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CONTACT LIFTING GEAR

LINX-8 G8 LIFTING CHAINS

USER GUIDE

Information for use, storage and maintenance of Linx-8 Grade 8 chain slings in accordance with the Machinery Directive 2006/42/EC

General

LINX-8 Grade 8 lifting slings and accessories can be used for general lifting purposes covering a wide range of designs, loads and slings. Detailed information of all chain, components and chain slings are given in this catalogue and follows the Uniform Load Method of Rating as standard.

Chain slings should be used only by trained personnel.

If properly used, LINX-8 chain slings offer a long service life with a high degree of safety. Improper use could result in personal injury and damage to property. It is therefore highly important that you read and understand this user information and act in a responsible and forward thinking manner when using any kind of lifting equipment.

Limitations of use

To modify or to repair a LINX-8 mechanically joined chain sling it should be returned to us for assessment and repair, and only genuine LINX-8 parts should be used.

The shape of the sling must not be modified e.g. by bending, grinding, welding, drilling, or separation of individual parts. Avoid heating of the chains to more than 380°C or use at temperatures below -40°C (-20°C for 6mm chains).

Do not remove any safety components, such as safety catches, safety pins etc.

Do not apply any surface coating to the chain slings, i.e. do not subject them to hot galvanizing or electro galvanizing.

If required please contact our technical department who will be pleased to provide further information.

Restrictions of use due to hazardous or dangerous conditions should be assessed using the table on page 14.

Temperature

The reduction of load capacity caused by high temperatures (see page 4) ceases once the chain or lifting component reaches room temperature. Lifting accessories should not be used outside the stated temperature range.

In event of temperatures outside this range, do not use the chain sling and withdraw from service.

Acids, caustics and chemicals

LINX-8 Grade 8 chain slings should not be used with chemicals or in corrosive atmospheres due to the danger of stress cracking (hydrogen embrittlement).

Certain production procedures can release acids and /or fumes which are detrimental to the sling material.

Working load limit

The working load limits stated on the EC Declaration Of Conformity supplied with all LINX-8 chain slings have been determined on the basis that the loading of the chain sling is symmetrical (multi leg slings) and that there are no particularly hazardous conditions. Such hazardous conditions would be offshore applications, the lifting of people and potentially dangerous loads, such as liquid metals, corrosive or caustic substances or nuclear material.

When a chain is used in choke hitch, i.e. with the sling leg passed around a load and hooked or linked back on to the chain the working load (SWL) of the chain sling should be no more than 80% of that marked on the sling.

For Asymmetrical (unequally loaded multi leg slings) the lift should be referred back to a competent person to establish a safe rating.

Working load limit (continued)

Edge loadings – care should be taken when using chain slings around sharp corners, as this will affect the working load (WLL) of the sling. If the sling is to be used for such purposes, the extent of the risk is to be assessed by an expert and the safe working (SWL) be adjusted accordingly.

Impact

The maximum load capacity (WLL) of LINX-8 chain slings is based on the assumption that the load on the individual chain legs is applied without any impact or shock loading. In the cases of possible impact/shock load, the load factors indicated, must be taken into account. See table on page 14 for more details.

Examples:

- Slight impact: created, for example, when accelerating the lifting or lowering movement
- Medium impact: created for example, when the chain slips when adjusting to the shape of the load
- Strong impact: created for example, when the load falls into the unloaded chain

Inspections and tests

Before using any lifting equipment for the first time, it should be ensured that:

- The chain sling corresponds exactly to the order and that the inspection certificate or certificate of conformity has been supplied.
- Marking and capacity on the chain sling corresponds to the information given on the inspection certificate or certificate of conformity.
- All particulars of the chain sling must be entered into the register of lifting equipment.
- Instructions for the proper use of chain slings have been supplied and read and understood by personnel.

Before each use

Check the chains before each use for visible damage or signs of wear. In the case of doubt or damage do not use the chains and have them inspected by a competent person.

Periodic thorough examination

It is recommended that the period of this examination be as per the requirements of Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) or as part of an agreed written plan agreed between a competent person and the owner of the equipment.

Elimination criteria following visual inspection

- Any broken or damaged parts.
- Missing or illegible marking of the chain sling, i.e. identification data and /or load capacity data.
- Deformation of suspension master links or sling parts or the chain itself.
- Elongation of the chain; The chain must be discarded if (t) (nominal pitch i.e. inside length of the chain link) ≥ 1.05tn (+5%), and master links and joining links (+10%).
- Wear - Chain wear is determined as the mean of two measurements of diameters d1 and d2 carried out at a right angle at the crown of the link. When compared to the nominal diameter of the chain when new.

$$\frac{d1 + d2}{2} \leq 0.9dm \ (-10\%)$$

- Master links and joining links (-15%)
- Cuts, notches, grooves, surface cracks, excessive corrosion, discoloration due to heat, signs of subsequent welding process, bent or twisted links or other flaws.
- Cracks: Chains with cross cracks that are visible to the naked eye must be discarded.
- Missing or non-functioning safety devices (safety catches) if fitted, as well as signs of widening or twisting of master rings, hooks i.e. noticeable enlargement of the opening must not exceed 10% of the nominal value.

Repair

Linx-8 lifting accessories and slings should only be repaired by qualified personnel, using genuine replacement parts.
Documentation Records of inspections, and in particular their findings, as well as details of repairs carried out must be kept on file during the entire service life of the chain sling.

Storage

Where possible Linx-8 chain slings should be stored in a cleaned and dry condition and protected from corrosion.