INSPECTION REPORT
ON BEHALF OF

Your Name Here

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Racking Inspection report

Collation sheet

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Connect Storage Systems Ltd
Unit 36 Dawkins Road Industrial Estate Poole Dorset BH15 4JD
Tel: 01202 679000 E mail: mitch@connectstoragesystems.co.uk

Company Registration No: 4338372
Registered Office: Read Woodruff Limited 24 Cornwall Road Dorchester Dorset DT1 1RX
Rev22/07/2019pj

Collation

Site details

Customer contacts

Object of inspection — Undertake an independent racking & shelving inspection in accordance with Storage Equipment Manufacturers Association (SEMA) Guidelines & codes of practice.

Date of inspection — 26th January 2021

Date of next inspection — 26th January 2022

Inspectors details — Mitchell Duke
SEMA Approved Rack Inspector
Connect Storage Systems Limited

Signature:

1.0 - General

Mitch Duke was requested to visit the site for … to undertake inspections of the racking on site. The inspections took place on 26/01/2021.

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

The previous Annual Inspection report was available.

2.0 - Arrangement of the Racking

Arrangement of the Adjustable pallet racking & shelving

Maintenance Stores: Link 51 Euro Shelving

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Maintenance Yard:	Stow Adjustable Pallet Racking
Vehicle Shed:	Link 51 Adjustable Pallet Racking
Process PPE Store:	AR Longspan Shelving
Dry Powder Store:	Link 51 Adjustable Pallet Racking
Bulk Storage Warehouse:	Link 51 Adjustable Pallet Racking

Appendix 1: Red Level Damage

Main Stores:

Location	Damage	Risk	Remedial Action
	No Red Level Issues to Report		

Appendix 2: Damage

Maintenance Stores:

Location	Damage	Risk	Remedial Action
Apex Racking	No load notice	**Amber**	Fit load notice

Maintenance Yard:

Location	Damage	Risk	Remedial Action
Stow Pallet Racking	No load notice	**Amber**	Fit load notice

Electricians Store:

Location	Damage	Risk	Remedial Action
Euro Shelving	Corrosion around lower leg sections due to flooding	**Green**	Periodic assessment

Vehicle Shed:

Location	Damage	Risk	Remedial Action
Row 1 (spill response)	No load notice	**Amber**	Fit load sign
Row 2 (single bay)	No load notice	**Amber**	Fit load sign
Row 4	No load notice	**Amber**	Fit load sign

Process PPE Store:

Location	Damage	Risk	Remedial Action
Bolted Shelving	Not fit for purpose. Shelves held in with rivets, very old.	Amber	Remove/consider replacement. Wall fix to secure and replace damaged shelves.

Dry Powder Store:

Location	Damage	Risk	Remedial Action
Link 51	No load notice	Amber	Fit Load notice

Bulk Storage Warehouse:

Location	Damage	Risk	Remedial Action
Link 51 2 bay run	No front beam locks to both levels	Amber	Fit beam locks x8
Link 51 2 bay run	No rear beam locks to both levels on 1st upright	Amber	Fit beam locks x2

3.0: General Inspection Findings

The general condition of the adjustable pallet racking is fair, there are some issues that we recommend are looked into.

The general condition of the shelving is fair with a few exceptions.

The general level of tidiness was good and the floors were mostly free from debris.

We would recommend that safety locks are fitted where possible to ensure that shelf beams cannot be accidently dislodged.

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.

3.1: Installation

The racking appears to have been installed correctly and competently.

3.2: Damage

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

3.3: Pallets

There are pallets in use, they appear to be of mixed origin but condition seems fair for application.

3.4: Load Notices

Load notices are not fitted on each of the pallet racking runs.

Load notices are not fitted on each of the various types of shelving.

The racking should not be altered without firstly contacting your supplier or the manufacturer if possible to attain the relevant technical information on the possible effects to the safe working loads of the structure and amend the load notices accordingly.

Load notices should be updated when any change in the racking structure takes place. The provision of load notices is, as noted in the quotation, not within the scope of the racking inspection. The cost of the load notices will be quoted if required.

3.5: Racking Inspections

It is not known what form the current site procedures are employed for reporting on damage to racking. It is recommended that a hierarchical racking procedure is followed and a typical racking procedure is detailed in Appendix 3

The only real concern is the row of SSI shelving in the PPE store that has shelf panels dislodged that are only held in place by the label plate, the shelves need to be refitted and if they cannot be refitted it would be a good idea to consider replacing the shelving.

The corrosion on the units in the electricians store is something that may need to be addressed further down the line if the area continually floods the shelving may need to be raised up from the floor perhaps by concrete blocks or something else that won't corrode or rot.

It is strongly recommended that in-house employees undertaking regular inspections are appropriately trained in rack awareness.

4: Recommendations

It is recommended that to ensure the continued safe & serviceable condition of the shelving & racking installation, all the detailed recommendations indicated in this report should be followed.

The **SEMA** guide recommends that in addition to an annual inspection by a "Technically Competent Person", regular (monthly) visual checks should be made by a designated competent person for the responsibility of racking safety on site (PRRS).

This person is responsible for ensuring that the racking & shelving is used, inspected & maintained in accordance with the appropriate regulations & guidelines.

Should you have any queries or require further clarification please do not hesitate to contact us.

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.

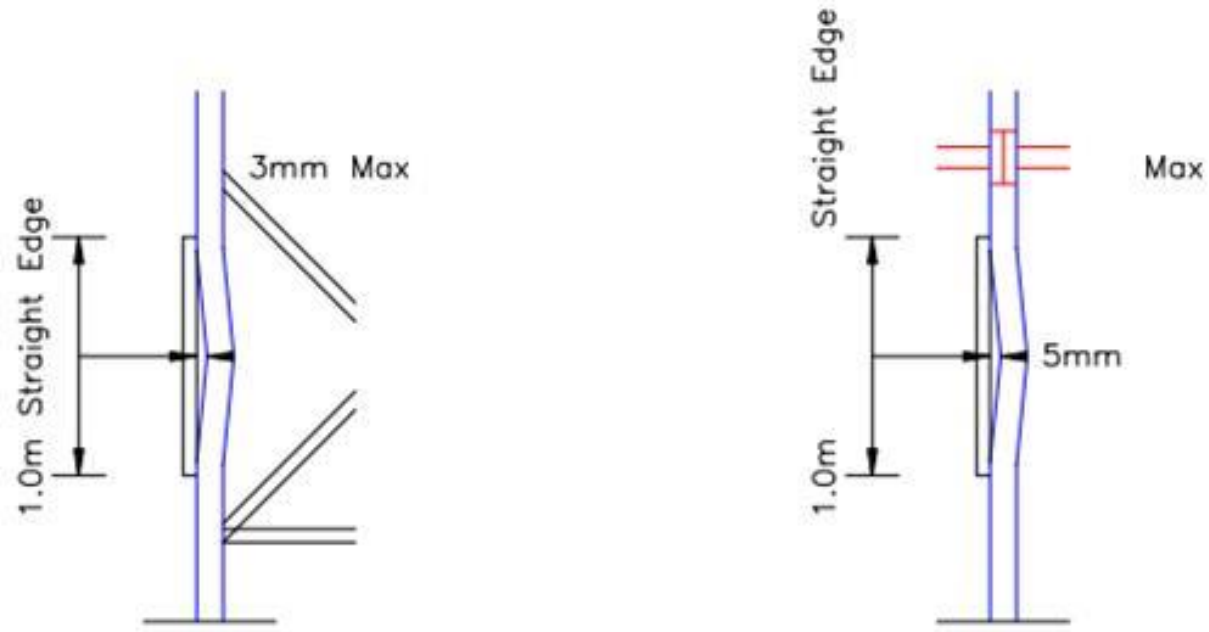
Any "Serious Damage Report" will have been issued on the day of the inspection for all damage designated RED RISK **if applicable**.

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

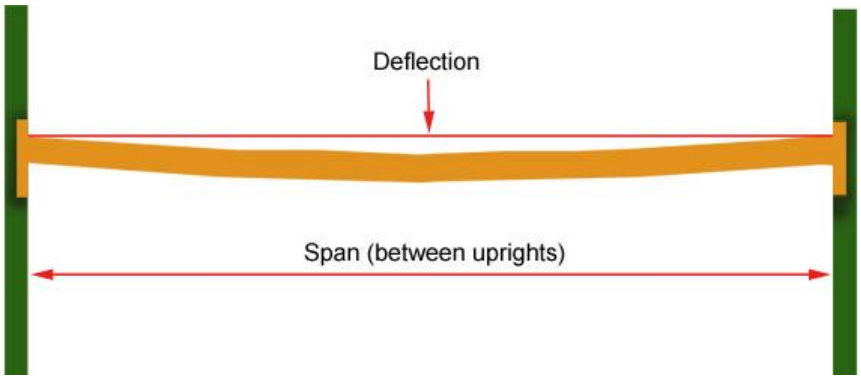
- A steel straight edge 1.0 metre long is placed in contact with a flat surface on the concave side of the damaged member such that the damage area lies central as near as possible to the length of the straight edge.
- For an upright bent in the plane of the frame bracing, the maximum gap between the 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



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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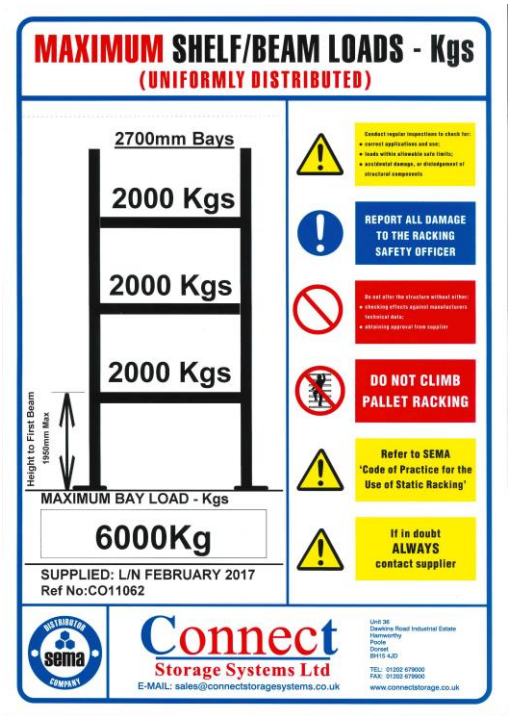
2. Introduction to the Inspection

Adjustable Pallet Racking

1. The Inspections took place from ground level in a potentially very congested warehouse.
2. In some instances the rear uprights and frame bracing cannot be inspected due to pallet loads being positioned tightly to the frames & beams.
3. Rear beams where visible are 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 3

Load Notice
Typical rack load notice



Appendix 4

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.

Appendix 5

Company Contact Details:

Company

Name: **Connect Storage Systems Limited**

Address: Unit 36, Dawkins Road Industrial Estate,
Hamworthy
Poole
Dorset BH15 4JD

Inspector

Name: Mitchell Duke

Telephone:
Office: 01202 679000
Mobile: 07801 396962

Email: **mitch@connectstoragesystems.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 to the Conduct of Pallet Racking & Shelving Surveys

HSE: **www.hse.gov.uk**
Warehousing and Storage: A Guide to Health & Safety HSG 76

Appendix 6

Photographs:

Corroded Upright Posts