

# Do you want to make your warehouse safer?

Rely on our expertise in racking inspection.

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# Does your warehouse experience heavy use?

## Prevent damage – by taking the right steps.

### How safe is your warehouse?

The productivity of your company is significantly affected by warehousing within the logistics chain. As a result, increasing demands are placed on your racking system. But increased throughput may also raise the risk of possible damage. Guard against this!

The purpose of this guide is to help you make your racking system safer and ensure that you are complying with the law. To this end, we have consulted statutory framework conditions, recommendations of the trade association as well as standard regulations regarding your equipment.

### What you can do

In order to prevent damage, and particularly personal injury, occurring in your warehouse and archive area, you should consider the following measures:

#### Prevention

Train your employees. This will ensure the correct behaviour and operation.

#### Inspection

Monitor the condition of your racking systems by means of regular inspections.

#### Maintenance

Should any damage or operator error be discovered, this must be reported, rectified or stopped immediately.



# Are your warehouse facilities subject to inspection?

## Play close attention if that's the case.

### What are the statutory requirements?

The obligation of the employer to assess the working conditions arises from section 5 of the German Occupational Safety and Health Act [Arbeitsschutzgesetz]. The risk assessment is substantiated by the German Ordinance on Industrial Safety and Health [Betriebssicherheitsverordnung]. Section 4 of this ordinance states: "The employer shall perform the activities called for (...) to ensure that the employees shall be provided with work equipment (...) which guarantees that safety and health at work are ensured if it is used according to its intended operating conditions." These principles apply in all markets.

Section 10 of the Ordinance on Industrial Safety and Health stipulates in which cases inspections are required: The employer shall ensure that work equipment exposed to conditions causing deterioration which is liable to result in dangerous situations is subject to periodic inspections at intervals determined according to section 3(3) by qualified persons."

### Inspection required for all racking types?

According to the trade association, in principle, all racking types are required to undergo inspection.

These include:

- Pallet racking
- Modular racking systems
- Multi-level systems
- Cantilever-type racking
- Drive-in and drive-through racking
- Live storage racking
- Manual mobile racking
- Archive racking

### What inspections are necessary on a regular basis?

Since August 2009, the European standard DIN EN 15635 (see [www.din.de](http://www.din.de)) has been applicable to racking. The standard explicitly states that racking is designed only for careful and proper use. No additional forces or impact loads may be introduced, such as those incurred by incorrect operation. Chapter 9 of the standard requires the operating company to carry out regular checks. A distinction is made here between immediate notification, visual inspections and expert inspections:

#### Immediate notification

All employees must immediately notify the safety officer of any damage they discover.

#### Visual inspections

Visual inspections are to be undertaken weekly by trained personnel. However, alternative intervals may be selected if determined by a risk assessment. A formal, written report must be maintained.

#### Expert inspections

An inspection is to be conducted by an expert at intervals of not more than twelve months. According to the trade association, the expert is to be qualified in accordance with the German Technical Rule for Operational Safety 1203. Or market equivalent.

#### What characterises a qualified person?

German Technical Rule for Operational Safety 1203 requires that the qualified person must have specialist expertise. They must have acquired this expertise by completing professional training, through professional experience and through contemporary professional activity in the scope of the upcoming inspection of the item to be inspected and appropriate further training. Also the qualified person may not be subject to any technical instructions. Or market equivalent

# Service

Regalinspektion

gemäß BGR 234 und EN 15635



## Nächste Prüfung

Hinweis: Die Prüfmarke ersetzt nicht das Inspektionsprotokoll.

Jungheinrich Vertrieb  
Deutschland AG & Co. KG

Vertriebszentrum Nord  
Niederlassung Hamburg  
Schnackenburgallee 24  
22525 Hamburg  
Telefon 040 853243-0  
[www.jungheinrich.de](http://www.jungheinrich.de)

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# Do you want expertise and knowledge?

## We have approved rack inspectors.

### How do you benefit from this?

Our approved rack inspectors comply with all statutory requirements. The specialist expertise required by the German Technical Rule for Operational Safety 1203 includes: Or market equivalent

Technical knowledge of the specific racking system including all rack parts. This includes knowledge of dimensions, structural behaviour and combination options. Inspectors must also be familiar with the proper installation and proper operation of the racking system. Access to the static calculations and knowledge of the limit states are essential.

Our approved rack inspectors receive appropriate further training in the form of a multi-day training course with a final examination. The course content was devised by the Association of Storage and Associated Equipment Manufacturers [Verband für Lagertechnik und Betriebs-einrichtungen] and other leading institutes. Only someone who has proven their expertise may call themselves an approved rack inspector. They must carry photo identification and be registered with the Association. Their credentials are valid for five years, which will be extended for another five years after a refresher course is successfully completed. This ensures that the expertise of our approved rack inspectors keeps step with the current state of technology. Some markets may have different professional associations.

### Best be on the safe side!

If, as a warehouse operator, you want a legally compliant expert inspection with subsequent maintenance of the racking, then you cannot go wrong with our approved racking inspectors, because:

- They are well informed about all regulations such as standards, trade association requirements as well as statutory framework conditions.
- The expert inspection is carried out systematically using a standardised inspection checklist. This checklist was devised by trade association experts.
- Even if the operating company no longer has technical documentation, our approved rack inspector will as a rule still have access to the relevant documents.
- Only the approved rack inspector has an insight in the static calculation of the existing racking.
- Frequently the layouts are available to the approved rack inspector available and can be used as support during the inspection.
- Only the approved rack inspector may contact their technical back-office at any time for information about possible safety-related effects of damage.
- Our approved rack inspector is familiar with all the original parts and is able to identify them clearly to ensure rapid and accurate repairs.
- The product-specific expertise of our approved rack Inspector ensures that unnecessary purchasing errors are prevented.



# What should you do if damage is found?

## Ensure that legally you keep on the safe side.

### Measures to be taken in the event of damage

In accordance with the requirements of the trade association and as per DIN EN 15635, any confirmed damage which may be relevant to safety must be rectified immediately by qualified persons. This is irrespective of whether the damage was discovered by the fork lift driver, warehouse manager or approved rack inspector. Proceed as follows:

- Safety officer is to be immediately notified of damage discovered.
- Initiate measures to guarantee safety.
- Preparation of a written report with obligation to retain the report.
- Investigation of cause in the event of repeated occurrence of damage.
- Introduction of a damage control procedure as per DIN EN 15635, section 9.4.5.

Not all types of damage are explicitly named and described in the standard. It is therefore of great benefit to be able to rely on the expertise of our approved rack inspectors.

### Use exclusively original parts

Chapter 9.7.1 of DIN EN 15635 states: "(...) Repairs to damaged components shall not be allowed unless approved by the equipment supplier. (...)"

and it later continues:

"(...) damaged components should be replaced rather than repaired as effective quality control is difficult on cold formed materials. (...)"

These principles apply to all markets.

Also regarding modifications to the racking, chapter 7 of DIN EN 15635 states the following:

"Changes in the safe carrying capacity can occur when the storage equipment is modified. In all cases of changes the supplier or an appropriate expert shall be consulted and any advice received shall be followed before any alterations are made. Changes shall be made in accordance with the supplier's instructions which shall contain the following:

- a) The rack shall be unloaded prior to carrying out the alterations;
- b) Additions or changes to the storage equipment by welding or bolting shall not be allowed unless specifically approved by the equipment supplier;
- c) Safe load warning notices shall be updated as necessary after all changes to rack configuration; (...)"

In section 5 of its building inspectorate approvals for racking systems – Provision for use, upkeep and maintenance – the supervisory building inspectorate in Germany, the Deutsche Institut für Bautechnik, states:

"(...) the racking structures are to be checked within the scope of the inspection intervals specified by DIN EN 15635. Any damage discovered as a result is to be rectified as per DIN EN 15635, section 9.7.3. It is preferred that damaged components are replaced with original parts. (...)"

A repair using original parts as a replacement is therefore the safest method.

These principles apply to all markets.



The Association of Storage and Associated Equipment Manufacturers [Verband LBE] has developed the “Approved Rack Inspector” training with leading institutes.

Since 1966, the leading manufacturers of storage and associated equipment have been affiliated to the Association of Storage and Associated Equipment Manufacturers (LBE). Since then, the Association has advocated the safety and quality of the products of its members. Jungheinrich is a member of this organisation.

**ISO 9001** The German production  
facilities in Norderstedt and  
**ISO 14001** Moosburg are certified.

 Jungheinrich trucks  
conform to the European  
Safety Requirements.

**Jungheinrich** Lift Truck Singapore Pte Ltd

7 Joo Koon Way  
Singapore 628945

Telephone +65 6558 7600

Telefax +65 6558 7611

[info@jungheinrich.com.sg](mailto:info@jungheinrich.com.sg)

[www.jungheinrich.com.sg](http://www.jungheinrich.com.sg)

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