

WHEN TO CONDUCT WAREHOUSE PALLET RACKING SAFETY ASSESSMENTS

REB Storage Systems International

Conducting pallet racking safety assessments in your warehouse periodically will help stay cognizant of any severe or accumulated rack damage that can impact the integrity of the racking system. A program of routine pallet racking safety assessments and safety compliance can help reduce the risk of a costly and potentially dangerous accident such as a rack collapse or employee injury.

Why you Need a Pallet Racking Safety Assessment

Keeping your warehouse operating safely and at peak efficiency begins with routine inspection and maintenance. International Building codes (IBC) and occupancy permits increasingly include ANSI/RMI (American National Standards Institute / Rack Manufacturers Institute) standards.

Comply with ANSI/RMI Safety, Repair, and Replacement Standards

ANSI/RMI MH16.1 sets forth standards for identifying, repairing, or replacing damaged rack and designates that storage rack system maintenance and repair is the rack system operator's responsibility. Among these include:

Repair and Replacement of Damaged Components:

These shall be replaced by qualified persons following recommended and documented procedures. Repair components must be at least as strong as undamaged components.

Owner Maintenance: The owner shall maintain the structural integrity of the installed rack system assuring proper operational and maintenance procedures. Regularly inspect for damage and immediately unload the affected area and replace or repair the damaged column(s), beam(s), and other structural components.

Additions, Alterations, and Reconfigurations:

All additions, alterations and reconfigurations should meet the same requirements as the original installation.

Rack Damage: Upon any visible damage, the pertinent portions of the rack should be unloaded immediately by the user until the damaged portion is repaired or replaced.

IN THIS ARTICLE:

WHY YOU NEED A PALLET RACKING SAFETY ASSESSMENT

HOW OFTEN SHOULD PALLET RACKING SAFETY ASSESSMENTS BE CONDUCTED?

HOW IS RACKING RISK ASSESSMENT PERFORMED?

TYPES OF RACK DAMAGE IDENTIFIED

WHAT HAPPENS WHEN YOU HAVE RACKING DAMAGE

YOUR NEXT STEPS FOR A SAFE RACK SYSTEM

How Often Should Pallet Racking Safety Assessments be Conducted?

The frequency of racking risk assessments should correspond with operational throughput, forklift or personnel traffic and activity, and aisle clearances and cross areas. For example, systems designed with narrow aisles are more likely to be impacted by material handling equipment, and should therefore have more frequent professional inspections.

At minimum, it's recommended that a professional risk assessment should be conducted annually by a rack safety expert who is knowledgeable of industry regulations and the storage system's design and installation requirements.

Periodic in-house assessments should be conducted in-between professional assessments to identify anything that does not look correct or has experienced any form of contact with equipment. Download our Pallet Racking Safety Assessment Guide that will help you determine and keep track of where there is visible damage to your rack.



How is a Racking Risk Assessment Performed?

REB professional racking safety assessments include a full walkthrough of the facility to ensure that the rack system meets ANSI/RMI rack safety standards.

After the system is assessed, you'll be provided with a scope drawing and report that identifies the location of all damage and what type of damage it is.

After reviewing your damage summary, you can decide if you'd like to move forward with any or all of the repairs.



Types of Rack Damage Identified

A rack safety assessment will identify any of the following damage that may exist in your rack system. Read below to gain a better understanding of what these common damages are and what they look like.

Column Damage: Any rips, tears or deflection beyond acceptable limits. Deflection greater than ½" can no longer carry the original rated load.

Horizontal and Diagonal Strut Damage: Broken welds, missing braces, or braces with rips, tears or deflection beyond acceptable limits.

Footplate Damage: Sheared or twisted beyond acceptable limits.

Overloaded Beams and Frames: Any beam that exceeds the rack manufacturer's capacity (capacity is based on evenly distributed loads).

Anchor Damage: Missing, broken or loose anchors are problematic because each upright footplate, both the front and back, must be anchored to the floor.

Missing or Damaged Components: Wall ties, cross-aisle ties, crossbars, beam safety pins, wire mesh decks or pallet stops.

Beam Damage: Missing or damaged beams; loose, damaged or missing fasteners; or deficiencies in load locks and snap locks.

Leaning Frames: A minimum plumbness and straightness (both cross and down aisle) of 1/2" per 10' of height. If the structure's plumbness or straightness is out of tolerance, it must be unloaded and replumbed. Any damaged parts must be repaired or replaced.

Damaged Decking: Exposed jagged edges, dips or missing pieces.



Column Damage



Horizontal and Diagonal Strut Damage



Footplate Damage



Overloaded Beams and Frames



Anchor Damage



Missing or Damaged Components



Beam Damage



Leaning Frames



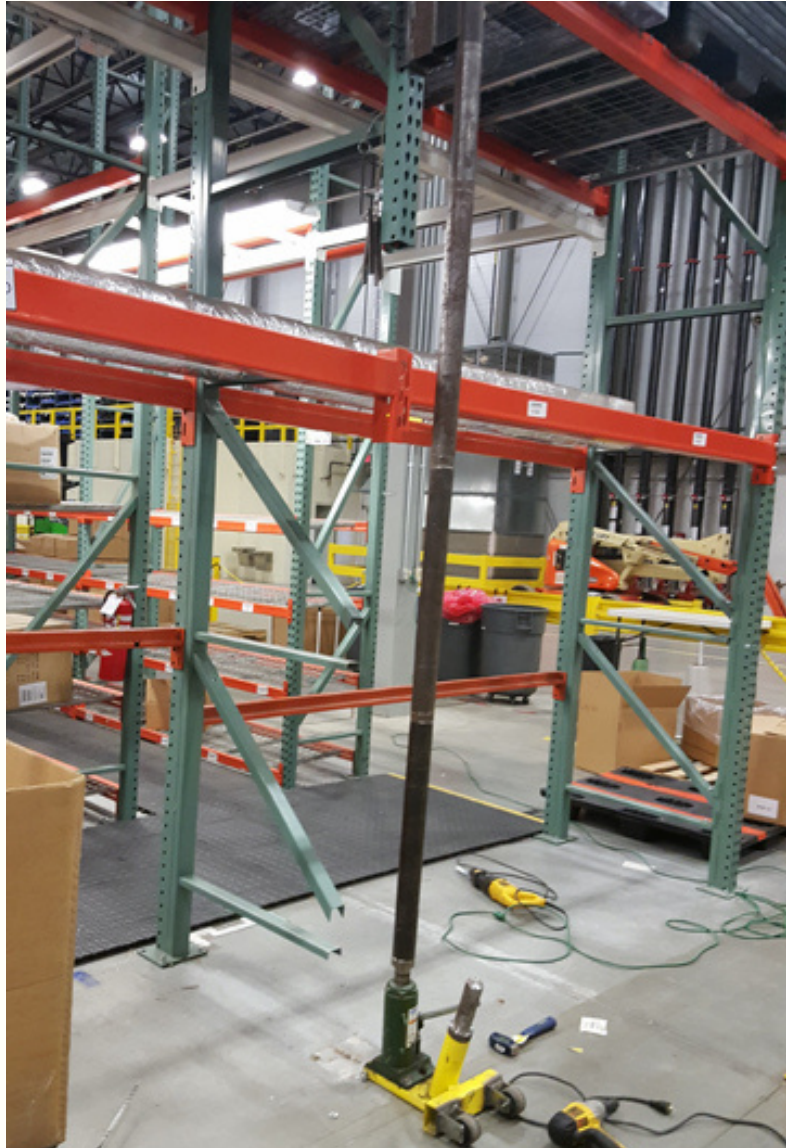
Damaged Decking

Your Next Steps for Pallet Rack Repair

If damage is found, action should be taken immediately to prevent injury. Any area where damage is located should be sectioned off and not continue to be utilized.

You should then contact a professional to properly repair or replace the damage. The professional will assess the damage and offer suggestions on whether it can be repaired or if it requires total replacement.

Often, damaged columns and struts can be remedied by rack repair. Rack repair significantly reduces cost, time and disruption to your operation than replacing the components. Repairs are done in place, using a lifting jack the damaged portion is removed and replaced with a repair kit. Rack repair components must be at least as strong as the undamaged components and meet the same requirements as the original installation.



Your Next Steps for a Safe Rack System

If you are concerned about the safety of your racking system, the sooner you address it the better. REB is highly experienced with rack safety inspections. Email or call us in order to contact one of our experts directly.

CONTACT US:



Email: info@rebstorage.com

Fax: (773) 252-0303

Phone: (773) 252-0400

Toll Free: (800) 252-5955