

Operating instructions for forged shackles for general hoisting purposes (TVS, VS, TGVS and GVS)

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 Standard DIN EN 1677ff.

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

Before use, the shackles are to be inspected with regard to the following points:

- The thread of the bolt and of the nut may not be damaged.
- Binders and bolts may not be bent or displays impermissible wear (max. permitted wear: Pitch +5%; Wear -10% in accordance with DGUV Regel 100-500).
- The surface must be free of cracks, indentations and further faults that could endanger utilisation.
- Shackles may only be used with the appropriate nuts. Always use original parts with the same nominal size and grade as replacement parts.

In the event that one of the points is not met, the shackles may not be used for hoisting processes under any circumstances.

General assembly instructions:

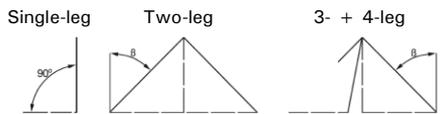
The shackles are to be attached to the load in such a manner that the shackle bolts are correctly screwed into the shackle eyes. This means:

- Screwing in handtight using a suitable tool.
- The flange must be tightly positioned on the shackle eye.
- The designated pin retainer must be attached.
- The bolt can be loaded only centrally, a one-sided load is not allowed.

Shackles are to be attached in such a manner that they can assume the strain in the direction of the longitudinal axis. Unstable positions and flexural strain to the shackles are to be avoided. When using shackles in multi-leg slinging equipment, special attention is to be given to angle of inclination β .

Based upon the working load limit WLL_0 stated in the factory certification, the working load limit of the shackle is calculated using the following formula:

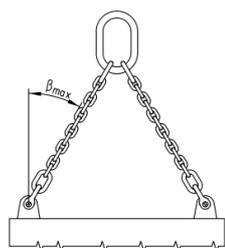
$$WLL = WLL_0 \times a \times b \times c$$



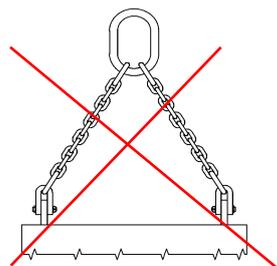
Angle of inclination β	0°	0°-45°	45°-60°	0°-45°	45°-60°
Factor a					
symmetrical	1	1.4	1	2.1	1.5
asymmetrical	1	1	1	1.5	1

Working temperature in °C	Factor b
minus 40°C - plus 200°C	1
plus 200°C - plus 300°C	0.9
plus 300°C - plus 400°C	0.75
above 400°C	not allowed

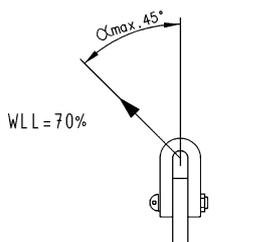
Lateral strain α	Factor c
0° - 6°	1
6° - 45°	0.7
> 45°	not allowed



Correct



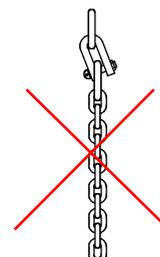
Flexural strain reduced WLL (Factor a)



Lateral strain (Factor c)



Correct



Incorrect



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-Conformitätsverklärung
 Declaración de conformidad CEE
 Dichiarazione di conformità CE
 EY-yhdenmukaisuustodistus
 EF-Överensstemmelseerkl ring
 EG-Konformitetsf 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  verensstemmelse med EF-retningslinje maskiner 2006/42 EF og videre supplerende retningslinjer.
 I enlighet med EG : s Maskindirektiv 2006/42 EG samt vidare kompletterande direktiv.
 W rozumieniu dyrektywy maszynowej WE 2006/42/WE oraz uzupelejaj cych 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/el sottoscritto, delegato dalla/Allekirjoittanut, yhti n/Den undertegnede, befudm gtiget af/f rklarar undertecknad, bemyndigad av N je podpisany, upoważniony przez

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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 p ncipi le 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 sanit .
 vakuuttaa, ett  k  nt puolella mainittu/tut kiinnitysv line/et myyntiin tuomassamme muodossa ja sit /niit  asianmukaisesti k ytettyn  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 ndande s da uppf rda anslagmedlet (-medlen) i det av oss s lunda utf randet vid  ndam slenig anv ndning  verensst mmer med de grundl ggande kraven betr ffande s kerhet och h lsa.
 o wiadcza,  e wymienne 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 annettu EY-direktiivi muutettu direktiivilla
 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 armonizzate
 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 6887-1 DIN 695
 DIN 685-3 DIN 688-3 PAS 1001 DIN 32891
 DIN 685-4 DIN 6892
 DIN 685-5

R. Aberspach
 Leitung Qualit tswesen

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