



Rear Disc Mower
DCM2083, DCM-2098, DCM-2110



Operator's Manual



ATTENTION!

Please read this User Manual prior to operating the machine and follow the included safety rules.

The User Manual is an integral part of the machine!

The Manual should be kept in a safe place accessible to the user and the operator throughout the entire time of operating the machine,

In case of lost or damaged User Manual, a new copy should be obtained from the machine's retailer or manufacturer.

In case of selling the machine or making it available to other operators, the User Manual together with the declaration of conformity should be with the machine.

The manufacturer reserves all rights to the User Manual.

Copying, processing of the User Manual or its parts is prohibited without the manufacturer's permission.



The first oil change in the gear and pinion should be made after the first 50 hours of operating the machine. Next oil changes shall be made every 500 hours of operation.



In order to prevent the cutter bar from any blocking due to the sticking dry residue while starting it, the mower's cutter bar should be cleaned with water under pressure after each operation of the machine.



The machine has been equipped with an appropriately selected Power-Take-Off shaft (PTO). Using any other PTO will result in losing the right to the warranty coverage, is dangerous for the machine and the surroundings, and it may damage the mower.

BELCO Resources Equipment guaranties efficient operation of the machine when operating it according to the technical and operational conditions described in the User Manual.

The defects disclosed during the warranty period shall be removed by the Warranty Service. The time of repairs is defined in the WARRANTY CARD.

Warranty does not cover parts and the machine components subject to wear under normal operating conditions, regardless of warranty period.

Warranty service applies only to following cases: mechanical damages not due to fault of the user, factory defects of the parts, etc.

In cases, when damages occurred in result of:

- fault of the user or a road collision
- Inappropriate operation, adjustment and maintenance, using the machine not in accordance with its purpose
- Using a damaged machine
- Repairing the machine by unauthorized persons, inappropriate performance of repairs
- Performing lawless and self-made changes in design of machine,

The user may lose warranty service.

The detailed conditions of the warranty are included in the attached WARRANTY CARD.



WARNING!

Please demand from the seller of the machine to correctly fill out the WARRANTY CARD and the complaint coupons. The lack of date of purchase or the seller's stamp/signature exposes the user to the possible refusal of claims.



WARNING!

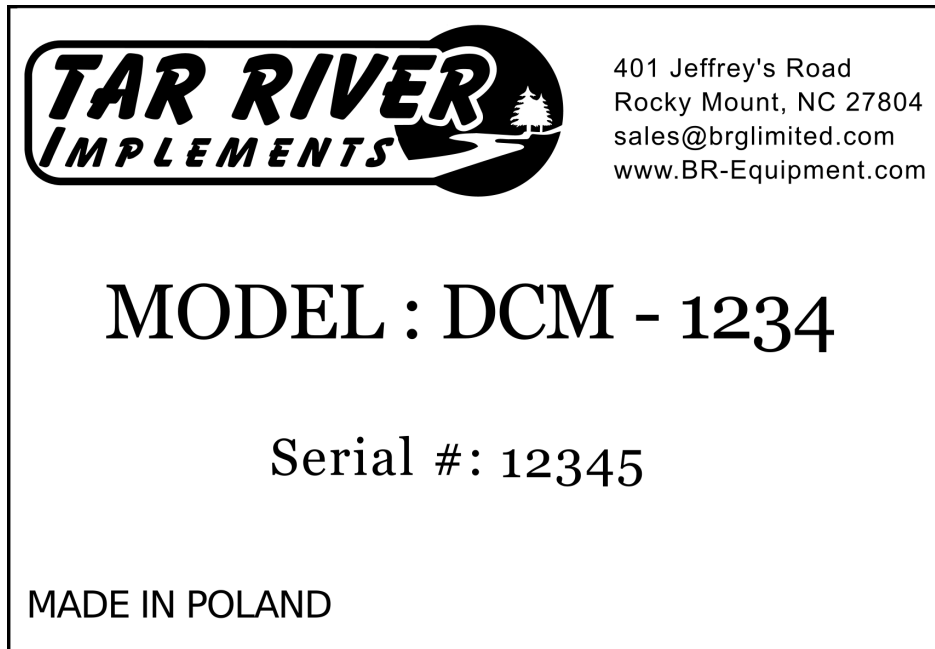
The tension of the V-belts should check after a few hours of operating the machine, and if they are too loose, they should be stretched.

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1. Machine identification

All information needed to identify the machine is provided on the name plate, which is attached to the body of the machine. It contains information such as: name and address of the manufacturer, year of production, serial number, weight of the machine



In case of doubt, any information about the machine and explanations to the manual should be provided by the seller or manufacturer.

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

2. Introduction

Prior to any activities related to the operation of the mower, please read this User Manual with care and understanding and follow all included suggestions.



Attention!

Please read this User Manual
Prior to the operation of the machine.

This instruction manual includes a description of dangers, which might occur, if the safety rules are not followed while operating and maintaining the mower. The manual lists precautions, which should be undertaken, in order to minimize or avoid hazards.

The User Manual also includes the rules of proper operating of the mower and explains which maintenance activities should be undertaken meanwhile.

In case the information included in this User Manual is incomprehensible, please contact the manufacturer for explanations.



ATTENTION!

This symbol warns about a hazard. This warning symbol indicates important information in the manual regarding a hazard. Please read the indicated information, follow the suggestions, and take special caution.

3. Operational Safety

3.1 Users Safety

The disc mower may be operated only by adults, who have familiarized themselves with functioning of the machine and context of the User Manual and have proper qualifications. The mowers should be operated taking all necessary precautions, especially:

- Follow the general safety and hygiene rules along with the suggestions of this manual;
- Follow the safety signs placed on the machine;
- It is prohibited to operate the machine by persons under the influence of alcohol or other narcotic substances;
- Never allow for any persons other than the machine's operator to operate the machine, as well as never allow for any other persons to be present in the vehicle or by the machine while operating it;
- The mower may be operated by licensed persons authorized to operate the vehicle, to which the mower is attached, in accordance to the manufacturer's suggestions;
- The working place of the operator while working with the mower is the vehicle cabin, to which vehicle the mower is attached;
- Please remember, that there are many places on the mower, which may cause wounds (sharp edges, structural elements sticking out, etc.). Increased caution should be taken when at work by the mentioned hazardous places, as well as the personal protective measures, such as:
 - Protective clothing
 - Protective gloves
 - Protective shoes
- It is prohibited to carry any persons or things on the mower;
- It is prohibited to operate the machine by other people not familiarized with the User Manual;
- The person operating the mower should have a first aid kit with means to provide first aid together with the instruction to use it;
- When moving a vehicle with a mounted, not working mower, make sure the safe transport height of ~ 0.5 m is applied;
- Prior to driving, the mower must be positioned in the transport position and lifted by the rear suspension system. While at rest, the machine must be lowered.
- During transport the mower must be positioned in the transport position and lifted by the rear suspension system, and the hydraulic actuator valve should be closed;
- Pay special attention when driving on the public roads and follow the applicable provisions of the traffic laws

- Pay special attention when driving on the public roads and follow the applicable provisions of the traffic law;
- An electric vehicle contour lighting must be used while driving on public roads, checking its efficiency and visibility, as well as keeping it clean;
- A low-speed vehicle triangular plate should be placed on the machine or on the vehicle.
The cleanliness and visibility of the reflective lighting and the warning signs placed on the structural elements of the machine must be ensured;
- Transport speed should be adjusted to condition of the surface of the road, and it should not be higher than 15km/h;
- The vehicle and the mower should not be left on hills or other slopes unsecured from sliding off on its own. The mower should be placed on the ground. Wheel chocks should be placed behind the wheels.
- The mower should be adjusted for assembling it to the vehicle. It is possible to adjust the position of the mower from the cabin, without the need to leave the vehicle's cabin by the operator.
- The activities related to the preparation, assembly, dismantling or adjusting may be performed after turning the drive off, disengaging the engine, immobilizing the vehicle and allowing all moving elements to come to a complete stop;
- Please check all resealable connections, such as screw connections, after the first hour of operation;
- The mower should be stored on a flat, even, hardened surface in a place not accessible to bystanders and animals. Use a support for stable positioning of the mower;
- During the assembly or the dismantling of the mower special care should be taken, paying extra attention to the structural vehicle mounting components;
- Prior to starting any work, please check the technical condition of the mower and the attached vehicle. Both, the vehicle and the mower must be in a good technical condition. Worn or damaged parts should be immediately replaced with new ones.
- The mower must be equipped with all guards securing from the access to the moving parts (the ones suggested by the manufacturer). The guards must be complete and fully operational;
- Please familiarize yourselves with the functioning of the mower prior to putting it into service by reading the User Manual, work safety rules, as well as the suggestions regarding the maintenance and the adjustments;
- The weight of the mower suspended on the vehicle may alter the steering, therefore extra care should be taken;
- The User Manual should be carried with the machine. When lending the machine, it should be technically efficient and with attached User Manual;
- It is prohibited to attach additional means of transport to the mower;








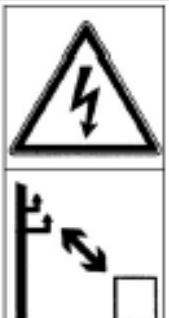

- During the first operation of the machine, please check its functioning and perform initial adjustments without any load;
- To secure the three-point suspension system king pins please use only typical cotter pins. Operating the machine with other types of securing components is prohibited;
- Due to natural wear, check the condition of the cutting components and whether they are complete, applying the suggestions described in the chapter 6. Servicing and Maintenance;
- Check the technical condition of the machine upon receipt of the mower and its transport to make certain it did not incur any damage;
- It is prohibited for any persons to be present under the lifted the mower due to the risk of being crushed by its components;
- Do not place your fingers or limbs between the components of the machine while adjusting it;
- It is prohibited to leave the cabin of the tractor while the drive is engaged, and before the moving components come to a complete stop;
- The vehicle's operator working with the mower must be cautious so that nobody comes near the machine and becomes present within less than 50m perimeter from the working mower ;
- Prior to engaging the mower's drive, lower the cutting assembly to the operating position;
- Begin mowing after the nominal 540 rpm of the power-take-off is reached. It is prohibited to overload the shaft and the mower or to rapidly switching the gear;
- An appropriate visibility should be ensured or an properly trained person should be used for that purpose while turning or reversing, maneuvering with the machine;
- Mowing while reversing is prohibited. The machine should be raised while reversing;
- The hydraulic system should not be under pressure when connecting the hydraulic hoses;
- The machine may be attached to the tractor only by the appropriately selected by the manufacturer PTO shaft;
- It is prohibited for any persons to be present between the vehicle and the mower while the engine is engaged;
- Operation on the slopes of more than 8% is unacceptable;
- Pay extra attention while working on slopes
- Disengage the PTO drive while turning or reversing;
- It is prohibited to operate the machine in public places (parks, schools, etc.) or in stony ground for the purpose of avoiding the risk of stones or other object being thrown out;
- Do not allow for the PTO rotations to surpass the 540 rpm, and the speed of driving must be adjusted to the requirements of the work;

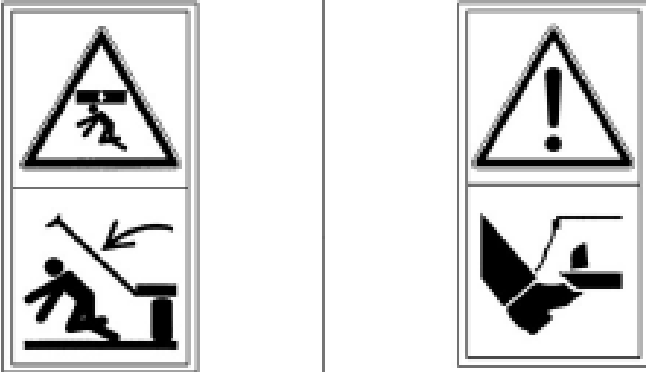




- Working with the damaged or incomplete articulated telescopic shaft is prohibited. It is especially prohibited to work without the guards of the moving parts;
- The articulated shaft has signs indicating which end should be attached to the tractor; check whether the direction of the rotations is appropriate prior to turning it on;
- Never leave the tractor with the working engine. Prior to leaving the driver's cabin, lower the machine to the ground, turn the engine off, take the key out of the ignition, and set the manual brake;
- Do not use unbuttoned, hanging working clothing while at work, assembling, dismantling or adjusting. Keep it far from the components, which might pull it;
- It is recommended to clean and wash the mower after finishing work at a car wash equipped with waste water treatment or the settling vessel for neutralizing wastewater;
- The machine should be stored in places secured from other people and animals, avoiding the risk of accidental injury, on a flat, hardened surface, under a roof;
- In case of failure, immediately turn off the drive carried from the vehicle;
- Use hearing protection while operating the machine for the purpose of minimizing the exposure to noise. It is also recommended to close the door and the windows of the vehicle's cabin;



Failure to follow the above rules may pose a risk to the operator and the bystanders, as well as it may lead to damaging the mower.

3.2. Safety decals and their locations

 <p>1.0 – Caution. Prior to work commencement read the operating manual.</p>	<p>C.2.26</p>  <p>1.1 – Caution. Stop the engine and remove ignition key before carrying out any repairs or maintenance.</p>	<p>C.2.36</p>  <p>1.2 – Thrown objects, pull-in accidents and other hazards. No persons allowed in distance less than 50 m from the working machine.</p>
<p>C.2.4</p>  <p>1.3 – Before entering in danger turn on security lock</p>	<p>C.2.27</p>  <p>1.4 – Don't drive over platforms or ladders</p>	<p>C.2.7</p>  <p>1.5 – Crush point. Keep away from linkage arms of the tractor hydraulic lift whilst use.</p>
<p>C.2.20</p>  <p>1.6 - Uninstalling or opening the guard while operating machine is prohibited</p>	<p>C.2.30</p>  <p>1.7 High voltage - risk of electric shock. Keep sufficient clearance from power supply lines.</p>	<p>C.2.44</p>  <p>1.8 - Avoid exposure to liquid flowing under pressure. Refer to the instructions in the operators manual</p>

 <p>1.9 - Do not stay in the area swing mower</p> <p>2.0 - Attention rotating blades do not approach to mower</p>	 <p>2.1 - Lift point</p>	<p>16 MPa</p> <p>2.5 - Warning about pressure in hydraulic system</p>
 <p>2.2 - Mandatory use of hearing protection</p>	 <p>2.3 - Use protective clothing</p>	 <p>2.4 - Use protective gloves</p>

3.3. Residual risk

No.	Risk	Source of risk (cause)	Protection measures
1.	Overload of the drive system (physical overload)	Working in a standing position, tilted-forced, walking, moving	Reading the User Manual, workplace training including the weight –bearing norms for the manual transporting jobs, the proper techniques of weight-bearing and lifting , using the help of others, devices helping move objects, e.g. jack, winch
2.	A fall on the same level (misstep, slip)	Uneven surface, mess – objects laying around or standing, wires on the traffic paths, slippery surfaces	Proper shoes, even surface, paying attention, keeping the surroundings clean, reading the User Manual
3.	Being hit by the objects protruding from the machine	The machine and its surroundings	Proper positioning of the machine, safes pace to move around, proper organization of work, paying attention, Reading the User Manual
4.	Being hit by the moving objects	Plants or random parts of the turf or Stones thrown out by the machine	Paying attention, marking the danger zone, moving around the operating machine is prohibited, it is prohibited for anybody to be present within the 50m perimeter from the operating machine, using individual protection – helmet, eye glasses, reading operators manual
5.	Sharp, dangerous edges	Protruding components of the machine, using manual tools	Individual protection –protective gloves, buttoned up work clothing, paying extra attention
6.	The weight of the suspended machine	Inappropriate assembly, aggregating, wrong positioning of the machine, improper maintenance, leaving the machine suspended on the tractor	Paying increased attention, using individual protection – protective shoes, safe positioning of the machine, using the help of others, using jacks, davits, reading the User Manual
7.	Microclimate – changing atmospheric conditions	Work performer in different weather conditions	Proper work clothing, fluids, body lotions with UV protection, rest, reading the User Manual
8.	Noise	Rotations of the machine too high, damaged, loose, vibrating parts	Working with the efficient machine, current maintenance inspections of the machine, proper rotations of the machine, Reading the User Manual
9.	Tearing, entanglement	Rotating telescopic joint shaft, no guards for moving parts	Do not move close to, approach or make adjustments to the working machine, exercise extreme caution, use guards for moving parts; and familiarize yourself with the operating manual
10.	Poisoning, irritation	Hydraulic oil. Leaky hydraulic fluid connections, damaged hoses, leaking cylinders	Use personal protective equipment, familiarize yourself with the operating instructions, replace power hydraulic hoses according to the manufacturer's recommendations, repair leaks on an ongoing basis, perform inspections

4. Intended use

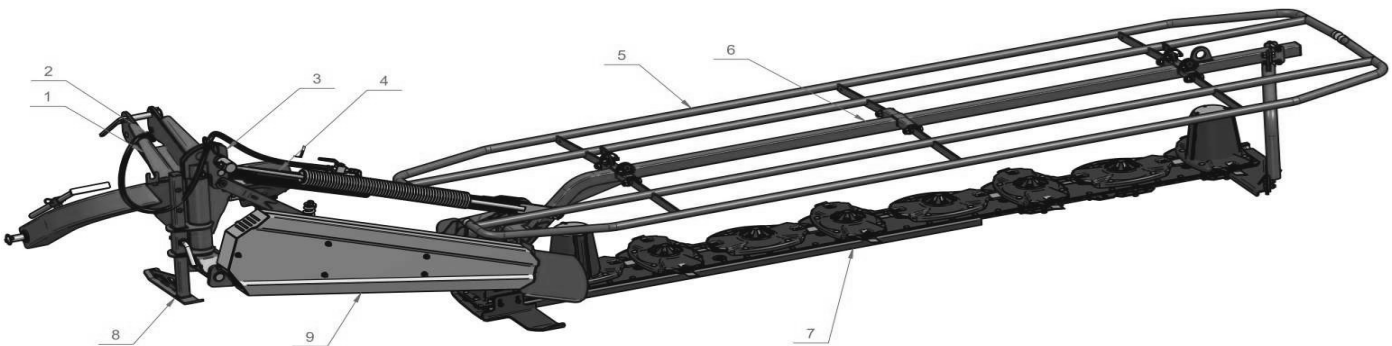
The disc mower was designed to mow all low stem green plants growing on meadows and fields, **on flat, stoneless surfaces.**



Failure to follow the above rules may pose a risk to the operator and the bystanders, as well as it may lead to damaging the mower.

This machine accelerates the agricultural works due to high efficiency cutting and the proper layout of the windrows. This type of windrow layout accelerates the drying process and eliminates additional proceedings - spreading the windrows after cutting.

This type of mower is suspended on the three-point suspension system of the class II or III tractor of the minimum power of 30KM. The mower is driven by the telescopic articulated shaft and the hydraulic system with the actuator, which adjusts the position of the mower during operation.



1 – Head stock	6 – Guard frame
2 – Hydraulic whose	7 – Cutting bar
3 – Head stock column with beam	8 – Support
4 – Hydraulic ram	9 – V – belts cover
5 – Guard bar	

Fig.1 General design of the mower

The rotating discs equipped with blades are the basic operating components. This system is driven by power input from the telescopic articulated shaft, bevel belt gear to the cutting bar. The cutting bar consists of gear set transferring the power to the discs.

The fulfillment of the requirements for the use of the machine, the maintenance and repair by the manufacturer

The machine should be used, maintained and repaired only by the persons familiarized with the specifics of the machine and health and safety rules.

The manufacturer has a wide variety of agricultural machines, and is also available to advise on the selection of appropriate equipment based on the user's needs.



All ambiguities concerning the purpose of the device should be clarified by contacting the manufacturer. The proper selection of the device and understanding its purpose will increase the work safety.

Using the machine for other than intended purposes shall be considered as a misuse.

5. Description of device



Fig. 2 General view of the disc mower (without tarpaulin skirt) - transport points are marked with arrows.

The disc mowers contain three basic components. The first component – hitch (the suspension system of the mower) is made of steel elements connected by welding, which constitute a compact and strong structure. The second component – the support frame made of steel elements connected by welding, which connects the three main components of the mower's frame. The third component – the cutting bar with the frame and the guard curtains made of steel elements bolted and welded, which constitute a rigid system. The cutting bar and the gears are covered by the safety shields. The machine is equipped with gatherers laying windrows while cutting.

Controlling the operating positions of the machine is performed from the tractor's cabin through the hydraulic actuator system. It allows for a precise positioning of the machine during work. The mowers are equipped with a fuse, which allows the mower to tilt when moving onto an obstacle or in case of high cutting resistance.

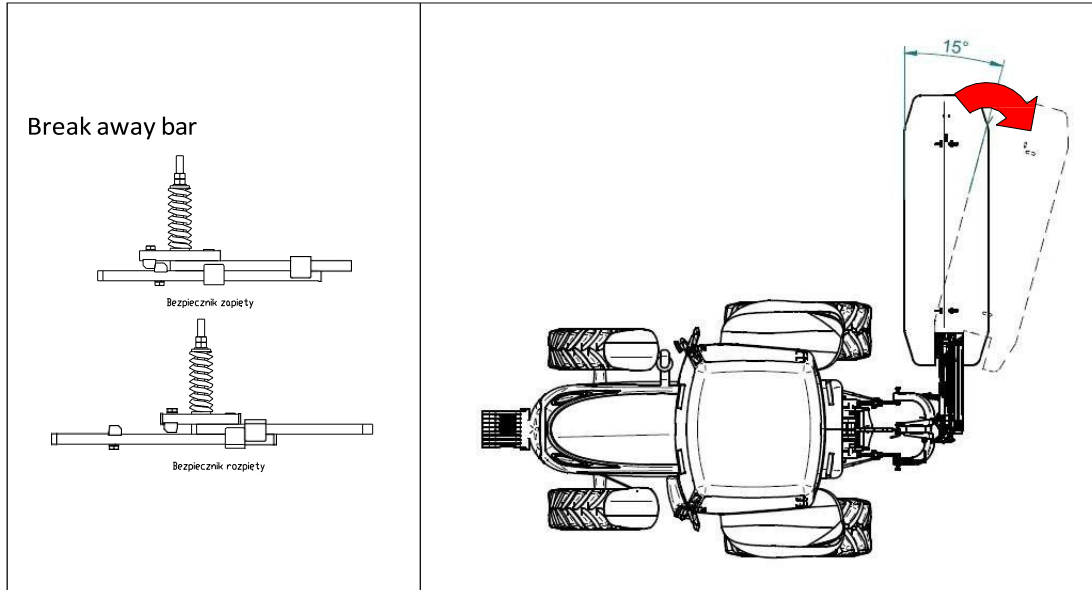


Fig. 3 Disc mower – tilting of mower with break away bar



The mower may be transported if the valve on the actuator is closed. Use the certified and adjusted to the machines weight slings or chains. Pay special attention to the proper assembly of the slings to the tractor and the machine. Remember about securing the supporting frame with a king pin while transporting or loading with the lever devices. The support should be lowered and secured with a king pin.

5.1. Equipment and accessories

5.1.1. Basic equipment

Consists of basic equipment:

- The articulated telescopic shaft with a one way slip clutch
- The support
- Spare set of blades
- A wrench key to secure the discs during replacing/inspecting blades
- User Manual
- Warranty Card



The warning plates and the slow moving vehicles triangle are not part of the basic equipment of the mower. They may be purchased from the manufacturer or at a warehouse with agricultural equipment. Every user should have a slow moving vehicles plate. Not exposing it during transport may cause accidents. The user is responsible for the damages incurred during accidents.

Warning:

ALL EQUIPMENT ELEMENTS OF THE MACHINE ARE AVAILABLE FOR SALE AT THE MANUFACTURER.

5.2. Technical data and characteristics

Table no. 1

No.	Description	UoM	Parameter			
1.	Machine type	-	220	260	300	
2.	Mounting type		Suspended			
3.	Working width	[mm]	2200	2600	3000	
4.	Power requirement	[HP]	60	70	80	
5.	Number of discs	[pcs]	5	6	7	
6.	Number of blades	[pcs]	10	12	14	
7.	Tractor hitch class	Three point linkage	Cat II or III			
8.	Disc rotation speed	rpm	3180			
9.	PTO rotation speed	rpm	540			
10.	PTO shaft	-	460Nm L=660mm with one way clutch			
11.	Efficiency	[ha/h]	2,6	3,1	3,75	
12.	Operating speed	[km/h]	10 – 15			
13.	Transport speed	[km/h]	15			
14.	Nominal oil pressure	MPa	16			
15.	Hydraulics oil type	-	HL 32			

16.	Gearbox and cutter bar oil type	-	SAE90EP			
17.	Gearbox oil capacity	[dm ³]	0,7			
18.	Cutter bar oil capacity	[dm ³]	2,2	2,6	3	
19.	Number of operators	[pcs]	1			
20.	Transport dimensions					
	Length (A)	[mm]	1328	1328	1328	
	Width (C)	[mm]	1957	1957	1957	
	Height (B)	[mm]	2857	3280	3705	
21.	Weight	[kg]	560	597	655	
22.	Noise level emitted by machine	L _{pA} [dB]	82,8 ±1,0	81,8 ±1,0	82,0 ±1,0	
		L _{Amax} [dB]	88,6 ±1,3	87,2 ±1,3	87,2 ±1,0	
		L _{Cpeak} [dB]	127,2 ±1,3	127,2 ±1,3	127,2 ±1,3	

*value of declared power guarantees proper weight of a tractor providing the stability while operations on maximal reach of the flail mower.

L_{pA} - Noise exposure level related to 8 hours of work per 24 hours

L_{Amax} – Maximum sound measurement value

L_{Cpeak} – Peak sound value

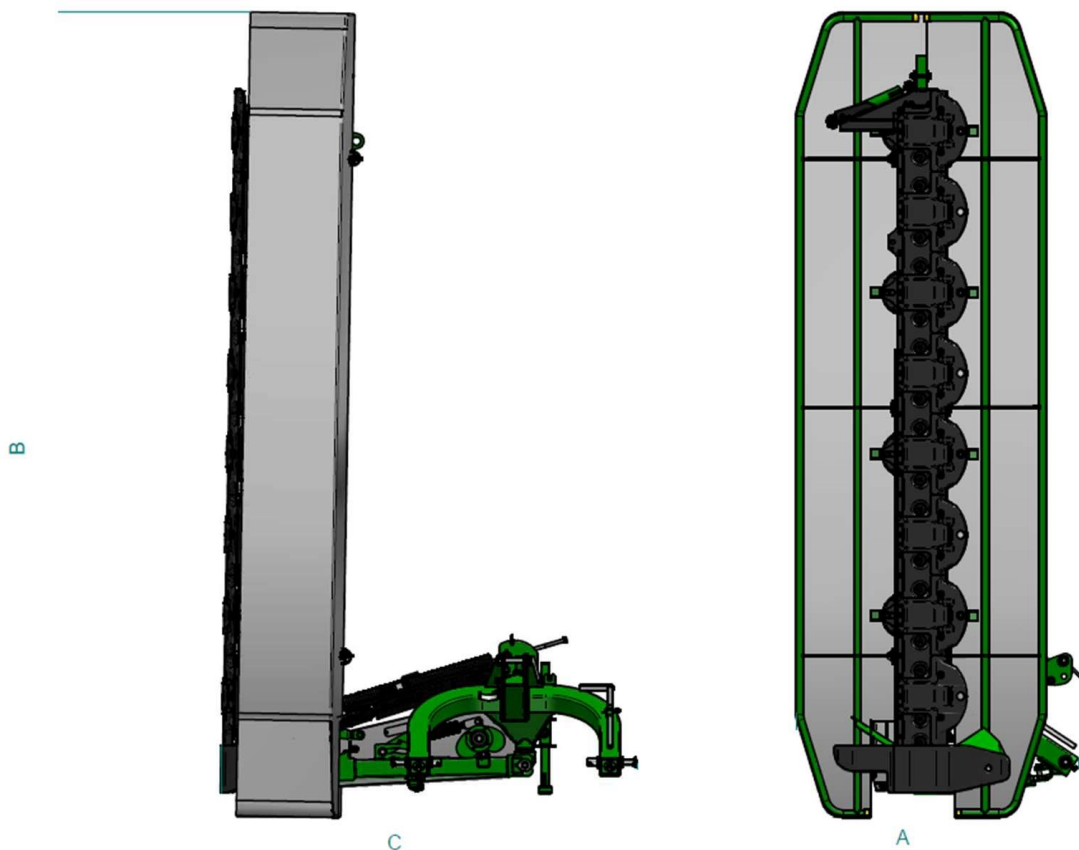


Fig. 5 Transport dimensions

6. Use of the machine

The manufacturer ensures, that the machine is fully operational and is inspected in accordance with the quality control procedures and is approved for use. It does not release the user from the responsibility of inspecting the machine upon receiving it.



Check the technical condition of the mower prior to every operation, especially the cutting system, the drive system, the hydraulic installation and the guards.

6.1. Linking – mower assembly



Make sure that the coupling components of the vehicle and the machine are appropriately paired to ensure the safe installation and work. In case of any ambiguities, contact the manufacturer of the vehicle or the machine.

I. The assembly of the vehicle and the machine's suspension system.

The machine should be suspended on the three point suspension system of the tractor. To make the aggregating easier, the hoses of the tractor should be at the height of about 350mm.

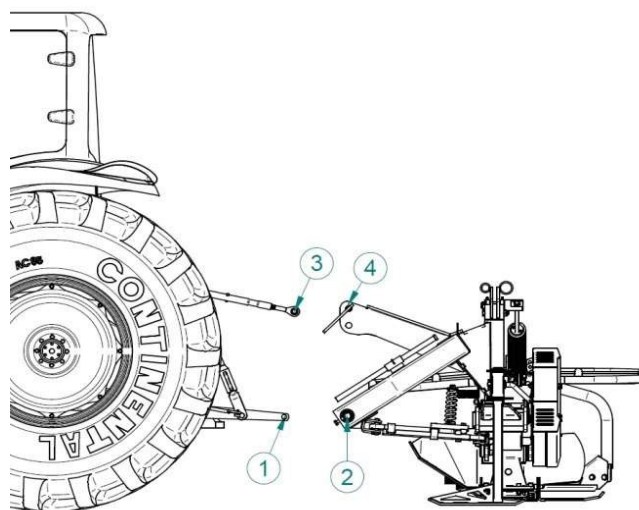


Fig. 6 Linking with tractor

Depending on the type of the three point suspension system, properly place the bottom link pins of the suspension system (Fig. 7)

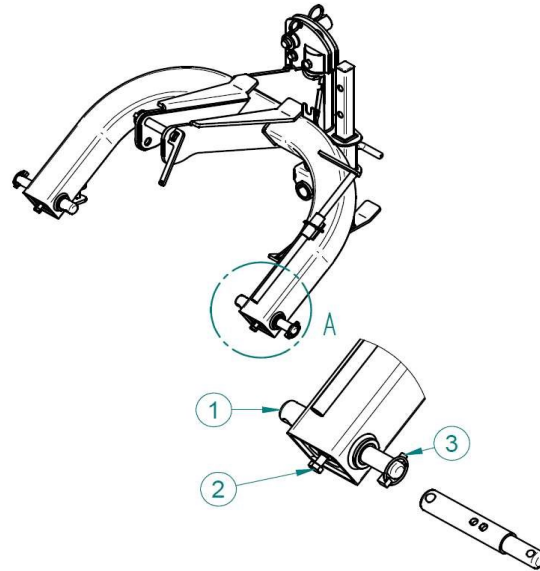


Fig. 7 Bottom link suspension pins adjustment

After coupling the mower, lift the support, attach the connector (3,4) and adjust its length to achieve the $4\div 5^\circ$ angle to the surface. Decreasing the angle may cause increasing the height of cut. Make sure that the original securing parts are used. Check the wear condition of the connecting components, such as bolts and pins every time maintenance work is performed. In case they are worn, they should be immediately replaced.

II. The assembly of the telescopic articulated shaft of the machine.

After assembling the machine on the three point suspension system, install the articulated telescopic on the PTO of the tractor and the power input of the machine and then raise the support to the upper position.



Use only the original articulated telescopic shaft with the one way slip clutch with the CE sign and the power take-off and the power input shields. Check for the proper fastening of the latches after placing the ends of the articulated telescopic shaft onto the ends of the power take-off and the ends of the power input. Use the proper hoses ended with fitted connectors.

III. The assembly of the hydraulic actuator.

The mower has one hydraulic lifting system. The machine is equipped with a connector, which should be connected with the hydraulic hoses with the tractor's power system connectors. Before connecting, make sure that the system is not under pressure. Check the type of oil used in the tractor and the machine's system – they must be the same.



Disassembly of machine should be performed in the reversed order, maintaining special conditions of safety while disassembling mechanical system, which separates the machine from the vehicle. Block the supporting frame in the resting position prior to disconnecting the mower from the tractor's suspension system. **After use machine should be store on support on level concrete surface**

6.2. Transport

Lift the mower to the height of 400 mm by the three point suspension system for the purpose of transport drive. It is recommended to disconnect PTO shaft from the vehicle and placing it on a hanger.

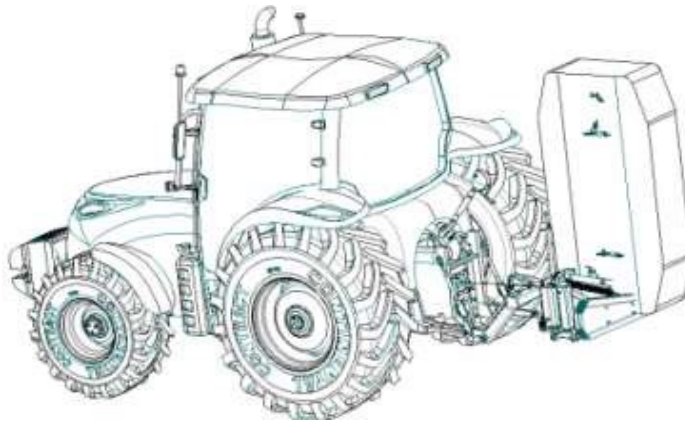


Fig. 8 Transport position



1. In the transport position A it is necessary to unlock the latch (1) Fig. 9 during the lifting up and closing of the valve (2) on hydraulic cylinder.
2. Maneuvering and moving along public roads
Keep a low speed due to the stability of the suspended machine.
3. Driving on public roads, it is absolutely necessary that machine must be equipped with a triangular plate for low-speed vehicles, and light and start the machine - warning.

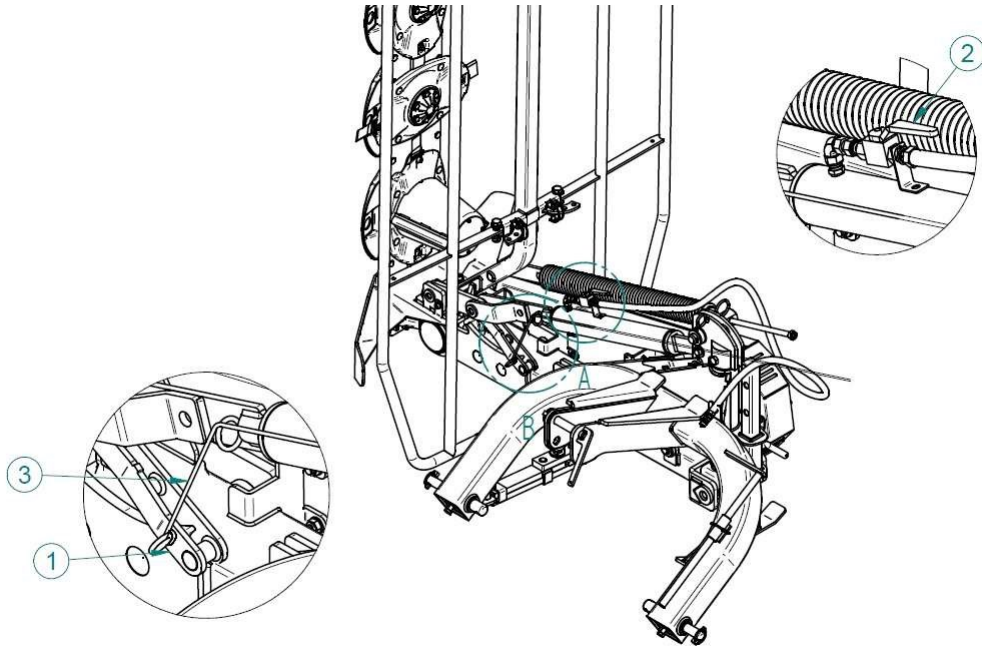


Fig. 9 Transport position

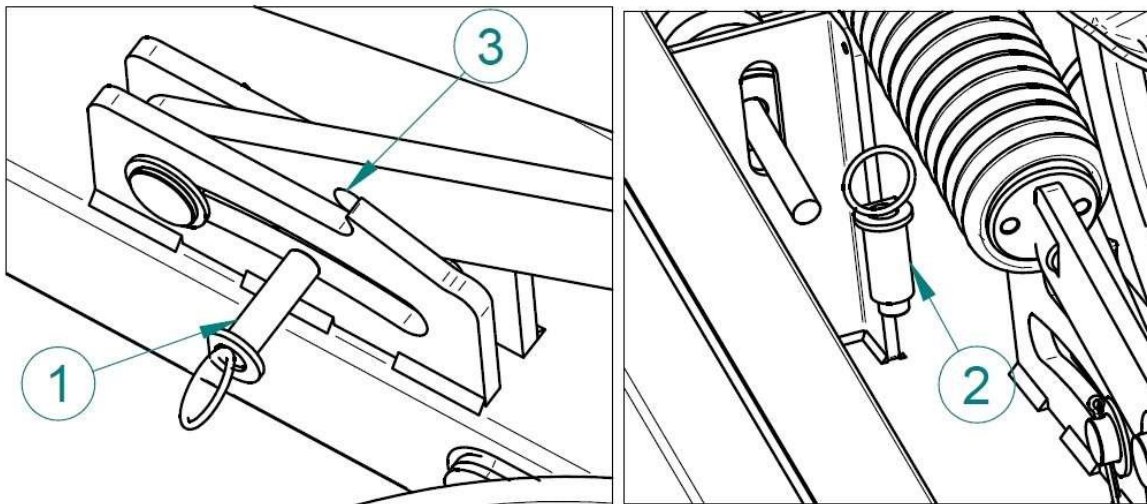


Fig. 10 Transport lock



After lifting mower into transport position, securing pin (1) must be placed in whole (3) in bar for securing machine against unauthorized fall in the event of hydraulic ram damage. To unlock mower to working position, securing pin must be placed in whole (2) on main beam.

5.3. Work setting

After transporting the machine and positioning the tractor for the mowing, open the valve (2) on the actuator, unlock the supporting frame (1) by pulling by the cord (3) Fig. 11.

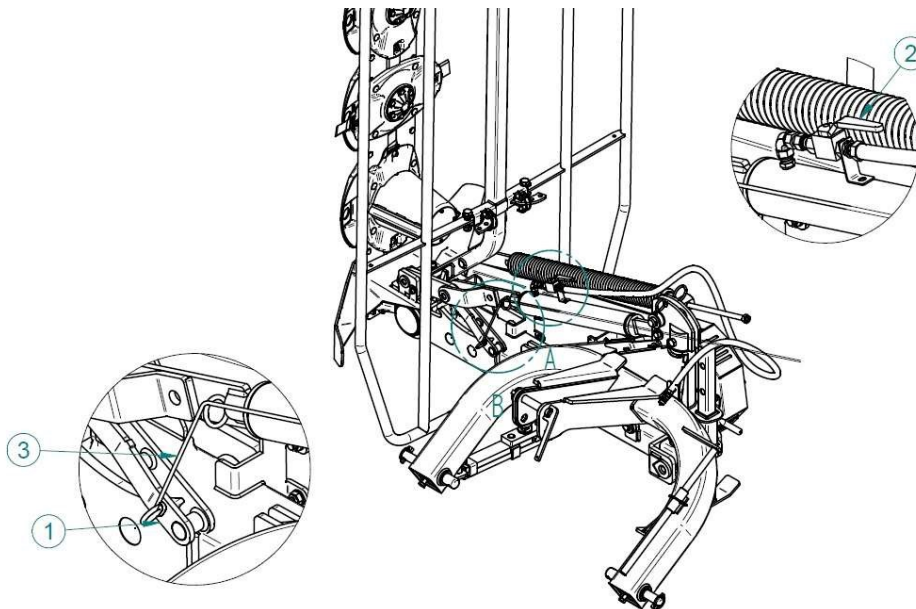


Fig. 11 Folding to transport position

Next, lower the cutter bar to the horizontal position and set the height of the suspension so the pin (detail A) is positioned in the center of the groove as in Fig. 10.

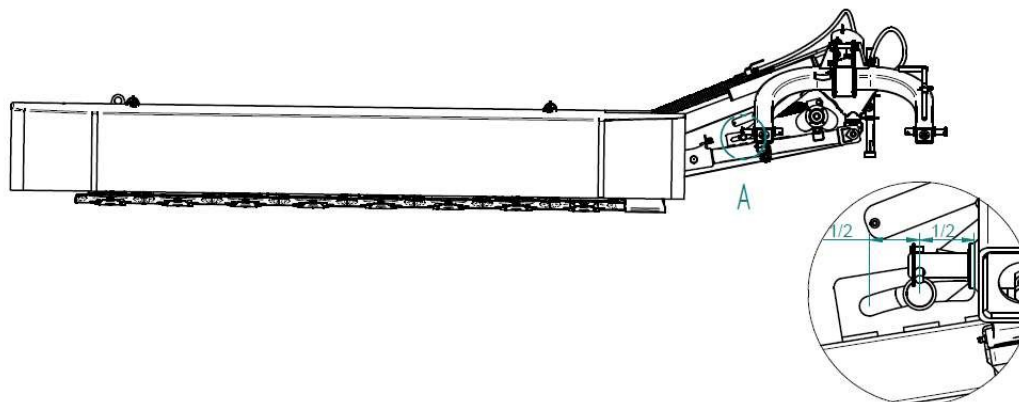


Fig. 12 Mower suspension height adjustment

After adjusting the suspension, adjust the height of cut by adjusting the length of the connector (1) to obtain the $4\div 5^\circ$ angle from the ground. Decreasing the angle causes

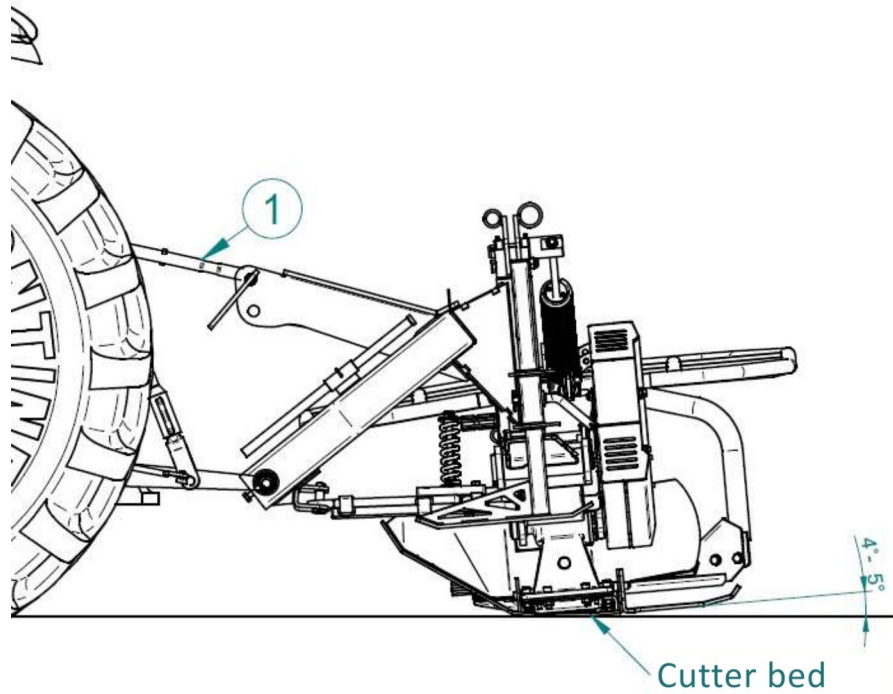


Fig. 13 Cutting height adjustment



There is the possibility of adjusting the pressure on the ground. It may be adjusted by a spring tension (1) drawing 12 of the suspension. The pressure should be adjusted individually (2) having in mind the type of surface where the mower is operated

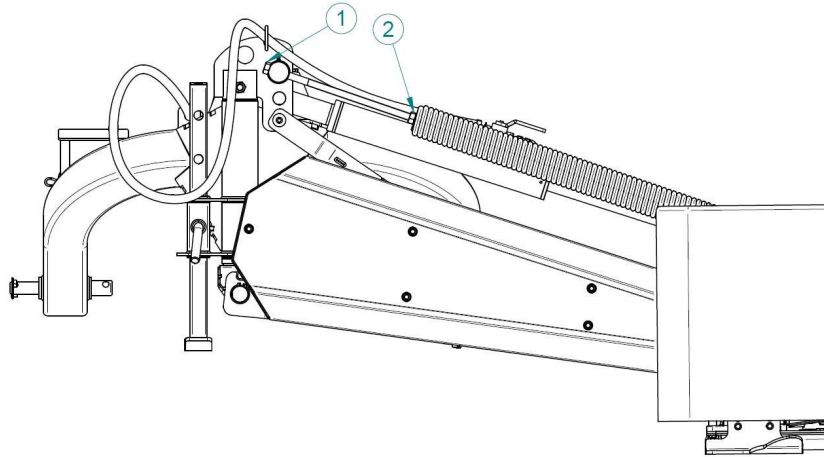


Fig. 14 Relief system adjustment



In order to start the mower, efficient safety guards need to be installed. Also follow the suggestions of section 6: Servicing and maintenance. Always start the mower by releasing the drive clutches slowly, paying attention to the operating machine. All observed irregularities prohibit operating the mower. In such case it is important to read the User Manual again, following all steps regarding the positioning and the adjusting of the mower. If that does not help, contact the manufacturer and explain all ambiguities.

Remember about the range of the mower's operation, which is reached after adjusting the height of the suspension of the mower in accordance with the Fig. 15.

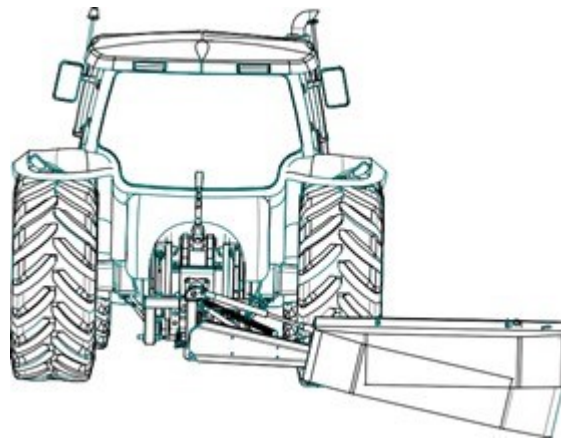


Fig. 15 Mower's operation range (the range of the bar - 8°; the range of the beam - 0÷12°)



Depending on the conditions of mowing, the machine may generate a noise exceeding 85db. In such case, it is recommended to use hearing protection.

7. Maintenance

All activities related to the maintenance of the machine may be performed by the user of the vehicle, to which it is connected, under the condition, that he is authorized to operate that vehicle.



After use machine should be stored under roof, on a flat, hardened surface with a support.

Prior to connecting the machine to the vehicle, the operator must inspect the technical condition of the machine each time and prepare it to the trial drive. For that purpose the operator must:

- Familiarize with this User Manual and follow the included suggestions
- Learn the design and understand the functioning of the machine
- Inspect all components of the machine for any possible mechanical defects
- Lubricate the machine in accordance with the suggestions
- Inspect the technical condition of the kingpins of the connecting system and the securing cotter pins
- Check the oil level in the gears
- Inspect the tension of the gear belts
- Inspect the condition of the screw connectors
- Inspect the condition of the cutting blades; the worn should be replaced in pairs

7. Maintenance



Installing only the original manufacturer's parts may guarantee the safe and reliable operation of the device. Using generic parts or repairing damaged parts will cause loss of warranty.

If all mentioned above activities are performed and the technical condition of the machine does not raise any concerns, the machine may be then connected to the tractor.

- Position the machine in the operating position
- Adjust the length of the articulated telescopic shaft to the connected tractor in accordance with the instructions of the shaft
- Connect the articulated telescopic shaft to the tractor and the mower
- Engage the drive

Engage drive of the operating shaft for 3 minutes. Check in the meantime for any:

- Knocking sounds in the drive system
- Vibrations in the cutting system

7.1 Adjusting belt tension

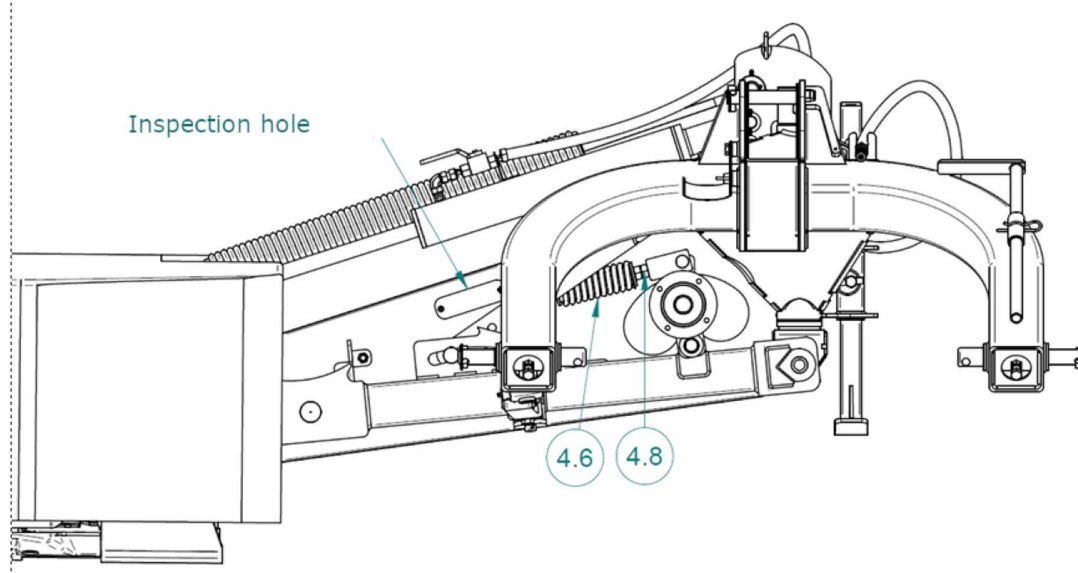


Fig. 16 V-belts tension adjustment (inspection of belt tension)

Adjusting of v-belt tension must be done when machine and tractor are turned off. Please check belt tension through the check hole, removing the cap by unscrewing two bolts. Belt deflection at a pressure of 100N (10kgG) should not exceed 20 - 30 mm. In the event of failure of one belt, replace the entire set.

Adjustment of V-belt tension:

- Unscrew the counter-screws (4.8)
- Change the position of the spring (4.6), moving it by the nut (4.8)
- Counter the nuts (4.8)

Inspect the V-belts periodically (at least once in a season and every time before starting work). The belts should be tensioned in such a way that the slip on the wheel does not exceed 1%. If the tension is too little, it causes the belts slipping. If the belts are too tight, the life of the belts is shortened and the bearings become excessively worn. The tension of the belts should be lessened when storing the machine.

7.2 Blades replacement

The discs of the mower are equipped with the cutting blades. They are double sided, which means, that the other side of the blades may be used in case it wears by turning it to the other side.

Drawing of blade	Dimension [mm]						
	A	B	C	D	E	F	G
<p>RIGHT</p>	120	70	42	20	21	50	4
<p>LEFT</p>							

Fig. 17 Drawing of blade mountings



Cutting blades should be immediately replaced if damage or traces of wear, dulling of the edges or incompleteness of the blades is observed or the blades are excessively loose.

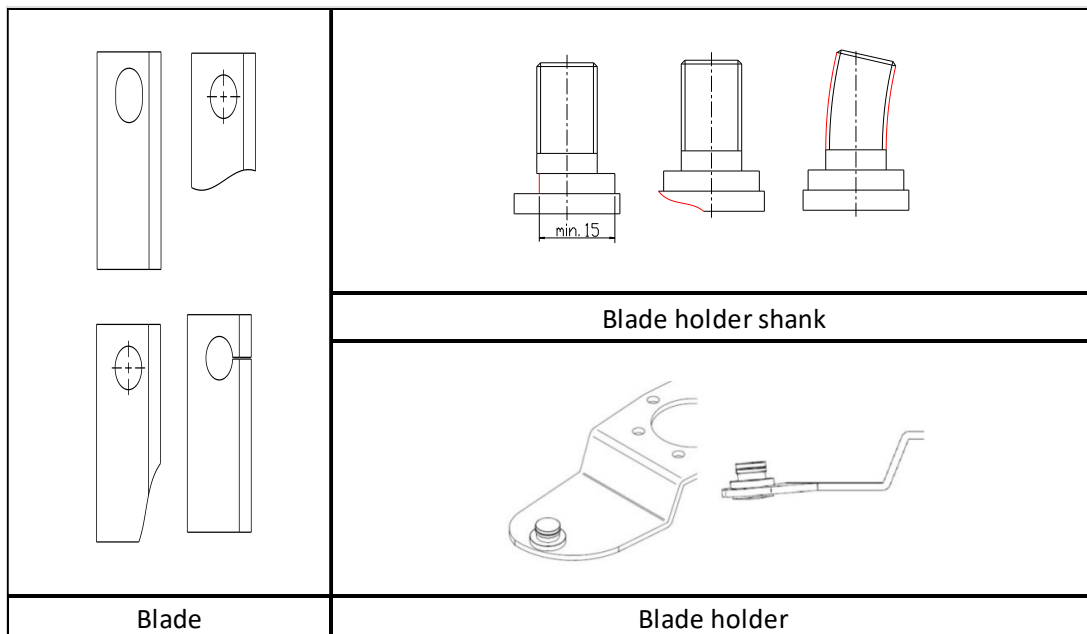


Fig. 18 Common damages

QUICK CHANGE blade replacement system

For the purpose of fast and efficient maintenance of the mower, the manufacturer created a very simple system of replacing worn blades – **Quick change**. It is done by using a special type of blade holder, which is tilted by one lever movement of a special wrench key (included in the basic equipment of the machine), which then releases the blade.

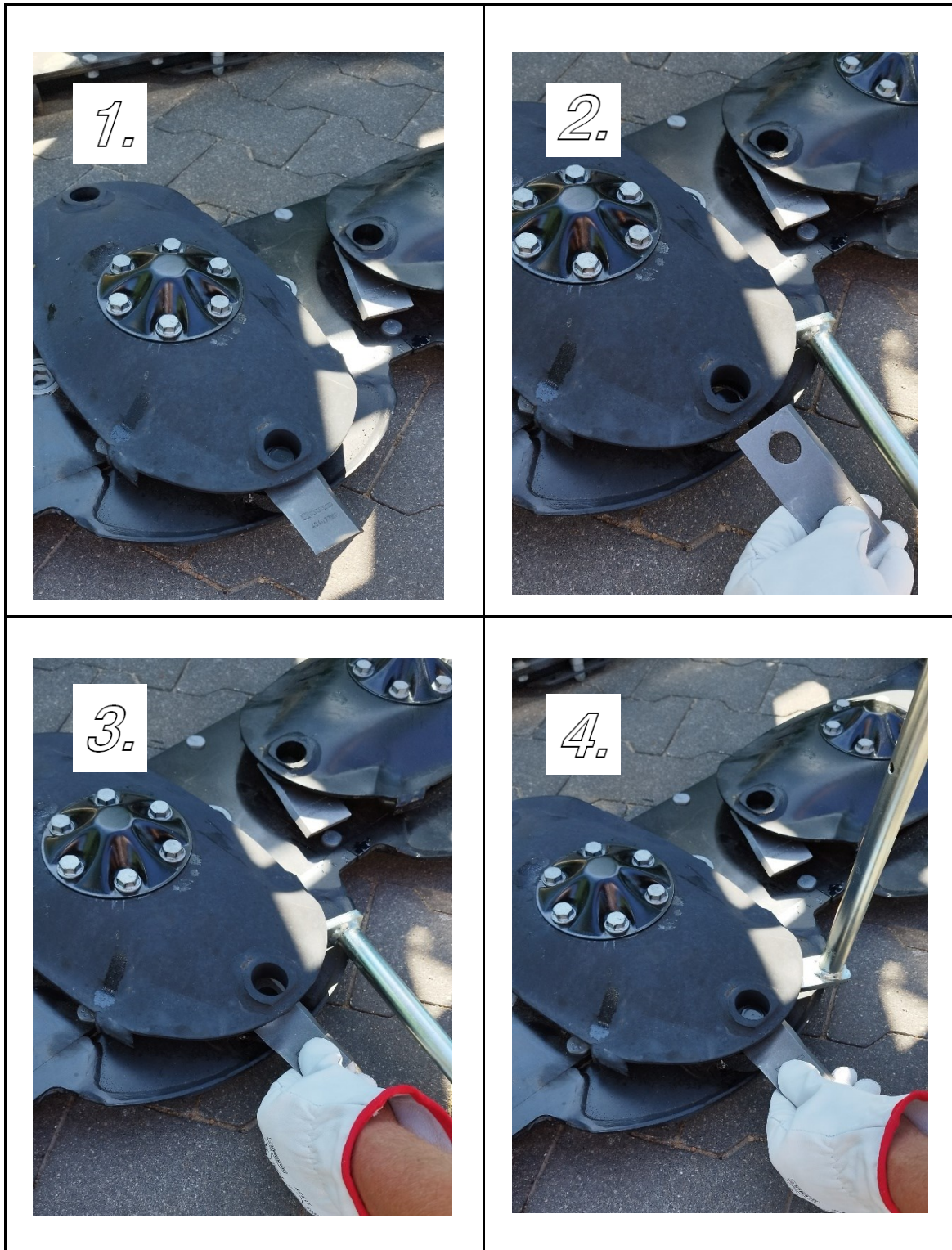


Fig. 19 Inspection, replacement and turning of blade

Replacement or turning of blade is performed by using a special wrench in accordance with the Fig. 19. Wrench is placed (picture 16 (1)) between the upper plate of the disc and the blade holder, the blade holder is tilted until it becomes loose making it possible to remove the blade 16(2). After inspecting the blade 16 (3), the blade tang and the blade holder (in accordance with the Fig. 18), the installation of the blade 16 (4) may be performed by turning the blade or replacing it.



The worn or damaged components must be immediately replaced to new ones. Working with damaged components of the discs, such as the blade holder, blade tang or blade itself is prohibited.



The inspection of blades must be performed every time prior to starting work and every time after moving onto an obstacle, such as a stone,

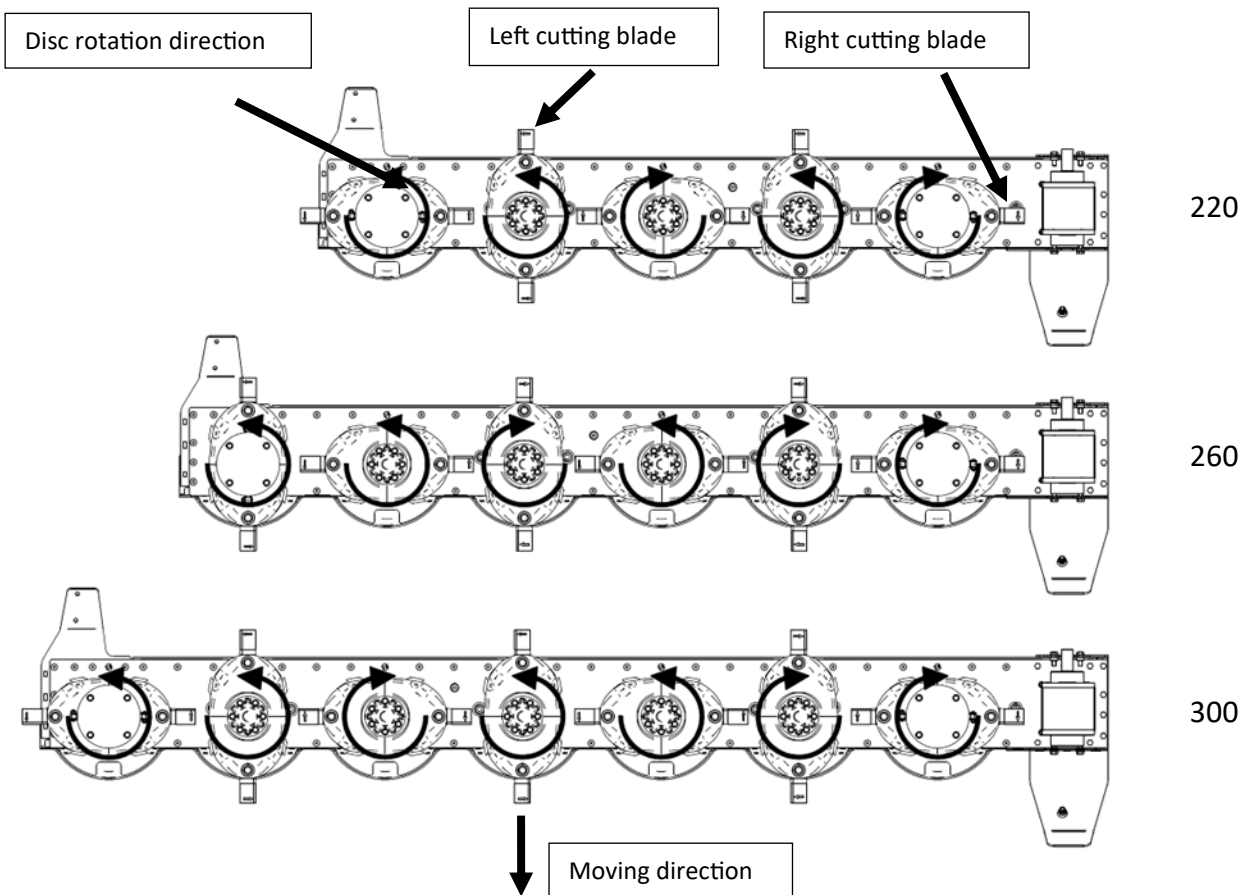


Fig. 20 The layout of the blades depending on the rotations of the discs (view from above)

Range OF MAX. PLAY OF THE BLADES

Table no. 2

Luz	nominal [mm]	acceptable [mm]
Transverse axial play	0,2	3,0
Longitudinal axial play	0,1	0,4

Replacement of the blades should be performed maintaining special conditions of safety.

1. Use only the original and efficient parts of the cutting system
2. Every replacement considers a whole set of the disc tools. Remember about the even layout of the rotating mass and the even wear of the blades.
3. Inspect the condition of the cooperating components: blade holder, blade tang, and blade. Replace with new ones if damages are observed. Fig. 18
4. Follow the suggestions of Table nr. 3 when tightening the screw connectors, selecting proper tightening moments of the screws and the nuts.

7.3 Post-operation maintenance

Each time after finishing work, the machine must be cleaned, **the cutting bar must be washed under pressure**, and it should be placed on a flat, hard surface. An inspection of the connections of parts must be performed. The damaged and worn parts should be replaced with new ones. Inspect all screw connections and tighten the loose ones in accordance with the Table no. 3.

Table no. 3 THE TIGHTENING MOMENTS FOR BOLTS AND NUTS

Resistance	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

All safety signs placed on the machine and the triangle plate of the slow moving vehicles should be kept clean.

At least once a year check the level of oil in the bevel gear. The gear oil should be used with the SAE90EP characteristics.

It is also important to inspect the tension of the V-belts, and to replace the damaged ones (always replace whole sets). Everything should be adjusted in accordance with the instruction in 6.1 Adjusting the blade tension.

It is important to inspect the axis and shaft backlash. In case of observing an obvious backlash, the axis or shaft bearings must be replaced (always in pairs) with new ones in accordance with the spare parts catalog. All bearings have rings protecting from the dirt.

7.4 Lubrication



All maintenance and servicing work should be performed with tractor's engine disengaged, pressure and rotations cessation, with the vehicle and the machine.



Avoid contact with oil! Use personal means of protection in the form of: protective clothing, shoes and gloves.

In order to ensure the proper operation of the machine, it must be greased thoroughly and in a proper manner, in accordance with the manufacturer's suggestions.

Mower has greasing points at all main connections. Use only manual or foot lubricator filled with grease. Clean the residues and the old grease before and after greasing, and the utilize the contaminated absorbents.

The articulated telescopic shaft should be greased after removing it from the machine. The telescopic part of the shaft should be greased not less frequently than every 8 hours of operating the machine – with completely separated shaft and after removing any residues.



Every time before starting work, not less frequently than once a year, the level of oil in the cutting bar and the bevel gear should be checked and filled if necessary.

The level of oil in the cutting bar should be checked after placing the mower on an even surface by opening the oil filler plug (A), Fig. 18. The oil level should be within the range of **13 ÷ 15** mm.

Gearbox oil level should be checked with the oil dipstick placed in the oil control-filler-drain plug (A) , after opening it Fig. 21.

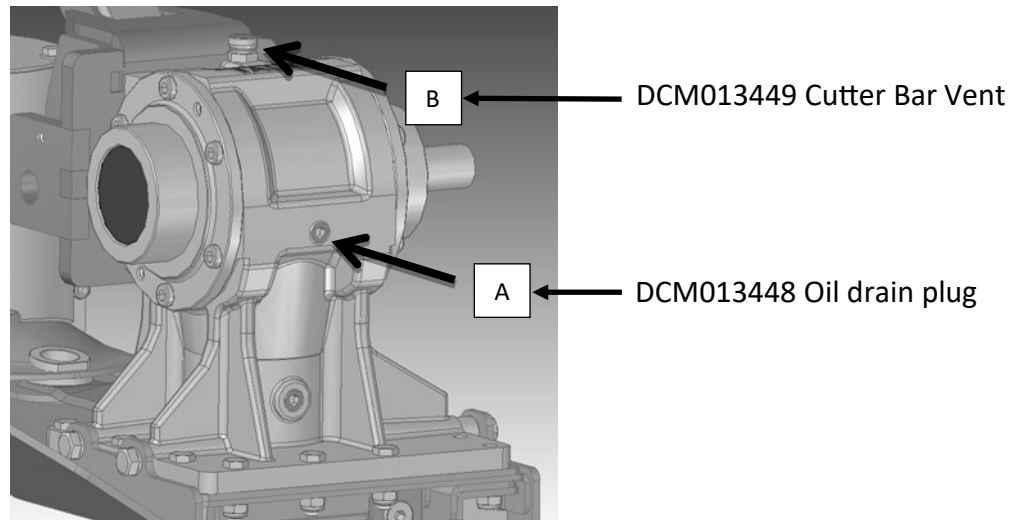


Fig. 21. Gearbox oil inspection: A – Oil drain plug, B – cutter bar vent



Gearbox Oil Change:

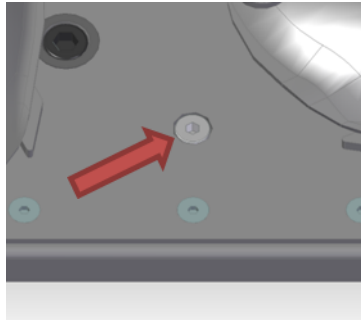
NOTE: The best time to change the oil is immediately after operating the machine. The oil is still hot making it easier to drain.

To change gearbox oil, follow these steps:

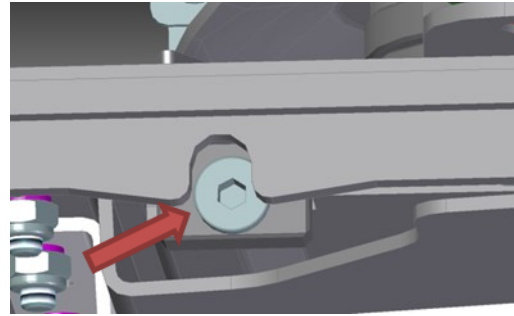
- Lift the cutting bar to the vertical position
- Open the oil filler, drain and control plug (A) Fig. 21.
- Drain the oil to the prepared container
- Lower the bar to the horizontal position
- Fill in new oil SAE90EP (in accordance with the quantity listed in the Table no. 1)
- Check the oil level and close the control plug (A).



If a leak is noticed, the sealing and the oil level should be checked, operating the mower with low oil levels may cause permanent damage to the mower. All repairs of the cutting bar and the gear may be performed by the indicated by the manufacturer mechanical workshop.



Top view

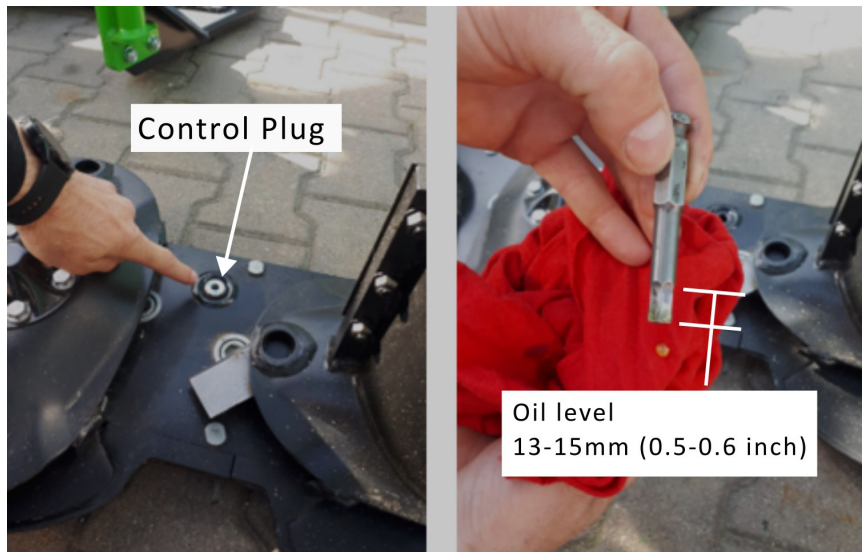


Side view

Fig 22. Cutter bar – oil check: A – filler, oil level control B – oil drain

Changing cutter bar oil:

- Open the oil filler, control plug, Fig. 22.
- Lift the cutter bar.
- Open the oil drain plug (B)
- Drain the oil to the prepared container
- Close the oil drain plug (B)
- Lower the cutting bar to the horizontal level and fill with the SAE90EP oil (in accordance with the quantity indicated in the Table nr 1).

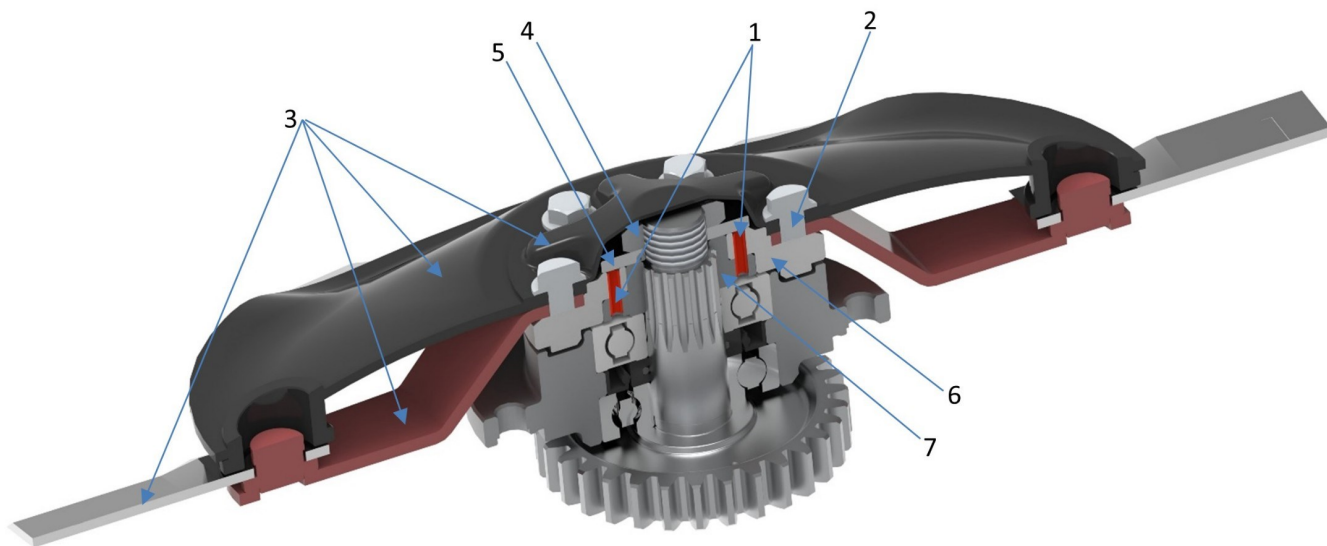


Checking cutter bar oil level. (Refer to image above).

- Always place the cutter bar on a level surface to properly check oil level.
- Open the oil filler, control plug (A) Fig. 22.
- Using a solid metal object, screwdriver, allen wrench, etc., place in the opening until it touches the bottom of the cutter bar.
- The oil level should be between 13-15 mm (0.5-0.6 inches). CAUTION! DO NOT OVERFILL! This can cause damage to the cutter bar and will affect operation.
- Replace control plug and tighten. Always check for leaks.

7.5 Broken hub replacement

The bearing assemblies of the mower bar discs are equipped with protection against damage. When any of the mower discs is stopped, the spring pins (1) with which the upper hubs are connected will shear, which protects the other assemblies from damage. In such a situation, turn off the machine immediately and replace the damaged pins (1).



Replace the pins of the damaged bearing unit in the following order:

- a) Loosen the screws (2), and then remove the disk cap, disk, holder and cutters (3)
- b) Unscrew the nut (4) and remove the washer (5) and both upper hubs (6,7),
- c) knock out the remnants of the pins from the hubs, inspect the disassembled parts, replace parts unsuitable for further work,
- d) proceed to reassembly, first connect the two hubs (6,7), using spring pins (1),
- e) put the connected hubs on the bearing unit, install the washer (5) and tighten the nut (4) (tighten the nut with a torque of 320 Nm, in addition, use thread glue),
- f) install the remaining components, following the reverse order of disassembly,
- g) maintain the correct position / orientation of the disk as before disassembly in accordance with Figure 20.



Before replacing the damaged mower disc drive unit, thoroughly clean the area around the replaced parts to avoid getting dirt inside the cutter bar.



When tightening all bolt connections, please refer to Table 3, selecting the correct tightening torques for bolts and nuts.



All maintenance and service work is performed with the vehicle engine turned off, pressure and rotation stopped, with the vehicle and machine secured.



Avoid contact with oil! Use personal protective equipment such as: protective clothing, footwear, gloves and safety glasses



Always replace worn or damaged components with new ones. Working with damaged elements of the disc (holder, pin or knife) and the hub drive unit is prohibited !

7.6 Post-season maintenance

Maintenance covers all activities listed in the section: Post-operation maintenance. In addition, the machine should be stored under a roof, on a flat, hardened surface with a support. Check the sealing paint. If you notice any damage to the paint, clean the area and fill it in with a new layer of sealing paint.



In case of leakage of hydraulic system, it is essential to replace damaged parts and units of hydraulic system to prevent environmental contamination.

Hydraulic hoses, regardless of the external condition must be replaced after a period of 5 years.

7.7 Environment and disposal

In case of a complete wear of machine to extent where it is impossible to operate the machine any more, it should be disposed off. It also concerns current repairs and replacement of damaged parts. For that purpose the machine should be completely cleaned. The oil should be drained and utilized. Next, the machine should be dismantled, segregating the parts in accordance to the use materials. The segregated parts should be delivered to a waste collection or utilization place.

The machine is fully environment friendly. The materials used for its production are in 97% recyclable. The used parts should be utilized in accordance with the local environmental regulations. Throughout the entire period of operating the machine, be careful to prevent any oil leaking, which could contaminate the environment.

7.8 Maintenance activities

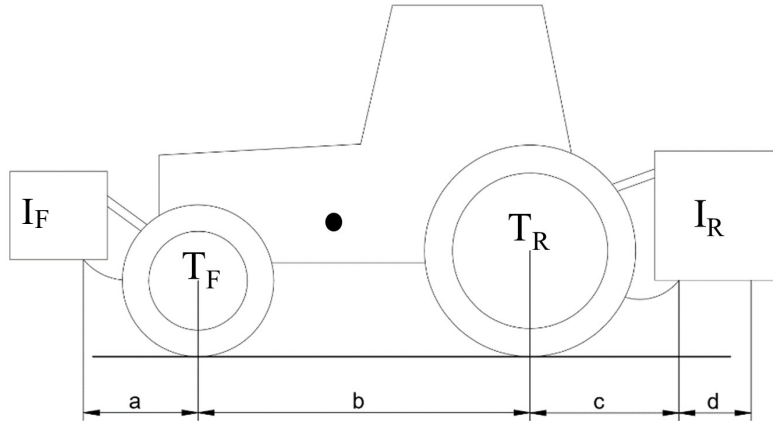
Perform:

- every 100 operating hours, inspection and lubrication of moving connections,
- Every 100 working hours, inspection of all clearances and detachable connections,
- every 500 man-hours, inspection of the machine for cracks, inspection of welds, inspection of non-separable connections,
- every 1,000 man-hours, inspection of rubbing of working element connections,
- hydraulic hoses - replace with new ones after 3 years.

7.9 Stability of tractor-machine unit suspended

To verify the overall stability, the following equation can be used to calculate the minimum front load $I_{F,min}$, expressed in kg, to achieve a front axle load equal to 20% of the tractor's empty weight..

$$I_{F,min} = \frac{[I_R \times (c+d)] - (T_F \times b) + (0,2 \times T_E \times b)}{a+b}$$



Explanation:

T_E -tractor empty mass [kg]

T_F - Front axle load of an unloaded tractor [kg]

T_R - Rear axle load of an unloaded tractor [kg]

I_F - weight of the front mounted machine/front weights [kg]

I_R - weight of the rear mounted machine/rear weights [kg]

a- The distance between the center of gravity of the front-mounted machine/front weights and the center of the front axle [m]

b- tractor wheelbase [m]

c- The distance from the center of the rear axle to the center of the rear suspension ball joints[m]

d- The distance between the center of the rear suspension ball joints and the center of gravity of the rear-mounted machine / rear weights [m]

8. Spare parts catalogue

ORDERING SPARE PARTS

When ordering parts, always provide the following:

- Customer address,
- Delivery address (place where machine is kept or method of receiving goods),
- Payment terms,
- machine serial number and production date (according to namplate),
- Spare part index,
- Quantity



The spare parts should be ordered from the machines retailers or the manufacturer. Only the use of the original manufacturer's parts guarantees the safe and reliable operation of the machine. Using generic parts or repairing the damaged parts will result losing the warranty rights.

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

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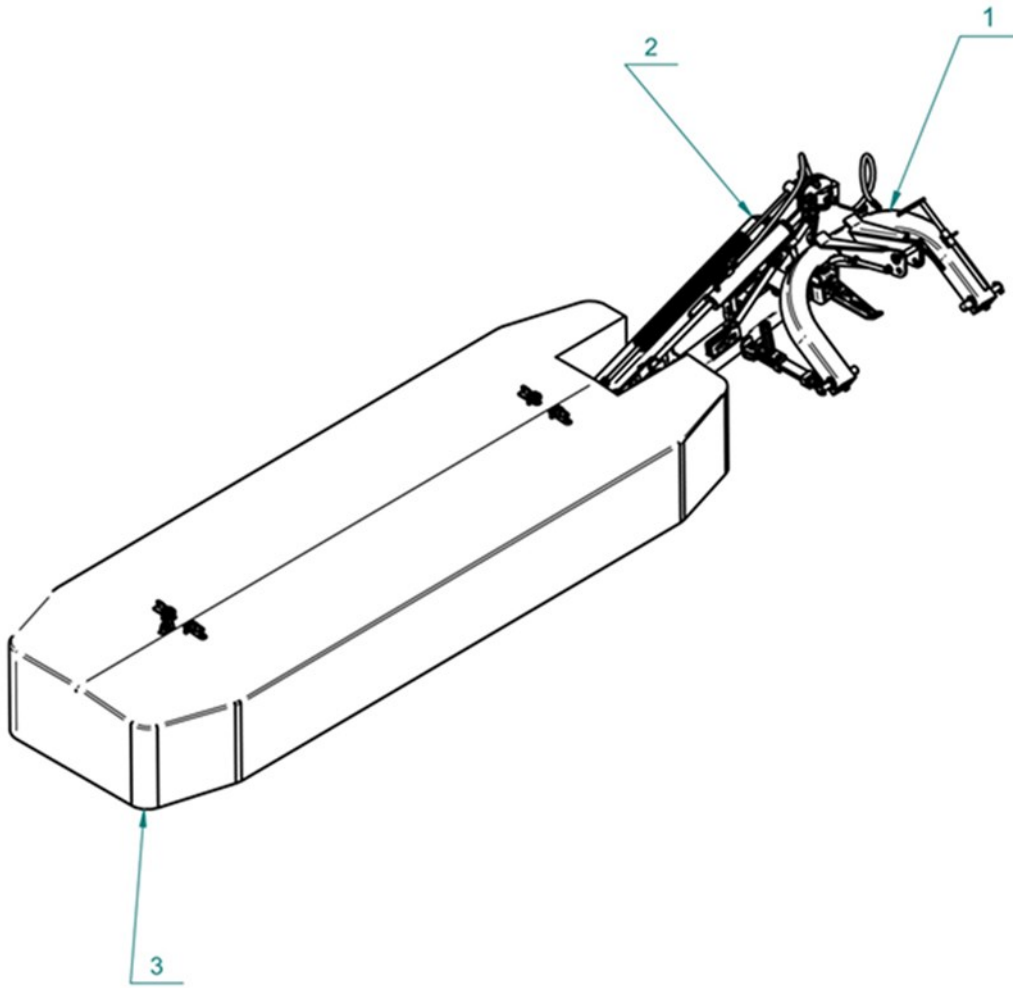
Rear Disc Mower

DCM2083, DCM-2098, DCM-2110



Parts Manual

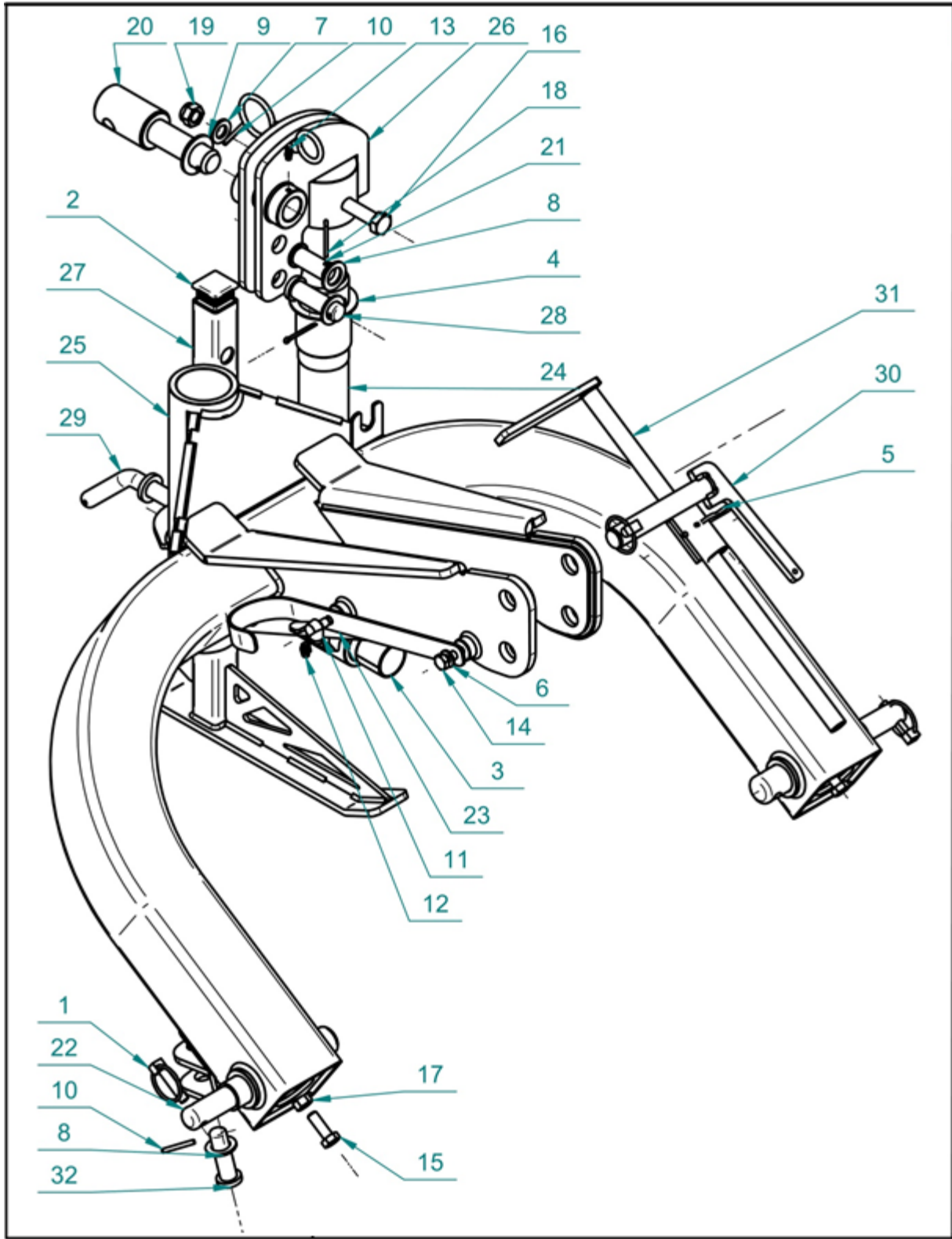
8.1 General Build



8.1 General Build

GENERAL BUILD			
Pos.	Description	Index	Quantity
1.	Headstock	Chapt. 8.2	1
2.	Suspension system	Chapt. 8.3	1
3.	Main fame	Chapt. 8.6	1

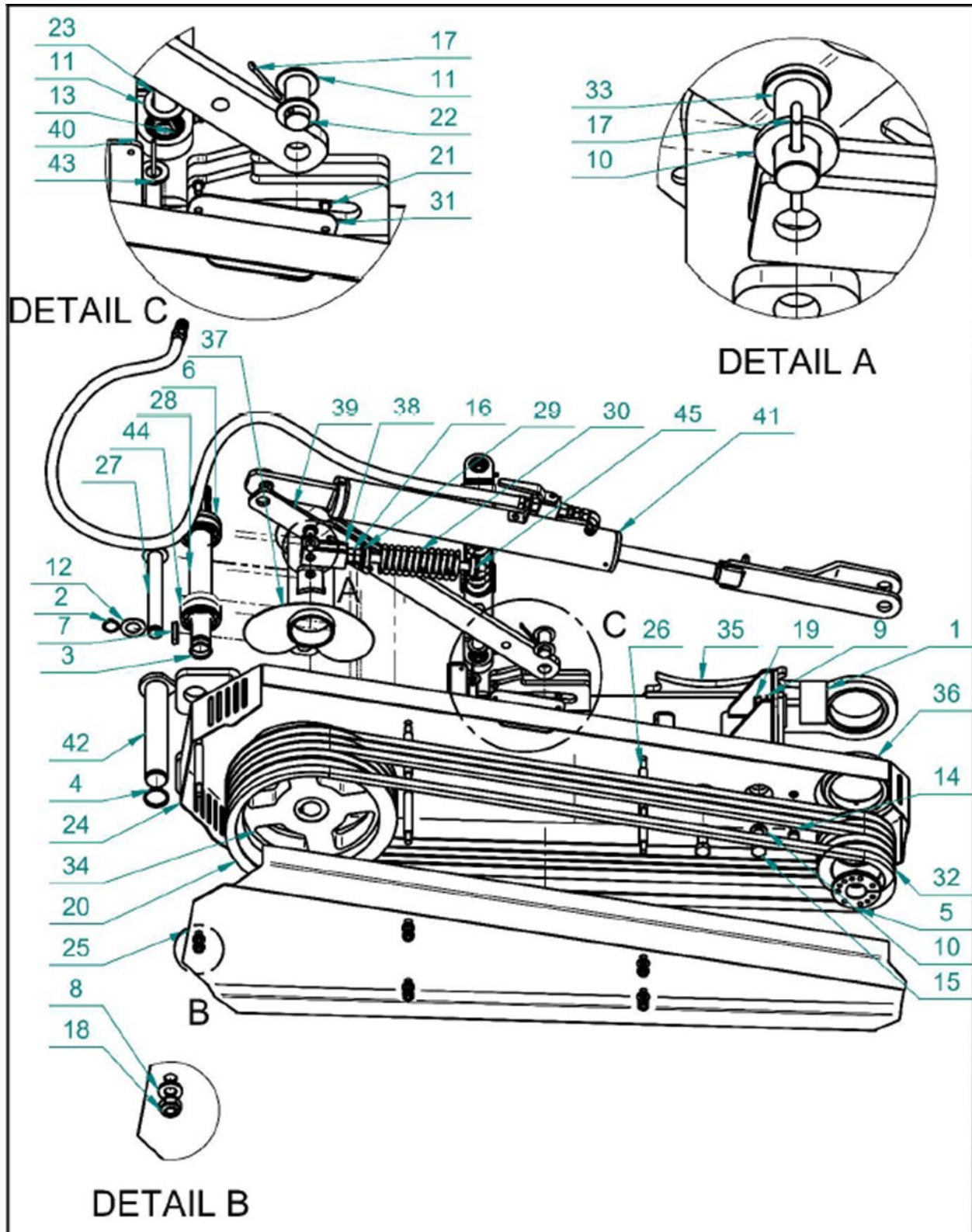
8.2 Headstock



8.2 Headstock

Item	Belco Part Number	Description	Qty.
1	LYNPN10	Cotter pin	4
2	DM10011	Plastic cover 40x40x1.0-3.0	1
3	DCM000860	Slide bearing 404440	2
4	DCM000216	Slide bearing 606580_62	2
5	DM30105	Cotter pin diameter 4	1
6	FW10	Washer M10 Galv.	1
7	FW16	Washer M 16 Galv.	1
8	FW22	Washer M22 Galv.	3
9	TW18196	Washer M30 Galv.	1
10	DCM000080	Spring pin 5x40	2
11	DCM000817	Wing screw M10*16	1
12	TW18197	Greasing nipple M10*1	1
13	TW18256	Greasing nipple M6x1	2
14	TW18257	Hex bolt M10*30 class 8.8 galv.	1
15	TW18204	Hex bolt M12*35 class 8.8 galv.	2
16	BM1620100	Hex bolt M16*100 class 8.8 galv.	1
17	NM12175	Hexagon nut M12 galv.	2
18	CP5X40	Cotter pin 5*40	2
19	LNM1620	Hexagon self-locking nut M16 galv.	1
20	DCM013074	Tensioner pin	1
21	SPN22X55	King pin S22	1
22	DM30107	Lower suspension pin	2
23	DCM013087	PTO hook	1
24	DCM013003	Welded hinge	1
25	DCM013010	Coupling frame	1
26	DCM013033	Hydraulic ram mounting	1
27	DCM013045	Support	1
28	DCM013057	Top link Pin	1
29	DCM013050	Support pin	1
30	DCM013063	Upper suspension pin	1
31	DM30104	Quick Change wrench	1
32	DCM013144	Breakaway bar pin	1

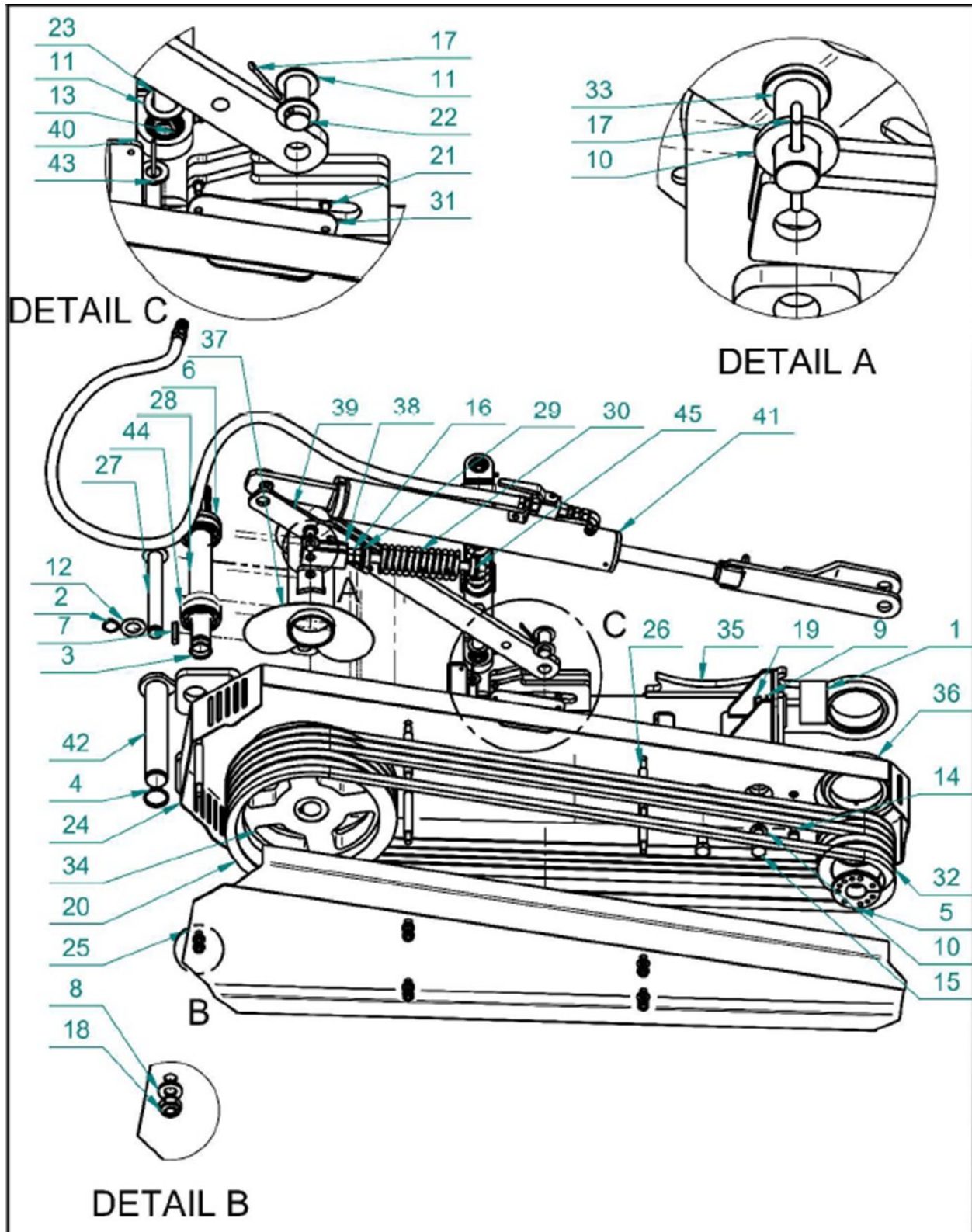
8.3 Suspension System



8.3 Suspension System

Item	Belco Part Number	Description	Qty.
1	TW18227	Bushing	1
2	TW18228	Circlip 25Z	2
3	SRE-35	Circlip 35Z	1
4	SRE-40	Circlip 40Z	1
5	DCM000678	Clampex clutch D35/80	1
6	OS357210	Sealant 72x35x10	1
7	KM100850	Prismatic inlet 10x8x50	1
8	FW10	Washer M10 Galv.	10
9	FW12	Washer M12 Galv.	1
10	FW16	Washer M16 Galv.	3
11	FW22	Washer M22 Galv.	3
12	FW25	Washer M25 Galv.	2
13	DCM000080	Spring pin 5x40	1
14	TW18257	Hexagon bolt M10*30 class 8.8 galv.	1
15	BM162040	Hexagon bolt M16*40 class 8.8 galv.	2
16	DNM1620	Hexagon nut M16 galv.	2
17	CP5X40	Cotter pin 5*40	2
18	LNM1015	Hexagon selflocking nut M10 galv.	10
19	LNM12175	Hexagon selflocking nut M12 galv.	1
20	DCM000386	V-belt HB2650	4
21	TW18186	Round head bolt M6*10 class 8.8 galv.	2
22	DM150074	King pin S22	1
23	DCM013144	Breakaway bar pin	1
24	DCM013228	Internal V-belt cover	1
25	DCM013186	External V-belt cover	1
26	DM30206	Spacer bolt	5
27	DCM013254	Head pin	1
28	DCM000912	Drive shaft	1
29	DM30221	Spring mounting	2
30	DM20241	Tensioner spring	1
31	DCM000955	Cover	1
32	DCM000096	Small pulley	1
33	DM83002	King pin S16	1
34	DM30208	Big pulley	1
35	DCM013100	Suspension beam	1
36	DCM013197	Yoke	1
37	DCM013242	Driving head	1
38	DCM000957	V-belt tensioner	1
39	DCM013150	Push rod	1

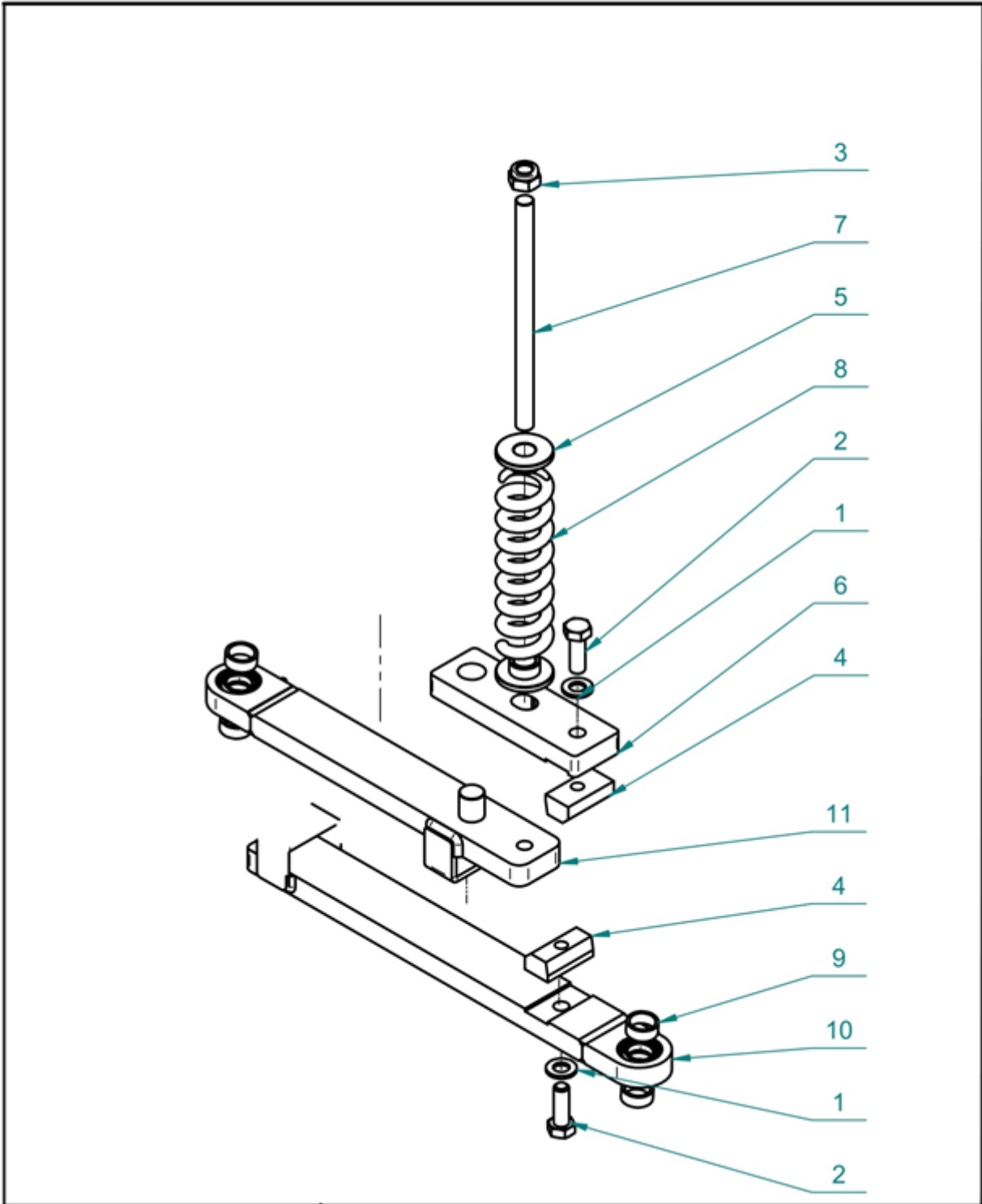
8.3 Suspension System



8.3 Suspension System

Item	Belco Part Number	Description	Qty.
40	DCM013124	Breakaway bar	1
41	DCM001293	Complete cylinder - DCM-2098	1
	DCM001292	Complete cylinder DCM-2110	1
42	DCM013092	Rotation pin	1
43	DCM013180	Transport pin	1
44	B62072RS	Bearing 6207 2RS	3
45	DCM013337	Spring mounting II	1

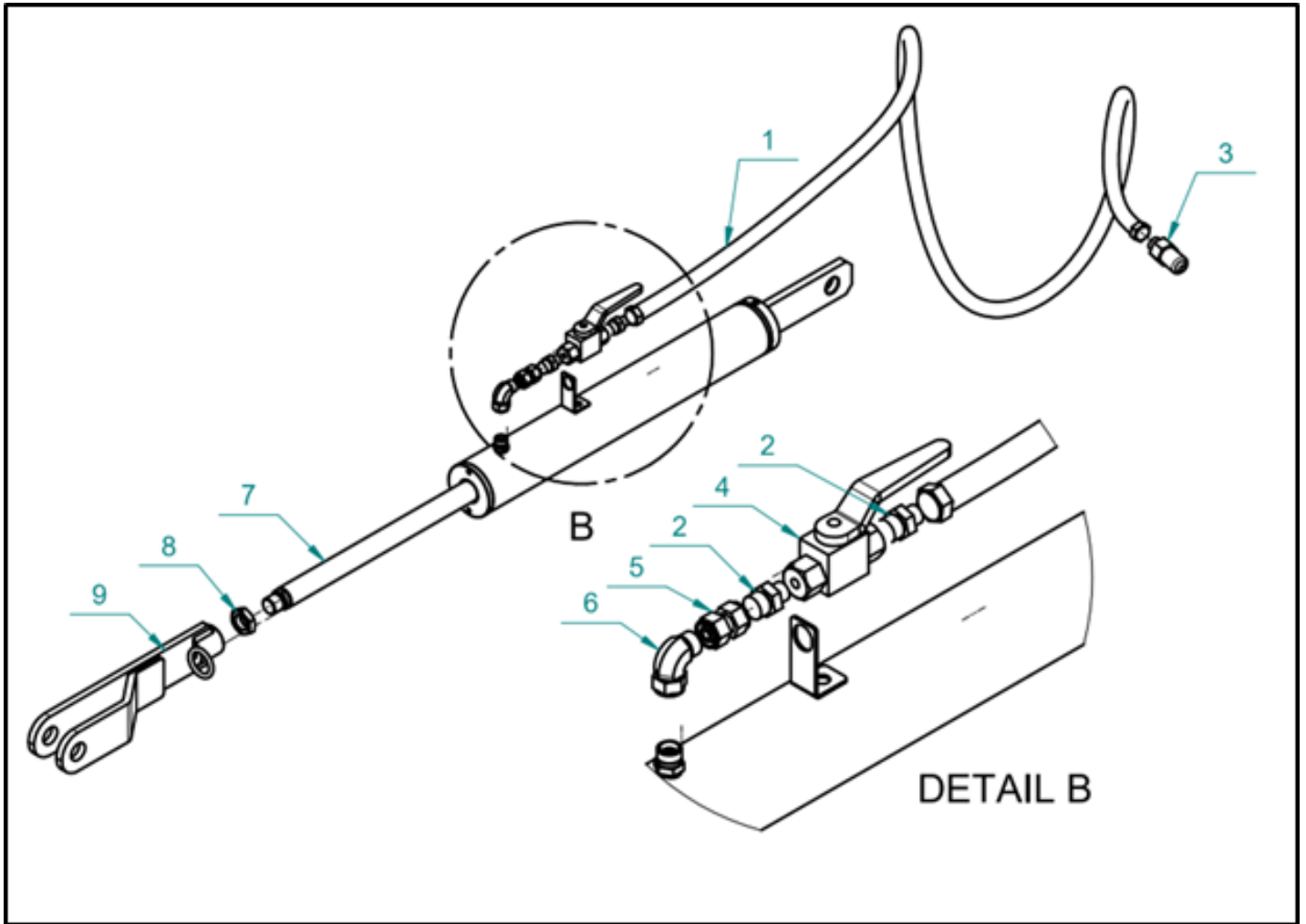
Breakaway



Breakaway

Item	Belco Part Number	Description	Qty.
1	FW12	Washer M12 Galv.	2
2	TW18204	Hex bolt M12*35 class 8.8 galv.	2
3	LNM142	Hex self-lock nut M14 galv.	1
4	DM30305	Brakeaway bar cube	2
5	DM30309	Breakaway bar block	2
6	DCM013134	Middle bar	1
7	DM30308	Breakaway bar rod	1
8	DM20348	Spring	1
9	DCM000854	Spacer sleeve	4
10	DCM013125	Outer bar part	1
11	DCM013129	Inner bar part	1

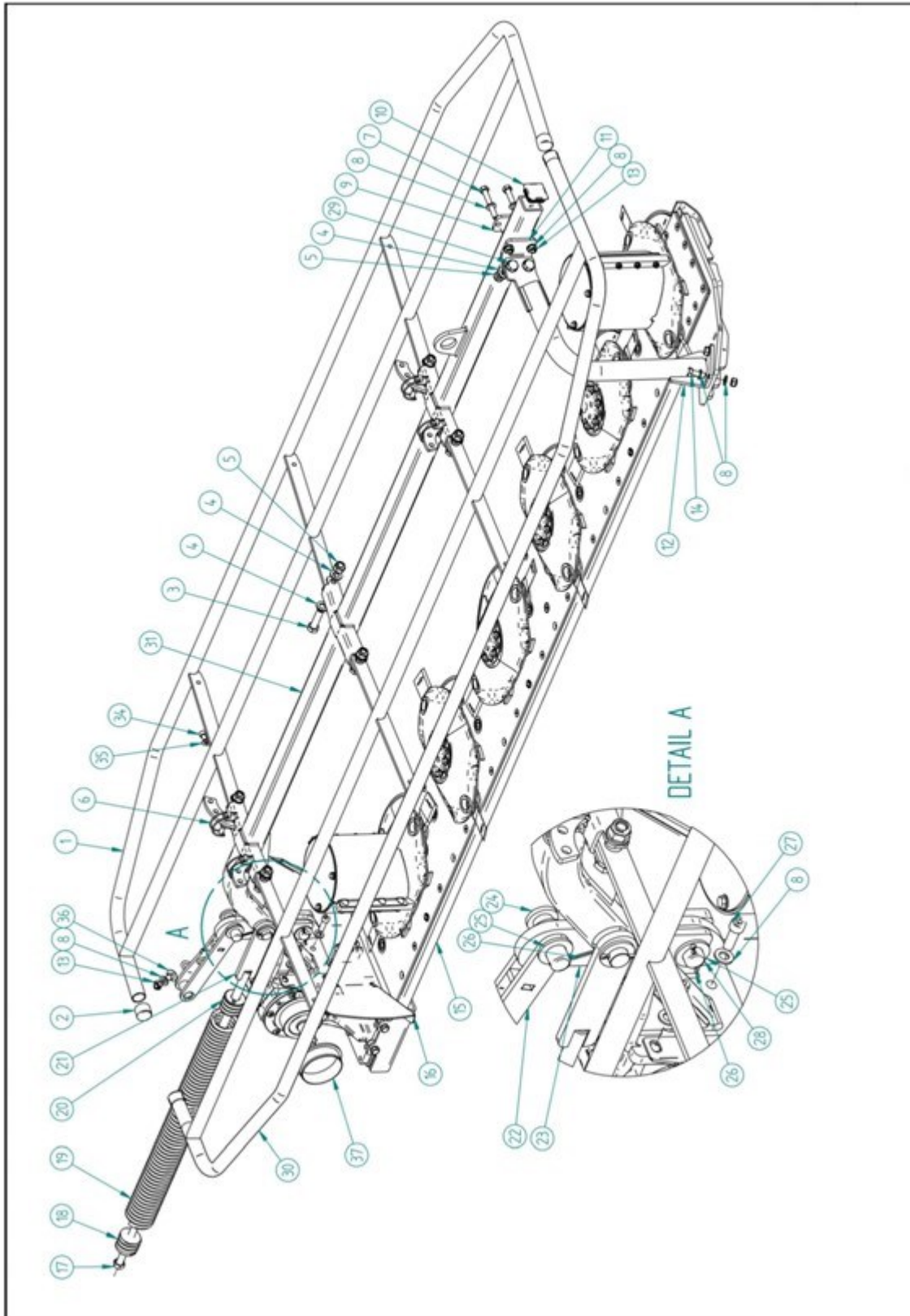
8.5 Hydraulic Cylinder



8.5 Hydraulic Cylinder

Item	Belco Part Number	Description	Qty.
1	DCM000522	Hydraulic Hose	1
2	DCM000583	Fitting A G1/4-M16*1,5 10L	2
3	DCM000995	Euro type fitting	1
4	DCM000996	Ball valve 3/2-1/4	1
5	DCM001025	Fitting AA M16*1,5	1
6	DCM001026	Fitting AB M16x1,5/M16x1,5 10L/10L	1
7	DCM013338	Complete cylinder	1
8	DCM000276	M22 x 1.5 low nut	1
9	DCM013339	Cylinder hitch	1

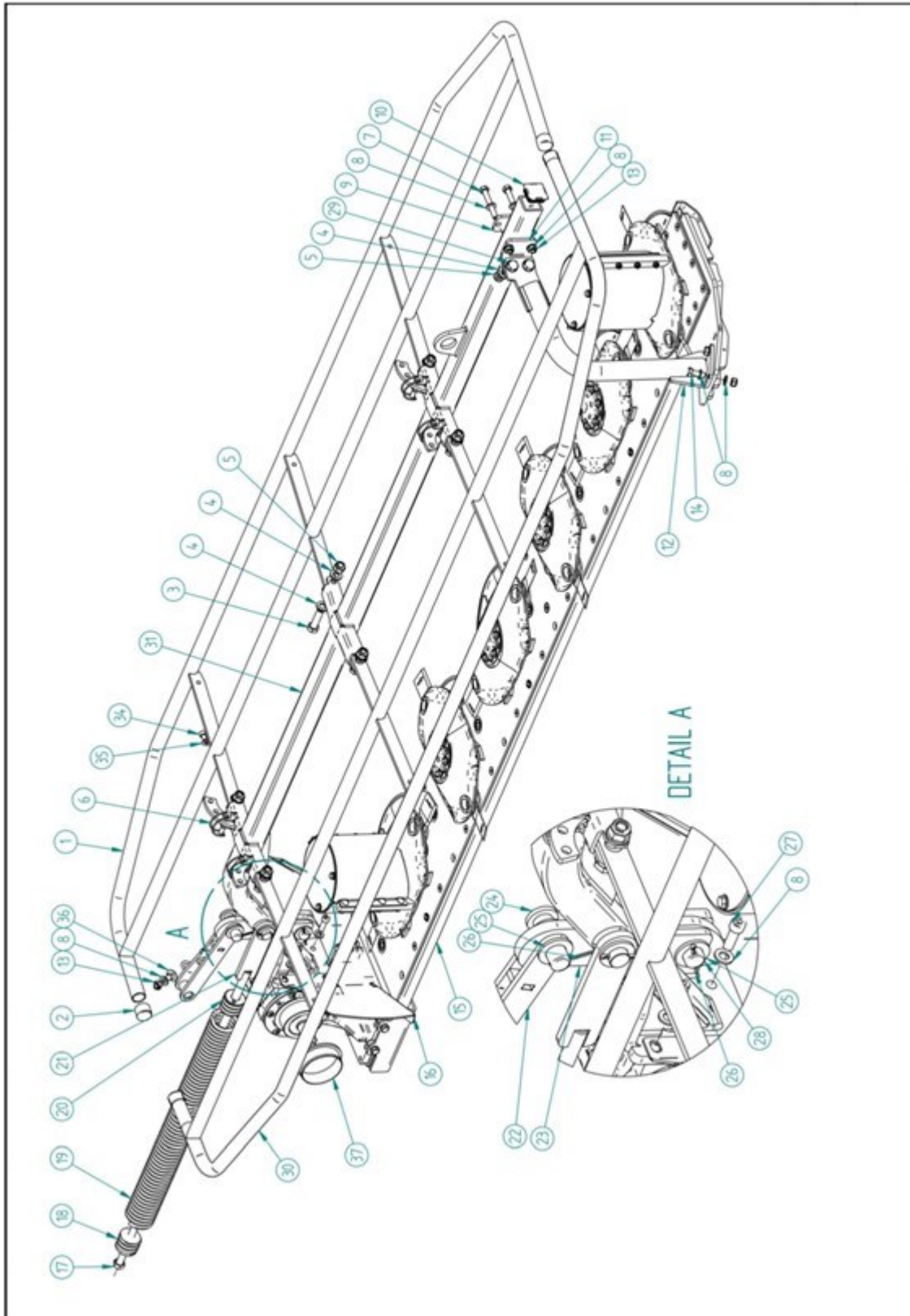
8.6 Main Frame



8.6 Main Frame

Item	Belco Part Number	Description	Qty.
1	DCM013340	Barrier L-300 right	1
	DCM013341	Barrier L-260 right	1
	DCM013342	Barrier L-220 right	1
2	PR-T309	Pipe plug 1inch	4
3	BM162060	Bolt M16x60 galv. 8.8	6
4	LNM1620	Flat washer M16 galv.	16
5	PR-T428	Self-locking nut M16	8
6	DCM000980	Tubular plug	4
7	BM1217590	Bolt M12x90 GALV. 8.8 np.gw	2
8	PR-T432	Flat washer M12 galv.	13
9	DCM013314	Support mount II	1
10	DCM000966	50x50x5 plug	1
11	DCM013313	Support mount I	1
12	DCM013343	Disc support bar	1
13	LNM12175	Self-lock nut M12 galv.	5
14	BM1217540	Bolt M12x40 GALV. 8.8 DIN 933	2
15	DCM013344	Cutter bar 300	1
	DCM013345	Cutter bar 260	1
	DCM013346	Cutter bar 220	1
16	DCM013347	Gearbox cover	1
17	DCM013171	Tensioner bar set	1
18	DCM013174	Spring joint Ø12/M16	1
	DCM000644	Spring joint Ø10/M16	1
19	DCM000656	Spring fi 12	1
	DCM000654	Spring fi 10	1
20	DCM013175	Spring joint II Ø12/Ø20,5	1
	DCM000645	Spring joint II Ø10/Ø20,5	1
21	DCM013168	Spring hitch	1
22	DCM013348	Blockage	1
23	DCM013349	Cylinder hinge	1
24	DCM013303	Upper pivot	1
25	TFW25	Thin flat washer M25 galv.	3
26	CP5X40	Cotter pin 5x40 GALV.	3
27	DCM000730	Allen bolt with cylinder head M12x35 OC 8.8 p.gw.	4
28	DCM013290	Lower pivot	1
29	BM162040	Bolt M16x40 8,8 galv.	2

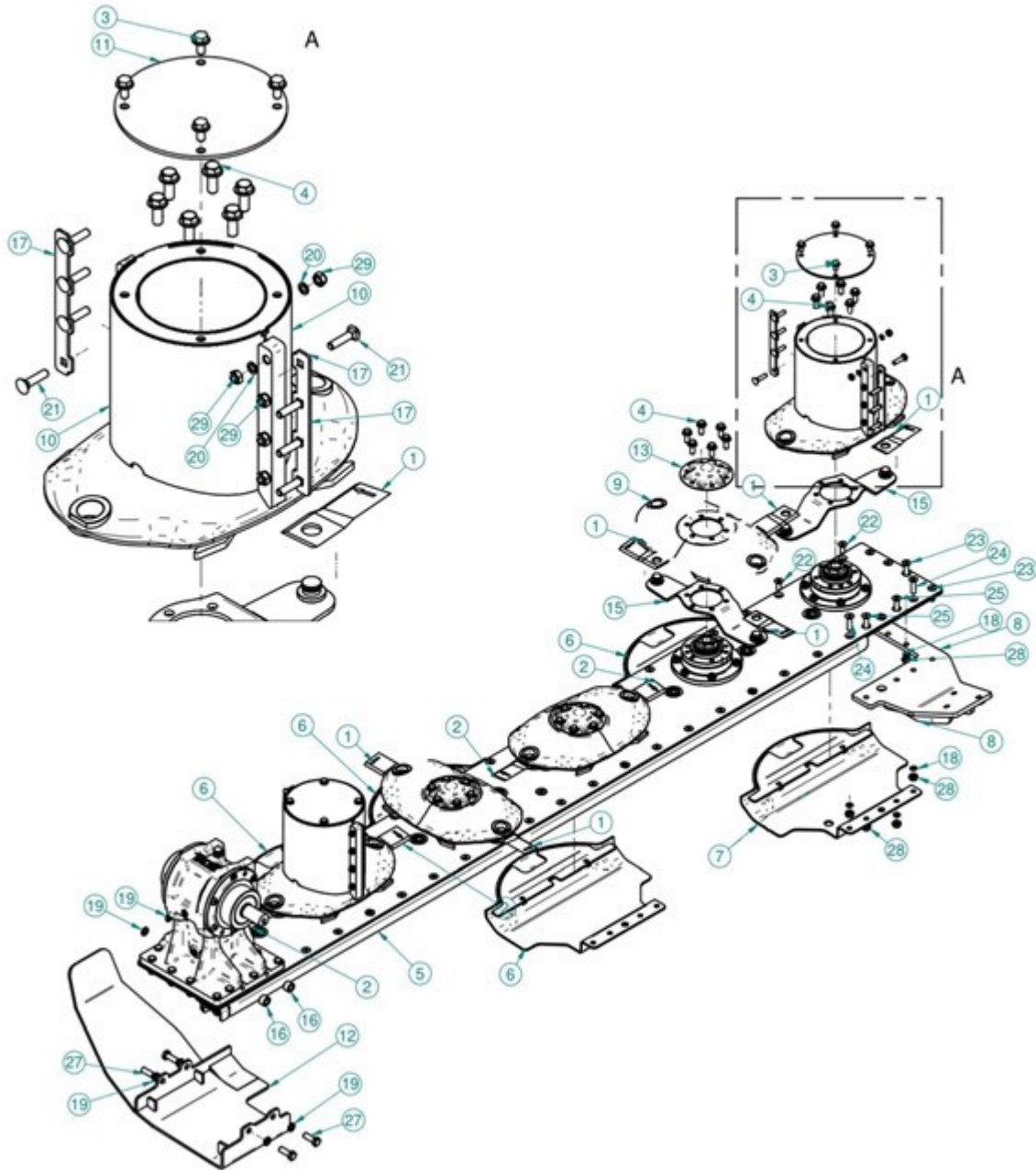
8.6 Main Frame



8.6 Main Frame

Item	Belco Part Number	Description	Qty.
30	DCM013350	Barrier L-300 left	1
	DCM013351	Barrier L-260 left	1
	DCM013352	Barrier L-220 left	1
31	DCM013353	Frame 300	1
	DCM013354	Frame 260	1
	DCM013355	Frame 220	1
32	DCM013356	Disc mower cover 300	1
	DCM013357	Disc mower cover 260	1
	DCM013358	Disc mower cover 220	1
34	DCM000735	Allen bolt with cylinder head M10x16 OC 8.8 p.gw.	1
35	FW10	Flat washer M10 galv.	1
36	CBM1217525	Bolt M12x25 galv. 10.9 low seat	1
37	DCM013359	Sleeve	2

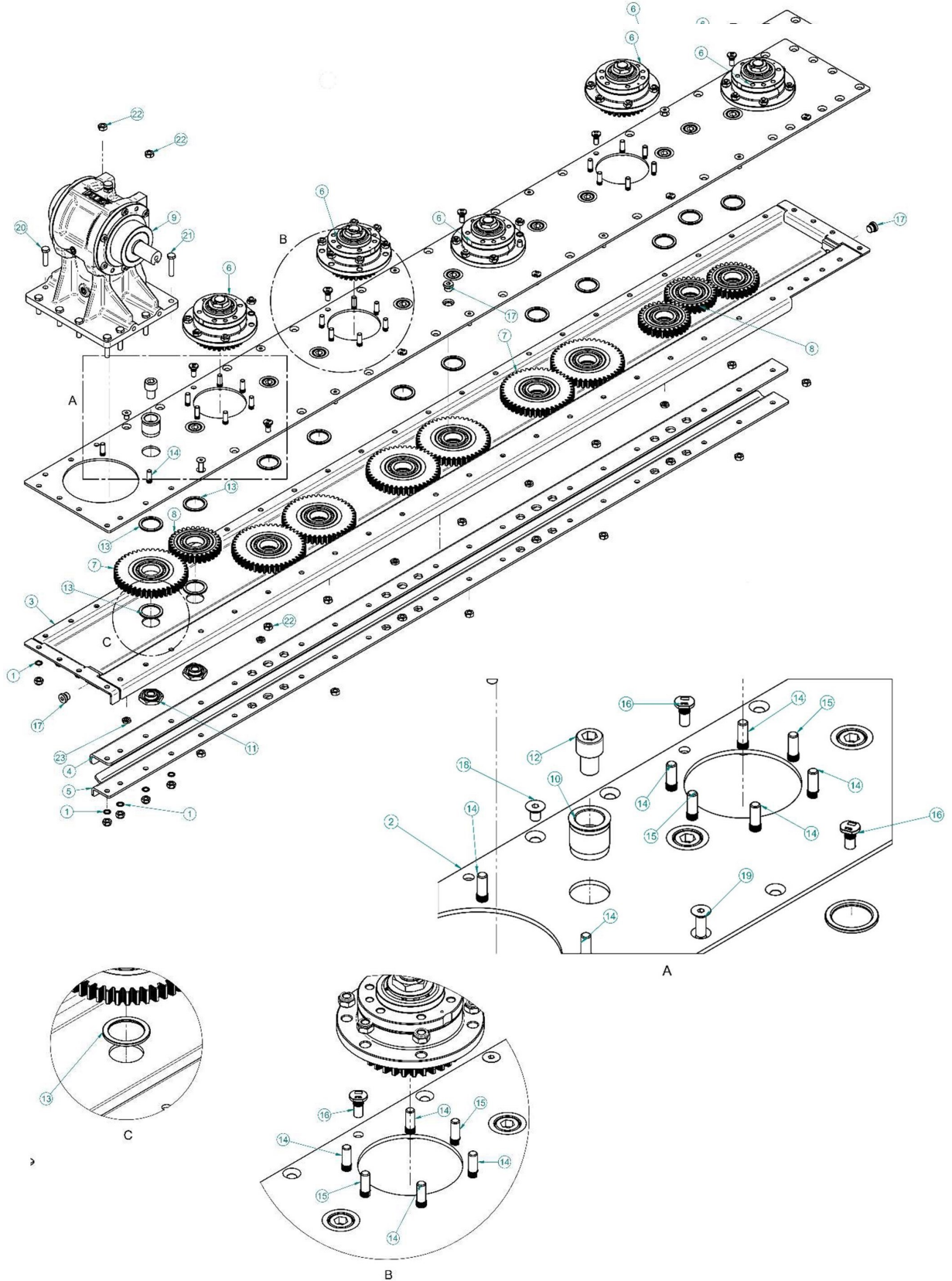
8.7 Cutter Bed



8.7 Cutter Bed

Item	Belco Part Number	Description	Qty.
1	DCM013360	Left knife 120x49x4	6/6/8
2	DCM013361	Right knife 120x49x4	4/6/6
3/4	DCM000814	Screw M10x25 DIN 6921 kl.10.9	38/44/50
5	DCM013362	Cutter bed 220 LTT	1
	DCM013363	Cutter bed 260 LTT	1
	DCM013364	Cutter bed 300 LLT	1
6	DCM013365	Skid LTT	4
7	DCM013366	Left skid LTT	1/2/3
8	DCM013367	Right foot LTT	1
9	DCM013368	Lower disc LTT	3/4/5
10	DCM013369	Higher disc LTT	2
11	DCM013370	Higher disc cover LTT	2
12	DCM013371	Gearbox skid LTT	1
13	DCM013372	Lower disc skid LTT	3/4/5
15	DCM013373	Knife holder LTT	5/6/7
16	DCM013374	Spacer bushing LTT	2
17	DCM013375	Replaceable ejector LTT	4
18	DCM013376	Securing washer M10 ST SCHNORR-S	67/78/89
19	DCM013377	Washer M12 OC DIN 125	5
20	DCM013378	Spring washer M8 OC DIN 7980	12
21	DCM013379	Locking bolt M8x30 OC 8.8 p.gw DIN 603	12
22	DCM013380	Bolt M10x25 OC 10.9 DIN 7991	10/12/14
23	DCM013381	Bolt M10x35 OC 10.9 DIN 7991	4
24	DCM013382	Bolt M10x40 OC 10.9 DIN 7991	10/12/14
25	DCM013383	Bolt M10x45 OC 10.9 DIN 7991	2
27	DCM013384	Screw M12x35 OC 8.8 DIN 933	4
28	DCM013385	Self-locking nut M10 OC DIN 982 kl 10	26/30/34
29	DCM013386	Self-locking nut M8 OC DIN 985	16

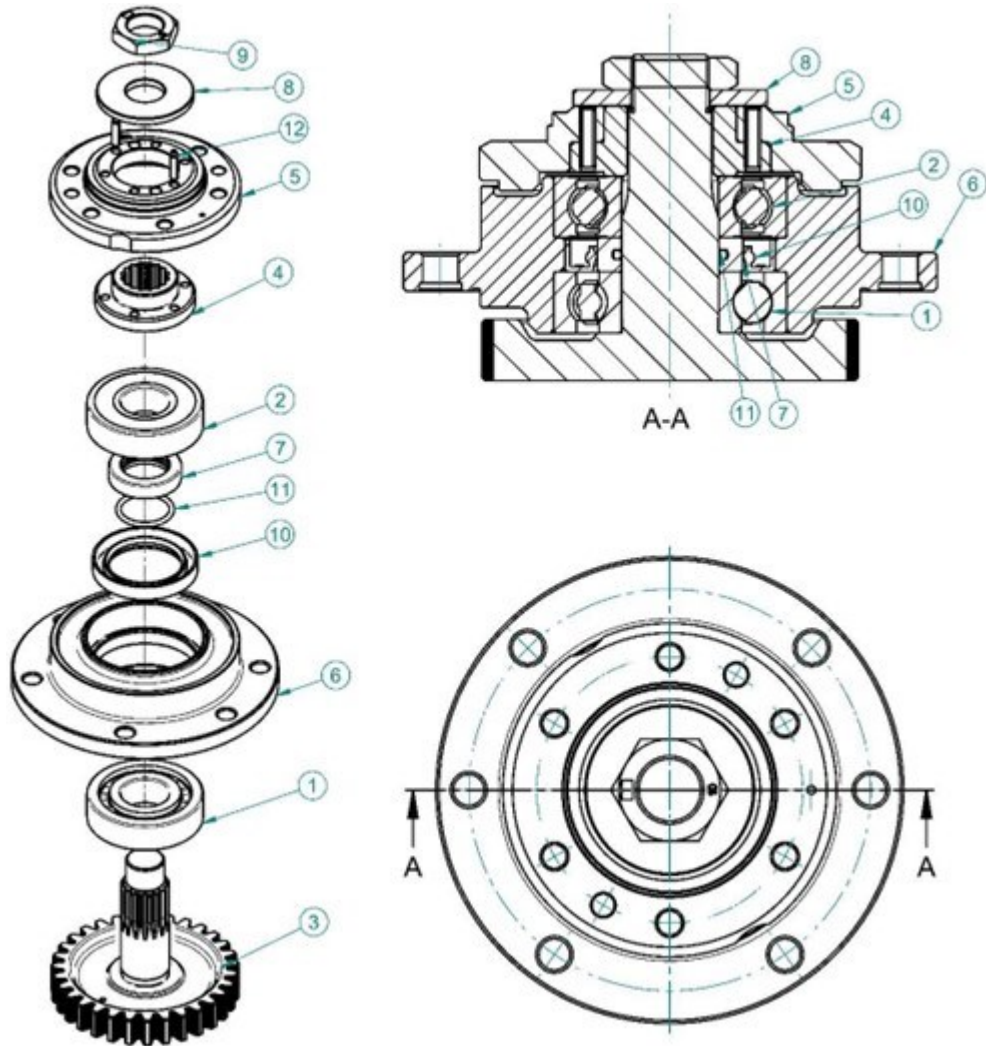
8.7 Cutter Bed



8.7 Cutter Bed

Item	Belco Part Number	Description	Qty.
1	DCM013376	Securing washer M10 ST SCHNORR-S	21/24/27
2	DCM013387	Top cover LTT 300	1
	DCM013388	Top cover LTT 260	1
	DCM013389	Top cover LTT 220	1
3	DCM013390	Bed LTT 300	1
	DCM013391	Bed LTT 260	1
	DCM013392	Bed LTT 220	1
4	DCM013393	Bar L 300 LTT	1
	DCM013394	Bar L 260 LTT	1
	DCM013395	Bar L 220 LTT	1
5	DCM013396	Bar Z 300 LTT	1
	DCM013397	Bar Z 260 LTT	1
	DCM013398	Bar Z 220 LTT	1
6	DCM013417	Bearing assembly	5/6/7
7	DCM013399	Intermediate wheel z45-m3,5 set	7
8	DCM013400	Intermediate wheel z31-m3,5 set	4/7/10
9	DCM013401	Gearbox LTT	1
10	DCM013402	Locating pin	11/14/17
11	DCM013403	Fixturing nut M18	11/14/17
12	DCM013404	Special screw M18X25 kl 12,9 OC	11/14/17
13	DCM013405	Distance ring	22/28/34
14	DCM013406	Special screw I M10	22/26/30
15	DCM013407	Special screw II M10	10/12/14
16	DCM013408	Special screw III M10	10/12/14
17	DCM013409	Stud with gasket 3/8" BSP	3
18	DCM013410	Bolt M10x16 OC 10.9 DIN 7991	5/6/7
19	DCM013411	Bolt M10x30 OC 10.9 DIN 7991	5/6/7
20	DCM013412	Screw M10x40 OC 10,9 OC DIN 931	6
21	DCM013413	Screw M10x50 OC 10,9 OC DIN 931	4
22	DCM013385	Self-locking nut M10 OC DIN 982 kl 10	58/66/75
23	DCM013415	Nut M10 (low) OC 8 DIN 439	5/6/7

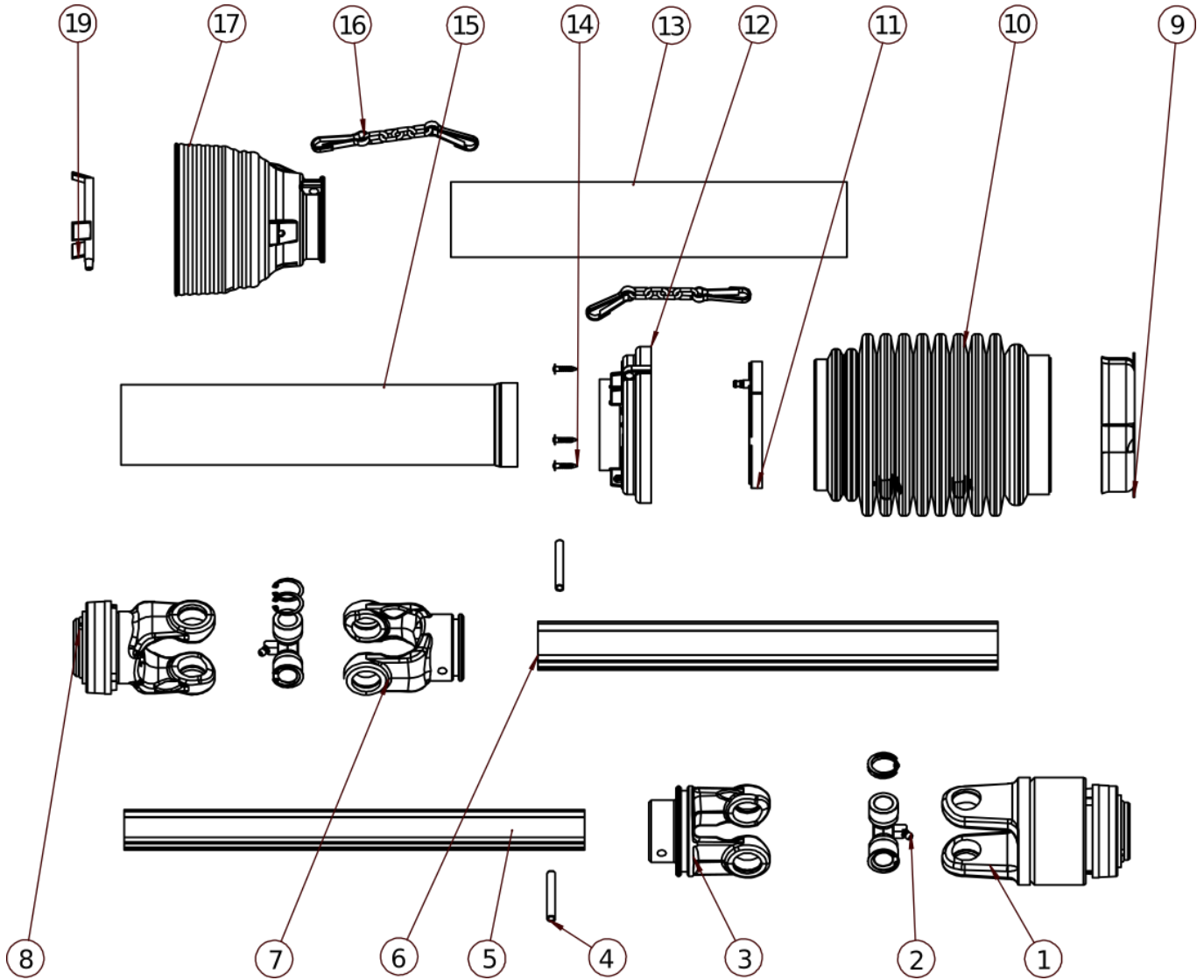
8.8 Bearing Assembly



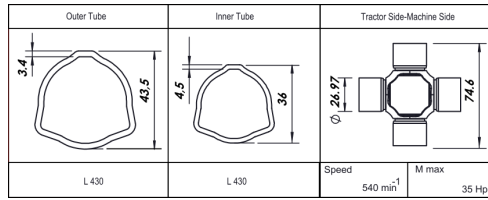
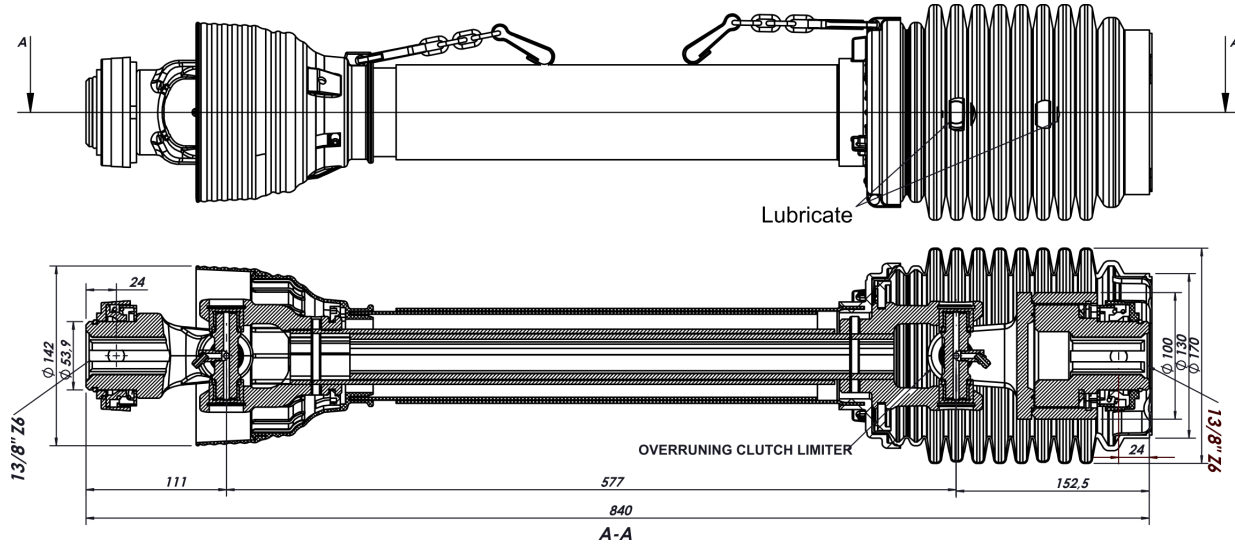
8.8 Bearing Assembly

Item	Belco Part Number	Description	Qty.
1	B6306	Bearing 6306 C3	1
2	B6306 2RS	Bearing 6306 2RS C3	1
3	DCM013418	Disc wheel z31-m3,5	1
4	DCM013419	Upper hub-A	1
5	DCM013420	Upper hub-B	1
6	DCM013421	Lower hub	1
7	DCM013422	Bearing thrust ring	1
8	DCM013423	Securing washer	1
9	DCM013424	Hub nut M24 X1,5 -KL 10 OC	1
10	DCM013425	Sealant 45X65X10 RST NBR	1
11	DCM013426	O-ring 30X3 70FKM Black	1
12	DCM013427	Spring pin FI 5 X18 DIN 1481 OC LTT	2

PTO Driveline



PTO Driveline



Item	Belco Part Number	Description	Qty.
1	DCM013429	Series 3 free turning safety clutch 1 3/8" Z6 short right	1
2	DCM013430	Ø26.97x74.6 cross kit	2
3	DCM013431	Series 3 inner yoke with triangular hole	1
4	DCM013432	DIN 931 bolt M10x60x1,5-8.8 U5738 Zn	2
5	DCM013433	36x4.5 triangular tube	1
6	DCM013434	43.5x3.4 triangular tube	1
7	DCM013435	Series 3 female pipe fork drive type/inner yoke	1
8	DCM013436	Series 3 ball yoke 1 3/8" z6- nodular cast iron	1
9	DCM013437	1.5 mm DKP cutlery	1
10	DCM013438	Shaft accordion half accordion	1
11	DCM013439	Plastic bellow bearing ring (118x75)/plastic circlip	1
12	DCM013440	Below housing	1
13	DCM013441	Plastic tube Ø69X2.2/plastic tube	1
14	DCM013442	DIN 968 4.2×19 RYSB black sheet metal screw	3
15	DCM013443	Ø75X2.2 - plastic tube	1
16	DCM013444	Chain	2
17	DCM013445	Plastic small head outside/plastic protection head	1
18	DCM013446	Ø12.70 ball	1
19	DCM013447	Plastic ring small (73-53)	1
-	DCM013428	PTO driveline complete - DCM	1

Warranty

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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401 Jeffreys Road
Rocky Mount, NC 27804
www.tarrivermfg.com

Tel: 252-822-7140
Fax: 252-787-5855
Sales@tarrivermfg.com