



# SAFETY ALERT

2 February 2024

## Heavy full trailer drawbar hinge pin failures

Waka Kotahi NZ Transport Agency are issuing this safety alert after several failed drawbar hinge pins resulted in failures of the drawbar and trailer separation.

This safety alert applies to all heavy full trailers with drawbar hinge kits.

### Check your vehicle daily

As part of the driver's daily walk around check, you should be looking to make sure:

- All components are in place - make sure rubber is present between the hinge components (Figure 1).
- The pin is securely in place - see Figure 2 for signs of an insecure pin assembly around the nut and washer.
- Hinge castings and weldings show no signs of cracks.



**Figure 1:** A rubber bead should be formed in each area the arrows are pointing to, separating the metal components. It should be complete around the circumference and not split.



**Figure 2:** These black marks shouldn't be present on a secure connection. If they are, replace the pin kit and bushes.

### If you find any defects

The assembly should be repaired immediately and any faulty components replaced.

Once the original assembly is completed, further tightening of the bolt will not yield any further beneficial compression of the rubber into the spaces between the components. Therefore, if play is found, the pin and bushes must be replaced.

**Excess tightening of the pin can lead to failure of the assembly.**

If the nut is to be checked for security, then a **torque of no more than 300Nm** should be applied. If a nut has come loose, then the reason for its insecurity must be found and faulty components replaced as required. An impact gun **must not** be used to check the security of the nut.

### At vehicle service inspections

As well a daily visual inspection, the hinge connection should be checked at every vehicle service inspection. This should occur at least every 3 months or 30,000kms (whichever is first).

In addition to visual checks, connection should be checked for any non-elastic movement.

If any wear is present, the bushes and pins need to be replaced. The certification allows for a maximum wear of 5% of the original dimensions of the castings, after which they need to be replaced. This is a maximum wear limit not an operational wear limit, if new bushes do not secure the connection, then the castings may need replacing.

Check with the supplier's specifications for any specific issues you find.

### Further information

We're assessing failed pins to determine how to manage this risk going forward. We'll update this alert on our website as more information is available.

[nzta.govt.nz/hinge-pin-alert](https://nzta.govt.nz/hinge-pin-alert)