

## Self-braking manual lifting winch 631 AFL

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Instruction manual

**UK**



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## 1 - General warning

This machine is governed by European regulations and, more specifically, machinery directive 2006/42/EC and the European standard NF EN 13157.

- Before using this winch, the user must read this instruction manual and follow all the instructions in order to ensure the safe and efficient use of the equipment.
- This instruction manual must be available to all operators. The manufacturer will provide additional copies on request.
- 631 AFL winches are designed to allow **lifting and hauling operations**.  
Please ensure that the operator is qualified to operate the machine under the conditions established in this manual. This will ensure the safety of both people and the environment.
- Never use this winch with a load exceeding the maximum load indicated.
- This machine may not, under any circumstances, be used to lift people.
- This machine may not, under any circumstances, be used above people unless the load is secured by some other means.
- Before use, the operator must always check that the machine, rope, hook, markings and fixings are in good condition.
- Before each use, make sure that the handle is properly screwed on to its endless screw shaft against the braking system (opposite the lock nut) and that it is in perfect working order (see §4.2).
- The manufacturer accepts no responsibility for consequences resulting from the use or installation of equipment not provided for in these instructions or for the consequences of removal, modification or replacement of original parts or components with parts or components from other sources without its written agreement.
- It is strictly forbidden to motorise these machines.

## 2 – Presentation of the machines

631 AFL winches are lifting and hauling machines manufactured according to current standards and regulations.

11 models in the range (5 stainless steel).

### 2.1. Construction

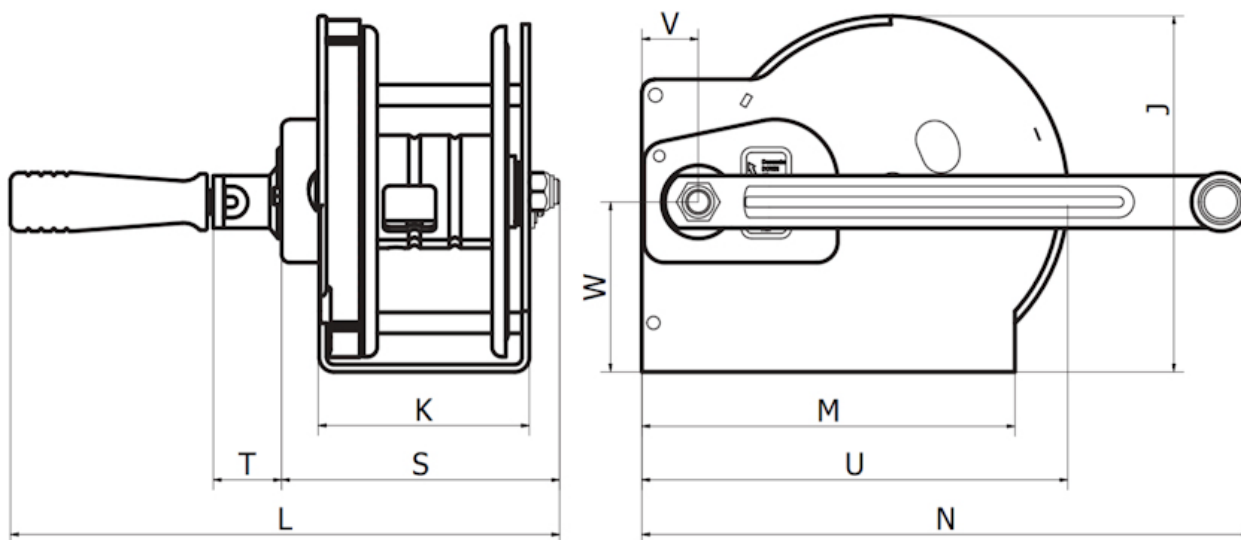
- Sheet steel
- Galvanised and double chromed, or stainless steel depending on the model
- Automatic ratchet and friction brake holding the load in position as soon as the handle stops working

### 2.2. Technical features of the different models

Reference	4 AFLM	4AFLM Inox	4 AFL	4 AFL Inox	6 AFL	6 AFL Inox
Authorised load:						
Upper layer (kg)	80	80	190	190	240	240
Lower layer (kg)	190	190	340	340	500	500
Reel hub Ø (mm)	27	27	36	36	45	45
Rolling load capacity slope 20% (kg)	350	350	500	500	750	750
Minimum operating load (kg)	10	10	10	10	10	10
Ratio	1/2.57	1/2.57	1/2.57	1/2.57	1/3.5	1/3.5
Rope Ø (mm)	3	3	4	4	5	5
Max. length (m)	8	8	10	10	12	12
Weight of empty winch (kg)	2.2	2.0	2.5	2.5	3.6	3.6

Reference	8 AFL	8 AFL Inox	12 AFL	12 AFL Inox	20 AFL
Authorised load:					
Upper layer (kg)	270	270	490	490	650
Lower layer (kg)	650	650	900	900	1180
Reel hub Ø (mm)	54	54	63	63	72
Rolling load capacity slope 20% (kg)	900	900	1 500	1 500	2 500
Minimum operating load (kg)	10	10	10	10	10
Ratio	1/4.85	1/4.85	1/9.71	1/9.71	1/9.71
Rope Ø (mm)	6	6	7	7	8
Max. length (m)	19	19	12	12	10
Weight of empty winch (kg)	5.5	5.5	7.4	7.4	7.8

### 2.3. Dimensions:



Type	4 AFLM	4 AFL 4 AFL Inox	6 AFL 6 AFL Inox	8 AFL 8 AFL Inox	12 AFL 12 AFL Inox	20 AFL
J	96	96	128	167	170	170
K	50	90.5	99.5	100.5	120	120
L	211	250	265	265	294	294
M	125	125	155	178.5	200.5	200.5
N	195	197	240	290	295	330
S	78	117	132	132	155	155
T	32	32	32	32	38	38
U	126	128	161	200	214	214
V	27	27	27	27	28	28
W	31	31	58	81	81	81

### 2.4. Accessories

631 AFL winches can be delivered with ropes and accessories. The pulleys and pulley blocks used with these winches must comply with Machinery Directive 2006/42/EC.

### 2.5. Operation

Proceed as follows:

- Lift the load slightly and release the handle. The load must not fall.
- The winch is designed for lifting suspended loads or moving loads on horizontal or inclined planes. The maximum loads indicated in paragraph 2.3 or on the characteristics labels of the winch must always be respected.
- The load rises or falls in the "Up" or "Down" directions indicated on the braking unit. The load is raised or lowered by turning the handle as indicated on the winch label (Up or Down).

- When lifting, the winch must emit an even sound ("click, click,..."). This is a sign that it is working properly. If there is no sound, the auto brake may not have engaged. Turn the handle 2 or 3 turns "Up" to engage it. If the sound is not audible after a few turns, do not use the winch.
- Always keep your hand on the winch during the "Up" and "Down" operations. To stop the load at any time in an "Up" or "Down" action, release or simply stop turning the handle. It is essential to ensure that the rope or strap is properly guided when rolling and that no crossing or pinching occurs.
- The winch is self-braking. However, this brake needs a minimum load to be activated (see paragraph 2.3), and it is also important to watch out for overheating in the braking system in prolonged load lowering operations.
- For all use in corrosive conditions, it is advisable to use an INOX 316L winch

### 3 – Handling – Storage

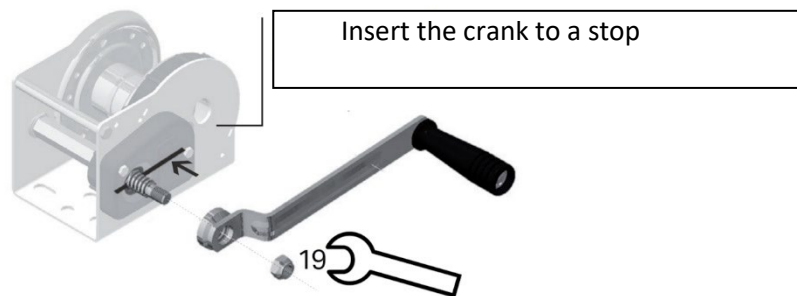
631 AFL winches do not need maintenance material.  
It is advisable to store the equipment in weatherproof conditions.

### 4 – Use, assembly and set-up

The following precautions should be followed.

**Check the winch before each use** and do not use it if you have any doubt as to whether it is working properly.

#### 4.1 Crank mounting

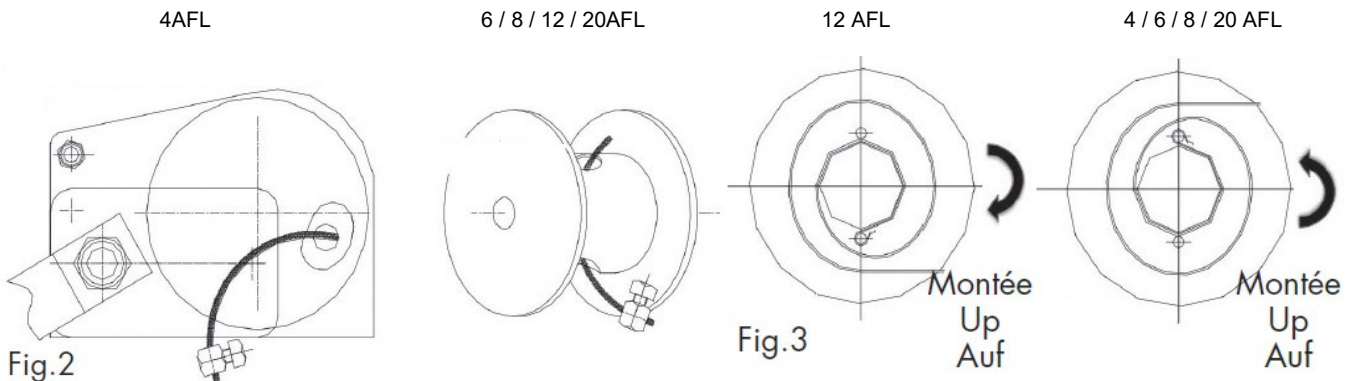


#### 4.2 Fixing the rope

Check that the quality and breaking load of the rope used are compatible with its use.

**Important:** use only the rope diameters (see paragraph 2.3) and qualities indicated on the winch label (recommended quality 1770 N/mm<sup>2</sup>)

- Insert the rope into the rope clamp supplied with the winch.
- Make sure the rope clamp pressure screw is screwed right up (Fig.2) and that the drum rolling direction is followed (Fig.3).
- There must be at least 2 turns of rope remaining on the drum. It is recommended to mark this limit with a coloured mark on the rope.
- The rope must be fitted with an initial tautness. Make sure the rope rolls evenly.



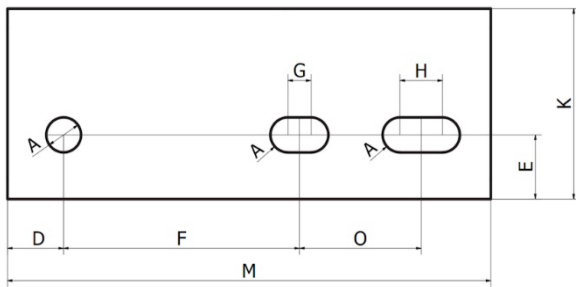
**Never fit the rope in the opposite direction to the normal drum rotation indicated on the winch label. The friction brake would then be taken out of service.**

#### 4.3. Fixings

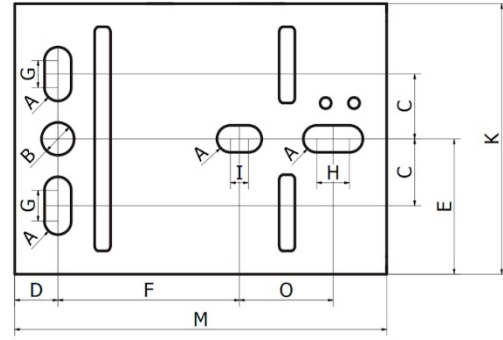
The winch must be fixed at 3 points with 12.9 class M8 (4AFLM/AFL) or M10 (6/8/12/20 AFL) bolts and suitable washers on to a support of a suitable size for the application. See dimensions opposite.

Check that the machine is flat and that it is robust enough for the load to be lifted or handled

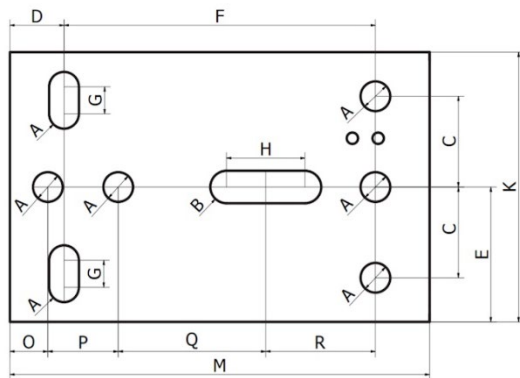
4AFLM



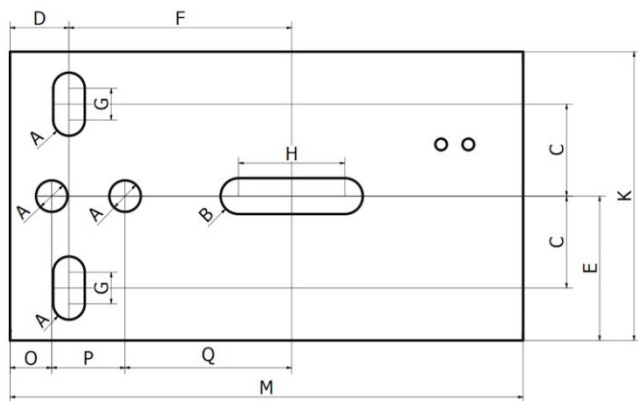
4AFL



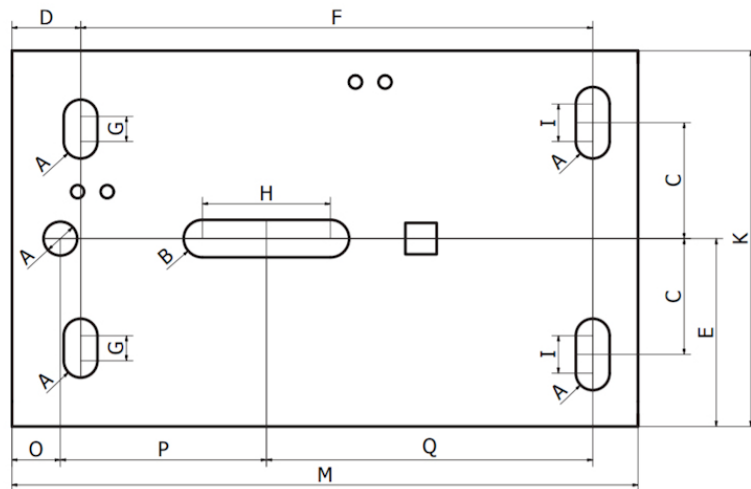
6AFL



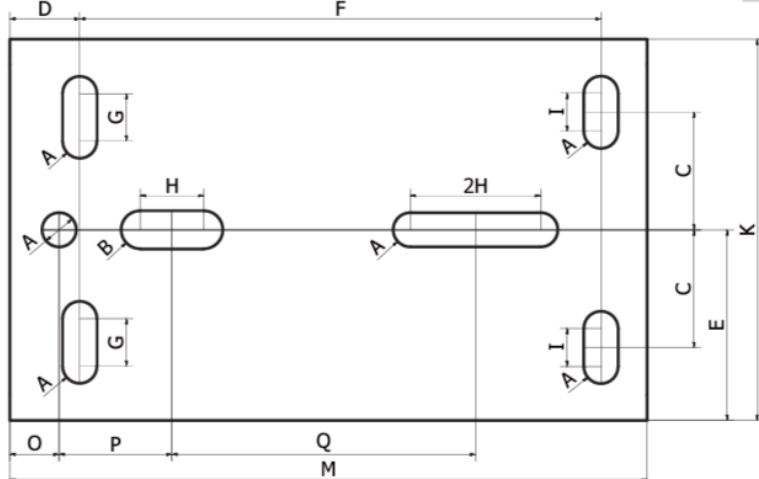
8AFL



12AFL



20AFL



Type	4 AFLM	4 AFL 4 AFL Inox	6 AFL 6 AFL Inox	8 AFL 8 AFL Inox	12 AFL 12 AFL Inox	20 AFL
A	9	9	11	11	10.8	10.8
B	-	11	12	12.5	12	12
C	-	22	33.5	32	37	37
D	14.5	14.5	20	20.5	22	22
E	16.5	42.25	50	50.25	60	60
F	61	61	115	77.5	164	164
G	6	9.5	10	11	8	15
H	11	11	29	37	41	20
I	-	6	-	-	12	12
K	50	90.5	99.5	100.5	120	120
M	125	125	155	178.5	200.5	200.5
O	31.5	31.5	14	14.5	15.5	15.5
P	-	-	26	25.5	66	35.5
Q	-	-	54.5	58	104.5	95.5
R	-	-	40.5	-	-	-

#### 4.4 First use of the winch

631 AFL winches are delivered either empty without rope or with rope, according to your order.

Make sure the machine is working properly before use, especially when performing an initial usage test in accordance with the local regulations in force.

### 5 – Servicing and maintenance

- Check the state of the rope and the hook regularly. A rope that is frayed, cut or creased does not work properly and must be changed before use.
- Grease the pinions at least once a year, or more if the winch is used intensively. Do not dismantle the winch to do this; turn the reel while putting a uniform layer of grease on the teeth of the reel with a brush. Use molydal no.3790 type grease.
- Important:** do not grease the self-braking system.
- Keep the winch in a good working order. All unserviced mechanical parts can cause malfunctions and even accidents. The winch must be checked at least once a year by someone who is suitably trained. The result of the check and all actions affecting the winch, the rope, the strap or the hook must be noted in a maintenance book.

**Regularly and before each use:** check the condition of the rope, hook and safety latch.

If the rope and hook are not supplied by the manufacturer along with the machine, check that the rope and hook used guarantee a level of safety in accordance with breaking factor 5 (Machinery Directive 2006/42/EC).

### 6 – Contraindications for use

**Before using the equipment, check for potential causes of overloading such as: adhesion to the ground, suction, jamming, etc. Beware of the following forbidden and incorrect uses or operations:**

**It is forbidden to:**

- Leave the winch within the reach of children or persons unaware of how to operate it;
- lift loads in excess of the nominal load indicated on the machine plate;
- unwind the drum completely (maintain two or three residual winds);
- pull at an angle;
- pull on a fixed point;
- swing the load;
- keep the load suspended or in traction longer than the time required for the operation. If this is done, provide a load maintenance system other than the winch in order to make it secure;
- use the winch to lift people;
- use the winch for random applications (in which the load is likely to change depending on natural phenomena such as wind, rain, etc.);
- walk under a load;
- use ropes with a different diameter and texture from the specifications in this instruction manual (breaking factor 5);
- use damaged or spliced ropes;
- use hooks without a latch, those not suitable for the loads indicated on the machine and those in poor condition;
- insert objects into moving parts;
- perform operations on a machine while it is loaded;
- allow the load to be lowered in free fall;
- motorise the machines;
- use the machine rope as a sling;
- use handles other than the original ones;
- use the machine for operations other than those for which it is intended;
- use the winch as an anti-fall device, regardless of the height of the drop and the load applied;
- use parts or components other than the original ones provided by the manufacturer;
- tow by positioning a fixed point on the winch.

### 7 – Precautions for use

- The operating temperature should be between  $-10^{\circ}\text{C}$  and  $+50^{\circ}\text{C}$ .

- These winches are manufactured for use in a normal environment. If they have to be used in an aggressive environment (saline, chemical atmosphere...), it is advisable to use an INOX 316L stainless steel winch.
- These winches must be used regularly, even while empty.
- It is strongly recommended not to handle the rope unless protected by gloves.

## 8 – Compulsory regulatory checks

This equipment has been designed to be tested:

- In a dynamic situation, with coefficient 1.1.
- In a static situation, with coefficient 1.5

A periodic maintenance check is required at least once a year:

In accordance with regulations, the user must keep an inspection booklet recording all the inspections and operations carried out on the machine (Rule FEM 9755).

**In France, since 1 April 2005, the owner of a lifting machine must:**

1. Pursuant to the provisions of the order of 2 March 2004, keep a maintenance log in which the following must be recorded:

- Maintenance operations performed in accordance with the manufacturer's recommendations
- All other operations (inspection, maintenance, repairs, replacement or changes to the machine)

The following must be recorded for each of these operations: the date of the work, the names of the people and, where appropriate, the companies which carried out the work, the nature of the operation and, if it is a regular operation, the frequency. If the operations involve the replacement of certain machine components, the references of these components must be indicated.

2. By virtue of the order of 1 March 2004, article R 232.12 of the Labour Code:

Checks during set-up (section 3 of the order - articles 12 to 17):

- Suitability test (article 5-1): suitable equipment and compliant installation. This must be provided, in writing, by the user (article 3d).
- Assembly and installation test (article 5-11): equipment installed according to the instruction manual.
- Operating test (article 6c or 14-II): loaded, with safety tests.
- Static test (art. 10)
- Dynamic test (art. 11)


Regular general checks (section 5 of the order - articles 22 to 24):

- Inspection of the state of preservation (art. 9): equipment kept in good condition, with nothing missing or added, compliant.
- Operating test (art. 6b and c): loaded, with safety tests.
- Checks when resuming service (section 4 of the order - articles 18 to 21):
- Suitability test (art. 5-I): suitable equipment and compliant installation. Must be provided, in writing, by the user (art. 3d).
- Assembly and installation test (art. 5-II): equipment installed according to the instruction manual.
- Inspection of the state of preservation (art. 9): equipment kept in good condition, with nothing missing or added, compliant.
- Operating test (art. 19-II): loaded, with safety tests.
- Static test (art. 10)
- Dynamic test (art. 11)

## 9 – Taking out of use

If the equipment is in a state of disrepair likely to give rise to risks, the user is obliged to ensure that this equipment is disposed of, i.e.: that it is taken out of service, and, if necessary, dismantled.

## 10 – Example Declaration of Conformity



The image shows a 'DECLARATION OF CONFORMITY' form for a HUCHEZ hand winch. The form includes the CE mark, the HUCHEZ logo, and the following text:

**DECLARATION OF CONFORMITY**

FD3.00.1 - LK - Final manual  
MANROCK - MANROCK - TIREX

We hereby declare that the design and manufacture of the machinery referred to below comply with the relevant requirements of Directive 2006/42/CE on Machinery.  
The machinery's technical file has been put together by the signatory of this declaration.  
This declaration shall become null and void in the event it is changed or if any item is added without our prior consent.  
Moreover, this declaration shall become null and void if the machinery is not used in accordance with its instructions for use and if it is not inspected regularly.

Type of device: hand winch

Model:

Force:

Serial n°:

Function: Hoisting equipment

Harmonised standard(s) used, notably: EN 13157

Quality assurance: ISO 9001 (certificate registration n°: FQA 9911492)

Equipment delivered: ☐ with cable ☐ without cable ☐ with hook ☐ without hook

equipment: these items must comply precisely with the specifications indicated on the manufacturer's plate affixed to the winch and the instructions for use, and they must be supplied by professionals specialised in this area.

and with instructions for use.

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