

## Operating instructions for “Ring Point” RP rotatable attachment point

### General principles for the use of load lifting attachments:

*These operating instructions must be kept together with the certificate and the UKCA Declaration of Conformity.*

According to the Machinery Directive 2006/42/EC and UK Guideline Supply of Machinery (safety) regulation 2008, load lifting attachments are all items of equipment that are attached between the holding device of the hoist and the load, or to the load itself, for the lifting procedure.

The falling of loads caused by the failure and/or incorrect use and handling of load lifting attachments or their components constitutes a danger to the life or health of people who are present in the danger area during lifting procedures.

These operating instructions contain notes on the safe use and handling of the load lifting attachments. Before using the load lifting attachments, the person assigned to use them must be instructed on their handling and use by a qualified person.

The fundamental rules are:

- The permissible working load limit (see marking) of the load lifting attachments must correspond to the load. The load lifting attachment must not be used if the marking is missing or illegible.
- No hazards (e.g. pinch points, shear points, trapping points or impact points) may be created that could endanger or hamper the rigger and/or the transport.
- The base material and the structural design of the load must be able to absorb the forces to be introduced without deformation.
- Stresses, e.g. due to the off-centre introduction of force leading to uneven load distribution, must be considered when choosing the load lifting attachment.
- If extreme stresses or highly dynamic loads (shock effects) can occur, these must be considered when selecting the load lifting attachment and the working load limit.
- Load lifting attachments must not be used to transport people. People must never be present in the danger area of the suspended load.
- Load lifting attachment devices must not come into contact with acids and other aggressive media. Note that acid fumes can also be released in certain production processes.
- Never make unauthorised modifications to load lifting attachments (e.g. by grinding, welding, bending, attachment of parts)!
- Load lifting attachments must not be exposed to impermissible temperature influences.
- Only original spare parts may be used.
- The relevant additional regulations must be observed when transporting hazardous goods.
- Load lifting attachments must be stored in such a way that they are protected against damage and cannot cause any hazard.
- In the case of malfunctions, the load lifting attachment must be taken out of operation immediately and serviced.
- Load lifting attachments must be disposed of on reaching the replacement state of wear. Note: any environmentally harmful substances that may be present (e.g. greases and oils) must be disposed of separately.

### Inspection and maintenance:

Attachment points must be visually inspected on a regular basis prior to use, e.g. by the rigger, to ensure that they are used properly and are in perfect condition (e.g. screw seating, heavy corrosion, deformations, rotatability, etc.). Faulty attachment points must not be used. They are to be tested by a qualified person at least once per year, taking into consideration the relevant standards and professional association guidelines (e.g. in Germany DGUV Rule 109-017). In addition, JDT recommends checking attachment points for freedom from cracks every 3 years by a qualified person using professional test equipment. The user must observe the results of the hazard assessment according to the industrial safety regulations. The time interval is shortened if the products are exposed to critical operating conditions. Records of the inspections must be archived.

The test coefficient (see EU Directive 2006/42/EC point 4.4.1) is specified by the corresponding standards and is equivalent to the factor 2.5.

The attachment point must be taken out of service immediately if the following defects occur:

- The identifier of the working load limit or of the manufacturer of the attachment device is illegible or missing
- Deformations of any kind
- Impermissible wear: if the material width (c) or the material thickness (b) in the area of the ring is reduced by more than 10 % compared to the nominal dimension (see fig. 1)
- Damage such as cuts, notches, grooves, linear incipient cracks or excessive corrosion
- Hindrance of the rotatability
- Discolouration due to the effects of heat

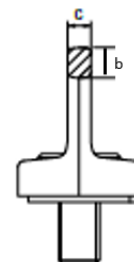


Fig. 1: Permissible wear (direction b and c) max. 10%

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

### Application

The number and positions of the attachment points on the load must be selected so that the load is securely carried and cannot unexpectedly change its position during transport. The eye of the ring point must be aligned properly to the direction of force application and it must be freely movable. Application of loads transversely to the eye (fig. 2) is not allowed. Use with an attachment angle of  $>90^\circ$  is permissible if the hooked-in attachment device is supported neither on the load nor on the ring point body (see fig. 3). The working load limit when used with an angle of  $>90^\circ$  is equivalent to the working load limit at  $90^\circ$  (see Table 1), provided the load is distributed symmetrically.

The ring point is **not** suitable for rotatory movements under load.

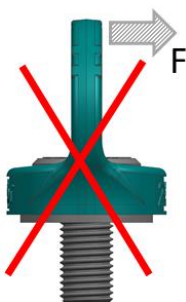


Fig. 2: The attachment point may not be loaded transversely to the load direction.



Fig. 3: A load of  $>90^\circ$  is permissible if the hooked-in attachment device is neither supported on the load nor on the ring point body.



Fig. 4: A load of  $>90^\circ$  is not allowed if the hooked-in attachment device is supported on the load or on the ring point body.



## General mounting instructions

Mounted attachment points on the load must be easily recognisable (e.g. colour marking). The position of the tapped hole on the load is to be chosen so that a flat support surface exists for the acceptance of the expected applied force. This support surface must correspond at least to the full diameter of the ring point used and the tapped hole must be at a right angle to the support surface. The tapped hole must be countersunk and the thread depth of the hole must be at least 1.1 x the screw-in length.

The required screw-in length depends on the base material of the load into which the attachment point is to be screwed. We recommend the following minimum screw-in lengths:

in steel	1	x d
in cast iron	1.25	x d, for cast iron strengths < 200 MPa at least 1.5 x d
in aluminium	2.5	x d
in aluminium-magnesium alloy	2	x d

$d$  = thread diameter  
e.g. with M20:  $d = 20$  mm

Ring points with special screws must be used if necessary.

Proceed as follows to mount the ring point (fig. 5):

The screw is locked in the housing by pressing the housing (1) and a slight twisting movement (max. 90°). In the depressed condition the screw can be tightened without tools (2) until it is flush with the support surface. The ring point is then tightened hand-tight; a separate tool is not necessary. Subsequently the rotatability of the housing must be checked.

To loosen the screw, the housing is pressed down (1) and unscrewed in the opposite direction to the screw-in direction (2).

If the ring point is to remain permanently in the load, we recommend checking it regularly to ensure it is seated firmly or tightening it to a torque according to Table 1.



Fig. 5: Mounting and dismounting the ring point

## Working load limit and temperature range compatibility

The attachment points are marked with the corresponding working load limit and listed in tabular and graphic form according to the corresponding nominal size in the technical data sheet. These working load limits must not be exceeded. **In the case of asymmetrical load distribution, the working load limits are the same for the 2- to 4-leg attachment methods as for single-leg with an angle of inclination of 90°.** This corresponds to the working load limit specified on the attachment point.

Table 1

Attachment method											
Number of pieces		1	1	2	2	2	2	3 or 4	3 or 4	3 or 4	3 or 4
Angle of inclination		0°	90°	0°	90°	0°-45°	45°-60°	0°-45°	45°-60°	0°-45°	45°-60°
Designation	Tightening torque	Working load limit WLL		Working load limit WLL		Working load limit WLL		Working load limit WLL		Working load limit WLL	
	[ Nm ]	[ t ]	[ t ]	[ t ]	[ t ]	[ t ]	[ t ]	[ t ]	[ t ]	[ t ]	[ t ]
RP 0.7	M 12 x 18	80	2.5	0.7	5.0	1.4	1.0	0.7	1.5	1.1	1.1
RP 1.5	M 16 x 20	160	4.0	1.5	8.0	3.0	2.1	1.5	3.2	2.3	2.3
RP 2.3	M 20 x 30	200	5.5	2.3	11.0	4.6	3.3	2.3	4.8	3.5	3.5
RP 3.2	M 24 x 35	300	8.0	3.2	16.0	6.4	4.5	3.2	6.7	4.8	4.8
RP 4.5	M 30 x 45	400	12.0	4.5	24.0	9.0	6.4	4.5	9.6	6.8	6.8



Table 2

Operating temperature in °C	WLL in %
minus 40 °C - plus 200 °C	100
plus 200 °C - plus 300 °C	90
over 300 °C	not permissible



Translation of the original operating instructions.  
In case of doubt, the German edition of the document is authoritative.

Declaration of conformity



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-Överensstemmelseerklaring  
EG-Konformitätsförläring  
Deklaracja zgodności WE

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 tarkoitamassa mielessä.  
I överensstemmelse 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 uzupełniających dyrektyw.

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

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 grundlegenden 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 principie 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 di sicurezza e sanitari.  
vakuuttaa, että kääntöpuolella mainittu/tut kiinnitysväline/et myyntiin tuomassamme muodossa ja sitä/niitä asianmukaisesti käytettynä ovat perustavanlaatuisen turvallisuus- ja terveysvaatimusten kanssa yhdenmukaisia.  
erklærer, at det (de) omstændige anslagsmiddel (-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 omständiga sida uppförda anslagmedlet (-medlen) i det av oss sålunda utförandet vid ändamålsenlig användning överensstämmer med de grundläggande kraven beträffande säkerhet och hälsa.  
oświadcza, że wymienione na odwrocie środki mocowania w wersji wprowadzonej przez nas na rynek są zgodne z zasadniczymi wymogami dotyczącymi bezpieczeństwa 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 geändert durch  
EG Guideline for Machines amended by  
Directives CE Machines modifiée en  
EG-richtlijnen machines gewijzigd door  
Directiva CEE 'Máquinas' modificada por  
Direttive CE sulle macchine cambiate con  
Koneista annettu EY-direktiivi muutettu direktiivillä  
EF retningslinje maskiner forandret gennem  
EG:s Maskindirektiv ändrat genom  
Dyrektywy maszynowe EG zmienione w drodze

2006/42 EG

Harmonisierte Normen  
Harmonized standards  
Normes harmonisées  
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 appliquées  
Toegepaste nationale normen  
Normas nacionales aplicadas  
Norme nazionali applicate  
Sovelletut kansalliset standardit  
Brugte nationale normer  
Nacionella normer som tillämpats  
Stosowane normy krajowe

DIN 685-2 DIN 688-1 DIN 6887-1 DIN 695  
DIN 685-3 DIN 688-3 PAS 1081 DIN 32891  
DIN 685-4 DIN 5692

R. Aberspach

Leitung Qualitätswesen

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