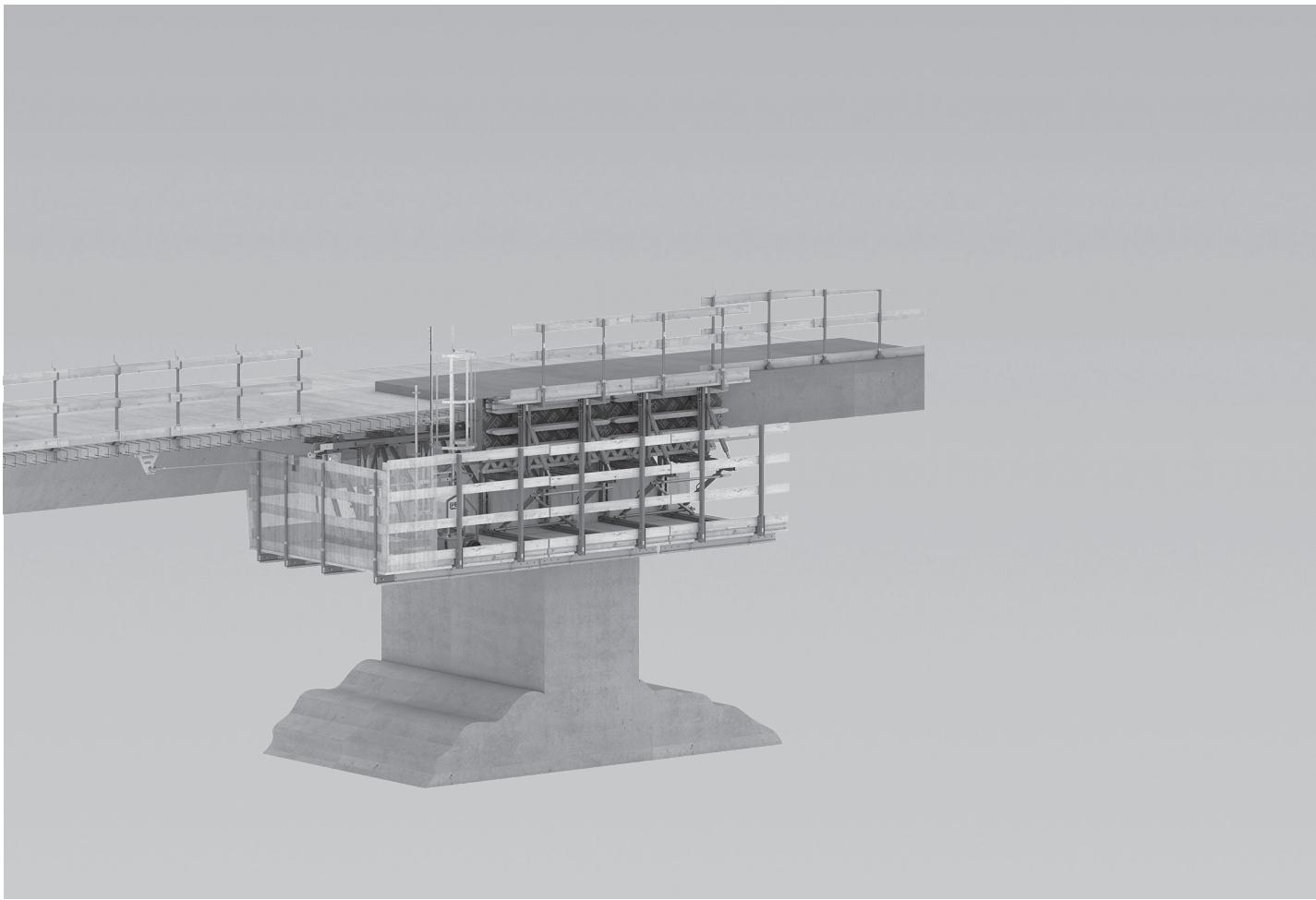
PERI

VGB
Relocation Unit

Assembly Instructions – Version 2.0



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Main components

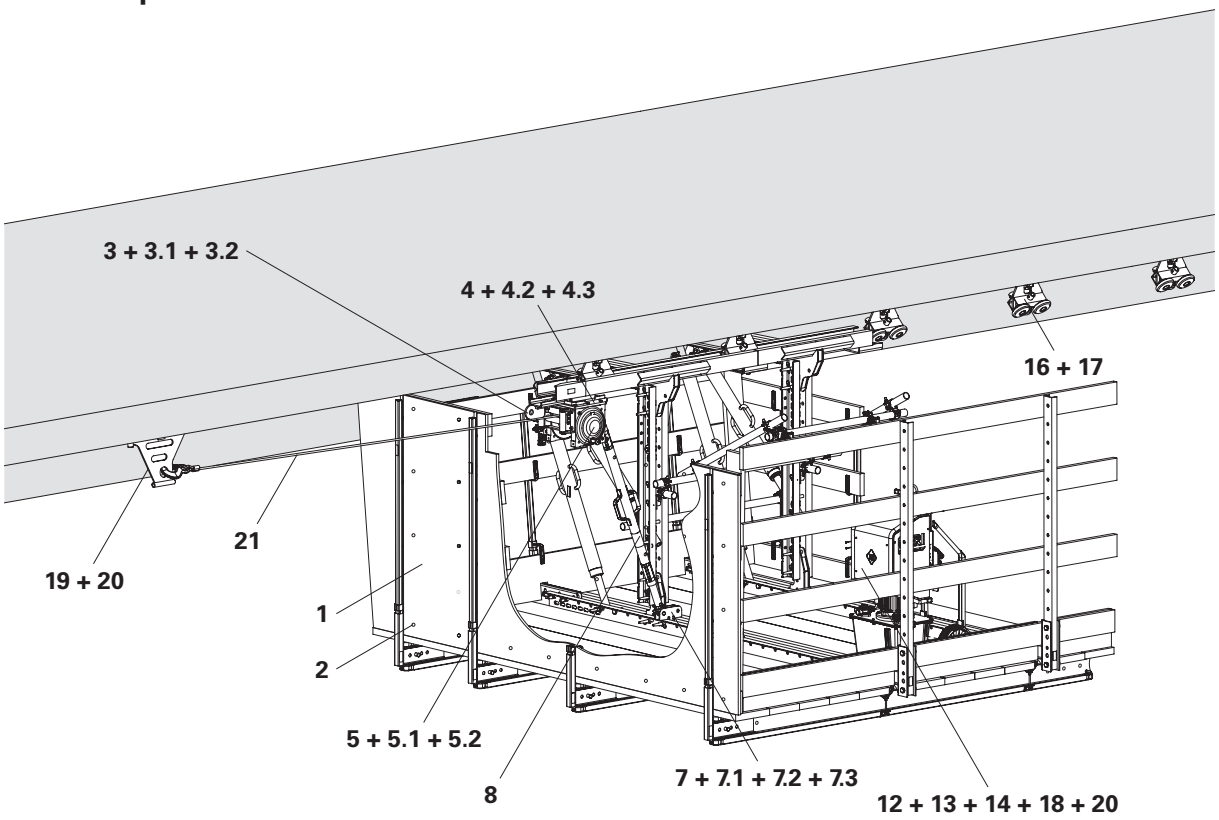


Fig. 01

Component overview

Pos. no.	Component name	Article no.
1	Formwork panels, e.g. 3-S panel 21 mm	acc. to material
2	TSS-Torx 6 x 40	024540
3	Travelling Nose 25-2 VARIOKIT	131430
3.1	Bolt ISO 4017 M20 x 60-8.8	–
3.2	Nut ISO 7040 M20-8	–
4	Adapter Plate H60 VGB	131426
4.2	Fitting pin Ø 16 x 65/86	–
4.3	Cotter pin 4/1	–
5	Hydr. traction cable winch H60	131361
5.1	Bolt ISO 4017 M12 x 45	–
5.2	Bolt ISO 4017 M12 x 35-8.8	–
7	Spindle Cross-Connector SRU	131420
7.1	Fitting Pin Ø 21 x 120	–
7.2	Cotter pin 4/1	–
7.3	Fitting pin Ø 16 x 65/86	–

Pos. no.	Component name	Article no.
8	Push-Pull Prop RS 210	117466
12	Hydraulic Unit RCS 4 x 190 bar, 380 – 460 V	109766
13	Hydraulic Hose EN 853 2SN DN08 2.0 m	129036
14	Adapter Cable RCS	110280
15	Bolt ISO 4014 M24 x 150-8.8	104540
16	Suspension Head M24 VARIOKIT	114534
17	Roller Unit VARIOKIT	114535
18	Hydraulic Accumulate Piece RCS	112421
19	Tension Shoe-2 VBG	131707
20	Hydraulic Twin Hose RCS 10 m	110069
21	Traction Cable 12 mm, x 20 m, H60	131364

Tab. 01

Key

Pictogram | Definition


Danger/Warning/Caution


Note


To be complied with


Load-bearing point


Visual inspection


Tip


Incorrect use


Safety helmet


Safety shoes


Safety gloves


Safety goggles


Personal protective equipment to prevent falling from a height (PPE)

Arrows

Arrow representing an action


Arrow representing a reaction of an action*


Arrow representing forces

* If not identical to the action arrow.

Safety instruction categories
The safety instructions alert site personnel to the risks involved and provide information on how to avoid these risks. Safety instructions can be found at the beginning of the section or before instructions for action and are highlighted as follows:


Danger
This sign indicates an extremely hazardous situation which could result in death or serious, irreversible injury if the safety instructions are not followed.


Warning
This sign indicates a hazardous situation which could result in death or serious, irreversible injury if the safety instructions are not followed.


Caution
This sign indicates a hazardous situation which could result in minor or moderate injury if the safety instructions are not followed.


Note
This sign indicates situations in which failure to observe the information can result in material damage.

Format of the safety instructions


Signal word
Type and source of hazard!
Consequences of non-compliance.
⇒ Preventative measures.

Dimensions
Dimensions are usually given in cm. Other measurement units, e.g. m, are shown in the illustrations.

Conventions
- Instructions are numbered with: 1. ....., 2. ....., 3. .....
- The result of an instruction is shown by: →
- Position numbers are clearly provided for the individual components and are given in the drawing, e.g. **1**, in the text in brackets, for example (**1**).
- Multiple position numbers, i.e. alternative components, are represented with a slash: e.g. **1/2**.

Notes on illustrations
The illustration on the front cover of these instructions is understood to be a system representation only. The assembly steps presented in these Assembly Instructions are shown in the form of examples with only one component size. They are valid for all component sizes contained in the standard configuration.

To facilitate understanding, detailed illustrations are sometimes incomplete. The safety equipment which might not have been shown in these detailed illustrations must nevertheless be available.

Target groups

Contractors
These Assembly Instructions are intended for contractors who use the formwork system to
- assemble, modify and dismantle the scaffolds, or
- use them, e.g. for pouring concrete, or
- allow them to be used for other operations, e.g. carpentry or electrical work.

Competent person
(Construction Site Coordinator)
The Safety and Health Protection Coordinator*
- is appointed by the client,
- must identify potential hazards during the planning phase,
- determines measures that provide protection against risks,
- creates a safety and health protection plan,
- coordinates the protective measures for the contractor and site personnel so that they do not endanger each other,
- monitors compliance with the protective measures.

Competent persons qualified to carry out inspections
Due to the specialist knowledge gained from professional training, work experience and recent professional activity, the competent person qualified to carry out inspections has a reliable understanding of safety-related issues and can carry out inspections correctly. Depending on the complexity of the inspection to be undertaken, e.g. scope of testing, type of testing or the use of certain measuring devices, a range of specialist knowledge is necessary.

Qualified personnel
Formwork systems may only be assembled, modified or dismantled by personnel who are suitably qualified to do so. Qualified personnel must have completed a course of training** in the work to be performed, covering the following points at least:
- Explanation of the plan for the assembly, modification or dismantling of the formwork in an understandable form and language.
- Description of the measures for assembling, modifying or dismantling the formwork.
- Naming of the preventive measures to be taken to avoid the risk of persons and objects falling.
- Naming of the safety precautions in the event of changing weather conditions which could adversely affect the safety of the formwork system as well as the persons concerned.
- Details regarding permissible loads.
- Description of all other risks and dangers associated with assembly, modification or dismantling operations.

- **In other countries, ensure that the relevant national guidelines and regulations in the respective current version are complied with!**
- **If no country-specific regulations are available, it is recommended to proceed according to German guidelines and regulations.**
- **A competent person must be present on site during formwork operations.**

* Valid in Germany: Regulations for Occupational Health and Safety on Construction Sites 30 (RAB 30).

** Instructions are given by the contractor themselves or a competent person selected by them.

Additional technical documentation

- Assembly instructions:
  – Hydraulic unit
  – Hydraulic traction cable winch
- Instructions for Assembly and Use:
  – VGB Cantilevered Parapet Track
- Project-specific planning and calculations

Intended use

Product description
PERI products have been designed to be used exclusively in industrial and commercial sectors by suitably trained personnel only.

The VGB Relocation Unit is used for moving the platforms and formwork of the VGB Parapet Track from one concreting section to the next using roller units.

Roller-guided platform unit that is pulled using a relocation unit.

The constructional systems presented in these Assembly Instructions are shown in the form of examples with only one component size. They are valid for all component sizes contained in the standard configuration.

Functionality
With the help of a hydraulic cable winch, which is driven by a hydraulic unit, the VGB Parapet Track is pulled forwards. The VGB Parapet Track is guided on roller units.

These Assembly Instructions describe:
- The hydraulic traction cable winch installation process.
- The hydraulic unit connection process.
- The process of pulling the unit to the next concreting section.

These Assembly Instructions do not describe:
- The transport and pre-assembly processes on the construction site.
- The installation process at the place of use (bridge pier).
- The process of assembling the rafters and formwork.
- The return journey to the bridge pier or bridge bearing
- The process of disassembling the formwork and rafters.
- The disassembly and removal processes.
- Other configurations that do not involve the hydraulic traction cable winch and hydraulic unit. The VGB Relocation Unit can also be installed in a different configuration. For this purpose, separate project-specific planning must be carried out.

Load case: Storm
- Secure the platform.
- Accessing the platform is not permitted.

Technical data

Hydraulic traction cable winch H60
- Overall dimensions L x W x H: 738 x 260 x 260 mm
- Weight: 81 kg
- Net tension force: 60 kN/43 kN (depending on cable layers)
- Oil flow:* 12 l/min
- Pressure: 20 MPa
- Steel cable:* Ø12 mm, length 20 m

* Values are specifically adapted to PERI.

Hydraulic unit
- Power supply 400 V/50 Hz (**3 phases**) Flow rate 6 l/min
- Power supply 460 V/60 Hz (**3 phases**) Flow rate 7 l/min
- Sound emissions 64 dB at a distance of 1 m

Tension shoe
The Tension Shoe-2 VGB can be loaded with up to 60 kN.

Instructions for Use

Use in a way not intended, deviating from the standard configuration or the intended use set forth in the assembly instructions, represents a misapplication with a potential safety risk.

Changes to PERI components are not permitted.

Only PERI original components may be used. The use of other products and spare parts, represents a misapplication with a potential safety risk.

Operation with damaged or incomplete load-carrying equipment is not permissible.

The system described in these Assembly Instructions may contain patent-protected components.

Cleaning and maintenance instructions

In order to maintain the value and operational readiness of the formwork materials over the long term, clean the panels after each use.
Some repair work may also be inevitable due to the tough working conditions.
The following instructions should help to keep cleaning and maintenance costs as low as possible.

Spray the formwork on both sides with concrete release agent before each use; this facilitates easier and faster cleaning of the formwork. Spray the concrete release agent very thinly and evenly!

Spray the rear side of the formwork with water immediately after concreting; this avoids any time-consuming and costly cleaning operations.

When used continuously, spray the formlining elements with concrete release agent immediately after striking; then clean by means of a scraper, brush or rubber lip scraper.
Important: do not clean formlining made of plywood with high-pressure equipment. This could result in the formlining being damaged.

Fix recesses and built-in parts with double-headed nails; as a result, the nails can easily be removed later, and damage to the formlining is largely avoided.

Close all unused tie holes with plugs; this eliminates any subsequent cleaning or repair work.
Tie holes accidentally blocked with concrete are cleared by means of a steel pin from the formlining side.

When placing bundles of reinforcement bars or other heavy objects on horizontally stored formwork elements, suitable support, e.g. square timbers, is to be used: this prevents impressions and damage to the formlining to a large extent.

Internal concrete vibrators should be fitted with rubber caps if possible; as a result, any damage to the formlining is reduced if the vibrator is accidentally inserted between the reinforcement and formlining.

Never clean powder-coated components, e.g. elements and accessories, with a steel brush or hard metal scraper; this ensures that the powder coating remains intact.
Use spacers for reinforcement with large-sized supports or extensive areas of support; this largely avoids impressions being formed in the formlining when under load.

Mechanical components, e.g. spindles or gear mechanisms, must be cleaned of dirt or concrete residue before and after use, and then greased with a suitable lubricant.

Provide suitable support for the components during cleaning so that no unintentional change in their position is possible.

Do not clean components suspended on crane lifting gear.

Cross-system

General
Deviations from the standard configuration and/or intended use present a potential safety risk.

When using our products, all country-specific laws, standards and other safety regulations must be observed.

In the case of unfavourable weather conditions, suitable precautions and measures are to be implemented in order to guarantee occupational safety and stability.

The contractor (user) must ensure stability during all stages of construction. They must ensure and verify that all loads that occur are safely transferred.

The contractor (user) must provide safe working areas for site personnel, which are to be reached via safe access routes. Cordon off and clearly mark danger zones. Hatches and openings to accessible working areas must be kept closed during working operations.

To facilitate understanding, detailed illustrations are sometimes incomplete. The safety equipment which might not have been shown in these detailed illustrations must nevertheless be available.

Deviations from the standard configuration are only permitted after a further risk assessment has been carried out by the contractor.
Appropriate measures for working and operational safety, as well as stability, are defined on the basis of this risk assessment.
Corresponding proof of stability can be provided by PERI on request, if the risk assessment and resulting measures to be implemented are made available.

Before and after exceptional occurrences that may have an adverse effect on the safety of the formwork system, the contractor must immediately
- produce another risk assessment and make use of its results to take suitable steps to guarantee the stability of the formwork system,
- Arrange for an extraordinary inspection to be carried out by a competent person qualified to do so. The aim of this inspection is to identify and rectify any damage in good time in order to guarantee safe use of the formwork system.

Exceptional events could be:
- accidents,
- long periods of non-use,
- natural events, e.g. heavy rainfall, icing, heavy snowfall, storms or earthquakes.

Assembly, modification and dismantling work
Assembly, modification or dismantling of formwork systems may only be carried out by qualified persons under the supervision of a competent person. The qualified personnel must have received appropriate training for the work to be carried out with regard to specific risks and dangers.

On the basis of the risk assessment, the project-specific planning and the Instructions for Assembly and Use, the contractor must create installation instructions to guarantee safe assembly, modification and dismantling of the formwork system.

The contractor must ensure that the personal protective equipment required for the assembly, modification or dismantling of the formwork system, e.g.
- safety helmet,
- safety shoes,
- safety gloves,
- safety goggles,

is available and used as intended.

If personal protective equipment against falling from a height (PPE) is required or specified in local regulations, the contractor must determine appropriate attachment points on the basis of the risk assessment.
The PPE against falling from a height that is to be used is determined by the contractor.

The contractor must
- provide safe working areas for site personnel, which are to be reached through the provision of safe access ways. cordon off and clearly mark danger zones.
- guarantee stability during all stages of construction, in particular during assembly, modification and dismantling operations.
- ensure and demonstrate that all loads that occur are safely transferred.

Use
Every contractor who uses or allows formwork systems or sections of the formwork to be used, is responsible for ensuring that the equipment is in good condition.

If the formwork system is used successively or at the same time by several contractors, the health and safety coordinator must point out any possible mutual hazards and all work must be then coordinated.

System-specific

Detailed project-specific planning is required each time a VGB Parapet Track is assembled.

Strike components only when the concrete has sufficiently hardened and the person in charge has given the go-ahead for striking to take place.

Check the inspection stickers before using the parapet track.

When pulling the parapet track with the hydraulic traction cable winch, only the operator is allowed to remain on the leading platform in order to control the system.

During the pulling procedure, leading edges can be created. Suitable project-specific safety measures to prevent falling are to be implemented.

The following is not permitted:
- Overloading the relocation unit
- Overloading the suspension point
- Site personnel are not allowed to remain in the area of the hydraulic traction cable winch during the moving procedure.

Anchoring
Anchoring takes place by means of PERI Anchor Sleeves M24 which have been set in the bridge superstructure on which the Roller Unit VARIOKIT is fixed via the Suspension Head M24 VARIOKIT.

Only PERI anchoring components are permitted as anchoring.

Anchoring is to take place only if the anchorage has sufficient concrete strength.

The anchoring on the parapet track can only be released or fixed on the instructions of the person in charge.

Hydraulics and electrics
For safe and professional handling of the hydraulic system components, observe the documentation of the respective manufacturer.

Wear safety glasses and oil-resistant gloves when handling the hydraulic fluid. Avoid any contact with the hydraulic fluid.
Bind and dispose of any hydraulic fluid that has leaked in an environmentally-friendly manner.

All work on electrical installations must be carried out by a qualified electrician only.

When installing hydraulic and electric lines, ensure that these are not damaged in any way. Replace damaged lines immediately or, if possible, have them repaired professionally.

Storage and transportation

Store and transport components in such a way that no unintentional change in their position is possible. Detach lifting accessories and gear from the lowered components only if they are in a stable position and no unintentional change is possible.

Do not drop the components.

Use PERI lifting accessories and gear and only those load-bearing points provided on the component.

During the relocation procedure
- ensure that components are picked up and set down in such a way that unintentional falling over, falling apart, sliding, falling down or rolling is avoided.
- no persons are allowed to remain under the suspended load.

The access areas on the construction site must be free of obstacles and tripping hazards, and must also be slip-resistant.

For transportation, the substrate must have sufficient load-bearing capacity.

Use original PERI storage and transport systems, e.g. crate pallets, pallets or stacking devices.

Standard procedure

The contractor is responsible for
- correct installation,
- adherence to the intended use,
- any additional reinforcement that may be required,
- providing proof that all loads are transferred into the ground.

Preconditions
- The platform units of the VGB Parapet Track consist of launching and finishing platforms as well as the control units which have already been pre-assembled or mounted.
- For assembly, see Instructions for Assembly and Use for the VGB Parapet Track.

Assembly
Assemble and relocate the relocation unit in line with the following steps.

1. Assemble the protection panel, see page 11.
2. Fit Travelling Nose 25-2 VARIOKIT (**3**) and Adapter Plate H60 VGB (**4**), see page 12.
3. Screw the Hydr. Traction Cable Winch H60 (**5**) onto Adapter Plate H60 VGB (**4**), see page 13.
4. Fit Spindle Cross-Connector SRU (**7**), see page 14.
5. Fit Push-Pull Prop RS 210 (**8**), see page 15.
6. Attach pull cable 12 mm x 20 m, H60 (**21**) to Hydr. Traction Cable Winch H60 (**5**), see page 16.
7. Fit Tension Shoe-2 VGB (**19**), see page 17.
8. Fit Suspension Head M24 VARIOKIT (**16**), see page 18.
9. Fit Roller Unit VARIOKIT (**17**), see page 19.
10. Commissioning, see page 20 onwards.
    - Hydraulic unit and cable winch, see page 21.
    - Connecting the power, see page 22.
    - Switching on the hydraulic unit, see page 23.
    - Operating on the hydraulic unit, see page 24.
    - Bleeding the system, see page 25.
11. First relocation procedure, page 27 onwards.
    - Step 1
      Preparing the relocation unit, see page 16.
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    - Step 3
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    - Step 4
      Installing the roller unit in the leading platform, see page 29.
12. Additional relocation procedures, page 30 onwards.
    - Step 1
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    - Step 3
      Pulling with the hydr. traction cable winch, see page 32.
    - Step 4
      Installing the roller unit in the leading platform, see page 33.

Protection panel

The protective panel prevents injuries if the traction cable breaks.

- Determine the formwork panel material, size and screws for each respective project.
- Take into consideration the recess (**1.1**) in the protection panel for the cable. (Fig. 02)

Components

1	3-S plate 21 mm	*
2	TSS-Torx 6 x 40	*

* Number of pieces determined on a project-specific basis

Fitting the protection panel
Protection panel supplied by the contractor on the three external sides of the leading and finishing platforms, e.g. consisting of 3-S panels 21 mm (**1**) with screws, e.g. TSS-Torx 6 x 40 (**2**). (Fig. 02)

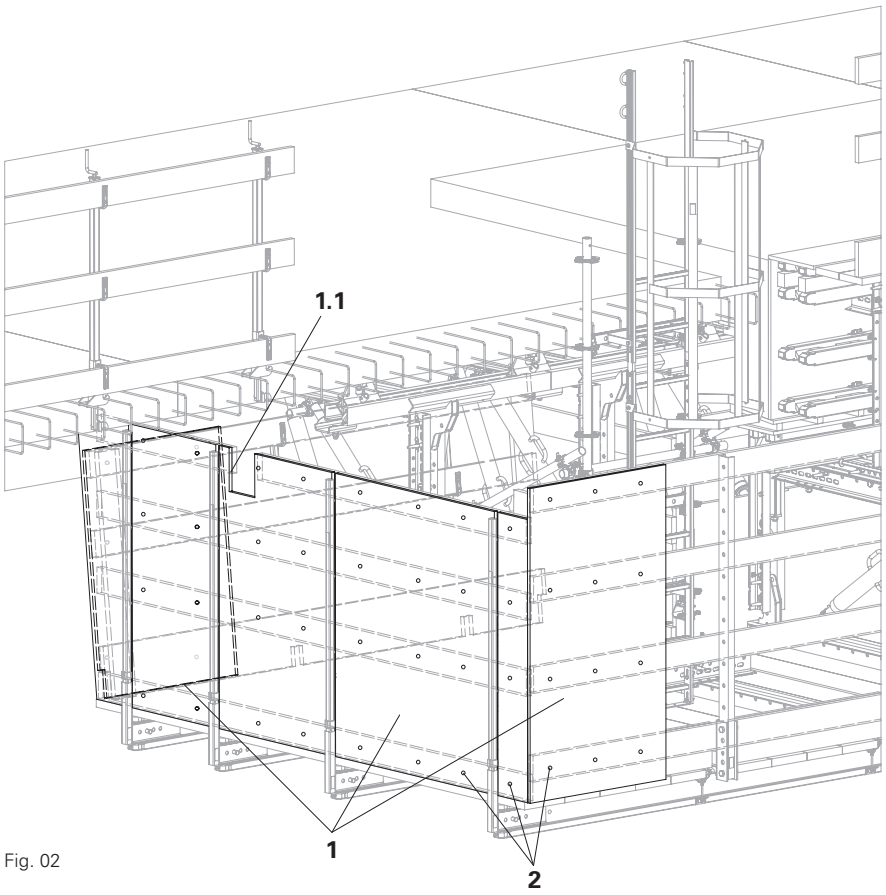


Fig. 02

- PERI recommends mounting the protection panel on the ground during assembly of the leading or finishing platform.
- For assembling the leading and finishing platforms: see Instructions for Assembly and Use for the VGB Parapet Track.

Travelling nose and adapter plate

The travelling nose
- is used for threading the rollers.
- has already been mounted and must be released.

The hydraulic cable winch is mounted on the adapter plate in the next step. (Fig. 03)

Components

A	Coupling element on the rail	
3	Travelling Nose 25-2 VARIOKIT	1x
3.1	Bolt ISO 4017 M20 x 60-8.8	1x
3.2	Nut ISO 7040 M20-8	1x
4	Adapter Plate H60 VGB	1x

Preparation
Undo the bolt ISO 4017 M20 x 60-8.8 (**3.1**) and the nut ISO 7040 M20-8 (**3.2**) on the travelling nose (**3**).

Assembly
1. Insert bolt ISO 4017 M20 x 60-8.8 (**3.1**) into the hole of the coupling element (**A**).
2. Hold the Travelling Nose 25-2 VARIOKIT (**3**) beneath the coupling element.
3. Insert bolt ISO 4017 M20 x 60-8.8 (**3.1**) into the hole of the Travelling Nose 25-2 VARIOKIT (**3**).
4. Slide the Adapter Plate H60 VGB (**4**) to the centre hole via the bolt ISO 4017 M20 x 60-8.8 (**3.1**).
5. Screw the nut ISO 7040 M20-8 (**3.2**) onto bolt ISO 4017 M20 x 60-8.8 (**3.1**).

(Fig. 03a)

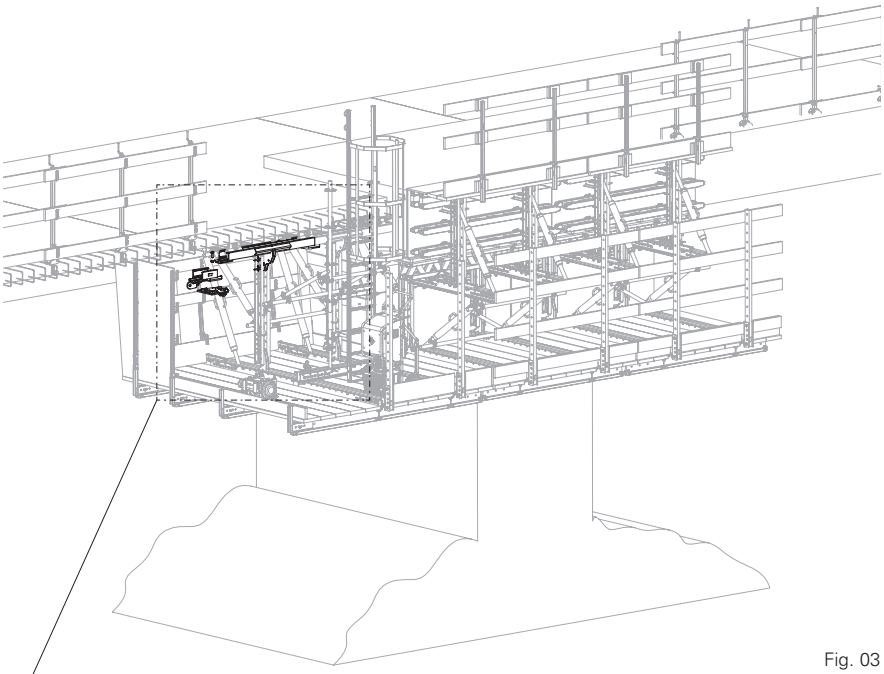


Fig. 03

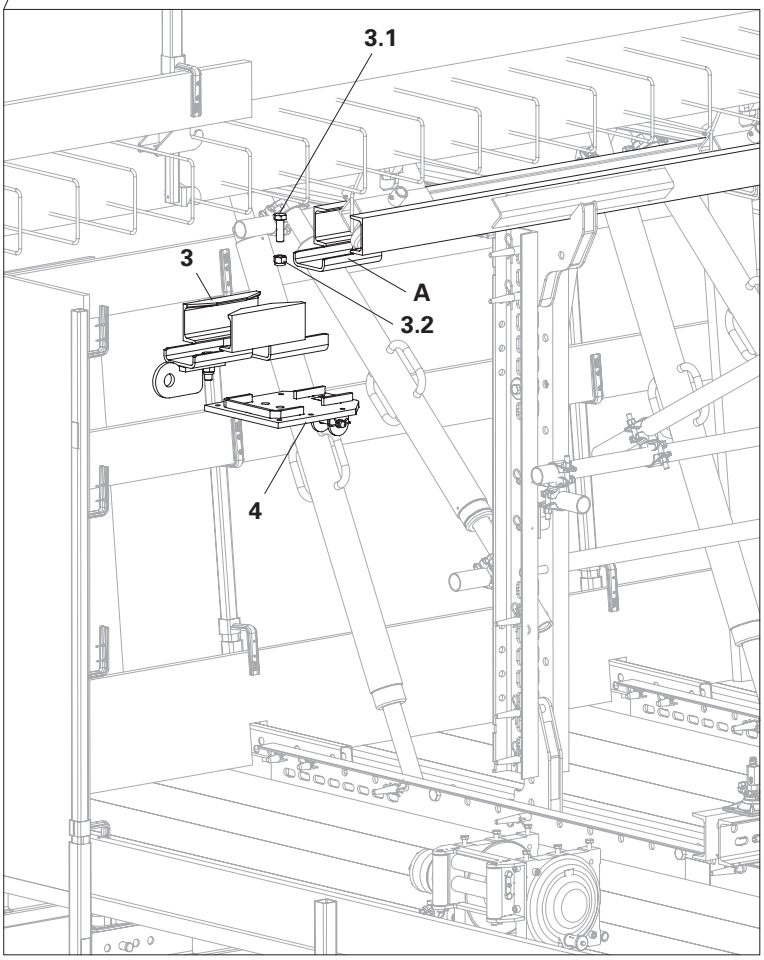


Fig. 03a

Hydraulic traction cable winch

Warning

The Hydr. Traction Cable Winch H60 (**5**) weighs 81 kg.
Risk of injury!
⇒ Use auxiliary means when lifting and mounting, e.g. a crane
or
⇒ Have three people fit the Hydr. Traction Cable Winch H60 (**5**). Two people hold the Hydr. Traction Cable Winch H60 (**5**) beneath the Adapter Plate H60 (**5**) and the third person fits the bolts.

- Observe the Instructions for Use for the Hydr. Traction Cable Winch H60 (**5**).
- Oil or grease the bolt 4017 M12 x 45 (**5.1**) and bolt ISO 4017 M12 x 35-8.8 (**5.2**).
- Secure the oiled bolts with tightening torque 124 Nm.

Components

5	Hydr. Traction Cable Winch H60	1x
5.1	Bolt ISO 4017 M12 x 45	5x
5.2	Bolt ISO 4017 M12 x 35-8.8	1x

Fixing the hydr. traction cable winch

1. Hold Hydr. Traction Cable Winch H60 (**5**) beneath Adapter Plate H60 (**4**).
2. Screw the Hydr. Traction Cable Winch H60 (**5**) onto Adapter Plate H60 (**4**) with 5x bolt ISO 4017 M12 x 45 (**5.1**).
3. Insert bolt ISO 4017 M12 x 35-8.8 (**5.2**) into the centre hole of Adapter Plate H60 (**4**).

(Fig. 04 + 04a + 04b)

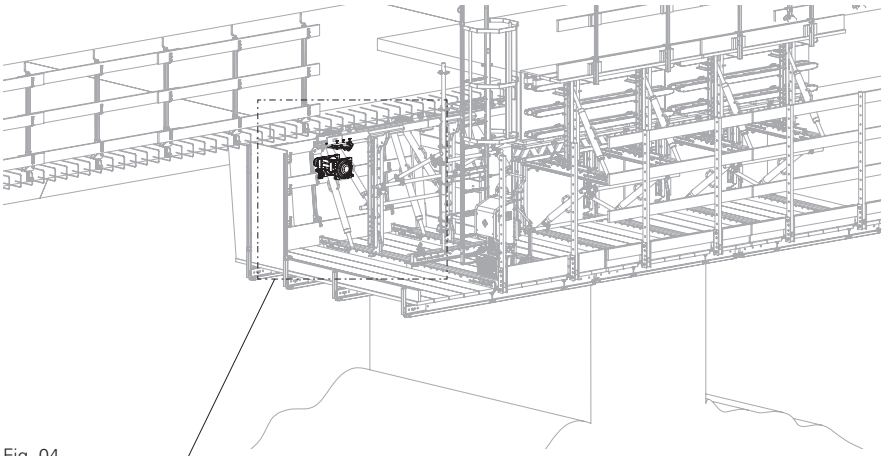


Fig. 04

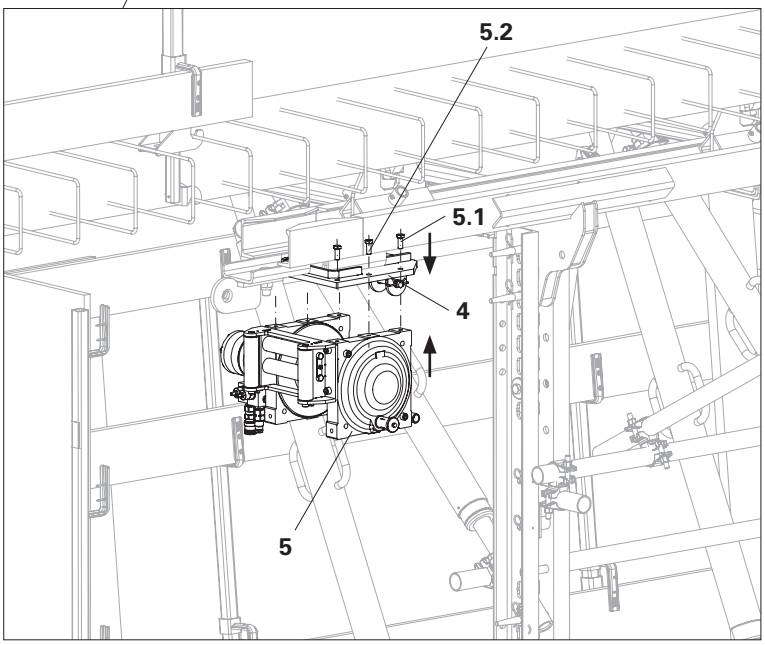


Fig. 04a

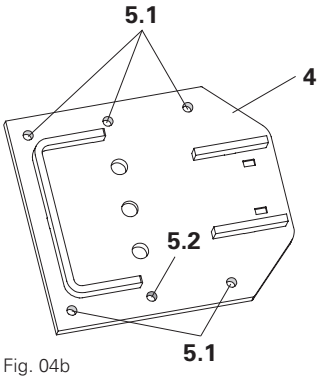


Fig. 04b

Spindle cross-connector

The Spindle Cross-Connector SRU
- is mounted on the horizontal external Steel Waler Universal SRU U120 (**B**) in the hole next to the corner connector. (Fig. 05a)
- accommodates the push-pull prop below.

(Fig. 05)

The hole to be used in the SRU Waler is determined on a project-specific basis.

Component

7	Spindle Cross-Connector SRU	1x
7.1	Fitting pin Ø 21 x 120	1x
7.2	Cotter pin 4/1	1x

Preparation

Remove cotter pin 4/1 (**7.2**) and fitting pin Ø 21 x 120 (**7.1**) from Spindle Cross-Connector SRU (**7**).

Assembly

1. Insert the Spindle Cross-Connector SRU (**7**) into the horizontal Steel Waler Universal SRU U120 (**B**). Ensure that the holes are congruent.
2. Insert spindle cross-connector with fitting pin Ø 21 x 120 (**7.1**) through the congruent holes.
3. Insert cotter pin 4/1 (**7.2**) into the hole of the fitting pin Ø 21 x 120 (**7.1**).
   → Secured connection.

(Fig. 05)

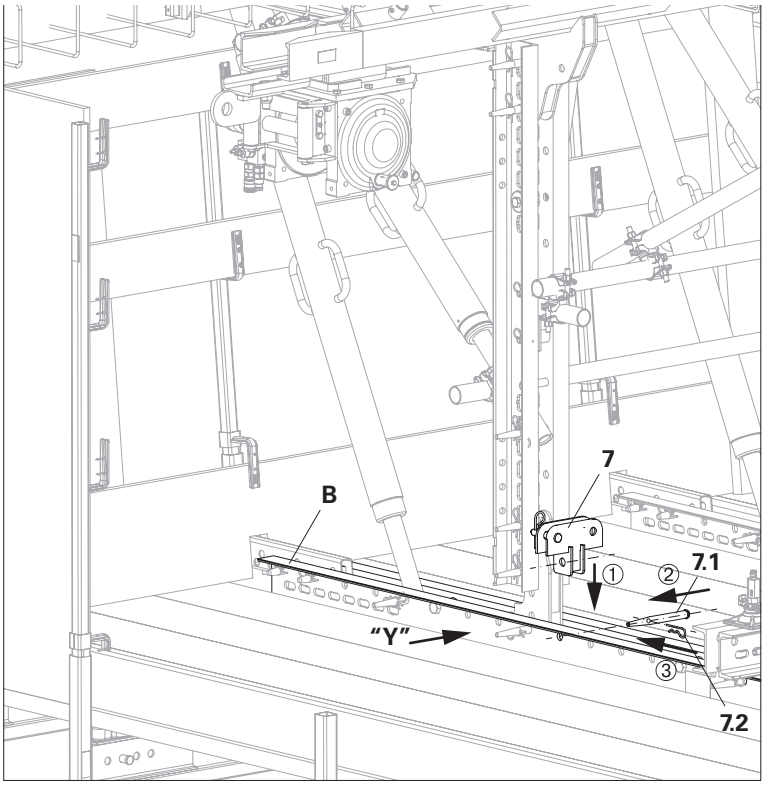


Fig. 05

View "Y"

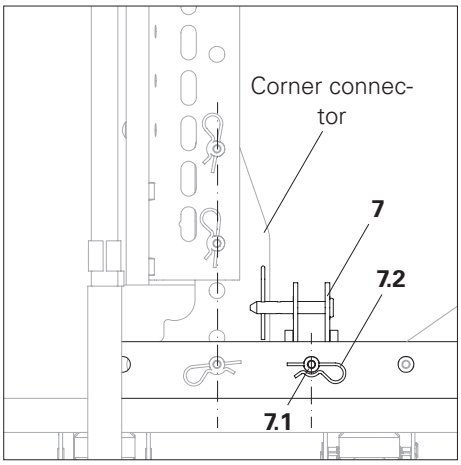


Fig. 05a

Push-pull Prop

Using the push-pull prop, the travelling nose can be adjusted by approx. ±10 mm in height to compensate for a height offset of the roller units.

Follow Instructions for Assembly and Use for RS and RSS Push-Pull Props.

Components

8	Push-Pull Prop RS 210*	1x
4.2	Bolt Ø 16 x 65/86	1x
4.3	Cotter pin 4/1	1x
7.2	Cotter pin 4/1	1x
7.3	Bolt Ø 16 x 65/86	1x

* Determine the size on a project-specific basis

Preparation

1. Remove cotter pin (**4.3**) and bolt Ø 16 x 65/86 (**4.2**) from the lug (**4.1**) of the Adapter Plate H60 VGB (**4**).
2. Remove cotter pin (**7.4**) and bolt Ø 16 x 65/86 (**7.3**) from Spindle Cross-Connector SRU.

Assembly

1. Attach Push-Pull Prop RS 210 (**8**) to the lug (**4.1**) of Adapter Plate H60 VGB (**4**) with bolt Ø 16 x 65/86 (**4.2**) and cotter pin 4/1 (**4.3**). (Fig. 06a)
2. Attach Push-Pull Prop RS 210 (**8**) to the Spindle Cross-Connector SRU with bolt Ø 16 x 65/86 (**7.3**) and cotter pin 4/1 (**7.2**) (Fig. 06)

View "X"

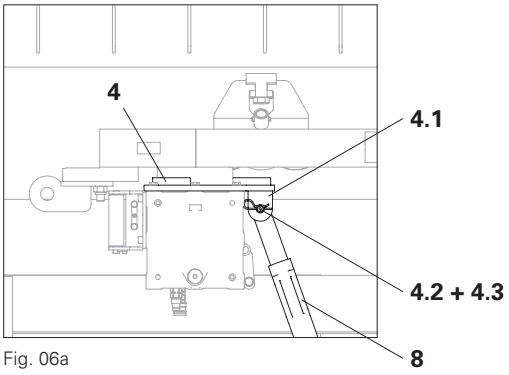


Fig. 06a

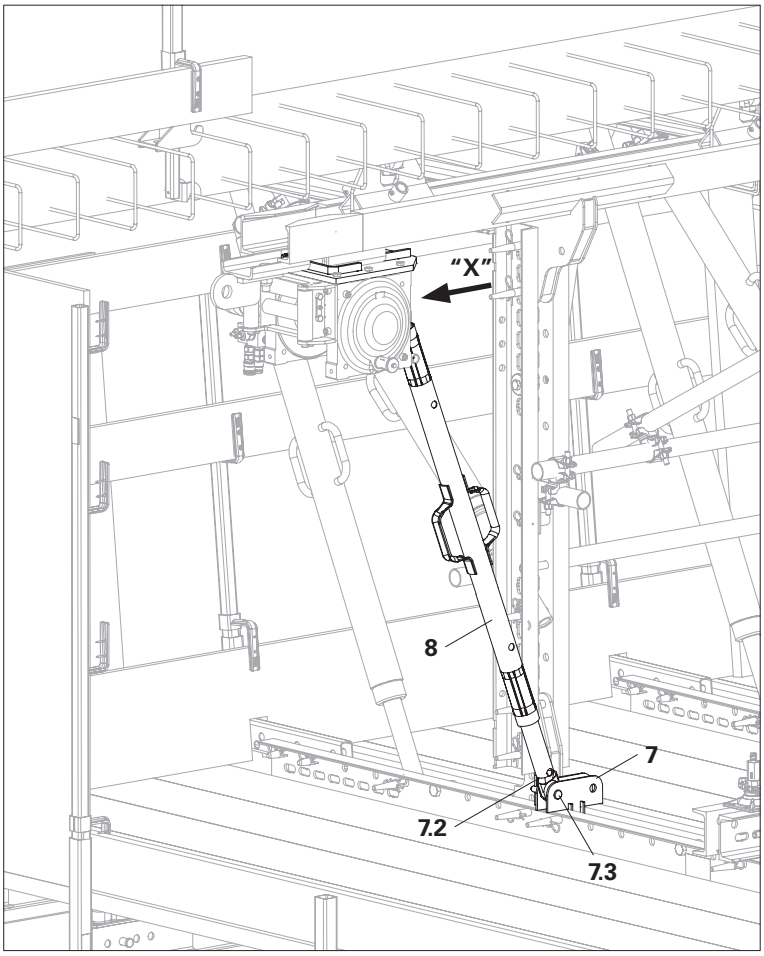


Fig. 06

Traction cable

Fitting the traction cable

- Before fitting the traction cable Ø 12 mm x 20 m, H60 (**21**), make sure that the roller bridge (winch window) is installed at the top and that the traction cable is also wound at the top.
- Observe the Instructions for Use for the Hydr. Traction Cable Winch H60 (**5**).

Component

21	Traction cable Ø 12 mm x 20 m, H60	1x

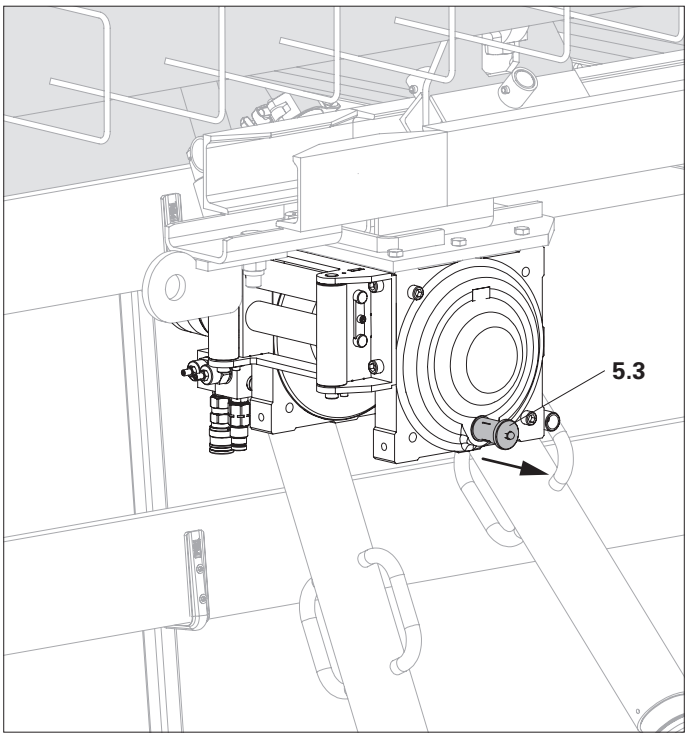


Fig. 07

Winding the traction cable on
Attach the traction cable Ø 12 mm, x 20 m, H60 (**21**) to Hydr. Traction Cable Winch H60 (**5**). For step-by-step instructions, see the Instructions for Use for the Hydr. Traction Cable Winch H60 (**5**).

Unwinding the traction cable
1. Operate the Hydraulic Unit RCS 4 x 190 bar, 380 – 460 V (**12**).
   → The load on the traction cable Ø 12 mm x 20 m, H60 (**21**) is relieved.
2. Pull out the freewheel (**5.3**). (Fig. 07)
3. Unwind the traction cable Ø 12 mm x 20 m, H60 (**21**) by hand.

Tension shoe

- When mounting the tension shoe, ensure that the stability is not compromised. Use a project-specific solution, e.g.
  – Telescopic working platform.
  – Temporary working scaffold.
- The tension shoe edge distance is specified in the project-specific planning.
- The Tension Shoe-2 VBG (**19**) can only be mounted if the anchor sleeve M24 (Art. no. 026230) has been used as an advanced mounting.

Components

19 Tension Shoe-2 VGB	1x
15 Bolt ISO 4014 M24 x 150-8.8	1x

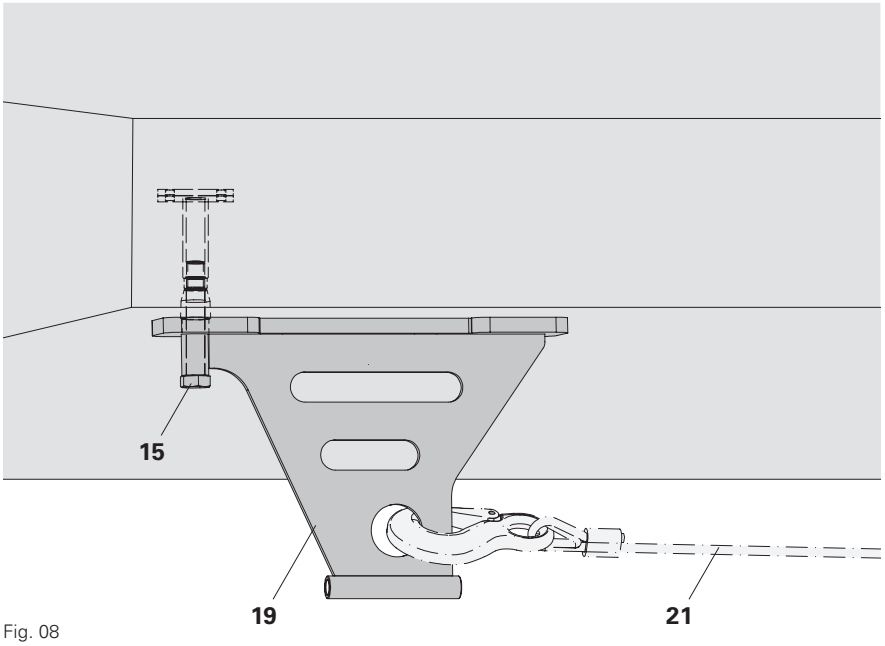


Fig. 08

Assembly

1. Remove the anchor positioning stud.
2. Fix Tension Shoe-2 VGB (**19**) to anchor sleeve M24 with bolt M24x150 (**15**).

(Fig. 08)

Suspension Head M24 VARIOKIT

- Installation of the Suspension Heads M24 VARIOKIT (**16**) is carried out from a safe working position, e.g.
  - Leading platform of the parapet track
  - Telescopic working platform
  - Temporary working scaffold
- The advanced mounting of Anchor Sleeve M24 is gradually removed during the Parapet Track VGB relocation procedure and the Suspension Head M24 VARIOKIT is fastened immediately after.
- Do not exceed max. permissible inclination (±15°) of the Suspension Head M24 VARIOKIT. (Fig. 10)

Removing the anchor positioning stud

1. Turn over wire nails with a hammer.
2. Unscrew the Anchor Positioning Stud M24 from the anchor sleeve by means of an Allen key (AF 14).

(Fig. 09)

Removing the threaded cone

1. Push back wire nail with a hammer.
2. Unscrew Threaded Cone M24/40 from the anchor sleeve using a ratchet wrench and socket (AF 22).

(not shown)

Mounting the suspension heads

1. Fix the Suspension Head M24 VARIOKIT (**16**) to Anchor Sleeve M24 using bolt ISO 4014 M24 x 150-8.8 (**15**). (Fig. 10)
2. Hand-tighten bolt ISO 4014 M24 x 150-8.8 (**15**).

For parapets with large projections, we recommend mounting the Suspension Head M24 VARIOKIT with the opening to the bridge superstructure to make it easier to dismantle the roller units. (Fig. 10a)

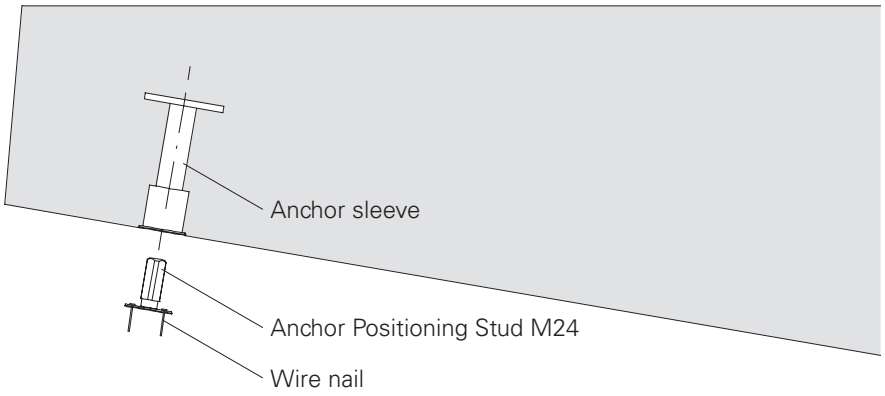


Fig. 09

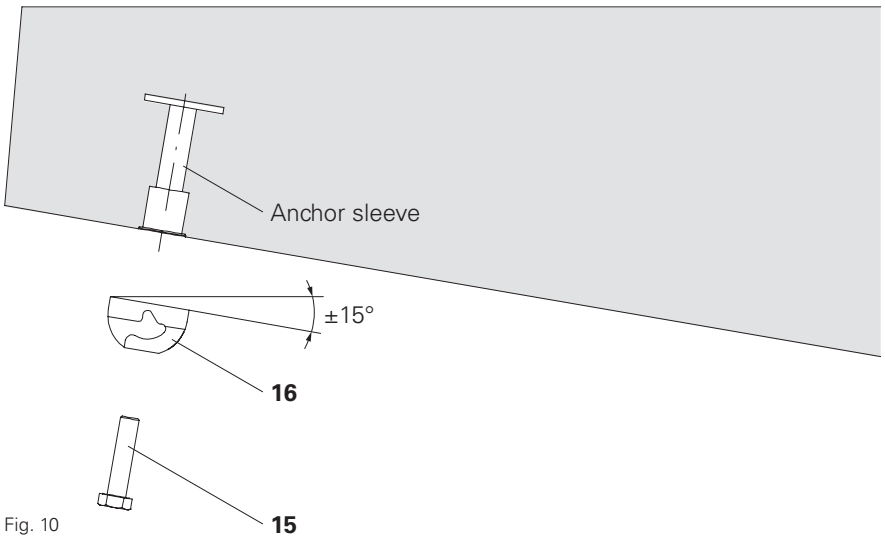


Fig. 10

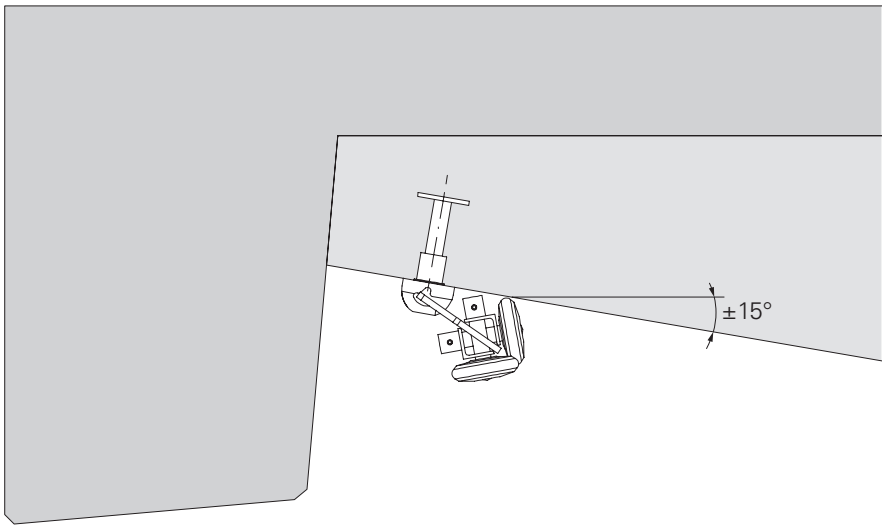


Fig. 10a

Roller Unit VARIOKIT

Make sure that the Suspension Head M24 VARIOKIT (**16**) is mounted correctly. The hook pockets of the Suspension Head M24 VARIOKIT (**16**) should always point alternately towards the outer edge and inner edge of the cantilever. (Fig. 11)

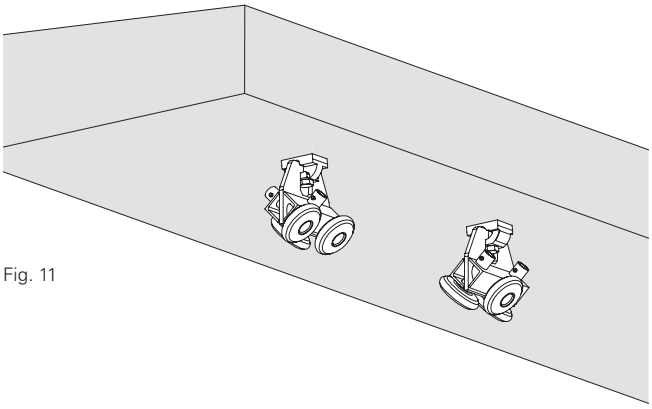


Fig. 11

Components

16 Suspension Head M24 VARIOKIT
17 Roller Unit VARIOKIT

Assembling the roller units

1. Push the Roller Unit VARIOKIT (**17**) into the Suspension Head M24 VARIOKIT (**16**) sideways. (Fig. B7.01a)
2. Swivel the Roller Unit VARIOKIT (**17**) downwards.

(Fig. 11a + 11b)

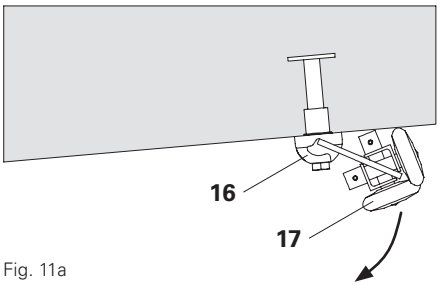


Fig. 11a

The Roller Unit VARIOKIT (**17**) pivots into the vertical end position as a result of gravity. (Fig. 11b)

PERI recommends mounting the Roller Units VARIOKIT (**17**) with the double roller side alternating outwards and inwards, see Instructions for Assembly and Use for the VGB Parapet Track, Section B7.

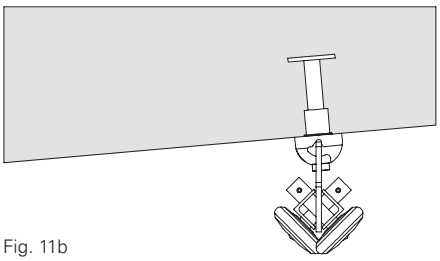


Fig. 11b

Hydraulic unit

Initial commissioning
The following steps must be taken before the hydraulic unit is commissioned for the first time:
- Check completeness of technical documentation, e.g. hydraulic diagram, equipment list, electrical circuit diagram, instructions for switches and motor.
- Site personnel should familiarise themselves with the hydraulic unit using the documentation.
- Compare the required type of current and voltage with the information on the type plate.
- Have the coupling socket connected by qualified personnel.
- Check the rotary field on the rotary field display.
- Check that the oil tank is clean.
- Top up hydraulic oil.
- Check the temperature of the hydraulic oil and bring it to operating temperature if necessary.
- Clean the bushings and nipples of all quick-couplers, and check for damage.
- Check all fixings and retighten if necessary.
- Bleed the hydraulics.

The following steps must be carried out during the initial commissioning of the hydraulic unit:
- Listen out for any pump noises after starting up.
- Check the rotary field.
- Check the level of the hydraulic oil and top up, if necessary.
- Check temperature of the electric motor and hydraulic oil.
- Check filter and, if necessary, clean or replace it.
- Carefully bleed system if required.
- Check the functionality of the hand valves.
- Check components and connections for external leaks.
- Never re-tighten leaky screw fittings under high pressure, but only after releasing the pressure.

The following steps must be carried out during commissioning when the hydraulic unit has been out of operation for a long period of time:
- Thoroughly clean and rinse preserved equipment before commissioning.
- Drain condensation water from the hydraulic tank.
- Check hydraulic oil after a long standstill period for usability and change if necessary.

Recommissioning
All measures recommended for initial commissioning also apply to re-commissioning.

Preparation
Before connection and installation can begin, the hydraulics must be prepared:
- Check the age of the hydraulic hoses and replace if necessary.
- Carefully bleed the hydraulic hoses before use.
- Clean the oil filter or replace it if necessary.
- Check the fluid level in the oil tank and top up with hydraulic oil if necessary.
- Unravel any loops and twists in the hydraulic hoses.
- Remove objects from the hydraulic hoses.
- Clean all bushings and nipples on all quick-couplers.
- Check the rotary field on the rotary field display.
- Check the oil temperature.
- At low temperatures, warm up hydraulic oil by flushing the system in order to reach the required start viscosity.
- Listen out for any pump noises after starting up. If there are any loud noises, the rotary field must be replaced. (see Section D5)
- Check components and connections for signs of leakage.

Hydraulic unit with cable winch

Follow the Instructions for Use:
- Hydraulic Unit RCS
  4 x 190 bar, 380 – 460 V,
- Hydr. Traction Cable Winch H60.

Assembly

1. Connect Hydraulic Accumulate Piece RCS (**18a**) to the Hydraulic Connection A1 (**12.3.1**) and A2 (**12.3.3**) with Cylinder 1 & 2 or 3 & 4.
2. Connect Hydraulic Twin Hose RCS (**20**) to Hydraulic Accumulate Piece RCS (**18a**).
3. Connect second Hydraulic Accumulate Piece RCS (**18b**) to the Hydraulic Connection B1 (**12.3.2**) and B2 (**12.3.4**) with Cylinder 1 & 2 or 3 & 4.
4. Connect Hydraulic Twin Hose RCS (**20**) to second Hydraulic Accumulate Piece RCS (**18b**).
5. Connect Hydraulic Twin Hose RCS (**20**) to Hydr. Traction Cable Winch H60 (**5**).

(Fig. 12 + 12a + 13)

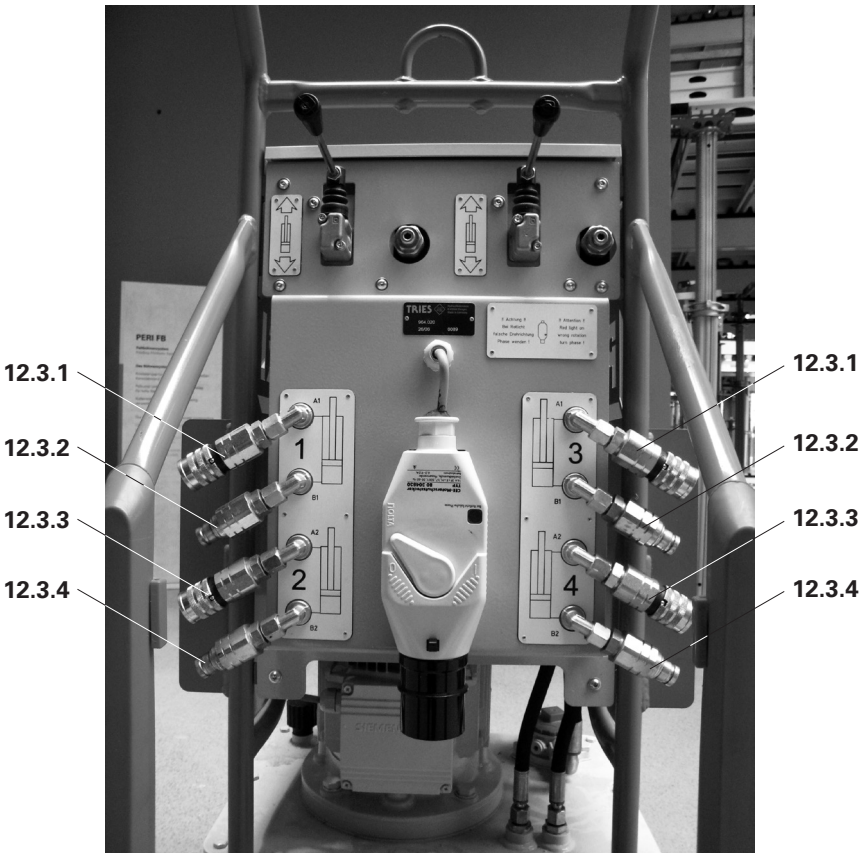


Fig. 12

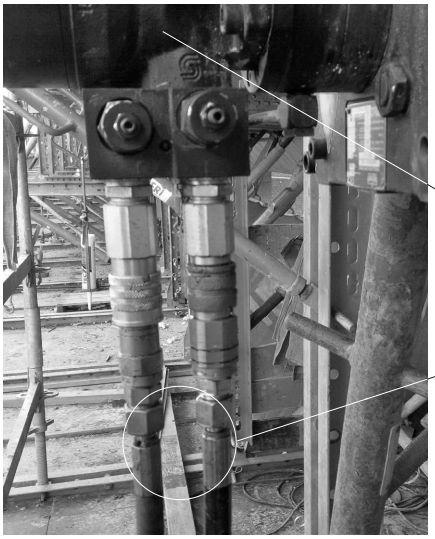


Fig. 13

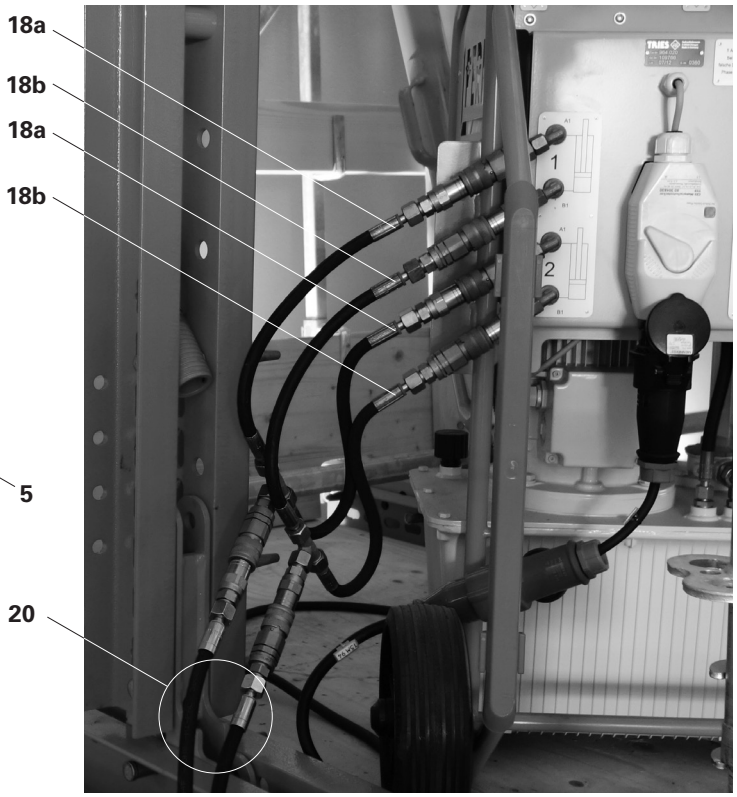


Fig. 12a

Connecting to power supply

Danger

High electric voltage at the hydraulic unit!
Death or serious injury can result from an electric shock.
⇒ Connection only by qualified personnel.

- Compare the required type of current and voltage with the information on the type plate.
- If the rotary field display (**12.3.7**) is red, turn the phase inverter 180° in the plug. (Fig. 14 + 15)

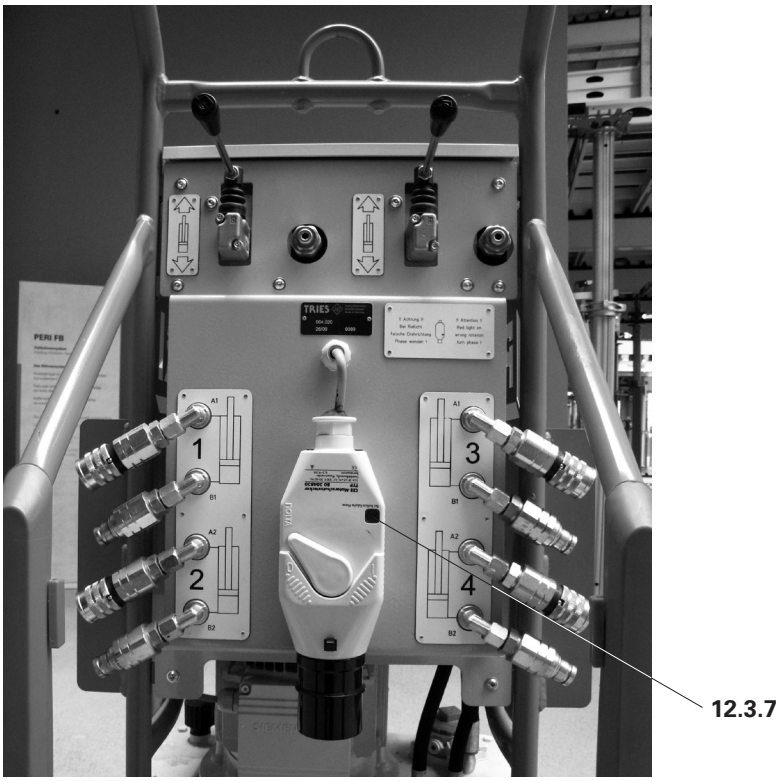


Fig. 14

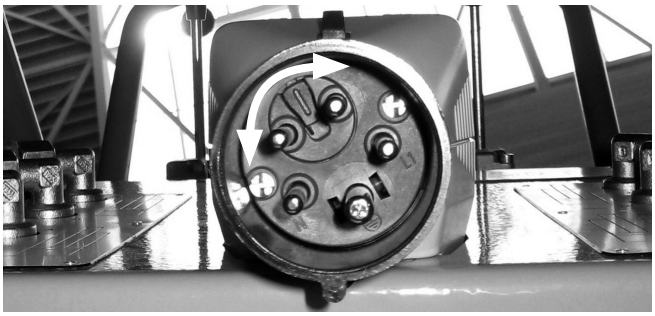


Fig. 15

Accessories
Adapter Cable RCS (**14**) for operating voltage 400 V and a power supply line with CEE coupling 16 A
(Art. no. 110280).
(Fig. 16)

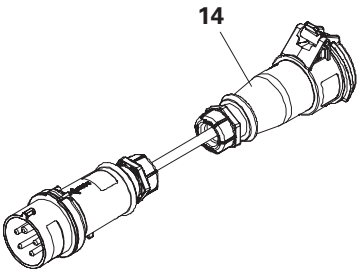


Fig. 16

Switching on the hydraulic unit

- Observe the Instructions for Use for the Hydraulic Unit RCS 4 x 190 bar, 380 - 460 V.
- Before switching on, check that both control levers are in the centre position.

1. Turn the toggle on the protective motor switch (**12.3.5**) to the right. (Fig. 17)

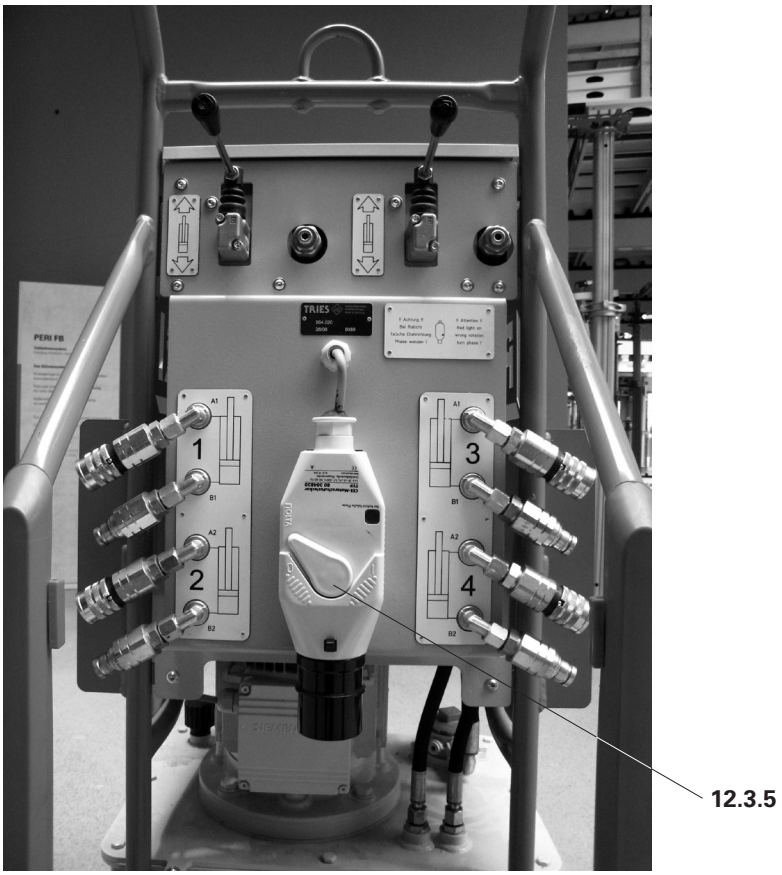


Fig. 17

Operating the hydraulic unit

- Observe the Instructions for Use for the Hydraulic Unit RCS 4 x 190 bar, 380 - 460 V.
- Use the control lever (**12.3.6**) of the connected pistons for repositioning.
  – Pistons 1 and 2: left control lever
  – Pistons 3 and 4: right control lever

Starting the moving procedure
Push the control lever (**12.3.6**) upwards.

Ending the moving procedure
1. Relieve Hydraulic Traction Cable Winch H60 (**5**) by pressing the control lever down (**12.3.6**).
2. Move the control lever (**12.3.6**) into the starting position.

(Fig. 18)

Switching off the hydraulic unit
Turn the toggle on the protective motor switch (**12.3.5**) to the left.

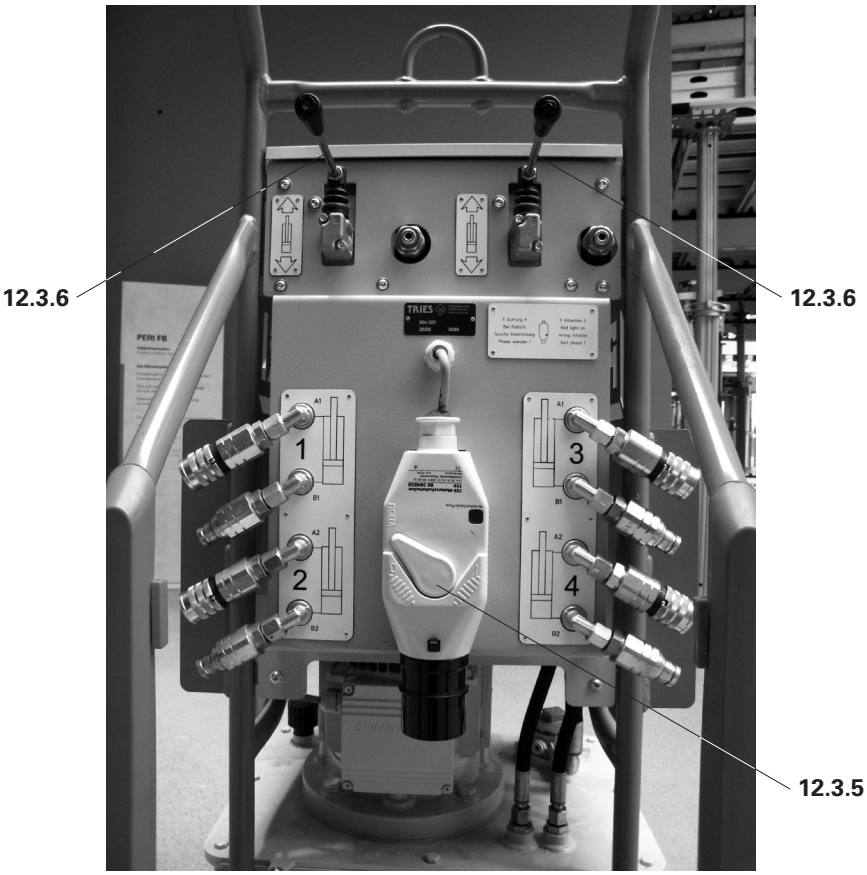


Fig. 18

Venting the system

In order to ensure that the system functions properly, the system must be bled fully every time it is put into operation for the first time on the construction site, after changing pipes and hoses or after maintenance work on the hydraulic cable winch. The oil level in the hydraulic unit must be checked throughout this process and topped up as required.

Initial commissioning and re- commissioning

1. Connect the hose connections to the hydraulic unit.
2. Connect up the hoses. (Fig. 19)
   → A short-circuit connection has now been established.
3. Switch on the hydraulic unit.
4. Push the control lever upwards for approx. 1 minute.
   → Air pockets in the hydraulic hoses are eliminated.
5. Switch off the hydraulic unit.
6. Decouple hose connection.
7. Connect hose connection to the cable winch.
8. Activate freewheeling coupling.
9. Switch on the hydraulic unit.
10. Push the control lever upwards for approx. 1 minute.
    → Air pockets in the hydraulic hoses are eliminated.

→ The bleeding process is now completed.

When changing the hose

1. Disconnect the old hose connection.
2. Connect new hose connection to the hydraulic unit.
3. Connect up the hoses. (Fig. 19)

A short-circuit connection has now been established.

4. Switch on the hydraulic unit.
5. Push the control lever upwards for approx. 1 minute.

Air pockets in the hydraulic hoses are eliminated.

6. Connect hose connection to the cable winch.

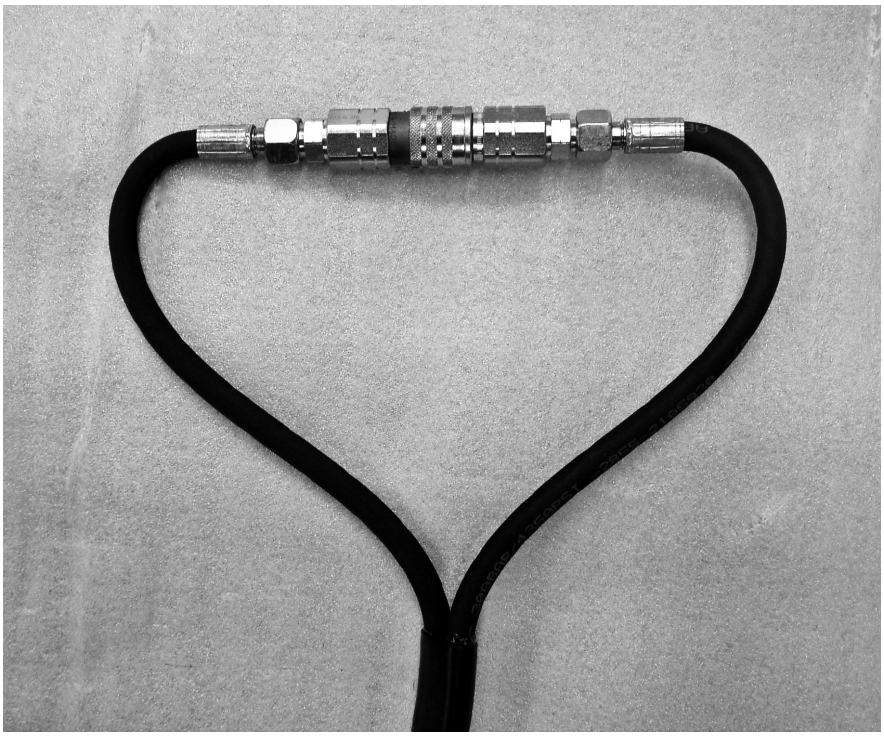


Fig. 19

Framework conditions

- The relocation procedure must be monitored by the person in charge at all times.
- The recommended relocation and concreting length of the parapet track is approx. 25 m.
- Depending on the radius of the curve and the geometry of the superstructure, the optimum length for the relocation procedure could be < 25 m, depending on the project.
- Always pull in the axis direction of the rails.
- Relocation can
  - either be carried out with the hydraulic Traction Cable Winch H60 (**5**), which is attached directly to the leading platform, see the Section Hydraulic traction cable winch,
  - or with a relocation device provided by the contractor which is attached to the lug of the Travelling Nose 25-2 VARIOKIT (**3**).
- With a longitudinal inclination of <4°, the relocation unit is self-locking.

Relocation types

PERI Relocation Unit
Attach traction cable 12 mm x 20 m, H60 (**21**) to Tension Shoe-2 VGB (**19**) at a sufficient distance (parapet track length), see the Section Tension shoe.

Relocation unit supplied by contractor
Attach the traction cable to the lug of the Travelling Nose 25-2 VARIOKIT (**3**). (Fig. 20)

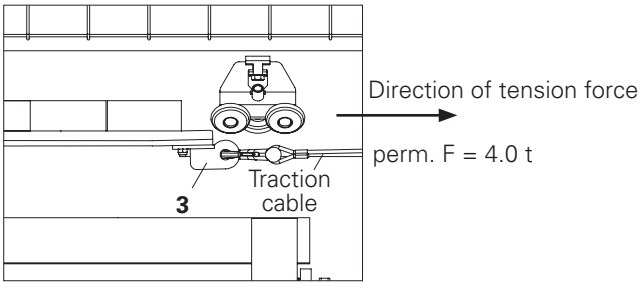


Fig. 20

First relocation procedure

Warning

- People between the load and the Hydr. Traction Cable Winch H60. Risk of injury!
  ⇒ During the relocation procedure, no one is allowed to be in the danger zone in case the cable breaks etc. (Fig. 21)
- Falling material, e.g. toolboxes, on the cantilevered part of the leading platform! Risk of injury!
  ⇒ Do not set down any loads on the cantilevered part of the leading platform.

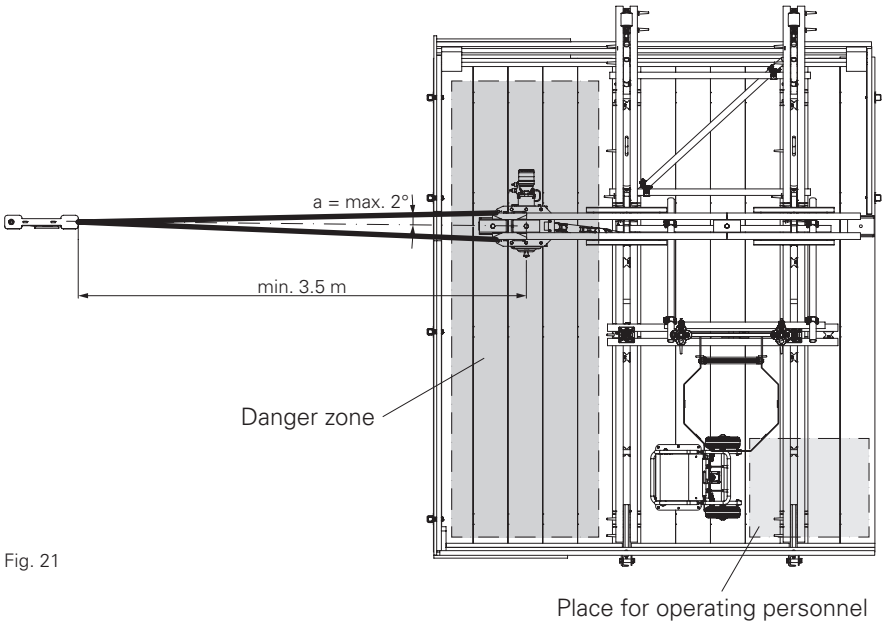


Fig. 21

Note

- When relocating within the bridge radius, observe the permissible diagonal pull "a" of ±2° to the tension axis. (Fig. 21)
  ⇒ Traction cable 12 mm x 20 m, H60 not winding up correctly.
  ⇒ Wear on traction cable 12 mm x 20 m, H60 is greater.
- Move the parapet track a maximum of 3.50 m in front of the tension point with a right-angled tension axis. (Fig. 25)
  ⇒ Wear on traction cable 12 mm x 20 m, H60 is greater.

- When relocating, follow the operating instructions for the Hydr. Traction Cable Winch H60.
- During the relocation procedure, only operating personnel are allowed to remain on the platform. (Fig. 21)
- The Hydr. Traction Cable Winch H60 may only be used for moving horizontal loads.
- The Hydr. Traction Cable Winch H60 may only be subjected to loads if there are at least 5 windings on the winch.
- The maximum tension force of the Hydr. Traction Cable Winch H60 decreases with each cable layer. If the tension force is no longer sufficient, move the Tension Shoe-2 VGB so that the winch drum has fewer cable layers on it again.

The traction cable 12 mm x 20 m, H60 must be pre-tensioned with >10 % of the tension force of the hydr. traction cable winch when the traction cable is wound up.
PERI recommends winding up the traction cable during the relocation procedure.

Step 1
Preparing the relocation unit

1. Wind traction cable 12 mm x 20 m, H60 onto Hydr. Traction Cable Winch H60 using 5 windings, see page 16.
2. Pull the traction cable 12 mm x 20 m, H60 in the relocation direction, e.g. onto the lifting platform.
3. Fit Tension Shoe-2 VGB, see page 17.
4. Attach traction cable 12 mm x 20 m, H60 to Tension Shoe-2 VGB, see page 17.
5. Actuate the control lever of Hydraulic Unit RCS 4 x 190 bar, 3,680 – 460 V until the traction cable 12 mm x 20 m, H60 is taut.
6. Check the local conditions, see page 26.
7. Actuate the control lever of the Hydraulic Unit RCS 4 x 190 bar, 3,680 – 460 V.
   → Pull with Hydr. Traction Cable Winch H60 until shortly before the next roller unit.

Step 2
Removing the roller unit from the finishing platform

1. Remove the Roller Unit VARIOKIT (**17**).
2. Unscrew the Suspension Head M24 VARIOKIT (**16**).
3. Close the tie hole, see Instructions for Assembly and Use for the VGB Parapet Track, Section A5.
4. Transport the Suspension Head M24 VARIOKIT (**16**) and Roller Unit VARIOKIT (**17**) to the leading platform.

(Fig. 22)

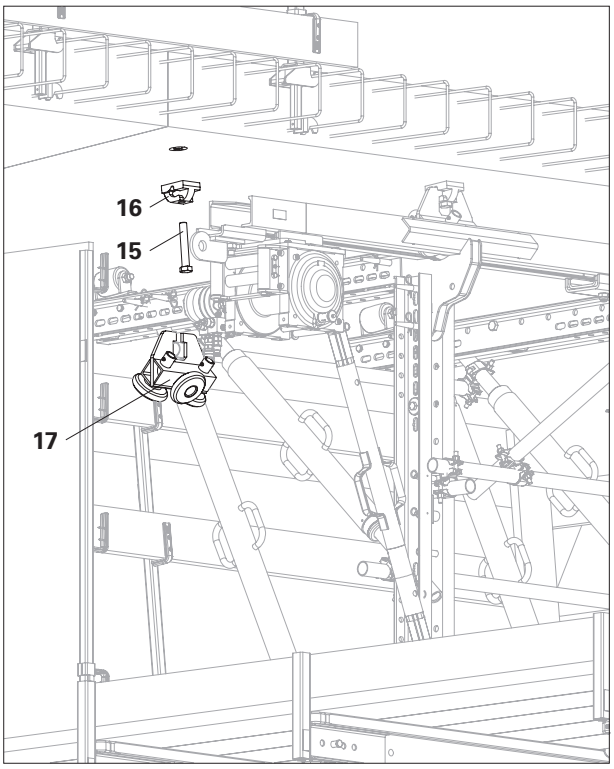


Fig. 22

- Between the relocation operations, the Roller Units VARIOKIT (**17**) and Suspension Heads M24 VARIOKIT (**16**) are removed from the finishing platform, brought to the leading platform and mounted at the front.
- Depending on the length of the VGB Parapet Track, the cable may need to be pulled several times.

Step 3
Pulling with the hydr. traction cable winch

Make sure that the height of the Travelling Nose 25-2 VARIOKIT (**3**) is optimally adjusted with the Push-Pull Prop RS 210 (**8**) before threading it into each Roller Unit VARIOKIT (**17**). Avoid tilting when threading the VARIOKIT roller unit (**17**). (Fig. 23)

1. Switch on the Hydraulic Unit RCS 4 x 190 bar, 380 – 460 V (**12**), see page 23.
2. Operate the Hydraulic Unit RCS 4 x 190 bar, 380 – 460 V (**12**), see page 24.

The cable is wound on.

3. Adjust the Push-Pull Prop RS 210 (**8**). (Fig. 23)
4. Switch off the Hydraulic Unit RCS 4 x 190 bar, 380 – 460 V (**12**), see page 24.

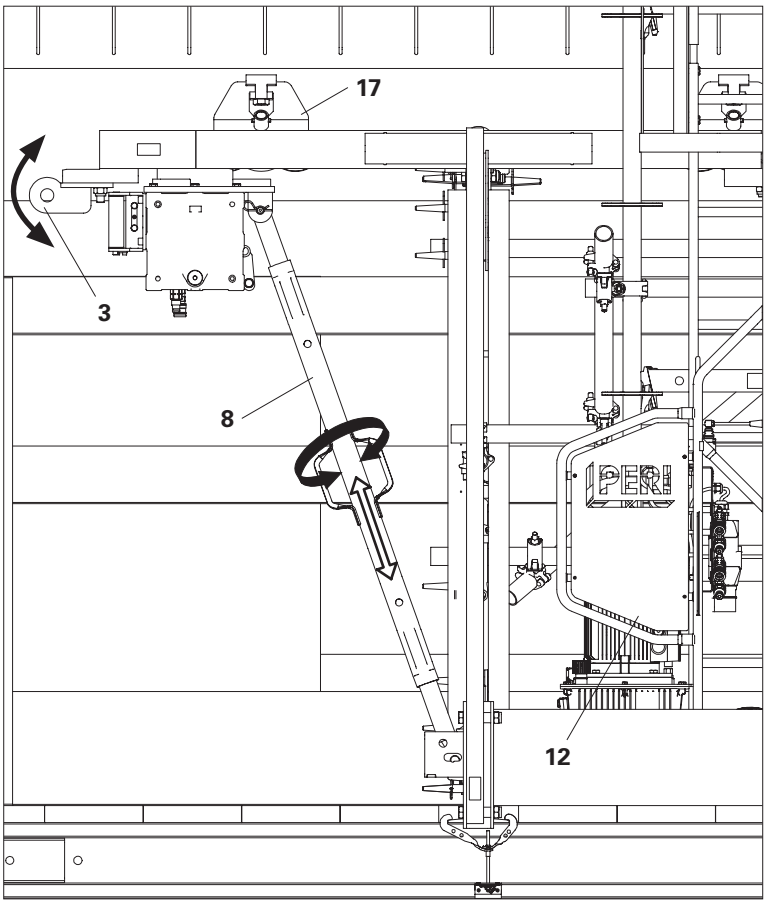


Fig. 23

Step 4
Installing the roller unit on the leading platform

When the roller unit is being mounted, the traction cable must be free of any load.

1. Screw Suspension Head M24 VARIOKIT (**16**) into the Anchor Sleeve M24.
2. Attach the Roller Unit VARIOKIT (**17**).
3. Move the VGB Parapet Track up to the next anchor sleeve.

(Fig. 24)

Repeat steps 1 to 4 until the next concreting section has been reached.

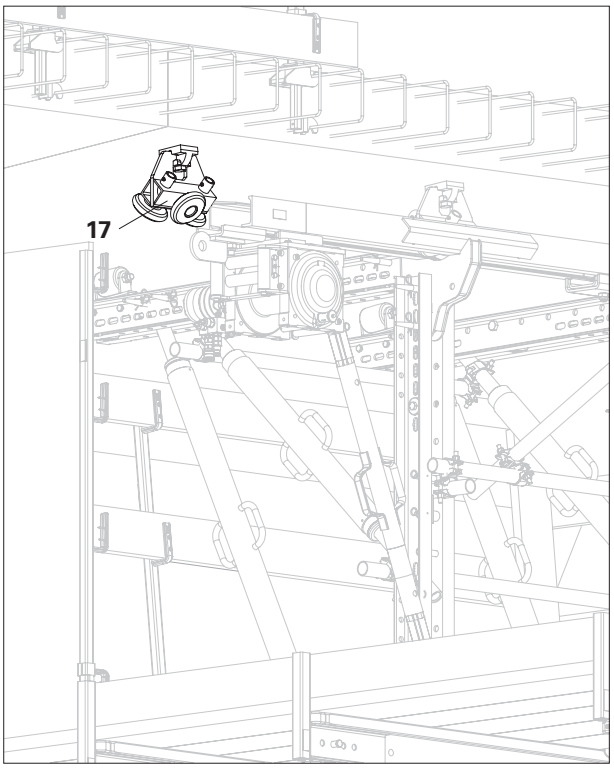


Fig. 24

Next relocation procedure

Warning

- People between the load and the Hydr. Traction Cable Winch H60. Risk of injury!
  ⇒ During the relocation procedure, no one is allowed to be in the danger zone in case the cable breaks etc. (Fig. 25)
- Falling material, e.g. toolboxes, on the cantilevered part of the leading platform! Risk of injury!
  ⇒ Do not set down any loads on the cantilevered part of the leading platform.

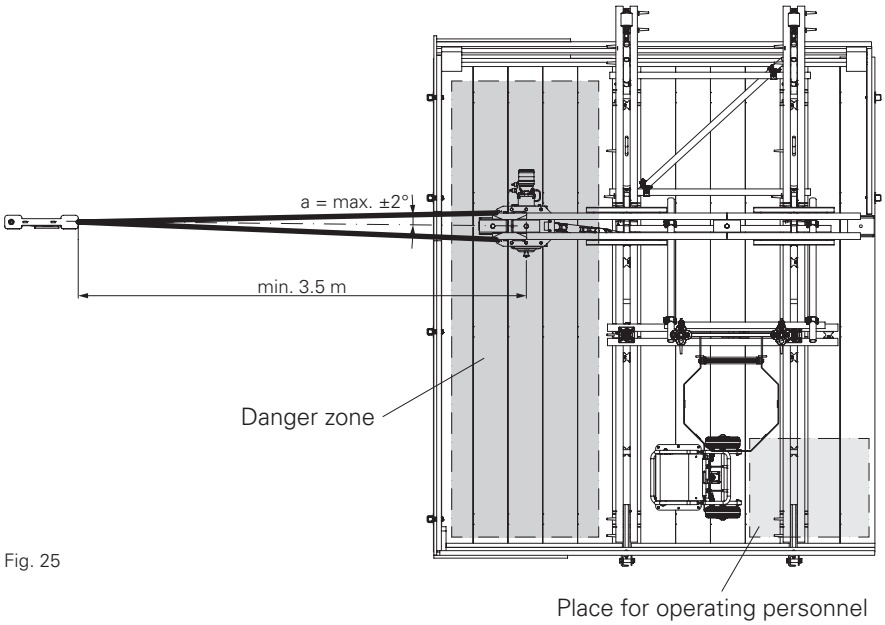


Fig. 25

Note

- When relocating within the bridge radius, observe the permissible diagonal pull "a" of ±2° to the tension axis. (Fig. 25)
  ⇒ Traction cable 12 mm x 20 m, H60 not winding up correctly.
  ⇒ Wear on traction cable 12 mm x 20 m, H60 is greater.
- Move the parapet track a maximum of 3.50 m in front of the tension point with a right-angled tension axis. (Fig. 25)
  ⇒ Wear on traction cable 12 mm x 20 m, H60 is greater.

- When relocating, follow the Instructions for Use for the Hydr. Traction Cable Winch H60.
- During the relocation procedure, only operating personnel are allowed to remain on the platform. (Fig. 25)
- The Hydr. Traction Cable Winch H60 may only be used for moving horizontal loads.
- The Hydr. Traction Cable Winch H60 may only be subjected to loads if there are at least 5 windings on the winch.
- The maximum tension force of the Hydr. Traction Cable Winch H60 decreases with each cable layer. If the tension force is no longer sufficient, move the Tension Shoe-2 VGB so that the winch drum has fewer cable layers on it again.

During the relocation operation, the Roller Units VARIOKIT (**17**) and Suspension Heads M24 VARIOKIT (**16**) are removed from the finishing platform, brought to the leading platform and mounted at the front.

Step 1

1. Pull the traction cable 12 mm x 20 m, H60 (**21**) in the relocation direction, e.g. onto the lifting platform.
2. Fit Tension Shoe-2 VGB (**19**), see page 17.
3. Attach the traction cable 12 mm x 20 m, H60 (**21**) to Tension Shoe-2 VGB (**19**), see page 17.
4. Actuate the control lever (**12.3.6**) of Hydraulic Unit RCS 4 x 190 bar, 3,680 – 460 V (**12**) until the traction cable 12 mm x 20 m, H60 (**21**) is taut.
5. Check the local conditions, see page 26.
6. Actuate the control lever (**12.3.6**) of the Hydraulic Unit RCS 4 x 190 bar, 3,680 – 460 V (**12**).
   → Pull with Hydr. Traction Cable Winch H60 (**5**) until shortly before the next roller unit.

Step 2

Removing the roller unit from the finishing platform

1. Remove the Roller Unit VARIOKIT (**17**).
2. Unscrew the Suspension Head M24 VARIOKIT (**16**).
3. Close the tie hole, see Instructions for Assembly and Use for the VGB Parapet Track, Section A5.
4. Transport the Suspension Head M24 VARIOKIT (**16**) and Roller Unit VARIOKIT (**17**) to the leading platform.

(Fig. 26)

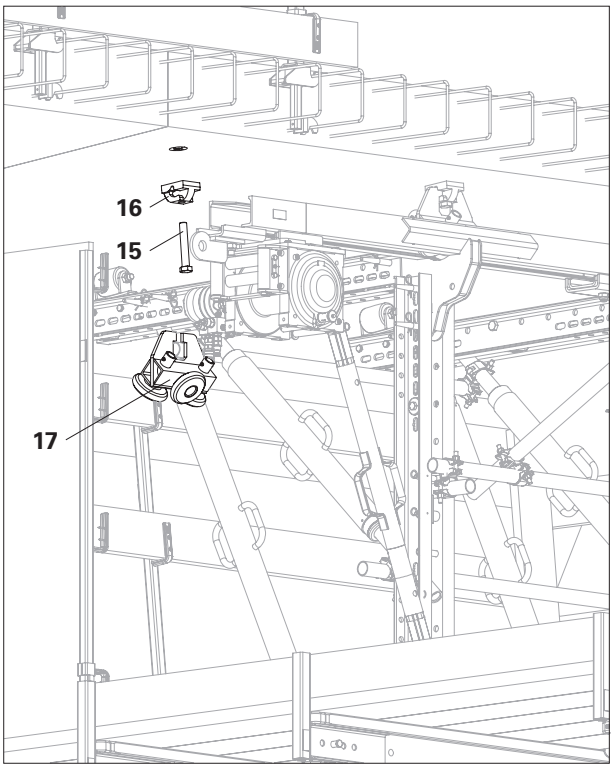


Fig. 26

- Between the relocation operations, the Roller Units VARIOKIT (**17**) and Suspension Heads M24 VARIOKIT (**16**) are removed from the finishing platform, brought to the leading platform and mounted at the front.
- Depending on the length of the VGB Parapet Track, the cable may need to be pulled several times.

Step 3
Pulling with the hydr. traction cable winch

Make sure that the height of the Travelling Nose 25-2 VARIOKIT (**3**) is optimally adjusted with the Push-Pull Prop RS 210 (**8**) before threading it into each Roller Unit VARIOKIT (**17**). Avoid tilting when threading the VARIOKIT roller unit (**17**). (Fig. 27)

1. Switch on the Hydraulic Unit RCS 4 x 190 bar, 380 – 460 V (**12**), see page 23.
2. Operate the Hydraulic Unit RCS 4 x 190 bar, 380 – 460 V (**12**), see page 24.
   → The cable is wound on.
3. Adjust the Push-Pull Prop RS 210 (**8**). (Fig. 27)
4. Switch off the Hydraulic Unit RCS 4 x 190 bar, 380 – 460 V (**12**), see page 24.

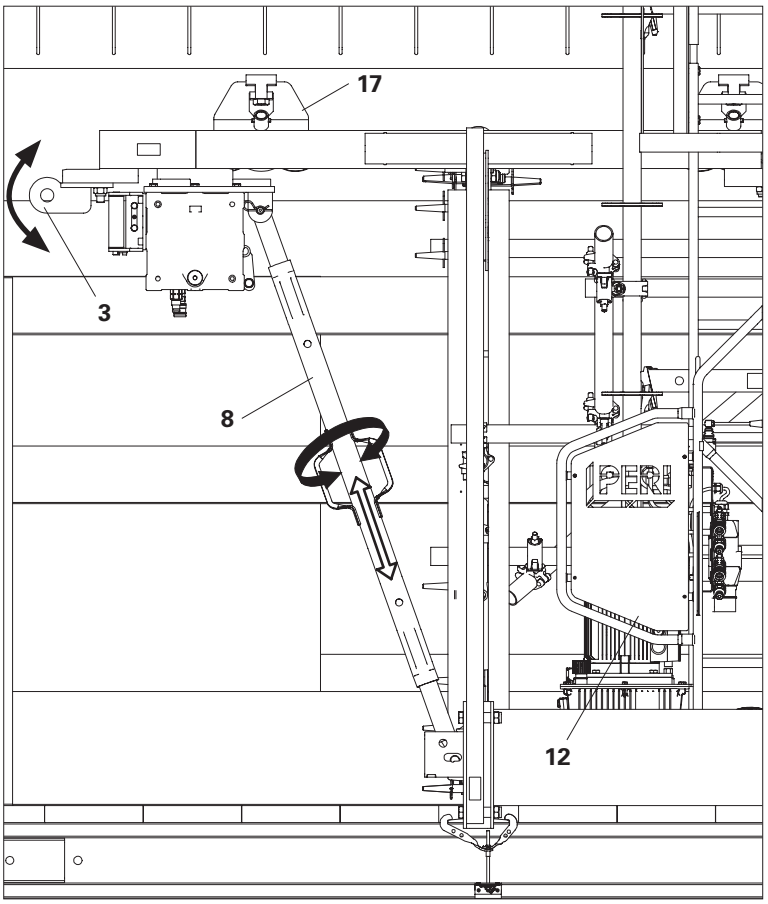


Fig. 27

Step 4
Installing the roller unit from the leading platform

When the roller unit is being mounted, the traction cable must be free of any load.

1. Screw Suspension Head M24 VARIOKIT (**16**) into the Anchor Sleeve M24.
2. Attach the Roller Unit VARIOKIT (**17**).
3. Move the VGB Parapet Track up to the next anchor sleeve.

(Fig. 28)

Repeat additional relocation procedures until the next concreting section has been reached.

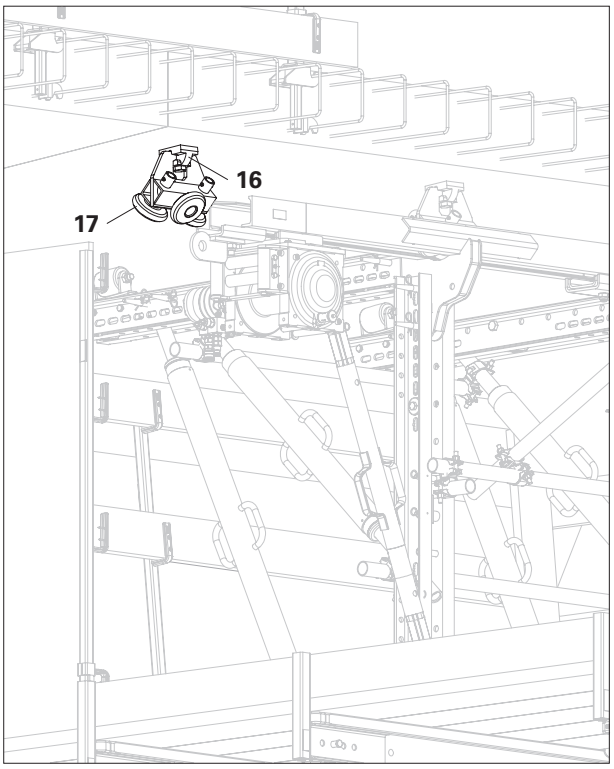


Fig. 28

Remedial measures for malfunctions

Fault	Possible cause / cause of fault	Recommended action
Hydraulic traction cable winch does not pull or only pulls to the "x-th" position	■ Required pulling force too high bridge inclination is too great.	■ Reduce pulling distance, e.g. use position 1-2.
	■ Pressure loss too high, insufficient hydraulic oil in the system.	■ Control and measurement of the system pressure ■ If necessary, use a larger hose diameter if the line length is too great. Determine on project-specific basis, e.g. DN08 – DN12.
	■ Fixing screws M24 x 150 for the roller unit not "hand-tightened".	■ Check fixing: "hand-tighten" fixing screw.
	■ Upward bridge inclination is excessive.	■ If necessary, divide the parapet track.
	■ Support force of counter roller too large, thus shortened lever.	■ If necessary, divide the parapet track.
	■ Overall, structural offset is too great.	■ If necessary, divide the parapet track.
	■ Intrinsic weight of the track too high.	■ If necessary, divide the parapet track.
	■ Possibly too much on-site material in the leading and finishing track sections.	■ Information for personnel on-site: remove dirt from the parapet track.
	■ Hose length > 5 m is too long. This results in overly high losses in the hose line.	■ Reduce hose length to ≤ 5 m.
	■ Hydraulic unit does not supply operating pressure.	■ See the Instructions for Use for the hydraulic unit.
Cable not winding on correctly.	■ Opening angle is too big, e.g. in the area of radii.	■ Reduce the distance between the tension shoe and the cable winch in the radius area.
	■ Pulling force is too great in a corresponding position.	■ Increase the distance between the tension shoe and the winch in order to use the lowest cable layer.
	■ Minimum distance of 3.5 m from the tension shoe to the cable winch not achieved.	■ Increase the distance from the tension shoe to the cable winch.
Hydraulic traction cable winch cannot be unwound by hand.	■ Locking bolt jammed.	■ Pull on the cable. Caution: if the roller moves, the locking bolt may come loose.
	■ Cable is still under tension.	■ Relieve the winch cable with the aid of the hydraulic unit. → Cable must sag.
	■ Cable winch is defective.	■ Replace the cable winch.

Tab. 02

EG-Einbauerklärung

im Sinn der EG- Maschinenrichtlinie 2006/42/EG, Anhang II, Teil 1, Abschnitt B vom 17.05.2006.

Hersteller: PERI SE
Rudolf-Diesel-Straße 19
89264 Weißenhorn
Deutschland

Hiermit erklären wir, dass die Bauart und die Ausführung der

Unvollständigen Maschine: VGB VERZUGSEINHEIT

für das System: PERI VARIOKIT Gesimskappenbahn VGB

Übersichtszeichnung: A007.524E0000

Funktion: Mit Hilfe einer hydraulischen Seilwinde werden rollengeführte Schalungseinheiten von einem Betonierabschnitt zum Nächsten verfahren.

folgenden geltenden Normen und Richtlinien entspricht.

EG-Richtlinie 2006/42/EG Maschinenrichtlinie

Es wird erklärt, dass die folgenden grundlegenden Anforderungen der Maschinenrichtlinie 2006/42/EG erfüllt sind:

1.1.3, 1.3., 1.3.1, 1.3.2, 1.3.7, 1.3.9, 1.5.1, 1.5.15, 1.6.1, 1.6.3, 1.6.5

Angewandte harmonisierte Normen, insbesondere:

DIN EN ISO 12100	Sicherheit von Maschinen; Allgemeine Gestaltungsleitsätze – Risikobeurteilung und Risikominderung
DIN EN 60204-1	Sicherheit von Maschinen; Elektr. Ausrüstung von Maschinen Teil 1: Allgemeine Anforderungen
DIN EN ISO 13854	Sicherheit von Maschinen; Mindestabstände zur Vermeidung des Quetschens von Körperteilen
DIN EN ISO 13857	Sicherheit von Maschinen; Sicherheitsabstände gegen das Erreichen von Gefährdungsbereichen mit den oberen und unteren Gliedmaßen
DIN EN ISO 4413	Fluidtechnik – Allgemeine Regeln und sicherheitstechnische Anforderungen an Hydraulikanlagen und deren Bauteile
DIN EN 614-1	Sicherheit von Maschinen – Ergonomische Gestaltungsgrundsätze – Teil 1: Begriffe und allgemeine Leitsätze

Die speziellen Technischen Unterlagen gemäß EG- Maschinenrichtlinie 2006/42/EG, Anhang VII, Teil B wurden erstellt! Auf begründetes Verlangen werden die speziellen Technischen Unterlagen an die zuständigen staatlichen Stellen übermittelt! Die Übermittlung kann elektronisch oder auf Papier erfolgen! Alle Schutzrechte verbleiben bei o.g. Hersteller.

Die Inbetriebnahme unseres Produktes bleibt so lange untersagt, bis festgestellt wurde, dass die Ausführung der Anlage/ Maschine, in welcher der Einbau erfolgen soll oder von dem es ein Teil sein wird, mit den entsprechenden Rechtsvorschriften übereinstimmt.

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen:

PERI SE, GROUP QUALITY
Anschrift siehe Hersteller

Weißenhorn, den 24.01.2022

i.V. Dipl.-Ing. (FH) Dieter Deifel,
Head of R&D Civil Engineering

EC-Declaration of incorporation

according with the EC Machinery Directive 2006/42/EC, Annex II, Part 1, Section B of 17.05.2006.

Manufacturer: PERI SE
Rudolf-Diesel-Straße 19
89264 Weißenhorn
Germany

We hereby declare that the design and construction of the

Partly completed machinery:	VGB CANTILEVERED PARAPET TRACK
for the System:	PERI VARIOKIT Parapet Track VGB
Overview Drawing:	A007.524E0000
Function:	With the aid of a hydraulic winch, roller-guided formwork units are moved from one casting segment to the next.

complies with the following applicable standards and directives.

EC-Directive 2006/42/EC Machinery Directive

It is declared that the following essential requirements of the Machinery Directive 2006/42/EC have been fulfilled:

1.1.3, 1.3., 1.3.1, 1.3.2, 1.3.7, 1.3.9, 1.5.1, 1.5.15, 1.6.1, 1.6.3, 1.6.5

Applied harmonised standards, in particular:

DIN EN ISO 12100	Safety of machinery - General principles for design - Risk assessment and risk reduction
DIN EN 60204-1	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
DIN EN ISO 13854	Safety of machinery – Minimum gaps to avoid crushing of parts of the human body
DIN EN ISO 13857	Safety of machinery –Safety distances to prevent hazard zones being reached by upper and lower limbs
DIN EN ISO 4413	Hydraulic fluid power – General rules and safety requirements for systems and their components
DIN EN 614-1	Safety of machinery – Ergonomic design principles – Part 1: Terminology and general principles

The special technical documents according to EC Machinery Directive 2006/42/EC, Annex VII, Part B have been prepared! Upon justified request, the special technical documents will be forwarded to the responsible state authorities! The transmission can be made electronically or on paper! All property rights remain with the above-mentioned manufacturer.
The commissioning of our product remains prohibited until it has been determined that the design of the system/machine in which it is to be installed or of which it will be a part complies with the relevant legal regulations.

Person established in the Community authorized to compile the relevant technical documentation

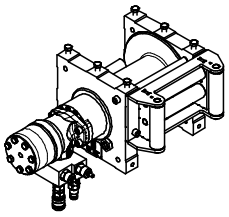
PERI SE, GROUP QUALITY
Address, see manufacturer

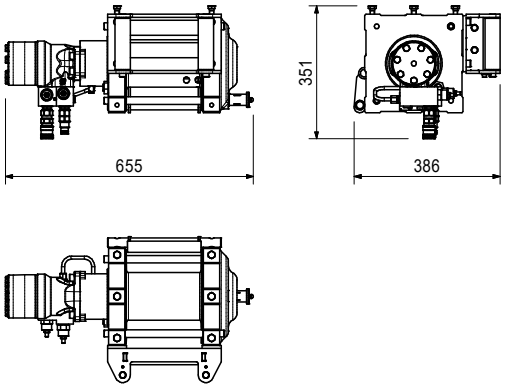
Weißenhorn, 2022-01-24

i.V. Dipl.-Ing. (FH) Dieter Deifel,
Head of R&D Civil Engineering

VGB Relocation Unit

Article no.	Weight kg		
131361	81.000	**Hydr. traction cable winch H60**	**Note** • Follow the Instructions for Use! • Complete with: 5 pc. bolt ISO 4017 M12 x 45 1 pc. bolt ISO 4017 M12 x 35-8.8, galv.



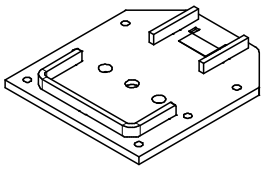


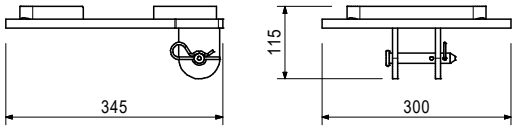
Accessories

131364	16.500	**Traction Cable 12 mm, x 20 m, H60**
131426	12.900	**Adapter Plate H60 VGB**

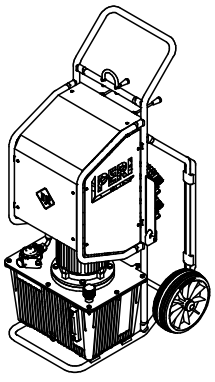
131364	16.500	**Traction Cable 12 mm, x 20 m, H60**

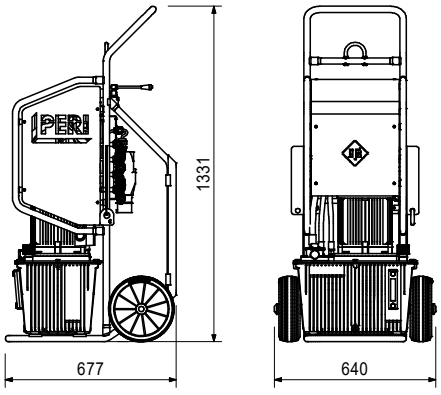
131426	12.900	**Adapter Plate H60 VGB**	**Complete with** 1 pc. 018050 bolt Ø 16 x 65/86, galv. 1 pc. 018060 cotter pin 4/1, galv.





109766	109.000	**Hydraulic Unit RCS 4 x 190 bar, 380 – 460 V** Hydraulic unit for driving the Climbing Device RCS 50 and LPS 30.	**Note** Observe Instructions for Use. Only use original PERI hydraulic oil.

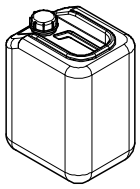


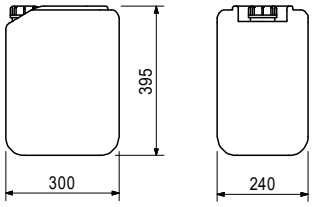


Accessories

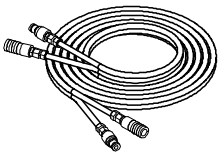
057376	18.300	**Hydraulic oil ISO 11158 HVI46, 20L**

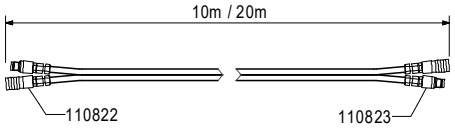
Article no.	Weight kg		
057376	18.300	**Hydraulic oil ISO 11158 HVI46, 20L** High-quality, synthetic hydraulic oil for PERI hydraulic units with different viscosities suitable for certain temperature ranges.	**Note** Filter with filter pump before filling the units. **Technical data** Observe the safety data sheet and applicable national safety regulations relating to hydraulic oil, in particular for transport, storage and disposal! Observe the instructions for commissioning and maintenance in the technical documentation for the hydraulic unit! Product data sheet on request.



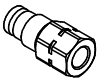


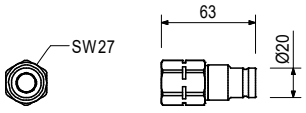
110069	8.500	**Hydraulic Twin Hoses RCS** **Hydraulic Twin Hose RCS 10 m**	**Complete with** 2 x 128992 Plug ISO 16028 DN10 R3/8IG 2 x 128993 Socket ISO 16028 DN10 R3/8IG 4 x 051750 male stud coupling X-GE 12PSR-ED
110070	15.300	**Hydraulic Twin Hose RCS 20 m** Two fixed connection hydraulic hoses to connect hydraulic units with hydraulic cylinders.	



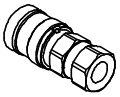


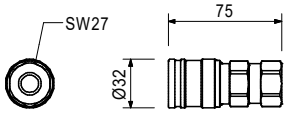
128992	0.140	**Plug ISO 16028 DN10 R3/8IG**



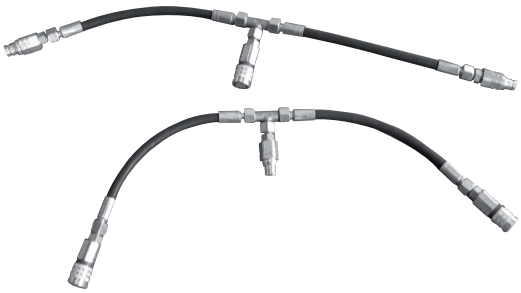


128993	0.280	**Socket ISO 16028 DN10 R3/8IG**

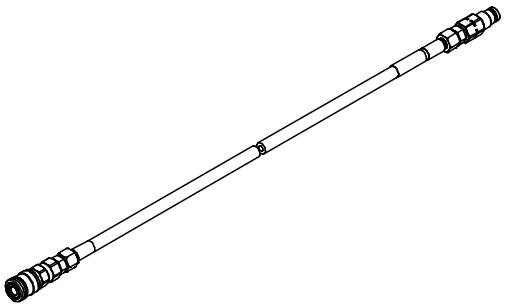


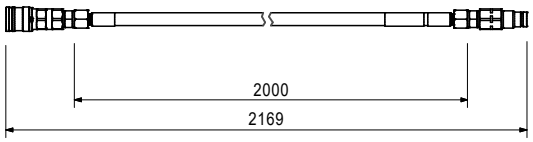


Article no.	Weight kg	
112421	3.000	**Hydraulic Accumulate Piece RCS** For doubling the oil volume of the RCS Hydraulic Unit. Doubles the speed of the Winch RCS.

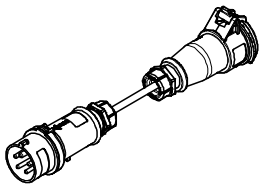


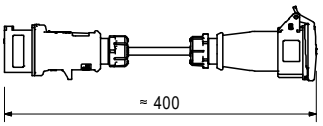
129036	1.430	**Hydraulic Hose EN 853 2SN-DN08 2.0 m** Hydraulic hoses with quick-couplers on both sides and nominal diameter of 8 mm. **Complete with** 1 x 128992 Plug ISO 16028 DN10 R3/8IG 1 x 128993 Socket ISO 16028 DN10 R3/8IG 2 x 051750 male stud coupling X-GE 12PSR-ED 1 pc. 129424 FF Coupling Pair X-GE12PSR-ED+ **Note** Observe the valid safety regulations for the installation and maintenance of hydraulic lines!





110280	0.500	**Adapter Cable RCS** For the power supply of the Hydraulic Unit RCS. **Note** Follow the instructions for use! With CEE plug 400 V 16 A.



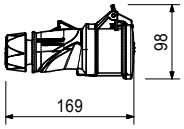


Article no.	Weight kg
110279	0.291

Coupling Socket RCS, black
For the power supply of the Hydraulic Unit RCS with 380 – 460 V, 50 – 60 Hz.

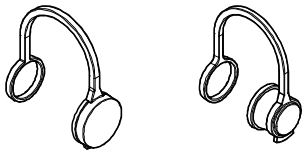


Note
Follow the instructions for use!

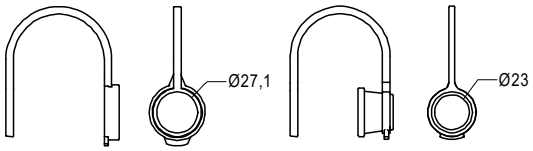


125632	0.050

Protective caps for Climbing Device RCS
Spare part.
To protect the quick-couplers from dirt and damage.

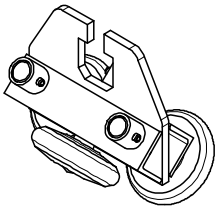


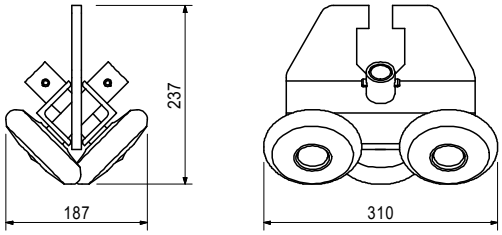
Note
Can be used with hydraulic hoses with FF couplings.
Technical data
Set for Climbing Device RCS 50 (2x bushing and 2 x nipple).



114535	18.000

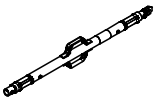
Roller Unit VARIOKIT
Rolling link and suspension for VARIOKIT Rail.



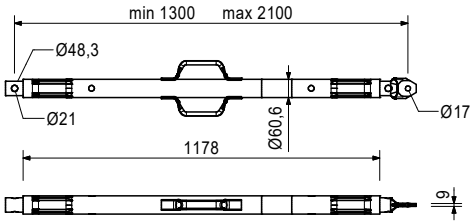


117466	10.600

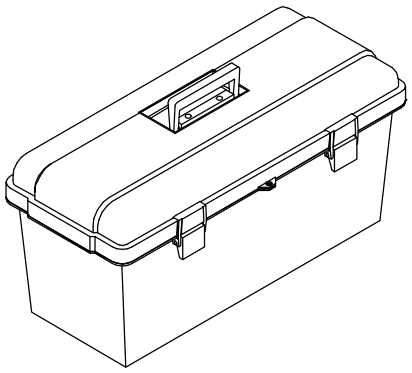
Push-pull Prop RS 210, galv.
Extension length L = 1.30 – 2.10 m.
For aligning PERI formwork systems and prefabricated concrete elements.



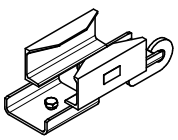
Note
See PERI Design Tables for permissible load.

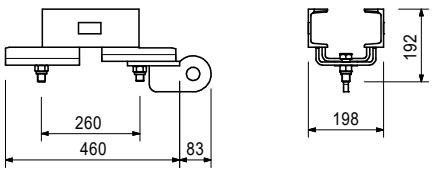


Article no.	Weight kg	
115581	10.280	**Hydraulics service case** Consisting of: 1 x 115590 Tool Box 580 x 260 x 285 mm 6 x 115583 Manometer Type 570 VA-Geh. 6 x 115584 Measuring Hose MKT 6-02 DN02 12 x 115582 Measuring Coupling SMK 20-G 1/4-PC 2 x 115591 Double Open-ended Wrench AF 10 x 13 1 x 115592 Double Open-ended Wrench AF 13 x 17 1 x 115588 Double Open-ended Wrench AF 19 x 24 1 x 051778 Double Open-ended Wrench AF 24 x 27 1 x 115589 Double Open-ended Wrench AF 27 x 32 1 x 057278 Hexagon Key Wrench, 8-part 1 x 115585 Hexagon Key Wrench AF 12 1 x 057279 Hexagon Key Wrench AF 14 1 x 057282 Water Pump Pliers 1 x 115147 Fixing Set PS angle 2 x 115396 Fixing Set PS short RCS 1 x 072180 Ratchet Wrench 1/2" 20 x 123881 Pipe Plug ROV12SX 20 x 123880 Plugs VKAN 12S VIT 100 x 051760 Cable Tie NT-240H 2 x 126425 Spacer Ø 120 1 x 126440 Socket AF 17 - 1/2" 1 x 135172 Double Open-ended Wrench AF 19 x 22 1 x 135173 Allen Key SHR Screw Insert AF 05 1 x 135174 Allen Key SHR Screw Insert AF 06 1 x 135175 Allen Key SHR Screw Insert AF 08 1 x 135176 Allen Key SHR Screw Insert AF 10 1 x 135177 SHR Screw Piece 6. Tl. Slot/PH 2 x 711035 PERI Label 128 x 65 mm 1 x 126434 Service Case Contents List

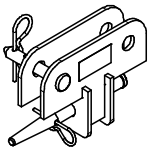


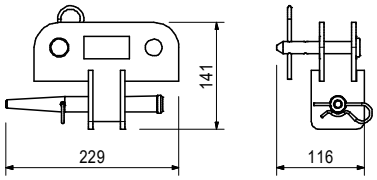
131430	12.300	**Travelling Nose 25-2 VARIOKIT**	**Complete with** 1 pc. 057139 bolt ISO 4017 M20 x 60-8.8, galv. 1 pc. 781053 nut ISO 7040 M20-8, galv.



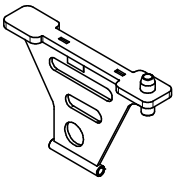


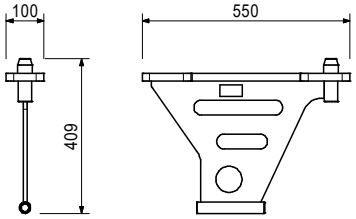
Article no.	Weight kg	
131420	2.720	**Spindle Cross-Connector SRU** **Complete with** 1 pc. 104031 fitting pin Ø 21 x 120 1 pc. 018060 cotter pin 4/1, galv. 1 pc. 018050 bolt Ø 16 x 65/86, galv. 1 pc. 022230 cotter pin 5/1, galv.





131707	12.800	**Tension Shoe-2 VGB** Tension Shoe-2 VGB for relocating the VGB Cantilevered Parapet Track.

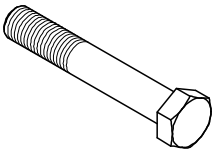


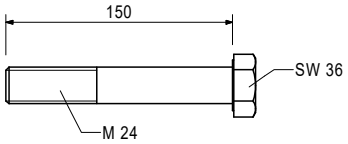


Accessories

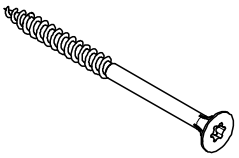
104540	0.654	**Bolt ISO 4014 M24 x 150-8.8, galv.**

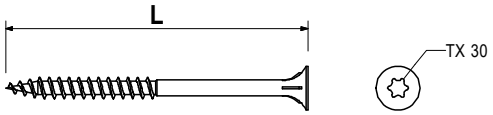
104540	0.654	**Bolt ISO 4014 M24 x 150-8.8, galv.**



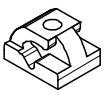


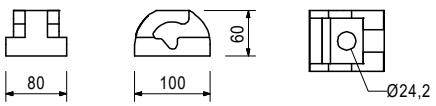
024540	0.005	**TSS-Torx 6 x 40, galv.** For Torx blade TX 30. Self-tapping





114534	2.220	**Suspension Head M24 VARIOKIT** Fixing material for suspending the VARIOKIT Roller Unit under the bridge cantilever slab.





The optimal system for all projects and every requirement



Wall formwork



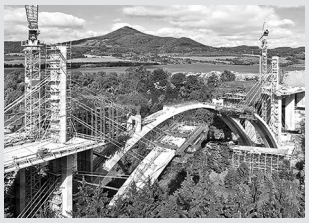
Column formwork



Slab formwork



Climbing systems



Bridge formwork



Tunnel formwork



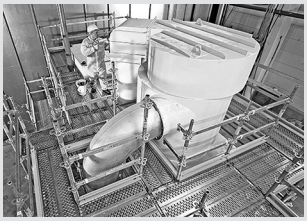
Shoring



Working scaffolds construction



Working scaffolds facade



Working scaffolds industry



Means of access



Safety scaffolds



Safety systems



System-independent accessories



Services

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Forskalling & Stilladssystemer
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