



This user information presents a general overview regarding the operation of some plate clamps and does not substitute the existing operating instructions for specific load hoisting tackle!

Lifting operations with load hoisting tackle may be carried out by competent persons (trained in theory and practice) only.

When operated correctly, our Tigrip products will offer the highest degree of safety, avoid damage to products and people and present a long life expectancy.

Modification of delivery condition

Design and construction of the load hoisting tackle may not be altered without authorization of the manufacturer, e.g. by bending, welding, grinding, cutting-off parts, adding boreholes, removal of safety devices like locking mechanisms, bolts, shear pins etc. Otherwise the validity of the declaration of conformity will be void and any liability and warranty of the manufacturer ceased.

Limitations of operation

Loading

The rated capacity (WLL) indicated on the tackle is the maximum load which must not be exceeded.

Temperature

Clamps without protective lining may normally (depending on manufacturer) be operated at ambient temperatures of -40 °C up to +100 °C without capacity reduction. Clamps with protective lining may be subject to reduced temperature areas due to application of affixed linings, e.g. model TBP and TSB, which can be operated from -20 °C up to +40 °C.

Shock loading, swinging of load

The indicated capacities are based on shock-free loading of the tackle. Light bumps as occurred during lifting and lowering as well as transporting of load with the crane are admitted. Heavier shock loadings (e.g. crashing against obstacles during transport) as well as swinging of the load are strictly forbidden!

Chemicals

Load hoisting tackle may not be operated without hesitation in the area of chemicals or chemical vapours – consult our specialists beforehand. Hoisting tackle which has been subject to chemicals or vapours must be taken out of service and should be returned to us for inspection.

Transport of people

Transport of people with hoisting equipment and tackle is generally forbidden!

Operation in danger zones

Lifting or transport of loads must be avoided while personnel are in the danger zone. When using clamps or grabs without a positive fit but with force fit or friction fit the load must not be suspended above people – see AMVO §18(6)!

Lifting products

Load hoisting tackle have been designed for specific applications and must not be used for other jobs without prior authorization of the manufacturer. This refers e.g. to the thickness of material (jaw capacity of the clamp), surface condition, hardness* and temperature of material. Relative information is given in the respective operating instructions. These have to be available to the operator to ensure safe handling of the product.

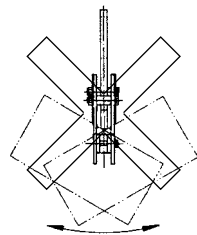
*Please observe that for special steel plates the surface hardness may deviate substantially from the core hardness, e.g. for cold work steel.

Inspection before initial operation

- Ensure that the surface of the steel plate, in the area where the clamp is to be attached, is dry and free from grease, paint, dirt and scale and is not coated, so that the teeth resp. the protective lining on the moving jaw can make good contact with the surface of the load.
- Check the fixed jaw and the moving jaw for wear and defects. Both jaws must have clean profiles and teeth must not be heavily worn (observe respective advice given in the operating instruction, guiding value max. 30% wear). Protective linings must not be contaminated, damaged, uneven or heavily worn.
- The entire hoisting tackle has to be checked for damage, corrosion, cracks or deformations.
- It should be easy to open and close the clamp.
- Check the function of the spring. In the CLOSED position this must present a noticeable spring pressure force when the hook ring is pressed down.

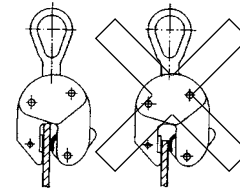
Application advice

- Load hoisting tackle must always be in perfect condition and provided with a legible identity plate.
- Prior to initial operation and every time before work, the tackle is to be visually inspected for obvious deficiencies!
- The suspension eye must have sufficient space in the load hook and move freely. A safety latch to prevent accidental out-hooking of the tackle must be available!
- Do not lift or transport loads while personnel are in the danger zone and do not allow people to pass under a suspended load. Note: a safe form-fit attachment requires sufficient hardness of the load. Ensure that the load or parts thereof cannot slip and fall down!



- The load hoisting tackle must be positioned over the gravity centre of the load, so that a swinging movement is avoided.
- If longer sheets of metal or profiles are to be transported, we recommend using two clamps to prevent load swinging. The clamps can be used in combination with a spreader beam or with double strand chain slings and clamps with hinged hook ring (e.g. model TBS). Observe the maximum angle from the vertical and possible capacity restrictions.
- Clamps without hinged hook ring must not be loaded laterally! (Slanted attachment of the clamp onto the steel plate in pulling direction of the clamp is normally not permitted, as the jaws would grip too close to the edge of the plate. Thus a correct fit of the clamp on the plate is not assured!)

- Always insert the load fully into the mouth of the clamp and make sure that the housing has contact on either side of the plate.
- Clamps designed for the transport of steel plate in vertical position may only accept one single plate at a time. The clamping effect must be assured on either side of the load!
- Special clamps are available for the transport of steel plate in horizontal position which allows handling of several plates at a time.
- A load must not be suspended or left unattended in raised or tensioned condition for a longer period of time.
- When attaching the clamp, the operator must ensure that neither the clamp, slings or load pose a danger to himself or other personnel.
- The operator may not move the load until he is convinced that the load is correctly attached and all personnel are outside the danger zone.
- Please take note of possible capacity restrictions depending on the pivoting range resp. pulling direction of the clamp. (Note: Not all clamp types on the market are designed for a pivoting range of 180° – strictly observe the operating instructions!)
- In case of malfunction stop using the load hoisting tackle immediately.



INFO

Due to the limitations of space in this catalogue we could not respond to all applications. Please contact us for further information!

OPERATION

Maintenance and repair

- To ensure safe operation, all load hoisting tackle must be subjected to regular inspections according to the maintenance instructions given by the manufacturer.
- Load hoisting tackle which are due for maintenance (normally once per year, unless adverse working conditions dictate shorter periods) or products with obvious defects may be returned to us for inspection and repair.
- Inspections and tests must be performed by competent persons or specialist workshops that use original spare parts.

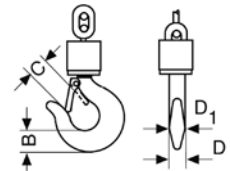
Inspections

- Inspections are visual and functional and shall establish that the load hoisting tackle is safe and has not been damaged by incorrect transport or storage. In addition check for damage, wear, corrosion and other deficiencies as well as completeness and function of safety devices. Inspections are instigated by the user.
- All load hoisting tackle has to be cleaned prior to inspection. The cleaning procedure must not cause chemical damages (e.g. no acid – embrittlement), no incorrect temperature stress by e.g. flame cleaning or possible concealment of cracks due to excessive material loss (sand blasting)! We shall be pleased to consult you in this respect. Please submit your load hoisting tackle for inspection in clean condition. This will reduce inspection costs considerably!

Criteria for disposal of load hoisting tackle

Load hoisting tackle must no longer be operated if e.g.:

- The identification (identity plate) is missing or illegible.
- Housing, components and suspension of the tackle present obvious deficiencies, e.g. cuts, grooves, cracks, excessive corrosion, staining due to heat, signs of subsequent welding resp. spatters (which cannot be easily removed) and leave stains.
- Ropes show breakages of wires resp. bruises (criteria for disposal of ropes are given in classification DIN 15020), damages to the rope sleeve and similar failures.
- The load chain presents twisted or distorted links or shows an elongation of 5% resp. undergoes the averaged nominal thickness of the link by more than 10%.
- The opening (C) of either suspension or load hook has increased/deformed by more than 10% of the nominal dimension or shows wear in the hook mouth (dimensions B resp. D) of more than 5%.
- If the inspection revealed that the tackle has been overloaded or deteriorated it can only be used again after careful inspection and repair – if necessary.



Technical questionnaire to identify the suitable Tigrip® load hoisting tackle

Company: _____ Date: _____
 Contact: _____ e-Mail: _____
 Phone: _____ Fax: _____

Clamps and grabs

Information about the load:

What will be transported?

Weight min. _____ kg - max. _____ kg
 Length min. _____ mm - max. _____ mm
 Width min. _____ mm - max. _____ mm
 Height min. _____ mm - max. _____ mm
 External diameter min. _____ mm - max. _____ mm
 Internal diameter min. _____ mm - max. _____ mm

Material Steel Concrete Wood Paper Others

Surface hardness for steel: _____ HRC

Surface condition Oiled Greasy Dry Scales Others

How should/may the load be grabbed/clamped:

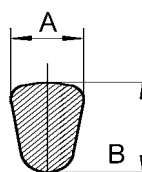
Grabbed from underneath Jaws Protective lining Others

Information about the clamp/grab:

What kind of grab will be needed?

Type of crane hook or dimensions A - B

Model: _____ A = _____
 B = _____



Other restrictions: _____

