KRÖGER ENGINEERING®

Chain Interlocking Suspension Device

AuG Kiel
Arbeits- und Gesundheitsschutz Kiel

www.KEV-Kiel.de

The best possible supplement for effective material transport on the nacelle chain hoist:

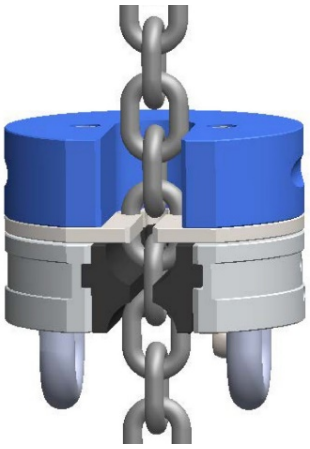
The Chain Interlocking Suspension Device (KEV)

Chain Interlocking Suspension Device on the nacelle chain hoist

For assembly, maintenance and repair work, material for the cable access technology and other services, a lot of material is needed in the nacelle of a wind turbine. This is often spent with the help of the existing onboard crane and a suitable transport box more than 100 meters up in the nacelle.
Incorrect applications have often led to load shedding and damage to the nacelle chain hoist in the past. In order to not only save time, but also to make it possible to transport the material in a crash-proof way, a Chain Interlocking Suspension Device (KEV) from Kröger Engineering was developed especially for the needs of the onshore / offshore wind industry. The device constructed according to the state of the art and patented by the international PCT (Patent Cooperation Treaty) can be loaded with 2 x 50 kg or 2 x 100 kg, depending on the size of the chain and distributed on the chain hoist as with paternoster fishing.

Use Chain Interlocking Suspension Device as hoist

Nacelle chain hoists use different round steel chains. According to the manufacturer's instructions, only suspension devices, such as e.g. the hook harness, are used as a hoist on single-stranded versions. The hook harness is a form-fitting suspension device that hangs vertically on the round steel chain. In this design, no **diagonal pull** arises to the round steel chain.
However, as soon as loads are hung in round steel chain links, with e.g. cable ties, band loops, round ropes with knots (Prusik loop), carabiners or shackles, a not only inadmissible, but also dangerous diagonal pull arises. As a result of this incorrect application, it may come to a load shedding by tearing or breaking the lifting means.



KEV

Hook Harness

Nacelle Chain Hoist

Limit shut down on the nacelle chain hoist

In addition, when using lifting means in round steel chain links the limit shut down of the chain hoist is ineffective because the limit position switch can not be operated. This in turn has the consequence that the chain hoist continues to move upwards and the chain guide is damaged. Afterwards, the entire chain hoist including the fixed round steel chain would have to be removed and repaired.

The use of the chain interlocking suspension device described here allows the service staff a timesaving, all safety regulations corresponding smooth material transport. Since up to 75% of the usual transport time is saved, the investment in the chain interlocking suspension device has paid for itself after just a few services.

The **KEV-Classic** is delivered in a practical outdoor service case with 3 chain interlocking suspension devices, 3 wire rope slings with a length of 930 mm, 3 wire rope slings with a length of 500 mm, 3 hand straps, including risk assessment and operating instructions for the use on a wind turbine.

The **KEV-Universal** is available in the variants 1 or 2 and is delivered in a practical outdoor service case with 1 chain interlocking suspension device, 1 wire rope sling with a length of 930 mm, 1 wire rope sling with a length of 500 mm, 1 hand strap, up to 5 different chain inserts, including risk assessment and operating instructions for the use on a wind turbine.

The chain interlocking suspension device, like any other lifting device, must be inspected annually by experts / qualified persons.
The necessary additional qualification can be obtained from the manufacturer.

All further information is available at www.KEV-Kiel.de

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