TRANSLATION OF THE ORIGINAL OPERATING INSTRUCTIONS
JDT - J. D. Theile GmbH & Co. KG, Letmather Str. 26-45, D-58239 Schwerte, Germany
Tel: +49 2304 757 0 Fax: +49 2304 757 177 www.jdt.de

Operating instructions for attachment points (TAPG / TPB / TAPS / TAPSK)

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 100-500) into account. Every three years lifting equipment must be tested by a qualified person using a proper testing device in order to check that the product is free of cracks. 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.

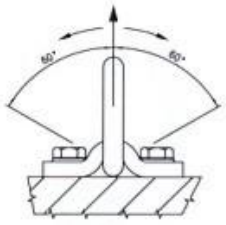
General assembly instructions

The attachment points must be easily recognisable on the load (e.g. by means of coloured marking). The attachment points are to be positioned on the load in such a manner that a flat bearing surface is created that is suitable for lifting the anticipated introduction of force.

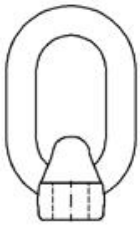
The sling points are to be attached to the load so that:

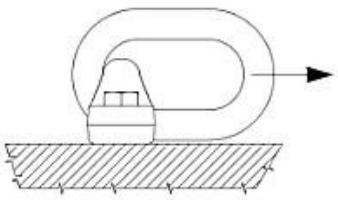
- They are easily accessible without hindrance in order to attach and release the lifting equipment.
- The quantity and arrangement of the attachment points must be selected in such a manner that the load does not unexpectedly move position during transport.
- The attachment point may not be rotated whilst under load nor be used in order to turn the load.

Attention: Ensure that the link is correctly mounted and positioned.
The load binder must be set in the tensile direction and it must be able to move freely. The suspended load is not allowed to be supported at edges or on the attachment point.



TAPG / TPB


TAPG / TPB


TPB

The following must be observed when assembling the TAPG / TPB:
These products are to be tightened using a spanner until flush with the bearing surface. Tightening torques are stated and must be observed (Table 1). It must be checked that the correct screw size, thread size and screw-in length is used. When dealing with blind holes, the thread depth must be at least 1.1 times of the screw-in length.
We recommend the following as the minimum screw-in lengths:

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)

When dealing with through holes, only the following diameters may be drilled: Nominal thread dimension of the screw + 1 mm.
The screw-down saddle also serves as the marking template. When dealing with **TAPG**, only screws with a minimum strength class of **8.8** EN 24014 (DIN 931) may be used and only screws of **strength class 10.9** may be used with dealing **with TPB**. Only **crack-tested screws** may be used. Non-metric threads may not be used under any circumstances. In such cases, an enquiry regarding these special executions must be made with the manufacturer JDT. Clearance can only take place after prior inspection by JDT.
In the event that TAPG / TPBs are secured with screw nuts, these nuts must correspond to strength class 8 / 10 and be crack-tested.

When dealing with weldable attachment points (TAPS/TAPSK), the separate welding information are to be observed.

Working load limit, temperature use and screw tightening torques

The respective working load limits are marked on the eye retainer and are listed below 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° or the min. WLL. This corresponds to the working load limit marking on the attachment point.

Table 1

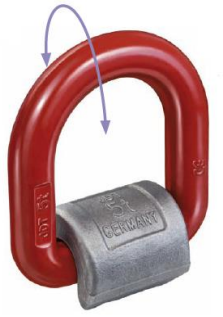
TAPG

Anschlagart / kind of attachment										
Stück / number of pieces		1	2	2	2	3 o. 4	3 o. 4		
Neigungswinkel / Inclination angle		0°	0°	0°-45°	45°-60°	0°-45°	45°-60°		
Bezeichnung / Code		Nenntragfähigkeit min. WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Schraube screw [mm]	Anziehdrehmoment Tightening torque [Nm]
TAPG	**3**	3.15	4.75	9.3	4.25	3.15	6.7	4.75	M20	210
TAPG	**5**	5.3	8	16	7.5	5.3	11.2	8	M24	290
TAPG	**8**	8	12	24	11.2	8	17	11,8	M27	550

TPB

Anschlagart / kind of attachment										
Stück / number of pieces		1	1	2	2	2	2	3 o. 4	3 o. 4	
Neigungswinkel / Inclination angle		0°	90°	0°	90°	0°-45°	45°-60°	0°-45°	45°-60°	
Bezeichnung / Code		Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Schraube screw [mm]	Anziehdrehmoment Tightening torque [Nm]
TPB	**15**	15	15	30	30	21,2	15	31.5	22.4	M36	675
TPB	**20**	20	20	40	40	28	20	42	30	M42	1050
TPB	**25**	25	25	50	50	33,5	25	50	37.5	M45	1400
TPB	**30**	30	30	60	60	42	30	63	45	M48	1900
TPB	**32**	32	32	64	64	45	32	67	47.5	M56	2150

TAPS



Anschlagart / kind of attachment										
Stück / number of pieces		1	1	2	2	2	2	3 o. 4	3 o. 4	
Neigungswinkel / Inclination angle		0°	90°	0°	90°	0°-45°	45°-60°	0°-45°	45°-60°	
Bezeichnung / Code		Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	
TAPS	**1**	1.6	1.12	3.2	2.24	1.6	1.12	2.36	1.7	
TAPS	**2**	3	2	6	4	2.8	2	4,25	3	
TAPS	**3**	4.75	3.15	9.5	6.3	4.25	3.15	6.7	4.75	
TAPS	**5**	8	5.3	16	10.6	7.5	5.3	11.2	8	
TAPS	**8**	12	8	24	16	11.2	8	17	11,8	
TAPS	**15**	22.4	15	45	30	21.2	15	31.5	22.4	
TAPS	**20**	30	20	60	40	30	20	40	30	
TAPS	**25**	37.5	25	75	50	33.5	25	50	37.5	
TAPS	**30**	45	30	90	60	42	30	63	45	
TAPS	**35**	50	35	100	70	49	35	73,5	52,5	
TAPS	**40**	60	40	120	80	56	40	85	60	
TAPS	**50**	71	50	142	100	71	50	106	75	
TAPS	**63**	75	63	150	126	90	63	132	95	

TAPSK

Anschlagart / kind of attachment								
Stück / number of pieces		1	2	2	2	3 o. 4	3 o. 4	
Neigungswinkel / Inclination angle		0°	0°	0°-45°	45°-60°	0°-45°	45°-60°	
Bezeichnung / Code		Nenntragfähigkeit min. WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]	Tragfähigkeit WLL [t]
TAPSK	**3**	3.15	3.15	6.3	4.25	3.15	6.7	4.75
TAPSK	**5**	5.3	5.3	10.6	7.5	5.3	11.2	8
TAPSK	**8**	8	8	16	11.2	8	17	11,8

For the attachment points to screw-on (TAPG / TPB)

The working temperature of the attachment points to screw-on can be restricted by the screw used. The screw supplier must be questioned with regard to this matter. Respective to the nominal size of the screw, the tightening torques as stated in Table 1 must be taken into consideration. In the event that attachment points are to be applied in temperatures ranging from –40 (-20) and +400°C, we recommend the use of weldable attachment points.

For the attachment points to weld on (TAPS / TAPSK)

Special attention should be paid to the maximum temperature the lifting equipment can assume on an individual basis. The impact of higher temperatures on the lifting capacity (WLL) of various grades of lifting equipment is stated in the following table 2:

Table 2

Working temperature in °C	**WLL in %**
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**

Working temperature of TAPS 1 to TAPS 15 and TAPSK is minus 20°C – plus 400°C.

Translation of the original operating instructions
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-Conformiteitsverklaring
Declaración de conformidad CEE
Dichiarazione di conformità CE
EY-yhdenmukaisuustodistus
EF-Overensstemmelseserklæring
EG-Konformitetsförklaring

Im Sinne der EG Richtlinie Maschinen 2006/42 EG und weiter ergänzender 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 complémentaires.
Overeenkomstig de EG-richtlijn Machines 2006/42 EG en verdere aanvullende richtlijnen.
Conforme a la Directiva CE de Máquinas 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 lisädirektiivien tarkoittamassa mielessä.
I overensstemmelse med EF-retningslinie maskiner 2006/42 EF og videre supplerende retningslinier.
I enlighet med EG:s Maskindirektiv 2006/42 EG samt vidare kompletterande direktiv.

Der Unterzeichnende, bevollmächtigt von der
The undersigned, empowered by
Le soussigné, mandataire de
De ondergetekende, gemachtigde van de firma
El suscrito, autorizado por la
Il sottoscritto, delegato dalla
Allekirjoittanut, yhtiön
Den undertegnede, befuldmægtiget af
Förklarar undertecknad, bemyndigad av

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

erklärt, daß das (die) umseitig bezeichnete(n) Anschlagmittel in der von uns in Verkehr gebrachten Ausführung bei bestimmungsgemäßer Benutzung mit den grundliegenden Sicherheits- und Gesundheitsanforderungen übereinstimmen.

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.

déclare que le matériel de levage décrit au verso et employé conformément aux prescriptions, dans l'exécution mise en circulation par nos soins, est conforme aux exigences fondamentales de sécurité et de santé.

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

declara que el/(los) dispositivo/(s) de suspensión mencionado/(s) al dorso en la forma lanzada al mercado concuerdan con los requerimientos básicos impuestos a la seguridad y a la salud bajo la condición de una aplicación 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 de sicurezza e sanitari.

valtuuttamana vakuuttaa, että kääntöpuolella mainittu/tut kiinnitysväline/et myyntiin tuomassamme muodossa ja sitä/niitä asianmukaisesti käytettynä ovat perustavanlaatuisten turvallisuus- ja terveysvaatimusten kanssa yhdenmukaisia.

erklærer, at det (de) omstående anslagsmidel (-midler) i den udførelse, som vi har givet den ud, ved bestemmelsens benyttelse stemmer overens med de grundlæggende sikkerheds- og sundhedskrav.

att det (de) på omstående sida uppförda anslagmedlet (-medlen) i det av oss sålda utförandet vid ändamålsenlig sanwändning överensstämmer med de grundläggande kraven beträffande säkerhet och hälsa.

EG-Richtlinien **EC Guidelines** **Directives CE** **EG-richtlijnen** **Directivas CEE** **Direttive CE** **EY-direktiivit** **EF-retningslinier** **EG-Direktiv**	**EG Richtlinien Maschinen** geändert durch **EC Guideline for Machines** amended by **Directives CE Machines** modifiée en **EG-richtlijn machines** gewijzigd door **Directiva CEE 'Maquinas'** modificada por **Direttive CE sulle macchine** cambiate con **Koneista annettu EY-direktiivi** muutettu direktiiveillä **EF retningslinie maskiner** forandret gennem **EG:s Maskindirektiv** ändrat genom	**2006/42 EG**	**Harmonisierte Normen** **Harmonized standards** **Normes harmonisées** **Overeenkomstige normen** **Normas armonizadas** **Norme armonizzate** **Harmonisoidut standardit** **Harmonerede normer** **Harmoniserade standarder**	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 13889** **EN 13155**

Angewendete nationale Normen **Applied national standards** **Normes nationales appliquées** **Toegepaste nationale normen** **Normas nacionales aplicadas** **Norme nazionali applicate** **Sovelletut kansalliset standardit** **Brugte nationale normer** **Nationella normer som tillämpats**	DIN 685-2 DIN 685-3 DIN 685-4 DIN 685-5	DIN 5688-1 DIN 5688-3 DIN 5692	DIN 5687-1 PAS 1061	DIN 695 DIN 32891 DIN 766 DIN 764-1 DIN 764-2

Aberspach / Qualitätsmanager
Unterschrift

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