RACKING SAFETY GUIDE



JULY 2026

A practical South African guide to safer warehouse racking, inspections, load limits and compliance.

LEGAL DUTIES

Understand your responsibilities under South African health and safety law.

UDL & LOAD LIMITS

Know your load limits and apply correct loading for safe storage.

DAMAGE CHECKS

Identify and act on racking damage before it becomes a risk.

INSPECTIONS

Plan and perform effective inspections to keep your racking safe and compliant.

SAFE RACKING. SAFE PEOPLE.
STRONGER OPERATIONS.

For warehouse owners, managers and operations teams.

SOUTH AFRICAN CONTEXT –

Guidance aligned to local standards, best practice and real-world operations.

CONTENTS & HOW TO USE THIS GUIDE



This guide is designed for warehouse owners, managers, safety teams and operations staff who are responsible for keeping people, products and racking systems safe.
Use it to understand your legal duties, apply best practices and take practical action in your warehouse.

1 Why Racking Safety Matters
2 South African Legal & Safety Context
3 UDL, Load Notices & Practical Loading
4 Forklifts, Pallet Jacks & Common Mistakes
5 Safe Access & Mobile Safety Ladders
6 Inspection, Damage Reporting & Repairs
7 Existing Racking Self-Assessment
8 Practical Racking Safety Checklist & 30-Day Action Plan





HOW TO USE THIS GUIDE

1. UNDERSTAND THE LEGAL CONTEXT
Know your duties under South African health and safety law.

2. CHECK LOAD LIMITS
Follow load notices, UDL limits and safe loading practices.

3. INSPECT REGULARLY
Use checklists and competent inspections to spot issues before they escalate.

4. ACT QUICKLY ON DAMAGE
Report, repair and prevent further risk. Safety is everyone's responsibility.

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1. WHY RACKING SAFETY MATTERS



Warehouse racking carries heavy loads every day. Safety is never accidental — it is the result of getting the fundamentals right. From planning and design to inspection, maintenance and controlled changes, every step plays a vital role in protecting people, stock, equipment and your operation.

Every step, Every day, Every Person Matters

RACKING SAFETY LIFECYCLE

1 → 2 → 3 → 4 → 5 → 6 → 7 → 8

1 PLAN
Understand needs, environment & risk profile.

2 DESIGN
Engineer safe, compliant & fit-for-purpose solutions.

3 SUPPLY
Source quality components to the correct specifications.

4 INSTALL
Install to design, align properly & secure correctly.

5 LOAD
Load correctly within rated limits and distribute evenly.

6 INSPECT
Check regularly to find damage early and act fast.

7 MAINTAIN
Repair promptly & keep components in good condition.

8 MODIFY SAFELY
Control changes with competent approval and documentation.

WHY FAILURES HAPPEN

OVERLOADING



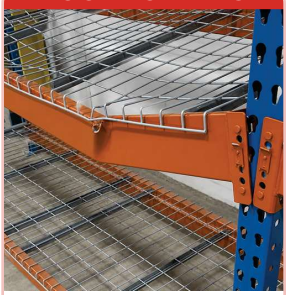
Exceeding rated loads weakens the structure and drives rapid failure.

FORKLIFT IMPACTS



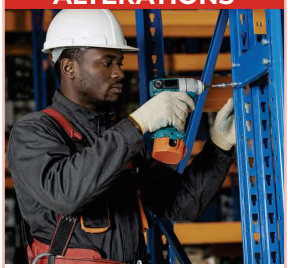
Collisions damage frames and hardware, reducing capacity and stability.

POOR LOADING



Uneven or unstable loads create stress and increase the risk of collapse.

UNAUTHORISED ALTERATIONS



Changes without approval can compromise design and compliance.

PRACTICAL TAKEAWAY

Safe racking is a managed system. not a once-off purchase.

Racking must be:

- Loaded correctly
- Checked regularly
- Changed only with competent approval.

Protect your people, your stock and your operation.

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2. SOUTH AFRICAN LEGAL & SAFETY CONTEXT



There is no single South African law dedicated only to pallet racking, so compliance flows from general occupational health and safety duties, competent design, appropriate loading, regular inspection and proper maintenance.

1. OHSA 85 of 1993

Employers must provide and maintain a working environment that is safe and without risk to employees and others affected by the work.

2. PRACTICAL EMPLOYER DUTIES

Risk assessments, safe systems of work, training, supervision, maintenance, housekeeping, and incident reporting.

3. WAREHOUSE & VEHICLE CONTROLS

Forklift routes, pedestrian separation, speed control, operator competence, rack protection and load stability.

4. SUPPLIER HANDOVER

Layout/design basis, load data, component list, anchors/fixings, operating limitations, and inspection guidance.

KEY LEGAL REFERENCES

- Occupational Health & Safety Act 85 of 1993
- General Safety Regulations
- General Machinery Regulations
- Driven Machinery Regulations (if applicable)

Safety is everyone's responsibility.
Leadership, awareness and accountability save lives.

Practical guidance only — not legal advice.

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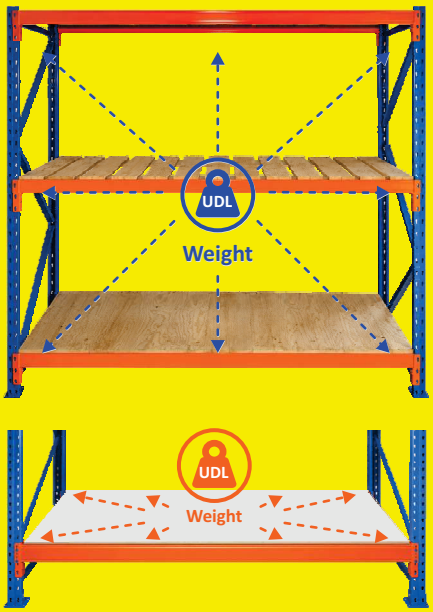
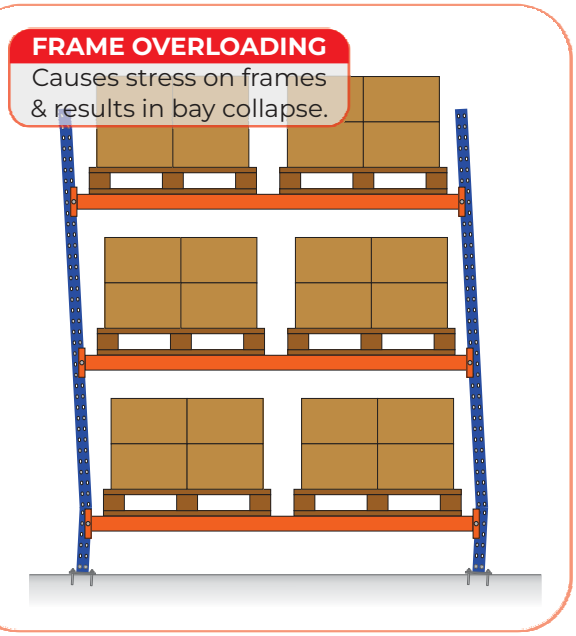
3. UDL, LOAD NOTICES & PRACTICAL LOADING

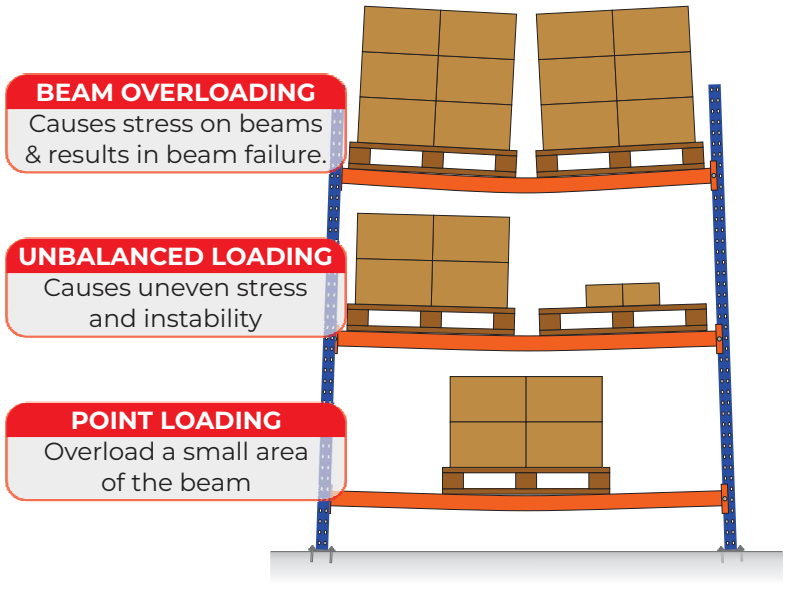
UDL = Uniformly Distributed Load.



FRAMES: The load must be spread evenly across all the beam levels.
Total weight on all beams must not exceed the frame UDL.

BEAMS: The load must be spread evenly across the beam pair or shelf surface, not concentrated at one point.
Load must not exceed beam pair UDL.





DO

- Keep heavier pallets on lower levels.
- Do not exceed beam level load or bay load.
- Centre pallets and distribute weight evenly.
- Use pallets in good condition.

DO NOT

- Never exceed the rated load limits.
- Do not create point loads.
- Do not allow overhang beyond the beam.
- Never climb the racking.

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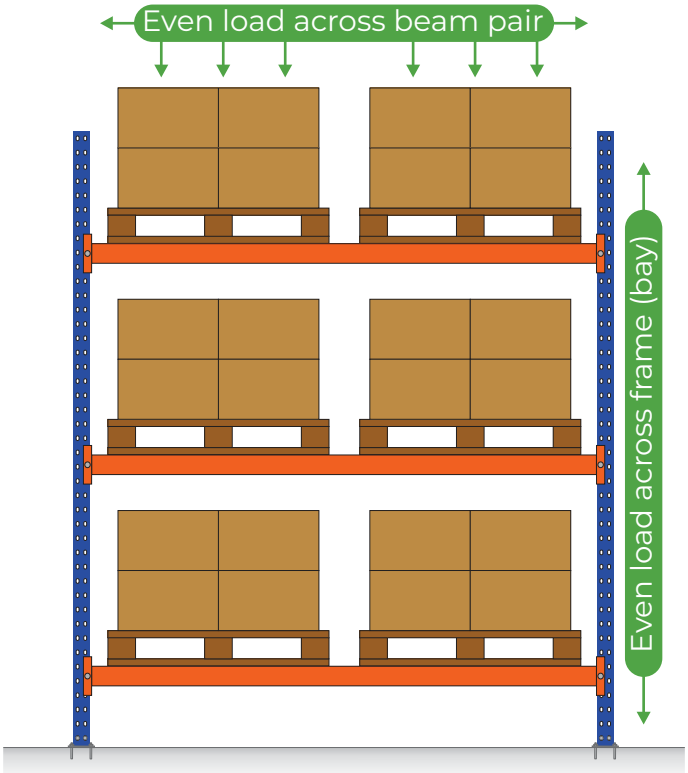
RACKING SAFETY INSTRUCTIONS

- Refer to supplier drawings and specifications.
- Do not exceed the rated load capacity.
- Do not alter racking without written approval.
- Only trained and authorised personnel may operate equipment.
- Never climb racking.
- Place loads squarely and evenly on beams.
- Always distribute loads evenly.
- Store heavier items on lower levels.
- Inspect racking regularly.
- Report any damage immediately.
- Do not use damaged racking.





SAMPLE RACK LOAD NOTICE

RACKING SAFETY INSTRUCTIONS

MAXIMUM LOAD CAPACITY
PER STORAGE LEVEL
UNIFORMLY DISTRIBUTED
Kg

PROCEDURES FOR THE SAFE USE AND MAINTENANCE OF RACKING STRUCTURES

MAXIMUM SAFE LOAD
- Always refer to the supplier's drawings or technical information.
- Do not exceed the stated maximum load capacity for each storage level.

ALTERATIONS TO STRUCTURES
Do not alter any racking without:
1. Checking the effects against the technical specifications.
2. Obtaining written approval from the manufacturer / supplier.

TRAINING
- Only trained and authorised personnel may operate lifting equipment or handle loads.
- Ensure all staff understand safe racking use procedures.

LOADING AND UNLOADING
- Use appropriate lifting equipment (e.g. forklift or pallet jack).
- Never climb on the racking.
- Place loads squarely and evenly on beams.

WEIGHT DISTRIBUTION
- Distribute loads evenly across the level — avoid overloading one side.
- Store heavier items at lower levels to improve stability.

INSPECTION PROCEDURES
Conduct regular inspections to check:
1. Correct use and application.
2. Loads are within safe limits.
3. No damage to, or movement of, structural components.
4. All components (including locking pins) are present and secure.

DAMAGE REPORTING
- Immediately report ANY damage to uprights, beams, or bracing.
- DO NOT USE damaged racking until inspected by a qualified person.

CODE OF PRACTICE
- Refer to the "SEMA Codes of Practice" for further guidance.

IF IN DOUBT
- If unsure or if a problem occurs, always contact your manufacturer or supplier.

LOAD NOT BALANCED
LOAD NOT BALANCED
LOAD BALANCED

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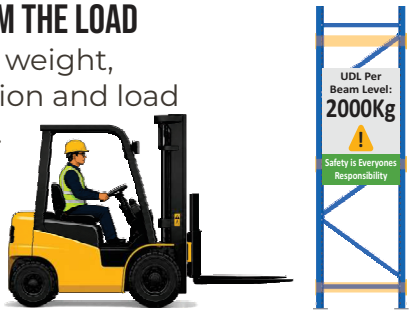
4. FORKLIFTS, PALLET JACKS & COMMON MISTAKES



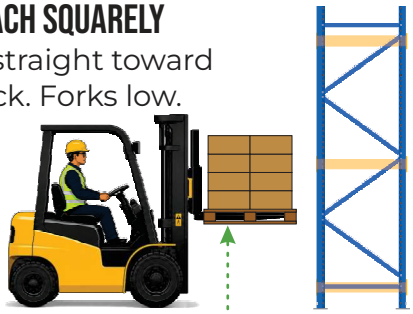
SAFE FORKLIFT LOADING SEQUENCE

CONFIRM THE LOAD
Check weight, condition and load notice.



1

APPROACH SQUARELY
Drive straight toward the rack. Forks low.



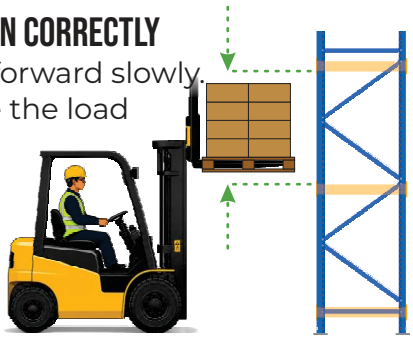
2

RAISE WITH CLEARANCE
Raise the load to just above beam level.



3

POSITION CORRECTLY
Move forward slowly. Centre the load on the beam pair.



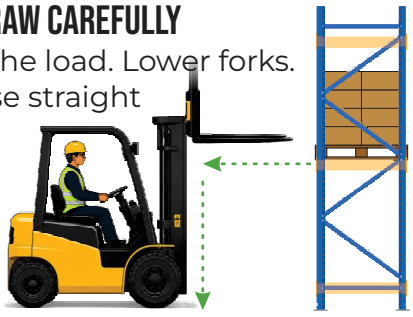
4

LOWER GENTLY
Lower the load until it sits flat and stable on the beams.



5

WITHDRAW CAREFULLY
Clear the load. Lower forks. Reverse straight out.



6

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RACKING SAFETY GUIDE

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COMMON FORKLIFT MISTAKES

STRIKING UPRIGHTS

Damage weakens the rack and creates unsafe conditions.



1

APPROACHING AT AN ANGLE

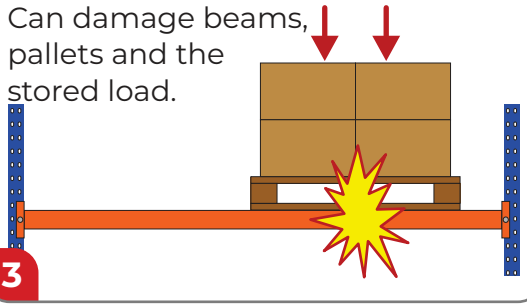
Can cause impact, unstable loads and rack damage.



2

DROPPING PALLETS /SHOCK LOADING

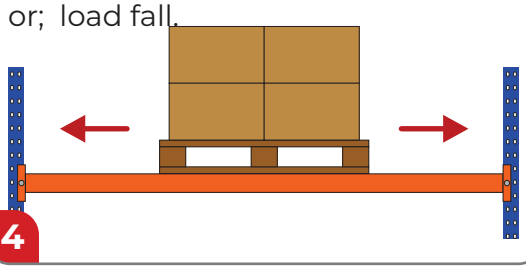
Can damage beams, pallets and the stored load.



3

LOADING OFF-CENTRE

Creates uneven load,irisk of failure or; load fall.



4

USING DAMAGED PALLETS

Weak pallets can break and cause load collapse.



5

PEDESTRIANS IN THE LOADING ZONE

High risk of serious injury to other employees.

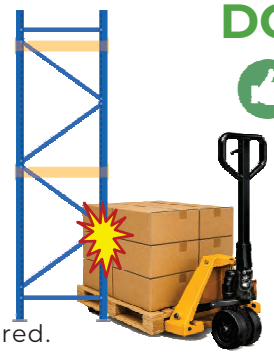


6

PALLET JACK & PALLET STACKER SAFETY AROUND RACKING

DO

- Check pallet condition before moving.
- Keep loads low and stable a tall times.
- Move at walking pace. Stay in control.
- Keep aisles and emergency exits clear.
- Park with forks fully lowered. Out of travel paths.



DO NOT

- Do not overload. Respect load limits.
- Do not block visibility at corners or aisles.
- Do not leave pallet jacks across aisles.
- Do not let loads strike racking uprights.
- Do not use for elevated loading or unloading.



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5. SAFE ACCESS & MOBILE SAFETY LADDERS



Use the right equipment in the right way to access stock safely at height and prevent falls.

BEFORE USE

- Choose the correct ladder height.
- Inspect steps and platform.
- Check handrails and guardrails.
- Check wheels / castors and brakes.
- Ensure firm, level floor.
- Do not exceed rated capacity.

POSITIONING USE

1. Move the ladder while unoccupied.
2. Position squarely in front of the work area.
3. Engage brakes before climbing.
4. Face the steps when climbing up or down.
5. Reposition the ladder instead of overreaching.
6. Use handrails at all times.

BEFORE USE

- Never climb on racking.
- Never stand on pallets for access.
- Never use a forklift as a work platform.
- Never move the ladder while occupied.
- Never overreach.
- Never use damaged access equipment.

WHY SAFE ACCESS MATTERS

Falls from height are a leading cause of serious injury in warehouses.
Racking is designed to store goods, not to serve as a climbing structure.

PLAN AHEAD.
USE THE RIGHT EQUIPMENT.
GO HOME SAFE.

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6. INSPECTION, DAMAGE REPORTING REPAIRS

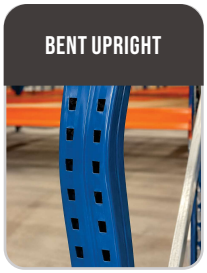


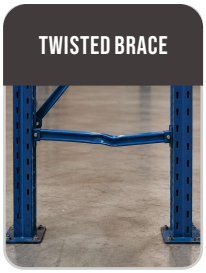
Regular inspections and prompt action on damage are critical to prevent failure, protect people and keep operations moving.

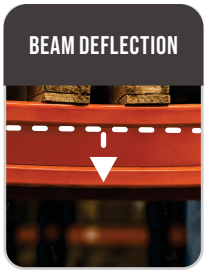
INSPECTION STEPS

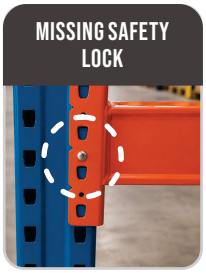
1. **DAILY USER CHECKS**
   Operators visually check racking during use. Report any damage or concerns immediately.
2. **SCHEDULED VISUAL INSPECTIONS BY A COMPETENT PERSON**
   At planned intervals (e.g. weekly, monthly) to identify damage not visible during daily use.
3. **ANNUAL EXPERT INSPECTION**
   Conducted by a racking specialist to assess structural integrity and overall safety.

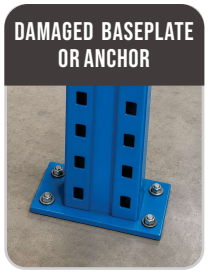
WHAT TO LOOK FOR



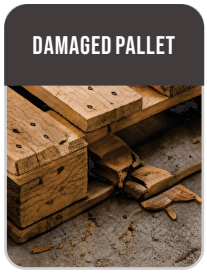












DAMAGE SEVERITY GUIDE



GREEN Monitor and record.

AMBER Isolate or assess the area and repair promptly.

RED Unload immediately and barricade the area until safe.

REPORT & REPAIR PROMPTLY

- Report all damage.
- Do not assume someone else has reported it.
- Only authorised personnel should carry out repairs using approved materials and methods.

Safety first. Repairs last.

RECORD KEEPING

Record the date, location, damage type, action taken, and repair close-out.

Date	Location	Damage Type	Action Taker	Repair Close-Out

7. EXISTING RACKING SELF-ASSESSMENT



Use this self-assessment to check the safety and integrity of your racking system. Tick each item honestly. If any answer is "No", take action.

1. DOCUMENTATION

- ◯ Do you have load notices?
- ◯ Do you have layout drawings or specifications?
- ◯ Do you have supplier details?
- ◯ Do you have inspection records?
- ◯ Do you have repair records?

2. LOADING & LAYOUT

- ◯ Are all loads within rated limits?
- ◯ Is heavier stock stored on lower levels?
- ◯ Are aisles and flue spaces clear?
- ◯ Have there been any unauthorised layout changes?
- ◯ Are product weights still consistent with design assumptions?

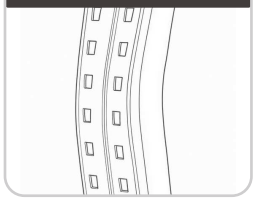
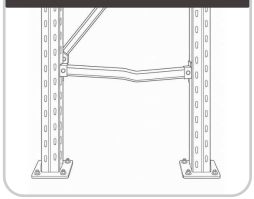
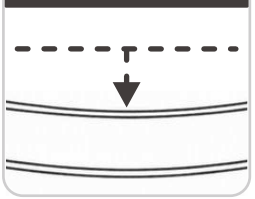
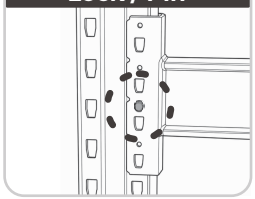
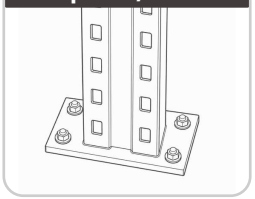
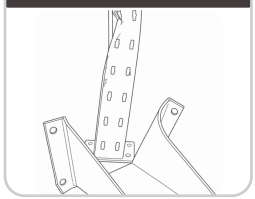
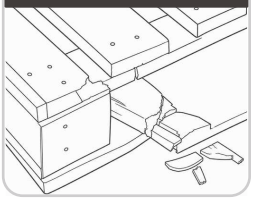
3. PHYSICAL CONDITION

- ◯ No impact damage visible?
- ◯ No bent uprights or braces?
- ◯ Beams seated correctly and level?
- ◯ Anchors secure and undamaged?
- ◯ Safety locks / pins present?
- ◯ Pallets in good condition?
- ◯ Rack protectors in place and intact?

4. PEOPLE & PROCESS

- ◯ Are staff trained in safe racking use?
- ◯ Is damage reporting in place?
- ◯ Are competent inspections being carried out and logged?
- ◯ Is there a responsible person for racking safety?
- ◯ Are repairs controlled and carried out by authorised personnel?

Weekly Racking Inspection

Row	Bay	Bent Upright	Damaged Brace	Beam Deflection	Missing Safety Lock / Pin	Damaged Baseplate / Anchor	Impact Damage	Damaged Pallet
								
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Row	Bay							
15	Comments:							

Name: **Date:**

Shelving Store | July 2026

8. PRACTICAL RACKING SAFETY CHECKLIST & 30-DAY ACTION PLAN

CHECK YOUR RACKING

- [x] Load notices displayed
- [x] Beam safety locks fitted
- [x] Uprights anchored
- [x] Rack protectors in place
- [x] No visible impact damage
- [x] Pallets sound and stable

CHECK YOUR PRACTICES

- [x] Heavy stock stored lower down
- [x] Aisles and flue spaces clear
- [x] Daily damage reporting in place
- [x] Competent visual inspections logged
- [x] Repairs completed using approved components
- [x] Staff trained on safe loading and forklift interaction

30-DAY ACTION PLAN

1 Week 1



GATHER DOCUMENTS & CONFIRM LOAD DATA

Collect load notices, rack specifi cations and layout drawings. Confirm UDL, beam levels and pallet types.

2 Week 2



INSPECT THE SYSTEM & LOG DEFECTS

Conduct a full inspection of racking components, connections and accessories. Record all damage and risks.

3 Week 3



ISOLATE OR REPAIR DAMAGE & UPDATE SIGNS

Isolate unsafe areas, carry out repairs with approved parts, and update load notices and safety signage.

4 Week 4



BRIEF STAFF & SET FUTURE INSPECTIONS

Provide instruction on safe practices. Schedule routine inspections and assign responsibilities for ongoing checks.

WHEN TO SEEK HELP



AFTER A FORKLIFT IMPACT



AFTER A LAYOUT CHANGE



WHEN PRODUCT WEIGHTS CHANGE



WHEN DAMAGE IS FOUND



SAFE RACKING. SAFE PEOPLE.
STRONGER OPERATIONS.



For warehouse owners, managers and operations teams.



SOUTH AFRICAN CONTEXT –

Guidance aligned to local standards, best practice and real-world operations.

Need a fresh set of eyes on your racking?

Give us a call, and we can gladly assist.

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SAFER STORE SYSTEMS STARTS WITH ACTION

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