



# PHILIPP Lifty

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## Using Instruction



07/07 - EN

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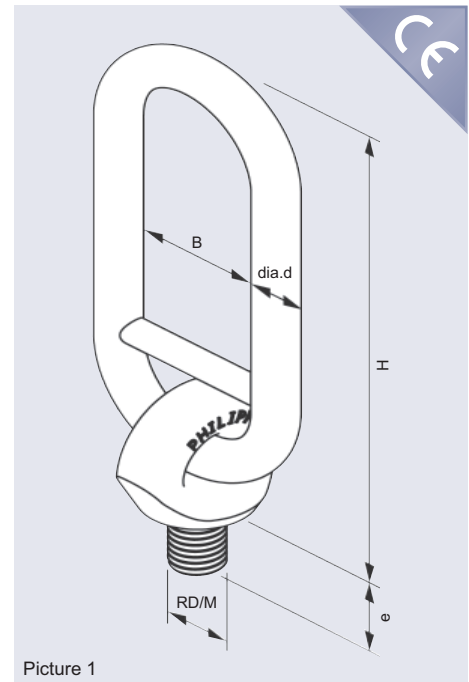
# USING INSTRUCTIONS OF PHILIPP LIFTY

The **PHILIPP Lifty** is part of the **PHILIPP Transport Anchor System** and complies with the „Safety Rules for Transport Anchors and Systems for Precast Concrete Units“(German regulation, BGR 106).

On use of **PHILIPP Lifty** attention must be paid to this using instruction, the installation instructions of **PHILIPP Threaded Anchor System** as well as the general part.

**Table 1: Load Bearing Capacities and Dimensions**

Art.-No. RD- Thread	Art.-No. M- Thread	Type	Load Bearing Capacity $F_z$ 0° - 90°[kN]	dia.d [mm]	e [mm]	B [mm]	H [mm]
62LI12	62LI12M	12	5.0	13	18	50	150
62LI14	62LI14M	14	8.0	13	21	50	150
62LI16	62LI16M	16	12.0	13	23	50	150
62LI18	62LI18M	18	16.0	16	27	50	162
62LI20	62LI20M	20	20.0	16	29	50	162
62LI24	62LI24M	24	25.0	16	35	50	162
62LI30	62LI30M	30	40.0	22	39	50	177
62LI36	62LI36M	36	63.0	22	47	50	177



Picture 1

The weight of 1.0ton results in 10kN.

## 1. Material

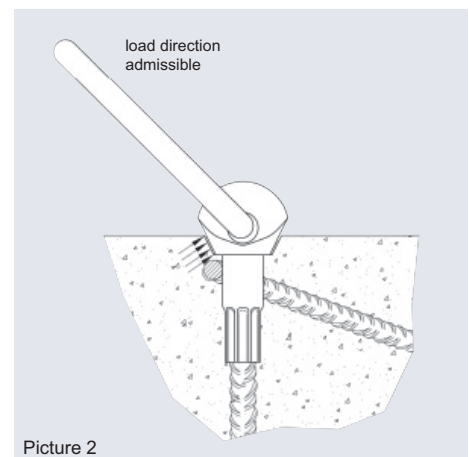
The **PHILIPP Lifty** consists of a forged ring bolt with thread and a welded chain link.

## 2. Application

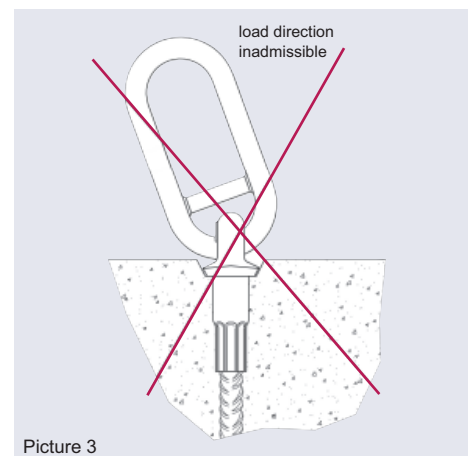
The **PHILIPP Lifty** is used as a load handling equipment within the **PHILIPP Lifting Anchor System**. The **PHILIPP Lifty** is available with metric or special RD thread (with metric pitch) and can be turned in and out of the thread anchor like a standard screw. The **PHILIPP Lifty** can be used for axial, diagonal and lateral loading. The installation of products from the **PHILIPP Threaded Anchor System** requires the use of **PHILIPP Nailing Plates** (72KHN12 until 72KHN36). The vertical position of the anchor axis of the **PHILIPP Lifty** is thereby ensured.

If the **PHILIPP Lifty** is screwed in completely, a flush connection of the ring bolt in the prior made recess of the **PHILIPP Nailing Plate** is guaranteed (Picture 2). When screwing in the **PHILIPP Lifty** the forged ringbolt must point to the tensile direction. To bring the **PHILIPP Lifty** in the right position it is allowed to screw back the ringbolt about at most a half turn.

Since the ring bolt is supported by the concrete in the recess of the **PHILIPP Nail Plate** an optimal load transfer into the precast unit is given.



Picture 2



Picture 3



A lateral loading as shown in Picture 3 is not permitted.

## 3. Safety Advice

The **PHILIPP Lifty** counts as lifting device and is therefore subject of an annual inspection (BGR 500 Section 2.8). This inspection must be executed by an expert and lies in the responsibility of the user.

In general the particular accident prevention regulations must be taken into account. The right hook size and form should be considered because thus the durability can be extended.

The parts of the **PHILIPP Lifty** were undergone a special thermal procedure.

 Welding and other strong heating influences are not permitted on **PHILIPP Lifty**.

Exceptional loads (e.g. failure) that may cause negative influence on the **PHILIPP Lifty** load bearing capacity shall be subject of an extraordinary inspection by an expert (BGR 500 Section 2.8).

The inspection should include the below mentioned criterions.

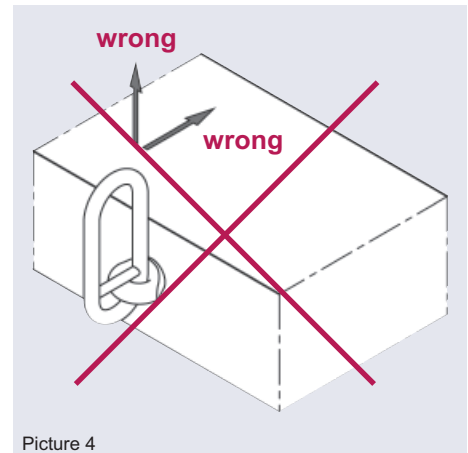
The use of damaged load equipment or items which are already in replacement state is inadmissible. The replacement state of the **PHILIPP Lifty** is determined according to the German regulation (BGR 500 section 2.8).

## 4. Replacement State and Inspection

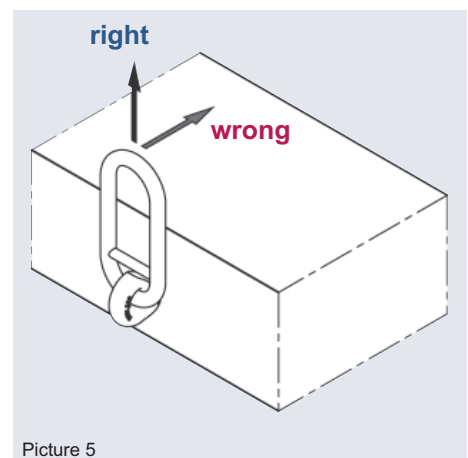
Prior inspection the **PHILIPP Lifty** must be cleaned and the following points have to be considered:

- breakage of chain link
- cracks or the capacity reducing corrosion scarves
- stretching caused by overload (Table 2)
- on plastic deformation replacement state of wear of the **PHILIPP-Wirbelstar** is reached. Those deformations can be:
  - deformed chain link (Picture 6)
  - deformation of the threaded bolt.
  - stretching caused by overload (Table 2)
- on exceeding of permissible wear measures, replacement state of wear is also reached.

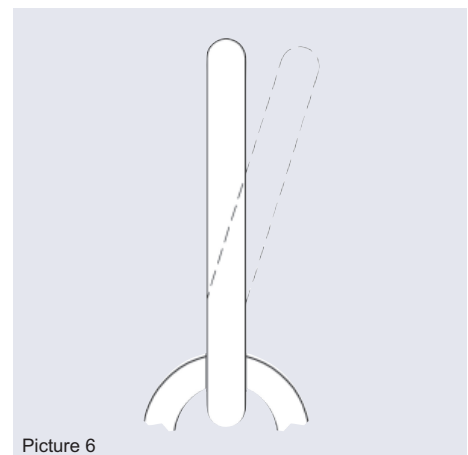
If you wish a proper and documented inspection please don't hesitate to contact our **PHILIPP Inspection Service** under the following telephone number: +49 (0) 6021/ 4027-0.



Picture 4



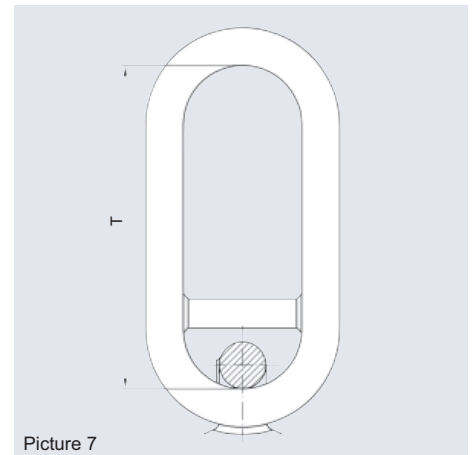
Picture 5



Picture 6

**Table 2: Measure of Chain Link**

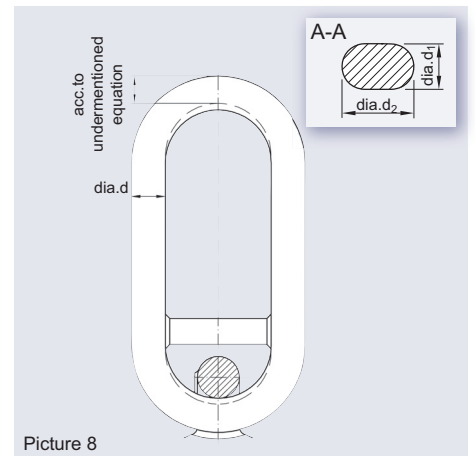
Type	Spacing T [mm]	$T_{max}=1.05 \times T$ [mm]
12	115	121
14	115	121
16	115	121
18	115	121
20	115	121
24	115	121
30	115	121
36	115	121



Picture 7

**Table 3: Measure of Wear of Chain Link**

Type	dia.d [mm]	$0.9 \times d$ [mm]
12	13	11.7
14	13	11.7
16	13	11.7
18	16	14.4
20	16	14.4
24	16	14.4
30	22	19.8
36	22	19.8



Picture 8

Furthermore the radius of the chain link diameter should be observed during inspection. The replacement state for this part is reached, if the chain link has a diminution by 10% (Pict. 8 and Table 3).

$$\frac{\text{dia.}d_1 + \text{dia.}d_2}{2} > 0,9 \times \text{dia.}d$$

## 5. Marking

The **PHILIPP Lifty** is marked as follows:

- manufacturer
- year of manufacturing
- load bearing capacity
- type/ thread size
- CE marking