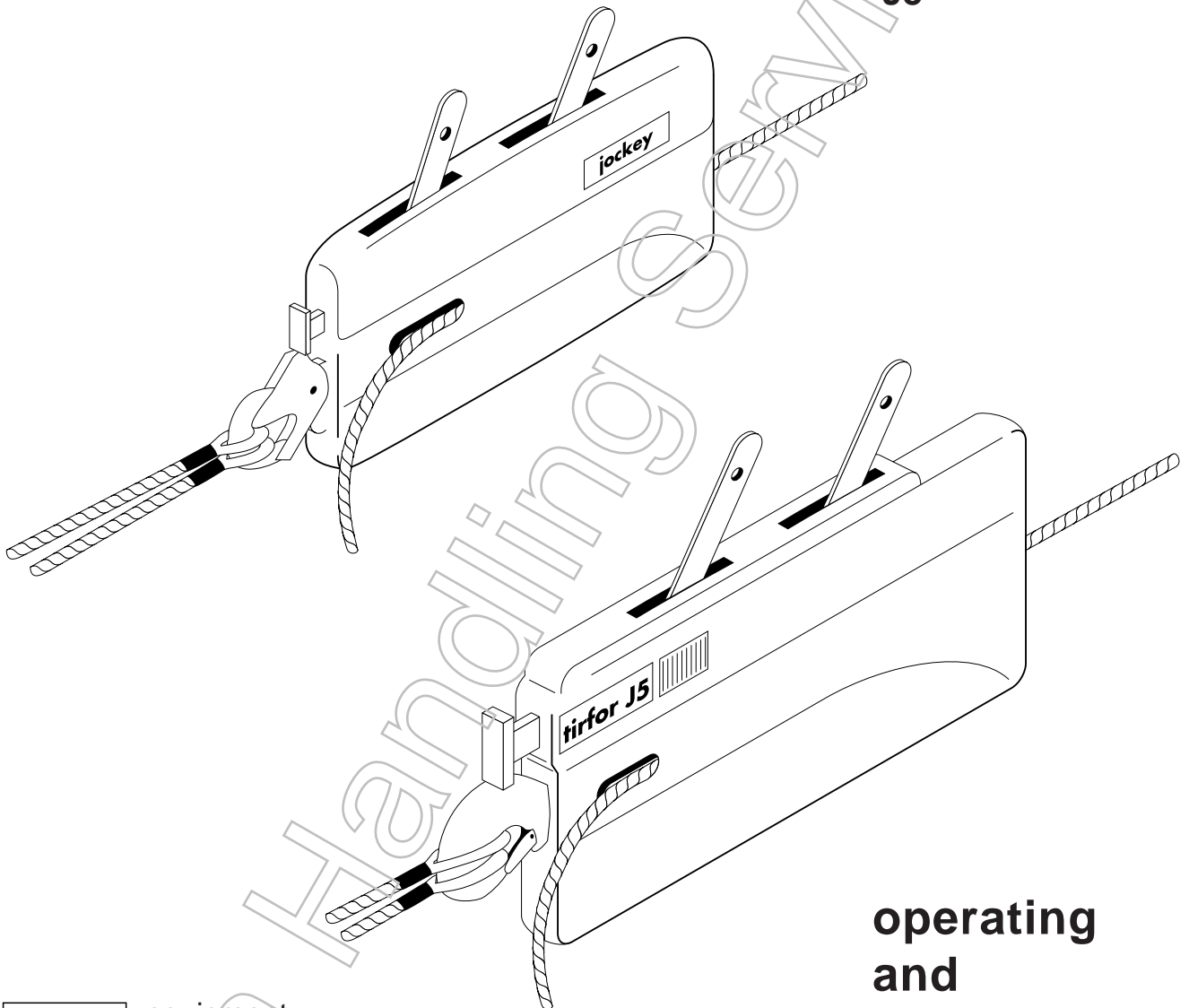


jockey® & J5

Lifting and pulling machines

models

JOCKEY
J5



equipment
in accordance
with CE directives

**operating
and
maintenance
instructions**

109325-03 - incl 04 - 09/02

ORIGINAL MANUAL

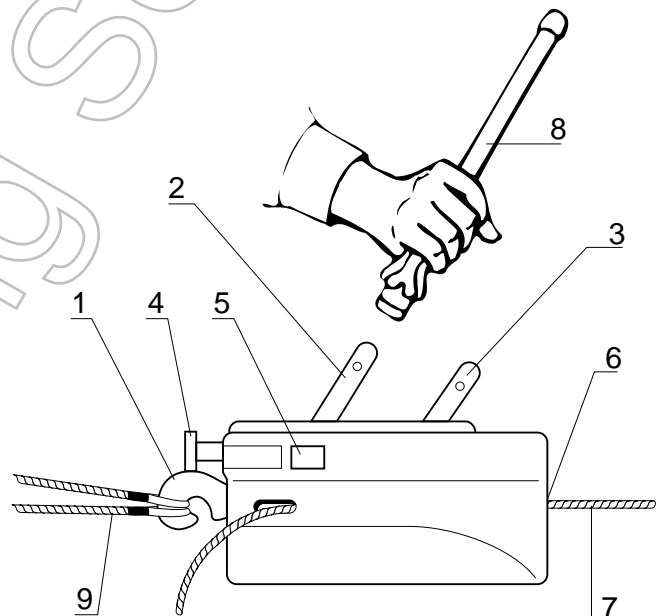
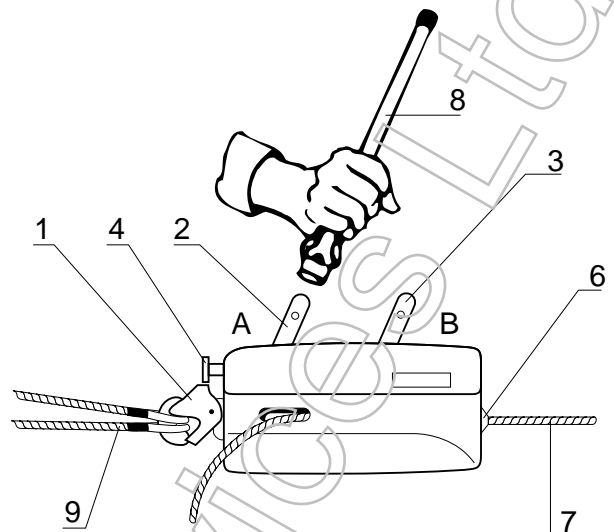
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Always concerned to improve the quality of its products, the TRACTEL Group reserves the right to modify the specifications of the equipment described in this manual.

The companies of the TRACTEL Group and their agents or distributors will supply on request descriptive documentation on the full range of TRACTEL products : lifting and pulling machines, permanent and temporary access equipment, safety devices, electronic load indicators, accessories such as pulley blocks, hooks, slings, ground anchors, etc.

The TRACTEL network is able to supply an after-sales and regular maintenance service.



1. Anchor hook
2. Forward operating lever
3. Reverse operating lever
4. Rope release catch
5. Side buttons
6. Rope guide
7. Wire rope
8. Operating handle
9. Anchor sling

- 1- **Before using the machine**, it is essential for safe and correct operation of the equipment that this manual be read and fully understood and that all the instructions be followed. This manual should be made available to every operator. Extra copies of this manual will be supplied on request.
- 2- The JOCKEY machine allows the operator to carry out work with complete safety. Ensure that the machine is only handed over for use or rigging to an operator who is trained to operate it in a responsible manner
- 3- Never use a machine which is not in good working condition. Replace any worn or damaged wire rope. A continuous monitoring of the condition of the machine, its wire rope and anchor sling is an important safety consideration.
- 4- The manufacturer declines any responsibility for the consequences of dismantling or altering the machine by any unauthorised person. Specially excluded is the replacement of original parts by parts of another manufacturer.
- 5- The models covered by this manual must not be used under any circumstances for lifting people.
- 6- Moreover, these models are designed for manual operation and must not be motorised. TRACTEL has designed special motorised models (TU-16H and TU-32H).
- 7- Never apply or attempt to apply to the machine a load or effort greater than the working load limit.
- 8- JOCKEY machines are not designed for use in explosive atmospheres.
- 9- **IMPORTANT** : If the equipment described in this manual is supplied to an employed person, check and ensure that you meet your obligations with respect to the safety at work regulations, particularly relating to inspection and tests before operation (See section 13 on page 9).

LIFTING PEOPLE AND SPECIAL APPLICATIONS

For further information on equipment for lifting people, and for any special application, please refer to TRACTEL

TECHNICAL DATA

MODELS		jockey	jockey J5
Working load limit	kg	300	500
Weight			
machine	kg	1.750	3.750
operating handle	kg	0.270	0.350
standard length of wire rope 10m/20m	kg	1.0 / -	1.9 / 3.7
Total weight of standard equipment	kg	3.0 / -	6.0 / 7.8
Machine dimensions			
length	mm	320	370
height	mm	200	215
width	mm	40	55
operating handle	mm	400	500
JOCKEY wire rope			
diameter	mm	4.72	6.5
guaranteed breaking strain*	kg	1800	3100
weight per meter	kg	0.09	0.185
Rope travel (forward/reverse)**	mm	28 / 32	24 / 34

* Including end fittings of the wire rope.

** One complete cycle of the operating lever with working load limit.

1. DESCRIPTION OF EQUIPMENT

The JOCKEY machine is a hand-operated lifting and pulling machine. It is versatile, portable and multipurpose, not only for pulling and lifting but also for lowering, tensioning and guying.

The originality of the JOCKEY machine is the principle of operating directly on the wire rope which passes through the mechanism rather than being reeled onto a drum of a hoist or conventional winch. The pull is applied by means of two pairs of self-energised jaws which exert a grip on the wire rope in proportion to the load being lifted or pulled. An operating handle fitted to either the forward or the reverse lever transmits the effort to the jaw mechanism to give forward or reverse movement of the wire rope.

The machine is fitted with an anchor hook so that it can be secured quickly to any suitable anchor point.

The JOCKEY machines, intended for lifting and pulling materials, are available in two models :

- Jockey, capacity 300 Kg
- Jockey J5, capacity 500 Kg

Jockey : the standard kit comprises a machine with its operating handle, a 10 m length of special Jockey wire rope fitted with a hook with safety catch and two wire rope slings, one 1m in length and the other 2 m in length. The equipment is contained in a sturdy carton for carrying and storing the kit. Other lengths of wire rope are available on special order.

Jockey J5 : the J5 is available in two standard kits comprising a machine with its operating handle and with :

- either a 10m length of special wire rope fitted with a hook with safety catch and two anchor slings of 2m in length :
- or a 10m length of special wire rope fitted with a hook with safety catch, two anchor slings of 2m in length and pulley block allowing the capacity of the machine to be doubled.

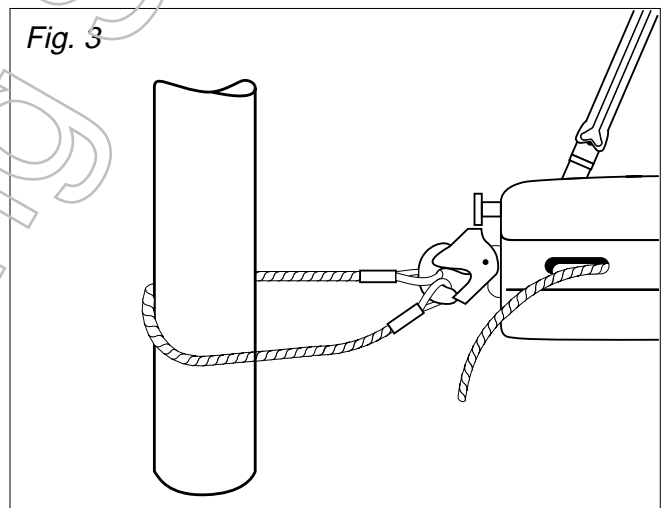
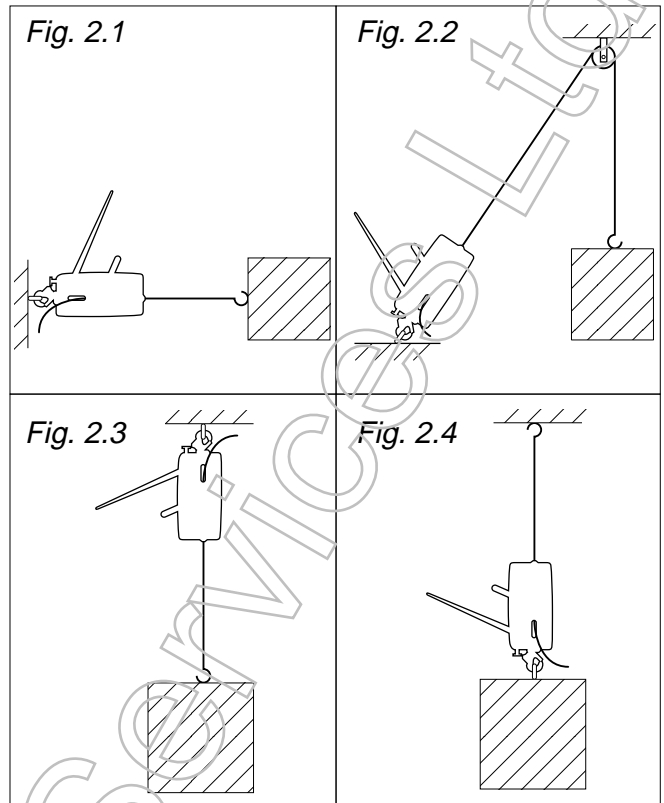
This manual together with a guarantee card are supplied with each machine, as well as the CE declaration of conformity.

IMPORTANT : JOCKEY wire rope has been specially designed to meet the particular requirements of the JOCKEY machines.

TRACTEL does not guarantee the safe operation of JOCKEY machines used with wire rope other than JOCKEY wire rope.

2. RIGGING ARRANGEMENTS

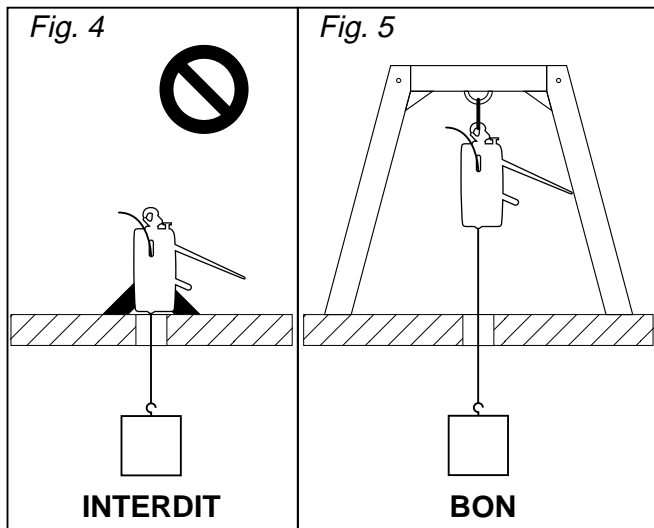
Various ways of rigging are shown in Figs. 2.1,



2.2, 2.3 and 2.4. Figs. 4 and 5 show particular arrangements (one forbidden and the other recommended).

The machine may be anchored to a fixed point with the wire rope travelling towards the machine (Figs. 2.1, 2.2, 2.3, or travel along the wire rope, with the load, the wire rope itself anchored to a fixed point (Fig. 2.4).

In example 2.2, the capacity of the pulley and the anchor point should be greater than twice the load. N.B. : Whatever the rigging arrangement, and if the machine is anchored directly to a fixed point, ensure that there are no obstructions around the machine which could prevent the wire rope, the machine and anchor from operating in a straight line. It is therefore recommended to use a sling of an appropriate capacity between the anchor point



and the machine (Fig. 3).

⚠ WARNING ⚠ : Any rigging arrangement which requires the calculation of the forces applied should be checked by a competent engineer, with special attention to the appropriate strength of the fixed points used.

For work such as guiding the trunk in tree felling, the operator should ensure that he is outside the danger area by passing the wire rope around one or more return pulleys.

The capacity of the machine may be increased considerably for the same effort by the operator by using a pulley block. (See the examples set out in Figs. 6.1 and 6.2). The increase in the capacity shown is reduced depending on the efficiency of the pulleys.

The diameter of the pulleys used should be equal to at least 18 times the diameter of the wire rope. (Refer to the applicable regulations).

For any rigging arrangement other than those described in this manual, please consult

TRACTEL or a competent specialist engineer before operating the machine.

3. INSTALLING THE WIRE ROPE

N.B. : When handling the wire rope it is recommended to protect the hands by using work gloves.

If the wire rope is to be anchored to a high anchor point, the wire rope should be anchored before fitting the wire rope in the machine.

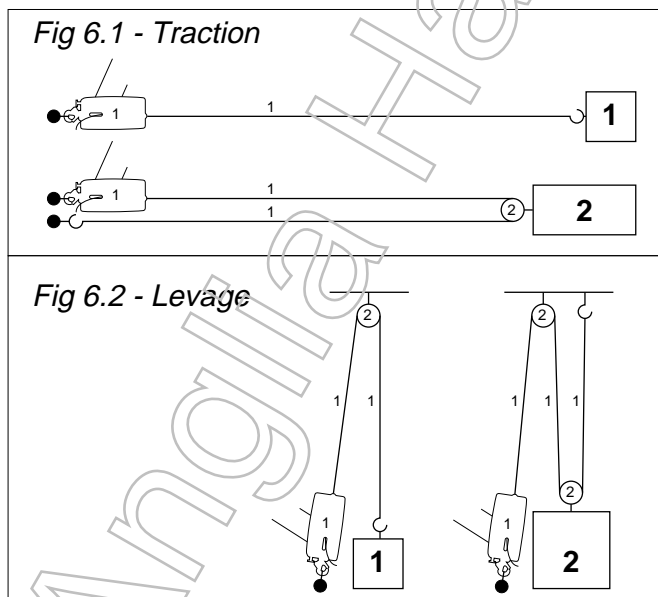
3.1. Jockey (green plastic casing).

1. Uncoil the wire rope in a straight line to prevent loops or kinks.
2. Release the internal mechanism (See section 4 : 'Releasing and closing the jaws').
3. Insert the tapered end of the wire rope through the rope guide E and push it through the mechanism until it emerges at S (Fig. 7.2).
4. Pull the slack wire rope through the machine to the point required.
5. Engage the jaws by operating the rope release catch (See section 4 : 'Releasing and closing the jaws').
6. Couple the two eyes of the sling which is around the anchor point to the hook of the machine. (See section 5 : 'Anchoring').
7. Fit the operating handle on the forward operating lever and by moving it back and forth the wire rope will be pulled through the machine. The reverse operating lever allows the user to slacken off tension or to lower the load.

After this procedure the machine is ready for operation, providing the load is correctly anchored to the machine or the wire rope (See section 5 : 'Anchoring' and section 2 : 'Rigging arrangement').

3.2. Jockey J5 (aluminium casing)

1. Uncoil the wire rope in a straight line to prevent loops or kinks.
2. Release the internal mechanism (See section 4 : 'Releasing and closing the jaws').
3. Insert the tapered end of the wire rope through the rope guide E and push it through the mechanism until it emerges at S (Fig. 8.2).
4. Couple the two eyes of the sling which is around the anchor point to the hook of the machine. (See section 5 : 'Anchoring').
5. Pull the slack wire rope through the machine to the point required.
6. Engage the jaws by operating the rope release catch (See section 4 : 'Releasing and closing the jaws').



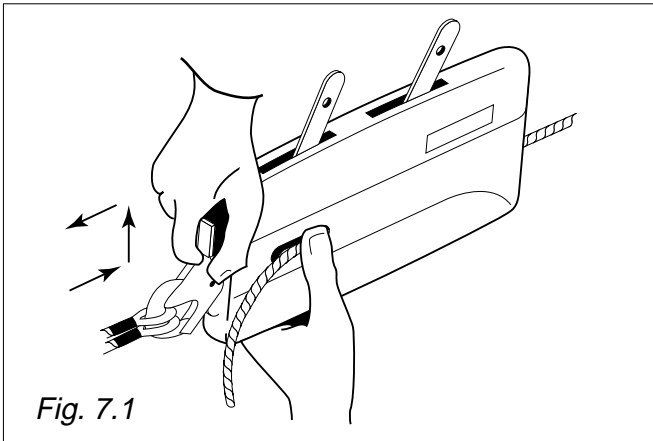


Fig. 7.1

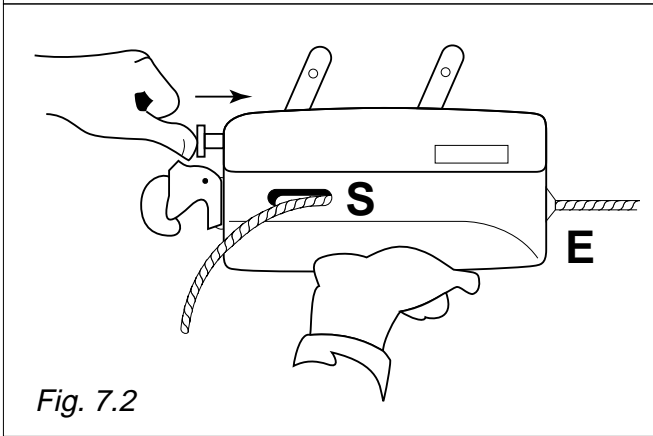


Fig. 7.2

7. Fit the operating handle on the forward operating lever and by moving it back and forth the wire rope will be pulled through the machine. The reverse operating lever allows the user to slacken off tension or to lower the load.

After this procedure the machine is ready for operation, providing the load is correctly anchored to the machine or the wire rope (See section 5 : 'Anchoring' and section 2 : 'Rigging arrangements').

4. RELEASING AND CLOSING THE JAWS

Each machine is fitted with a rope release catch (item 4 in Fig. 1 on page 2) for releasing the jaw mechanism and which should only be operated when the machine is not under load.

4.1. Jockey

Releasing : Release the rope release catch by pushing it against the machine lightly and upwards. Then pull the catch outwards. (Fig. 7.1).

Closing : Push the rope release catch towards the machine and then downwards, until it locks in position. (Fig. 7.2).

4.2. Jockey J5

Releasing : Release the rope release catch by pushing it against the machine and then pressing in the two catches on either side of the machine. Then pull the rope release catch outwards. (Fig. 8.1).

Closing : Push the rope release catch towards the machine until it locks in position. (Fig. 8.2).

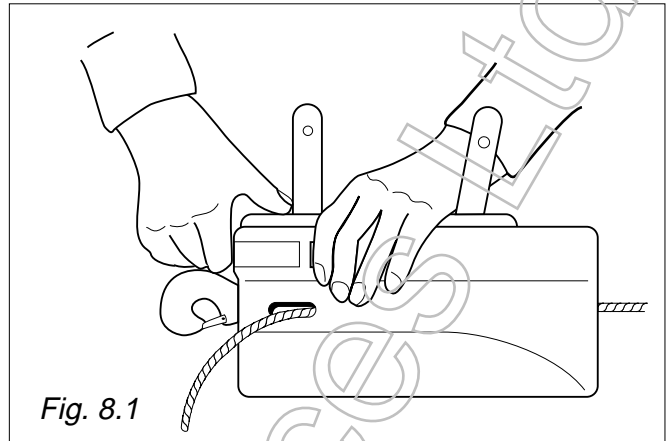


Fig. 8.1

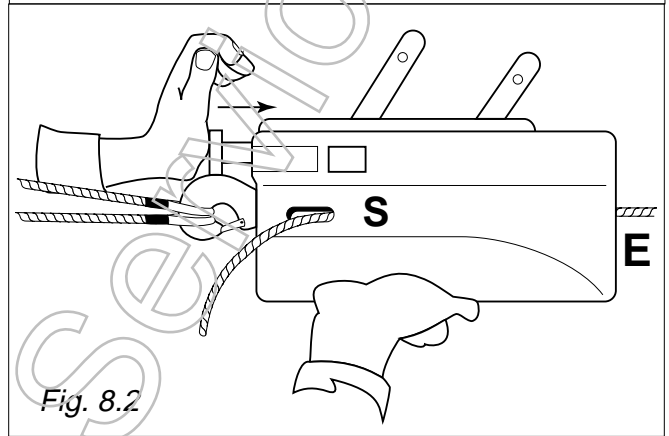


Fig. 8.2

5. ⚠ ANCHORING ⚠

Failure to anchor the JOCKEY machine correctly runs the risk of a serious accident. The user must always check, before operating the machine, that the anchor point of the machine and the wire rope are of sufficient strength to take the load applied (lifting or pulling).

It is recommended to anchor JOCKEY machines to the fixed point or to the load using an appropriate capacity sling. It is forbidden to use the machine's wire rope as a sling by passing it around the load and hooking it back onto itself (Fig. 9.1 : forbidden anchoring arrangement ; Fig. 9.2 correct anchoring arrangement).

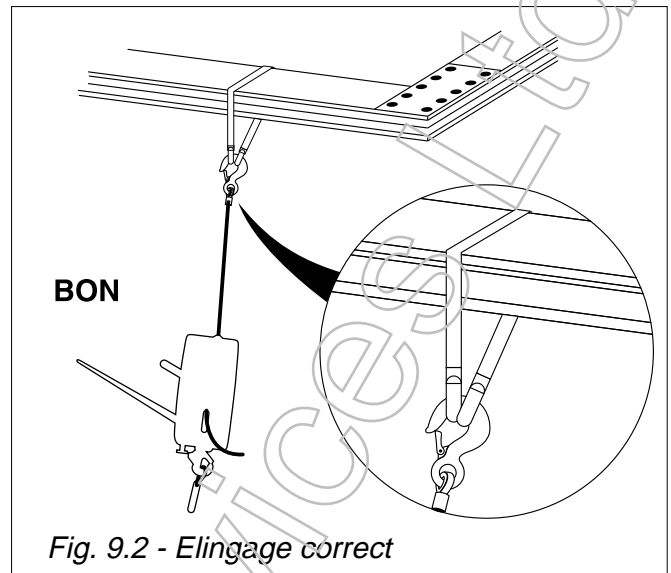
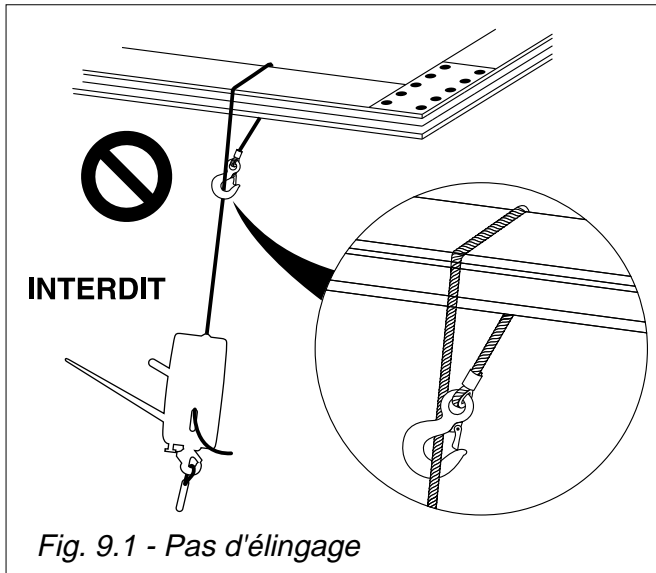
⚠ Warning ⚠ : It is essential for the safe operation of the machine to ensure that, before loading the machine, the anchor points (hooks) are correctly secured, (with the safety catch correctly located on the hook).

Pass one of the slings around the fixed point (tree, beam, etc...)

Anchor the other sling to the load to be lifted or pulled. Attach the two eyes of this sling to the wire rope hook.

6. OPERATION

JOCKEY machines are very easy to use. Place the operating handle on either the forward or reverse operating lever and move the operating handle to



and fro. The operating arc is variable for ease of operation.

When operation stops, both jaws automatically grip the wire rope and hold the load which is spread equally between the jaws.

The to and fro operation of forward or reverse lever gives continuous movement of the load.

7. TAKING OUT OF SERVICE AND STORAGE

7.1. Jockey

When the work is completed take the load off the machine before attempting to release the jaws. To do this, operate the reverse operating lever until there is no tension in the wire rope

Remove the sling and release the machine as follows:

- release the mechanism by pushing the rope release catch towards the machine and upwards (Fig. 7.1).
- pull the wire rope out with one hand while holding the machine by its rope release catch with the other hand (Fig. 10).

Carefully coil the wire rope avoiding any loops or kinks.

Only normal effort is required to operate the Jockey. Do not force the operating handle;

otherwise the unit will be overloaded. Reduce the load or use a pulley block to increase the capacity of the unit.

7.2. Jockey J5

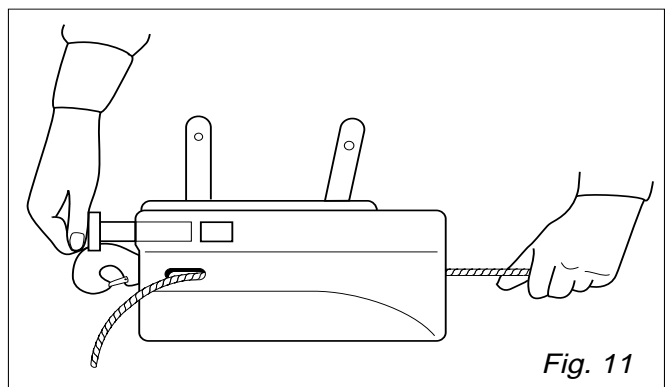
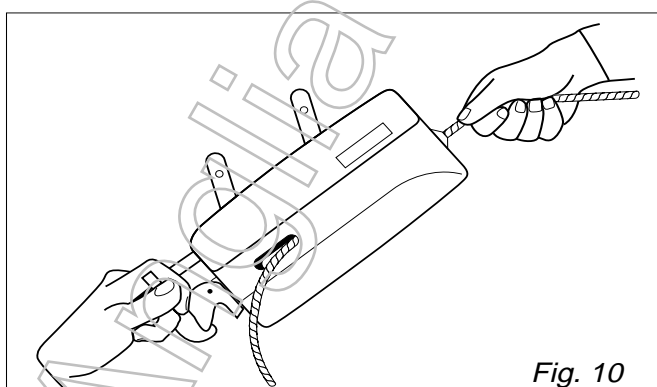
When the work is completed take the load off the machine before attempting to release the jaws. To do this, operate the reverse operating lever until there is no tension in the wire rope

Remove the sling and release the machine as follows :

- release the mechanism by pushing the rope release catch towards the machine ;
- at the same time, press the two catches, one on either side of the machine ;
- release the rope release catch which should come out from the machine (pull it if necessary). (Fig. 8.1) ;
- pull the wire rope out which one hand while holding the machine by its rope release catch with the other hand (Fig. 11).

Carefully coil the wire rope avoiding any loops or kinks.

Storage : Store the machine and wire rope in a dry place, away from the effects of the weather. The wire rope should be completely removed from the machine and carefully coiled. Before coiling the wire rope, it is recommended to inspect it, clean it and then grease it. (See section 9 : Wire rope.)



8. SAFETY DEVICES

8.1. Jockey

Only use the operating handle supplied. Its length has been specifically set in accordance with the capacity of the machine. **The handle breaks if the machine is overloaded.**

8.2. Jockey J5

The Jockey J5 has a shear pin which breaks should the machine be overloaded.

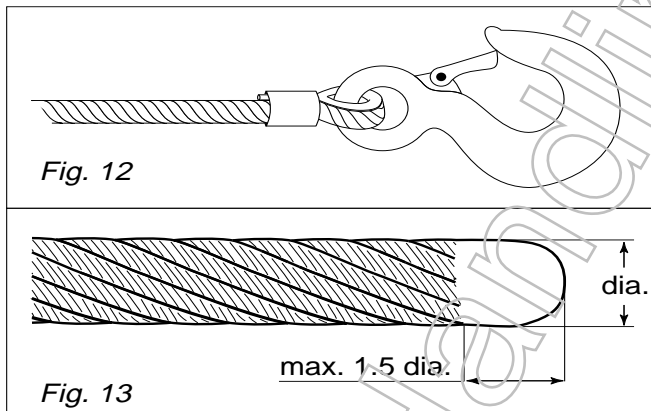
To replace the shear pin :

- Unscrew the 5 side case fixing screws.
- Remove the side case and then the mechanism. Knock out the sheared pin with a 5 mm punch. Position one of the two spare shear pins located in the side case corner and drive it in with hammer.
- Reassemble the machine.

⚠ WARNING ⚠ : It is forbidden to replace sheared pins by nonstandard pins. Use only genuine TRACTEL shear pins of the same model.

9. WIRE ROPE

⚠ To guarantee the safe operation of JOCKEY machines, it is essential to use them exclusively with JOCKEY wire rope which has been specially designed to meet the requirements of the JOCKEY machine.



One end of the wire rope has a safety hook, fitted to a thimble fixed by a metal ferrule (see Fig. 12). The other end of the wire rope is fused and tapered (see Fig. 13).

⚠ A wire rope in good condition is a guarantee of safety, to the same extent as a machine in good condition. It is necessary to continuously monitor the state of wire rope, to clean and oil it with a rag soaked with motor oil or grease. Grease or oil containing graphite additives or molybdenum disulphide must not be used.

Visual examination of the wire rope

The wire rope should be examined daily to detect

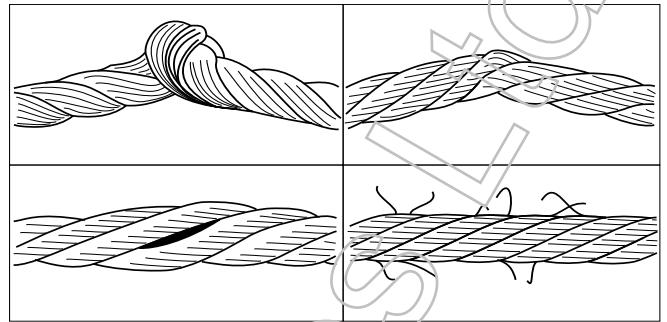
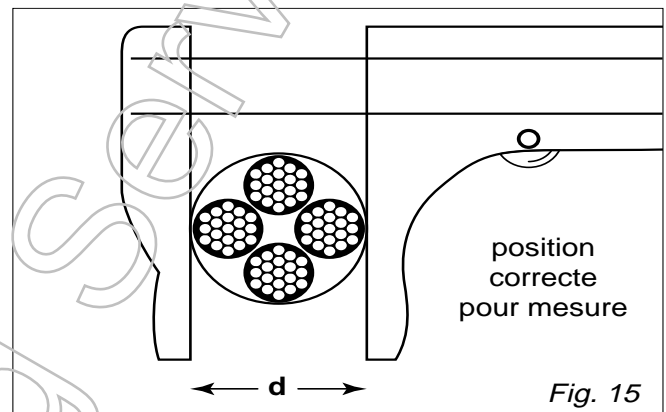


Fig. 14 - Exemples de câble détérioré inutilisable.

any signs of wear (damage or broken wires : see examples in Fig. 14).

In case of any apparent wear, have the wire rope checked by a competent person. Any wire rope with a reduction from the nominal diameter by



more than 10 % should be replaced. (see Fig. 15 for the correct method of measuring the diameter of a wire rope).

IMPORTANT : It is recommended, specially for lifting applications, to ensure that the length of wire rope is greater than actually required. Allow an extra meter approximately beyond the machine side case at the anchor point.

For lifting or lowering loads over long lengths of wire rope, steps should be taken to stop the load from rotating to prevent the wire rope from unlaying.

Never allow a tensioned wire rope from rubbing over sharp edges. The wire rope must only be used with pulleys of an appropriate diameter. Never expose the wire rope to temperatures beyond 100 degrees C. Never use wire rope that has been subject to damage such as fire, corrosive chemicals or atmosphere, or exposed to electric current. Storage : see section 7.

10. MAINTENANCE INSTRUCTIONS

The machine should be inspected, cleaned and lubricated at regular intervals, at least annually, by an approved repairer.

Never use grease or oils containing graphite additives or molybdenum disulphide.

To clean the machine, allow the machine to soak in a bath of some proprietary cleansing fluid but not acetone and derivatives or ethylene trichloride and derivatives. Then shake the machine vigorously to loosen foreign matter and turn it upside down to allow the dirt to come out through the openings for the operating levers. Allow the mechanism to drain and become dry.

After this treatment, **ensure that the machine is well lubricated** by applying a quantity of oil (type SAE 90 - 120) onto the internal mechanism through the openings for the operating levers. To carry out this procedure it is best for the machine to be not under load and in the released position. Alternatively operate the forward and reverse operating levers to allow the lubricant to penetrate all parts of the mechanism.

N.B. : Excess lubrication cannot cause the machine or wire rope to slip. Any machine, the side cases of which show signs of dents or damage, or of which the hook is damaged, should be returned to an approved repairer.

11. ⚠️ WARNINGS AGAINST HAZARDOUS OPERATIONS ⚠️

The operation of JOCKEY machines in accordance with the instructions of this manual is a guarantee of safety. Nevertheless, it is useful to draw the attention of users to the following instructions :

- JOCKEY machines described in this manual must not be used for lifting people.
- Never attempt to motorise the models of JOCKEY machines described in this manual.
- JOCKEY machines must not be used beyond their nominal capacity.
- JOCKEY machines must not be used for applications other than those for which they are intended.
- Never attempt to operate the rope release catch whilst the machine is under load.
- Always ensure that the operating levers and the rope release catch are not obstructed.
- Never operate the forward and reverse operating levers at the same time.
- Use only the operating handle supplied to operate the JOCKEY machine.
- It is forbidden to replace sheared pins by nonstandard pins. Use only genuine TRACTEL shear pins of the same model (Jockey J5).
- Never anchor the machine other than by its appropriate anchor point.

- Ensure that there are no obstructions around the machine which could prevent the machine, the wire rope and the anchor points from operating in a straight line.
- Never use the JOCKEY wire rope as a sling.
- Never apply a load to the loose wire rope exiting from the JOCKEY machine.
- Never subject the controls to sharp knocks.
- Do not operate the JOCKEY machine so that the talurit pressing of the wire rope hook fouls the machine side case.
- Never attempt to reverse the rope completely through the machine whilst under load.

12. TROUBLESHOOTING

1) The forward operating lever moves freely and does not operate the mechanism : the machine has been overloaded and the shear pin has sheared. See section 8.2 for replacing the shear pin (Jockey J5).

2) Pumping : a lack of lubricant in a machine sometimes brings about a condition known as 'pumping' which is not at all dangerous but which is inconvenient. This situation occurs when the jaw which is gripping the rope becomes locked onto it preventing the other jaw from taking over the load. As the operating lever is moved in one direction the machine travels a few centimetres, but when the operating lever travels in the other direction the machine moves back the same distance in sympathy with the jaw which is locked onto the rope. The JOCKEY machine should be thoroughly lubricated and it will recommence working normally. If necessary, operate the machine in reverse direction over a short distance to help lubrication of the mechanism.

3) Jerkiness : this is also a symptom of lack of lubrication. The JOCKEY machine should be thoroughly lubricated. Follow the instructions for 'pumping' above.

4) Blockage : if the wire rope becomes blocked in the machine, generally because a damaged section of wire rope is stuck within the jaws, it is imperative to stop operating the machine. The load should be taken by another machine on a separate wire rope, or by another means, whilst ensuring that all safety precautions are taken. When the blocked machine is no longer under load, it may be released and removed. Should this not be possible, return the machine and wire rope to an approved repairer.

13. HEALTH AND SAFETY AT WORK

It is the responsibility of every company to ensure that its employees have been fully and properly