

Mounting Instructions

Original in compliance with 2006/42/EG



Hooks

Grades 8 and 10/XL



Sling Hooks with Clevis TWN 0835/1 TWN 1340/1 TWN 1840/1	Sling Hooks with Eye TWN 0855/1 TWN 0858/1 TWN 1841/1	Foundry Hooks TWN 0859 TWN 0856 TWN 1856	Swivel Hooks TWN 0854 TWN 0887	Lifting Hook for Engines TWN 0889
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Manufacturer:
THIELE GmbH & Co. KG
Tel: +49 (0) 2371 / 947 - 0
58640 Iserlohn
www.thiele.de

1 Description and Intended Use

THIELE hooks are intended for the usage in chain sling assemblies according to EN 818-4 or in lashing chain assemblies according to EN 12195-3.

The connection to the chain is made directly by the clevis or indirectly by using connecting links which are assembled to the eye.

Hooks with Eye can also be used within welded chain sling assemblies.

Hooks must exclusively be used

- within the limits of their permissible Working Load Limits,
- within the temperature limits prescribed,
- for permissible attachment methods and inclination angles,
- by trained and authorized personnel.

THIELE hooks meet EG Machinery Directive 2006/42/EG requirements and feature a safety factor of at least 4 based on the Working Load Limit (WLL).

They are also signed with the corresponding chain size, grade, manufacturers mark (e.g. stamp 'H4') and identification number.

THIELE hooks are designed to withstand 20,000 dynamic load changes under maximum load conditions. In the event of higher loads (e.g. multi-shift/automatic operation) the Working Load Limit must be reduced.

As a rule, hooks are not permitted for the transportation of persons.

An alternating use for lifting and lashing is not allowed!

2 Safety Notes

Risk of Injury!
Never walk or stay under lifted loads!
Make sure to use hoisting/attachment means free from defects.

- Operators, fitters, and maintenance personnel must in particular observe the Operating Instructions of the used chain sling assembly, 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 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.
- The directions given in these Mounting Instructions and specified documentations relating to safety, assembly, operation, inspection, and maintenance must be made available to the respective persons.
- Make sure these Mounting Instructions are available in a place near the product during the time the equipment is used.
Please contact the manufacturer if replacements are needed.
- 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 hooks.
- Do not overload hooks.
- Do not use force when mounting/positioning the hooks.
- Do not tip-load a hook.
- Hooks shall have well-functioning safety latches.
- Avoid bending loads to act on hooks.

- When using hooks without safety latch special care must be taken and a special risk assessment should be done.
- Usage without working safety devices is not permissible.
- Safety elements must not be excessively stressed or strained operationally.
- Do not start lifting before you have made sure the load has been correctly attached.
- 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).
- Avoid impacts, e.g. due to abruptly lifting loads with chain in slack condition.
- Avoid hooks to get caught under the load.

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

As regards quality grade 10/XL THIELE does not give its general approval to the assembly of components stemming from different manufacturers!

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 components for the first time make sure that

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

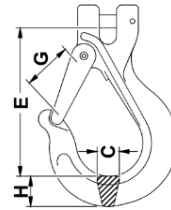
Dispose of the packing in an environmentally compatible way according to local rules.

4 Technical Data

Table includes article numbers of basic versions but no customized editions.

4.1 Sling Hooks with Clevis TWN 0835/1, Grade 8

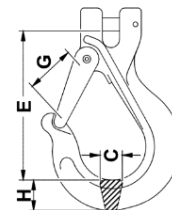
Versions according to TWN 0835 without safety latch.



Size	Article No.	Working Load Limit [t]	Dimensions [mm]				Mass [kg]
			E	G	H	C	
18-8	F33651	10	195	60	52	50	7,6
20-8	F33656	12,5	220	65	58	55	9,7
22-8	F33661	15	244	75	64	61	11

4.2 Sling Hooks with Clevis TWN 1340/1, Grade 8

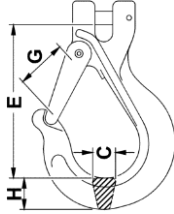
Versions according to TWN 1340 without safety latch.



Size	Article No.	Working Load Limit [t]	Dimensions [mm]				Mass [kg]
			E	G	H	C	
6-8	F336010	1,12	75	24	20	17	0,36
8-8	F336110	2,0	92	30	25	22	0,75
10-8	F336210	3,15	113	37	32	28	1,4
13-8	F336310	5,3	133	42	41	35	2,5
16-8	F336410	8,0	162	51	50	41	4,4

4.3 Sling Hooks with Clevis TWN 1840/1, Grade 10/XL

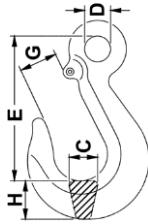
Versions according to TWN 1840 without safety latch.



Size	Article No.	Working Load Limit [t]	Dimensions [mm]				Mass [kg]
			E	G	H	C	
6-10/XL	F336050	1,4	75	24	20	17	0,36
8-10/XL	F336150	2,5	92	30	25	22	0,75
10-10/XL	F336250	4,0	113	37	32	28	1,4
13-10/XL	F336350	6,7	133	42	41	35	2,5
16-10/XL	F336450	10	162	51	50	41	4,4

4.4 Sling Hooks with Eye TWN 0855/1, Grade 8

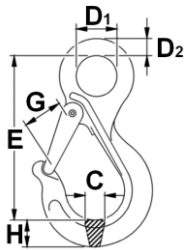
Versions according to TWN 0855 without safety latch.



Size	Article No.	Working Load Limit [t]	Dimensions [mm]					Mass [kg]
			E	D	G	H	C	
36-8	Z04079	40	388	72	109	103	78	31,5
40-8	Z04083	50	442	84	124	116	89	46
45-8	Z04080	63	494	90	138	130	99	63
50-8	Z04081	80	610	102	155	145	110	80

4.5 Sling Hooks with Eye TWN 0858/1, Grade 8

Versions according to TWN 0858 without safety latch.

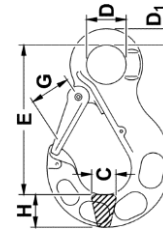


Size	Article No.	Working Load Limit [t]	Dimensions [mm]						Mass [kg]
			E	D ₁	D ₂	G	H	C	
6-8	F32901	1,12	91	21	11	23	17	16	0,3
8-8	F32911	2,0	120	28	14	30	24	22	0,8
10-8	F32921	3,15	152	36	18	38	29	28	1,7
13-8	F32931	5,3	180	42	21	42	41	36	2,8
16-8	F32941	8,0	221	54	27	52	45	43	5,1
18/20-8	F32951	12,5	270	62	30	65	58	55	8,7
22-8 ¹⁾	F329710	15	271	65	30	70	62	54	9,7
26-8 ¹⁾	F329810	21,2	302	70	33	75	71	59	14
32-8 ¹⁾	F329910	31,5	352	80	38	90	86	67	25

1) New design.

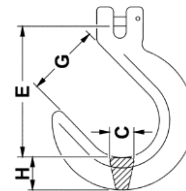
4.6 Sling Hooks with Eye TWN 1841/1, Grade 10/XL

Versions according to TWN 1841 without safety latch.



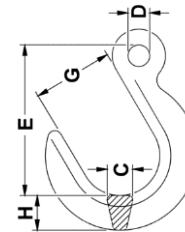
Size	Article No.	Working Load Limit [t]	Dimensions [mm]						Mass [kg]
			E	D	D ₁	G	H	C	
6-10/XL	F32905	1,4	91	21	11	24	20	17	0,36
8-10/XL	F32915	2,5	118	28	14	30	25	22	0,78
10-10/XL	F32925	4,0	145	36	18	37	32	28	1,5
13-10/XL	F32935	6,7	168	42	21	42	41	35	2,6
16-10/XL	F32945	10	210	54	25	51	50	41	4,7
22-10/XL	F32975	15	271	65	30	70	62	54	9,7

4.7 Foundry Hooks with Clevis TWN 0859, Grade 8



Size	Article No.	Working Load Limit [t]	Dimensions [mm]				Mass [kg]
			E	G	H	C	
8-8	F33310	2,0	110	66	33	27	1,0
10-8	F33320	3,15	133	76	35	32	1,6
13-8	F33330	5,3	159	89	41	38	3,4
16-8	F33340	8,0	189	102	48	45	5,5

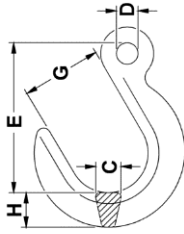
4.8 Foundry Hooks with Eye TWN 0856, Grade 8



Size	Article No.	Working Load Limit [t]	Dimensions [mm]					Mass [kg]
			E	D	G	H	C	
6-8	Z00456	1,12	95	13	50	24	20	0,53
8-8	F32360	2,0	125	18	66	33	27	0,93
10-8	F32370	3,15	146	20	76	35	32	1,7
13-8	F32380	5,3	175	26	89	41	38	3,2
16-8	F32390	8,0	205	32	102	48	45	5,4
18/20-8	F32400	12,5	235	40	114	54	51	7,5
22-8 ²⁾	Z00457	15	265	47	127	70	65	11,4
26-8 ²⁾	Z00458	21,2	305	52	136	80	72	13,6
32-8 ²⁾	Z00459	31,5	327	60	152	93	83	28

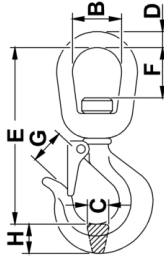
2) Hand forged.

4.9 Foundry Hooks with Eye TWN 1856, Grade 10/XL



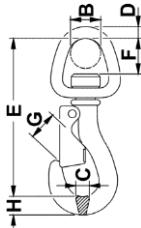
Size	Article No.	Working Load Limit [t]	Dimensions [mm]					Mass [kg]
			E	D	G	H	C	
8-10/XL	F32365	2,5	134	18	66	33	26	0,92
10-10/XL	F32375 ¹⁾	4,0	156	20	76	35	32	1,5
13-10/XL	F32385 ¹⁾	6,7	188	26	89	42	38	2,75

4.10 Swivel Hooks TWN 0854, Grade 8



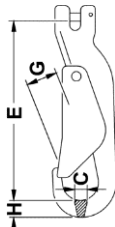
Size	Article No.	Working Load Limit [t]	Dimensions [mm]							Mass [kg]
			E	G	H	C	F	B	D	
0,75-8M	F32103	0,75	113,5	19	14	13	25	30	10	0,36
6-8	F32100	1,12	113	18	20	14	25	30	10	0,38
8-8	F32110	2,0	155	21	25	19	42	44	16	1,0
10-8	F32120	3,15	162	23	30	21	42	44	16	1,2
13-8	F32130	5,3	190	32	33	28	43	51	19	2,1
16-8	F32140	8,0	247	40	43	35	61	64	25	4,5

4.11 Swivel Hooks TWN 0887, Grade 8



Size	Article No.	Working Load Limit [t]	Dimensions [mm]						Mass [kg]	
			E	G	H	C	D	F		B
0,35	F32160	0,35	98,5	14	14	14	9	20	16	0,24

4.12 Lifting Hook for Engines TWN 0889, Grade 8



Size	Article No.	Nominal diameter [mm]	Working Load Limit [t]	Dimensions [mm]				Mass [kg]
				E	G	H	C	
0,50	F33439	6	0,50	137	19	13	12	0,55

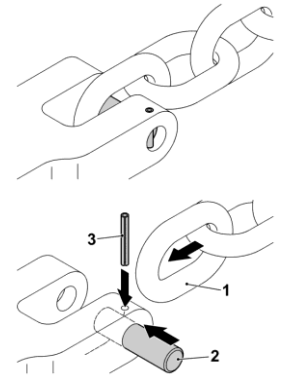
5 Assembly and Removal

5.1 Clevis-type Hook System

Assembly

If necessary, remove dowel pin and pin.

- Place end of chain leg between the lateral clevis elements.
- Push pin from the side fully into the clevis and through the last chain link of the leg.
- Drive dowel pin fully in (must not project) to secure the pin. The slot must face away from the pin.



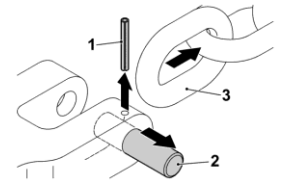
Check whether the chain runs smoothly.

Only connect pins and attachment components of identical quality grades (starting with Ø 13 mm the pins are marked on the front end).

Disassembly

Slacken the respective chain leg.

- Drive dowel pin out using hammer and ejector drift ³⁾.
- Push pin out using a drift.
- Remove the chain.



3) Suitable ejector drifts are available by Article No. Z03303.

The dowel pins must only be installed once.

5.2 Safety Latch

Disassembly by driving the dowel pins out.

Assembling by correct positioning of safety latch together with spring and driving in the thicker dowel pin by a hammer. Afterwards the thinner dowel pin has to be driven in, taking care that the slots positioned adverse. Check the correct operability of the safety latch.

6 Conditions of Use

6.1 Normal Use

Hooks must always be freely movable when attached to the load.

Hooks must not rest on or be supported by other structural parts.

6.2 Influence of Temperature

Using hooks at elevated temperatures will cause the Working Load Limit to be reduced as indicated below.

Grade	Temperature range	Remaining Working Load Limit
8	-40 °C to 200 °C	100 %
	200 °C to 300 °C	90 %
	300 °C to 400 °C	75 %
10/XL	-30 °C to 200 °C	100 %
	200 °C to 300 °C	90 %
	300 °C to 380 °C	60 %

If the hooks have been exposed to temperatures exceeding the maximum values specified they must no longer be used.

6.3 Environmental Influence

Hooks 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 Spare Parts

Use only original spare parts.

7.1 Spare part sets for clevis

Consisting of pins and dowel pins.

Size	Article No.	Size	Article No.
6-8	F48694	6-10/XL	F48686
8-8	F48352	8-10/XL	F48687
10-8	F48355	10-10/XL	F48688
13-8	F48358	13-10/XL	F48689
16-8	F48361	16-10/XL	F48690
18-8	F48364		
20-8	F48369		
22-8	F48367		

7.2 Spare part sets safety latches

Consisting of safety latch, spring and dowel pins.

Size	Article No.	Size	Article No.
for TWN 0835/1, TWN 0858/1, TWN 1340/1		for TWN 1835/1, TWN 1840/1 TWN 1841/1	
6-8	F48730	6-10/XL	F48731
8-8	F48732	8-10/XL	F48733
10-8	F48734	10-10/XL	F48735
13-8	F48736	13-10/XL	F48737
16-8	F48738	16-10/XL	F48739
18-8	F48585	22-10/XL	F48745
20-8	F48742		
22-8	F48744		
26-8	F48746		
32-8	F48747		

8 Inspections, Maintenance, Disposal

Inspections and maintenance must be arranged for by the Owner!

Inspection intervals shall be determined by the Owner!

Inspections must be carried out and documented by competent persons regularly but at least once a year, or more frequently if hooks are in heavy-duty service. After three years at the latest they must additionally be examined for cracks. A load test shall never be considered a substitute for this examination.

The results of the inspection shall be entered into a register (DGUV I 209-062 or DGUV I 209-063) to be prepared at first use. The register will show characteristic data of the hooks and other components as well as identity details.

Immediately stop using hooks that show the following defects:

- missing or illegible identification/markings,
- deformation, elongation or fractures,
- cuts, notches, cracks, incipient cracks, pinching,
- heating beyond permissible limits,
- severe corrosion,
- broken springs,
- not sufficient working safety devices,
- wear in excess of 10 %, e.g. in the receiving area of the pin diameter,
- missing or damaged pin locks or removal preventing guards.

Inspection Service

THIELE offers inspection, maintenance and repair services performed by trained and competent personnel.

Maintenance

Maintenance and repair work must only be performed by competent persons.

Minor notches and cracks at the rings may be eliminated by careful grinding observing the maximum cross section reduction requirement of 10 % and avoid making more severe cuts or scores.

All maintenance and repair activities are to be documented.

Disposal

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

9 Storage

Hooks are stored in dry locations at temperatures ranging between 0 °C and +40 °C.

10 Publishing Information

THIELE GmbH & Co. KG, Werkstraße 3, 58640 Iserlohn, Germany
Tel.: +49(0)2371/947-0 // Email: info@thiele.de

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„#“ Changes to previous edition.