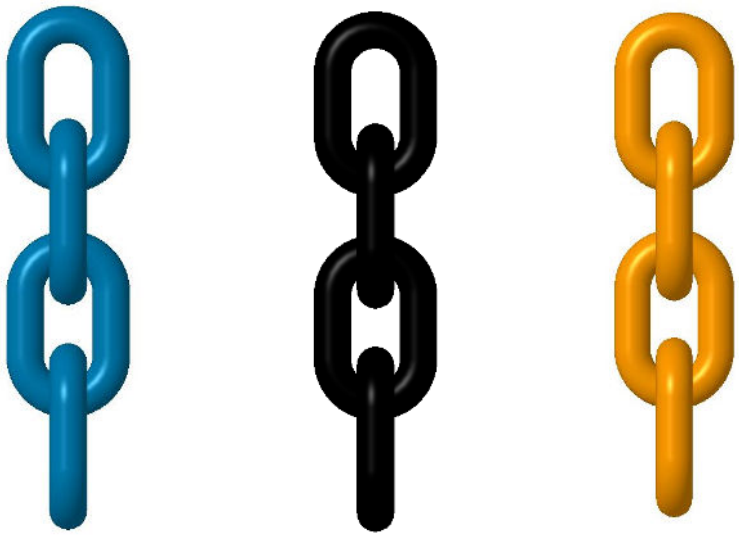
User Manual

Short Link Lifting Chain



KLA (200) | **KLB** | **KLU**
KLA (400)

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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:

EN 818-2:2008 Short link chain for lifting purposes - Safety for Grade 8.
For KLA (400) the lifting values follow EN 818-2 (WLL+25%).
For KLA (200) the lifting values follow EN 818-2 (WLL+25%) with reduced usage temperature.
And ASTM A973/973-M.

This manual is valid for the Short Link Lifting Chain KLA and KLB/KLU. See General Description for an overview of the included variants depending on chain size, grade and maximal usage temperature.

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

2.3 Lifting precautions



Warning!

Visual function check:
Before each operation, check that the chain has not been elongated and for signs of cracks. Do not use the chain if you find signs of elongation or cracks.

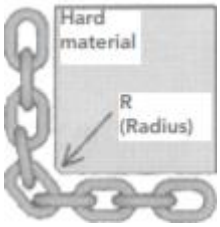


Warning!

If the Chain KLA KLB/KLU bumps into an obstacle during operation check again that it is fully functional.

Warning!

Ensure that the chain does not come in contact with the sharp corners of the lifting object. Use edge protectors. If that is not possible, reduce the load by comparing the sharp corner radius on the lifting object and the diameter of the chain by following the rule of thumb.



Edge load	R > 2 x chain Ø	R > chain Ø	R < chain Ø
Reduction factor	1.0	0.7	0.5

Table 2: Edge load and reduction factor

Warning!

If you suspect that a chain leg has been overloaded, remove the leg from service.

Warning!

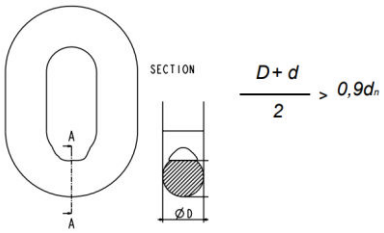
Check that none of the connected parts are deformed. Check that the chain does not have dents, visible cracks, or deformation.

Warning!

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

Warning!

Make sure the wear of the chain is not more than 10% compared to nominal.

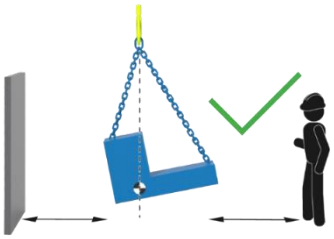


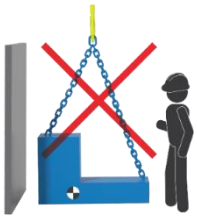
Warning!

Never try to make a knot with the chain while lifting or lashing. Use a shortening hook instead.

! **Note!**

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





3 General description

KLA, KLB, KLU are short link lifting chains of different grades and usage temperature.

The main measurements and technical data are available at www.kitocrosby.com.

The following table gives an overview of included variants depending on chain size, grade and maximal usage temperature.

Chain size		KLA (200)	KLA (400)	KLB/KLU
Grade		10	10	8
MaxTemp		200 °C	400 °C	400 °C
Metric (mm)	**Imperial (inch)**			
6	**N/A**	x	x	x
7	**9/32**	x		x
8	**5/16**	x	x	x
10	**3/8**	x	x	x
13	**1/2**	x	x	x
16	**5/8**	x	x	x
19	**N/A**			x
20	**3/4**	x		
22	**7/8**	x		x
26	**1**	x		x
32	**1/1/4**	x		x

Table 3: Overview of included variants

KLA (200)

- Hardened and tempered Grade 10 chain
- Painted blue
- Max service temperature 200 °C
- Available in 10 variants.
- Delivered in 25, 50, 100 or 200 m length depending on chain size. WLL range 1.5 to 40 ton.

KLA (400)

- Hardened and tempered Grade 10 chain
- Painted blue

- Max service temperature 400 °C
- Available in 5 variants
- Delivered in 100 or 200 m length depending on chain size. WLL range 1.5 to 10 ton.

Diameter of chain +10% to manage higher temp range. For detailed information see technical data at the website or product catalogue.

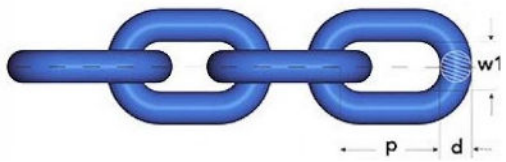


Figure 1: KLA (200) KLA (400)

KLB/KLU

- Hardened and tempered Grade 8 chain
- Painted black (KLB) or yellow (KLU)
- Max service temperature 400 °C
- Available in 10 variants
- Delivered in 25, 50, 100 or 200 m length depending on chain size. WLL range 1.1 to 32 ton.

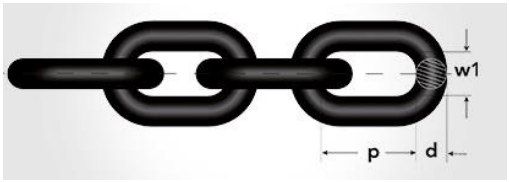


Figure 2: KLB



Figure 3: KLU

Marking according to EN 818-2

- Material grade

Gunnebo Industries issue:

- Manufacturer´s certificate according to EN 818-2
- 3.1 material certificate according to EN 10204

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

4 Intended use and restrictions

4.1 Intended use

The Chains KLA KLB/KLU are intended to be part of a chain lifting sling.

The KLA (200) is also to be used for lashing together with other Grade 10 components.

The Chains KLA KLB/KLU are available in sizes described under General Description.

The KLA is a Grade 10 chain available in max temp usage:

- 200 °C for KLA (200) or
- 400 °C for KLA (400)

The KLB is a Grade 8 chain.

The Chains KLA KLB/KLU 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.

4.2 General limitations of use

- Attach only Gunnebo components of corresponding chain size and grade to the Chain KLA KLB/KLU.
- Check that the chain is part of the certification of the sling or lifting equipment.
- Never modify, repair, or reshape the product by welding, heating or bending as this will affect the nominal WLL.
- Never heat-treat the product as this may affect the WLL.
- Do not galvanize or subject the product to any plating or coating process without approval of the manufacturer.
- Do not use the product in alkaline or acidic conditions.
- Do not expose the product 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	90%

392-572 °F	
300-400 °C 572-752 °F	75%
> 400 °C > 752 °F	Not allowed

Table 4: 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 Chains KLA, KLB/ KLU are 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.



Figure 4: Marking of chain with ID plate

5 Instructions prior to use

Read and understand this manual before using the Chains KLA KLB/KLU. Read the Safety precautions.

For further recommendations regarding safe use of the Chain KLA KLB/KLU in sling applications, refer to 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 Chain KLA KLB/KLU is precisely as ordered.
- The manufacturer's certificate is in order

5.2 Inspection prior to each use

Inspect the Chains KLA KLB/KLU for obvious damage or deterioration before each use.

Do the inspection 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 Chain KLA KLB/KLU 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 Chain KLA KLB/KLU has been correctly assembled in accordance with the Assembly instructions.
- Ensure that no obstacles obstruct the lift and prepare the landing site.

6 Assembly

When the Chains KLA KLB/KLU are incorporated as part of a lifting sling it must be part of the certification and WLL rating of the complete sling.

If the chain is part of a lashing assembly, the chain must be part of the certificate for the lashing assembly.

Only a qualified person may assemble the Chain KLA KLB/KLU.

The Chains KLA KLB/KLU are delivered in different lengths 25, 50, 100 and 200 m, depending on size. For delivery length, please see www.kitocrosby.com or the product catalogue.

To get the correct length, use a chain cutter or similar. If the chain is shortened by grinding, ensure that the temperature at the cut is not above 100 °C.

Assemble the chain directly to other components or via a chain coupler. The following are examples of possible parts to connect to:

- **Chain Safety Hooks**



GBK-16-10 BKG-20-10 BKGC-13-10 GKC-13-10 EGKN-20-10 EGK-20-10 BKH-7/8-8 BKG-13-8 BKGC-16-8 EGKN-16-8

- **Chain Couplers**



G-13-10 G-13-8 BL-13-8 CLE-13-8 GSA-13-8

- **Shortening Hook GG**



GG-10-10 GG-10-10 LP

- **GT Tensioner**



- **GrabiQ system**



MG-13-10 MGD-13-10 CG-13-10 CGD-13-10 CL-13-10 CLD-13-10

Make sure to only use Grade 10 chain together with other Grade 10 components in the lifting sling, lashing assembly/equipment. The same applies for Grade 8.

Regarding information on how to connect the chain, see assembly instruction for the respective component or component group.

- Chain safety Hooks
- Chain Couplers
- Shortening Hook GG
- GT Tensioner

Connect Grade 10 chain to clevis connector

1. Put the chain in position.	
2. Insert load pin.	
3. Secure the load pin with the retainer using a hammer.	
4. Make sure both the load pin and the retainer pin are secured. 5. Make sure that all markings are readable on the connected parts.	

Disassembly

Put the lifting compontent on a solid support. Position a pin tool smaller in diameter than the retainer. Tap gently to drive the retainer pin out of position.	

6.1 Spare parts

No spare parts available.

6.2 Limitations

- Only connect parts at the chain end links.
- Only connect one component at each chain end link.
- Always verify that the correct size and grade of chain is assembled.
- Only connect Gunnebo parts to the chain.
- Check if usage temperature is compatible with the selected chain.
- Check if the chain is in contact with sharp edges. Use edge protectors. If that is not possible reduce the WLL according to sharp corner rule in Instructions prior to use.

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 (2).

Withdraw the Short Link Lifting Chain KLA (200), KLB (400), KLB from service and refer the product to a competent person for thorough examination if any of the following is observed:

- The Chain KLA KLB/KLU 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.
- The chain is not functional. When no load is applied it should be possible to adjust the length of the screws by hand force without help of the handle.
- Check for cracks visually and with magnetic particle inspection or proof load with 2 x WLL every 12 months.

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 Chain KLA KLB/KLU.
- Use in demanding environments (such as corrosive or extreme temperature).
- Use where the Chain KLA KLB/KLU is subjected to repeated loads that may induce metal fatigue.

Maintain records of examinations. Before examination, clean the Chain KLA KLB/KLU 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 Chain KLA KLB/KLU shall only be returned to service after approval by a designated person.

Maintain records of repairs.

Any replacement component or part of the Chain KLA KLB/KLU 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.