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User manual

FORESTRY WINCH 45M, MR 55M, MR

Spare parts list



GENERAL

Dear customer!

We would like to congratulate you for the purchase of our machine. The mechanical 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.

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2. Intended use

The machine is designed exclusively for normal work in the woods. Any other use is considered as unintended. 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. Technical data:

	Unit	45M	45MR	55M	55MR
Working group	EM	1		1	
Pulling force	kN	45		55	
Brake force	kN	56,25		68,75	
Wire rope medium speed	m/s	0,9	0,6	0,9	0,6
Wire rope maximum length	mm/m	Ø 9/135		Ø 10/110	
	mm/m	Ø 10/110		Ø 11/90	
	mm/m	Ø 11/90		Ø 12/75	
Wire rope length (serial)	mm/m	Ø 10/70		Ø 11/70	
Tractor required power	kW	37-50		40-55	
	kM	50-68		54-75	
Calculated tear force	kN	104,4		100	
Rated strength	N/mm ²	2160		2160	
Width	mm	1400		1590	
Length	mm	490		490	
Height without protective net	mm	1335		1450	
Height with protective net	mm	2300		2300	
Weight (without wire rope)	kg	348	366	388	406
Revolutions on cardan	min ⁻¹	max.540		max. 540	

□ Option ■ Serial

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. If it necessary to use a wire rope of an appropriate length. 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

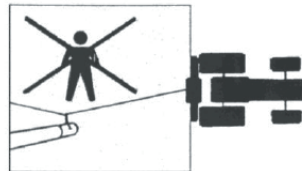


Figure 2

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).

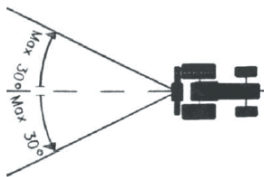


Figure 3



Figure 4

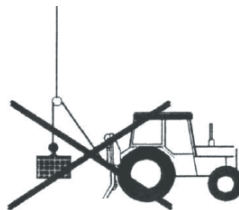


Figure 5

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 continuously 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).

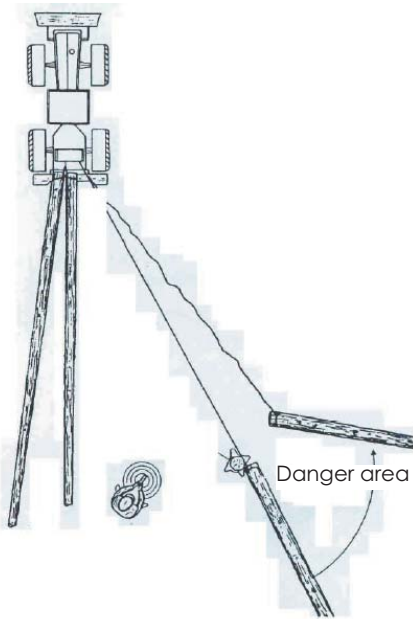


Figure 6

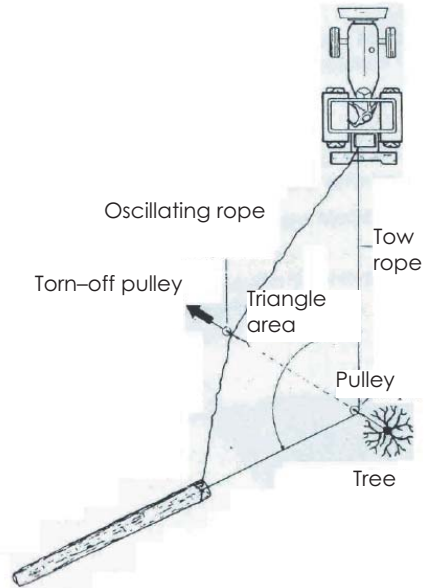


Figure 7

2. 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 perfect 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 against 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 intended 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.



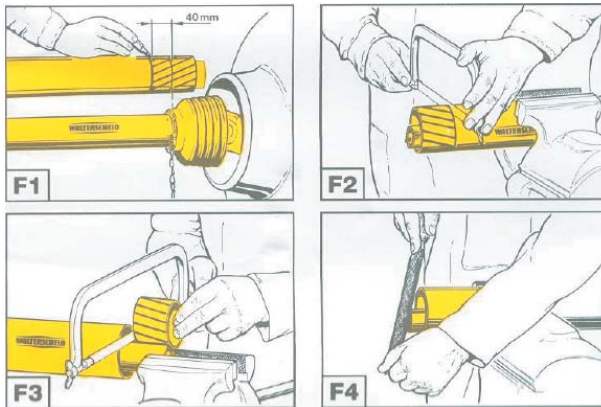
Maximum number of revolutions and direction of tractor PTO shaft rotation is 540 min⁻¹.

3. PTO SHAFT ADJUSTMENT

Length of PTO shaft needs to be adjusted for different tractors (figure F1-F4). For winch 45M/MR, 55M/MR the use of PTO shaft with torque 500 Nm (type W 300E 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 wear, 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 to turn the nut with the screw (pos. 5) to the left in order to tighten the brake belt and vice versa. For optimal operation the gap between the nuts must be 11 mm. If the brake force is not sufficient, repeat the procedure and tighten the nut (pos. 5) to the left. If brake force is set too high, the unreeling of the rope is more difficult. In such cases, turn the nut to the right. At the end, tighten the nut (pos. 4).

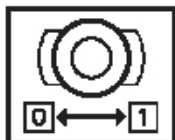


Figure 1

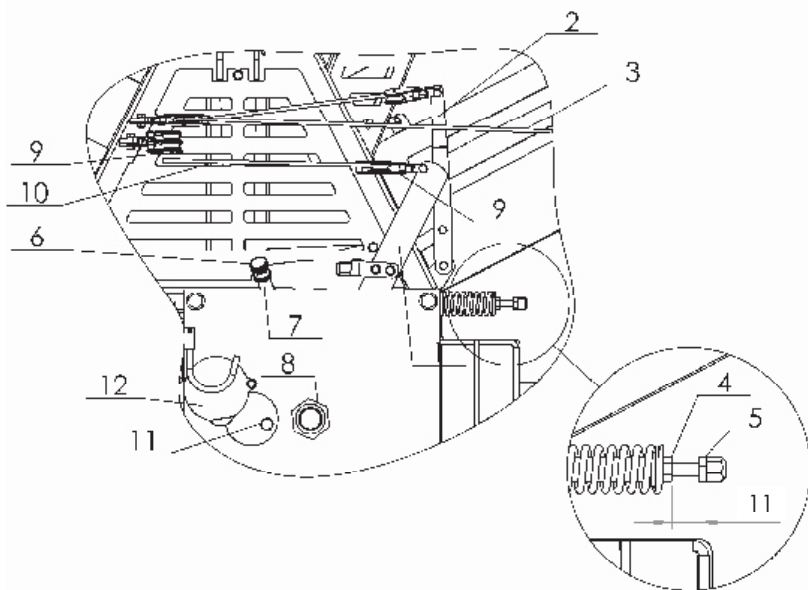


Figure 11

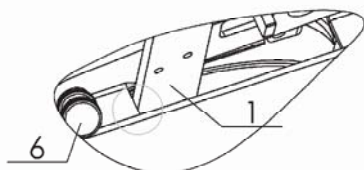


Figure 11a (lever rest)

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).

Series M winches

First loosen the nut and the screw (pos. 2, figure 13), which are used to fix the housing. Then start tensioning the chain (pos. 3) with the screw (pos. 4). Turn the screw to the right, until you reach an appropriate tension of the chain. At the same time, you must still hold the tightening nut (pos. 5). The chain is correctly tensioned when it can still oscillate for approx. 3 to 4 mm in the transverse direction. Tighten the retaining screws (pos. 2) which you have loosened before.

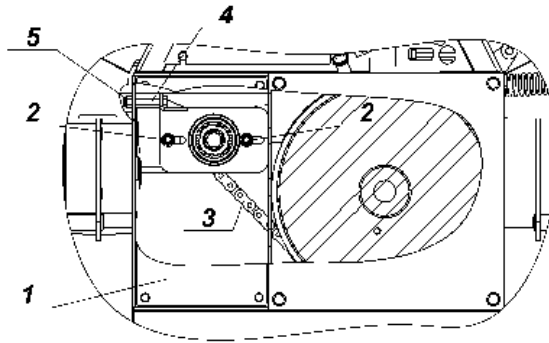


Figure 12

Series MR winches

First loosen the nut and screw (pos. 2 and pos. 3, figure 12), which are used to tension the shorter chain. Then use the screw (pos. 5) to start tensioning the longer chain (pos. 6). Turn the screw to the right, until you reach an appropriate tension of the chain. At the same time, you must still hold the tightening nut. The chain is correctly tensioned when it can still oscillate for approx. 3 to 4 mm in the transverse direction. Tighten the retaining screws (pos. 4) which you have loosened before.

Then you can start tensioning the shorter chain (pos. 8, figure 12). if you have loosened the two nuts (pos. 7) beforehand, you can start turning the tensioning screw (pos. 3) to the left. This prevents the gap between both housings. Finally, tighten the lock nut (pos. 2) and the retaining screws of the upper housing (pos. 7).

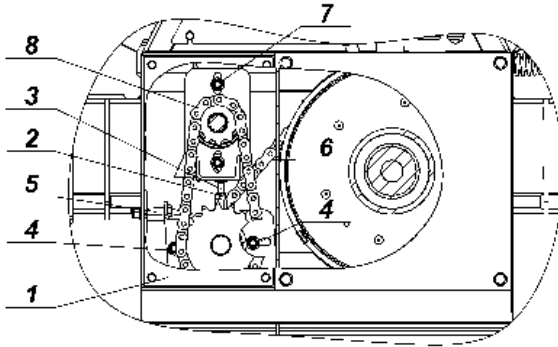


Figure 13

5. 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)
	Incorrectly installed	Install according to technical documentation
	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	Set according to instructions for use
	Damaged or corroded activation mechanism	Apply WD spray to the activation mechanism or replace the activation mechanism if necessary
	Other	Contact customer service
	The winch is pulling although the clutch is turned off	Incorrect settings
Crossed or twisted rope for controlling the brake lever		Set the mentioned string in a parallel position
The lever that connects the clutch handle does not allow it to return to the OFF position		Check the lever
Damaged activation mechanism		Repair or replace the activation mechanism
Damaged winch drum		Replace or repair the drum

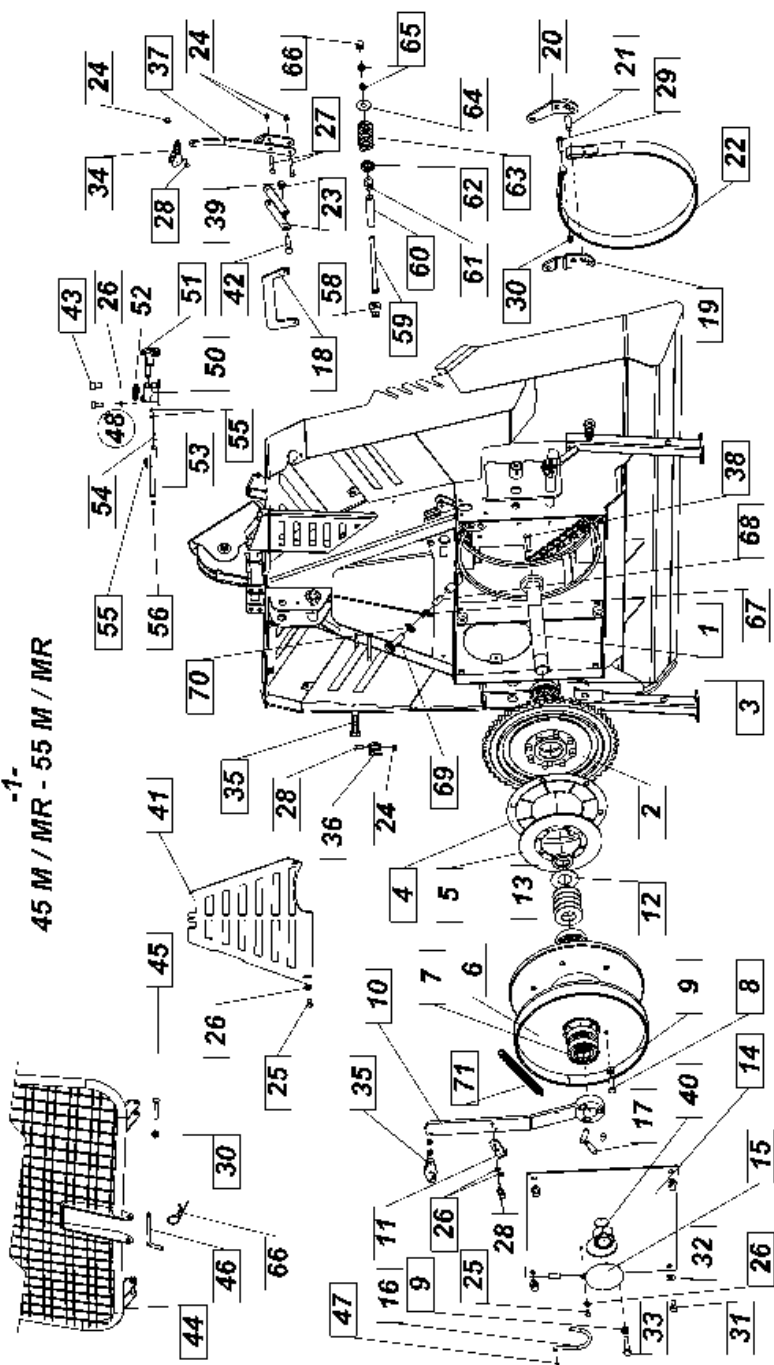
	Too small clutch clearance	Set according to instructions for use
	Broken part of clutch friction coating	Replace the clutch
	The drive chain is too tense	Set drive chain according to instructions for use
Winch is very loud during operation	The drive chain is not tense enough	Set drive chain according to instructions for use
	Damaged or worn bearings	Replace bearings

SPARE PARTS LIST
Forestry winches – 45M/MR, 55M/MR (Figure1)

Pos.	Name	Nr. of plan or standard			
		45M,MR		55M,MR	
		Nr. of pieces		Nr. of pieces	
1	Winch shaft	1	5006.06.06.0	1	5006.06.06.0
2	Free-wheel Z48	1	5006.06.01.0	1	5006.06.01.0
3	Bearing 6208 2RS	2	120199	2	120199
4	Clutch plate 274	1	5006.06.10.0	1	5006.06.10.0
5	Clutch plate 240	1	5006.06.09.0	1	5006.06.09.0
6	Rope drum	1	5006.05.00.0	1	5006.05.00.0
7	Bearing 6308 2RS	3	120114	3	120114
8	Screw M12x40 Zn	1	050059	1	050059
9	Nut M12 Zn	3	060065	3	060065
10	Clutch lever	1	502.11.20.0	1	502.11.20.0
11	Activation mechanism	1	5002.05.08.0	1	5002.05.08.0
12	Disc spring 80x41x2.25	6	110411	6	110411
13	Bushing	1	5006.06.12.0	1	5006.06.12.0
14	Drum cover	1	502.11.00.0	1	502.11.00.0
15	Small cover	1	502.11.09.0	1	502.11.09.0
16	PTO shaft holder	1	502.11.08.0	1	502.11.08.0
17	Clutch roller	1	502.11.15.0	1	502.11.15.0
18	Machine connection	1	5002.05.41.	1	5002.05.41.
19	Clutch plate	1	05006.05.12.0	1	05006.05.12.0
20	Clutch plate	1	5006.05.11.0	1	5006.05.11.0
21	Brake pin	1	502.06.12.0	1	502.06.12.0
22	Brake bel	1	502.06.00.0	1	502.06.00.0
23	Connection	2	5002.05.43.B	2	5002.05.43.B
24	Nut M8 Zn	6	060068	6	060068
25	Screw M8x16 Zn	4	050050	4	050050
26	Washer M8 Zn	8	070073	8	070073
27	Screw M8x55 Zn	2	050041	2	050041
28	Screw M8x20 Zn	6	050051	6	050051
29	Screw M10x45 Zn	1	050399	1	050399
30	Nut M10 Zn	3	060069	3	060069
31	Screw M12x25 Zn	5	050056	5	050056
32	Washer M12	4	070186	4	070186

Pos.	Name	Nr. of plan or standard			
		45M,MR		55M,MR	
		Nr. of pieces		Nr. of pieces	
33	Screw M14x55 Zn	3	050427	3	050427
34	Single pulley, small	1	502.00.40.0	1	502.00.40.0
35	Single pulley, small 2	2	502.00.42.0	2	502.00.42.0
36	Double small pulley, wide	1	502.00.43.0	1	502.00.43.0
37	Brake lever	1	5002.05.45.0	1	5002.05.45.0
38	Allen screw M12x50	1	051146	1	051146
39	Nut M12 Zn	1	060070	1	060070
40	Nut M39	1	060403	1	060403
41	Protective metal sheet	1	5002.00.50.0	1	5002.00.50.0
42	Screw M14x50 Zn	1	050477	1	050477
43	Allen screw M8x20	2	050063	2	050063
44	Safety net	1	5006.88.00.A	1	5006.88.00.A
45	Screw M10x70	2	050553	2	050553
46	Net latch	1	5006.88.10.0	1	5006.88.10.0
47	Flexible pin 4x20	1	080084	1	080084
48	Automatic machine	1	502.50.00.0	1	502.50.00.0
49	Automatic machine housing	1	5002.50.02.0	1	5002.50.02.0
50	Guide	1	5002.05.55.0	1	5002.05.55.0
51	Tension spring	1	5002.05.63.0	1	5002.05.63.0
52	Bolt	1	5002.05.59.0	1	5002.05.59.0
53	Spring pin 6x40	1	80085	1	80085
54	Ball Ø8	2	120360	2	120360
55	Screw M6x25 Zn	1	060845	1	060845
56	Nut M6 Zn	1	060484	1	060484
57	Fork ear	1	5006.05.16.0	1	5006.05.16.0
58	Screw M12x220	1	051140	1	051140
59	Brake pipe	1	5002.05.22.0	1	5002.05.22.0
60	Bolt	1	5006.05.14.0	1	5006.05.14.0
61	Spring washer	1	5002.23.0	1	5002.23.0
62	Brake spring	1	5002.05.40.0	1	5002.05.40.0
63	Brake bushing	1	5002.05.24.0	1	5002.05.24.0
64	Nut M12 x 1.5 low	2	060508	2	060508
65	Nut M12 closed	1	060417	1	060417
66	Latch R 5	1	080537	1	080537
67	Compression spring	1	5006.05.36.0	1	5006.05.36.0
68	Safety brake plug	1	702	1	702
69	Safety brake screw	1	5006.05.37.0	1	5006.05.37.0
70	Safety brake nut	1	5006.05.38.0	1	5006.05.38.0
71	Clutch lever spring	1	502.11.25.0	1	502.11.25.0

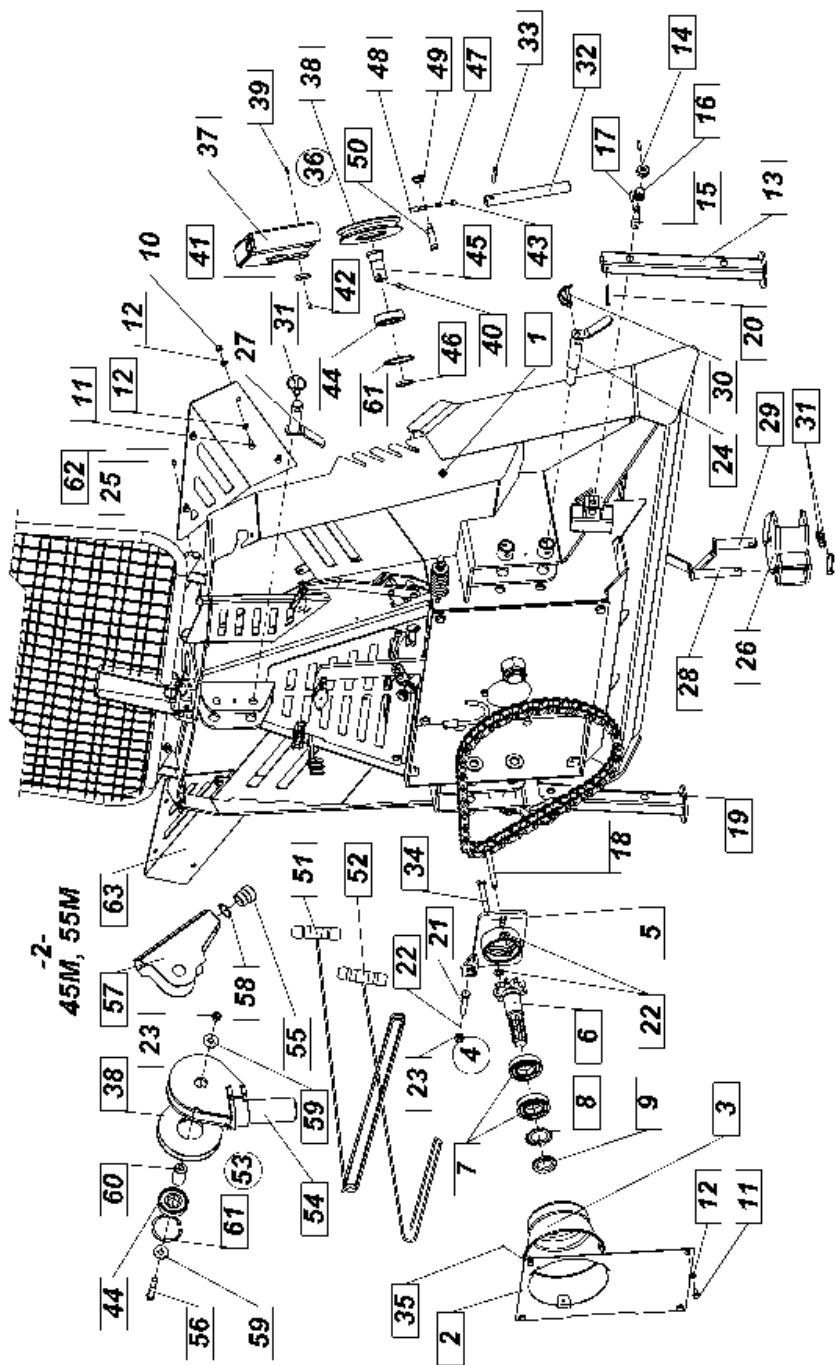
-1-
45 M / MR - 55 M / MR



Forestry winches – 45M/, 55M (Figure 2)

Pos.	Name	Nr. of plan or standard			
		45M		55M	
		Nr. of pieces		Nr. of pieces	
1	Housing	1	4002.01.00.0	1	5002.01.00.0
2	PTO shaft protection	1	5002.00.61.0	1	5002.00.61.0
3	PTO shaft protection	1	305.35.02.0	1	305.35.02.0
4	Drive	1	N502.08.00.0	1	N502.08.00.0
5	Drive housing	1	502.08.10.0	1	502.08.10.0
6	Drive shaft	1	502.08.01.0	1	502.08.01.0
7	Bearing 6208 2RS	2	120199	2	120199
8	Washer MB8	2	070103	2	070103
9	Nut KM8 M40x1,5	2	060102	2	060102
10	Nut M8 Zn	8	060068	8	060068
11	Screw M8x16 Zn	12	050050	12	050050
12	Washer M8 Zn	20	070073	20	070073
13	Support leg	2	5006.00.10.0	2	5006.00.10.0
14	Hub	2	5006.00.15.0	2	5006.00.15.0
15	Bolt	2	5006.00.16.0	2	5006.00.16.0
16	Leg spring	2	800.01.02.0	2	800.01.02.0
17	Flexible pin 6x30	2	080471	2	080471
18	Allen screw M12x110	2	540883	2	540883
19	Chain 16 B-1 (1",58 links)	1	110525	1	110525
20	Split pin 5x50	2	150132	2	150132
21	Screw M12x70	1	050060	1	050060
22	Washer M12	11	070186	11	070186
23	Nut M12 Zn	9	060070	9	060070
24	Upper bolt	2	502.00.20.0	2	502.00.20.0
25	Grease nipple M8x1	1	909766	1	909766
26	Coupling	1	502.12.00.A	1	502.12.00.A
27	Upper coupling bolt	1	702.56.03.0	1	702.56.03.0
28	Coupling bolt	1	7002.00.21.0	1	7002.00.21.0
29	Coupling bolt	1	502.00.25.0	1	502.00.25.0
30	Pipe latch 8	2	080617	2	080617
31	Spring latch 10	3	080093	3	080093
32	Lower pulley bolt	1	502.10.10.0	1	502.10.10.0

Pos.	Name	Nr. of plan or standard			
		45M		55M	
		Nr. of pieces		Nr. of pieces	
33	Flexible pin 8x50	1	080406	1	080406
34	Screw M12x90 Zn	3	050435	3	050435
35	River 4	3	230426	3	230426
36	Lower pulley	1	5006.10.00.A	1	5006.10.00.A
37	Lower pulley housing	1	5006.10.01.A	1	5006.10.01.A
38	Pulley wheel	2	502.09.08.0	2	502.09.08.0
39	Flexible pin 6x15	1	081126	1	081126
40	Flexible pin 10x55	1	801128	1	801128
41	Magnet BF 30	1	230225	1	230225
42	Screw M5x10	1	051126	1	051126
43	Locking screw M12x10	1	051170	1	051170
44	Bearing 6306 2Z	2	120121	2	120121
45	Pulley bolt	1	5006.10.18.A	1	5006.10.18.A
46	Distance bushing	1	5006.10.14.0	1	5006.10.14.0
47	Compression brake spring	1	5006.10.12.0	1	5006.10.12.0
48	Safety latch Zn	1	5006.10.11.0	1	5006.10.11.0
49	Handle Zn	1	5006.10.10.0	1	5006.10.10.0
50	Bolt Zn	1	5006.10.09.0	1	5006.10.09.0
51	Clutch rope (black)	1	502.00.55.0	1	502.00.55.0
52	Brake rope (red)	1	502.00.50.0	1	502.00.50.0
53	Upper pulley	1	5006.09.00.0	1	5006.09.00.0
54	Upper pulley	1	5006.09.01.0	1	5006.09.01.0
55	Hardened bushing	1	5006.09.12.0	1	5006.09.12.0
56	Screw M12x80 Zn	1	50046	1	50046
57	Guide	1	5006.09.10.0	1	5006.09.10.0
58	Outer circlip 35x1,5	1	101066	1	101066
59	Washer M12 large	2	070083	2	070083
60	Pulley bushing	1	502.09.09.0	1	502.09.09.0
61	Circlip N72x2,5	2	100090	2	100090
62	Upper protection l.	1	5006.01.45.0	1	5006.01.45.0
63	Upper protection r.	1	5002.01.46.0	1	5002.01.46.0

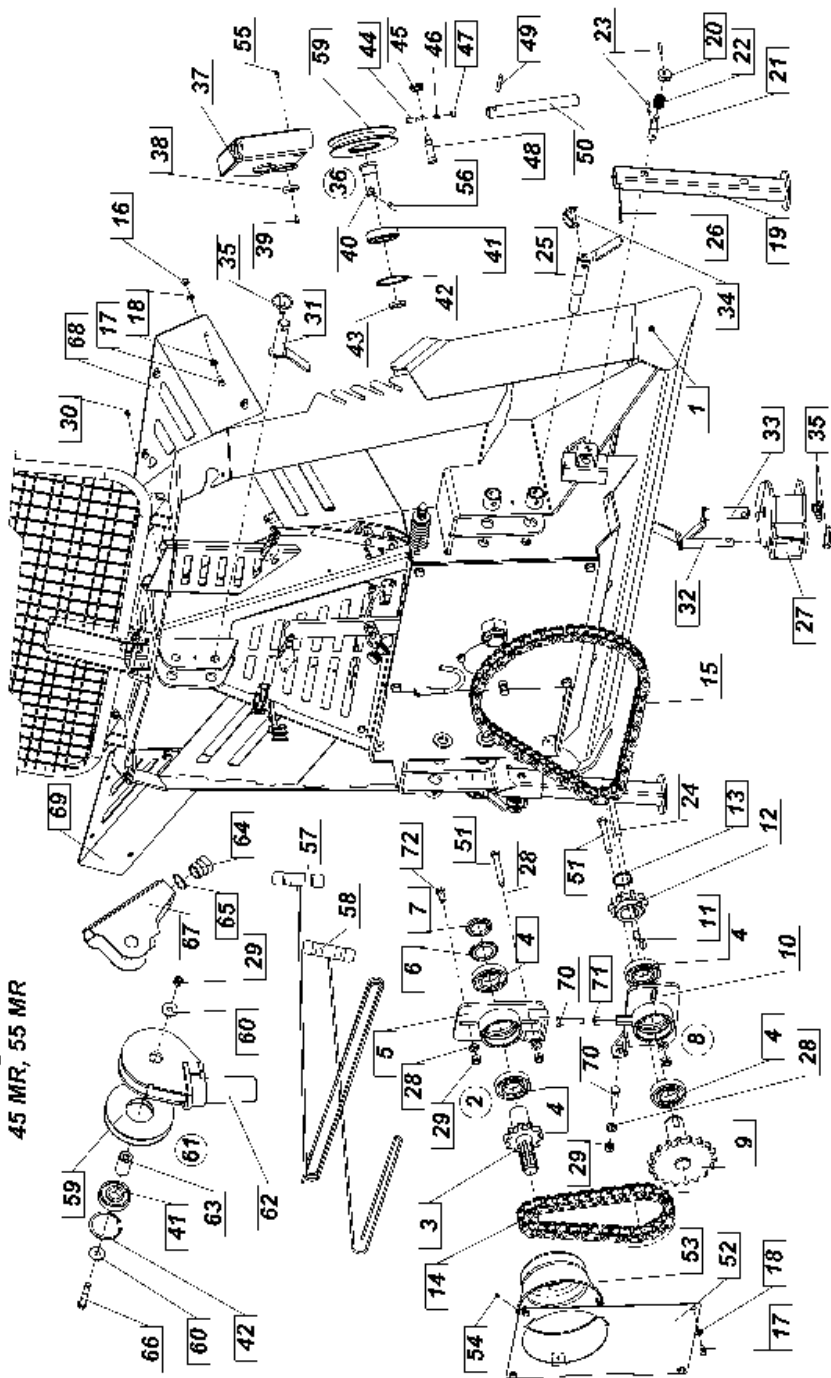


Forestry winches – 45MR/, 55MR (Figure 3)

Pos.	Name	Nr. of plan or standard			
		45MR		55MR	
		Nr. of pieces		Nr. of pieces	
1	Housing	1	4003.01.00.0	1	5003.01.00.0
2	Upper drive	1	503.08.00.0	1	503.08.00.0
3	Drive shaft	1	502.08.01.0	1	502.08.01.0
4	Bearing 6208 2RS	4	120199	4	120199
5	Drive housing	1	502.08.10.0	1	502.08.10.0
6	Washer MB8	1	070103	1	070103
7	Nut KM8 M40x1,5	1	060102	1	060102
8	Lower drive	1	503.08.30.0	1	503.08.30.0
9	Lower drive shaft	1	506.08.31.0	1	506.08.31.0
10	Drive housing	1	506.08.20.0	1	506.08.20.0
11	Dowel 12x8x26-A	2	190149	2	190149
12	Free-wheel z=10	1	702.28.03.0	1	702.28.03.0
13	Circlip Z40 x 1.75	1	100410	1	100410
14	Chain 16 B1 – 0,7m	1	110094	1	110094
15	Chain 16 B-1 (long)	1	110096	1	110096
16	Nut M8 Zn	8	060068	8	060068
17	Screw M8 x 16 Zn	12	050050	12	050050
18	Washer M8 Zn	20	070073	20	070073
19	Suppor leg	2	5006.00.10.0	2	5006.00.10.0
20	Hub	2	5006.00.15.0	2	5006.00.15.0
21	Bolt	2	5006.00.16.0	2	5006.00.16.0
22	Ring	2	800.01.02.0	2	800.01.02.0
23	Flexible latch 6x30	4	080471	4	080471
24	Allen screw M12x110	1	540883	1	540883
25	Upper bolt	2	502.00.20.0	2	502.00.20.0
26	Split pin 5x50	2	150132	2	150132
27	Coupling	1	502.12.00.A	1	502.12.00.A
28	Washer M12	7	070186	7	070186
29	Nut M12 Zn	6	060070	6	060070
30	Grease nipple M8x1	1	909766	1	909766
31	Upper coupling bolt	1	702.56.03.0	1	702.56.03.0
32	Coupling bolt	1	7002.00.21.0	1	7002.00.21.0
33	Coupling bolt	1	502.00.25.0	1	502.00.25.0
34	Pipe latch 8	2	080617	2	080617
35	Spring latch 10	3	080093	3	080093
36	Lower pulley	1	5006.10.00.A	1	5006.10.00.A
37	Lower pulley housing	1	5006.10.01.A	1	5006.10.01.A
38	Magnet BF 30	1	230225	1	230225
39	Screw M5x10	1	051126	1	051126
40	Pulley bolt	1	5006.10.18.A	1	5006.10.18.A

Pos.	Name	Nr. of plan or standard			
		45MR		55MR	
		Nr. of pieces		Nr. of pieces	
41	Bearing 6306 2RS	2	120121	2	120121
42	Circlip N72x2,5	2	100090	2	100090
43	Distance bushing	1	5006.10.14.0	1	5006.10.14.0
44	Safety latch Zn	1	5006.10.11.0	1	5006.10.11.0
45	Handle Zn	1	5006.10.10.0	1	5006.10.10.0
46	Pressure brake spring	1	5006.10.12.0	1	5006.10.12.0
47	Locking screw M12x10	1	051170	1	051170
48	Bolt Zn	1	5006.10.09.0	1	5006.10.09.0
49	Flexible pin 8x50	1	080406	1	080406
50	Upper pulley bolt	1	502.10.10.0	1	502.10.10.0
51	Screw M12x90 Zn	1	050435	1	050435
52	PTO shaft protection	1	5002.00.61.0	1	5002.00.61.0
53	PTO shaft protection	1	305.35.02.02	1	305.35.02.02
54	Rivet 4	3	230426	3	230426
55	Flexible pin 6x15	1	081126	1	081126
56	Flexible pin 10x55	1	801128	1	801128
57	Clutch rope (black)	1	502.00.55.0	1	502.00.55.0
58	Clutch rope (red)	1	502.00.50.0	1	502.00.50.0
59	Pulley wheel	2	502.09.08.0	2	502.09.08.0
60	Washer M12 large	2	070083	2	070083
61	Upper pulley	1	5006.09.00.0	1	5006.09.00.0
62	Upper pulley	1	5006.09.01.0	1	5006.09.01.0
63	Pulley pushing	1	502.09.09.0	1	502.09.09.0
64	Hardened bushing	1	5006.09.12.0	1	5006.09.12.0
65	Outer circlip 35x1,5	1	101066	1	101066
66	Screw M12x80 Zn	1	050046	1	050046
67	Guide	1	5006.09.10.0	1	5006.09.10.0
68	Upper protection l.	1	5006.01.45.0	1	5006.01.45.0
69	Upper protection r.	1	5002.01.46.0	1	5002.01.46.0
70	Screw M14x55 Zn	2	050427	2	050427
71	Nut M12 Zn	1	060065	1	060065
72	Screw M12x25 Zn	1	050056	1	050056

-3-
45 MR, 55 MR



EC – Declaration of conformity
according to EC-guideline 2006/42/EC and
Regulations on machine safety (Official Gazette of RS, št.75/08)

we

UNIFOREST d.o.o.

Dobriša vas 14, 3301 PETROVČE, SLOVENIJA

Marko Polak, BE, Uniforest, Dobriša vas 14, 3301 PETROVČE

declare under our sole responsibility that the product:

Winch:
UNIFOREST 45M / 45MR / 55M / 55MR

meets the fundamental safety and health requirements of EC guideline 2006/42/EC
and the Regulations on machine safety (Official Gazette of RS, št.75/08)

For the proper enforcement of the designated safety and health regulations from
EC guidelines the following standards and/or technical regulations were used:

EN ISO 12100-1/2010 EN ISO 4254-1/2010/ AC:2011
EN ISO 13857/2008 EN ISO 4413 /2010 ÖNORM L5276/ 2008

Petrovče, 05.04. 2012

Drago Pintar, ing.

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