Instructions for use

FORESTRY WINCH
85MR

Instructions for safe work
Spare parts list

CE

THE MANUFACTURER:

Uniforest d.o.o.
Latkova vas 81d
3312 Prebold
www.uniforest.si

Valid from serial number:

85MR 11614000224

GENERAL

Dear customer!

We would like to congratulate you for the purchase of our machine. The hydraulic forestry winch is a forestry machine with a modern design and a construction which enables efficient and safe work in the woods. Work in the woods can only be safe if you observe the instruction for safe use. If you follow the instructions the machine will work perfectly and there will be no unnecessary expenses.

We recommend you to carefully read the user manual. In case of doubt do not hesitate to contact us.

We wish you safe work with the machine.

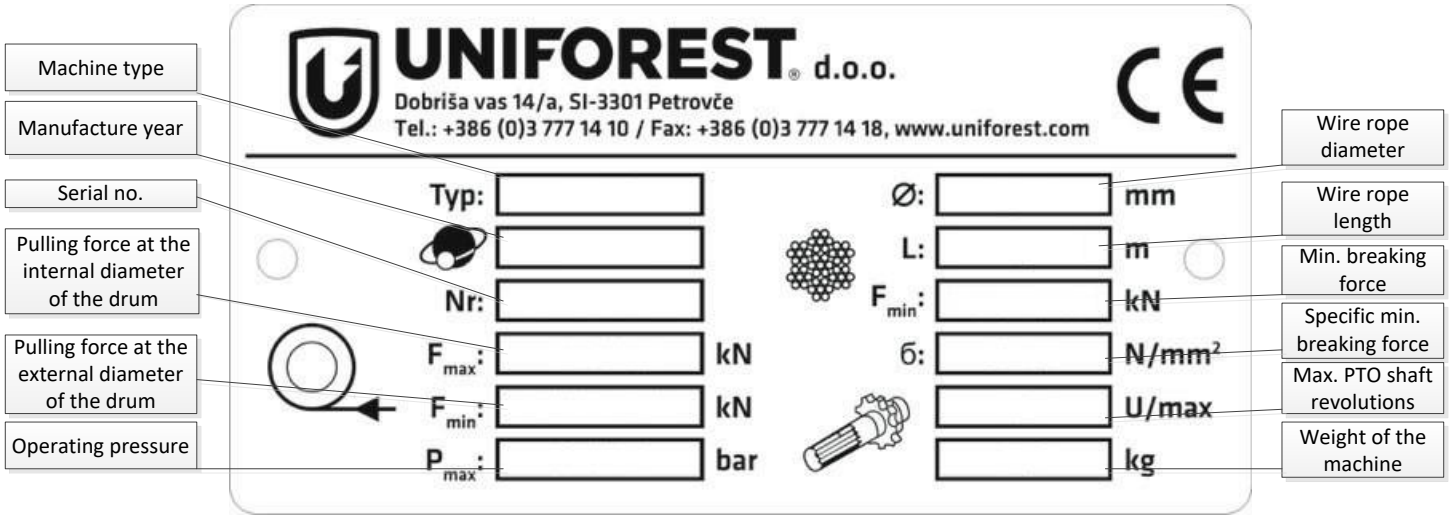
1. Index

2. *Intended use*

The machine is designed exclusively for normal work in the woods. Any other use is considered as unintended. This winch can only be used for pulling loads on the ground. The manufacturer is not liable for any damage resulting from inappropriate use. In this case, the user takes all responsibility. Intended use also includes observing operational, handling and maintenance conditions specified by the manufacturer. The machine can be operated only by a person who is qualified and informed about the dangers and consequences of inappropriate use. Relevant safety regulations as well as general regulations on technical safety of devices, health regulations and road rules must be observed. The manufacturer is not liable for any damages that may arise from users making unauthorized changes on the machine.

3. Tehnični podatki:

	Unit	85M
Working group	EM	1
Pulling force	kN	85
Brake force	kN	106,25
Wire rope medium speed	m/s	0,60
Wire rope maximum length	mm/m	10/120
		11/105
	mm/m	12/90
Wire rope length (serial)	mm/m	11/70
Tractor required power	kW	min. 50
	KM	min.68
Tear force	kN	160
Rated strength	N/mm^2	2160
Width	mm	1800
Depth	mm	780
Height without protective net	mm	1830
Height with protective net	mm	2300
Weight(without wire rope)	kg	571
Revolutions on cardan	min^{-1}	max. 540

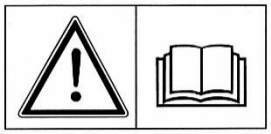


SAFETY INSTRUCTIONS

When working with the winch you need to observe the safety instructions!
In order to prevent accidents carefully read and observe the following instructions:

1. General:

1. Apart from the instructions in this user manual you should also observe all general safety and accident preventing regulations.



2. When working with the winch, it is necessary to comply with the rules of safety at work.
3. Only persons, who are older than 18, are allowed to work with the winch.
4. Safety and warning plates on the machine provide important instructions for safe use. Observe them for your safety.
5. The winch or its flawless operation should be checked before every use or at least once every working day. Defects should be removed by an expert. Before first use or after significant alterations and at least once a year the winch must be examined by an expert.
6. When using public transport routes observe traffic signs and regulations.
7. When using the winch wear personal protective equipment(helmet, gloves, appropriate footwear,...).
8. Before starting and driving check the surrounding area (children). Maintain adequate visibility.
9. Riding on the winch during transport is not allowed.
10. Connect the winch according to the instructions.
11. For on road travel the machine must be in the following condition. If the winch covers the rear lights of the tractor and they are not visible during transport on public roads, install additional lights on the winch.
12. Adjust the driving speed to the environmental conditions. When driving up or down or across a slope avoid sudden turning of the steering wheel.
13. Do not stand in the danger area.

14. If the tractor is not blocked against moving with a brake or wheel blocks, no person should be standing between the tractor and the winch.

15. Do not touch the winch until every part of the winch has stopped.

16. Check mounting bolts regularly.
17. Before use the winch must be visually inspected. At least once a year, the winch must be inspected by a professionally qualified person.
18. During any work on the winch you must turn the tractor off.

19. It is forbidden to remove the safety devices from the winch.
20. Use a tow rope of adequate strength and quality (see the factory plate).
21. A damaged wire rope must be replaced immediately.
22. It it necessary to use a wire rope of an appropriate lenght. When you wind the rope up, a distance of 1,5 of rope diameter to outer diameter of the drum should stay on the drum. When you unreel the rope, a minimum of 3 rope wraps should stay on the drum.
23. The assistant is not allowed to connect load on the winch until he has informed the tractor driver about it.
24. It is especially dangerous to stand next to the tree that you are about to pull (Figure 1).
25. When using a relay pulley there is a triangular danger area, where you are not allowed to stay during the tow (Figure 2).

Figure 1

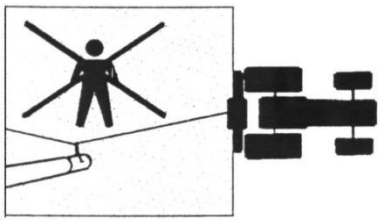


Figure 2

26. When towing observe the maximum allowed angle of 30° (Figure 3).
27. On uneven terrain or when not observing the maximum allowed towing angle there is a danger of the winch rolling over (Figure 6).

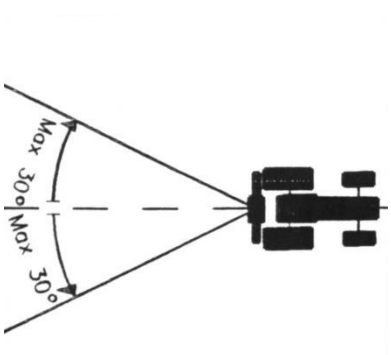


Figure 3

Figure 4

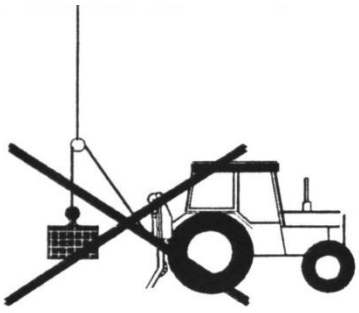


Figure 5

28. Do not use the winch for unintended purposes (lifting loads, etc.).(Figure 5)
29. Tractor driver and assistant must continuously communicate during their work.

30. The winch operator must continuosly observe the load during the tow. If this is not possible due to the configuration of the terrain, the assistant should help.
31. The tractor to which the winch is connected to must have a minimum tyre profile which still meets the traffic regulations. Otherwise the wheels must be fitted with snow chains. Chains are also obligatory when working in snow and ice.
32. When disconnecting the winch, you first need to choose an appropriate hard and flat surface. Fix the winch by means of support legs. Lean the drive shaft on the prepared holder.
33. In the area of the three point linkage there is a danger of injuries due to compression or crushing.

34. The winch can be operated only from a safe place from which the load, wire rope, rope hook or the winch itself do not pose a threat to the operator. A safe place can also be the tractor seat if the winch has a safety net of sufficient size. When operating the winch outside the tractor seat the operator must be provided with an appropriate protection, e.g. the tractor itself, secure location at a sufficient distance from the vehicle, e.g. behind a tree. Logs can be monitored from the side next to the connection and shorter timber can be monitored diagonally behind the load. (See Figure 6).

35. During the tow, it is forbidden to stand between the load and the winch as well as in the danger area between the winch, relay pulley and load. (See picture 7).
36. Before operating the winch, make sure that the winch butt plate is securely anchored to the ground. In the event of soft ground, steep slopes or when pulling heavy loads, the tractor must be fastened with an additional rope or chain. This will prevent the risk of slipping or even overturning of the tractor.
37. Adjust the speed of load pulling and the size of the load to the tractor's power capacity. You should also pay attention to the inclination of the slope and the terrain to avoid a rollover and to maintain a safe steering and braking performance.
38. The hitch on the winch is designed as a work tool and should not be used on public roads

Figure 6

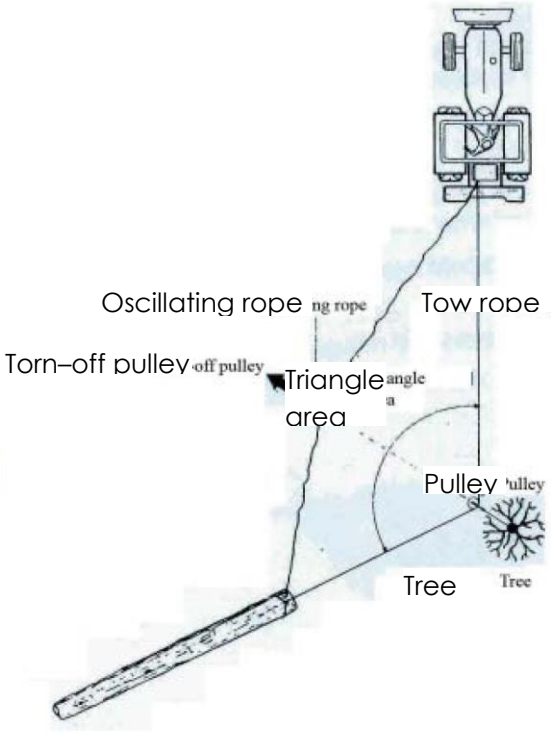


Figure 7

CARDAN SHAFT

1. Only use such cardan shafts which are recommended by the manufacturer.
2. The cardan shaft protection pipes, protective funnels and attachment protection must be mounted on the machine and be in perferct condition.
3. Observe the recommended pipe protection in transport and working position.
4. The cardan shaft can only be connected or disconnected, when the cardan attachment is turned off, the engine has stopped and the ignition key has been removed.
5. The cardan shaft must always be properly mounted and protected.
6. Secure the cardan shaft agains rotating with a chain.
7. Before switching on the cardan shaft on the tractor make sure that the chosen speed and direction of rotation match the requirements from the chapter Technical data.
8. Before switching on the cardan shaft make sure no person is standing in the danger area of the machine. This rule must also be observed during machine operation.
9. Never switch on the cardan shaft when the engine is turned off.
10. Put the disconnected cardan shaft on the intended holder.

INSTRUCTIONS FOR USE

1. Description

A winch is a machine intented for harvesting felled timber from the forest. The basic components are: welded frame, drive part, drum with wire rope, clutch, brake and directional pulley. Using the wire rope, the logs can be towed to the moldboard and attached with forestry chains to the grooves on the winch frame. Then the logs can be transported to a place which is accessible by other means of transport.

2. Required equipment of the tractor

-PTO shaft with chosen gear ratio, max. 540 RPM.
-Three-point hitch of I and II category.

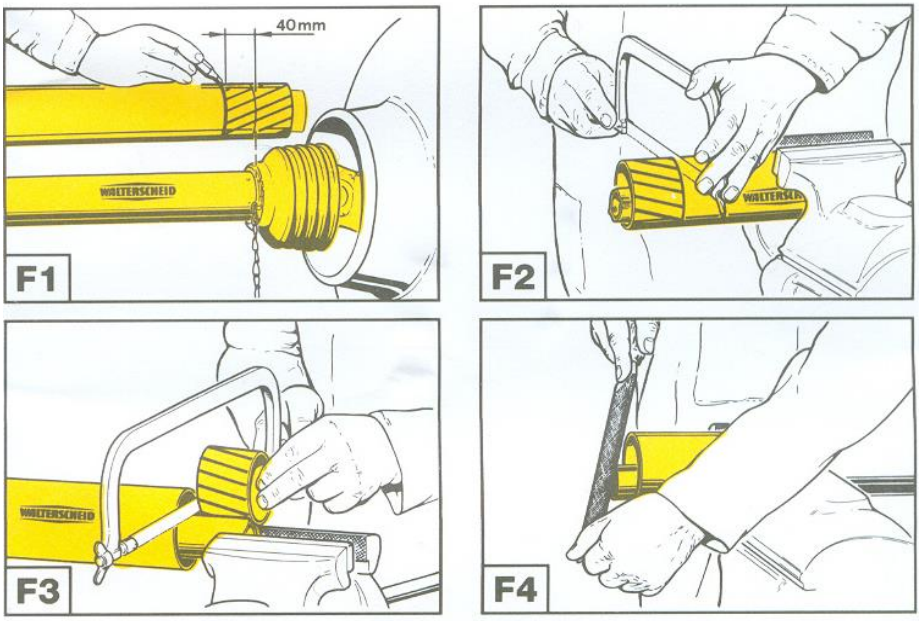
Maximum number of revolutions and direction of tractor PTO shaft rotation is 540 min^{-1}.

3. Pto shaft adjustment

Length of PTO shaft needs to be adjusted for different tractors (figure F1-F4). For winch 85MR, the use of PTO shaft with torque 695 Nm (type W 400E Walterscheid) is appropriate.

Ascertain the accurate length in the following manner:

1. Shut down the tractor.
2. Connect the machine to the tractor.
3. Extract the PTO shaft apart and connect the individual shaft halves to the tractor and machine and compare them crosswise and mark them (figure F1).
4. Shorten external and internal plastic protection pipes (figure F2).
5. Shorten external and internal slide profiles with the same distance as plastic protection pipes (figure F3).
6. Crop the pipe end, remove fillings and grease the slide positions well (figure F4).



4. Tractor mounting

When connecting the winch, do not stand in the danger zone!

The forestry winch can be attached to every tractor with a three-point hitch with a category I or II coupling. Appropriate construction also enables easy connection to the tractor with automatic connection rods. Connect the prescribed PTO shaft and secure cardan protection with a hang chain.
Be careful that the cardan clicks into place on both connection points!

Once the winch is attached to the tractor, strengthen the stabilizers on the lower connection rods and level the winch with a hitch nut into position, so that the winch is tilted backwards for approximately 20 degrees.

5. Wire rope unwinding

Warning
Steel rope must be completely unwound before first use and wind it back on the generator drum under load.
For instance, we can do this so that we attach the rope to a standing tree and pull the tractor with slight braking to the tree. This procedure must be done also before trying to tow, if we towed downhill beforehand or if the rope was wound loosely during towing.

ATTENTION!
Loosely wound steel rope can be damaged (stuck, bent) at greater load, so that it is prohibited to use it again.
Warranty does not apply for a steel rope, which is damaged in such manner.

Once the winch is properly connected to the tractor, you can start unreeling the wire rope. Pull the wooden lever on a red string (pos. 3, figure 11) and thus move lever 2 to the OFF position (figure 11). The brake is released and the wire rope can be unreeled. In case you have just installed the wire rope on the drum or you have noticed that the wire rope is not installed properly, you should unreel the entire wire rope and then reel it back tightly, as described in the beginning of this chapter.

6. Towing

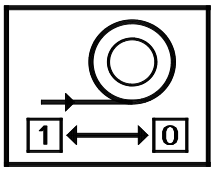


Figure 9

Lower the winch on the ground so that the winch is supported by a hard surface. Engage the hand brake. Never start towing if a winch is not in a stable position on the ground.
Before you pull the black string (pos. 10, figure 11), check that the string is installed properly between the small pulleys (pos. 9, figure 11). The lever (pos. 1, figure 11) should return to its original OFF position as soon as you stop pulling the string (pos. 10, figure 11).
If this string is not wound properly, it may happen that you will not be able to stop the towing, which can lead to an accident.

Any interference with the activation mechanism which would prevent synchronous operation of clutch and brake is prohibited. It is also forbidden to pull the red brake string (pos. 3, figure 11) during the towing.

It is forbidden to lift the hydraulic linkage during the towing (it can lead to a malfunction of the PTO shaft).

SETTINGS

1. Clutch

A properly set clutch enables optimal traction force. The clutch was factory set during the testing of the winch, but due to friction surface wore, it eventually must be set anew.
The re-setting is not permitted within the warranty period!
Install a dynamometer on the black string. In case you do not own a dynamometer, you can also use a spring balance with an appropriate weighing range.
Once you have installed the dynamometer (spring balance), pull the string with a force of 350 N (35 kg) and check the position of the lever (pos. 1, figure 11). This lever can be seen in figure 11a. Use the nut on the main shaft (pos. 8, figure 11) to regulate the position of the lever (pos. 1), until the lever is not touching the backrest.
In case you tightened the nut too hard (pos. 8, figure 11) and the lever moved away from the backrest, the necessary axial force on the friction surface of the clutch has been reduced too much.
The winch will not be able to reach to necessary traction force and the friction surface of the clutch will be damaged due to sliding.

2. Safety brake

Use a screw (pos. 6) and a lock nut (pos. 7, figure 11) to set the safety brake. First loosen the lock nut and regulate the screw (pos. 6). By turning the screw clockwise, you increase the brake force and by turning the screw anti-clockwise, you decrease the brake force. Then tighten the lock nut which prevents the screw from becoming loose. A proper setting means that the wire rope will not unreel from the drum automatically or too easily. This can lead to wire rope damage when you release the brake and start unreeling the wire rope. The safety brake is set properly when the wire rope can be unreeld without too much effort. In case you are pulling the rope up a slope, it is possible to additionally relieve the brake so that the pulling of the rope is easier. But after you finish the work, the safety brake must be returned to its original position (as describe above).

3. Brake

The brake is set via a nut (pos. 5, figure 11). The brake lever (pos. 2) must be in the ON position (figure 10). First use a wrench key to loosen the nut (pos. 4), then turn the nut with a wrench key(pos. 5) to the left to tighten the brake belt. Turn the nut to the right to loosen the brake belt. For optimal operation the gap between the nuts must be 24 mm. If the brake force is not sufficient, repeat the procedure and tighten the nut (pos. 5) to the left. At the end, tighten the nut (pos. 4) to an appropriate gap. If the set braking force is too high, the unreeling of the rope is more difficult. In such cases, turn the nut to the right.

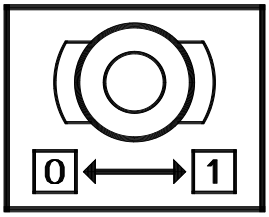


Figure 10

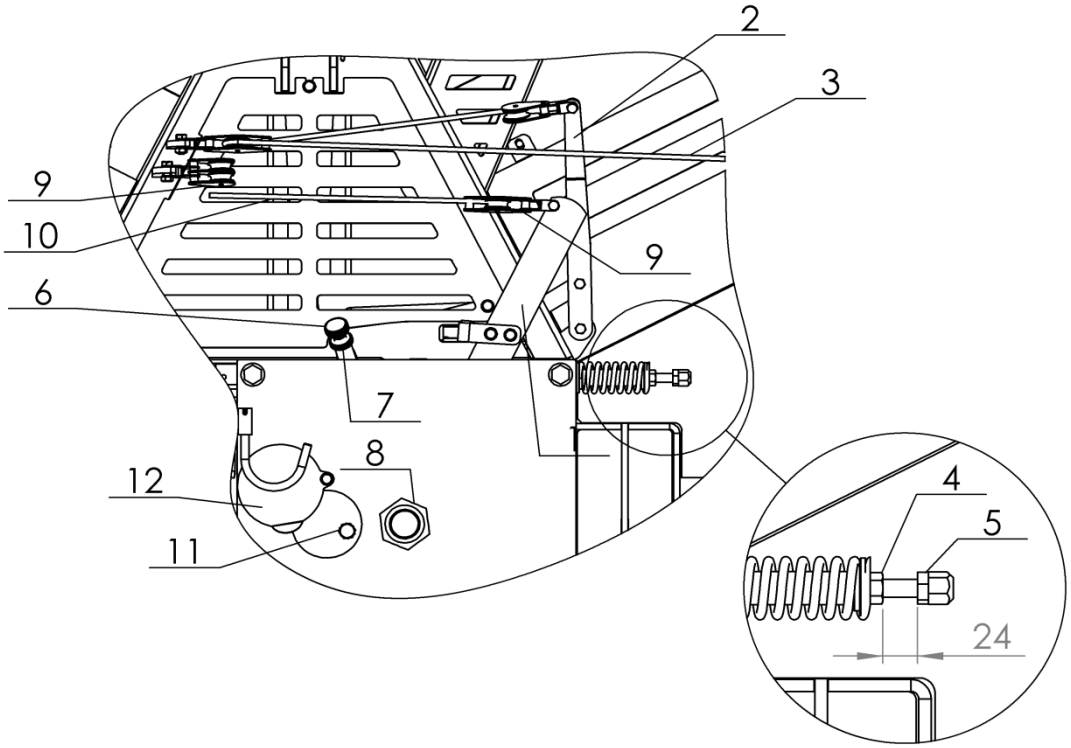


Figure 11

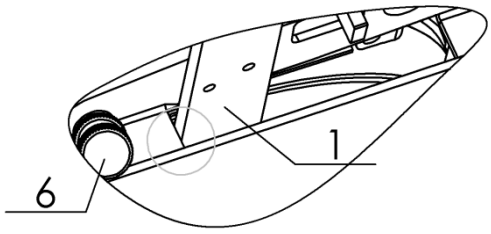


Figure 11a (lever rest)

4. Drive chain tensioning

After a certain period of operation (10 hours), the drive chain stretches; therefore it must be checked frequently and tensioned, if required. It must be checked every 100 hours of operation. Tensioning is done according to the following procedure (figure 12)! First, disengage the PTO shaft and turn off the engine. Remove the protective sheet of the PTO shaft (pos. 1).

First loosen the nust (pos. 2 and pos. 8, figure 12) with which the lower and upper drive are fixed. Then start tigthening the longer chain with a screw (pos. 5). Turn the screw clockwise until you reach the proper tension of the chain. The chain is correctly tensioned when it can still oscillate for 3 to 4 mm in the transverse direction. Tighten the lock nut (pos. 12).

Now tighten the three nuts on the lower drive (pos. 2). Then start tensioning the shorter chain (pos. 7, figure 12). If you have already loosened the four nuts (pos. 8), begin with the turning of the tensioning screw (pos. 10) to the left. This increases the distance between both frames. Beforehand, loosen the lock nut (pos. 11) and re-tigthen it when the chains are tensioned.

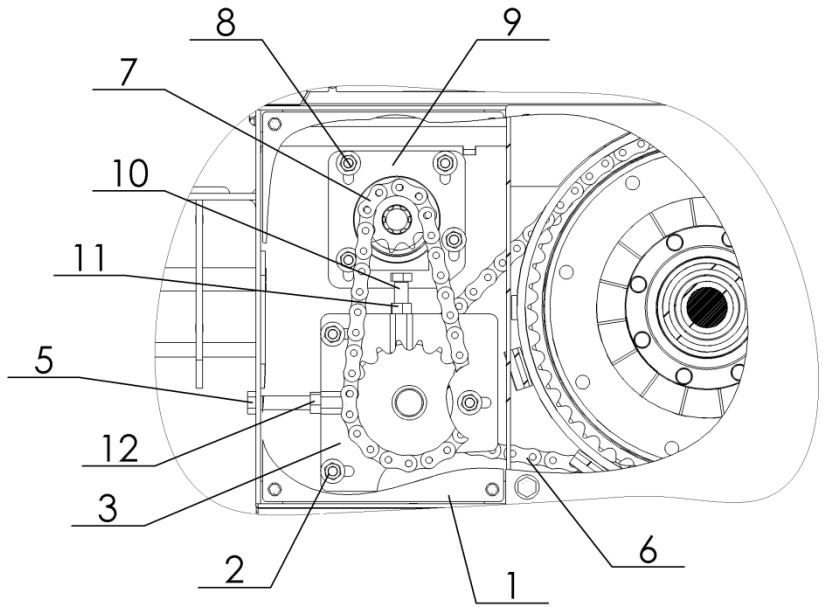
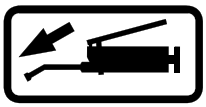


Figure 12

7. Wire rope assembly

First, remove the triangular protective net on the winch column. Then rotate the cover (pos. 12, figure 11) and rotate the drum in a position, which enables
unscrewing of the bolt (pos. 11)on the drum. Insert the wire rope in the guide of the upper pulley and direct it through the upper pulley to the rope drum. Insert the rope in the groove and tighten the bolt (pos. 11, figure 11). Then start to wind according to the procedure, which applies to towing. Once the entire length of the wire rope is wound, unwind it again and wind it again strongly according to the procedure, which is described in the chapter "Wire rope unwinding" to prevent damage to the rope.

MAINTENANCE LUBRICATION



Before proceeding with maintenance work, shut down the engine, remove the key and wait for all moving parts to stop.

There is a grease fitting on the winch, which enables greasing of the upper pulley and guide. The second grease fitting is on the housing of the lower pulley. Greasing is required every 60 hours of operation. The PTO shaft needs to be lubricated according to instructions of the manufacturer. **Non-frequent greasing can cause wear of slide elements and consequentially a defect, which is not subject to warranty terms!**

Drive chain must be lubricated every 100 hours of operation. Lubricate it with spray for lubrication of chains or special grease, which does not melt at high temperatures, because the grease can come into contact with friction coating of the clutch.

First, remove the cardan shaft protection, which must be fitted back after finishing lubrication. Clean the chain before lubrication. Do not lubricate the part, where the grease can reach clutch with application.

If grease comes into contact with friction coating of the clutch due do improper and excessive lubrication, this would mean a drastic reduction in pulling force and consequentially it would be required to replace the blades of the clutch, which cannot be a subject of this warranty!

All other bearings on the winch are of closed type, therefore greasing is not necessary. Grease the PTO shaft according to the instructions of the manufacturer.

TROUBLESHOOTING

Identified malfunctions (errors)	Cause	Elimination of malfunctions (errors)
Lack of traction force	Grease on the friction surfaces of the clutch	Replace the clutch
	Burned friction surfaces of the clutch	Clean or polish the coating with sandpaper (to a thickness of 0,5 mm)
	The pressure in the hydraulic system is too low (the necessary pressure os 140 bar)	Determine the cause for low voltage
	Worn friction surfaces of the clutch	Replace the clutch
	Incorrectly installed clutch	Install according to technical documentation
Insufficient braking force	Incorrect settings	Set according to instructions for use
	Grease on the brake belt coating	Replace brake belt
	Damaged brake belt	Replace brake belt
	Damaged braking mechanism	Replace damaged parts
	Other	Contact customer service
The wire rope cannot be unreeled or the unreeling is difficult	Incorrect safety brake setting	Set according to instructions for use
	Incorrect brake settings	Set according to instructions for use
	Damaged or stuck wire rope	Unreel the rope with a tractor and if necessary, install new wire rope
	Damaged brake belt	Replace brake belt
	Improper position of the brake lever	Observe the instructions for use
	Damaged or corroded activation mechanism	Grease the activation mechanism with a WD spray or replace the activation mechanism if necessary
	Other	Contact customer service
The winch is pulling	Electromagnetic valve	Stop work immediately and

although the clutch is turned of	malfunction	contact customer service
	Too small clutch clearance	Set according to instructions for use
	Broken part of clutch friction coating	Replace the clutch
	Damaged winch drum	Replace or repair the drum
	Drive belt is too tight	Tension the belt as described in the instructions for use
Winch is very loud during operation	Drive belt is too tight	Tension the belt as described in the instructions for use
	Damaged or worn bearings	Replace bearings

EC DECLARATION OF CONFORMITY

IN COMPLIANCE WITH:

DIRECTIVE 2006/42/ES AND THE MACHINERY SAFETY RULES
(OFFICIAL GAZETTE OF RS, NR. 75/08, 66/10 and 74/11)

MANUFACTURER:

UNIFOREST D.O.O.
Latkova vas 81d, 3312 PREBOLD, SLOVENIJA

PERSON RESPONSIBLE FOR TECHNICAL DOCUMENTATION:

MARKO POLAK, UNIV.DIPL.INŽ., UNIFOREST,
Latkova vas 81d, 3312 PREBOLD

DESCRIPTION OF DEVICE - MACHINE:

WINCH:
UNIFOREST 45M, 45MR, 55M, 55MR, 85MR

WE DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE ABOVE MENTIONED MACHINE

WINCH:
UNIFOREST 45M, 45MR, 55M, 55MR, 85MR

IS COMPLIANT WITH THE FOLLOWING REGULATIONS AND STANDARDS:

DIRECTIVE 2006/42/EC AND THE MACHINERY SAFETY RULES
(OFFICIAL GAZETTE OF RS, NR. 75/08, 66/10 and 74/11)

HARMONISED AND OTHER STANDARDS:

SIST EN ISO 12100:2011 SIST EN ISO 4254-1:2010/ AC:2011
SIST EN ISO13857:2008 SIST EN ISO 4413:2011 ÖNORM L5276:2008

DATE:
Prebold, 11. 04. 2019

SIGNATURE OF RESPONSIBLE PERSON:
MARKO POLAK, UNIV.DIPL.INŽ.

UNIFOREST d.o.o.
Dobriša vas 14a, SI-3301 Petrovče /2

Spare parts list

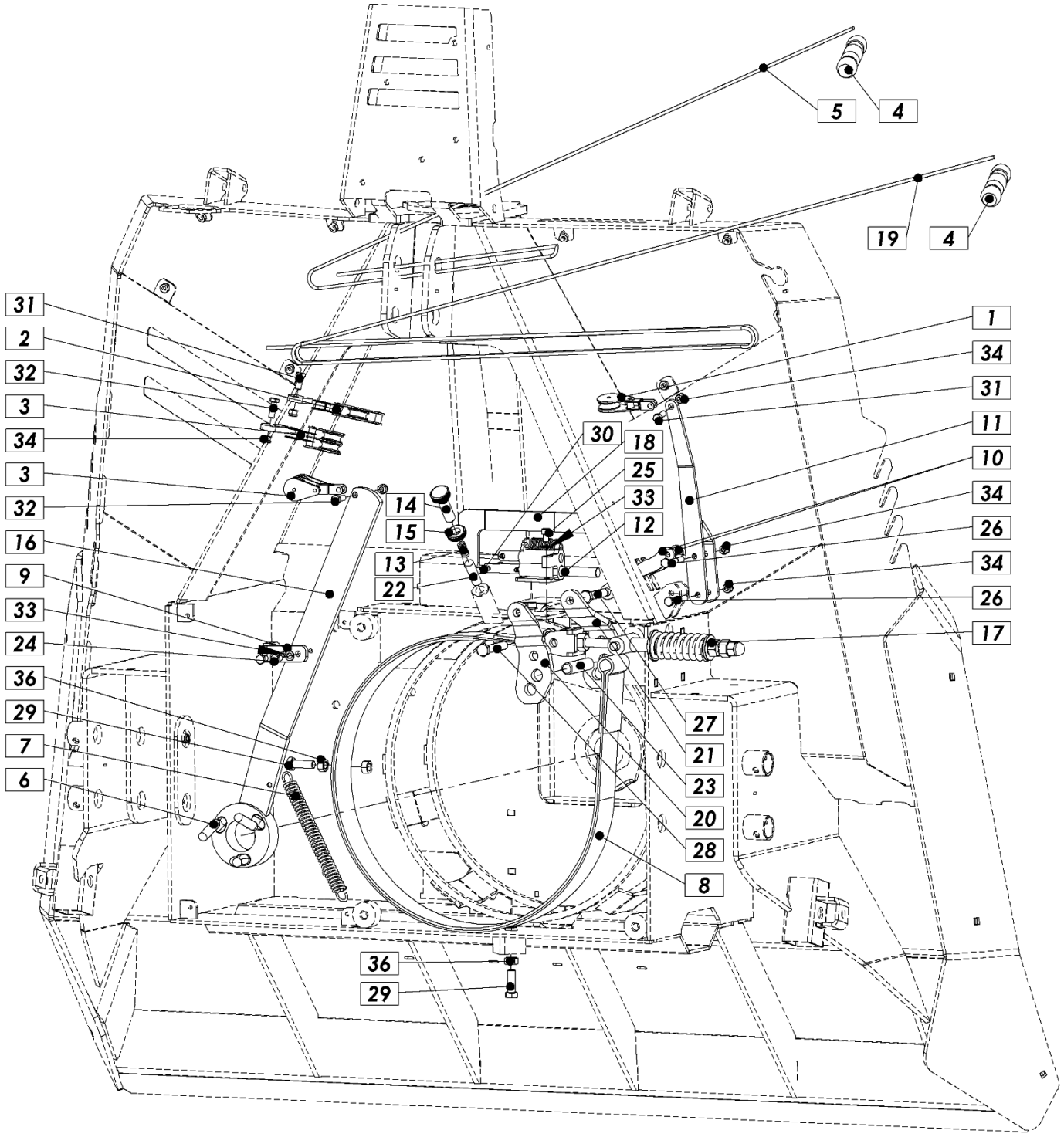


Figure 1: 7001.05.30.0 – Brake and clutch mechanism.

Pos.	Name	No. of pieces	Number
1	Pulley, small, single	1	502.00.40.0
2	Pulley, small, single 2	1	502.00.42.0
3	Pulley, small, double, wide	2	502.00.43.0
4	WOODEN HANDLE	2	502.00.56.0
5	NYLON ROPE (red) 7mm - 5,5m	1	1000554
6	Clutch roller	3	502.11.15.0
7	Clutch lever spring	1	502.11.25.0
8	Brake band	1	702.61.00.0
9	Activation mechanism	1	5002.05.08.0
10	Lever link	2	5002.05.43.0
11	Brake lever var.	1	5002.05.45.0
12	Automation system kpl.	1	5002.05.50.c
13	Compression spring	1	5006.05.36.0
14	Band brake screw Zn	1	5006.05.37.0
15	Pre-brake nut	1	5006.05.38.0
16	Clutch lever	1	7001.05.05.A
17	Fork kpl	1	7001.05.15.0
18	Automation system coupler	1	7001.05.41.A
19	NYLON ROPE (black) 7mm - 6,5m	1	7001.05.43.0
20	Brake plate	1	7002.05.12.0
21	Brake plate	1	7002.05.13.0
22	Pre-brake bolt	1	7002.05.42.0
23	Band bolt 65	1	7002.05.43.0
24	Screw M8x16 Zn	2	1000050
25	Hexagon socket screw M18x12	2	1003453
26	Screw M8x55 Zn	2	1000041
27	Screw M12x60 Zn	1	1000076
28	Screw M12x70 Zn	1	1001148
29	Screw M12x35 Zn	2	1000058
30	Screw M6x30 Zn	1	1011373
31	Screw M8x20 Zn	2	1000051
32	Screw M8x25 Zn	2	1000052
33	Washer M8 Zn	4	1003473
34	Nut M8 Zn	7	1003460
35	Nut M12 Zn	2	1000142
36	Nut M12 Zn	2	1000139
37	Nut M6 Zn	1	1003712

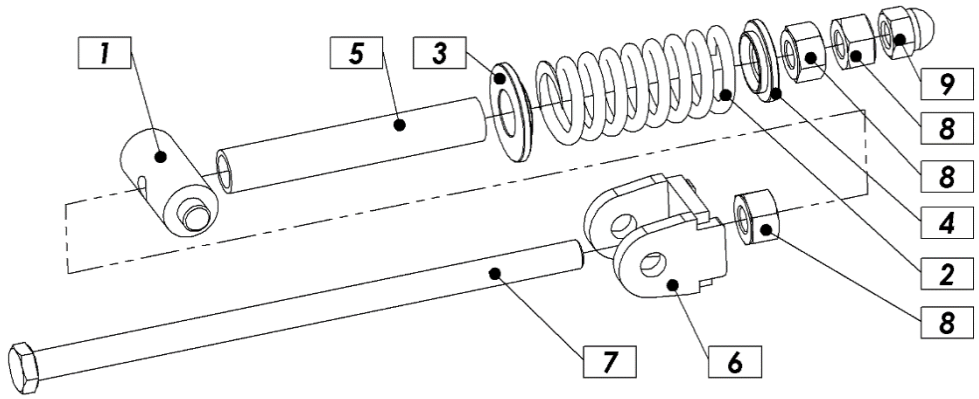


Figure 2: 7001.05.15.0 – Brake fork.

Pos.	Name	No. of pieces	Number
1	Bolt	1	7002.05.14.0
2	Brake spring	1	5002.05.40.0
3	Spring washer	1	5002.05.23.0
4	Brake bush	1	7001.05.24.0
5	Brake tube	1	7001.05.26.0
6	FORK VAR.	1	7002.05.20.0
7	Screw M14x280 Zn	1	1016830
8	Nut M14 Zn	3	1003629
9	Nut M14 Zn	1	1000035

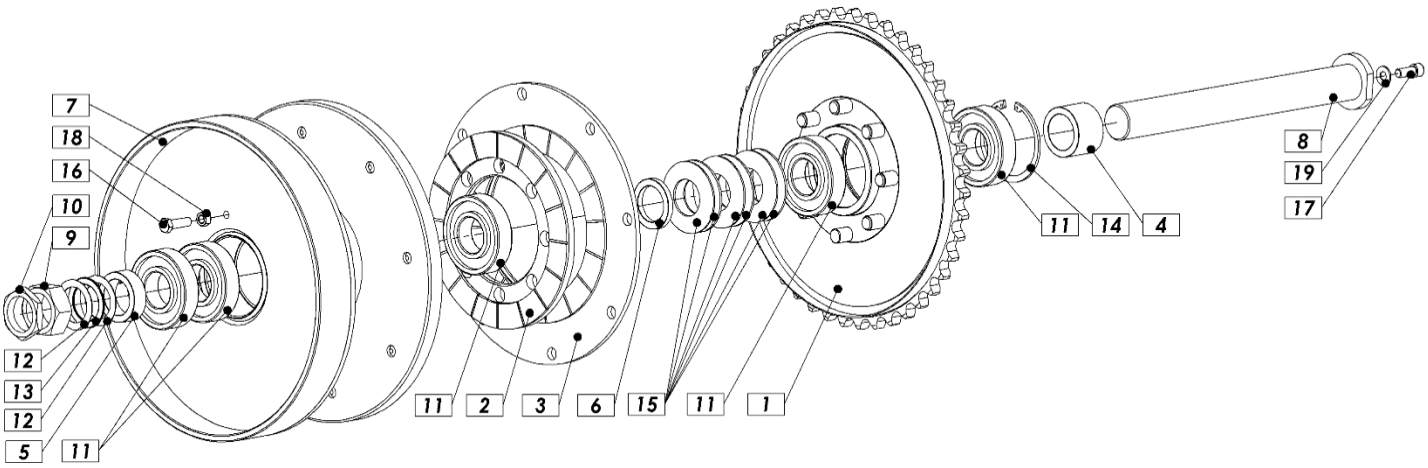


Figure 3: 7001.06.00.0 - Rope drum with a chain wheel.

Pos.	Name	No. of pieces	Number
1	Chain wheel z43 var.	1	7004.06.01.0
2	Clutch plate 273	1	702.23.01.A
3	Clutch plate 390	1	702.23.10.0
4	Spacer	1	7002.06.12.0
5	Spacer	1	7002.06.13.0
6	Spacer	1	7001.06.14.0
7	Rope drum	1	7002.05.00.0
8	Drum shaft var.	1	7002.06.06.0
9	Nut M50-8 Zn x 30	1	702.44.04.0
10	Nut M50-8 Zn x 12	1	702.44.03.0
11	BEARING 6310 ZZ	5	1000327
12	BEARING PLATE AS5070	2	1000334
13	NEEDLE BEARING AXK 5070	1	1000321
14	Retaining ring N110x4	1	1000256
15	Disc spring 100x51x2,7	6	1000239
16	Screw M12x40 Zn	1	1000059
17	Hexagon socket screw M12x30	1	1000116
18	Nut M12 Zn	1	1000139
19	Washer M12 SKM	1	1000176

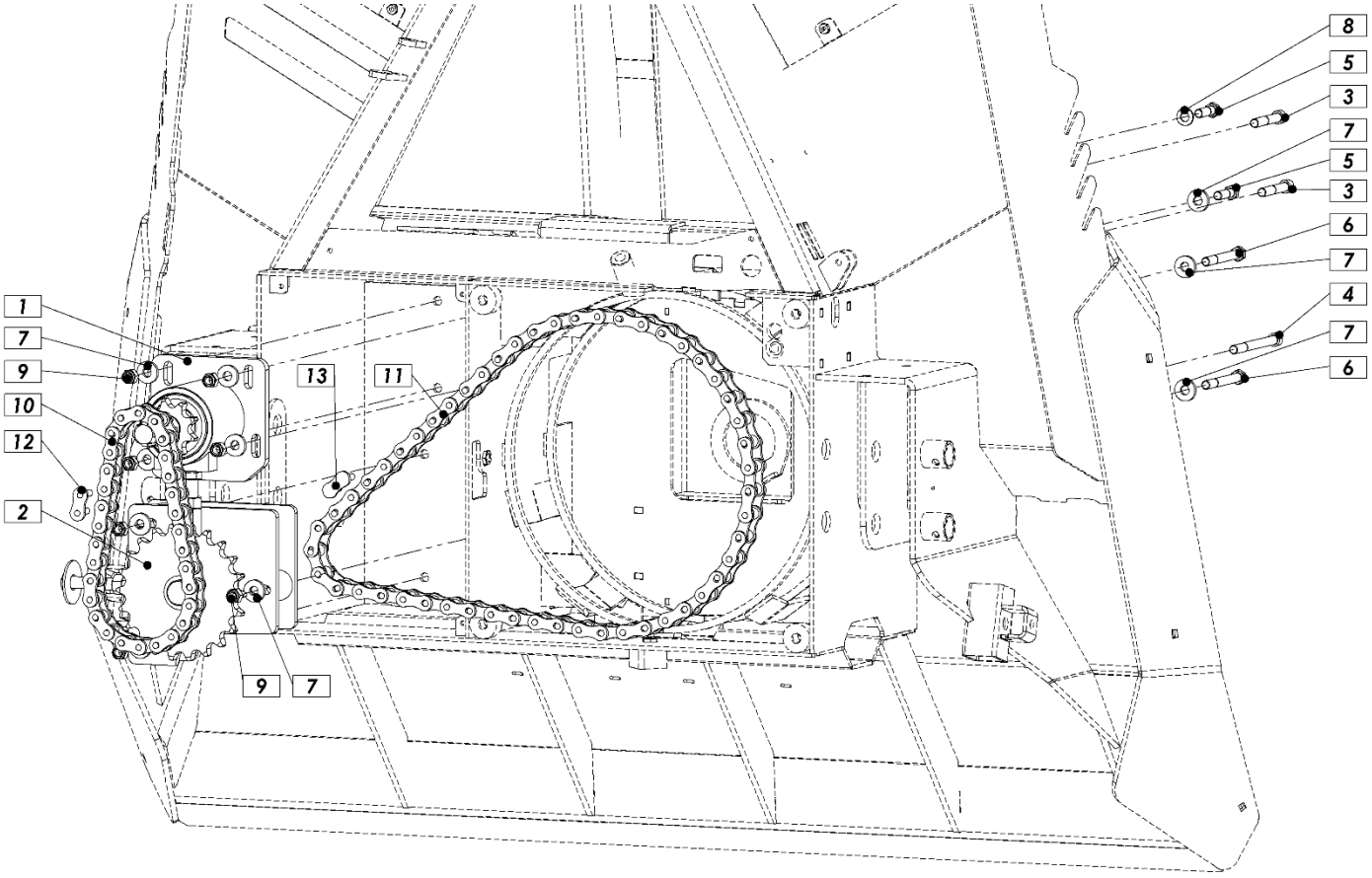


Figure 4: 7001.08.00.0 – Drive.

Pos.	Name	No. of pieces	Number
1	Reduction gear kpl.	1	7001.08.40.0
2	Drive kpl.	1	7004.08.10.0
3	Hexagon socket screw M12x80	2	1000125
4	Hexagon socket screw M12x140	1	1000128
5	Screw M12x45 Zn	2	1000083
6	Screw M12x110 Zn	2	1001076
7	Washer M12 Zn	10	1003632
8	Washer M12 Zn	1	1000161
9	Nut M12 Zn	7	1000142
10	CHAIN RK 16 B-1 (Lange 31x25,4=787,4)	1	1003549
11	CHAIN RK 20 B-1 (Lange 53x31,75=1682,75)	1	1000282
12	Joint link SG 16 B1	1	1003488
13	Joint link SG 20 B1	1	1003729

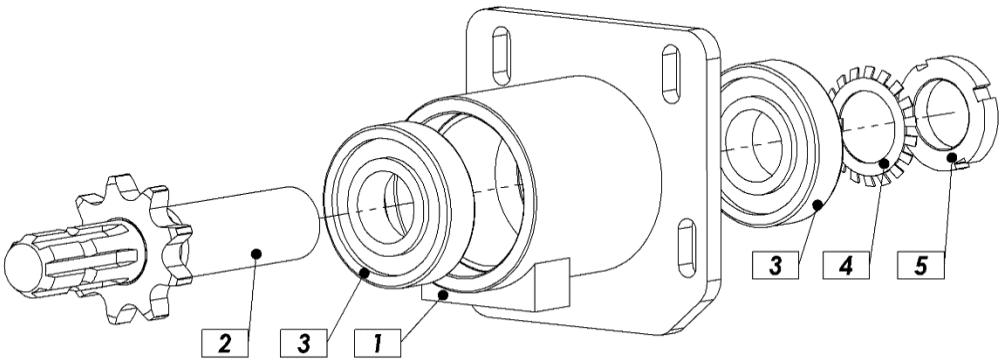


Figure 5: 7001.08.40.0 – Upper drive.

Pos.	Name	No. of pieces	Number
1	Drive housing var.	1	7001.08.50.0
2	Drive shaft var.	1	7002.08.65.0
3	Bearing 6308 ZZ	2	1000303
4	Washer mb-8	1	1003510
5	Nut KM8 (M40x1,5)	1	1000145

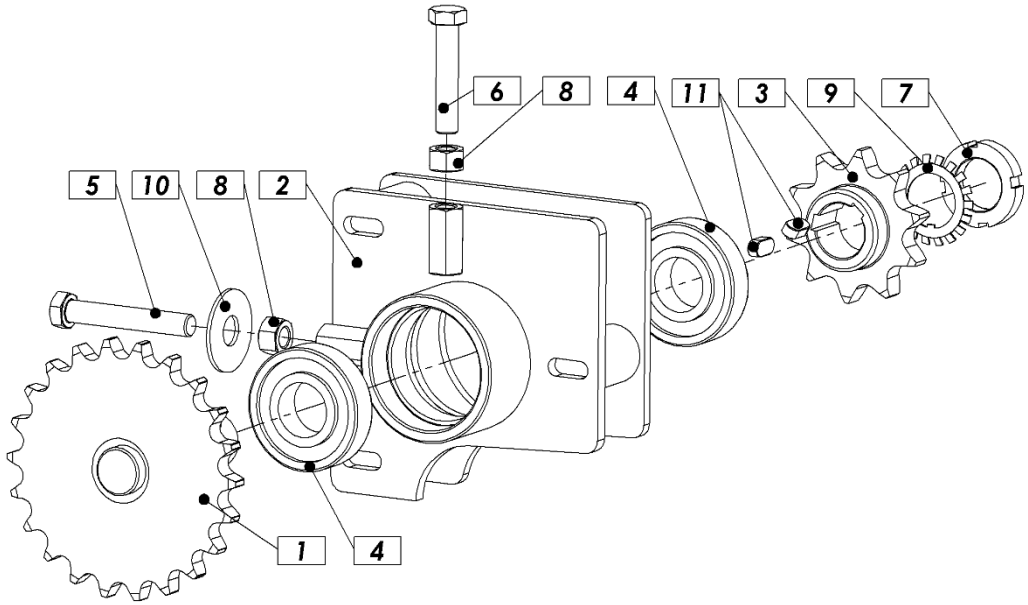


Figure 6: 7004.08.10.0 – Lower drive.

Pos.	Name	No. of pieces	Number
1	Drive shaft var.	1	7004.08.01.0
2	Drive housing var.	1	7004.08.15.0
3	Chain wheel z=10	1	704.28.03.0
4	Bearing 6308 ZZ	2	1000303
5	Screw M16x100 Zn	1	1000126
6	Screw M16x80 Zn	1	1000137
7	Nut KM8 (M40x1,5)	1	1000145
8	Nut M16 Zn	2	1000140
9	Washer mb-8	1	1003510
10	Washer M20 Zn	1	1003711
11	Dowel 12x8x28-A	2	1013929

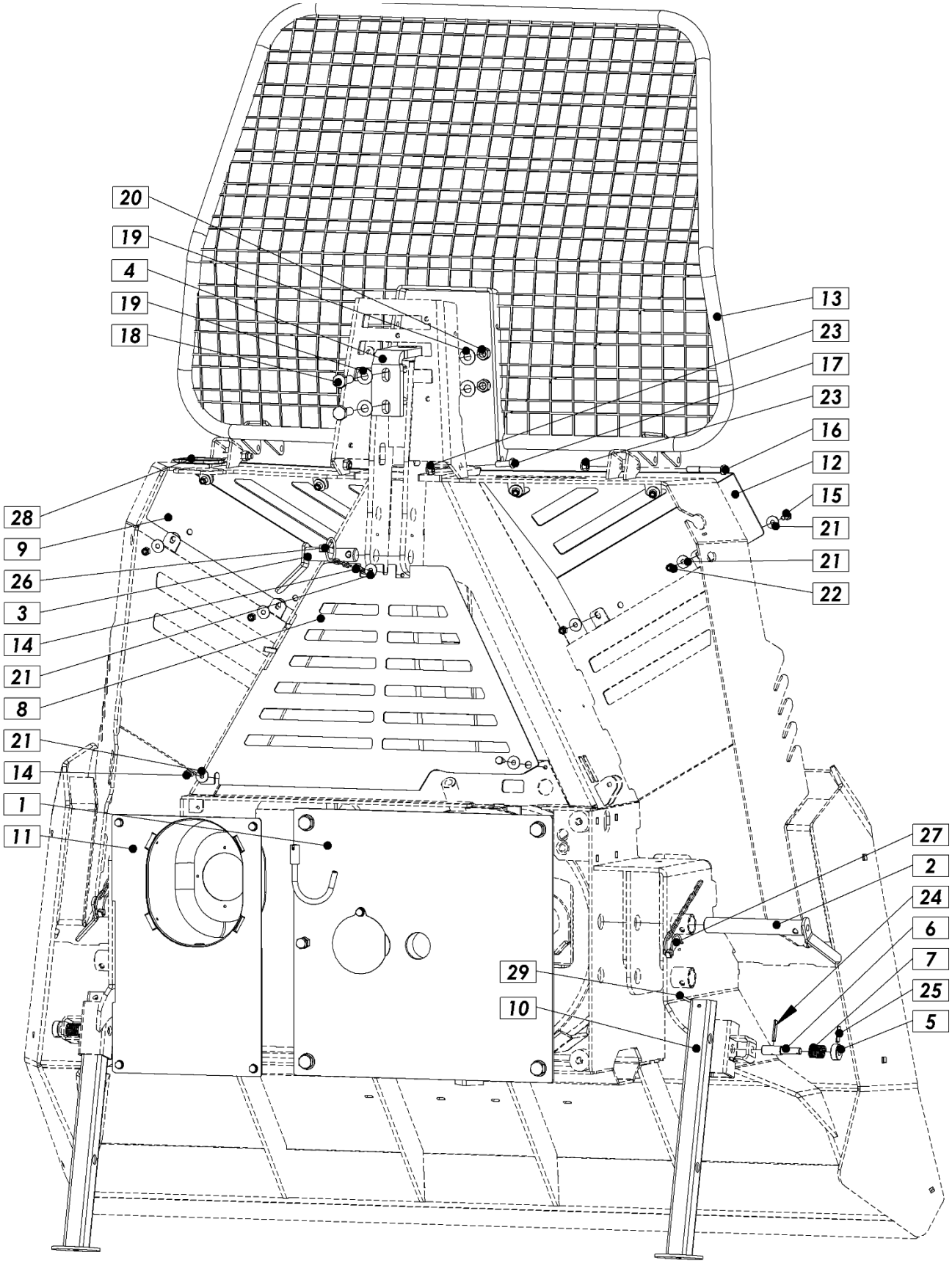


Figure 7: 7003.13.00.0 – Protections and mechanisms.

Pos.	Name	No. of pieces	Number
1	Drum cover kpl.	1	701.38.00.0
2	Attachment latch	2	702.56.00.0
3	Up. attachment pin	1	702.56.03.0
4	Pulley holder	1	704.00.20.A
5	Hub	2	5006.00.15.0
6	Bolt	2	5006.00.16.0
7	Foot spring	2	5006.00.18.0
8	Protective sheet metal	1	7001.00.50.0
9	Protection, upper r.	1	7002.01.45.0
10	Support foot var.	2	7002.00.10.A
11	PTO protection kpl.	1	7002.00.60.0
12	Protection, upper r.	1	7002.01.45.0
13	Screen var.	1	7006.88.00.A
14	Screw M8x16 Zn	3	1000050
15	Screw M8x20 Zn	8	1000051
16	Screw M10x70 Zn	2	1010831
17	Screw M10x30 Zn	2	1000100
18	Screw M14x45 Zn	2	1006749
19	Washer M14 SKM	4	1000154
20	Nut M14 Zn	2	1000146
21	Washer M8 Zn	19	1003471
22	Nut M8 Zn	8	1003460
23	Nut M10 Zn	4	1003461
24	Spring latch 6x40	2	1000208
25	Spring latch 6x30	2	1000214
26	Spring latch 10mm + chain 2.2 mm	1	1004565
27	Tube fuse 8x42 mm + chain 2,2mm	2	1004566
28	Grommet, large Ø 70	1	1000736
29	Cotter pin 5x50	2	1003497
30	Grease fitting M8x1	1	1000234

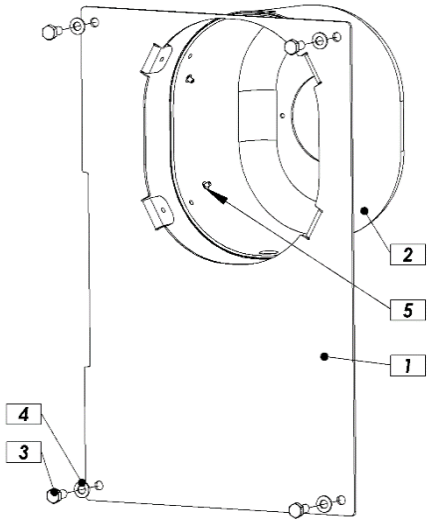


Figure 8: 7002.00.60.0 – PTO protection.

Pos.	Name	No. of pieces	Number
1	PTO protection	1	7002.00.61.0
2	PTO protection 2	1	502.35.02.0
3	Screw M8x16 Zn	4	1000050
4	Washer M8 Zn	4	1003465
5	Rivet	4	1003685

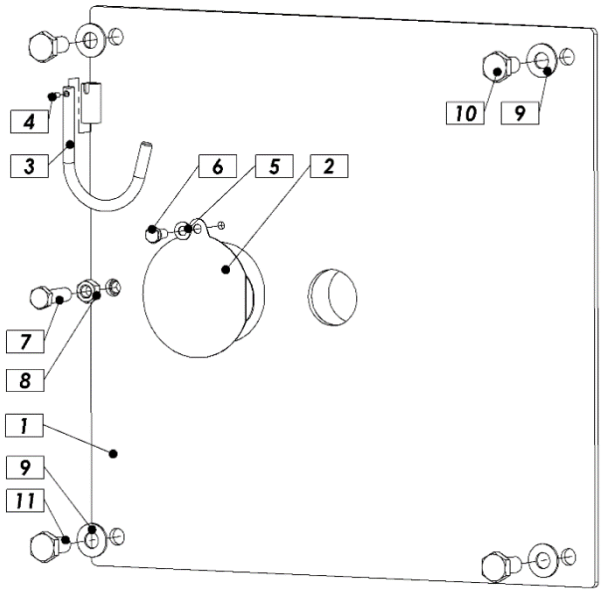


Figure 9: 701.38.00.0 – Drum cover.

Pos.	Name	No. of pieces	Number
1	Cover plate var.	1	5002.11.05.0
2	PTO bracket Zn	1	502.11.08.0
3	Small cover	1	502.11.09.0
4	Screw M8x16 Zn	1	1000050
5	Screw M12x55 Zn	1	1000084
6	Screw M12x20 Zn	4	1000055
7	Nut M12 Zn	1	1000139
8	Washer M8 Zn	1	1003465
9	Washer M12 SKM	4	1000176
10	Spring latch 4x16	1	1012275

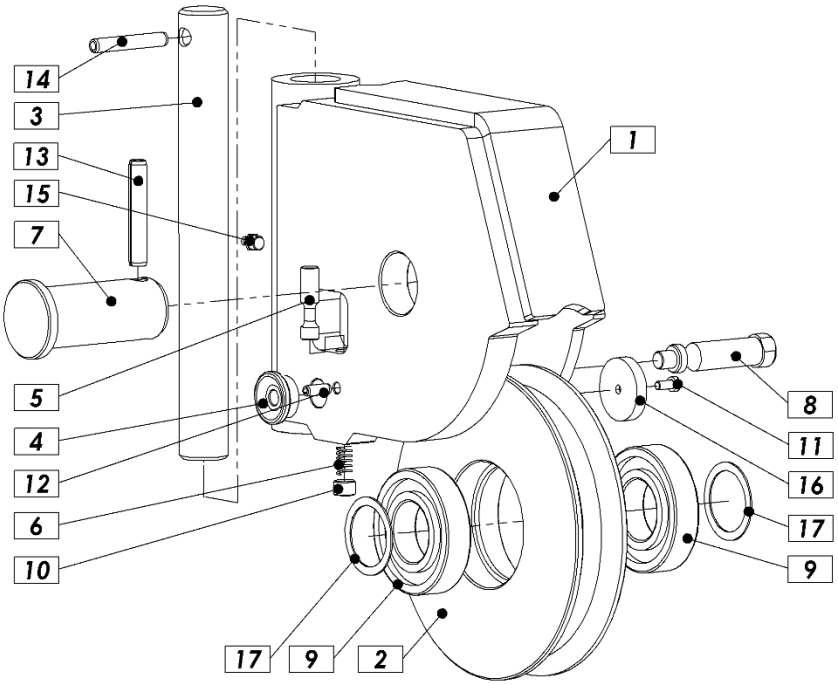


Figure 10: 7002.26.00.A – Lower pulley.

Pos.	Name	No. of pieces	Number
1	Lower pulley housing var.	1	7002.26.01.A
2	Pulley wheel	1	702.25.10.0
3	Lower pulley pin	1	702.57.00.0
4	Holder Zn	1	5006.10.10.0
5	Safety latch Zn	1	5006.10.11.0
6	Compression spring	1	5006.10.12.0
7	Pulley axis	1	7002.26.07.A
8	Bolt Zn	1	7002.26.08.0
9	Bearing 6207 2RS	2	1000300
10	Locking screw M12	1	1000118
11	Hex socket screw M5x10 Zn	1	1000117
12	Spring latch 6x16	1	1000227
13	Spring latch 10x60	1	1000704
14	Spring latch 8x50	1	1000212
15	Grease fitting M8x1	1	1000234
16	Magnet 36x7	1	1000507
17	Washer 35x45x1	2	1000151

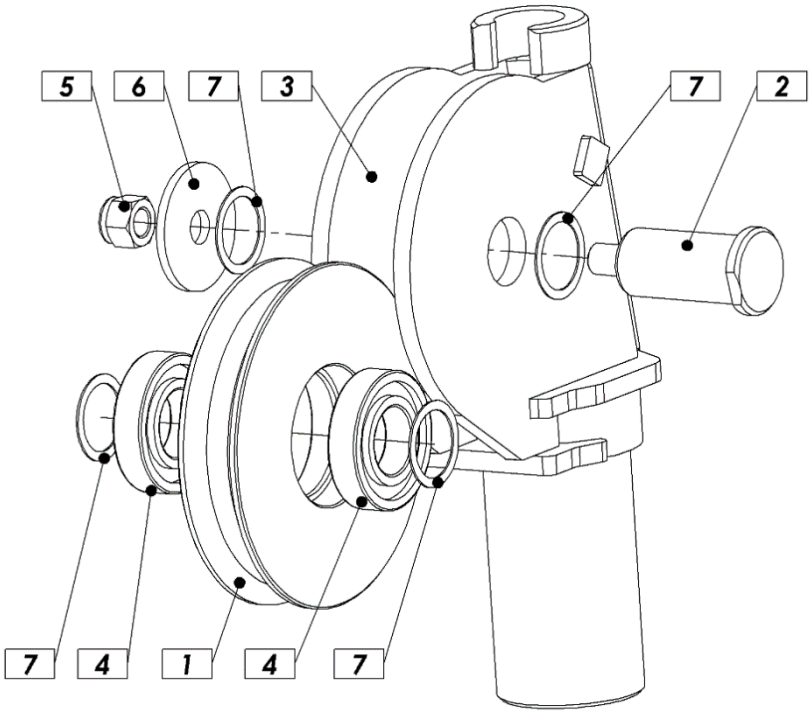


Figure 11: 7004.25.40.0 – Upper pulley.

Pos.	Name	No. of pieces	Number
1	Pulley wheel	1	702.25.10.0
2	Pulley bolt Zn	1	7002.25.26.0
3	Pulley frame var.	1	7004.25.01.0
4	Bearing 6207 2RS	2	1000300
5	Nut M16 Zn	1	1000143
6	Washer M16 Zn	1	1000186
7	Washer 35x45x1	4	1000151

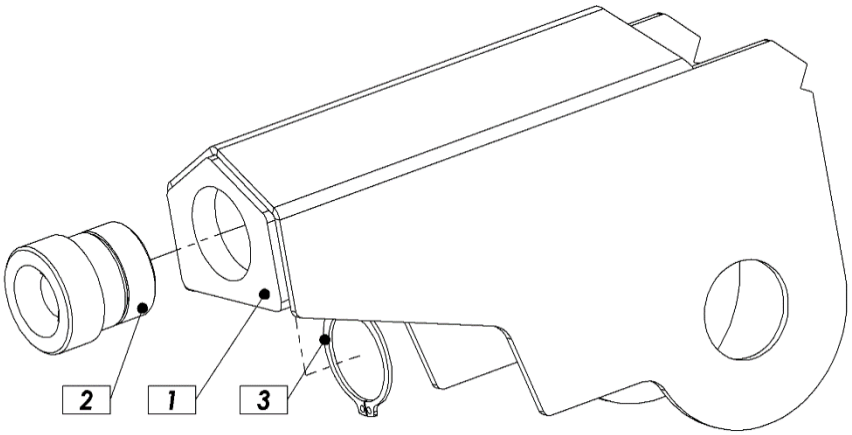


Figure 12: 7004.25.16.0 – Rope guide.

Pos.	Name	No. of pieces	Number
1	Guide var.	1	7004.25.19.0
2	Bush, hardened	1	5006.09.12.0
3	Retaining ring Z35x1,5	1	1000261

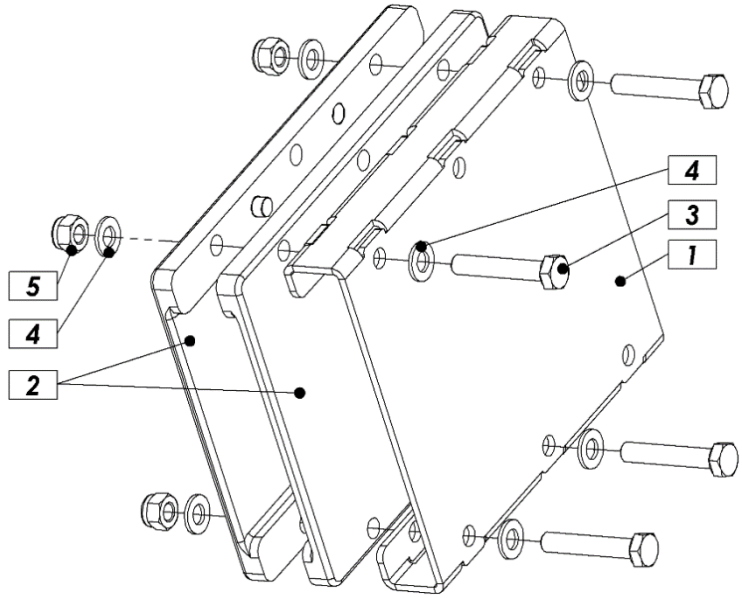


Figure 13: 5006.13.20.0 – Chainsaw bracket.

Pos.	Name	No. of pieces	Number
1	Chainsaw bracket plate	1	1020.07.47.0
2	Bracket plastic, injection-moulded	2	1020.07.49.0
3	Screw M8x45 Zn	4	1012046
4	Washer M8 Zn	8	1003465
5	Nut M8 Zn	4	1003460

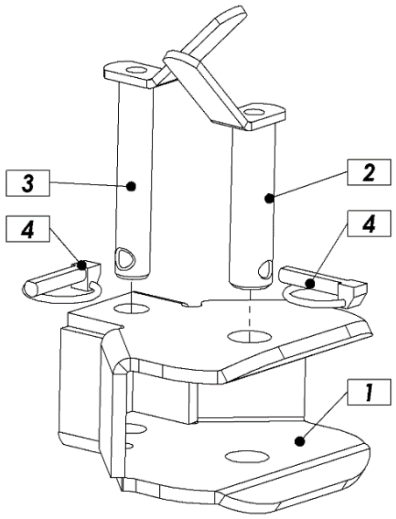


Figure 14: 5006.12.10.0 – Attachment.

Pos.	Name	No. of pieces	Number
1	Attachment var.	1	5006.12.00.0
2	Upper attachment bolt	1	702.56.03.0
3	Attachment bolt var.	1	7002.00.20.0
4	Tractor pin 10	2	1000211