

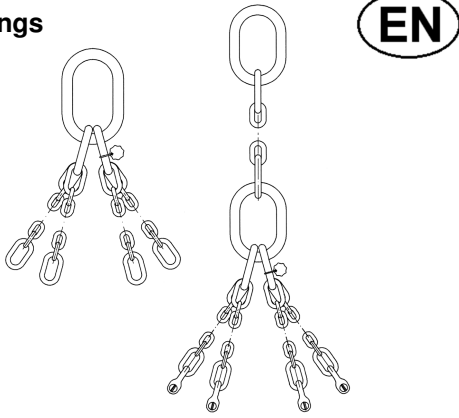
# Operating Instructions

Original in compliance with 2006/42/EG



## Offshore Chain Slings (Lifting Sets)

Grade 8



Manufacturer:  
THIELE GmbH & Co. KG  
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www.thiele.de

### 1 Description and Intended Use

THIELE chain slings are only manufactured as welded design. They are exclusively intended to be used for lifting offshore containers and portable offshore units. They are individually designed for the usage together with belonging containers and as a rule were not removed from them.

THIELE chain slings meet EG Machinery Directive 2006/42/EG requirements and feature a safety factor of at least 4.4 based on Working Load Limit (WLL).

Offshore chain slings and relating components are provided with tags or markings showing the nominal chain size, quality grade, manufacturer's mark, traceability code and CE-symbol.

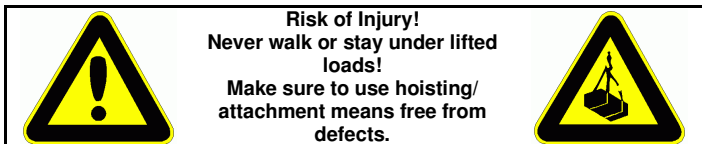
THIELE chain slings are furthermore certified and marked according DNV-Standard 2.7-1:06-2013. (DNV = Det Norske Veritas AS)

THIELE chain slings must exclusively be used

- if mass and center of gravity of the load are known or have been professionally estimated,
- within the limits of their permissible Working Load Limit,
- for permissible attachment methods and inclination angles,
- within the temperature limits prescribed,
- with suitable attachment components (e.g. Offshore Shackles),
- by trained and authorized persons.

Offshore chain slings must not be employed for the transportation of persons or for lashing duty.

### 2 Safety Notes



- Operators, fitters, and maintenance personnel must in particular observe these Operating Instructions, documentations DGUV V 1, DGUV R 100-500 Chapter 2.8, DGUV I 209-013 and DGUV I 209-021 issued by the German Employers' Liability Insurance Association, as well as standard specifications DIN 685-5, DIN EN 818-1, DIN EN 818-2, DIN EN 818-4 and DIN EN 818-6.
- Outside the Federal Republic of Germany the specific provisions issued locally in the country where the items are used must also be observed.
- In addition to that operators, fitters and maintenance personnel must especially observe chapter 9 of DNV 2.7-1:06-2013.
- The directions given in these Operating Instructions and specified documentations relating to safety, assembly, operation, inspection, and maintenance must be made available to the respective persons.
- Make sure these Operating Instructions are available in a place near the product during the time the equipment is used.
- When performing work make sure to wear your personal protective equipment!
- Improper assembly and use may cause personal injury and/or damage to property.
- Assembly and removal as well as inspection and maintenance must exclusively be carried out by skilled and authorized persons.
- Structural changes are impermissible (e.g. welding, bending).
- Visually inspect the equipment prior to each use.
- Never put to use worn-out, bent or damaged chain slings.
- Only lift loads the mass of which is less than or equal to the Working Load Limit of the chain sling.
- Position the crane hook above the load's center of gravity.

- Do not use force when mounting/positioning the attachment components.
- Make sure the load can take the forces to be applied without suffering deformation.
- Do not twist or knot the chains together.
- In case of multi-leg chain slings the inclination angles shown on the tags shall be applied.  
Smaller inclination angles are permissible.  
Inclination angles outside of the range of 45 ° - 25 ° are not allowed.
- Suspension links must be allowed to move freely in the crane hook.
- Only lift loads that are freely movable and not attached or fastened.
- Never move suspended loads over persons.
- Avoid bending loads to act on chain links and components.
- Do not start lifting before you have made sure the load has been correctly attached.
- Make sure no one including you (operator) is in the way of the moving load (hazard area).
- During lifting/hoisting make sure your hands or other body parts do not come into contact with hoisting means. Only remove hoisting means manually (use your hands).
- If possible, avoid strong impacts, e.g. due to abruptly lifting loads with chain in slack condition.
- Never cause suspended loads to swing.
- Always monitor suspended loads.
- Put the load only down in flat places/sites where it can be safely deposited.
- Avoid parts of the chain sling to get caught under the load.
- Take care for sufficient place for the personnel to move when choosing the route of transportation and storage location.
- Danger to life and risk of injury by crushing hazards!
- In the event of doubts about the use, inspection, maintenance or similar things contact your safety officer or the manufacturer.

**THIELE will not be responsible for damage caused through non-observance of the instructions, rules, standards and notes indicated!  
Working under the influence of drugs or alcohol is strictly forbidden!**

### 3 Commissioning

Prior to using the components for the first time make sure that

- the components comply with the order and have not been damaged,
- test certificate, statement of compliance, and Operating Instructions are at hand,
- markings correspond with what is specified in the documentation,
- the documentation is safely kept in an orderly manner.

Dispose of the packing in an environmentally compatible way according to local rules.

### 4 Technical Data

THIELE chain slings are made individually for each special situation of transport.

### 5 Assembly and Removal

Mounting and disassembling work is limited to attachment components such as offshore shackles as parts of transportation units (e.g. Offshore Container).

The Mounting Instructions of attachment components have to be observed.

### 6 Conditions of Use

#### 6.1 Influence of Temperature

THIELE offshore chain slings are provided for a service temperature of -20 °C to +200 °C, unless otherwise stated.

#### 6.2 Environmental Influence

Chain slings must not be used in environments where acids, aggressive or corrosive chemicals or their fumes are present.

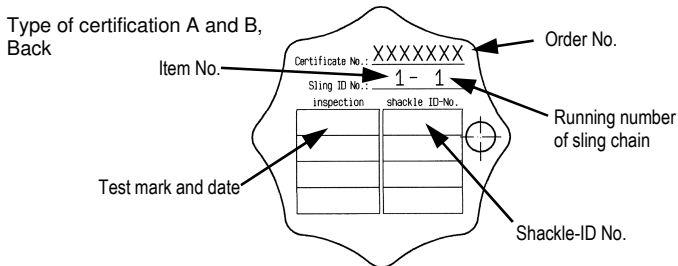
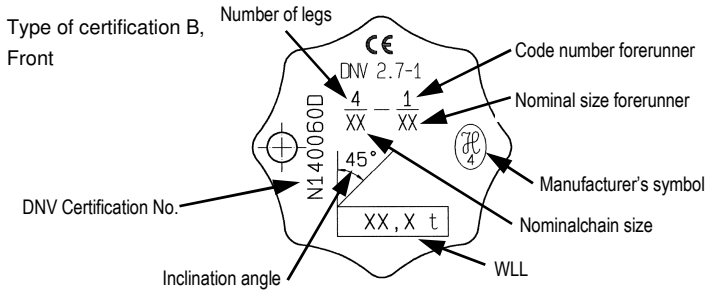
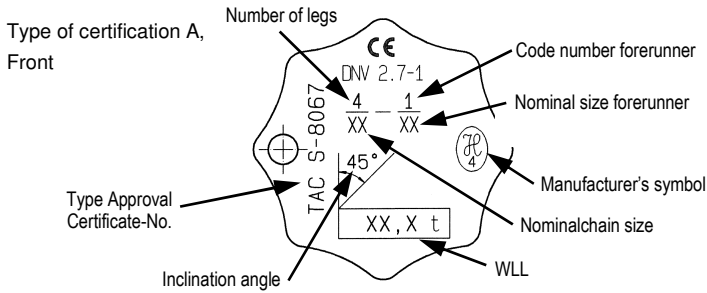
Hot-dip galvanizing or a galvanic treatment is prohibited as well.

## 7 Identification/Marking

Offshore chain slings are provided with tags near to the master links according to DNV 2.7-1 / EN 818-4.

The tags form correlate with standard DIN EN 818-4. Taking the year of manufacture into account the color is chosen individually.

Examples of tags:



Furthermore master links are marked with the DNC certification number or the order number together with the item number and the respective running number.

## 8 Inspections, Maintenance

Inspections and maintenance must be arranged for by the Owner!

Inspections have to fulfill the requirements of DNV 2.7-1:06-2013, chapter 9!

Inspections must be carried out and documented by competent persons.

Immediately stop using chain slings that show the following defects:

- missing or illegible identification/markings,
- deformation, elongation or fractures of chains or components,
- cuts, notches, cracks, incipient cracks, pinching,
- severe corrosion,
- pitch elongation of individual chain links by more than 5 % each,
- reduction of the averaged link thickness by more than 10 % as mean value of measurements taken perpendicularly towards each other.

Cleaning (e.g. prior to inspections) must not take place by thermal paint stripping or methods that might cause hydrogen embrittlement (e.g. pickling or immersion in acidic solutions).

### Maintenance

Welded offshore chain slings must exclusively repaired by the manufacturer.

All maintenance work must be carried out by competent persons. Maintenance work is limited to attachment components such as offshore shackles. The corresponding Mounting Instructions of the attachment components have to be observed.

All maintenance and repair activities are to be documented according to DNV 2.7-1:06-2013.

## 9 Spare Parts

Only use original spare parts.

Detailed information about spare parts for components are shown in the separate Mounting Instructions for THIELE-products, which are available at [www.thiele.de](http://www.thiele.de) or on request.

## 10 Storage

Make sure offshore chain slings are stored properly sorted, suspended and in dry locations at temperatures ranging between -20 °C and +40 °C, preferably above 0 °C.

## 11 Disposal

All components and accessories of steel taken out of service are to be scrapped in line with local regulations and provisions.

## 12 Publishing Information

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# Changes to previous edition.

## EU Declaration of Conformity

acc. to Machinery Directive 2006/42/EG, Annex II A for a machine

THIELE GmbH & Co. KG herewith declares as manufacturer that

### Offshore chain slings (Lifting Sets), Grade 8

are placed on the market in the form of a complete machine by THIELE together with the relevant test certificate, and are in compliance with the applicable provisions of the EU Machinery Directive 2006/42/EG.

The following harmonized standards have been observed:

- DIN EN ISO 12100
- DIN EN 818, Parts 1, 2, 4 and 6
- DIN EN 1677, Parts 1 to 4

Other standards and specifications have also been observed as follows:

- DIN 685-5
- DIN 5688-3
- DNV 2.7-1:06-2013

This declaration/statement is not meant to warrant any product properties. Safety notes and instructions pertinent to the products must be observed.

Responsible for the documentation:  
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Iserlohn, 6<sup>th</sup> February 2017  
Dr. Günther Philipp  
(Managing Director)