

# INFO

**This user information presents a general review regarding the operation of hoisting equipment and does not substitute the existing operating instructions for the specific hoist product.**

**Lifting operations with hoisting equipment may be carried out by competent users (trained in theory and practice) only.**

**When operated correctly, our hoist products will offer the highest degree of safety in line with long life expectancy and avoid damage to the product and people.**

## Modification of delivery condition

Design and construction of the hoist may not be altered, e.g. by installation of outside supplied parts, bending, welding, grinding, removal of safety relevant components like locking devices, locking pins, safety latches etc.

## Limitations of operation

### Loading

Our hoists have been designed for lifting and transporting of loads. Some models (e.g. ratchet lever hoists) may also be used for pulling and lashing purposes, if admitted in the operating instructions. The indicated capacities refer to loading in straight line and must not be exceeded. Lifting media (e.g. lifting chain or rope) must not be slung over edges and must not be used for the attachment of the load.

### Temperature

Hoists may normally be operated at ambient temperatures between -10 °C up to +50 °C.

These values are approximate and may deviate from the specific givings of the hoist product. The accurate data are given in the current operating instructions. Special models are available on request for higher or lower temperature ranges.

**Attention:** At temperatures below 0 °C the brake should be checked for freezing. (Check lifting function prior to starting work and refer to "Inspection prior to initial operation").

## Shock loading

The indicated capacities are based on shock-free loading of the hoist. Light bumps as occurred during lifting and lowering as well as transporting of load are admitted. Heavier shock loadings, e.g. falling of the load, are strictly forbidden.

## Chemicals

Hoists and attachments may not be operated without hesitation in the area of chemicals or chemical vapours – consult our specialists for advice. Hoists which have been subject to chemicals or vapours must be taken out of service and inspected by us.

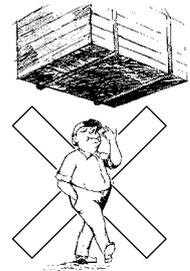
## Transport of people

Transport of people with hoisting equipment is generally forbidden! Transport of people may only be carried out with specially authorized products (e.g. Yaletrac, Mtrac).

## Operation in danger zones

Lifting or transport of loads must be avoided while personnel are in the danger zone.

People are not allowed to pass over or under a suspended load.



## Electrical hazards

Load carrying hoist components (e.g. load chain) must not be subject to electric current and must never be used as a ground connection during welding. Further electrical hazards, e.g. with powered hoists, are indicated in the specific operating instructions!

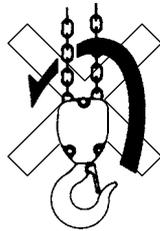
Electric connections may only be performed by authorized persons resp. companies.

## INFO

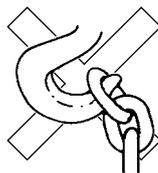
For information on training please see page 4.

## Application advices

- Hoists must always be in perfect condition and provided with a legible identity plate.
- Prior to starting work, the hoist including load carrying devices, equipment, supporting structure and suspension must be inspected for obvious deficiencies and failures. In addition, the function of the brake and the correct attachment of hoist and load have to be checked by carrying out a short work cycle of lifting/pulling or tensioning and releasing.
- Inspect the load chain for sufficient lubrication and visually check for external defects, deformations, superficial cracks, wear or corrosion marks. A defective chain must be replaced prior to operation of the hoist.



- Units equipped with two chain falls should be inspected for twisted or kinked chains prior to being put into operation. The chains of multiple fall hoists may be twisted if the bottom block was turned over.
- Inspect top and bottom hooks for deformations, damage, cracks, wear or corrosion marks. A safety latch must be available and work effectively.
- Hoists with obvious defects and units which have been subject to overload or other dangerous influences have to be taken out of service and may only be operated after test and repair if so required.
- When selecting the proper product, make sure that the hoist is suitable to accept transportation, suspension, type of lashing devices and lashing points safely and without unintended movement (e.g. slipping).
- Load chains must not be used in kinked or knotted condition.



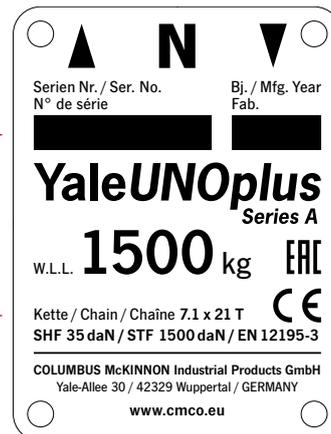
- The load must always be seated in the saddle of the hook. Never attach the load on the tip of the hook. This applies to top and bottom hooks.
- The operator must ensure that the load is attached in a manner that does not expose himself or other personnel to danger by the hoist, chain(s) or the load.
- During lifting operations the load and suspension hook of the hoist must be perpendicular to the load center to prevent pendle motion of the load.
- The operator may start moving the load only after it has been attached correctly and all personnel are off the danger zone.

- Before lifting make sure that the load can move freely.
- After lifting or tensioning, a load must not be left unattended for a longer period of time.
- Chain stops, slipping clutches etc. are overload protection devices and may not be used as regular load limiters.
- Do not throw the hoist down. Always place it properly on the ground.

## Labelling (Example)

Serial or model number

Chain dimension and design (Grade) of load chain

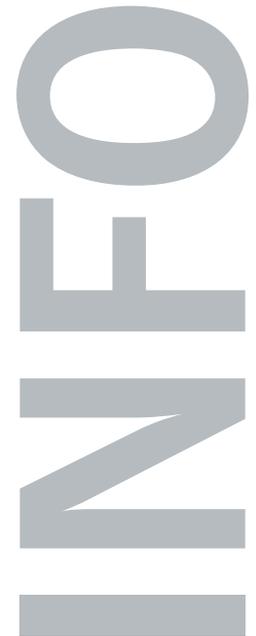


Year of manufacture

Rated capacity

Load securing

Manufacturer or supplier





## Maintenance and repair

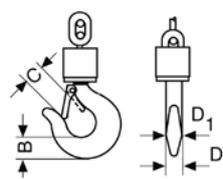
- To ensure safe operation, all hoisting equipment must be subjected to regular inspections according to the maintenance instructions given by the manufacturer.
- Hoists which are due for maintenance (normally once per year, unless adverse working conditions dictate shorter periods) or products with 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

- According to German laws and standards all hoisting equipment must be subjected to a mandatory inspection at least once a year. The inspection must be performed by a competent person.
- On building sites hoists have to be inspected every time before operation.
- Hoist and supporting components have to be cleaned prior to inspection. The cleaning procedure must not cause chemical damages (e.g. no acid-embrittlement). Do not expose the hoist and supporting components to unallowed temperatures by e.g. flame cleaning avoid concealment of cracks and excessive material loss (sand blasting).  
We shall be pleased to consult you in this respect. Please submit your hoists for inspection in clean condition. This will reduce inspection costs considerably.

## Criteria for hoist disposal

### Hoists must no longer be operated if e.g.:

- The identification (identity plate) is missing or illegible.
- Security relevant components like brake, slipping clutch, ratchet pawls etc. do not properly function any longer.
- Housing, control units and suspension of the hoist present obvious deficiencies, i.e.
  - 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 breakage 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% of one chain link or a reduction in diameter of more than 10% (average of two measurings (longitudinal and transverse) compared to the nominal diameter).
- The opening (C) of suspension and/or load hooks is stretched by more than 10% compared with the nominal dimension, or if the hook mouth shows a wear of more than 5% of either dimension B or D.
 
- Detrimental impacts by e.g. overloading, shock loading, chemical influences or heat have occurred, the hoist may only be returned to service after careful inspection and repair.

