

Trailer Wheel Detachment

What happened?

On 4th October 2018, whilst travelling on the motorway on the way back to the depot, two driver-side wheels detached from an AD2000 Indepsension Trailer that was on-hire from A-Plant.

Following the incident, detailed investigations were completed by A-Plant and Gallagher, which included an independent expert's advice, to determine the root cause of the detachment.

Findings from the investigation were as follows:

1. The trailer was overdue for its 12 weekly inspection, which should have been carried out in August 2018. There was no label on the trailer to indicate when its previous check was carried out.
2. The team carried out routine daily inspections on the trailer, however:
 - a. The daily checks photos were typically only taken of one set of wheels, rather than on both sides of the trailer, therefore evidence was missing on the full state of the trailer on the day of the incident.
 - b. The wheel-nut indicators were clearly not aligned on the day of the detachment from the photos taken, indicating some movement in the wheel nuts, but no action was taken.
3. The trailer contained two types of tyre rim, one of which was the factory fitted Starco rim and the other three being replacement AMW rims from Wheel Solutions Ltd. The replacement rims had significant wear on the inside and the conclusion of the experts is that the movement between the wheels and the brake hubs during use resulted in the wheel bolts coming loose.



Photograph showing different rims and wheelnut indicator configuration



Replacement wheel rim supplied by Manufacturer

Inside of wheel rim (Clear evidence of wear spots)

Photograph showing replacement rim, which had significant wear on the inside

Actions required

- All trailers must be checked immediately to ensure that the wheel hubs on the trailers are compatible with the trailer. Where this is identified they must be quarantined or exchanged.
- All trailers in the business must have a 12 week inspection as a minimum, and this must be held by the central Supply Chain Team. This includes subcontractor trailers.
- All trailers must be tagged to show their next due 12 week inspection check.
- All daily checks must include photos of all wheels on the trailers on a daily basis.
- All wheel nut indicators used in the business must be set so that they are at point-to-point configuration so that it is obvious if they have moved during use.