

SAFETY ALERT

Ref No: SA-005-2023

Date: 21 April 2023

Subject: Collapse of trailer legs

What happened:

The legs on a freestanding trailer collapsed during routine loading operations.

Key findings:

The landing gear of the trailer had been overextended, causing it to become unstable during loading.

Recommendations made:

A number of recommendations have been made and implemented at the port since this incident, including a toolbox talk with operators, review of alternate support methods for free standing trailers and a new trailer inspection check list for inspection both before and after loading.

PSS are grateful to Peel Ports Group for allowing us to share this information with our members, their lessons learnt document relating to this incident is attached for your information.

LESSONS LEARNT: COLLAPSE OF TRAILER LEGS

Ref: LL 01 23



LOCATION: PORT OF GREAT YARMOUTH – STEEL YARD

WHEN: 29.12.22

Event Description

During a routine loading of a freestanding tri-axle trailer, the trailer collapsed on the nearside landing gear leg, after the third pack was loaded. The trailer was loaded from the offside.

The CCTV coverage shows that the legs altered and shifted their placed position after each of the three separate loads were placed on the trailer.

At 25.1t, the load placed on the trailer was within the specified safe limits of the trailer plate with a nett maximum load of 27t. The load was a regular arrangement of 6 x 12.2m packs, 2 loaded at a time.

Immediate/Direct Cause

The trailer was left with landing gear set too high or over extended causing the trailer to be unstable at the headboard end when loaded.

Contributory Factors

- The feet on the landing legs are JOST, S-Foot designed for working on type-1 aggregate, suitable for uneven ground, to lay flat when set and hold the load. They can move and shift position when loads are applied to trailer.
- It was noted after the leg failure that both legs had been over extended.
- When loading the trailer the weight can shift on the extended legs, which can move them forward changing centre of gravity.
- Ground surface was wet, type 1 aggregate, slightly uneven and subject to periodic levelling. The feet had dug into the ground when the load was applied, digging in on the leading edge.
- The FLT operators had not experienced a collapsed trailer or failed landing gear previously, so had not noticed the trailer legs shifting.

Key Lessons

1. A safety alert was issued, highlighting the increased risk of trailer leg collapse when the legs have been over-extended prior to loading.
2. A Tool Box Talk (TBT) was held with the FLT operators to raise awareness of trailer leg heights and the potential for landing gear feet movements during loading.
3. The port investigated the possibility of using trestle's to support the trailer during loading but these were not suitable for this application.
4. A review was undertaken of the RA/SSoW's to capture incident experience, suitable mitigation and whether inclusion of banksman would reduce or increase overall task risk. It was decided that a banksman would not be a further suitable control in this loading activity as this would create a potential person/plant interface risk.
5. A trailer inspection checklist has now been created to inspect and monitor trailer before and during load out.

Image 1: Collapsed trailer



Image 2: Collapsed landing gear



BRIEF BY: 24TH MARCH 2023

DISPLAY UNTIL: 21ST APRIL 2023

LEARNING TOGETHER

