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

OPERATOR & PARTS MANUAL 689

**Buccaneer
HDX 180, 200, 225, 250
Forestry Mulcher**

IMPORTANT

This machine is designed for vegetation control and must not be used for any other purpose.

It is potentially hazardous to fit or use any parts other than genuine **Bomford Turner** parts.

The company disclaims all liability for the consequences of such use which, in addition, voids the machine warranty.

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 et mentionnez les dans toute communication avec nos services ou votre revendeur. Ceci est important pour la commande de pieces detachees. Pensez a noter tous les numeros et toutes les letters.

Numeros de serie de la machine _____.

Les informations donnees dans ce manuel sont correctes cependant, du fait de developpement constant des machines Bomford Turner. Changements dans les caracteristiques sont inevitables. Si vous trouvez que les informations donnees ne correspondent pas a votre machine veuillez contacter le service des reparations ou des informations plus recentes vous seront donnees.

Ce manuel peut montrer des caracteristiques optionnelles et ne peut pas etre considere comme specification de la machine. Cette machine a ete testee, et elle est consideree comme fiable a condition d'une bonne utilisation. Assurez-vous que votre operateur est qualifie en ce qui concerne l'utilisation de la machine ainsi que 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 indiesem handbuch sind bei veröffentliching 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 verwendend. 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

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

Linkage mounted unit	Product code
BUCCANEER HDX & HDXF 180	VENT
BUCCANEER HDX & HDXF 200	VENT
BUCCANEER HDX & HDXF 225	VENT
BUCCANEER HDX & HDXF 250	VENT

A tractor mounted vegetation control flail mowing attachment.

Serial No(s) & Date:.....

Designed / Manufactured in Europe

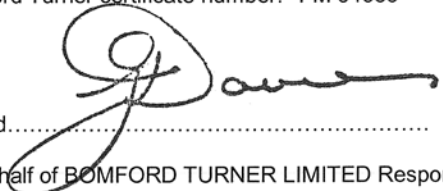
This product complies with the required provisions of;

- Directive 2006/42/EC
- Directive 2004/108/EC
- BS EN ISO 12100-1:2010

And other national standards associated with its design and construction as listed in its 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 03/01/2012

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SAFETY RECOMMENDATIONS

MOST ACCIDENTS ARE DUE TO THE LACK OF THE MOST BASIC SAFETY RULES.

- In order to be able to work on the machine safely, it is necessary for the machine to be supported on a flat surface or solid ground and disconnected from the power take off (PTO).
- Ensure that the power of the tractor / excavator is correct for the machine in use.
- Keep people and animals away from the machine.
- Do not place any objects on the machine that may get caught.
- Do not transport people or animals on the machine.
- Check that the PTO is marked with the symbol C.E. and that its chain has been correctly hooked up to avoid radiation of the PTO protector.
- Be particularly careful when working in stony areas. Rough or uneven ground may result in the machine protectors being temporarily disabled.
- Be particularly careful when transporting the machine by road, respecting the highway-code.

Buccaneer Forestry Mulcher Specification

Buccaneer	Model	Width of cut	Overall width	No of hammers	PTO speed	Hammer type	Weight	Tractor HP
HDX	180	1800	2210	16	1000	Swing	1690	60-150
HDX	200	2000	2410	20	1000	Swing	1815	80-150
HDX	225	2250	2660	20	1000	Swing	1935	90-150
HDX	250	2500	2720	24	1000	Swing	2095	90-150

- Hydraulic rear flap
- Heavy duty replaceable skids
- CAT 2 three point linkage
- Front "double row" chain guard
- Front mountable
- RR pushbar

1. USE OF THE INSTRUCTION MANUAL

- 1.1 Before starting your Bomford forestry shredder you must consult the instructions and safety warnings stated in this manual. These are necessary for its correct attachment to the tractor / excavator and use.
- 1.2 Many dangerous situations may be encountered whilst using this machine and the purpose of this manual is to achieve safe working practices and conditions.
- 1.3 All the instructions in this manual must be carried out according to the instructions specified by the tractor and PTO manufacturer and also the current legislation concerning motor vehicle movement.

2. DO NOT ALLOW THE MACHINE TO BE USED BY YOUNG PEOPLE OR THOSE UNAWARE OF ITS WORKINGS OR THE INSTRUCTIONS FOR ITS USE

- 2.1 The control and maintenance of this Bomford forestry shredder is:

THE USER'S RESPONSIBILITY

- 2.2 Inadequate maintenance may result in damage to the machine and increased danger of injury.2.3. The user is responsible for damage caused by misuse or by not following the instructions laid out in this manual.
- 2.4 **Bomford** does not accept responsibility for:
 - * Partial or total disregard of the instructions manual.
 - * Use of non-original spare parts.
 - * Unauthorised modifications of the machine.
 - * Inadequate maintenance.
 - * Incorrect operation of the tractor / excavator PTO.
 - * Attachment to the tractor / excavator with incorrect power to that specified.
 - * Incorrect attachment of the machine to the tractor / excavator.
 - * Use by inexperienced persons or those without knowledge or its instructions of use.
 - * Misuse.

3. MACHINE ASSEMBLY

THE DRIVE OR PTO IS CONSIDERED A MACHINE. IT HAS ITS OWN INSTRUCTION MANUAL; THIS MUST BE READ CAREFULLY BEFORE ANY INTERVENTION.

- 3.1 Attach the machine to the using the corresponding pins.
- 3.2 Attach the PTO. The point to be joined to the tractor is indicated on the PTO itself. Couple the corresponding part of the PTO to the machine.

4. **ATTACHMENT TO THE TRACTOR**

- 4.1 Ensure that the tractor arms / excavator are at the same height as the machine coupling brackets. Adjust the tractor / excavator tighteners and fit the washers or clips to the coupling pins.
- 4.2 Adjust and put into place the 3rd point of the tractor / excavator
- 4.3 Attach the PTO to the tractor / excavator power-take-off.
- 4.4 Raise the machine and then adjust the cutting height by means of the skids, raising or lowering them to the desired height.
- 4.5 Start the machine in order to check its correct working order, steadily engaging the PTO.

5. **USAGE**

FOR COMPLETELY SAFE USAGE READ THE INSTRUCTONS MANUAL AND OBSERVE THE NECESSARY PRECAUTIONS.

- 5.1 Check the direction and speed of rotation of the PTO.
- 5.2 It is the user's responsibility to ensure that no one is allowed within the working range of the machine or at least kept at an adequately safe distance.
- 5.3 Do not use your forestry shredder for work which is not for its intended use.
- 5.4 The advisable working speed is from 2 to 3 km/h and engine revolutions between 1800 and 2000 rpm.

6. **SAFETY**

ON NO OCCASION IS WORKING UNDER THE MACHINE ALLOWED. IF IT IS FIXED ON THE TRACTOR OR EXCAVATOR, A STABLE SUPPORT MUST BE ATTACHED IN ORDER TO AVOID RISK OF INJURY.

- 6.1 Do not use the forestry shredder before having thoroughly read and understood the instruction manual.
- 6.2 Before carrying out any maintenance or test operation:

the PTO (tractor power take off) must be at a complete standstill

- 6.3 Ensure that the pins are in the correct position with their clips.
- 6.4 For its maintenance and operation, only replace parts using original spare parts and components.
- 6.5 Do not transport the forestry shredder whilst the rotor is running.
- 6.6 Disconnect the tractor power take off and leave the machine on the ground. Wait until the machine has stopped rotating before stopping the tractor or excavator
- 6.7 Make sure safety decals are displayed where indicated in this manual and replaced when worn.

7. MAINTENANCE

FOR COMPLETELY SAFE WORKING CONDITIONS, ALWAYS USE ORIGINAL PARTS.

- 7.1 Check the oil level of the gearbox every 50 hours (the recommended oil is SAE-90 EP) and it must be replaced during the first 100 hours of operation.
- 7.2 This operation must be repeated every 400 hours of use.
- 7.3 Lubricate the drive tubes and braces every 8 hours, preferably whilst still warm.

OIL FOR GROUP 540 RPM:

QUANTITY: 1.7 litres
RECOMMENDED OIL: SAE-90 EP
APPROX. GROUP WEIGHT: 28 kg

LUBRICATION

Use MOLIKOTE or BR-II in black or green.

Ensure that said grease contains ***Mollybdenum Disulphide***

Lubricate the rotor shaft every 4-5 hours at the indicated lubricating points

8. MAINTENANCE

8.1 BEFORE THE WORK CYCLE

Necessary personnel: 1 driver.

Check the condition of the hammers. In cases of excessive use, replace and consult a qualified technician.

Check the level of oil in transmission box by opening plug. If oil emerges, from the plug hole, the level is correct, if it does not, refill by pouring into plug hole until the highest possible level.

8.2 AFTER THE FIRST TWO HOURS OF WORK

Necessary personnel: 1 qualified technician

Check the tension of the transmission belts. To complete this operation, tighten the tension screws / bolts leaving $\frac{1}{4}$ of a turn in the belt and tighten the locking nut on screw / bolt.

WARNING: The operation described must be done with every transmission belt.

8.3 AFTER THE FIRST 100 HOURS WORK

Tighten the counter screws again.

8.4 EVERY 400 HOURS WORK

Change the oil as specified above.

8.5 TRANSMISSION BELTS

8.5.1 TIGHTENING

The presence of a tensioner on spring eliminates the need to tighten the belts manually.

It is also possible to tighten the belts by changing the spring.

To do this operation properly, proceed as follows:

Necessary personnel: 1 qualified technician.

Unscrew counter screw and tighten screw.

8.5.2 REPLACING

Necessary personnel: 1 qualified technician.

Replace the belts as follows:

Remove the belt cover.

Remove all tension from spring.

Replace belts.

Tighten spring nuts as explained earlier.

Replace belt cover.

TABLA 9**ACCEPTABLE BELT TENSION MEASURES**

Shredder model	P.T.O	P kg	f mm
HDX 180-200-225-250	540/1000 RPM	7.5	11

Quick list – replacement parts

Part No	HDX Buccaneer (TFVD)
	ROTOR HDX 180
	ROTOR HDX 200
91.001.24	ROTOR HDX 225
91.001.25	ROTOR HDX 250
48496.20	ROTOR BEARING SKF2212E
48496.06	HAMMER - OSCILLATING
48496.07	HAMMER SHAFT HOLDER
48496.12	PULLEY COVER (HD)
48496.16	SKATES (2UNITS) (HD)
05.299.71	BELT SPBX1000
48496.14	HYDRAULIC PISTON
48496.15	TFV-MF CHAIN 140=34/TFV MF160=40/TFV-MF 180=46/TFV-MF 200=52/TFV-MF-220=58 (unit)



Parts Manual 689

Buccaneer

HDX 180, 200, 225, 250

Forestry Mulcher

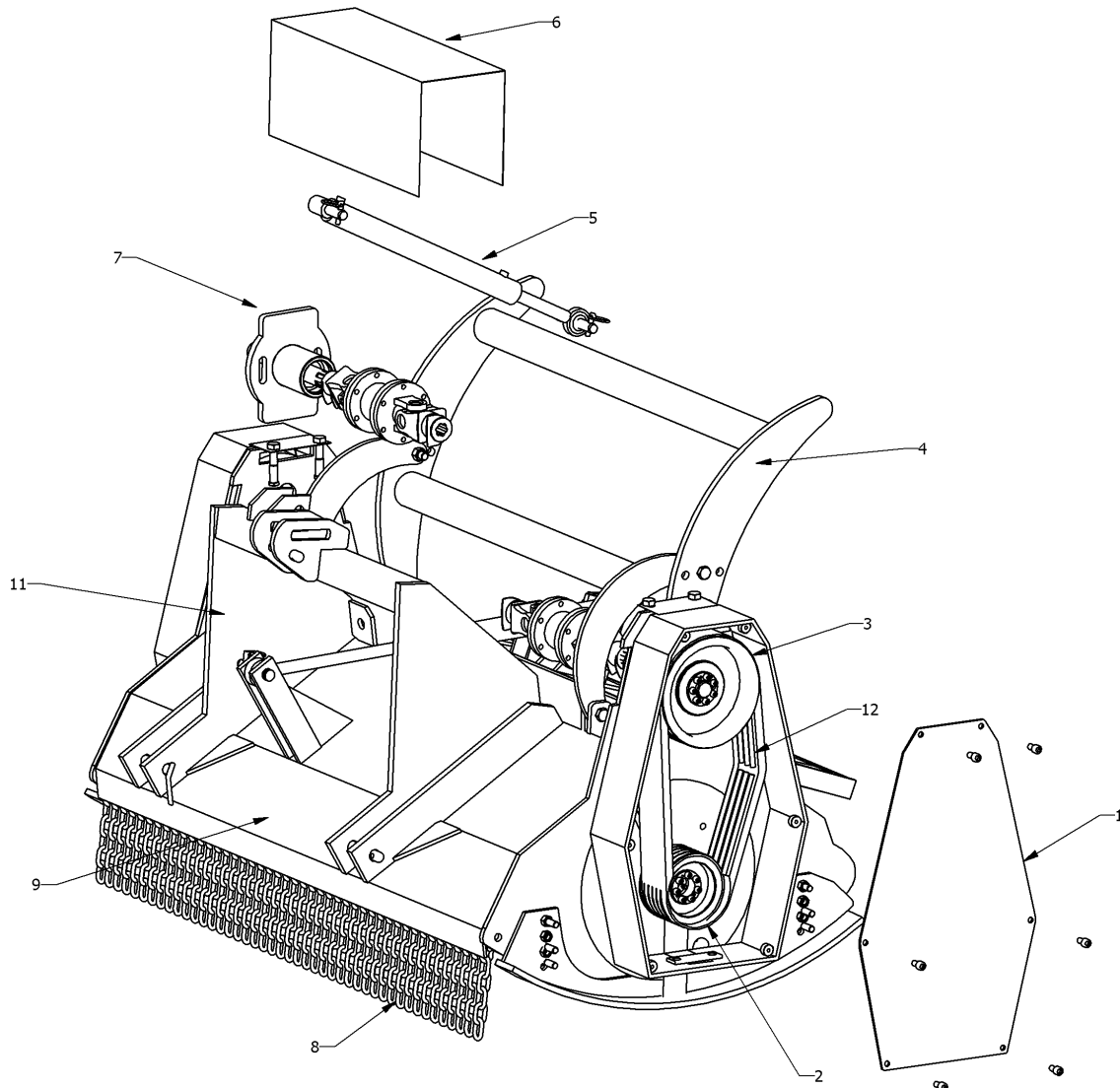


FIG 1

Fig 1 Buccaneer HDX

No	Description Spanish	Description English	Qty
1	Tapa Correas	Straps Cover	2
2	Polea 180 x 6 D.180/G.6	Pulley 180 x 6 D.180/G.6	2
3	Polea 280 x 6 SPB D.280/G6	SPB Pulley D.280/G6 280x6	2
4	Conjunt Defensa	Rear Pushing Bar	1
5	Piston Hidraulico	Hydraulic piston	1
6	Tapa Proteccion Transmission	Transmission Protection cover	2
7	Conjunto Transmision	Gearbox shaft	2
8	Cardena	PTO	-
9	Carcasa	Housing	1
10	Patin	Skids	2
11	Enganche	3 point linkage	1
12	Correas	Belts	2

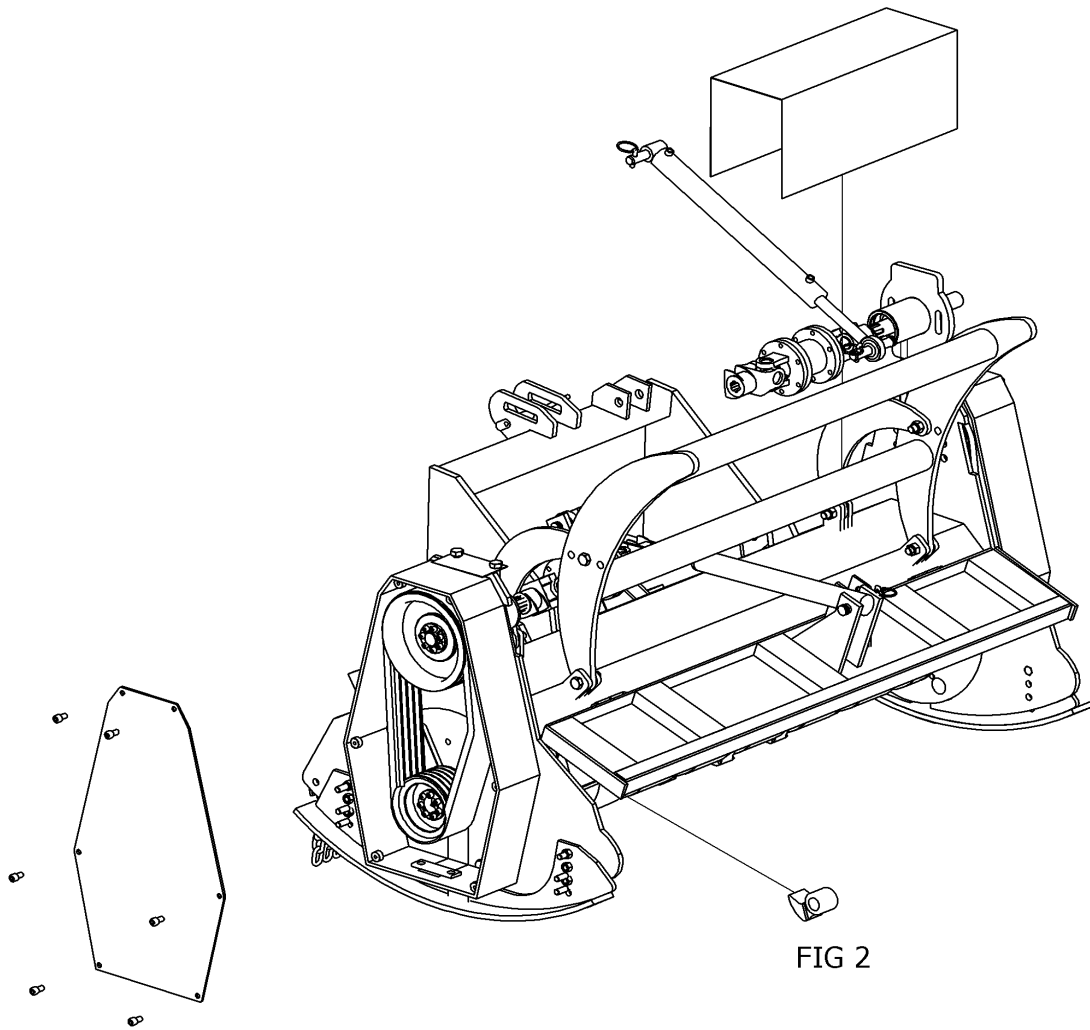


Fig 2 Buccaneer HDX

No	Description Spanish	Description English	Qty
1	Tapa Correas	Straps Cover	2
2	Polea 180 x 6 D.180/G.6	Pulley 180 x 6 D.180/G.6	2
3	Polea 280 x 6 SPB D.280/G6	SPB Pulley D.280/G6 280x6	2
4	Juego Correas	Belts set	2
5	Piston Hidraulico	Hydraulic piston	1
6	Conjunt Defensa	Rear Pushing Bar	1
7	Martillo	Hammer	-
8	Eje Martillos	Hammer shaft holder	4
9	Rotor	Rotor	1
10	Patin	Skid	2
11	Tapa	Rear Hydraulic door	1
12	Proteccion Transmision	Transmission Protection	2

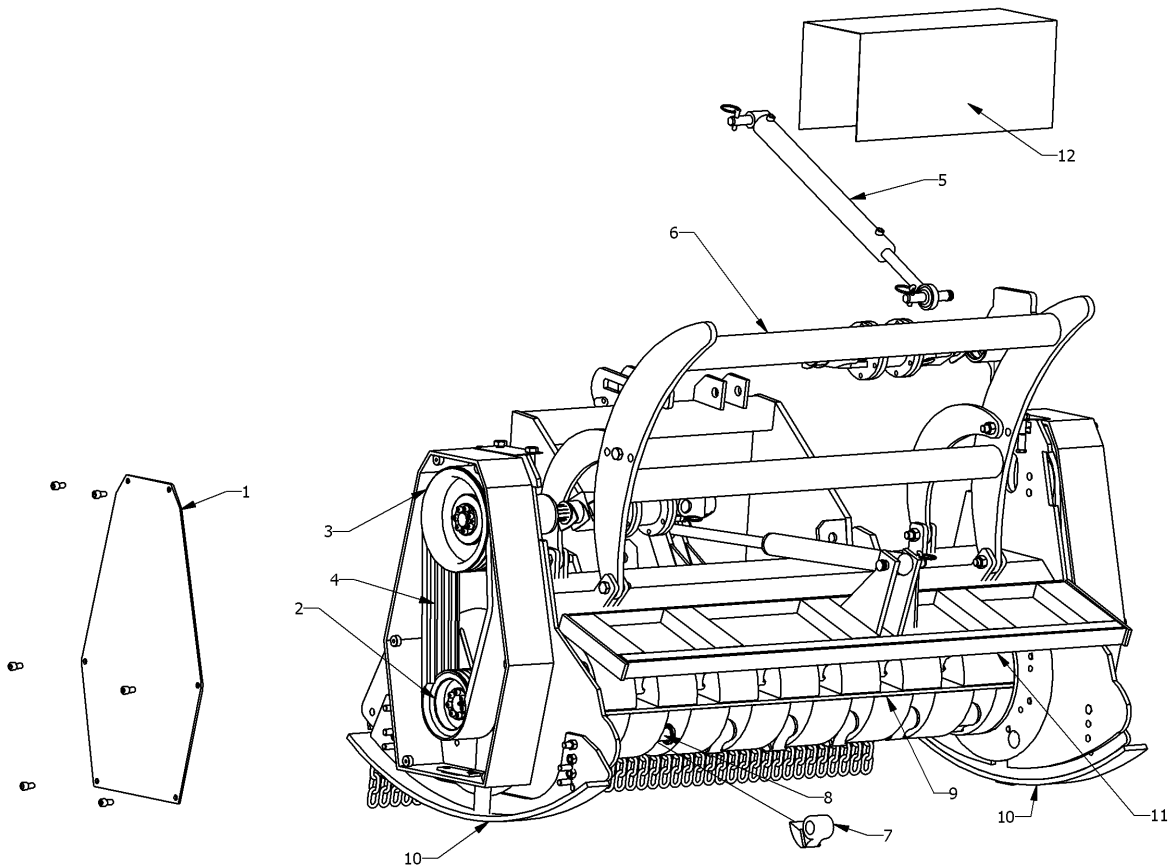


FIG 3

Fig 3 Buccaneer HDX

No	Description Spanish	Description English	Qty
1	Tapas Correas	Straps Cover	2
2	Polea 180 x 6 D.180/G.6	Pulley 180 x 6 D.180/G.6	2
3	Polea 280 x 6 SPB D.280/G6	SPB Pulley D.280/G6 280x6	2
4	Juego Correas	Belts set	2
5	Piston Hidraulico	Hydraulic piston	1
6	Conjunt Defensa	Rear Pushing Bar	1
7	Martillo	Hammer	-
8	Eje Martillos	Hammer shaft holder	4
9	Rotor	Rotor	1
10	Patin	Skid	2
11	Tapa	Rear Hydraulic door	1
12	Proteccion Transmision	Transmission Protection	2

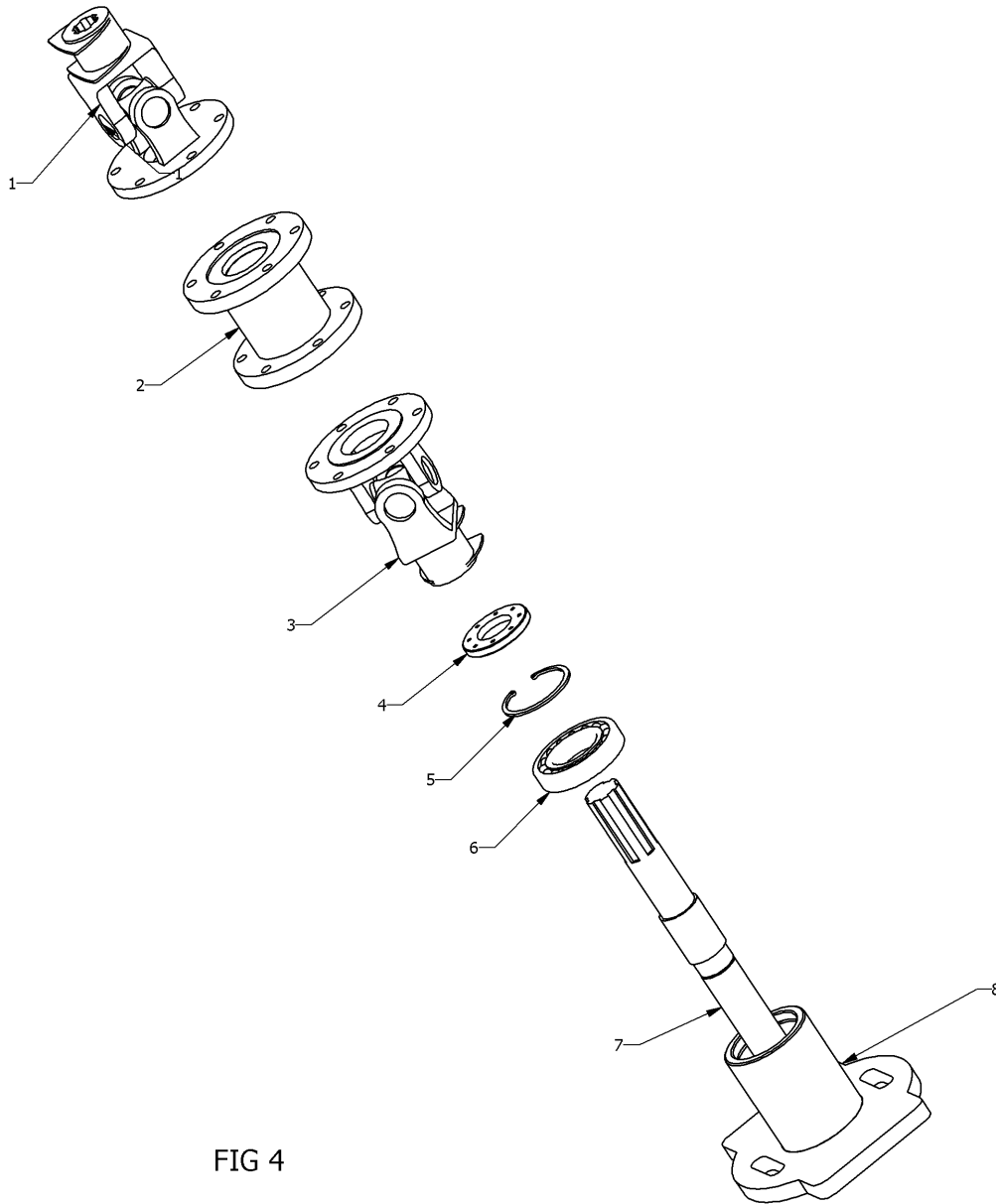
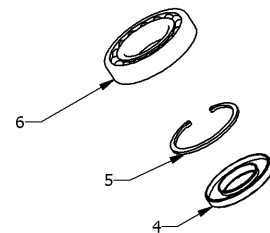


FIG 4

Fig 4 Buccaneer HDX

No	Description Spanish	Description English	Qty
1	Creueta 1 ¾	Joint 1 ¾	1
2	Separador Creutas	Joints Separator	1
3	Creueta 1 3/8	Joint 1 3/8	1
4	Reten	Seal	2
5	Cerca Clik	Seeger	2
6	Cojinete	Bearing	2
7	Eje	Drive shaft axle	1
8	Buje	Hub	1



Martillos Fijos		Fixed Hammers	
Tipo Maquina	CTDAD	Machine Type	Qty
HDX (TFV-D) 180	16	HDX (TFV-D) 180	16
HDX (TFV-D) 200	20	HDX (TFV-D) 200	20
HDX (TFV-D) 225	20	HDX (TFV-D) 225	20
HDX (TFV-D) 250	22	HDX (TFV-D) 250	22

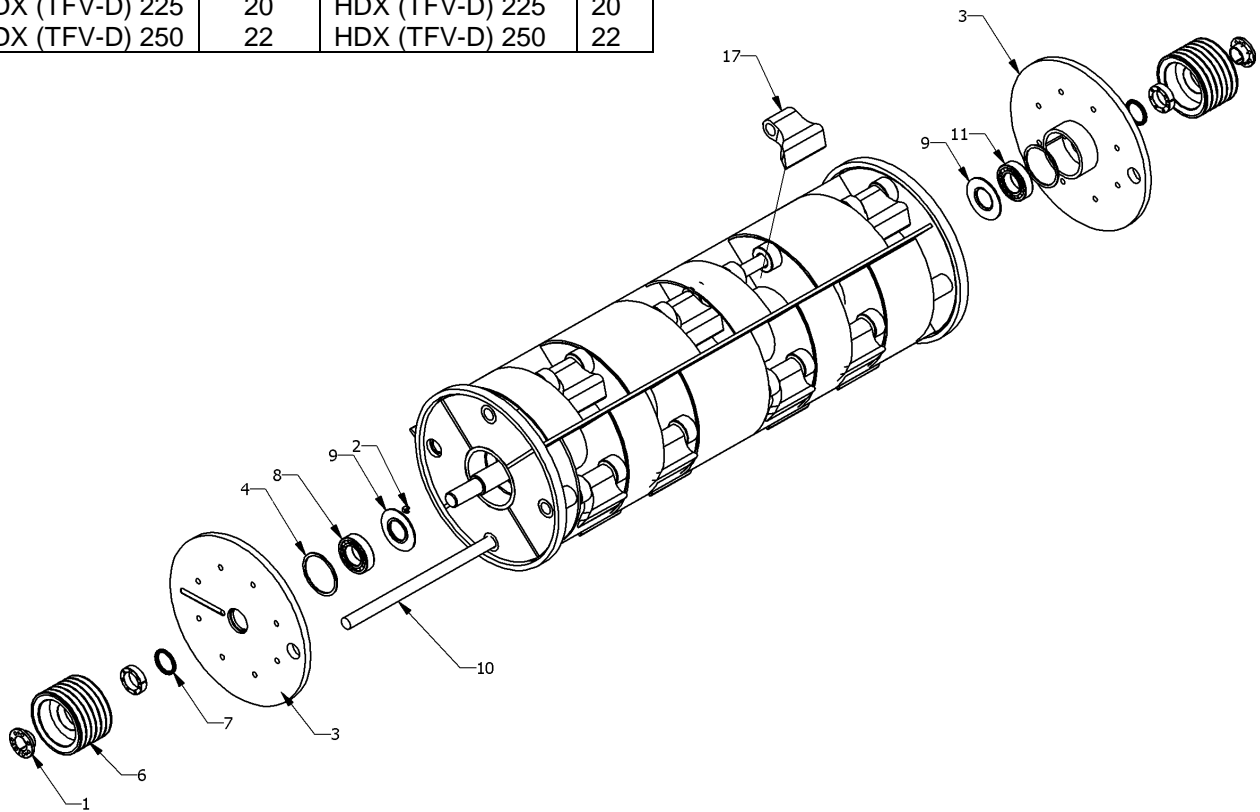


FIG 5

Fig 5 Buccaneer HDX

No	Description Spanish	Description English	Qty
1	Fijador Polea 45 x 80 VL156	Pulley Fixer 45 x 80 VL156	12
2	Engrasador	Nipple	2
3	Buje Porta Cojinetes	Bearings Holder Bracket	2
4	Grueso Separador	Thickness separator	2
5	Rotor	Rotor	2
6	Polea 180x6 SPB D.180/G.6	SPB Pulley D.180/G 180 x 6	2
7	Reten	Seal	2
8	Rodamiento Bolas SKF (A) – SPK 2212E	SKF Ball Bearing (A) SPK 2212E	4
9	Reten Grasa	Grease seal	-
10	Barra Porta Martillos	Hammer shaft Holder	4
11	Martillo	Hammer	-