



HEINRICH KIPP WERK



USER MANUAL

Hoist ring K1735

(Machinery Directive 42/2006/EG)

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1. PRODUCT DESCRIPTION

The hoist rings K1735 are marked with the batch abbreviation and the WLL in t.

In accordance with the Machinery Directive requirements, the hoist rings K1735 have a minimum 4x safety factor. The hoist rings K1735 are stamped with the “CE” mark.

2. Safety notice

Operators must have read these operating instructions and be familiar with DGUV regulation 100-500 (BGR 500) chapter 2.8 “Operating load handling equipment in hoist applications”.

Incorrectly mounted, damaged or improper use of the hoist rings K1735 can lead to material damage or injury to persons.

Careful inspection of the equipment before each use minimises risks.

The contents of DGUV regulation 100-500 (BGR 500), chapter 2.8 must be observed when using the equipment within Germany. The hoist rings K1735 may only be used by trained and authorised persons (qualified personnel).



Do not walk under raised loads !!!

3. INTENDED USE

The hoist rings K1735 are used to safely secure components/loads with lifting tackle, e.g. chain slings, to implement safe transport. It should be ensured that the lifting device is attached in such a way that the shackle of the load hook can move freely (see figure 1).

The hoist ring K1735 is suitable for use as a tie-down point for attaching and securing lashing equipment.

They are suitable for hoisting and transporting loads in compliance with these operating instructions and the respective national regulations.

They comply with the Machinery Directive 2006/42/EC and may only be used if the operating instructions have been read and understood.

The operating instructions must be kept accessible for the user until the hoist rings K1735 are taken out of service. They may be used for lifting loads within the WLL's specified below (chapter.4.3).

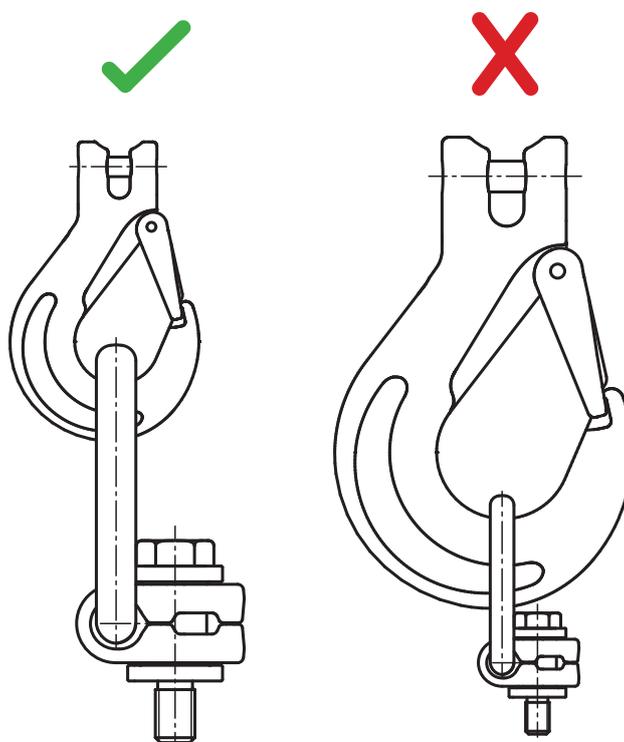
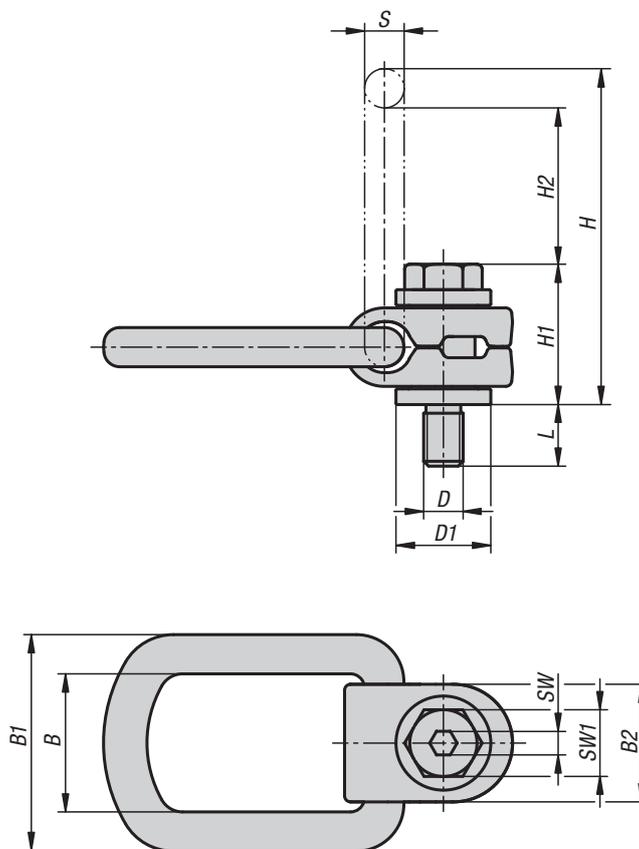


Figure 1

3.1 Drawing



3.2 Dimensions

Order No.	B	B1	B2	D	D1	H	H1	H2	L	S	SW	SW1	max. permissible load kg	Tightening torque Nm
K1735.08011	36	57	30	M8	24	87	34	41	11	12	6	13	300	20
K1735.10016	36	57	30	M10	24	87	35	40	16	12	6	17	630	30
K1735.12020	36	57	34	M12	30	98	43	41	20	14	8	19	1000	45
K1735.16025	36	57	34	M16	30	98	46	39	25	14	10	24	1500	150
K1735.20032	53	83	50	M20	45	145	56	71	32	17	12	30	2500	300
K1735.24037	53	83	50	M24	45	145	59	69	37	17	14	36	4000	400
K1735.30044	64	101	67	M30	59	172	85	64	44	23	17	46	5000	1000
K1735.36053	84	126	78	M36	69	223	100	96	53	28	22	55	8000	1800

3.3 Markings

Mark of conformity: “CE”

Load capacity: WLL (in t)

Batch abbreviation e.g.: “XYZ”

Stamp of the Employer’s Liability Insurance Association: “H96”.

3.4 Surface

Hoist ring K1735: painted blue

Bolt: zinc lamella coated

4. Installation and instructions for use

4.1 Instructions for use

The hoist rings K1735 must be inspected regularly before use, e.g. by the slinger (bolt seating, corrosion, deformation).

It must be ensure that:

- all markings are legible.
- the hoist ring K1735 is not deformed or worn.
- there are no cracks, indentations or other material defects.
- the hoist ring K1735 has not been exposed to high temperatures - this may reduce the working load limit (WLL).
- the hoist ring K1735 is never subjected to a load beyond the specified WLL.
- the threads are clean and damage free. The hoist ring K1735 must screw in easily up to the stop without applying force.
- the hoist ring has not been welded, as this can reduce the WLL.
- the link is always free to move within its limits and does not jam up, it should be able to swivel through 90° and rotate through 360° (Figure 3).
- the hoist ring K1735 is inspected by an expert after installation and at least once a year. The user must observe the results of the risk assessment in accordance with the Ordinance on Industrial Safety and Health.
- when using the hoist ring K1735 as an attachment point for lashing equipment, the effective load can be doubled (LC "Lashing Capacity/permissible lashing force" = 2 x WLL).
- the bolt thread length ("L") has been chosen to ensure force retention in steel as well as in cast iron and wrought aluminium alloys.
- the original bolt is under no circumstances exchanged for commercially available bolts, regardless of the strength class!
- the bolt is removed by hitting the thread end of the bolt with a rubber mallet. The same effect is achieved by striking the mounted bolt against a hard surface (e.g. hardwood, plastic).
- the bolt can be mounted from both sides of the bracket (no risk of confusion)! For this purpose, the spring washer (= loss prevention) may have to be inserted into the existing slot. Then insert the bolt through the bush (the spring washer centres itself in the bevel, or by applying slight pressure if necessary)!

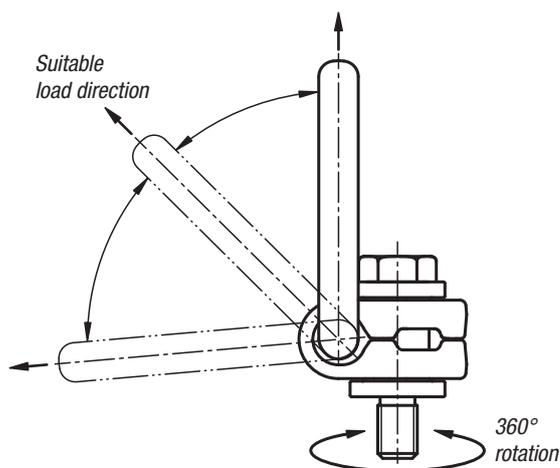


Figure 2

4.2 Operating temperature range

The hoist rings K1735 can be used in diverse temperatures and climatic zones. However, the information listed in the table below must be taken into account.

Recommended operating temperature range of hoist rings K1735			
from	-40 °C	200 °C	>380 °C
up to	300 °C	300°C	
Hoist ring K1735	Remaining WLL at these temperature ranges		not permitted
	100%	60%	0%

4.3 WLL's

Maximum lifting weight "G" in kg for different sling types

Sling configuration	1		2		2		2	3 - 4		3 - 4
	0°	90°	0°	90°	0°-45°	45°-60°		0°-45°	45°-60°	
No. of slings	1	1	2	2	2	2	2	3 - 4	3 - 4	3 - 4
sling angle	0°	90°	0°	90°	0°-45°	45°-60°	asymmetric	0°-45°	45°-60°	asymmetric
M8	300	300	600	600	420	300	300	640	450	300
M10	630	630	1260	1260	890	630	630	1340	950	630
M12	1000	1000	2000	2000	1410	1000	1000	2120	1500	1000
M16	1500	1500	3000	3000	2120	1500	1500	3180	2250	1500
M20	2500	2500	5000	5000	3540	2500	2500	5300	3750	2500
M24	4000	4000	8000	8000	5660	4000	4000	8480	6000	4000
M30	5000	5000	10000	10000	7070	5000	5000	10610	7500	5000
M36	8000	8000	16000	16000	11310	8000	8000	16970	12000	8000

4.4 Installation

- Installation may only be carried out by a competent person possessing the necessary skills and knowledge.
- The contact face must be flat.
- The base material must be of sufficient strength to be able to bear the loads applied to the hoist ring.
- Blind holes and threads must be drilled deep enough for the seating face to make contact.
- The anchor points must be attached to the load in such a way that the sling is not diverted by other structural parts. It must be ensured that possible damage to the sling from structural parts, e.g. sharp edges, is excluded. (Figure 3)
- The anchorage points must be installed in such a way that they can be reached easily and without obstruction for unhooking the sling and that no danger points (crushing points, shearing points, catching and impact points) are created which endanger the slinger or prevent transport by protrusions.
- The position of the anchorage points must be chosen in such a way that inadmissible stresses, e.g. due to off-centre load application, are avoided. The number and arrangement must be chosen so that the load does not change position unexpectedly during transport.

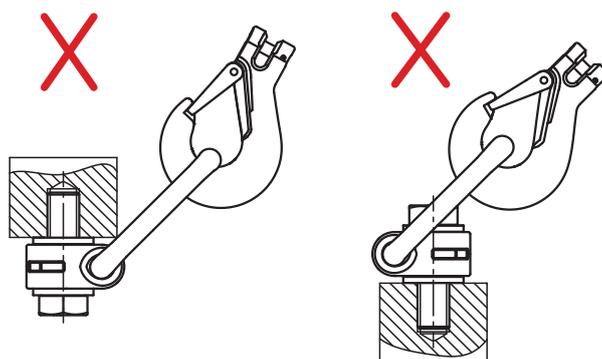


Figure 3

4.5 Recommended tightening torque for the bolt:

Nominal dimension (M)	Tightening torque (Nm)
8	20
10	30
12	45
16	150
20	300
24	400
30	1000
36	1800

The specified tightening torques apply to new, unused hoist rings K1735. The threads must be oil and grease free and free of contamination.

5. SERVICE



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