

8.2 Checks

8.2.1 Essential checks

a) General

Prior to every operation

and

during operation make sure, that

- the TIRAK® hoist,
- and all other used equipment (anchoring devices, pulleys etc.)

are properly installed

and

without visible damage

Attention!



If **during operation** damage appears:

- **STOP operating**,
- if necessary: **cord off the danger zone**, and
- have the **damage removed** by a qualified person!

b) Nameplates and labels

Make sure that all nameplates and labels are in place and not obscured (see section 9.5, pages 32 to 33).

Replace missing labels and those which are not legible!

c) Wire ropes

Attention!



Replace wire ropes, if one of the following defects is determined **during** the prescribed **weekly check**:

- **8 or more wire breaks** (fig. 54) on a length which corresponds to 30 times the rope diameter.

Fig. 54

broken wires

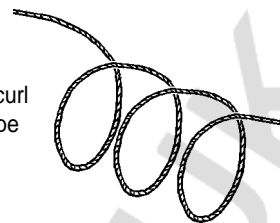


- Heavy **rust formation** on the surface or inside.
- **Heat damage**, recognisable through discoloured wires.
- **Reduction of the diameter** by 5% or more compared with the nominal diameter (fig. 56).
- **External damage** to the rope – fig. 55 shows the most frequent forms of damage.

These **examples** do not however replace the **ISO 4309 reference for wire rope checks!**

Fig. 55

“Pig-tail” curl
in wire rope



Kinked wire rope



Damage
caused by improper use,
(e.g. by fixing a load with the rope)



Crushed wire rope



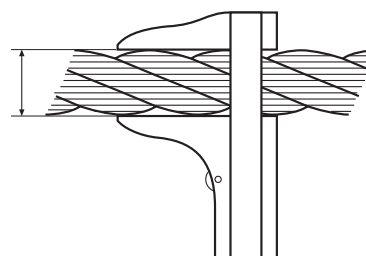
Birdcaged wire rope



Loop formation
on wire rope

Fig. 56

Wire rope
diameter



d) Electric cables

Replace lead and control cables if damage to the insulation or to cable connections is determined during the prescribed weekly check.

8.2.2 Safety inspection

Checking the TIRAK® hoists and the BLOCSTOP® fall arrest device by a qualified person:

1. The TIRAK® should be thoroughly examined **every twelve months** or more regularly (see 2 below) depending on the working practice and current safety regulations in force.
2. The TIRAK® should be thoroughly examined at the latest **after 500 running hours** but for hoists with 18 m/min. and hoists of the series X 2050 P with 12 m/min. speed **after 250 running hours**.

3. Extraordinary check

Attention!



Following a fall arrest, a qualified person must check the operational safety of the BLOCSTOP® fall arrest device including anchor points, as well as the safety rope and the rope anchoring.



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

8.3 Repair

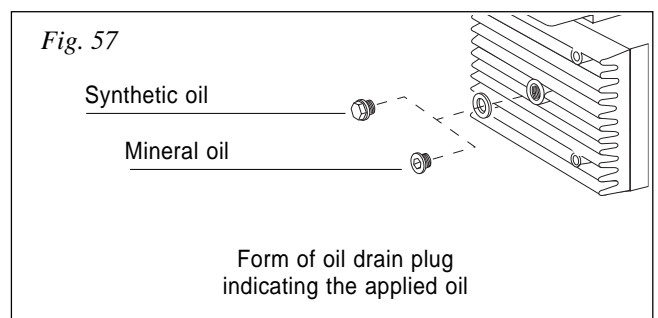
Repair of TIRAK® hoists must only be carried out **by the manufacturer** (or Group company), or by a **qualified person** and **only original spare parts** shall be used.

If a **gearbox oil change** is necessary, take one of the oils specified below according to the temperature range that the hoist will be usually used in.

Quantities required:

X 300/400 P series:	1,4 l
X 500-1030 P series:	2,0 l
T 1020 P series:	2,0 l
X 2050 P series:	5,0 l

Table 8



Temperature range	-10 to +50 °C	-35 to +40 °C	-15 to +80 °C
API Specification	Mineral oils ³⁾ SAE85W-140 GL5 ¹⁾	Synthetic oils ³⁾ CLPPG or PGLP ISO VG 100 CLPPG or PGLP ISO VG 460 ²⁾	
Sample oils (other oils on request)	BP Hypogear EP 90 SHELL Spirax HD 90 TEXACO Multigear EP6 S80 W90	Klübersynth GH6 100	Klübersynth GH6 460 Applying other synthetic oils is not allowed without official agreement by the manufacturer!

1) Standard charge on series X 300 P, X 500 to 820 P and T 1020 P; also see foot note 3)

(Marking: Socket head cap oil drain plug, Fig. 57)

2) Standard charge on series X 400 P and X 1030 to 2050 P

(Marking: Hexagon oil drain plug, Fig. 57)

3) Important: Changing between mineral and synthetic oils requires the complete cleaning of the gearbox parts.

9. Spare Parts

9.1 Hoist

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

- **TIRAK® model**
- **wire rope diameter**, and
- **serial number**.

9.2 Motor and brake

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

- **Motor type**
- or
- **Type and supply voltage of the brake**.

9.3 Electric controls

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

wiring diagram number.

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

9.4 BLOCSTOP® fall arrest device

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

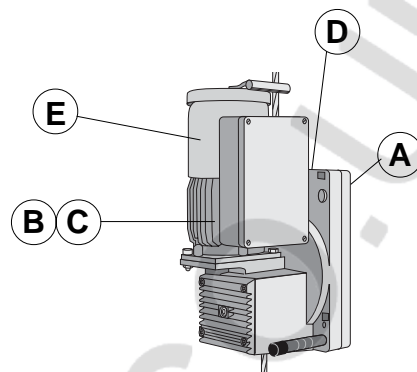
- **BLOCSTOP® model**
- **wire rope diameter** and
- **serial number**.

9.5 Nameplates and labels

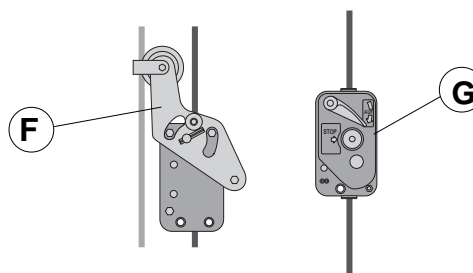
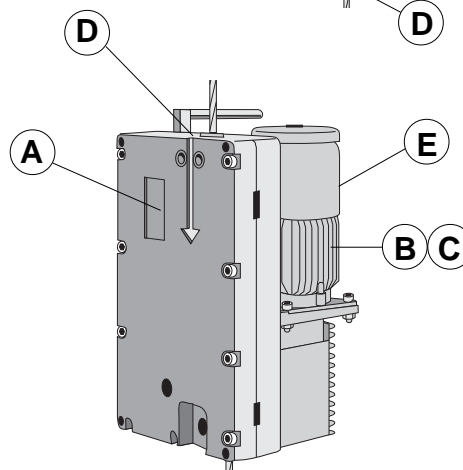
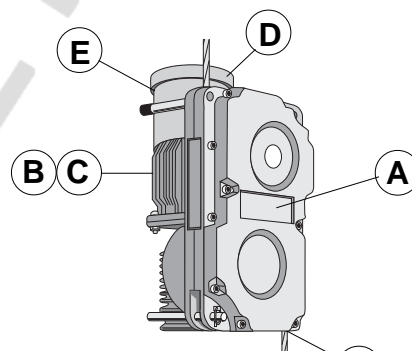
Make sure that all nameplates and labels are in place and not obscured (see figs. 57 and 58).

Replace missing labels and those which are not legible!

Fig. 57



- A) TIRAK® nameplate
- B) Motor nameplate
- C) Brake nameplate
- D) Adhesive "Wire rope diameter"
- E) Adhesive "EMERGENCY STOP"
- F) BLOCSTOP® BSA ... nameplate
- G) BLOCSTOP® BSO ... nameplate



Spare parts lists are available from your supplier or from the manufacturer.

Fig. 58

A

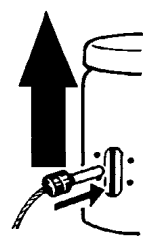
tirak[®] Motorized traction machine

1. SET-UP INSTRUCTIONS
Anchor the machine. Connect to electric/air supply (see motor name plate). Feed in the wire rope. Start the motor. Push wire rope inside, until it reeves itself automatically.
Do not obstruct the wire rope outlet!
For details consult Operating Manual.
IMPORTANT: Use only special TIRAK wire rope in good condition with short fused and tapered end.
Lightly lubricate the wire rope.
Only TIRAK P models may be used for man-riding. Use a BLOCSTOP[®] fall arrest device

2. TECHNICAL DATA

Model:	Capacity (daN/kg):
Admissible load for man-riding (kg):	
Working speed (meters/min):	
Wire rope diameter (mm):	Breaking strength (kg):
Year of manufacture: 200	Serial-No.:
In case of inquiry or spare parts order, please mention type, wire rope diameter , and serial number .	

E



Notablaß
Bremslüfterhebel im Handgriff

Emergency Descent
Brake release lever in TIRAK handle

Descente d'urgence
Manette de commande du frein dans la poignée de portage

G 207-09/94

B

GREIFZUG GmbH Bergisch Gladbach

Type	Nr.	
E-Mot.	60 Hz	U _{min}
	kW	cos φ
	V	A
Schalt.	Schutzart IP 55	F Is.Kl.

F

BLOCSTOP Abfangsicherung

Typ:	Sauber halten.
Für Seil-Ø:	Oft und reichlich
Max. Traglast:	schmieren.

GREIFZUG Hebezeugbau GmbH · D-51469 Berg. Gladbach

C

GREIFZUG GmbH Bergisch Gladbach

Bremstyp		
Leistung	W	Spulenspannung V
Moment	Nm	

∅
8
mm

∅
9
mm

D

∅
10
mm

∅
14
mm

G

BLOCSTOP[®] fall arrest device

Type	Serial number	
BSO		
Rated load	Wire rope Ø	Year of manuf.
kg	mm	200
lbs.	in.	

Replace wire rope, if the reduction from nominal diameter is 10 % or more.
Never use damaged wire rope.

CHECKING

1) Daily check as follows:

- Push down the control lever in its "OPEN" position and **press the EMERGENCY STOP button**. The BLOCSTOP should close automatically, and the control lever has to return to its "CLOSED" position.
- Open the BLOCSTOP again, and **quickly pull the wire rope upwards**. The BLOCSTOP should close automatically, and the control lever has to return to its "CLOSED" position.

2) During operation the centrifugal weights must rotate. Check regularly through the window.

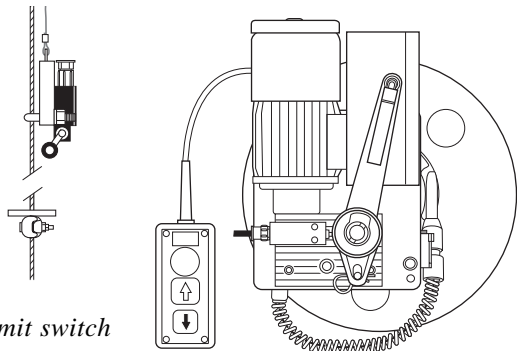
If during the above checks the BLOCSTOP malfunctions, replace it and return to the supplier for inspection.
Address see TIRAK nameplate.

3) Yearly inspection by the supplier.

Wire rope exchange: To pull the wire rope through **push and hold** the control lever in its OPEN position!

G 128.5-02/00 Made in Germany

TIRAK® hoist for silo inspection



Limit switch

Series XS 300 P

These devices conform to the special safety requirements applicable for inspecting silos:

- Hand operation,
- hanging limit switch for manual operation when passing through the silo opening.

The device illustrated is equipped with an automatic rope reeler for a 40 m rope.

Details on request

TIRAK® hoists for material handling

Compact & versatile

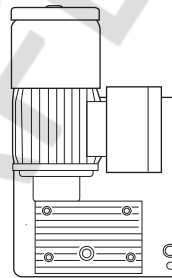
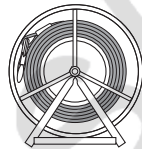
- Unlimited rope travel.
- Small dimensions, portable.
- Working position: horizontal, inclined, vertical.
- Also moves with load on the rope
- T 1020 series pulls in both directions.



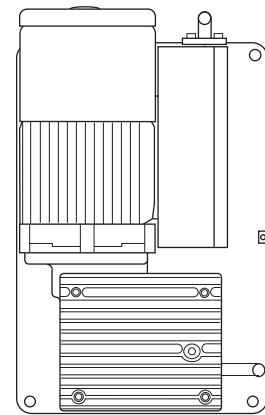
Capacity
0.3 to 3 t



TIRAK® wire ropes
in any length required
on hand or
drum reel.



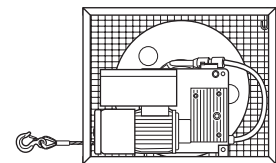
300 kg hoist



3 t hoist

TIRAK® with rope storage as "Mobile Winch" for rope lengths from 60 to 500 m

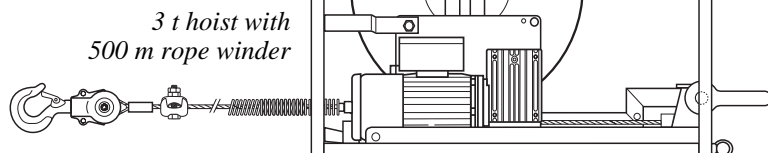
- The ideal hoist for frequently changing places of use.
- Quick, simple, versatile:
 - Assembly on construction site.
 - Repair and maintenance work in finished buildings.
 - Drive for internal transport systems.



300 kg hoist with
60 m rope reeler

Saves space, weight and costs

compared to a crane
or drum winch of the
same carrying capacity and range!

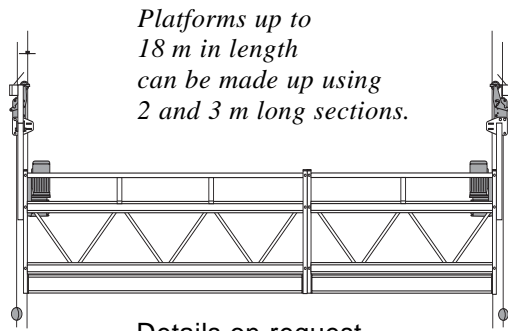
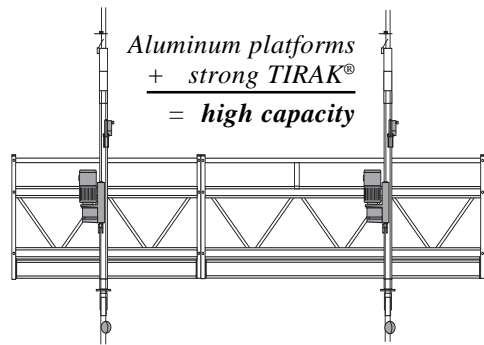


3 t hoist with
500 m rope winder

Details on request

Access solutions from the TRACTEL Group

Suspended platforms, working cage & seat



Details on request

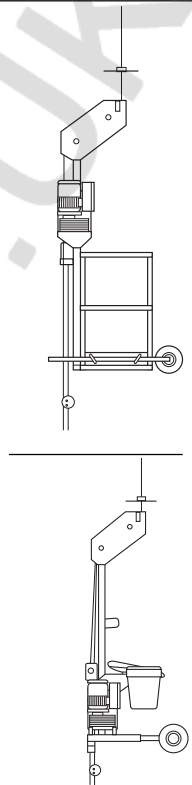
These new, mobile platforms and seats with unlimited travel height for assembly, inspection and repairs offer you **the comfort of a lift combined with a working platform.**

Whether you have to **work at height** as façade designer or window cleaner, as insulation specialist, as chimney, boiler and tank setter or as painter and corrosion protection personnel:

Make use of this sensible replacement for standing scaffolding! **Travel to height**, and indeed to precisely that height which gets you to the most productive working position. Because that helps to **save time and money!**

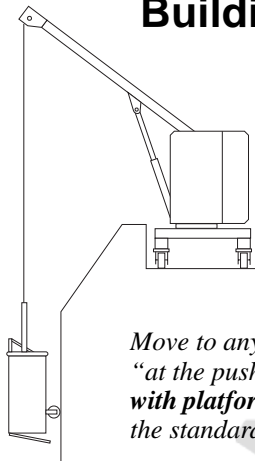
Increase your **competitiveness** by **reducing operating costs.**

That improves the bottom line!



Whether purchased or rented – the economic alternative to scaffolding!

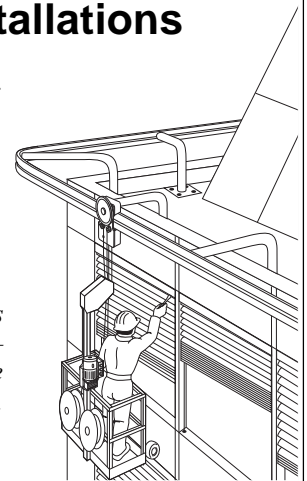
Building maintenance and inspection installations



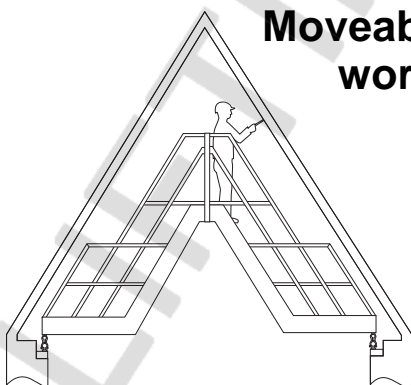
Modern, daring building constructions demand creative solutions.

The earlier you involve our team in your planning the easier and cheaper the installation will be!

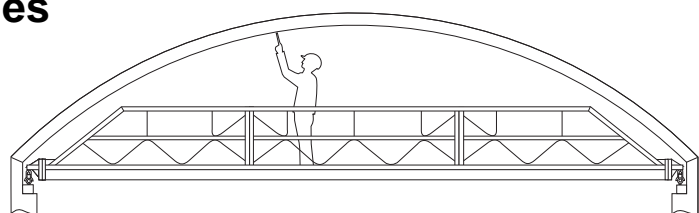
For inspecting building constructions **outside and inside** – with platforms which traverse on rail systems.



Moveable stairs and work gantries



Details on request

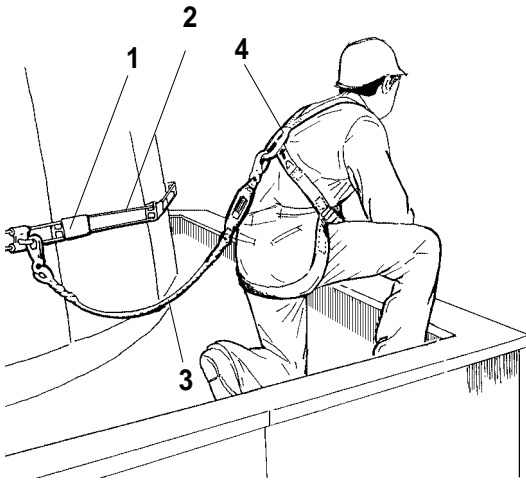


For cleaning, inspecting and repairing windows, facades and glass roofs, inside and outside.

Let your buildings always shine!

The TRACTEL Group safety package

TRAVSAFE® – horizontal travelling lifeline system



TRAVSAFE® is a patented horizontal running protection system for working at heights in which there is a risk of falling.

Areas of use: buildings and roofs, aircraft hangars, shopping centres, bridges and viaducts, industrial installations, overhead cranes, oil and gas containers, telecommunication towers ...

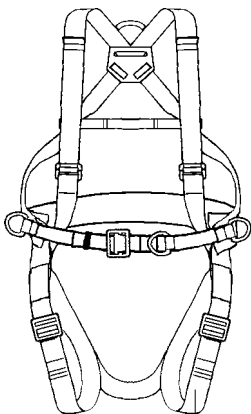
The TRAVSAFE® system consists of two wire ropes along which a traveller (1) slides. These lifelines are held by brackets (2) anchored to the building. The user anchors the connection devices (3) of his personal protective equipment (4) to the holding ring of the traveller.

The TRAVSAFE® travelling lifeline enables free and unhindered movement and work.

TRAVSAFE® systems require thorough planning and professional installation – challenge us to provide extensive advice.

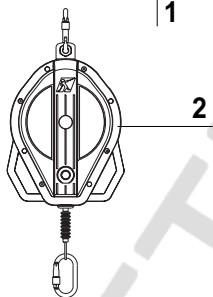
**Gives a sure hold,
just where you need it!**

Fall arrest equipment for personal protection



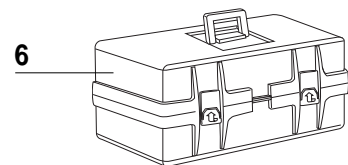
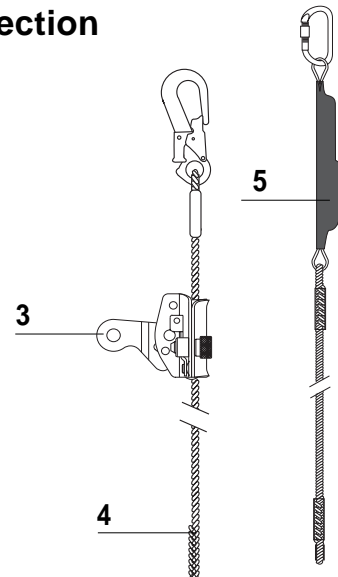
For all work in which there is a risk of falling “Safety first” is the overriding objective. The appropriate equipment must be put together depending on the location and work to be performed. The product range of our safety program offers the following, amongst other things:

- Harnesses and working belts, also as a practical combination (1)
- retractable lifelines (2)
- rope grabs (3)
- climbing protection devices
- retaining ropes
- lanyards (4)
- shock absorber (5)
- various connectors



For common applications we offer a series of complete sets in a practical carrying case (6).

All components are approved under the strict European Standards.



Challenge us to provide extensive advice – we shall assist you in putting together your equipment.

Your life could be hanging on this!



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