

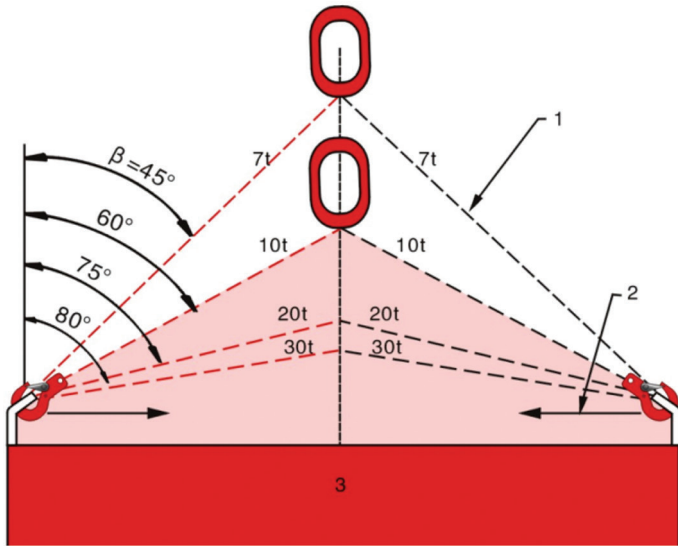
Chain Sling User Instructions

Technical Terms and Conditions

We reserve the right to make changes without prior notice to the products within this range. Errors & omissions excepted. E&O.E.

XONA chain slings should only be repaired by qualified personnel. Records of the inspections and repairs must be kept on file for the entire service life of the chain sling. XONA chain slings should be stored in dry conditions and protected from corrosion (preferably oiled).

Chain Slings are covered by LOLER, and are classified as a "lifting accessory". The Sling must be examined by a competent person at six monthly intervals and inspected before first use and on return to storage.

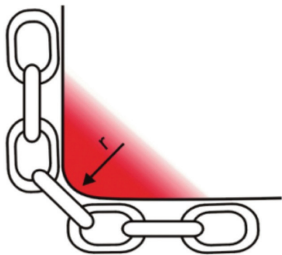


Correct use of the Chain Slings

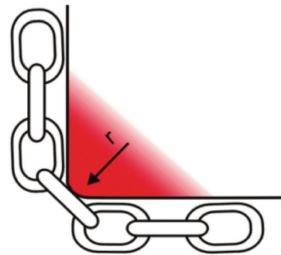
1. Loading of leg.
2. Horizontal component of force.
3. Load 10t.

Avoid angles from the vertical under 15°. Chain Slings should never be used with an angle from the vertical exceeding 60°. (See shaded area in the diagram to the left).

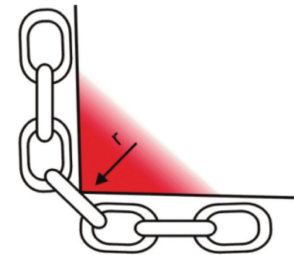
Edge Loading:



$r = \text{more than } 2 \times \text{chain diameter}$
Load factor 1



$r = \text{more than chain diameter}$
Load factor 0.7



$r = \text{chain diameter and less}$
Load factor 0.5
NOT PERMISSABLE WITHOUT
CORNER PROTECTION

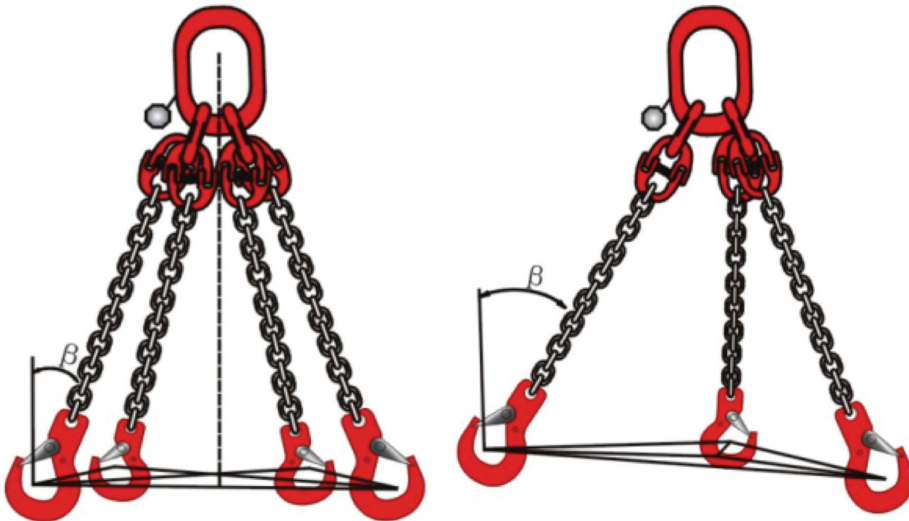
If XONA chains are guided over edges, suitable packing should be provided to protect the chain. Before Lifting, the chain should be twist/knot free.

Never Exceed Working Load Limit

Chain Sling User Instructions

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The load capacities of XONA chain slings are defined with the assumption that the load of the individual chain legs is distributed symmetrically. The load can be considered symmetrical when all the following conditions are met:



- The angle from the vertical of all chain legs is not less than 15°.
- The angle from the vertical of all chain legs are equal or deviate by Max. 15° from each other.
- In the case of 3 and 4 leg chain slings, the corresponding angles in the sling level deviate by Max. 15° from each other.
- The load is smaller than 80% of the indicated working load limit.

If the above parameters are not met, then the load must be considered asymmetrical and an expert called to evaluate the lifting process. In case of doubt the load capacity must be reduced to that of a single-leg chain sling.

Chain Sling User Instructions

General

XONA Chain Slings comply with EN818-4. Only trained personnel who have read and understood the instructions can use the chains. XONA Chain Slings and components should not be altered e.g. twisting, grinding, removing of parts and drilling.

The surface of the chains and accessories should not be subjected to acids or caustic solutions. Strong alkali's will result in hydrogen embrittlement. If necessary please contact our technical department.

Only use XONA chains and accessories up to the indicated temperature. Should the temperature be exceeded, the reduction of the load capacity must be taken into consideration (please see diagram right).

Do not use XONA Chain Slings in acids, alkalines, chemicals or expose them to their fumes.

Grade 80

Operating Temperature	Reduction in Load Limit
-40°C to 200°C	None
Over 200°C to 300°C	10%
Over 300°C to 400°C	25%
Over 400°C	DO NOT USE

Grade100 - 200° Temper Chain

Operating Temperature	Reduction in Load Limit
-40°C to 200°C	None
Over 200°C	DO NOT USE

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Inspection and Maintenance

Before using any lifting equipment for the first time please check the following:

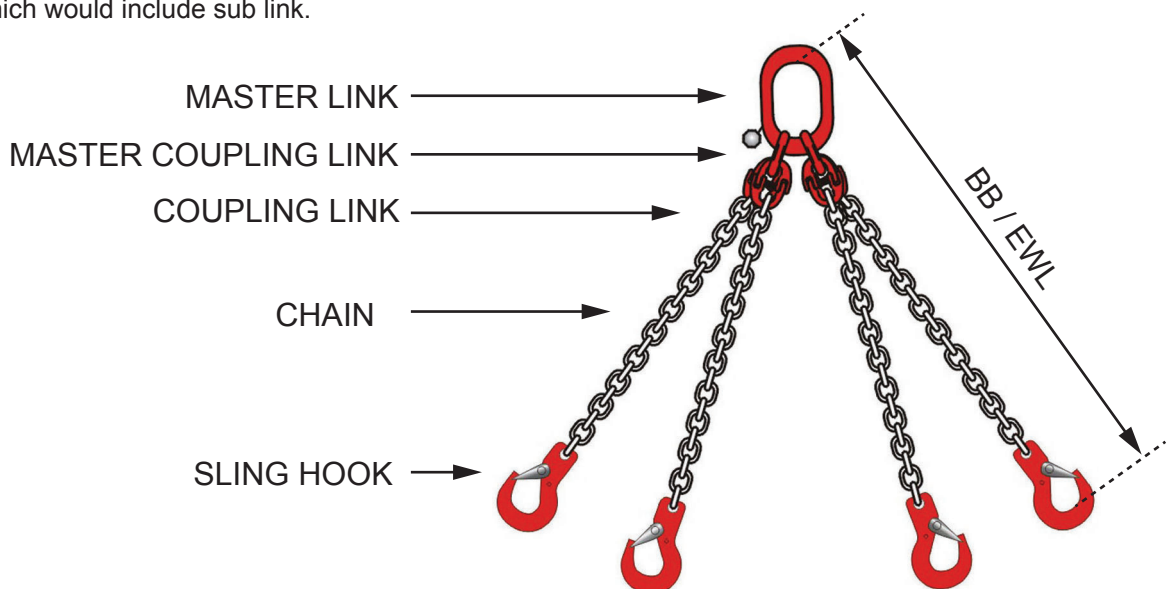
- The test certificate & certificates of conformity have been supplied.
- The correct identification markings correspond with the certificates supplied.
- If required, all data regarding the Chain Sling to be entered into a register for lifting equipment.
- Check the chains for visible damage or signs of wear such as illegible markings; distortion of fittings; worn, stretched, bent or twisted links; ineffective safety catches; cuts, nicks, gouges, cracks, corrosion, heat discolouration or any other defect apparent to the chain or fittings. In case of damage or uncertainty; do not use.
- Chains should be thoroughly examined a minimum of every 6months by a competent person as per LOLER regulations.

Should any of the following apply, the chain must be taken out of use and passed on to a competent person:

- Broken link.
- Missing working load tag on the Chain Sling or illegible marking on the tag.
- Elongation of the chain.
- Chain wear is determined as the mean value of two measurements of diameters L_i and L_e carried out at a right angle. The chain must be discarded.
- Cuts, notches, grooves, surface cracks, excessive corrosion, discolouration due to heat, signs of additional welding, twisted links or other faults.
- The sling components should be replaced if deformed by 3% of the original dimension.

Chain Sling Length

The distance between the upper and lower bearing points.
 Or leg length which would include sub link.

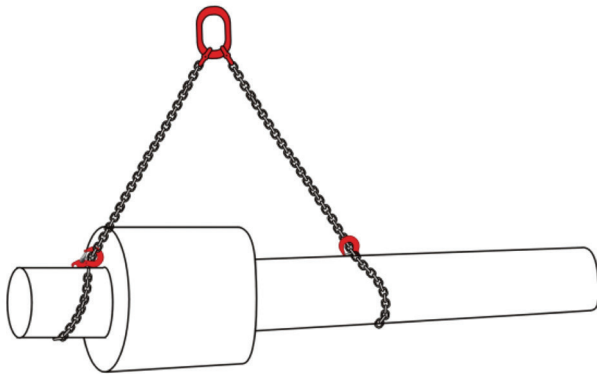


Never Exceed Working Load Limit

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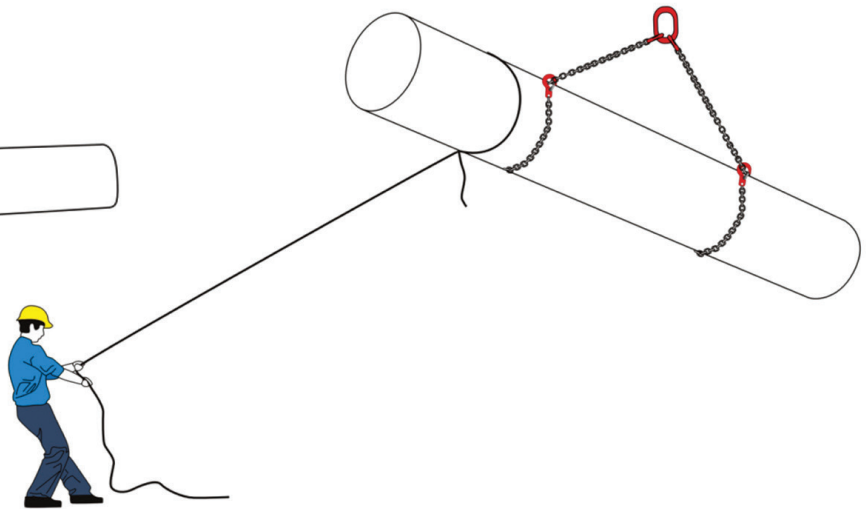
Balancing of the Load

Ensure the crane hook is vertically above the load's centre of gravity.



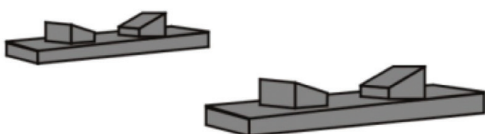
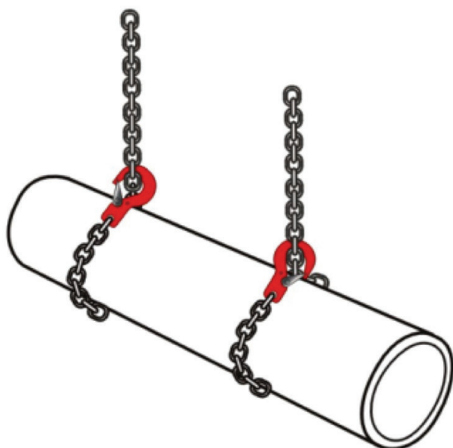
Controlling the Load

To control the movement of the load while lifting a tag line must be attached.



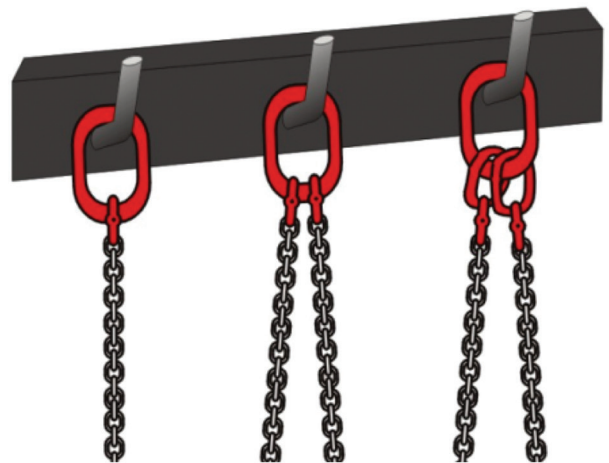
Landing of the Load

Make adequate preparation of the site where the load is to be landed. DO NOT land the load directly onto the chain.



Storing Slings

Keep Chain Slings stored correctly when not in use to avoid damage.

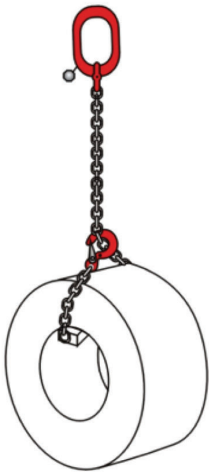


Never Exceed Working Load Limit

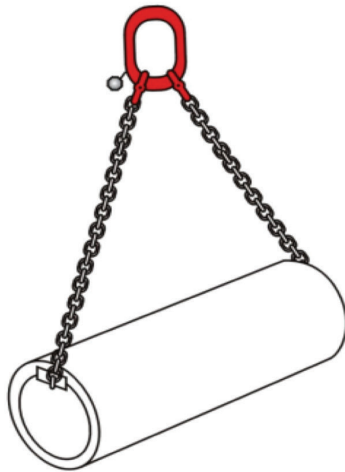
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Special Applications

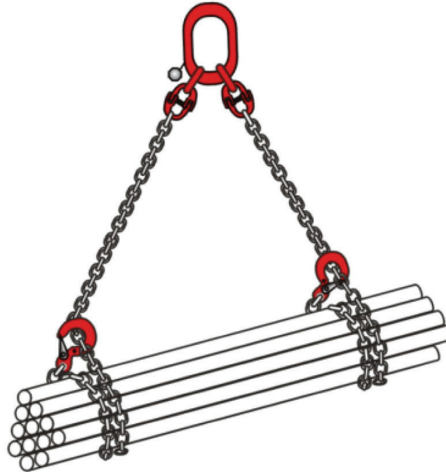
Choke Hitch



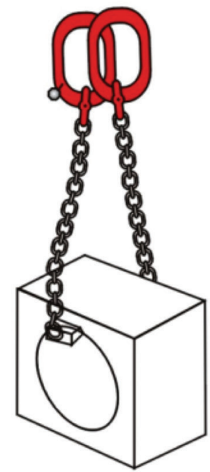
Basket Hitch



2 Leg Double Choke Hitch



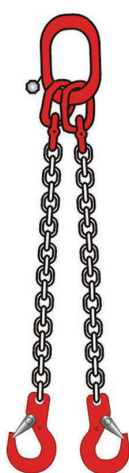
Basket Hitch



Single Leg Sling



Double Leg Sling



Multi Leg Sling



Endless Choke Sling



Never Exceed Working Load Limit