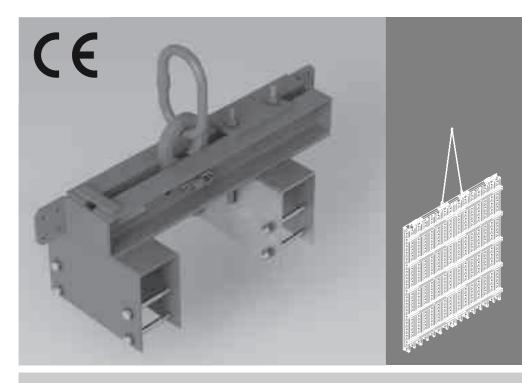


## Crane Hook 2 t / GT 24 Item no. 111238

Translation of the Original Instructions for Use



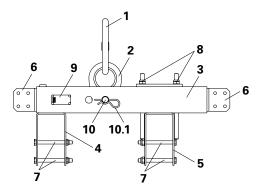
Edition 05 | 2016

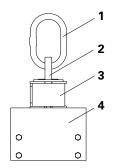
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### Overview

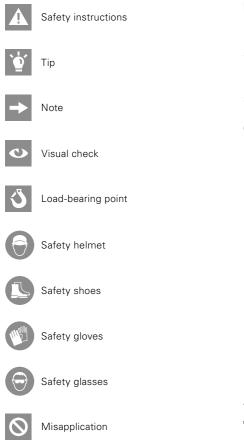




- (1) Crane Eye
- (2) Lifting Eye
- (3) Traverse
- (4) Assembly Shoe (fixed)
- (5) Assembly Shoe (movable)
- (6) Compression Brace Plate
- (7) Bolt ISO 7040 M10 x 110, 8.8 galv.
- (8) Nut ISO 7040 M12-8, galv.
- (9) Type Plate
- (10) Bolt Ø 20
- (10.1) Cotter Pin



### Key



#### **Dimension specifications**

Dimensions are usually given in mm. Other units of measure, e.g. cm, are specified in the illustrations. Load details are usually given in kg. Other measurement units, e.g. t, are specified 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.

#### Arrows

Arrow representing an action

### Safety instructions

The safety instructions alert site personnel to the risks involved and provide information on how to avoid these risks.

Safety instructions are featured at the beginning of the section ahead of the instructions, and are highlighted as follows:



### Danger

This sign indicates an extremely hazardous situation which, if not avoided, could result in death or serious injury.



This sign indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### Caution

This sign indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



This sign indicates warning of situations whereby failure to observe the information can result in material damage.



### **Safety instructions**

#### General

When using PERI lifting accessories, the Instructions for Use and markings are to be complied with at all times!

Deviations from the standard configuration are only permitted after a further risk assessment has been carried out by the contractor.

On the basis of this risk assessment, appropriate measures for working and operational safety as well as stability are to be determined.

For the application and inspection of our products, the current safety regulations and guidelines in the respective countries where they are being used must be observed at all times.

The contractor must ensure that the Instructions for Use provided by PERI are available at all times for the users and that they are fully understood!

The contractor can only assign those persons to independently use lifting accessories who are actually familiar with the task!

PERI lifting accessories are to be used in such a way that persons are not put at risk! The maximum load-bearing capacity of PERI lifting accessories must not be exceeded!

All persons using the lifting accessories must monitor the equipment during use for obvious defects (e.g. deformations, cracks, breaks, incomplete markings)!

Do not use damaged lifting accessories!

PERI lifting accessories may not be used in the case of illegible or missing markings!

The contractor must ensure that the personal protective equipment required for the assembly, modification or dismantling of the system is available and used as intended.

For a better understanding, detailed illustrations are partly incomplete. The safety installations which have possibly not been featured in these detailed drawings must nevertheless be present!



### **Safety instructions**

#### **Product-specific**

The person who attaches the load to the lifting accessory must be sufficiently secured against falling. In all cases, the load must be secured against tipping over and sliding!

Move loads only during safe wind conditions. Observe storm warnings! Depending on the type of load and the surface area subjected to the wind, the decision whether sufficient safety measures are in place when moving the load is taken on the jobsite.

The slings which are attached to the lifting accessories must be equipped with a hook securing device.

The operator may begin to move the load only if he is completely satisfied that the load has been correctly attached.

Ensure loads are evenly balanced when being picked up! Loads must be sufficiently stable both in their form and position so that the load does not move during transportation! Ensure that the load is in a safe and secure position before releasing the slings!

Always lift up or set down loads smoothly without any jerking!

Before moving, remove or secure any loose components!

Persons are not allowed to remain under the load being lifted!

Transporting persons on the load is prohibited!

Ensure that the lifting gear, such as steel wire ropes and chains, is not knotted or twisted! Ensure that the lifting chains of the lifting accessory are not wrapped around the load to be transported nor stretched over sharp edges! Twisted chains must be straightened!

## PERI

### Intended use

PERI products have been designed for exclusive use in the industrial and commercial sectors by suitably trained personnel only!

The product described here is classified as lifting accessory which is used as a lifting point for accommodating tensile forces. It is used exclusively for moving individual elements or element units of all formwork systems with PERI Formwork Girder VT 24.

The Lifting Unit 2 t / GT 24 is not used in continuous operations and, after being mounted, is an integral part of the load.

The Crane Hook 2 t / GT 24 may only remain attached to the designated position on the element.

The lifting accessory is not approved for transporting personnel.

These Instructions for Use contain information for ensuring proper handling and correct application, inspection and maintenance.

The product described here corresponds to the relevant provisions and regulations of Machinery Directive 2006/42/EC.

These Instructions for Use provide the basis for the risk assessment. The risk assessment is compiled by the contractor. The Instructions for Use do not replace the risk assessment!

Use of the lifting accessory:

- Within the permissible load-bearing capacity of up to 2.0 t (2000 kg).
- Within the permissible temperature limits of -20 °C to +60 °C.
- In good working order.
- When correctly assembled.



### Instructions for use

The use in a way not intended or deviating from the intended use according to the Instructions for Use 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 associated safety risks.

Do not use damaged lifting accessories.



### **Target groups**

#### Contractors

These Instructions for Use are intended for contractors who

- assemble, modify and dismantle the formwork system, or use
- it e.g. for concreting or
- who have it used, e.g. for forming operations.

#### **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 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.

#### Qualified personnel

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

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

#### **Qualified specialists**

PERI products may only be assembled, modified or dismantled by personnel who are suitably qualified to do so. For the work to be carried out, the qualified specialists must have received instructions\*\* which contain at least the following points:

- An explanation of the plan for the assembly, modification or dismantling of PERI products in an understandable form and language.
- Description of measures in order to safely assemble, modify or dismantle the PERI products.
- Designation of the preventive measures to avoid the risk of persons and objects falling.
- Designation of the safety precautions in the event of changing weather conditions which could adversely affect the safety of the PERI products concerned as well as the personnel.
- Details regarding the permissible loads.
- Description of any other risks that are associated with the assembly, modification or dismantling procedures.

\*\* Instructions are given by the contractor himself or a qualified person selected by him.



In other countries, ensure that the relevant national guidelines and regulations in the respective current version are complied with!



### Storage and transportation

Store and transport the lifting accessory so that it cannot unintentionally change its position or be damaged in any way.

Do not drop the lifting accessory.

During the moving procedure with the crane, ensure that components are picked up and set down so that any unintentional falling over, falling apart, sliding, falling to the ground or rolling is avoided.

Do not place any loads on the lifting accessory.

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

Store in a dry, clean and corrosionprotected condition at temperatures from -20 °C to +60 °C.

PERI lifting accessories must be protected against the effects of the weather and aggressive materials if safety is then likely to be affected!

During transport, intermediate storage or when remaining suspended on the load, ensure that they remain free of dirt and that their functionality is not affected.

### Additional technical documentation

- Instructions for Use:
  - Pallets and Stacking Devices
- Brochures:
  VARIO GT 24

- Pallet Truck
- Instructions for Assembly and Use:
  - VARIO GT 24

### Care and maintenance instructions

The lifting accessory has been designed for long-term use on construction sites.

In order to ensure a cost-effective, technically sound and safe use over a long period, it is important to take a value-preserving approach. Repairs are to be carried out by authorized PERI personnel only. Only PERI original components may be used.



### **Identification markings**

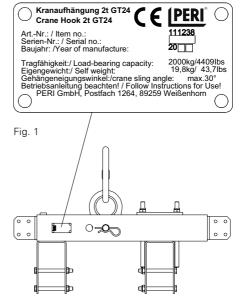


### Caution

Do not use the Crane Hook 2 t / GT 24 if the type plate is missing or illegible!

#### Type plate (Fig. 1)

Markings comply with the requirements of the Machinery Directive 2006/42/EC.



### Inspections

#### 1. General

The procedure described in this section is based on the current German regulations for testing and inspections. The points listed form the minimum requirements for the inspection.

The respective regulations of the individual states and countries where this product is used must be taken into account. If no country-specific regulations are available, it is recommended to proceed according to German rules and regulations.

The contractor is responsible for determining the type, scope and intervals for the required inspections relating to the provision of the lifting accessory. As a result of these inspections, any safety-related defects are to be systematically identified and remedied.



#### 2. Purpose

Due to the check carried out before the initial operations as well as regularly recurring inspections of the lifting accessory, it can be ensured that operational and functional reliability is guaranteed.

#### 3. Responsibility

The contractor must ensure that lifting accessories are put into operation only if they have been inspected by a qualified person.

#### 4. Inspection

Verification is required in order to determine whether all defects have been rectified or non-functioning products have been replaced.

The inspection includes a visual and functional check:

#### 4.1 Safety check

- Deformation, wear and lengthening of the components.
- Damage due to corrosion.
- Mechanical damage.
- Check bolts, lifting beam hooks and chain slings for signs of damage.
- Availability of all components.
- Cracks, bending, flattening, notches on components.
- Only original PERI components may be used.
- Indications of inpermissible heating or contact with fire.
- Markings must be legible.

#### 4.2 Functionality check

- Free and easy movement of moving parts.
- Locking system works correctly.
- Safety pawls and safety hooks engage.
- Eyes and shackles for fastening purposes are usable.

Implementation of anything beyond the usual scope of inspection is subject to the discretion of the qualified person and can extend to additional checks.

#### 4.3 Measures

If any defects are determined during the safety inspection, they must be eliminated according to the instructions provided by the qualified person. A new inspection is to be subsequently carried out.

## 4.4 Inspection before starting work operations

- Check whether the load-bearing capacity of the lifting accessory is sufficient for the weight of the load.
- Check the lifting accessory for any defects.

# PERI

### Load-bearing capacity

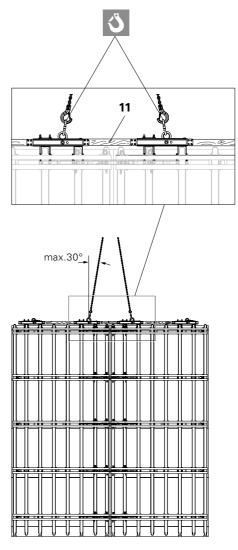


- Danger to life due to risk of element falling.
- Do not exceed the permissible load-bearing capacity and maximum crane sling angle of the Crane Hook 2 t / GT 24!
- Moving of other products is not permitted!
- Moving without the use of a Compression Brace (11) is not permitted!

Load factor: 3 (according to DIN 13155)

Perm. load-bearing capacity per Crane Hook 2 t / GT 24: 2000 kg

Max. crane sling angle: 30°







### Assembly



Before assembling the element, drill holes in the GT 24 Girders, not in the element.

#### Preparing the GT 24 Girder

- Mark where the holes are to be drilled on the chord of the girder. (Fig. 3)
- Drill into chord, Ø 11 mm. (Fig. 3a)

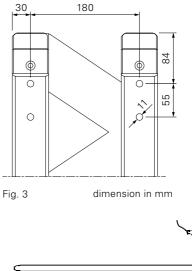




Fig. 3a

## PERI

### Assembly

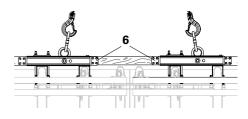


### Danger

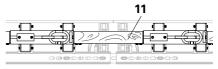
- Risk of crushing due to element tipping over!
- Secure element against tipping over!
- Moving procedures without the use of a Compression Brace are not permitted!
- Assembly on a vertical element is to be carried out from a safe position, e.g. working scaffold!
- Only mount Lifting Unit 2 t / GT 24 on undamaged GT 24 Formwork Girders!
- Always attach two Crane Hooks 2 t
  / GT 24 symmetrically to the load centre of gravity! (Fig. 4)



View



#### Top view







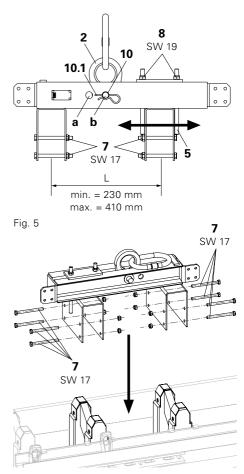
#### Procedure

- 1. Release top two Nuts M12 (8).
- 2. Remove bottom eight Nuts M10 and Bolts M10 (7) from the Crane Hook 2 t / GT 24.
- Adjust Mounting Shoe (5) by moving in order to suit the element geometry. (Fig. 5)
- 4. Push Crane Hook 2 t / GT 24 with both Mounting Shoes from above over the two webs of the GT 24 Formwork Girder, and align with the drilled holes. For horizontal assembly, push over the web from the front (not shown).
- 5. Insert the eight Bolts M10 through the web of the GT 24 Formwork Girder and both Mounting Shoes of the Crane Hook 2 t / GT 24.
- Screw on the eight Nuts M10 and secure with a torque wrench (50 Nm). (Fig. 6)
- 7. Secure the top two Nuts M12 by means of a torque wrench (60 Nm).
- 8. Repeat steps one to seven on the opposite side and attach the Compression Brace (11). (Fig. 4)

#### Attach Lifting Eye

Peg Lifting Eye (2) with Bolts  $\emptyset$  20 (10) in the holes (a) or (b) of the Beam and secure with Cotter Pins (10.1).

- In drilled hole (a): for 230 mm < L < 280 mm.</li>
- In drilled hole (b): for 281 mm < L < 410 mm. (Fig. 5)







The length of the compression brace depends on the distance to the Crane Hook. It is secured by means of Torx TSS screws between the two loadbearing points on the compression brace plates (6).

# PERI

### **Transport of load**

#### **Before lifting:**



Check the Crane Hook 2 t / GT 24 connection on the element. (Fig. 7 + 8)

#### **During transportation:**



### Danger

- Danger to life due to risk of element falling.
- Never linger under suspended loads!
- Always guide loads by means of a rope!



#### After concreting:

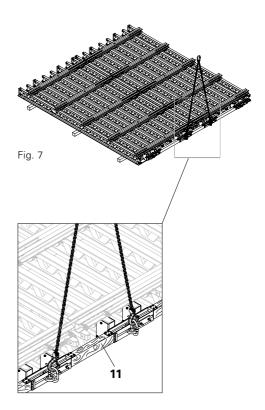


- Risk of injury due to uncontrolled movement and overloading!
- Do not release the elements from the concrete with the crane.



#### Setting down:

Never set the load down abruptly. Do not set down Crane Hook 2 t / GT 24 on any obstacles.





If the load to be carried is greater than the perm. load-carrying capacity of the Crane Hook 2 t / GT 24, a lifting beam must be used.

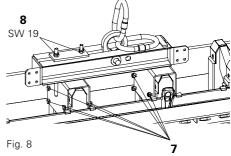
This must ensure that the weight is evenly distributed to the other Crane Hooks 2 t / GT 24.



### Dismantling



- Risk of crushing due to element tipping over! Secure elements with Push-Pull Props to prevent tipping over!
- Dismantling operations on a vertical element are to be carried out from a safe position, e.g. working scaffold!







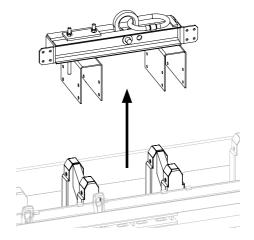
#### Procedure

- 1. Remove Compression Brace (11). (Fig. 7)
- 2. Release top two Nuts (8).
- 3. Loosen and remove the eight Nuts and Bolts (7). (Fig. 8)
- 4. Remove Crane Hook 2 t / GT 24 upwards.
- 5. Attach Bolts with Nuts (7) to the Crane Hook 2 t / GT 24.
- 6. Secure top two Nuts (8). (Fig. 9)
- 7. Repeat action steps one to six on the opposite side.

#### Horizontal dismantling

not shown

- 1. Position the element on timbers.
- 2. Release crane lifting gear.
- 3. Carry out action steps one to three (see above).
- 4. Remove Crane Hook 2 t / GT 24 by pulling out in a forward direction.
- 5. Carry out action steps five to seven, see above.





## PERI

### Disposal

Disposal of the component must be arranged by a qualified person.



Caution

- Risk of injury!
- Separate materials correctly and according to type.
- The materials are to be disposed of according to local regulations and guidelines.





ltem no. Weight kg	Crane Hook 2 t / GT 24	Complete with
111238 19.800	For transporting large elements with Girder GT 24. Adjustable from 230 to 410 mm.	1 x 018060 Cotter Pin 4/1, galv. 8 x 710138 Bolt ISO 4014 M10 x 110-8.8, galv. 8 x 780356 Nut ISO 7042 M10-8, galv. Note Follow relevant Instructions for Assembly and Use for the system! <b>Technical data</b> Permissible load-carrying capacity 2.0 t with a crane sling angle $\leq$ 30°.

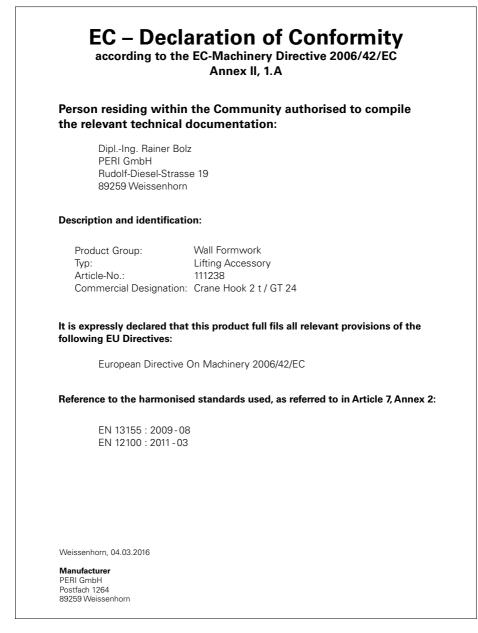
g. Rainer Bol mbH Cran Diesel-Straße Weißenhorn Identifizieru tgruppe: V L Nr.: 1 s-Bez.: K	ne Hook e 19 Ing: Vandschalung .astaufnahmemittel 11238 rranaufhängung 2 t / GT 24 ass dieses Produkt allen einschlägigen Bestimmungen
imbH <b>Cran</b> Diesel-Straße Weißenhorn <b>Identifizieru</b> tgruppe: V L Nr.: 1 <sup>°</sup> s-Bez.: K ich erklärt, da	ne Hook e 19 Ing: Vandschalung .astaufnahmemittel 11238 rranaufhängung 2 t / GT 24 ass dieses Produkt allen einschlägigen Bestimmungen
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Dipl.-Ing. Rainer Bolz PERI GmbH PERI

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## **EC** – Declaration of Conformity

This document is a translation into English from the German original.



#### The optimal System for every **Project and every** Requirement



Wall Formwork



**Column Formwork** 



Slab Formwork



**Climbing Systems** 



**Bridge Formwork** 







**Construction Scaffold** 



Facade Scaffold



Industrial Scaffold





**Protection Scaffold** 



Safety Systems



System-Independent Accessories



Services



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