when boom mower is working. That way will avoid accidents and people injuries or flying debris.

•Keep hands, feet, hair and other loose clothing away from all moving parts.



- keep hands out of moving parts.

- •Leave the cutting edge hood (shield) and all other shields and safety equipment in place when operating the boom mower and primer mover.
- •Take care when the boom system of the boom mower is extended. Reduce travel speed accordingly and be careful with the obstacles acrooss the cutting direction..
- •When cutting the grass on rough terrain, reduce speed to avoid "bouncing" the boom mower. Loss of steering can result.
- •Never use the boom mover toward people, buildings, vehicles or other objects that can be damaged by flying debris or crash. Keep mínimum 45 feet distance.
- •Only operate the boom mower while you are in the seat of the prime mover. The seat belt must be fastened while you operate the prime mover. Only operate the controls while the engine is running. Protective glasses must be worn while you operate the prime mover and while you operate the Boom Mower.
- •While you operate the boom mower slowly in an open area, check for proper operation of all controls and all protective devices. Note any repairs needed during operation of the boom mower. Report any needed repairs to the person responsable of the job.

#### **Before Each Use:**

Perform daily maintenance as indicated in Maintenance Schedule list. Run the prime mover and boom mower at a low idle. Check for hydraulic leaks or other problems and make corrections, if necessary, before using the attachment. In that way you will avoid further damages or unexpected events.





Check for large objects that could harm the operator or others if thrown by the boom mower. Remove these items before operating.

#### **Installation and during the Use:**

- Attach the boom mower to the mechanical locks provided for this purpose on the carrier machine (loader, truck, etc.), in accordance with the instructions of the carrier machine manufacturer.
- To attach your boom mowe to prime mower, you must place the implement on a flat surface. The boom mower must be folded and resting on the 3 points formed by the 2 adjustable legs and the boom mower head. Attach the implement and make sure that the fastenings are installed.
- Depressurise the hydraulic oil in the auxiliary circuit of the carrier machine, stop the engine and connect the hydraulic quick couplings of the boom mower to those of the machine. Ensure that the prime mower machine is properly braked and correctly parked when carrying out this operation. The boom mower accepts the maximum flow and pressure indicated on the plate of the boom mower: never work beyond these limits. The boom mower does not accept back pressure in the return circuit. Also, make sure that the header motor drain is connected to a pressure-free line directly to the tank. Failure to do so could prematurely damage the header pump during the boom mower operation.
- Switch on the boom mower using of the joystick control for the cylinder movements and start the head engine: if there is a separate control inside the carrier vehicle, make sure that it is functioning correctly in stop/start mode.

If the stop/start is on the joystick, make sure that the stop/start operation is correct and that the flow divider distributes oil to the headstock and cylinders in such a way that the 2 movements are correct.

Never do this in the presence of persons or objects within 10 metres of the boom mower.

- If the carrier machine is equipped with a "High Flow" or "High Pressure" circuit, never use them to operate the implement.
- Check the operation of the 3rd boom safety cylinder, following the instructions appended to the manual.



- Secure the clearing area and check that there are no sinkholes, slopes, obstacles or people in the area. Prepare to clear at a speed that allows you to manoeuvre the boom mower and vehicle in the event of unforeseen circumstances (<u>less than 3 km/hour- 1,86 mph</u>).



- Never lift the boom mower booms over people or objects.
- Never get off the carrier without first stopping the engine.
- Never get off the carrier vehicle with the boom mower head in operation.
- When applying pressure to the head with the boom, the head must rest on the guide roller and you must adjust the height with the various boom mower booms to achieve perfect boom mower quality. Excessive head pressure on the ground can lead to premature wear of the head or serious damage to the entire attachment.
- Boom mower booms are not designed to clear trees or other objects. Use caution when boom mower near traffic signs (vertical signage), bridges, etc. Impact with vertical objects will damage your attachment and put your safety at risk.



- Hydraulic components may only be handled by authorised workshops. Never remove the engine guard (or the hydraulic system). Never tamper with them, especially when the boom mower is running. If any of these components are damaged or if you notice oil leaks, unusual noises, etc., call an authorised workshop.

- If you do not know how to operate the boom mower, practise operating it in a secluded place where there is no danger to yourself or bystanders.
- If you are travelling on the road with the carrier vehicle, always keep it retracted and free of hydraulic fluid to avoid unforeseen accidents.



- Do not allow anyone to come within 10 metres of the hedgecutter in operation. This will prevent accidents due to trapping, knocks or projections.

- Wear suitable close-fitting clothing and protective goggles.
- Do not hesitate to contact your workshop or authorised agent if you have any questions about the installation, operation or maintenance of your boom mower.



#### NOTICE!

#### **AVOID BOOM MOWER DAMAGE.**

Reduce travel speed to avoid hitting immovable objects.

#### SAFETY IS THE RESPONSIBILITY OF THE OPERATOR

DL.1000 / C boom mower attachment has been designed for maximum safety. But a machine design cannot allow for negligent acts or errors in the use of the implement by the operator. The Manufacturer declines all responsibility for negligent acts in the operation by the user/operator of the implement.

# **6.- FUNCTIONS- JOYSTICK OPERATION.**

#### **OPERATIONS PROCEDURE:**

<u>Joystick functions for 10.DL.1000 and 10.dl.1000-C Hedgecutters:</u>

#### 1.- Joystick:



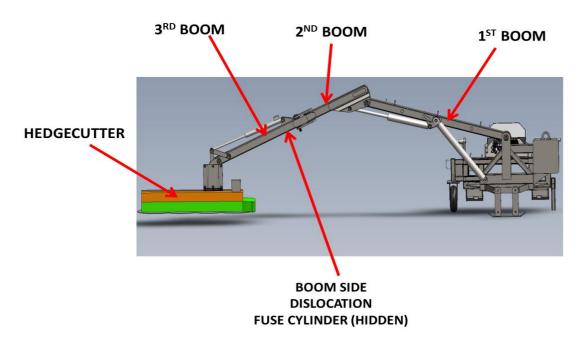
Joystick assy is composed with a hand buttons control, one 12 Volts electric coupler for the power lighter and a pin coupler to transfer electronic signal to the electro-hydraulic distributor of the hedgecutter.



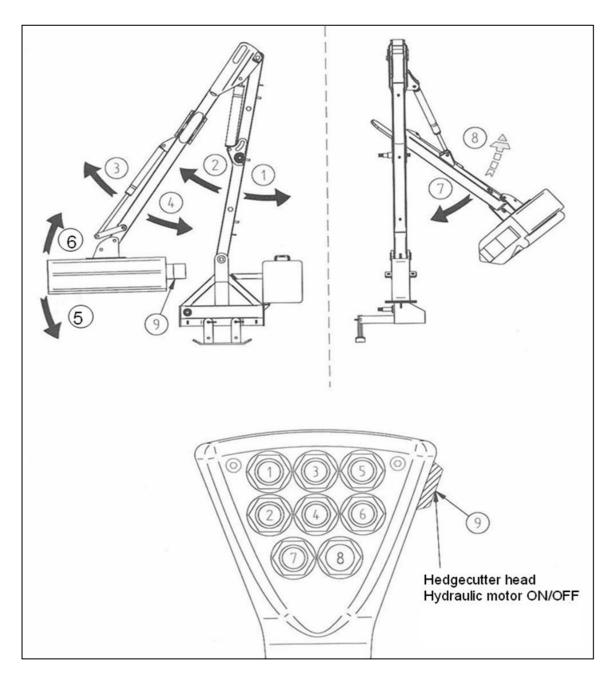
#### **2.- FUNCTIONS AND BOOMS MOVEMENTS:**

#### **Functions:**

- $\begin{pmatrix} \mathbf{1} \end{pmatrix}$  1st boom up movement.
- (2) 1st boom down movement.
- **3** ) 2nd boom extension movement.
- (4) 2nd boom retract
- **5** Down Head Movement.
- **6** ) Up Head Movement.
- $\left(f{8}
  ight.$  Release Oil Pressure in 3rd and 2nd boom when working an obstacle is found.
- (7) Oil Pressure ON before an obstacle is saved.
- **9** ON-OFF button for Head hydraulic motor.







# 3.- Safety cylinder /Fuse Cylinder operation procedure :

#### 3.1. Introduction:

 Before Hedgecutting operation locate head onto the place you want to work. Press Button number 7 in order to fill oil pressure to the fusse cylinder (between 2<sup>nd</sup> and 3<sup>rd</sup> boom).



- Consider the material characteristics you are going to cut and the environment orography.
- Never drive across obstacles, it could hard attachment integrity.
- If inusual noise is appreciated, stop working hydraulic motor pressing button **number 9.**
- <u>Drive slowly when cutting operation (maximum 3 km/hr speed</u>), you could observe posible obstacles and avoid damage on your equipment.

#### 3.2. Operation procedure when and obstacle is found a long your cutting direction :

During cutting operation, when and obstacle is found, your Hedgecutter is provided with a sequence valve that allows a small movement of the 3rd boom backwards mechanically. The responsable device is the sequence valve. It is adjusted between 80 an 85 bar pressure value. This valve can be adjusted depending on the resistance of the cylinder to retract when an obstacle is found (increase pressure if easily is retracting or reduce pressure if the cylinder cannot retract). Be careful with the adjustment and the driving speed when cutting, if the boom is not retracting, it could be damaged.



• It is possible to retract the boom with acting manually the fusse cylinder, pressing **button** 8 of the joystick. Take care when operating this movement, booms and cutter head can crash with the vehicle or objects or people along this movement (see after).



#### When it happens:

- Once the adjusted pressure of the sequence valve is overflown, the fusse cylinder will retract and the boom will move back.
- o Move the cylinder manualy backwards if you need it, pressing **button 8.**



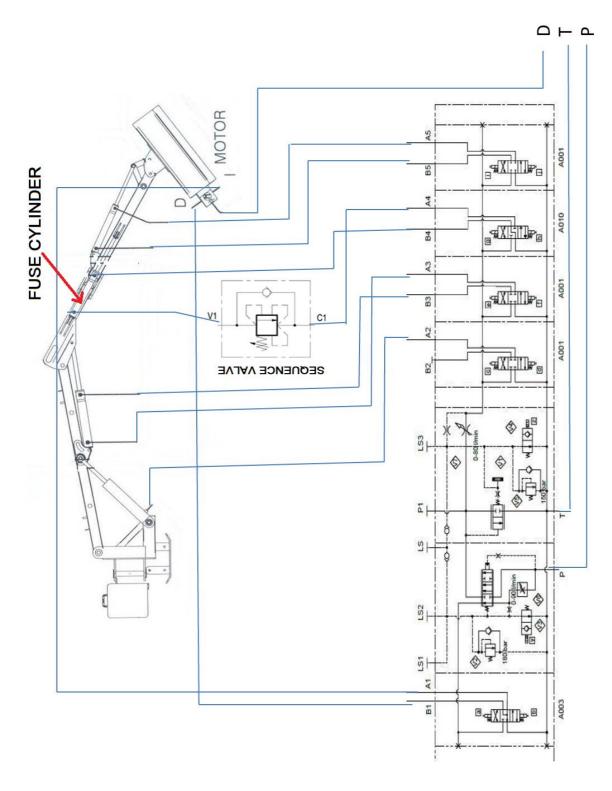
 Move Up Hedgecutter booms cylinders to sabe the obstacle along the driving, press button 7 to position the headedge cutter and the boom completely straight to recover oil pressure in the cylender (between 2<sup>nd</sup> and 3<sup>rd</sup> boom).



o Continue cutting driving at 3 Km/hour.



# 4.- Hydraulic Scheme with sequence Valve:





#### **TROUBBLE- SHOOTINGS:**

1.- Need to use smoothly the Switches or buttons placed on the joystick. Repetitely action onto the buttons won't increase speed of movements of the Boom Mower/ Hedgecutter. This operation will only short the electric components life and it is out of warranty.

#### 2.- Boom doesn't move or motor doen't Works when press it buttons.

#### **Solution:**

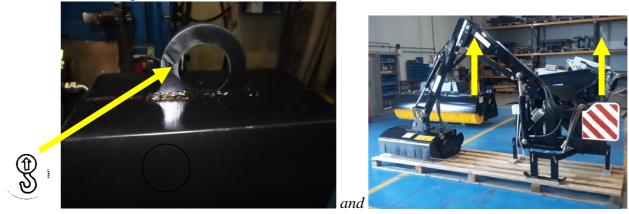
- If problem continues, check electric connections to the distributor, electric switches or connectors it could be damaged.
- Check if there are oil leaks on cylinders, Hydraulic motor or hoses. If the movement is not carried out due to a leak on a cylinder, contact to a dealer to solve the problem.
- If you could not solve the problem, contact to your machina dealer.
- If the hydraulic motor of the edge cutter is stopped, check if there is no objects wrapped around the shaft preventing rotation. If so, do not insist, release it and continue to operate the boom mower.



# 7.- STORAGE AND BOOM MOWER LIFTING PROCEDURE.

#### HANDLING OF THE ATTACHMENT DURING LOADING / UNLOADING

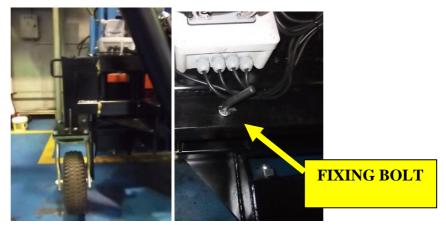
The boom mower attachment is fitted with attachment points that allow the attachment to be handled for unloading from the means of transport on which it is mounted.



#### **WHEEL USE:**

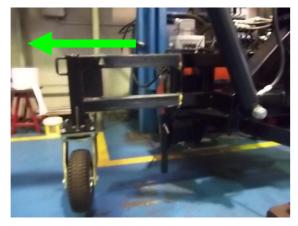
If your boom mower is fitted with a wheel, it can be set to 2 positions:

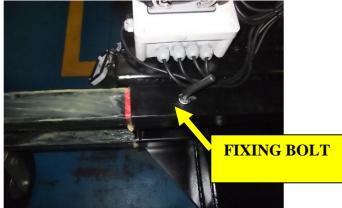
1) **Position 1**: Wheel retracted. Position the wheel, using the handle, and secure it with the bolt.



**Position 2:** Wheel stretched. Position the wheel, using the handle, and secure it with the bolt.









# EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA DUST ALONG WITH OTHER HAZARDOUS DUSTS MAY CAUSE SERIOUS OR FATAL RESPIRATORY DISEASE.

It is recommended to use dust suppression, dust collection and if necessary personal protective equipment during the operation of any attachment that may cause high levels of dust.

#### 7.1. BOOM MOWER LIFTING PROCEDURE

#### LIFTING PROCEDURE AT BOOM MOWER HEIGHT

- 1.- USE TOWS SUITABLE FOR A MINIMUM LOAD OF 1000 KG.
- **2.-** USE THE APPROPRIATE LIFTING EQUIPMENT: TRUCK CRANE, FORKLIFT TRUCK, HOIST, ETC.







#### 3.- PROCEDURE:



- 3.1.- Place the slings on the crane points
- 3.2.- Take care when the crane moves the weight up. Ensure they are leveled.
- 3.3.- Carefuly install the Boom Mower on the truck.



- 3.4.- Fix the machine to the truck using the appropriate fixing systems.
- 3.5.- Drive the truck to another place.

#### **ATTENTION !!!**

THE BOOM MOWER IS BALANCED, BUT IF YOU SEE ANY STRANGE OR UNBALANCED MOVEMENT, POSITION THE BOOM MOWER AGAIN ON THE FLOOR AND PROCEED AGAIN FROM THE BEGINNING OF THE PROCEDURE, ENSURING THAT THE SLINGS ARE EVENLY SPREAD AND CENTERED.



If you are using the host machine (SSL/CTL) for the Boom Mower transportation, take care to:

- First retract the booms to the maximum retract position.
- Retract the head edge cutter.
- Drive slowly the Host machine, as the value of 3 km/hour máximum. If you drive speediest, you have the risk of dumping, and you can expose yourself to an accident.
- Take care with the people and objects around. They are exposed to crash with the Boom Mower booms.





# 7.2. BOOM MOWER STORAGE PROCEDURE FOR THE BOOM MOWER

If you need to store the Boom Mower:

1.- Position the arm extended till the head edge cutter is standing on the floor.



2.- Position the legs down.



3.- Slowly move the lock pins handles of the SSL/CTL to unlock the pins (handles up).





4.- Remove the hock of the arm of the Boom Mower from the SSL/CTL coupling PIN.



5.- Un couple the SSL/CTL universal couplers from the Boom Mower couplers.



6.- Uncouple Hydraulic connector.







Storage position.

**Note:** If the Boom Mower has a Wheel, position it in vertical and carry out the same procedure.



### 8.- MAINTENANCE

Maintenance shall be understood as those operations or procedures to be carried out so that the operation of the BOOM MOWER is always optimal and as expected.

Therefore, the following will be contemplated:

- 1.- Cutting edges in good state of waste,
- 2.- Greasing the points of the pins in good conditions.
- 3.- Maintenance program of the boom mower.

#### **8.1.- MAINTENANCE SCHEDULE:**

1.- OIL LACKAGES CHECK IN CONNECTORS FROM BOOM MOWER TO MACHINE.

IF LEAKS ARE VISIBLE, SCREW AGAIN THE CONNECTOR. IF LEAKS CONTINUE REPLACE CONNECTOR.



2.- OIL LACKAGES IN HYDRAULIC MOTOR FITTINGS.

IN CASE OF VISIBLE LOST. SCREW AGAIN OR REPLACE THEM.

3.- OIL LACKAGES AT THE HYDRAULIC ENGINE OR TO THE HYDRAYLIC DISTRIBUTOR VALVES.

IN CASE OF OIL LACKAGES, REVIEW ENGINE, VALVES, ETC AND REPLACE IT.

4.- CHECK THE CLEARANCE/PLAY IN THE UNION ASSEMBLY OF THE BOOMS OR BOOMS TO THE CHASSIS.

IN CASE OF PLAY OR MISALIGNMENT, RETIGHTEN THE NUTS OF THE UNION BOLTS.

5.- CHECK THE CONDITION OF THE HEAD BLADES.

IN CASE OF WEAR OR COMPLETE DETERIORATION, REPLACE THEM.PUSHING THE BLADES TO THE LIMIT CAN DAMAGE THE HEAD SHAFT.

- **6.- CHECK THAT THERE ARE NO THREADS, STRIPS, ROPES, WIRES, ETC., BETWEEN THE BLADES AND THE SPINDLE SHAFT**. THEY MUST BE REMOVED IF THEY ARE ATTACHED BETWEEN BEARING AND AXIS SUPORT,
- 7.- KEEP THE JOYSTICK AND ELECTRICAL PLUGS IN A CLEAN AND DRY PLACE.
- 8.- ADJUST THE HEIGHT OF THE CENTRAL BRUSH BY THE ADJUSTMENT SCREW UNDER THE COVER.

ADJUST TO THE CENTRAL BRUSH WASTE POSITION.

9- SAFETY STICKS MUST BE ALWAYS JOINED TO THE ATTACHEMNT. THEY MUST BE CLEANED AND

PERFECTLY VISIBLE. IN CASE OF LOST OR DAMAGE, REPLACE THEM QUICKLY.

10- ALWAYS KEEP THE IMPLEMENT IN A PERFECT STATE OF CLEANLINESS AFTER THE WORK IS WORK HAS BEEN COMPLETED.



#### **MAINTENANCE PROCEDURES:**

PROCEDURE	BEFORE EACH USE	AFTER EACH USE	100 HOURS	COMMENT
CHECK THE STATE OF WEAR AND LACK OF BLADES ON THE ROTOR OF THE HEDGE CUTTER				IT IS RELATED TO WASTE.
CHECK THE INTEGRITY OF THE COUPLER: PIN AND ARM.				
HYDRAULICS CHECK: LEAKS AND DAMAGE OF HOSES AND FITTINGS		*	*	SEE REQUIREMENTS BELOW
CLEANING		*		
LUBRICATION POINTS AND OIL QUALITY CHECK		*	*	
HARDWARE CHECK: CHECK DAMAGES OF PINS, STRUCTURE, CUTTING BLADES, SHIELDS, MISSING PARTS (DECALS/BOLTS,)		*	*	

#### **Hydraulic Check (Fittings/Hoses Inspection) Guideline:**

Stop the prime mover machine engine and release hydraulic pressure before servicing or adjusting BOOM MOWER hydraulic systems.



# **ESCAPING HYDRAULIC FLUID CAN HAVE ENOUGH PRESSURE TO PENETRATE THE SKIN,** causing serious personal injury.

Do not bend or strike high pressure lines. Do not install bent or kinked lines, hoses or tubes. Do not install damaged lines, tubes or hoses.

Repair loose lines, tubes and hoses. Repair damaged lines, tubes and hoses. Leaks can cause fires. See your Implement Sales or dealer for repair or replacement parts. Check lines, tubes and hoses carefully. Do not use your hand to check for leaks. Use a board or cardboard to check for leaks. Tighten all connections to the recommended torque.

#### Replace the parts if any of the following conditions are present:

- The end fittings are damaged or leaking.
- The outer covering of the head cutters TID 100 is chafed or cut.
- The cutters cover shields are broken or missing..
- The hose is kinked or crushed. The hoses have been pulled or stretched. Make sure that all clamps, guards and shields are installed correctly.



# **8.2.- MAINTENANCE RECORD FORM:**

· · · · · · · · · · · · · · · · · · ·	



# 9.- TROUBLESHOOTING

## **Boom Mower Assembly**

Problem	Possible Cause	Possible Solution		
Motor for hedgecutter will not operate	Auxiliary hydraulics control on prime mover is activated in the wrong position	Verify controls. See prime mover owners manual		
	Hoses improperly connected to prime mover	Connect hoses correctly to prime mover		
	Hoses on prime mover are obstructed	Clear obstruction on prime mover		
	Hoses on boom mower are obstructed	Clear obstruction on broom		
	The motor has failed	Replace the motor		
	Insufficient oil flow from the prime mover	Increase engine RPM		
Sluggish cutting operation	One or more seals have failed in the moto	Replace the seals or motor		
	Hydraulic filter on prime mover is dirty	Replace filter		
The motor runs but the hedgecutter rotor does not turn	Motor shaft has a sheared key	Replace key		
	Motor linkage to rotor is damaged	Replace the linkage. Or replace the motor.		
	damage of the one of the bearings	Replace the bearing		
	something is bended around the rotor	Remove cords, metal strips, from the rotor		
	washer/spacers are missing due to the wrong position of the sprocket.	Replace the washers or replace the motor.		
Oil leaks from the motor	One or more seals have failed in the motor	Replace the seals or moto		
	Seals on the fittings are damaged	Replace seals or fittings		
	Fittings are loose or damaged	Tighten or replace fittings		
	Drain line hose not connected directly free to tank	Replace the motor		
	Hydraulic hoses are loose or damaged	Tighten or replace hoses		
Rotor rotates in wrong directions	Hoses installed incorrectly	Switch hose connections		
The grass is not cut and is combed and flattened.	Hedgecutter height is too high. No contact with the groun.	Adjustcentral brush height		
	Travel speed too fast	Reduce travel speed		
	Trying to cut too thick materials or diameter too big.	Avoid thick materials. Adjust to the maximum diameter of 25 mm		
	Hydraulic motor is failing	Replace motor		
	Low hydraulic oil level on the prime mover	Add hydraulic fluid		
Excessive hydraulic oil temperature	Hydraulic hoses are obstructed	Clear obstructions in hoses		
	Hydraulic oil and/or filter on prime mover are dirty	Replace hydraulic oil and/or filter on prime mover		
	Quick couplers are not properly seated	Reconnect quick couplers properly		
	Central Brush height missadjustment	Adjust central brush height		
	Travel speed too fast	Reduce travel speed  Reduce the amount of material being swept. Make more		
	Trying to cut material too thick	passes.		
	Hydraulic motor is failing	Replace motor		
Hydraulic quick coupler leaks	Quick coupler poppet is unseated or damaged	Reconnect or replace the quick couplers		



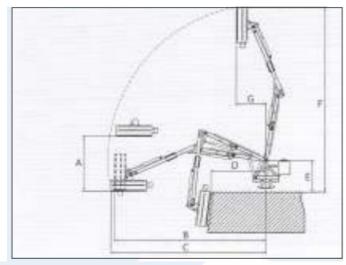
# 10. BOOM MOWER PRODUCT INFORMATION

MODEL: 10.DL.1000 - 4,5 M

10.DL.1000C - 3,5 M



#### **10.- PRODUCT INFORMATION- BOOM MOWER SPECIFICATIONS:**



Dimensions	10DL1000	10DL1000-C	
A Max (Hor. height)	1610mm	1380mm	
В	4430mm	3440mm	
С	4530mm	3540mm	
D	1600mm	1070mm	
E	930mm	930mm	
F	5470mm	4420mm	
G	870mm	1020mm	
data subject to change without previos notice			

#### HEDGE CUTTER MOTOR TYPE: ACCORDING TO HOST MACHINE AUXILIAR FLOW:

AUX. LINE FLOW	MOTOR CC
STANDARD FLOW TILL 70 LPM/ 18,5 GPM	16 CC
STANDARD FLOW BETWEEN TILL 70 LPMAND 90 LPM/ 18,5 GPM÷23,7 GPM:	22 CC

MAXIMUM WORKING PRESSURE	210 BAR/3045 PSI
DRAIN LINF	COMPULSORY
DRAIN LINE	CONNECTED FREE TO
MAXIMUM WORKING SPEED	3 km/h - 1,86 mph

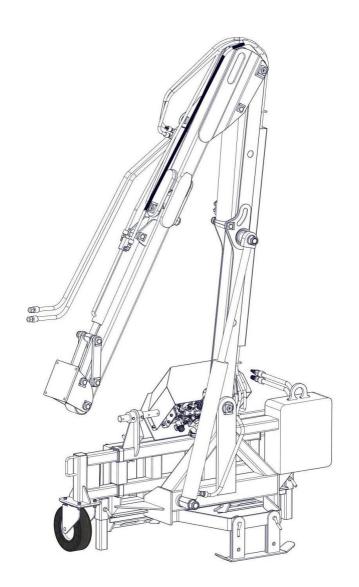


## 11. BOOM MOWER SPARE PARTS

MODEL: 10.DL.1000 - 4,5 M.

10.DL.1000C- 3,5 M.





### 11.1.- 10.DL.1000 BOOM MOWER 4.5 m SPARE PARTS



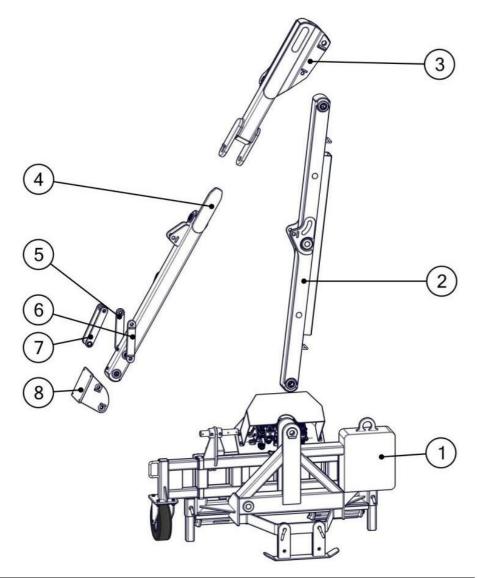


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#### **10.DL.1000-4,5M - MAIN MECHANICAL PARTS**



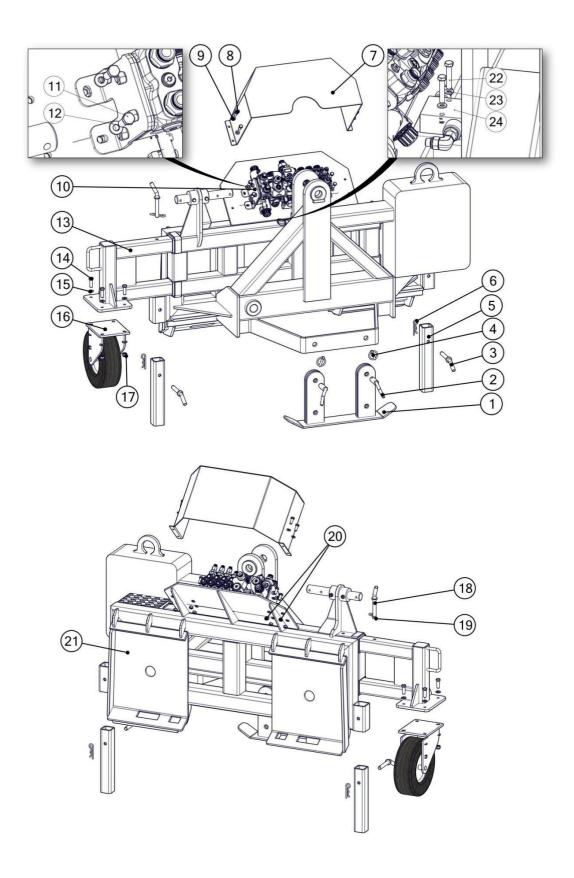
NUM.	REF.	CANT. / QTY	DESCRIPTION
1	*	1	CHASSIS
2	PÁG. 6	1	1st BOOM
3	3520002	1	BOOM UNION
4	PÁG. 7	1	2nd BOOM
5	350C009	1	ARTICULATION
6	3530026	1	ARTICULATION
7	3530016	1	ROD
8	**	1	COUPLING

<sup>\*</sup> REFERENCE DEPENDSON MACHINE AND IF IT HAS WHEEL OR NOT

<sup>\*\*</sup> REFERENCE DEPENDS ON IMPLEMENT MODEL



#### 10.DL.1000-4,5M- CHASSIS





#### 10.DL.1000-4,5M - CHASSIS

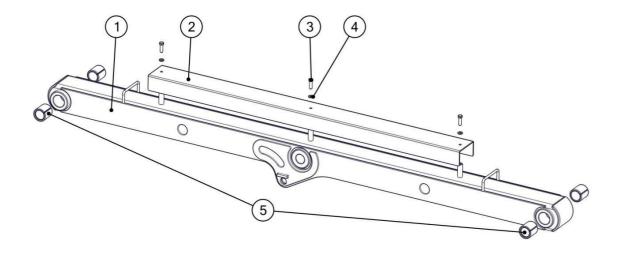
NUM.	REF.	CANT. / QTY	DESCRIPTION
1	20577C08	1	FOOT
2	3500047	2	BOLT
3	20577P18	2	FOOT
4	PASADOR 4X32	2	PIN
5	3500047	2	BOLT
6	PASADOR 3X70	2	PIN
7	2043C10	1	COVER
8	M08X25E	4	SCREW
9	M08D125A	8	WASHER
10	350C201	1	DISTRIBUTOR
11	M08X25E	4	SCREW
12	M08D125A	8	WASHER
13*	350C006	1	WHEEL SUPPORT
14*	M10X35E	4	SCREW
15*	M10D125A	8	WASHER
16*	350C210	1	WHEEL
17*	M10D934T	4	NUT
18	350C007	1	BOLT
19	PASADOR 4X32	1	PIN
20	M08D934T	8	NUT
21	**	1	CHASIS
22	M08X45E	2	SCREW
23	M08D125A	2	WASHER
24	3503011	1	VALVE

<sup>\*</sup> ONLY AVAILABLE IN CHASSIS WITH WHEEL.

<sup>\*\*</sup> REF. 20582C01 FOR CHASSIS  $\underline{\text{WITH WHEEL}}$  ; REF. 20581C01 FOR CHASSIS  $\underline{\text{WITHOUT}}$   $\underline{\text{WHEEL}}$ 



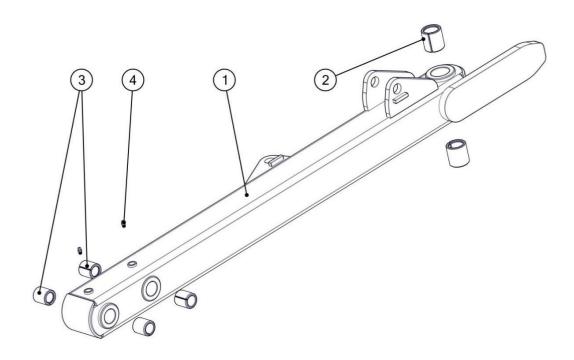
#### 10.DL.1000- 4,5M - FIRST BOOM



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	3510001	1	1st BOOM
2	3510022	1	COVER
3	M08X25E	2	SCREW
4	M08D125A	2	WASHER
5	0851002	4	BUSHING



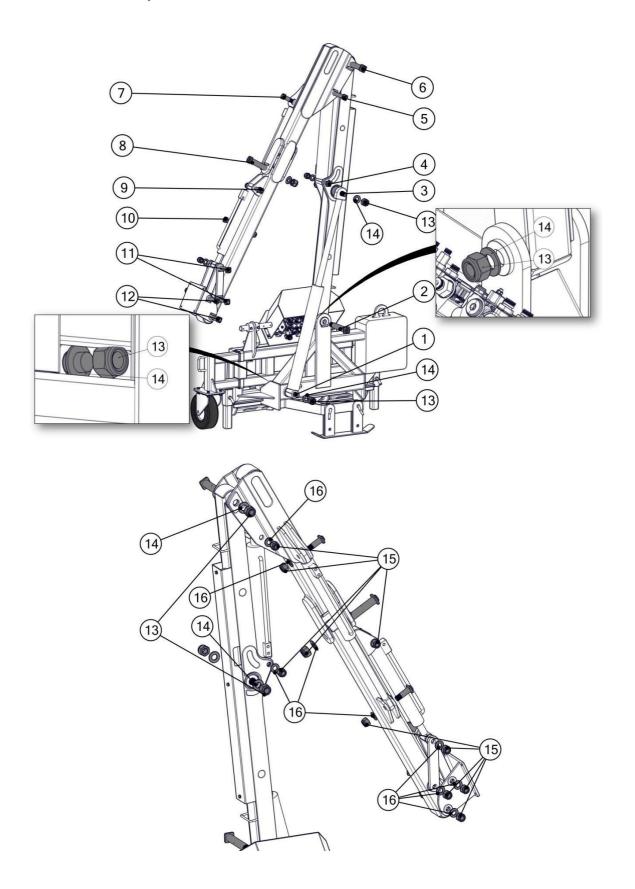
#### 10.DL.1000- 4,5M - SECOND BOOM



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	3520003	1	2nd BOOM
2	0851002	2	BUSHING
3	0151008	4	BUSHING
4	MT50308125	2	GREASING POINT



#### 10.DL.1000- 4,5M - BOLTS



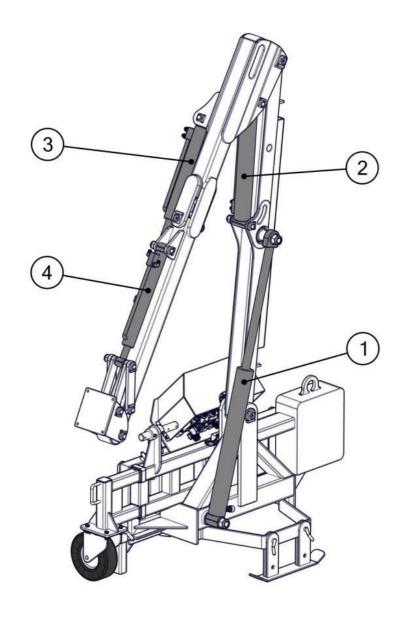


#### 10.DL.1000- 4,5M - BOLTS

NUM.	REF.	CANT. / QTY	DESCRIPTION
1	3501009	1	BOLT
2	350C101	1	BOLT
3	3511011	1	BOLT
4	350C105	1	BOLT
5	350C109	1	BOLT
6	350C101	1	BOLT
7	350C107	1	BOLT
8	350C103	1	BOLT
9	350C106	1	BOLT
10	350C107	1	BOLT
11	350C104	2	BOLT
12	350C102	2	BOLT
13	M30D985T	6	NUT
14	M30D125A	6	WASHER
15	M24D985T	9	NUT
16	M24D125A	9	WASHER



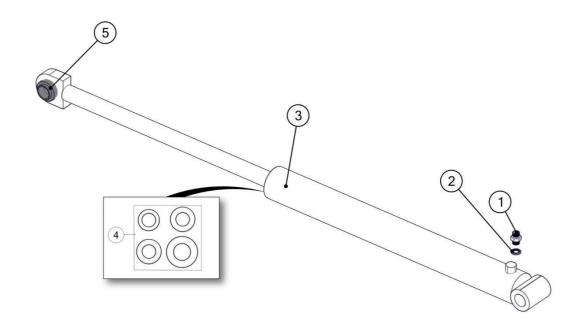
#### 10.DL.1000- 4,5M - CYLINDER ALLOCATION



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	PÁG. 11	1	1st CYLINDER
2	PÁG. 12	1	2nd CYLINDER
3	PÁG. 13	1	3rd CYLINDER
4	PÁG. 14	1	4th CYLINDER



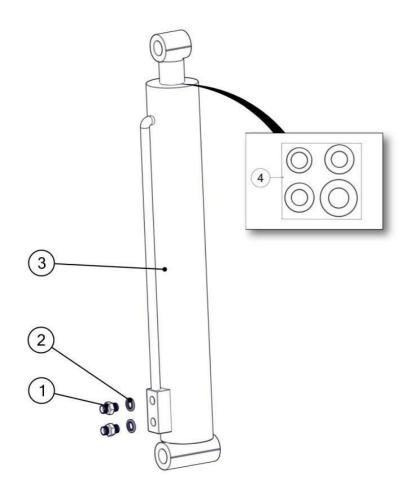
#### 10.DL.1000- 4,5M - 1st CYLINDER-SIMPLE EFFECT



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	31171206	1	STRAIGHT FITTING M-M
2	30470006	1	SEAL
3	3513501	1	CYLINDER
4	3513501KIT	1	SEAL KIT
5	SRC-35	1	ROD



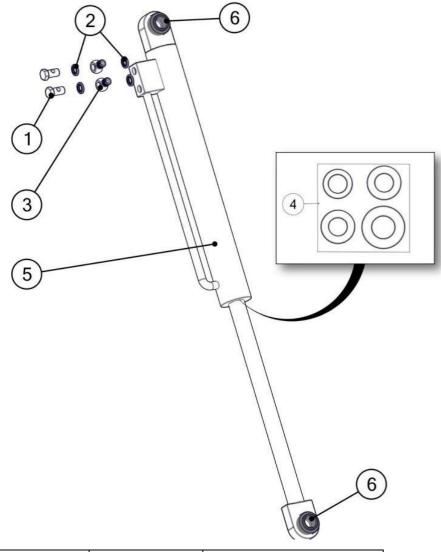
#### 10.DL.1000- 4,5M - 2nd CYLINDER



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	31171204	2	STRAIGHT FITTING M-M
2	30470004	2	SEAL
3	3523017	1	CYLINDER
4	3523017KIT	1	SEAL KIT



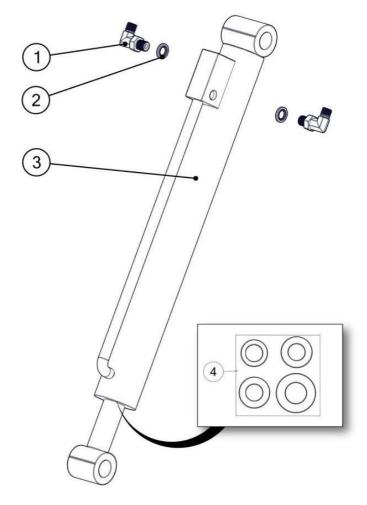
#### 10.DL.1000- 4,5M - 3rd CYLINDER



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	30030004	2	SPHERICAL STRAIGHT
2	30470004	4	SEAL
3	30050004	2	SEAL SCREW
4	3523018KIT	1	SEAL KIT
5	3523018	1	CYLINDER
6	SRC-25	1	ROD



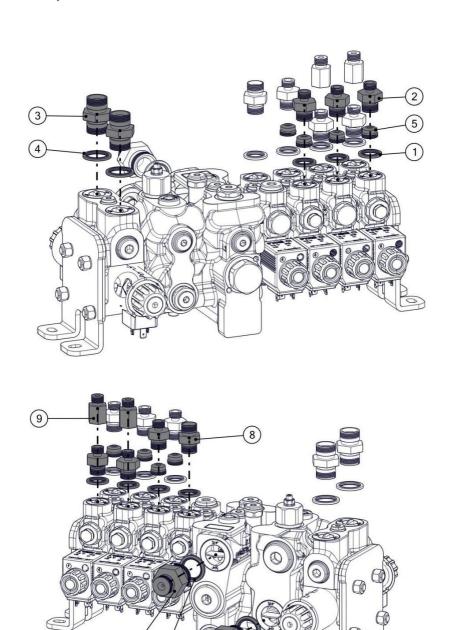
#### 10.DL.1000- 4,5M - 4th CYLINDER



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	34050404	2	ELBOW
2	30470004	2	SEAL
3	3533008	1	CYLINDER
4	3533008KIT	1	SEAL KIT



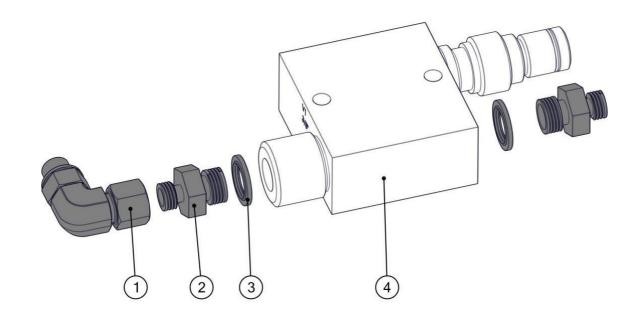
#### 10.DL.1000- 4,5M - DISTRIBUTOR FITTINGS



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	30470006	7	SEAL
2	30190604	6	REDUCER M-M
3	31170808	2	STRAIGHT FITTING M-M
4	30470008	2	SEAL
5	DO563038R	6	FLOW REDUCER
6	30191208	2	REDUCER M-M
7	30470012	2	SEAL
8	31170606	1	STRAIGHT FITTING M-M
9	30270404	3	SUPLEMENT



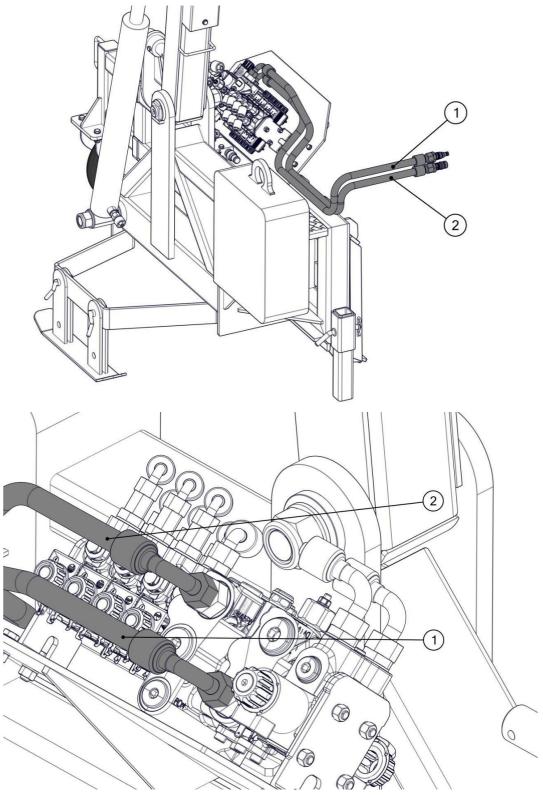
#### 10.DL.1000- 4,5M - SEQUENCE VALVE & FITTINGS



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	34100404	1	ELBOW
2	30190604	2	STRAIGHT FITTING M-M
3	30470006	2	SEAL
4	3503011	1	SEQUENCE VALVE



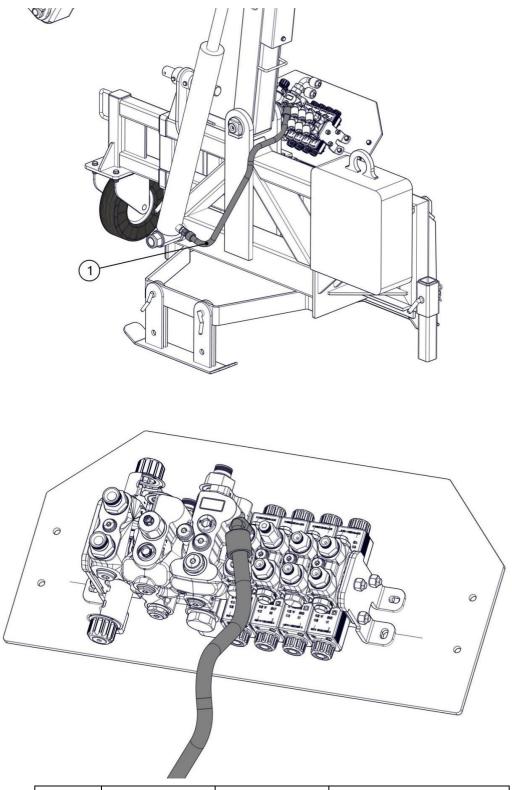
#### **10.DL.1000- 4,5M - HOSE TO MACHINE**



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	450L001	1	HOSE 1/2"
2	450L002	1	HOSE 1/2"



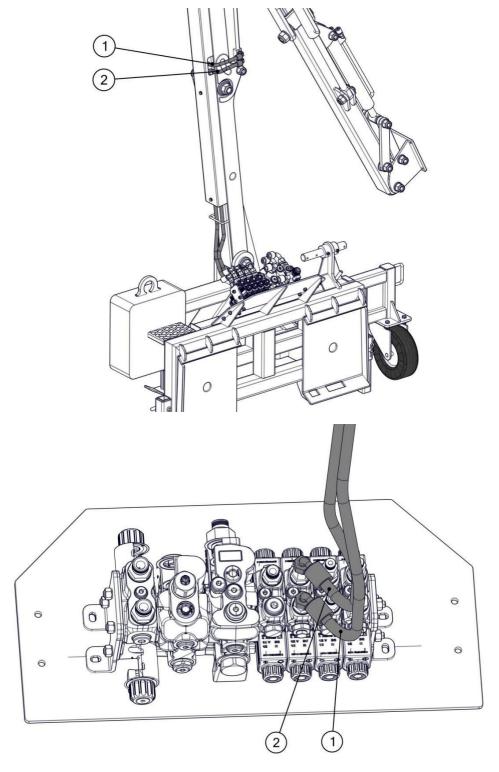
#### **10.DL.1000- 4,5M - HOSE TO 1st CYLINDER**



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	450L005	1	HOSE 3/8"



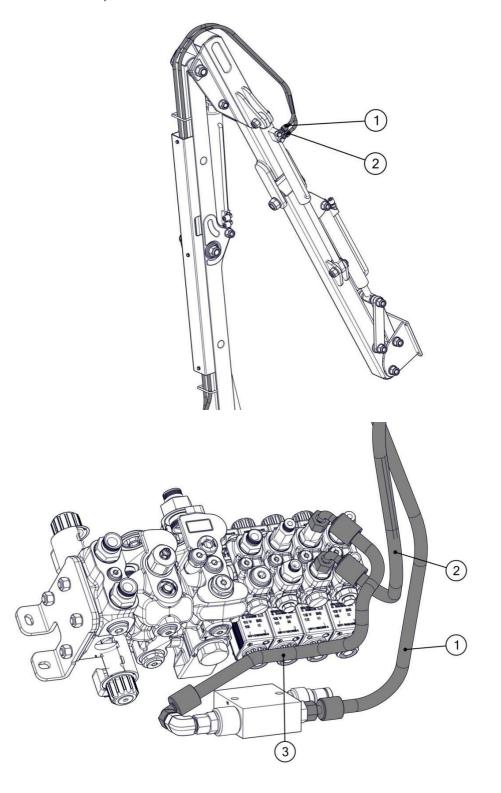
#### 10.DL.1000- 4,5M - *HOSE TO 2nd CYLINDER*



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	450L007	1	HOSE 1/4"
2	450L006	1	HOSE 1/4"



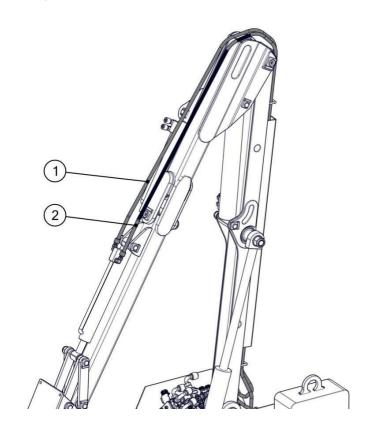
#### **10.DL.1000- 4,5M - HOSE TO 3rd CYLINDER**

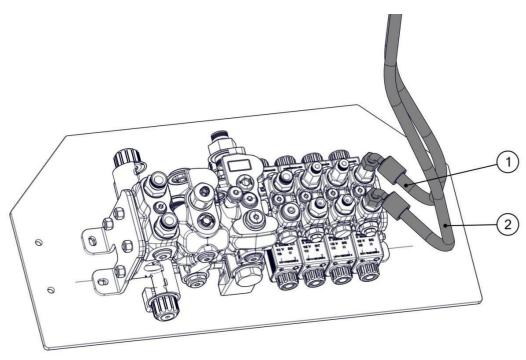


NUM.	REF.	CANT. / QTY	DESCRIPTION
1	450L009	1	HOSE 1/4"
2	450L010	1	HOSE 1/4"
3	450L008	1	HOSE 1/4"



#### **10.DL.1000- 4,5M - HOSE TO 4th CYLINDER**

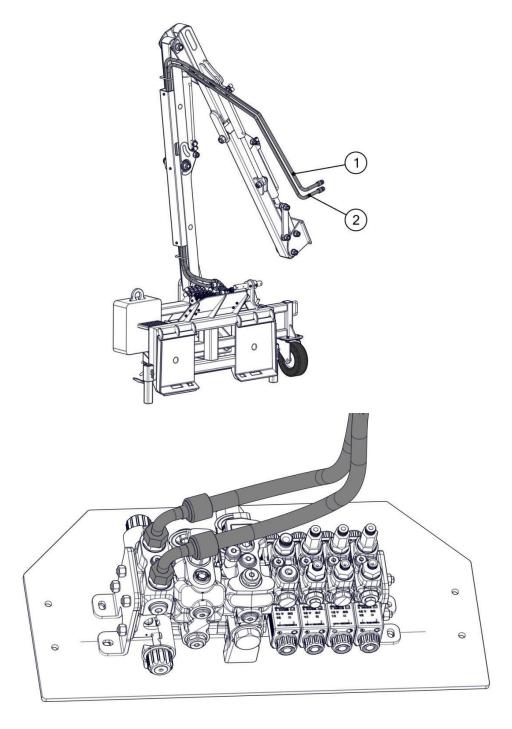




NUM.	REF.	CANT. / QTY	DESCRIPTION
1	450L011	1	HOSE 1/4"
2	450L012	1	HOSE 1/4"

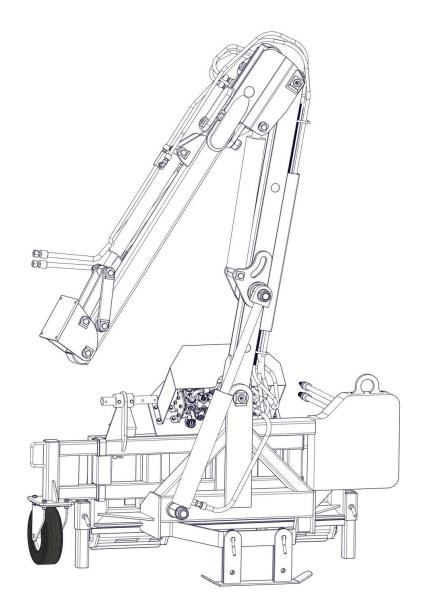


#### 10.DL.1000- 4,5M - HOSE TO HEAD MOTOR (HEDGE CUTTER)



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	450L004	1	HOSE 1/2"
2	450L003	1	HOSE 1/2"





# 11.2.- 10.DL.1000C BOOM MOWER 3.5 m SPARE PARTS



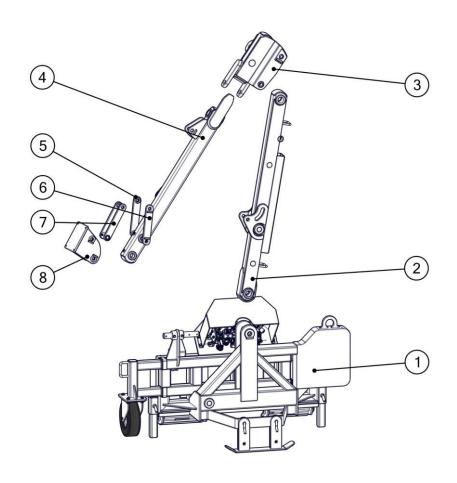


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#### 10.DL.1000C- 3,5M - MAIN MECHANICAL PARTS



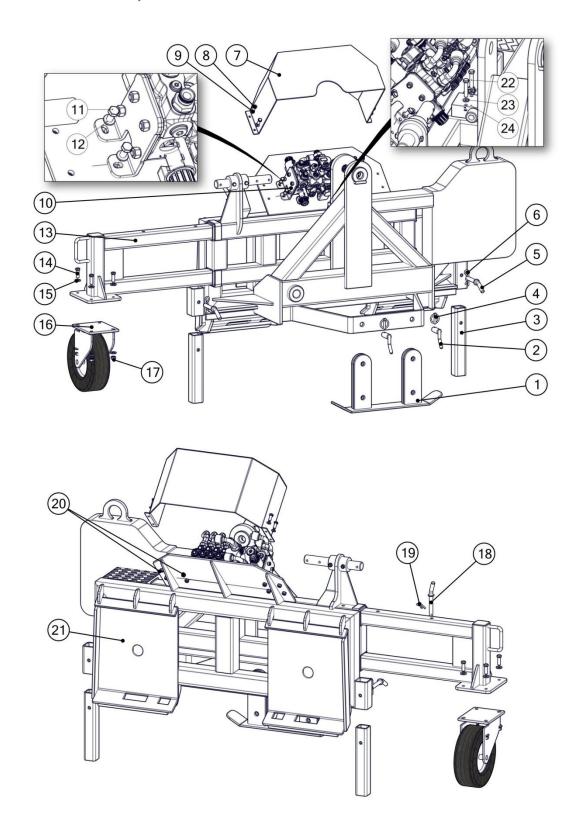
NUM.	REF.	CANT. / QTY	DESCRIPTION
1	*	1	CHASSIS
2	PÁG. 6	1	1st BOOM
3	3520510	1	<b>BOOM UNION</b>
4	PÁG. 7	1	2nd BOOM
5	350C009	1	ARTICULATION
6	3530026	1	ARTICULATION
7	3530016	1	ROD
8	**	1	COUPLING

<sup>\*</sup> REFERENCE DEPENDS ON MACHINE AND IF IT HAS WHEEL OR NOT

<sup>\*\*</sup> REFERENCE DEPENDS ON HEAD CUTTING TYPE AND MODEL



#### 10.DL.1000C- 3,5M - CHASSIS





#### 10.DL.1000C- 3,5M - CHASSIS

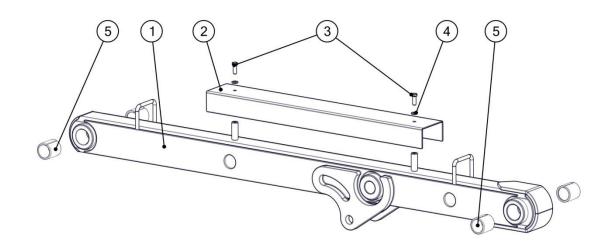
NUM.	REF.	CANT. / QTY	DESCRIPTION
1	20577C08	1	FOOT
2	3500047	2	BOLT
3	20577P18	2	FOOT
4	PASADOR 4X32	2	PIN
5	3500047	2	BOLT
6	PASADOR 3X70	2	PIN
7	2043C10	1	COVER
8	M08X25E	4	SCREW
9	M08D125A	8	WASHER
10	350C201	1	DISTRIBUTOR
11	M08X25E	4	SCREW
12	M08D125A	8	WASHER
13*	350C006	1	WHEEL
			SUPPORT
14*	M10X35E	4	SCREW
15*	M10D125A	8	WASHER
16*	350C210	1	WHEEL
17*	M10D934T	4	NUT
18	350C007	1	BOLT
19	PASADOR 4X32	1	PIN
20	M08D934T	8	NUT
21	**	1	CHASIS
22	M08X45E	2	SCREW
23	M08D125A	2	WASHER
24	3503011	1	VALVE

<sup>\*</sup> ONLY AVAILABLE IN CHASSIS WITH WHEEL.

<sup>\*\*</sup> REF. 20580C01 FOR CHASSIS  $\underline{\text{WITH WHEEL}}$  ; REF. 20577C01 FOR CHASSIS  $\underline{\text{WITHOUT WHEEL}}$ 



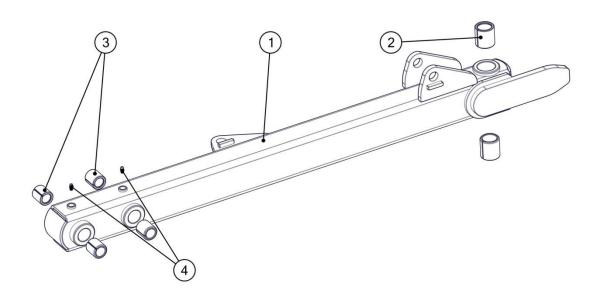
#### **10.DL.1000C-3,5M-FIRST BOOM**



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	3510509	1	1st BOOM
2	3510520	1	COVER
3	M08X25E	2	SCREW
4	M08D125A	2	WASHER
5	0851002	4	BUSHING



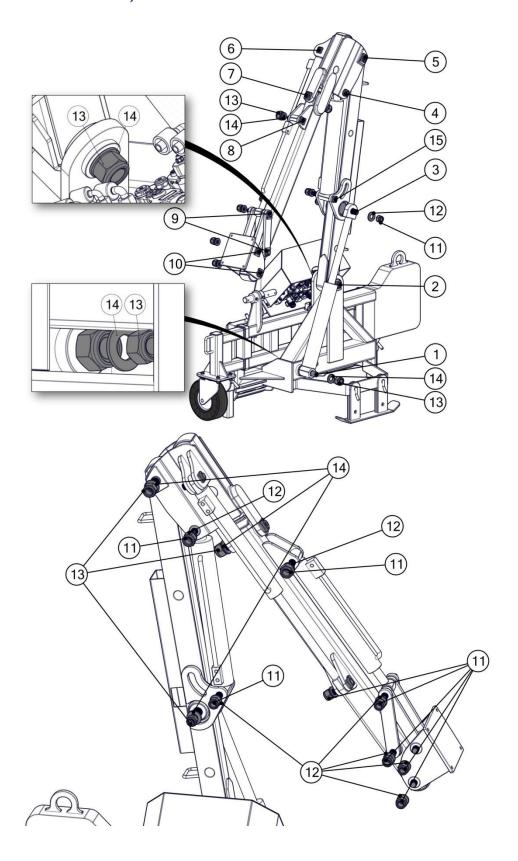
#### 10.DL.1000C- 3,5M - SECOND BOOM



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	3520511	1	2nd BOOM
2	0851002	2	BUSHING
3	0151008	4	BUSHING
4	MT50308125	2	<b>GREASING</b>
			POINT



#### 10.DL.1000C-3,5M - BOLTS



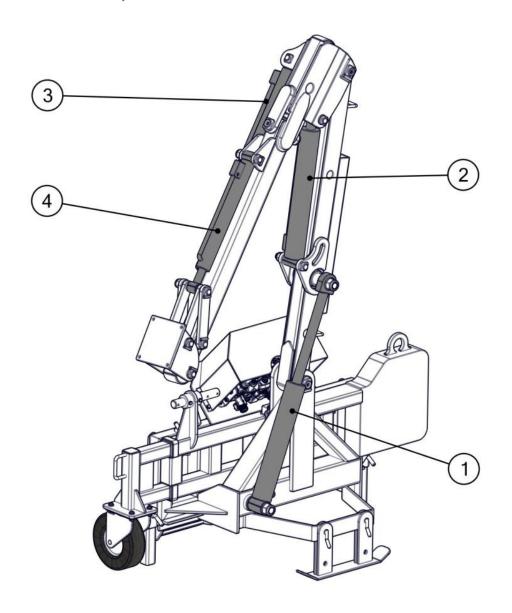


#### **10.DL.1000C-3,5M-BOLTS**

NUM.	REF.	CANT. / QTY	DESCRIPTION
1	3501009	1	BOLT
2	350C101	1	BOLT
3	3511011	1	BOLT
4	350C108	1	BOLT
5	350C111	1	BOLT
6	350C107	1	BOLT
7	350C103	1	BOLT
8	350C106	1	BOLT
9	350C104	2	BOLT
10	350C102	2	BOLT
11	M30D985T	7	NUT
12	M30D125A	7	WASHER
13	M24D985T	9	NUT
14	M24D125A	9	WASHER
15	350C110	1	BOLT



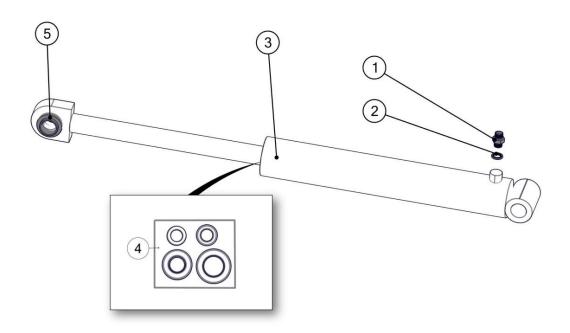
#### 10.DL.1000C- 3,5M - CYLINDER ALLOCATION



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	PÁG. 11	1	1st CYLINDER
2	PÁG. 12	1	2nd CYLINDER
3	PÁG. 13	1	3rd CYLINDER
4	PÁG. 14	1	4th CYLINDER



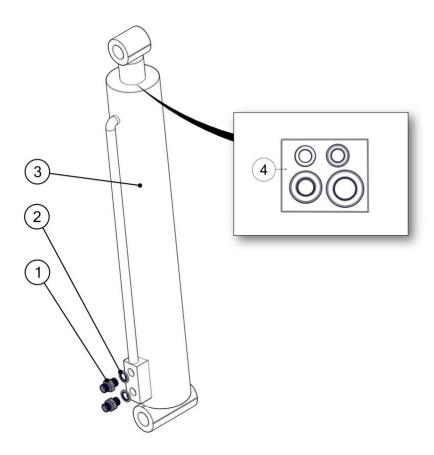
#### 10.DL.1000C- 3,5M - 1st CYLINDER



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	31171206	1	STRAIGHT FITTING
			M-M
2	30470006	1	SEAL
3	3513501	1	CYLINDER
4	3513501KIT	1	SEAL KIT
5	SRC-35	1	ROD



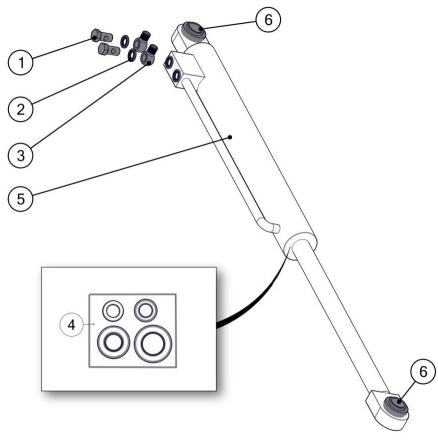
#### 10.DL.1000C- 3,5M - 2nd CYLINDER



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	31171204	2	STRAIGHT FITTING
			M-M
2	30470004	2	SEAL
3	3523017	1	CYLINDER
4	3523017KIT	1	SEAL KIT



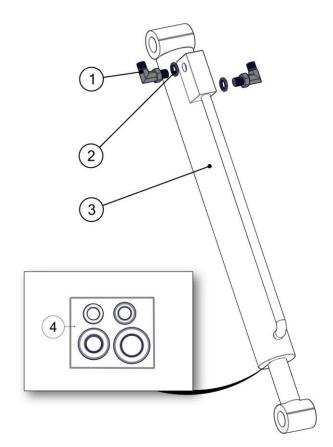
# **10.DL.1000C-3,5M - 3rd CYLINDER**



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	30030004	2	<b>SPHERICAL</b>
			STRAIGHT
2	30470004	4	SEAL
3	30050004	2	SEAL SCREW
4	3523018KIT	1	SEAL KIT
5	3523018	1	CYLINDER
6	SRC-25	1	ROD



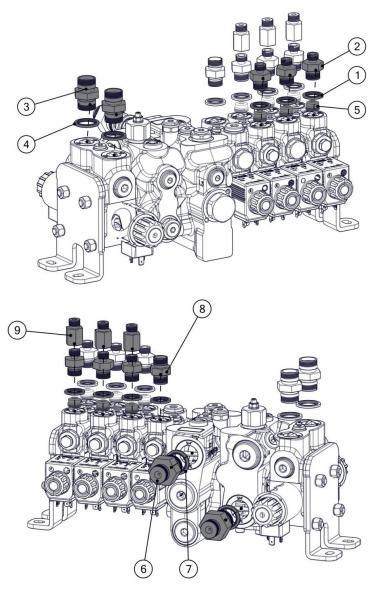
## 10.DL.1000C- 3,5M - 4th CYLINDER



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	34050404	2	ELBOW
2	30470004	2	SEAL
3	3533008	1	CYLINDER
4	3533008KIT	1	SEAL KIT



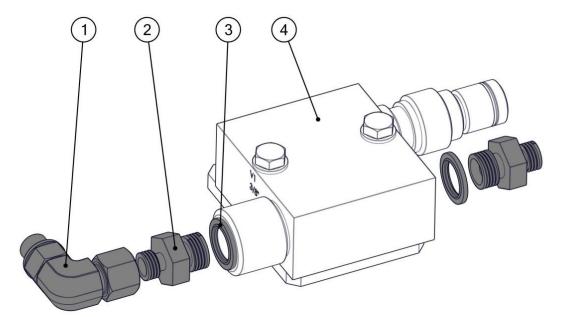
## **10.DL.1000C-3,5M - DISTRIBUTOR FITTINGS**



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	30470006	7	SEAL
2	30190604	6	<b>REDUCER M-M</b>
3	31170808	2	STRAIGHT FITTING
			M-M
4	30470008	2	SEAL
5	DO563038R	6	FLOW REDUCER
6	30191208	2	<b>REDUCER M-M</b>
7	30470012	2	SEAL
8	31170606	1	STRAIGHT FITTING
			M-M
9	30270404	3	<b>SUPLEMENT</b>



# **10.DL.1000C- 3,5M - SEQUENCE VALVE & FITTINGS**



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	34100404	1	ELBOW
2	30190604	2	STRAIGHT FITTING
			M-M
3	30470006	2	SEAL
4	3503011	1	SEQUENCE VALVE

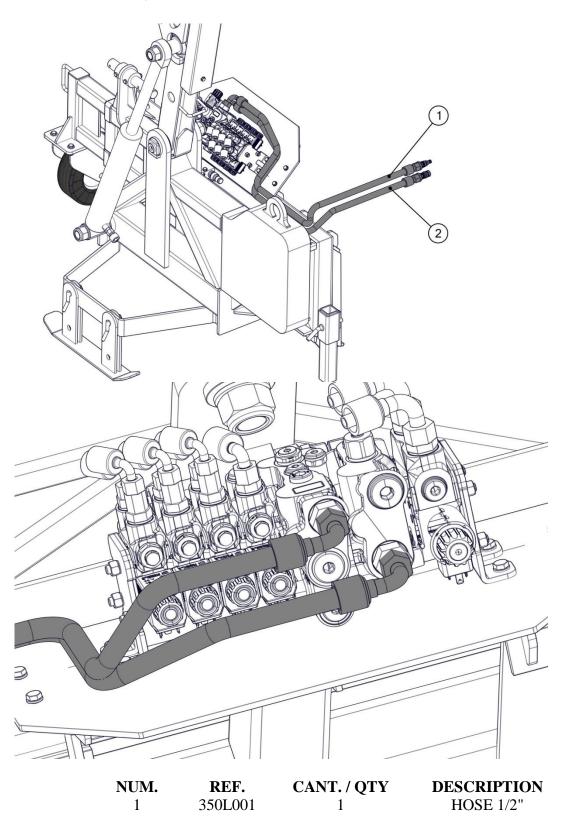


### **10.DL.1000C- 3,5M - HOSE TO MACHINE**

2

350L002

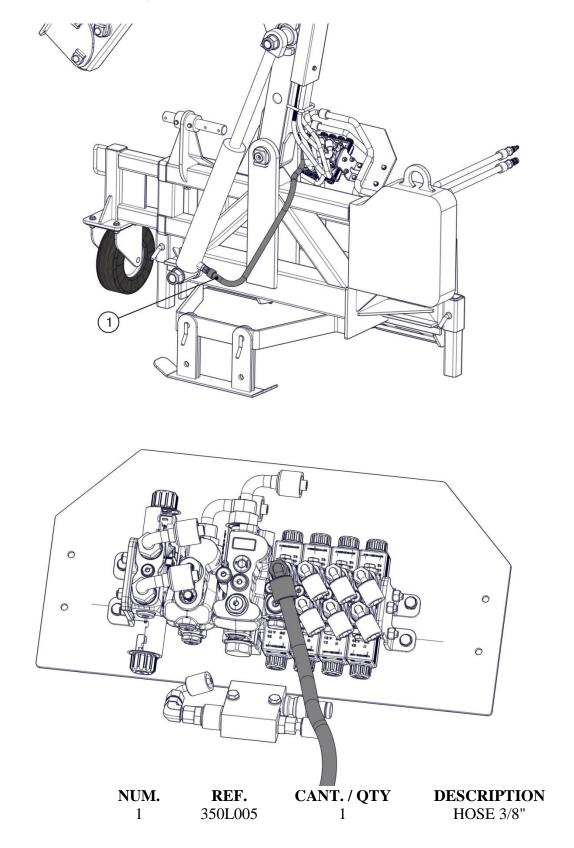
1



HOSE 1/2"	
HOSE 1/2"	

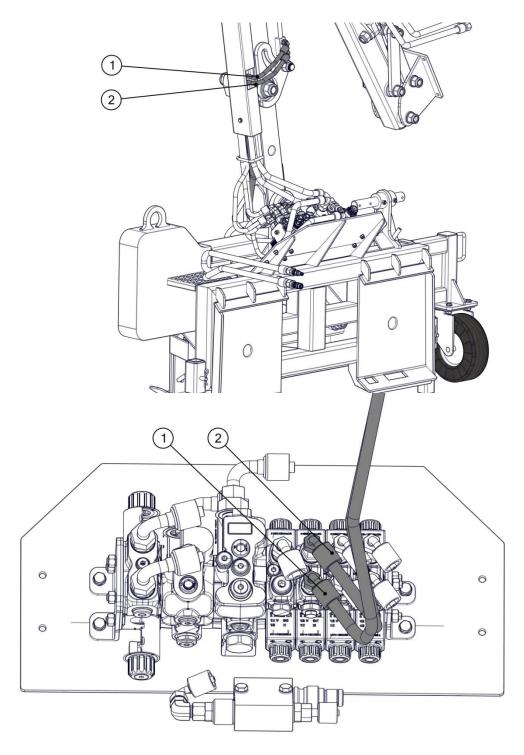


### 10.DL.1000C- 3,5M - HOSES TO 1st CYLINDER





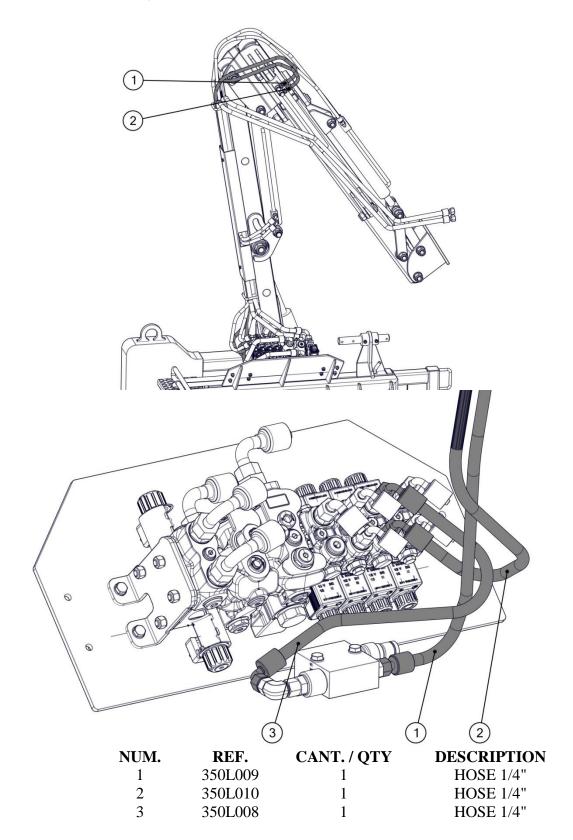
# 10.DL.1000C- 3,5M - HOSES TO 2nd CYLINDER



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	350L007	1	HOSE 1/4"
2	350L006	1	HOSE 1/4"

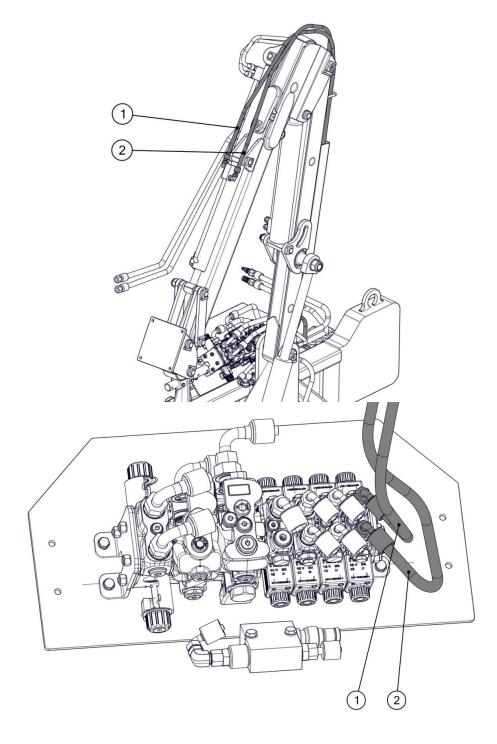


### 10.DL.1000C-3,5M - HOSES TO 3rd CYLINDER





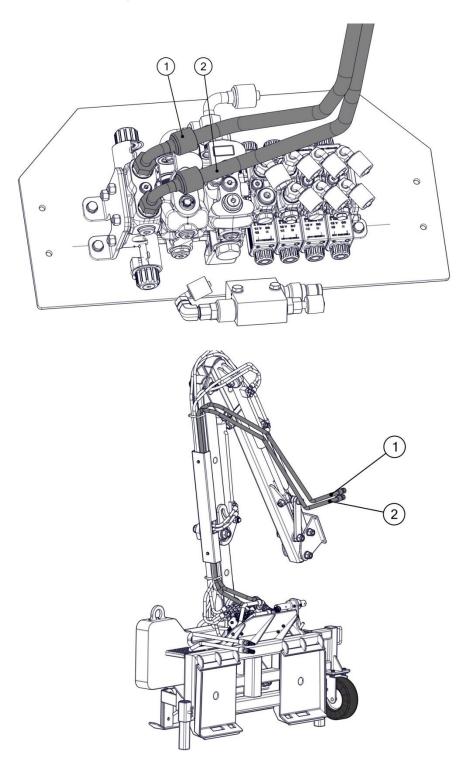
## 10.DL.1000C- 3,5M - HOSES TO 4th CYLINDER



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	350L011	1	HOSE 1/4"
2	350L012	1	HOSE 1/4"



## $10.DL.1000C-3,5M-HOSE\ TO\ HEAD\ MOTOR$



NUM.	REF.	CANT. / QTY	DESCRIPTION
1	350L003	1	HOSE 1/2"
2	350L004	1	HOSE 1/2"



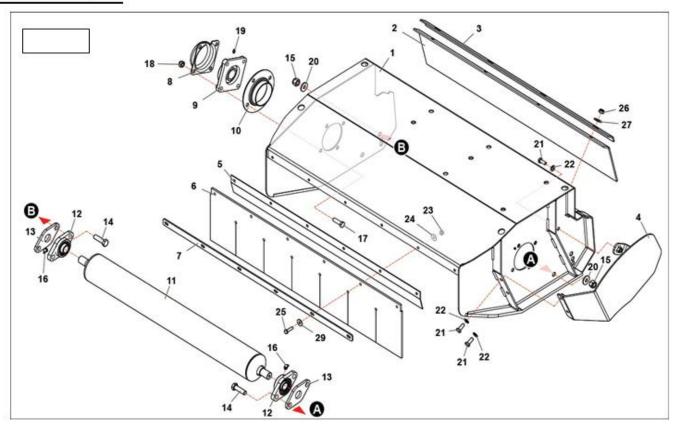
# 11.3. BRUSHCUTTER BLADE HEAD (HEDGE CUTTER) SPARE PARTS

MODEL: TID-100





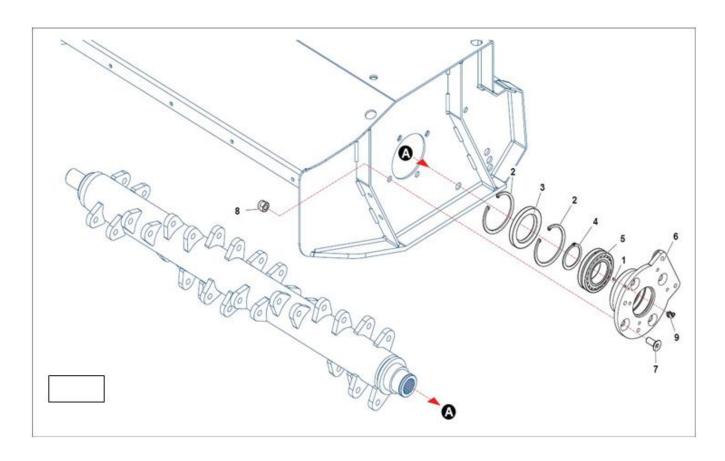
# **MAIN FRAME**



Nr Code	TIDIO0	Denominazione · Denomination · Bezeichnung · Denomination · Denominacion	Note
1 TID110010100	1	Telaio · Frame · Rahmen · Chassis · Bastidor	
2 TID110170100	1	Protezione - Guard - Schutz - Protection - Protection	
3 TN10150200	1	Asta - Rod - Stange - Tige - Asta	
4 TID110170300	1	Carter - Casing - Schutz - Carter - Carter	
5 TIM10150100	1	Lamiera · Metal sheet · Blech · Tole · Chapa	
6 TIM10170100	1	Tela gommata - Rubberized canvas - Gummiertes tuch - Tole en caoutchouc - Tela cauche.	
7 TIM10080100	1	Asta · Rod · Stange · Tige · Asta	
8 THLD105170300	1	Protezione - Guard - Schutz - Protection - Proteccion	
9 0104001	1	Cuscinetto - Bearing - Lager - Roulement - Cojinete	
10 TIM11171000	1	Protezione - Guard - Schutz - Protection - Proteccion	
11 TI10160100	1	Rullo - Roller - Walze - Rouleau - Rodillo	
12 0101002	2	Cuscinetto - Bearing - Lager - Roulement - Cojinete	
13 TIM105160300	2	Spessore - Shimset - Spurscheibe - Epaisseur - Espesor	
14 0369007Z	4	Vite - Bolt - Schraube - Vis - Tornillo	
15 0310008	4	Dado - Nut - Mutter - Ecrou - Tuerca	
16 0339001	2	Ingrassatore - Grease nipple - Schmiernippel - Graisseur - Engrasador	
17 0343006Z	4	Vite - Bolt - Schraube - Vis - Tornillo	
18 0359003	4	Dado · Nut · Mutter · Ecrou · Tuerca	
19 0337001	1	Ingrassatore - Grease nipple - Schmiernippel - Graisseur - Engrasador	
20 031B001Z	2	Rondella · Washer · Scheibe · Rondelle · Arandela	
21 0342005Z	3	Vite - Bolt - Schraube - Vis - Tornillo	
22 031B006Z	3	Rondella - Washer - Scheibe - Rondelle - Arandela	
23 0310001	6	Dado - Nut - Mutter - Ecrou - Tuerca	
24 0349001Z	12	Rondella - Washer - Scheibe - Rondelle - Arandela	
25 0347008Z	6	Vite - Bolt - Schraube - Vis - Tornillo	
26 0359002	4	Dado - Nut - Mutter - Ecrou - Tuerca	
27 0349002Z	4	Rondella - Washer - Scheibe - Rondelle - Arandela	

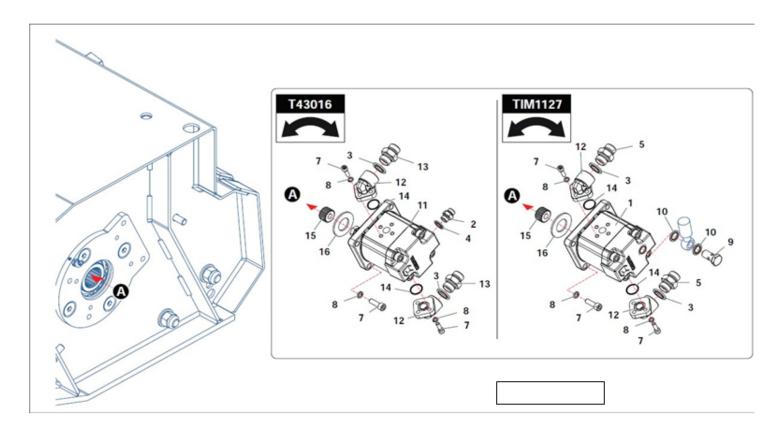


# **ROTOR**



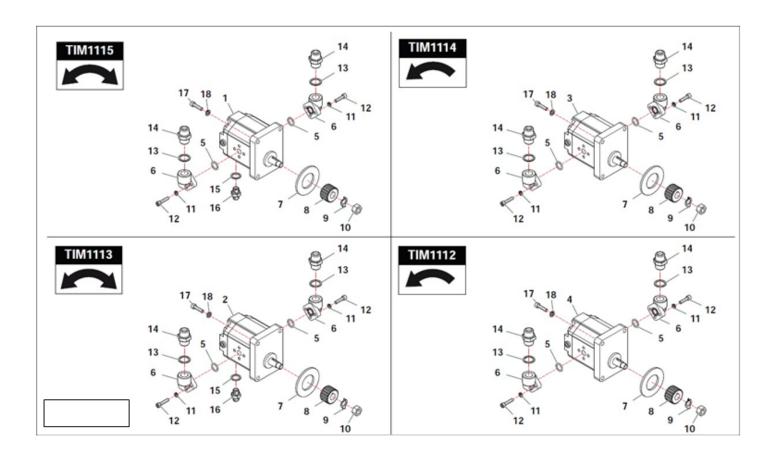
Nr	Code	TIDI00	Denominazione - Denomination - Bezeichnung - Denomination - Denominacion	Note
1	0320017	1	Grano - Bolt - Stift - Vis - Perno de centrado	
1	TI10020300	1	Rotore · Rotor · Messerwelle · Rotor · Rotor	
2	0323073	2	Seeger · Circlip · Seeger · Seeger · Seeger	
3	0201019	1	Anello di tenuta · Seal · Dichtring · Joint d'étanchéité · Guarnicion	
4	0324047	1	Seeger - Circlip - Seeger - Seeger	
5	0106003	1	Cuscinetto - Bearing - Lager - Roulement - Cojinete	
6	TIM11070100	1	Flangia · Flange · Flansch · Bride · Brida	
7	0313003Z	4	Vite · Bolt · Schraube · Vis · Tornillo	
8	0310003	4	Dado - Nut - Mutter - Ecrou - Tuerca	
9	0338001	1	Ingrassatore - Grease nipple - Schmiernippel - Graisseur - Engrasador	





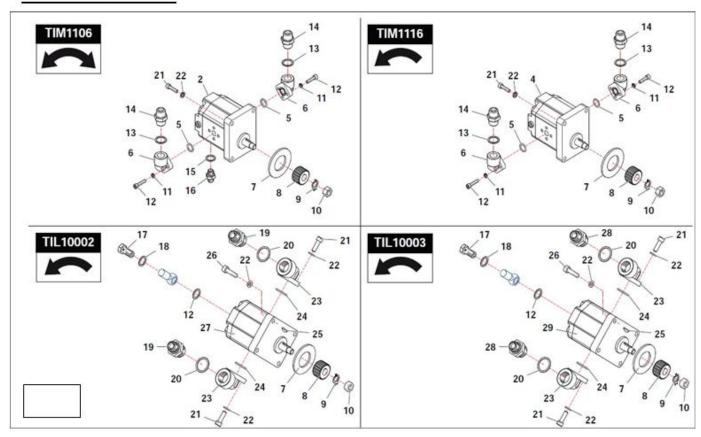
ir Code	TIDIOO	Denominazione · Denomination · Bezeichnung · Denomination · Denominacion	Note
1301134	1	Motore · Motor · Motor · Moteur · Motor	
2 0402002	1	Nipplo - Nipple - Nippel - Niplo - Niple	
3 0436003	2	Rondella · Washer · Scheibe · Rondelle · Arandela	
4 0436007	1	Rondella · Washer · Scheibe · Rondelle · Arandela	
5 0402006	2	Nipplo - Nipple - Nippel - Niplo - Niple	
7 0317006Z	10	Vite · Bolt · Schraube · Vis · Tornillo	
8 031A005Z	10	Rondella · Washer · Scheibe · Rondelle · Arandela	
9 0412002	1	Vite cava · Hollow Screw · Hohlschraube · Vis creuse · Tornillo hueco	
10 0436007	2	Rondella · Washer · Scheibe · Rondelle · Arandela	
11 1301066	1	Motore - Motor - Motor - Motor	
12 1304006	2	Flangia · Flange · Flansch · Bride · Brida	
13 0401006	2	Riduzione · Nipple · Nippel · Adapteur · Reduccion	
14 OR814	2	Guarnizione - Gasket - Dichtung - Joint - Empaquetadura	
15 1302015	1	Mozzo - Hub - Nabe - Manchon - Cubo	
16 23535	1	Anello · Ring · Ring · Bague · Anillo	





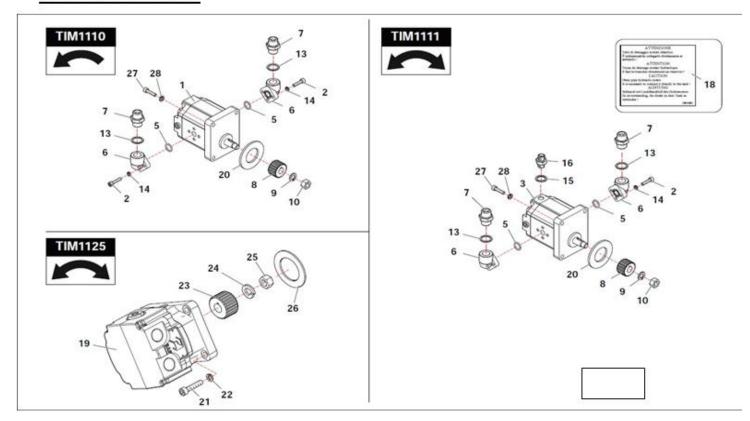
	711100	TIDIOS		
Nr Code	TIMIIO	TIDIOO	Denominazione · Denomination · Bezeichnung · Denomination · Denominacion	Note
1 1301104	1	1	Motore · Motor · Motor · Moteur · Motor	
2 1301079	1	1	Motore · Motor · Motor · Moteur · Motor	
3 1301094	1	1	Motore · Motor · Motor · Moteur · Motor	
4 1301093	1	1	Motore · Motor · Motor · Moteur · Motor	
5 OR809	2	2	Guarnizione - Gasket - Dichtung - Joint - Empaquetadura	
6 1304005	2	2	Flangia · Flange · Flansch · Bride · Brida	
7 23535	1	1	Anello - Ring - Ring - Bague - Anillo	
8 1302015	1	1	Mozzo - Hub - Nabe - Manchon - Cubo	
9 003260005000	1	1	Rondella · Washer · Scheibe · Rondelle · Arandela	
10 0309011	1	1	Dado · Nut · Mutter · Ecrou · Tuerca	
11 031A004Z	6	6	Rondella · Washer · Scheibe · Rondelle · Arandela	
12 0316006Z	6	6	Vite - Bolt - Schraube - Vis - Tornillo	
13 0436004	2	2	Rondella · Washer · Scheibe · Rondelle · Arandela	
14 0402004	2	2	Nipplo · Nipple · Nippel · Niplo · Niple	
15 0436006	1	1	Rondella · Washer · Scheibe · Rondelle · Arandela	
16 0402003	2	2	Nipplo - Nipple - Nippel - Niplo - Niple	
17 0317006Z	4	4	Vite - Bolt - Schraube - Vis - Tornillo	
18 031A005Z	4	4	Rondella · Washer · Scheibe · Rondelle · Arandela	





Nr Code	TIDI00	Denominazione - Denomination - Bezeichnung - Denomination - Denominacion Note
2 1301080	1	Motore - Motor - Motor - Motor
4 1301095	1	Motore - Motor - Motor - Motor
5 OR809	2	Guarnizione · Gasket · Dichtung · Joint · Empaquetadura
6 1304005	2	Flangia - Flansch - Bride - Brida
7 23535	1	Anello - Ring - Bing - Bague - Anillo
8 1302015	1	Mozzo - Hub - Nabe - Manchon - Cubo
9 003260005000	1	Rondella - Washer - Scheibe - Rondelle - Arandela
0 0309011	1	Dado · Nut · Mutter · Ecrou · Tuerca
1 031A004Z	6	Rondella · Washer · Scheibe · Rondelle · Arandela
2 0316006Z	6	Vite · Bolt · Schraube · Vis · Tornillo
3 0436004	2	Rondella · Washer · Scheibe · Rondelle · Arandela
4 0402004	2	Nipple - Nippel - Niple - Niple
5 0436006	2	Rondella - Washer - Scheibe - Rondelle - Arandela
6 0402003	2	Nipple - Nippel - Niple - Niple
7 0412002	1	Vite cava · Hollow Screw · Hohlschraube · Vis creuse · Tornillo hueco
8 0436007	2	Rondella - Washer - Scheibe - Rondelle - Arandela
9 0401006	2	Riduzione · Nipple · Nippel · Adapteur · Reduccion
0 0436003	2	Rondella · Washer · Scheibe · Rondelle · Arandela
1 0317006Z	6	Vite - Bolt - Schraube - Vis - Tornillo
2 031A005Z	10	Rondella · Washer · Scheibe · Rondelle · Arandela
3 1304006	2	Flangia - Flange - Flansch - Bride - Brida
4 OR814	2	Guarnizione · Gasket · Dichtung · Joint · Empaquetadura
5 0350005	1	Linguetta · Tongue · Keil · Clavette · Lengueta
6 0317007Z	4	Vite - Bolt - Schraube - Vis - Tornillo
7 1301049	1	Motore - Motor - Motor - Motor
8 0402006	2	Nipplo - Nipple - Nipple - Niple
9 1301065	1	Motore · Motor · Motor · Motor



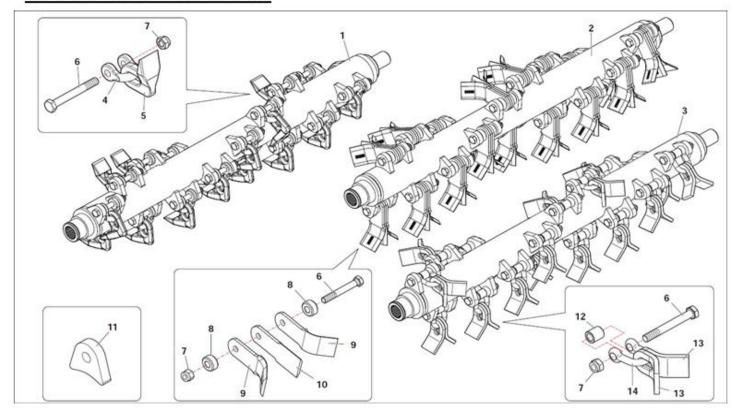


Nr Code	TIDI00	Denominazione - Denomination - Bezeichnung - Denomination - Denominacion	Note
1 1301092	1	Motore · Motor · Moteur · Moter	
2 0316006Z	6	Vite - Bolt - Schraube - Vis - Tornillo	
3 1301078	1	Motore - Motor - Motor - Moteur - Motor	
4 031A005Z	4	Rondella · Washer · Scheibe · Rondelle · Arandela	
5 OR809	2	Guarnizione - Gasket - Dichtung - Joint - Empaquetadura	
6 1304005	2	Flangia · Flange · Flansch · Bride · Brida	
7 0402004	2	Nipplo · Nipple · Nippel · Niplo · Niple	
8 1302015	1	Mozzo - Hub - Nabe - Manchon - Cubo	
9 0322004Z	1	Rondella · Washer · Scheibe · Rondelle · Arandela	
10 0309011	1	Dado - Nut - Mutter - Ecrou - Tuerca	
13 0436004	2	Rondella · Washer · Scheibe · Rondelle · Arandela	
14 031A004Z	2	Rondella - Washer - Scheibe - Rondelle - Arandela	
15 0436006	2	Rondella · Washer · Scheibe · Rondelle · Arandela	
16 0402003	1	Nipplo - Nipple - Nippel - Niplo - Niple	
17 0317006Z	4	Vite - Bolt - Schraube - Vis - Tornillo	
18 1801483	1	Decalcomania - Decal - Abziehbild - Decalcomanie - Calcomania	
19 1301100	1	Motore - Motor - Motor - Moteur - Motor	
20 23535	1	Anello - Ring - Ring - Bague - Anillo	
21 0318007Z	4	Vite · Bolt · Schraube · Vis · Tornillo	
22 031A006Z	4	Rondella · Washer · Scheibe · Rondelle · Arandela	
23 1302003	1	Mozzo - Hub - Nabe - Manchon - Cubo	
24 0352001	1	Rondella · Washer · Scheibe · Rondelle · Arandela	
25 0309008	1	Dado - Nut - Mutter - Ecrou - Tuerca	
26 TIM11150100	1	Anello - Ring - Ring - Bague - Anillo	

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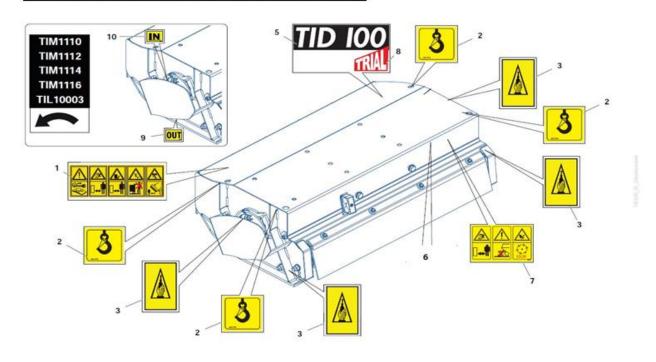
# **ROTOR BLADES HOLDER**

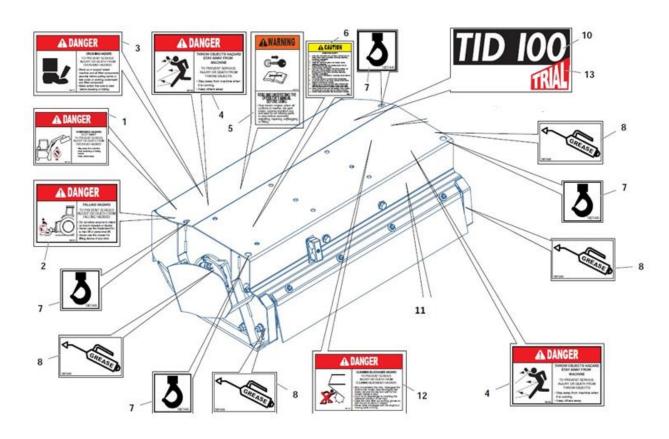


Nr	Code	TID100	Denominazione - Denomination - Bezeichnung - Denomination - Denominacion	Note
1	TID10001	1	Gruppo rotore · Rotor · Messerwelle · Rotor · Rotor portacuchillas	
2 1	TID10002	1	Gruppo rotore · Rotor · Messerwelle · Rotor · Rotor portacuchillas	
3 1	TIL10010	1	Coltelli snodati - Articulated flails - Aufgeschäkelte Messer - Couteaux "Y" à manilles - Cuchillas oscilantes	
4 (	0901145	18	Cavallotto - Ubolt - Bügelbozen - Manille - Perno de U	
5 (	0901138	18	Mazza · Hammer blade · Schlegel · Marteau · Martillo	
6 0	0393006	18	Vite · Bolt · Schraube · Vis · Tornillo	
7 (	0359003	18	Dado • Nut • Mutter • Ecrou • Tuerca	
8 1	1101042	36	Distanziale · Spacer · Distanzstueck · Entretoise · Separador	
9 (	0901158	36	Coltello · Blade · Messer · Couteau · Cuchilla	
10 0	0901159	18	Coltello - Blade - Messer - Couteau - Cuchilla	
11	TN12020601	36	Supporto - Bracket - Halterung - Support - Soporte	
12 1	1101088	18	Boccola · Bushing · Buchse · Bague · Casquillo	
13 (	0901049	36	Coltello - Blade - Messer - Couteau - Cuchilla	
14 (	0901137	18	Cavallotto · Ubolt · Bügelbozen · Manille · Perno de U	



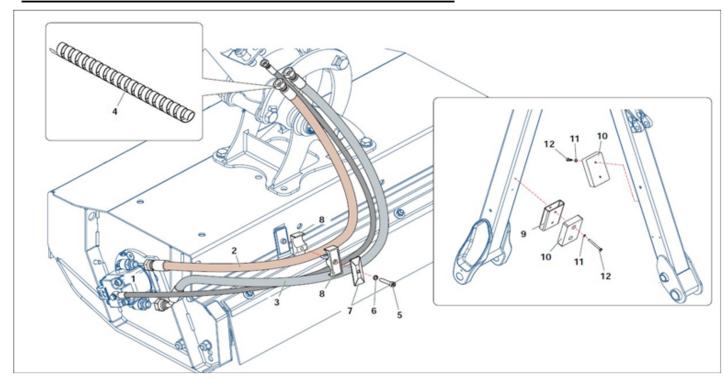
#### **DECALS AND SAFETY STICKS LAY-OUT**







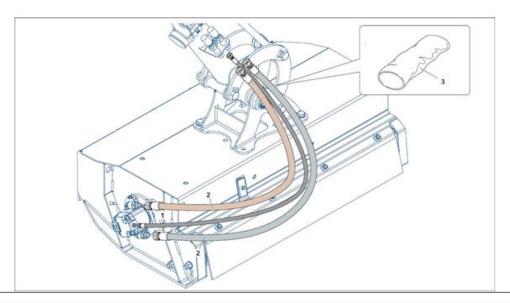
# **HYDRAULIC LINES AND DRAIN LINE HOSES**



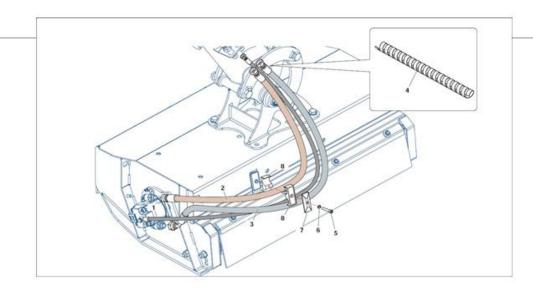
Mr	Code	TIDIOO	T		Denominazione · Denomination · Bezeichnung · Denomination · Denominacion	Note
1	0501A07	1			Tubo - Pipe - Sclauch - Tuyau - Tubo	NOTE
	0504021	1		-	Tubo · Pipe · Sclauch · Tuyau · Tubo	
3	0504468	1			Tubo · Pipe · Sclauch · Tuyau · Tubo	
4	3601001	1,2			Spirale - Guard - Reservelunge - Spirale - Almacen espiral	
5	0317004	1			Vite · Bolt · Schraube · Vis · Tornillo	
6	031B005Z	1			Rondella · Washer · Scheibe · Rondelle · Arandela	
7	0414011	1			Piastra - Plate - Platte - Plaque - Placa	
8	0414013	1			Collare · Anchor pipe · Schlauchschelle · Collier · Brida	
9	TP51120700	1			Spessore · Shimset · Spurscheibe · Epaisseur · Espesor	
10	2301007	2			Tampone · Pad · Stopfen · Tampon · Tapon	
11	0322002Z	4			Rondella · Washer · Scheibe · Rondelle · Arandela	
12	0347013Z	4			Vite - Bolt - Schraube - Vis - Tornillo	



## **HYDRAULIC LINES AND DRAIN LINE HOSES**



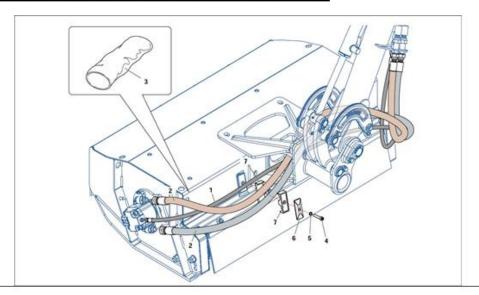
Nr Code	TIDI00	Denominazione - Denomination - Bezeichnung - Denomination - Denominacion	Note
1 0501A88	1	Tubo · Pipe · Sclauch · Tuyau · Tubo	
2 0509065	2	Tubo - Pipe - Sclauch - Tuyau - Tubo	
3 GUAINA12	1,3	Guaina - Sheath - Mantelung - Gaine - Vaina	



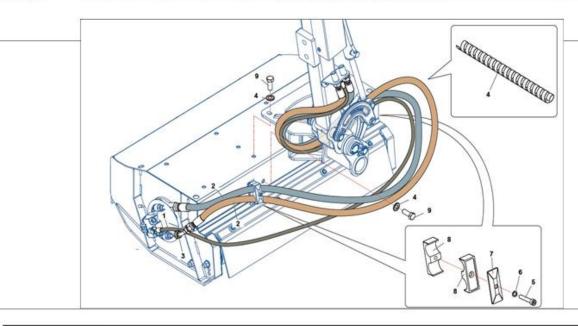
Nr	Code	TIDI00	Denominazione - Denomination - Bezeichnung - Denomination - Denominacion	Note
1	0501A07	1	Tubo - Pipe - Sclauch - Tuyau - Tubo	
2	0504021	1	Tubo - Pipe - Sclauch - Tuyau - Tubo	
3	0504468	1	Tubo - Pipe - Sclauch - Tuyau - Tubo	
4	3601001	1,2	Spirale - Guard - Reservelunge - Spirale - Almacen espiral	
5	0317004	1	Vite - Bolt - Schraube - Vis - Tornillo	
6	0318005Z	1	Rondella - Washer - Scheibe - Rondelle - Arandela	
7	0414011	1	Piastra - Plate - Platte - Plaque - Placa	
8	0414013	1	Collare · Anchor pipe · Schlauchschelle · Collier · Brida	



# **HYDRAULIC LINES AND DRAIN LINE HOSES**



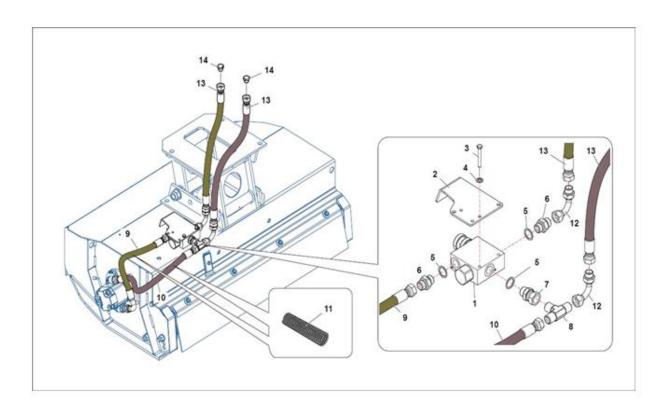
ir Code	TIDIO0	Denominazione - Denomination - Bezeichnung - Denomination - Denominacion	Note
1 0501604	1	Tubo - Pipe - Sclauch - Tuyau - Tubo	
2 0509066	2	Tubo - Pipe - Sclauch - Tuyau - Tubo	
GUAINA12	1,5	Guaina - Sheath - Mantelung - Gaine - Vaina	
4 0317004	1	Vite - Bolt - Schraube - Vis - Tornillo	
5 031B005Z	1	Rondella - Washer - Scheibe - Rondelle - Arandela	
6 0414011	1	Plastra - Plate - Platte - Plaque - Placa	
7 0414021	1	Collare - Anchor pipe - Schlauchschelle - Collier - Brida	



Nr	Code	TIDIOO	Denominazione - Denomination - Bezeichnung - Denomination - Denominacion	Denominazione - Denomination - Bezeichnung - Denomination - Denominacion Note					
1	0501417	1	Tubo - Pipe - Sclauch - Tuyau - Tubo						
2	0504140	2	Tubo - Pipe - Sclauch - Tuyau - Tubo						
3	0424009	1	Tubo - Pipe - Sclauch - Tuyau - Tubo						
4	3601001	1,2	Spirale - Guard - Reservelunge - Spirale - Almacen espiral						
5	0317004	1	Vite - Bolt - Schraube - Vis - Tornillo						
6	031B005Z	1	Rondella · Washer · Scheibe · Rondelle · Arandela						
7	0414011	1	Piastra - Plate - Plate - Plaque - Placa						
8	0414013	1	Collare - Anchor pipe - Schlauchschelle - Collier - Brida						
9	0344005Z	4	Vite - Bolt - Schraube - Vis - Tornillo						
10	031B002Z	4	Rondella · Washer · Scheibe · Rondelle · Arandela						



# **OPTIONALS:**



Nr	Code TID100		Denominazione - Denomination - Bezeichnung - Denomination - Denominacion	Note	
1 041713	1	1	Valvola - Valve - Ventil - Soupape - Válvula		
2 TIM11N	T170500 1	1	Carter - Casing - Schutz - Carter - Carter		
3 035801	2	2	Vite - Bolt - Schraube - Vis - Tornillo		
4 031B00	Z 2	2	Rondella - Washer - Scheibe - Rondelle - Arandela		
5 043600	3	3	Rondella · Washer · Scheibe · Rondelle · Arandela		
6 040200	2	2	Nipplo - Nipple - Nipple - Niplo - Niple		
7 040700	1	1	Raccordo - Connection - Anschluss - Raccord - Brida		
8 041001	1	1	Raccordo - Connection - Anschluss - Raccord - Brida		
9 050314	1	1	Tubo - Pipe - Sclauch - Tuyau - Tubo		
10 050303	1	1	Tubo - Pipe - Sclauch - Tuyau - Tubo		
11 3601010	0,9	0,9	Spirale - Guard - Reservelunge - Spirale - Almacen espiral		
12 040500	2	2	Curva - Curve - Bogen - Courbe - Curva		
13 050323	2	2	Tubo - Pipe - Sclauch - Tuyau - Tubo		
14 041802	2	2	Tappo · Cap · Stopfen · Bouchon · Tapon		



#### **12.- BOLT TORQUE SPECIFICATIONS**

#### GENERAL TORQUE SPECIFICATION TABLES

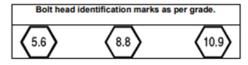
Use the following charts when determining bolt torque specifications, when special torques are not given. Always use grade 5 or better when replacing bolts.

#### SAE BOLT TORQUE SPECIFICATIONS

**Note:** The following torque values are for use with extreme pressure lubricants, plating or hard washer applications. Increase torque 15% when using hardware that is unplated and either dry or lubricated with engine oil.

		SAE GRADE 5 TORQUE				SA	E GRAD	E 8 TOR	QUE	Bolt head identification marks as per grade.
Bolt	Size	Ft-lbs		Newton-Meter		Ft-lbs		Newton-Meter		NOTE: Manufacturing Marks Will Vary
Inches	mm	UNC	UNF	UNC	UNF	UNC	UNF	UNC	UNF	Grade 2
1/4	6,35	8	9	11	12	10	13	14	18	Grade 2
5/16	7,94	14	17	19	23	20	25	27	34	
3/8	9,53	30	36	41	49	38	46	52	62	1 <b>I</b> I
7/16	11,11	46	54	62	73	60	71	81	96	1
1/2	12,70	68	82	92	111	94	112	127	152	Grade 5
9/16	14,29	94	112	127	152	136	163	184	221	
5/8	15,88	128	153	174	207	187	224	254	304	
3/4	19,05	230	275	312	373	323	395	438	536	1 レコスレス
7/8	22,23	340	408	461	553	510	612	691	830	
1	25,40	493	592	668	803	765	918	1037	1245	Grade 8
1-1/8	25,58	680	748	922	1014	1088	1224	1475	1660	
1-1/4	31,75	952	1054	1291	1429	1547	1700	2097	2305	וריאו (ערו וּיא
1-3/8	34,93	1241	1428	1683	1936	2023	2312	2743	3135	⊺ k.ਖ਼.(^) k.ਖ਼
1-1/2	38,10	1649	1870	2236	2535	2686	3026	3642	4103	

#### METRIC BOLT TORQUE SPECIFICATIONS



#### NOTE:

The following torque values are for use with metric hardware that is unplated and either dry or lubricated with engine oil. Reduce torque 15% when using hardware that has extreme pressure lubricants, plating or hard washer applications.



Bolt Size	Grade No.	Pitch (mm)	Ft-lbs	Newton-Meter	Pitch (mm)	Ft-lbs	Newton-Meter
	5.6		3.6-5.8	4,9-7,9		-	-
M6	8.8	1,0	5.84	7,9-12,7		-	-
	10.9	10.725	7.2-10	9,8-13,6		-	-
1111	5.6		7.2-14	9,8-19		12-17	16,3-23
M8	8.8	1,25	17-22	23-29,8	1,0	19-27	25,7-36,6
	10.9		20-26	27,1-35,2	100	22-31	29,8-42
	5.6		20-25	27,1-33,9		20-29	27,1-39,3
M10	8.8	1,5	34-40	46,1-54,2	1,25	35-47	47,4-63,7
	10.9		38-46	51,5-62,3		40-52	54,2-70,5
	5.6		28-34	37,9-46,1		31-41	42-55,6
M12	8.8	1,75	51-59	69,1-79,9	1,25	56-68	75,9-92,1
	10.9		57-66	77,2-89,4		62-75	84-101,6
	5.6		49-56	66,4-75,9		52-64	70,5-86,7
M14	8.8	2,0	81-93	109,8-126	1,5	90-106	122-143,6
	10.9	1 1	96-109	130,1-147,7		107-124	145-168
	5.6		67-77	90,8-104,3		69-83	93,5-112,5
M16	8.8	2,0	116-130	157,2-176,2	1,5	120-138	162,6-187
	10.9		129-145	174,8-196,5		140-158	189,7-214,1
	5.6		88-100	119,2-136		100-117	136-158,5
M18	8.8	2,0	150-168	203,3-227,6	1,5	177-199	239,8-269,6
	10.9		175-194	237,1-262,9		202-231	273,7-313
1852271	5.6		108-130	146,3-176,2	1	132-150	178,9-203,3
M20	8.8	2,5	186-205	252-277,8	1,5	206-242	279,1-327,9
	10.9		213-249	288,6-337,4		246-289	333,3-391,6



#### 13.- WARRANTY

- 1- THIS ACCESORY HAS BEEN VERIFIED FOR BEING INSTALLED ON YOUR MACHINE. THE INSTALLATION MUST BE PERFORMED ONLY BY AN AUTHORISED WORKSHOP. ANY CHECK OR INTERVENTION MUST BE DONE THROUGH AN AUTHORISED DEALER WHO WILL PROCESS THE WARRANTY.
- 2- FOR USING THIS WARRANTY, YOU MUST HAND THE MACHINE'S CUTOUT RECEIPT TO THE MANUFACTURER IN A MAXIMUM OF 10 DAYS AFTER THE DELIVERY OF THE MACHINE TO THE USER.
- 3- THE WARRANTY LASTS FOR **1 YEAR** FROM THE DELIVERY TO THE USE OR 14 MONTHS FROM THE DATE OF THE DELIVERY TO THE DEALER.
- 4- INDICATING THE SERIAL NUMBER IS A MUST FOR REQUESTING THE WARRANTY.
  THIS WARRANTY COVERS ALL THE MANUFACTURE DEFECTS, REPLACING THE DEFFECTIVE PARTS. THE WARRANTY DOES NOT INCLUDE WORKING HOURS.
- 5- THE AUTORIZED AGENT OF THE MANUFACTURER KEEPS THE RIGHT TO INSPECT THE PARTS IN ORDER TO DETERMINE IF THE PART MUST BE REPLACED OR NOT IN WARRANTY.
- 6- THE RECEPTION AND REPLACEMENT OF PARTS WILL BE FREE OF CHARGE COSTS FOR THE MANUFACTURER.
- 7- ALL THE WARRANTY IS LOST IN CASE OF USING OR ASSEMBLING UNORIGINAL ACCESSORIES.
- 8- THE MANUFACTURER DOES NOT RESPOND IN ANY CASE OF THE PROFIT LOSS DERIVED FROM THE ACCESORY BREAKDOWNS.
- 9- THE HYDRAULIC QUICK COUPLERS (PLUGS), THE HOSE WHICH CONNECTS THE ACCESORY TO THE CARRIER MACHINE AND ANY PART OF THE ELECTRIC INSTALLATION ARE OUT OF WARRANTY.

#### **Excluded Parts from the warranty:**

The following products are excluded from the Warranty:

- (a) Any cable, part that engages with the ground (i.e. sprockets), chain, bearing, Bristles and spacers, cutting edge, Axle, that either constitutes or is part of a product.
- (b) Any product, merchandise or component that, in the opinion of the manufacturer, has been:
  - (i) misused;
  - (ii) modified in any unauthorized manner;
  - (iii) altered;
  - (iv) damaged;
  - (v) involved in an accident; or
  - (vi) repaired using parts not obtained through Implement Salsies.
- (c) <u>Return of Defective Part or Product.</u> If requested by Manufacturer, the alleged defective part or product shall be shipped to manufacturer at its manufacturing facility or other location specified by the agent of the manufacturer, with freight PRE-PAID by the claimant, to allow manufacturer to inspect the part or product. Claims that fail to comply with any of the above terms and conditions shall be denied.

#### THE WARRANTY WILL BE REFUSED IN CASE OF:

- 1- BREAKDOWNS CAUSED BY MISUSE, WRONG INSTALLATION OR TUNING OR LACK OF MAINTENANCE.
- 2- ASSEMBLING PARTS NOT SUPPLIED BY THE MANUFACTURER OR ITS OFFICIAL AGENT, OR WITHOUT AUTHORISATION.
- 3- PARTS THAT HAVE WORN OUT BECAUSE OF THE WORK OF THE MACHINE ITSELF.