



INSPECTION REPORT ON BEHALF OF



My Company (Europe) Ltd Warehouse Storage The Big Site Storage Road Any Town AB12 34CD

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Racking Inspection report

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Collation

Site details	My Company (Europe) Ltd Warehouse Storage The Big Site Storage Road Any Town AB12 34CD
Customer contacts	Mr. Tony Stark
Object of inspection	Undertake an independent racking & shelving inspection in accordance with Storage Equipment Manufacturers Association (SEMA) Guidelines & codes of practice.
Date of inspection	Monday 2nd April 2018
Date of next inspection	Monday 3rd April 2019
Inspectors details	Colin Dowding DipNEBOSH SARI SEMA Rack Inspector Health & Safety Officer
Signature:	SEITING SECONTRACTOR



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<u> 1.0 - General</u>

Colin Dowding was requested to visit the My Company (Europe) Ltd Facility in Any Town to undertake an inspection of the racking on the site. The inspection took place on 02/04/2018

The inspection was carried out at Ground Level with a visual inspection of the exterior and other reasonably accessible components.

The 2017 Annual Inspection report was available to view.

2.0 - Arrangement of the Racking

Arrangement of the Adjustable pallet racking & shelving

Main Warehouse: Link 51 Adjustable Pallet racking Installed August 2014 by Linear Storage Solutions Ltd - Installation Ref: PN1070

Where possible, the original manufacturer has been identified. However, due to the number of lookalike products available, it cannot be guaranteed that the actual product on site is supplied from the original manufacturer.

Layout as per our attached drawing (Appendix. 5)

Appendix 1: Damage

Location	Damage	Risk	Remedial Action
Row A1			
Bay 1	Extra Beam Level Added	N/A	Confirm Frame Loading
Row A2			
No Issues to Report			
Row B1			
Bay 5	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
Bay 6	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
Bay 12	Left Frame - Front Upright Slight Twist	Green	Periodic Assessment
Row B2			
Bay 1	Extra Beam Level Added	N/A	Confirm Frame Loading
Bay 2	Extra Beam Level Added	N/A	Confirm Frame Loading
Bay 3	Extra Beam Level Added	N/A	Confirm Frame Loading
Bay 4	Extra Beam Level Added	N/A	Confirm Frame Loading
Bay 5	Extra Beam Level Added	N/A	Confirm Frame Loading
Bay 6	Extra Beam Level Added	N/A	Confirm Frame Loading
Bay 15	1 st Rear Beam Safety Clip Missing	Red	Fit New Safety Clip
Row C1			
Bay 9	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
Bay 10	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
Bay 14	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
Bay 16	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
	Right Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment



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Appendix 1: Damage Cont.:

Location	Damage		Remedial Action
Row C2			
Bay 3	Left Frame - Front Footplate Slight Twist	Green	Periodic Assessment
Bay 14	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
Bay 16	Left Frame - Front Footplate Slight Twist	Green	Periodic Assessment
Row D1			
Bay 13	Left Frame - Front Footplate Slight Twist	Green	Periodic Assessment
	Top Front Beam Safety Clip Loose	Amber	Repair/Refit Beam Clip
Bay 14	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
Bay 16	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
Row D2			
Bay 11	Rear Beam Safety Clips Missing x1	Red	Fit New Safety Clip
Bay 12	Rear Beam Safety Clips Missing x2	Red	Fit New Safety Clips
Bay 13	Rear Beam Safety Clips Missing x2	Red	Fit New Safety Clips
Bay 14	Rear Beam Safety Clips Missing x2	Red	Fit New Safety Clips
Bay 15	Rear Beam Safety Clips Missing x1	Red	Fit New Safety Clip
<u>Row E1</u>			
Bay 4	1 st Front Beam Slight Damage	Green	Periodic Assessment
(Separate Area)	4		
Bay 16	Missing Decking Panel from Walkway	Amber	Replace / Refit Decking Panel
Row E2			
Bay 5	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
Bay 7	Left Frame - 1 st Horizontal Brace Slight	Green	Periodic Assessment
<u>Row F (Double)</u>			
No Issues to Report			

3.0: General Inspection Findings

The general condition of the adjustable pallet racking is very good, there is very little evidence of localized damage, though the few (very slight) damaged items are detailed above.

Generally, the racking observed was in a very good, serviceable condition but attention is required with regards to Beam Safety Locking Clips.

The general level of tidiness was excellent, and the floors were free from debris, no plastic loose in the racking and all aisles were clear and clean.

A number of bays have had an extra beam level added that are not displayed on the load notice. Each Load Notice states the maximum Bay Load & Beam Load (UDL).

X5 Beam Levels @ 1000kg Per Level and these has x6 beam levels, it would be advisable to review the Load Notices and add a Picking level to those bays affected.

There were no visual markings showing the beams / bays were overloaded in any way and the pallets are stored correctly within the racking.

The floor within the building is concrete and appears to be in good condition appropriate for the racking installation. No measurements of the floor slab were taken, and the slab is not within the scope of the inspection.



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3.1: Installation

The racking appears to have been competently installed & maintained.

3.2: Damage

Any damage is noted in accordance with SEMA guidelines in Appendix 1

3.3: Pallets

There are a large number of pallets in use, they appear to be of mixed origin, but condition seems good with no damaged pallets within the racking, all pallets were the correct size and orientation and suitable for the application.

3.4: Load Notices

Load notices are fitted on each of the pallet racking runs, though a review would be advisable due to the additional beam level being added to a number of bays.

3.5: Racking Inspections

It is understood that in-house employees undertake regular inspections are appropriately trained in rack safety awareness.

4: Recommendations

My only recommendation is to replace the missing beam safety locks, once these have been replaced this facility will pass its inspection.

Under current SEMA Guidelines a missing beam safety lock is classified as "Red Risk" item and needs to be replaced as soon as practicable.

This has to be the cleanest and best run facility that I have had the pleasure in inspecting this year, everything is very clearly marked, lighting levels are excellent, very little damage, pallets seated on the beams correctly with the correct spacing and the whole warehouse was very clean and tidy.



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Evaluation of Damaged Racking Components

The SEMA Guide classifies damage into the following three categories RED, AMBER & GREEN Risk. Information on limitations is given below: -

Red Risk

These are items which are severely damaged being at least double the limitations of the SEMA Code. In such circumstances, the racking should be immediately **Off-Loaded** and isolated from future use until repair work is carried out.

Amber Risk

Areas where components have been damaged beyond SEMA limits but less than twice limits of SEMA Code. These are not sufficiently serious to warrant immediate Off-Loading of the rack. Repairs should normally be carried out within 4 weeks, should this not happen then the damage should be redefined as RED & treated accordingly.

Green Risk

These are items which are damaged/may require attention but are within the limitations of the SEMA Code. Such items would be recorded as being still suitable for use but be identified for future reference and monitoring.

Any "Serious Damage Report" will have been issued on the day of the inspection for all damage designated RED RISK **if applicable**.

Any damage will result in a reduced safety margin in the structure & deviations in excess of SEMA limits should result in the affected area being offloaded.

Assessment of damage to uprights and bracing members

- A steel straight edge 1.0-metre-long is placed in contact with a flat surface on the concave side of the damaged member such that the damage area lies central as near as possible to the length of the straight edge.
- For an upright bent in the plane of the frame bracing, the maximum gap between the upright and straight edge should not exceed **3mm**.
- For an upright bent in the direction of the rack beam spans, the maximum gap between the upright and straight edge should not exceed **5mm**.
- For an upright, which has been damaged such that there is a simultaneous bend in both directions, the left to right and front to back deformation shall be measured separately and the appropriate limits observed.
- For bracing members bent in either plane, the gap between straight edge and bracing member should not exceed **10mm**.
- These rules apply only to damage, which produces an overall bend in a member, they do not apply to highly localised damage such as dents, buckles, tears and splits. Localised bends over a length of less than 1.0metre may be judged pro-rata to the above limits. Members subjected to tears and splits should be replaced.

Risks	Upright bent into the rack	Upright bent parallel to the beam	Frame Bracing
Green	Up to 3 mm	Up to 5 mm	Up to 10 mm
Amber	Between 3 and 6 mm	Between 5mm and 10 mm	Between 10 and 20 mm
Red	Over 6 mm	Over 10 mm	Over 20 mm



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Assessment of damage to beams

- Beams will naturally deflect under normal loading conditions to a maximum permissible of span/200. This deflection should disappear when beams are unloaded and should not be confused with permanent deformation caused by overloading or impact damage.
- Residual vertical deformation should not exceed 20% of normal deflection under load.
- Residual lateral deformation should not exceed 40% of the normal vertical deflection under load.
- Beams which show any clearly visible deformation to the beam end connectors should be unloaded and replaced.
- Beams which show any signs of cracking to the weld between the beam section and end connector should be unloaded and replaced.
- A Beam Span of 2700mm / 200 = A Maximum Beam Deflection of 13.5mm
- Any missing locking devices should be replaced immediately to prevent accidental dislodgement of the beams, it is recommended that a supply of beam locking devices should be retained on site





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2. Introduction to the Inspection

Adjustable Pallet Racking

- 1. The Inspection took place from ground level in a very congested / busy warehouse.
- 2. In some instances, the rear uprights and frame bracing could not be inspected due to pallet loads being positioned tightly to the frames & beams.
- 3. Rear beams where visible were inspected.
- 4. All racking must display Load Notices stating allowable beam loads and bay loads along with racking operational safety advice.
- 5. All damaged components must be replaced like for like.
- 6. The free leg length is defined as the distance from the ground to the 1st beam level. This should never be altered from the original design without referring back to the manufacturer/supplier.
- 7. It is expected that all previous damage repairs have been carried out to the rack manufacturer's construction standards by repairers, sub-contractors or in-house maintenance personnel that have been fully trained.
- 8. Inspections are only valid at the time they are carried out; they do not obviate the need for day to day care and attention by operatives.

Appendix 2

Load Notice

Typical rack load notice





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Appendix 3

Typical rack inspection procedure

Extract from HSE document HSG 76 Warehousing & Storage: a guide to health & safety

Please note this document contains general information regarding health & safety in warehousing & storage situations, can be downloaded from HSE website at no cost

Racking Inspection and Maintenance

641 In general, racking is manufactured from relatively lightweight materials, as a consequence, there is a limit to the amount of abuse that it can withstand. The skill of lift truck operators has a great bearing on the amount of damage likely to be caused. Any damage to racking will reduce its load carrying capacity. The greater the damage the less its strength will be.

642 To ensure that a racking installation continues to be serviceable and safe, the storage equipment should be inspected on a regular basis. The frequency of inspections depends upon a variety of factors that are particular to the site concerned and should be determined by a nominated 'Person Responsible for Racking Safety (PRRS) to suit the operating conditions of the warehouse. This will take into account the frequency and method of operation together with the dimensions of the warehouse, the equipment used, and personnel involved, all of which could damage the structure. The inspection follows a hierarchical approach using several levels of inspection.

Immediate Reporting

643 As soon as a safety problem or damage is observed by any employee, it should immediately be reported to the PRRS. You should have systems in place for reporting damage & defects.

644 Employees should receive training, information & instruction on the safe operation of the racking system. A formal written record should be maintained.

Visual Inspections

645 The PRRS should ensure that inspections are made at weekly or other regular intervals based on risk assessment. A formal written record should be maintained.

'Expert' Inspections

646 A technically competent person should carry out inspections at intervals of not more than 12 months. A written report should be submitted to the PRRS with observations & proposals for any action necessary.

647 A technically competent person might be a trained specialist within an organisation, a specialist from the rack supplier, or an independent qualified rack inspector.

648 A program of rack awareness is run regularly by SEMA to address the issue of visual inspection and a more formal course is run to qualify more expert inspectors under the SARI (Sema approved rack inspector) scheme

649 Normal rack inspections will be carried out from ground level unless there are indications of problems at high level that require investigation.



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Appendix 4

Company Contact Details:

Company

Name:

Linear Storage Solutions Ltd

Address:

The Annexe 30 Christchurch Road Bournemouth. Dorset.

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Inspector

Name:	Colin Dowding DipNEBOSH SARI Health & Safety Officer SEMA Approved Inspector
Telephone: Office:	01202 538400
Email: Web:	sales@linearstorage.co.uk www.linearstorage.co.uk

Useful Contact Details:

SEMA:

www.sema.org.uk

Code of practice for the Use of Static Pallet Racking Code of Practice for the Terms & Conditions of Storage Equipment No 6 Guide so the Conduct of Pallet Racking & Shelving Surveys

HSE:

www.hse.gov.uk

Warehousing and Storage: A Guide to Health & Safety HSG 76



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Appendix 5:



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FB = Front Beam Slight Damage