



## Checklist

### **A question of safety: Removal criteria for lifting chains**

They are heavy-duty workers with a license for lifting. Lifting chains ensure safe lifting and are indispensable helpers in the workplace. There is a danger to life if your slings are used despite undetected defects.

There are two industry standards that exist to provide the end-user with guidelines for inspection and criteria that warrants removal from service: **OSHA 1910.184 and ASME B30.9**. Accordingly, the equipment must be inspected at least once a year by an expert (also known as a "qualified person"), and an extraordinary inspection for crack resistance is mandatory at least every three years. Alternatively, an overload test with subsequent visual inspection can also be used.

In addition, shorter inspection intervals are also necessary depending on the application. For their own safety and that of all employees, chains must be inspected in detail before each use. These visual inspections serve to detect damage at an early stage. Experts can then decide whether a repair is possible or whether the lifting chain should no longer be used, i.e. if it is ready for removal.

\*Note: This list has been compiled on the basis of the removal criteria listed in the applicable standards and guidelines. Therefore, if you have any doubts about the functionality of your lifting chains due to any reason not included in the list, please remove them from service and contact your Doleco USA representative.

**You can fill out our checklist directly in the document or print it out.**

**As a general rule: Leave the inspection of your lifting chains exclusively to qualified persons who are specially trained!**

Our experts will be happy to answer any questions you may have.

Feel free to call us at +1 203 – 440 - 1940 or send us an email at sales@doleco-usa.de.

If you notice the following damage to your Doleco lifting chain, you must not continue to use it under any circumstances\*:

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- A chain link is broken.**
  
- Visual inspection reveals** that the surface of the steel is very porous / uneven due to excessive corrosion. Excessive corrosion can also be recognized by so-called "corrosion craters": the cross-section is reduced due to material that has rusted away.
  
- A component of the chain is deformed.** It does not matter whether it is a chain link, suspension link, transition link or connecting link.
  
- Decrease of the averaged link thickness** by more than 10 percent of the nominal thickness or wear of the suspension and end links by more than 10 percent. Here, two measured values are added, divided by two and compared with the nominal thickness. The deviation must be less than 10 percent of the nominal thickness. Then the chain may continue to be used.
  
- The identification tag is illegible or missing.**
  
- Unauthorized manipulations have been made to the lifting chain**, such as the combination of different nominal thicknesses of chain links, use of open or riveted emergency links. For example, no 3/8" chain may be installed together with a hook for a 1/2" chain system. This is because of the

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different load capacities. Chain systems may only be assembled with components from the respective manufacturer. A manipulation would be for example screws as connection between the chains.

- The lifting chain is stretched by more than three percent** (inner link pitch taken from 7 chain links).
  
- Widening of hooks by more than 10 percent (jaw width).** The jaw opening must not be bent up so much that the safety latch no longer has any function.
  
- Wear of the hook base by more than 5 percent.**

If you are unsure how to proceed, please do not hesitate to contact us:



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