

SAFETY ALERT #98

SUITABILITY OF JACKS FOR ALL TYRE MAINTENANCE

Date of Incident:

18 December 2010 – Coroners Report Issued 8th September 2014

What happened?

Wayne MacDonald was a 53 year old, experienced, truck driver. He worked at a coal mine in the Bowen Basin region of Central Queensland driving heavy trucks which hauled coal. During his work one of the tyres on a trailer failed and was required to be changed. Accordingly he drove his truck to the appropriate facility at the mine site to change the failed tyre.

There he used a short handled, manual jack, placed under the appropriate axle of the trailer, to lift the trailer and change the tyre. He had provided to him by a work colleague what was thought to be a suitable replacement tyre from those tyres made available. The tyre that was chosen, from a number that were available, was marked in chalk with the notation "SLOW LEAK/OK".

The truck tyre was then inflated to what was considered to be the operational tyre pressure. Mr MacDonald had completed the tyre changing task without incident until he was lowering the trailer to the ground using the jack which required him to place himself between two pairs of wheels on the four axle (double bogie) trailer. As the replacement tyre came into contact with the ground it catastrophically failed, suffering what was later described as a 'zipper failure'. Mr MacDonald, who was then positioned, lying on the ground, between the trailer's tyres, was hit by a percussive shockwave of air causing him fatal injuries. He died at the scene.

Injury:

Fatality

Contributing Factors:

1. Zipper failure of a tyre which caused a catastrophic percussive shockwave of air to strike him, whilst he lay in the confined space between two sets of wheels of a trailer as he undertook the task of replacing a damaged tyre
2. Use of an inappropriate jack (short handle) for the task which required the person to crawl between two sets of dual wheels placing him in a position of danger when raising and lowering a jack

Recommendations:

1. All sites are to ensure the jack type being used for all tyre maintenance activities is adequate for the task and the handle must be of sufficient length to allow a person to be outside the footprint of the vehicle being maintained during the operation of the jack.
2. The Site Manager/Supervisor is responsible for making the determination if the jacks being used for tyre maintenance meet the above criteria. If a jack is deemed not suitable, it is to be immediately removed from service. A replacement jack with suitable specifications sought. If the Site Manager/Supervisor is unsure if the jack is sufficient, please contact Davin Faux or Tanya Hoyle to discuss.
3. The use of bottle jacks at Klinge & Co tyre bay facilities is no longer permitted for any vehicles other than LV's (4WD variety; Hilux etc.). Any site with bottle jacks, not allocated to a vehicle is to immediately remove these items from service and dispose of them.
4. Tyre Service Personnel should minimise the time spent under the vehicle being maintained, to access jacking or standing points when working on all vehicle types. If personnel are spending lengthy periods of time under a vehicle being maintained at your site, the jacks or stands may not be suitable. Please refer to recommendation #1.

Should you require anything further, please feel free to give me a call.

Eliminate All Unsafe Acts & Conditions.

Tanya Hoyle

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