Loading Bay Damage Repair & Dock Bumper Modifications To Prevent Continual Damage - Felixstowe

Loading Bay Damage Repair & Dock Bumper Modifications - Felixstowe	
Client issue	Repeated loading bay impact damage, trailer override and misaligned docking
Project scope	Trial bay testing followed by engineered installation across 16 bays
Managed by	Amey Dock & Door Specialists
Primary result	Improved dock protection, safer vehicle positioning and reduced risk of repeat damage

Project Overview

Amey Dock & Door Specialists delivered a consultant led, engineering solution to address severe loading bay impact damage and prevent repeat structural failures at a national logistics site. Early warning signs had been missed, resulting in approximately £50k of avoidable repairs.

We managed the project from initial assessment, through trial bay testing, to full installation across 16 bays.

Client Challenge

The site was experiencing repeated and escalating damage caused by trailer override and misaligned docking. Key technical constraints included:

- Severely damaged dock leveller support angles on one bay.
- Vehicles riding over existing bumpers, striking the dock and leveller.
- Unsafe unloading process — containers needed to be opened from inside the building due to load instability.
- Misalignment on the bays, despite wheel guides being present.
- Bumper height limitations — protection needed to stop override while still allowing internal door opening.

These issues created structural damage, operational disruption, and rising repair costs.

Engineering Solution

Amey Dock & Door Specialists engineered a specification led modification package focused on impact protection, geometry correction, and leveller repair.

The solution included:

- Concrete cutting to expose damaged leveller fixings.
- Straightening and refixing of leveller curb angles.
- Recasting concrete around the repaired leveller structure.
- Steel protection added to the front of the dock to prevent future impact damage.
- Bespoke steel bumper support posts, bolted to both the yard and dock to withstand shunter truck forces.
- Modified spring loaded bumper brackets — preventing trailer override, then retracting to allow internal door opening once docked.
- Heavy duty nylon bumpers to reduce ongoing wear and tear.
- Repositioned wheel guides to ensure correct vehicle alignment and reduce mis docking damage.

Trial Bay Testing

Due to tight operational margins, I recommended a trial bay, testing multiple bumper types and heights before committing to full rollout. This ensured the final design matched the fleet, shunter positioning, and building geometry.

Key Outcomes & Results

Following implementation, the site achieved measurable improvements in structural protection, operational reliability, and long term cost reduction.

Structural & Dock Protection

- Eliminated trailer override through redesigned bumper geometry and reinforced supports.
- Reduced recurring damage to dock faces, leveller structures, and concrete.

Operational Reliability

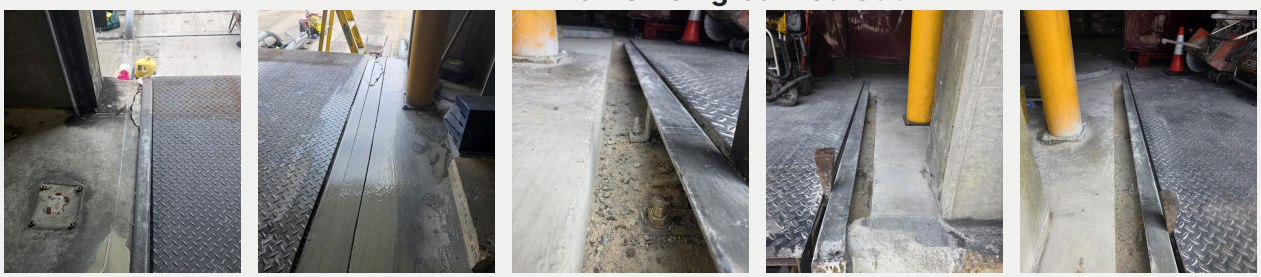
- Improved vehicle alignment through repositioned wheel guides.
- Safer unloading due to correct bumper height and controlled trailer positioning.

Cost Avoidance

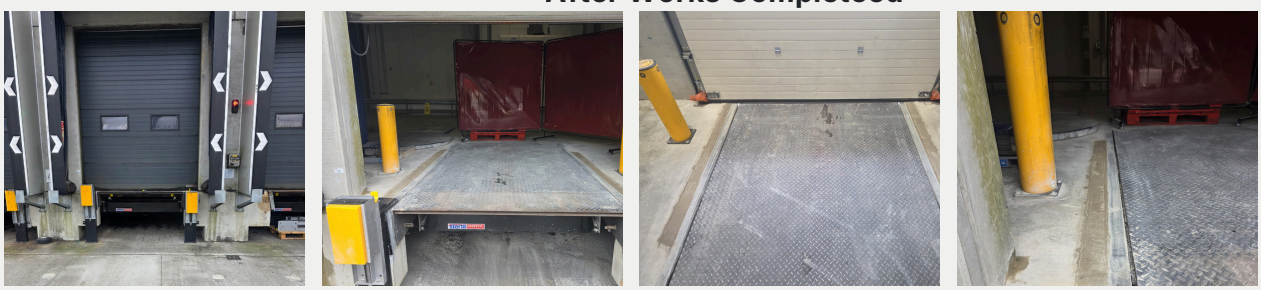
- Only one bay required full leveller repair — but the £50k repair bill highlighted how early intervention prevents major expense.

Before Works Completed

Works Being Carried Out



After Works Completeed



Area improved	Impact
Dock structure	Reduced risk of further leveller, curb angle and concrete damage.
Vehicle positioning	Improved alignment through repositioned wheel guides and revised bumper geometry.
Operational safety	Supported safer unloading by controlling trailer position and bumper height.
Long-term cost control	Highlighted the value of early intervention before damage escalates.

Recommended Next Steps

- Schedule periodic inspection of bumpers, brackets, and wheel guides to confirm fixings remain secure.
- Review driver approach guidance to maintain correct alignment.
- Monitor repair records to quantify reductions in impact related damage.
- Apply the same engineered specification to additional bays with similar geometry constraints.

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For further information contact us enquiries@ameydds.com www.ameydds.com