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 (-S) / TPB (-S) / TAPS / TAPS-E / 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 109-017) 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.



The following must be observed when assembling the TAPG (-S)/ TPB (-S):

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:

ionowing as the minimum serew-in let	uguis.	
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/TAPS-E/TAPSK), the separate welding information (SA 00 001 xx) is to be observed.

Before welding the TAPS sizes 20 to 63 the auxiliary sheet needs to be removed from the base plate.

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.

If the load is transverse to the swivel direction, the nominal working load limited (90°) must not be exceeded.

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TAPSK

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Anaphlage	ort			Î	ţţ			\sim	\wedge		
kind of at	tachment			Ŭ					->/		
Stück / nu	imber of pieces			1	2	2	2	3 o. 4	3 o. 4		
Inclination	n angle			0°	0°	0°-45°	° 45°-60°	0°-45°	45°-60°		Anziehdreh-
		Nomina	1 WLL	Working load	Working loa limit	id Wor	king load limit	Work li	ing load	Schraube	Tightening
Bezeichnu	ung	min. V	WLL	WLL	WLL		WLL	W	VLL	screw	torque
Code	3]	t]	[t]	[t]	[t]	[t]	[t]	[t]	[mm]	[Nm]
TAPG TAPG	3 5	5	5.3	4.75	9.3	4.25	5 3.15	6.7	4.75	M20 M24	210 290
TAPG	8	8	3	12	24	11.2	8	17	11,8	M27	550
Anschlag	art	1	1		1 <u>1</u>		\searrow		10		
kind of at	tachment	ГĨ	\square		q-p	6		6	\sim		
Stück / nu	umber of pieces		1	2	2	2	2	304	30.4		
Neigungs	winkel	0°	900	 0°	900	- 0°-45°	- 45°-60°	0°-45°	45°-60°		Anziehdreh-
Inclination	n angle	Workin	a load limit	Working	load limit	Working 1	and limit	Working	lood limit	Cahaanha	moment
Dagaiahay		WORKIN	WLL	Working	TLL	WORKING	L L	Working	LL	screw	torque
Code	ung	[t]	[t]	[t]	[t]	[t]	[t]	[t]	[t]	[mm]	[Nm]
TPB	15	15	15	30	30	21,2	15	31.5	22.4	M36	675
ТРВ	20 25	20	20	50	50	33,5	20	42 50	37.5	M42 M45	1030
ТРВ	30	30	30	60	60	42	30	63	45	M48	1900
ТРВ	32	32	32	64	64	45	32	67	47.5	M56	2150
Anschlag	art	1	1	t t	† †	/	<u></u>	o/			
kind of at	tachment	Ŭ			\square				- Del		
Stück / nu	umber of pieces	1	1	2	2	2	2	3 o. 4	3 o. 4		
Neigungs	winkel n angle	0°	90°	0°	90°	0° - 45°	45°-60°	0°-45°	45° - 60°		
memiliatio	ii ungio	Workin	g load limit	Working	load limit	Working l	oad limit	Working	load limit		
Bezeichnu	ung	I I	WLL	W	TL	WL	L	W	LL		
Code	1	[t]	[t]	[t]	[t]	[t]	[t]	[t]	[t]		
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 TAPS	5	8 12	5.3	16 24	10.6 16	7.5	5.3	11.2 17	8 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 TAPS	30 35	45 50	30 35	90	60 70	42	30 35	63 73 5	45 52.5		
TAPS	40	60	40	120	80	56	40	85	60		
TAPS	50 63	71	50	142	100	71	50	106	75		
IAIS	05	15	05	130 ↑	120	90	▲	152	*		
Anschlaga	art				<u> </u>	r t		14			
kind of at	tachment					<u> </u>		<u> </u>	~~//		
Stück / nu	umber of pieces			1	2	2	2	3 o. 4	3 o. 4		
Neigungs	winkel			0°	0°	0°-45	° 45°-60°	° 0°-45°	45°-60°		
Inclination	n angle			Working load	Working loa	id Wo	rking load	Work	king load		
		Nomina	1 WLL	limit	limit		limit	1	limit		
Bezeichnu	ung	min. V	VLL tl	WLL [t]	WLL [t]	[+]	WLL [t]	/ [t]	// LL [†]		
TAPSK	3	l	3.15	3.15	6.3	4.25	5 3.1:	5 6.7	4.75		
TAPSK	5	5	5.3	5.3	10.6	7.5	5.3	11.2	8		

TAPSK

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11.2

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

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 $+400^{\circ}$ C, we recommend the use of weldable attachment points.

For the attachment points to weld on (TAPS / TAPS-E / 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 of TAPS 1 to TAPS 15, TAPS-E and TAPSK is minus 20°C – plus 400°C.

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			



Translation of the original operating instructions In case of doubts or misunderstanding, the German version of the document is decisive. **Conformity Declaration**



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

1 alla N T. Muchowski Managing Director

Rev 1