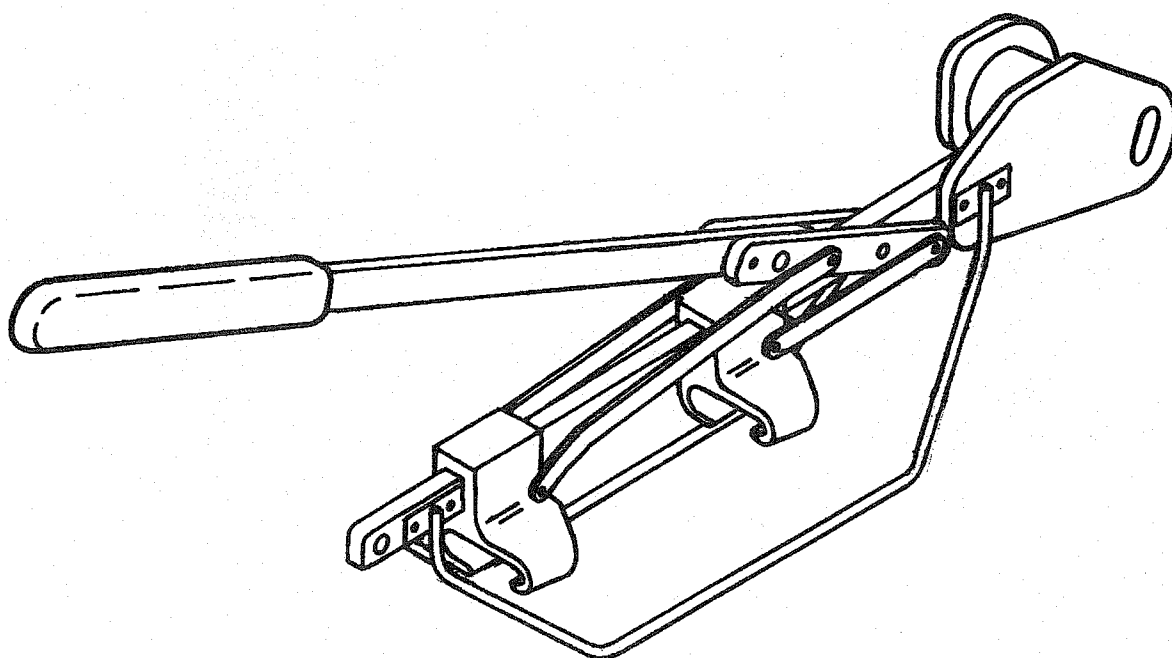


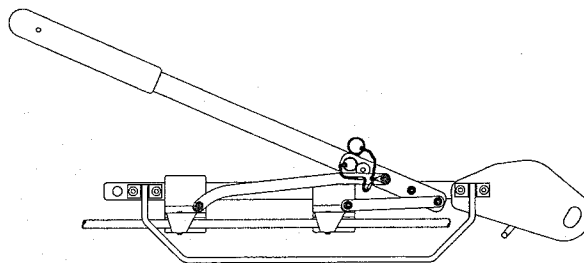
# evak<sup>®</sup> 500

Winch-hoist with unlimited length of textile rope  
for the emergency rescue services



Operating  
and  
maintenance  
instructions

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### **IMPORTANT SAFETY INFORMATION**

The EVAK® 500 must only be operated by trained professional rescue personnel.

The EVAK® 500 is a compact lifting and pulling machine, simple to install and operate, allowing the emergency rescue of people or materials or when the usual lifting methods are not available or usable.

The EVAK® 500 must be used in conjunction with an independent safety device, ensuring that the load, appropriately attached to the safety device, is held securely at all times.

The EVAK® 500 must be used in accordance with the safety regulations applicable to the application concerned. It is essential that it should be used strictly in accordance with the instructions of this manual, which should be kept with the machine.

The EVAK® 500 must be used exclusively with TRACTEL textile rope, ref. 4380513, which must be regularly checked to ensure that it is in good working condition and free of any defects.

## **1. GENERAL INFORMATION :**

### **1.1. Technical specification :**

The EVAK® 500 is a winch-hoist with unlimited length of textile rope and a lifting or pulling capacity of 500 daN. It has been specifically designed for use by the professionals of the emergency rescue services. It is a machine for lifting or pulling a person or materials by the to-and-fro movement of a lever linked to two self-gripping sliding jaw blocks.

<b>Nominal capacity</b>	<b>daN</b>	<b>500</b>
<b>Effort on lever for 250 daN load</b>	<b>daN</b>	<b>18</b>
<b>Weight</b>	<b>kg</b>	<b>6.35</b>
<b>Effort on lever to break shear pin</b>	<b>daN</b>	<b>40</b>
<b>Breaking strength of TRACTEL textile rope Ref. 4380513</b>	<b>daN</b>	<b>3500</b>

Since the textile rope is not stored on the winch, the working height is almost unlimited and depends only on the length of the textile rope used.

Anchoring, operation and maintenance of the EVAK® 500 must be carried out with great care, and in accordance with safety regulations applicable to the particular applications.

- **Check that the winch-hoist operates correctly before use**
- **Ensure that the textile rope is in good condition before installing**
- **Check the strength of the anchor point before attempting to lift the load, especially if lifting a person.**

## 1.2. Checks :

Check, before each operation, the general state of the equipment and the operation of the jaws. Keep the EVAK® 500 clean and well maintained. It should then give you long and trouble-free operation.

## 2. SAFETY FEATURES :

When using the EVAK® 500 for lifting people, even when lowering, ensure in all cases that the person is attached to the independent secondary safety rope. This device, to which the person must be safely attached, must operate automatically to hold the load (person or material) in case of loss of control by the operator.

Moreover, such a safety device should be used on lifting, or in cases where the load can move on its own, wherever the applicable regulations require it. The person should be attached to the safety device using a harness and appropriate tether. A fall arrest device fixed onto the tether, or incorporated in the safety device, should ensure that the person is held safely in accordance with the current regulations.

## 2.1. Overload pin :

The EVAK® 500 is fitted with a safety device to limit the effort applied to protect the textile rope. A shear pin is set for an effort applied to the lever of about 40 daN, which corresponds to a traction force on the textile rope of about 500 daN. Replacement shear pins can be found in the drum.

Overload pin :

The overload pin is need to lock the lever in its operating position and in the folded position (see section 3).

Spare overload pins are available from TRACTEL, quoting part number 0045038.

## 2.2. Textile rope :

The textile rope, exclusively from TRACTEL , ref. 4380513, 12.5 mm diameter, with an operating coefficient of 7 (3,500 daN breaking strength), is available in lengths of 20 m, 40 m, 60 m, 80 m and 100 m.

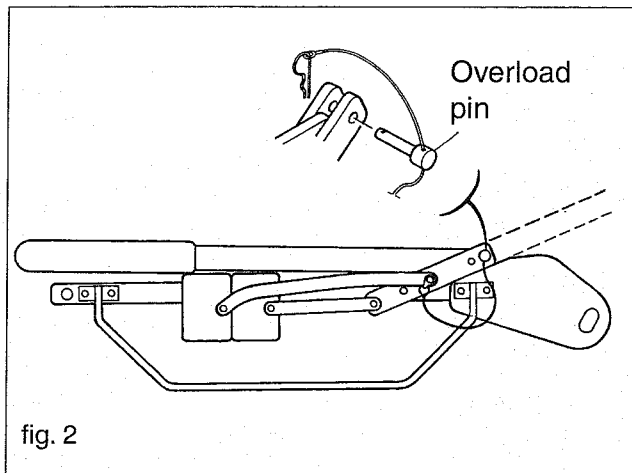
## 3. INSTALLATION :

Attention must be paid during the installation of the machine, as safety is dependent upon how this operation is carried out.

In all cases, whether the machine or the end of the textile rope is attached to a fixed point, the anchor point must be of sufficient strength to withstand the total load applied taking into account the applicable safety regulations.

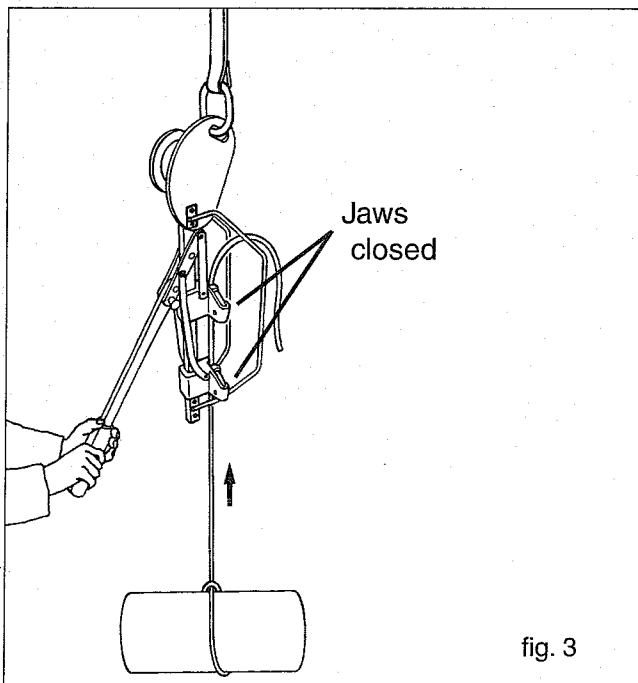
If the machine is used in a fixed position, it must be attached to an anchor point by an appropriate device such as a safety hook passed through the machine anchor point. In this case, the method of attachment between the machine and the anchor point must allow the machine to align itself in the direction of the load. The anchoring arrangement must incorporate an appropriate locking device.

**N.B. :** The machine is supplied with its lever folded, with the pin and clip removed, fitted in the lever. Unfold the lever, align the holes and insert the pin and clip. (Fig. 2)



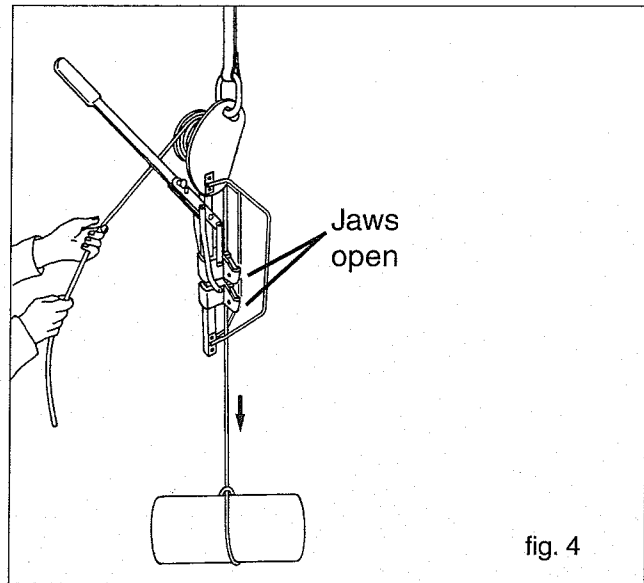
#### 4. OPERATION :

##### 4.1. Lifting or pulling



The load (person or material) attached to the textile rope or machine, with the textile rope fitted in the machine, jaws closed on the textile rope, operate the lever in a to-and-fro movement.

##### 4.2. Lowering



This operation requires the use of the machine's lowering drum and the instructions contained in the section **"SAFETY"** should be strictly followed. Lowering operates by friction of the textile rope around the drum, on which the rope is turned the necessary number of times. This procedure necessarily needs the two jaws to be in the open position. It is imperative to ensure that the load is securely attached to a safety device, as indicated in the section **"SAFETY"**.

##### Proceed as follows to open the jaws :

- 1 - Place the lever as shown in position (A), with the jaw blocks in contact with each other.
- 2 - Turn the loose rope (C) around the drum, one turn for each 125 daN (125 kg), of load. Make sure the direction of the turn is as indicated (D). Take care to firmly hold the loose end of the textile rope with one hand, and keep it in tension (E), proceed as follows.
- 3 - Move the lever towards the load in the direction (B) separating the two jaw blocks, and with the textile rope tensioned between them (C). This movement allows the lower jaw to be opened (F).

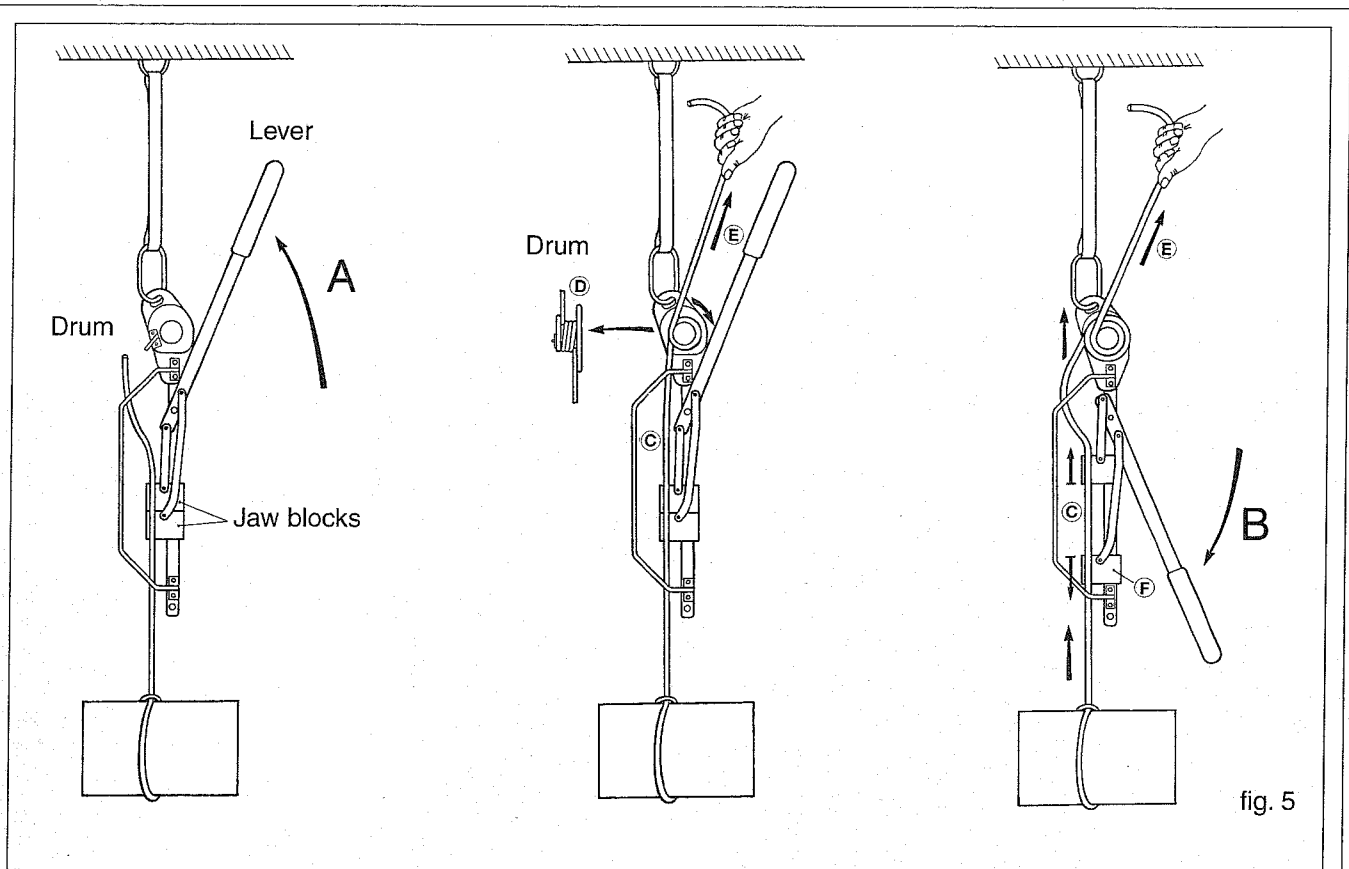


fig. 5

4 - Maintain the lever in position (B). Open the lower jaw (F) and lock it in the open position.

5 - Pull the loose rope in direction (E) and tension it (D) between the upper jaw (G) and the drum.

6 - Pivot the lever in direction (A) away from the load to tension the rope (D) between the upper jaw (F) and the drum.

7 - Open the upper jaw (G).

**Warning :** in this situation, the load is no longer supported by the machine and is tensioned by the frictional forces of the textile rope around the drum and held under tension by the operator.

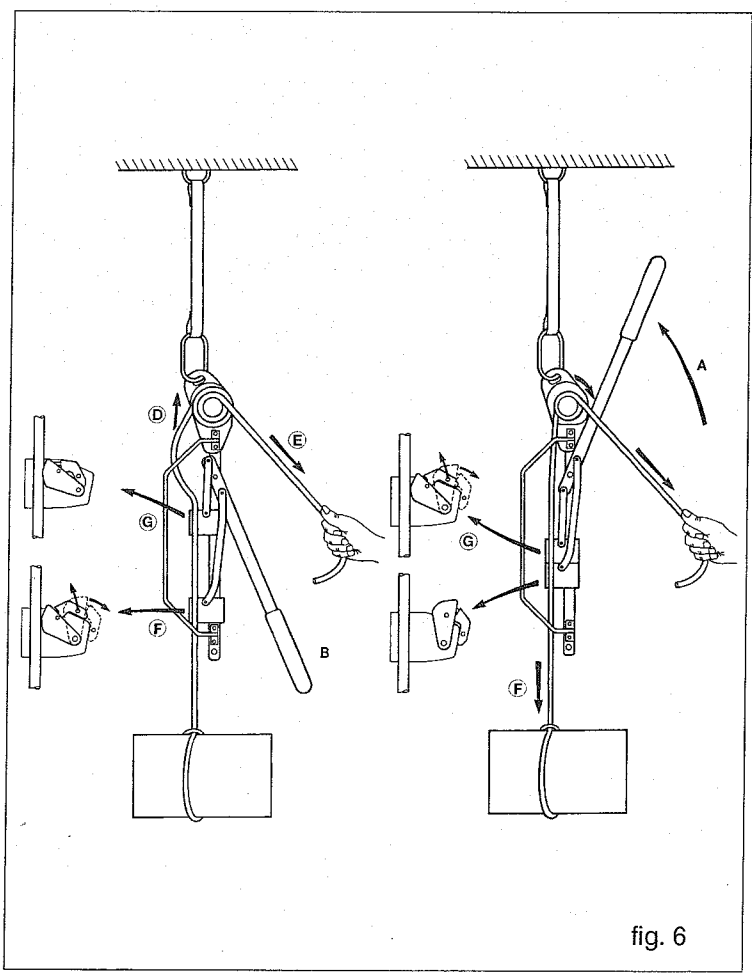
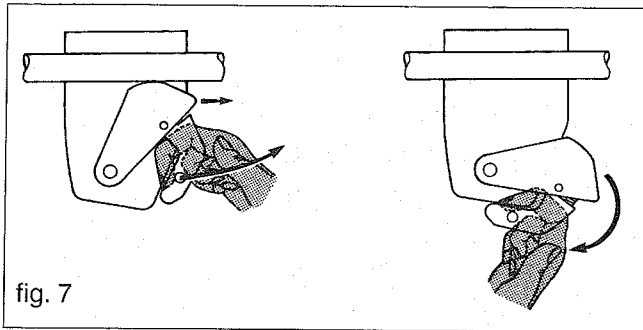


fig. 6

**N.B. :** To open the jaws pull in the direction of the arrow and downwards



### **Lowering :**

To lower the load, progressively reduce the friction of the textile rope on the drum.

This is done by the operator gradually releasing the tension exerted on the loose end of the textile rope. Once movement begins, by alternate hand movements allow the rope to travel slowly around the drum whilst maintaining the tension on the loose end of the textile rope.

To stop lowering, increase the tension on the loose end.

This arrangement only allows lowering. It is impossible to work in the reverse direction and to lift by pulling the loose end of the textile rope.

To achieve this, it is necessary to close the two jaws onto the rope.

Ensure the rope is correctly positioned in the jaw blocks and then operate the lever.

### **5. MAINTENANCE :**

The EVAK® 500 does not need any special maintenance. It is always necessary to keep it clean and to lubricate the moving parts, the links and the jaw blocks as well as the anchor pin.

Store in a cool dry place.

In case of use in marine conditions, the EVAK® 500 must be cleaned in fresh water to remove all traces of salt, and thoroughly dried. It is important to lubricate the moving parts, links and jaw blocks, as well as the anchor pin with a vaseline type oil or SAE 20-40.

When using EVAK® 500, it is an essential safety prerequisite to keep the textile rope in good condition.