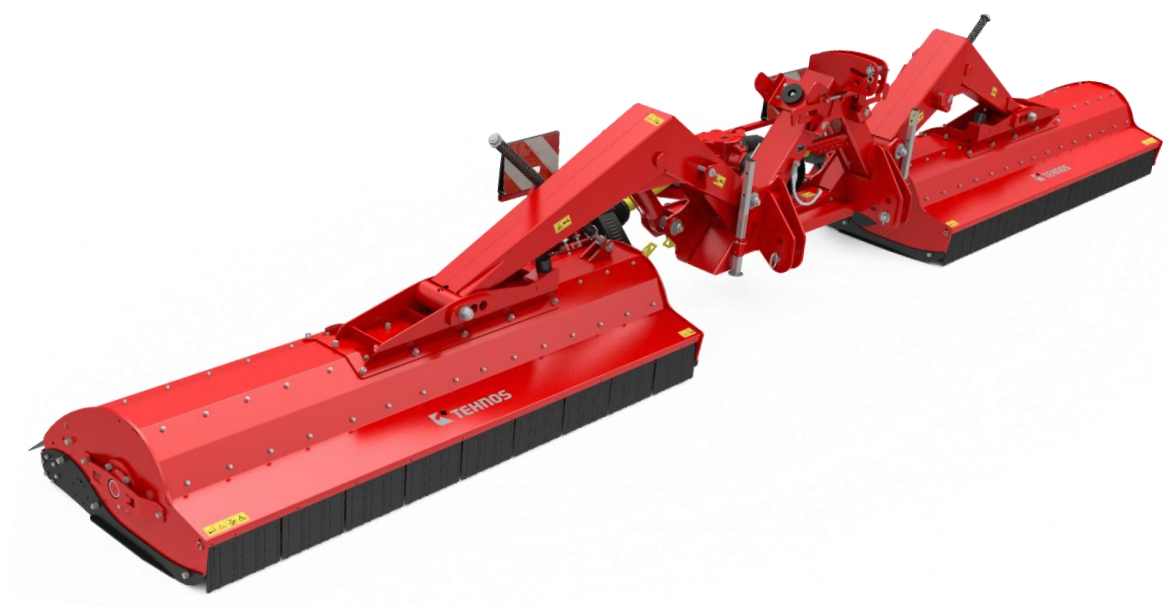


UNIVERSAL FOLDING FLAIL MOWER

MU2Z profi - LW

840R, 900R

User and maintenance manual



TEHNOS-Proizvodnja strojev in orodij
Cesta ob železnici 1, SI-3310 Žalec Slovenija
T: +386 (0)3 713 30 50
F: +386 (0)3 713 30 60
E: info@tehnos.si
I: www.tehnos.si

Warranty statement

The warranty is valid 12 months from date of purchase. In the event of a machine malfunction due to a poor construction quality or a manufacturing defect during its warranty period, the manufacturer TEHNOS d.o.o. or its authorized representative undertakes to eliminate the malfunction in a professional manner, using genuine replacement parts and within the prescribed time.

EXAMPLES OF UNJUSTIFIED WARRANTY CLAIMS:

- Mechanical damage to the machines or errors made by the user.
- Damage arising from machine overload or unintended use of the machine.
- Improper use of the machine for failure to comply with the instructions for use.
- Failure to comply with the basic safety instructions for operating the machine.
- Any structural changes or modifications, which were not approved by the manufacturer.
- Installation of elements or spare parts, which are not genuine or have been modified in any way.
- Poor or irregular maintenance of the machine and inadequate inspection of essential components.
- If the machine is used by an unqualified person with impaired physical or mental fitness.

WARRANTY CERTIFICATE

WARRANTY PERIOD: 12 months

The warranty provider guarantees flawless operation of the machine during the warranty period starting from the date of delivery of the machine. The warranty is demonstrated by a timely registration to Tehnos PARTNER and with a confirmed warranty certificate and payment receipt. The warranty is valid on the territory where the machine was purchased. Maintenance and spare parts are provided for a minimum of 8 years after the expiration of the warranty period.

Manufacturer's headquarters and service centre:

TEHNOS, d.o.o., Cesta ob železnici 1, SI-3310 Žalec

Tel.: +386 (0)3 713 30 50, Fax: +386 (0)3 713 30 60, E-mail: info@tehnos.si, [http:// www.tehnos.si](http://www.tehnos.si)

MACHINE: _____

Model/Type: _____

Construction no.: _____ Year of manufacture: _____

Dealer: _____

Dealer's stamp: _____ Signature: _____ Date of purchase: _____

After the machine is purchased and the warranty is confirmed, the latter must be registered by the dealer in the online application

Tehnos PARTNER (**b2b.tehnos.si**).

THE WARRANTY CLAIM CANNOT BE ACCEPTED WITHOUT REGISTRATION.

As soon as the machine is purchased, enter the data from the identification plate. These data are required when ordering spare parts and must be specified in the event of making a warranty claim!

		SLOVENIA SI - 3310 Žalec t.: + 386 3 713 30 50 www.tehnos.si			
Model/Tip:		<input type="text"/>			
Ver.:		<input type="text"/>	<input type="text"/>	<input type="text"/>	kg
S/N:		<input type="text"/>			

- 1 Model
- 2 Version
- 3 Year of manufacture
- 4 Weight of the machine
- 5 Construction number

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1 Foreword

Dear buyer,

Thank you for showing your trust in our company by purchasing our machine.

Before using the machine for the first time, you need to learn about all its functions and safety warnings, as well as the suitable working area of machine. This Instruction manual will provide all the information required for its safe use, maintenance and optional equipment.



This mark in the Instruction manual warns you of dangers.

Before using the machine, carefully read and follow the Instruction Manual and all safety warnings to prevent accidents.

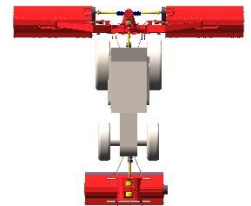
If the machine is sold to another user, it must be accompanied by the Instruction manual.

1.1 Designated use

The designated use of the machine means the compliance with operating instructions specified by the manufacturer.

The machine is designed for exclusive use in agriculture and communal activities. Its purpose is to mulch all types of plant remains and debris, such as: grass, straw, corn stalks, smaller branches, etc. Any other use, which is not specified above, is considered improper and the manufacturer is not liable for any damage resulting from improper use.

The machine is suitable for large surfaces in crop farming. It is designed to be attached to the rear linkage and used together with the MU machine, which is attached to the front linkage of the tractor. In addition to its universal use, it is distinguished by its robust design and floating adjustment of mulching units up to $\pm 7^\circ$.



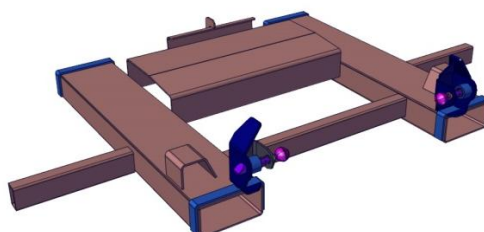
It is strictly forbidden to use the flail mower on stony and other unsuitable grounds. During operation, the machine must ALWAYS be in contact with the ground.

The machine can only be used, handled and repaired by persons qualified and authorized for this purpose, who are instructed about potential dangers. Always follow the relevant accident-safety regulations as well as generally used technical safety regulations, occupational health regulations and road traffic rules.

Any changes or modifications of the machine made by unauthorized persons exclude the manufacturer's liability for resulting damage.

Recommendation

To avoid damaging the rotor, use a dedicated pallet for transporting and storing the machine.

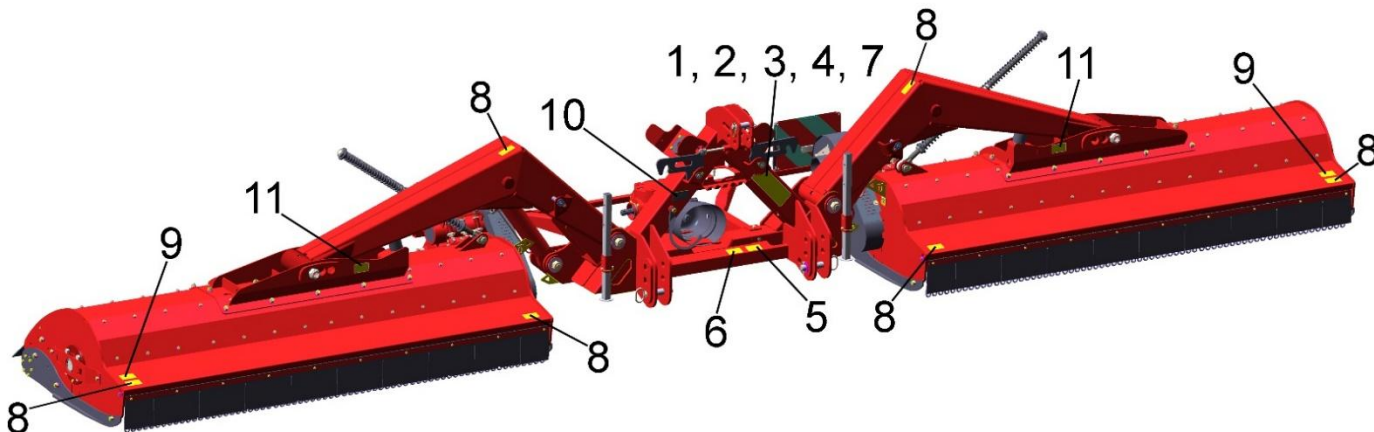


2 Safety warnings and labels

2.1 Meaning of safety labels



The CE mark proves that flail mower is made in accordance with all regulations and directives. The Declaration of Conformity is a document which proves that the machine fulfils general technical, safety and health regulations. TEHNOS machines are equipped with all the necessary safety equipment. To ensure various functions of the machine, some areas of the machine do not provide total safety. For this reason, the machine is equipped with safety labels that warn of residual dangers.



1.

Before beginning work, carefully read the **INSTRUCTION MANUAL**.



2.

Before beginning service and maintenance work, turn off the tractor's engine and remove the ignition key.



3.

When the machine is in operation, mulched material may be ejected. Keep the safety distance.



4.

Do not approach the machine until the rotor has stopped rotating completely. Always keep your hands or legs away from dangerous areas with rotating and moving machine components.



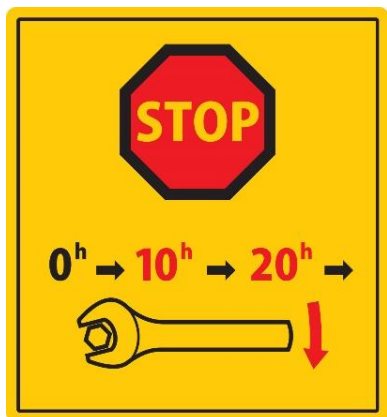
5.

While connecting or operating the machine, keep away from the area between the machine and tractor.



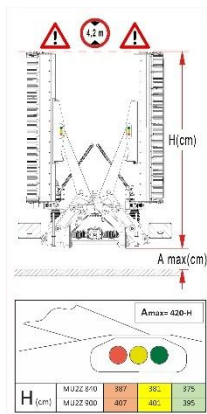
6.

Maximum rotation speed of the PTO shaft at the basic factory setting.



7.

Examine all screw joints every 10 working hours.



8.

Minimum working height between the roller bracket and the ground.



9.

Danger of sudden lowering of the machine and impacts. Keep away from the danger area.



10.

Identification plate



11.

Danger of impacts and contusions. Keep out of reach of moving parts of the machine.

2.2 Basic instructions for safe work

During work, pay attention to safety, prevent accidents and carefully read and follow the instructions below:

- In addition to operating instruction in this Manual, you must also observe all generally applicable safety and accident regulations!
- Warning and safety labels warn you about dangers. Follow them for your own safety!
- When using public roads, follow road traffic signs and rules!
- Before starting work, become familiar with all devices and controls as well as their functions!
- The noise level generated by the machine may exceed 85 dB (A). In this case, the use of hearing protection is obligatory.
- Wear tight-fitting clothes. Avoid loose clothes!

Recommended personal protective equipment at work



Protective gloves



Protective footwear



Work clothing



Protective mask



Ear-muffs

- Follow the instructions for the attachment of the machine!
- Pay extra attention during attaching and detaching the machine!
- Standing between the tractor and machine is forbidden if the tractor is not immobilized.
- Take into consideration the allowed axle load, total load and overall transport dimensions.
- Additional weights must be attached to the planned fixing points in accordance with the regulations!
- Only connect the machine to a tractor if all safety devices are installed and with the tractor in a secured position!
- Never operate the machine without the protective flaps. Replace any damaged protective flaps!
- Install the transport equipment (lights, warning signs, protection devices etc.)!
- Connect and disconnect the PTO drive shaft only with the tractor's engine turned off and the ignition key taken out!
- Before engaging the PTO drive shaft, make sure that the rpm and rotation direction of the machine comply with the specified number of rpm and rotation direction indicated on the machine label!
- There is a risk of injury, contusions and pinching when using external tractor hydraulic commands; keep away from the danger area!
- Before road transport, the must be prepared for transport and blocked according to instructions!
- Work at night is prohibited without the appropriate lighting.
- Pay maximum attention to safety when working close to roads, pathways or populated areas! Before operating the machine, clean all rocks and other debris from the working surfaces!
- When switching the machine from the transport to working position and vice versa, make sure that the tractor is parked on a flat and even surface.
- When switching the machine from the transport to working position and vice versa, make sure that there are no persons standing in the danger area.
- Ropes, chains, bars, valves, safety mechanisms and other control equipment must be attached so as to prevent the triggering of unplanned movements in any driving or working situation!
- Before moving off and operating the machine, pay attention to the surrounding area (children, other persons, and animals)! Ensure good visibility!
- The transport of persons on the machine attached to a tractor is forbidden!
- Never leave the driver's seat when driving!
- Mulching material may be ejected while operating the machine (stones, branches) – there is a risk of injuries. Keep away from the dangerous area within the range ejected materials.
- There is a risk of cuts and tears while operating the machine. Keep away from the dangerous during the operation of the machine.
- The driving speed must always be adjusted to conditions on the driving surface and surroundings. Avoid sudden turns when driving up, down or along a steep slope!
- Turning and braking capability is changed when transporting the machine and additional weights.

- When driving around bends pay attention to loads outside of the tractor's gravity centre, as well as the inertia weight the machine!
- When driving and turning keep away from the area with rotating parts and the manoeuvring area!
- Before leaving the tractor, the machine must be completely lowered to the ground! Stop the engine of the tractor and remove the ignition key!
- When the machine is detached from the tractor it must be placed on a pallet or on a solid and even surface!
- Never touch the machine until all the moving parts have stopped moving.
- Regularly check the screws of hammers for wear!
- When changing hammers, make sure that they are fixed correctly! You must also replace the dedicated screws and self-locking nuts!
- To avoid fire, always clean the machine after each use!

3 Machine overview

3.1 Description of the machine

The machine is attached to the tractor with a hitch. The drive is taken from the PTO drive shaft, gearbox, PTO drive shafts on the machine and belt transmission to the rotor with installed hammers. The gearbox is standardly fitted with a free-wheel clutch, which prevents damages to the drive and the gearbox. The machine is composed of two units of the universal flail mower MU. The hydraulic folding of the two mulching units is protected with a hydraulic locking system. The distance of the machine from the ground (working height) is adjusted by adjusting the position of the supporting roller bracket.



Observe the direction and speed of PTO drive shaft rotation!
Pay extra attention during attaching and detaching the machine!

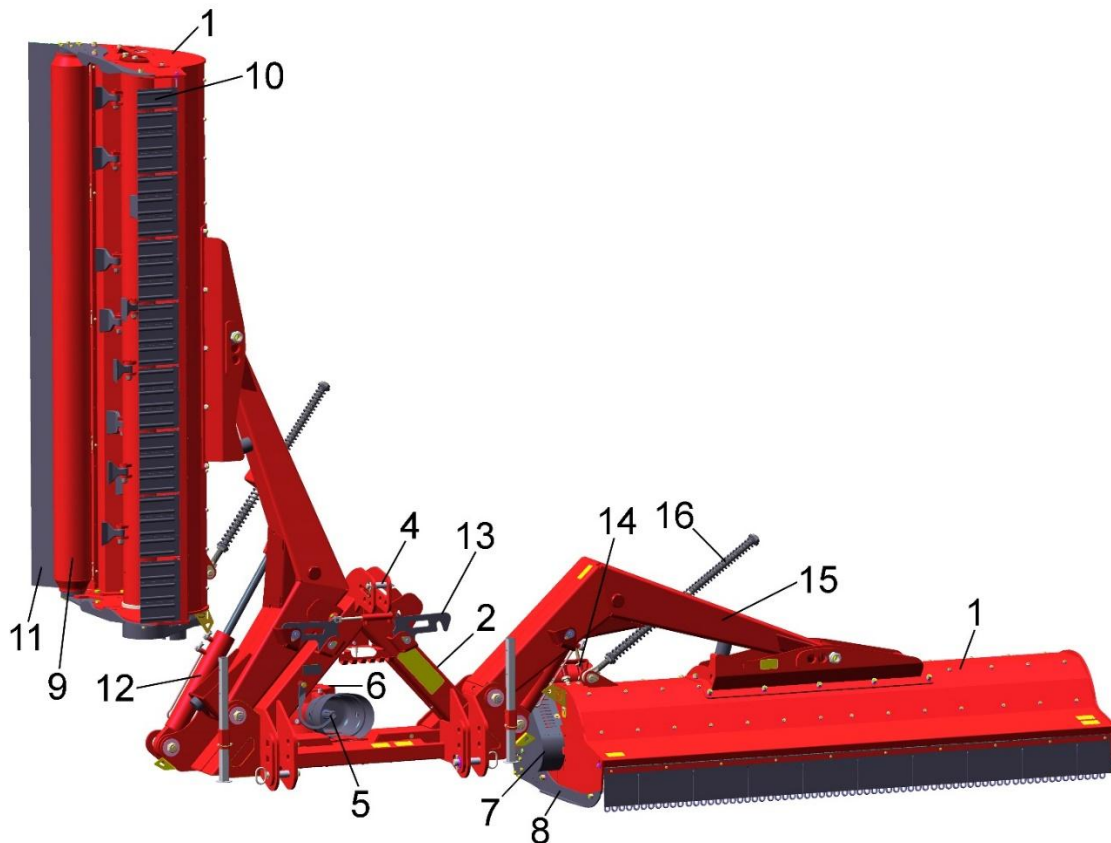


Figure 1: Machine components

1	Mulching unit	9	Supporting roller /Wheels (additional equipment)
2	Linkage	10	Protective flaps / Chain and rubber (additional equipment)
3	Lower linkage	11	Rubber flap
4	Upper linkage	12	Hydraulic lifting cylinder
5	PTO drive shaft attachment shaft	13	Safety hook
6	Gearbox	14	Automatic belt tensioner
7	Pulley cover	15	Lifting arm / lifting leg
8	Supporting roller bracket	16	Compression spring

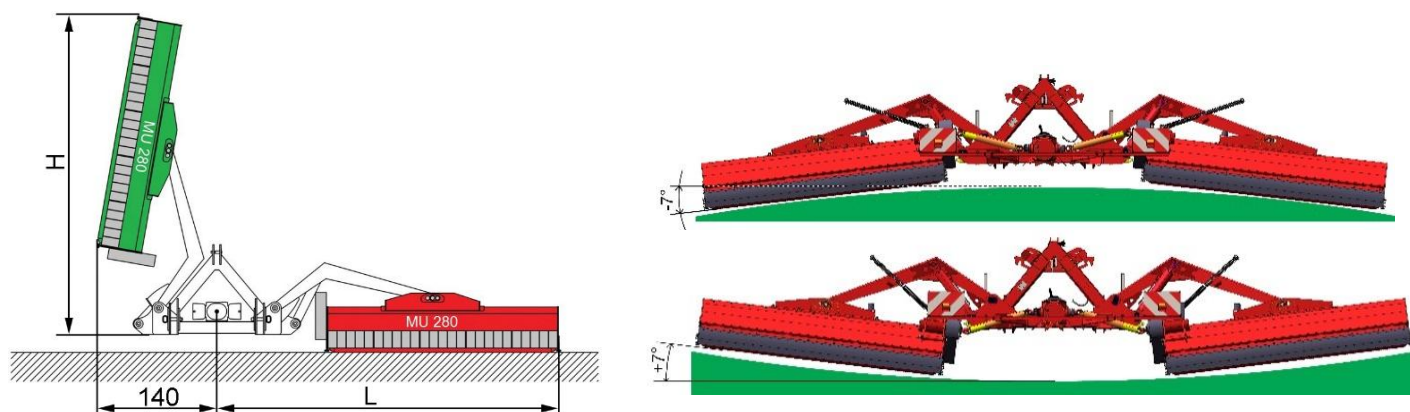
3.2 Technical specifications

Standard configurations and recommended factory settings are listed in the following table.

Model/Type	MU2Z 840R LW	MU2Z 900R LW
Working width (cm)	2 x 280	2 x 300
Transport width a (cm)	280	280
Machine dimensions a x b x c (cm)*	826 x 145 x 155	866 x 145 x 155
Height H (cm)*	375 / 381 / 387	395 / 401 / 407
Dimension L (cm) *	407 / 413 / 419	427 / 433 / 439
Number of belts (pcs)	2 x 5	2 x 5
Engine speed (rpm)	1000	1000
Number of hammers (pcs)	2 x 26	2 x 28
Tractor power (kW)	162 - 213	176 - 228
Tractor power (KM)	220 - 290	240 - 310
Machine weight (kg)	2940	3080

* Can be changed by shifting the mulching units (see chapter 6.2.2)

3.3 Working area of the machine and protection



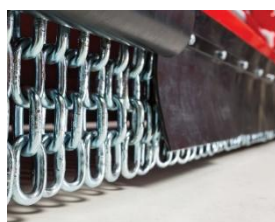
The design of the machine also enables a floating adjustment of mulching units up to $\pm 7^\circ$.



The hydraulic folding of the two mulching units is protected with a hydraulic locking system.

4 Additional equipment

The basic configuration of machines can be optionally upgraded with the following additional equipment:



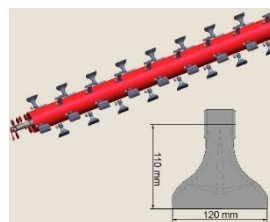
Chain and rubber flap protection



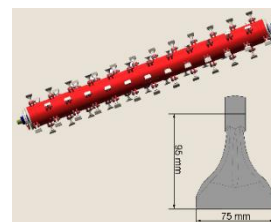
PTO drive shaft



Wheels 12 "



Rotor 48 hammers



Rotor 72 hammers

5 PTO drive shaft

5.1 General instructions for safe operation of the PTO drive shaft

- Follow the instructions attached to the PTO drive shaft, specified by the manufacturer.
- Only use PTO drive shafts which meet all technical and safety requirements!
- Protection tubes, funnels and hitch protections must be installed on the PTO shaft. All protective parts must be in faultless condition.
- Observe the prescribed length of the protection tube in the transport and working positions.
- Connect and disconnect the PTO drive shaft only with the tractor's engine turned off and the ignition key taken out!
- Always make sure the PTO drive shaft is correctly attached and secured!
- Before engaging the PTO drive shaft, make sure that the rpm and rotation direction of the machine comply with the specified number of rpm and rotation direction indicated on the machine label.

- Before engaging the PTO drive shaft, make sure that there are no persons in the danger area.
- Never engage the PTO shaft if the tractor's engine is not running.
- Keep away from the danger area around the attachment when the PTO shaft is engaged.
- Always disengage the PTO drive shaft when working under excessive working angles or when it is no longer needed.
- After disengaging the PTO drive shaft command, a danger of rotating parts still exists due to inertia. Only approach the danger area once rotation has completely stopped.
- Cleaning, greasing or adjusting the PTO drive shaft can only be performed with the tractor's engine off and the ignition key taken out!
- Before using the machine, repair or replace any damaged parts of the PTO drive shaft.
- After disconnecting the PTO drive shaft, protect the grooves of the shaft with a plastic guard.
- Ensure the required oscillating space for the PTO drive shaft.
- Secure the tube of the PTO drive shaft with a chain (Figure 2).
- After disconnecting the machine from the tractor, lay down the PTO drive shaft as prescribed. The PTO drive shaft must be secured with a chain, which should never be used to support the PTO drive shaft (Figure 2).

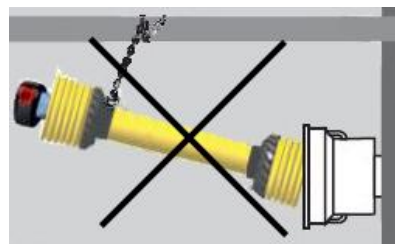
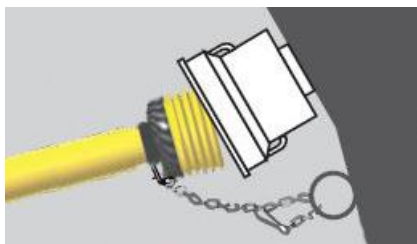


Figure 2: Securing the tube of the PTO drive shaft with a chain

The following PTO drive shafts are recommended:



Model	Designation
MU2Z 840R-900R LW	Walterscheid W2600E - 860

5.2 Connection of the PTO drive shaft

- Connect the appropriate PTO drive shaft and secure the protection with a chain. Make sure the PTO shaft is locked in place on both connection sides.
- If using a free-wheel PTO drive shaft, connect it to the machine's side (Figure 3)

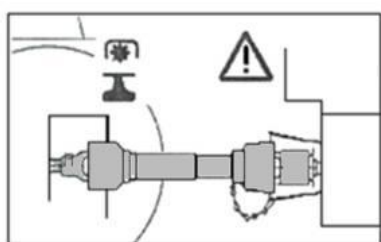


Figure 3: Connection of the PTO drive shaft

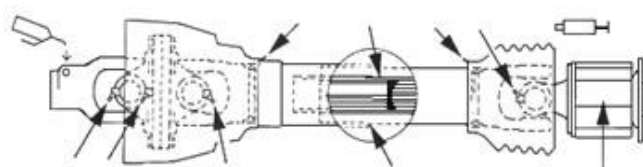


Figure 4: Lubrication of the PTO shaft as specified by the manufacturer

5.3 Adjusting the length of the PTO drive shaft

To ascertain the exact length of the PTO drive shaft, place the tractor and the machine as close as possible. Pull out the PTO drive shaft and divide it in two halves – connect one half to the tractor and the other half to the machine. Place the two halves together in the shortest position and mark them (Figure 5). If shortening is needed, cut both the safety and movable tubes to the same length. Remove any sharp edges and peelings from the ends of the tubes and grease all sliding areas well.

Read the manufacturer's instructions carefully before shortening the PTO drive shaft!

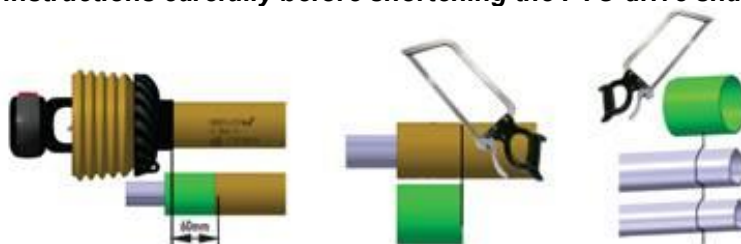


Figure 5: Adjusting the length of the PTO drive shaft

6 Connection to the tractor

The front and rear part of the tractor is loaded with a weight equal to that of the machine. To ensure correct breaking and steering ability of the tractor, the front axle should bear at least 20% of total weight (Figure 6).

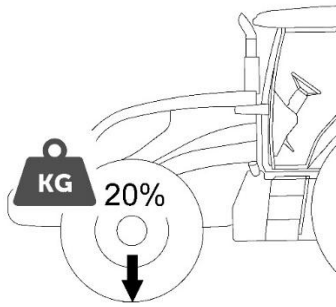


Figure 6: Installing ballasts on the tractor

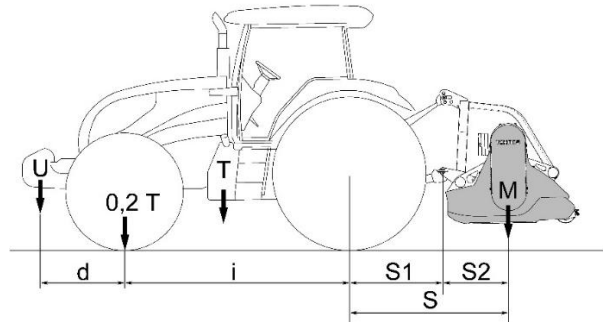


Figure 7: Ballast calculation diagram

Formula for calculating the appropriate ballasting:

$$U \geq \frac{M \times S - 0,2 \times T \times i}{d + i}$$

$$S = S1 \text{ (cm)} + S2 \text{ (cm)}$$

$$S2 = 54 \text{ cm}$$

U - ballast weight (kg)

T - tractor weight (kg)

M - machine weight (kg)

i - wheelbase (cm)

d - distance between the centre of gravity of ballasts and front axle (cm)



Before connecting and disconnecting the machine, engage the hydraulic control lever to prevent sudden lifting or lowering. There is a danger of contusion or pinching in the three-point-linkage area. Standing between the tractor and machine is forbidden if the tractor is not immobilized. When driving on roads with the machine lifted, secure the hydraulic control lever to prevent sudden dropping!

Connecting the machine:

- First pull out the bolts on the machine and release the lower hydraulic arm side locks on the three-point-linkage system of the tractor.
- Reverse slowly so that the holes of the lower hydraulic arms are aligned with the attachment holes on the machine.
- Insert the two bolts A and secure them with washers B and locking pins C (Figure 8).
- Lift the support legs F.
- Connect the top link to the upper linkage of the machine with the bolt D and secure it with the locking pin E. Fasten the top link of the tractor with a bolt to the middle of the oval opening of the linkage, maintaining a minimum distance between the ground and the supporting roller bracket of 4 cm.
- Manually lock the arms of the tractor's three-point linkage. They should be secured to prevent transversal movement of the machine (Figure 9).
- Unfasten the dedicated pallet.

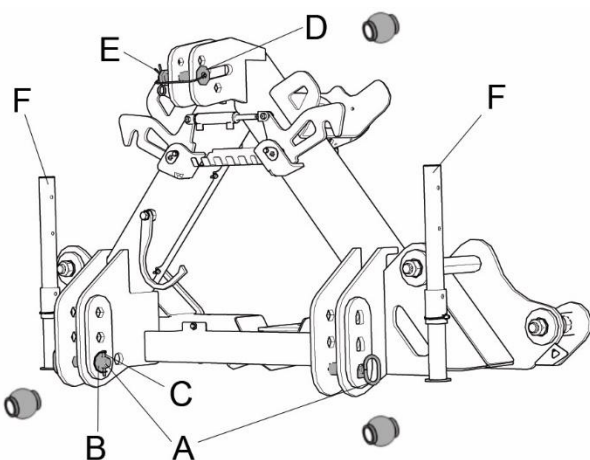


Figure 8: Connecting the machine

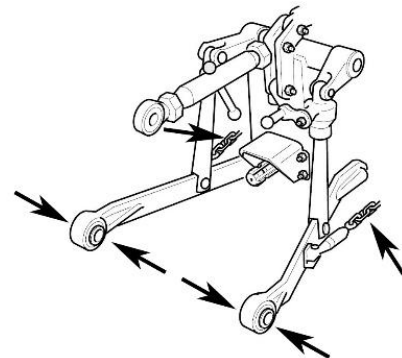


Figure 9: Securing the three-point linkage of the tractor

When connecting the machine with a quick hitch, make sure that the balls are in perfect condition and the bolts are secured from falling out. To prevent damages to the machine and its linkage, only use the upper round holes on the linkage when the machine is operated on a flat terrain.

6.1 PTO drive shaft speed

- When mulching, ALWAYS use the prescribed PTO drive shaft rotation speed as indicated on the machine's label.
- Before mulching, the machine drive must operate at full speed.
- Maintain a constant rotation speed during operation.



When mulching, always use the prescribed PTO drive shaft speed of 1000 rpm!

6.2 Hydraulics

- The hydraulic oil is under high pressure of max. 200 bar and may cause injuries in the event of tube leakage.
- In case of injuries (impacts or injuries caused by oil), immediately seek medical attention.
- Regularly check the condition of hydraulic tubes and replace them with genuine spare parts of the manufacturer if they are damaged or showing signs of deterioration.

6.2.1 Connection and operation of hydraulic tubes

When connecting hydraulic tubes, pay attention to the following:

- Make sure that the hydraulic system is depressurised when connecting hydraulic tubes to the tractor hydraulic system.
- Connect the hydraulic tubes to the quick-acting hydraulic couplings of the tractor.
- Always connect the hydraulic tubes in the same way – if the couplings are switched, there is a risk of switching the direction of operation (switching between lifting and lowering).
- The machine has two cylinders C for lifting the mulching units and a safety hook cylinder D (Figure 11).
- The cylinders are controlled with hydraulic couplings A and B (Figure 12).



When setting the machine to the transport position, always make sure that the safety hooks are closed

Pressure setting:

- Connect the lifting cylinder C to hydraulic couplings with the FLOATING HYDRAULIC SYSTEM. This ensures that the machine adapts to uneven terrain.
- The pressure setting for controlling the cylinder D is preset. If additional settings are required, loosen the two plugs 1 (Figure 10, 12) and adjust the pressure by tightening or loosening the screw, which also adjusts the locking time (Figure 11).

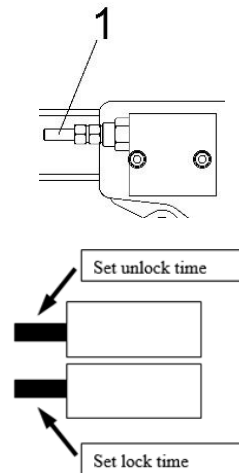


Figure 10: Setting the locking time

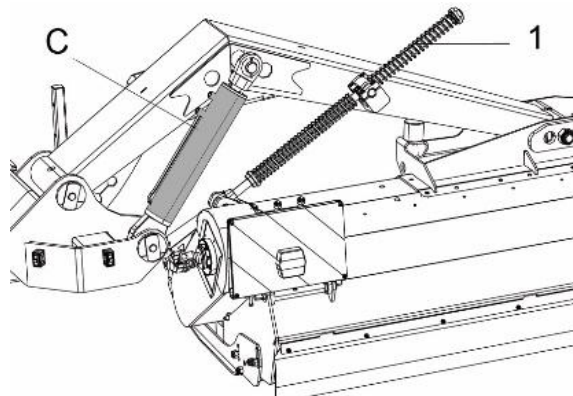
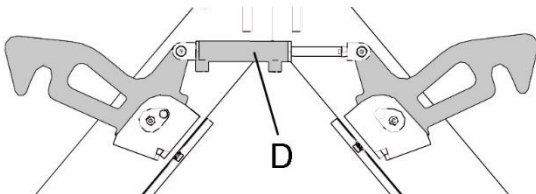


Figure 11: Hydraulic cylinders

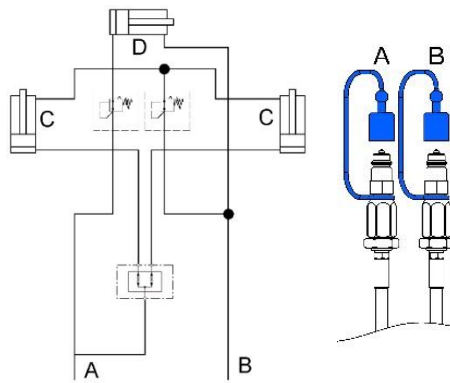


Figure 12: Hydraulic diagram, flow adjustment

6.2.2 Adjustment of mulching units

When adjusting the mulching units, pay attention to the following:

The mulching units can be mechanically moved outwards transversely by moving the lifting arm position from 0 to 2. At the factory, the machine is set to the recommended position 1, as this is the only way to ensure sufficient coverage of the mulch units.



As the mulching units expand, the transport height also increases. Before relocating, check the road regulations of the country in which the machine is used.

If you still want to shift the mulch units on the left and right:

1. First unscrew the nut A, pull out the purposely made screws B and move the position of the lifting arm to the desired position. Check that the screws B on the left and right sides of the machine are in the same positions and tighten all the screws completely.
2. It is necessary to shorten the spring guide rod C
3. Check length / replace PTO shaft.

	Pos.0	Pos.1*	Pos.2
Mulching unit expansion (cm)	-6	0	+6
Rod spring guide C (cm)	/	/	-7
PTO shaft adjustment	-3	/	/

* Pos. 1 is the factory default setting.

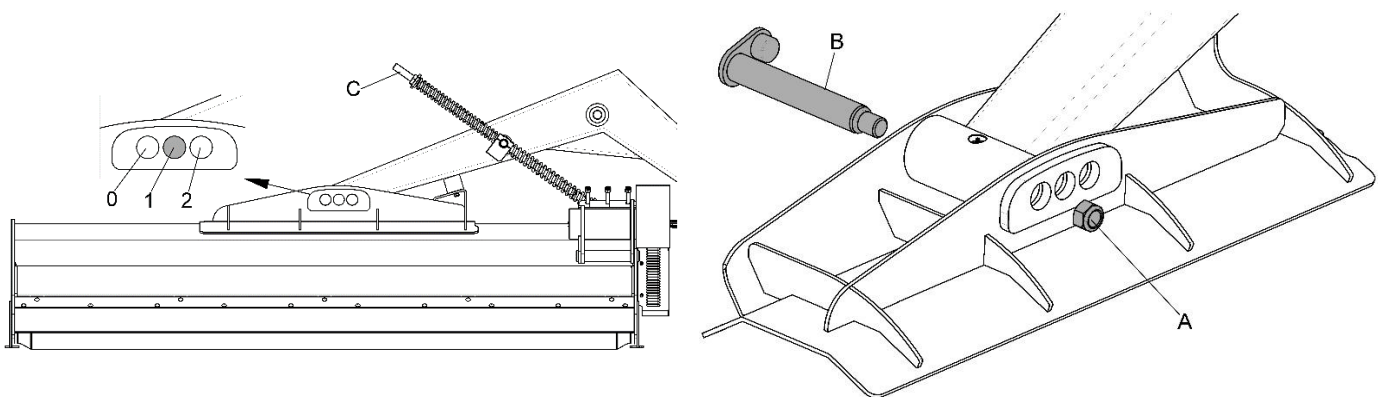


Figure 13: Adjustment of mulching units

6.2.3 Adjusting the speed of offsets (Figure 14)

The offset speed (up/down, left/right) of the machine can be adjusted with hydraulic throttles. To adjust the throttles, loosen the locknut 2 and tighten the nut 1 to adjust the desired offset speed. The machine must be lowered slowly to avoid damage to the bearings of the supporting roller due to impact with the ground. When the adjustment is completed, tighten the locknut 2 to prevent accidental changes of adjustments.

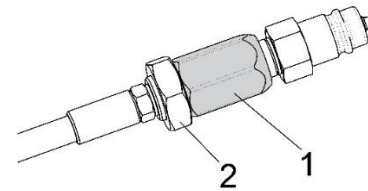


Figure 14: Adjusting the speed of offsets



Never stand between the machine and the tractor when performing adjustments!
When testing the adjustments, make sure that there are no persons in the danger area.
The throttles may be hot – wear protective gloves when performing adjustments.

6.3 Transport position

To ensure a safe transport of the machine, follow the rules below:

- Make sure the machine is connected correctly (chapter 6).
- Install appropriate signalling devices (signal signs when necessary).
- Raise the machine to the vertical transport position behind the tractor to close the safety hooks on both units (Chapter 6.2.1. Figure 11). The hooks are closed automatically when the mulching units are raised to the transport position. When the mulching units are lowered, the safety hooks are automatically opened. The compression springs 1 (Figure 11) prevent uncontrolled movements of machine units when the machine is switched from transport to working position and vice versa.
- Raise the machine to the maximum permitted traffic regulations in the country where you use the machine. The distance H is given in section 3.3
- Prevent any sudden movements of the machine.
- Make sure the PTO shaft and the rotor are immobilized during transport.

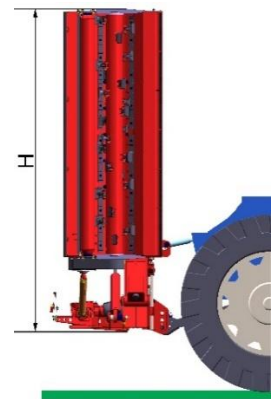


Figure 15: Transport position

7 Starting and operation

7.1 Shifting the machine into working position and adjusting the working height

To ensure proper operation, the front side of the machine must be lifted or tilted back for at least **4 cm**, as shown (Figure 16). The machine must rest on the **supporting roller**.

The recommended working height d (Figure 16) is 3.1 to 7,0 cm above the ground. Adjust the height by loosening screws C and D on the left and right sides of the machine and unscrewing the two screws B (Figures 17). The working height is adjusted by moving the supporting roller bracket from position -1 to position 2 (Figure 17). Make sure that both screws B on the left and right sides of the machine are in the same position. Fully tighten the screws. The factory setting is position 0.

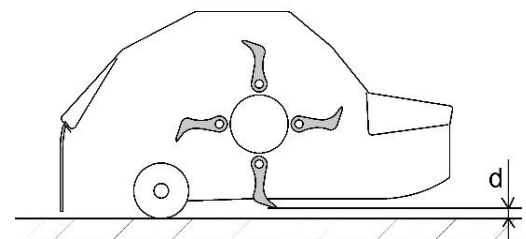


Figure 16: Working height

WORKING HEIGHT "d"		
	Supporting roller position	
BRACKET	Inside (Figure 20)	Outside (Figure 21)
pos. -1*	3.1 cm	3.5 cm
pos. 0	3.6 cm	4.0 cm
pos. 1	4.8 cm	5.0 cm
pos. 2**	6.6 cm	7,0 cm

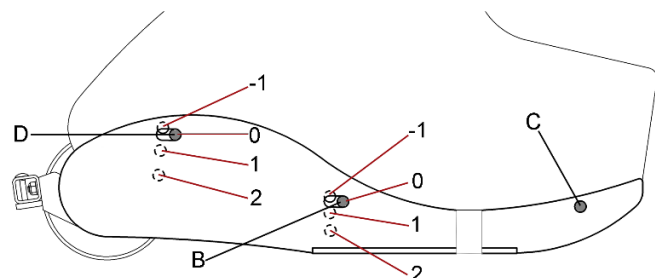


Figure 17: Working height adjustment

* Position -1 is used only when the hammers are highly used.

** When adjusting the working height to position 2, the servis gate must be tightened with an additional M16x45 screw. The existing screw D is moved to position 2 and the additional screw must be provided by the user.

7.2 Recommendations for adjustment to terrain conditions

Make sure that the mulching units are on the ground and that the indicators for optimal adjustment at the side of the mulching unit and at the side of the linkage are in parallel to each other. Adjust the parallel position by raising or lowering the arms of the tractor's linkage. Both units will be transversely adjusted to the terrain by means of the two compression springs 1 (Figure 18) by $\pm 7^\circ$.

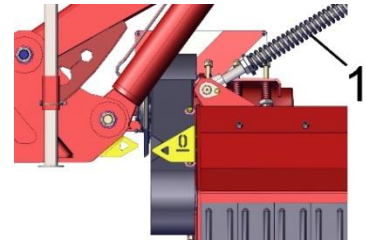
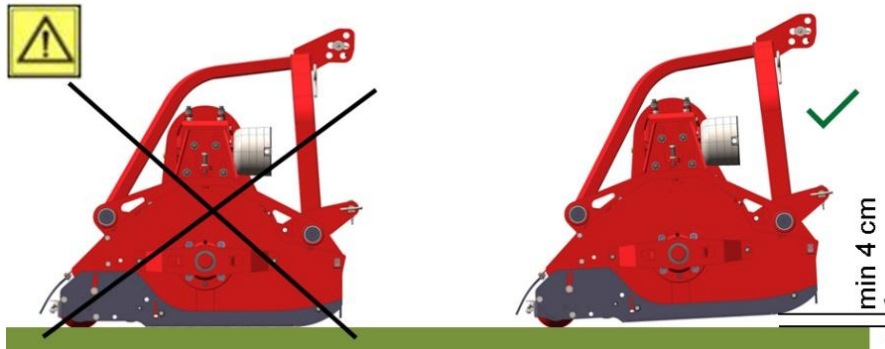


Figure 18: Adjustment indicator



Lift or tilt back the front side of the machine by at least **4 cm**! Any adjustments should only be performed with the transmission and tractor's engine off! Remove the ignition key!

In the event of poor driving conditions, the front side of the machine must be lifted by at least **4 cm**. This is achieved by adjusting the top link.

The supporting roller bracket (sleds) is not designed for supporting the machine during work, but exclusively to secure the rotor. Failure to comply with the basic set up may result in the working height being too low. The manufacturer does not recommend this setting because it requires more power and may cause a premature wear of components and potential damage to the rotor.

To prevent excessive wear of the essential components and extend the lifetime of the machine, make sure that all adjustments of the machine are appropriate (Figure 19).



Figure 19: Position of the machine during operation



Always make sure that the working height of the machine is sufficient. The hammers must never be in contact with the ground or dig in the soil!

7.3 Position of the supporting roller and the gate

The **INNER POSITION** of the supporting roller A (Figure 20) can be used for the front or rear tractor linkage. In this case, mulched material will be ejected behind the supporting roller. This position is more suitable for rough terrain because the machine can better follow the terrain.

The **OUTER POSITION** of the supporting roller A (Figure 21) is recommended for the front tractor linkage. This prevents the ejection of smaller mulching material and dust beneath the tractor and also decreases the possibility of damage to the tractor. In this case, mulched material is ejected in front of the supporting roller.

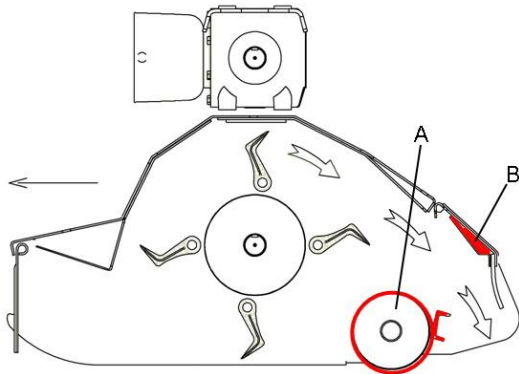


Figure 20: Inner position of the supporting roller

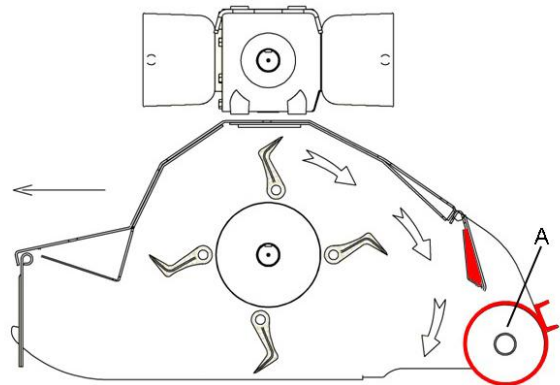


Figure 21: Outer position of the supporting roller

The maintenance gate B (Figure 20) must always be closed during operation (aligned with the side of the machine).

To adjust the position of the supporting roller, follow the procedure below (Figure 22):

- Unscrew the bolts A, grease nipples and all the other bolts.
- Move the entire assembly to a new position.
- Screw all the bolts and grease nipples in its place.

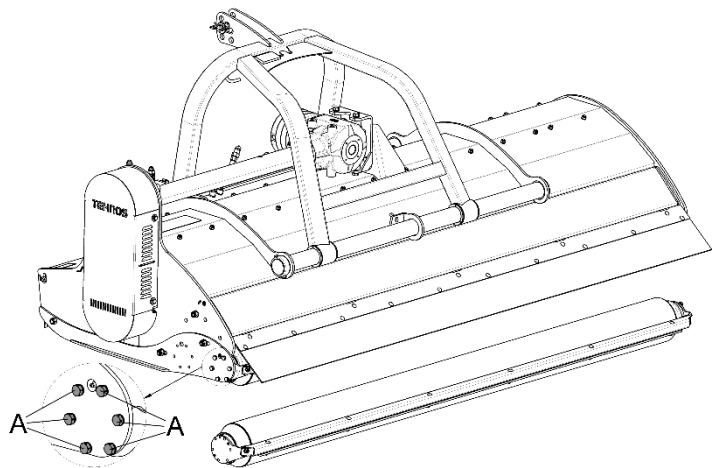


Figure 2210: Adjusting the position of the supporting roller

7.4 Checking before beginning work:

Before starting work, make sure that:

- The machine is correctly connected, secured and positioned.
- The working height is appropriate.
- All screws and nuts are tightened (screw torques, chapter 8.3).
- Wearing of the hammers/knives is even.
- Oil is in the gearbox (chapter 8.3.1).
- The greasing points are lubricated (Figure 23).
- The belts are tensioned correctly (chapter 8.3.3).

7.5 Working speed



The operator must ensure that persons, animals, vehicles or objects (e.g. glass etc.) are outside of the machine's danger area. Adjust the speed to driving and working conditions. Never drive in reverse during mulching! It is strictly forbidden to leave the tractor cabin when the PTO shaft is engaged and the rotor still rotates due to inertia.

If the material is jammed and the machine is overloading the tractor, the working speed is too high for the current mulching volume. Immediately reduce the speed or increase the working height of the flail mower.

The working height depends on the type and volume of mulched material (see the table below).

MATERIAL TYPE	MULCHING SPEED		
			
Short grass			
Crops			
Tall grass			
Overgrown grassland			
Vine shoots			
Fruit tree branches			
Shrubbery and brushwood			

Eliminating a mulching blockage due to excessive volume of mulching material

If the rotor area is overloaded with excessive mulching or foreign material during operation, the belts may slip, which stops the rotor. If this happens, immediately stop mulching and disengage the PTO drive shaft. Drive away from the problematic area and try to engage the PTO drive shaft again. If the PTO shaft does not rotate or its rotation is abnormal, stop the tractor, lift the machine and turn off the tractor's engine. After doing so, leave the tractor, support the machine and remove the mulching material from the rotor area.

When cleaning is finished, check the condition of the rotor and belts. If all components are undamaged, you can continue working.

8 Maintenance

Regular maintenance of the machine is vital for efficient use, correct operation, long service life and spare parts savings, and above all, for improved work safety.

8.1 General maintenance

- Before beginning repair, maintenance or cleaning work or in the event of operational faults, always switch off the PTO drive shaft command, turn off the tractor's engine and remove the ignition key.
- Wait until all rotating parts stand still before making any interventions on the machine.
- During maintenance work, support the machine with appropriate supports and secure it to prevent sudden movement.
- When performing repair, maintenance and cleaning work, use suitable tools, gloves, goggles and protective clothing.
- Before making any interventions to the hydraulic system, lower the machine to the ground, stop the tractor's engine and release the oil pressure.
- Immediately seek medical advice in case of injuries due to abrasions or hydraulic oil leakage.
- Safety devices that are exposed to wear must be checked regularly and replaced if necessary.
- To avoid accidents, follow all the prescribed and other general safety rules.
- During machine maintenance, only use genuine spare parts as prescribed by the manufacturer.

8.2 Cleaning and storing

- Clean the machine internally and externally. Dirt attracts moisture, which causes corrosion. When using a high pressure water cleaner, do not point the jet of water directly at the bearings.
- Always lubricate the machine after cleaning.
- Lubricate the PTO shaft as prescribed by the manufacturer.
- Clean the rust from damaged surfaces and apply coating.
- The machine must be stored in a dry place.

8.3 Periodic maintenance

Follow the maintenance intervals indicated in the table below.

MAINTENANCE REMINDER	After first 5 working hours	After first 20 working hours	Every 10 working hours	Every 200 working hours	Periodically	Every 2 years
Belt tensioning	X	X			X	
Tightening the screws	X		X			
Oil level check					X	
Oil change		X		X		X
Lubrication of all greasing points			X			

Tightening torques for screws (Nm)		
Thread	Screw quality	
	8.8	10.9
M 8	28	40
M 10	55	80
M 12	95	140
M 14	150	225
M 16	240	314
M 18	330	475
M 20	430	615

Greasing points

At the end of each working day:

- Clean the machine, particularly the greasers and lubricate all greasing points.
- Regularly lubricate the machine to ensure maximum efficiency and long service life.
- Use the LC2 grease, intended for the lubrication of bearings.
- Lubricate the PTO shaft as prescribed by the manufacturer.

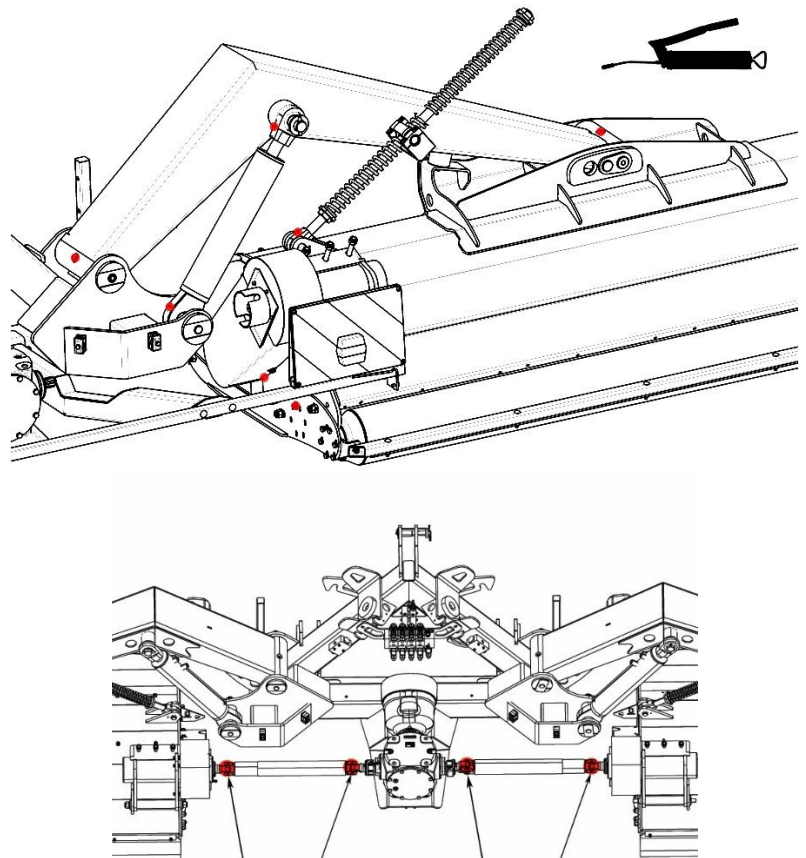


Figure 23: Greasing points on the machine

It is strictly forbidden to dispose waste grease in the environment.

8.3.1 Oil level check and change

Oil level check and oil filling:

- Remove the guard from the PTO drive shaft on the gearbox.
- Unscrew the plug A.
- If the oil level is below the level of plug openings A, add more oil through plug openings C until reaching the level of plug opening A.
- To reassemble, follow the procedure in reverse order.

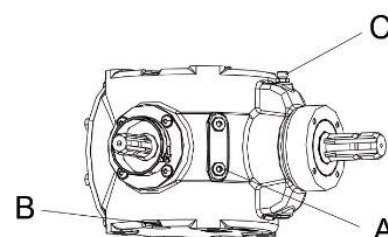
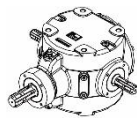


Figure 24: Oil level check

Oil change (Figure 24):

- Remove the guard from the PTO drive shaft on the gearbox.
- Unscrew the plugs C and B.
- Discharge the oil into suitable containers through the plug opening B.
- Screw the plug B.
- Unscrew the plug A.
- Pour the oil through the plug opening C until the level reaches the plug opening A.
- To reassemble, follow the procedure in reverse order.

Gearbox oil level	Model	Oil volume (l)
	MU2Z 840R	~4.2
	MU2Z 900R	~4.2

It is strictly forbidden to dispose waste oil in the environment.

Recommended oil type

Mineral oil in accordance with the standard SAE 90.

Alternative oils: SHELL Spirax A LS 90, AGIP Rotra HY, CASTROL Hypoy LS.

As an alternative for more difficult working conditions, the manufacturer recommends synthetic oils 75w-90; CASTROL TAF-X or Shell Spirax 75w 90.

8.3.2 Changing knives/hammers

If vibrations or shaking movements arise during machine operation, immediately stop the machine and check the hammers/knives (Figure 25). Immediately replace them if they are worn or damaged. If the vibrations of the rotor persist, it may be partially damaged and must be balanced. The rotor is balanced by the machine manufacturer or a qualified repair technician.

Before changing the knives/hammers, machine must be disconnected and turned upside down. Loosen the nut A (Figure 25), remove the corresponding screw B and replace the hammer/knife with a new one. When changing hammers/knives, you must also change the corresponding nut and screw.

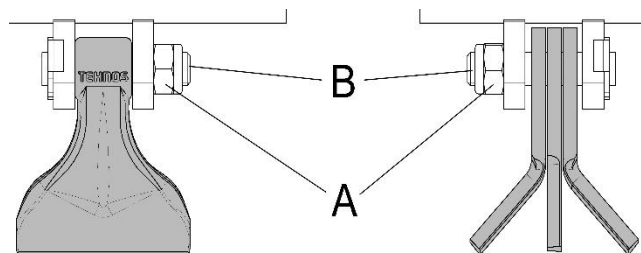


Figure 25: Changing knives/hammers

8.3.3 Tensioning and changing belts

If for any reason, the belts begin slipping during operation, immediately stop working, lower the machine on level ground and disengage the PTO shaft. Stop the engine of the tractor and remove the ignition key. After all rotating parts have stopped, the reason for belt slipping can be determined.

Belt tensioning



Before tensioning, stop the engine of the tractor and disconnect the PTO shaft.
Tensioning of the belts can be done only when the belts have cooled down.

First remove the pulley covers B (Figure 26) and check the tension of the belts. The belts are tensioned correctly when they bend by 1 cm if pushed with a force of 8 kg (push with a thumb) (Figure 27). The tensioning of the belts is performed by loosening the three locknuts D on screws F. To adjust the tension of the belt, tighten the nuts C (Figure 26) and the locknuts D. Make sure that the pulleys are in parallel to one another and the springs are evenly tensioned (Figures 26, 27). When the belt tensioning is completed, place back the pulley covers B and make sure that all the bolting assemblies are appropriately fastened. The belt tension can be also checked by inserting a flat object in the slot on the pulley cover E (Figure 26).

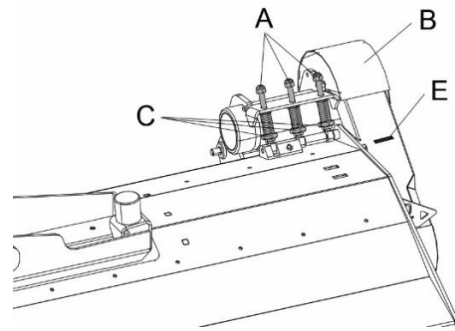
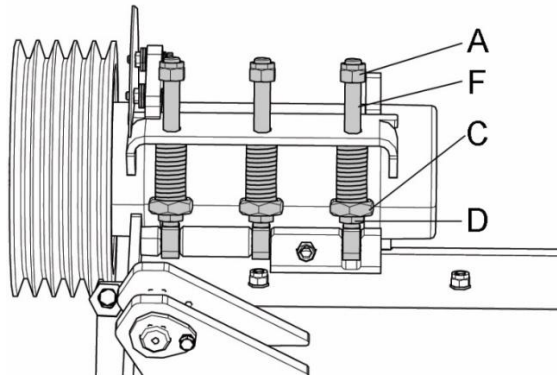


Figure 26: Tensioning / changing belts

Changing belts

Remove the pulley covers B and loosen the three locknuts D and nuts C on screws F (Figure 26). Release the belts by tightening the nuts A (Figure 26). Rotate the pulley, remove the belts off and replace them with new ones by manually rotating the pulleys. Do not use sharp objects during disassembly or assembly – they can damage the belts. After assembly, tension the belts as described in the instructions for tensioning belts.

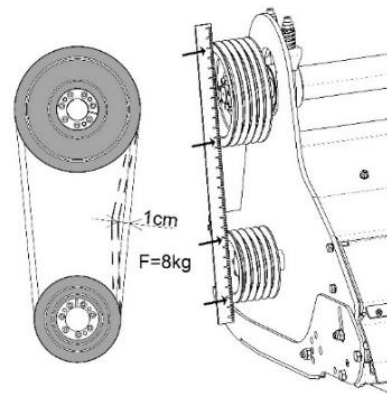


Figure 27: Checking the tension of belts and parallel position of pulleys

8.4 Start up after a long period of non-use

- Read the Instruction manual and safety warnings carefully.
- Wipe away old grease and oil that were used as protection.
- Grease all parts requiring grease.
- Check the oil level in the gearbox and fill it if needed.
- Check all screws and nuts and tighten them if needed.
- Check all adjustments on the machine and, if needed, adjust them again.
- Check the condition and tension of belts and adjust their tension or replace them if necessary.
- Check the condition of protective flaps and replace them if necessary.

9 Possible problems and solutions

PROBLEM	CAUSE	SOLUTION
The belts are worn out.	The pulleys are not parallel to each other.	Check and adjust the parallel position of pulleys with a linear ruler.
The belts are slipping and overheating.	Incorrect belt tension.	Observe the recommended working speeds. Adjust the tension and, if necessary, replace the belts.
	Working with an overly powerful tractor, excessive working speed or volume of the mulching material.	Check the tension of belts and adjust the tension if necessary.
Excessive power consumption of the tractor.	Inadequate working height. Excessive working speed with regard to the material volume.	Adjust the working height of the machine (chapter 7.1).
	The mulching material is too moist.	Wait until working conditions improve.
Excessive or uneven wear of hammers.	Inadequate working height with regard to poor field conditions.	Adjust the working height of the machine (chapter 7.1).
Jammed material in the machine.	Excessive working speed.	Reduce the working speed or increase the working height.
	Insufficient rpm of the rotor.	Increase the rpm speed of the rotor as prescribed.
Excessive vibrations or shaking.	Uneven wear of hammers.	Check the hammers. If necessary, replace the hammers and balance the rotor.
	Worn out bearings.	Replace the bearings.
	Damaged rotor.	The rotor must be balanced again.
The gearbox is overheating.	Insufficient oil level.	Add oil to the required level.
	The oil is spent.	Change the oil.
	Excessive working speed.	Reduce the mulching speed.
	Excessive rpm of the PTO drive shaft.	Reduce the rpm speed of the PTO drive shaft as prescribed (chapter 6.1).
Gearbox oil leakage.	Damaged sealing.	Replace the sealing.
	The oil level is too high.	Check the oil level and, if necessary, drain some oil from the gearbox.
The noise level of the machine is too high.	Worn out bearings.	Replace the bearings.
	Low gearbox oil level.	Check the oil level and add more oil if necessary.
	The nuts and screws are loose.	Tighten the nuts and screws (see the table with torques, chapter 8.3).
	Excessive rpm of the PTO drive shaft.	Reduce the rpm speed of the PTO drive shaft as prescribed (chapter 6.1).
The rotor is not rotating.	Excessive volume of mulching material or foreign material stuck in the rotor area.	Remove the jammed material as described in chapter 7.4.
The machine is not adjusting to the terrain.	The adjustment indicators are not aligned.	Eliminate the error as described in chapter 7.2.
	The upper linkage of the machine is not correctly adjusted.	Correct the adjustment and fasten the bolt to the middle of the oval hole.
The mulching units are not raised / lowered evenly.	Fault on the hydraulic oil flow divider.	Fully lower both mulching units until they are aligned.

10 Spare parts

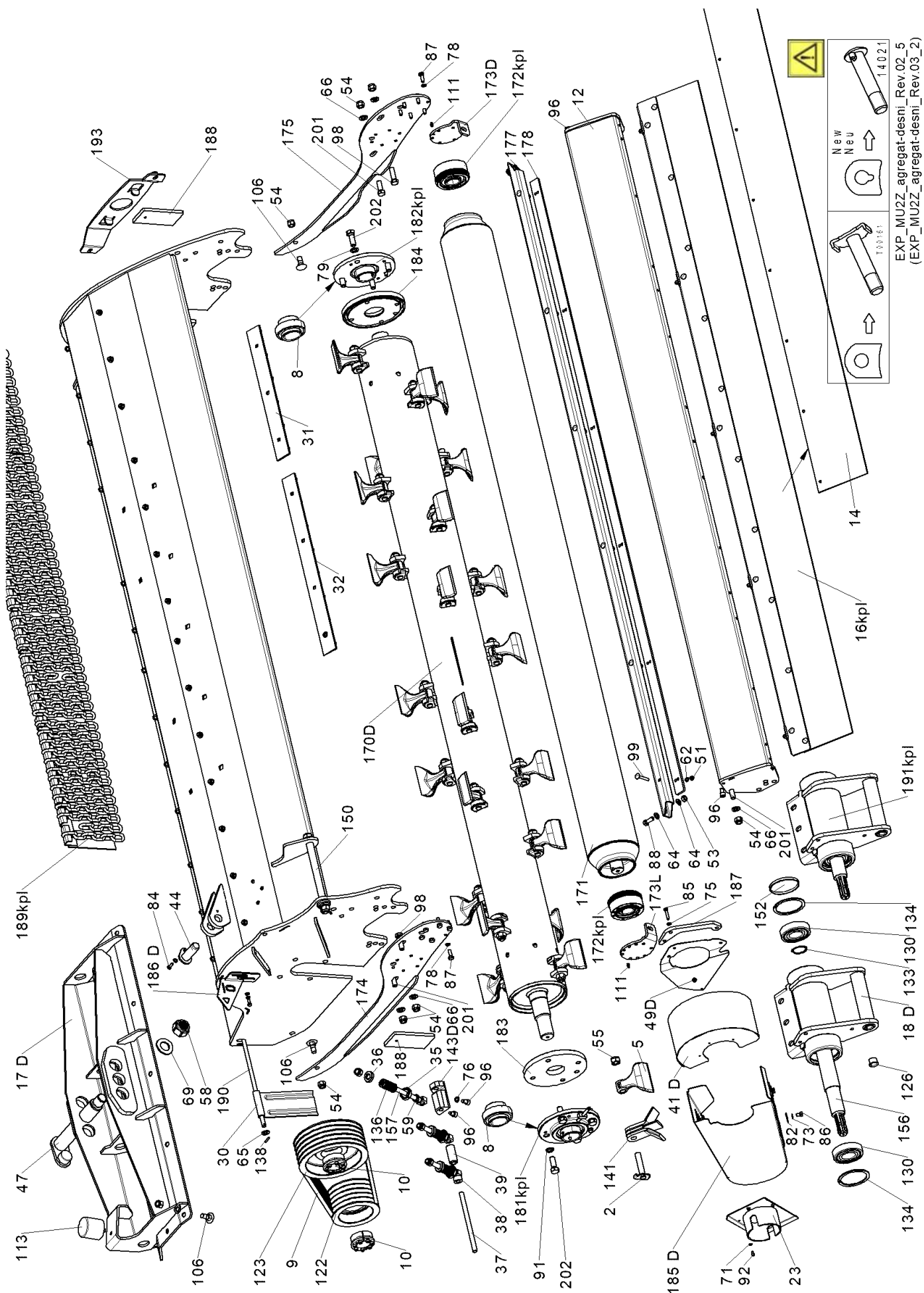
10.1 Ordering spare parts

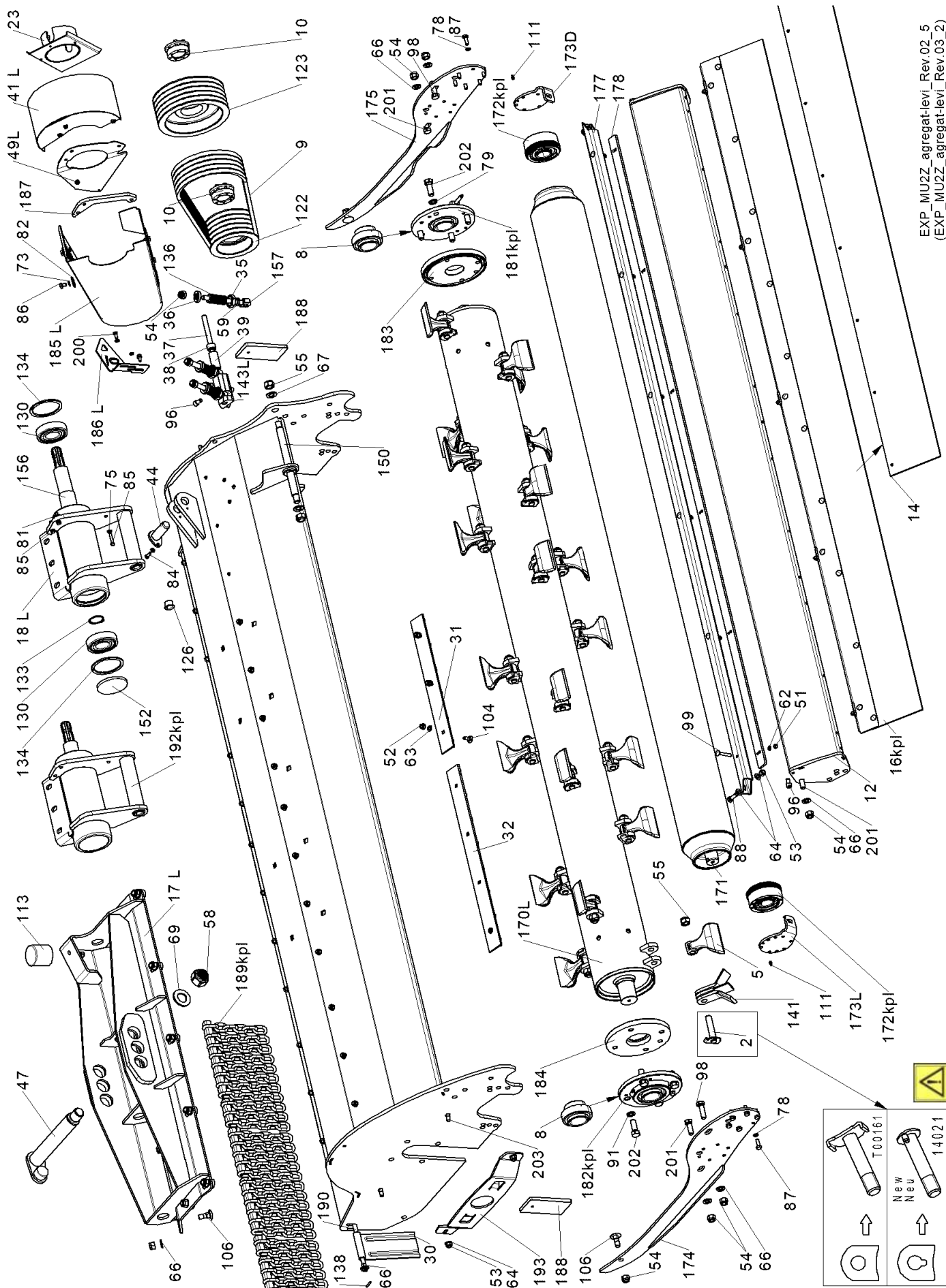
When ordering spare parts or making warranty claims, you must specify the entire construction number of the machine.



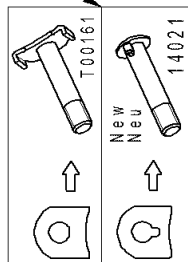
Always use genuine **TEHNOS** spare parts due to their verified quality and safety!

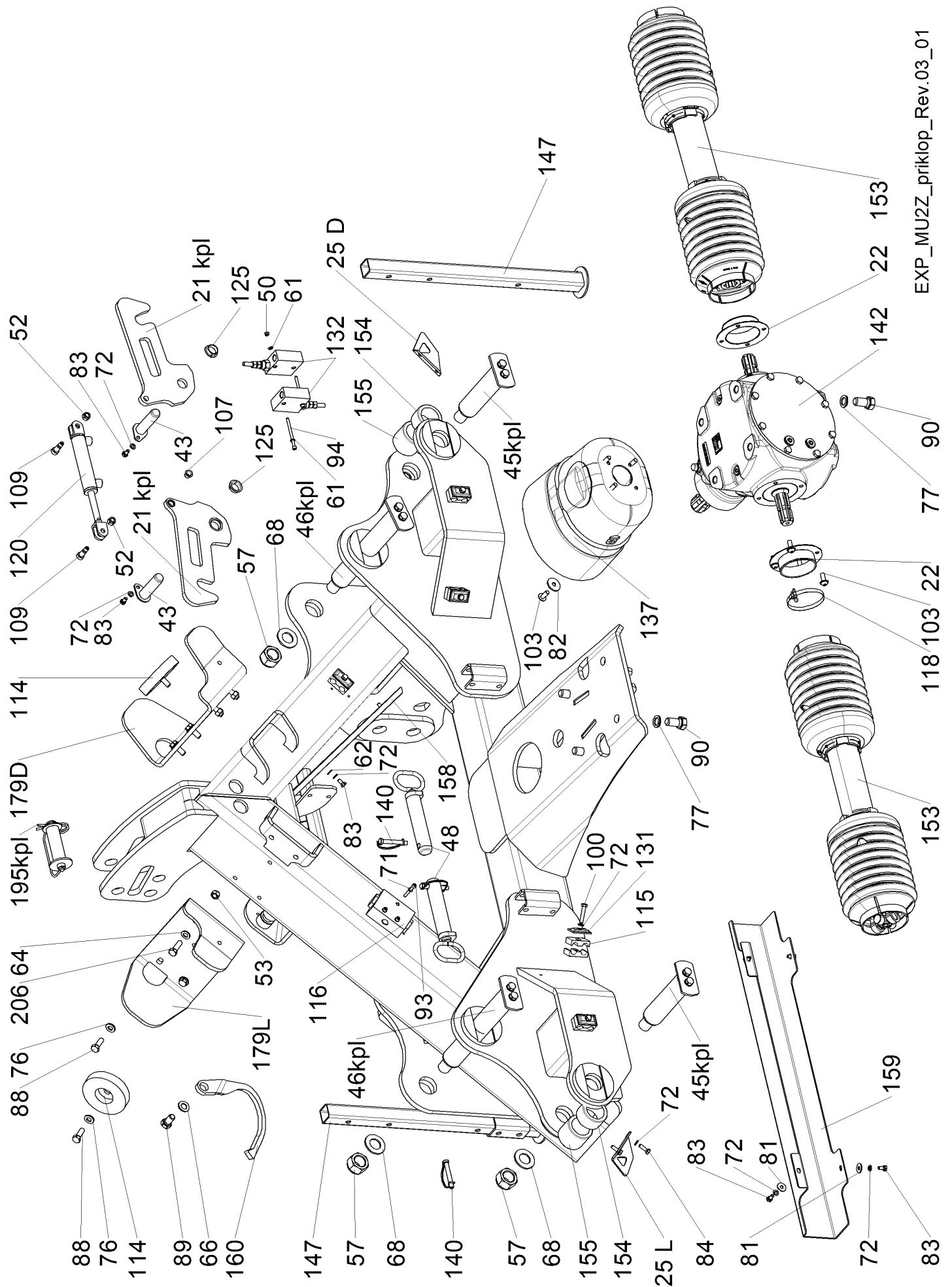
10.2 List of spare parts

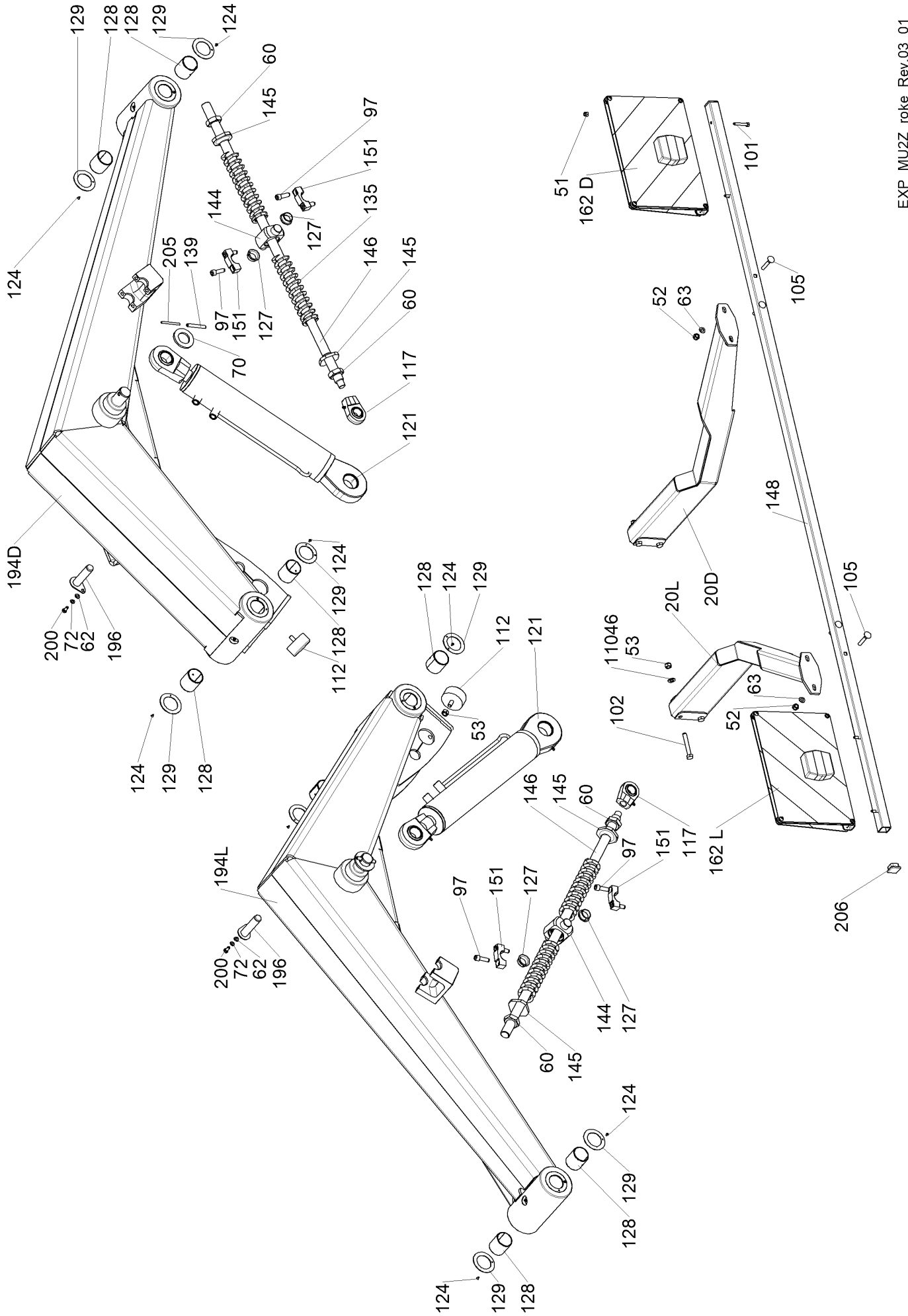





EXP_MU2Z_agregat-levi_Rev.02_5
(EXP_MU2Z_agregat-levi_Rev.03_2)







POS.	IDENT	NAME		QTY.
2 	T00161	SCREW M20 FOR HAMMER	MU2Z 840	52
			MU2Z 900	56
	14021	SCREW M20 FOR HAMMER NEW	MU2Z 840	52
			MU2Z 900	56
5	10301	HAMMER P3 fi 20.5	MU2Z 840	52
			MU2Z 900	56
8	10468	BALL BEARING (r.)		4
9	13634	V-BELT Optibelt DIN 7753/1		10
10	11137	LOCKING SLEEVE 50 X 80		4
12	T12990	MAINTENANCE HOOD	MU2Z 840	2
	T12989	MAINTENANCE HOOD	MU2Z 900	2
14	T02496	REAR RUBBER FLAP	MU2Z 840	2
	T00919	REAR RUBBER FLAP	MU2Z 900	2
16 kpl	T02343	RUBBER FLAP SET.	MU2Z 840	2
	T02344	RUBBER FLAP SET.	MU2Z 900	2
17 L	T06551	GENERATOR BRACKET LEFT MU2Z		1
17 D	T06550	GENERATOR BRACKET RIGHT MU2Z		1
18 L	T06514	TENSIONER LEFT WELDED		1
18 D	T06515	TENSIONER RIGHT WELDED		1
20 L	T06556	LEFT CONSOLE OF MARKING BOARDS MU2D		1
20 D	T06557	RIGHT CONSOLE OF MARKING BOARDS MU2D		1
21 kpl	T06501	SAFETY HOOK MU2Z		2
22	T06528	PTO DRIVE SHAFT CLAMP fi 95		2
23	T06552	SEALING RUBBER BRACKET WALTERSCHEID		2
25 L	T06505	LINKAGE ADJUSTMENT INDICATOR LEFT		1
25 D	T06506	LINKAGE ADJUSTMENT INDICATOR RIGHT		1
30	T00201	LONG FRONT METAL PROTECTIVE FLAP, WID. 104 mm	MU2Z 840	50
			MU2Z 900	54
31	T00357	COUNTER KNIVES SHORT (3 holes) L= 548 mm	MU2Z 840	12
			MU2Z 900	6
32	T02572	COUNTER KNIVES SHORT (4 holes) L= 748 mm	MU2Z 840	12
			MU2Z 900	18
35	T06522	THREADED SPRING WASHER M16		6
36	T06523	SLANTED SPRING WASHER		6
37	T06518	AXLE OF TENSIONING SCREWS fi 16 mm		2
38	T06545	DISTANCE BUSH 16x30 L= 20		2
39	T06546	DISTANCE BUSH 16x30 L= 72		2
41 L	T06526	PULLEY GUARD UPPER LEFT MU2Z		1
41 D	T06527	PULLEY GUARD UPPER RIGHT MU2Z		1
43	T06536	BOLT 25x90		2
44	T06533	BOLT 30x87		2
45 kpl	T06535	BOLT 50x195 M30		2
46 kpl	T06534	BOLT 50x335 M30		2
47	T06532	BOLT 50x299 M36		2
48	T06537	LOWER LINKAGE BOLT III KAT.		2
49 L	T06803	ADDITIONAL REAR TENSIONER GUARD LEFT		1
49 D	T06802	ADDITIONAL REAR TENSIONER GUARD RIGHT		1
50	10576	SELF-LOCKING NUT DIN 985 M6		2

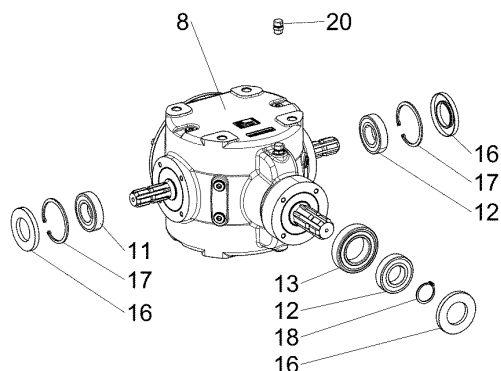
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			MU2Z 900	18
52	10579	SELF-LOCKING NUT M 10 - DIN 985	MU2Z 840	98
			MU2Z 900	104
53	10580	SELF-LOCKING NUT M 12 - DIN 985		23
54	10583	SELF-LOCKING NUT M 16 - DIN 985		38
55	10587	SELF-LOCKING NUT M 20 - DIN 985		56
57	10592	SELF-LOCKING NUT DIN 985 M30		4
58	13696	SELF-LOCKING NUT DIN 985 M36		2
59	10565	NUT LOW M16 - DIN 439		6
60	13685	NUT LOW DIN 439 M30		4
61	11043	WASHER DIN 125 6		4
62	11044	WASHER DIN 125 8		22
63	11045	WASHER DIN 125 10	MU2Z 840	100
			MU2Z 900	106
64	11046	WASHER DIN 125 12		20
65	11047	WASHER DIN 125 14		2
66	11049	WASHER DIN 125 16		32
67	11051	WASHER DIN 125 20		4
68	12631	WASHER DIN 9021 30		4
69	13697	WASHER DIN 125 36		2
70	12521	WASHER DIN 125 40		2
71	11084	SPRING WASHER DIN 127 A6		9
72	11085	SPRING WASHER DIN 127 A8		29
73	11086	SPRING WASHER DIN 127 A 10		12
74	11843	WASHER DIN 25201 NL 8F		5
75	11836	WASHER NL 12 DIN 25201		6
76	12011	WASHER NL 12F DIN 25201		6
77	12889	WASHER NL 20F DIN 25201		4
78	11835	WASHER NL 10 DIN 25201		24
81	11076	WASHER WIDE DIN 9021 8		16
82	11077	WASHER WIDE DIN 9021 10		12
83	11332	SCREW DIN 933 - M8 X 16 - 8.8		10
84	11334	SCREW DIN 933 M 8 x 25		6
85	11338	SCREW DIN 933 8.8 M8x40		6
86	11341	SCREW DIN 933 - M 10 X 16 - 8.8		8
87	11346	SCREW DIN 933 - M 10 X 30 - 8.8		28
88	11357	SCREW DIN 933 - M 12 X 35 - 8.8		10
89	11373	SCREW DIN 933 - M 16 X 30 - 8.8		1
90	12890	SCREW DIN 933 - M 20 X 40 - 8.8		4
91	13606	WASHER NL 18 DIN 25201		16
92	11411	HEX SOCKET CAP HEAD SCREW DIN 912 M6x10		6
93	12045	HEX SOCKET CAP HEAD SCREW DIN 912 M6x50		6
94	13162	HEX SOCKET CAP HEAD SCREW DIN 912 M6x85		2
95	11425	HEX SOCKET CAP HEAD SCREW DIN 912 8.8 M8x16		2
96	11454	SCREW DIN 912 - M 12 X 20 - 8.8		12
97	11458	HEX SOCKET CAP HEAD SCREW DIN 912 M12x40		10
98	12079	SCREW DIN 933 - M 16 X 55 - 8.8		4

POS.	IDENT	NAME		QTY.
99	13135	CARRIAGE SCREW DIN 603 M 8 X 60	MU2Z 840	12
			MU2Z 900	14
100	11247	SCREW DIN 931 - M 8 X 45 - 8.8		7
101	11248	SCREW DIN 931 8.8 M8x50		4
102	11274	SCREW DIN 931 - M 12 X 85 - 8.8		4
103	12756	SCREW FOR PLASTIC WITH LENTAL HEAD 10.9 M10x25		12
104	11627	CARRIAGE SCREW DIN 603 - M10X30 - 8.8	MU2Z 840	84
			MU2Z 900	90
105	13382	CARRIAGE SCREW DIN 603 8.8 M10x60		4
106	13070	CARRIAGE SCREW DIN 603 - M16X40 - 8.8		34
107	13372	SLIDE BEARING-PAF 12120 P10		1
109	13692	ADJUSTMENT SCREW ISO 7379 N12x20/M10		2
111	10596	GREASE NIPPLE DIN 71412 A M 8 X 1		8
112	13694	RUBBER DAMPER TYPE - D M12 75x35		2
113	13695	RUBBER DAMPER TYPE- D M12 75x70		2
114	13693	RUBBER DAMPER TYPE-D120 X H25		2
115	13681	TUBE CLAMP DOUBLE CF2 15/15		14
116	10245	HYDRAULIC OIL DIVIDER 6-10L 3/8 DFL		1
117	13686	HEAD WITH SPHERICAL BEARING DIN648 E MS 30 N		2
118	13690	TUBE CLAMP A9 X D90		2
120	13682	HYD. CYLINDER 210bar/25/16xP100 mm		1
121	13683	HYD. CYLINDER 200bar/90/40xP385 mm		2
122	10385	PULLEY 170 SPB 5 F.80		2
123	10391	PULLEY 250 SPB 5 F.80		2
124	11518	SCREW DIN 7991 8.8 M4x8		8
125	10455	SLIDE BEARING PAF 25115 P10		1
126	13407	SLIDE BEARING PAF 25215 P10		4
127	13439	SLIDE BEARING-PAF 30160 P10		4
128	10239	BUSH 60x50x60 LR		8
129	13073	BEARING BRACKET FLANGE PAW 62 P10		8
130	10517	BALL BEARING (r.)		4
131	10325	UPPER PLATE CF2		7
132	13698	SHUT OFF VALVE VS2C - V0640		2
133	11721	EXTERNAL RETAINER RING DIN 471 50x2		2
134	13687	INTERNAL RETAINER RING DIN 472 110x4		4
135	10347	COMPRESSION SPRING 8x36x465		4
136	12791	TOOL COMPRESSION SPRING 32x16x102 red		6
137	13689	PTO DRIVE SHAFT PROTECTION LARGE		1
138	11772	SPRING PIN DIN 1485 5 X 30		4
139	11790	SPRING PIN FLEXIBLE DIN 1481 10x70		2
140	11795	SAFETY PIN WITH SAFEGUARD Ø 10x70 Zn		4
141	10633	ROTOR KNIFE (SET 2+1) L= 110	MU2Z 840	52
			MU2Z 900	56
142	12272	GEARBOX		1
143 L	T06554	TENSIONER AXLE GUIDE LEFT		1
143 D	T06553	TENSIONER AXLE GUIDE RIGHT		1
144	T06541	HINGE AXLE GUIDE		2
145	T06539	SPRING SUPPORTING NUT M30		4
146	T06538	ROD SPRING GUIDE		2

POS.	IDENT	NAME		QTY.
147	T02186	SUPPORT LEG		2
148	T06558	TUBE FOR MARKING BOARDS MU2Z		1
150	T06517	TENSIONER AXLE		2
151	T06540	HINGE - THREADED PART		4
152	13688	SEALING COVER EC 110x10		2
153	13771	PTO DRIVE SHAFT W3400-SD25-610-S4LH/S5 SHORTER 30 mm		2
154	T06547	DISTANCE BUSH 51x70 L= 39		2
155	T06548	DISTANCE BUSH 51x70 L= 59		2
156	T06516	PTO DRIVE SHAFT 1 3/8" Z6		2
157	T06521	TENSIONING SCREW M16		6
158	T01114	FRONT CABLE COVER LEFT MU300		2
159	T06509	HYDRAULIC TUBE PROTECTION MU2Z		1
160	T06502	PTO DRIVE SHAFT HOLDER MU2Z		1
161	T06500	LINKAGE MU2Z AND MPS		1
162 L	T01100	MARKING BOARD LEFT/RIGHT		1
162 D	T01100	MARKING BOARD LEFT/RIGHT		1
170 L	T02767	ROTOR WITH HAMMERS MU 280 LEFT	MU2Z 840	1
	T02768	ROTOR WITH HAMMERS - LEFT	MU2Z 900	1
170 D	T02772	ROTOR WITH HAMMERS	MU2Z 840	1
	T03535	ROTOR WITH HAMMERS	MU2Z 900	1
171	T02448	SUPPORTING ROLLER FI194	MU2Z 840	2
	T02449	SUPPORTING ROLLER FI194	MU2Z 900	2
172	T02450	SUPPORTING ROLLER BEARING BRACKET BIG SET		2
173 L	T02451	CLEANER BRACKET LEFT		2
173 D	T02452	CLEANER BRACKET RIGHT		2
174	T12981	SUPPORTING ROLLER BRACKET LEFT		2
175	T12980	SUPPORTING ROLLER BRACKET RIGHT		2
177	T12983	CLEANER 40X40X4	MU2Z 840	2
	T12982		MU2Z 900	2
178	T12986	CLEANER - ADDITIONAL	MU2Z 840	2
	T12985		MU2Z 900	2
179 L	T06565	LINKAGE BRACKET LEFT		1
179 D	T06566	LINKAGE BRACKET RIGHT		1
181kpl	T00984	ROTOR BEARING BRACKET 219,3 LEFT		2
182kpl	T00985	ROTOR BEARING BRACKET 219,3 RIGHT		2
183	T00265	ROTOR BEARING BRACKET FLANGE LEFT		2
184	T00266	ROTOR BEARING BRACKET FLANGE RIGHT		2
185 L	T06706	PULLEY GUARD LOWER LEFT MU2Z		1
185 D	T06707	PULLEY GUARD LOWER RIGHT MU2Z		1
186 L	T06708	GENERATOR ADJUSTMENT INDICATOR LEFT L2018		1
186 D	T06709	GENERATOR ADJUSTMENT INDICATOR RIGHT L2018		1
187	T06710	DISTANCE BUSH		2
188	T08008	SIDE COVER		4
190	T07240	PROTECTIVE ADJUSTABLE FLAP AXIS	MU2Z 840	2
	T07239		MU2Z 900	2
191kpl	T06513	TENSIONER LEFT		1
192kpl	T06512	TENSIONER RIGHT		1
193	T02406	AXIS PROTECTION RIGHT MU250-300		2
194 L	T06702	LIFTING ARM LEFT MU2Z L2018		1

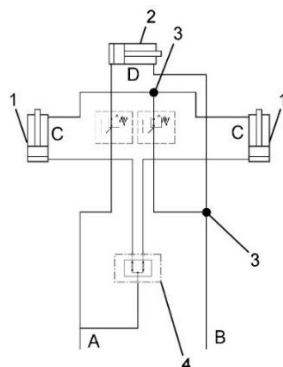
POS.	IDENT	NAME		QTY.
194 D	T06703	LIFTING ARM RIGHT MU2Z L2018		1
195kpl	T06549	UPPER LINKAGE BOLT CAT. III SET		1
196	T06555	BOLT 25X103		2
200	11333	SCREW DIN 933 M 8x 20		6
201	11377	SCREW DIN 933 - M 16 X 45 - 8.8		8
202	11383	SCREW DIN 933 - M 18 X 50 - 8.8		16
203	11630	CARRIAGE SCREW DIN 603 - M12X35 - 8.8		4
205	11782	SPRING PIN FLEXIBLE DIN 1481 6x70		2
206	13684	PLUG SQUARE 35 X 35 X 3		2

10.2.1 Gearbox for MU2Z 840R LW, MU2Z 900R LW



POS.	IDENT.	NAME		QTY
8	12272	GEARBOX MA160		1
11		BEARING		1
12		BEARING		2
13		BEARING		1
16		AXIS SEALANT		1
17	12211	INTERNAL RETAINER RING DIN 472 90		2
18	11721	EXTERNAL RETAINER RING DIN 471 50		1
20	13300	GEARBOX AIR VENT		1

10.2.2 List of hydraulic spare parts



POS.	IDENT.	NAME		QTY
1	13683	CYLINDER 90xP385		2
2	13682	CYLINDER 25xP100		1
3	13657	THREE-LEGGED ATTACHMENT WITH EXTERNAL THREAD M+M+M 3/8"		2
3	10245	HYDRAULIC OIL DIVIDER 10-20L 3/8 DFL		1
4	13698	SHUT OFF VALVE VS2C		2

11 Conformity declaration

EC conformity declaration

Pursuant to

EC DIRECTIVE 2006/42/EC AND MACHINERY SAFETY RULES

(OFFICIAL GAZETTE OF THE REPUBLIC OF SLOVENIA NO. 75/08, 66/10 AND 74/11).

The manufacturer:

TEHNOS - PROIZVODNJA STROJEV IN ORODIJ,

CESTA OB ŽELEZNICI 1, 3310 ŽALEC, SLOVENIA

Description of the device – machine:

FLAIL MOWER

MUZZ 840R LW, MUZZ 900R LW

Declares under full liability, that the following machine

FLAIL MOWER

MUZZ 840R LW, MUZZ 900R LW

complies with the following regulations and standards:

EC DIRECTIVE 2006/42/EC AND MACHINERY SAFETY RULES

(OFFICIAL GAZETTE OF THE REPUBLIC OF SLOVENIA NO. 75/08, 66/10 AND 74/11).

Harmonized and other standards:

SIST EN ISO 12100: 2011, SIST EN ISO 4254-1: 2016, SIST EN ISO 4254-12: 2012

SIST EN ISO 4254-12: 2012/opr A1: 2016, SIST EN ISO 13857: 2008, SIST EN ISO 4413-1: 2011

Person responsible for technical documentation:

RKT, Jože Leva, Matjaž Korošec, TEHNOS - PROIZVODNJA STROJEV IN ORODIJ,

CESTA OB ŽELEZNICI 1, 3310 ŽALEC, SLOVENIA

Date:
RESPONSIBLE:

Žalec, 01. 06. 2017

SIGNATURE OF THE PERSON

Anton Kisovar, Director



LIST OF PREVENTIVE EXAMINATIONS AND MAINTENANCE INTERVENTIONS FOR THE USER

MAINTENANCE REMINDER	After first 5 working hours	After first 20 working hours	Every 10 working hours	Every 200 working hours	Periodically	Every 2 years	Tightening torques for screws (Nm)		
							Thread	Screw quality 8.8 10.9	
Belt tensioning	X	X			X		M 8	28	40
Tightening the screws	X		X				M 10	55	80
Oil level check					X		M 12	95	140
Oil change		X		X		X	M 14	150	225
Lubrication of all greasing points			X				M 16	240	314
							M 18	330	475
							M 20	430	615

ACTIVITY	DATE	NOTES

