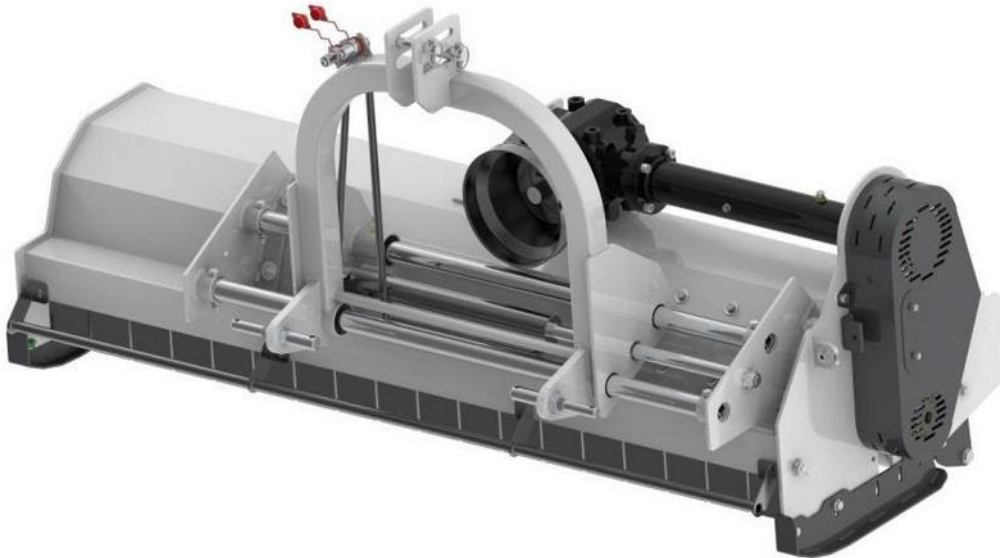




Operator's & Parts Manual



LIGHT FLAIL MOWER **Galaxy**



CAUTION!

The safety regulations shall be followed while using the machine and this manual shall be read prior to the machine operation.

The manual is an integral part of the machine equipment!

The manual shall be kept in a safe place and shall be available for user and an operator during the whole period of the machine operation

If the manual is lost or destroyed, new manual shall be purchased in the machine retail outlet or at the distributor's office.

If the machine is sold or made available to other user, the manual and the declaration of conformity shall be attached to the machine.

The distributor reserves all rights to this manual.

Copying, processing the manual as a whole or its part with no consent of the distributor is forbidden.

Belco guarantees efficient operation of the machine, provided it is used in accordance with the technical and operating conditions specified in this INSTRUCTIONS MANUAL.

All faults revealed during the warranty period will be repaired by the Warranty Repairs Service. The expiration date of the warranty period is specified in the WARRANTY CARD.

The warranty does not cover parts and components of the machine subjected to wear and tear under normal operating conditions regardless of the warranty period, i.e.: bearings, cutting blades/hammers, aprons/protective covers, hydraulic hoses, etc.

The Warranty Service covers only instances such as mechanical damage not caused by a fault of the user, production defects, etc.

If any damage results from:

- mechanical damage caused by a fault of the user or a traffic accident,
- improper use, adjustment and maintenance, use of the machine for a purpose other than intended,
- operating a damaged machine,
- repairs conducted by unauthorized persons or improper repairs,
- unauthorized changes to the machine structure,

the user may invalidate its rights to the In-Warranty Services.

The user is obliged to immediately report all identified faults and have them repaired, regardless of whether the damage is covered by the warranty or not. Special warranty terms and conditions are laid out in the WARRANTY CARD attached to the newly purchased machine.

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1. Machine identification

All the information needed for identification is located on the nameplate, which is attached to the body of the machine. It contains such information as the name and address of the distributor, year of production , factory number, weight of the machine.



Fig 1: Nameplate

In case of uncertainty, the dealer or distributor should provide any information about the machine and clarification of the operating instructions.

Distributor Address

Belco Resources Equipment

401 Jeffrey's Road

Rocky Mount, NC27804

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www.br-equipment.com

2. Introduction



CAUTION!

This symbol indicates danger.

This warning symbol indicates important information about the dangers. You are requested to read the information carefully,

Follow the recommendations

2.1. *Read the manual*



CAUTION!

Read the operating instructions before use

The user manual is provided with the machine. Please read it carefully before starting any work with the machine.

This manual provides the user with information on the operation, use and maintenance of the machine. It contains operational characteristics, requirements for safe and correct operation with the machine, allowing the best use of the machine with maximum service life and reliability. A careful reading of the operating instructions will help to avoid accidents and allow for long and trouble-free service.

2.2. *Intended use*

The machine is designed for normal, typical agricultural use, i.e. for mowing and shredding of low-stemmed plants (bushes, plant stems, etc.).

The use of the shredder for other purposes shall be considered as misuse. This excludes the distributor's responsibility for any damage resulting from such use.

- The machine may only be operated by trained operators who have read the operating instructions and have been authorized to drive a vehicle with a shredder.
- The shredder shall be used for its intended use and properly maintained and repaired.
- Follow the safety regulations specified in this manual, general health and safety rules, road traffic rules.
- Follow the occupational health and safety rules when operating and maintaining the machine.
- Unauthorized modifications to the machine exclude the distributor's responsibility for any damage resulting therefrom.

2.3. **Warranty**

Warranty conditions are stated in the warranty card. It is the responsibility of the machine operator to thoroughly familiarize himself with this operating manual. Failing to follow the rules of proper operation will lead to a reduction in the efficiency of the shredder, its failure and the loss of warranty rights. Warranty entitlements will be lost in particular in the following cases:

1. Any mechanical damage caused by operation that does not comply with the operating instructions, particularly mowing when driving backwards.
2. Performing repairs by workshops other than the dealer's service center, the factory service center or the service center indicated by the distributor.
3. Use of other than original spare parts for repairs.
4. Any unauthorized modifications to the shredder build.

3. **Health and safety rules**

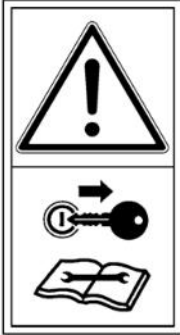
Most of the accidents that occur during work, handling or transport are down to a non-compliance with elementary safety rules. It is therefore important that anyone working with the machine follows the following basic safety rules as closely as possible:

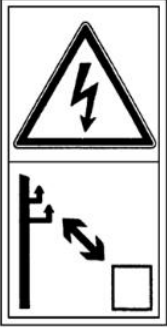
3.1. **General safety rules**

1. Observe the general rules of health and safety in addition to the instructions in this manual!
2. Comply with the indications of warning signs and symbols on the machine. Compliance with them protects the operator safety!
3. It is forbidden to use the machine without the necessary safety guards, damaged guards must be replaced by original spare parts.
4. Do not start shredder operation until the tractor's PTO nominal speed has been reached. Do not exceed 540 rpm.
5. It is forbidden to do any work on the machine while the moving parts are rotating, it is mandatory to wait until they have stopped. Never wear loose clothing which can be snagged by rotating parts.
6. Never leave the shredder running when not in control
7. Ensure that no persons or animals are in the danger zone before or during the mower operation.
Operating the shredder in the presence of bystanders within a distance of less than 165 ft is prohibited!
8. It is forbidden to climb onto the machine.
9. Fields and meadows must be cleared of stones and hard objects before work- larger stones must be removed.
10. It is forbidden to operate the mower while driving backwards.
11. It is forbidden to step between the tractor and the machine until the shredder has been secured against rolling before the tractor parking brake has been locked or by placing chocks under the wheels..
12. The control of the tractor's hydraulic linkage lever should be carried out only from the driver's seat position.
13. It is not allowed to operate the lifting and lowering lever from outside the vehicle.

14. It is forbidden to raise the machine on the tractor's hydraulic linkage when the drive is switched on and the working shaft is rotating.
15. Be particularly careful when working on slopes and hillsides.
16. Do not use dangling, unbuttoned pieces of clothing when working, fitting, adjusting, dismantling. Keep them away from structural components that can snag them.

3.2. Safety signs on the machine

 Prior to using the machine, read the User Manual	 Switch off the engine and remove the key before carrying out maintenance or repair work	 Keep a safe distance from the machine. Do not allow bystanders to be within less than 165ft away
 Warning, belt transmission. Use extreme caution. Drawing-in of hand and arm.	 Warning, possibility of being drawn-in by the machine	 Keep a safe distance from the machine. Crushing of toes or foot – Force applied from above
 Do not ride on platforms or ladders	 Do not stand near the lift strands when controlling the lift	 Do not open or remove safety guards when the engine is running

 Keep a safe distance from power lines	 Avoid exposure to liquids flowing under pressure.	 Warning : cutting knives. Keep away from the working mower
 Lifting points on the mower during handling	 Use protective coverall	 Wear eye protection
 Use hearing protectors	 Use safety gloves	16 MPa Warning message about pressure in the hydraulic system

3.3. *Threats occurring during the use of the mower*

No.	Risk	Hazard source (cause)	Risk preventive measures
1	Overload of the motion system (physical load)	Working in a standing, tilted-forced position, walking, moving	Reading the instruction manual, on-the-job training including the weight carrying standards while performing manual transport works, proper techniques of weights carrying, other person assistance, devices facilitating the transport i.e. lifting jack, hoisting winch
2	Fall at the same level (falter, slipping etc.)	Bumpy surface, disorder – laying and standing items, items on the passageways, slippery surfaces	Proper working shoes, plane surface, staying alerted, keeping it tidy, reading the instruction manual
3	Hitting fixed parts of the machine	Machine and its surroundings	Proper position of the machine, safe space for moving, proper organization of work, staying alerted, reading the instruction manual
4	Being hit by the mowed material	Granulated plants, accidental parts of turf, stones thrown by the machine	Observing due attention, designating the danger zone, prohibiting movement while the machine is running, removing stones, prohibiting work in stony areas, use of personal protective equipment - protective helmet, glasses, familiarization with the operator's manual
5	Sharp dangerous edges	Projecting structural elements of the machine, use of hand tools	Personal protective equipment - protective gloves, working clothes fastened, special attention
6	Belt gearboxes	Moving gear wheels and belts, rotating PTO shaft, no covers for moving parts	Prohibition to move, approach and make adjustments to the working machine, exercise extreme caution, use guards for moving parts, familiarize yourself with the operating manual
7	Oil mechanical gears, power hydraulic systems	Fluids, hydraulic and lubricating oils, solid lubricants, temperature, leaks, slippage, burns, injections, allergies, poisoning	Exercise extreme caution, use personal protective equipment - protective footwear, gloves and protective glasses, securely position the machine. Familiarization with the user manual. Getting acquainted with the characteristics sheets of oils and greases used in machine operation.
8	Weight of the suspended standing machine	Improper assembly, linking, wrong positioning of the machine, wrong operation, leaving the suspended machine on the tractor	Exercise extreme caution, use personal protective equipment - protective footwear, protective gloves, set the machine safely, use the help of another person, use jacks, davits, familiarize yourself with the operator's manual
9	Micro climate - changing weather conditions	Work performed in various weather conditions	Appropriate work clothes, drinks, sunscreen, rest, read the operating instructions
10	Noise	Machine speed too high, damaged, loose vibrating parts	Working with an efficient machine, current inspections of the machine, proper rotation of the machine, familiarization with the operating manual

Transport

- Before the mower linked to the tractor is set to the transport position, make sure that the PTO shaft is turned off and all rotating elements are at rest.
- Be especially careful when traveling with the attached machine on public roads and comply with applicable road law. Moreover, for the duration of transport, a portable light and warning device and a triangular sign for slow-moving vehicles should be installed on the machine.
- Adjust your speed on roads to current road conditions and use common sense.
- When cornering, be aware that the machine sticks out to the rear and sideways..

3.4. *Working parts of the machine*

- Before using the machine, pay attention to the condition of the cutting elements.
- Worn and damaged cutting elements as well as their fasteners must be replaced immediately with original spare parts.

3.5. *Machines linked with three point hitch*

- Before linking or removing the mower from the tractor's three-point linkage, set the hydraulic lift lever in a position in which unintentional lifting or lowering of the machine is excluded.
- Hitch categories of the tractor and the machine must comply.
- In the transport position, always pay attention to the lateral stability of the tractor-mower connection.
- During transport with the machine raised, the hydraulic lift control lever must always be secured against lowering.

3.6. *Machine unhitched from the tractor*

Park the machine on a stable and level surface, in a place protected from weather conditions and unauthorized persons.

3.7. *Work with the PTO Driveline*

- Use only PTO shafts supplied by the machine distributor or with similar parameters.
- All mounted PTO shaft covers must be operational. Replace damaged shaft covers immediately!
- Install and remove the PTO shaft only with the PTO shaft disengaged, the engine switched off and the ignition key removed!
- Observe the prescribed overlapping of the PTO shaft halves in the working and transport positions!
- Secure the shaft cover with a chain to prevent it from turning with the shaft!
- Before engaging the PTO shaft, make sure that the direction of rotation and rotational speed of the PTO shaft correspond to the rotation of the PTO shaft.
- Before engaging the PTO shaft, make sure that no one is within a dangerous distance of the machine.
- Turn off the PTO shaft when it is not needed.
- With the PTO disengaged, wait until the rotation due to the inertia of the rotating masses has ceased before anyone enters the danger zone.

- After disconnecting the PTO shaft, put the covers back on and put it in the place provided.
- After any damage occurs, it must be removed immediately or the shaft replaced with a new one.

3.8. **Service**

Perform all repair, maintenance and adjustment works only with the drive disconnected, the engine turned off and the ignition key removed..

Pay special attention to the hazards when moving the machine from working to transport position.



Use protective clothing and gloves during maintenance work - especially when replacing cutting elements!

It is forbidden to operate the machine on the edges of streets, roads, public squares (parks, schools, etc.) or on stony terrain, in order to avoid the danger of throwing stones and other objects.



All decals on the machine must be legible. If any of them is damaged, it is the responsibility of the owner/user to replace it with a new one.

3.9. Technical specification

Shredder type		71"	87"H
Power demand		min 40 HP	min 50 HP
Carrier hitch category(3PT)		I/II	I/II
Number of flails		26 pcs.	34 pcs.
Effeciency		Approx. 1,3 ha/h	Approx. 1,9 ha/h
Working speed		5-8 km/h [3-5]	5-8 km/h [3-5]
Transport speed		20 km/h [12mph]	20 km/h [12mph]
Dimension (A)		1730mm [71"]	2130mm [87"]
Length (B)		855mm [33"] (fixed headstock version)	987mm [38"] (hydraulic headstock version)
Width (C)		2050mm [81"]	2450mm [96"]
Height(D)		927-972 (fixed headstock version) 650mm [25"]	1014-1059 (hydraulic headstock version) 650 mm [25"]
Mass		373kg/408kg	420kg/455kg
Hydraulic offset(E)			400mm [16"] (only with hydraulic offset version)
The level of noise emitted by the machine	LpA	96,1 $\frac{+2,1}{+0}$ dB	92,7 $\frac{+2,0}{+0}$ dB
	LAm _{ax}	101,0 $\frac{+2,6}{+0}$ dB	98,1 $\frac{+2,6}{+0}$ dB
	LCpeak	124,1 $\frac{+2,6}{+0}$ dB	124,1 $\frac{+2,6}{+0}$ dB

L_{pA} – The level of exposure to noise related to the 8-hour daily working time.

L_{Amax} – Maximum sound measurement value.

L_{Cmax} – Peak sound level.

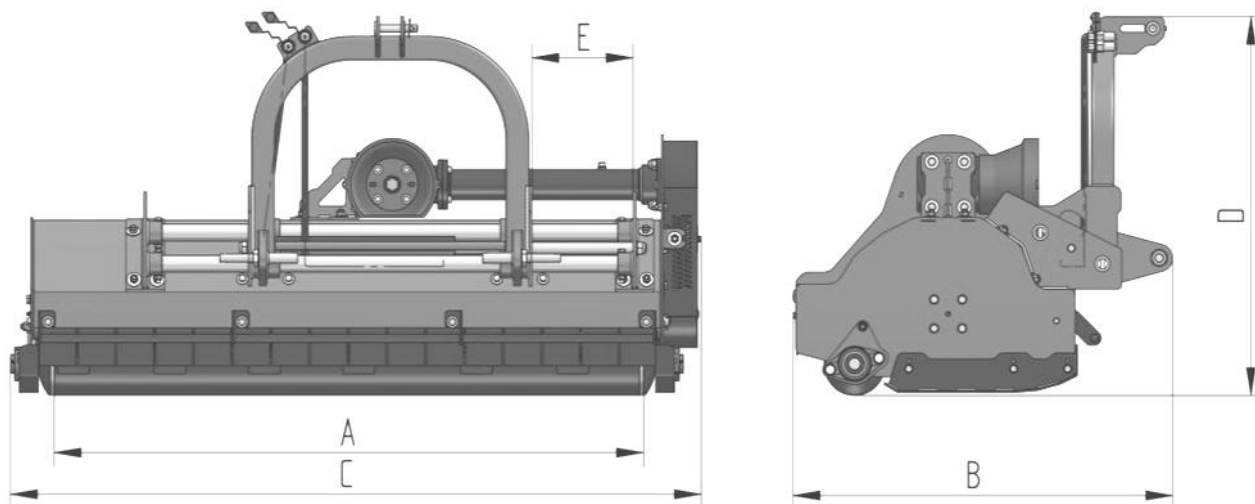


Fig 1. GALAXY shredder dimensions

3.10. **Construction and operation**

The shredder is linked to the tractor's three-point linkage. The working shaft (4) is driven from the tractor's PTO through the PTO shaft (1), angular transmission (2) and belt transmission (3).

The working element of the shredder are flails mounted on the working shaft. The working shaft is placed in the body laid on the ground using a contour following shaft.

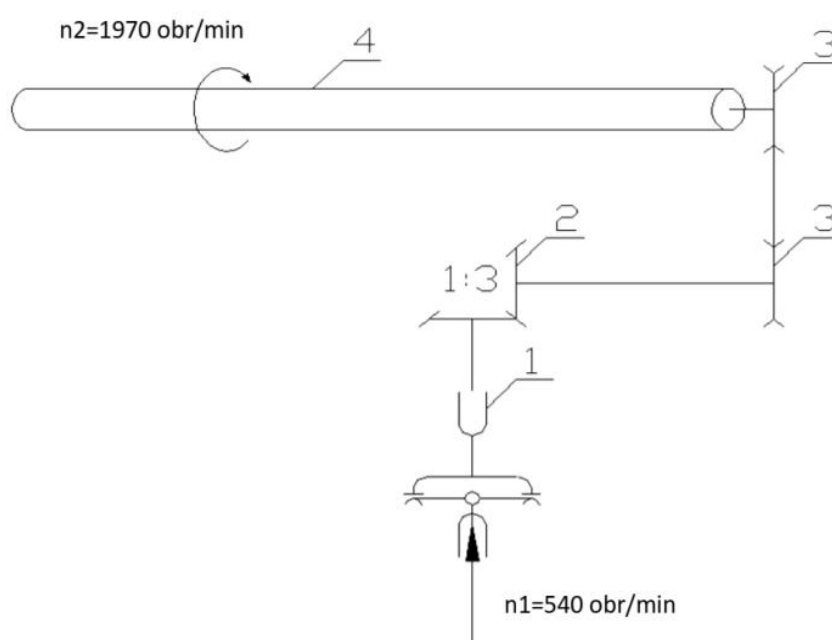


Fig 2. Shredder drive diagram

- 1 – PTO shaft,
- 2 – Angular transmission,
- 3 – Belt transmission,
- 4 – Working shaft.

4. Usage

4.1. *Linking the machine with the tractor, setting and adjusting the height.*

The shredder is designed to work with tractors equipped with the first or second category three-point linkage for GALAXY 71", 87" shredders.

The shredder is linked with the tractor using its three-point linkage (3PT):

- Lower pins (No. 1 in the drawing below) of the shredder's headstock should be placed in the holes of the ball joints of the two lower levers of the tractor and secured,
- connect the holes in the yoke with the pin (2) of the tractor's upper connector and secure it with a cotter pin,
 - mount the PTO shaft, i.e. put the shaft ends on the tractor PTO and PTO of the machine, and secure against slipping out with the shaft latches.

The shredder should be placed in such a way that the slides are parallel to the ground. To do this, adjust the upper link.

To adjust the cutting height, unscrew the M12 bolts (marked with number 3 in the figure below) and loosen the M14 bolts (4). The next step is to put the M12 screws through one of the 4 holes in the side walls of the body. Moving the screw one hole results in lowering or raising the cutting height by about 11mm.

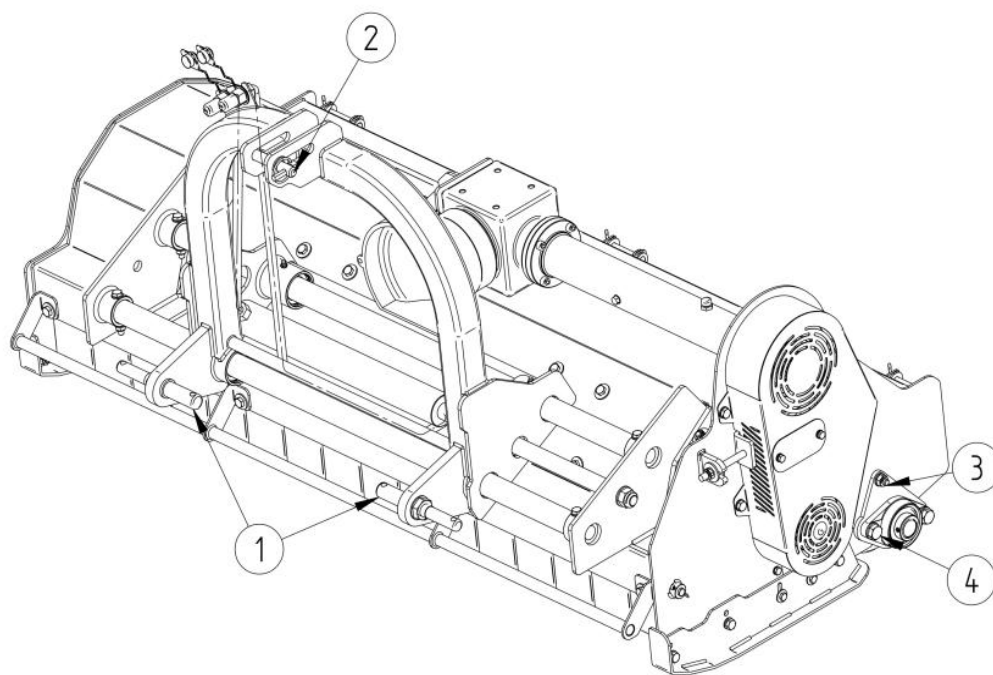


Fig 3. Linking the shredder



When moving the machine from the transport position to the working position and vice versa, it is forbidden to stay in the area of moving elements

4.2. **Work**



The machine can be started after resting on the ground. It is forbidden to engage the drive when the machine is lifted above the working surface, not resting on the ground. Lifting the machine while working is forbidden. Before lifting, disengage the drive and wait for rotation to stop.



During operation, the rear curtain should be tightened so that it is impossible for it to rise on its own.

5. Recommended machine maintenance

At least once a year, change the oil in the gearbox and in the drive shaft housing. Use commercially available gear oil with the characteristics of GL-4 80W90. The amount of oil required for replacement is shown below:

Shredder type	71"	87"
Amount of oil in the gearbox	1,5L	1,5L
Amount of oil in the drive shaft housing	0,6L	0,6L

The oil change spots are marked in the figure below.

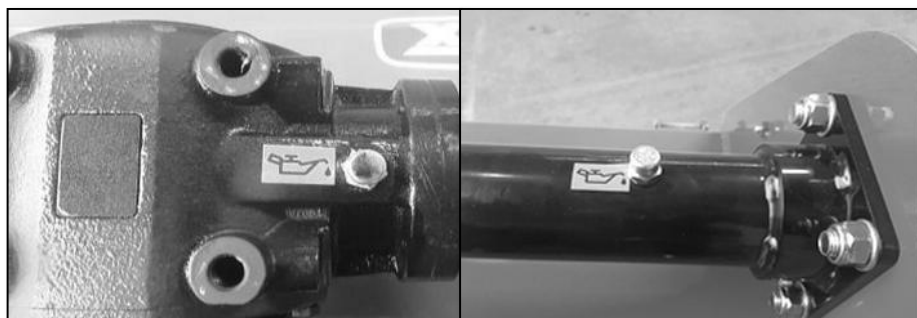


Fig 4. Oil change holes

In addition, it is necessary each time before the work is performed:

- Check the tension of the V-belts,
- Check overall condition of the machine.

5.1. Greasing

To ensure proper operation of the machine, it must be carefully and properly greased, in accordance with the greasing scheme.

All the spots marked on the fig. 6, are equipped with ball grease nipples, fill with grease LT43 using a grease gun. Grease the PTO shaft after removing it from the machine. The telescopic part of the shaft should be lubricated at least after 8 hours of operation - with the shaft fully extended and after prior removal of impurities.

In the figure below, the white field indicates the recommended time after which the presented elements should be lubricated.

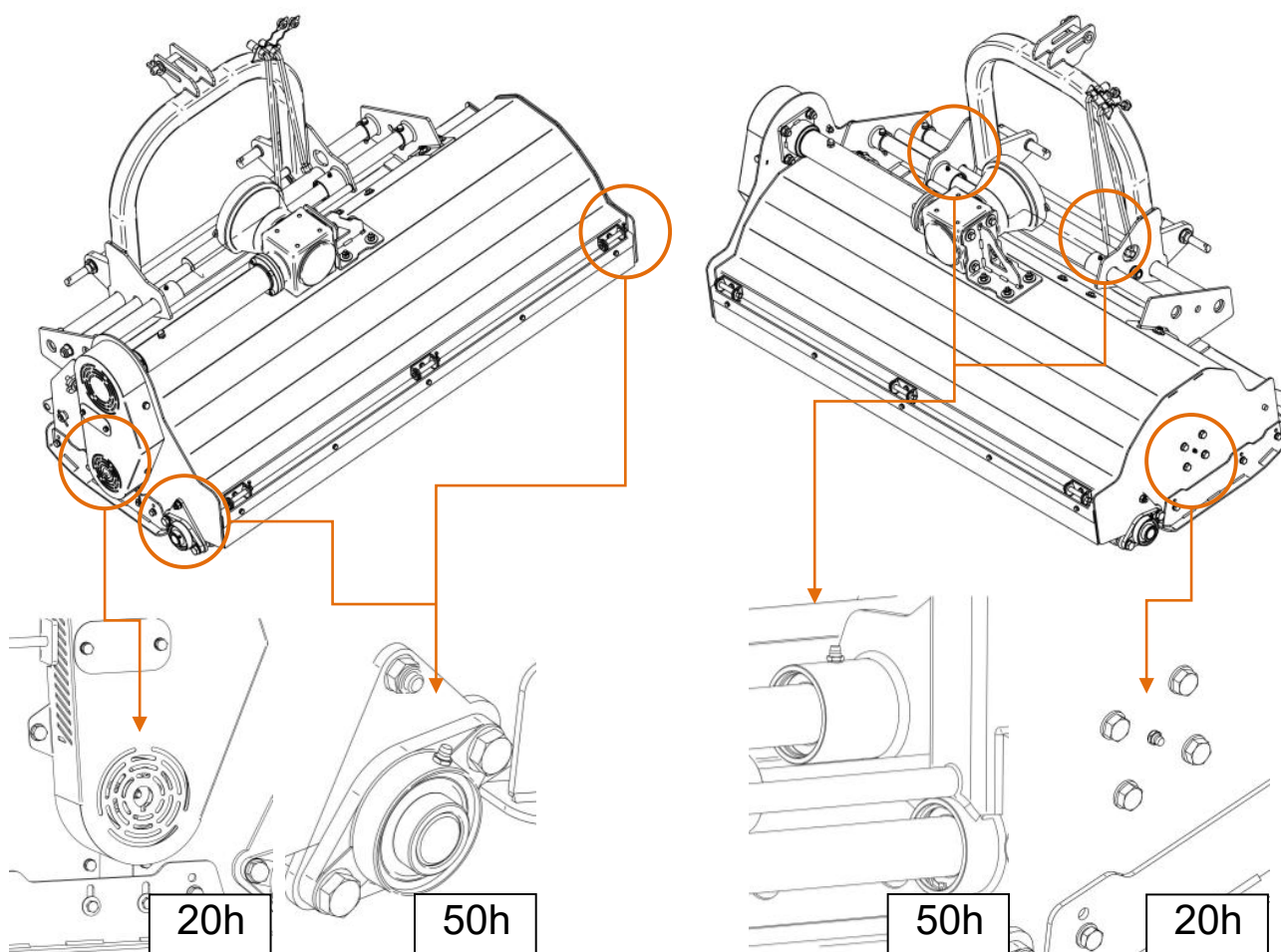


Fig 5. Greasing diagram

5.2. V-belts tensioning

Open the inspection visor before tensioning the v-belts. To do this, unscrew the 2 M8x16 bolts (1) and remove the plug (2). Then loosen the M14 bolt (3) located in the inspection visor. The next step is to loosen the M12 nut (4). In order to tension the loosened belts, make the appropriate number of turns with the M12 nut (5) clockwise. The belts, when properly tightened, should bend by 10-15 mm (if it is necessary to check, additionally remove the cover (6), which is attached with M10 bolts . After adjusting the tensioner, tighten the M14 bolt (3). Then counter the tightening bolt with the M12 nut (4) and close the inspection visor with the M8 bolts (1). The tension of the belts should be checked regularly, as their durability depends to a large extent on it.

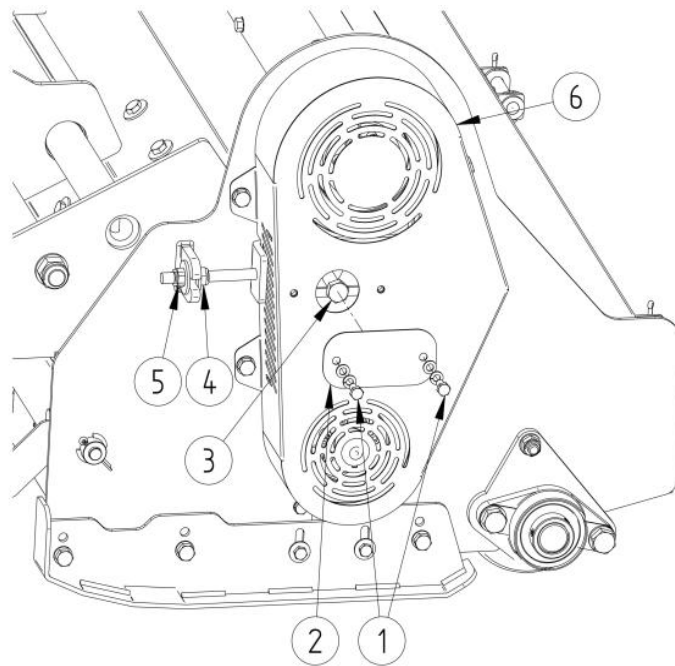


Fig 6. Belt tensioning scheme

5.3. *Replacing the flail hammers*

The working shaft in the GALAXY shredder is equipped with shredding parts in the form of flail hammers (Figure 8). The set consists of an M14x90 bolt (1), spacers (2), flail hammer (3) and an M14 nut (4).

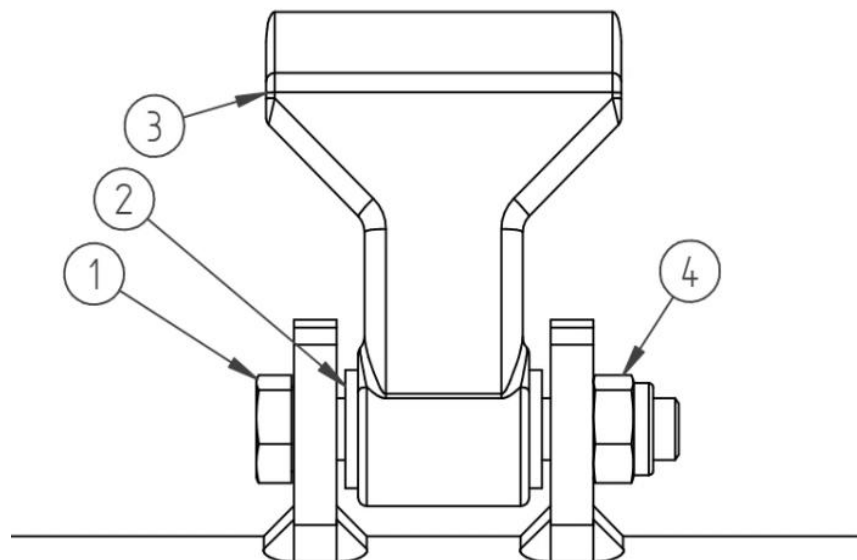


Fig 7. Flail hammer assembly



Shredding parts must be replaced after discovering defects, clear signs of wear, blunting of cutting edges, incomplete beaters or excessive looseness of mounted parts.

Maximum play of shredding parts

Play	Nominal [mm]	Acceptable [mm]
	Flail	Flail
Axial transverse	0,3	0,6
Axial longitudinal	0,2	0,6

Shredding parts should be replaced while observing safety rules..

1. Use only original and serviceable cutting unit parts.
2. Each replacement includes a set of parts. It is important to remember about even distribution of rotating masses and even wear of tools.
3. Bolt connections should be replaced with new ones each time the parts are replaced, paying attention to the strength class of the bolt and self-locking nut.
4. When tightening the screw connection, pay attention to the free, but without excessive play, rotation of the cutting part relative to the screw axis.

6. Technical inspections, storage and utilization

Daily, after finishing the work with the machine, the shredder should be thoroughly cleaned of impurities and its technical condition should be checked. Special attention should be paid to the condition of flail hammers. Damaged or worn parts must be replaced with new ones. All screw connections should be checked and loosened connections should be tightened in accordance with the table of tightening torques for screws and nuts. In the event of defects in the coating, they should be protected with a new layer of paint.

Tightening torques for bolts and nuts

Strength	6.8	8.8	10.9	12.9
Metric thread	Tightening torque [Nm]			
M5	4,5	5,9	8,7	10
M6	7,6	10	15	18
M8	18	25	36	43
M10	37	49	72	84
M12	64	85	125	145
M14	100	135	200	235
M16	160	210	310	365
M18	220	300	430	500
M20	310	425	610	710
M22	425	580	820	960
M24	535	730	1050	1220

After the end of the working season:

- thoroughly clean the machine of impurities,
- carry out a technical inspection and replace damaged parts with new ones available from the distributor,
- grease the machine according to the greasing diagram (fig. 6).
- replenish the defects in the protective coating.

It is recommended to replace V-belts and hydraulic lines with new ones every 5 years.



All repairs and replacement of parts of the chipper drive system should be carried out by an appropriate specialist workshop, equipped with appropriate tools and instruments.

6.1. *Storage*

The shredder should be stored in a dry place, protected from the weather.

The machine should be placed on a stable, level surface and secured against uncontrolled movement.

6.2. *Disassembly and utilization*

If the machine is completely worn out to the extent that it cannot be used further, it should be scrapped. This also applies to ongoing repairs and replacement of damaged parts. For this purpose, the machine must be thoroughly cleaned, drained of operating fluids, which must be disposed of. Then disassemble the machine, sorting the parts according to the type of materials used. Segregated parts must be delivered to a recycling or disposal point.

7. Spare parts catalog

HOW TO ORDER SPARE PARTS

In the order, the following should be specified each time:

- The address of purchaser,
- exact shipping address (machine parking place or method of collection),
- payment conditions,
- serial number and manufacture year of the machine (as on the name plate),
- spare part index number,
- spare part name,
- quantity of ordered spare parts.



Spare parts must be ordered at the machine sales points or from the distributor. Only the use of original distributor's parts guarantees safe and reliable operation of the device. Using non-genuine parts or repairing damaged parts voids the warranty

The distributor reserves the right to make structural changes to the parts included in the individual assembly drawings of the parts catalog. These changes may not always be updated in the manual and parts catalog. Individual drawings of spare parts may differ from the actual state.

Distributor Address

Belco Resources Equipment

401 Jeffrey's Road

Rocky Mount, NC27804

Tel.: (252) 822-7140

e-mail: sales@br-equipment.com

www.br-equipment.com

7.1. General machine construction

Fig 8. General machine construction

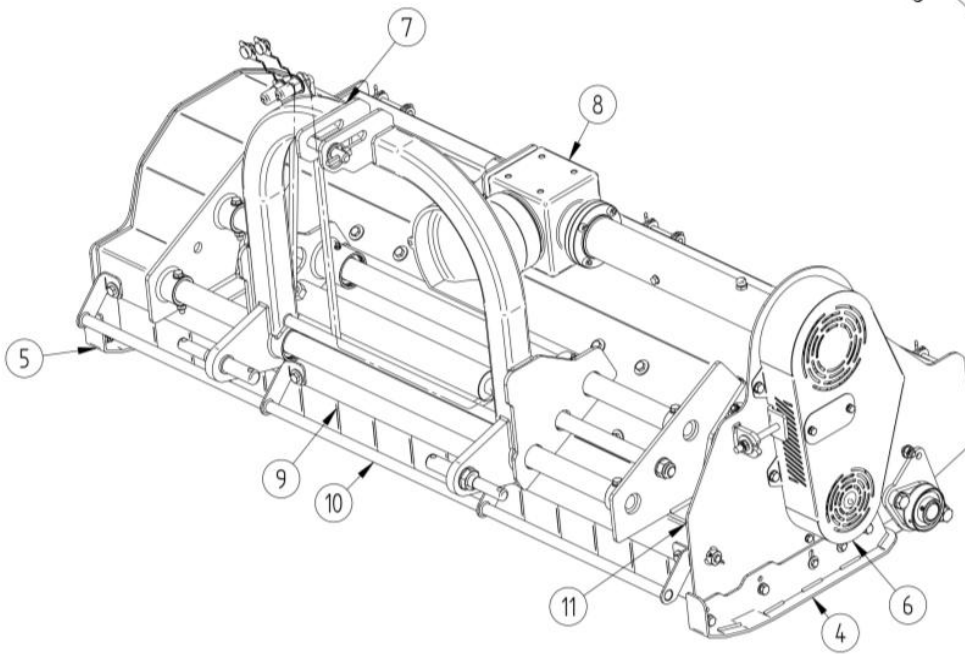
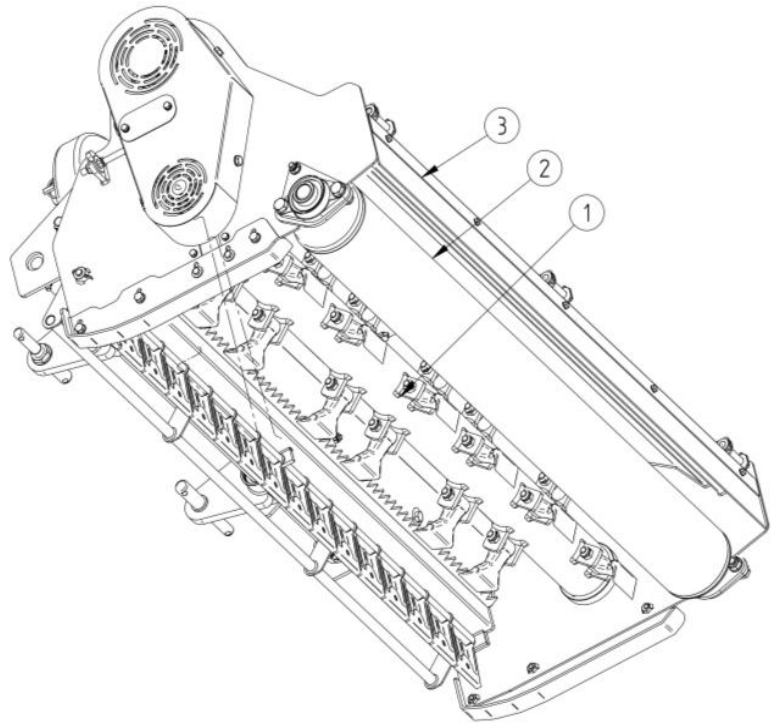


Fig 9. General machine construction

Pos.	Name	Chapter	Pcs.
1.	Working Shaft	7.2	1
2.	Contour following roller	7.3/7.4	1
3.	Rear curtain	7.5	1
4.	Left skid	7.6	1
5.	Right skid	7.6	1
6.	Belt drive cover	7.7/7.8	1
7.	Headstock	7.10/7.11	1
8.	Drive	7.9/7.12	1
9.	Stone curtain	7.13	1
10.	Bumper	7.14	1
11.	Body and end cap	7.15	1

7.2.

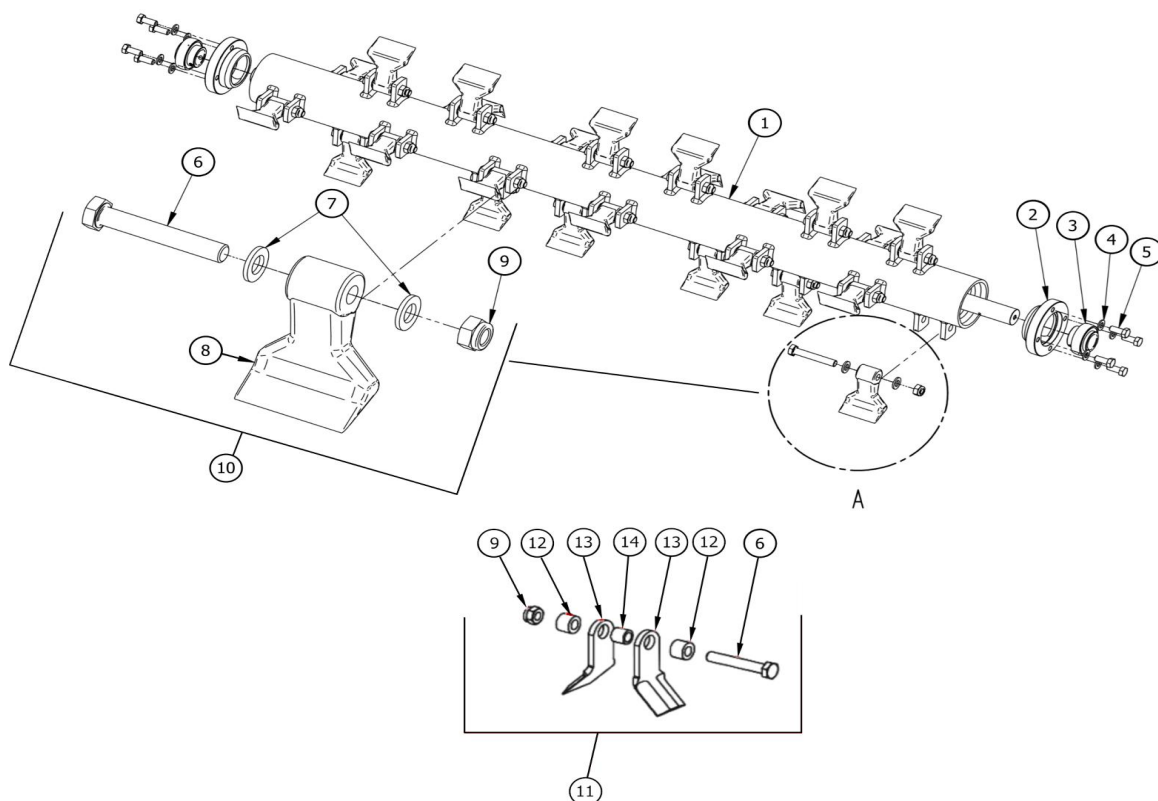


Fig 10. Working shaft components

Pos.	Name	Part no.	Pcs.
1.	Working shaft	Galaxy 71"	1
		Galaxy 87"	
2.	Bearing housing	TFF6-02	2
3.	Bearin UC 207	BUC207	2
4.	Standard washer M12	FW12	8
5.	Bolt M12x30-8.8	BM12530	8
6.	Hex bolt M14x90-10.9 (quantity depends on model 71" or 87")	BM142090	26/34
7.	Spacer (quantity depends on model 71" or 87")	TFF06-05	52/68
8.	Flail hammer RM33 (quantity depends on model 71" or 87")	TFF10001	26/334
9.	Self-lock nut M14 (quantity depends on model 71" or 87")	LNM1420	26/34
10.	Hammer knife kit, includes hammer knife, hardware & spacers	TFM1098	1
11.	'Y' knife kit, includes 'Y' knives, hardware & spacers	TFF10005	1
12.	Spacer, outer	TFF10005	-
13.	'Y' knife - single	TFF10002	-
14.	Spacer, inner	TFF10003	-
NOTE: Item 11, "Y" knife kit is an optional kit.			

7.4. Contour following roller GALAXY 71", 87"

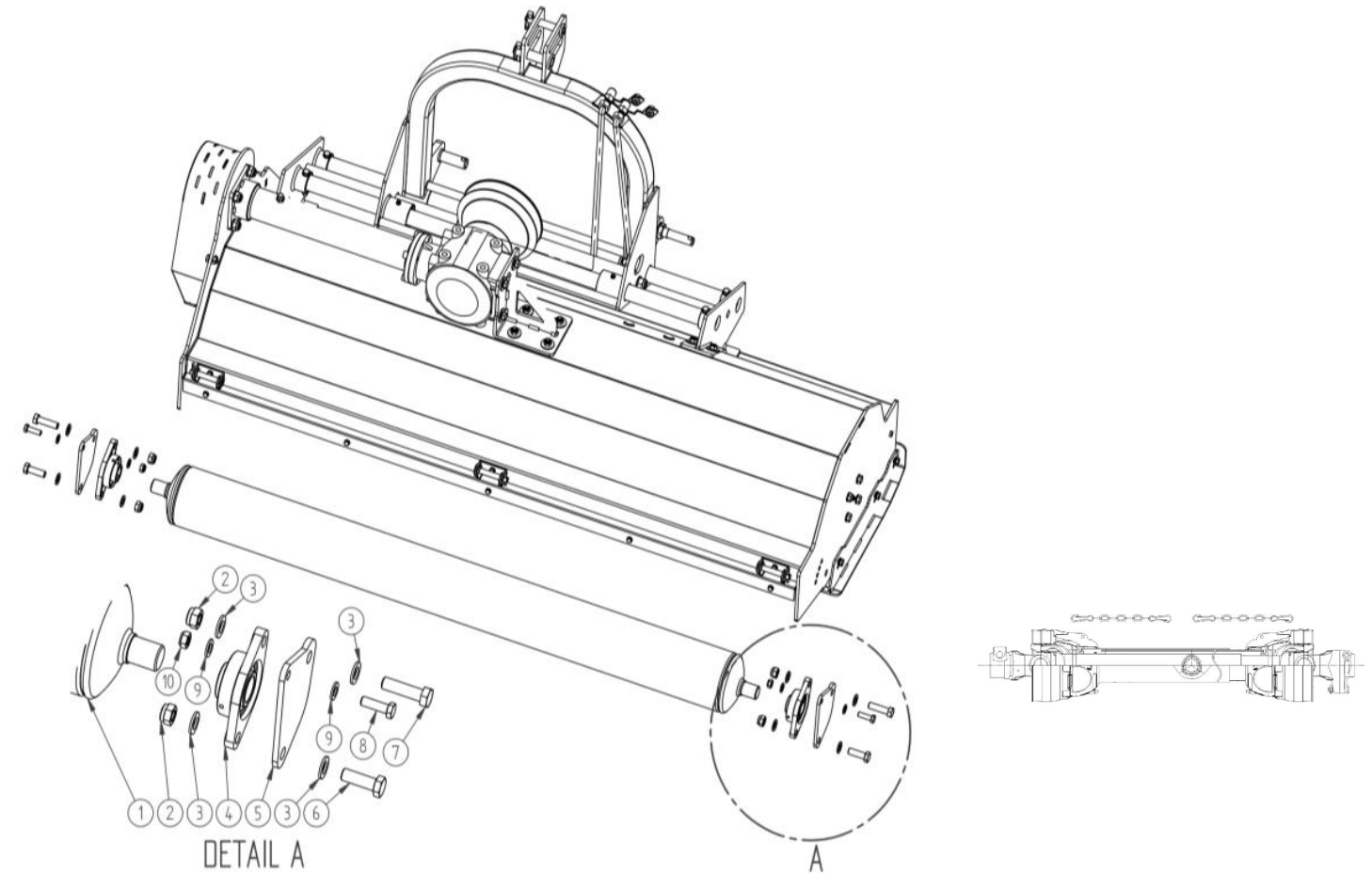


Fig. 12. Complete contour following roller GALAXY 71", 87"

Pos.	Name		Part no.	Pcs.
1.	Contour following roller	Galaxy 71"	TFF7-01-180	1
		Galaxy 87"	TFF7-01-220	
2.	Self-locking nut M16-1.5		LNLM1615	4
3.	Washer flat M16		FW16	8
4.	Bearing UCFL 207		BUCFL207	2
5.	Contour following roller bracket		TFF7-06	2
6.	Bolt M16-1.5x50 8.8		BM161550	2
7.	Bolt M16-1.5x60 8.8		BM161560	2
8.	Bolt M12-1.75x40 8.8		BM1217540	2
9.	Washer flat M12		FW12	4
10.	Nut self-locking M12-1.75		LNLM12175	2

7.5. Rear curtain

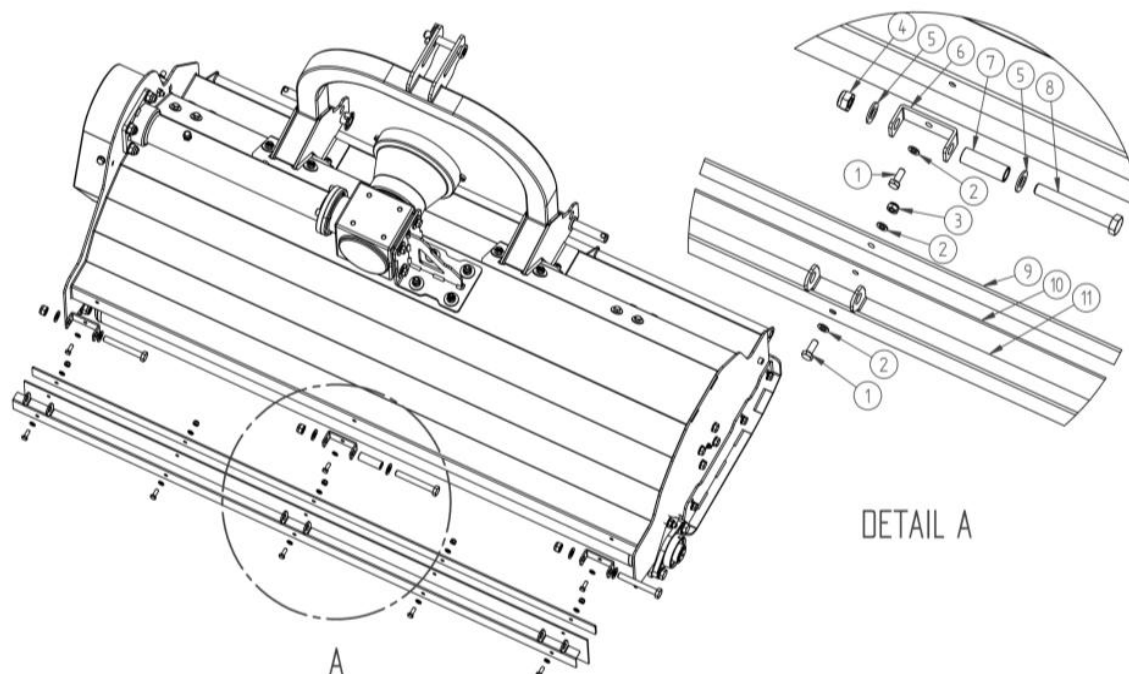


Fig 13. Complete rear curtain

Pos.	Name	Part no.	Pcs.
1.	Hex bolt M08-1.25x20 8.8 - Galaxy 71"	BM0812520	8
	Hex bolt M08-1.25x20 8.8 - Galaxy 87"	BM0812520	9
2.	Standard washer M12 - Galaxy 71"	FW12	8
	Standard washer M12 - Galaxy 87"	BM12530	8
3.	Nut self-locking M08	LN08125	6
4.	Nut self-locking M14	LN1420	3
5.	Washer flat M14	FW14	6
6.	Curtain hinge	TFF10008	3
7.	Curtain spacer	TFF10009	1
8.	Bolt HH M14-2.0x110 8.8	BM1420	3
9.	Rear curtain bar – Galaxy 71"	TFF13-02-180	1
	Rear curtain bar – Galaxy 87"	TFF13-02-220	1
10.	Rubber cover – Galaxy 71"	TFF13-01-180	1
	Rubber cover – Galaxy 87"	TFF13-01-220	1
11.	Rear curtain – Galaxy 71"	TFF10010	1
	Rear curtain – Galaxy 87"	TFF10010	1

7.6. Skids

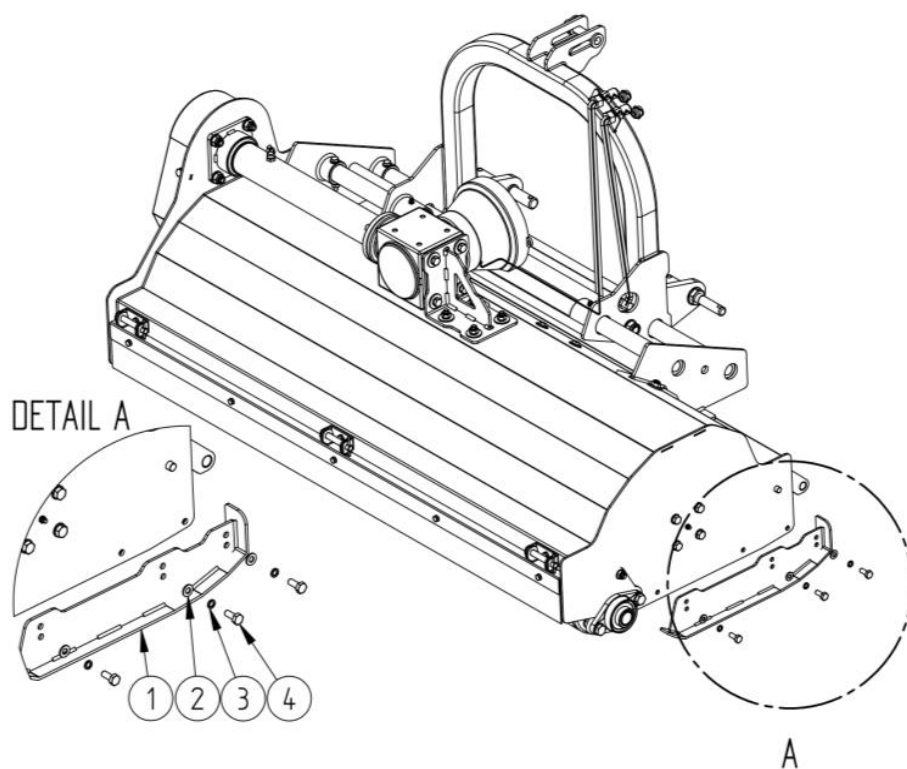


Fig 14. Complete skid

Pos.	Name	Part no.	Pcs.
1.	Skid - LH (v-belt side)	TFF9-01A	1
	Skid - RH	TFF9-02A	1
2.	Standard washer M10	FW10	6
3.	Washer lock M10	LW10	6
4.	Bolt HH M10-1.5x30 – 8.8	BM101530	6

7.8. V-belt gearbox cover GALAXY 71"/87"

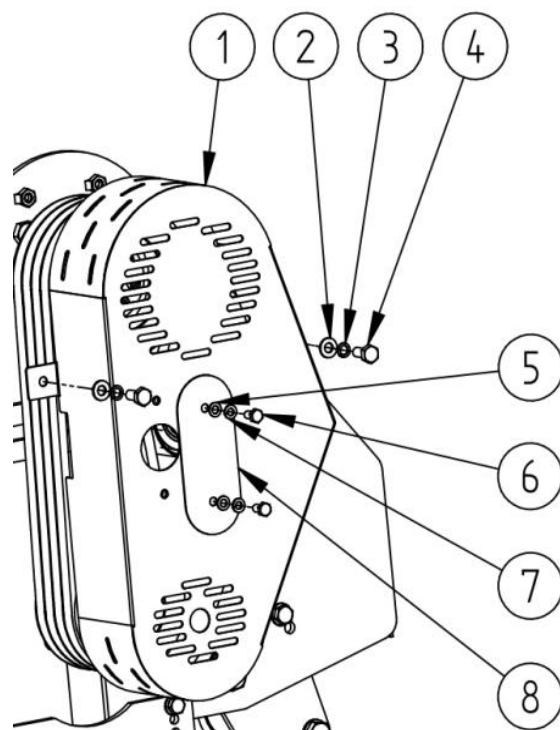
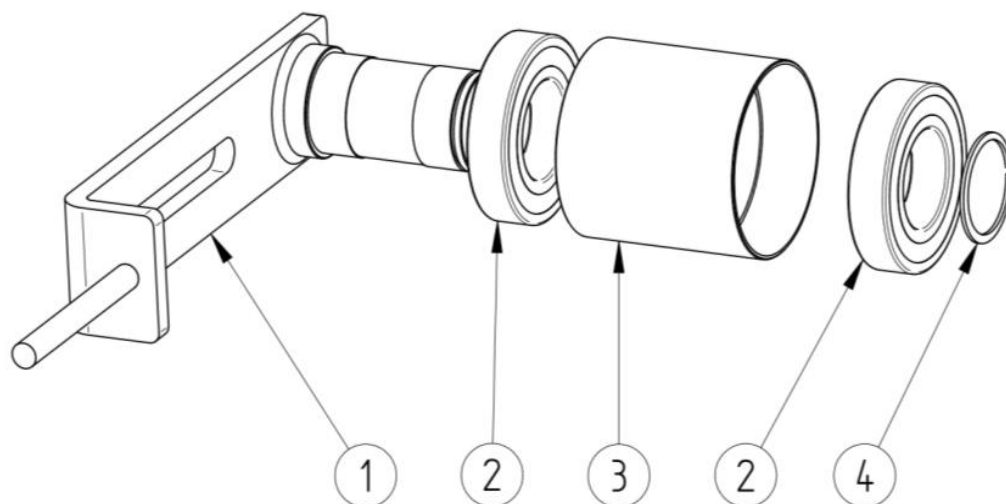


Fig 16. Complete v-belt gearbox cover GALAXY 71"/87"

Pos.	Name	Part no.	Pcs.
1.	Belt shield; Galaxy 71", 87"	TFF9-04A	1
2.	Washer flat M10	FW10	2
3.	Washer lock M10	LW10	2
4.	Bolt HH M10-1.5x25 8.8	BM101525	2
5.	Washer flat M08	FW08	2
6.	Washer lock M08	LW08	2
7.	Bolt HH M08-1.0x16 8.8	BM081016	2
8.	Belt inspection cover	TFF10011	1

7.9. *Belt tensioner*



Pos.	Name	Part no.	Pcs.
1.	Belt tensioner complete	TFF10025	1
2.	Belt tensioner arm	TFF8B-6D	1
3.	Bearing 6209 2 RS C3	B62092RS	2
4.	Tensioner roller	TFF8B-6H	1
5.	Circlip Z45	SRI-45	1

7.10. Fixed headstock

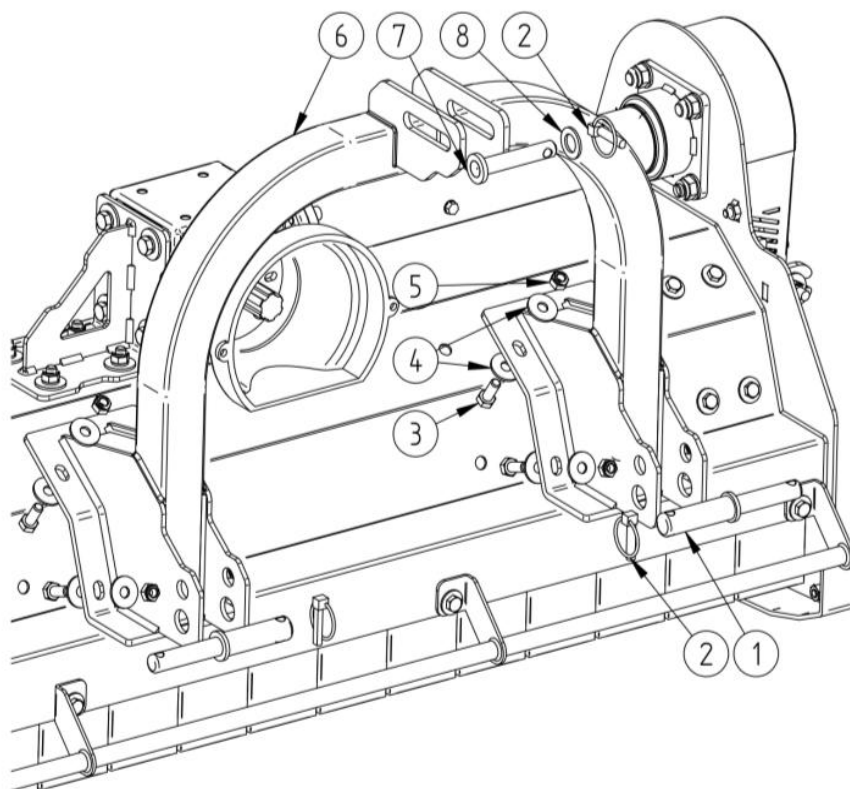


Fig 18. Fixed headstock - set

Pos.	Name	Part no.	Pcs.
1.	Lower hitch pin	TFF10-05	2
2.	Lynch pin - M10	LYNPN10	3
3.	Bolt HH M12-1.25x30 8.8	BM1212530	8
4.	Washer flat large M12	LFW12	16
5.	Nut self-locking M12-1.25	LNLM12125	8
6.	Fixed head-stock	TFF10-02	3
7.	Upper hitch pin cat I	RB-T214	1
	Upper hitch pin cat II	TFF10-01	1
8.	Flat washer M20	FW20	1

7.11. Hydraulic headstock

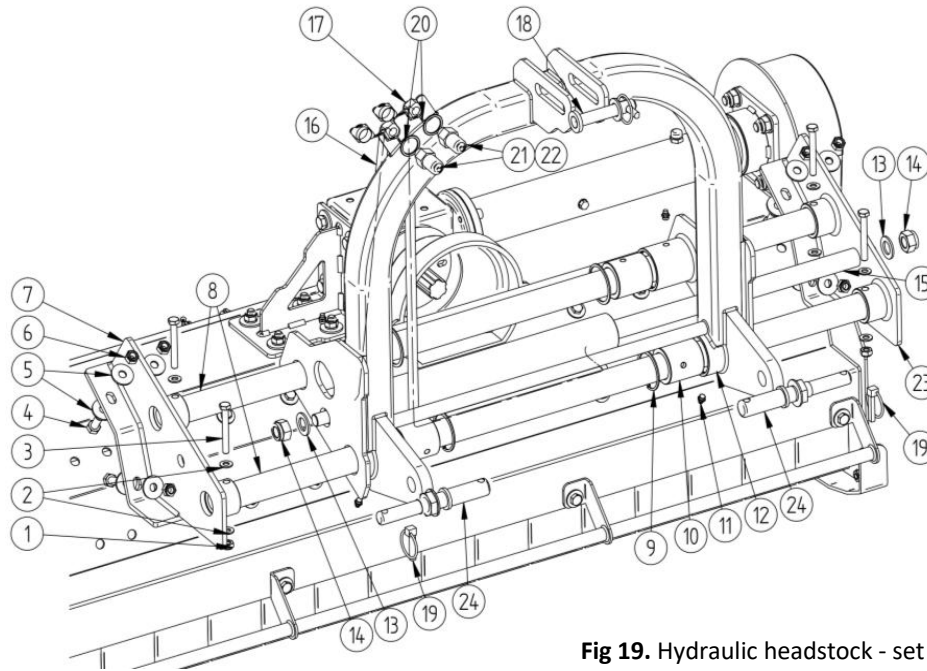


Fig 19. Hydraulic headstock - set

Pos.	Name	Part no.	Pcs.
1.	Nut self-locking M10-1.5	LNМ1015	4
2.	Washer flat M10	FW10	8
3.	Bolt HH M10-1.5x80 8.8	BM101580	4
4.	Bolt HH M12-1.75x30 8.8	BM1217530	8
5.	Washer large M12	LFW12	16
6.	Nut self-locking M12-1.75	LNМ12175	8
7.	Left guide holder	TFF11-03	1
8.	Guide	TFF11-09	2
9.	Circlip W62	TW18230	4
10.	Bushing	TFF10012	4
12.	Hydraulic head-stock main part	TFF11-02	1
13.	Washer flat M20	FW20	2
14.	Nut self-locking M20-2.5	LNМ2025	2
15.	SMT1TA hydraulic cylinder	TFF11-06	1
16.	Hose AA90/221/8L 2110	TFF10006	1
17.	Hose AA90/221/8L 2610	TFF10007	1
18.	Upper hitch pin cat I	RB-T214	1
	Upper hitch pin cat II	TFF10-01	1
19.	Universal plug	TFF10013	2
20.	ISO plug cap	TFF10014	2
21.	Hydraulic valve EURO*	TFF10015	2
22.	Choker 9.8x1**	TFF10016	2
23.	Right guide-way holder	TFF11-10	1
24.	Lower hitch pin	TFF10-05	2

*the quick fit couplers come complete with a washer (FZ10329)

**in some models may be located on the cylinder side

7.12. Drive train

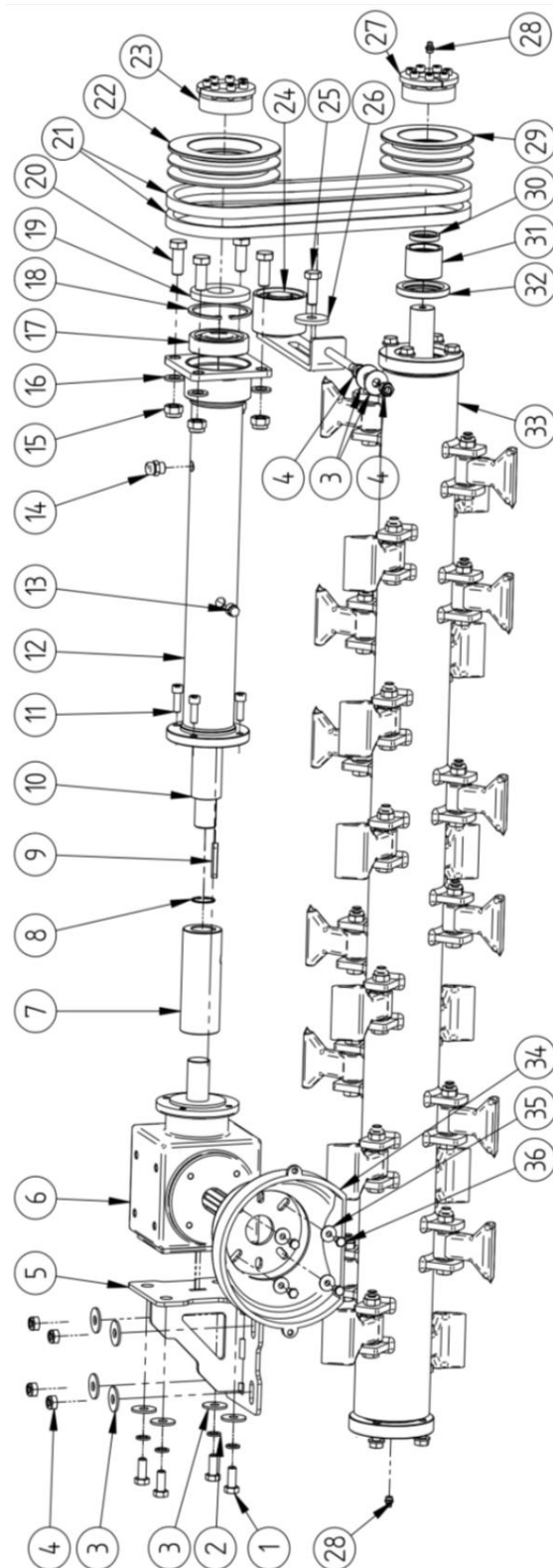


Fig 20. Components of the drive train

Pos.	Name	Part no.	Pcs.
1.	Bolt M12-1.75x30 8.8	BM1217530	4
2.	Spring washer M12	LW12	4
3.	Large washer M12	LFW12	10
4.	M12-1.75 Self-lock nut	LN12175	6
5.	Gearbox support	TFF8B-13	1
6.	Gearbox	TFF8A-02	1
7.	Connector	TFF10017	1
8.	Circlip W33	TFF10018	1
9.	Woodruff key 12x8x52	TFF10019	1
10.	Drive shaft Galaxy 71"	FLMPTO	1
	Drive shaft Galaxy 87"	FLMPTO	1
11.	Socket head screw M12-1.75x30	SSM1217530	-
12.	Drive shaft cover	TFF8A-01	1
13.	Drain bolt	TFF10021	1
14.	Vent	TFF10022	1
15.	Nut self-locking M16-1.5	LN1615	4
16.	Washer flat M16	FW16	4
17.	Bearing 6308	B6308	1
18.	Circlip W90	TFF10023	1
19.	Sealant 40x90x10	TFF10024	1
20.	Bolt HH M161.5x40 8.8	BM161540	1
21.	V-belt	TFF8A-07	2
22.	Pulley 170/4	TFF8-A04	1
23.	Clamp clutch 40/80	TFF8-A05	1
24.	Belt tensioner complete	TFF10025	1
25.	Bolt HH M14-2.0x40 8.8	BM142040	1
26.	Tensioner spacer	TFF8B6E	1
27.	Clamp clutch 35/80	TFF8A-09	1
28.	Grease nipple M10x1	GN101S	2
29.	Pulley 140/4	TFF8A-08	1
30.	Sealant 35x80x10	TFF10026	1
31.	Working shaft bushing	TFF10027	1
32.	Sealant 55x80x10	TFF10028	1
33.	Working shaft Galaxy 71"	TFF7-01-180	1
	Working shaft Galaxy 87"	TFF7-01-220	1
34.	PTO Cover	TFF8A-03	1
35.	Washer large flat M08	LFW08	4
36.	Bolt HH M08-1.0x16	BM081016	4

7.13. *Stone curtain*

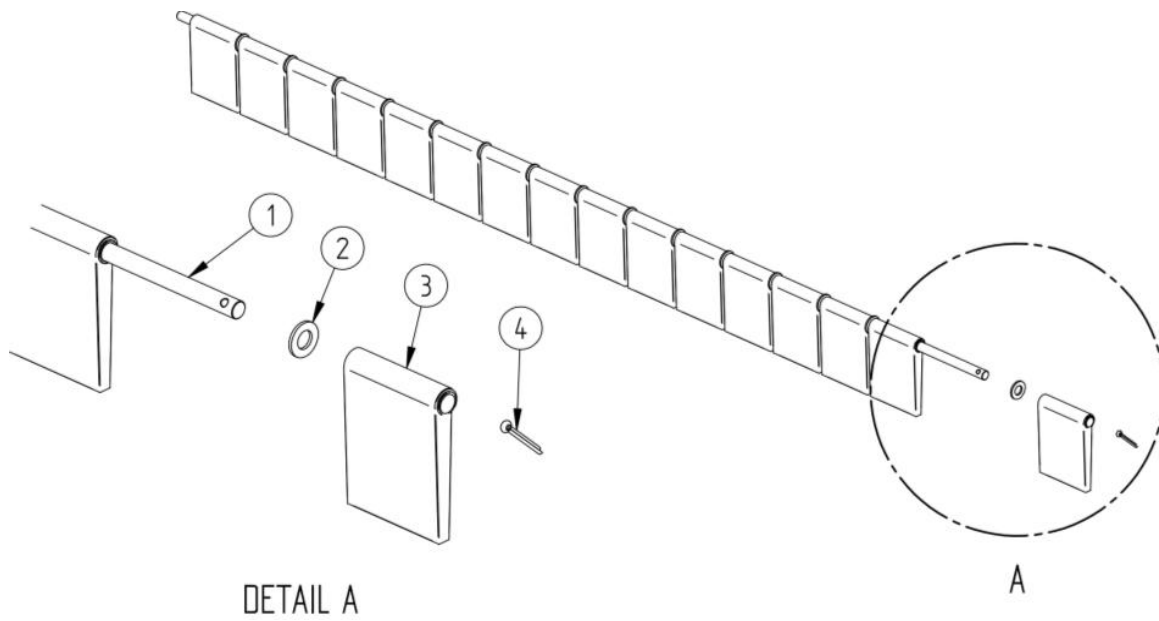


Fig 21. Stone curtain

Pos.	Name	Part no.	Pcs.
1.	Curtain rod Galaxy 71"	TFF12-02-180	1
	Curtain rod Galaxy 87"	TFF12-02-220	1
2.	Washer flat M14	FW14	20
3.	Curtain flap Galaxy 71"	TFF12-04	19
	Curtain flap Galaxy 87"	TFF12-04	23
4.	Cotter pin 5x40	TFF10030	1

7.14. Bumper

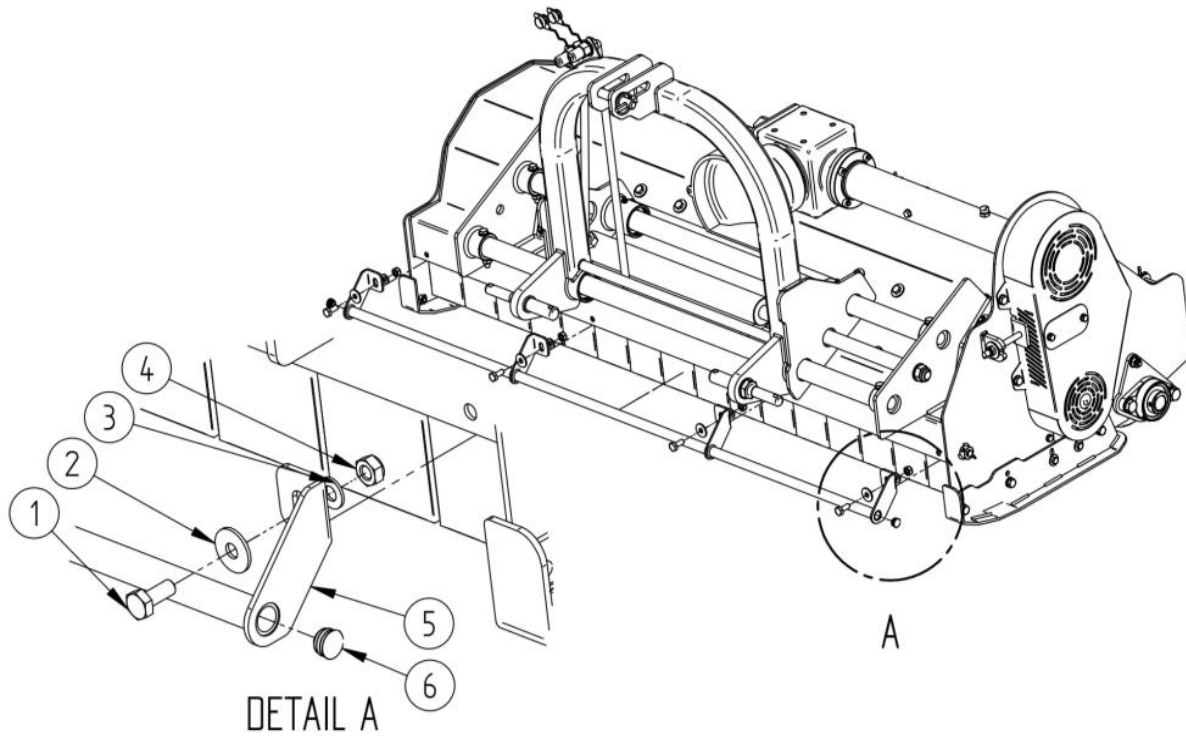


Fig 22. Bumper components

Pos.	Name	Part no.	Pcs.
1.	Body Galaxy 71"	TFF10033	1
	Body Galaxy 87"	TFF10034	1
2.	Working shaft end cap	TFF10035	1
3.	Washer flat M08	FW08	2
4.	Bolt HH M08-1.25x20 8.8	BM0812520	2
5.	Washer large flat M08	LFW08	2
6.	Bolt HH M08-1.25x25 8.8	BM0812525	2

7.15. *Body with end cap*

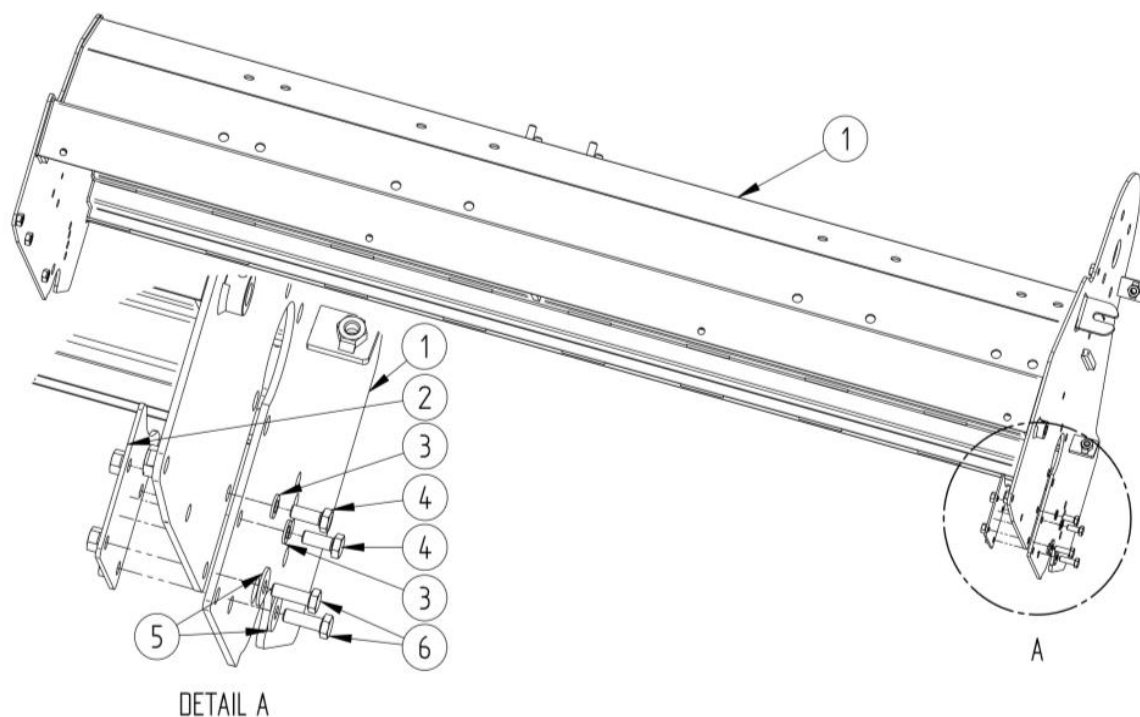
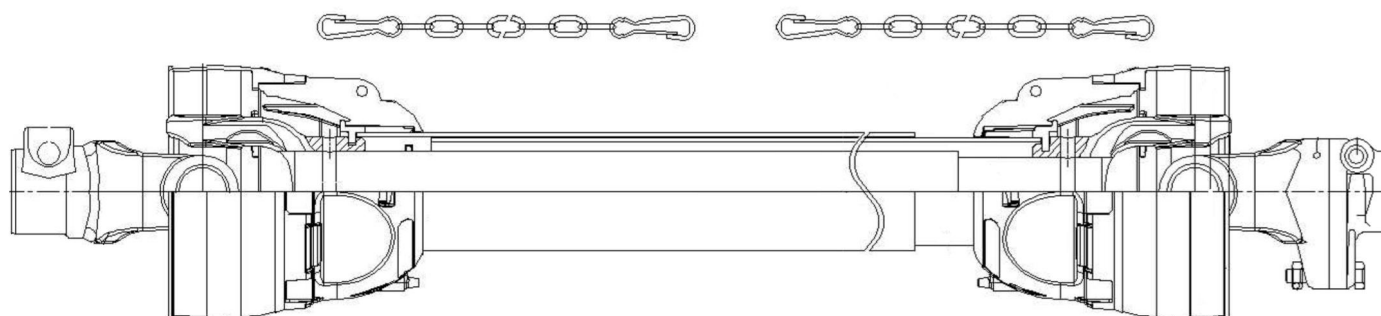


Fig 23. Body with end cap

Pos.	Name	Part no.	Pcs.
1.	Body Galaxy 71"	TFF10033	1
	Body Galaxy 87"	TFF10034	1
2.	Working shaft end cap	TFF10035	1
3.	Washer flat M08	FW08	2
4.	Bolt HH M08-1.25x20 8.8	BM0812520	2
5.	Washer large flat M08	LFW08	2
6.	Bolt HH M08-1.25x25 8.8	BM0812525	2

*In some cases, plugs of technological holes in the form may occur on the body:

- Bolt M10x20-8.8 (Part no.: BM10125) -8pcs,
- Large washer M10 (Part no.: LFW10) -8pcs,
- M10 Self-lock nut (Part no.: LNM10125) -8pcs.



Pos.	Name	Part no.	Pcs.
1.	PTO Galaxy 71", 87"	FLMPTO	1

8. LIMITED WARRANTY

Belco Resources Equipment warrants to the original purchaser of any new piece of machinery from Belco Resources Equipment, purchased from an authorized Belco Resources Equipment dealer, that the equipment be free from defects in material and workmanship for a period of one (1) year for non-commercial, state, and municipalities' use, ninety (90) days for commercial use from date of retail sale. Warranty for rental purposes is thirty (30) days. The obligation of Belco Resources Equipment to the purchaser under this warranty is limited to the repair or replacement of defective parts.

Replacement or repair parts installed in the equipment covered by this limited warranty are warranted for ninety (90) days from the date of purchase of such part or to the expiration of the applicable new equipment warranty period, whichever occurs later. Warranted parts shall be provided at no cost to the user at an authorized Belco Resources Equipment dealer during regular working hours. Belco Resources Equipment reserves the right to inspect any equipment or parts, which are claimed to have been defective in material or workmanship.

This limited warranty does not apply to and excludes wear items such as shear pins, tires, tubes knives, blades or other wear items. Oil or grease is not covered by this warranty.

All obligations of Belco Resources Equipment under this limited warranty shall be terminated if:

Proper service is not performed on the machine.

The machine is modified or altered in any way.

The machine is being used or has been used for purposes other than those for which the machine was intended.

DISCLAIMER OF IMPLIED WARRANTIES & CONSEQUENTIAL DAMAGES

Belco Resources Equipment obligation under this limited warranty, to the extent allowed by law, is in lieu of all warranties, implied or expressed, including implied warranties of merchantability and fitness for a particular purpose and any liability for incidental and consequential damages with respect to the sale or use of the items warranted. Such incidental and consequential damages shall include but not be limited to: transportation charges other than normal freight charges; cost of installation other than cost approved by Belco Resources Equipment; duty; taxes; charges for normal service or adjustment; loss of crops or any other loss of income; rental of substitute equipment, expenses due to loss, damage, detention or delay in the delivery.

REGISTRATION

The online Warranty Registration must be completed in order to qualify for coverage on this Limited Warranty. Visit br-equipment.com, click on "Warranty Registration" and completely fill out the form to register the new piece of equipment.

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