

**DECLARATION BY THE MANUFACTURER**  
in accordance with Machinery Directive 98/37/EEC (Appendix II B)

We,

**Yale Industrial Products GmbH**  
D- 42549 Velbert, Am Lindenkamp 31

hereby declare, that the design, construction and commercialised execution of the below mentioned machine complies with the essential health and safety requirements of the EC Machinery Directive. The validity of this declaration will cease in case of any modification or supplement not being agreed with us previously.

Furthermore, validity of this declaration will cease in case that the machine will not be operated correctly and in accordance to the operating instructions and/or not be inspected regularly.

<b>Machine description:</b>	Little Mule Cable Puller Model LM with wire rope Pulling force 500 - 900 daN (Single fall) Pulling force 1.000 - 1.800 daN (Double fall)
<b>Machine type:</b>	Cable puller (pulling and tensioning device)
<b>Relevant EC Directives:</b>	EC Machinery Directive 98/37/EEC
<b>Transposed harmonised standards in particular:</b>	DIN EN 292, part 1 (safety of machines) DIN EN 292, part 2 (safety of machines) DIN EN 349 (safety of machines)
<b>Transposed (either complete or in extracts) national standards and technical specifications in particular:</b>	9. GSGV BGV D8 (Winden, Hub- und Zuggeräte) VBG 9.a (Lastaufnahmemittel) DIN 15020 (Grundsätze Seiltriebe)
<b>Quality assurance:</b>	DIN EN ISO 9001 (Certificate-Registration No.: 151)

**Date / Manufacturer's authorized signature:**

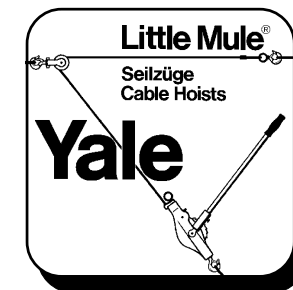
05.11.2002



**Identification of the signee:**

Dipl.-Ing. Andreas Oelmann  
Manager Quality Assurance

# Little Mule® Cable Pullers



## Model LM

**Pulling force 500 - 900 daN (Single fall)**

**Pulling force 1.000 - 1.800 daN (Double fall)**

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# Operating Instructions

### **Attention:**

*This unit may only be used for pulling or tensioning.  
It may not be used for lifting or lowering purposes.*

# Yale®

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### 1. INTRODUCTION

**Attention:** All users must read these operating instructions carefully prior to the initial operation. These instructions are intended to acquaint the user with the machine/cable puller and enable him to use it to the full extent of its intended capabilities.

The operating instructions contain important information on how to handle the machine/cable puller in a safe, correct and economic way. Acting in accordance with these instructions helps to avoid dangers, reduce repair cost and down time and to increase the reliability and lifetime of the machine/cable puller. Anyone involved in doing any of the following work with the machine/cable puller must read the operating instructions and act accordingly:

- operation, including preparation, trouble shooting during operation and cleaning
- maintenance, inspection, repair
- transport

Apart from the operating instructions and the accident prevention act valid for the respective country and area where the machine/cable puller is used, also the commonly accepted regulations for safe and professional work must be adhered to.

## 2.5 PULLING/TENSIONING AND RELEASING

### • Pulling/tensioning of a load

The main element is a double interlocking pawl system consisting of the rope drum with an integrally cast ratchet disc and two interlocking pawls. The wire rope can be quickly rewound onto the drum by means of a handwheel.

The handle serves as an overload device, which bends before other components can become overloaded. The handle can be inserted from either side into the U-shaped yoke to facilitate usage in confined areas.

Position control lever A as shown in Fig. 12, engaging the loading pawl against the ratchet teeth. Work the handle at the speed required to get the desired operation. While the handle may be inserted into either end of the U-frame socket, it must be ensured, that the handle is correctly secured.

**Attention:** For safe operation never fully unwind the wire rope - always leave at least 2 1/2 turns on the drum.

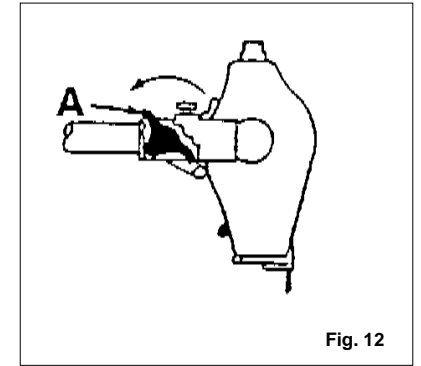


Fig. 12

### • Releasing the load

Position control lever A as shown in Fig. 13. Press the handle to the extreme lowest position until the load is removed from the holding pawl B. As the handle is slowly released, the load will be released one notch.

**Attention:** For safe operation never fully unwind the wire rope - always leave at least 2 1/2 turns on the drum.

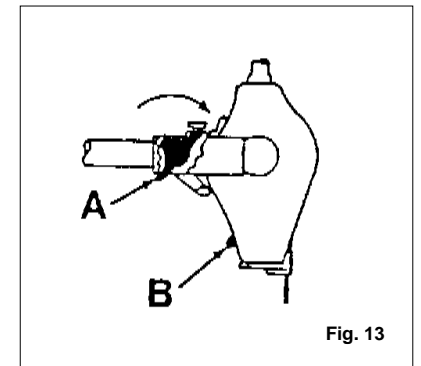


Fig. 13

## 2.6 INSPECTION / MAINTENANCE

### • Regular inspections

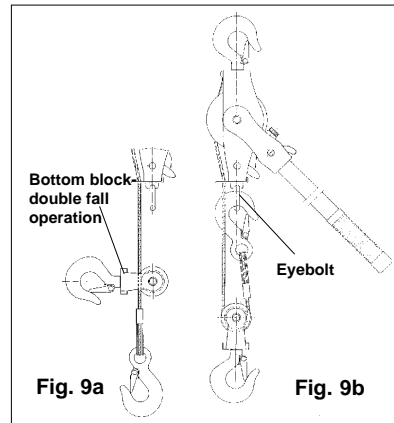
To ensure, that the cable pullers remain in safe working order, they are to be subjected to regular inspections by a competent person. Inspections are to be annual unless adverse working conditions dictate shorter intervals. The components of the cable puller are to be inspected for damage, wear, corrosion or other irregularities and all safety devices are to be checked for completeness and effectiveness. To test the brakes and overload devices, a test load at the puller's rated capacity is required. To check for worn parts it may be necessary to disassemble the unit. Repairs may only be carried out by a specialist workshop, which uses original Yale spare parts. Inspections are instigated by the user.

# Little Mule® Cable Puller Model LM

## • Inspection of wire rope fall

- Before operating the cable puller check the wire rope for correct fall (see Fig. 9a and 9b).
- For single fall operation the load is attached to the clevis hook as shown in Fig. 9a.
- Never attach the load to the pulley block resp. the clevis hook to be used for double fall operation.
- For double fall operation the clevis hook for single fall operation is attached to the eyebolt of the unit and the load is to be attached to the load hook for double fall operation. (see Fig. 9b)

**Attention:** For safe operation never fully unwind the wire rope from the drum - always leave at least 2 1/2 turns of wire rope on the drum.



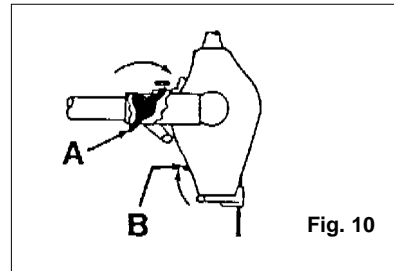
## 2.4 FUNCTION/OPERATION

### • Releasing the wire rope, unloaded condition

To release the wire rope, position control lever A (see Fig.10) and hold the spring loaded pawl B as shown.

The wire rope can now be pulled freely through the unit to achieve the required position.

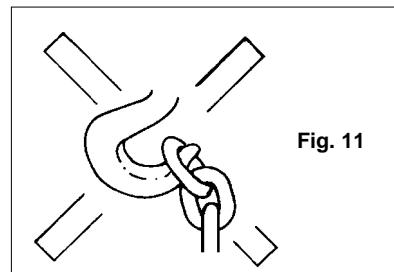
By the same means the unloaded wire rope can be rewound onto the drum with the handwheel.



### • Attaching the load

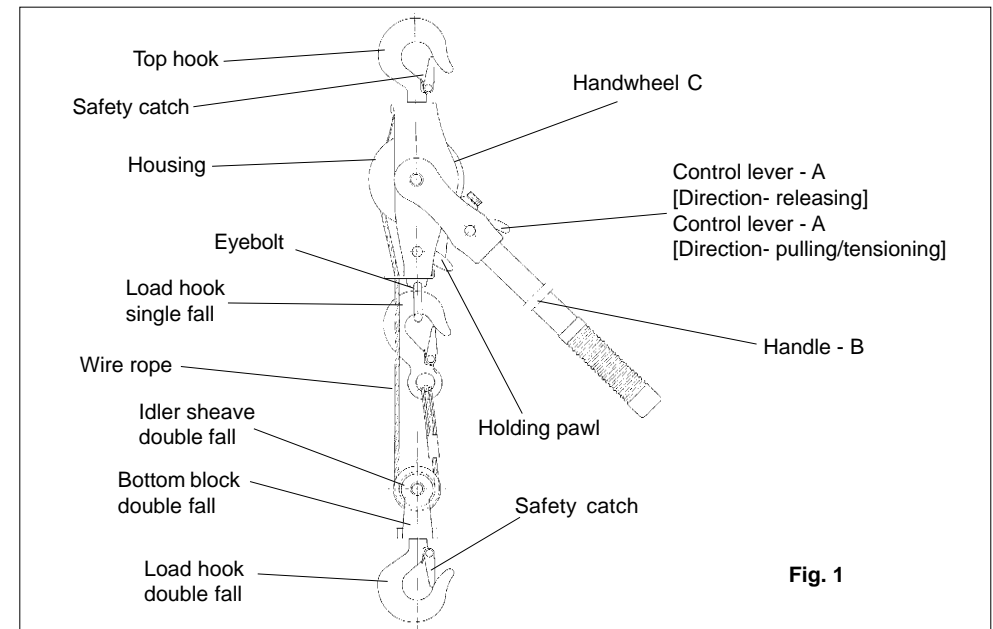
The load must always be seated in the saddle of the hook. Never attach the load to the tip of the hook (see Fig. 11).

Also, always position the top hook correctly.



# Little Mule® Cable Puller Model LM

## 1.1 TECHNICAL INFORMATION



Model	Single fall			Double fall			Net weight kg	Lever length mm	Hook opening mm	Rope Ø mm
	Pulling Cap. daN	Lifting height m	Head-room mm	Pulling Cap. daN	Lifting height m	Head-room mm				
<b>115 D-V</b>	500	4,6	550	1000	2,3	700	4,5	420	22	4,8
<b>202 WN-V</b>	500	6,0	525	1000	3,0	690	5,2	520	22	4,8
<b>434 WN-V</b>	500	9,0	550	1000	4,5	710	5,8	530	22	4,8
<b>S 434 WN-V</b>	700	6,0	565	1400	3,0	725	6,0	530	22	5,6
<b>S 404 WN-V</b>	900	5,2	575	1800	2,6	720	5,9	635	22	6,4

## 2. OPERATING INSTRUCTIONS

### 2.1 CORRECT OPERATION

#### Maximum capacity

- The Yale Little Mule cable puller has been designed to pull and tension loads up to the rated capacity. The capacity indicated on the puller is the maximum safe working load, which must not be exceeded.

**Attention:** This unit may only be used for pulling and tensioning, it may not be used for lifting and lowering operations. Furthermore, it may not be used for pulling and tensioning operations on gradients.

#### Danger zones

- Do not pull or tension loads while personnel is in the danger zone.
- Tensioned loads must not be left unattended for a longer period of time.
- Start moving the load only after it has been attached correctly and all personnel is clear of the danger zone.

#### Attaching the load

- The operator must ensure, that the load is attached in a manner, that does not expose himself or other personnel to danger by the puller, wire rope or the load.

#### Temperature range

- The puller can be operated in ambient temperatures between -10° C and +50° C. Consult the manufacturer in case of extreme working conditions.

#### Regulations

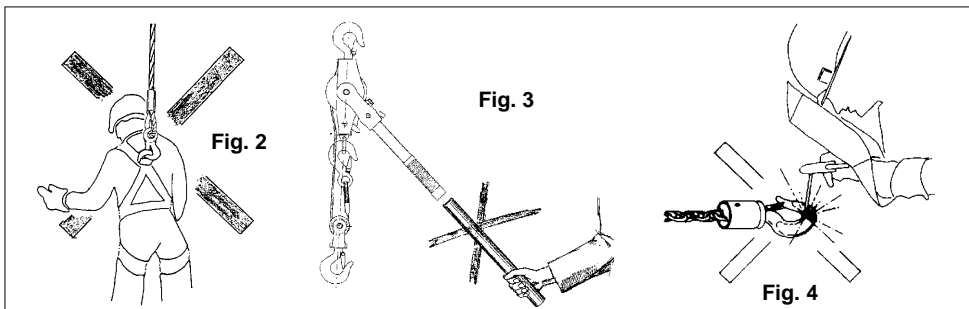
- The accident prevention act and/or safety regulations of the respective country or area where the puller is used must be strictly adhered to.

#### Maintenance/Repair

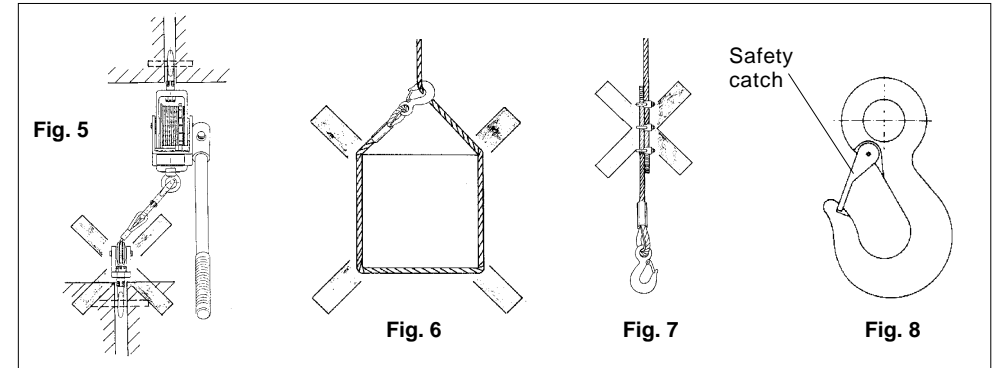
- In order to ensure correct operation, not only the operating instructions, but also the conditions for inspection and maintenance must be complied with. If defects are found, stop using the puller immediately.

### 2.2 INCORRECT OPERATION

- Do not exceed the rated capacity of the puller.
- Do not use the puller for transportation of personnel (Fig. 2).
- Do not extend the handle (Fig. 3).
- Welding on hooks and wire rope is strictly forbidden. The wire rope must never be used as a ground connection during welding (Fig. 4).
- Avoid side pull, i.e. side load on either housing, wire rope or bottom block (Fig. 5).
- Pull/tension only when the wire rope forms a straight line between both hooks.



- The wire rope must not be used for lashing purposes (Fig. 6).
- Do not knot or shorten the wire rope by using bolts, clamps or other devices (Fig. 7).
- Do not repair wire ropes.
- Do not pull/tension over sharp edges.
- Do not remove the safety catches from the top or bottom hook (Fig. 8).
- Do not throw the puller down - always place it properly on the ground.



### 2.3 INITIAL OPERATION

#### • Inspection prior to initial operation

Each cable puller must be inspected prior to initial operation by a competent person. The inspection is visual and functional and shall establish, that the puller is safe and has not been damaged by incorrect Transport or storage.

Inspections should be made by a representative of the manufacturer or the supplier. However, the user company can also assign it's own suitably trained personnel.

Inspections are instigated by the user.

#### • Inspection before starting work

Before starting work, inspect the cable puller, the wire rope and all load bearing constructions for visual defects every time. Also, check, that the load is correctly attached by carrying out a short work cycle of pulling, tensioning and releasing.

#### • Inspection of the wire rope

Visually check for external defects, deformations, kinks, breakage of individual strands, pinching, rust, wear and/or corrosion damage. rope thimbles and other connecting parts.

Rope damage leads to incorrect functioning of and to permanent damage of the cable puller. Also, broken individual rope strands can cause injuries.

#### • Inspection of top and bottom hooks

Inspect top and bottom hooks for deformations, damage, cracks, wear and/or corrosion marks.