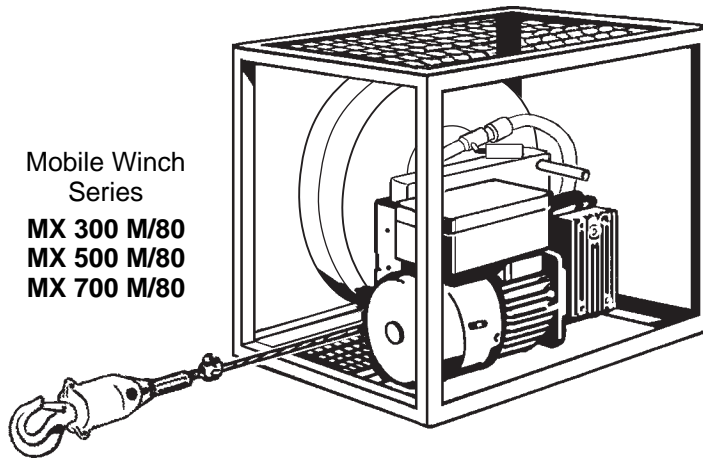


The Mobile Winch with TIRAK[®]

for Material Transport
with wire rope reeler for up to 80 m of wire rope storage

Operating and Maintenance Manual

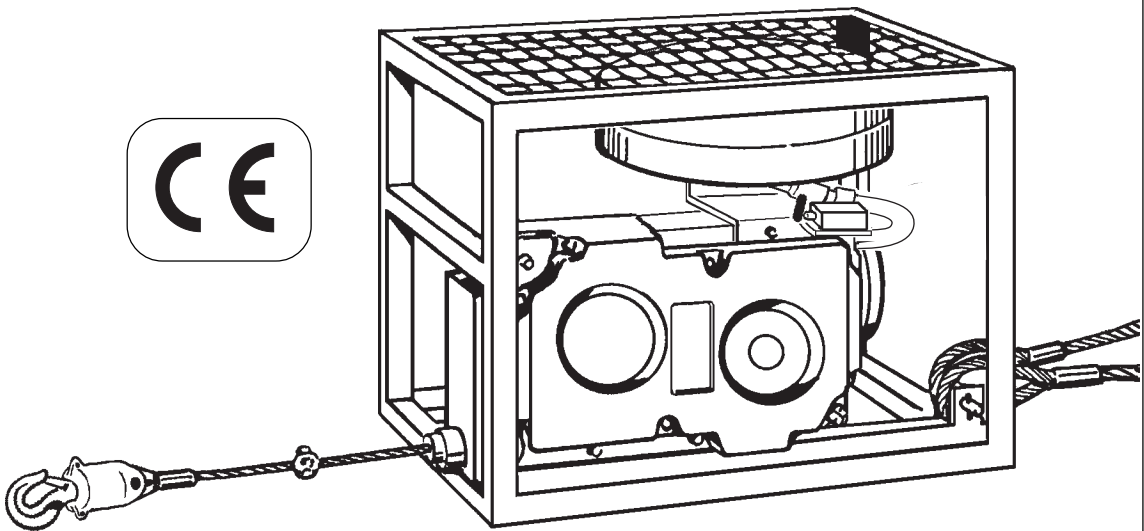
This manual must be available for the user at all times.
Additional copies can be obtained on request.



Mobile Winch
Series

MX 300 M/80
MX 500 M/80
MX 700 M/80

Mobile Winch
Series
MT 1000 M/80



Specification:

Type:

Serial No.:

Delivery date:

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1. Warning Advice



Failure to follow all instructions contained in this manual **and all Safety regulations may result in injury.**

Anchoring, maintenance, and/or operation of "Mobile Winches with TIRAK®" must only be carried out by persons, who are fully trained and authorised to anchor, maintain, and/or operate the winch by their employer.

The operator should know and follow the employers safety rules and worksite regulations as well as the manufacturers instructions and safety rules in this manual.

All "Mobile Winches with TIRAK®", wire ropes, anchoring points

and other anchoring devices such as slings, pulleys etc. should be inspected prior to use and in good condition.

It is stressed that the TIRAK® wire rope is not a standard production rope, and the manufacturer (or Group company) declines all responsibility and/or warranty claims if rope other than the prescribed TIRAK® wire rope is used in the equipment.

"Mobile Winches with TIRAK®" must not be overloaded.

The manufacturer (or Group company) declines all liability for damages caused by either modifications or alterations of the winch, other than those carried out by the manufacturer, or the use of non-original spare parts.

2. Machine Description

2.1 Purpose

The "Mobile Winch with TIRAK®" is a portable, electrically driven hoist for lifting, lowering, and pulling of loads by means of a TIRAK® wire rope recommended by the manufacturer. This wire rope is mandatory for the safe and troublefree working with the "Mobile Winch with TIRAK®".

2.2 Working principle

Provided that the "Mobile Winch with TIRAK®" is aligned in direction of pull, it will work in any position and in any direction. For either lifting or lowering there is one corresponding push button. The wire rope is driven through the hoist with constantly even safety and is stored in the rope reeler. The reeler is automatically driven by the in-running resp. out-running wire rope.

The "Mobile Winch with TIRAK®" of **MT 1000** series with a capacity of 1000 kgs is complete with a pulling force limiting device.

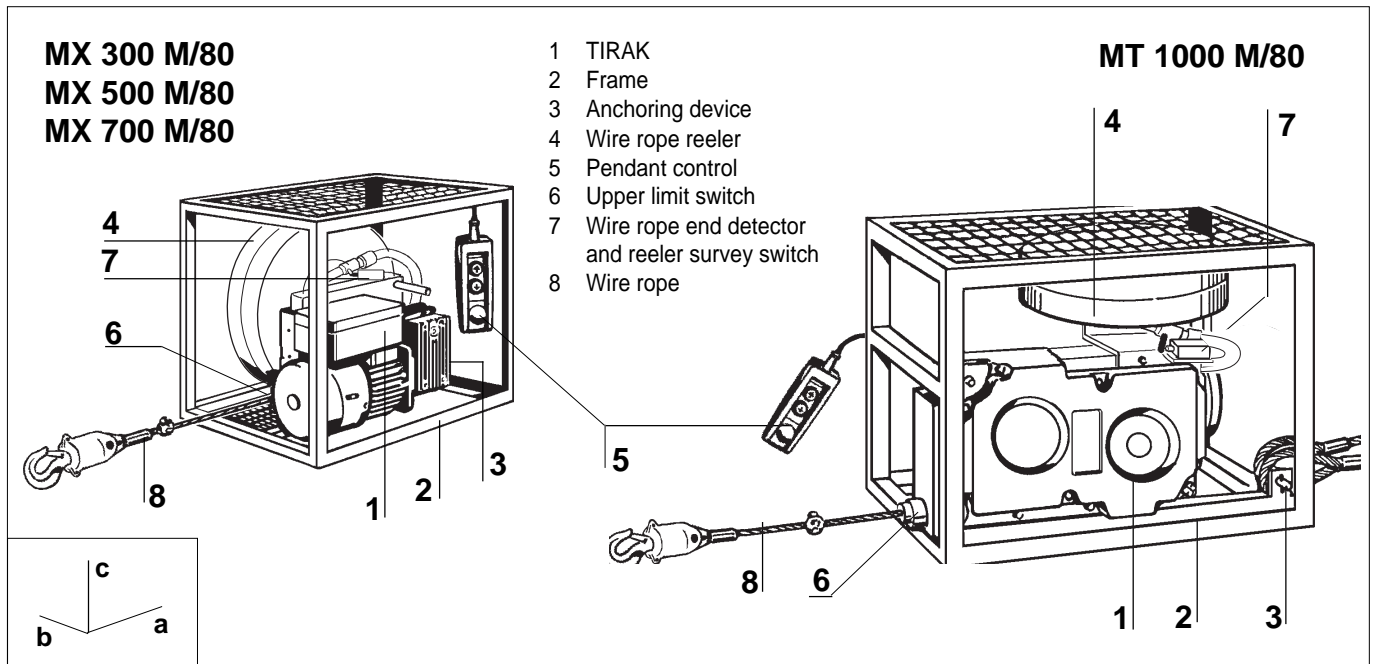
MAN-RIDING is not allowed, unless the following conditions are met:

- The "Mobile Winch with TIRAK®" winch must be **suitable for man-riding, and**
- A **secondary fall arrest device, operating on a separate safety wire rope must be provided;** the **Primary and Safety rope must not be attached to the same anchor point, and**
- the **Man-riding installation** and suspension system **must comply with all relevant Safety Regulations in force for such installations.**

Where a TIRAK® machine is used as part of a suspended access system the manufacturer of the system is responsible for the design and construction of the system. The user is responsible for the safe use of the equipment having read and understood the instruction manual(s) supplied by the manufacturer.

2.3 Main components and operating controls

Fig. 1



2.4 Technical Data

Design according to DIN 15 020, transmission group 1 B_m.

Technical modifications reserved.

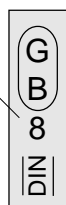
Mobile winch with TIRAK®	Capacity	Wire rope speed	Type of drive	Output	Rated current	TIRAK rope Ø	Dead weight approx.	Dimensions		
								a	b	c
Series	kgs ¹⁾	m/min	— ²⁾	kW	A	mm	kgs ³⁾	mm	mm	mm
MX 300 M/80	300	9	D	0.5	1.6	8	50	615	430	480
		18	D	0.9	3.0					
		9	W	0.5	4.8					
MX 500 M/80	500	4.5	D	0.5	2.0	8	70	715	480	540
		9	D	0.9	2.8					
		4.5/9	D	0.5/0.9	2.9/3.0					
		4.5/18	D	0.5/1.8	2.0/5.0					
		9/18	D	0.9/1.8	3.6/5.8					
		9	W	0.85	6.5					
MX 700 M/80	700	4.5	D	0.75	3.2	8	75	715	480	540
		9	D	1.5	3.9					
		4.5/9	D	0.75/1.5	3.0/3.9					
		4.5/18	D	0.75/3.0	3.6/8.2					
		9/18	D	1.5/3.0	4/8					
		9	W	1.5	9.5					
MX 1000 M/80	1000	4.5	D	0.9	3.7	8	110	750	510	560
		9	D	1.9	4.6					
		4.5/9	D	0.9/1.9	3.6/4.6					
		4.5/18	D	0.9/3.6	4.0/9.7					
		9/18	D	1.9/3.6	5.5/9.5					

1) If the capacity is not sufficient in direct pull, multiply it by reeving the rope according to the block and tackle principle. Details on page 4.

2) D = 400 V three phase; W = 230 V single phase.
3) without wire rope

2.5 Wire Ropes

Diameter: 8 mm (see ferrule)
Construction: **non rotating**
Equipment: **Swivelling hook**
Marking: One core red colored
Weight: 0.25 kg/m



2.6 Noise emission (at 1m distance)

"Mobile Winch with TIRAK®"

Type

MX 300 P/80: max. 72 dB(A)

MX 500 P/80,

MX 700 P/80 und

MT 1000 P/80: max. 70 dB(A)

3. Setting up

3.1 Required equipment

- "Mobile Winch with TIRAK®" of correct capacity.
- TIRAK® wire rope with correct diameter and of sufficient length.
- Electric supply cable of correct type and required length, with sufficient leads cross sectional area.
- Anchoring devices for fixing both the hoist and the load (i.e. slings, belts or similar) of sufficient strength.
- Pulleys (if required) for diverting or reeving the wire rope of sufficient strength and diameter.
- Oil to lubricate the wire rope.

Thoroughly inspect all equipment to ensure there are no faults!

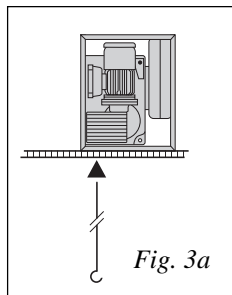
3.2 Transport

The "Mobile Winch with TIRAK®" can be carried by its frame. For the transport by crane fasten slings or similar carrying devices to the frame.

3.3 Mounting

3.3.1 Choice of the anchor point

- The anchor point (Fig. 2 and 4) resp. the wall/ceiling (Fig. 3/3a) must be checked by a **competent person** to ensure it is of **sufficient strength** to take the load and any shock load imposed.
- If you want to lift/pull through an opening in the wall or ceiling **capable of taking the load**, simply site the "Mobile Winch with TIRAK®" by or above the hole (Fig. 3).
If the hole is not big enough for the rope hook to pass through, position the "Mobile Winch with TIRAK®" and pass the wire rope through the hole and then into the hoist (Fig. 3a).
Details for wire rope installation see chapter 7, on pages 8/9.



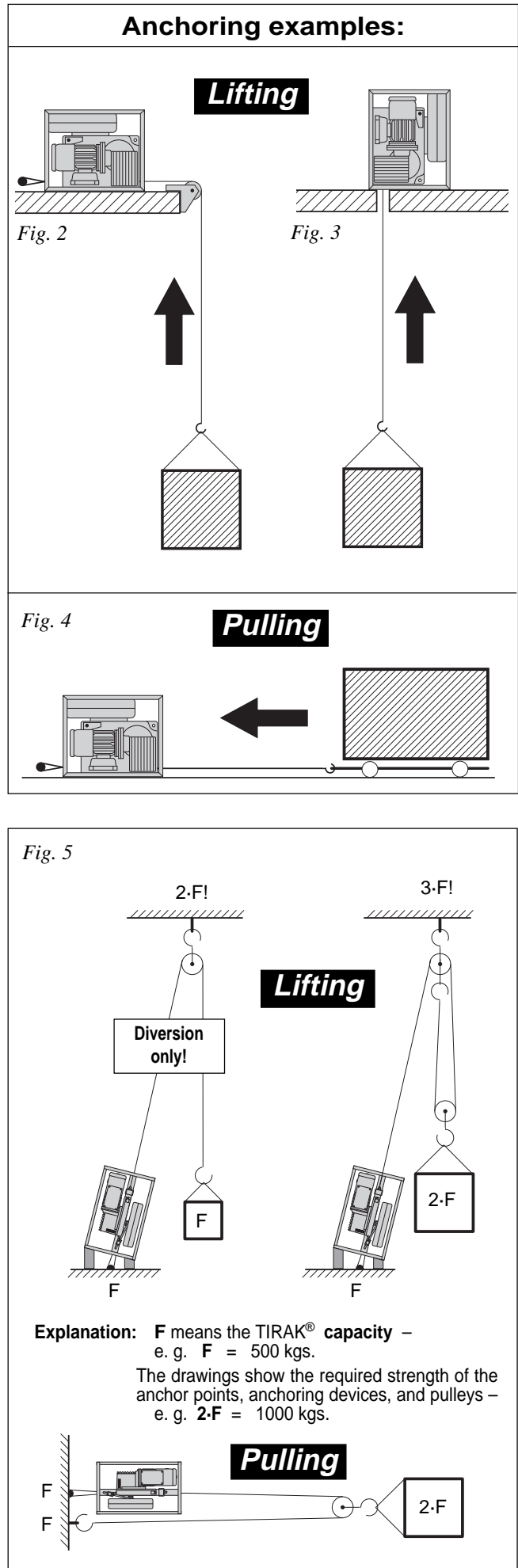
3.3.2 Increasing the capacity by reeving the wire rope

If the capacity of the "Mobile Winch with TIRAK®" is not sufficient in direct pull, it can be multiplied by reeving the wire rope according to the block and tackle principle (Fig. 5).
But double capacity means half speed.

ATTENTION! A competent person must check –

- that the pulleys and the anchoring devices as well as all anchor points are of sufficient strength, and
- that the pulleys are of the correct diameter.

Important for horizontal pull:
Do not confuse the **dead weight** of the load with the **effort required** to pull it: the TIRAK® has only to overcome the friction coefficient.



3.3.2 Increasing the capacity ... (continued)

Attention!



With the wire rope reeved the **upper limit switch** cannot be activated by the fist grip clip, which is mounted on the rope near the rope hook.

The operator has to **watch the load very carefully** or have it watched by a second person.

The rope hook must not reach the diverter pulley!

3.3.3 Anchoring the hoist

(A) Anchoring with a sling, belt or similar

Opposite to the wire rope entry the TIRAK frame contains an anchor bolt (Fig. 6). Use it for anchoring the "Mobile Winch with TIRAK®" to an appropriate anchor point.

Attention!



- Check the **correct position of the safety pin** according to Fig. 7!
- The "Mobile Winch with TIRAK®" must be able to **align itself in pulling direction** (Fig. 8).
- **Maximum allowable deviation from squareness is 5°** (Fig. 9). If necessary use diverter pulleys (Fig. 2).

Attention!



When using diverter pulleys the **upper limit switch** cannot be activated by the rope clamp, which is mounted on the rope near the rope hook.

The operator has to **watch the load very carefully** or have it watched by a second person.

The rope hook must not reach the diverter pulley!

(B) Positioning by/above an opening in the wall or ceiling **capable of taking the load**

Attention!



- The wire rope must be able to **freely run in and out!**
- **Secure the "Mobile Winch with TIRAK®" against becoming displaced!**

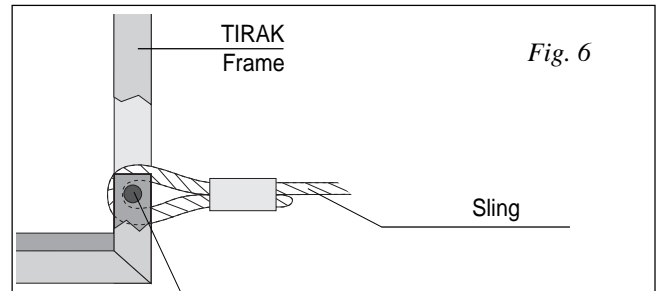


Fig. 6

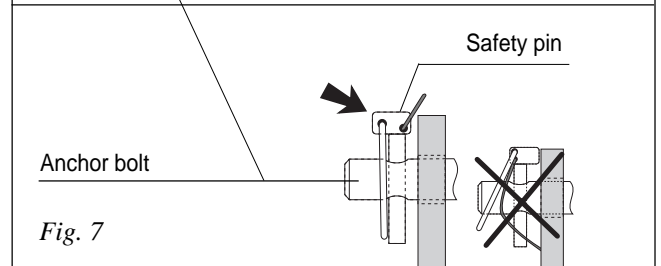


Fig. 7

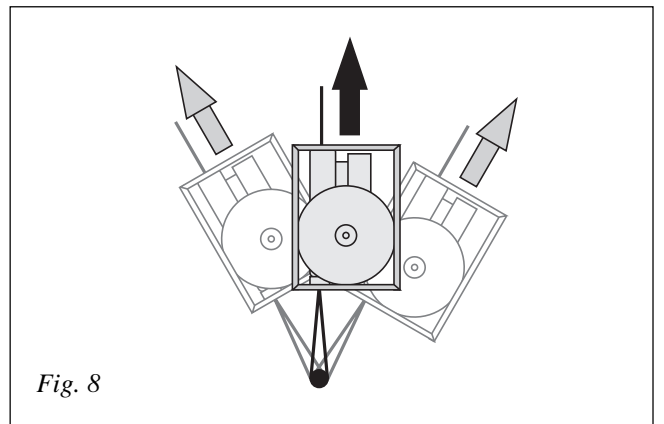


Fig. 8

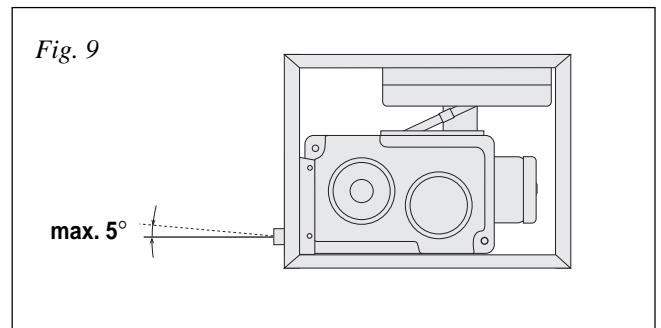


Fig. 9

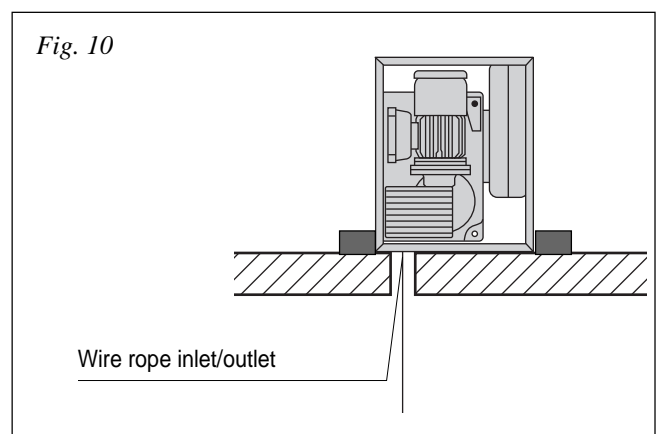


Fig. 10

3.3 Electrical Connections

a) Ensure that the **mains voltage** is adequate for the **motor** of the TIRAK® –

- **Three phase:**
400 V (3P + E + 0), 50 Hz,
16 amp rated plug and socket
- **Single phase:**
220 V (2P + E), 50 Hz,
16 amp rated plug and socket

If in doubt ask.

b) To avoid power loss between power source and the TIRAK® always use power cables with **adequate cross sectional area**. See Tables 1a and 1b.

Table 1a

indicates the reference letter of the TIRAK® model and the mains supply voltage.

Maximum speed must be used for TIRAK® with two speeds.

Table 1b

gives the **minimum cable cross section** based on the reference letter.

- c) Use only **heavy duty cables with incorporated strain relief**.
- d) **Hanging cables** longer than 30 m should be fixed by means of a cable sleeve or cable clamp.
- e) When using a **generator** its output must be at least **2.5 times greater** than the **TIRAK® power consumption**.

Mobile Winch series	Max. speed m/min.	1 TIRAK			2 TIRAK		
		3 phases 400V	230V	S. ph. 230V~	3 phases 400V	230V	S. ph. 230V~
MX 300 P/80	9	A	B	C	A	D	F
	18	A	C	-	B	F	-
MX 500 P/80	9	A	C	E	B	F	G
	18	B	E	-	D	G	-
MX 700 P/80	9	A	-	G	B	-	-
	18	B	-	-	D	-	-
MT 1000 P/80	9	B	E	-	D	G	-
	18	C	G	-	F	H	-

Table 1a

		For cable lengths up to ...			
		20 m	50 m	100 m	200 m
Reference letter of table 1a	A	1,5	1,5	1,5	1,5
	B	1,5	1,5	1,5	2,5
	C	1,5	1,5	1,5	4
	D	1,5	1,5	2,5	4
	E	1,5	1,5	2,5	6
	F	1,5	1,5	4	6
	G	1,5	2,5	6	10
	H	2,5	6	10	20
		Cross section (mm ²)			

Table 1b

4. Operation

4.1 Electrical Controls

Push button control for UP and DOWN (Fig. 11).

On machines with **two speed motor**:

half depressed = low speed
fully depressed = high speed.

DO NOT fix push buttons in run position.

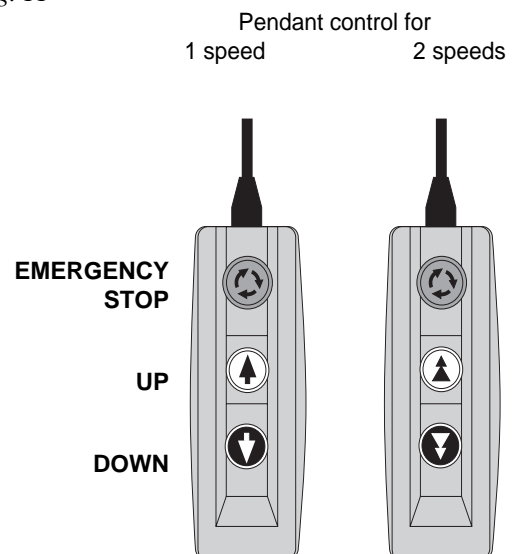
Red EMERGENCY-STOP button:

Button depressed = mains supply interrupted.

To START, turn red EMERGENCY-STOP button **clockwise**, until it releases.

Important: The built-in phase control relay prevents the motor from turning in the wrong direction. If the hoist does not run, turn the **phase inverter** of the plug for 180°, or let a qualified electrician exchange the leads of **two phases** inside the hoist plug.

Fig. 11



4.2 Checks before starting

- Check that the **UP/DOWN** push buttons and **EMERGENCY-STOP** button are working correctly.
- Check correct anchoring of "Mobile Winch with TIRAK[®]" and load.
- Make sure that no person is immediately below the suspended load.

4.3 Normal Operation

- To lift/pull:** depress the **UP** button.
To lower: depress the **DOWN** button.
- TO STOP** movement of the load:

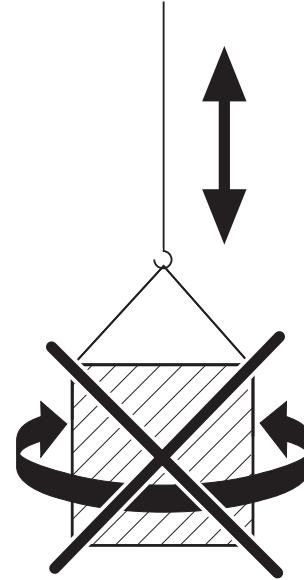


- release push button;
if the load does not stop:
- press **EMERGENCY-STOP**;
if that does not function:
- pull out the plug!

In cases **B)** and **C)**: **STOP** working. The "Mobile Winch with TIRAK[®]" must be **checked/repared by the manufacturer** or a **repairshop agreed by him**.

- Attention** must be paid to the load **during all movements** – **if necessary by a second person**.
- Keep wire rope lightly lubricated.
- When lifting/lowering **prevent the load from rotating** (Fig. 12).
- When stopping the hoist the load is securely held at any position by the primary brake.

Fig. 12



4.4 Security of suspended loads

Cordon off the danger zone below any suspended load.

4.5 Emergency Descent

In case of power failure you can **manually open the brake on hoists which are equipped for this purpose**:

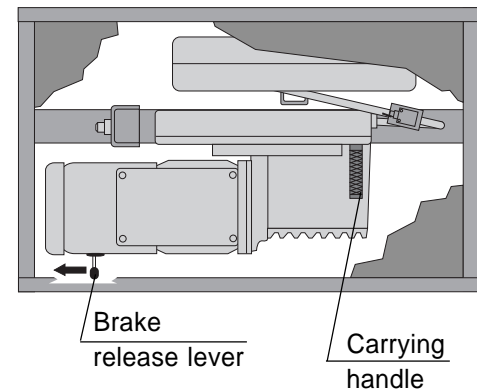
- Take the control lever from the TIRAK[®] carrying handle, insert it through the motor cover into the brake release point and push it in arrow direction (Fig. 13).
- With the brake released the load is lowered, and the **centrifugal brake** limits the speed of descent.

To STOP: release the control lever.

After use: Restore brake release lever into its rest.

Fig. 13

(principle drawing)



Top view of "Mobile Winch with TIRAK[®]" of MX 300 to 700 M/80 series.

On **MT 1000 M/80** series the **motor is located at the right side**, in consequence **push brake release lever to the right**.


4.6 Troubleshooting




WARNING!
AVOID INJURIES:

1. Checks and repairs of the electrical equipment must only be carried out by **qualified electricians!** **Wiring diagrams** are shown in the control box of the motor.
2. Any other repairs should only be carried out by the manufacture or by a repair shop agreed by him. And only original spare parts shall be used.

4.6.1 Wire Rope Drive Mechanism Troubles

Problem	Cause	Remedy
The hoist operates, but the wire rope does not move through , i.e. no UP or DOWN travel .	Damaged wire rope, wrong wire rope, or obstructed wire rope exit.	 <p>WARNING! STOP OPERATIONS IMMEDIATELY! Continued operation the “Mobile Winch with TIRAK®” might cause breakage of wire rope! CONTACT YOUR SUPPLIER</p> <p>You may continue your job proceeding as follows:</p> <ul style="list-style-type: none"> – If available, install an auxiliary hoist, and take over the load with that hoist. – Disconnect the load from the slack wire rope of the failed hoist. – Continue the work with the newly installed hoist.

4.6.2 Troubles with Motor, Control or Brake

Problem	Cause	Remedy
1. Motor does not run at all.	Upper limit switch has cut off lifting/pulling .	No problem – lowering/releasing the load is possible.
2. Excessive motor noise	Wire rope end detector has cut off lowering/releasing .	No problem – lifting/pulling the load is possible. If requested install longer wire rope (max. 80 m).
3. Overheating	Reeler survey switch has cut off lowering/releasing :	In most cases the pinched wire rope will be freed by shortly pushing the UP-button one or two times. If not , replace the hoist (s. above) and have it repaired.
4. Abnormal noises	– pinched wire rope inside the reeler – damaged wire rope	 Attention: if the wire rope runs out again, check for damages , which may have caused the problem, e.g. a broken, protruding wire. In that case install new wire rope .
	Phase inversion	Turn phase inverter inside the plug for 180°, or let a qualified electrician exchange the leads of two phases inside the hoist plug.
	Current failure	Check fuses, power cords, connections and (on single phase machines only) starting capacitor.
	Overheating	Let the motor cool down. Trace the reason for overheating:
	– Insufficient cooling	– Clean air inlet at the motor cover, and ensure a good ventilation of the motor.
	– Overload	– Check the load. If necessary reduce the load or use multiple sheave blocks (see chapter 3.3.2 on page 4).
	Pulling force limiting device of MT 1000 P/80 has stopped lifting/moving	
	Brake does not open (missing clicking, noise when starting/stopping the winch)	
	– current failure, defect brake coil or rectifier	– Let a qualified electrician check connections, brake coil, and rectifier, and exchange if necessary.
	– Worn brake lining	– Let the winch be repaired.

If the above checks and actions do not overcome the problem:
CONTACT GREIFZUG GmbH or a repair shop agreed by him.

5. Replacing the wire rope

5.1 Preparation



CAUTION!

Use gloves, when handling wire ropes.

- Use **only prescribed TIRAK® wire ropes** (see chapter 2.5, page 3).
- Check **correct diameter** and **sufficient length** of the wire rope.
- Always **unreel** the wire rope **in a straight line** (Fig. 14), to prevent it from becoming unusable because of loops.
- Check the **condition of the wire rope** for damage:
 - swivelling hook is not bent; safety catch is in place on the hook; proper connection between the wire rope and the hook (rope eye, ferrule) (Fig. 15);
 - the wire rope has no visible damage along its total length; the fused and tapered end is according to Fig. 16.
- Check the wire rope equipment (Fig. 17/18):
 - Fist grip clip** for upper limit switch activation,
 - Limit switch activating spring**,
 - two set collars** for wire rope end detector activation.

5.2 Running out the wire rope

- Press **DOWN**-button to let the wire rope run out, until the **wire rope end detector** stops the motor.
- Turn service hole of the reeler to the wire rope entry. Press **UP**-button to let the wire rope end run out of the service hole (Fig. 18).
- Loosen both set collars with a 4 mm Allen key and pull off the wire rope end.
- Press **DOWN**-button to let the wire rope run out.
- Take off fist grip clip and limit switch spring.



Important: Keep fist grip clip and limit switch spring at hand – You need them when installing the new wire rope!

5.3 Wire rope installation

- Slide the **limit switch spring** onto the wire rope tip (Fig. 17).
- Feed the wire rope as far as possible into the wire rope entry guide of the upper limit switch.
- Press **UP**-button, and push the wire rope, until it starts to reeve itself automatically.
- If it will not reeve, check:**
 - Wire rope tip** in correct shape?
 - Did you press **UP**-button?
- STOP**, when the wire rope tip enters the rope reeler.
- Turn service hole to the wire rope entry. Guide the wire rope out of the service hole, and press **UP**-button, until you can reach it for set collar installation.

Fig. 14

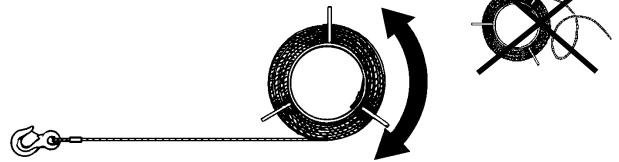


Fig. 15

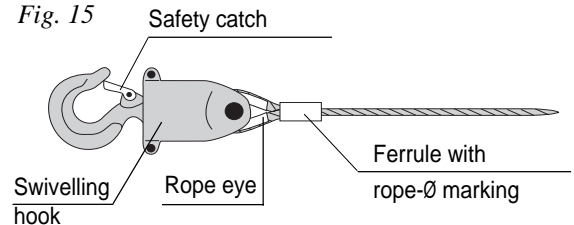


Fig. 16

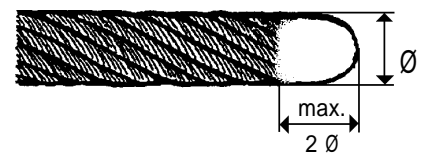


Fig. 17

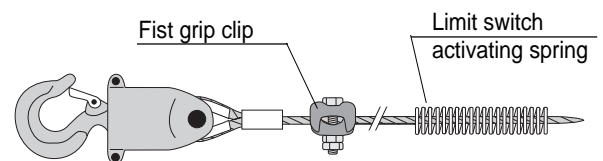
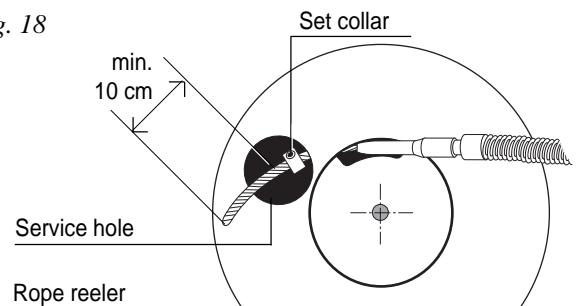


Fig. 18



(Principle sketch)

CAUTION!



- Slide both set collars for wire rope end detector** onto the wire rope and **fix them at a minimum distance of 10 cm from the wire rope tip** (Fig. 18). Tighten set collar screws with a 4 mm Allen key.

If You do not, the wire rope could inadvertently run out and the load fall down!

- Put wire rope tip back into the reeler and continue with running in the wire rope, it automatically stores itself inside the reeler.
- Fix fist grip clip for **upper limit switch activation** to the wire rope between the ferrule and the limit switch spring (Fig. 17).

6. Out of Operation

6.1 Temporary Stoppage

- **Disconnect power supply**, to prevent any unauthorized operation:
 - Disconnect power cord at the hoist pigtail as well as the main outlet and, if available,
 - turn and lock the main switch to „0“.
- **Cordon off the danger zone** below any suspended load.

6.2 End of Operation

- Let the wire rope completely run in.
- Disconnect power cord at the hoist pigtail as well as the main outlet; check for any damage and reel the cable.
- Disconnect the “Mobile Winch with TIRAK®” from its anchor point.
- Clean the exterior and store it in a clean and dry place.

7. Safety advice



- a) **DO NOT** overload the “Mobile Winch with TIRAK®”.
- b) **DO NOT** stand below a suspended load.
- c) The “Mobile Winch with TIRAK®” must only be used for lifting, pulling, and lowering of loads. Use for other purposes is not allowed.
- d) Use only prescribed TIRAK® wire ropes in good condition.
- e) Anchoring, maintenance, and/or the operation of the “Mobile Winch with TIRAK®” must only be done by persons, who are familiar with it. They must have obtained the order to anchor, maintain, and/or operate the hoist by the employer.
- f) The operator has to know and to follow all relevant local safety regulations, and maintenance recommendations, as well as this operating instruction, and the operator has to have been instructed.
- g) The operator must not start any movement of the load until he has checked that the hoist and the load are properly anchored, and that no person is stood in the danger zone below any suspended load, or until he has got a starting signal from the slinger.
- h) The operator must watch the load during all movement operations of the hoist.
If the operator is unable to watch the complete working area, the danger zone must be cordoned off, or a second person must be positioned to enable the complete working area to be watched and have adequate means of communication with the hoist operator during the whole operation.
- i) The “Mobile Winch with TIRAK®” has to be either anchored at the anchor bolt or located behind/above a solid structure, capable of taking the load, with its frame at the wire rope entry side.
- j) The “Mobile Winch with TIRAK®” has to be anchored in such way, that the deviation from squareness of the wire rope under load does not exceed 5°.
- k) The wire rope reeler must always be able to free-running.
- l) Do not use the wire rope to fix the load, and do not pull it over sharp edges.
- m) **DO NOT** use the hoist **without two set collars** installed on the wire rope end inside the reeler.
- n) Near the ferrule of the hook there must be fixed a fist grip clip for upper limit switch activation. Never let the fist grip clip be pulled towards the ferrule.
- o) Install limit switch spring between fist grip clip and rope inlet.
- p) In case of wire rope reeving the upper limit switch cannot be activated by the fist grip clip.
The operator has to **watch the load very carefully** or have it watched by a second person.
The rope hook must not reach the diverter pulley!
- q) **DO NOT** use the “Mobile Winch with TIRAK®” with standard electric equipment¹⁾ in a potentially explosive atmosphere – around distilleries, refineries, chemical plants, ship or silo interiors. Always obtain official approval before commencing operations at these or similar locations.

1) Contact GREIFZUG GMBH for a PNEUMATIC “MOBILE WINCH WITH TIRAK®”.

8. Maintenance/Checks/Repair

8.1 Maintenance

8.1.1 Wire rope conveying mechanism

The mechanism does not require any special maintenance.

Lubrication: Keep the wire rope lightly lubricated. This will not affect the gripping power but will prolong the life of wire rope to a maximum.

8.1.2 Wire rope reeler/guiding (Fig. 19)

- Keep rope reeler clean and take care that it is **always free-running**.
- Keep rope guide spring clean.
- Keep activating tube of the wire rope end detector/reeler survey switch clean, and **regularly apply grease**.

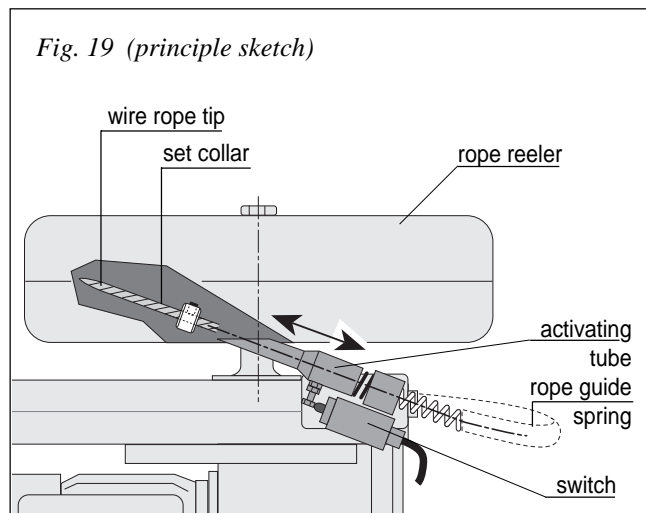
The tube must be easy-sliding – check by hand.

8.1.3 Wire ropes

- Always unreel and reel the wire rope.
- Do not use the wire rope for fixing the load, and do not pull it over sharp edges.
- Keep the wire rope always **clean** and **lightly lubricated**.

8.1.4 Motor, Brake, and Gear Box

- The **motor** does not require any special maintenance.



If it is **very dirty**, it should be cleaned to ensure an effective air flow.

- The **Brake** does not require any special maintenance. If it is **very dirty**, it should be cleaned. **Keep it free of oil or grease!**
- The **gear box** is maintenance-free. The oil should be changed when carrying out a safety inspection according to section 8.2.2.

8.2 Checks

8.2.1 Essential checks

a) General

Prior to every operation

and

during operation make sure, that the "Mobile Winch with TIRAK®" and all other used equipment (anchoring devices, pulleys etc.)

- are **properly installed**
- and **without visible damage**.

Attention!



If **during operation** damage appear:

- **STOP operating**,
- if necessary: **cord off the danger zone**, and
- let the **damage be removed!**

b) Wire Ropes

Attention!



Wire ropes should be **checked** along their entire length **before every operation** and **replaced** if any one of the following defects is noticed:

- **10 or more broken wires** along any length of 30 times the diameter of the wire rope.
- Excessive external or internal **corrosion**.
- **Heat damage**, externally recognised by discoloration.
- **Reduction of the wire rope diameter** by 5 % or more compared to the nominal diameter.
- **Exterior deformations***) of the wire rope like birdcag-

ing, kink or loop formation.

*) These are **only examples** of the most common wire rope damage. Maintenance and safety checks of the wire rope must be done according the safety regulations in force.

8.2.2 Safety Inspection

Control by a competent person:

- The "Mobile Winch with TIRAK®" should be thoroughly examined at least **every twelve months** or more regularly (see 2 below) depending on the working practice and current safety regulations in force.
- The "Mobile Winch with TIRAK®" should be thoroughly examined at the latest **after 500 running hours** (for winches with 18 m/min. speed **after 250 running hours**).



It is the responsibility of the employer that a written register is kept showing the dates and period of use and inspection record.

8.3 Repair

Repair of "Mobile Winches with TIRAK®" must only be carried out **by the manufacturer**, or by a **qualified person**, and **only original spare parts** shall be used.

9. Spare parts

9.1 Wire rope drive mechanism

As well as **spare part number** and **description** please always quote

- TIRAK® type
- wire rope diameter, and
- Serial N°!

9.2 Motor and Brake

As well as **spare part number** and **description** please always quote

- **Motor type**
respectively
- **Type and supply voltage of the brake!**

9.3 Electrical Controls

In case of enquiries or spare parts order please always quote the

Wiring Diagram N°!

The Wiring diagram is situated in the control box of the motor.

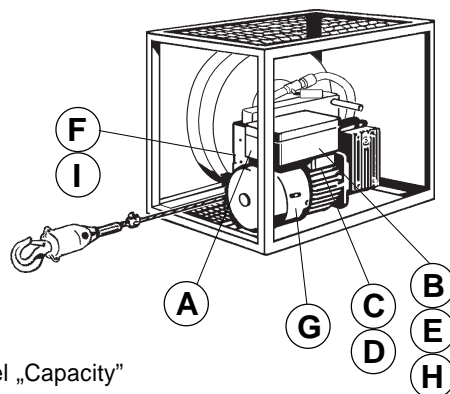
9.4 Nameplates and Labels

Make sure that all nameplates and labels are in place and not obscured (s. Fig. 20).

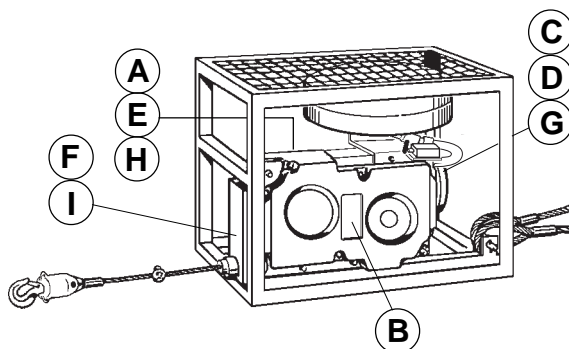
Replace missing labels and those which are not legible!

Spare parts lists are available
from your supplier
or from GREIFZUG GmbH.

Fig. 20



- A) Label „Capacity”
- B) TIRAK® Nameplate with serial N°
- C) Motor Nameplate
- D) Brake Nameplate
- E) Label „Set collar on wire rope tip”
- F) Label „Wire rope Ø”
- G) Label „Emergency descent”
- H) Label „Phase control relay”
- I) Label „Fist grip clip + Limit switch spring”



**DEKLARATION
OF CONFORMITY**

Greifzug Hebezeugbau GmbH

D-51434 Bergisch Gladbach, Postfach 20 04 40,
represented by Mr. Clemens Vedova, MBA Insead,
General Marketing Manager, declares that:

The equipment described below conforms to
the technical safety rules, which are applicable
for the supply to the European Union market.

Signature

APPLICABLE REGLEMENTATIONS:

EUROPEAN DIRECTIVES:

N° 89/392 – 91/368 – 93/44 – 93/68
N° 89/336 – 92/31

EUROPEAN STANDARDS:

N° EN 292 – EN 418 – EN 60204-1
N° EN 50081-1 – prEN 50082-1

GERMAN STANDARD:

UVV „Winde, Hub- und Zuggeräte (VBG 8)”

DESCRIPTION: Electric driven endless winch
APPLICATION: Lifting, lowering and pulling
of loads

MAKE: **Mobile Winch with TIRAK®**

TYPE: MX 300 P/80, MX 500 P/80,
MX 700 P/80, MT 1000 P/80