



# CASE STUDY

Reference McLeod Russel India Limited:  
Seismic-proof Selective Pallet Racks,  
Double Deep Racks and Drive In

[ssi-schaefer.com](http://ssi-schaefer.com)



**MCLEOD RUSSEL**  
*Believe in tea*



**SSI SCHAEFER**

# MEETING MCLEOD RUSSEL'S REQUIREMENTS TO A TEA

Established in 1869, McLeod Russel is one of the largest tea producers in the world. Part of the Williamson Magor Group, the company has 33 gardens in Assam and West Bengal producing some 45 million kgs of tea each year. The exports principally to Europe, the Middle East and North America account for a third of its production.

To service its export market, the company built a warehouse and a blending facility in Amingaon, Gawahati, Assam, in 2014, less than 600 metres away from an inland container depot, on land leased from the government. Completed in 2016, it is the only warehouse to be owned and operated by the company.



Equipped with SSI SCHAEFER's Selective Pallet Racks with 1,848 locations, the warehouse is the most modern in Gawahati. Most warehouses in the area are single storey sheds with floor stacking, which places a limit on the utilisation of space.

In a traditional warehouse, the company would only be able to store 22,000 packages on a 22,000 square

feet area. By installing pallet racks, McLeod Russel can almost double the capacity to 38,000 packages.



**MCLEOD RUSSEL**  
*Believe in tea*





## SEISMIC PROOF

An ISO 22000 certified company, McLeod Russel sets great store on safety. Overloading of the shelving system may be an issue for some, but not for McLeod Russel.

“To upkeep the integrity of the rack and shelving load limit, we ensure each pallet is designed to hold 20 paper sacks of tea leaves with no additional space to make room for more. In our warehouse, we pack each paper bag of tea leaves to a maximum of 70 kgs. If there are 20 sacks of tea leaves per pallet, it translates to 1,400 kgs as we calculate the heaviest load of 70

kgs to be the maximum weight for each bag. However, the average sack of tea leaves weighs in on average of 50-55 kgs, which is about 1,000 to 1,100 kgs. Thus, there is no chance of overloading the racks at all” said Mr. Bajpal.

The racks are subjected to regular checks by warehouse staff who are trained by SSI SCHAEFER on what they need to keep an eye on. As part of the warranty for the racking system, the SSI SCHAEFER team visits the warehouse every six months to undertake a more thorough check.

# SIGNING UP TO RACK SAFETY MAINTENANCE CONTRACT

Given the importance it attaches to safety, McLeod Russel has signed up to SSI SCHAEFER's annual rack safety maintenance contract on expiry of its five-year warranty for the system.

Under the contract, certified racking system inspectors undertake periodic checks, to ensure the system adheres with the European Standard EN 15635 for operational aspects relevant to structural safety of storage systems. Compliance with this standard minimises the risk and consequences of unsafe operation or damage to the structure.

## THE SSI SCHAEFER INSPECTORS WILL:

- Ensure the quality, size and type of pallets used are meant for the racking system;
- There's good load stability with no load overhang;
- Material handling system used is in sync with the racking system;
- Deviation between beam levels, original design, floor fixing, fixture and use of safety locks are indicated;
- Beam deflections, damage to the frames, beams, pallet rails, column guards and floor are identified;
- Uprights are calibrated for straightness.



All observations and results including defects and required improvements are documented in SSI SCHAEFER's Computerized Management System tool and the report is reviewed jointly with McLeod Russel for further action. With the strong emphasis on safety, McLeod Russel has helped to improve employee satisfaction.

**“The safety of cargo, safety of warehouse and also the safety of manpower... all that put together, our people are happy working in an environment where safety is put first,”**

**Mr. Bajpal**

General Manager, McLeod Russel India Limited



# ABOUT SSI SCHAEFER WAREHOUSE SAFETY CAMPAIGN

## Rack safety inspection and procedures

To ensure the racks and shelving in our customers' warehouses are safe to be in operation all year round, we encourage our customers to work with our racks safety officers to maintain and improve the existing storage systems. Safety enhancements will improve the efficiency in everyday warehouse operation, comply with European Standards (EN 15635) and ensure the ongoing performance of the storage system.

## What is the European Standard (EN 15635)?

This European Standard gives guidelines for operational aspects relevant to structural safety of storage systems within Europe. Such systems operate with heavy mechanical handling equipment working in close proximity to static storage equipment. This European Standard minimizes the risk and consequences of

unsafe operation or damage to the structure. Some other forms of storage equipment are only partially covered and further consideration, beyond the scope of this European Standard, can be required. To learn if your installations comply with standards, contact us for more information.

## How are rack and shelving inspection done?

Although the term inspection might sound overwhelming, the importance of inspections and the results, can not be underestimated; they can make the difference between having a safe warehouse operation and one where accidents and issues can be fatal. A passed or failed inspection of storage systems can also be one of the key fundamental drivers to having an effective and reliable supply chain.

- Rack inspection is carried out by our own officially certified racking system inspectors via a visual control.
- The observation and results are documented within our Computerized Maintenance Management System (SSI SCHAEFER CMMS) tool and indicated by an inspection badge.
- All relevant information, observations, identified defects/ needed improvements including respective photos are digitally stored within the SSI SCHAEFER CMMS App.
- Finally, all recorded data is summarized right away in an automatically generated PDF report.
- The report is reviewed together with you to talk about actions and solutions to address gaps/issues.
- Additionally, the digitally stored data can be visualized and analyzed to derive profound conclusions.



**To learn how we conduct our rack inspection, please scan the QR Code for more information.**

# Check for damage you may have missed

Lastly, check for damage you may have missed. Certain damage to your racking system may not be immediately visible and require closer inspection. Play it safe and check for damages in the following areas:



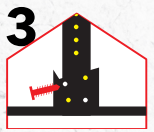
## 1 UPRIGHTS

- ✓ Use only **qualified forklift truck drivers** and ensure that they work within their capabilities.
- ✓ Ensure layout of racking system has **adequate aisle widths** and that the aisles are free from obstruction.
- ✓ **Check storage equipment regularly** for any damages and for safety.



## 2 BRACING

- ✓ Bracing should be **installed in accordance with the manufacturer's instructions** at all specified positions and shall not be removed or repositioned.
- ✓ **Ensure safe usage of material handling equipment** by applying risk analysis techniques.



## 3 BASE PLATE

- ✓ Ensure base plates are in **contact with the entire floor area of the building or any prepared plinth**.
- ✓ Base plates should be **packed up with suitable steel shimming or grouting** under the entire planned area of the base plate. Specialists shall carry out the grouting.
- ✓ Steel shims should be **permanently installed under the base plates** or, if preferred, sufficiently strong and shrink-proof mortar can be injected under the base plates.



## 4 BEAMS

- ✓ Implement a regime of **careful, regular monitoring and maintenance**.
- ✓ Identify and rectify any damage promptly.



## 5 MATERIAL CRACKS

- ✓ Beams or connectors showing any signs of cracking should be **unloaded and expert advice sought from the equipment supplier**.
- ✓ Damaged components should be replaced rather than repaired. Repairs to damaged components are **allowed only when approved by the equipment supplier**.



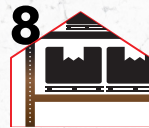
## 6 OVERLOADING

- ✓ Load racks only within the **specified capacity limit**.
- ✓ Beams will deflect under normal circumstances and loading conditions to a maximum limit of span/200. This **deflection is elastic and should disappear when unloaded**.



## 7 SAFETY LOCKS/PIN

- ✓ Any **missing or damaged locking devices** should be **replaced immediately** to prevent accidental dislodging of beams.
- ✓ A supply of **beam locking devices** shall be held in stock on site.



## 8 RUST

- ✓ Keep the indoor warehouse environment **dry and well ventilated**.



## 9 OUT OF VERTICALITY OF UPRIGHTS

- ✓ Ensure the out of verticality under load for all shelving and forklift truck rack installations, **does not exceed 1/200**. If exceeded, the supplier should be called **on site for an inspection and design check**.



## 10 CONDITION OF THE BUILDING FLOOR

- ✓ The building floor shall have a **degree of strength, stiffness, surface levelness and flatness suitable for operational purposes**.
- ✓ Safe load carrying capacities can change if storage equipment is relocated or if there is an increase in floor deformation. Consult an expert to determine a safe design of **storage equipment suitable for the load carrying capacity of the floor**.

**By being proactive and regularly checking for damage, accidents can be avoided to create a safer warehouse for all.**



## SIX REASONS FOR CHOOSING SSI SCHAEFER

- **Stability**

As a financially independent family business, SSI SCHAEFER is committed to long-term solutions. You can trust that our team of experts will be there for you today, tomorrow and in years to come.

- **Efficiency**

SSI SCHAEFER solutions are scalable and able to grow with your business. You can always upgrade or retrofit.

- **Quality**

As a systems specialist and original equipment manufacturer, SSI SCHAEFER provides tailor-made and high-quality solutions from a single source, specifically designed to meet your challenges.

- **Reliability**

Thanks to our worldwide Customer Service & Support network, SSI SCHAEFER ensures smooth operation of your system, both during and after installation.

- **Know-how**

SSI SCHAEFER solutions are always up-to-date with the latest technological standards and can be easily integrated into an existing (IT) landscape.

- **Internationality**

As a global organization, SSI SCHAEFER has local offices worldwide. With over 70 operative subsidiaries, our team of experts speak your language.



[ssi-schaefer.com](https://www.ssi-schaefer.com)

© SSI SCHÄFER

We reserve the right to make technical changes to all products shown in this document. Product colours may differ from the original due to printing processes. We assume no liability for typographical errors.

**SSI SCHAEFER**