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Safety instructions and user manual

FORESTRY WINCH UNIFOREST 2X65G

Spare parts list

CE

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. 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:

Traction force:	**2x65 kN**
Braking force:	**2x81,25 kN**
Mean speed of the wire rope:	**0,65 m/s at 540 U/Min**
	1,2 m/s at 1000 U/Min
Width	**1720 (1920) mm**
Depth	**840 mm**
Height	**2300 mm**
Weight (wire rope excluded)	**620 kg**
Wire rope (max)	**12mm/130m,**
	11mm/160m
Computational tear force	**180 kN**
Recommended tractor power	**> 75kW, 100 PS**
Cardan shaft speed	**540 or 1000 U/Min**
Electric connection	**12 V**
Set pressure	**110 to the max. 150 bar**

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

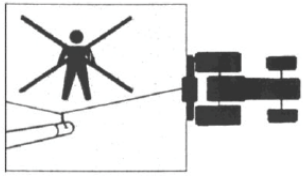
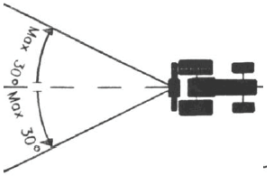


Figure 2

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).



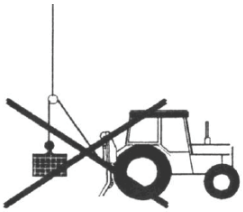


Figure 3 Figure 4 Figure 5

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).

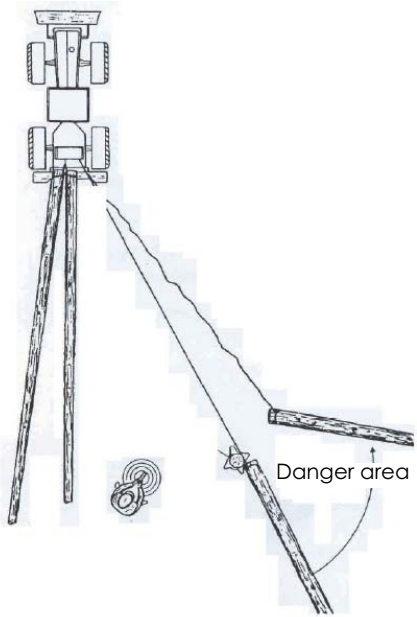


Figure 6

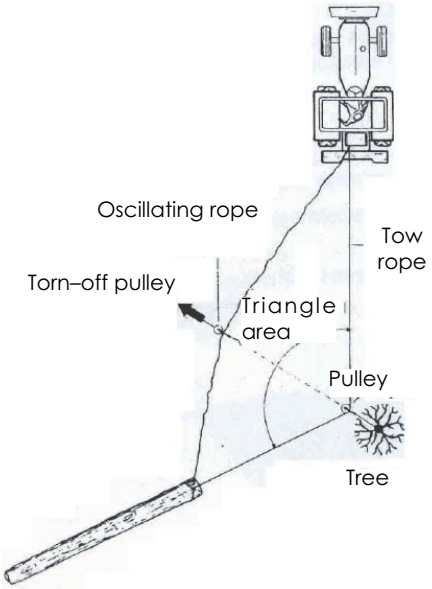


Figure 7

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 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.

USER MANUAL

1. DESCRIPTION

A winch is a machine intented for harvesting felled timber from the forest. Its components are board, aggregate and safety devices. Operation is executed through an electrohydraulic system, The clutch and brake are switched on or off by the hydraulic cylinders. The pressure in the hydraulic parts is created by a hydraulic pump that is driven by the cardan shaft. The hydraulic battery maintains the necessary pressure in the system even after the pump has stopped working or the tractor is turned off and still enables the reeling of the wire rope. The electric connector at the rear part of the tractor supplies the control elements with electricity. Winch operates with a max. hydraulic pressure of 150 bar.

The safety valve is factory configured and the pressure can not be increased!

2. NECESSARY TRACTOR EQUIPMENT

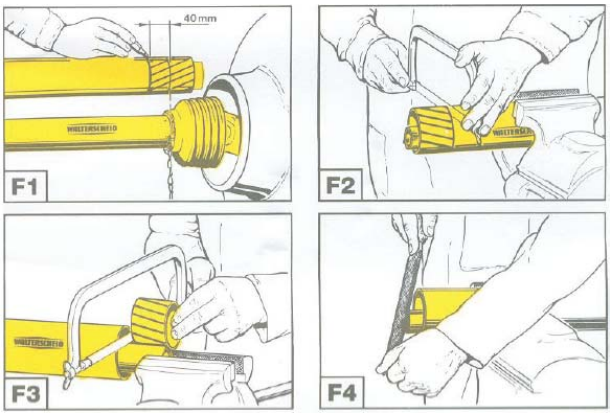
- tractor cardan shaft with max. 1000 min^{-1}
- three-point linkage of category II or III
- electrical installation 12 V with a socket on the rear part of the tractor

Maximum speed (rpm) and rotation of the tractor cardan shaft 1000 min^{-1}!

3. ADJUSTMENT OF THE CARDAN SHAFT

The length of the cardan shaft can be adapted to a variety of tractors (Figures F1–F4). For the 2x65G winch use a cardan shaft with a max. torque of 695 Nm, type W 400E Walterscheid.
The exact length can be determined as follows:

1. turn off the tractor
2. attach the machine to the tractor
3. pull the cardan shaft apart, connect both parts to the tractor and the machine. Compare the both parts of the shaft and mark them.
4. shorten the outer and inner plastic protective tubes (Figure F2)
5. shorten the outer and inner sliding profiles on the same length as the plastic protective tubes (Figure F3)
6. polish the end of the tube, remove the chips and lubricate the sliding spots (Figure F4)



4. ATTACHING THE WINCH TO THE TRACTOR

Do not stand in the danger area when attaching the winch!

Forestry winch can be attached to every tractor with a three-point hitch. Because of its construction the winch can also be attached to a tractor with an automatic hitch. Attach the recommended cardan shaft and secure the cardan protection with a chain. Make sure the cardan shaft is properly fitted in both connection points. Once you have attached the winch to the tractor, harden the stabilisers on lower linkages. Use the upper linkage to adjust the position of the winch so that it is tilted 20° backwards. Plug the power cord of the winch in the socket on the tractor. On tractors that do not have a socket with a constant voltage of 12 V, the supply cable can be plugged in the socket which is usually used for connecting the lighting equipment on a trailer. Therefore, you must turn on the tractor lights. Connect the control unit to the socket on the frame of the winch. In case you are using a remote control, connect the receiver cable to the socket to which the control unit was connected.

5. UNREELING THE WIRE ROPE

When the winch is properly connected, you can start unreeling the wire rope.

When unreeling you must never completely unreel the wire rope. Always leave at least three wrappings on the drum. This distance is marked on the wire rope.

For safety reasons the wire rope is attached to the drum in such a way that an uncontrollable sliding of the timber „pulls" the rope from the drum. After that, you can re-install the wire rope according to the procedure intended for wire rope installation.

If the wire rope is very tense and you wish to loosen it, you can do it impulsively by quickly pushing the left button 2 or 3 times (pos. 1.1, 2.1). This way you only loosened the rope a bit and thus prevented the timber from sliding back down the slope.

ATTENTION!

A loose wire rope can become damaged when towing heavy loads (it can get stuck or folded), so it is no longer suitable for use.

A wire rope that is damaged this way is not covered by the warranty.

6 STEERING OF THE DOUBLE DRUM WINCH

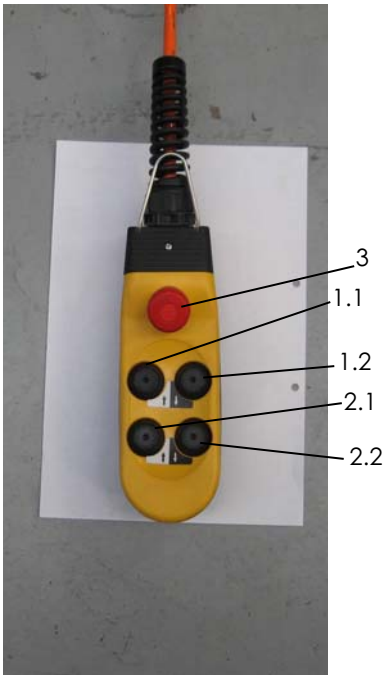


Figure 9

Unreeling the wire rope from the drum, each drum individually or both at the same time

On the control console (picture 9), push the button with **an arrow on a white background** (1.1, 2.1) and hold it for 3 seconds. During this time, the electro-hydraulic steering switches of the brakes and the reeling device starts functioning. You can pull the rope to the timber.
If you notice that the remaining rope is not properly reeled on the drum, you must unreel the entire wire rope, but leave a**t least three wrappings** on the drum. Then you can unreel the rope to a desired length.

Reeling the wire rope on the drum, each drum individually or both at the same time

On the control console, push the button **with an arrow on a black background** (1.2, 2.2). The wire rope starts to reel on the drum. When you release the button with **an arrow on a black background** (1.2, 2.2), the reeling stops. For safety reasons, it is only possible to reel the wire rope if you push and hold the above mentioned button.
If there is an obstacle in the way, stop the reeling. On the control console, push the button with an **arrow an a white background** (1.1, 2.1) and hold it for a few moments. During this time, the brakes are switched off and the wire rope unreels from the drum and loosens. You can continue with the reeling or remove the obstacle.

Using the emergency stop button (3)

Push the red button (3) in case of an emergency, that is in case when you can not control the process. In that moment, the brakes switch on and further use and operation is disabled. The button automatically stays turned on. First remove the cause of the emergency, then rotate the red button. The red button is turned off and further use and operation are enabled.

7. WINCH CONTROLER

You can start the towing when the winch is positioned on the ground and properly fixed. The parking brake of the tractor should also be turned on. When the cardan shaft is turned on and the hydraulic system has reached appropriate pressure, you can start towing. Push the right button (Figure 9, pos. 1.1, pos 2.1) on the control console. The wire rope will start reeling on the drum. When the button is released, the reeling stops.

- **IT IS FORBIDDEN TO USE BOTH DRUMS AT THE SAME TIME!**

When the reeling does not stop immediately after you release the button, a failure has occured. Immediatley stop working and inform the customer service. Risk of injury and death when working with a faulty winch.
During the tow it is forbidden to lift the winch as you can damage the cardan shaft on the winch.
In case of force majeure or risk of accident push the red button (Pos. 3) and the winch will go to a standstill.

SETTINGS

1. Clutch

It is factory configured and does not need to be adjust.

2. Safety brake

The safety brake prevents the wire rope from unreeling from the drum too fast.

The safety brake can be adjusted with the screw A which is fixed with the nut B in Figure 11. The safety brake is properly adjusted when the unreeling of the rope can be done without too much effort. When towing the load up the slope, you need to loosen the brake further with the screw A, so that towing the load is easier.

With the screws C in Figures 11 and 12 you can adjust the distance between the brake belt and the brake drum. When the brake drum can rotate without touching the brake belt, secure the screw C with the nut D. This setting is made at the factory when testing the winch. A re-setting is required only when changing the brake belt.

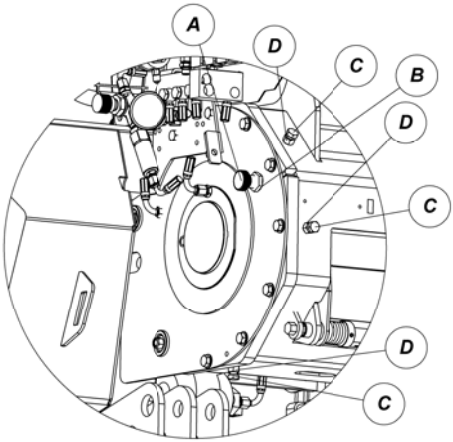


Figure 11

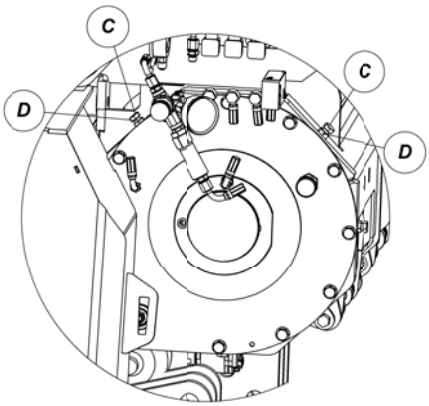


Figure 12

3. Brake

Adjust only in case of a brake slip. Tighten the nut 1 in Figure 13 for half a turn. Repeat the procedure if necessary.

Warning! Do not try to loosen or tighten the nut 2 (Fig. 13) on the cylinder.

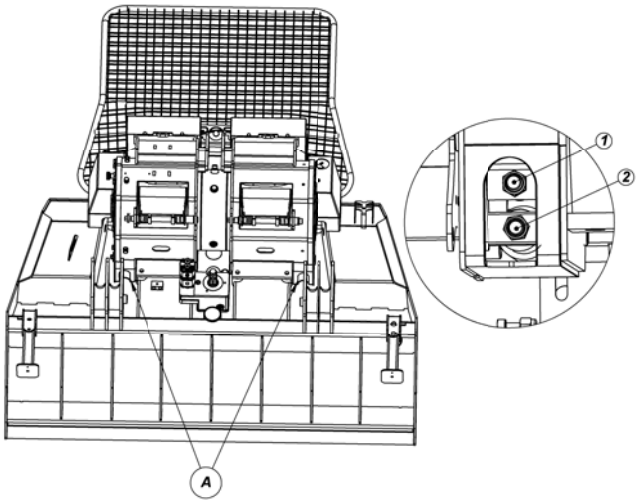


Figure 13

4. Reeling machine

The machine is factory-set. Re-setting must be carried out in case the machine is not unreeling the wire rope or when replacing the wire rope.

For proper operation use only factory recommended wire ropes (technical data), which must not ne damaged und incorrectly reeled (chapter Replacing the wire rope).

Settings in case the reeling machine is not unreeling the wire rope (the larger pulley rotates, pos. D, fig. 13a, the wire rope is not moving)

Set the regulating valve (pos. A, fig. 13a) to maximum speed, release the safety brake (fig. 11, pos. A). Activate the unreeling functions and begin tightening the screw (pos. C, fig. 13a), until the machine starts unreeling the wire rope. This way you set the thrust force, executed by the small pulley to the wire rope.

During the reeling (towing) the hydraulic engine works as a brake and creates a tension of the wire rope between the drum an the reeling machine. Check that during the reeling, the large pulley (pos. D, fig. 13a) is rotating and not sliding on the wire rope. In case the large pulley is sliding, the screw (pos. C, fig. 13a) must be tightened additionally. Now the safety brake and the wire rope unreeling speed can be set anew.

Setting in case of wire rope replacement

Set the regulating screw (pos. A, fig. 13a) to maximum speed, release the safety brake (fig. 11, pos. A) and replace the wire rope (see chapter Installation of the wire rope). Use a load and reel the wire rope to the maximum position. Then perform setting of the reeling machine which is described under Settings in case the reeling machine is not unreeling the wire rope.

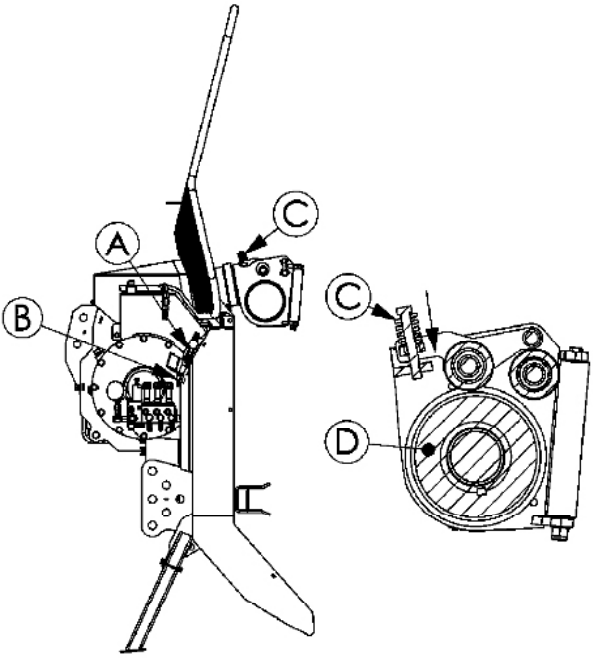


Figure 13a

5. Installation of the wire rope

Release the screw on the reeling machine (pos. H, fig. 14), remove the cover (pos. B, fig. 14), release the push cylinder (pos. E, fig. 14), remove the clamp (pos. F, fig. 14). Install the wire rope through the reeling machine and the feeding arm to the wire drum. Insert the rope in groove A on the drum and tighten the screw C (fig. 14). Then begin with the reeling according to the towing procedure. Reel to the first level to the attachement with the clamp. The wire rope must be perfectly reeled. If necessary, laterally press the rope during the reeling so that individual coils are touching. Then fix the rope with a clamp (pos. F, fig. 14), install the push cylinder and tighten the screw (pos. H, fig. 14) in such a way that during the reeling the large pulley is rotating with the wire rope (pos. G, fig. 14). Once you reel the complete length of the wire rope, unreel it again according to the procedure, described in the chapter Firm reeling of the wire rope to prevent wire rope damage.

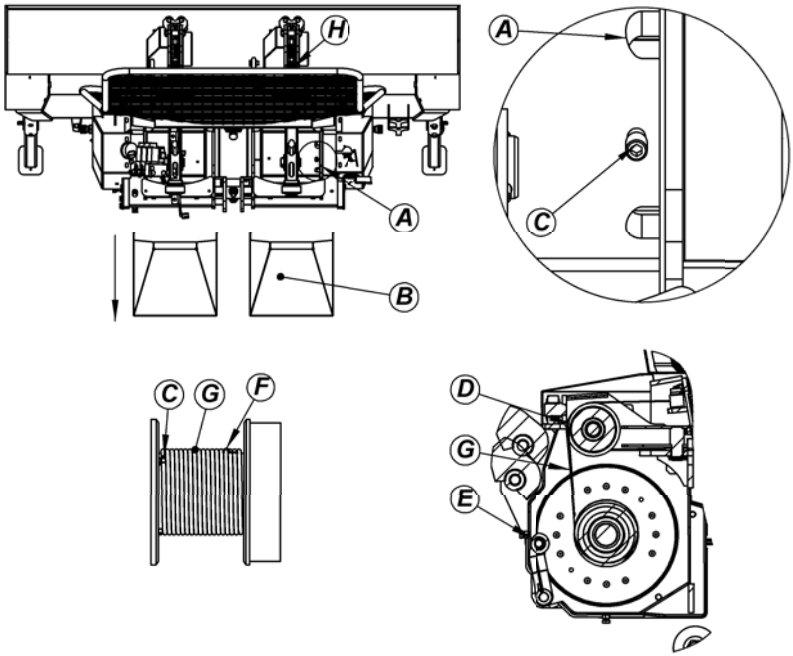


Figure 14

6. Firm reeling of the wire rope

Before first use, the wire rope must be completely unreeled and then reeled on the winch drum using a load.

The easiest method is to fix the rope on a standing tree (with a loading strip), unreel the entire rope, use the winch to pull the tractor to the tree and at the same time activate the tractor brakes. It is also recommended to carry out this procedure on a slight slope where the tractor can be pulled upwards without using the brakes.

Repeat this procedure every time when the wire rope was not streched during the tow.

MAINTENANCE

1. Maintenance of the engine drive

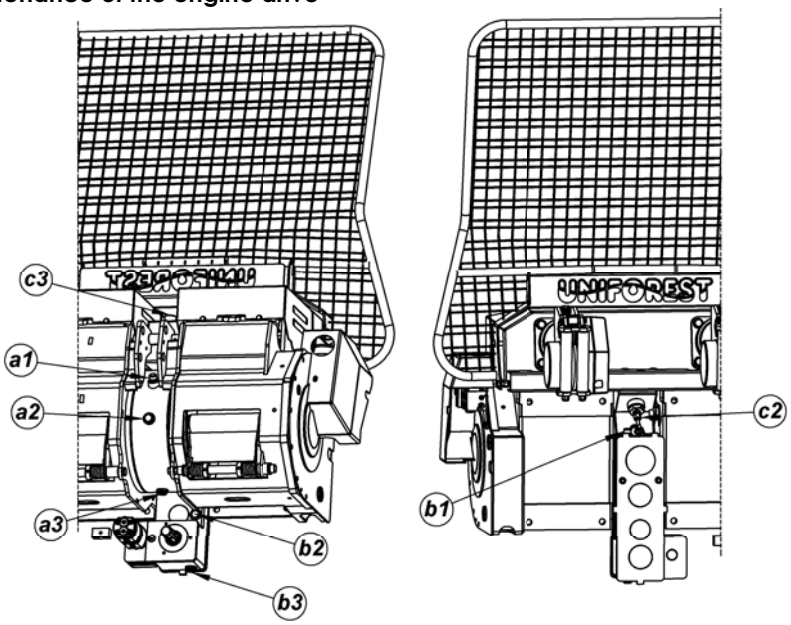


Figure 15

Regularly check the oil level on the transperent indicator a2 in Figure 15. Refill the oil at the part a1. To release the oil from the engine drive loosen the screw a3 and let the oil flow out in a collection container.

2. Input drive maintenance

Regularly check the oil level by loosening the screw b2 in Figure 15. Refill the oil at the part b1. Before a possible outflow stop the oil refill and close the openings. To completely release the oil from the gear pump loosen the screw b3 in Figure 15.

3. Maintenance of the hydraulic system

During operation it is necessary to check the temperature of the hydraulic oil. If the temperature exceeds 70^{0}C (if you do not have a measuring device, you can determine this by touching the hydraulic pipe), you must determine the cause for overheating and remove it. Otherwise the hydraulic system can malfunction.

Regularly check the oil level with the help of the level indicator rod on screw c1 in Figure 15. Refill the oil at the tank inlet c1. To release to oil loosen the hydraulic pipe at c2 and let the oil flow in a collection container.

4. Type and quantity of oil and oil change period

	Oil type	Quantity	Oil change period
Engine drive	Mobil hipoidol HD SAE 90 or similar oil types	4,5 l	The first oil change should be carried out after 60 operation hours. Each following oil change should be done after 1000 operation hours or at least once a year.
Pinion gear drive	Mobil hipoidol HD SAE 90 or similar oil types	1,4 l	
Hydraulic system	oil for hydraulic systems with a viscosity of 32 mm^2/s	4,0 L	

TROUBLESHOOTING

1. Winch

Identified malfunctions (errors)	**Cause**	**Elimination of malfunctions (errors)**
Pressure gauge does not display pressure	Pressure gauge is not working	Replace the pressure gauge
	Gear unit does not drive the pump, damaged gear clutch.	Replace the damage part
	Impurities in the pressure valve	Loosen the valve, clean it and tighten it anew
	Creased tube	Replace the tube
	Insufficient oil level	Add oil
	Pump malfunction	Replace the pump
Pressure drops too quickly	Damaged membrane in the battery, or incorrect nitrogen pressure in the battery	Add nitrogen or replace the battery (required gas pressure is 80 bar)
Clutch cannot be turned on	No voltage/electric current in the electromagnetic coil	Check electrical wiring and contacts
	Voltage on the electromagnetic valve is too low (min 11,6 V)	Check electrical installation on the tractor
	Faulty electromagnetic coil	Replace electromagnetic coil
Brake cannot be turned on	No voltage/electric current in the electromagnetic coil	Check electrical wiring and contacts
	Voltage on the electromagnetic valve is too low (min 11,6 V)	Check electrical installation on the tractor
	Faulty electromagnetic coil	Replace electromagnetic coil

Pressure is fluctuating	When the electromagnetic valve is turned on, it is normal that the pressure fluctuates. If the pressure fluctuates while the valve are not being turned on or off, it means the pressure valve is damaged or that there are impurities in the valve.	Replace or clean the pressure valve
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 is 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
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
The winch is pulling although the clutch is turned off	Electromagnetic valve malfunction	Stop work immediately and 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

2. Reeling machine

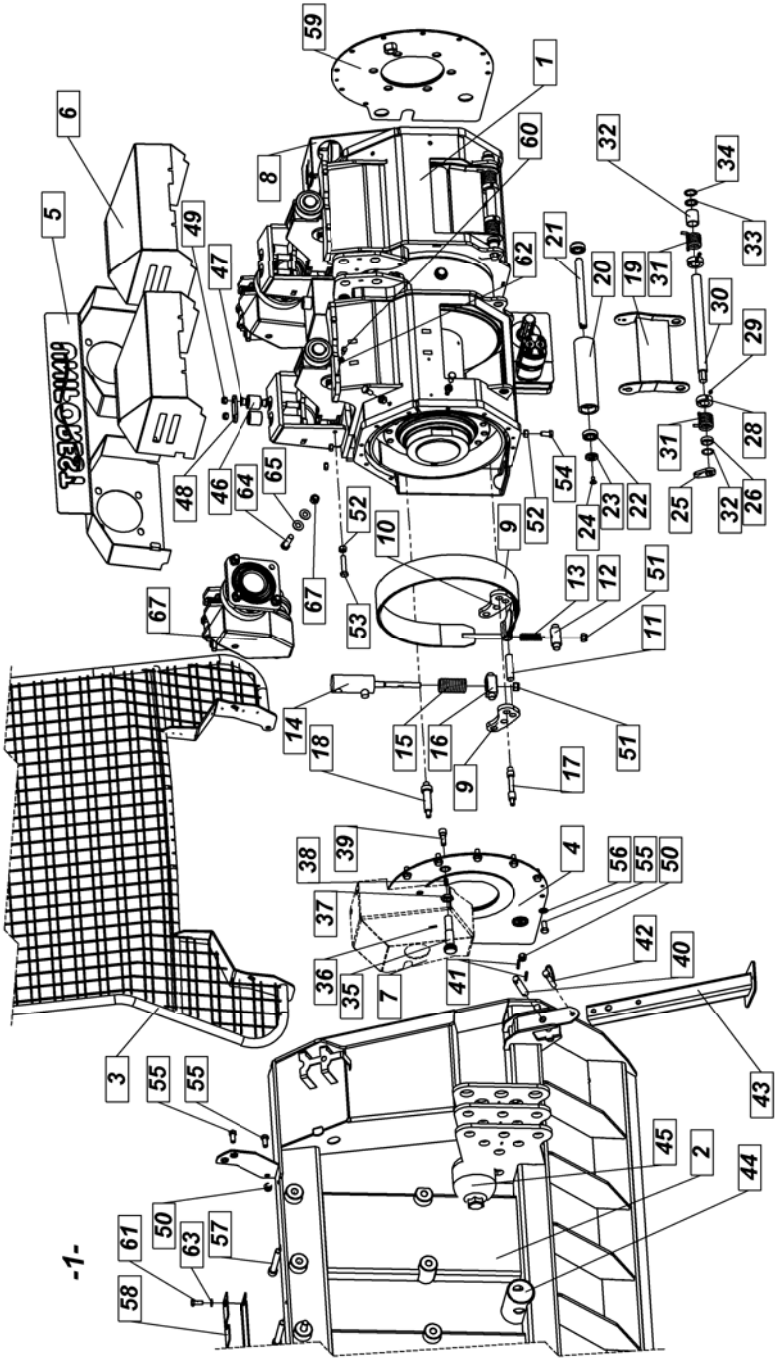
Identified of malfunctions (errors)	Cause	Elimination of malfunctions
1. After it is turned on, the reeling machine does not start working, system pressure is 80bar or more.	a) No electricity.	Put the plug in the socket.
	b) Damaged or improperly installed wire rope	Properly install the wire rope on the drum and the reeling machine. If the wire rope is damaged, replace or remove the damaged part. If the wire rope is installed properly, it is possible to uncoil it by hand when the thrust rollers are completely loosened and the reeling function is activated.
	c) Thrust rollers are too tight	Loosen the thrust rollers. After the reeling machine is turned on, it should unreel the wire rope and the pulley wheel should not slide on the wire rope.
	d) Safety brake is too tight.	Completely loosen the thrust rollers on the reeling machine. When the reeling function is activated, the wire rope can be uncoiled by hand. If the drum is resisting too much, loosen the safety brake.
	e) Damaged or blocked hydraulic engine	Completely loosen the thrust rollers on the reeling machine. The wire rope can be unreeled by hand, the pulley wheel is not spinning. Check for mechanical damage of the reeling machine – blocked engine, otherwise replace the hydraulic engine.
	f) Failure of the electrohydraulic valve coil or valve	When the reeling machine is turned on, there is no pressure in the hydraulic supply pipe of the reeling machine's hydraulic motor. Check the electrical connections on the reeling machine's valve, coil and valve.
2. After it is turned on, the reeling machine does not start working, the system pressure is less than 80bar	a) Winch drive is not activated	Turn on the winch drive.
	b) Damaged or worn hydraulic engine	The hydraulic engine is too heavy so it does not generate enough torque to unreel the wire rope. Replace the hydraulic engine.
	c) An insufficient quantity of oil – loud pump	Add oil, check the filter in the tank.

3. After it is turned on, the reeling machine unreels only ~ 5 m of the wire rope and then it stops working.	When the unreeling stops, check the pressure in the system. Then follow the instruction under point 1 or 2.	
4. After it is turned on, the reeling machine unreels only ~ 5 m of the wire rope and then it stops working. After some time it starts working again, then stops again and so on.	a) The number of revolutions per minute on the cardan shaft is too low	Increase the rpm of the cardam shaft.
	b) Incorrect setting of the safety valve or thrust rollers	See point 1.
	c) Damaged or improperly installed wire rope.	Properly install the wire rope on the drum and reeling machine – it should be possible to uncoil the rope without turning the machine on. If the wire rope is damaged, replace or remove the damaged part.
5. After it is turned on, the reeling machine is working, but it does not unreel the wire rope and the pulley is spinning freely.	a) The thrust rollers do not execute enough pressure on the wire rope.	Tighten the thrust rollers, until the pulley starts unreeling the rope.
	b) Improper diameter of the wire rope	Replace the wire rope.
6. After some time (until the oil heats up) the reeling machine stops working.	a) The electrohydraulic valve jams at a certain temperature.	Replace the valve.
	b) Worn hydraulic engine – too much leakage	Replace the hydraulic engine.
7. The reeling machine randomly works or does not work.	Loosened electrical connections	Check the electrical connections and tighten them accordingly.

SPARE PARTS LIST
Forestry winch 2X65G
Figure 1

Position	Name	Nr. of pieces	Serial number
1	Machine housing	1	806.01.30.0
2	Board	1	806.10.00.0
3	Net	1	801.88.00.A
4	Cover	1	806.04.35.0
5	Console protection	1	806.06.31.0
6	Divider protection	2	806.06.32.0
7	Hydraulics protection R	1	807.06.34.0
8	Hydraulics protection L	1	807.06.36.0
9	Band brake	2	800.04.10.0
10	Dif. clutch	4	800.04.26.0
11	Bolt	2	800.04.28.0
12	Bolt	2	806.04.16.0
13	Spring 18x3x60	2	806.04.17.0
14	Brake cylinder	2	107.0003.040.016_5
15	Spring 1	2	800.04.22.0
16	Piston rod guide	2	800.04.27.0
17	Bolt	2	801.04.01.0
18	Bolt	2	801.04.02.0
19	Roller bracket	2	801.01.105.0
20	roller	2	801.01.111.0
21	Roller axle	2	801.01.109.0
22	Bearing 6004 2RS	4	120358
23	Washer	4	801.01.122.0
24	Screw M8x20 (countersunk)	4	050662
25	Limiter	4	801.01.112.0
26	Bushing	2	801.01.123.0
27	Roller spring L	2	801.01.114.0
28	Spring bracket	4	801.01.113.0
29	Threaded pin M8x16	4	050350
30	Bolt	2	801.01.121.0
31	Roller spring R	2	801.01.116.0
32	Washer		
33	Washer		
34	Washer		
35	Air brake screw	2	800.04.51.A
36	Flexible pin 4x20	2	080084
37	Nut M22x1.5	2	800.04.58.0
38	Spring 8x20x2	2	800.04.54.A
39	Brake	2	800.04.56.0
40	Leg bolt	4	802.01.46.0
41	Flexible pin 6x25	4	081143
42	Spring guard	2	800.01.02.0
43	Leg	2	802.01.29.0

44	Connection	1	801.00.60.0
45	Hyd. battery	2	310682
46	Steering roller	4	801.25.64.0
47	Bushing FB1 16120 SFB	8	300795
48	Link	2	801.25.66.0
49	Nut M10 Zn	4	060069
50	Nut M12 Zn	4	060070
51	Nut M14 Zn	4	060389
52	Nut M12 Zn	12	060065
53	Screw M12x55 Zn	4	050427
54	Screw M12x35 Zn	8	050058
55	Screw M12x25	24	050056
56	Washer M12 SKM	24	BN 13292
57	Screw M16x120	8	051250
58	Front hyd. protection	1	807.06.39.0
59	Cover	1	807.04.35.0
60	Screw M8x20	4	050051
61	Screw M10x25	3	050193
62	Washer M8 SKM	4	BN 13292
63	Washer M10 SKM	3	BN 13292
64	Screw M14x50	8	050513
65	Washer M14SKM	8	BN 13292
66	Nut M14	8	060389
67	Reeling device	2	801.25.00.0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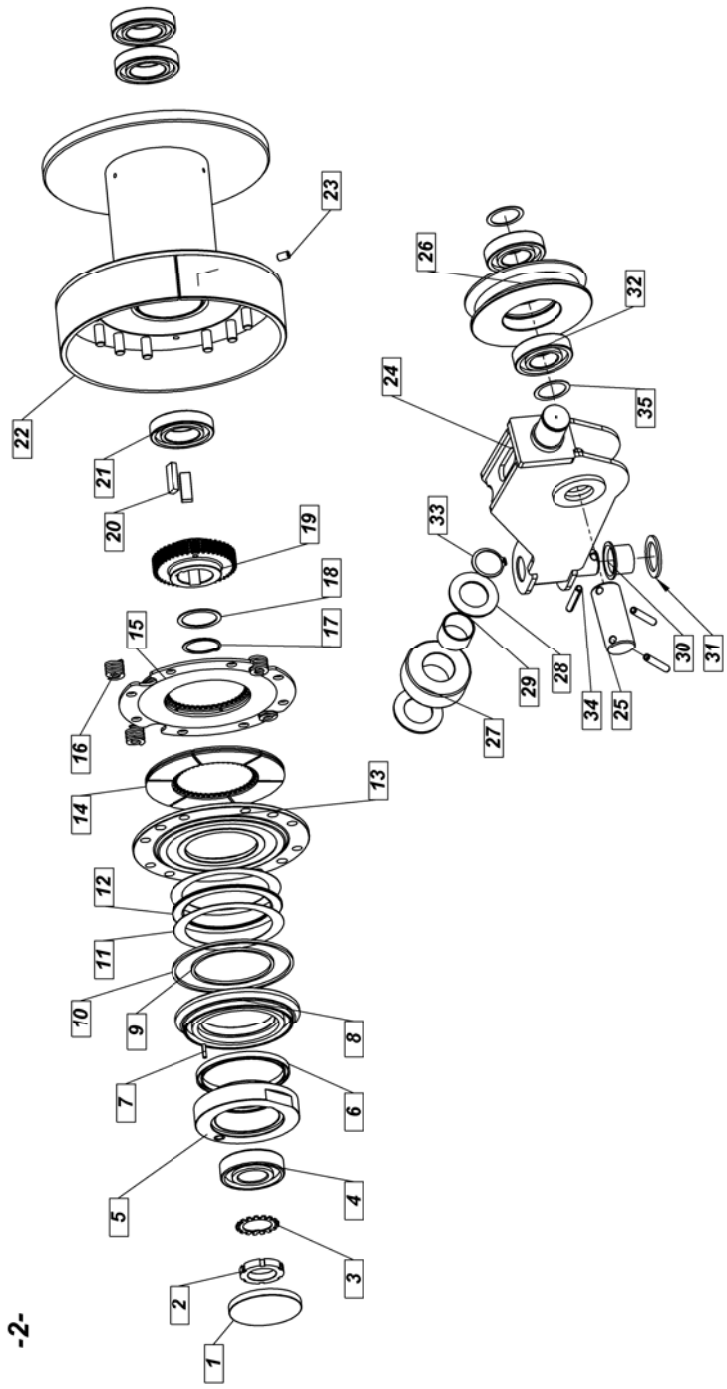
SPARE PARTS LIST
Forestry winch 2X65G
Figure 2

Position	Name	Nr. of pieces	Serial number
1	Cover 125x12	2	301042
2	Nut KM10 (M50x1.5)	2	510201
3	Safety washer	2	806.03.11.0
4	Bearing 7310B	2	120118
5	Cylinder housing	2	806.04.41.0
6	Seal	2	806.04.43.0
7	Flexible pin 6x24 Zn	2	080471
8	Piston rod	2	806.04.42.0
9	Felt 132x142x4.5	2	
10	Felt 199-209	2	
11	Needle thrust bearing AXK150190	2	210543
12	Bearing plate AS150190	4	120216
13	Push plate	2	806.03.05.0
14	Lamella with layer	4	800.03.03.0
15	Lamella	2	806.03.06.0
16	Spring KERN 16x32x44	8	510641
17	Circlip Z60x2	2	180752
18	Washer 60x75x2	2	203186
19	Cogwheel 46x3	2	806.03.01.0
20	Dowel 18x11x50-B (improved)	4	510228
21	Ball bearing 6212 ZZ	6	310836
22	Rope drum	2	7004.05.01.0
23	Threaded screw M12x20	2	051162
24	Rope divider	2	806.25.75.0
25	Bolt	2	801.25.86.0
26	Pulley wheel	2	801.25.87.0
27	Roller	2	801.25.88.0
28	Washer 35.2x60x3 ZN	4	801.25.89.0
29	Bushing PAP 3530 P10	2	301150
30	Bushing FB1 30260	2	300989
31	Washer 35x50x3	1	806.25.84.0
32	Lager 6207 2RS	4	120111
33	Sicherungsring außen 35x1,5	2	101066
34	Stift elastisch 8x50	6	080406
35	Unterlegscheibe 35x45x1	4	060826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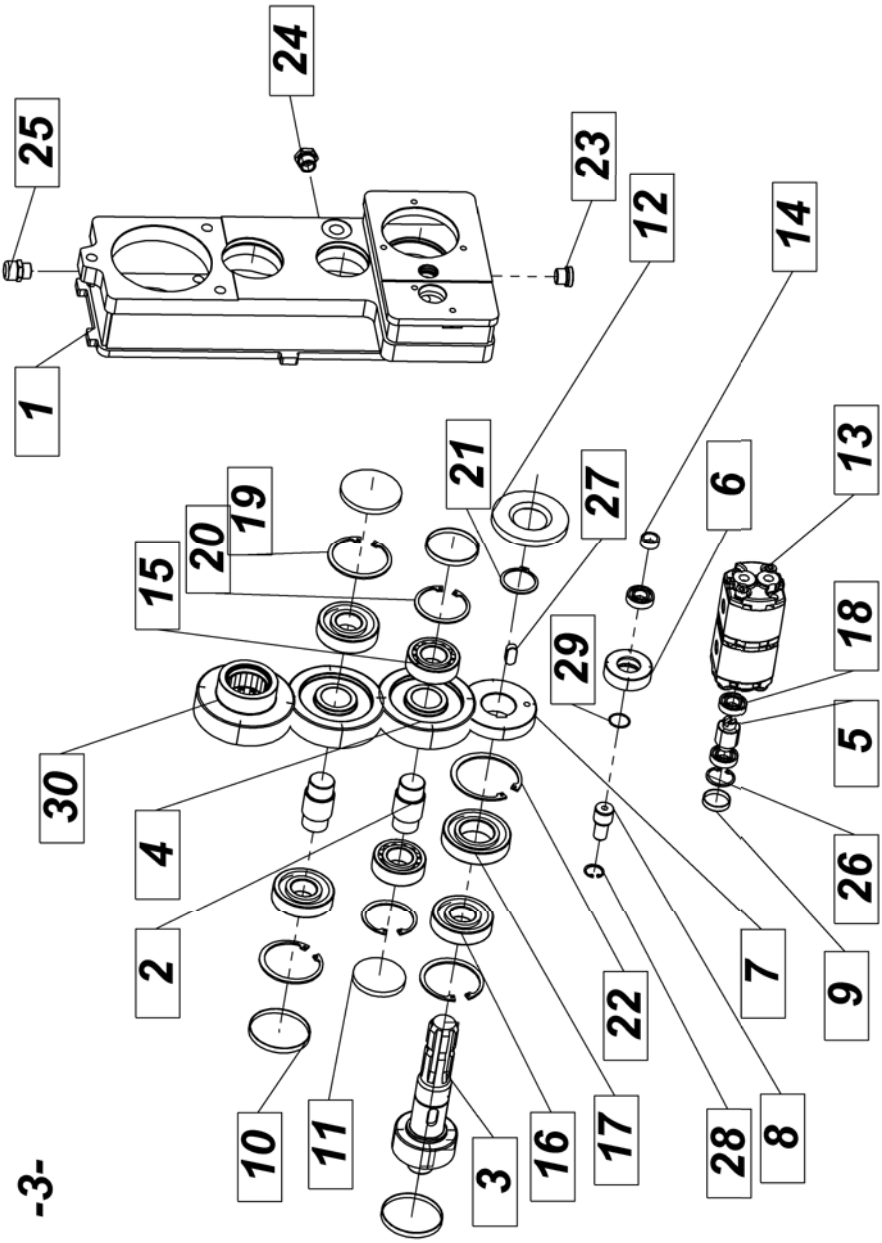
SPARE PARTS LIST
Forestry winch 2X65G
Figure 3

Position	Name	Nr. of pieces	Serial number
1	Gear housing	1	806.01.55.0
2	Gear shaft	2	801.01.91.0
3	PTO shaft	1	806.01.67.0
4	Cogwheel 27/4	2	806.01.68.0
5	COGWHEEL 15/1.5	1	7002.08.61.0
6	COGWHEEL B 35x1.5	1	7002.08.62.0
7	COGWHEEL B 58X1.5	1	806.01.79.0
8	AXLE	1	7002.08.64.A
9	Cover 32x7	1	
10	Axle seal cover 72x7	3	220173
11	Axle seal cover 62x7	2	301077
12	Axle seal 40x90x10	1	510200
13	Tandem pump	1	301259
14	Bushing	1	806.01.78.0
15	Roller bearing NUP 2206	2	120195
16	Bearing 6306	3	120121
17	Bearing 6208 2RS	1	120199
18	Bearing 6002 RS	3	120367
19	Circlip N72x2.5	3	100090
20	Circlip N62x2	2	100091
21	Circlip Z40x1.75	1	100410
22	Circlip N80x2.5	1	180753
23	Hyd. plug M18x1.5	1	301124
24	Oil level control M18x1.5	1	301125
25	Vent M18x1.5	1	031123
26	Circlip N32x1.2	1	101099
27	Dowel 12x8x26-A	1	190149
28	Circlip N22x1	1	101098
29	O-ring 22x1.5	1	301163
30	Cogwheel 27/4	1	806.01.71.0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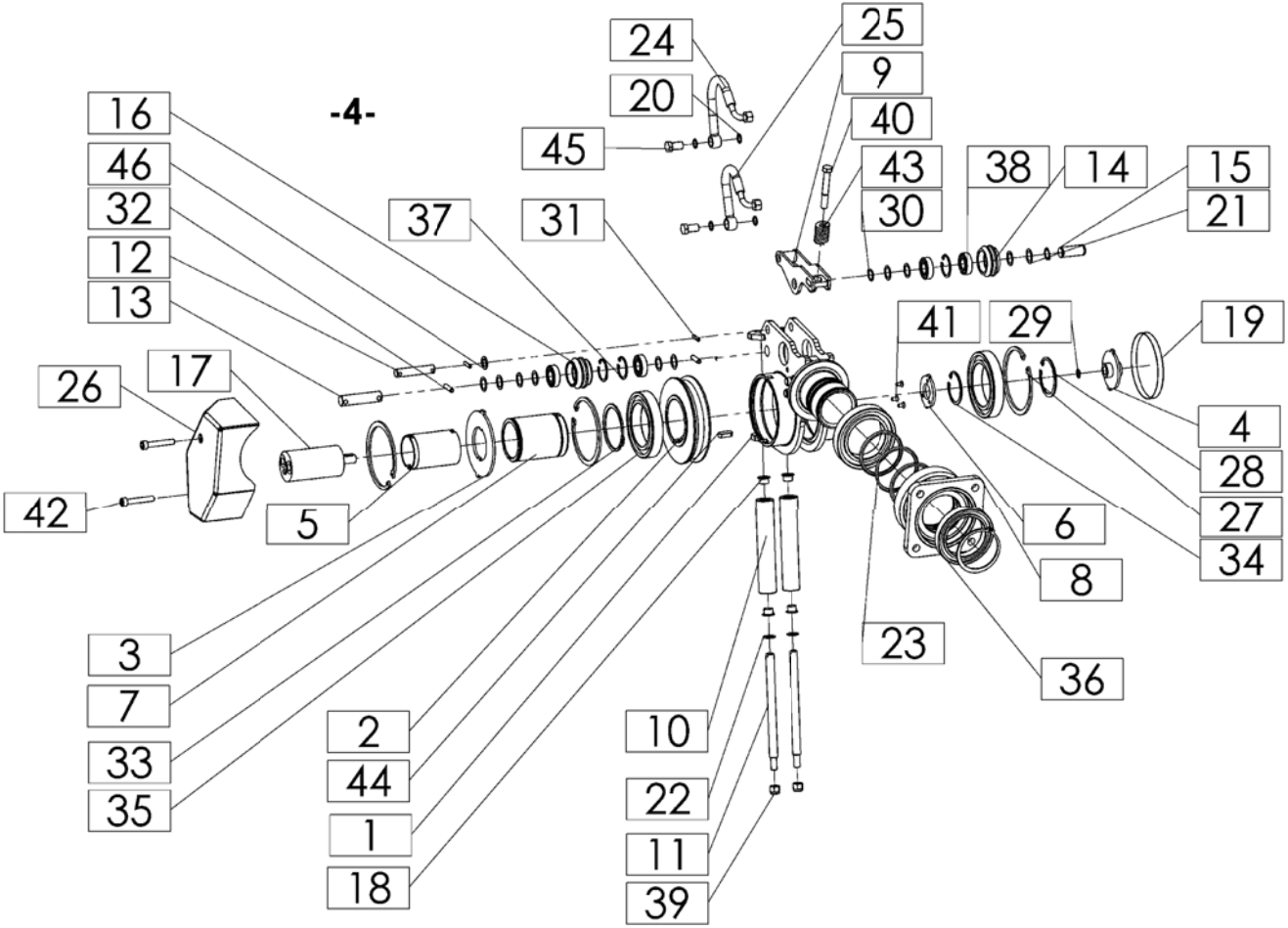
SPARE PARTS LIST
Forestry winch 2X65G Figure 4

Position	Name	Nr. of pieces	Serial number
1	Housing of the pulley wheel	1	801.25.01.C
2	Pulley wheel fi 146	1	801.25.16.0
3	Plate	1	704.25.79.0
4	Flange	1	704.25.131.0
5	Hydraulic engine pipe 1 Zn	1	704.25.77.0
6	Flange hm	1	704.25.78.0
7	Hollow drive shaft	1	704.25.130.0
8	Flange	1	801.25.25.0
9	Forks	1	801.25.30.0
10	Steering cylinder	2	801.25.36.0
11	Threaded bolt	2	801.25.37.0
12	Bolt	1	801.25.38.0
13	Bolt	1	801.25.39.0
14	Push roller 1	1	801.25.41.0
15	Bolt	1	801.25.42.0
16	Push roller 2	1	801.25.43.0
17	Hydraulic engine omm 32	1	300974
18	Bushing FB1 16120 SFB	4	300795
19	Cover 130x12	1	300893
20	Washer Cu 14	4	300573
21	Washer 20x28x1	10	071137
22	Washer M12	2	070186
23	Seal TG3200850-T40N	3	300809
24	Hyd. pipe 3/8-M16-225	1	301219
25	Hyd. pipe 3/8-M16-225	1	301218
26	Hyd. protection	1	801.25.45.0
27	Circlip N130x4	3	100971
28	Circlip N75.2.5	1	100973
29	Circlip N16x1	1	100969
30	Circlip Z20x1.2	2	101114
31	Flexible pin 6x25	2	081143
32	Flexible pin 8x32	2	081115
33	Circlip Z85x3	2	100972
34	Circlip N62x2	1	100091
35	Bearing 6017	3	120117
36	Bearing 61917 2RS	1	120288
37	Circlip N42x1.75	3	101113
38	Bearing 6004 2RS	4	120358
39	Nut M12 Zn	2	060070
40	Screw M12x80 Zn	1	050046
41	Screw M6x12 8.8	3	050245
42	Hexagon screw M10x60	2	070077
43	Spring 25x38	1	170138
44	Dowel 10x8x30-A	1	190514
45	Hollow screw M14x1.5	2	301005
46	Washer 16.2x25x2 Zn	1	704.25.96.0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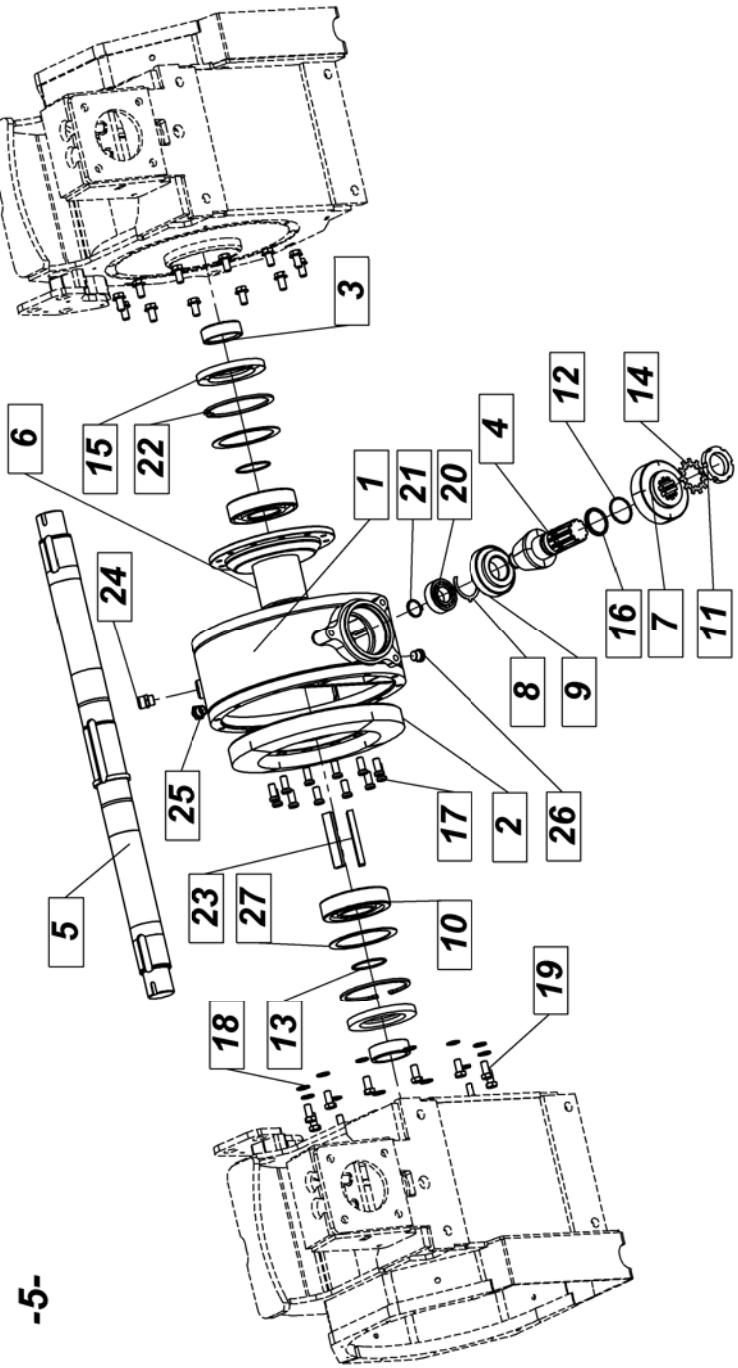
SPARE PARTS LIST
Forestry winch 2X65G

Figure 5

Position	Name	Nr. of pieces	Serial number
1	Gear housing	1	806.01.20.0
2	Wheel dif.	1	
3	Distance sleeve	2	806.01.09.0
4	Pinion IMT 300477	1	806.01.11.0
5	Shaft	1	807.01.19.0
6	Flange	1	806.01.15.0
7	Sprocket 27/4	1	806.01.71.0
8	Washer	1	806.01.87.0
9	Bearing HM903249	1	
10	Bearing 7312B	2	180762
11	Nut M45x1.5	1	310282
12	O-ring 45x3	1	310901
13	O-ring 60x3	2	660903
14	Safety washer	1	806.01.89.0
15	Axle seal 130x75x13	2	510850
16	Bushing	1	806.01.73.0
17	Screw M12x25 (8.8)	12	806.01.88.0
18	Washer M12 SKM	24	BN 13292
19	Screw M12x25 Zn	24	050056
20	Roller bearing NUP 2206	1	120195
21	Circlip, external 30x1.5	1	101142
22	Circlip N130x4	2	100971
23	Dowel 18x11x105-B	2	510228
24	Vent M18x1.5	1	031123
25	Oil level control M18x1.5	1	301125
26	Hyd. plug M18x1.5	1	301124
27	Washer 60x75x2	2	203186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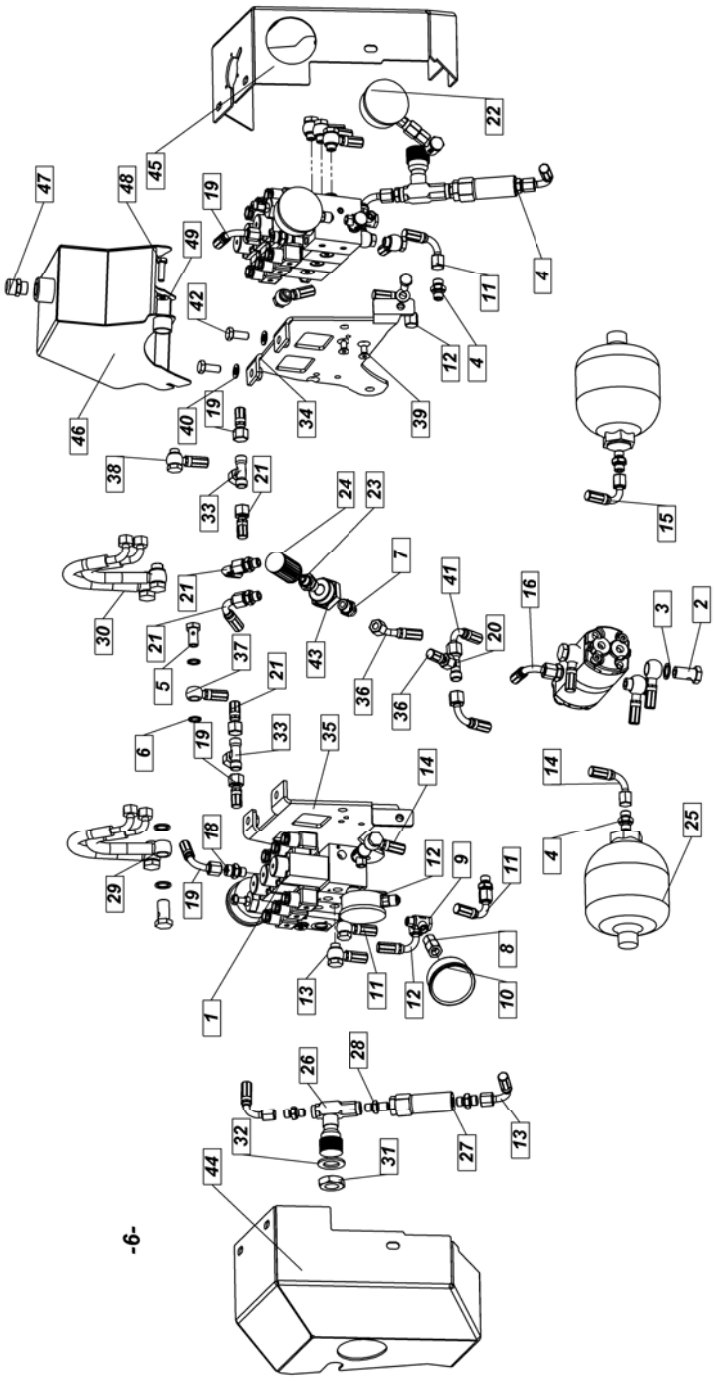
SPARE PARTS LIST
Forestry winch 2X65G
Figure 6

Position	Name	Nr. of pieces	Serial number
1	Hyd. block 3	1	
2	Hollow screw 3/8	7	300636
3	Washer Cu 3/8	14	300601
4	Hyd. coupling 1_4-M14x1.5	10	300696
5	Hollow screw 1/4	12	300586
6	Washer Cu 1/4	24	300574
7	Hyd. coupling 3/8-M 16x1.5	2	300633
8	Hyd. coupling TN403 (1/4-M14x1.5)	2	300570
9	Hyd. coupling angular 08LR (TN131)	2	300386
10	Pressure gauge	1	310686
11	Hyd. pipe 1/4(ocul)-M14x1.5(90)-250	2	301273
12	Hyd. pipe M14x1.5(90)-1/4(ocul)-350	2	301239
13	Hyd. pipe 1/4(ocul)-M14x1.5(90)-350	2	301239
14	Hyd. pipe 1/4(ocul)-M14x1.5(90)-850	1	300946
15	Hyd. pipe 1/4(ocul)-M14x1.5(90)-730	1	301240
16	Hyd. pipe M16x1.5(90)-1/4(ocul)-1050	1	301244
17	Hyd. pipe 3/8(ocul)- 1/4(ocul)-1250	1	301276
18	Hyd. coupling 1_4-M16x1.5	2	300696
19	Hyd. pipe M16x1.5-M16x1.5(90)-400	2	301279
20	Hyd. coupling T 3xM16x1.5 TN120	1	301280
21	Hyd. pipe M16x1.5(90)-M16x1.5-250	2	301243
22	Pressure gauge	1	300939
23	Hyd. couplinh 3/8-1/4 ZZ	1	300566
24	Hydr. inlet filter	1	310685
25	Hyd. battery 6-8t	2	310682
26	Choke Vo571 VFU 90-1/4	2	300219
27	Pressure valve	2	301231
28	Hyd. coupling 1/4-174 ZZ	2	300651
29	Hyd. pipe 3/8-M16-225	2	301218
30	Hyd. pipe 3/8-M16-225	2	301219
31	Nut M22x1.5 Zn	1	061199
32	Washer M22	1	070186
33	Hyd. coupling T M16x1.5 TN120	2	301039
34	Valve bracket right	1	807.06.45.0
35	Valve bracket left	1	807.06.40.0
36	Hyd. pipe M16x1.5(45)-M16x1.5-750	1	301277
37	Hyd. pipe 1/4(ocul)-M14x1.5(90)-600	1	301274
38	Hyd. pipe 1/4(ocul)-M16x1.5(90)-500	1	301275
39	Screw M8x16 8.8	2	050662

40	Washer M10 SKM	3	BN 13292
41	Hydraulic pipe 3/8 (ocul)-M16x1.5(90)-580	1	301278
42	Screw M10x25	3	050193
43	Hyd. nut M36x1.5-3_8	1	702.13.00.0
44	Protection right	1	807.06.34.0
45	Protection left	1	807.06.36.0
46	Tank	1	807.06.10.0
47	Vent	1	031123
48	Screw M8x30 Zn	1	050379
49	Washer M8 SKM	1	070475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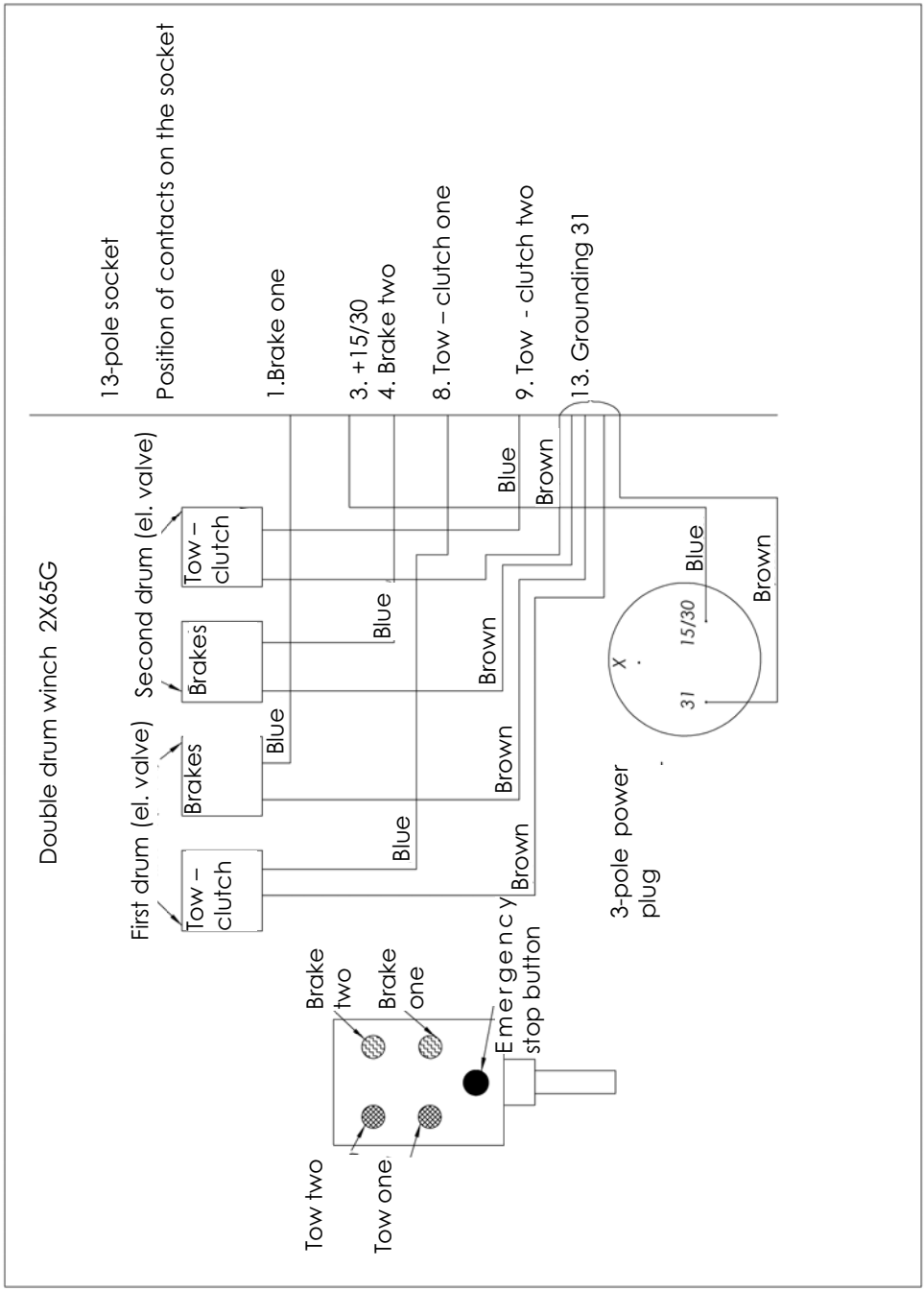
SCHEME OF THE REMOTE CONTROLLER



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

we

UNIFOREST d.o.o.

Dobriša vas 14a, 3301 PETROVČE, SLOVENIA

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

declare under our sole resposibiliy that the product:

Winch:
UNIFOREST 65G, 80G, 2x65G

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

For the proper inforcement 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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