User Manual

Eye Hooks

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1 Introduction and EC declaration

This manual is an original instruction in accordance with:

Directive 2006/42/EC on machinery, section 1.7.4 Instructions and Annex II Declarations.

It also meets the requirements in:

Standard EN 1677-1/2/3:2000+A1:2008, Components for slings - Safety - Part 1: Forged steel components.

This manual is valid for Eye Hooks. See the table under General Description for an overview of the included variants.

This manual is valid together with Gunnebo Industries' instruction for slings and lifting guide.

All manuals are continuously updated and are only valid in their latest version, which can be downloaded from www.kitocrosby.com.

1.1 EC declaration of conformity

The Engineering Manager is the authorized person to compile the technical file.

We declare that the lifting component described in this user manual fulfils all the relevant provisions of the Directive 2006/42/EC as a partly completed machine.

The main use of the product is to be incorporated as part of a CE-marked lifting assembly but must not be put into service until the final lifting assembly has been declared to be in conformity with the provisions of the Directive 2006/42/EC.

Our quality management system complies with ISO 9001:2015 and is certified by LRQA Sverige AB for and on behalf of Lloyd's Register Quality Assurance Limited (certificate identity number: 10140613).

Information about harmonized and national standards/technical specifications that apply, and the valid version of this user instruction are available at www.kitocrosby.com.

If the products are modified without approval from Gunnebo Industries, this declaration becomes invalid.

Växjö, June 2025

Fredrik Sandberg

Engineering Manager

1.2 Abbreviations

EC	European Commission
LRQA	Lloyd's Register Quality Assurance
WLL	Working Load Limit

Table 1: Abbreviations

2 Safety precautions

2.1 Warnings, cautions and notes

Carefully read the instructions before using the lifting equipment.

The following signs are used in the instructions, to alert about potential dangers and safety related issues.

Warning!

A warning alerts about a situation which, if not avoided, could result in injury, or death.

Caution!

A caution alerts about a situation which, if not avoided, could result in minor or moderate injury, or damage to the equipment or other property.

Note!

Notes are added to give more information.

2.2 General safety precautions

The rigger is responsible for the lifting operation, and for following all related safety regulations. The rigger must understand the limitations of the equipment.

The rigger is a competent person, with the knowledge to select correctly dimensioned lifting equipment, and to ensure its safe condition.

Before each lifting operation, check that the lifting system parts and connecting parts are correctly attached to each other.

2.3 Lifting precautions

Warning!

Visual function check:
Before each operation check that the latch is fully closed. If the Eye Hook bumps into an obstacle during operation check again that the latch is fully closed.

Warning!

Make sure that the hook aligns with the pull direction. Check that the lifting chain is not twisted or rotated.

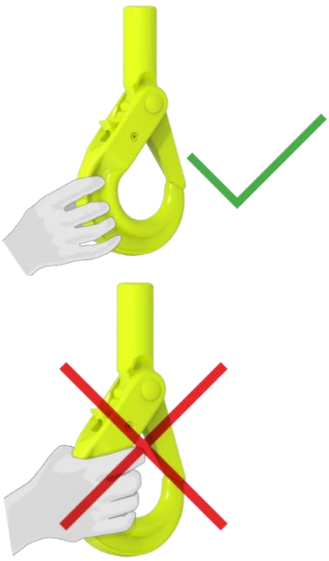
Warning!
Never point load the Eye Hook.

Warning!
Adapt the Eye Hook variant to the lifted object. The lifting object must rest comfortably inside the Eye Hook without being pinched.

Warning!
Never lift an object without checking that the latch is closed.

Warning!
Never force an object into the Eye Hook opening. Use an Eye Hook with a larger opening instead.

Warning!
Grip the Eye Hook by its sides with your fingertips only. Gripping with the entire hand can cause crushing damage to the hand.



Warning!
Make sure the opening of the Eye Hook points outwards from the lifting object for a 2, 3, or 4-leg lifting sling.

Warning!
Only insert one object into the Eye Hook. In the case of more than one, the rigger must make a risk assessment.

Warning!
Side loading is not allowed on any lifting components.

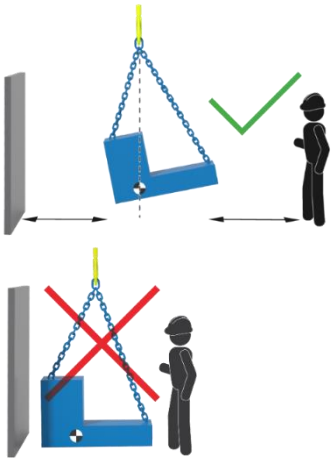
Warning!
The OKE and EK Eye Hooks without latch must only be used after risk assessment by the person responsible for the lift.

Warning!
The BKL, LBK and LKN Eye Swivel Hooks allow rotation, but it is not intended to be rotated during lift. They are designed to permit positioning before the load is lifted.

Warning!
The BKLK, LBK, LKN, BKLK OS Eye Swivel Hooks allow rotation to position the load during the lift. Do not use for continuous rotation.

Note!

When lifting asymmetric loads be aware of sudden movement of the load. Keep distance.



3 General description

All measurements shown in images, and technical data can be found on the website www.kitocrosby.com.

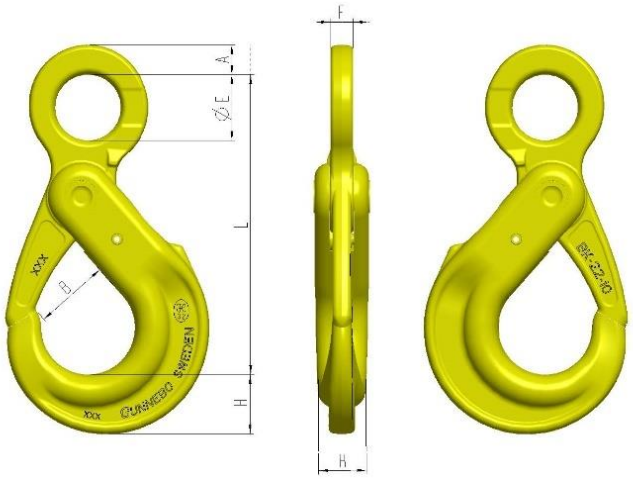


Figure 1: BK-22-10

Each Eye Hook is marked as follows:

- Manufacturer identification (GUNNEBO SWEDEN)
- Product name, chain size, material grade
- Batch/traceability code
  The traceability code consists of letters and numbers that identify which plant the product was made in, the year and the batch. This enables tracing the product back through the manufacturing process, all the way back to the specific raw material.
- German professional worker association (BG H32)

Gunnebo Industries issue:

- Manufacturer´s certificate according to EN 1677-1 and
- 3.1 material certificate acc. to EN 10204

The following standards apply:

- EN 1677-1/2/3 (WLL+25%)
- ASTM A952/A952M-02
- AS 3776:2015

WLL refers to the maximum working load a lifting accessory or lifting assembly can be subjected to.

Authorized resellers may provide their own documentation and will be able to provide the original certificates upon request.

For an overview of included variants, see table:

Chain size	Metric (mm)		6	7	7/8	8	10	13	16	18/20	20	22	26	32
	Imperial (inch)			9/32		5/16	3/8	1/2	5/8		3/4	7/8	1	1/1/4
	Grade													
BK	10		X		X		X	X	X	X		X	X	
EKN	10		X		X		X	X	X		X	X	X	X
EK	10		X		X		X	X	X		X	X	X	X
OKE	10				X		X	X	X		X	X	X	
OBK	10		X		X		X	X	X	X				
BKL	10		X		X		X	X	X	X				
BKLK	10		X		X		X	X	X	X		X	X	
LBK	10				X		X	X	X					
LKBK	10				X		X	X	X					
LKN	10				X		X	X	X					
LKNK	10				X		X	X	X			X		
BKD	10							X	X	X			X	
BK	8													X
EKN	8													X
EK	8													X
OBK	8											X		
OKE	8													X
BKLK	8													X
BKLK OS	8							X	X	X		X	X	X
BK OS	8												X	X
BKLKD OS	8							X	X	X				

Table 2: Overview of Eye Hook variants

4 Intended use and restrictions

4.1 Intended use

The Eye Hooks can only be used for lifting when the user has a valid certificate. Authorized resellers may provide their own documentation and will be able to provide the original certificates upon request.

- The Eye Hooks without swivel are intended to be the end component of a lifting sling.
- The lifting sling can consist of chain or steel wire.
- The Eye Hooks can also be part of customized lifting equipment.

Eye Hooks are available as follows:

With spring latch	EKN, LKN, LKNK
Open/close self-locking latch	BK, OBK, BKL, BKLK, LBK, LKBK
Without latch	EK and OKE

Table 3: Available Eye Hooks

The self-locking latch is opened and closed with the release trigger. When in open position, it locks either when the hook is aligned with the load or when the operator locks the hook manually.

The intended use is as follows:

OKE foundry hook	Steel works applications
Swivel hooks BKL, LBK, LKN	Used when the load should be rotated in position before the lift
BKLK, LKBK, LKNK	Can rotate with load Intended to be used to position before and during the lift but not for continuous rotation
BKLK OS, BKLKD OS and BK OS	Offshore variants that have double coating Adapted to NORSOK R-002 Type approved according to DNVGL-ST-377 and -378 for shipboard lifting appliances and platform lifting appliances

Table 4: Intended use

Eye Hooks - Example of use

Figure 2: Chain lifting slings with BK Eye Hook, Grade 8

4.2 General limitations of use

- Always use a latch. Make a risk assessment before using EK and OKE.
- Use only Gunnebo short link chain (if relevant) and G or CL-coupler of corresponding size and grade.
- Never modify, repair, or reshape the Eye Hook by welding, heating or bending as this will affect the nominal WLL.
- Never heat-treat the Eye Hooks as this may affect the WLL.
- Do not galvanize or subject the Eye Hooks to any plating or coating process without approval of the manufacturer.
- Do not use the Eye Hooks in alkaline or acidic conditions.
- Do not expose the Eye Hooks to aggressive chemicals, such as acids, alkalines and their vapors.

4.3 Use in exceptionally hazardous conditions

The rating of lifting accessories in European Standards assumes the absence of exceptionally hazardous conditions.

Exceptionally hazardous conditions include offshore activities, the lifting of persons, and lifting of potentially dangerous loads such as molten metals, corrosive materials, or fissile materials.

In such cases a competent person should assess the degree of hazard and adjust the working load limit accordingly.

4.4 WLL reduction at elevated temperatures

The general service temperature is -40 °C/-40 °F to +200 °C/392 °F.

For temperatures higher than +200° C/392 °F, the following apply:

Service temperature	New load capacity in % of original WLL
200-300 °C 392-572 °F	90%
300-400 °C 572-752 °F	75%
> 400 °C	Not allowed

> 752 °F	

Table 5: WLL reduction at elevated temperatures

4.5 Fatigue

It is important to understand that fatigue failure can occur even if the prescribed WLL is not exceeded.

Scenarios in which the Eye Hook is subjected to variable load over a prolonged period of time, will carry the risk of fatigue. Consider this when dimensioning and deciding service intervals.

4.6 Additional marking

If markings such as project code, and serial number are added, it must be done in a way that does not reduce the strength, corrosion resistance, or the legibility of the manufacturer's own marking.

The following methods are recommended for marking:

- Marking tape
- Engraving tool
- Low stress punches

Figure 3: Recommended areas for punched or engraved marking

5 Instructions prior to use

Read and understand this manual before using the Eye Hooks. Read the Safety precautions.

For further recommendations regarding safe use of the Eye Hook in sling applications, see the Gunnebo Industries' instruction for safe use of slings and lifting guide. Download the Lifting guide and Instructions for sling at www.kitocrosby.com.

5.1 Verification prior to first use

Before first use ensure that:

- The Eye Hook is precisely as ordered.
- The manufacturer's certificate is in order.

5.2 Inspection prior to each use

Inspect the Eye Hooks for obvious damage or deterioration before each use in accordance with local regulations.

Check also against the items listed under Inspection. If there is any doubt regarding meeting these criteria, do not use the Eye Hook for lifting operation.

5.3 Before loading

- Determine the weight of the load and the center of gravity.
- Check the conformity of the load with the WLL of the lifting equipment for the specific working configuration.
- Ensure that the Eye Hook has been correctly assembled in accordance with the Assembly instructions.
- Ensure that no obstacles obstruct the lift and prepare the landing site.

5.4 Accessories

The WRIN safety handle enables easier opening and less risk for hand injuries.

The WRIN handle is compatible with the following for sizes 10-32:

BKLK OS	BK OS	BKLKD OS	BK
BKLK	BKL	LKBK	LBK

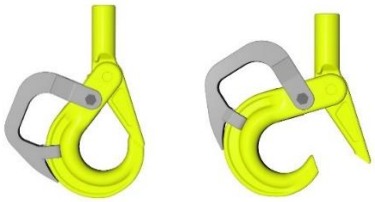


Figure 4: WRIN handle closed and open

6 Assembly

Only a qualified person may assemble the Eye Hook. When the Eye Hook is incorporated as a part of a lifting sling, it must be part of the certification and WLL rating of the complete sling.

6.1 Spare parts

Available spare parts:

- Latch with spring and rivet
- Open close trigger with spring and spring pin

See www.kitocrosby.com for article numbers or the Gunnebo Industries Product Catalogue.

6.2 Limitations

The Eye Hook is designed to be connected to the lifting chain in the eye with the appropriate G or CL coupler-grade and size; or with a steel wire with thimble. Do not use any other connecting part.

Check that the spring function of the retainer pin is working and that it secures the load pin. If it does not work, do not use the Eye Hook before it has been replaced.

7 Maintenance

When performing maintenance or inspection, always read and follow the Safety Precautions.

7.1 Inspection

During service, lifting equipment are subjected to conditions which affect their safety. Therefore ensure that the equipment is safe for continued use. See Safety Precautions.

Withdraw the Eye Hook from service and refer them to a competent person for thorough examination if any of the following is observed:

- The Eye Hook markings are illegible.
- More than 10% reduction of dimension at any point.
- Cuts, nicks, gouges, cracks, excessive pitting or corrosion, heat discoloration, bends, distortion, or other defects.
- Only use the Eye Hook if the play between the self-locking latch and hook are within limits (see table).

Size	Max A (mm)	Max B (mm)
6	2.2	3.5
7/8	2.7	4.5
10	3	6
13	3.3	7
16	4	9
18/20	5.5	10
22	6	11
26	6.5	12
32	7	13

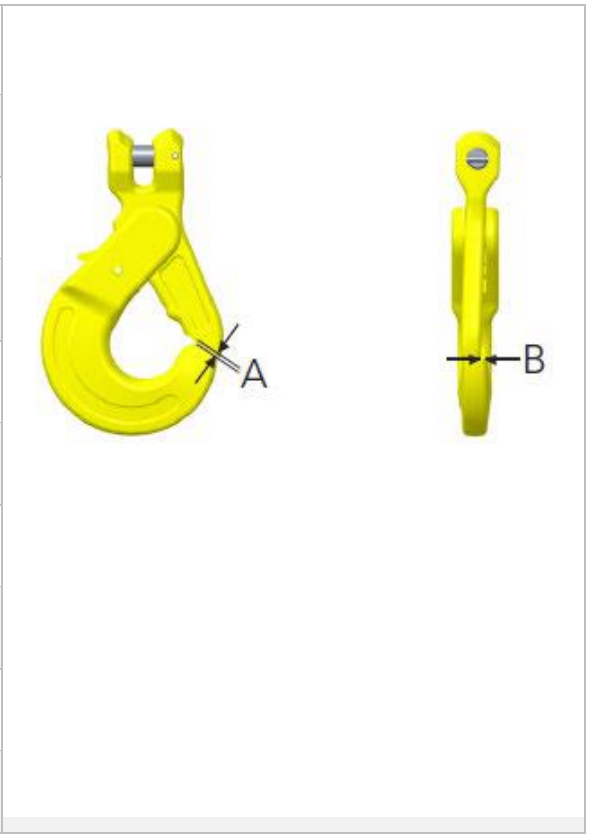


Table 6: Play limits for the self-locking latch and the hook

7.2 Examination

A competent person should thoroughly examine the product at least once every year. The inspection should be carried out more frequently if deemed necessary, taking into consideration the following points.

- Local, national, or branch-specific regulation.
- The service condition of the Eye Hook.

- Use in demanding environments (such as corrosive or extreme temperature).
- Use where the Eye Hook is subjected to repeated loads that may induce metal fatigue.

Maintain records of examinations. Before examination, clean the Eye Hook so it is free from oil, dirt, and rust.

Any cleaning method which does not damage the parent metal is acceptable. Methods to avoid are those using acids, overheating, removal of metal or movement of metal which may cover cracks or surface defects.

See also Safety Precautions.

7.3 Repair

A competent person with relevant knowledge and technical skills must do the repairs. The product shall only be returned to service after approval by a designated person.

Maintain records of repairs.

Any replacement component or part of the Eye Hook should be in accordance with the appropriate European Standard for that component or part. Use only original Gunnebo spare parts.

Discard or replace components that are cracked, visibly distorted or twisted, severely corroded or have deposits which cannot be removed.

Remove minor damage such as nicks and gouges by careful grinding or filing. The surface should blend smoothly into the adjacent material without abrupt change in the section. The complete removal of the damage should not reduce the thickness of the section at that point to lesser than the manufacturer's specified minimum dimensions or by more than 10% of nominal thickness of the section.

7.4 End of use/Disposal

Recycle as general steel scrap.