THIELE®

traceparts
Product Content Everywhere
3D/CAD

CAD ENAS

TLP

THIELE Lifting Points

Product Overview Lifting Points

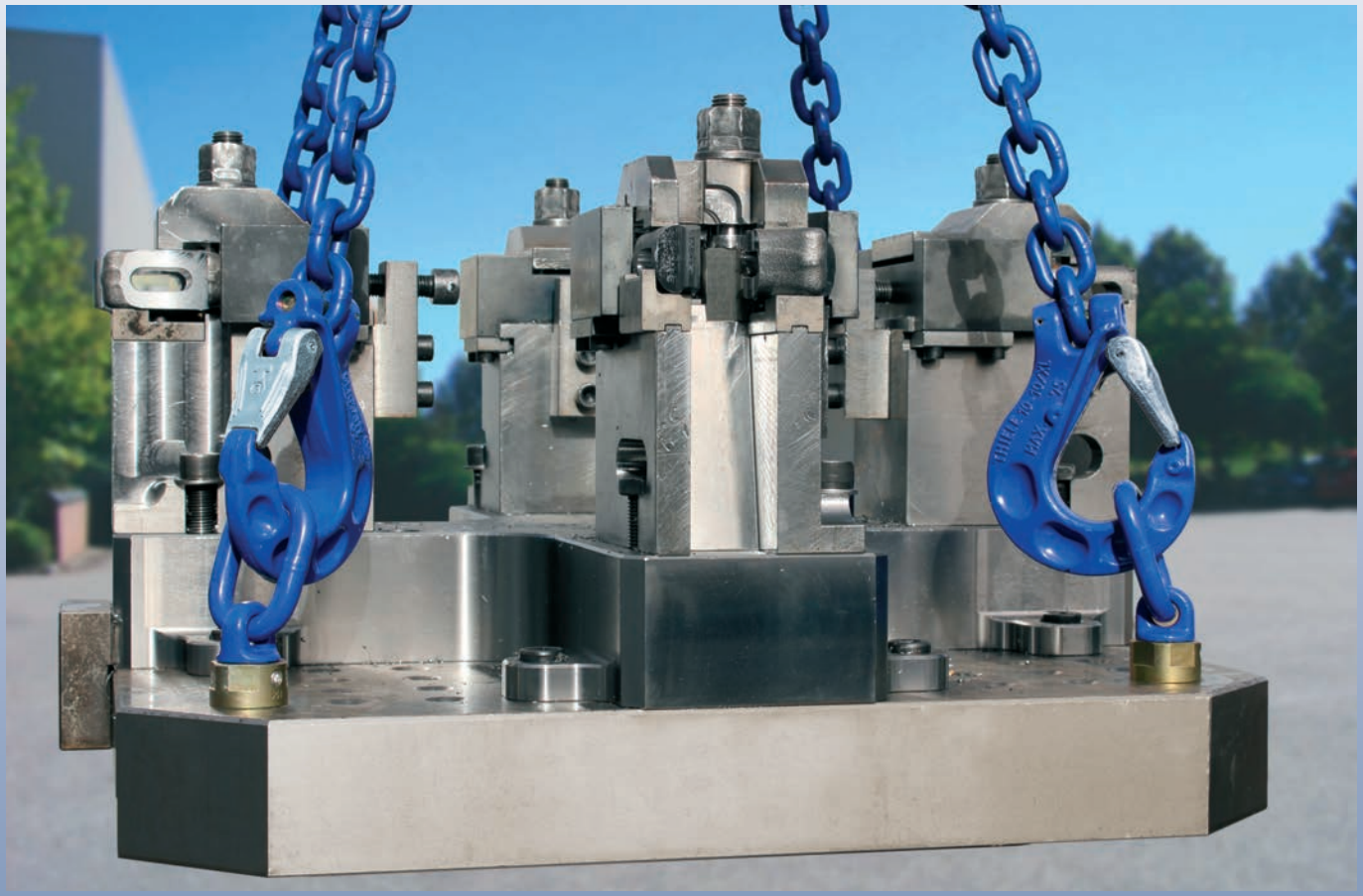
	TWN 0121/1 	TWN 0122 	TWN 0123 	TWN 0127 	TWN 1120 
	TWN 1830 	TWN 1884 	TWN 1890 		
Page 120-125	Lifting Points, Screwed Type				

	TWN 0119 	TWN 0124 	TWN 0850/1 	TWN 1872 	TWN 1882 
	TWN 1473 	TWN 1880 	TWN 1471 		
Page 130-135	Lifting Points, Weld-on Type				

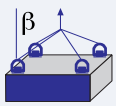
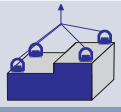
	TWN 0301 	TWN 0302 	TWN 0304 	TWN 0308 	TWN 0321 
	TWN 0323 				
Page 140-141	Hitches				

Selection Criteria for Lifting Points

1. Determine the **weight of the load** to lift.
2. Select the **number of necessary lifting points**, depending on the number of sling-legs of the lashing chain and the number of available fitting positions (see pictographs on pages 116-119 and 126-129).
3. Consider the **reduction factors for the inclination angles and application temperature** (see operating manual).
4. Select the **suitable lifting point**, taking the type of application and the under point 3 determined working load limit under consideration.



Working Load Limit Table for Lifting Points, Screwed Type

Application	Inclination Angle β	No. of Legs	TWN 0121/1 Lifting Point, swivel type								TWN 0122 Lifting Point							
																		
			Working Load Limits in [t max.]															
	Marking				1,12	2	3,15	5,3			3,15	5,3	8	15	21,2	25	31,5	36
	Screw Size				M16	M20	M24	M30			M16	M20	M30	M36	M42	M45	M56	M56
	0°	1			1,12	2	3,15	5,3			3,15	5,3	8	15	21,2	25	31,5	36
	0°	2			2,24	4	6,3	10,6			6,3	10,6	16	30	42,4	50	63	72
	90°	1			1,12	2	3,15	5,3			3,15	5,3	8	15	21,2	25	31,5	36
	90°	2			2,24	4	6,3	10,6			6,3	10,6	16	30	42,4	50	63	72
	0-45°	2			1,6	2,8	4,25	7,5			4,25	7,5	11,2	21,2	30	33,5	45	50
	45-60°	2			1,12	2	3,15	5,3			3,15	5,3	8	15	21,2	25	31,5	36
	unbalanced [1]	2			1,12	2	3,15	5,3			3,15	5,3	8	15	21,2	25	31,5	36
	0-45°	3+4			2,36	4,25	6,7	11,2			6,7	11,2	17	31,5	45	50	67	75
	45-60°	3+4			1,7	3	4,75	8			4,75	8	11,8	22,4	31,5	37,5	47,5	53
	unbalanced [1]	3+4			1,12	2	3,15	5,3			3,15	5,3	8	15	21,5	25	31,5	36

[1] Reduced working load limit acc. to DIN 685-5.

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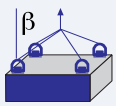
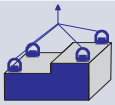
TWN 0123 Lifting Point										TWN 0127 Lifting Point MDB									
																			
Working Load Limits in [t max.]																			
				1,12	2	3,15								3,15	5,3				
				M16	M20	M24								M20	M24				
				1,12	2	3,15								3,15	5,3				
				2,24	4	6,3								6,3	10,6				
				1,12	2	3,15								3,15	5,3				
				2,24	4	6,3								6,3	10,6				
				1,6	2,8	4,25								4,25	7,5				
				1,12	2	3,15								3,15	5,3				
				1,12	2	3,15								3,15	5,3				
				2,36	4,25	6,7								6,7	11,2				
				1,7	3	4,75								4,75	8				
				1,12	2	3,15								3,15	5,3				

Working Load Limit Table for Lifting Points, Screwed Type

Application	Inclination Angle β	No. of Legs	TWN 1120 TITAN Lifting Point										TWN 1830 X-TREME Lifting Point											
																								
			Working Load Limits in [t max.]																					
	Marking		0,3	0,45	0,6	1,4	2,5	3,5	6,7	8			0,45	0,6	1,4	2,5	3,5	5,3	8	10	12,5	12,5	17	17
	Screw Size		M8	M10	M12	M16	M20	M24	M30	M36			M10	M12	M16	M20	M24	M30	M36	M42	M45	M48	M56	M64
	0°	1	0,3	0,45	0,6	2,1	3	6	7,1	12,5			0,9	1,2	2,8	5,3	7	10	15	18	20	20	28	28
	0°	2	0,6	0,9	1,2	4,2	6	12	14,2	25			1,8	2,4	5,6	10,6	14	20	32	36	40	40	56	56
	90°	1	0,3	0,45	0,6	1,4	2,5	3,5	6,7	8			0,6	0,7	1,7	2,8	4	6,3	9,5	12,5	15	16	22	22
	90°	2	0,6	0,9	1,2	2,8	5	7	13,4	16			1,2	1,4	3,4	5,6	8	12,6	19	25	30	32	44	44
	0-45°	2	0,42	0,63	0,85	2	3,55	5	9	11,2			0,85	1	2,4	4,0	5,7	8,9	13,4	17,7	21,2	22,6	31,1	31,1
	45-60°	2	0,3	0,45	0,6	1,4	2,5	3,55	6,7	8			0,6	0,7	1,7	2,8	4,0	6,3	9,5	12,5	15	16	22	22
	unbalanced [1]	2	0,3	0,45	0,6	1,4	2,5	3,55	6,7	8			0,6	0,7	1,7	2,8	4,0	6,3	9,5	12,5	15	16	22	22
	0-45°	3+4	0,63	0,95	1,25	3	5,3	7,1	14	17			1,3	1,5	3,6	5,9	8,5	13,4	20,2	26,5	31,8	33,9	46,7	46,7
	45-60°	3+4	0,45	0,67	0,9	2,1	3,8	5,3	10	11,8			0,9	1,1	2,6	4,2	6,0	9,5	14,3	18,8	22,5	24	33	33
	unbalanced [1]	3+4	0,3	0,45	0,6	1,4	2,5	3,55	6,7	8			0,6	0,7	1,7	2,8	4,0	6,3	9,5	12,5	15	16	22	22

[1] Reduced working load limit acc. to DIN 685-5.

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New

TWN 1884 KE Eye Bolt	TWN 1890 XS-Lifting Point
	

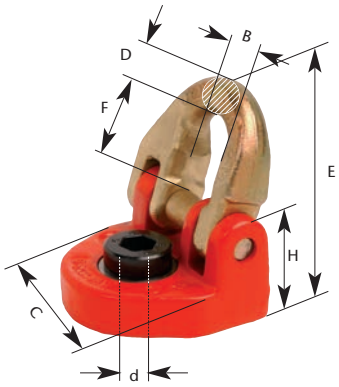
Working Load Limits in [t max.]

	TWN 1884		TWN 1890								
	1,7	2,5	0,63	1	1,5	2,5	4	6	8	10	12
	M16	M20[2]	M10	M12	M16	M20	M24	M30	M36	M42	M48[2]
WORLDWIDE HIGHEST WORKING LOAD LIMIT!	1,7	2,5	0,63	1	1,7	2,5	4,0	6,0	8,0	10,0	–
	3,4	2,5	1,26	2	3,4	5,0	8,0	12	16,0	20,0	–
	1,7	2,5	0,63	1	1,7	2,5	4,0	6,0	8,0	10,0	–
	3,4	5	1,26	2	3,4	5	8,0	12	16,0	20,0	–
	2,4	3,55	0,9	1,4	2,4	3,5	5,7	8,5	11,2	14,0	–
	1,7	2,5	0,63	1	1,7	2,5	4,0	6,0	8,0	10,0	–
	1,7	2,5	0,63	1	1,7	2,5	4,0	6,0	8,0	10,0	–
	3,57	5,25	1,3	2,1	3,6	5,3	8,5	12,5	17,0	21,2	–
	2,55	3,75	1	1,5	2,6	3,8	6,0	9,0	11,8	15,0	–
	1,7	2,5	0,63	1	1,7	2,5	5,0	6,0	8,0	10,0	–

[2]In development.

TLP

Lifting Points, Screwed Type



Rotating Lifting Point TWN 0121/1

The two forged parts make this lifting point particularly sturdy for lifting, moving and securing loads.
Our TWN 0121/1 lifting point features full load working load limit in all tension directions, and can be rotated 360° and swivelled 180°. The THI-LOK® half with electrolytic treatment has a high corrosion-resistancy.
This DGUV-approved safety component that moves high value machinery or steel elements has undergone 100% crack-testing.

Finish: RAL 3003, electro galvanized and yellow chromated.

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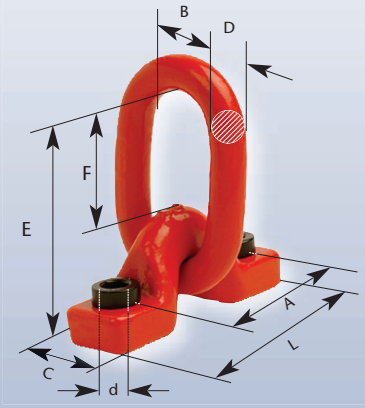
Screw Size d [mm]	Article-No.	Working Load Limit [t max.]	Thread Length G [mm]	Dimensions [mm] E	F	A	C	H	B	D	NG	Weight app. [kgs]
M16	F35000	1,12	25	65	30	61	65	38	22	12	6-8	0,70
M20	F35010	2,00	30	85	40	79	82	49	28	15	8-8	1,50
M24	F35020	3,15	36	98	45	92	101	59	33	19	10-8	2,60
M30	F35030	5,30	50	120	53	113	125	72	45	25	13-8	4,60



Lifting Point TWN 0122

Our engineers have developed a lifting point for mechanical engineering and plant construction that is distinctive in its compact design. The extra wide link simplifies hooking-in the broadest variety of hook types which makes transportation fast, smooth and easy. The full working load limit in every pulling direction of tension enables unlimited functionality, even with extremely heavy loads. Delivery includes 100% crack-tested and high strength special screws.

Finish: RAL 3003.

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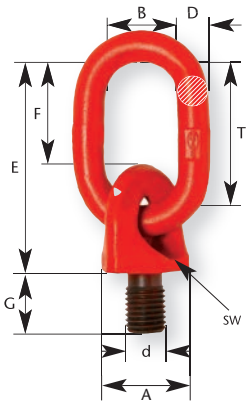
Screw Size d [mm]	Article-No.	Working Load Limit [t max.]	Thread Length G [mm]	Dimensions [mm] E	F	A	C	L	D	B	NG	Weight app. [kgs]
M16	F35070	3,15	25	112	57	90	38	130	18	40	10-8	1,47
M20	F35075	5,30	36	149	80	115	45	165	22	50	13-8	2,80
M30	F35080	8,00	50	183	93	150	55	212	26	65	16-8	5,90
M36	F35095	15,00	53	217	105	175	72	255	36	80	22-8	11,40
M42	F35098	21,20	67	262	132	200	90	295	45	100	26-8	19,30
M45	F35101	25,00	67	262	132	200	90	295	45	100	28-8	20,00
M56	F35102	31,50	88	336	193	230	100	330	48	110	32-8	32,00
M56	F35285	36,00	88	336	193	230	100	330	48	110	34-8	32,00

Lifting Points, Screwed Type

Lifting Point TWN 0123

Our TWN 0123 threaded lifting point is easy to mount. All you need is a threaded bore hole. This captive unit features compact construction and only requires minimum assembly space. The attachment link is optionally available as a master link or intermediate link, making it adaptable to the specific job at hand. This means we have the right solution for your requirements, even at low mounting heights. The lifting point is constructed of high-strength tempered and powder-coated steel.

Finish: RAL 3003.

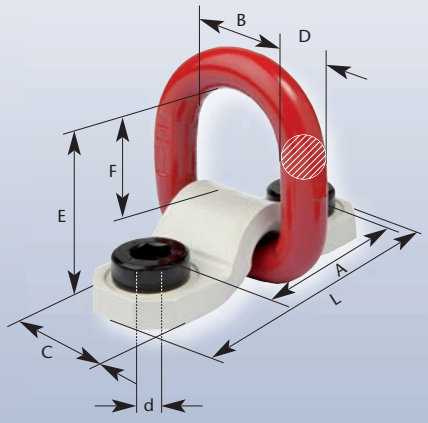


Screw Size d [mm]	Article-No.	Working Load Limit [t max.]	Thread Length G [mm]	Dimensions [mm] E	F	D	T	B	SW	A	NG	Weight app. [kgs]
M16	F34110	1,12	30	113	52	16	70	35	46	60	6-8	0,73
M16	F34115	1,12	30	153	92	16	110	60	46	60	6-8	1,00
M20	F34120	2,00	38	113	52	16	70	35	46	60	8-8	0,95
M20	F34121	2,00	38	153	92	16	110	60	46	60	8-8	1,12
M24	F34130	3,15	35	128	67	18	85	40	46	60	10-8	1,04
M24	F34131	3,15	45	153	92	18	110	60	46	60	10-8	1,39

Lifting Point MDB TWN 0127

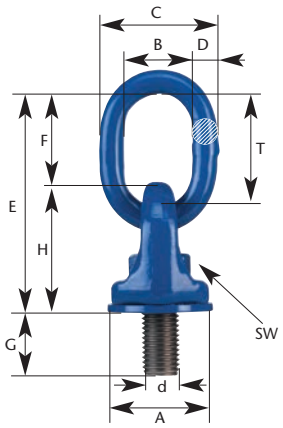
The delivery of our precision-tooled threaded TWN 0127 lifting point includes 100% crack-tested screws. It can be mounted and removed very quickly using commercial available tools. The largest surface contact is subsequently ensuring highly effective attachment thanks to the flat contact surface of the bolt-on bracket and a mirrored screw head surface.

Finish: RAL 3003.



Screw Size d [mm]	Article-No.	Working Load Limit [t max.]	Thread Length G [mm]	Dimensions [mm] E	F	A	C	L	D	B	NG	Weight app. [kgs]
M20	F35157	3,15	39	68	48	90	44	130	18	48	10-8	1,10
M24	F35158	5,30	36	113	69	110	60	160	24	66	13-8	2,70

Lifting Points, Screwed Type



The TITAN Lifting Point TWN 1120

is capable to lift with the nominal working load limit in all directions. The coupling link is free moveable in all directions. It rotates easily due to the special collarbush and gliding washer, made from stainless steel.
It is built as a compact one-piece unit, it requires less mounting space.
The TITAN lifting point allows a fast and easy assembling with commercially available tools. Other screw lenghts are available upon request. A plastic cover protects the screw during transportation and storage.
100% crack-tested. DGUV-approved.

Note: Does not swivel under load!

Finish: RAL 5002.

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Screw Size d [mm]	Article-No.	Working Load Limit [t max.]	Thread Length G [mm]	Dimensions [mm]									Weight app. [kg]
				E	F	D	T	B	A	C	H	SW	
M8	F34405	0,30	19	95	40	10	50	28	43	50	55	13	0,40
M10	F34390	0,45	19	95	40	10	50	28	43	50	55	16	0,41
M12	F34395	0,60	24	95	40	10	50	28	43	50	55	18	0,43
M16	F34400	1,40	29	95	40	10	50	28	43	50	55	24	0,47
M20	F34410	2,50	33	115	49	12	60	34	54	60	66	30	0,79
M24	F34420	3,50	40	135	55	16	70	40	65	74	80	36	1,50
M30	F34430	6,70	52	167	66	18	85	50	85	93	101	46	3,00
M36	F34440	8,00	66	212	92	22	115	50	96	107	120	55	4,80

The right turn!

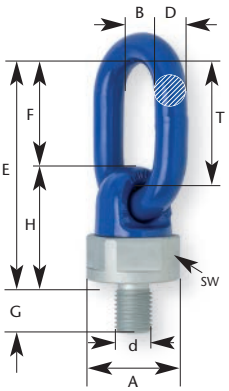
Lifting Points, Screwed Type

The X-TREME Lifting Point TWN 1830

is equipped with a ball bearing system. It has a special wide coupling link which enables an easy slinging of bigger hooks. It is particularly well suited for loads that have to be turned or flipped. The octagonal shap of the subpart enables an easy assembling with a common hand tool. 100% magnetic crack-tested. According to the principles of the BG GS-0A-15-04

Like the TITAN lifting point, the X-TREME lifting point is capable to lift in all directions. The X-TREME lifting point is not suitable for permanent rotations under load.

Finish: RAL 5002, zinc lamella coating.

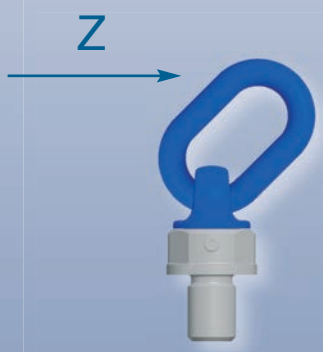


Screw Size d [mm]	Article-No.	Working Load Limit Vertical Y [t max.]	Extreme Z [t max.]	Hinged X [t max.]	Thread Length G [mm]	Dimensions [mm] E	F	D	T	B	A	SW	H	Weight app. [kg]
M10	F34306	0,9	0,45	0,6	15	101	47	13	55	33	39	36	55	0,48
M12	F34307	1,2	0,6	0,7	18	101	47	13	55	33	39	36	55	0,49
M16	F34300	2,8	1,4	1,7	20	101	47	13	55	33	39	36	55	0,50
M20	F34310	5,3	2,5	2,8	25	121	59	16	70	34	50	46	63	0,90
M20	F34312				50	121	59	16	70	34	50	46	63	1,00
M24	F34320	7	3,5	4	30	148	72	18	85	40	57	50	76	1,50
M24	F34321				90	148	72	18	85	40	57	50	76	1,70
M30	F34330	10	5,3	6,3	40	171	83	22	100	50	73	65	88	2,70
M36	F34340	15	8,0	9,5	50	179	81	22	100	50	83	70	98	3,60
M36	F34341				63	179	81	22	100	50	83	70	98	3,80
M36	F34343				70	179	81	22	100	50	83	70	98	3,90
M42	F34350	18	10	12,5	60	244	116	32	140	70	106	95	128	8,30
M45	F34353	20	12,5	15	65	244	116	32	140	70	106	95	128	8,40
M48	F34355	20	12,5	16	68	244	116	32	140	70	106	95	128	8,60
M56	F34360	28	17	22	78	251	116	32	140	70	116	95	135	10,00
New **M64**	F34363	28	17	22	96	251	116	32	140	70	116	95	135	11,00

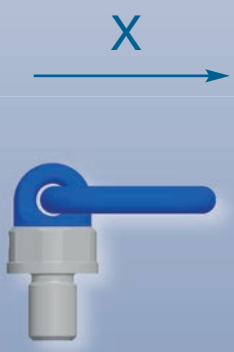
Note: Variable screw lengths up to 5 x d available for thread diameters M20, M24, M30, M36.

Load Direction

Vertical Load Direction (0°)
Highest Working Load Limit



Extreme Load Direction (45°)
Nominal Working Load Limit
(not aligned)



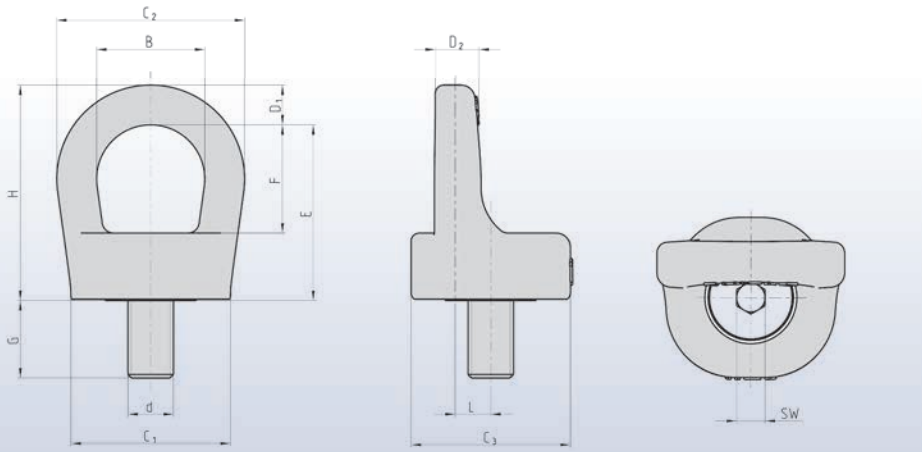
Load Direction hinged (90°)
higher Working Load Limit
(aligned)

Lifting Points, Screwed Type

New KE Eye Bolt TWN 1884

The pivotable eccentric eye bolt with ball bearing type TWN 1884 is patented and has a large ring for connecting of larger hooks or other lifting components. The eccentric positioned eye enables an easy mounting with a standard hexagon socket.
The unique in forged ellipses gives the user the safety of using a THIELE high quality product.

The KE eye bolt is 100% crack tested and complies with the test requirements of the DGUV.



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Screw Size d [mm]	Working Load Limit [t max.]	Article-No.	Thread Length G [mm]	Dimensions [mm]											Weight app. [kg]
				E	F	B	D_1	D_2	H	L	C_1	C_2	C_3	SW	
M16	1,70	F38010	27	61,5	38	38	14	15	75,5	12,5	56	66	56	10	0,66
M20*	2,50	F38020	33	70	42	42	16	17	86	15	64	74	61	12	0,99

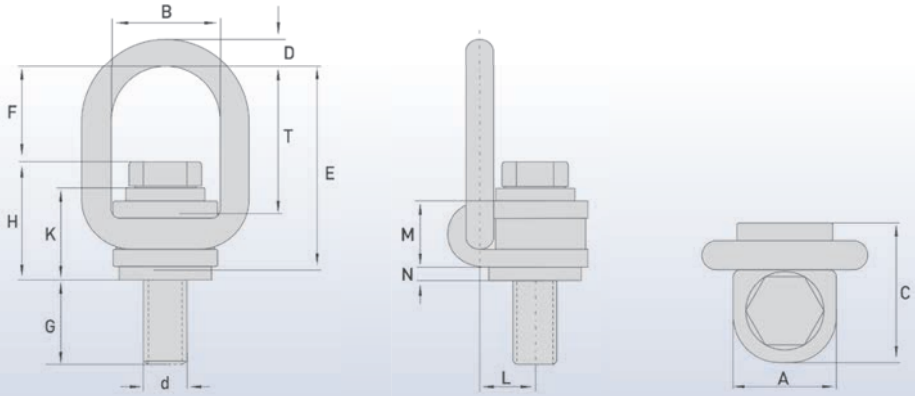
*In development.

Lifting Points, Screwed Type

XS Lifting Point TWN 1890

A piece of individualism, combined with economic production process for more safety.
Our XS lifting point TWN 1890 has a 100% nominal working load limit in all load directions.
It can also be rotated by 360° and swivelled by 180°. Our engineers designed a lifting point which guarantees a fast and uncomplicated mounting and removal using a standard open-end spanner. The extrawide bow enables load hooks of a large nominal size to be used for slinging without any difficulty.
The XS lifting point is especially designed for the exchange of the screws and therefore screw lengths.

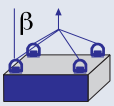
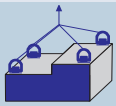
Finish: RAL 5002, zinc lamella coating.



Screw Size d [mm]	Working Load Limit [t max.]	Article-No.	Thread Length G [mm]	Dimensions [mm] E	F	D	T	B	A	C	H	K	L	Weight app. [kg]
New **M10**	0,63	F35243	17	71	37	**8,5**	**53**	**35**	32	43	35	28	17	0,29
New **M12**	1,00	F35244	22	71	36	**8,5**	**53**	**35**	32	43	36	28	17	0,31
M16	1,70	F35245	28	98	46	**13**	**70**	**50**	48	64	52	42	25	0,95
M20	2,50	F35246	38	98	44	**13**	**70**	**50**	48	64	55	42	25	1,10
M24	4,00	F35247	40	134	70	**16**	**102**	**58**	50	71	64	49	28	1,70
M30	6,00	F35249	44	149	73	**20**	**110**	**70**	65	88	75	57	35	3,10
M36	8,00	F35250	64	149	70	**20**	**140**	**70**	67	88	79	57	35	3,50
New **M42**	10,00	F35251	74	191	98	**24**	**145**	**84**	81	106	93	67	43	6,10
M48*	12,00	F35252	–	–	–	–	–	–	–	–	–	–	–	–

*In development.

Working Load Limits for Lifting Points, Weld-on Type

Application	Inclination Angle β	No. of Legs	TWN 0119 Lifting Point								TWN 0124 Lifting Point with Fixing Spring							
																		
			Working Load Limit [t max.]															
	Marking		1,12	2	3,15	5,3	8	15	31,5	50			1,12	2	3,15	5,3		
	0°	1	1,12	2	3,15	5,3	8	15	31,5	50			1,12	2	3,15	5,3		
	0°	2	2,24	4	6,3	10,6	16	30	63	100			2,24	4	6,3	10,6		
	90°	1	1,12	2	3,15	5,3	8	15	31,5	50			1,12	2	3,15	5,3		
	90°	2	2,24	4	6,3	10,6	16	30	63	100			2,24	4	6,3	10,6		
	0-45°	2	1,6	2,8	4,25	7,5	11,2	21,2	45	71			1,6	2,8	4,25	7,5		
	45-60°	2	1,12	2	3,15	5,3	8	15	31,5	50			1,12	2	3,15	5,3		
	unbalanced	2	1,12	2	3,15	5,3	8	15	31,5	50			1,12	2	3,15	5,3		
	0-45°	3+4	2,36	4,25	6,7	11,2	17	31,5	67	106			2,36	4,25	6,7	11,2		
	45-60°	3+4	1,7	3	4,75	8	11,8	22,4	47,5	75			1,7	3	4,75	8		
	unbalanced	3+4	1,12	2	3,15	5,3	8	15	31,5	50			1,12	2	3,15	5,3		

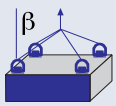
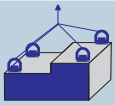
New

TWN 0850/1 Excavator Hook	TWN 1872 Lifting Point
	

Working Load Limit in [t max.]																			
		1,2	2	3	5	8	10							4	6,7				
														4	6,7				
														8	13,4				
														4	6,7				
														8	13,4				
														5,6	9,5				
														4	6,7				
														4	6,7				
														8,5	14,2				
														6	10				
														4	6,7				

Working Load Limits for Lifting Points, Weld-on Type

Lashing Capacity for Lashing Points, Weld-on Type

Application	Inclination Angle β	No. of Legs	TWN 1882 Lifting Point „Compact“ with Fixing Spring					TWN 1471 Lashing Point ZK Module				
												
			Working Load Limit [t max.]					Lashing Capacity (LC) [daN max.]				
	Marking		1,5	2,5	4	6,7	10			5.000	10.000	
	0°	1	1,5	2,5	4	6,7	10					
	0°	2	3	5	8	13,4	20					
	90°	1	1,5	2,5	4	6,7	10			5.000	10.000	
	90°	2	3	5	8	13,4	20					
	0-45°	2	2,1	3,5	5,6	9,4	14					
	45-60°	2	1,5	2,5	4	6,7	10					
	unbalanced	2	1,5	2,5	4	6,7	10					
	0-45°	3+4	3,15	5,25	8,4	14,1	21					
	45-60°	3+4	2,25	3,75	6	10,1	15					
	unbalanced	3+4	1,5	2,5	4	6,7	10					

New

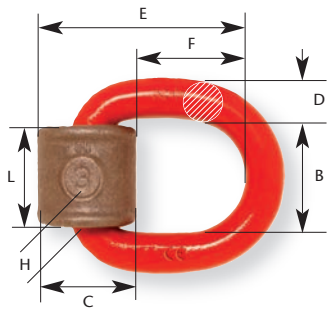
TWN 1473
Lashing Point

New

TWN 1880
Lashing Point „Compact“ with Fixing Spring

Lashing Capacity (LC) [daN max.]											
		8.000	13.500				3.000	5.000	8.000	13.500	
		8.000	13.500				3.000	5.000	8.000	13.500	

Lifting Points, Weld-on Type



Lifting Point TWN 0119

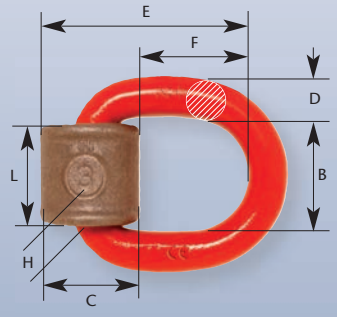
Highest safety due to the use of high-tensile steel.
Our DGUV-approved attachment point features 4-times safety factor against breakage in all load directions and is available with a working load limit of up to 50 tonnes. Its universal application for lifting and lashing make this component a true allrounder.
It can be welded easily and quickly to any steel construction thanks to its pre-aligned weld joint on the weld-on bracket and the accompanying welding instructions.

Finish: RAL 3003.

traceparts 3D/CAD

Trade Size	Article-No.	Working Load Limit [t max.]	Lashing Capacity (LC) [daN max.]	Dimensions [mm] E*	F*	C	L	H	D	B	Weight app. [kgs]
6-8	F35103	1,12	2200	59	31	32	32	28	12	36	0,24
8-8	F35113	2,00	4000	69	37	38	38	33	14	42	0,46
10-8	F35123	3,15	6300	84	46	45	44	38	18	48	0,63
13-8	F35133	5,30	10000	120	69	60	60	51	24	66	1,90
16-8	F35143	8,00	16000	127	66	68	65	61	28	72	2,67
22-8	F35163	15,00	–	178	98	96	109	80	39	120	8,09
32-8	F35183	31,50	–	292	174	145	165	118	56	180	27,30
40-8	F35193	50,00	–	371	228	186	210	145	72	230	60,00

*E- and F-Dimensions vertical to the welding level.



Lifting Point with Spring TWN 0124

This lifting point is easily and quickly welded to any steel construction. The weld-on bracket is already prepared at delivery to accommodate the required weld joint. An inserted spring holds the D-link in the desired position. The resulting noise reduction makes this lifting point particularly suited for utilisation as a load securing lashing point.
It also simplifies attachment to the pre-aligned lifting point.
This lifting point is certified by DGUV.

Finish: RAL 3003.

traceparts 3D/CAD

Trade Size	Article-No.	Working Load Limit [t max.]	Lashing Capacity (LC) [daN max.]	Dimensions [mm] E*	F*	C	L	H	D	B	Weight app. [kgs]
6-8	F35107	1,12	2200	56	30	32	32	28	12	36	0,25
8-8	F35110	2,00	4000	67	37	38	38	33	14	42	0,43
10-8	F35124	3,15	6300	81	45	45	44	38	18	48	0,72
13-8	F35139	5,30	10000	117	69	60	60	54	24	66	1,90
16-8	F35144	8,00	16000	122	67	68	65	61	28	72	2,80

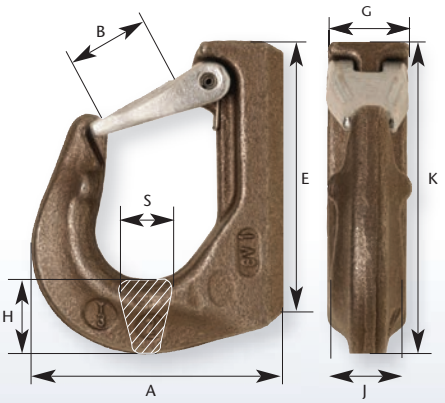
*E- and F-Dimensions vertical to the welding level.

Lifting Points, Weld-on Type

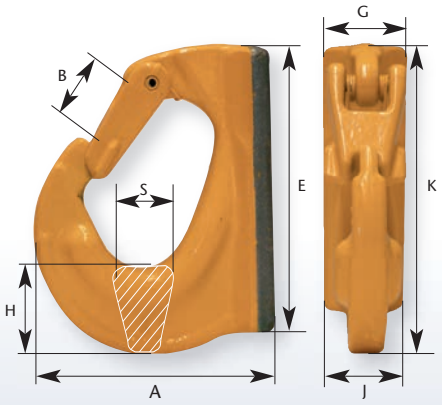
Excavator Hook TWN 0850/2

Uniting stability, functionality and safety.

The TWN 0850/2 weld-on hook is a component that is relevant for safety and is primarily welded onto earth-moving machinery extension arms, trusses or excavation buckets in applications involving the lifting and moving of loads. The hook and the safety latch both feature forged construction, ensuring robust, reliable, risk-free handling. Our TWN 0850/2 weld-on hook can bear loads of up to 10 tonnes and is delivered with all the necessary documentation.



Finish: Self colored.
Pic.: Type GH2.



Finish: Yellow.
Pic.: Type for Trade Size from GH3.

Trade Size	Article-No. yellow	Article-No. self-coloured	Working Load Limit [t max.]	Dimensions [mm] B	E	F	G	H	J	K	S	Weight app. [kgs]
GH1	F32770	F32751*	1,12	25	78	77	26	28	24	108	19	0,52
GH2	F32771	F32752*	2,00	33	85	97	34	28	30	114	20	0,70
GH3	F32772	–	3,00	33	64	105	34	32	36	129	26	1,15
GH5	F32773	–	5,00	43	150	133	44	46	44	167	28	2,36
GH8	F32774	–	8,00	43	148	135	51	53	52	173	42	3,32
GH10	F32775	–	10,00	60	197	168	67	61	54	225	47	6,44

*W.L.L. values as per standard EN 1677-1. Test requirements according to test principle of excavator hooks for earthmoving equipments at lifting application (GS-MO 15-03) of the safety association.

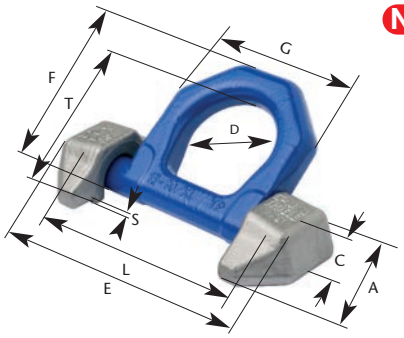
The component must approve a strength introduction at the chosen place! Welding works are to be carried out in accordance with the delivered welding instructions! Please consider manuals on our website www.THIELE.de.

Spare Parts TWN 0913

for Weld-On Hook TWN 0850/2

Trade Size	Article-No.	Packaging Unit	Weight app. [kgs]	TWN 0913
GH 1, 2, 3	Z04496	1 set	0,06	
GH 5, 8	Z10614	1 set	0,20	
GH 10	Z05842	1 set	0,44	

Lifting Points, Weld-on Type



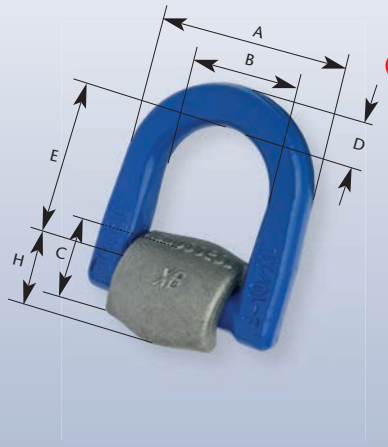
New Lifting Point with two Welding Brackets TWN 1872

The lifting points according to this TWN-works standard are designed for safe lifting, moving and securing of loads. The working load limits, production- and proof-requirements are based on the DIN EN 1677, part 1 and 4, taking a 25% higher working load limit into consideration.
The products comply with the EU-machine directive 2006/42/EG and have a CE-marking and traceability code.
The rings are marked with the working load limit (in t).
The safety factor is 1:4 related to the working load limit.

Finish: RAL 5002.

traceparts 3D/CAD

Trade Size	Article-No.	Article-No. (Ring only)	Working Load Limit [t max.]	Dimensions [mm] A	C	D	E	F	G	L	T	S	Weight app. [kgs]
10-10	F352005	F352006	4,0	65	28	48	134	74	74	105	70	2	0,79
13-10	F352015	F352016	6,7	80	37	60	170	93	100	135	85	2	1,7



New Lifting Point „Compact“ with Spring TWN 1882

A perfect interplay of compactness and easy handling. The spring holds the D-link in its desired position. The small dimension, particularly the installation height of the TWN 1882 were the focus during the development process. A high working load limit and compact design makes our lifting point particularly remarkable.
The lifting point rotates 180° and is especially suitable for installation in skips.

Finish: RAL 5002.

traceparts 3D/CAD

Trade Size	Article-No.	Working Load Limit [t max.]	Dimensions [mm] D	B	A	E*	H	C	Weight app. [kgs]
6-10	F352041	1,5	14	38	65	42	25	49	0,42
8-10	F352051	2,5	15	45	76	45	27	50	0,57
10-10	F352061	4,0	17	50	85	57	31	55	1,66
13-10	F352071	6,7	23	68	116	79	44	77	2,20
16-10	F352081	10,0	27	69	130	72	54	92	3,35

*Upright standing ring.

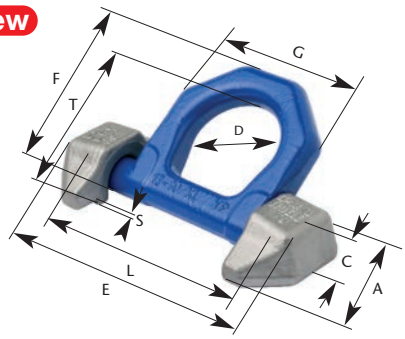
Lashing Points, Weld-on Type

Lashing Point with two Welding Brackets TWN 1473

New

The lashing points according to this TWN works standard are designed for load securing of goods. They comply with the requirements of the DIN EN 12640. The production- and proof-requirements are based on the DIN EN 1677, part 1 and 4, taking a 25% higher lashing capacity into consideration.
The rings are marked with the lashing capacity (in LC) and show a tracability code.
The safety factor is 1:2 related to the lashing capacity.

Finish: RAL 5002.



traceparts 3D/CAD

Lashing Capacity (LC) [daN]	Article-No.	Article-No. (Ring only)	Lashing Capacity (LC) [daN max.]	Dimensions [mm] A	C	D	E	F	G	L	T	S	Weight app. [kgs]
10-10	F352001	F352002	8.000	65	28	48	134	74	74	105	70	2	0,79
13-10	F352011	F352012	13.500	80	37	60	170	93	100	135	85	2	1,7

Lashing Point „Compact“ with Spring TWN 1880

New

A perfect interplay of compactness and easy handling. The spring holds the D-link in its desired position. The small dimension of the TWN 1880 were the focus during the development process. A high lashing capacity and compact design makes our lashing point particularly remarkable.
The lashing point rotates 180° and is especially suitable for installation in skips.

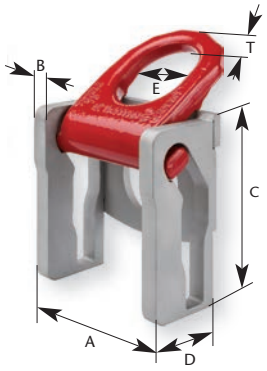
Finish: RAL 5002.

traceparts 3D/CAD

Trade Size	Article-No.	Lashing Capacity (LC) [daN max.]	Dimensions [mm] D	B	A	E*	H	C	Weight app. [kgs]
6-10	F35204	3.000	14	38	65	42	25	49	0,42
8-10	F35205	5.000	15	45	76	45	27	50	0,57
10-10	F35206	8.000	17	50	85	57	31	55	1,66
13-10	F35207	13.500	23	68	116	79	44	77	2,20
16-10	F35208	20.000	27	69	130	72	54	92	3,35

*Upright standing ring.

Lashing Points



ZK-Module TWN 1471

The newly developed ZK-Module from THIELE is a lashing ring with cassette that can easily be adapted and attached to the side frames of trailers. These lashing rings are made of the same steel which is used in the manufacture of lashing chains.
The THIELE ZK-Module is approved by the German TÜV-inspection board and complies with the European standard DIN EN 12640.

It offers 100% lashing capacity and is capable of withstanding strain in all directions. The lashing point has a swivel range of 150°, enabling the secure lashing of low-load goods as well as goods that need protection beyond the load platform. Further on, the lashing ring is completely retractable, preventing accidents from happening when walking on the cargo area.

A new designed an patented slotted shape of the cassette enables a mechanical positioning of the lashing ring in pulling direction. Therefore the handling of lashing is considerably simplified for the operator.

Finish lashing ring: RAL 3003.
Legal protection of registered design: DE 20 2015 100 750.

Trade Size	Article-No.	Execution*	Lashing Capacity (LC) [daN max.]	Dimensions [mm] A	B	C	D	E	T	Weight app. [kgs]
5	F352390	N	5.000	107	12	119	61	52	14	2,60
5 New	F352395	S	5.000	107	12	119	61	52	14	2,60
10	F352380	N	10.000	137	15	144	73	62	18	3,60
10 New	F352385	S	10.000	137	15	144	73	62	18	3,60

*The plates of the lashing cassette in the execution „N“ (=Normal) are produced in micro-alloyed steel. The execution „S“ (=Special) are produced from special steel and may be hot dip galvanized (up to 500°C), together with the vehicle frame.

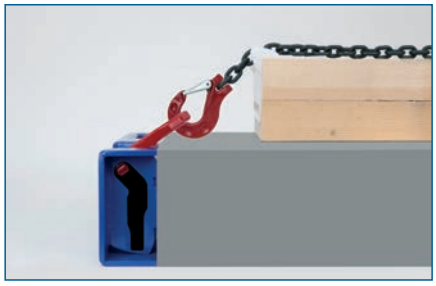
The standard DIN EN 12640 specifies the minimum testing requirements for lashing points on road trucks and trailers with flat-bed bodies and a permissible total weight of more than 3,5 t that are meant for mixed cargo transportation. Lashing points are devices to which lashing devices may be directly fastened. A lashing point can be, for example, an oval link, hook, lug or lashing rail. This type of lashing points in practice are very often leading to problems.

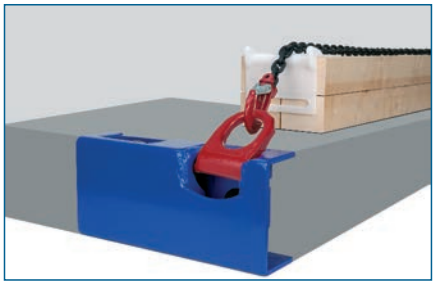
A non-appropiate dimensioning and use of non-suitable lashing points, as well as the damage of the lashing point and frame of the vehicle, shows a high potential danger for traffic.
During application oval links are often exposed to unforeseen torque which may cause a damage to the body-work of the vehicle (see picture). Very often requested inclination angles are not properly considered. Further if not in use oval links can cause unnecessary noise exposure in traffic. The new developed THIELE ZK-Module (lashing ring with cassette) may be easily fitted and adopted at the side frame of the trailer.

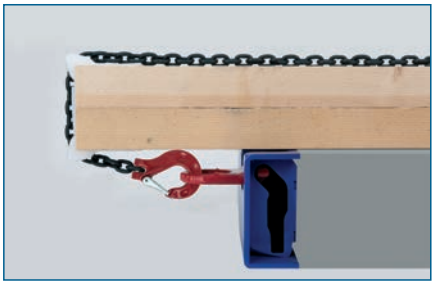
Lashing Ring

The lashing ring is marked with permissible lashing capacity (LC), manufacturer name (THIELE) and DIN EN standard number (DIN EN 12640), so that official agencies are able to check its correct installation. The ZK-Module made by THIELE provides highest safety for load securing and in the heavy-duty road traffic.

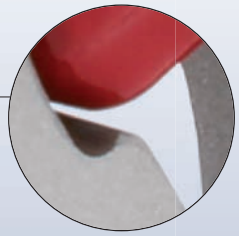
ZK-Module TWN 1471







New
Now available with mechanical positioning nose.



Operating Manual Lifting Points, Screwed Type TWN 0121, TWN 0122, TWN 0123, TWN 0127, TWN 1120, TWN 1830, TWN 1890

1 Description and Intended Use

THIELE lifting points screw-type are intended for attachment to steel, aluminum or non-ferrous metal structures and components.

Sling chains according to EN 818-4 or lashing chains according to EN 12195 may be used.

These Operating Instructions show the safety use of THIELE lifting points of the following executions:

- TWN 0121/1 Lifting points, rotabable, with slide bearing
- TWN 0122 Lifting points
- TWN 0123 Lifting points
- TWN 0127 Lifting points MDB
- TWN 1120 TITAN Lifting points, rotabable, with slide bearing
- TWN 1830 X-TREME Lifting points, rotabable, with ball bearing
- TWN 1890 Lifting points XS-Point, rotabable

(TWN = THIELE workshop standard)

THIELE lifting points meet EG Machinery Directive 2006/42/EG requirements and feature a safety factor of at least 4 based on WLL.

THIELE lifting points are signed with the CE symbol. They are also signed with the Working Load Limit (WLL) in tons or the chain size, manufacturers mark (stamp 'H4') and identification number.

THIELE lifting points 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, magnetic spreaders) the WLL must be reduced.

Lifting points must exclusively be used

- within the limits of their permissible working load limit,
- within the temperature limits prescribed,
- with suitable screws (see screw data) and fitted directly to the component.

The Working Load Limit of different modes of assembly can be seen in the load table.

THIELE lifting points are normally not intended for the transportation of persons.

Turning and rotating loads

- TWN 0121/1 Turning allowed, rotating not allowed.
- TWN 0122 Turning allowed, rotating not allowed.
- TWN 0123 No turning and/or rotating allowed.
- TWN 0127 Turning allowed, rotating not allowed.
- TWN 1120 Turning allowed, rotating not allowed.
- TWN 1830 Turning and rotating allowed.
- TWN 1890 Turning allowed, rotating not allowed.

This classification relates to occasionally turning or rotating loads.

Continous or long-term turning or rotating is not allowed.

Using the lifting points exclusively for lashing the maximum lashing capacity is calculated by doubling the Working Load Limit.

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 also from the used sling chain assemblies, documentations DGUV V 1, DGUV R 100-500 Chapter 2.8 and DGUV I 209-013 issued by the German Employers' Liability Insurance Association, as well as the Operating Instructions of the loads concerning advise for lifting.
- In the Federal Republic of Germany, the Operational Safety Ordinance (BetrSichV) has to be implemented and the Technical Rule for Industrial Safety 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 items 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.

- **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).
- **Operators must carry out a visual inspection and, if necessary, a functional test of the safety equipment before each use.**
- Never put to use worn-out, bent or damaged lifting points.
- Only lift loads the mass of which is less than or equal to the working load limit of the lifting points.
- Do not use force when mounting/positioning the lifting points.
- Only lift loads that are freely movable and not attached or fastened.
- Do not bend the ring or suspension link.
- 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).
- Avoid impacts, e.g. due to abruptly lifting loads with chain in slack condition.
- Never move a suspended load over persons.
- Never cause suspended loads to swing.
- Always monitor a suspended load.
- Put the load only down in places/sites where it can be safely deposited.
- Put the load only down in flat places/sites where it can be safely deposited.
- 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!

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

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 lifting points 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,
- inspection deadlines and the qualified persons for examinations are determined,
- visibility and functional testing are carried out and documented,
- documentations are safely kept in an orderly manner.

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

5 Assembly and Removal

5.1 Preparations

The mounting location for each lifting point has to ensure that

- the load can take the forces safely to be applied without suffering deformation,
- the lifting point can be assembled flush,
- no areas of danger are created (crushing point, shearing point),
- transportation is not restrained by overhang,
- incorrect use is avoided,
- the suspension gear cannot be damaged, for example by sharp edges,
- the lifting point can be used easily.

5.2 Assembly

The useful depth of the thread must enable the lifting points to be safely screwed in. Use only the delivered screws!

Make sure the tapped hole is arranged at right angle to the attachment face on the component. The depth of the thread „L" of the component must at least be as follows:

L = 1 x d for steel
L = 2 x d for aluminum
L = 1,25 x d for castings
L = 2,5 x d in aluminum-magnesium-alloys
(L = depth of thread; d = thread diameter)

- Make sure the threads of the lifting point and in the component are clean and dry.
- For lifting points have to remain on the component a usual fluid safety agent for screws has to be used.
- In case of straight fittings the nut has to be secured against unintentionally loosening.
- TWN 0123, TWN 1120 and TWN 1830:

Use a suitable open-ended spanner or ring spanner to fix the lifting points so as to be finger-tight.

- TWN 0121/1, TWN 0122, TWN 0127 and TWN 1890:

Take care to tighten the screws by the right torque shown in the table. As long as it is ensured there is no load turning for a singular use and the lifting point cannot be loosened a hand tightening of the lifting points by a suitable open-ended spanner or ring spanner is sufficient. **An additional check is necessary in case of a repeated load lowering.**

- TWN 1830:

Take care not to exceed the tightening torque of 40 Nm for screws M10 and M12.

There has to be made a chamfer on the hole for the thread:

Thread M10 and M12:	Chamfer 2,0+0,5 x 45°
Thread M16 and M20:	Chamfer 2,5+0,5 x 45°
Thread M24 and M30:	Chamfer 3,5+0,5 x 45°
Thread M36 and M42:	Chamfer 4,0+0,5 x 45°
Thread M48 and M64:	Chamfer 4,5+0,5 x 45°

6 Conditions of Use

6.1 Normal Use

The top part of the lifting point including attachment link must always be freely movable.
It must not rest on or be supported by other structural parts.
When attaching the components make sure the position of the lifting point always enables forces to be exerted in longitudinal direction of the suspension link.
Make sure only the top parts of the lifting points turns into loading direction and not the firmly secured stationary portion.
Using 4-leg chain link assemblies may cause higher risk because only 2 opposite legs carrying the load.
Check the Working Load Limit of lifting point and chain link assembly carefully and chose if necessary bigger sizes.
The force must be applied lengthwise to the suspension link.

TWN 1830:

The lifting point must not be used for a permanent or prolonged turning of the load.

TWN 1890:

6.2 Influence of Temperature

The permissible Working Load Limit of the lifting points reduces at elevated temperatures.
The reduced Working Load Limit figures shown in the following tables shall only apply for short-term use at the temperatures indicated.
If the lifting points have been exposed to temperatures exceeding the maximum values specified they must no longer be used.

TWN 0121/1, TWN 0122, TWN 0127, TWN 1120, TWN 1890:

Temperature range	Remaining Working Load Limit
-20 °C ≤ t ≤ 100 °C	100 %
100 °C < t ≤ 200 °C	85 %
200 °C < t ≤ 250 °C	80 %
250 °C < t ≤ 300 °C	75 %

TWN 0123, TWN 1830:

Temperature range	Remaining Working Load Limit
-30 °C ≤ t≤ 200 °C	100 %
200 °C < t ≤ 300 °C	90 %
300 °C < t ≤ 400 °C	75 %

TWN 1830:
Take care for a loss of lubricant depending on several fitting positions and higher temperatures. A higher wear may occur.
Shorten the inspection intervall for that case.

6.3 Environmental Influence

Lifting points 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.

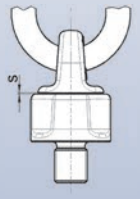
7 Inspections, Maintenance, Disposal

Inspections and maintenance must be arranged for by the Owner!
Inspection deadlines 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 the lifting points 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 when the lifting point is firstly used. The register will show characteristic data of the lifting points and other components as well as identity details.
Immediately stop using lifting points that show the following defects:

- missing or illegible identification/marking,
- deformation, elongation or fractures,
- cuts, notches, cracks, incipient cracks, pinching,
- no freely rotating or turning possible,
- heating beyond permissible limits,
- severe corrosion,
- wear exceeding 10 %, for example in the suspension link diameter area,
- defect screws,
- TWN 1830: gap size „s“ exceeds figures in table below.

Max. gap size „s“ for TWN 1830:

Thread	s [mm]
M10 – M20	1,5
M24	2,0
M30	2,5
M36	3,0
M42 – M64	3,5



Inspection Service
THIELE offers inspection, maintenance and repair services for lifting points performed by trained and competent personnel.

Maintenance
Maintenance and repair work must only be performed by competent persons.
Minor notches and cracks at suspension links 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.

8 Spare parts

Only use original THIELE-spare parts. Exclusively use original THIELE screws and bolts because these are made to meet special requirements.

Screws	WLL	Article-no.	Screw datas
TWN 0127	3,15	Z07742	M20 x 50 ISO 4017 10.9
	5,3	Z09017	M24 x 50 ISO 4017 10.9
TWN 1890	0,63	Z10836	M10 x 45 ISO 4017 12.9
	1,0	Z10795	M12 x 50 ISO 4017 12.9
	1,7	Z09544	M16 x 70 ISO 4017 10.9
	2,5	Z08692	M20 x 80 ISO 4017 10.9
	4,0	Z09809	M24 x 90 ISO 4017 12.9
	6,0	Z07810	M30 x 100 ISO 4017 12.9
	8,0	Z07828	M36 x 120 ISO 4017 12.9
	10	Z10136	M42 x 140 ISO 4017 10.9

9 Use of different fasteners

If local circumstances dictate that different screws and bolts have to be used from those supplied with the installation, or listed in Section 8, the operator must ensure that

- these fasteners conform to the specified diameter and strength class,
- they can achieve the minimum required screw-in depth,
- they are 100% crack tested,
- each bolt has a proven notch impact energy of min. 36 J as a mean value of three samples tested at -20 °C or at the lowest fitting temperature, if this is below -20 °C, and that none of the samples falls below 25 J,
- written confirmation of the crack test and impact energy results is enclosed with the technical documentation.

10 Storage

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

11 THIELE Operating and Mounting Instructions

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

12 Publishing Information

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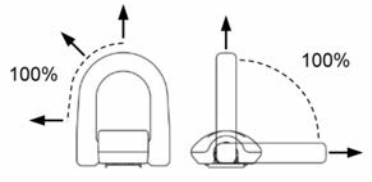
Operating Manual Lifting Points, Weld-on Type TWN 0119, TWN 0124 with Spring, TWN 1880

1 Description and Intended Use

THIELE Lifting Points weld-type are intended for attachment to steel structures and components.
Sling chains according to EN 818-4 or lashing chains according to EN 12195 may be used.
Weld-type Lifting Points mainly consist of a forged weld-on support and a welded or forged ring.
For Lifting Points of TWN 0124 and TWN 1882 springs are integrated to the weld-on support to provide position stabilization and noise reduction when not in use. (TWN = THIELE standard)



Lifting Points can be loaded
to 100 % in all tensile directions.

THIELE Lifting Points meet EG Machinery Directive 2006/42/EG requirements and feature a safety factor of at least 4 based on Working Load Limit (WLL).THIELE Lifting Points are signed with the CE symbol.

They are also signed with the Working Load Limit in tons or the chain size, manufacturers mark (stamp 'H4') and traceability code #.
THIELE Lifting Points 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.
Lifting Points must exclusively be used

- within the limits of their permissible working load limit,
- for permissible attachment modes and inclination angles,
- within the temperature limits prescribed,
- with properly laid welding seams.

Working Load Limit of different modes of assembly can be seen in the load table.
Using the Lifting Points of TWN 0119 and TWN 0124 exclusively for lashing the maximum Lashing Capacity (LC) is calculated by doubling the Working Load Limit.
An alternating use for lifting and lashing is not allowed.
TWN 1882:
There are identically constructed Lashing Points by TWN 1880 available.

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 also from the used sling chain assemblies, documentations DGUV V 1, DGUV R 100-500 Chapter 2.8 and DGUV I 209-013 issued by the German Employers' Liability Insurance Association, as well as the Operating Instructions of the loads concerning advise for lifting.
- In the Federal Republic of Germany, the Operational Safety Ordinance (BetrSichV) has to be implemented and the Technical Rule for Industrial Safety 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 items 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!**
- **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).
- **Operators must carry out a visual inspection and, if necessary, a functional test of the safety equipment before each use.**
- Never put to use worn-out, bent or damaged Lifting Points.
- Only lift loads the mass of which is less than or equal to the Working Load Limit of the Lifting Points.
- Do not use force when mounting/positioning the Lifting Points.
- Only lift loads that are freely movable and not attached or fastened.
- Do not bend the ring.
- 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).
- Avoid impacts, e.g. due to abruptly lifting loads with chain in slack condition.
- Never move a suspended load over persons.
- Never cause suspended loads to swing.
- Always monitor a suspended load.
- Put the load only down in places/sites where it can be safely deposited.
- 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!
As regards quality grade 10/XL THIELE does not give its general approval to the assembly of components stemming from different manufacturers!
As a rule, shortening claws are not permitted for the transportation of persons.
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 Lifting Points 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,
- inspection deadlines and the qualified persons for examinations are determined,
- visibility and functional testing are carried out and documented,
- the documentation is safely kept in an orderly manner.

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

5 Assembly and Removal

5.1 Preparations

The mounting location for each Lifting Point has to ensure that

- the load can take the forces including test loads safely to be applied without suffering deformation,
- no areas of danger are created (crushing point, shearing point),
- transportation is not restrained by overhang,
- lifting accessories will not be bypassed,
- incorrect use is avoided,
- the suspension gear cannot be damaged, for example by sharp edges,
- the Lifting Point can be used easily.

Make sure the welding surfaces are grinded down, flat, dry, free of impurity, flawless and weldable (material see ISO/TR 15608 table 1, group 1). Make sure the weld area at the component is able to absorb the input force without safety reducing deformation.

Make sure the weld seam area at the component is large enough for the Lifting Points to be safely attached by welding.

5.2 Welding Instructions

Welding Instructions relating to weld-on supports (S355NL or similar) to be attached to C22, S235, S355 or similar components.

The following general Welding Instructions shall be duly followed:

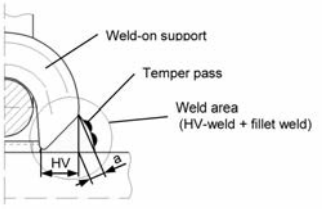
Personell, Quality	DIN EN ISO 3834
	DIN EN ISO 14731
	DIN EN ISO 9606
Welding process	DIN EN 1011
	DIN EN 1090
	DIN EN 15085
Further	DIN 15018
	ISO/TR 15608
	SEW 088

Do not weld on the movable rings!

Take care not to widen the gap for the root run during tack-welding.
Take care for an accurate cleaning of the root run.
Take care to avoid end crater.
Continue the welding within one heat.

Sketch:

Miscellaneous:



1. Minimum notched-bar impact strength values of ISO-V specimens KV=27J at -40 °C (e.g. S355J4G3 or S355NL, EN10025)
2. When selecting material grades other than those listed above please contact the base material and filler metal manufacturers for information.
3. The responsible welding supervisor must make sure the welding current is correctly adjusted to suit the given welding position.

6 Conditions of Use
6.1 Normal Use
The ring of the Lifting Point must always be freely movable.
It must not rest on or be supported by other structural parts.
Using 4-leg chain link assemblies may cause higher risk because only 2 opposite legs carrying the load. Check the Working Load Limit of Lifting Points and chain link assembly carefully and chose if necessary bigger sizes.

6.2 Influence of Temperature
The permissible Working Load Limit of the Lifting Points reduces at elevated temperatures.
The reduced Working Load Limit shown in the following tables shall only apply for short-term use at the temperatures indicated.
If the Lifting Points have been exposed to temperatures exceeding the maximum values specified they must no longer be used.

Type	Temperature range	Remaining Working Load Limit
TWN 0119/		
TWN 0124	-40 °C ≤ 200 °C	100 %
	200 °C ≤ 300 °C	90 %
	300 °C ≤ 400 °C	75 %
TWN 1882	-30 °C ≤ 200 °C	100 %
	200 °C ≤ 300 °C	90 %
	300 °C ≤ 380 °C	60 %

6.3 Environmental Influence
Lifting points 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 Inspections, Maintenance, Disposal
Inspections and maintenance must be arranged for by the Owner!
Inspection deadlines 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 the Lifting Points 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 as well as identity details.
Immediately stop using Lifting Points that show the following defects:
- missing or illegible identification/marking,
- deformation, elongation or fractures,
- cuts, notches, cracks, incipient cracks, pinching,
- heating beyond permissible limits,
- severe corrosion,
- wear exceeding 10 %, for example in the ring diameter area,
- weld failures.

Inspection Service
THIELE offers inspection, maintenance and repair services 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.

8 Storage
Lifting Points are stored in dry locations at temperatures ranging between 0 °C and +40 °C.

9 THIELE Operating and Mounting Instructions
Current operating and installation instructions are available as a PDF download on the homepage.

10 Publishing Information
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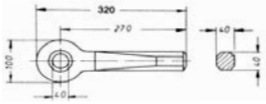
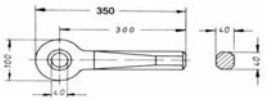
Hitches

Article-No.	Type	Bush [mm]	Bore [mm]	Weight app. [kgs]	TWN 0301
F27100	C	–	40	3,7	
F27101	A	40	48	3,7	
					
					Hitches acc. to DIN 74054 Part 1and Part 2

Article-No.	Type	Bush [mm]	Bore [mm]	Weight app. [kgs]	TWN 0302
F27110	C	–	40	4,0	
F27111	A	40	48	4,0	
					
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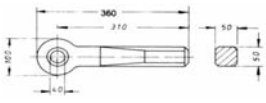
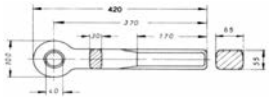
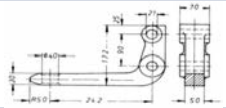
Article-No.	Type	Bush [mm]	Bore [mm]	Weight app. [kgs]	TWN 0304
F27130	C	–	40	5,1	
F27131	A	40	48	5,1	
					
					Hitches acc. to DIN 74054 Part 1and Part 2

Hitches

Article-No.	Type	Bush [mm]	Bore [mm]	Weight app. [kgs]	TWN 0308
F27180	C	–	40	8,5	
F27181	A	40	48	8,5	
F27182	D	–	48	8,5	
					
					Hitches acc. to DIN 74054 Part 1and Part 2

Article-No.	Type	Bush [mm]	Bore [mm]	Weight app. [kgs]	TWN 0321
F27300	C	–	40	7,3	
F27301	A	40	48	7,3	
					
					Hitches acc. to DIN 74054 Part 1and Part 2

Article-No.	Type	Bush [mm]	Bore [mm]	Weight app. [kgs]	TWN 0323
F27320	C	–	40	6,4	
F27321	A	40	48	6,4	
					Hitches acc. to DIN 74054 Part 1and Part 2