

Lifting loop plus



Application Instruction

Our products from the division BUILDING SOLUTIONS

SERVICES

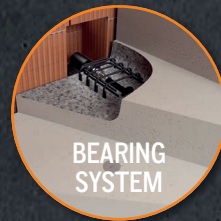
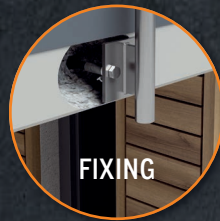
- » On-site tests -> we ensure that your requirements are properly covered by our planning.
- » Test reports -> for your safety and documentation.
- » Trainings -> the knowledge of your employees from planning and production is enhanced by our experts on site, online or via webinar.
- » Planning support -> latest design software, planning documents, CAD data and much more can be downloaded any time from www.philipp-group.de.

HIGH DEMANDS ON PRODUCT SAFETY AND PRACTICALITY

- » Close cooperation with notified bodies and - if necessary - approval of our solutions.

TECHNICAL DEPARTMENT

- » Our expert-team will support you at any time during your planning phase with detailed advice.



CONTENT

| | | |
|---|-------------|----------|
| THE LIFTING LOOP PLUS | Page | 4 |
| Material | Page | 4 |
| Marking | Page | 4 |
| APPLICATION | Page | 5 |
| SAFETY / INSPECTION | Page | 6 |
| Safety advice | Page | 6 |
| Replacement criteria and inspection service | Page | 6 |

PHILIPP Lifting loop plus

THE LIFTING LOOP PLUS

The Lifting loop plus is part of the PHILIPP Transport anchor system and complies with the VDI/BV-BS Guideline "Lifting inserts and lifting systems for precast concrete elements" (VDI/BV-BS 6205). The use of the Lifting loop plus requires the compliance with this Application Instruction, the Installation and Application Instruction of the particular threaded anchor as well as the General Installation Instruction. The Lifting loop plus is suitable for axial, diagonal and lateral tension.

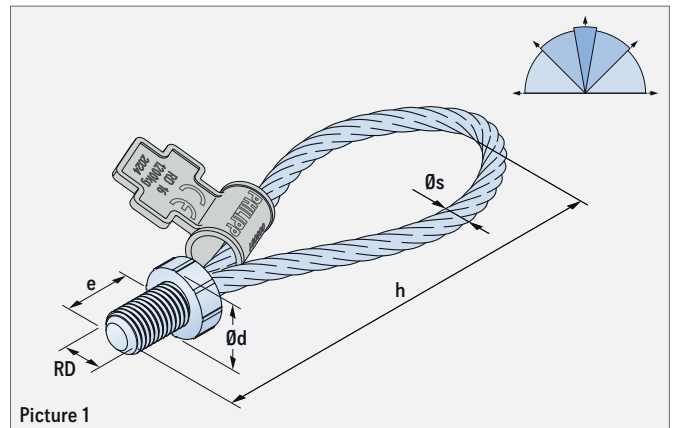


TABLE 1: PERMISSIBLE LOAD BEARING CAPACITIES AND DIMENSIONS

| Ref. no. ① | Type | Perm. F | | RD | Dimensions | | | | Weight [kg/Stck.] |
|---------------|-------|------------------------|------------------------|----|------------|-----------|------------|------------|----------------------|
| | | F _Z (kN) | F _Q (kN) | | h (mm) | e (mm) | Ød (mm) | Øs (mm) | |
| 69QRD12 | RD 12 | 5.0 | 2.5 | 12 | 155 | 18 | 21 | 6 | 0.06 |
| 69QRD16 | RD 16 | 12.0 | 6.0 | 16 | 165 | 26 | 25 | 8 | 0.13 |
| 69QRD20 | RD 20 | 20.0 | 10.0 | 20 | 215 | 35 | 31 | 10 | 0.26 |
| 69QRD24 | RD 24 | 25.0 | 12.5 | 24 | 255 | 40 | 35 | 12 | 0.46 |
| 69QRD30 | RD 30 | 40.0 | 20.0 | 30 | 300 | 43 | 43 | 15 | 0.88 |
| 69QRD36 | RD 36 | 63.0 | 31.5 | 36 | 360 | 50 | 53 | 18 | 1.45 |

① Also available with M thread (ref. no. 69M...)
- The weight of 1.0 t corresponds to 10.0 kN.

MATERIAL

The Lifting loop plus is made of a galvanised steel wire rope while the threaded part is made of a bright precision steel.

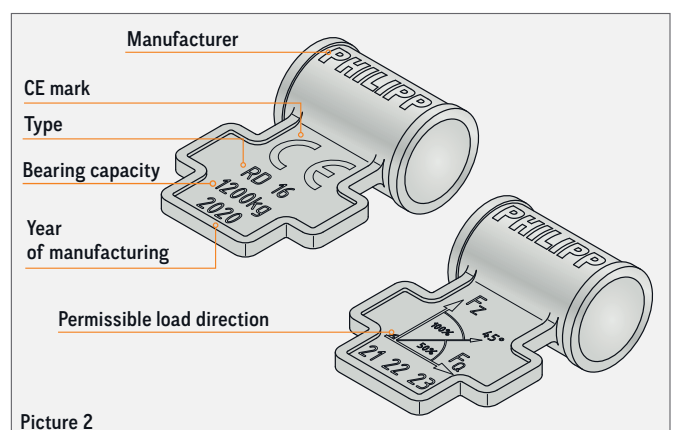
MARKING

The Lifting loop plus is labelled with a colour-coded tag which includes the following information (picture 2):

- » Manufacturer (PHILIPP)
- » CE mark
- » Type (system / load class)
- » Maximum bearing capacity (e.g. 1200 kg)
- » Year of manufacturing
- » Illustration of the permissible load direction

EC DECLARATION OF CONFORMITY (DOC)

The EC Declaration of Conformity (DoC) of the Lifting loop plus can be downloaded from our website www.philipp-group.de or is available on request..



APPLICATION

The Lifting loop plus is a lifting device of the threaded transport anchor system and is supplied with a round thread (with metric pitch) or metric thread. It must be screwed into the thread of the transport anchor hand-tight.



PROTECTION AGAINST UNSCREWING

Using only one Lifting loop plus in order to lift concrete elements attention must be paid that the lifting device is protected against unscrewing.

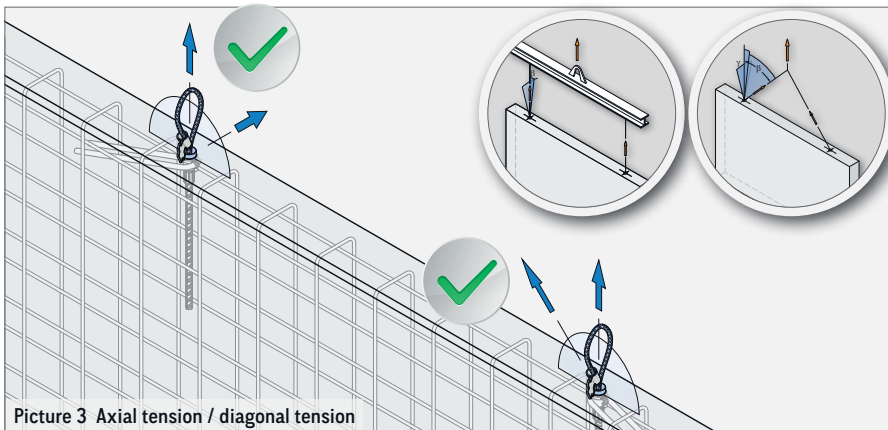
During use the following must be considered:

- » Thread must be screwed in completely!
- » Dirty thread pitches of the transport anchors as well as of the Lifting loop plus are to be cleaned!
- » Please notice the replacement state!
- » Contact of the Lifting loop plus to acids, alkalis and other aggressive media is not allowed!

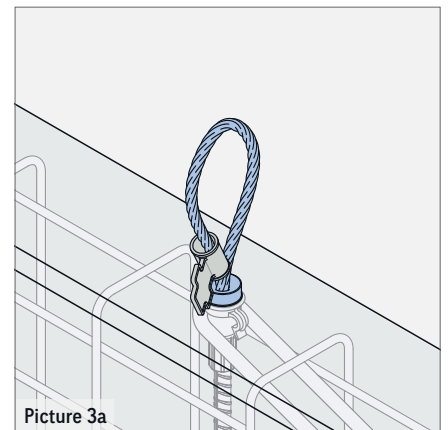


COMBINATIONS

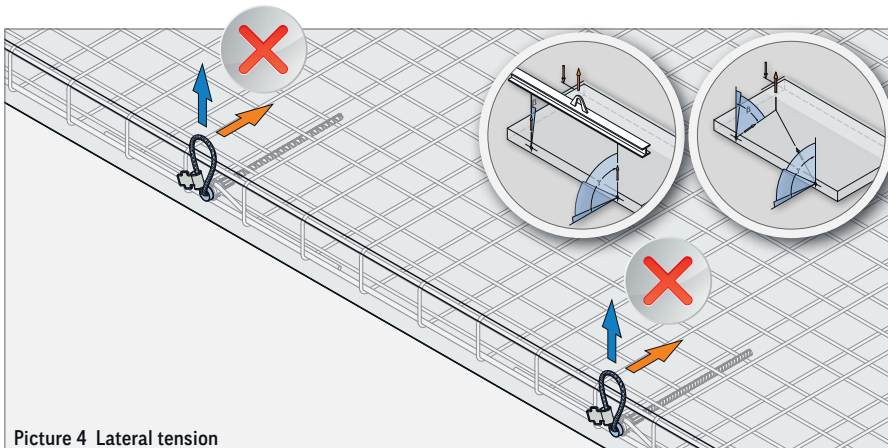
For the combination of a Lifting loop plus with the different PHILIPP recess formers please refer to the document PHILIPP Threaded transport anchor system - Combinations.



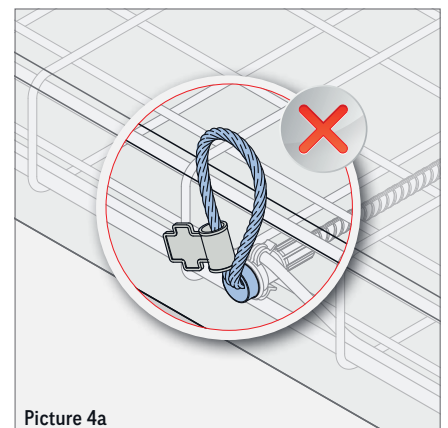
Picture 3 Axial tension / diagonal tension



Picture 3a



Picture 4 Lateral tension

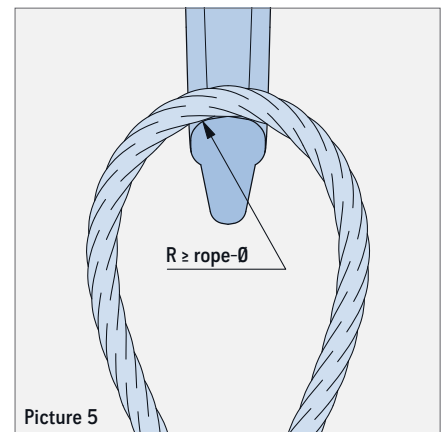


Picture 4a

SAFETY / INSPECTION

SAFETY ADVICE

As each other lifting equipment and lifting device the Lifting loop plus is subject to an annual inspection acc. to the German DGUV regulation 109-017, para. 8.2. This inspection lies within the responsibility of the owner and has to be done by an expert. Depending on the working conditions inspections might be necessary in a shorter interval than once a year. This might be caused by frequent use, increased wear, corrosion or heat treatment. In general, the current accident prevention regulations must be observed. The correct hook size and form should be considered in order to extend the durability.



ROUNDING RADIUS

The rounding radius of the load hooks must be at least the rope diameter of the Lifting loop plus (picture 5). The use of too small, too large or sharp-edged hooks leads to a reduced lifetime of the lifting device (replacement criteria).

If the Lifting loop plus is loaded with extreme forces (e.g. by an event causing damage) it must be examined extraordinarily by an expert. The criteria are given in section "Replacement criteria and inspection service".

WELDING

Welding or other strong heat influences on the Lifting loop plus are not allowed.

DAMAGED DEVICES

The continued use of damaged lifting devices or equipment already met the discard criteria is not permitted!

REPLACEMENT CRITERIA AND INSPECTION SERVICE

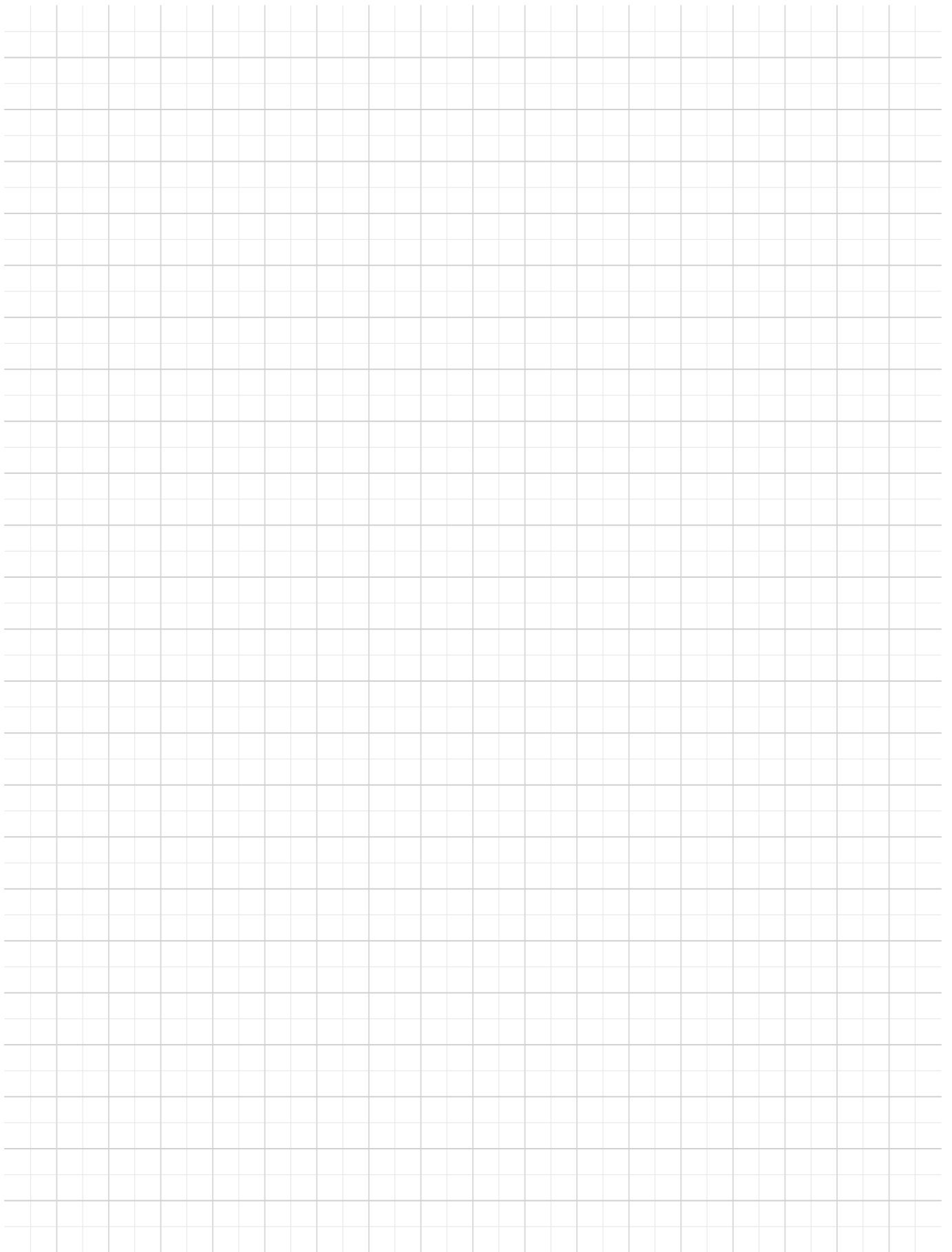
The replacement criteria of the Lifting loop plus are based on the German regulation DGUV 109-017, para. 8.4. Prior inspection the Lifting loop plus must be cleaned. During inspection the following points have to be considered. If one of the following points is fulfilled the Lifting loop plus has reached its replacement state and cannot be used anymore.

- » Broken strand
- » Kinks and bends
- » Loosening of external layer
- » Contusion in free lengths
- » Contusions in the support area of the eye with more than 4 broken wires
- » 4 broken wires on a length of the threefold of the wire rope diameter
- » 6 broken wires on a length of the sixfold of the wire rope diameter
- » 16 broken wires on a length of the thirtyfold of the wire rope diameter
- » Corrosion pits
- » Damages, deformations or strong wear and tear of the wire connection (threaded component)
- » Breakage of the wire connection end (threaded part)
- » Deformed thread
- » Welding or other strong heat influences
- » Pull-out of the wire rope from threaded part
- » Unreadable or missing tag
- » Dropping below the permissible test dimensions

TABLE 2: TEST DIMENSIONS

| Load class | $d_{M,min}$ (mm) | |
|------------|------------------|--|
| 12 | 11.50 | |
| 16 | 15.45 | |
| 20 | 19.40 | |
| 24 | 23.40 | |
| 30 | 29.40 | |
| 36 | 35.40 | |

NOTES



HEADQUARTERS

Lilienthalstraße 7-9
63741 Aschaffenburg
☎ +49 6021 40 27-0
✉ info@philipp-gruppe.de

PRODUCTION AND LOGISTICS

Hauptstraße 204
63814 Mainaschaff
☎ +49 6021 40 27-0
✉ info@philipp-gruppe.de

OFFICE COSWIG

Roßlauer Straße 70
06869 Coswig/Anhalt
☎ +49 34903 6 94-0
✉ info@philipp-gruppe.de

OFFICE NEUSS

Sperberweg 37
41468 Neuss
☎ +49 2131 3 59 18-0
✉ info@philipp-gruppe.de

OFFICE TANNHEIM

Robert-Bosch-Weg 12
88459 Tannheim
☎ +49 8395 8 13 35-0
✉ info@philipp-gruppe.de

PHILIPP VERTRIEBS GMBH

Pfaffing 36
5760 Saalfelden / Salzburg
☎ +43 6582 7 04 01
✉ info@philipp-gruppe.at



HEADQUARTERS Aschaffenburg



Visit us! www.philipp-group.de