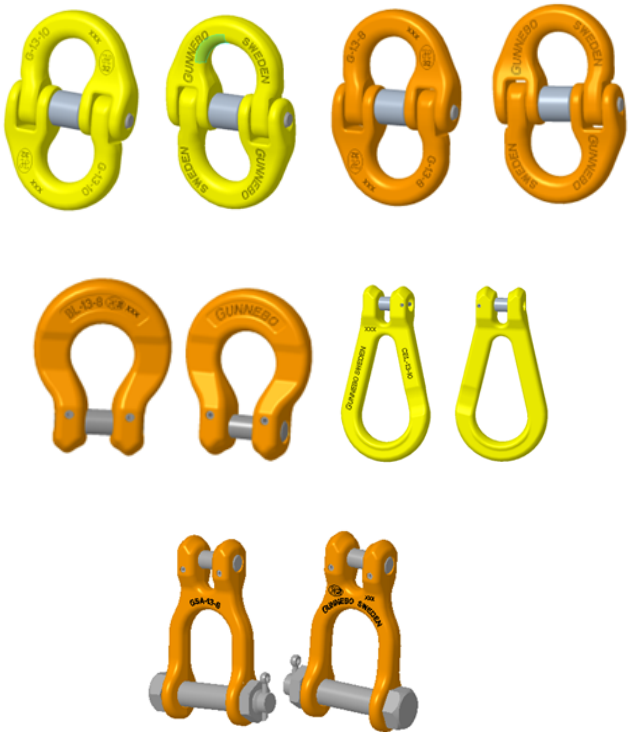
User Manual

Chain Couplers



Coupling Link G | Berglok Chain Coupler BL | Clevis Egglink CEL/KSS | Clevis Shackle GSA

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Part number: KCG-UM-005-A
Version 2025 September

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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 1677-1:2000+A1:2008, Components for slings - Safety - Part 1: Forged steel components.

This manual is valid for:

- Coupling link G
- Berglok Coupler BL
- Clevis Egglink CEL/KSS
- Clevis Shackle GSA

See the cover page for an overview of 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, September 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 shall be 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

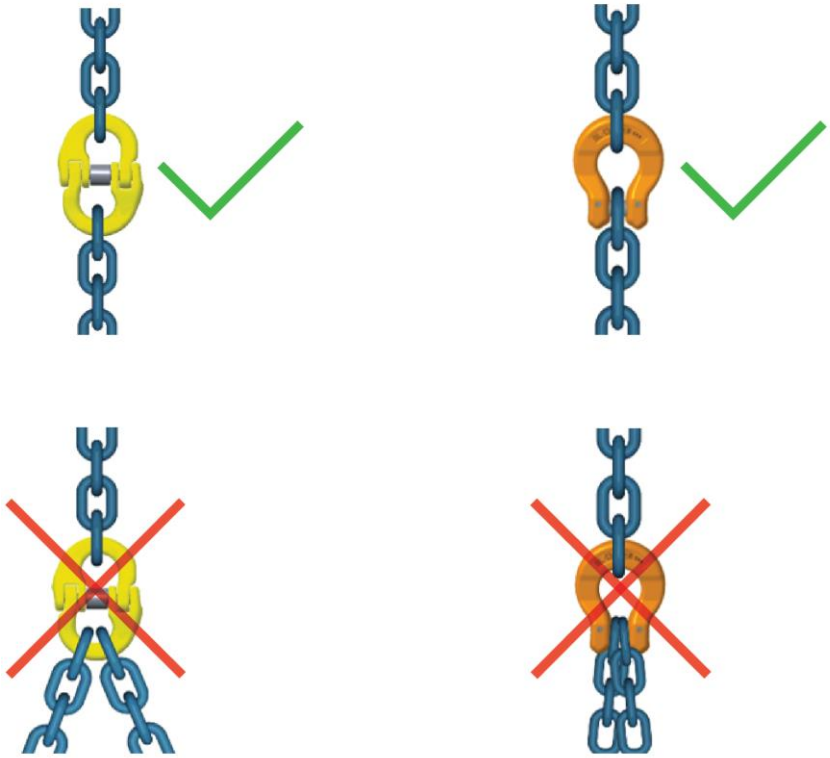
Warning!

Visual function check: Before each operation check that Load Pin of the Chain Coupler is locked.

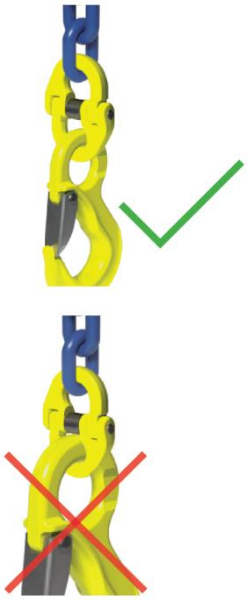
Warning!

Before each lifting operation, check that the Chain Coupler aligns with the pull direction. Check that the lifting chain is not twisted or rotated.

Warning!
Do not connect more than maximum two parts to the Chain Coupler G or BL.



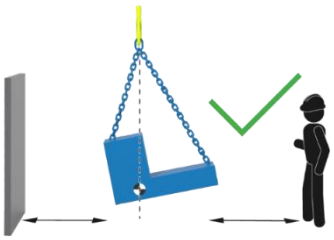
Warning!
Adapt the size of the connecting part to the size of the Chain Coupler and ensure similar grade. The connecting part must rest comfortably inside the coupler without being pinched.

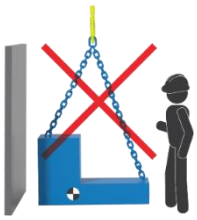


Warning!
Side loading is not allowed on any lifting components. Side loading can cause the load to swing or cause the equipment to fail.

Note!

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





3 General description

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

The purpose of the couplers is to enable a connection between two parts in a chain lifting sling. Each coupler is tailor-made to fit with the relevant chain size and grade.

Each chain coupling is marked as follows:

- Manufacturer identification (GUNNEBO SWEDEN)
- Chain coupling, 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

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

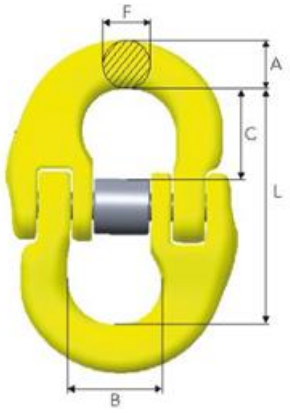
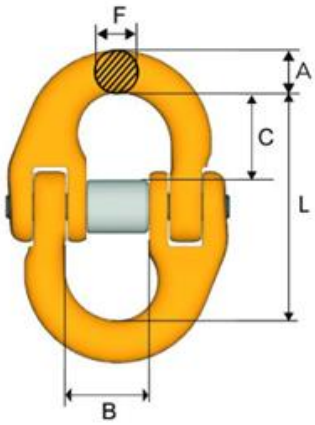
3.1 Overview of variants

		G	G	BL	CEL	GSA		KSS
Grade		10	8	8	10	8		
Chain size								
Metric	**Imperial**							
(mm)	**(inch)**							
6		x	x	x				
7	**9/32**	x						x
7/8			x	x		x		
8	**5/16**	x			x			
10	**3/8**	x	x	x	x	x		x
13	**1/2**	x	x	x	x	x		x
16	**5/8**	x	x	x		x		x
18/20			x					
19							x	
20	**3/4**	x						
22	**7/8**	x	x					
23							x	
26	**1**	x	x					x
32	**1/1/4**	x	x					

Table 2: Overview of variants

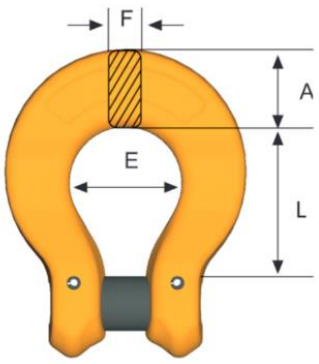
3.2 Coupling Link G

Consists of two similar U-shaped forged parts, a load pin, and a locking collar. The Coupling Link G is the only one of the couplers that can connect two chains.

G-XX-10 Grade 10	Fulfills the following requirements: • EN1677-1:2008 (WLL+25%) • ASTM A952/A952M-02 • AS3776:2015	
G-XX-8 Grade 8	Fulfills the following requirements: • EN1677-1:2008 • ASTM A952/A952M-02 • AS3776:2015 • ISO 8539:2009 • SANS 1595:2003	

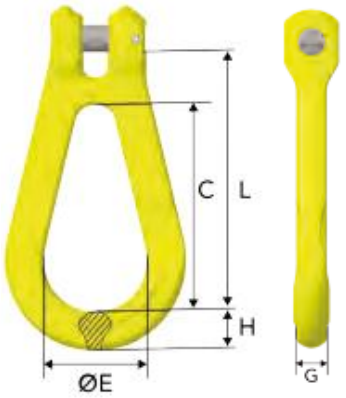
3.3 Berglok Chain Coupler BL

Consists of a U-shaped forging, a load pin, and two retainer pins.

BL-XX-8	Fulfills the following requirements: • EN1677-1:2008 • ASTM A952/A952M-02 • AS3776:2015 • ISO 8539:2009 • SANS 1595:2003	

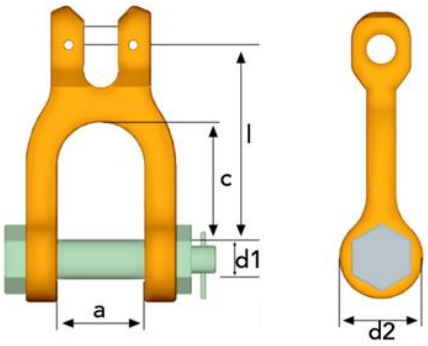
3.4 Clevis Egglink CEL/KSS

Consists of an eye forging and in the top, a chain connector. The chain is held in place by a load pin secured by two retainer pins. The load pin and retainers are the same as for the BL.

CEL-XX-10 KSSXXN	Fulfills the following requirements: • EN1677-1:2008 • ASTM A952/A952M-02 • AS3776:2015 • ISO 8539:2009 • SANS 1595:2003	

3.5 Clevis Shackle GSA

Consists of a forging, a chain load pin with two retainers in the top. In the bottom a load screw with nut secured with a split pin.

	Fulfills the following requirements: • EN1677-1:2008 • ASTM A952/A952M-02 • AS3776:2015 • ISO 8539:2009 • SANS 1595:2003	

4 Intended use and restrictions

4.1 Intended use

The chain couplers connect to parts in a chain lifting sling of Grade 8 or 10. Possible connections differ for each coupler. All couplers are meant to be used with Gunnebo KL chain of the same grade and size. In case of mixed grades the combined sling gets the lowest grade. The table illustrates compatibility with Gunnebo lifting sling components and chain types.

Chain couplers **What can be connected**	**G** **Grade 10**	**G** **Grade 8**	**BL** **Grade 8**	**CEL** **Grade 10**	**GSA** **Grade 8 (top connection)**	**KSS** **Grade 10**
Master Link						
M Grade 10	x	(x)				
MF Grade 10	x	(x)	(x)			
MFX Grade 10	x	(x)	(x)			
MFH Grade 10	x	(x)	(x)			
Master Link with sub Links						
MT Grade 10	X	(x)	(x)			
Chain						
KLA Grade 10	X	(x)	(x)	x	(x)	x
KLB Grade 8	(x)	x	x	x	x	x
Grab Hook						
OG Grade 10	X	(x)				
OG Grade 8	(x)	x				
Safety Hooks						
OBK Grade 10	X	(x)	(x)			
OBK Grade 8	(x)	x				
BK Grade 10	X	(x)	(x)			
BK grade 8	(x)	x				
BKD grade 10	X	(x)	(x)			
Swivel Hooks						
BKL Grade 10	X	(x)	(x)			
BKLK Grade 10	X	(x)	(x)			
BKLK Grade 8	(x)	X				
LBK Grade 10	X	(x)	(x)			
LKBK Grade 10	X	(x)	(x)			
LKN Grade 10	X	(x)	(x)			
LKNK Grade 10	X	(x)	(x)			
Sling Hooks						
EK Grade 10	X	(x)	(x)			
EK Grade 8	(x)	x				
EKN Grade 10	X	(x)	(x)			
EKN Grade 8	(x)	x				

Chain couplers What can be connected	G Grade 10	G Grade 8	BL Grade 8	CEL Grade 10	GSA Grade 8 (top connection)	KSS Grade 10
Foundry Hook						
OKE Grade 10	x	(x)	(x)			
OKE Grade 8		x				
Container Hook						
CH-3	x					
Notes: [2] Check that maximum sling leg load, depending on sling configuration, is in line with used components. (x) compatible but lowers sling capacity to Grade 8						

Table 3: The compatibility with Gunnebo lifting sling components and chain types

The Chain Couplers 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.

Chain Couplers - Example of use

Figure 1: Chain lifting slings with Coupling Link G, Grade 8

4.2 General limitations of use

- Use only Gunnebo short link chain and Coupler G/BL/CEL/GSA of corresponding size and grade.
- 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.
- The product must not be galvanized or subjected 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 392-572 °F	90%
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 Chain Couplers 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 1: Recommended marking area

5 Instructions prior to use

Read and understand this manual before using the Chain Couplers. Read the Safety precautions.

For further recommendations regarding safe use of the Chain Couplers 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 Coupler is precisely as ordered.
- The manufacturer's certificate is in order.

5.2 Inspection prior to each use

Inspect the Chain Couplers for obvious damage or deterioration before each use.

The inspection should be done 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 Coupler 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 Coupler has been correctly assembled in accordance with the Assembly (5) instructions.
- Ensure that no obstacles obstruct the lift and prepare the landing site.

6 Assembly

Only a qualified person may assemble these products. No lubricant or grease shall be used during assembly.

6.1 Assembly Coupling Link G

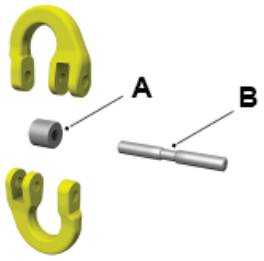
When the Coupling Link G is incorporated as part of a lifting sling, it must be part of the certification and WLL rating of the complete sling.

Prerequisites:

- A hammer
- Locking collar
- Load pin.

Coupling Link G parts:

A. Locking collar
B. Load pin



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1. Position the load pin in the locking collar.
2. Tap lightly with a hammer to get the locking collar and load pin locked in position.
3. Check that the locking collar is in a locked position. If correctly positioned, the locking collar should stay in position. If the locking collar moves axially adjust the position or replace the pin or the collar before lifting.

The Coupling Link G is assembled.

! Note!

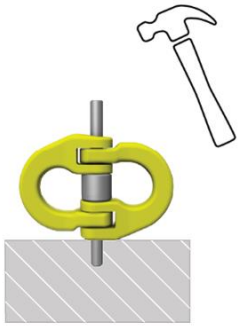
Berglok Chain Coupler BL, Clevis Egglink CEL, and Clevis Shackle GSA have the same working principle solution for the locking pin and retainers. In the instructions further below, a BL is shown but the CEL and GSA follow the same principle.

6.2 Disassembly Coupling Link G

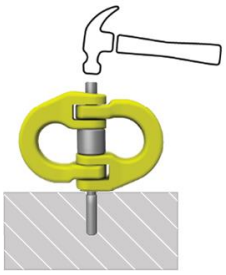
Prerequisites:

- A hammer
- A round driver tool
- A supporting block for the product.

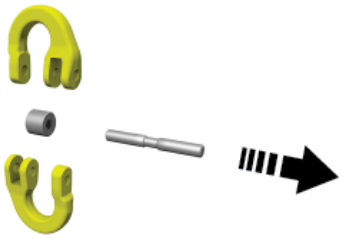
1. Use a supporting block for the Coupling Link G.
2. Tap the load pin with a hammer to move the load pin out of position.



3. Move the load pin to out from position.



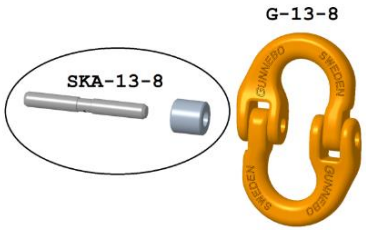
The Coupling Link G is disassembled.



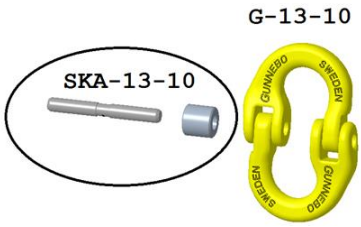
6.3 SKA for Coupling Link G

The Locking set SKA consists of a load pin and locking collar. The locking collar and pin must be chosen with the correct size of Coupling Link G and Grade. See Assembly Coupling Link G and Disassembly Coupling Link G above for instructions.

- G-13-8 is coupled with SKA-13-8.



- G-13-10 is coupled with SKA-13-10.



6.4 Retaining pin kits for Berglok Chain Coupler BL, Clevis Shackle GSA, and Clevis Egglink CEL/KSS

- BLA kit for Berglok Chain Coupler BL, Clevis Shackle GSA
- CLS kit for Clevis Egglink CEL
- KP kit for Clevis Egglink KSS

The Load Pin set Berglok BLA consists of a load pin and two retainers. The same size will also function for Clevis Egglink CEL and Clevis Shackle GSA. For assembly and disassembly see instructions below.

- BL-13-8 is coupled with BLA-13-8.

- CEL-13-10 is coupled with CLS-13-10

6.5 Assembly Berglok Chain Coupler, Clevis Egglink CEL/KSS and Clevis Shackle GSA

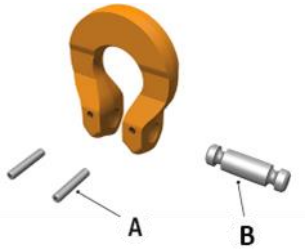
Follow the same procedure for the Berglok Chain Coupler, Clevis Egglink CEL/KSS and Clevis Shackle GSA.

Prerequisites:

- A hammer
- 2 x Retainer pins
- Load pin.

Parts:

A. Retainer pin
B. Load pin



1. Put the load pin in position.

2. Tap lightly with a hammer on the retainer pins.

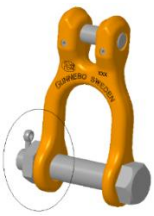
Caution!

Replace the retainers before lifting if the retainers do not stay in position. Retainers that do not stay in position can cause minor or moderate injury, or damage to the equipment or other property.

3. Check that the retainers stay in position.

! Note!

For the Clevis Shackle GSA, secure the lower screw-nut connection with the split pin.



The products are assembled.

! Note!

Make sure that the correct size and grade of chain and coupling are assembled. For example, for G Link Coupling of grade 10 use hooks and chain of Grade 10.

! Note!

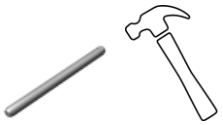
Make sure that all markings are readable on the Chain Couplers.

6.6 Disassembly Berglok Chain Coupler, Clevis Egglink CEL/KSS and Clevis Shackle GSA

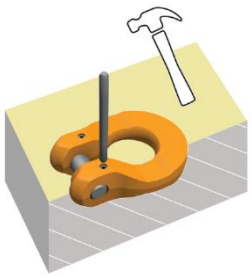
Follow the same procedure for the Berglok Chain Coupler, Clevis Egglink CEL/KSS and Clevis Shackle GSA.

Prerequisite:

- A hammer
- A round driver tool, smaller in diameter size than the retainer pins
- A supporting block for the product.

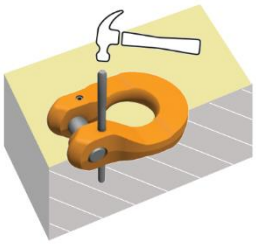


1. Use a supporting block for the product.
2. Put the load pin in position and tap lightly with a hammer on the retainer pins.



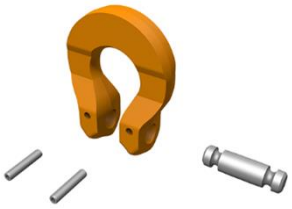
Caution!

Use a round driver tool as close as possible in diameter size to the retainer pins to not damage the retainer.



3. Use a hammer and a round driver tool to carefully tap out the retainer pins.

All parts are disassembled.



Note!
Make sure that all markings are readable on the Chain Couplers. Example of markings.

6.7 Spare parts

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

6.8 Limitations

The Chain Couplers are designed to be connected to a lifting chain with the same grade.

The Coupling Link G is the only coupler that can connect two loose chain parts. It is also the only coupler that can connect two non-chain parts. See table under Intended use and restrictions.

The Couplers have been dimensioned and tested for symmetrical load, that is, the left and right sides of the coupler are equally loaded. In this case the coupler can self-align with the pull direction.

Check that the spring function of the retainer pin and collar is working and that it secures the load pin. If it does not work, do not use the couplers.

7 Maintenance

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

7.1 Inspection

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

Withdraw the Chain couplers from service and refer the product to a competent person for thorough examination if any of the following is observed:

- The Chain coupler 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.

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

Maintain records of examinations. Before examination, clean the Chain coupler 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 Chain coupler 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.