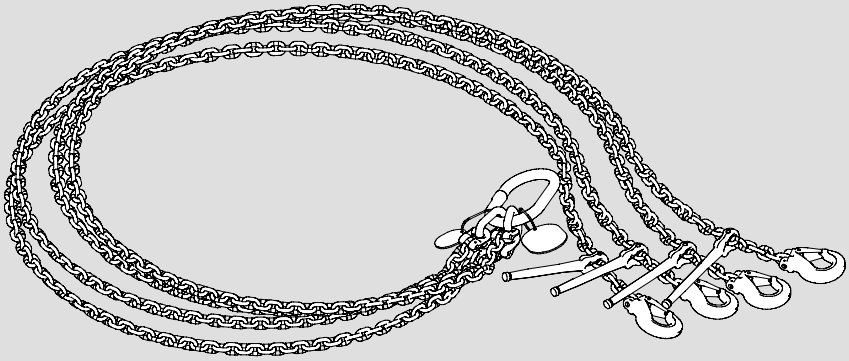
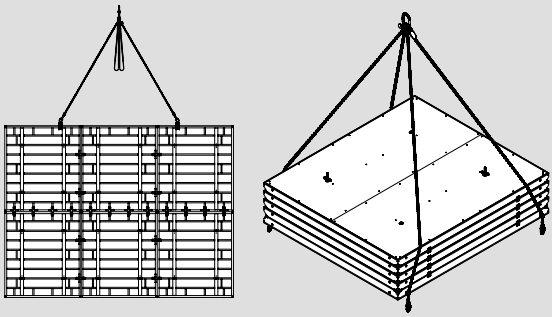
Lifting Gear Combi MX

Item no. 117321

Translation of the Original Instructions for Use

CE





Edition 10 | 2015

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PERI

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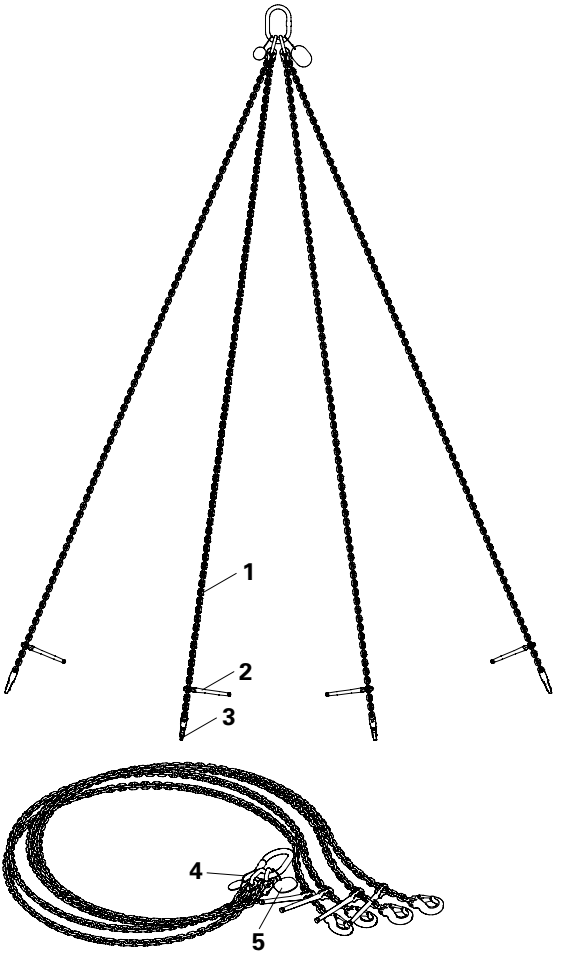
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Introduction

Overview



(1) Chain
(2) Locking pin
(3) Load hook
(4) Type tag for use as 4-sling lifting gear
(5) Type tag for use as 2-sling lifting gear

Key


Safety instructions


Tip


Note


Visual check


Lifting point


Safety helmet


Safety shoes


Safety gloves


Safety glasses


Misapplication

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

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 chapter ahead of the instructions, and are highlighted as follows:



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



Warning
This sign indicates a hazardous situation which, if not avoided, could result in deathor 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 situatuions 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 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 never put at risk in any way!

The maximum bearing capacity of PERI lifting accessories must not be exceeded!

All persons using the lifting accessories must check 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 available!

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 falling 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 lifting accessory!

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

Before moving, remove or secure any loose components!

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

Transporting persons on the load is prohibited!

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

When attaching several slings, only two slings may be accepted as load-bearing. This does not apply if it is ensured that the load is evenly distributed on other slings or the permissible load of the individual slings is not exceeded during unequal load distribution!

Attaching loads during the lifting procedure is prohibited!

Long, slender goods may not be fastened using single leg slings!

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 the following PERI systems:

- MAXIMO
- TRIO
- TRIO Housing

and is used as follows

4-sling lifting gear with locking pins

- For transporting stacks of elements at low heights.

4-sling lifting gear with load hook

- For transporting ring pallets and pallets.

2-sling lifting gear with load hook

- For moving panel units in connection with the Lifting Hook.

The Lifting Gear Combi MX is classified as lifting accessory for continuous operation and remains attached to the crane. Installation and position of the lifting accessory are provided in the corresponding Instructions for Assembly and Use of the system.

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 EU Machinery Directive 2006/42/EC.

These Instructions for Use provide the basis for the risk assessment. The risk assessment shall be 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.
- Within the permissible temperature limits of -20 °C to +60 °C.
- In good working order.
- If 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
- for other operations, e.g. carpentry or electrical work.

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.

Qualified persons
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 tests. 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).

Technically qualified personnel
Formwork systems may only be assembled, modified or dismantled by personnel who are suitably qualified to do so. For the work to be carried out, the technically qualified workers must have received instructions** which contain at least the following points:

- An explanation of the plan for the assembly, modification or dismantling of the formwork system in an understandable form and language.
- Description of measures in order to safely assemble, modify or dismantle the formwork system.
- 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 formwork system 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.



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

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

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

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

PERI lifting accessories must be protected against the effects of the weather, all types of oil, 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 Assembly and Use:
  - MAXIMO MX 15
  - MAXIMO MX 18
  - TRIO
- Instructions for Use:
  - Pallets and Stacking Devices
- Brochures:
  - MAXIMO
  - TRIO

Care and maintenance instructions

The lifting accessories have 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

Danger

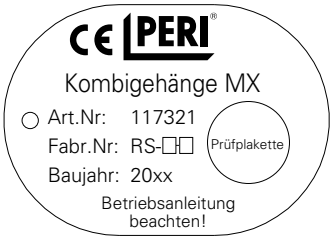
The Lifting Gear Combi MX is not to be used if the type tag is missing or illegible!
The Lifting Gear Combi MX is not to be used if the inspection plate is missing, has expired, or is illegible!

If markings are missing, illegible or have expired, immediately arrange an inspection by a qualified person and subsequently attach a new type tag or inspection plate. The results of the inspection must be documented!

Type tag
Markings comply with the requirements of the Machine Directive 2006/42/EC.

Type tag for use as 4-sling lifting gear (4)

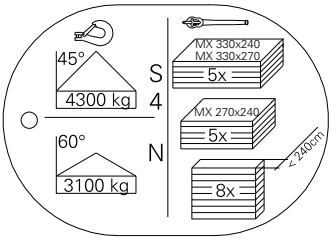
Front side:





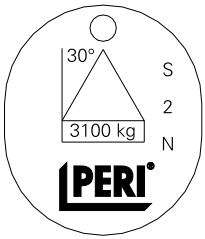
Inspection plate
It documents the next inspection date.

Rear side:

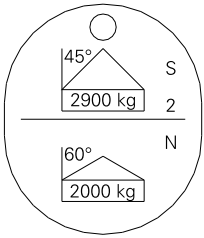


Type tag for use as 2-sling lifting gear (5)

Front side:



Rear side:



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 tests relating to the provision of the lifting accessories. As a result of these checks, 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 accessories, it can be ensured that operational and functional reliability is guaranteed.

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

4. Inspection
4.1 Safety check
It is has to be verified whether all defects have been rectified or non-functioning products have been replaced.
The inspection includes a visual and functional check.

4.2 Visual check
- Deformation, wear and lengthening of the components.
- Corrosion damage.
- Mechanical damage.
- Check bolts, lifting beam hooks and chain slings for signs of damage.
- Availability of all components.
- Cracks, bending, flattening, notches on welding seams and components.
- Only original PERI components may be used.
- Indications of inpermissible heating or contact with fire.
- Markings must be legible.
- Check validity of the inspection plate.

Inspection

4.3 Functional 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 authorized person and can extend to additional checks.

4.4 Measures

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

4.5 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.
– Check inspection plate.

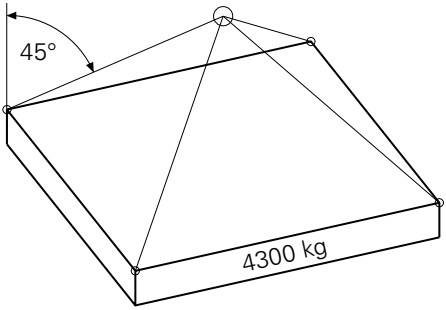
Load-bearing capacity

As 4-sling lifting gear

Warning
Only elements of the same size are to be transported in stacks!

Load Factor: 4
(according to DIN 13155)

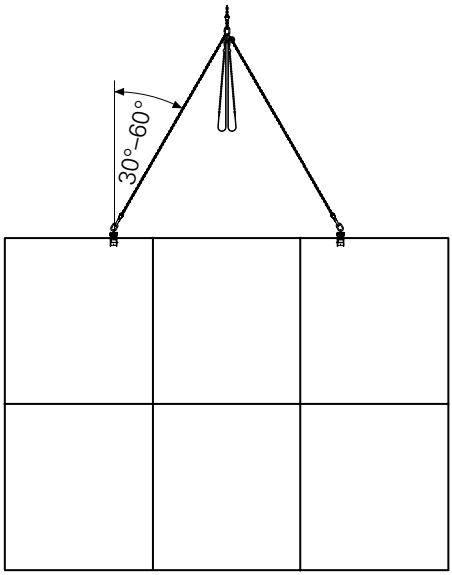
Permissible load-bearing capacity:
5 panels 330 x 270/240
5 panels 270 x 240
8 smaller-sized panels
or
4300 kg with 45° crane sling angle



As 2-sling lifting gear

Warning
Load is always picked up symmetrically!

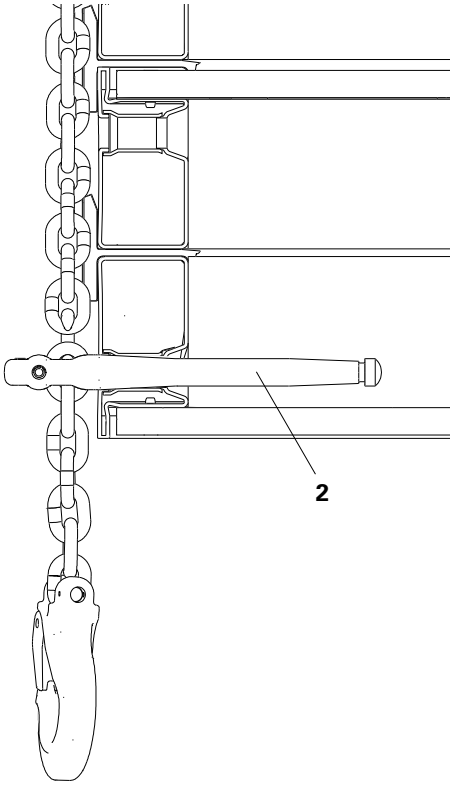
Permissible load-bearing capacity:
3100 kg with 30° crane sling angle
2900 kg with 45° crane sling angle
2000 kg with 60° crane sling angle



Moving with locking pins

Warning
Moving formwork panels of other formwork systems is not allowed! Always use four locking pins!

The locking pins (2) of the Lifting Gear Combi MX allow the transportation of horizontally-positioned individual panels as well as stacks of panels by crane close to the ground whilst observing the permissible load-bearing capacity.
Locking pins (2) are inserted as far as they will go.



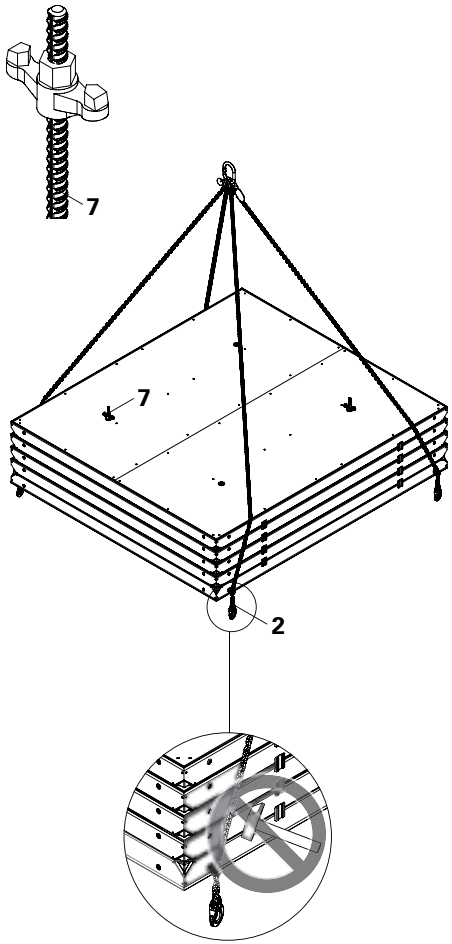
Using the locking pins:

1. Clean anchor holes.
2. Use stacking aid.
3. Insert two tie rods (7) diagonally through the anchor holes. Insert tie rods through all panels.
4. Secure at the top with wingnuts.
5. Insert four locking pins (2) as far as they will go into the lifting holes of the bottom panel.
6. Transport the panels.

The tie rods prevent the panels from moving. Due to its design, the locking pin is self-securing.

Alternative: secure the stack of panels against sliding by means of a steel band.

Check all four locking pins whether they are correctly in position!



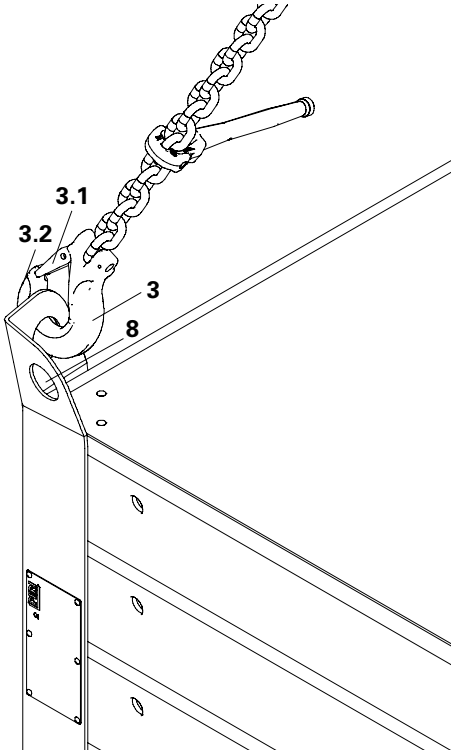
Moving with the load hook

Caution
Check the hook aperture locking device of the load hook; do not use if the spring force is too weak.
Replace the Lifting Gear Combi MX or arrange an inspection.

The load hooks (3) of the Lifting Gear Combi MX allow the transportation of panels with 2-sling or 4-sling lifting gear.

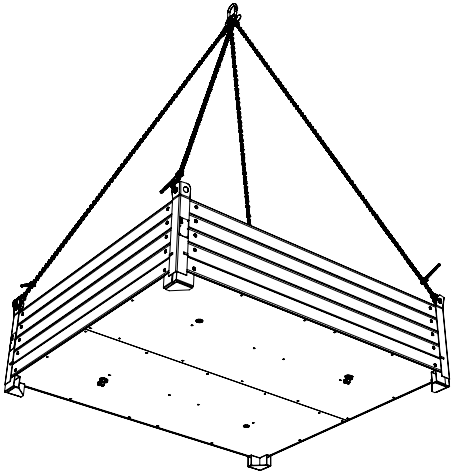
Using the load hook:

1. Connect load hooks (3) to the attachment points (8) as follows:
– as 4-sling lifting gear on ring pallets and pallets.
– as 2-sling lifting gear on the lifting hook.
2. Hook tips (3.2) point outwards.
3. Hook aperture locking device (3.1) must be closed.
4. Lifting gear is attached.

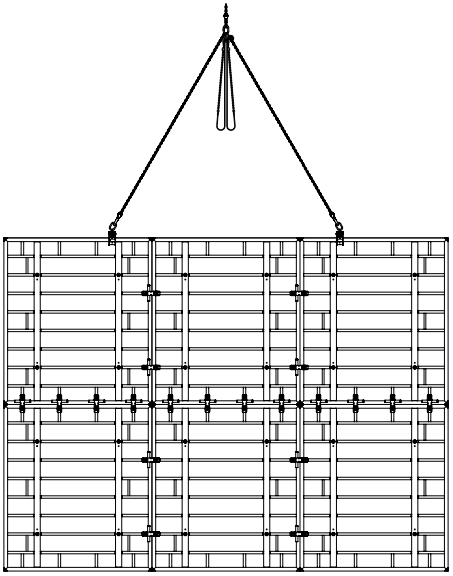


Application

Transport of load



Use as 4-sling lifting gear
Transportation with Stacking Device MAXIMO or PERI Pallets.



Use as 2-sling lifting gear
Transportation with Lifting Hook MAXIMO 1.5 t.

Disposal

Disposal of the components must be arranged by an authorized person.

Caution

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



Item no.	Weight kg		
117321	31,000	**Lifting Gear Combi MX** For transporting stacks of MAXIMO and TRIO Panels. For attaching the Lifting Hook MAXIMO 1.5 t and Stacking Device MAXIMO.	**Note** Follow Instructions for Use!



EC Declaration of Conformity

PERI

EG – Konformitätserklärung

im Sinne der EG-Richtlinie 2006/42/EG
Anhang II, 1.A

In der Gemeinschaft ansässige Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen:

Dipl.-Ing. Rainer Bolz
PERI GmbH
Rudolf-Diesel-Straße 19
89259 Weißenhorn

Beschreibung und Identifizierung:

Produktgruppe:	Wandschalung
Typ:	Lastaufnahmemittel
Artikel-Nr.:	117321
Handels-Bez.:	Kombigehänge MX

Es wird ausdrücklich erklärt, dass dieses Produkt allen einschlägigen Bestimmungen der folgenden EG-Richtlinien entspricht:

EG Maschinenrichtlinie 2006/42/EG

Fundstelle der angewandten harmonisierten Normen entsprechend Artikel 7, Absatz 2:

EN 13155 : 2009 - 08
EN 12100 : 2011 - 03

Weißenhorn, 29.10.2015

Hersteller
PERI GmbH
Postfach 1264
89259 Weißenhorn

Leitung Produktentwicklung

Dipl.-Ing. Rainer Bolz
PERI GmbH

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

EC – Declaration of Conformity

according to the EC Machinery Directive 2006/42/EC
Annex II, 1.A

Person residing within the Community authorised to compile the relevant technical documentation:

Dipl.-Ing. Rainer Bolz
PERI GmbH
Rudolf-Diesel-Strasse 19
89259 Weissenhorn

Description and identification:

Product Group:	Wall Formwork
Type:	Lifting Accessory
Article no.:	117321
Commercial Designation:	Lifting Gear Combi MX

It is expressly declared that this product fulfills all relevant provisions of the following EU Directives:

European Directive On Machinery 2006/42/EC

Reference to the harmonised standards used, as referred to in Article 7, Annex 2:

EN 13155 : 2009 - 08
EN 12100 : 2011 - 03

Weissenhorn, 29.10.2015

Manufacturer
PERI GmbH
Postfach 1264
89259 Weissenhorn

The optimal System for every Project and every Requirement



Wall Formwork



Column Formwork



Slab Formwork



Climbing Systems



Bridge Formwork



Tunnel Formwork



Shoring Systems



Construction Scaffold



Facade Scaffold



Industrial Scaffold



Access



Protection Scaffold



Safety Systems



System-Independent Accessories



Services

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