

## Bulletin Rigging

### 1. Contact

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### 2. Definition of suspension points

This bulletin governs the technical specifications and requirements on load suspensions of stand structure installations subject to regulatory approval on the existing ceiling load points in the exhibition halls.

Provided nothing is additionally specified here, the Leipziger Messe technical guidelines apply, point 4.7.5.

The provision of suspension points and the alteration of suspension designs will be examined and implemented exclusively by Leipziger Messe service partners. The interconnection point is an O-ring at the position ordered by you.

The use of lifting gear (e. g. chain hoists, electric hoists) must categorically be agreed upon with the responsible Leipziger Messe service partner.

### 3. Hall-specific features

The mounting of suspension points is possible in halls 1 to 5.

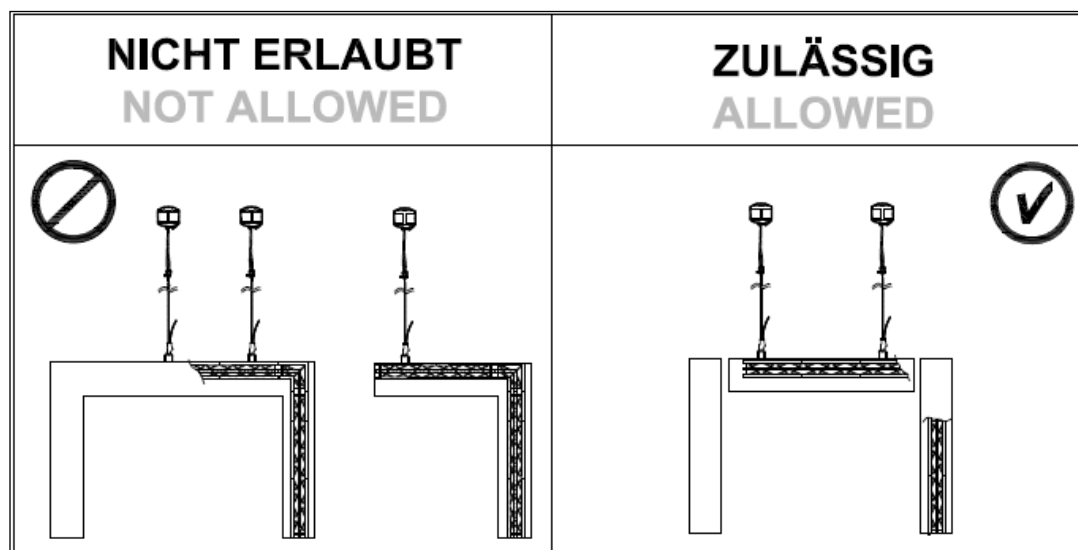
The max. load value per point is 1 kN throughout. Higher load values are to be agreed upon with the service partner and the event engineering department.

In the west entrance hall suspensions are conditionally possible. The implementation is to be agreed upon with the event engineering department.

### 4. Legal basis

With regard to the provision and use of slinging medium, load bearing devices, hoists, load carriers, fasteners, rope connections, secondary backup devices and equipotential bonding, the relevant safety provisions and the recognised engineering codes of practice are to be observed.

### 5. Permitted suspension variants



### 6. Secondary backup & safety

Floodlights, loudspeakers, effects equipment etc. are to be provided in principle with a second independent backup (safety rope). When dimensioning security ropes, BGI 810-3 is to be observed. The safety fixing is to be designed such that it allows no drop distance. If a drop distance is unavoidable, this is to be kept as short as possible.

#### 7. Equipotential bonding to metal structures

Gantries with lighting equipment are to be provided by the erector of the equipment with additional equipotential bonding safeguard (copper, at least 10 mm<sup>2</sup>) (VDE 0100 Part 711). The interconnection point at the floor of the hall can be ordered via the electrical installation service partner. The equipotential bonding connection between this interconnection point and the gantry is to be made by the erector on their own responsibility.

#### 8. Permitted load bearers / lifting gear

The use of lifting gear (e.g. chain hoists, electric hoists) is to be specified with the order documentation and agreed upon with the responsible Leipziger Messe service partner. The rated loads of the manufacturer's specifications are to be observed.

#### 9. Permitted slinging media and rope connections

Rated load with 0.5 times the value of the load capacity specified by the manufacturer, at most with one tenth of the minimum failure load. Wire ropes and belts may be stressed at the most with one twelfth of the minimum failure load.

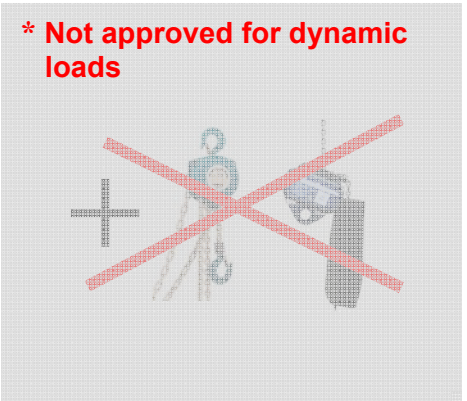
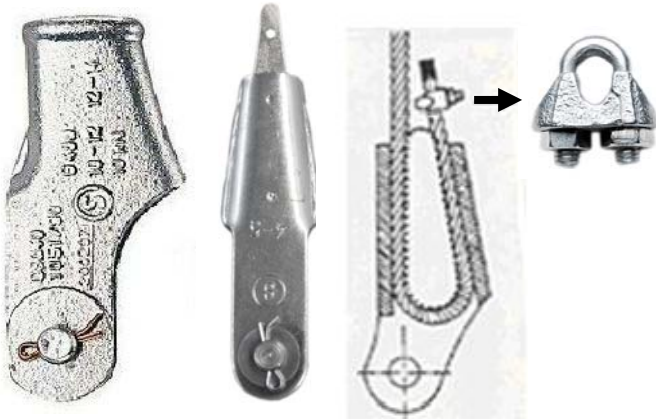
Consider edge protectors! The edge radius must at least be as great as the diameter of the slinging medium (wire rope, loop sling). Synthetic fibre slinging media are not suitable for use in the proximity of floodlights.

- Wire ropes to DIN EN 12385, normally round strand rope 6 x 19 FC to EN 12385-4 with approval
- Short-linked chains with approved accessories grade 8 to DIN 685 with approval
- Textile loop slings (e. g. belt slings) to DIN EN 1492 with approval and specified load capacity subject to the use of an additional backup (safety rope) of wire rope or chain
- Aluminium or steel clamps which are approved for the respective gantries (accessories).
- Wire rope round slings with chemical fibre sleeve ("Steelflex")
- Thimble to DIN EN 13411-1:2002 + A1:2008 and ferrules to DIN EN 13411-3:2011-3
- Rope locks (straight) to DIN EN 13411-7:2006 + A1:2008, with dynamic loads (e.g. suspension of loudspeakers) only with rope clamp (frogs legs) to DIN EN 13411-5:2003 + A1:2008

10. Approved for rigging

Rope lock (DIN 15315) and wedge end clamp (DIN 43148) but **only** with rope clamp (DIN 13411)

Rope glider\* type 50SV II (with M12 ring)



Quick link (DIN 56926)



Shackle (DIN 82016) Form B



Short-link chains (DIN EN 818-4)



Wire rope with thimble and pressed ferrule  
No self-pressed (DIN 13414)



Turnbuckle (DIN 1480)  
with lock to prevent unscrewing, at least M6.



### 11. Permitted load bearing devices

- Aluminium gantries to DIN EN 1999-1-1:2010-05, DIN EN 1999-1-1/NA:2010-12, GUV-I 8634/IGVW SQP1 "Gantries"
- Steel gantries to DIN EN 1090-2:2008-12, DIN 18800-7:2008-11, GUV-I 8634/IGVW SQP1 "Gantries"

### 12. Non-permitted load bearers / hoists

- Electric chain hoists to BGV D8, without backup (i.e. not "hung dead" in wire rope or chain).
- Electric chain hoist to BGV D8 with under-dimensioned secondary backup (see permissible secondary backups)
- Non-tested electric chain hoists or electric chain hoists without test verification (annual expert inspection, for C1 hoists: additional 4-yearly test by authorised specialist)
- Electric chain hoists which exhibit obvious damage
- Electric chain hoists which are not used for their intended purpose (see IGVW SQP2, e.g.: scenic procedures with an electric chain hoist to BGV D8)

### 13. Non-permitted load bearing devices

- Gantries which do not fulfil the requirements of GUV-I 8634, of the SQP1 "Gantries", or DIN EN 1999-1-1:2010-05, DIN EN 1999-1-1/NA:2010-12, DIN EN 1090-2:2008-12, DIN 18800-7:2008-11
- Gantries without verification of a tested structural calculation
- Gantries without identification mark
- Gantries which fulfil the conditions for withdrawal from service
- Gantries without end struts with nonobservance of the lattice frame progression
- Gantries which are not used for their intended purpose, e.g. screwed onto exhibition structure, laid against exhibition structure walls, frames
- Gantry tower with too small a floor plate and/or too little ballasting

### 14. Non-permitted slinging media and non-permitted rope connections

- Materials and components which are not approved or are forbidden in terms of in-house regulations.
- Wire ropes without approval or do not conform to the wire ropes which are described in the point on Permitted slinging media.
- Sleeved wire ropes (sleeving > 1/3 rope length)
- Long-link slinging chains (inner length of chain link > 3-times the nominal diameter of the chain material)
- Untested short-link slinging chains or short-link hoist chains (these may not be used as slinging chains as they have an elongation at failure of only 5 to 15%)
- Rope connectors without the use of a secondary backup (safety rope) consisting of a steel wire rope with thimble and pressed ferrule in addition to fasteners (DIN 56927)
- Webbing slings and round slings produced from chemical fibres without identification mark and load capacity specification.
- Webbing slings and round slings produced from chemical fibres to DIN EN 1492-1:2000 + A1:2008, DIN EN 1492-2:2000+A1:2008 with identification mark and load capacity specification BUT without the use of a secondary backup (safety rope) consisting of a steel wire rope with thimble and pressed ferrule in addition to fasteners (DIN 56927)
- Rope glider without approval
- Carabiner hooks, unscrewed and screwed
- Open hooks
- Turnbuckle, open form to DIN 1480
- Quick link with sleeve nut (chain repair link) without load capacity specification
- Damaged slinging media (e.g. kinked rope, load slings with damaged sleeving, load slings without recognisable identification mark)
- Other fasteners without load capacity specification.