

V. MOWER OPERATION.

1. Choosing the tractor.

Drum mower is prepared to work with agricultural tractors class Z-001 - 9kN, Z-001/2 -14kN. In order to maintain the steering conditions of the front wheels, agricultural tractors should be prepared according to the following recommendations:

Ursus C355 – serial front axle and front wheel loads, with rear wheel weights.

Ursus C360 – serial front axle and front wheel loads, without rear wheel weights.

Massey-Ferguson 235 i 255 – additional front wheel weights (A - 4pcs) of 136kg.

Massey-Ferguson 535 i 555 – serial load.

2. Suspension of the mower onto a tractor.

Before hanging the mower on the tractor, place it on level ground on the slide plates. Then slide the lower links of the tractor linkage onto the pivots of the linkage frame and secure with cotter pins, and connect the upper links with the top link pin of the top link hole. Secure the hitch pin with a pin (Fig. 5). Adjust the length of the top link so that the mower's slide plates are parallel to the ground.

Fig. 5 Aggregating the mower with the tractor's three-point linkage.

(1 - lower frame pivot, 2 - yoke plate, 3 - holes in yoke plates for upper link)

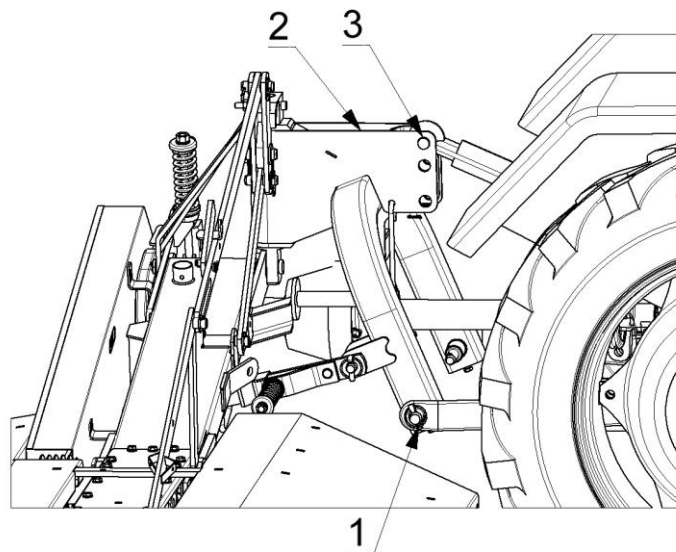
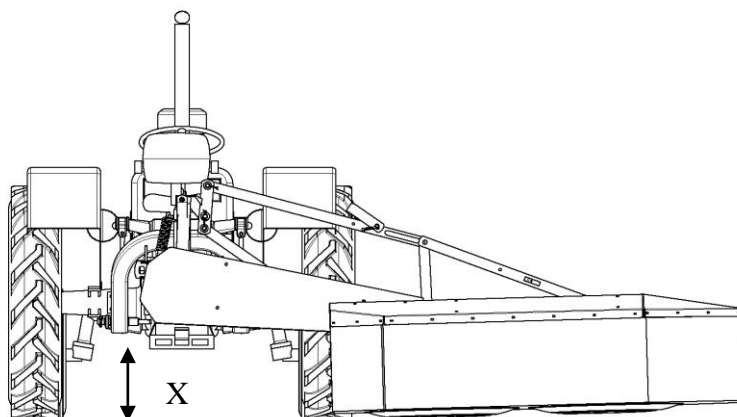


Fig. 6 Setting the mower to the working position.



3. Assembly of jointed-telescopic shaft.

The connection between the tractor and the mower by jointed-telescopic shaft is only possible in the working position of the mower.

NOTICE

Before setting the mower to the transport position, it is essential to disconnect the PTO shaft.

The tractor's universal joint shaft and the mower's adoption shaft are equipped with PTO shaft supports covered by a sleeve cover. The PTO shaft should be pushed onto the splined ends of the mower and the tractor and secured against slipping out. It is imperative that the outer pipe of the shaft shield is on the tractor side when fitting the PTO shaft. The chain of the PTO shaft guard must be attached to a fixed part of the tractor and to the mower suspension frame.

Jointed-telescopic shaft PTO					
Purpose	Series	Catalogue code	Torque [Nm]	Power [kW]	Lmax [mm]
Mower drive Z-001	T	Depending on the manufacturer	460	35	900
Mower drive Z-001/2	T	Depending on the manufacturer	460	35	900

Adhere the greasing frequency of the shaft, which is indicated in the diagram in the shaft manual.

Read the shaft manual and follow the instructions in it.

If necessary, adjust the length of the PTO shaft by shortening it according to the shaft manufacturer's instructions.

NOTICE

PTO's driving a mower, manufactured after 1 May 2004, must bear the European CE mark of conformity (older shafts - safety mark "B"). It is not permitted to use a roller without shields or with damaged shields.

4. Setting the mower to the transport position and transportation.

The mower mounted on the tractor must be set in the transport position for the transportation (Fig. 7).

To do so, proceed as follows :

- set the mower mounted on the tractor on an even and horizontal surface and then lower the aggregate so that the sliding discs lean on the ground,
- remove the PTO shaft,
- remove the knives from the work drums,
- set the Z-pawl in the rear position (Fig. 8),
- remove the plug and the fuse,
- lift the mower so that the sliding discs are just above the ground,
- set the mower by hand to the left as far as it will go, making sure that the pin of the locking device enters the hole with the loose line,
- lift the mower with the tractor hydraulic lift.

NOTICE

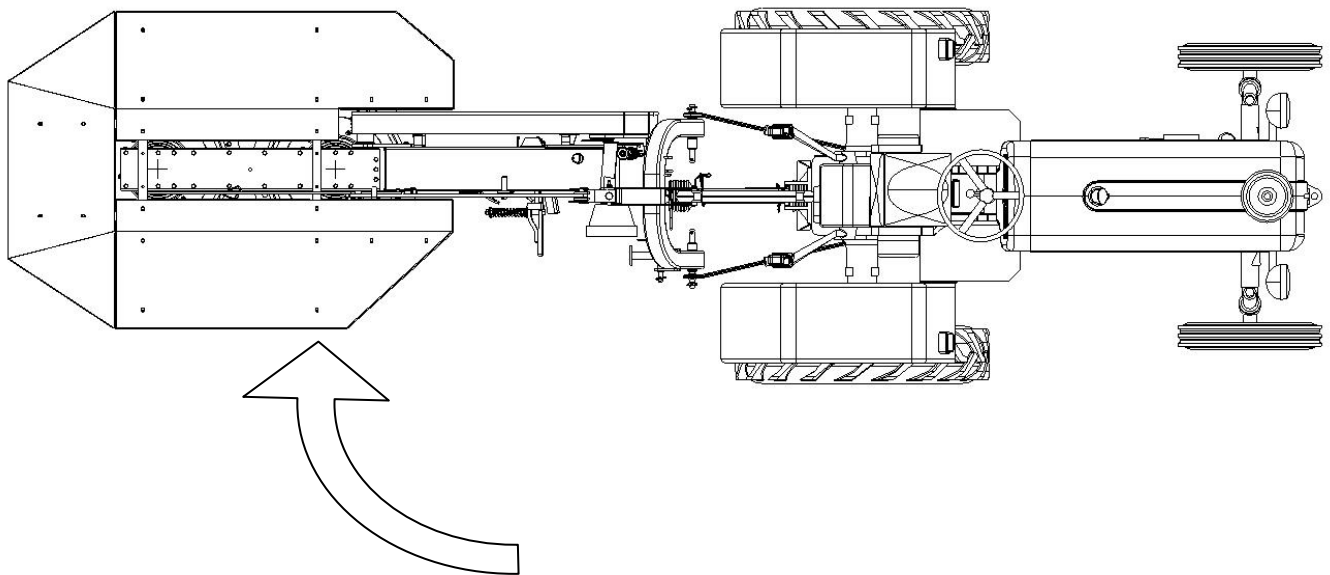
The mower is not factory-fitted for transport on public roads. To carry out such transport, it is necessary to equip the mower by the user (self-assembly) with the following devices :

- a portable light and warning device fitted to the rear of the mower (warning boards in slanted white and red stripes, equipped with rear red position lights); before driving, connect the light system to the external socket of the tractor's electrical system and check the correct functioning of the portable lights,
- a distinguishing board for slow-moving vehicles (triangular).

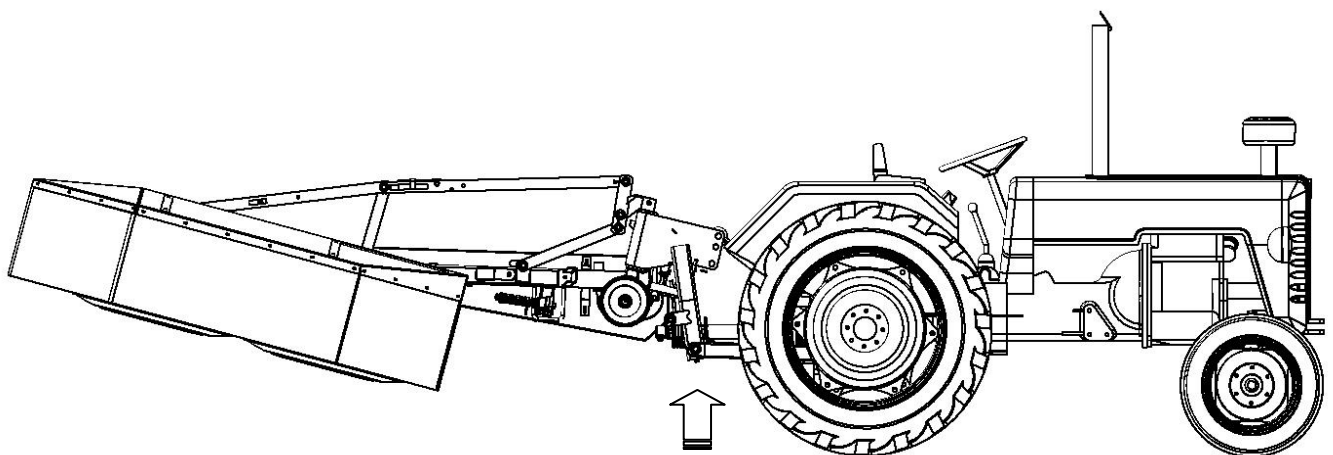
These components are not standard equipment of the mower. They can be purchased from the manufacturer for an additional fee.

The speed of the tractor with the mower hanged must be adapted to the road conditions, but must not exceed 20 km/h.
Adhere the traffic regulations when driving on public roads.

Fig. 7 Setting the mower to the transport position.



Transport of the mower at the rear of the tractor.



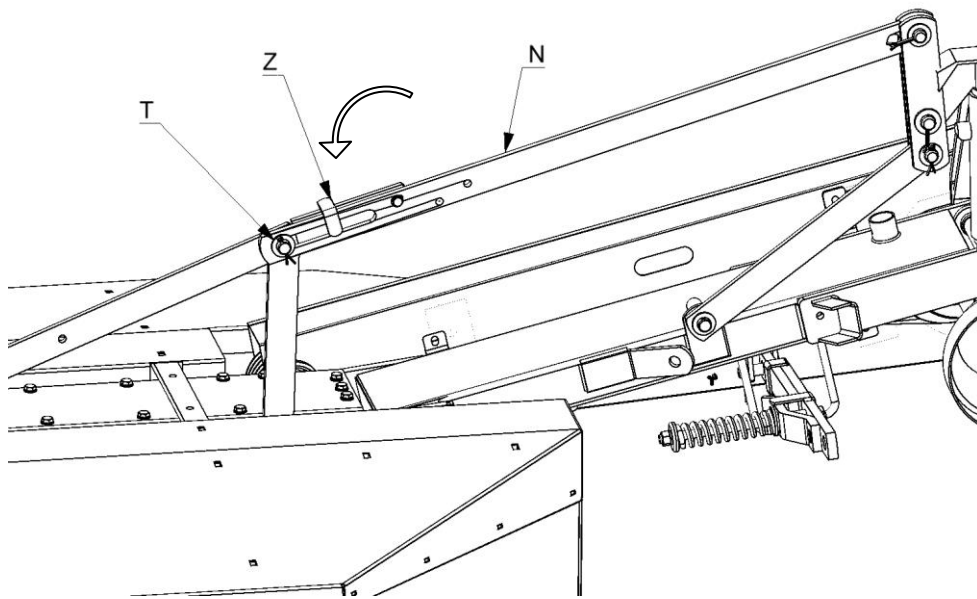
Lifting the mower with the tractor hydraulics.

5. Setting the mower to the working position.

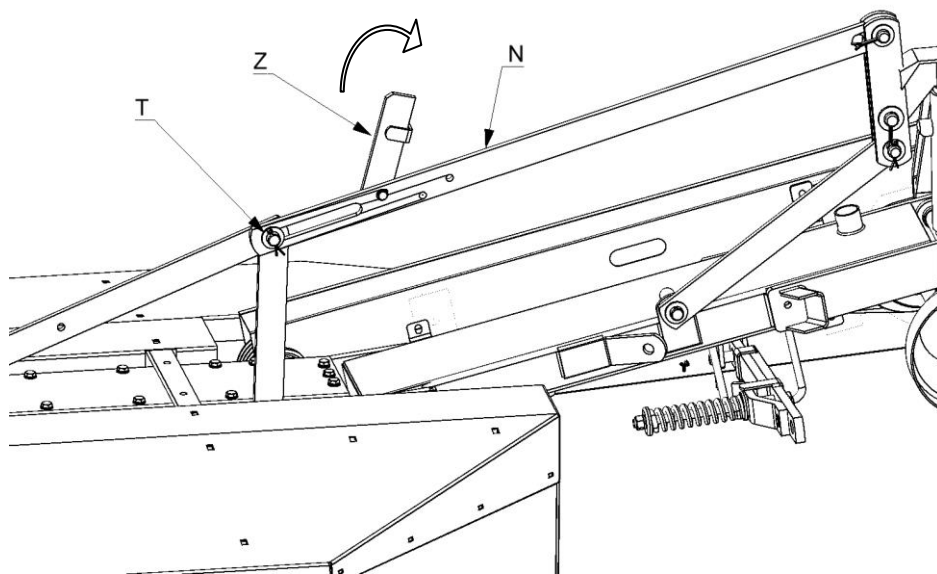
Before starting work, set the mower to the working position. To do so, proceed as follows :

- set the aggregate on an even horizontal surface and lower the mower just above the ground,
- pull the line making the locking pin slide out of the hole,
- grab the mower at the rear by the shield frame and swing it to the right to the working position, while releasing the line,
- place the fuse on the pivots and secure with a pin,
- set the Z-pawl to upper position (Fig. 8),
- put the knives on (full set of three knives per drum),
- mount the PTO shaft.

Fig. 8 Setting the Z-pawl in position :



- **TRANSORT** (locked shift of the T-bolt in the N-bolt hole)



- **WORKING** (possible shifting of the T-bolt in the N-bolt hole)

6. Rest position.

In the rest position the mower is completely disconnected from the tractor's suspension system. The mower can be set to this position from both the transport and the working positions. The following steps are required to set the mower to the rest position :

- remove the PTO shaft,
- when the mower is raised on the 3-point linkage, move the support foot downwards and secure it with a lynch pin,
- lower the mower by leaning on the sliding plates and support foot,
- disconnect the jointed end of the tractor top link from the mower frame,
- remove the ball joints of the tractor lower links from the pivots of the suspension frame.

7. Replacement of blades.

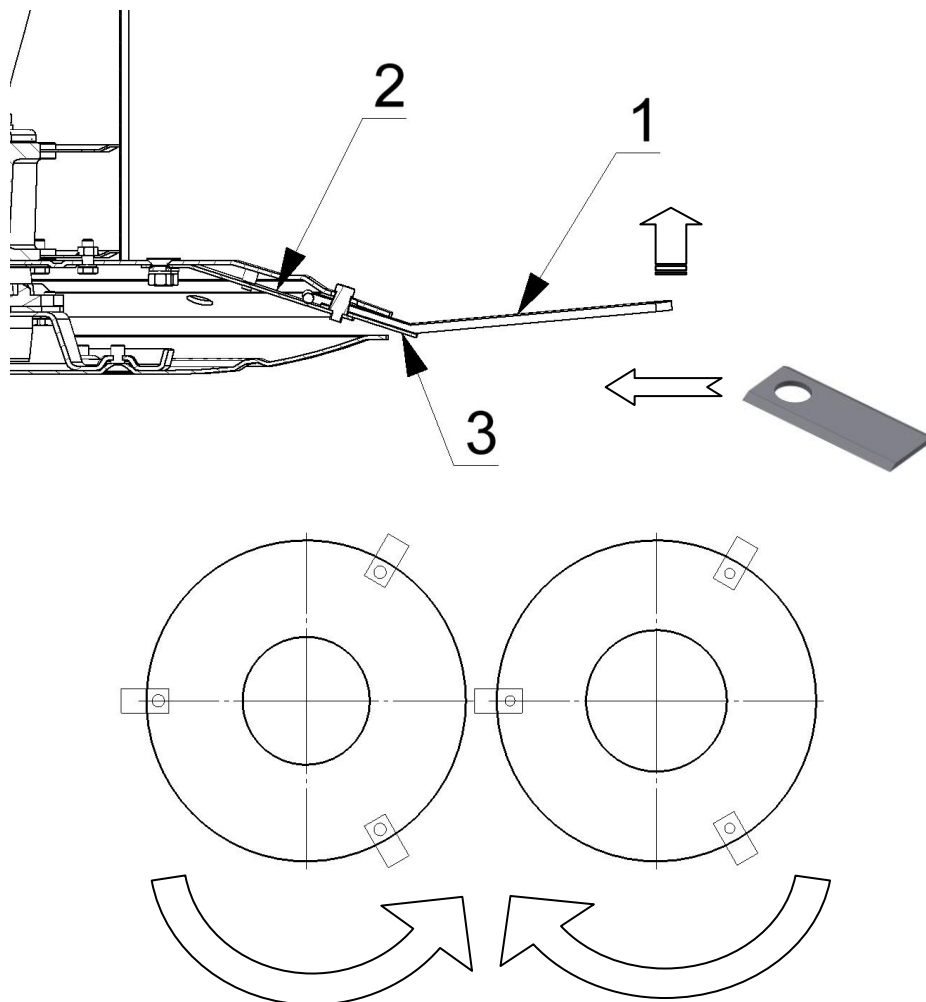
Wear or damage to even one of the knives makes it necessary to replace the whole set (if the rotating parts of the mower are not balanced properly, it can damage the mower or make an accident during operation). The criterion for the replacement of the knives should be the following:

- excessive operational wear, e.g. significantly deteriorated forage cutting quality (torn stems) with visually noticeable rounding (blunting) of the blade cutting edge,
- damage, e.g. crushing of the cutting edge, significant deformation of the blade or the holder, breakage of the blade or the holder, breakage of knife parts.

The blades are assembled using a special wrench (1) which is in standard equipment of the mower. The end of the wrench is inserted into the gap between the working and sliding discs so that the circular key is above the holder (2). Then, by pulling the wrench upwards, the holder is spring-loaded and the head of the stem is released from the hole in the working disc. A knife (3) is applied to this mandrel - the cutting edges should face downwards. After releasing the key pressure and returning the stem head to the work disk opening, the knife is assembled.

The knives are assembled in accordance with figure 9.

Fig. 9 Method of knife assembly.



Replacing the knives requires to pay attention to their alternating position on both plates. The diagram of correct knife installation is shown in Fig. 9.

NOTICE

Check if the top of the shank head of holder is flush with the top edge of the disc hole and if the position of the head is centred in relation to the hole. Failure to do so, may result in the knife being rejected while the operation of the mower.

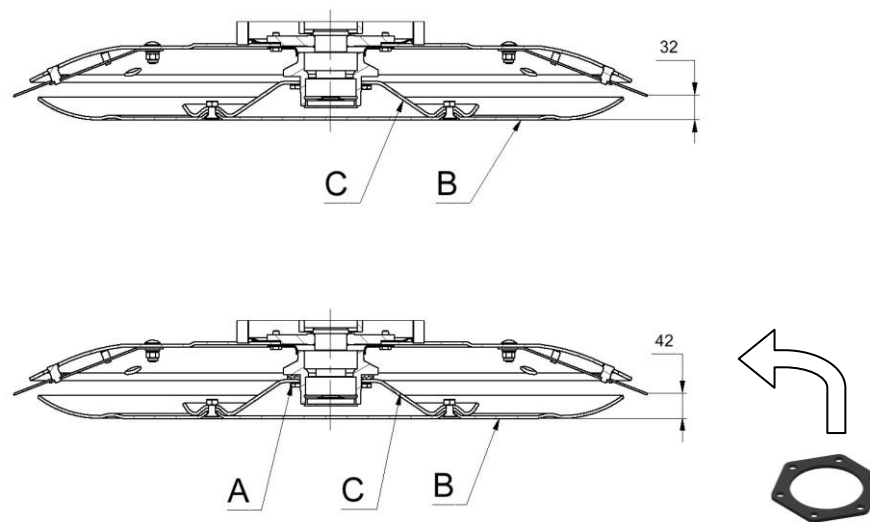
8. Setting the cutting height.

The Z-001 and Z-001/2 can have the following cutting heights :

- 32 mm
- 42 mm

The height of cut (Fig. 10) is changed by removing or inserting a spacer ring (A) above the resistance plate (C). The sliding disc (B) has to be unscrewed then the resistance disc (C) has to be unscrewed. Spacer rings can be purchased from the manufacturer.

Fig. 10 Setting the cutting height.



9. Securing the mower against overloading.

To protect the mower from overload, a snap-fuse is used. If the machine hits an obstacle, the fuse allows the mower frame to be tilted back. If this happens, stop the tractor immediately and switch off the drive. The fuse returns to its normal position when the tractor is reversed. The length of the spring tensioned fuse is 150 mm. Any tensioning of the spring can cause the fuse to block, which can even result in damage to the machine.

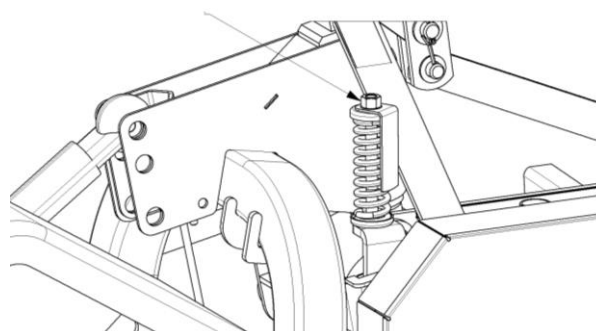
10. Tightening of V-belts.

To adjust the tension of the V-belts, use the nut (A) (Fig. 11). If one of the four belts is damaged (e.g. cracked, torn, split) or excessively worn (when the tension adjustment is no longer effective and the belt continues to slip or fall off the wheel), the entire belt set must be replaced.

NOTICE

After changing the belts, it is essential to remember to install the previously removed belt drive cover.

Fig. 11 Tightening of V-belts.



11. Mower operation.

- a) lower the cutting unit until the sliding discs come into contact with the ground with no grass,
- b) adjust the position of the discs using the top link of the tractor (8 fig. 3) so that they are parallel to the ground,
- c) adjust the position of the mower suspension frame to maintain dimension (X) of Fig. 6, which should be about 30 cm. Adjust the position of the mower relative to the tractor to avoid crashing of the swath by the wheels,
- d) switch on the mower drive by providing the cutter drums to full speed (PTO speed 540 rpm - 56.5 rad/s),
- e) start mowing.

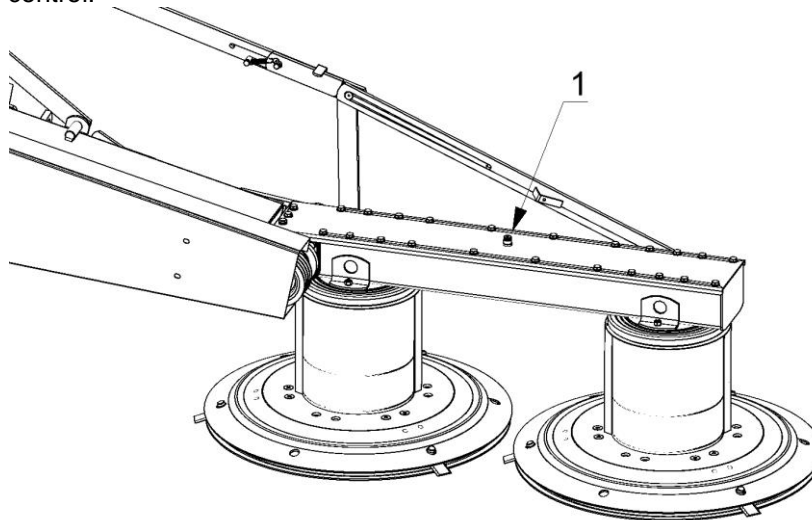
Operating recommendations :

- avoid working on uneven and stoned fields (danger of blades damage),
- use the entire working width of the mower,
- when idle, switch off the PTO drive.

12. Greasing.

To ensure proper operation and durability of the PTO shaft, it must be properly greasing according to the shaft manual.

Fig. 12 Oil level control.



13. Checking and changing the oil in the gearbox.

Check the oil level in the gearbox each time before starting work. This check must be performed through the vent hole, after unscrewing the vent valve in the gearbox housing cover (Position 1 , Figure 12). The minimum required oil level is 15 mm (from the bottom of the gearbox). The operation is carried out using a rod that reaches to the bottom of the box.

Once a year after the end of the season or every 100 ha (whichever comes first), the oil in the gearbox must be changed, with the first change in the new mower after the first 10 hours of operation. It is recommended that the oil change is carried out by a service company equipped with the right tools and instruments. However, if You can safely do this yourself and are equipped with the right tools, you should use universal tools to do this, remove the box cover and seal (item No. 4 in catalogue drawing No. 1) and pump out the oil and dirt (e.g. using a pump or similar device) and then pour in new oil. Remember that after oil change, the box cover and the silicone seal must be reinstalled so that the box remains tight.

The box should be approx: 2.5 l of Z001 oil, 3.5 l of Z001/2 oil.

It is recommended to use high viscosity oils intended for gears, meeting quality class ISO 12925-1 CKC/CKD, ISO-L-CKD, and Transol CLP 320 FL SMIDT MAAG Gear -GEARS 60752 approval.

Recommended : Orlen Transol CLP 320.

NOTICE

It is forbidden to tip or tilt the mower to empty the gearbox of oil. This can lead to serious accidents, e.g. crushing the operator. Pour used oil into a container and return it to the appropriate disposal facility. Do not contaminate the environment with it (including spilling it into drains or sewage).

14. Description of residual risk.

Although the manufacturer PMRiCZ KOWALSCY Spółka Jawna assumes responsibility for the construction and marking of the Z-001 and Z-001/2 mower to eliminate danger during operation as well as during operation and maintenance, some risks are unavoidable. The residual risk results from incorrect or inappropriate behaviour of the operator of the rotary mower. The greatest danger occurs when carrying out the following prohibited activities :

- a) operation without shields or with damaged or raised shields,
- b) operation in the presence of outsiders at a distance of less than 50 metres,
- c) mowing the edges of streets, roads, public squares (parks, schools, settlements, etc.) or on stony ground,
- d) operation of the mower by persons under the influence of alcohol or other intoxicants,
- e) the mower lifts upwards with the drive engaged and the drums rotating,
- f) the transport of the machine with the blades assembled,
- g) approaching to rotating machine parts,
- h) carrying persons on the mower,
- i) being between the mower and the tractor during engine operation,
- j) remove the safety shield when the engine is in motion,
- k) the transport of a mower with connected PTO drive,
- l) using the PTO shaft without shield or with a defective shield,
- m) manipulation within the PTO shaft during operation,
- n) the PTO exceeds 600 rpm,
- o) checking the technical condition with during operation.

The Z-001 and Z001/2 rotary mower is considered to be a machine that has been designed and built to the current state of the art up to the start of production.

15. Residual risk assessment.

When following recommendations, residual danger can be eliminated when using the Z-001 and Z-001/2 without risk to people and the environment :

- a) reading the instructions carefully,
- b) a ban of working without shield or with damaged or lifted shield,
- c) a ban on persons being on the mower during work and transport,
- d) a ban to operate the mower in the presence of bystanders within a distance of less than 50 m,
- e) a ban on being between the tractor and the mower while the engine is running,
- f) a ban on lifting upwards a running machine,
- g) adjustment of the mower only when the drive and engine of the tractor are switched off,
- h) maintenance and repair of the machine only by properly trained persons,
- i) to operate the mower by persons who are authorised to drive agricultural tractors and who have read the operator's manual,
- j) protect the mower from access by children.

NOTICE

There is a residual risk in case of non-compliance with the specified recommendations and guidelines.

VI. MAINTENANCE AND STORAGE.

Clean the mower every day after use and check its condition. Particular attention should be paid to the condition of the knives and the whole set should be replaced, as well as to the condition of the apron stiffeners, the aprons themselves and the covers. Any damage noticed must be removed. Before starting work, lubricate the telescopic parts of PTO shafts and check the oil level in the gearbox and the condition of screw connections (their tightening).

After the end of the working season, you should:

- Carefully clean the machine from dirt;
- carry out a technical inspection and replace damaged parts with new ones;
- Grease the machine according to the lubrication diagram;
- Coat the working surfaces, suspension pivots and locking pins with a layer of dense solid lubricant;
- Store the machine in a precipitation-protected place to prevent injury to persons and animals. The machine must rest on the ground with two discs and a front support.

When changing the oil in the gearbox, it is recommended to pay particular attention to the correct silicone/seal and to the correct screwing of the cover.

Failure to do so may cause unnecessary oil leaks from the gearbox.

If in doubt about the quality of the seal, it is recommended to perform it again.

NOTICE

For replacement parts, use only original parts according to the parts catalogue.

All repairs and replacements of mower driveline parts must be carried out by a suitable specialist workshop equipped with the correct tools and implements.

All maintenance and repair work may only be carried out when the mower has been disconnected from the tractor and is firmly seated on flat, hard, horizontal ground and supported by the mower's front support. Wear protective gloves when operating the mower in order to prevent injury from sharp parts.

VII. REMOVING AND DECOMMISSIONING THE MOWER. I KASACJA KOSIARKI.

NOTICE

Uncouple the machine from the tractor and place it firmly on flat, firm, horizontal ground, supporting the front of the mower with its support.

1. Removing.

The machine must be thoroughly cleaned of mowing residues, dirt and mud before repair work can be carried out, if necessary to determine its suitability for further use. After checking the bolted connections, finding the correct play on the pins and gears, we evaluate the possibility of further operation of the machine. Worn or damaged parts must be replaced with new (original) ones. Use universal tools and keys supplied with the mower for disassembly.

2. Decommissioning.

If the mower is worn to the point where it can no longer be used, if it becomes unprofitable or technically impossible to repair the mower, it must be removed.

To do so, drain the oil from the main frame box and bevel gearboxes and return it to the disposal plant. Then clean the residues thoroughly with a cleaning agent, remove the plastic parts and return them to the disposal facility. After the above steps have been taken, the remaining parts must be taken to a metal collection point.

NOTICE

Do not pollute the environment with waste !!

VIII PARTS CATALOGUE.

Ordering of spare parts

To order spare parts, please specify each time:

- ordering address,
- shipping address,
- serial number of the mower,
- component name,
- component symbol,
- number of pieces to be ordered,
- terms of payment.

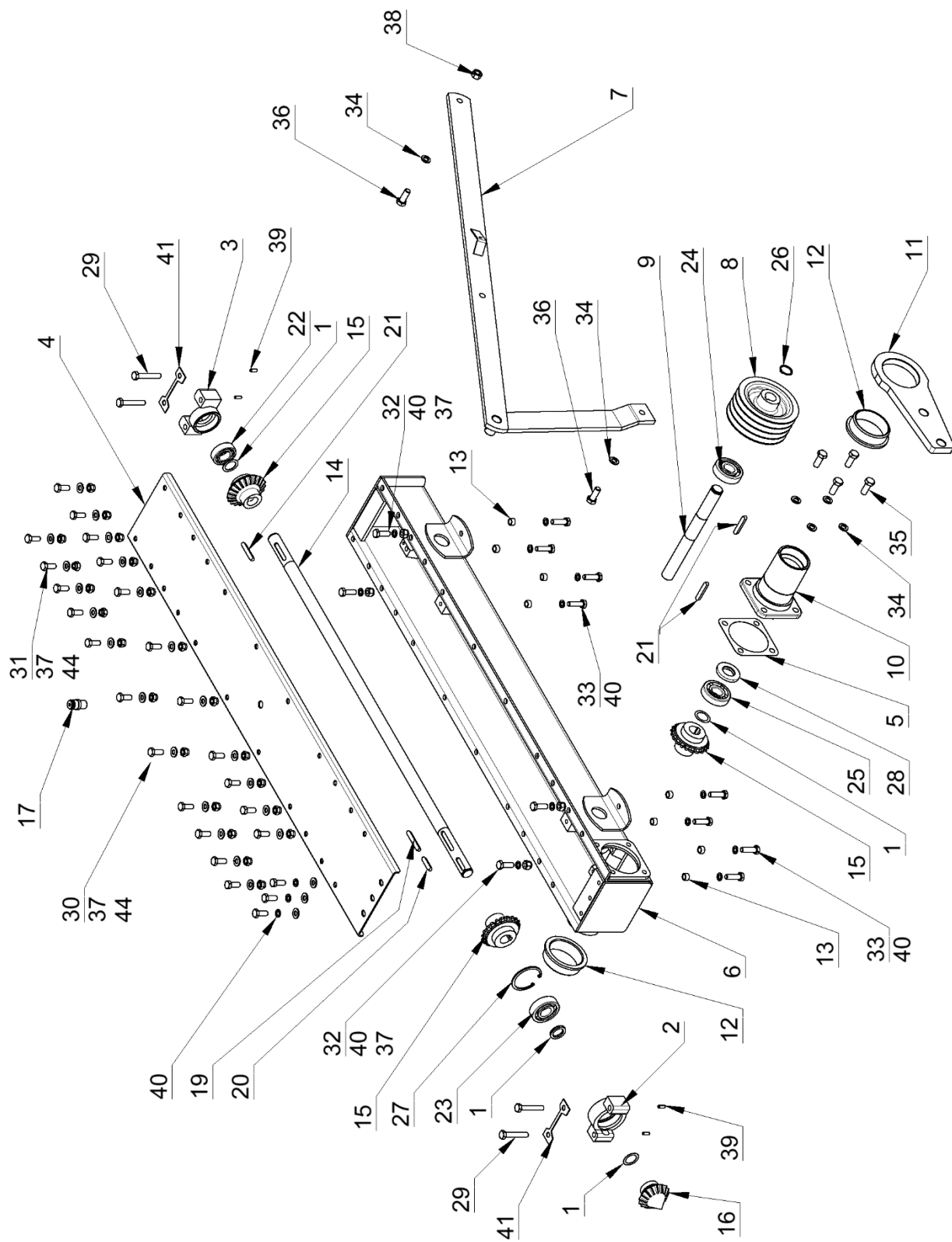
Please contact your lawnmower manufacturer or dealer for an order.

The parts list.

Drum mower Z001 1,65 & Z001/1 1,85

1. The body of the main frame and the drive of the cutting units.

Figure no. 1

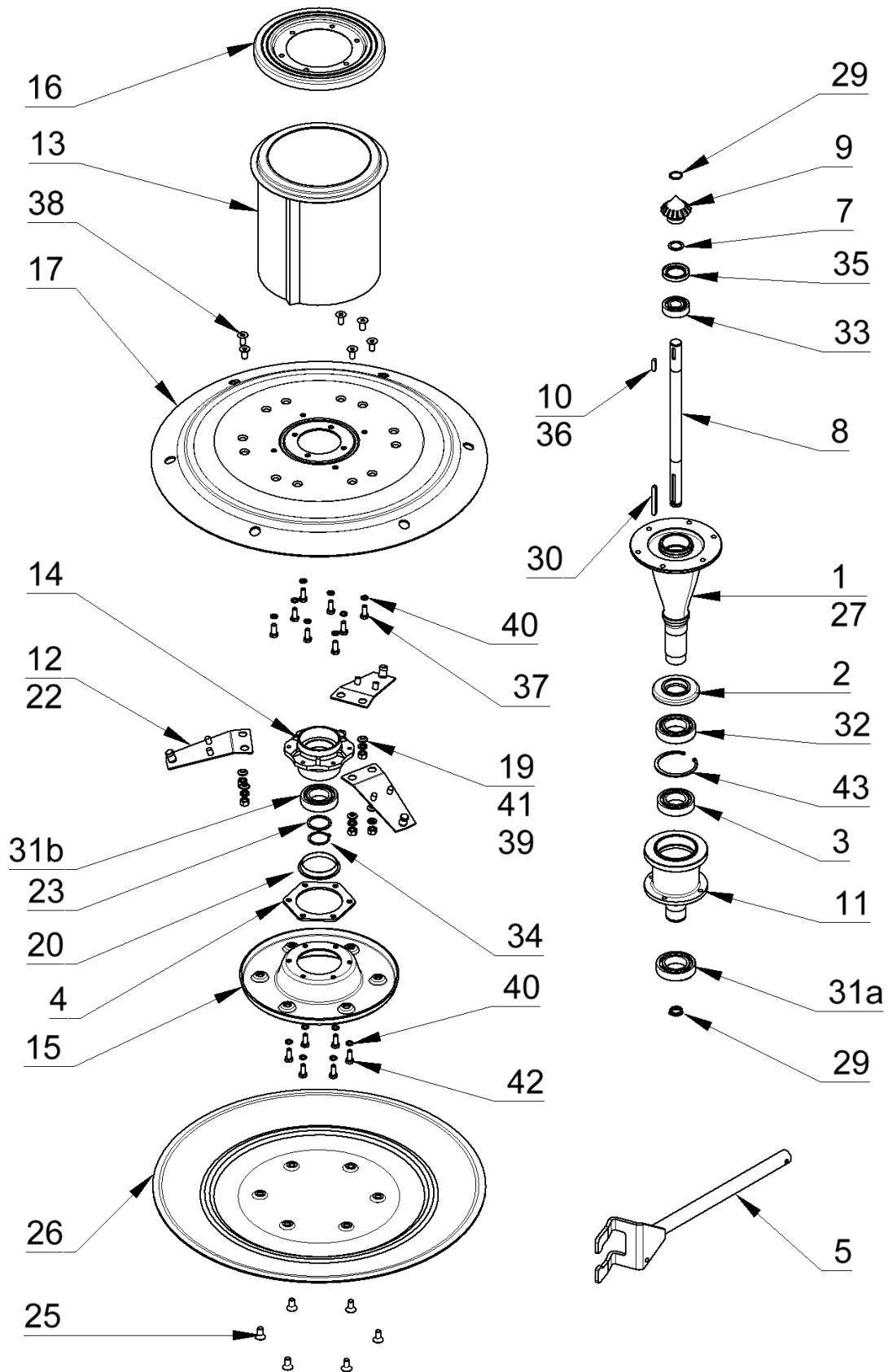


**Table of figures
no. 1**

Item no. in the figure	Part or set name	Catalogue number		Quantity
		1.65	1.85	
-	Complete drive shaft (poz.8,9,10,11,12,21,24,25,26,28)	82501-010-248		1
1	Regulating washer 25x35x0,01 Regulating washer 25x35x0,3 Regulating washer 25x35x0,5 Regulating washer 25x35x1,0	82501-010-098 82501-010-105 82501-010-118 82501-010-120		depends on needs
2	Left bearing case	82501-010-18	82501-010-18/2	1
3	Right bearing case	82501-010-19	82501-010-19/2	1
4	Welded lid	82501-010-65	82501-010-65/2	1
5	Gasket	82501-010-55		1
6	Welded main frame	82501-010-64	82501-010-64/2	1
7	Complete tie	82501-010-70	82501-010-70/2	1
8	Small pulley	82501-010-250		1
9	Drive shaft	82501-010-263		1
10	Hub	82501-010-276		1
11	Rear plate	82501-010-28	82501-010-28/2	1
12	Support sleeve	82501-010-291		2
13	Sealing sleeve	82501-010-337		8
14	Drive shaft	82501-010-35	82501-010-35/2	1
15	Big conical arched wheel	Ł82501-010-67	Ł82501-010-67/2	3
16	Small conical arched wheel	Ł82501-010-66	Ł82501-010-66/2	1
17	Valve	82501-010-441		1
18				
19	Prismatic groove A8x7x56 PN-70/M-85005	85005-A8-7-56		1 / 0
20	Prismatic groove A8x7x36 PN-70/M-85005	85005-A8-7-36		4
21	Prismatic groove A8x7x50 PN-70/M-85005	85005-A8-7-50		3 / 4
22	Ball bearing 6205C3 PN-85/M-86100	86100-6205-C3		1 / 0
	Ball bearing 6206C3 PN-85/M-86100	86100-6206-C3		0 / 1
23	Ball bearing 6305 PN-85/M-86100	86100-6305		1 / 0
	Ball bearing 6206C3 PN-85/M-86100	86100-6206-C3		0 / 1
24	Ball bearing 6305-2Z-C3 PN-85/M-86100	86100-6305-Z-C3		1
25	Ball angular bearing 7305B or equivalent 30305,31305 PN-85/M-86220	86220-7305B		1
26	Flexible spring ring Z25 PN-81/M-85111	85111-Z25		1
27	Flexible spring ring W62 PN-81/M-85111	85111-W62		1
28	Sealing ring A25x52x7 PN-72/M-86964	86964-A25-52-7		1
29	Bolt M10x60-10.8 PN-85/M-82101	82101M10-60Z10		4 / 8
30	Bolt M10x25-8.8B-Fe/Zn8c PN-85/M-82105	82105M10-20Z88		14 / 22
31	Bolt M10x40-8.8B-Fe/Zn8c PN-85/M-82105	82105M10-25Z88		4
32	Bolt M10x30-8.8B-Fe/Zn8c PN-85/M-82105	82105M10-30Z88		4 / 8
33	Bolt M10x35-8.8B-Fe/Zn8c PN-85/M-82105	82105M10-35Z88		8 / 4
34	Spring washer 12,2 Fe/Zn9 PN-77/M-82008	82008-12-ZN		6
35	Bolt M12x30-8.8B-Fe/Zn8c PN-85/M-82105	82105M12-30Z88		4
36	Bolt M12x30-8.8B-Fe/Zn8c PN-85/M-82105	82105M12-30Z88		2
37	Nut M10-8-B-Fe/Zn8c PN-86/M-82175	82175M10-8-ZN		26 / 30
38	Nut M12-8-B-Fe/Zn8c PN-86/M-82175	82175M12-8-ZN		1
39	Spring pin 6x16 PN-85/M-85023	85023-6-16		4
40	Spring washer 10,2 Fe/Zn9 PN-77/M-82008	82008-10-ZN		12
41	Refolded two-hole washer	82501-010-620		4
42				
43				
44	Round washer 10,5Fe/Zn9 PN-78/M-82005	82005-10-ZN		47 / 48
45				

2. Cutting unit and bearings.

Figure no. 2

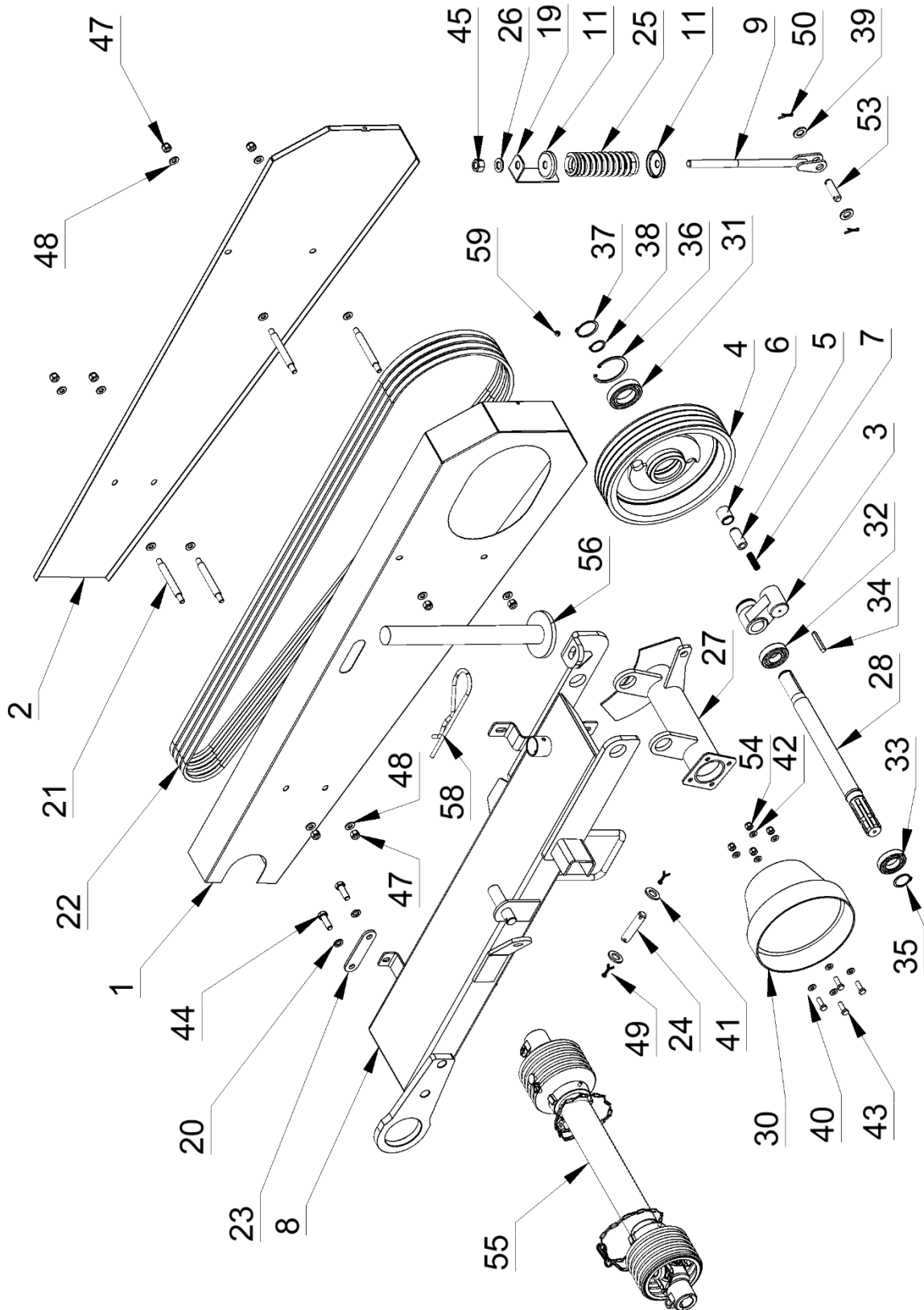


**Table of figures
no. 2**

Item no. in the figure	Part or set name	Catalogue number		Quantity
		1.65	1.85	
				1.65 / 1.85
-	Drum mounting (poz.1,2,3,7,8,9,10,11,27,29,30,31a,32,33,35,36, 43,48)	82501-410-788		2
1	Drum hub	82501-010-747		2
2	Distance cover	82501-010-431		2
3	Ball bearing 6209Z PN-85/M-86100	86100-6209-Z		2
4	Distance ring	82501-010-446		2
5	Welded key	82501-010-059		1
6				
7	Regulating washer 25x35x0,1 Regulating washer 25x35x0,3 Regulating washer 25x35x0,5 Regulating washer 25x35x1,0	82501-010-098 82501-010-105 82501-410-118 82501-010-120		depends on needs
8	Drive shaft	82501-010-017		2
9	Small conical arched wheel	Ł82501-010-66	Ł82501-010-66/2	2
10	Prismatic groove A8x7x32	82501-410-156		2
11	Working plate hub	82501-410-790		2
12	Complete blade holder	82501-010-30	82501-010-30/2	6
13	Complete drum cover	82501-010-721		2
14	Slide plate hub	82501-010-775		2
15	Complete resistance plate	82501-010-340		2
16	Drum cover	82501-010-36		2
17	Working plate	82501-010-37	82501-010-37/2	2
18				
19	Conical ring	82501-010-400		12
20	Cover	82501-410-413		2
21				
22	Blade	82501-010-454		6
23	Regulating washer 45x55x0,1 Regulating washer 45x55x0,3 Regulating washer 45x55x0,5 Regulating washer 45x55x1,0	82501-010-467 82501-010-470 82501-010-482 82501-010-495		depends on needs
24				
25	Bolt M12x25 kl. 10,9	82501-010-515		12
26	Complete sliding plate	82501-010-52	82501-010-52/2	2
27	Sealing ring 70x3,5	82501-010-543		2
28				
29	Flexible spring ring Z25 PN-81/M-85111	85111-Z25		4
30	Prismatic groove A8x7x80	82501-010-584		2
31a	Ball bearing 6210Z-C3 PN-85/M-86100	86100-6210-Z-C3		2
31b	Ball bearing 6209Z-C3 PN-85/M-86100	86100-6209-Z-C3		2
32	Ball bearing 6210-2Z-C3 PN-85/M-86100	86100-6210-Z-C3		2
33	Ball bearing 6305-C3 PN-85/M-86100	86100-6305-C3		2
34	Flexible spring ring Z45 PN-81/M-85111	85111-Z45		2
35	Sealing ring B40x62x7 PN-72/M-86965	86965-B40-62-7		2
36	Felt gasket 5x8x12 PN-77/M-86012	86012-5-8-12		2
37	Bolt M10x20-8.8-B-Fe/Zn8c PN-85/M-82105	82105M10-20Z88		20
38	Bolt M12x25-10.9-Fe/Zn8c DIN 7991	7991M12-25Z10		12
39	Nut M12-8-B-Fe/Zn9 PN-86/M-82175	82175M12-8-ZN		12
40	Spring washer 10,2Fe/Zn9 PN-77/M-82008	82008-10-ZN		32
41	Spring washer 12,2Fe/Zn9 PN-77/M-82008	82008-12-ZN		12
42	Bolt M10x30-8.8-B-Zn PN-85/M-85105 Bolt M10x20-8.8-B-Zn PN-85/M-85105	85105M10-30Z88 85105M10-20Z88		12 12
43	Flexible spring ring W90 PN-81/M-85111	85111-W90		2

3. Drive system and center beam with belt transmission cover.

Figure no. 3

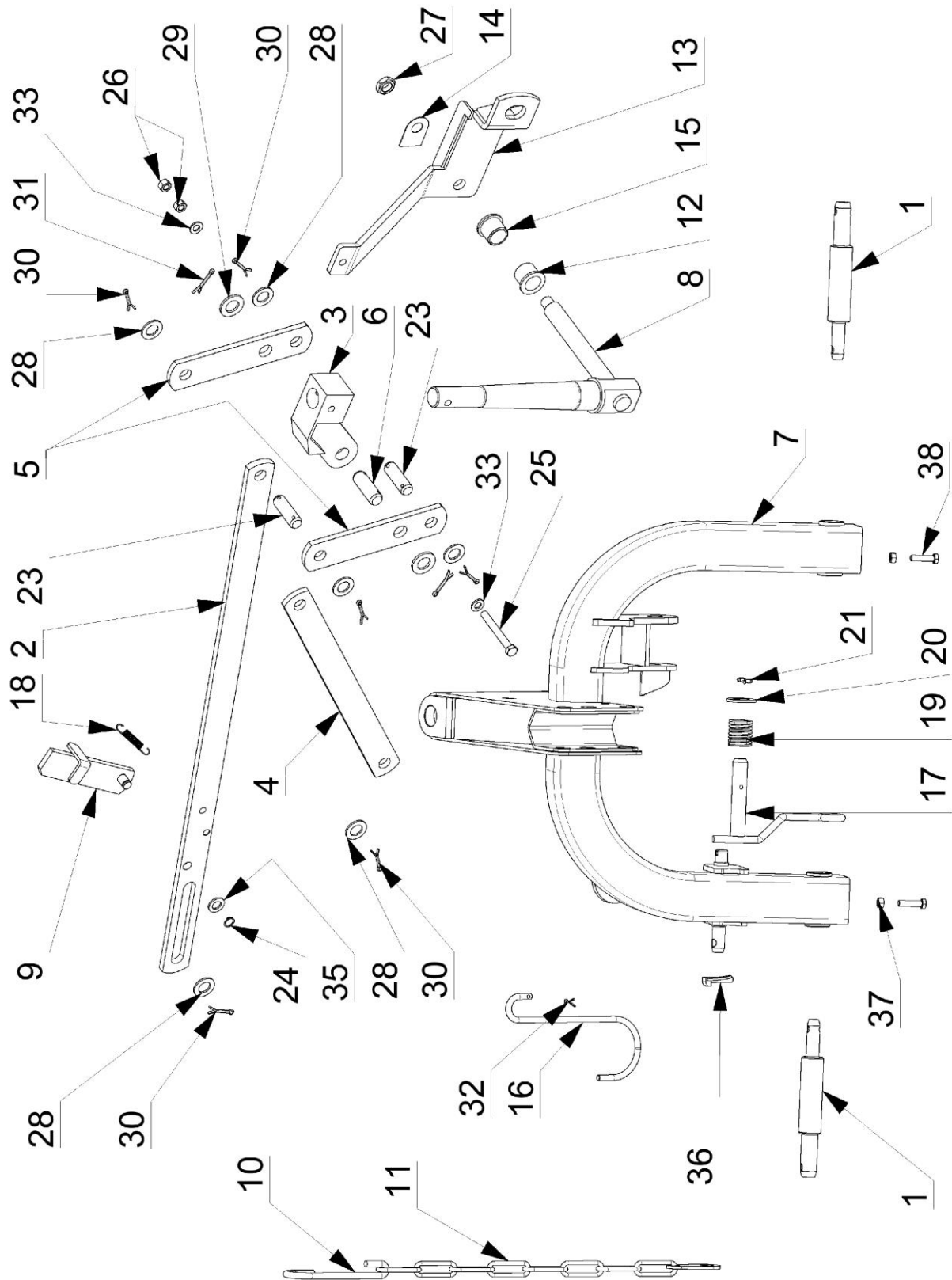


**Table of figures
no. 3**

Item no. in the figure	Part or set name	Catalogue number		Quantity
		1.65	1.85	
				1.65 / 1.85
-	Wheel with clutch (poz. 3,4,5,6,7,31,36,37)	82501-020-160		1
-	Drive head (poz. 27,28,29,30,32,33,35,40,42,43,54)	82501-020-720		1
1	Complete front cover	82501-020-020	82501-020-020/2	1
2	Complete rear cover	82501-020-032	82501-020-032/2	1
3	Forged driver	82501-020-172		1
4	Pulley	82501-020-185		1
5	Drive pin	82501-020-198		1
6	Sleeve	82501-020-205		1
7	Clutch spring	82501-020-218		1
8	Complete welded central beam	82501-020-233	82501-020-233/2	1
9	Complete welded rod tensioner	82501-020-246		1
10				
11	Spring saddle	82501-020-307		2
12				
13				
14				
15				
16				
17				
18				
19	Angle	82501-020-409		1
20	Spring washer 13 Fn/Zn9 PN-77/M-82008	82008-13-ZN		2
21	Double-sided screw	82501-020-017		4
22	V-belt assembly	82501-020-452	82501-020-452/2	4
23	Overlay	82501-020-465		1
24	Pin fi 18 h11	82501-020-078		1
25	Tension spring	82501-020-500		1
26	Washer 17 Fe/Zn9 PN-78/M-82005	82005-17-ZN		1
27	Tightening head tube	82501-020-684		1
28	Head shaft	82501-020-402		1
29				
30	Complete cover	82501-020-717		1
31	Ball bearing 6009-2RS PN-85/M-86100	86100-6009-Z		1
32	Ball bearing 6206-2RS PN-85/M-86100	86100-6206-Z		1
33	Ball bearing 6007-2RS PN-85/M-86100	86100-6007-Z		1
34	Prismatic groove A8x7x56 PN-70/M-85005	85005-A8-7-56		1
35	Flexible spring ring Z35 PN-81/M-85111	85111-Z35		1
36	Flexible spring ring W75 PN-81/M-85111	85111-W75		1
37	Flexible spring ring Z45 PN-81/M-85111	85111-Z45		1
38	Flexible spring ring Z30 PN-81/M-85111	85111-Z30		1
39	Washer 17 Fe/Zn9 PN-78/M-82005	82005-17-ZN		2
40	Washer 8,4 Fe/Zn9 PN-78/M-82005	82005-8-ZN		4
41	Washer 19 Fe/Zn9 PN-78/M-82005	82005-19-ZN		2
42	Spring washer 8,2-Fn/Zn9 PN-77/M-82008	82008-8-ZN		1
43	Bolt M8x25-5,6-B-Fe/Zn8c PN-85/M-82105	82105M8-25Z56		4
44	Bolt M12x35-8,8-B-Fe/Zn8c PN-85/M-82105	82105M12-35Z88		2
45	Nut M16-8-B-Fe/Zn8c PN-85/M-82144	82144M16-8-ZN		1
46				
47	Nut M10-8-B-Fe/Zn8c PN-86/M-82175	82175M10-8-ZN		8
48	Washer 11 Fe/Zn9 PN-78/M-82005	82005-11-ZN		16
49	Pin S-Zn 5x30 PN-76/M-82001	82001-5-30-ZN		2
50	Pin S-Zn 4x25 PN-76/M-82001	82001-4-25-ZN		2
51				
52				
53	Peg fi 16 H9 x40/34-5H PN-63/M-83002	83002-16-40-H9		1
54	Nut M8-6-B-Fe/Zn8c PN-86/M-82175	82175M8-6-ZN		4
55	Telescopic shaft	-		1
56	Support	82501-020-760		1
57	Pin S-Zn-6,3x50 PN-76/M-82001	82001-63-50-ZN		1
58	Farm pin	82501-020-75		1
59	Nut M6-8-B-Fe/Zn8c PN-86/M-82175	82175M6-8-ZN		1

4. Suspension and repositioning system.

Figure no. 4

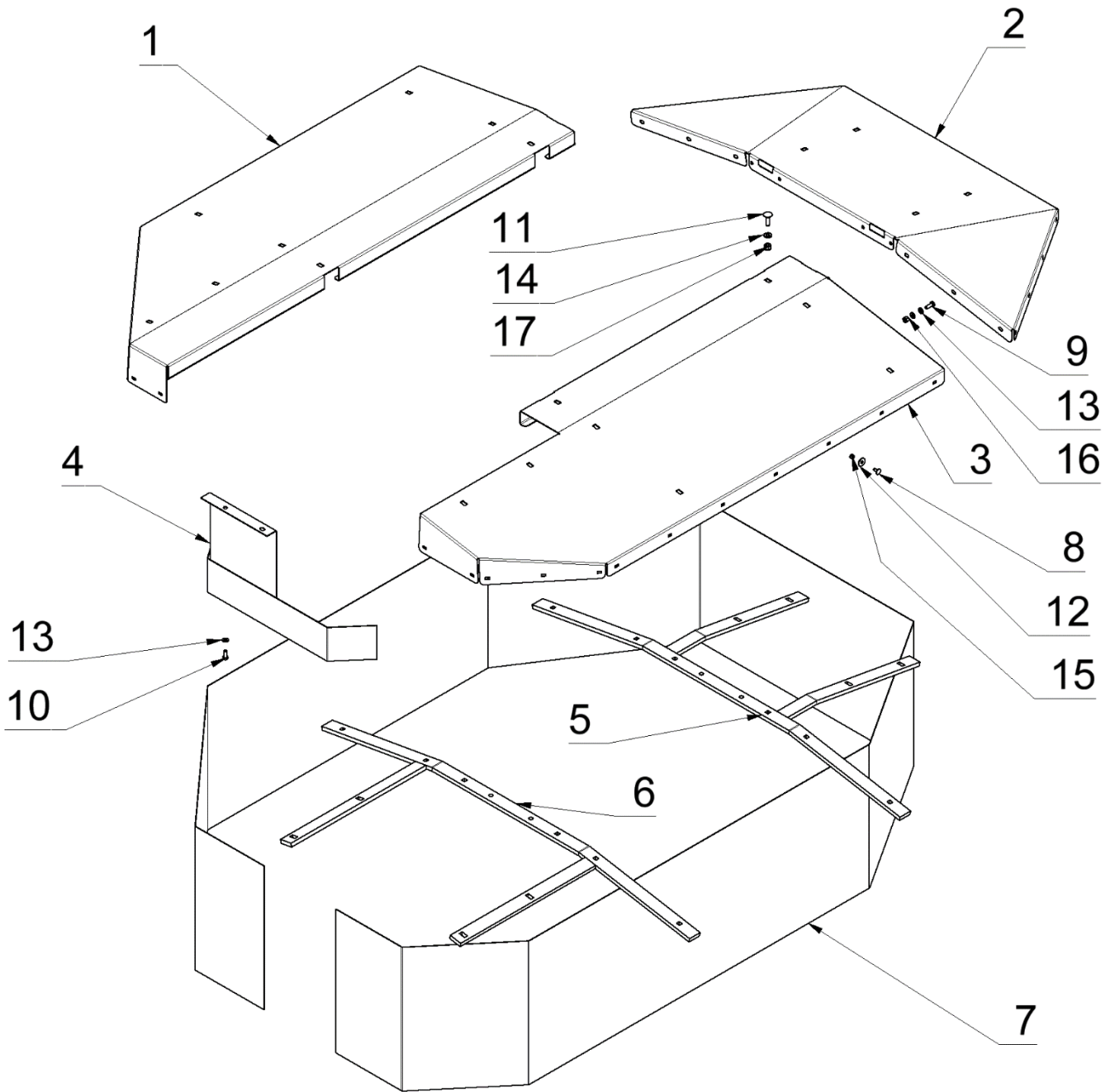


**Table of figures
no. 4**

Item no. in the figure	Part or set name	Catalogue number		Quantity
		1.65	1.85	
-	Crane mechanism (poz.2,3,4,5,6,23,28,29,30,31)	82501-020-068	82501-020-068/2	1
-	Chain with hook (poz. 10,11)	82501-020-068		1
1	Pin of the hitch	82501-02065P14		2
2	Complete front tie	82501-020-070	82501-020-070/2	1
3	Forged head	82501-020-083		1
4	Rear stirrup	82501-020-096		1
5	Front tie rod connector	82501-020-103		2
6	Peg 25H9x55/45-5H PN-63/M-83002	83002-25-55-H9		1
7	Complete suspension frame	82501-020-656	82501-020-656/2	1
8	Double joint axles	82501-020-131		1
9	Complete derailleur	82501-020-020		1
10	Hook	82501-020-261		1
11	Complete chain	82501-020-274		1
12	Joint bushing	82501-020-389		1
13	Stirrup	82501-020-391	82501-020-391/2	1
14	Bent washer	82501-020-424		1
15	Rear hinge sleeve	82501-020-437		1
16	Hanger	K21.04.00.02.03		1
17	Bolec	82501-020-65-10		1
18	Spring of the latch	K21.04.00.02		1
19	Lock spring	82501-020-539		1
20	Washer 28 Fe/Zn9 PN-78/M-82005	82005-28-ZN		1
21	Pin S-Zn 6x36 PN-76/M-82001	82001-6-36-ZN		1
22				
23	Peg 22 H9 x55/45-5H PN-63/M-83002	83002-22-55-H9		2
24	Flexible spring ring Z16 PN-81/M-85111	85111-Z16		1
25	Bolt M12x100-8.8-B-Fe/Zn8c PN-85/M-82101	82101M12-100Z88		1
26	Nut M 12-8-B-Fe/Zn8c PN-86/M-82144	82144M12-8-ZN		2
27	Nut M20x1,5-0,6B PN-85/M-82153	82153M20-15-8		1
28	Washer 22,5 Fe/Zn9 PN-78/M-82005	82005-22-ZN		6
29	Washer 25,5 Fe/Zn9 PN-78/M-82005	82005-25-ZN		2
30	Pin S-Zn-5x36 PN-76/M-82001	82001-5-36-ZN		6
31	Pin S-Zn-5x40 PN-76/M-82001	82001-5-40-ZN		2
32	Pin S-Zn 4x18 PN-76/M-82001	82001-4-18-ZN		1
33	Round washer 13 Fe/Zn9 PN-78/M-82005	82005-13-ZN		2
34				
35	Washer 17 Fe/Zn9 PN-78/M-82005	82005-17-ZN		1
36	Pricker A11x50	82501-020-045		1
37	Round washer 28 lub 25 Fe/Zn9 PN-78/M-82005	82144M10-8-ZN		2
38	Nut M10x40-8.8-B-Fe PN-85/M-82105	82105M10-40Z88		2

5. Protective covers.

Figure no. 5



**Table of figures
no. 5**

Item no. in the figure	Part or set name	Catalogue number		Quantity
		1.65	1.85	
-	Complete cover (poz.1-17)	82501-030-20	82501-030-20/2	1
1	Front cover	82501-030-23	82501-030-23/2	1
2	Rear cover	82501-030-22	82501-030-22/2	1
3	Middle cover	82501-030-21	82501-030-21/2	1
4	Complete side cover	82501-030-10	82501-030-10/2	1
5	Jointed beam 1	82501-030-40	82501-030-40/2	1
6	Jointed beam 2	82501-030-30	82501-030-30/2	1
7	Protective cover	82501-030-19	82501-030-19/2	1
8	Bolt M6x16-5.5-B-Fe/Zn8c PN-87/M-82406	82406M6-16Z55		37 / 39
9	Bolt M8x20-8.8-B-Fe/Zn8c PN-85/M-82105	82105M8-20Z88		10 / 8
10	Bolt M8x16-8.8-B-Fe/Zn8c PN-85/M-82105	82105M8-16Z88		2
11	Bolt M10x35-5.5-B-Fe/Zn8c PN-87/M-82406	82406M10-35Z55		20
12	Round washer 8 Fe/Zn9 DIN 9021	9021-8-ZN		37 / 39
13	Round washer 8,5 Fe/Zn9 PN-59/M-82030	82030-8-ZN		22 / 18
14	Round washer 10,5Fe/Zn9 PN-78/M-82005	82005-10-ZN		20
15	Nut M6-8-B-Fe/Zn8c PN-86/M-82175	82175M6-8-ZN		37 / 39
16	Nut M8-8-B-Fe/Zn8c PN-86/M-82175	82175M8-8-ZN		10 / 8
17	Nut M10-8-B-Fe/Zn8c PN-86/M-82175	82175M10-8-ZN		20

6. Fuse lock.

Figure no. 6

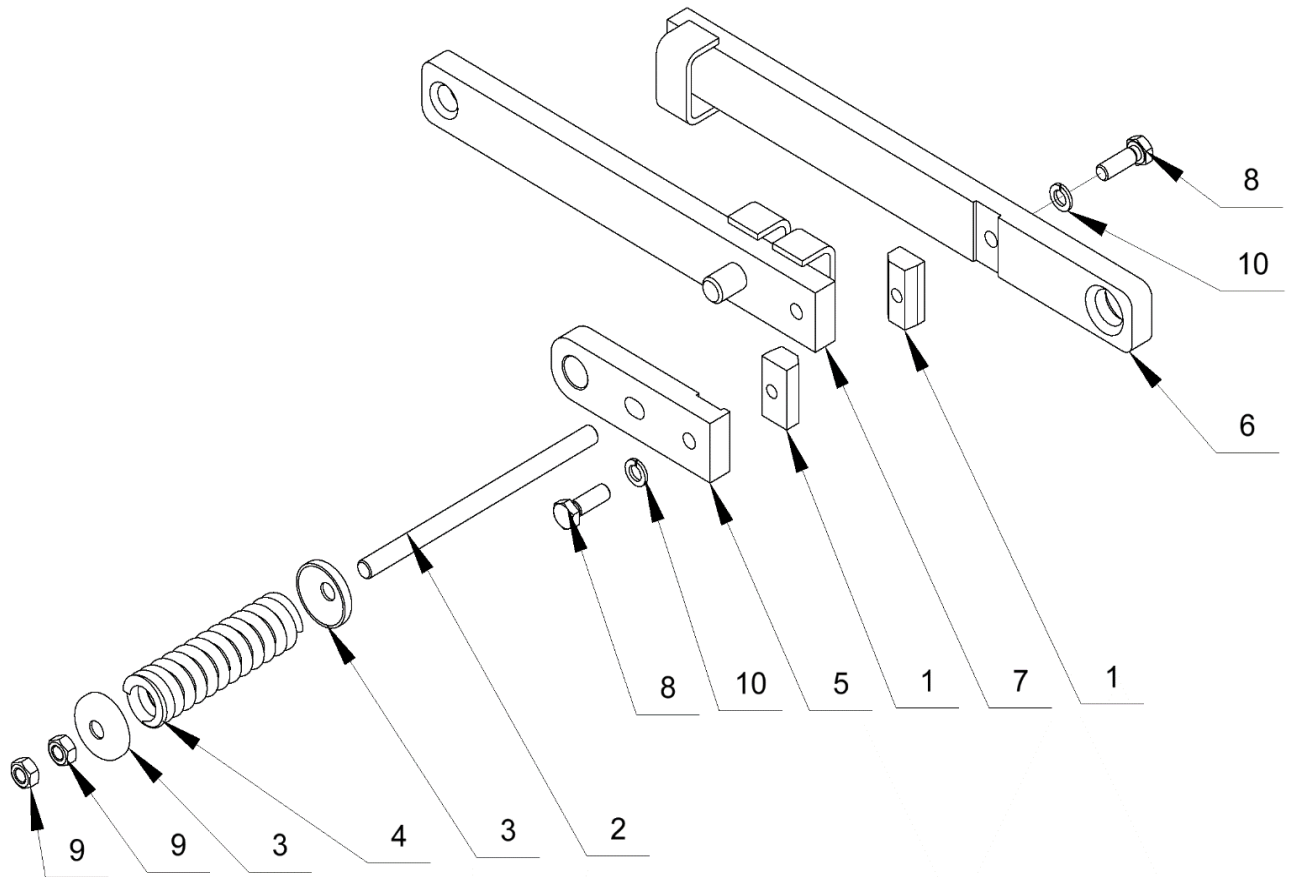


Table of figures
no. 6

Item no. in the figure	Part or set name	Catalogue number		Quantity
		1.65	1.85	
1	Cube	K21.03.00.01		2
2	Pin	K21.03.00.02		1
3	Spring plate	K21.03.00.03		2
4	Fuse spring	K21.03.00.05		1
5	Fuse lock	K21.03.01.01		1
6	Sliding bar 1	K21.03.02.00A2	K21.03.02.00	1
7	Sliding bar 2	K21.03.03.00		1
8	Bolt with hexagonal bolt M12x35 PN-85/M-82105	82105M12-35Z88		2
9	Nut M12 PN-86/M-82144	82144M12-8-ZN		2
10	Spring washer 12 PN-77/M-82008	82008-12-ZN		2

7. Hydraulic system - option. *

Figure no. 7

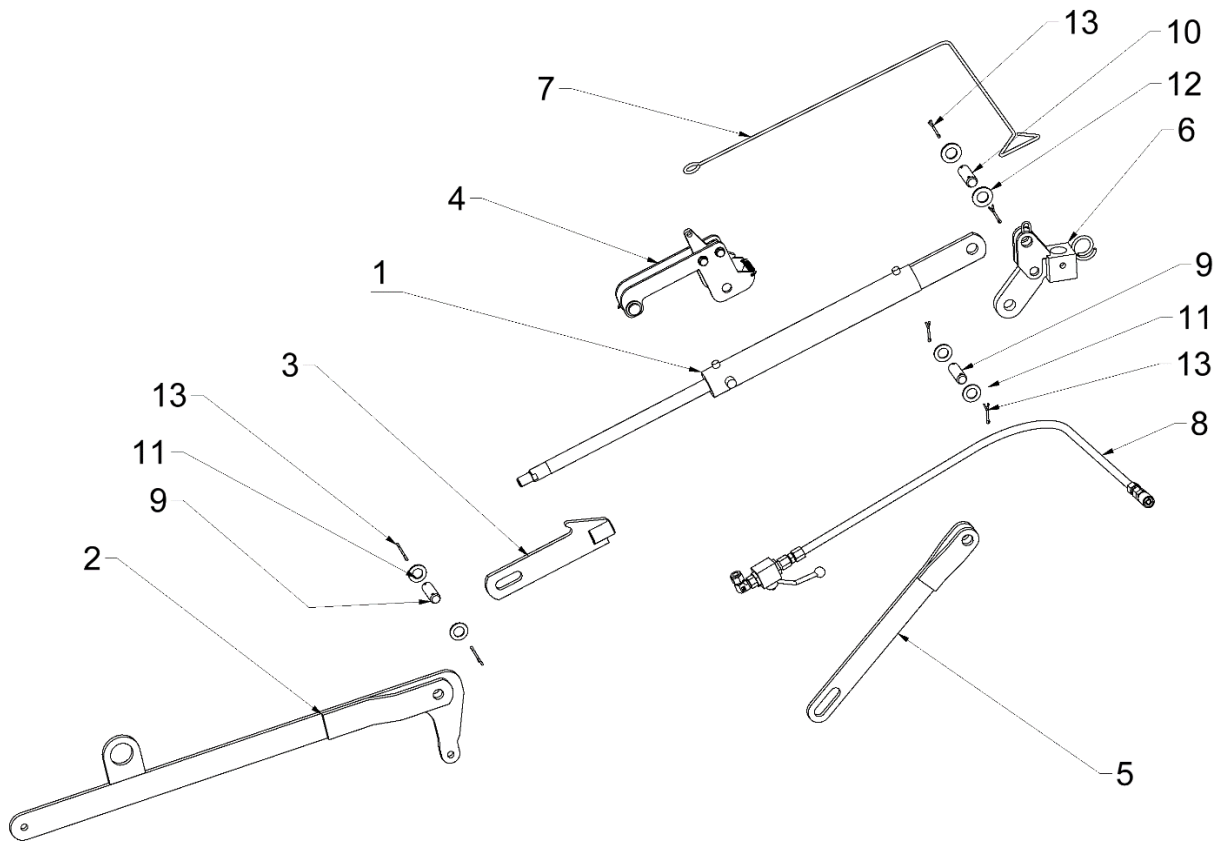


Table of figures no. 7				
Item no. in the figure	Part or set name	Catalogue number		Quantity
		1.65	1.85	1.65 / 1.85
-	Entire hydraulic system (poz.1-13)	82501-01070-00	82502-01070-00	1
1	Actuator 380	K21.00.14.00		1
2	Complete hydraulic tie	82501-01070-20	82502-01070-20	1
3	Actuator tie	82501-01070-10	82502-01070-10	1
4	Complete clasp	K21.04.00.05.00		1
5	Lower tie	82501-01070-30	82502-01070-30	1
6	Hydraulic head	82501-020-08H		1
7	Fastener cord	82501-01070-40		1
8	Actuator power supply	82501-01070-50		1
9	Peg fi 22 Fe/Zn9 PN-90/M-83001	83001-22-ZN		2
10	Peg fi 24 Fe/Zn9 PN-90/M-83001	83001-24-ZN		1
11	Washer 23 Fe/Zn9 PN-78/M82005	82005-23-ZN		4
12	Washer 25 Fe/Zn9 PN-78/M82005	82005-25-ZN		2
13	Pin 4x36 PN-76/M-82001	82001-4-36		6

WARRANTY CARD FOR THE SUSPENDED ROTARY MOWER Z001 AND Z-001/2

Serial number:

The guarantor's stamp:

Sale date:

The seller's stamp:

Signature of the seller:

NOTICE

The warranty card without the necessary entries, corrected entries and illegibly filled is void.

Warranty terms and conditions :

1. The manufacturer guarantees good quality and proper functioning of the mower to which this warranty card is issued.
2. The warranty period for the mower is 12 months from the date of purchase.
3. The buyer is entitled to the following rights :
 - removal of a physical defect,
 - in case of three repair, replacement of the machine with a new one that is defect-free.
4. Discovered defects or damages should be notified personally, by mail or telephone. Warranty repairs are performed by the manufacturer or authorised service points.
5. Warranty claims pertaining to replacement of the device with a new one that is defect-free are reviewed and realised by the manufacturer within 14 days.
6. The following repairs are not considered warranty repairs :
 - due to using the mower that is inconsistent with its purpose and the user manual,
 - due to events of fate or others beyond the warranter responsibility,
 - due to a normal wear of parts, such as: working disks, slide disks, blade clamps, and V-belts.Those repairs may be performed at the Buyer's expense.
7. The Buyer bears the cost of a technical assessment – expert opinion if the manufacturer determines that the product subject to a warranty claim does not have defects or damages, and the expert confirms the same.
8. The Warranter has the right to cancel the warranty for the product :
 - in case of interference with the mower internals, modifications to the mower design or intentional damages,
 - in case of extensive damages caused by an act of fate or other acts beyond the warranter's responsibility,
 - in case of lack of no required entries or unauthorised entries made in the warranty card,
 - due to using the mower that is inconsistent with its purpose and the user manual.