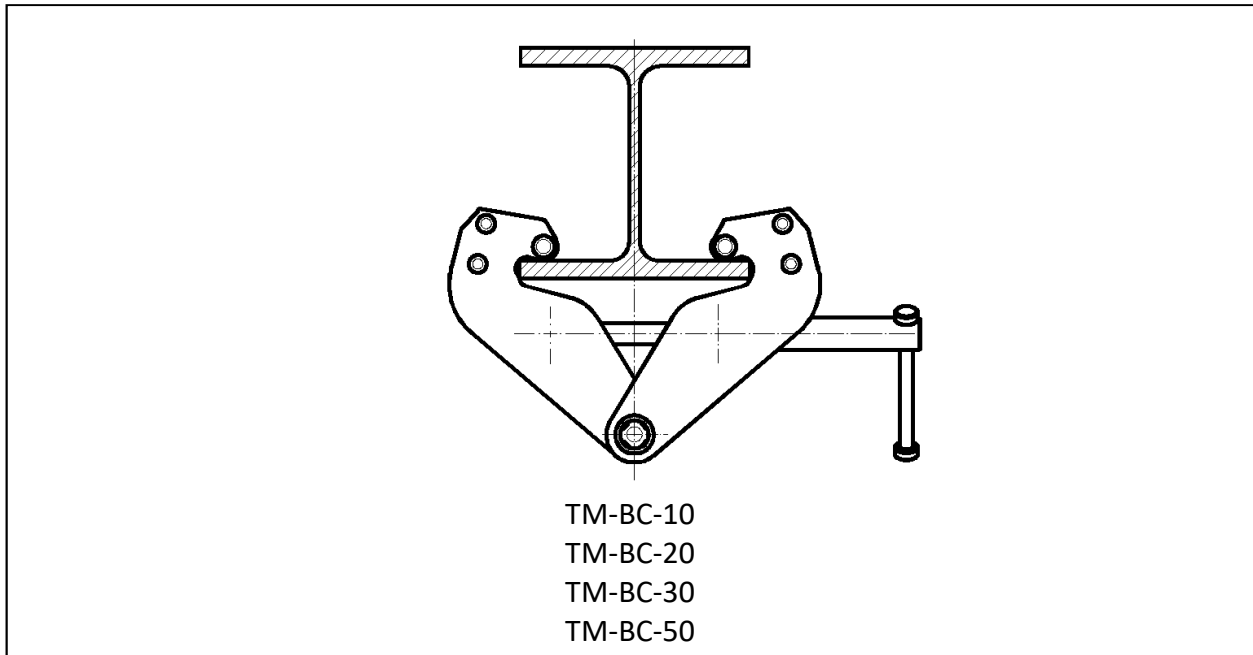


Original in compliance with machinery directive 2006/42/EC



TM-girder clamps are in accordance with the EC machine directions 2006/42/EC and are prototype tested by the German Authority TÜV-Rheinland.

Read this manual before using the TM-girder clamps.  
This manual includes very important information concerning safety and operation.

## IMPRINT

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## SIGN LEGEND



### Attention!

Failure to observe these instructions will result in serious physical injury, possibly leading to death



### Note

Helpful advice on operating the girder clamps and additional information

#

### Marking of changes to previous edition

(Due to extensive changes, individual ones are not marked separately in this edition)

## 1 DESCRIPTION AND INTENDED USE

THIELE girder clamps serve as safe attachment points on steel girder or beam sections. They are designed to suspend lifting tackle or loads. The clamps shall exclusively be used as anchoring point and must not be employed for hoisting duty in connection with spreader or lifting beams.

TM-girder clamps may only be used:

- within the permissible working load limits (see chapter 10),
- within the permissible temperature limits (see chapter 5),
- by instructed and authorised persons,
- with existing and undamaged safety devices,
- with suitable, commercially available steel beams,
- with suitable and approved hoists.

## 2 SAFETY NOTES

	<p><b>Risk of injury!</b> <b>Never walk or stay under lifted loads!</b> <b>Only use girder clamps free from defects!</b></p>	
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**Failure to observe the safety instructions or improper assembly, use or maintenance can result in death, serious injury or damage to property!**

**THIELE will not be responsible for damage caused through non-observance of the instructions, rules, standards and notes indicated!**

**Working under influence of drugs, alcohol (even remaining alcohol) or interfering medications is strictly forbidden!**



- **As a rule, girder clamps are not permitted for the transportation of persons!**
- **Use on construction sites is prohibited!**
- Operators, fitters, and maintenance personnel must in particular observe the operating instructions, documentations DGUV V 1, DGUV V 52, DGUV R 109-017 and DGUV I 209-013 issued by the German Employers' Liability Insurance Association.
- In the Federal Republic of Germany, the Operational Safety Ordinance („Betriebssicherheitsverordnung“, BetrSichV) has to be implemented and the Technical Rule for Industrial Safety („Technische Regel für Betriebssicherheit“) TRBS 1201, in particular annex 1, chapter 2 "Special regulations for the use of working equipment for lifting loads" must be observed.
- Outside the Federal Republic of Germany the specific provisions issued locally in the country where the girder clamps are used must also be observed.
- 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. Please contact the manufacturer if replacements are needed. See also chapter 9.



- **When performing work make sure to wear your personal protective equipment!**

- Assembly and removal as well as inspection and maintenance must exclusively be carried out by skilled and authorized persons.



- **Operators must carry out a visual inspection and, if necessary, a functional test of the safety equipment before each use.**

- Never expose girder clamps to loads exceeding the specified working load limits.
- If using two girder clamps for one load, select each girder clamp having a working load limit equal to or more than the load. Diagonal pull must be excluded here.

- Make sure the load and lifting points can take the forces to be applied without suffering deformation.

- Only attach loads (including the mass of the attached lifting gear) that are less than or equal to the working load limits of the girder clamps.

- The girder clamps must be positioned vertically above the centres of gravity of the loads.

- Never tow sideways with a hoist attached or pull at an angle.

- Only lift loads that are freely movable and not attached or fastened.

- Do not start lifting before you have made sure the load has been correctly attached.

- Operate the threaded spindle only with manual force and without lever extension.

- Make sure no one including you (operator) is in the way of the moving load (hazard area).

- **No handling above persons.**

- Never cause suspended loads to swing.

- Always monitor a suspended load.

- **Do not mount girder clamps in the working area of trolleys.**

- **Never open girder clamps under load.**

- **Do not use girder clamps as grippers or buffers.**

- Do not use force when mounting/positioning girder clamps or hoists.

- The use of girder clamps without unscrewing protection is not permitted.

- Operate girder clamps only with manual force and without extending the handle of the lever.

- Avoid impacts, e.g. due to abruptly lifting loads with load chain in slack condition.

- Do not use girder clamps in connection with welding processes.

- Structural modifications, attachments or conversions are not permitted.

- Never make unauthorised connections between girder clamps and the load.

- Worn, bent or damaged girder clamps must not be put into operation.

- Do not remove or cover warning labels located on the device.

- Do not clean the girder clamps with water or with high pressure cleaner.

- Do not use girder clamps to lift dangerous goods such as molten or radioactive materials.

- After use or when not ready for use, girder clamps must be secured against unauthorised and unpermitted use.



- In the event of doubts about the use, inspection, maintenance or similar things contact your safety officer or the manufacturer.

### 3 COMMISSIONING

Prior to using the girder clamps for the first time make sure that

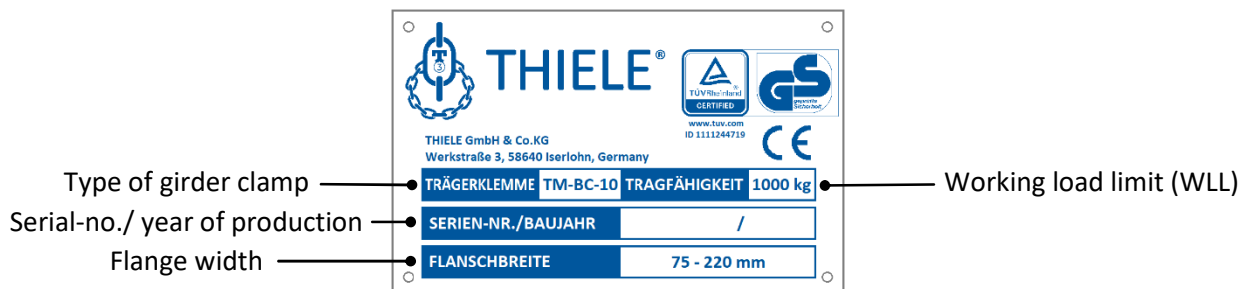
- the components comply with the order and have not been damaged,
- test certificate, statement of compliance, and operating instructions are at hand,
- markings correspond with what is specified in the documentation,
- the documentation is safely kept in an orderly manner,
- visibility and functional testing are carried out and documented,
- inspection deadlines and the qualified persons for examinations are determined,
- the girder clamps are provided with a test seal and the next inspection date.

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

### 4 TYPE PLATE AND WARNING LABEL

The type plate and warning label are in German due to the TÜV certification.

The following illustrations help to simplify understanding:



## 5 OPERATION

Before using the girder clamps, observe the marking and select the correct size according to the load to be lifted.



**Prior to each use, the girder clamps must be visually checked for damage or incorrect functioning.**

The girder clamp has to be positioned above the centre of gravity of the load.

Use girder clamps only in the temperature range from -10 °C to +50 °C.

It is not permitted to use the girder clamps in environment where acids, aggressive/ corrosive chemicals or their vapours are present.

## 6 ASSEMBLY AND DISASSEMBLY

### 6.1 Assembly

1. Open the clamping jaws by turning the threaded spindle counterclockwise.
2. Mount the clamp on the girder flange at the desired position.
3. Close the clamping jaws by turning the lever of the threaded spindle clockwise. Tighten the spindle so as to be hand-tight. **Caution – danger of jamming!**
4. **Tests: The clamping jaws must fully embrace the girder flange.**  
**The girder clamp must be firmly connected to the steel girder.**
5. The load may only be hung into the suspension bolts. Attach the hoisting unit or the load in such a manner that the lifting tackle (e.g. hook, lug) is located in the centre of the suspension bolt.
6. In case of prolonged stationary use, regularly check girder clamps for tightness.



Particular care must be taken during assembly to ensure that the thread does not jam.

### 6.2 Disassembly

1. Unload the girder clamp by removing all loads.
2. Open the clamping jaws by turning the threaded spindle counterclockwise until it can be removed from the lower flange of the steel beam.



**Caution – fall hazard!**

**Ensure that the girder clamp cannot slip out of your hands uncontrollably and fall off!**

## 7 INSPECTIONS

**Inspections and maintenance must be arranged by the Owner!**

**Inspection deadlines shall be determined by the Owner!**

Inspections by a competent person must be carried out regularly and at least annually, more often in case of heavy use. For each girder clamp, documentation must be kept in which all inspections and maintenance activities are to be listed.

The girder clamps must be recertified after 4 years in operation latest.

Take girder clamps out of service immediately in the event of the following defects:

- illegible or missing marking,
- deformation, fractures, notches, cracks, severe corrosion
- operation outside the permissible temperature range
- in the event of a stiff threaded spindle

## 8 MAINTENANCE AND REPAIR

### 8.1 Spare parts

Due to the riveted construction, repair by replacing individual parts is not intended. Therefore, no spare parts list is available.

Joints and threads must be checked for sufficient lubrication each time they are assembled or disassembled and relubricated if necessary.

A thin lubricating film of commercially available multi-purpose grease is sufficient.

Lubricate the thread over the entire length.

### 8.2 Disposal

Dispose of worn out girder clamps for scrapping in accordance with local regulations.

## 9 SERVICE ADDRESS

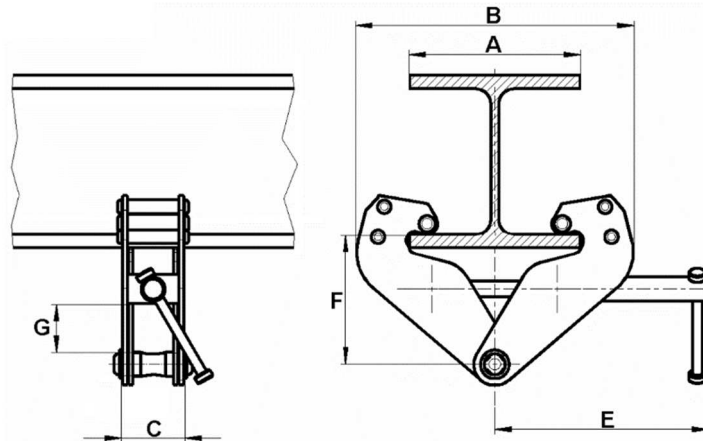
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Current operating and assembly instructions are available as a PDF download on the THIELE homepage.



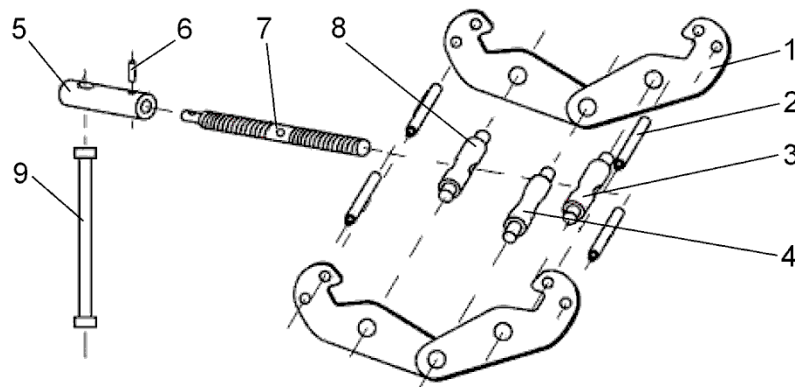
## 10 TECHNICAL DATA



Model/Type ►		TM-BC-10	TM-BC-20	TM-BC-30	TM-BC-50	
Working Load Limit (WLL)	[t]	1	2	3	5	
Flange width A	[mm]	75 - 220	75 - 220	80 - 320	80 - 320	
Dimensions	B <sub>min.</sub>	[mm]	180	180	235	235
	B <sub>max.</sub>	[mm]	360	360	490	490
	C	[mm]	64	74	103	110
	E	[mm]	215	215	260	260
	F <sub>min.</sub>	[mm]	102	102	140	140
	F <sub>max.</sub>	[mm]	155	155	225	225
	G <sub>min.</sub>	[mm]	25	25	45	45
Mass	[kg]	3,8	4,6	9,0	11,0	

### COMPONENTS:

- 1 Clamping jaw
- 2 Pin
- 3 Spindle pin, left
- 4 Carrying pin
- 5 Adapter
- 6 Screw
- 7 Threaded spindle
- 8 Spinde pin, right
- 9 Lever



## 11 WARRANTY

TM-girder clamps are guaranteed for 1 year from the date of purchase against defective materials or workmanship. Wear parts, overloaded or incorrectly used parts are excluded from the warranty.

## 12 STORAGE

Store girder clamps in an orderly and dry manner at temperatures between 0 and +40 °C.

