

Hand spurgear winch

Hand winch MANIBOX GR

Instruction manual_____

UK



CE 34-331.09/6



PRODUCT DEVELOPED AND MANUFACTURED ACCORDING TO STANDARD NF EN 13157

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1 – General warning

This device is governed by European regulations, in particular the machinery directive 2006/42/EC and standard NF EN 13157.

- Before using this winch, with safety of use of the equipment and efficiency in mind, it is vital that you become
 familiar with this instruction manual and comply with all its recommendations.
- This instruction manual must be kept available to all operators. The manufacturer will supply additional copies on demand.
- MANIBOX winches are designed for lifting and pulling operations. Please ensure that the operator has read this
 manual and is qualified to operate the machine in the conditions provided for.
- Never use this winch with a load exceeding the maximum working load specified (see p. 3 paragraph 2.4)
- These winches may not, under any circumstance, be used to lift personnel.
- This device should never be used above people without the load secured by any other method.
- Before each use, the operator must check the good working order of the device, its rope, hook, marking and shoring.
- The manufacturer declines all responsibility for the consequences of using or installing devices against the
 recommendations of this manual, as well as for the consequences of dismantling, altering or replacing original
 parts or components with parts or components from other sources without its written agreement.
- It is strictly forbidden to motorise these devices.

2 - Introduction to the devices

MANIBOX are manual lifting and pulling winches built in accordance with current standards and recommendations. MANIBOX GR: geared winches, 10 capacities available in the range: from 150 kg to 2.75 tonnes.

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2.1. Build

- Rigid steel frame
- Drum made from steel and cast iron or a polymer material
- Reduction gear system protected by a metal or plastic cover
- Drum release system
- Automatic brake
- Ergonomic crank assembly with rotary handle. The arm of the crank can be adjusted to minimise the force according to the load.
- Paint and cataphoresis protection, optional galvanised or stainless-steel frame.

2.2. Dimensions:









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woder	A	В	U	D	E	Г	G	п	I	J	n	ØL	IVI	IN	ØP	Q	ĸ	5	I	U	V	vv	^
GR 150	180	325	147	157	340	154	100	13	4	22	114	8Ø9	73	90	40	77	24	132	48	31	24	73	90
GR 230	180	325	147	157	340	154	100	13	4	22	114	8Ø9	73	90	40	77	24	132	48	31	24	73	90
GR 300	249	400	190	217	240	200	145	18	8	37	144	8 Ø 13	95	120	62	124	25	184	76	25	33	58	51
GR 530	249	400	190	217	240	200	145	18	8	37	144	8Ø13	95	120	62	124	25	184	76	25	33	58	51
GR 500	249	400	190	217	240	200	145	18	8	37	144	8Ø13	95	120	62	124	25	184	76	25	33	58	51
GR 750	249	400	190	217	240	200	145	18	8	37	144	8Ø13	95	120	62	124	25	184	76	25	33	58	51
GR 1000	410	485	305	300	340	370	-	20	10	32	236	4 Ø 17	145	200	103	180	35	-	•	•	•	104	68
GR 1450	410	485	305	300	340	370	1	20	10	32	236	4 Ø 17	145	200	103	180	35	-	I	I	I	104	68
GR 2000	510	585	360	400	340	440	-	35	11	38	325	4 Ø 21	150	187	121	238	47	-	•	•	•	270	165
GR 2750	510	585	360	400	340	440	-	35	11	38	325	4 Ø 21	150	187	121	238	47	-	-	-	-	270	165



2.3. Technical features of the different models

Model	Force	Wire rope length	Wire rope	Crank force (kg)	Lift per crank revolution	Weight
	Kg	m	diameterØ		(mm)	(without rope) (kg)
			mm			
GR 150	150	20	4	20	138	5.6
GR 230	230	5	4	20	138	5.6
GR 300	300	38	5	12.5	30.5	15
GR 530	530	4	6	12.5	30.5	15
GR 500	500	18	6.8	19	31.5	15
GR 750	750	4	7	19	31.5	15
GR 1000	1000	30	9	14.5	16	44
GR 1450	1450	6	10	14.5	16	44
GR 2000	2000	25	13	16.5	9.5	83
GR 2750	2750	6	13	16.5	9.5	83

The rope diameter provided above refers to the capacity on the last layer.

Caution! it is compulsory to check that the resistance factor of the wire rope complies with the lifted load (factor 5)

2.4. Maximum working loads according to the layer of rope used



Maximum working loads for <u>hauling</u> (kg)								
Model	1 st	2 nd	3 rd	4 th	5 th	6 th		
WOUCI	layer	layer	layer	layer	layer	layer		
GR 150	250	230	200	180	160	150		
GR 300	500	450	400	350	320	300		
GR 500	750	650	560	500				
GR 1000	1450	1250	1100	1000				
GR 2000	2750	2300	2000		-			

	Maximum working loads for lifting (kg)							
Model	1 st	2 nd	3rd	4 th	5 th	6 th		
Woder	layer	layer	layer	layer	layer	layer		
GR 150	180	180	180	180	160	150		
GR 300	400	400	400	350	320	300		
GR 500	750	650	560	500				
GR 1000	1300	1250	1100	1000				
GR 2000	2600	2000			-			

2.5. Accessories

The MANIBOX GR is supplied with ropes and accessories.

The pulleys and the blocks used with these winches must comply with standard EN 13157.

2.6. Operation

When operating the crank, depending on the direction of rotation, the load goes up or down. When no more force is exerted on the crank, the brake comes into action and maintains the load in position.

There must be sufficient force on the machine Table of minimum forces: load :

GR 150	GR 300	GR 500	GR 1000	GR 2000
10 kg	10 kg	20 kg	40 kg	80 kg

3 - Handling - Storage

Above 1,000 kg, to handle and position a winch, place a sling around the drum. This causes the device to tilt, allowing it to be easily and safely handled.

It is advisable to store this equipment to protect it from bad weather.

4 – Use, assembly and commissioning

Please observe the following precautions:

4.1. Fixing



When the winch is wall-mounted, add a washer (see below) between the frame and the wall for each screw: length of 4 mm for GR 150-GR 230 and 8 mm for GR 300-GR 530/GR 500-GR 750.

Fixing screws:

	Floor-mounting	Wall-mounting
GR 150	4 screws Ø 8 mm	4 screws Ø 8 mm + 4x3 washers Ø 8 mm
GR 230	4 screws Ø 8 mm	4 screws Ø 8 mm + 4x3 washers Ø 8 mm
GR 300	4 screws Ø 12 mm	4 screws Ø 12 mm + 4x3 washers Ø 12 mm
GR 530	4 screws Ø 12 mm	4 screws Ø 12 mm + 4x3 washers Ø 12 mm
GR 500	4 screws Ø 12 mm	4 screws Ø 12 mm + 4x3 washers Ø 12 mm
GR 750	4 screws Ø 12 mm	4 screws Ø 12 mm + 4x3 washers Ø 12 mm
GR 1000	4 screws Ø 16 mm	
GR 1450	4 screws Ø 16 mm	
GR 2000	4 screws Ø 20 mm	
GR 2750	4 screws Ø 20 mm	

All these screws must be at least 6.8 class.



When the winch is fixed on a bracket, only the side cable outlets should be used

Calculate and check that the fixing supports have enough strength to easily withstand the loads to be lifted or pulled.

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4.2. Rope

Models	Ø mm	Max. capacity (m)	Number of layers
GR 150	4	20	6
GR 230	4	5	6
GR 300	5	38	6
GR 530	6	4	6
GR 500	6,8	18	4
GR 750	7	4	4
GR 1000	9	30	4
GR 1450	10	6	4
GR 2000	13	25	3
GR 2750	13	6	3

4.3. Installing the rope:

Strictly observe the rope winding direction. To lift the load, turn the crank clockwise: a click will be heard. To lower the load, turn the crank in the opposite direction.





DANGER! If the rope is not wound in the right direction, the brake will not operate

The drum is polarised so that the rope is always wound in the right direction.

In the event of an error, a safety device is provided to prevent incorrect winding of the rope: the operator gets the impression of turning with no load. In this case, remove the rope and attach it in the opposite direction.

Caution: only for 1000, 1450, 2000 and 2750 kg, it can be harmful to turn the crank in the opposite direction to lifting



4.4. Disengagement



Before disengaging, make sure no load is connected to the rope. The rope should not be under tension.

5 – Maintenance

Winches are delivered ready to be used.

When using for the first time, lubrication is not required as this has been performed in the factory. Nor is any specific check required

A periodic maintenance check is required once a year.

Regularly grease the gears with EP2-grade grease for open gears.

Regularly and before each use: check the condition of the rope, hook and its safety catch. If the manufacturer does not supply the rope and hook with the device, check that the rope and hook used guarantee a degree of safety corresponding to break factor 5.

Periodically check the correct operation of the brake (static tests: rated load + 50 %)

Regularly check the wear of the brake linings. When they are no longer visible, they need to be replaced.

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Worn brake = linings not visible

Automatically locking brake

The brake will lock automatically with the following minimum loads:

GR 150	GR 300	GR 500	GR 1000	GR 2000
GR 230	GR 530	GR 750	GR 1450	GR 2750
10 kg	15 kg	25 kg	50 kg	100 kg

6 – Prohibitions for use

Before using the winch, check that there is no risk of overloading due to: adherence to the floor, suction, jamming, etc. Take warning against the following improper uses or handling operations:

It is prohibited to:

- Lift loads exceeding the rated load specified on the plate of the device;
- Unwind the drum completely (keep 2 to 3 extra turns);
- Pull sideways;
- Swing the load;
- Use the winch to lift personnel;
- Stand under the load;
- Use ropes with a diameter and texture not complying with the specifications of this manual (factor 5);
- Use damaged or spliced ropes;
- Use hooks without catches, not suitable for the loads specified on the device or in bad condition;
- Insert objects into the moving parts;
- Work on the device when loaded;
- Release the drum when loaded;
- Allow the load to fall freely;
- Motorise the device
- Use the rope of the device as a sling;
- With no load, turn the crank in the opposite direction to lifting (for the 1000, 1450, 2000 and 2750 kg models only). If this operation is necessary, it is advisable to disengage or apply a manual force by pulling on the rope.
- Use handles different from the original ones;
- Use the devices for operations other than from those for which they are designed;
- Use the winch as a fall-prevention device, regardless of the height of the fall and the load applied.
- Use parts or components other than the manufacturer's original parts or components;
- Reeve, positioning the fixed point on the winch.



7 - User precautions

- Long descents can cause the braking system to overheat and damage it. It is strongly recommended to respect a stopping time of several minutes every 5 metres during the lowering stage. This recommendation mainly affects the 1000, 1450, 2000 and 2750 kg models.
- The operating temperature must be comprised between -10°C and +50°C.
- These winches have been designed for operation in a normal environment. If they are used in an aggressive environment (saline or chemical atmosphere, etc), they must be subject to special attention or a request for information from the manufacturer.
- These winches must be operated frequently, even with no load, especially when used in harsh environments. Extended inactivity can risk damaging the braking system (brake jammed).
- You are strongly advised not to handle the cable without wearing protective gloves.

8 – Statutory, compulsory checks by the user

This equipment has been designed to withstand the following tests:

- Dynamic proof test with factor 1.1.
- Static proof test with factor 1.5

A periodic maintenance check is required once a year.

Check the wear of the brake linings regularly.

The user must keep a safety log. In compliance with the regulations, the user must keep an inspection book, where all actions and inspections conducted on the device shall be recorded (FEM rule 9755).

9 – Putting out of operation

When the equipment is in a state of decay and likely to create risks, the user is obliged to dispose of the device, i.e. to put it out of operation and dismantle it if required.

10 - Frequently asked questions

Question	Cause	Solution
The drum does not turn when the handle is turned	The winch is disengaged	Make sure the disengaging lever is in the engaged position. See paragraph 4.4
	The cable is installed in the wrong direction and the security device is triggered.	Make sure the cable is installed in the right direction. See paragraph 4.3
The disengaging lever is too stiff to move it	The winch is still loaded or the cable is simply under tension.	Check that no loads are applied to the winch and that there is no tension on the cable. See paragraph 4.4
Excessive force needs to be applied to the handle	The load to be lifted or pulled is too heavy	Set the load down carefully and check the real weight to be lifted or pulled. The load may not exceed the limit force of the winch. See paragraph 2.4
The winch vibrates or "whistles"	The brake is overheating. This phenomenon only occurs in the cable unwinding direction. See paragraph 7	Allow it to cool for at least 5 minutes.
	The brake linings are too worn. See paragraph 8	The winch needs service.
	The gears have lost their lubrication.	Lubricate the gears. See paragraph 5

10 - Spare parts

GR 150 kg-GR 230 kg

Ref.	No.	Description
1	22901	Frame
2	22902	Drum
3	22903	Shaft
4	22904	Brake supporting washer
5	22905	Disengaging pin
6	22906	Disengaging lever
7	22907	Disengaging reinforcement
8	22908	Locknut
9	22909	Machined steel ratchet
10	22910	Front bearing
11	22911	GR rear bearing
12	22912	Tightening crown
13	22913	18x26x05 spacer
14	22914	Link pin
15	22915	Catch
16	22916	Crank head
17	22917	Lock button

Ref.	No.	Description
18	22918	Assembled long crank
19	22919	GR detent spring
20	22939	Lock ring
21	22758	Lock washer
22	21628	Compression spring 11.5
23	2760	GFM 1214 09 ring
24	2762	GFM 1820 22 ring
25	2766	GFM 4044 14 ring
26	2776	Cable clamp with Ø 4
27	13505	7144-7 ring
28	13643	TBHc screw M8x20
29	13648	TBHc screw M5x20
30	13650	TFHc screw M8x20
31	13659	3.2x16 rivet
32	13667	M4 nut
33	21045	E12 spring retaining ring



GR 300 kg-GR 530kg & GR 500 kg-GR 750kg

	No.				
Ref.	300 kg 530 kg	500 kg 750 kg	Description		
1	22921	22921	Frame		
2	22922	22922	Drum		
3	22923	22923	8-tooth shaft pinion		
4	22924	22924	55-tooth gear		
5	22925	22925	Drum shaft		
6	22926	22926	Spacer hub		
7	22927	22927	Plate		
8	22928	22928	Disengaging pin		
9	22929	22929	Disengaging lever		
10	22930	22930	Brake support washer no. 2		
11	22931	22931	Cover		
12	22932	22932	26x35x05 spacer		
13	22933	22933	Short crank sub-assembly		
14	22939	22939	Lock ring		
15	22758	22758	Lock washer		
16	22908	22908	Locknut		
17	22909	22909	Machined steel ratchet		
18	22910	22910	Front bearing		
19	22911	22911	Rear bearing		
20	22912	22912	Tightening crown		

-	No.			
Ref.	300 kg	500 kg	Description	
	530 kg	750 kg		
21	22914	22914	Link pin	
22	22915	22915	Catch	
23	22916	22916	Crank head	
24	22917	22917	Lock button	
25	22919	22919	Detent spring	
26	2760	2760	GFM 1214 09 ring	
27	2762	2762	GFM 1820 22 ring	
28	2765	2765	GFM 2528 21 ring	
29	2766	2766	GFM 4044 14 ring	
30	2775	2775	Cable clamp	
31	2779	2779	Disengaging spring	
32	13505	13505	7144-7 ring	
33	13640	13640	TBHc screw M6x16	
34	13643	13643	TBHc screw M8x20	
35	13645	13645	TBHc screw M10x20	
36	13647	13647	TFHc screw M5x16	
37	13650	13650	TFHc screw M8x20	
38	13658	13658	LLU 10 washer	
39	13659	13659	3.2x18 alu. rivet	
40	13666	13666	M5 stainless-steel nut	
41	21045	21045	E12 spring retaining ring	



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GR	1000	kg-GR	1450	kg
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Ref.	No.	Description	Ref.	No.	Γ
1	22941	Frame	25	22917	
2	22942	Drum	26	22918	
3	22943	8-tooth shaft pinion	27	22919	ĺ
4	22944	Feed wheel sub-assembly	28	22928	
5	22947	Intermediate shaft	29	22929	ĺ
6	22948	63-tooth gear	30	22930	ĺ
7	22949	Drum shaft	31	22939	
8	22950	Gear hub	32	2760	ĺ
9	22951	Plate	33	2762	
10	22952	Half cover	34	2765	ĺ
11	22953	Flat sheet cover no. 1	35	2766	
12	22954	Flat sheet cover no. 2	36	2768	ĺ
13	22955	36x47x05 spacer	37	2774	
14	22978	12x50x3 washer	38	2779	
15	21045	E12 spring retaining ring	39	13505	ĺ
16	22758	Lock washer	40	13622	ĺ
17	22908	Locknut	41	13640	
18	22909	Machined steel ratchet	42	13643	
19	22910	Front bearing	43	13646	1
20	22911	Rear bearing	44	13647	1
21	22912	Tightening crown	45	13650	
22	22914	Link pin	46	13659	ĺ
23	22915	Catch	47	13665	
24	22916	Crank head	48	13670	l

Ref.	No.	Description	
25	22917	Lock button	
26	22918	Assembled long crank	
27	22919	Detent spring	
28	22928	Disengaging pin	
29	22929	Disengaging lever	
30	22930	Brake support washer no. 2	
31	22939	Lock ring	
32	2760	GFM 1214 09 ring	
33	2762	GFM 1820 22 ring	
34	2765	GFM 2528 21 ring	
35	2766	GFM 4044 14 ring	
36	2768	GFM 3539 26 ring	
37	2774	Cable clamp	
38	2779	Disengaging spring	
39	13505	7144-7 ring	
40	13622	M6 spring nut	
41	13640	TBHc screw M6x16	
42	13643	TBHc screw M8x20	
43	13646	TBHc screw M12x20	
44	13647	TFHc screw M5x16	
45	13650	TFHc screw M8x20	
46	13659	3.2x18 alu. rivet	
47	13665	M8 stainless-steel nut	
48	13670	LLU12 washer	



GR 2000 kg-GR 2750 kg

Ref.	No.	Description		Ref.	No.	Description	
1	22961	Frame		27	22916	Crank head	
2	22962	SE drum GR		28	22917	Lock button	
3	22963	8-tooth shaft pinion		29	22919	Detent spring GR	
4	22964	79-tooth gear		30	22928	Disengaging pin	
5	22965	SE Disengaging flange pinion		31	22929	Disengaging lever	
6	22968	Intermediate shaft		32	20107	Handle unit	
7	22969	Intermediate hub		33	2760	GFM-1214-09 ring	
8	22970	53-tooth gear		34	2762	GFM-1820-22 ring	
9	22971	GR_VS 2000 drum shaft		35	2766	GFM 4044-14 ring	
10	22972	Gear hub		36	2767	GFM-3539-16 ring	
11	22973	Plate		37	2768	GFM-3539-26 ring	
12	22974	Piles		38	2770	GFM-5055-40 ring	
13	22975	Half cover		39	2778	Ø13 stainless steel cable clamp	
14	22976	Flat sheet cover no. 1		40	2779	C 152 140 0190 spring	
15	22977	Flat sheet cover no. 2		41	13228	8x7x20 F.A Key	
16	22978	12x50x3 washer		42	13505	7144-7 ring	
17	22979	12x55x4 washer		43	13622	M6 spring nut	
18	22778	Catch		44	13640	TBHc M6x16 screw	
19	22779	Link pin		45	13644	TBHc M8x25 screw	
20	22793	Lock washer Ø69		46	13646	TBHc M12x20 screw	
21	22794	GR 2000 Ratchet		47	13647	TFHc M5x16 screw	
22	22797	Front bearing		48	13650	TFHc M8x20 screw	
23	22798	Locknut		49	13659	Ø3.2 x 18 alu. rivet	
24	22799	Brake washer		50	13668	M10 stainless steel nut	
25	22911	Rear bearing GR		51	21045	E12 external retaining ring	
26	22912	Tightening crown					
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