

> LRBS-FIX <

Lashing point

Load Ring weldable



Safety instructions

This safety instruction/declaration has to be kept on file for the whole lifetime of the product.

Translation of the original safety instruction



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> LRBS-FIX <
Lashing point
 Load Ring weldable

Herstellererklärung

Hiermit erklären wir (unterstützt durch die Zertifizierung nach ISO 9001), dass die nachfolgend bezeichnete Ausrüstung aufgrund ihrer Konzipierung und Bauart, sowie der von uns in Verkehr gebrachten Ausführung, den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der Europäischen Union entspricht. Bei einer nicht mit uns abgestimmten Änderung der Ausrüstung verliert diese Erklärung ihre Gültigkeit. Weiterhin verliert diese Erklärung ihre Gültigkeit, wenn die Ausrüstung nicht entsprechend den in der Betriebsanleitung aufgeführten bestimmungsmäßigen Fällen eingesetzt wird.

Hinweis: Beim Zurrpunkt angewendete harmonisierte Normen DIN EN ISO 12100 T1 und T2 sowie in Anlehnung an EN 1677.

Bezeichnung der Ausrüstung:
 Zurrpunkt

Type: Ringbock schweißbar

Herstellerzeichen:

Declaration of the manufacturer

We hereby declare (supported by ISO 9001 certification), that the following described equipment based on the concept and design as well as the by us manufactured type corresponds to the current valid Health- and Safety Requirements of the EU. This declarations becomes invalid in case of any modifications not agreed upon with us. Furthermore this declaration becomes invalid if the equipment is not used according to this prescription.

Hint: Utilized harmonized standards for this Lashing Point DIN EN 12 100 T1 and T2 as well as EN 1677.

Designation of the equipment:
 Lashing point

Type: Load Ring weldable

Manufacturer's sign:

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Before initial usage of the RUD LRBS-FIX, please read carefully the safety instructions. Make sure that you have understood all subjected matters. Non-observance can lead to serious personal injuries and material damage and eliminates warranty.

1 Safety instructions



ATTENTION

Wrong positioned or damaged weld-on lashing points as well as improper use can lead to injuries of persons and damage at property, when load falls down. Please check all lashing points carefully before every usage.

- Keep all body parts like fingers, hands, arms, etc. out of the hazardous area during the lashing operation.
- RUD Lashing points LRBS-FIX must only be used by instructed and competent persons considering DGUV 109-017 (BGR 500), and outside Germany noticing the country specific statutory regulations.
- Attention: When suspension ring pivots there is a risk of pinching.
- The stated LC (Lashing Capacity) at the LRBS-FIX must not be exceeded.
- Any technical modifications at the LRBS-FIX are prohibited.
- Keep persons out of the hazardous area.
- Damaged or worn LRBS-FIX must no longer be used.

2 Intended use of the LRBS-FIX

RUD Lashing points LRBS-FIX must only be used to attach lashing means.

The lashing points must not protrude in rest position over the loading platform level.

In general, lashing points must not be used for lifting!

RUD Lashing points must only be used in the hereby specified case of operation.

3 Assembly- and instruction manual

3.1 General information

- Capability of temperature usage:

As of 07/2019: RUD Lashing points LRBS-FIX are suitable for the temperature range from -40°C up to 400°C.

Up to 07/2019: RUD Lashing points LRBS-FIX are suitable for the temperature range from -20°C up to 400°C.

For the use within the following temperature range, the WLL must be reduced by the following factors:

-40°C / -20°C up to 200°C no reduction
200°C up to 300°C: by -10 % and
300°C up to 400°C: by -25 %

Temperatures exceeding 400°C are prohibited

In the unloaded state, LRBS-FIX Lashing points together with the load can be stress relieved by heat treating (e.g. welded construction) once. Temperature: < 600°C (one hour maximum). After stress-relieving heat treatment (< 600°C), however, the spring force is no longer usable.

- RUD Lashing points LRBS-FIX must not be used with aggressive chemicals such as acids, alkaline solutions and their vapours.
- Please mark mounting position of Lashing point with a coloured contrast paint for better visibility.
- LRBS-FIX includes a protected positioned clamping spring, inside the weld-on block. The spring holds the weld-on blocks together with the ring and creates at the same time a radial clamping function.
- RUD Lashing points LRBS-FIX are clearly marked at the suspension ring with the permissible Lashing capacity „LC“ in daN.
- LRBS-FIX will be delivered as a complete assembled unit.

3.2 Hints for the assembly

Basically essential:

- The material construction to which the lashing point will be attached should be of adequate strength to withstand forces during lashing without deformation. The weld-on material must be suitable for welding and the contact areas must be free from dirt, oil, colour, ect.

The material of the forged welding block is: S355J2+N (1.0577+N (St52-3))

- The position of the lashing points must be carried out in regard to the lashing means in such a way that unintended movement like turning or flipping of the load will be avoided.

- Determine number and position of the lashing points at vehicles according to EN 12640 resp. DIN 75410 (for RoRo-transportation acc. to EN 29367), unless the vehicles are not determined due to their design and construction for transporting specific goods with special requirements in regard of load securing.
- Position lashing points as much as possible at the outside width of the loading platform.



HINT

The lashing points must not protrude in rest position over the loading platform level.

- Determine the necessary lashing capacity of each lashing point acc. to EN 12195-1 "Load securing devices on road vehicles" - "Calculation of lashing forces" and VDI 2700 "Load securing of road vehicles."
- Check finally the correct assembly (see chapter 4 *Inspection / Repair / Disposal*).

3.3 Hints for the welding

The welding should only be carried out according to DIN EN ISO 9606-1 or AWS Standards by an authorized and certified welder.

Verification of the used weld-on material must be checked with the supplier of the welding electrodes.



HINT

- *Never weld at the quenched and tempered ring!*
- *Weld all seams at the same temperature.*

1. Check before initial appending of the LRBS-Fix, the position of the weld-on blocks to each other, that means the base area must be at the same level.
2. Append weld-on blocks.
3. Check function of the ring. The ring must be able to pivot 180°. If necessary please correct.
4. Remove any welding mistakes and dirt at the root weld before applying the cover weld seams.
5. Weld blocks on (HY-weld circumferential). Choose type of weld seam and size according to picture 2 and chart 2.
6. Please check by a competent person after welding the ongoing usage of the weld-on lashing point (see chapter 4 *Inspection / Repair / Disposal*)



HINT

By the position of the weld-seam (HY-weld circumferential) the following requirements will be observed: DIN 18800 steel constructions requires: at outdoor buildings or when strong corrosion must be expected weld seams must be carried out as continuous fillet weld seams.

3.4 User instructions

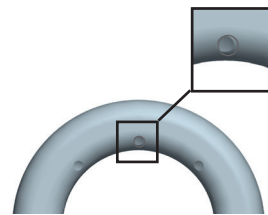
- Check frequently and before each initial operation the whole lashing point in regard of lashing ability as a lashing mean, regarding corrosion, wear, deformation etc. (see chapter 4 *Inspection / Repair / Disposal*).



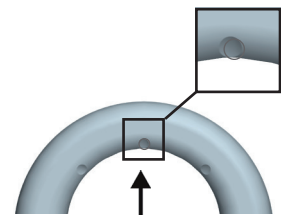
ATTENTION

Wrong positioned or damaged weld-on lashing points as well as improper use can lead to injuries of persons and damage at property, when load falls down. Please check all lashing points carefully before every usage.

- RUD components have been designed as per DIN EN 818 and DIN EN 1677 for a dynamic load of 20,000 load cycles.
 - Observe and be aware that multiple load cycles can occur during a lashing operation.
 - Observe the risk of product damage caused by high dynamical influences at high load cycle numbers.
 - BG/DGUV Germany's employer insurance association recommends: At high dynamical loading with a high number of load cycles (permanent use), the stress at WLL acc. to FEM class 1Bm (M3 acc. to DIN EN 818-7) must be reduced. Use a lashing point with a higher LC.
- Please check carefully the wear indicator markings of the weld-on lashing point (see Pic. 1):



Usage permitted:
no wear marks visible



Use prohibited:
Replacement criteria reached. Material all the way down to the wear lenses has gone.

Pic. 1: Wear indicators

- Please note that the lashing mean must be free moveable in the LRBS-FIX. When lashing means (f.e. lashing chain) are hinged or unhinged, no pinching, shearing or joint spots must occur during the handling.
- Avoid damage of lashing means resulting from sharp edges.
- Lashing points must not be used for lifting loads.

4 Inspection / Repair / Disposal

4.1 Hints for the regularly inspection

The operator has to determine and dictate the necessary inspection periods and the deadlines by a risk assessment (see sections 4.2 and 4.3).

The persisting appropriateness of the lashing point must be checked by a competent person (auditor) at least once per year.

Depending on the conditions of use e.g. frequent use, increased wear or corrosion, it may be necessary to carry out inspections at shorter intervals than once per year. A verification is also required following damage and after special events.

The operator must specify the test cycles.

4.2 Inspection criteria for the regularly examination carried out by the operator

- Completeness of the lashing point
- Complete and readable marking of Lashing Capacity as well as manufacturer sign.
- Deformation at load bearing components like base body and Ring.
- Mechanical damage, like strong notches, especially in areas where tensile stress occurs.

4.3 Additional inspection criteria for the competent person resp. auditor

- Reduction of cross-section due to wear >10 %
- Evidence of corrosion (pitting)
- Additional inspections may be necessary depending on the result of the risk assessment (e.g. incipient cracks at load bearing parts/weld seam).

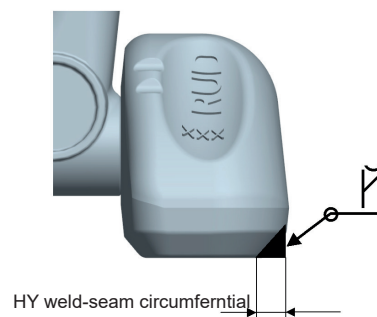
4.4 Disposal

Dispose worn out components / attachments or packaging according to the local waste removal requirements.

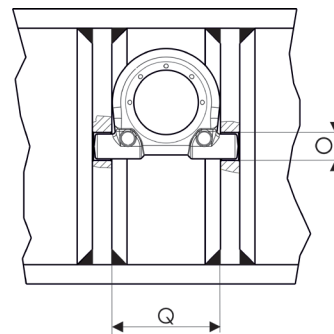
5 Tables/Overview

Type	size	length	Volumen
LRBS-FIX 8000	HY 3	2 x 154 mm	ca. 1,4 cm ³
LRBS-FIX 13400	HY 5	2 x 214 mm	ca. 5,35 cm ³
LRBS-FIX 20000	HY 6	2 x 252 mm	ca. 9 cm ³
LRBS-FIX 32000	HY 9	2 x 341 mm	ca. 27 cm ³

Table 1: Weld seam (weld-on block)



Pic. 2: HY-weld seam



Pic. 3: Lashing Ring is integrated in the design

	Europe, USA, Asia, Australia, Africa Baustähle, niedrig legierte Stähle EN 10025, Mild steels, low alloyed steel EN 10025
MIG / MAG (135) Gas shielded wire welding (135)	DIN EN ISO 14341: G4Si1 (G3Si1) z.B. PEGO G4Si1
E-Hand Gleichstrom (111, =) Stick Electrode direct current	DIN EN ISO 2560-A: E 42 6 B 3 2 H10 DIN EN ISO 2560-A: E 38 2 B 1 2 H10 z.B. PEGO B Spezial* / PEGO BR Spezial*
E-Hand (Wechselstrom 111, ~) Stick Electrode alternating current	DIN EN ISO 2560-A: E 38 2 RB 1 2 DIN EN ISO 2560-A: E 42 0 RC 1 1 z.B. PEGO RC 3 / PEGO RR B 7 Alternativ: DIN EN ISO 3581: E 23 12 2 L R 3 2 z.B. PEGO 309 MoL
WIG (141) TIG Tungsten arc welding	DIN EN ISO 636-A: W 3 Si 1 (W2 Si 1) DIN EN ISO 636-A: W 2 Ni 2 z.B. PEGO WSG 2 / PEGO WSG2Ni2



HINT

Please note the corresponding user hint in regard of the welding filler materials and the drying requirements*.

Table 2: Welding procedure + Welding filler metals

Type LRBS-FIX kompl.	LC [daN]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	T [mm]	weight [kg/pc.]	Ref. no
LRBS-FIX 8.000	8.000	60	14	39	48	132	69	74	0,93	7999303
LRBS-FIX 13.400	13.400	88	20	50	60	167	91	97	2,2	7999304
LRBS-FIX 20.000	20.000	100	22	60	65	191	100	108	3,7	7999305
LRBS-FIX 32.000	32.000	130	30	72	90	267	134	140	8,0	7999306

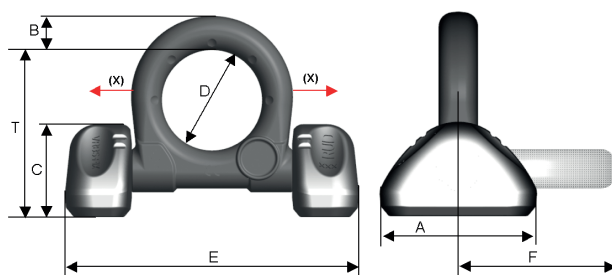
Table 3: Dimensioning LRBS-FIX complete

Subject to technical alterations

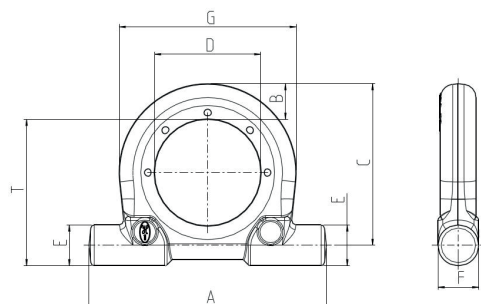
Type Lashing Ring	LC [daN]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	T [mm]	O [mm]	Q [mm]	weight [kg/pc.]	Ref. no
Zurrlasche 8.000	8.000	107	14	69	48	17	18	76	63,5	19 ^{+0,5}	77 ⁺¹	0,38	7902251
Zurrlasche 13.400	13.400	134	20	91	60	23	23	100	82,5	25 ^{+0,5}	101 ⁺¹	0,96	7902252
Zurrlasche 20.000	20.000	152	22	100	65	28	29	105	92	30 ^{+0,5}	106 ⁺¹	1,46	7902331

Table 4: Dimensioning LRBS-FIX Lashing Ring

Subject to technical alterations



Pic. 4: Dimensioning LRBS-FIX complete



Pic. 5: Dimensioning Lashing Ring