
Pallet Racking Annual Structural Integrity Inspection

1.0 Objective & Scope

The objective of this procedure is to ensure the structural integrity of all pallet racking systems within the warehouse. This annual inspection aims to identify damage, wear, or potential failure points that could compromise safety, cause inventory loss, or lead to workplace accidents. The scope includes all upright frames, beams, row spacers, base plates, anchors, and load beams. Responsibility lies with the Warehouse Manager and the designated Safety Officer.

2.0 Required Systems, Tools & Materials

- Pallet Racking Inspection Checklist (printed or digital form in SupplyGrid WMS)
- Digital camera or smartphone for photographic evidence
- Measuring tape (25 ft / 8 m minimum)
- Spirit level (2 ft / 60 cm)
- Flashlight or headlamp
- Safety harness and lanyard (if inspecting high racks from a lift)
- Forklift or scissor lift for elevated access
- Red 'Quarantine' tags and yellow 'Caution' tape
- Clipboard, pen, and marker
- Rack repair kit (if minor repairs are permitted per policy)

3.0 Safety & Handling Precautions

- Wear high-visibility vest, steel-toed boots, and hard hat at all times.
- Ensure the inspection area is clear of forklift traffic and pedestrians.
- Do not climb racks; use a scissor lift or forklift with an approved cage for elevated access.
- Inspect only from stable, level surfaces. Never stand on pallets or beams.
- If any rack appears unstable, evacuate the area immediately and cordon it off.
- Follow lockout/tagout procedures if repairs are required.

4.0 Step-by-Step Procedure

1. Obtain the Pallet Racking Inspection Checklist from the SupplyGrid WMS or the designated binder.
2. Visually inspect the entire rack row from ground level for obvious signs of damage, leaning, or misalignment.
3. Using the spirit level, check that the upright frames are plumb (vertical) within 1/8 inch per 10 feet of height.
4. Inspect all base plates and floor anchors for corrosion, cracks, or missing bolts. Tighten any loose anchors using the appropriate tool.

5. Examine each beam connection point (beam-to-upright) for bent or broken clips, missing safety pins, or deformation.
6. Check all load beams for straightness using the measuring tape; a beam sagging more than 1/2 inch over its length must be flagged.
7. Inspect upright columns for dents, bends, or tears. Any dent deeper than 1/4 inch or longer than 4 inches requires immediate quarantine.
8. Examine row spacers and wall ties for secure attachment and signs of stress or breakage.
9. Document all findings on the checklist, including photographs of any damage or anomalies.
10. For any damage exceeding the acceptable limits (as defined by RMI or manufacturer guidelines), attach a red 'Quarantine' tag to the affected rack section and restrict access.
11. Upload the completed inspection report and photos into the SupplyGrid WMS under the 'Rack Inspection' module.
12. Notify the Warehouse Manager of any critical findings and schedule repairs or replacement within 48 hours.

5.0 Verification & Discrepancy Reporting

1. The Warehouse Manager or Safety Officer must review the completed inspection report within 24 hours.
2. If any rack section is tagged as 'Quarantine', verify that the area is physically cordoned off with yellow caution tape and that no inventory is stored on or near it.
3. For discrepancies between the inspection findings and the previous year's report, escalate to the Operations Director for a root cause analysis.
4. All repair work must be documented with before-and-after photos and signed off by the Warehouse Manager.
5. If a rack is deemed unsafe for use, immediately remove all pallets from that section using a forklift and relocate them to a safe area.

Regulatory Disclaimer: This document is a generic operational template provided for educational purposes. The end-user assumes all liability for reviewing, adapting, and validating all step sequences and material handling protocols against local shop capabilities.