



*For your safety:
Always read this instruction manual
before use.*

OPERATOR & PARTS MANUAL 683

**BUCCANEER
MICRO
LIGHTWEIGHT HYDRAULIC MULCHERS
(91.003.72)**

BOMFORD TURNER LTD

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Tel. 01789 773383 Fax. 01789 773238

Online: www.bomford-turner.com Email: info@bomford-turner.com

IMPORTANT

NOTE HERE THE SERIAL NUMBER OF YOUR MACHINE AND ALWAYS QUOTE IT IN ANY COMMUNICATION WITH US OR YOUR DEALER. THIS IS PARTICULARLY IMPORTANT WHEN ORDERING SPARES. REMEMBER TO INCLUDE ALL NUMBERS AND LETTERS.

MACHINE SERIAL NUMBERS _____

THE INFORMATION GIVEN THROUGHOUT THIS MANUAL IS CORRECT AT THE TIME OF PUBLICATION. HOWEVER, IN THE COURSE OF CONSTANT DEVELOPMENT OF BOMFORD TURNER MACHINES, CHANGES IN SPECIFICATION ARE INEVITABLE. SHOULD YOU FIND THE INFORMATION GIVEN IN THIS BOOK TO BE AT VARIANCE WITH THE MACHINE IN YOUR POSSESSION, YOU ARE ADVISED TO CONTACT THE BOMFORD TURNER SERVICE DEPARTMENT WHERE UP-TO-DATE INFORMATION WILL BE PROVIDED.

THE MANUAL CAN CONTAIN STANDARD AND OPTIONAL FEATURES AND IS NOT TO BE USED AS A MACHINE SPECIFICATION.

THE MACHINE HAS BEEN TESTED AND IS CONSIDERED SAFE IF CAREFULLY USED. ENSURE YOUR OPERATOR IS PROPERLY TRAINED IN ITS USE AND MAINTENANCE.

IMPORTANT

NOTEZ ICI LES NUMEROS DE SERIE DE VOTRE MACHINE QUI SONT A MENTIONNER DANS TOUTE COMMUNICATION AVEC NOS SERVICES OU VOTRE REVENDEUR. CES NUMEROS SONT PARTICULIEREMENT IMPORTANTS POUR COMMANDER DES PIECES DETACHEES. N'OMETTEZ AUCUN CHIFFRE, NI AUCUNE LETTRE.

NUMEROS DE SERIE DE LA MACHINE _____

LES INFORMATIONS DONNEES DANS CE MANUEL SONT CORRECTES. CEPENDANT, DU FAIT DU DEVELOPPEMENT CONSTANT DES MACHINES BOMFORD TURNER, DES CHANGEMENTS DANS LES CARACTERISTIQUES SONT INEVITABLES. EN CAS DE DIFFERENCES IMPORTANTES ENTRE LES INFORMATIONS DE CE MANUEL ET VOTRE MACHINE, VEUILLEZ CONTACTER LE SERVICE DES REPARATIONS QUI SERA EN MESURE DE VOUS DONNER DES INFORMATIONS PLUS RECENTES.

CE MANUEL PRESENTE DES CARACTERISTIQUES STANDARDS ET EN OPTION, ET NE CONSTITUE DONC PAS LES SPECIFICATIONS DE VOTRE MACHINE. CELLE-CI, QUI A FAIT L'OBJET D'ESSAIS RIGOREUX, EST CONSIDEREE SANS DANGER SOUS RESERVE D'UNE UTILISATION CORRECTE. VOTRE OPERATEUR DEVRA AVOIR RECU LA FORMATION NECESSAIRE A SON UTILISATION ET A SON ENTRETIEN.

WICHTIG

TRAGEN SIE HIER DIE SERIENNUMMERN IHRER MASCHINE EIN UND GEBEN SIE DIESE IMMER AN, WENN SIE SICH AN UNS ODER IHREN HÄNDLER WENDEN. DAS IST BESONDERS BEI ERSATZTEILBESTELLUNGEN WICHTIG. VERGESSEN SIE NICHT, ALLE ZAHLEN UND BUCHSTABEN ZU NOTIEREN.

SERIENNUMMERN DER MASCHINE _____

DIE ANGABEN IN DIESEM HANDBUCH SIND BEI VERÖFFENTLICHUNG KORREKT. AUFGRUND DER KONSTANTEN WEITERENTWICKLUNG VON BOMFORD TURNER MASCHINEN SIND JEDOCHÄNDERUGDEN IN DER SPEZIFIKATION UNVERMEIDLICH. WENN DIE INFORMATION IN DIESEM HANDBUCH NICHT MIT IHRER MASCHINE ÜBEREINSTIMMEN, NEHMEN SIE BITTE KONTAKT MIT DER BOMFORD TURNER KUNDENDIENSTABTEILUNG AUF, DIE IHNEN GERNE DIE AKTUELLEN INFORMATION ZUKOMMEN LÄSST.

DAS HANDBUCH KANN SOWOHL BESCHREIBUNGEN FÜR DIE STANDARD AUSFÜHRUNG ALS AUCH FÜR ZUBEHÖR ENTHALTEN UND IST NICHT ALS MASCHINENSPEZIFIKATION ZU VERWENDET.

DIE MASCHINE IST GETESTET UND BEI SACHGEMÄSSEM BETRIEB ALS SICHER BEFUNDEN WORDEN. SORGEN SIE DAFÜR, DASS IHR BEDIENPERSONAL IN ANWENDUNG UND WARTUNG RICHTIG GESCHULT WIRD.

EC DECLARATION OF CONFORMITY
Conforming to EU Directive 2006/42/EC

We,

Of BOMFORD TURNER LIMITED, Station Road, Salford Priors, Evesham, Worcestershire, WR11 8SW, UK.

Declare that we are the authorised representative, responsible for the product (type);

Linkage mounted unit	Product code
BUCCANEER MICRO	VENT
BUCCANEER MINI	VENT

A tractor mounted vegetation control flail mower attachment.

Serial No(s). & Date:

Designed & Manufactured by: Maquinas Forestales Ventura, S L, 17181 Aiguaviva, Gerona, Spain.

Complies with the required provisions of;

- Directive 2006/42/EC
- Directive 2004/108/EC
- BS EN ISO 12100:2010

And other national standards associated with its design and construction as listed in the technical file.

BOMFORD TURNER LIMITED operates an ISO 9001:2008 quality management system.
This system is accredited by;

BSI, Beech House, Linford Wood, Milton Keynes, UK, MK14 6ES
BSI identification number: UKAS 003
Bomford Turner certificate number: FM 34659

Signed.....
On behalf of BOMFORD TURNER LIMITED Responsible person

Status: Managing Director

Date: 02/05/2017

Dear Customer:

You have purchased a mower from the BOMFORD brand, for which we are sincerely grateful.

We are confident that this comprehensive, modern, functional and practical, machine, built with first quality materials, should fully meet their needs.

Please read this **INSTRUCTION MANUAL** in order to obtain the maximum performance of the appliance, know the performance of the machine and avoid those faults that may arise from improper use of the machine, allowing you to also solve small problems that may result from their use or wear.

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OPERATOR & PARTS MANUAL FOR MICRO BUCCANEER

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1. WARRANTY TERMS

Warranty term is 1 (one) year from the date of the departure of the goods from the factory and it only includes manufacturing defects in machinery or defective parts (not labour). Being provided to the verdict of the company if the flaw was due to misuse or mishandling by the user.

The warranty does not include material subject to natural wear such as blades, counter blades, hammers, belts, pulleys, etc.

2. SECURITY AND USE

Please read carefully this manual before performing any installation, use or maintenance of equipment. In the Instruction Manual you will find all the necessary instructions for any operation of the machine in a correct and safe usage.

There are many moving parts and mechanism to operate the machine. Pay special attention to all the Warning Decals around the components of the machine, as there is a high risk of entrapment or possible shock, which may endanger the life of the operator.

You will need to take the following precautions when performing installation, repair or maintenance work on the machine:

- Do not allow any inexperienced person to perform work on the machine.
- Make sure that the tractor engine on which this machine is installed, that the brush cutter is disconnected, and cannot start up unexpectedly.
- It is preventive to injury to disconnect the driveline that attach the brush-cutter to the tractor.
- Do not work under the machine when in suspension. To carry out work on the rotor shaft or the inside of the chassis, place the machine in upright or completely inverted position. If this is not possible, use a security system (table lift, braces, slings, etc.).
- To repair or to renew components of the machine, make sure you do not unscrew components without being held properly in place.
- Remember to use only genuine parts. Repairs carried out by non-experts may cause injuries or more serious malfunctions. Please contact a technician closest to your home and always insist on them fitting original spare parts.
- Be sure to replace all the Security Warning Decals properly, once you have completed the maintenance on the equipment.
- In case of reform or non-authorized handling the manufacturer is not liable for damage.

Please consider, when it comes to working within a team, you must take account the following points:

- Do not allow any inexperienced person to operate the machine.
- Check the working area, if there might be something that could impact the machine.
- Cabin safety and seat belt are recommended.
- Make sure that no one is within the radius of action of the machine.

- Do not use the machine for other jobs that are not specified by the manufacturer of the equipment.
- Before starting work, ensure that the brush-cutter takes all the elements of security provided by the manufacturer, and that these are in perfect condition.
- Make visual checks frequently, to detect any possible breakage or damage to parts of the machine. Repair or replace broken or damaged items before continuing work.
- Perform maintenance operations on a regular basis, as described in Chapter 5 of this manual.
- These standards must be completed always with current regulations of Health & Safety at Work.

2.1 DOCUMENTATION DELIVERED

The documentation should be available and is as follows:

- Instruction manual: book describing all operations of installation, use and maintenance of the equipment. It is essential that it be consulted by the operator or technician for the correct use and maintenance of the machine.
- CE Marking. Metal Plate positioned above the machine.
- CE Declaration of Conformity: the machine blade which is credited both as their components comply with the essential requirements of Health & Safety at Work set by the European Union.

Make sure that along with the machine all above documentation has been delivered to you. Remember that such documentation may be requested as proof of compliance with the legal regulations in the field of prevention of occupational risks.

In the event that if any of these documents have not been delivered, or need to be duplicated, please contact the authorised official dealer.

2.2 WARNING DECALS

These are placed in a manner visible on the machine, you will find a series of pictograms, warning about the intrinsic risks of the cutting head.



It warns of the obligation to read the instruction manual. Reminds us of the obligation to stop the motor of the machine before servicing.



Notifies the main greasing points of the machine.



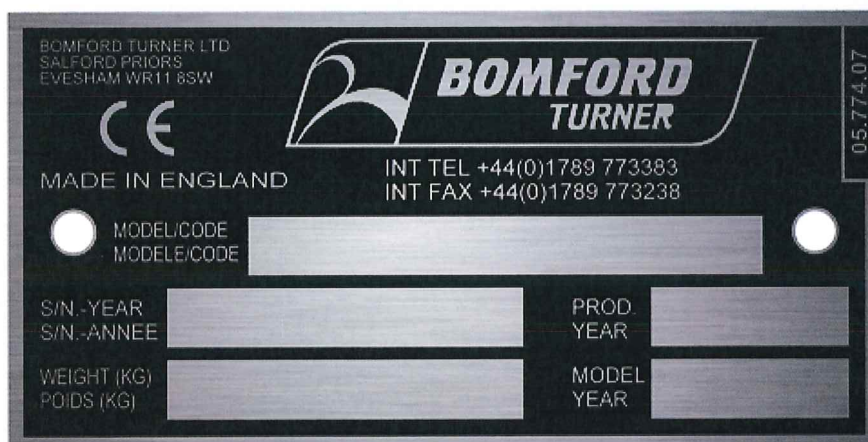
Warns of the risk of entrapment by moving parts of the machine.



Indicates the minimum safety distance below which no one should be situated when the machine is working.



Indicates the maximum speed of the PTO.



Manufacturer's / Representative Identification Plate. It has recorded abbreviations, CE and the information necessary for the identification of their equipment.

2.3. RECEIPT OF EQUIPMENT

At the time of delivery, it is important to verify in detail the following points:

- First, check that the machine that you have received is the model you ordered, as well as accessories and components agreed at the time of purchase.
- Make a visual review detailed, to see if the equipment is in good condition and there is nothing broken or in a poor condition. Please note that some material may be passed to you but in a separate package.
- Check the documentation that came with the machine is described in point 3 of chapter I (one).

When you find any anomaly at the time of delivery, please contact your dealer or the manufacturer / representative in a period not exceeding 15 days, for the resolution of the problem.

If you are experiencing a mechanical problem, do not use the equipment, both for your own safety and for the integrity of the machine.

2.4. CONDITIONS FOR THE INSTALLATION.

Before the delivery of the machine, it has been checked and tested by the distributor.

All the components are greased and are ready to be used.

In the case of the mulchers and powered shredders, hydraulically, valves and motors, settings are recommended and calculated at the factory, considering the hydraulic power of the excavator which must be installed. If any variation is made on these, it can lead to lower performance of the equipment or cause damage on it.

- Conditions of the equipment must be checked and considered by a Technician.

It is very important that you described precisely the brand and model of your Prime Mover. In this way, the technical / service team from BOMFORD will need to be advised what the machine is that better fits its purpose.

Remember that to make a good choice there must be the following points:

- Type and number of pumps of the excavator.
- The same flow of the excavator.
- Maximum working pressure.
- Power from the gasoline engine.
- Dimensions and weight of the machine.
- Capacity of the hydraulic oil reservoir.
- Type of hitch, conventional or hook fast.
- Type of installation of the valve's hammer.

When you have chosen the right attachment, the only condition that must comply the excavator, is to have the attachment pipework which connects the prime mover and the attachment. If you choose any optional accessory you need from hydraulic movements, there needs to be a second line of pressure, for this movement.

In the majority of cases the structure of the excavator, is enough to give stability to the set, if this were not so, it would be necessary to counterbalance the set to counteract the weight of the machine, and the moment of force that is created when the arms are fully extended. These weights are placed on the side opposite to the working of the attachment / cutting head.

2.5. THE ATTACHMENT / CUTTING HEAD - CONNECTION TO THE MACHINE.

The breaker to the machine connection must be carried out by a QUALIFIED TECHNICIAN.

Before making the connection, you should check that the flow rate and the pressure of the hydraulic system of the machine, adapts to the conditions of the shredder head.

A pressure or flow rate exceeding the recommended, could cause damage to the hydraulic circuit of the attachment and changes or abnormalities of the operation.

The Cutting Head connection:



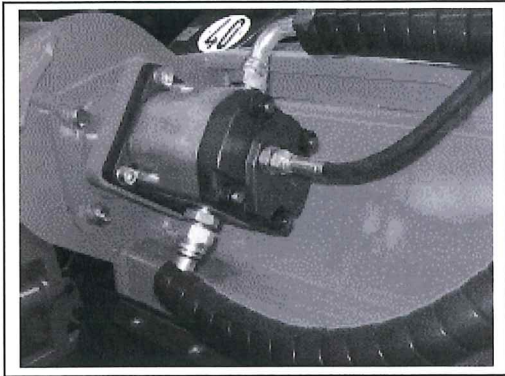
To make the connection, follow these steps:

- Be sure the cutting head / attachment is located on flat land and that the ground is even and in the correct position for connected to the machine.
- Approaching slowly with the excavator, with the arm breaker at hitch height.
- Make the connection of the hitch to the machine, placing the bolts for clamping, or using a quick attach bracket if necessary.
- Make sure that the mechanical connection is being carried out correctly.
- Once the mechanical connection is done, put the prime mover arm with the shredder head supported on the ground.
- Stop your machine motor.
- Connect the hydraulic hoses from cutting head and installation of Hammers of the machine.

Verification of the connections.

Now that the attachment head is connection, before proceeding check that:

- All connections to the machine head is secure. Check bolts and screws, both hitch and machine, are perfectly positioned with its nuts and safety pins in good condition.
- Make sure that the hoses have been connected.
- Pay special attention when these connections are made using couplings.



Once these checks have been made, start the engine of the machine, and make slow movements with the arms of the excavator. Make sure that no components of the shredder head hits or contacts with any part of the machine.

- . Check that the hydraulic hoses are not hooked or caught up in these movements, and that its length is appropriate.
- . To do this check that tubing does not hang too much when you are in the position more favorable, and there is no strain in the most unfavorable.
- . Turn on breaker, giving pressure to hammer installation, keeping the engine to a regime low. Check that hammers rotor rotation is carried out smoothly and without vibration.
- . Accelerate gradually until the engine reaches the normal working speed, and keep the equipment working under these conditions during an approximate time of 10 minutes.
- . Check that the hydraulic circuit or the motor of the machine is heated, and your overall operation is correct.
- . Check pressures and final operation flows, and compare them with the recommended by the manufacturer.
- . Adjust these parameters to as stipulated.
- . Disconnect the hydraulic pressure hoses to the attachment away from the soil, and stop the motor of the machine.
- . Do not leave the machine cabin until the rotor shaft of the breaker has definitively stopped spinning.
- . Finally, make a visual review of the attachment and proceed to tighten all those screws and fittings that may have become loose, due to the manipulation in the Assembly and Transport.

3. SECURITY SYSTEMS

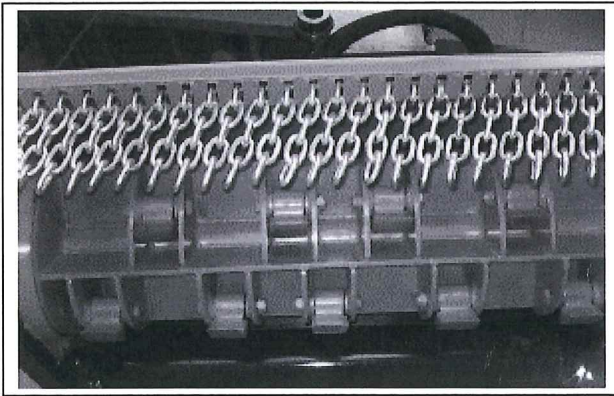
This chapter will give information of all security system that BOMFORD applies in their different models of mulcher attachment, to give the user a clear idea of the possibilities for the machine and the limits there of.

Remember that this prohibited removal or manipulate any of safety devices the machine.

3.1 CHAINS SUPPRESSION.

Both the front and at the rear of the attachment is protected with metal chains.

The function of the chains is to avoid that particles of crushed material are thrown out of the housing or crushing of the machine.



These chains are mounted individually to the attachment and removable. You should replace those broken or damaged chains to avoid the risk of impact.

3.2 PLUGS AND LOCKNUTS.

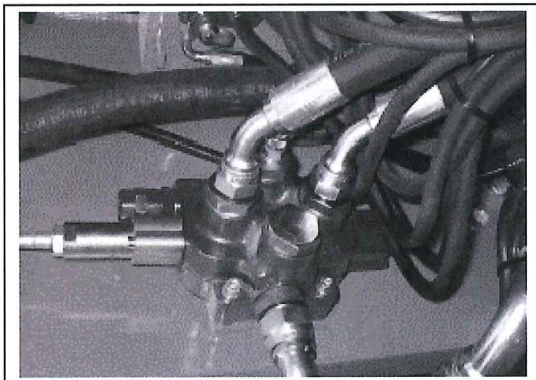
All bolts, screws and other fasteners from the attachment area of the machine, are fitted with pins or self- locking nuts, in such a way that the attachment is held securely to the prime mover arm.



It is important to review periodically the status of these pins, and replace that have been lost or are in poor condition.

3.3. MAXIMUM PRESSURE SAFETY VALVE.

The function of this valve is to limit the working pressure of the hydraulic circuit breaker.



The valve acts when the attachment hammers exceed their safe warning limit.

In this case, the valve acts, and let the oil into the return line, maintaining stable working pressure in its maximum duration of the effort / work.

These valves avoid breakages and failures due to overload. These valves are regulated and adjusted from factory to the calibration optimal for each case.

It is strictly prohibited that any work on them without prior knowledge of the manufacturer's authorization.

4. COMMISSIONING

Before starting up the machine, the operator must read this chapter carefully, as well as chapter I (one) where reference is to safety.

If you were to start up the machine for the first time, it is important that all the preliminary checks described in paragraph 2.2 of the chapter II (two) are followed.

4.1. START-UP.

The steps to follow to set up are as follows:

- Start the tiller / cutting head attachment.
- Rev the engine up to a maximum of about 1000-1200 RPM.
- Operate the hydraulic pressure of the line of the attachment.
- Make sure that everything works correctly and keeps this up for 2 or 3 minutes the cutting head by operating without load.
- Raise the engine of the excavator to the revolutions of work.
- Position the brush head to a work area and start working the machine and attachment at speed appropriate to the conditions of work.

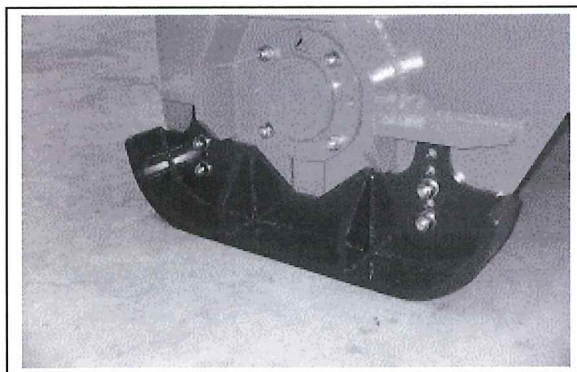
It is important to make visual checks every 1 or 2 hours in operation in order to check the correct operation of the equipment, and the condition of parts of the attachment.

Pay special attention to shaft the breaker rotor, that is the part that is in direct contact with the material grinding and with the ground, and therefore, it may be damaged more easily.

Before the commissioning of the shredder head, be sure the cutting height is adequate, and that hammers do not touch the ground. This could cause a premature failure of the hammers or damage within the cutting attachment.

To avoid this, adjust the height of the skids, as described up to its correct position for work to be carried out.

Regulation of the height of the skids.



To adjust the skids, it is necessary to position the Shredder Head on a level surface.

In these conditions, distance to which the hammers must not be able to touch the ground

should be approximately 5 cm. Support runners, have 3 possible positions, with a variation of 3 cm. Each one of them. To change the position of the skid, just remove the four screws that hold it to the side of the machine, put the bolts on the new position, and replace the screws. Remember that the position of the pads on both sides must be the same.

4.2. WORKING PROCEDURES.

Mulching heads have been designed in their different versions to make the most varied of cleaning works, clearing and crushing.

These heads, when correctly installed make excellent work. Their different system options, as well as the right choice rotation, mean that they adapt to any type of terrain getting a perfect finish and optimal performance

The function of chains or skirt is to prevent materials outside the casing of the machine. Those elements that imply a risk of impact should be replaced.

If you are working in public areas it is mandatory to indicate the presence of the machine with the placement of a few warning signs. These signals / warning signs are to be placed in each end of the work area, and must specify clearly the risk of machine working.

To make sure that the machine has working conditions for which it has been designed, without endangering injury. Before starting work, it is important to check the oil level of the hydraulic excavator. Lack of oil may cause cavitation in the pumps and hydraulic motors, or overheating of the circuit.

4.2.1 starting work.

Start the attachment / cutting head and place in work, according to the specifications described in point 4.1 of this Chapter.

With controls of the excavator, put the shredder head above the area to mulch, so when you turn on the pressure to the rotor shaft drive, the attachment is ready to work.

With connected cutting head closer to the material mulching and start driving forward, either with the chassis of the machine, or by slewing the arm of the prime mover ground to be mulched.

4.2.2 working speed.

The advance of the cutting head will depend on conditions of work, vegetative load, and experience of the operator. The feed rate to be slow enough for that head you time to shred all the weed. Excessive speed of advancement will give a bad finish to the mulched area.

When vegetative load is very large, it will be necessary to make several passes to achieve a properly mulched area. The advance of the breaker must be front backwards or vice versa, never in lateral way, due to the possibility of deformation of the chassis.

4.2.3 transport of the equipment.

When you make a transfer of the equipment remember that it should moderate speed, in order to not cause damage to produced hits by the irregularities of the ground.

Remember that the stability conditions of the equipment have been changed, and excessive speed, or performing sudden maneuvers, can cause the same unexpected actions.

4.2.4.. STORAGE OF THE MACHINE.

If the machine will be a long period of time without using it, it should be protected properly from the inclemencies of the time, look for a level place to leave the machine.

- Review with enamel areas of the machine where the paint is gone.
- Protect with grease those parts that can be attacked by corrosion.
- If the machine is to be outdoors, protect with a tarp or plastic to prevent damage.
- Do not use plastic containers or bags that have contained corrosive materials, such as fertilizers, pesticides, etc.
- Remember to remove the protection grease before using the machine.

5. MAINTENANCE

In this chapter we will explain the basic operations of maintenance. It is essential for the proper functioning of the equipment to avoid premature wear and damage to the various operations and maintenance are carried out strictly and deadlines and forms indicated.

Before performing any maintenance make sure that:

- The shredder head is completely stopped.
- Its position is stable, and there is no risk of fall or movement unexpected.
- That machine has the motor stopped.

5.1 MAINTENANCE CHART.

This type of maintenance are simple operations that you can perform own operator, or any person without the need for large technical knowledge. This has taken into account the warnings of this manual.

Table of maintenance:

Periodicity	Description	Remarks
The first 2 hours of work	<ul style="list-style-type: none">· Visual examination of the joints and tubes hydraulic.· Review of joints and tightening of the screws, bolts, and other bodies of clamping.· Review of the tensioning of the belts.	
Every 4 hours	<ul style="list-style-type: none">· The transmitter body of engine lubrication.· Lubrication of the bearings of the rotor shaft.· Check hammers are secure.	Greasing points are marked above the machine. Use the recommended grease by the manufacturer.
Every 50 hours	<ul style="list-style-type: none">· Lubrication of bolts.· Lubrication of roller bearings· Visual examination of the machine.	In the case that brings
Every 200 hours	<ul style="list-style-type: none">· Check hammers are secure.· Revision of tensioning and state of the belts.	Possible change.
Every 1000 hours	<ul style="list-style-type: none">· General review.· Review of bearings· Review of the hydraulic motor.· Review of structure.	Possible change. Internal leaks. Joints.

For lubrication of moving parts BOMFORD recommended to use Shell Albida Grease HD-2. It's a fat with a great power of penetration, with a very good range of temperatures and ready to work to extreme pressures. Their characteristics are as follows.

FEATURES	UNIT	VALUES
TEMPERATURES	° C	- 30 to + 140
NATURE		LITHIUM SOAP
MOLYBDENUM		DISULFIDE ADDITIVES
DROP	° C	POINT 260
PENETRATION		AT 25 ° C 265/295
VISCOSITY of the BASE oil	mm ² /s	160

Before performing any maintenance operation, check the temperature of the parts and components to treat. These pieces can come have temperatures up to 90 °C, therefore, there is a high risk of producing Burns.

Let these parts cool down to a temperature below 30 ° C.

Is consistent with the environment. In the operations of maintenance to avoid spills of oils and fats to the ground.

Oils and fats, are classified as waste DANGEROUS, and to make your change should proceed as follows:

- Place the oil or fat in a watertight container suitable for your storage.
- Label the container with the type of waste that it contains.
- Do not mix any other substance with the oil or fat.

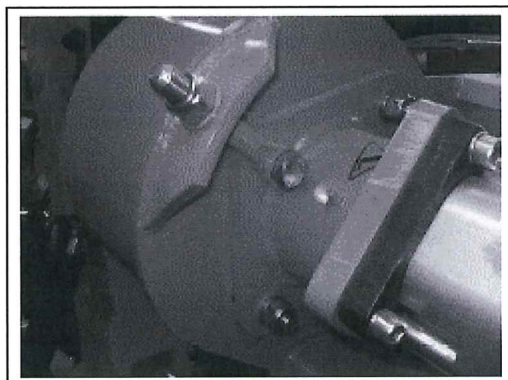
Get rid of the WASTE through an authorized company or by an agency specializing in waste collection. Remember that there is a mandatory policy, for the treatment of oils and fats.

5.2 MAINTENANCE FOR WEAR OR DAMAGE.

5.2.1 Tensioning and change of belts.

The transmission belts are a crucial tractive force of the rotor shaft. If they are in poor state, or not are the sufficiently tensioned, this can cause a loss of traction, and consequently a decrease in the performance of the cutting head. For this reason, periodic checks must be carried out of the belts and proceed to their replacement when necessary.

To change the belts proceed as follows:



- Loosen the 2 screws that hold the transmitter body, and the tensor of the belts. Pulleys will yield and it would create space to evict the belts.
- Place the new belts on their position within the channels of the pulley.
- Progressively tighten the tensioner from the transmitter body until the strap reaches its tension

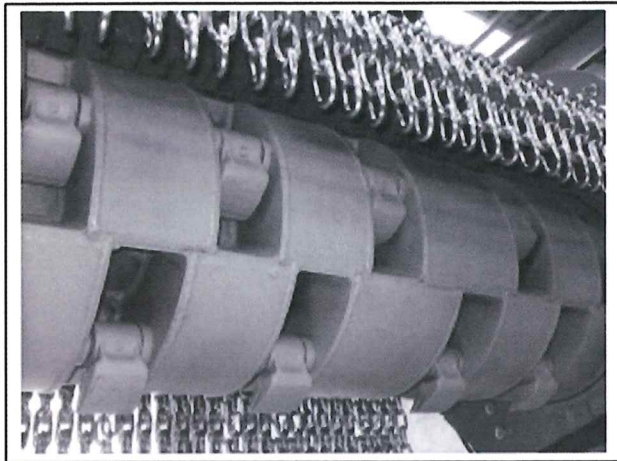
optimum.

- Place the protective cap.
- Check the proper functioning of the rotor shaft.

BOMFORD recommend that belts need to be tighten after the first 2 hours of work.

5.2.2 change of hammers.

There must be frequent checks of the rotor shaft, watching that there are no bolts or loose screws, and that the state of the hammers is suitable. BOMFORD recommend using original hammers, since only in this way, it guarantees the duration and the perfect balance of the rotor shaft.



For the change of the hammers, please precede in the following way:

- Loosen the screws on the rotor shaft protection rings, and remove these rings.
- It will appear some protective caps to the side outside of the rotor shaft (4 in each side), with a few intern's screw. These screws holding the shaft centrally to secure the hammers.
- Remove the retaining screws.
- Place the first row of hammers just above the hollow that are free on the side of the machine,
- And hit the central axis of the hammers letting this slide free and out the opposite side.
- Hammers of that row will be falling one by one until the shaft at the end of its travel.
- In the position / setting which have left the hammers used, install the new hammers.
- Now push the shaft in the opposite direction.
- Repeat with the rest of the rows.
- Once changed all hammers, replace the screws of fixing and protection rings.
- Turn the hammers on themselves, and check that none has been seized.

Do not run the rotor if missing any hammers. The unbalanced shaft causes strong vibrations in the machine, that can affect the bearings and other components of the team.

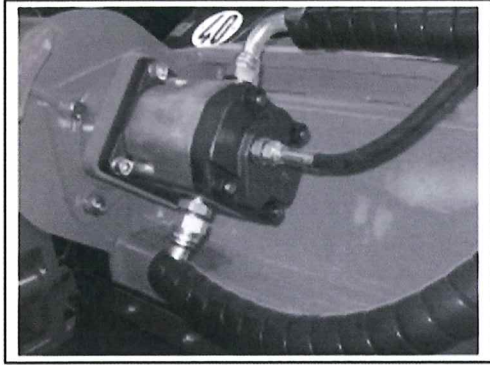
When some hammers accidentally break, while the rest to average use, you need to replace the broken hammers, and his opposite partner, **should never replace a single hammer**, if his opposite partner has already suffered wear and tear.

Acting in this way, what you get is to compensate the weights to they act on a shaft, avoiding vibrations that appear in it.

Please note that a blunt hammer, absorbs a large amount of power of the engine and makes that the finish of the work unsuitable, by that is recommended to sharpen the hammer every time if it can be seen that the edge is rounded.

5.2.2 change of hoses.

The hoses must be reviewed periodically with the machine in operation. The hoses showing signs of external damage, must be replaced as soon as possible. Otherwise, the elements metal hose can oxidize and fouling the hydraulic oil of the machine.



For changing the hoses, you need to proceed in the following mode:

- We can avoid replacement of hose assembly mistakes by making correct installations of the attachment.
- You must ensure that the hose you replace is the same with regard to section, length and terminals.
- Carefully clean the terminals which are to be connected by removing possible impurities.
- Place the hose in the same position in which the hose replaced, if not, you run the risk that the hose rubs or twists in some element of the machine when this makes any movement.
- Put the machine into operation and check for possible losses.

5.3. TROUBLE SHOOTING.

At this point we will describe possible faults more common that they may arise in the machine. In many cases the problem can be repaired by the operator, if not you should get in touch with the official service of BOMFORD more closely, so that a technician can make the repair.

Before performing any checks, be sure to comply with the security measures set forth at the beginning of this chapter. Equipment, tools, and procedures used in the development of these tasks, must be adequate to prevent unavoidable accidents.

Trouble shooting table:

PROBLEM	CAUSE	SOLUTION
The mulcher does not work or has lost strength.	The hydraulic motor is in poor condition.	Check or replace the hydraulic motor
	Pool condition of the hydraulic oil.	<ul style="list-style-type: none"> - Check the oil level in the tank of the excavator. - Check that the faucets of the installation hammer are open. - Check that they are well connected.
	Drive belts have been broken or damaged.	Remove cover and check the status of the belts. Replace them with new belts.
	Something has been broken in transmission	Unscrew the motor and check the State of the union between the engine and the transmitter body. Review the status of the key of pulley drive.
Rotor starts the rotation of shape very slow	The hydraulic motor is in poor condition.	Check or replace the hydraulic motor
	Get some oil to engine	<ul style="list-style-type: none"> - Check the oil level in the tank of the excavator. - Check that the faucets of the installation hammer are fully open. - Review possible chokes on the hoses.
	The oil gets low pressure.	- Check valve calibration of the hammer pipework.
	The pressure relief valve works incorrectly	Check the pressure at which this set the valve. Adjust the pressure. Replace the valve with a new one
The oil of the machine is warming over the 70 ° C.	Retention or wear of some hydraulic element.	Check the condition of the seals engine. Review possible chokes in the hydraulic pipes.
	External problems of the excavator.	Notify the service department of the excavator supplier.
	Poor regulation of the relief valves.	

Abnormal sounds during the operation of the machine	Bearing without grease or broken	Grease the bearings. If this does not stop the noise, change the bearings.
	Problems on the rotor shaft.	<ul style="list-style-type: none"> - Check the condition of the rotor shaft. - Verify that not has been wrapped any wire or cable - Check the status of the hammers.
	Some part is loose or missing.	<ul style="list-style-type: none"> - Check the proper fit of the parts of the head. - Check the fixture of the attachment.
Vibration	Missing a hammer	Replace all damaged or missing hammers.
	The wear of the of the hammers is not uniform.	Compensate or replace the hammers.
	This rotor shaft running	Remove the rotor shaft, repair and balance.
	The rotor shaft bearings in <i>wrong state</i> .	Replace bearings

BOMFORD TURNER LTD

Station Road, Salford Priors

Near Evesham, Worcestershire, WR11 8SW

Tel. 01789 773383 Fax. 01789 773238

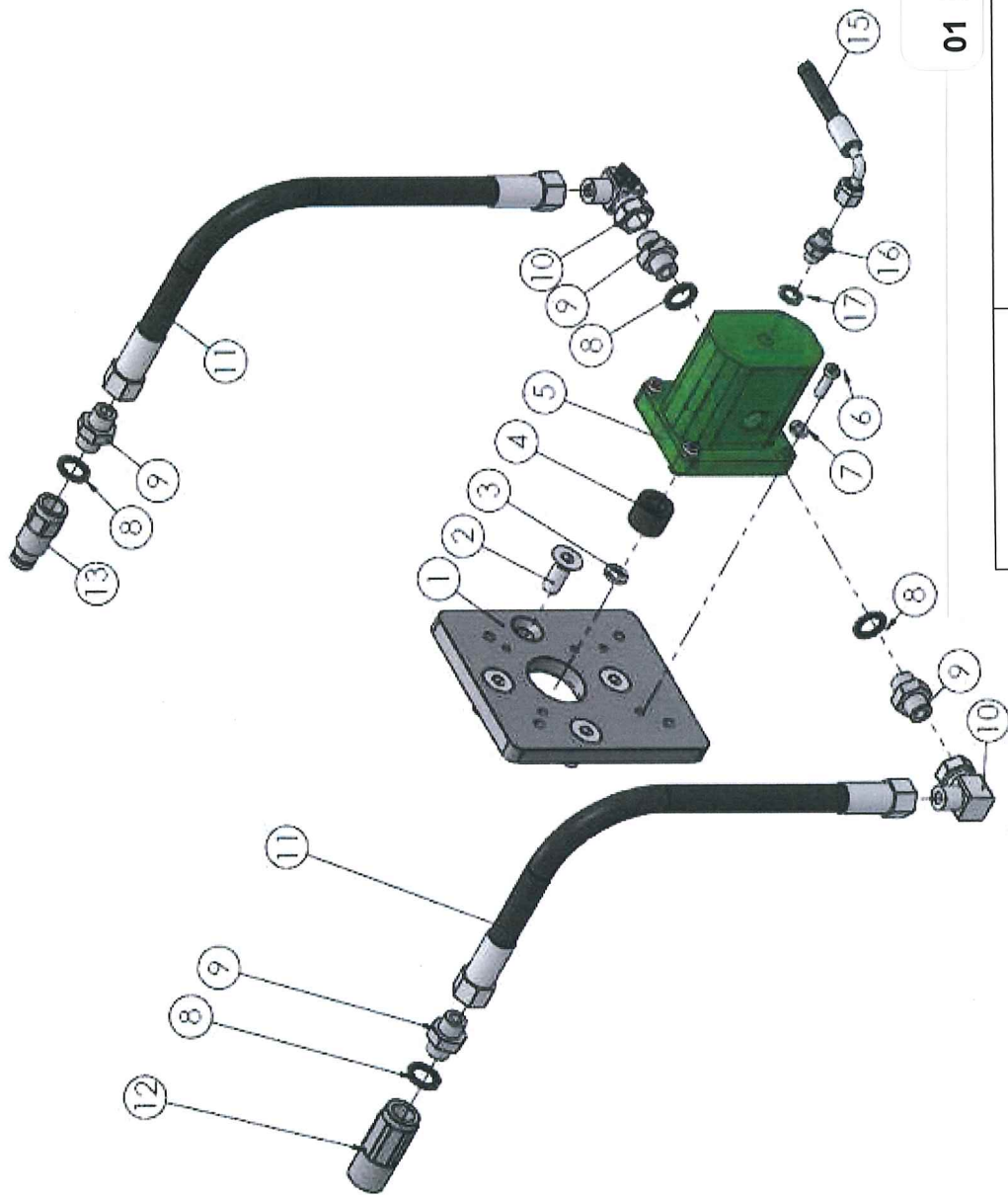
Online: www.bomford-turner.com Email: info@bomford-turner.com




Parts Manual 683

MICRO Buccaneer

**LIGHTWEIGHT
HYDRAULIC MUCHER
(91.003.72)**

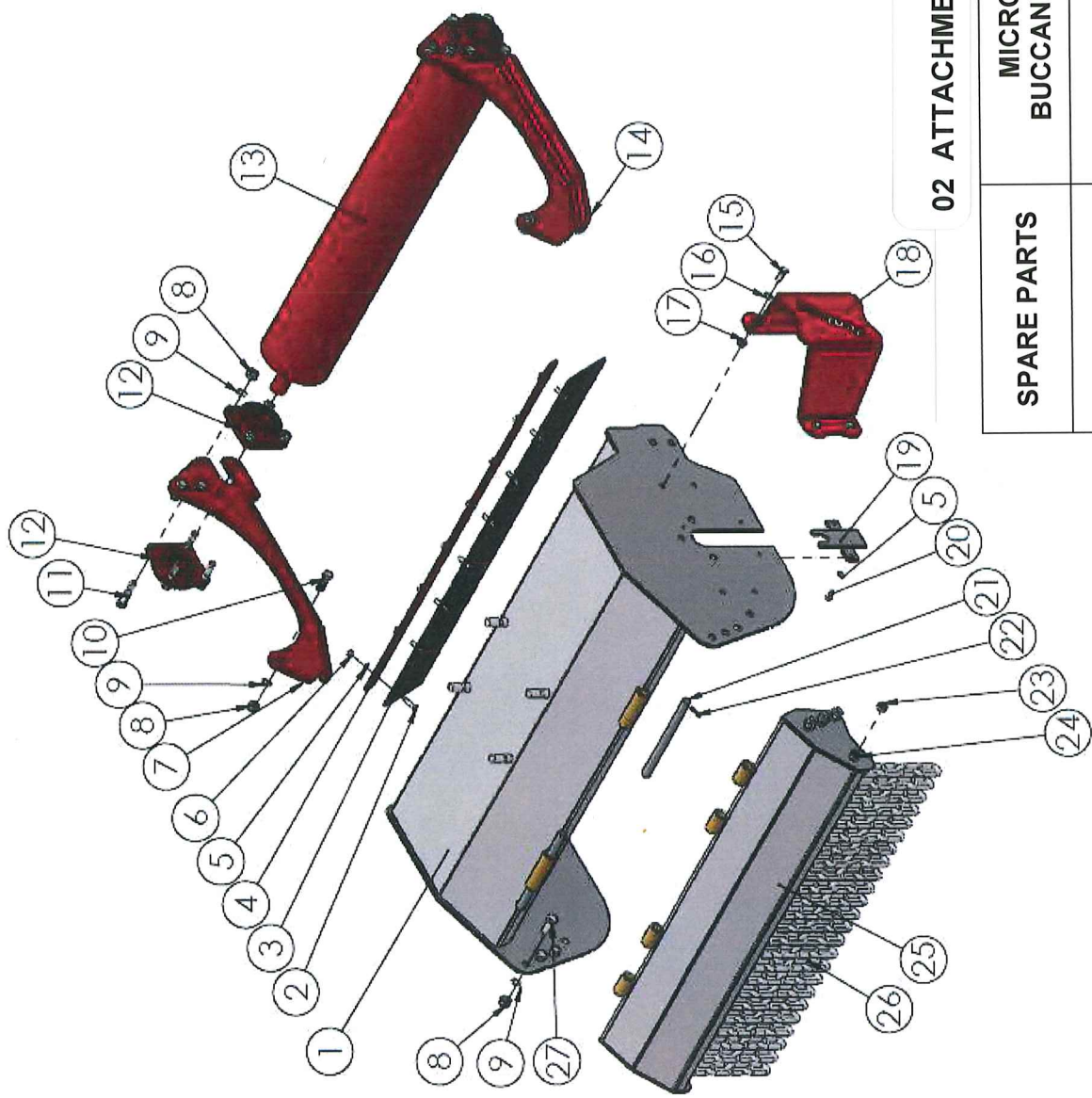


01 MOTOR ASSEMBLY


<p>001</p>	<p>MICRO BUCCANEER</p>	<p>SPARE PARTS</p>
	<p>WGC 91.003.72</p>	<p>25/05/2017</p>

MICRO BUCCANEER – 91.003.72 – CHART 001 - SPARE PARTS 01 MOTOR ASSEMBLY

		CASTELLANO		ENGLISH		FRANÇAIS	
ITEM	UN.	CODE	DESCRIPCIÓN	DESCRIPTION	DESIGNATION		
1	1	005	ACOPLA MOTOR DIRECTO	Direct Motor Coupling	DIRECT ATTELAGE MOTEUR		
2	4	02114035AV	TORNILLO ALLEN 14 X 35	Countersink Screw Allen 14x35	Vis à tête fraisée allen 14x35		
3	1	02310012	ARANDELA GROWER 12 mm.	Washer Growe 12 mm	Rondelle Grower 12 mm		
4	1	03100021	SEMINUDO	Semi-joint	Demi-nœuds		
5	1	1ML22RE10R	MOTOR ENGRANAJES	Gear Motor	Moteur à engrenages		
6	4	0210825A	TORNILLO ALLEN 08x25	Screw Allen 08x25	Vis Allen 08x25		
7	4	02310008	ARANDELA GROWER 8mm	Washer Grower 8mm	Rondelle Grower 8mm		
8	4	44100021	ARANDELA BUNA	Washer Buna	Rondelle Buna		
9	4	40012121	EMPALME MACHO-MACHO	M-M Racor	M-M Racor		
10	2	40412121	CODO 90º CUADRADO MF-HG	L-Racor 90º MF-HG	L-Racor 90º MF-HG		
11	2	05100111	LATIGUILLOS.	HOSES	Tuyaux		
12	1	40322736	ENCHUFE RAPIDO HEMBRA PUNZON	Fast Plug - Female point punch	Connecteur hydraulique - prise femelle		
13	1	40100008	ENCHUFE RAPIDO MACHO PUNZON	Fast Plug - Male point punch	Connecteur hydraulique - prise mâle		
15	1	05100061	LATIG. Drenaje	HOSE M1/4" drain-line	Tuyau M1/4" drainage		
16	1	40011313	EMPALME MACHO	MALE RACOR M1/4" X M1/4"	Racor Mâle M1/4" X M1/4"		
17	1	44100013	ARANDELA BUNA	Washer Buna	Rondelle Buna		




02 ATTACHMENT / CUTTING HEAD & ROLLER

SPARE PARTS	MICRO BUCCANEER	002
25/05/2017	WGC 91.003.72	

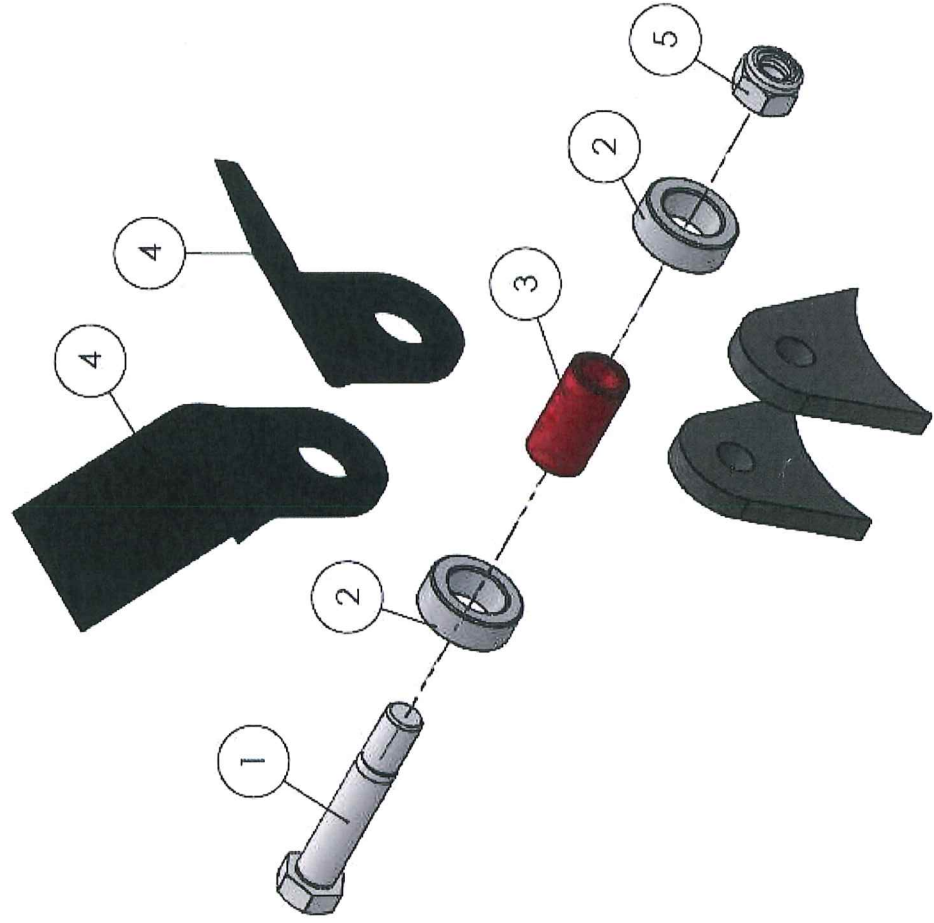
MICRO BUCCANEER – 91.003.72 – CHART 002 - SPARE PARTS

ITEM		UN.	CODE	DESCRIPCIÓN	ENGLISH	FRANÇAIS
CASTELLANO				DESCRIPCIÓN	DESCRIPTION	DESIGNATION
1		1	021	CHASIS	CHASIS	CHASIS
2		7	02108030	TORNILLO HEXAGONAL M08x30 - 80 -	Bolt Hex M08x30 - 80 -	Boulon Hex M08x30 - 80 -
2		8	02108030	TORNILLO HEXAGONAL M08x30 - 100 -	Bolt Hex M08x30 - 100 -	Boulon Hex M08x30 - 100 -
2		9	02108030	TORNILLO HEXAGONAL M08x30 - 120 -	Bolt Hex M08x30 - 120 -	Boulon Hex M08x30 - 120 -
2		10	02108030	TORNILLO HEXAGONAL M08x30 - 140 -	Bolt Hex M08x30 - 140 -	Boulon Hex M08x30 - 140 -
3		1	00000706	FALDON DE GOMA LISA	Rubber Skirt	Jupe caoutchouc
4		1	107	PLANO SUJ. FALDON TRASERO	Rear Skirt Rear Support	Jupe support arrière
5		9	02300008	ARANDELA PLANA 08mm. - 80 -	Flat Washer 08mm - 80 -	Rondelle 08mm - 80 -
5		10	02300008	ARANDELA PLANA 08mm - 100 -	Flat Washer 08mm - 100 -	Rondelle 08mm - 100 -
5		11	02300008	ARANDELA PLANA 08mm. - 120 -	Flat Washer 08mm - 120 -	Rondelle 08mm - 120 -
5		12	02300008	ARANDELA PLANA 08mm. - 140 -	Flat Washer 08mm - 140 -	Rondelle 08mm - 140 -
6		7	02200008A	TUERCA AUTOB. M08 - 80 -	Self-Blocking Nut M08 - 80 -	Écrou autoblocant M08 - 80 -
6		8	02200008A	TUERCA AUTOB. M08 - 100 -	Self-Blocking Nut M08 - 100 -	Écrou autoblocant M08 - 100 -
6		9	02200008A	TUERCA AUTOB. M08 - 120 -	Self-Blocking Nut M08 - 120 -	Écrou autoblocant M08 - 120 -
6		10	02200008A	TUERCA AUTOB. M08 - 140 -	Self-Blocking Nut M08 - 140 -	Écrou autoblocant M08 - 140 -
7		1	314-B	PATIN CABEZAL DERECHO - TFVLHC -	Right Skid - TFVLHC -	Patin Droit - TFVLHC -
8		20	02200014A	TUERCA AUTOB. M14	Self-Blocking Nut M14	Écrou autoblocant M14
9		20	02210014	ARANDELA GROWER 14mm	Washer Grower 14 mm	Rondelle Grower 14 mm
10		6	02114040	TORNILLO HEXAGONAL M14x40	Bolt Hex. M14x40	Boulon Hex. M14x40
11		8	02114060	TORNILLO HEXAGONAL M14x60	Screw Hex M14x60	Vis Hex M14x60
12		4	029UCFL207	RODAMIENTO SOPORTE	Support Bearing	Support Roulement
13		1	312	RODILLO DOBLE ROD. UCF207	Double Roller Rod UCF207	Roulement double ROD. UCF207
14		1	314-A	PATIN CABEZAL IZQUIERDO - TFVLHC -	Left Skid - TFVLHC -	Patin Gauche - TFVLHC
15		4	02110025	TORNILLO HEXAGONAL M10x25	Bolt Hex M10x25	Boulon Hex M10x25
16		4	02300010	ARANDELA PLANA 10 MM	Flat Washer 10 mm	Rondelle 10 mm
17		4	02200010A	TUERCA AUTOB. M10	Self-Blocking Nut M10	Écrou autoblocant M10
18		1	006	Protector motor Cabezal	Motor Cover	Protection Motor
19		1	032	TAPETA ANCLAJE LATERAL	Lateral Anchor Cap	Placket latérale
20		2	02108016	TORNILLO HEXAGONAL M08x16	Screw Hex. M08x16	Vis Hex. M08x16
21		2	131	BULON BISAGRA 18X230	Bolt hinge 18x230	Boulon Charnière 18x230
22		4	02400010	PASADOR ELASTICO 6x24 DIN-1481	Elastic Pin 6x24 DIN-1481	Pin Elastique 6x24 DIN-1481
23		1	02200012A	TUERCA AUTOB. M12	Self-Blocking Nut M12	Écrou autoblocant M12
24		1	115	VARILLA CHAPAS DELANTERAS	Front plates Rod	Tige du plates frontales
25		1	120	PORTILLA DELANTERA CADENA	Front Tape Chain	Protection frontale Chaîne
26		19	CADENA10005	CADENA 10mm. GALV. 5 MALLAS - 80 - TFVLHC	Chain 10 mm Galv. 5 wires - 80 - TFVLHC	Chaîne 10 mm Galv. 5 wires - 80 - TFVLHC
26		24	CADENA10005	CADENA 10mm. GALV. 5 MALLAS - 100 - TFVLHC	Chain 10 mm Galv. 5 wires - 100 - TFVLHC	Chaîne 10 mm Galv. 5 wires - 100 - TFVLHC
26		29	CADENA10005	CADENA 10mm. GALV. 5 MALLAS - 120 - TFVLHC	Chain 10 mm Galv. 5 wires - 120 - TFVLHC	Chaîne 10 mm Galv. 5 wires - 120 - TFVLHC
26		34	CADENA10005	CADENA 10mm. GALV. 5 MALLAS - 140 - TFVLHC	Chain 10 mm Galv. 5 wires - 140 - TFVLHC	Chaîne 10 mm Galv. 5 wires - 140 - TFVLHC
30		6	02114035	TORNILLO HEXAGONAL M14x35	Bolt Hex. M14x35	Boulon Hex. M14x35

02 ATTACHMENT / CUTTING HEAD & ROLLER

SPARE PARTS	MICRO BUCCANEER	003
25/05/2017	WGC 91.003.72	


03 FLAILS & MOUNTINGS



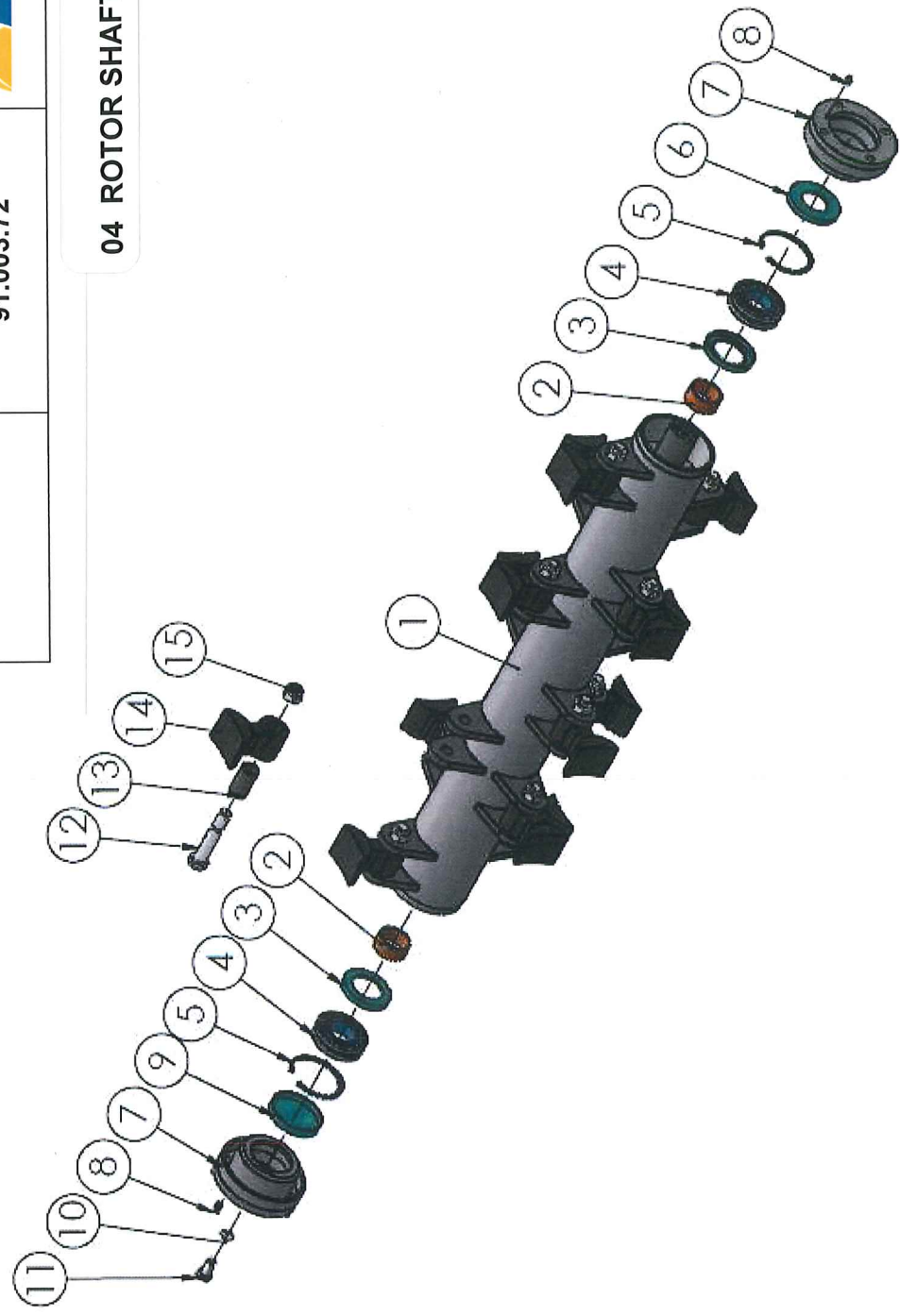
MICRO BUCCANEER – 91.003.72 – CHART 003 - SPARE PARTS

03 FLAILS & MOUNTINGS

ITEM	UN.	CODE	CASTELLANO		ENGLISH		FRANÇAIS	
			DESCRIPCIÓN		DESCRIPTION		DESIGNATION	
1	14	02118100	TORNILLO HEX. M18x100	TFVLHC-TFVLHIM 80	Bolt Hex. M18x100	TFVLHC-TFVLHIM 80	Boulon Hex. M18x100	TFVLHC-TFVLHIM 80
1	14	02118100	TORNILLO HEX. M18x100	TFVLHC-TFVLHIM 100	Bolt Hex. M18x100	TFVLHC-TFVLHIM 100	Boulon Hex. M18x100	TFVLHC-TFVLHIM 100
1	18	02118100	TORNILLO HEX. M18x100	TFVLHC-TFVLHIM 120	Bolt Hex. M18x100	TFVLHC-TFVLHIM 120	Boulon Hex. M18x100	TFVLHC-TFVLHIM 120
1	22	02118100	TORNILLO HEX. M18x100	TFVLHC-TFVLHIM 140	Bolt Hex. M18x100	TFVLHC-TFVLHIM 140	Boulon Hex. M18x100	TFVLHC-TFVLHIM 140
1	26	02118100	TORNILLO HEX. M18x100	TFVLHC-TFVLHIM 160	Bolt Hex. M18x100	TFVLHC-TFVLHIM 160	Boulon Hex. M18x100	TFVLHC-TFVLHIM 160
2	28	00477	CASQ. SEP. CUCH. 45x28.5x17	TFVLHC-TFVLHIM 80	Sep. Bush Flail	TFVLHC-TFVLHIM 80	Douille Sep. - Marteau	TFVLHC-TFVLHIM 80
2	28	00477	CASQ. SEP. CUCH. 45x28.5x17	TFVLHC-TFVLHIM 100	Sep. Bush Flail	TFVLHC-TFVLHIM 100	Douille Sep. - Marteau	TFVLHC-TFVLHIM 100
2	36	00477	CASQ. SEP. CUCH. 45x28.5x17	TFVLHC-TFVLHIM 120	Sep. Bush Flail	TFVLHC-TFVLHIM 120	Douille Sep. - Marteau	TFVLHC-TFVLHIM 120
2	44	00477	CASQ. SEP. CUCH. 45x28.5x17	TFVLHC-TFVLHIM 140	Sep. Bush Flail	TFVLHC-TFVLHIM 140	Douille Sep. - Marteau	TFVLHC-TFVLHIM 140
2	52	00477	CASQ. SEP. CUCH. 45x28.5x17	TFVLHC-TFVLHIM 160	Sep. Bush Flail	TFVLHC-TFVLHIM 160	Douille Sep. - Marteau	TFVLHC-TFVLHIM 160
3	14	00451	CASQUILLO MARTILLO	TFVLHC-TFVLHIM 80	Bush - Hammer	TFVLHC-TFVLHIM 80	Douille - Marteau	TFVLHC-TFVLHIM 80
3	14	00451	CASQUILLO MARTILLO	TFVLHC-TFVLHIM 100	Bush - Hammer	TFVLHC-TFVLHIM 100	Douille - Marteau	TFVLHC-TFVLHIM 100
3	18	00451	CASQUILLO MARTILLO	TFVLHC-TFVLHIM 120	Bush - Hammer	TFVLHC-TFVLHIM 120	Douille - Marteau	TFVLHC-TFVLHIM 120
3	22	00451	CASQUILLO MARTILLO	TFVLHC-TFVLHIM 140	Bush - Hammer	TFVLHC-TFVLHIM 140	Douille - Marteau	TFVLHC-TFVLHIM 140
3	26	00451	CASQUILLO MARTILLO	TFVLHC-TFVLHIM 160	Bush - Hammer	TFVLHC-TFVLHIM 160	Douille - Marteau	TFVLHC-TFVLHIM 160
4	28	06100107	CUCHILLA M-22 - 60X8 T.28	NO TFVLHC-TFVLHIM 80	Flail M-22	60X8 T.28 NO TFVLHC-TFVLHIM 80	Fiéau M-22	60X8 T.28 NO TFVLHC-TFVLHIM 80
4	28	06100107	CUCHILLA M-22 - 60X8 T.28	NO TFVLHC-TFVLHIM 100	Flail M-22	60X8 T.28 NO TFVLHC-TFVLHIM 100	Fiéau M-22	60X8 T.28 NO TFVLHC-TFVLHIM 100
4	36	06100107	CUCHILLA M-22 - 60X8 T.28	NO TFVLHC-TFVLHIM	Flail M-22	60X8 T.28 NO TFVLHC-TFVLHIM 120	Fiéau M-22	60X8 T.28 NO TFVLHC-TFVLHIM 120
4	44	06100107	CUCHILLA M-22 - 60X8 T.28	NO TFVLHC-TFVLHIM	Flail M-22	60X8 T.28 NO TFVLHC-TFVLHIM 140	Fiéau M-22	60X8 T.28 NO TFVLHC-TFVLHIM 140
4	52	00000904	CUCHILLA M-22 - 60X8 T.28	NO TFVLHC-TFVLHIM	Flail M-22	60X8 T.28 NO TFVLHC-TFVLHIM 160	Fiéau M-22	60X8 T.28 NO TFVLHC-TFVLHIM 160
5	14	00000904	TUERCA AUTOB. M18	TFVLHC-TFVLHIM 80	Self-Blocking	M18 TFVLHC-TFVLHIM 80	Écrou autoblocant	M18 TFVLHC-TFVLHIM 80
5	14	00000904	TUERCA AUTOB. M18	TFVLHC-TFVLHIM 100	Self-Blocking	M18 TFVLHC-TFVLHIM 100	Écrou autoblocant	M18 TFVLHC-TFVLHIM 100
5	18	00000904	TUERCA AUTOB. M18	TFVLHC-TFVLHIM 120	Self-Blocking	M18 TFVLHC-TFVLHIM 120	Écrou autoblocant	M18 TFVLHC-TFVLHIM 120
5	22	02200016A	TUERCA AUTOB. M18	TFVLHC-TFVLHIM 140	Self-Blocking	M18 TFVLHC-TFVLHIM 140	Écrou autoblocant	M18 TFVLHC-TFVLHIM 140
5	52	02200016A	TUERCA AUTOB. M18	TFVLHC-TFVLHIM 160	Self-Blocking	M18 TFVLHC-TFVLHIM 160	Écrou autoblocant	M18 TFVLHC-TFVLHIM 160

SPARE PARTS	MICRO BUCCANEER	004
25/05/2017	WGC 91.003.72	

04 ROTOR SHAFT ASSEMBLY



		CASTELLANO		ENGLISH		FRANÇAIS	
ITEM	UN.	CODE	DESCRIPCIÓN	DESCRIPTION	DESIGNATION		
1	1	017	EJE ROTOR	Rotor Axle	Axe Rotor		
2	2	028	CASQUILLO PORTARETEN	Seal-Holder Cap	Cap du support du joint		
3	2	0285208010	RETEN	Seal	Joint		
4	2	02922209	RODAMIENTO	Bearing	Roulement		
5	2	02520085	ARILLO ELASTICO	Elastic Ring	Joint Elastique		
6	1	0285508510	RETEN	Seal	Joint		
7	2	018	PORTACOJINETES	Bearing holder	Support de roulement		
8	2	02700035	ENGRASADOR 1/8" GAS RECTO	Lubricator 1/8"	Graisseur 1/8"		
9	1	0280008510	RETEN CIEGO	Seal	Joint		
10	4	02310014	ARANDELA GROWER 14 mm	Washer Grower 14 mm	Rondelle Grower 14 mm		
7	4	02114025	TORNILLO HEXAGONAL M14x25	Bolt hex. M14x25	Boulon Hex. M14x25		
12	14	02118100	TORNILLO HEXAGONAL - 80 -	Bolt Hex. - 80 -	Boulon Hex. - 80 -		
12	14	02118100	TORNILLO HEXAGONAL - 100 -	Bolt Hex. - 100 -	Boulon Hex. - 100 -		
12	18	02118100	TORNILLO HEXAGONAL - 120 -	Bolt Hex. - 120 -	Boulon Hex. - 120 -		
12	22	02118100	TORNILLO HEXAGONAL - 140 -	Bolt Hex. - 140 -	Boulon Hex. - 140 -		
13	14	00451	CASQUILLO MARTILLO - 80 -	Bush - Hammer - 80 -	Douille - Marteau - 80 -		
13	14	00451	CASQUILLO MARTILLO - 100 -	Bush - Hammer - 100 -	Douille - Marteau - 100 -		
13	18	00451	CASQUILLO MARTILLO - 120 -	Bush - Hammer - 120 -	Douille - Marteau - 120 -		
13	22	00451	CASQUILLO MARTILLO - 140 -	Bush - Hammer - 140 -	Douille - Marteau - 140 -		
14	14	00000898	MARTILLO CRG DOBLE CARA - 80 -	Double-faced hammer - 80 -	Marteau double face - 80 -		
14	14	00000898	MARTILLO CRG DOBLE CARA - 100 -	Double-faced hammer - 100 -	Marteau double face - 100 -		
14	18	00000898	MARTILLO CRG DOBLE CARA - 120 -	Double-faced hammer - 120 -	Marteau double face - 120 -		
14	22	00000898	MARTILLO CRG DOBLE CARA - 140 -	Double-faced hammer - 140 -	Marteau double face - 140 -		
15	14	02200018A	TUERCA AUTOB. - 80 -	Self-Blocking Nut - 80 -	Écrou autoblocant - 80 -		
15	14	02200018A	TUERCA AUTOB. - 100 -	Self-Blocking Nut - 100 -	Écrou autoblocant - 100 -		
15	18	02200018A	TUERCA AUTOB. - 120 -	Self-Blocking Nut - 120 -	Écrou autoblocant - 120 -		
15	22	02200018A	TUERCA AUTOB. - 140 -	Self-Blocking Nut - 140 -	Écrou autoblocant - 140 -		