

Operating instructions for attachment swivels "THEIPA" - Point (TP), "THEIPA"-Point-S (TP-S), "THEIPA"-Point-F (TP-F)

General principles regarding the utilisation of lifting accessories and their components:

The operating instructions are to be stored together with the certificate and the EC declaration of conformity.

The falling of loads, caused by the failure and / or incorrect utilisation and handling of lifting equipment or its individual parts constitutes a direct risk to the life or health of the people who are present in the danger zone of lifting processes.

These operating instructions contain information with regard to the safe utilisation and handling of the lifting accessories and their components. Before using the lifting equipment, the assigned persons are to be briefed with regard to handling and utilisation by a qualified person.

The following principles apply:

- The Working Load Limit (WLL) (see label) of the lifting equipment must correspond to the load. The lifting equipment may not be used if the label is missing or is illegible.
- No danger areas (e.g. crushing points, cutting points, trapping or impact points) may occur that may hinder or endanger the person carrying out the slinging process and / or the transport.
- The base material and the constructive design of the load must be able to hold the applied forces without deformation.
- Stress that leads to a non-uniform load distribution, e.g. which is caused as a result of an off-centre introduction of force must be taken into account when selecting the lifting accessories and their components.
- In the event that extreme stress or strong dynamic strain (shock influences) may occur, this must be taken into account when selecting the lifting equipment and the Working Load Limit (WLL).
- The lifting equipment may not be used for the transportation of persons. No persons are ever permitted to remain present in the danger area of a suspended load.
- The lifting equipment may not come into contact with acids and other aggressive agents. Attention must also be paid to the fact that acid fumes may occur in certain production processes.
- Never make unauthorised amendments to the lifting equipment (e.g. grinding, welding, bending, and attachment of parts)!
- The lifting equipment may not be exposed to any forbidden manipulation of temperature.
- Only original spare parts may be used.
- The relevant additional regulations must be observed when transporting hazardous substances.
- Lifting accessories and their components must be stored in such a manner that they are protected against being damaged and do not cause any danger.
- If damaged, the lifting equipment must be immediately taken out of circulation and has to undergo maintenance work.
- When ready to be discarded, lifting equipment is to be correctly disposed of. Attention: Any substances present that are hazardous to the environment (e.g. greases and oils) are to be disposed of separately.

Inspection and maintenance:

On a regular basis before being used, lifting equipment is to be closely inspected with regard to correct utilisation and faultless condition (e.g. screw fit, absence of strong corrosion and deformation, etc.), for example by the person carrying out the slinging process. Defective lifting equipment may not be used. It has to be tested at least once a year by a qualified person whilst taking the relevant standards and trade association regulations (e.g. DGUV Regel 109-017) into account. JDT recommends a test that the lifting equipment is free of cracks every three years. The test should be done by a qualified person using a proper testing device. The user must observe the results of the risk assessment in accordance with the occupational safety directives. The re-testing period is shortened in the event that the products are exposed to critical operating conditions. Inspection records are to be kept.

The testing coefficient (EC-Machinery Directive 2006/42/EC point 4.4.1) is defined according to the respective standards and corresponds to 2.5.

Attention: In the event of violation, the operating permission will become void.

Wear measurement concerning withdrawal from service:

Grade 10 THEIPA Point

A gap becomes visible, max. the thickness of the WLL table
 0.5 mm

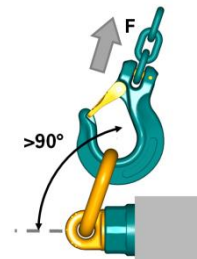


Fig. 1

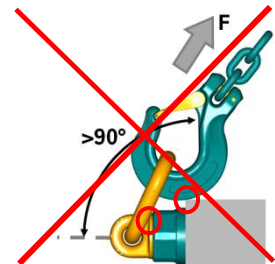


Fig. 2

Utilisation

The quantity and arrangement of the attachment points on the load must be selected so that the load can be carried safely and that it cannot unexpectedly change its position during transport. The chain link of the attachment swivel must be correctly adjusted in the direction of force and it must be freely movable. The use of the swivel in the direction of force application $> 90^\circ$ (see Fig. 1) is allowed under the condition that the swivel link and the attached lifting equipment are not supported neither at the load nor on the swivel parts itself (Fig. 2). The Working Load Limit when using at $> 90^\circ$ is equal to the Working Load Limit at 90° (see Table 1) providing that symmetrical load distribution is present.

Theipa Points are not suitable for permanent turning operations under load. By the use in turning operations at 90° and full load the excessive wear and accelerated failure must be considered.



General assembly instructions

The lifting swivels must be easily recognisable on the load (e.g. by means of colour marking). The attachment swivels are to be positioned on the load in such a manner that a flat bearing surface is large enough to carry the applied forces. At the very least, this bearing surface must correspond to the complete diameter (b) of the used attachment swivel body (respectively larger when dealing with the weldable attachment swivels). The thread hole must be perpendicular to the bearing surface. The thread hole must be countersunk.

The following applies in principle for **attachment swivels to bolt-on**:

Inspect visually the screw connection paying particular attention to screw size, thread size and screw-in length. Special threads (not listed in catalog) are additionally labelled with a thread marking on the rear side of the swivel body. When dealing with blind holes, the thread depth on the load must be at least 1.1 times of the screw-in length (e). We recommend the following as the minimum screw-in lengths (e):

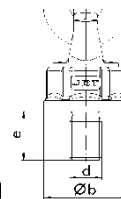
in steel	1	x d	
in cast iron	1.25	x d,	in cast iron with strengths < 200 MPa min. 1.5 x d
in aluminium	2,5	x d	
in aluminium-magnesium alloys	2	x d	

(whereby d = thread size, e.g. when M 24 d = 24 mm)

For TP-F, **crack-tested** screws of **strength class 10.9** are to be used.

In the event that TPs are secured with screw nuts, these nuts must correspond to strength class 10 and be crack-tested.

Tighten by hand with a spanner until flush with the bearing surface, e.g. open-ended wrench according to DIN 895 / DIN 894, in the event of a one-off transport procedure. Should the attachment swivel remain in the load on a permanent basis or should it be used to rotate and turn loads, the tightening is to be carried out with a tightening torque in accordance with the following Table 1:






Using an open-ended wrench, all Theipa Points (TP, TP-F) must at least be hand-tight !



When dealing with weldable sling points (TP-S), the separate welding information's are to be observed.


Working load limit and temperature use

The attachment swivels are labeled with the respective working load limit and are listed below in the technical data sheet to the respective nominal size in tabular and graphic form. These working load limits may not be exceeded. **In case of an asymmetrical load distribution, the working load limit applicable to the 2- to 4- leg sling types is the same as for 1-leg sling type with an inclination angle of 90°. This corresponds to the working load limit marking on the attachment point.**

Table 1

Kind of attachment	Number of pieces		Inclination angle		WLL		WLL		WLL		WLL	
	0°	90°	0°	90°	[t]	[t]	[t]	[t]	[t]	[t]	[t]	[t]
	TP 0.7	M 10	40	1	0.5	2	1	0.7	0.5	1	0.75	
		M 12	40	1.4	0.7	2.8	1.4	1	0.7	1.4	1	
	M 14	40	2	1	4	2	1.4	1	2.12	1.5		
	TP 1.4	M 16	130	2.8	1.4	5.6	2.8	2	1.4	3	2.12	
		M 20	130	3.4	1.7	6.8	3.4	2.4	1.7	3.55	2.5	
		M 24	130	3.4	1.7	6.8	3.4	2.4	1.7	3.55	2.5	
		M 20	170	5	2.5	10	5	3.55	2.5	5.3	3.75	
	TP 4	M 24 / M 30	280	8	4	16	8	5.6	4	8.5	6	
	TP 6.7	M 30	400	12	6.7	24	13.4	9.5	6.7	14	10	
	TP 8	M 30	600	12	8	24	16	11.2	8	16	12	
	TP 10	M 36	600	15	10	30	20	14	10	21.2	15	
	TP 12.5	M 42	700	15	12.5	30	25	17	12.5	25	18	
	TP 12.5	M 45 / M 48	700	15	12.5	30	25	17	12.5	25	18	
	TP 17	M 42	800	20	13	40	26	18	13	27	19	
	TP 17	M 45	800	25	17	50	34	23.5	17	35	25	
	TP 17	M 48	800	25	17	50	34	23.5	17	35	25	
	TP 17	M 56	900	25	18	50	36	25	18	37.5	26.5	
	TP 20	M 64	900	25	20	50	40	28	20	42.5	30	
	TP 28	M 64	1000	32.5	28	65	56	39	28	58	42	
	TP 28	M 72 / M 80	1200	32.5	28	65	56	39	28	58	42	
	TP 35	M 80	1400	40	35	80	70	49	35	74	52.5	
	TP 35	M 90	1500	40	35	80	70	49	35	74	52.5	
	TP 40	M72/M80/M90	1500	50	40	100	80	56	40	84	60	
TP 40	M 100	1700	50	40	100	80	56	40	84	60		

Kind of attachment	Number of pieces		Inclination angle		WLL		WLL		WLL		WLL	
	0°	90°	0°	90°	[t]	[t]	[t]	[t]	[t]	[t]	[t]	[t]
	TP-F 0.5	M 12x15	40	1.4	0.5	2.8	1	0.7	0.5	1	0.75	
	TP-F 1	M 16x20	130	2.8	1	5.6	2	1.4	1	2.12	1.5	
	TP-F 1.7	M 20x25	170	5	1.7	10	3.4	2.4	1.7	3.55	2.5	
	TP-F 2.1	M 24x30	280	8	2.1	16	4	2.8	2.1	4.25	3.15	
	TP-F 3.2	M 30x40	400	12	3.2	24	6.4	4.25	3.15	6.7	4.75	
	TP-F 5	M 36x45	600	15	5	30	10	6.7	5	10	7.5	

Kind of attachment	Number of pieces		Inclination angle		WLL		WLL		WLL		WLL	
	0°	90°	0°	90°	[t]	[t]	[t]	[t]	[t]	[t]	[t]	[t]
	TP-S 2.5		5	2.5	10	5	3.55	2.5	5.3	3.75		
	TP-S 4		8	4	16	8	5.6	4	8.5	6		
	TP-S 6.7		12	6.7	24	13.4	9.5	6.7	14	10		
	TP-S 10		15	10	30	20	14	10	21.2	15		
	TP-S 17		25	17	50	34	23.5	17	35	25		
	TP-S 28		32.5	28	65	56	39	28	58	42		

After use by the temperatures above 200°C, the working load limit must be **permanently** reduced for further usage according to the following table 2. An accelerated wear in the ball bearings is also possible in this case and must be monitored by the user.

Table 2

Working temperature in °C	WLL* in %	* The working temperature of the TP-F can be further restricted as a result of the used screw, the screw supplier must be questioned with regard to this matter. In the event that the TP is secured by a screw nut, the working temperatures can also be further restricted.
minus 40°C - plus 200°C	100	
plus 200°C - plus 300°C	90	
plus 300°C - plus 400°C	75	
above 400°C	not allowed	



Translation of the original operating instruction.
 In case of doubts or misunderstanding, the German version of the document is decisive.



Conformity Declaration



EG-Konformitätserklärung der Fa. JDT

EG-Konformitätserklärung
 EC Conformity Declaration
 Déclaration de conformité CE
 EG-Konformitätsverklärung
 Declaración de conformidad CEE
 Dichiarazione di conformità CE
 EY-yhdenmukaisuustodistus
 EF-Överensstemmelseerkl ring
 EG-Konformit tsf rkl ring
 Deklaracja zgodno ci WE

Im Sinne der EG Richtlinie Maschinen 2006/42 EG und weiter erg nzender Richtlinien.
 As defined by the EC Guideline Machines 2006/42 EC and other complementary guidelines.
 Dans le sens des directives CE Machines 2006/42 CE et des directives compl mentaires.
 Overeenkomstig de EG-richtlijn Machines 2006/42 EG en verdere aanvullende richtlijnen.
 Conforme a la Directiva CE de M quinas 2006/42 CE y otras Directivas suplementarias.
 Ai sensi della direttiva CE sulle macchine 2006/42 CE e altre direttive integrative.
 Koneista annetun EY-direktiivin 2006/42 EY ja muiden lis direktiivien tarkoittamassa mieless .
 I  verensst mmelse med EF-retningslinje maskiner 2006/42 EF og videre supplerende retningslinier.
 I enlighet med EG : s Maskindirektiv 2006/42 EG samt vidare kompletterande direktiv.
 W rozumieniu dyrektywy maszynowej WE 2006/42/WE oraz uzupealnijacych dyrektyw.

Der Unterzeichnende, bevollm chtigt von der/The undersigned, empowered by/Le soussign , mandataire de/De ondergetekende, gemachtigde van de firma/
 El suscrito, autorizado por la/il sottoscritto, delegato dalla/Alekkirjoittanut, yhti n/Den undertegnede, befudm gtiget af/f rklarar undertecknad, bemyndigad av
 Nizej podpisany, upowa niony przez

J.D. Theile GmbH & Co. KG, Postfach 18 29, D-58213 Schwerte

erkl rt, dass das (die) umseitig bezeichnete(n) Anschlagmittel in der von uns in Verkehr gebrachten Ausf hrung bei bestimmungsgem  er Benutzung mit den grundlegenden Sicherheits- und Gesundheitsanforderungen  bereinstimmen.

declares that sling gear, listed overleaf, conform in its marketed design with the requisite basic safety and health requirement, provided they are used in accordance with their intended purpose.

d clare que le mat riel de levage d crit au verso et employ  conform ment aux prescriptions, dans l'ex cution mise en circulation par nos soins, est conforme aux exigences fondamentales de s curit  et de sant .

verklaart dat de op de achterzijde aangegeven aanslagmiddelen in de door ons in het verkeer gebrachte uitvoering bij doelmatig gebruik met de principieel eisen omtrent veiligheid en gezondheid  overeenstemmen.

declara que el/(os) dispositivo(s) de suspensi n mencionado(s) al dorso en la forma lanzada al mercado concuerdan con los requerimientos b sicos impuestos a la seguridad y a la salud bajo la condici n de una aplicaci n de acuerdo con los fines previstos.

dichiara che il/(i) dispositivo(i) di arresto definito(i) a tergo, nel modello da noi distribuito, se usato(i) nel modo dovuto risponde (rispondono) ai requisiti basilari di sicurezza e sanitari.

valtuuttamana vakuuttaa, ett  k  nt puolella mainittu/tut kiinnitysv line/et myyntiin tuomassamme muodossa ja silt /niilt  asianmukaisesti k ytetty/n  ovat perustavanlaatuisen turvallisuus- ja terveysvaatimusten kanssa yhdenmukaisia.

erkl rer, at det (de) omst ndende anslagsmiddel (-midler) i den udf relse, som vi har givet den ud, ved bestemmelsens benyttelse stemmer  verens med de grundl ggende sikkerheds- og sundhedskrav.

att det (de) p  omst ndende s da uppf rda anslagmedlet (-medlen) i det av oss s lda utf randet vid  ndam nsenig anv ndning  verensst mmer med de grundl ggande kraven betr ffande s kerhet och h lsa.

o wiadcza,  e wymienione na odwrocie  rodki mocowania w wersji wprowadzonej przez nas na rynek s  zgodne z zasadniczymi wymogami dotycz cymi bezpiecze stwa i ochrony zdrowia w przypadku zastosowania zgodnego z przeznaczeniem.

EG-Richtlinien
 EC Guidelines
 Directives CE
 EG-richtlijnen
 Directivas CEE
 Direttive CE
 EY-direktiivit
 EF-retningslinier
 EG-Direktiv
 Dyrektywy EG

EG Richtlinien Maschinen ge ndert durch
 EC Guideline for Machines amended by
 Directives CE Machines modifi e en
 EG-richtlijn machines gewijzigd door
 Directiva CEE "M quinas" modificada por
 Direttive CE sulle macchine cambiate con
 Koneista annetun EY-direktiivin muuttetu direktiivill 
 EF retningslinje maskiner forandret gennem
 EG-s Maskindirektiv  ndrat genom
 Dyrektywy maszynowe EG zmienione w drodze

2006/42 EG

Harmonisierte Normen
 Harmonized standards
 Normes harmonis es
 Overeenkomstige normen
 Normas armonizadas
 Norme armonizate
 Harmonisoidut standardit
 Harmoniserade normer
 Harmoniserade standarder
 Normy zharmonizowane

EN ISO 12100

EN 818-1
 EN 818-2
 EN 818-3
 EN 818-4
 EN 818-5
 EN 818-6
 EN 818-7
 EN 1677-1
 EN 1677-2
 EN 1677-3
 EN 1677-4
 EN 1677-5
 EN 1677-6
 EN 13155
 EN 13889

Angewendete nationale Normen /
 Applied national standards
 Normes nationales appliqu es
 Toegepaste nationale normen
 Normas nacionales aplicadas
 Norme nazionali applicate
 Sovelletut kansalliset standardit
 Brugte nationale normer
 Nationella normer som till mpats
 Stosowane normy krajowe

DIN 685-2 DIN 688-1 DIN 688-1 DIN 695
 DIN 685-3 DIN 688-3 PAS 1081 DIN 32891
 DIN 685-4 DIN 5692
 DIN 685-5

R. Aberspach
 Leitung Qualit tswesens

Dokumentationsverantwortlich: R.Aberspach in Fa. J.D. Theile, Letmather Str. 26-45, D-58239 Schwerte

UKCA Declaration of Conformity

The undersigned, empowered by

J.D. Theile GmbH & Co. KG, Postfach 18 29, D-58213 Schwerte, Germany

declares that sling gear, listed overleaf and marked with UKCA, conform in its marketed design with the requisite basic safety and health requirement, provided they are used in accordance with their intended purpose.

Applicable standards :

UK Guideline Supply of Machinery (Safety) regulation 2008
 BS EN 818-1 - BS EN 818-7
 BS EN 1677-1 - BS EN 1677-6
 BS EN ISO 12100 / BS EN 13155 / BS EN 13889

T. Muchowski
 Managing Director