



Approval body for construction products and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments



European Technical Assessment

ETA-21/0992 of 11 February 2022

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:

Trade name of the construction product

Product family to which the construction product belongs

Manufacturer

Manufacturing plant

This European Technical Assessment contains

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of

Deutsches Institut für Bautechnik

Hilti Liftbox HLB

Elevator lifting device

Hilti AG
Feldkircherstraße 100
9494 Schaan
FÜRSTENTUM LIECHTENSTEIN

Hilti Werke

9 pages including 3 annexes which form an integral part of this assessment

EAD 330075-01-0601, Edition 10/2018



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Specific Part

1 Technical description of the product

The Hilti Liftbox HLB is a pre-installed elevator lifting device consisting of an anchor bolt (anchor rod, anchor head), a joint bracket and a wire loop located in a plastic housing.

The Hilti Liftbox HLB is fully embedded in concrete and anchored by bonding and mechanical interlock.

The product description is given in Annex A.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The performances given in Section 3 are only valid if the Hilt Liftbox HLB is used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the Hilti Liftbox HLB of at least 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1

3.2 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Load bearing capacity	See Annex C1
Minimum edge distances and spacing	See Annex B2

Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD No. 330075-01-0601, the applicable European legal act is: [97/161/EC].

The system to be applied is: 2+

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5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 11 February 2021 by Deutsches Institut für Bautechnik

Dipl.-Ing. Beatrix Wittstock Head of Section beglaubigt: Tempel

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Product and installation condition Key 1 anchor head h anchor rod M20 h_{nom} wire loop housing 4 joint bracket 3 5 wire loop M20 a_b h_{loop} 5 b_b Hilti Liftbox HLB Annex A1 **Product Description** Installed condition



Specifications of intended use

Installation in the roof of an elevator shaft, to transfer the load during the elevator installation.

Anchorage subject to:

- Static and quasi-static loads.
- Tension loading

Base materials:

- Compacted, reinforced or unreinforced normal weight concrete without fibers according to EN 206:2013.
- Strength classes C20/25 to C50/60 according to EN 206:2013.
- Cracked and uncracked concrete.

Use conditions (Environmental conditions):

Structures subject to dry internal conditions

Design:

- The anchorage with the HLB hoist point for elevator applications is designed under the responsibility of an engineer experienced in anchorages and concrete work.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The
 position of the HLB hoist point for elevator applications is indicated on the design drawings (e.g. position
 of the hoist point for elevator applications relative to the reinforcement or to supports).

Installation:

- The installation of the hoist point for elevator applications is carried out by appropriately qualified personnel under the supervision of the person responsible for the technical matters on site.
- Installation in accordance with the installation instructions given in Annexes B3.
- The hoist point for elevator applications is fixed on the formwork or auxiliary construction such that no movement of the device will occur during the time of laying the reinforcement and of placing and compacting the concrete.
- The concrete around the head of the anchor is properly compacted. The hoist point for elevator applications is protected from penetration of concrete into the internal space of the housing.

Hilti Liftbox HLB

Intended Use
Specifications

Annex B1

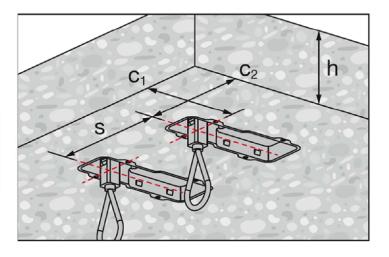
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Installation parameters

Table 1: Installation parameter for the Hilti HLB Liftbox

Hilti HLB Liftbox Size			HLB-20	HLB-25
Minimum thickness of concrete member	h _{min}	[mm]	150	200
Minimum edge distance	C _{min}		250	325
Minimum spacing	Smin		500	650
Nominal product embedment depth	h _{nom}		142	183
Wire loop height	h _{loop}		168	168
Width of the housing	a _b		128	128
Length of the housing	bь		277	277



Hilti Liftbox HLB	
Intended use Installation parameters, product dimensions	Annex B2

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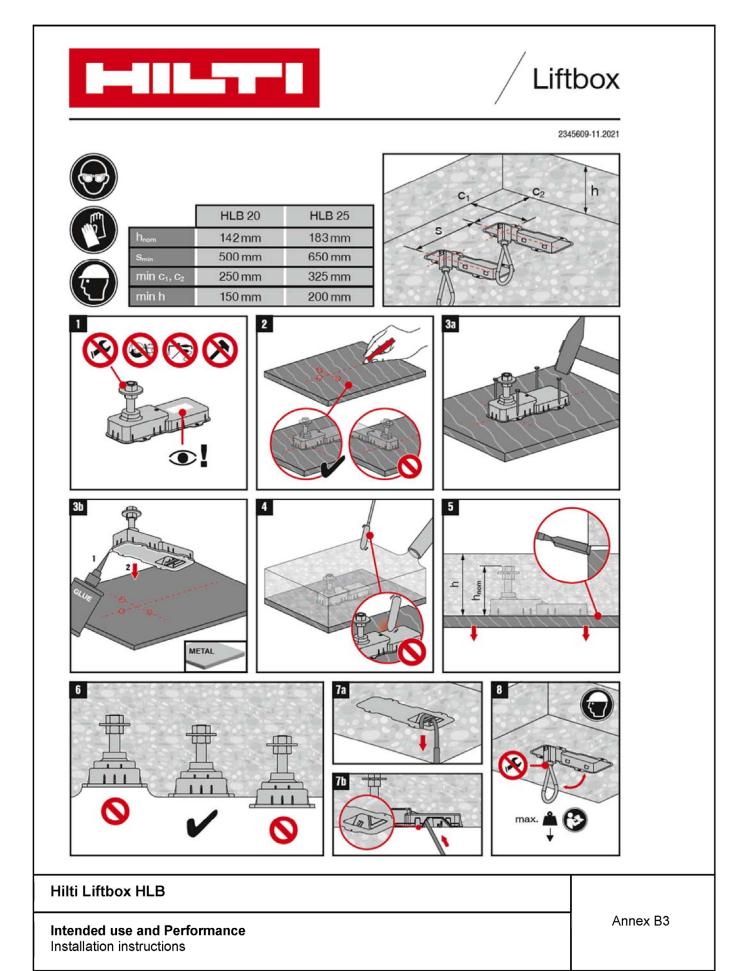






Table 2: Load bearing capacity under tension load for concrete classes C20/25 to C50/60

Hilti HLB Liftbox			HLB-20	HLB-25
Characteristic resistance	N_{Rk}	[kN]	80	100
Design resistance	N _{Rd}	[kN]	20	25

Hilti Liftbox HLB

Performance
Load bearing capacity

Annex C1

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