



TYRES & WHEELS

Wheel Nuts

THE WHEEL THING

Estimates suggest that annually there are up to 7,500 – 11,000 cases of loose wheel nuts and other defective wheel securing incidents in the UK. Checkpoint Safety offers advice and solutions to these issues.

Detachment of wheels from vehicles, particularly heavy commercial vehicles, has been a cause of concern for many years. Detached wheels can just come to rest and cause little or no damage. However, in worst cases it can collide with other vehicles causing accidents and even fatalities.

According to the FTA: "When wheels become detached from a moving vehicle, they can accelerate up to around 150km/h, going out of control like a bouncing bomb, reaching a height of 50m before colliding with other vehicles or road users – at an equivalent force of 10 tonnes."

A current FTA/IRTE best practise guide on 'Wheel Security' (Edition 2) offers the Commercial Vehicle Industry an example of best practice guidance to operators and supporting guidance to drivers to encourage standardised practice to procedures; "Our current guide is an opportunity for operators to benchmark their workshop and roadside procedures against what we believe are best practices – and then to put better wheel security policies in place," says Andy Mair, Head of Engineering at the FTA.

"One of the driving forces for the guide was getting driver issues resolved. We have devoted considerable coverage to drivers' responsibilities – from the daily walk-around

check and what to look for, to actions needed, tools and training requirements," explains Ian Chisholm, IRTE's Head of Operations and Communications.

"We also emphasise that any defects should be reported immediately and that vehicles must not be driven until any underlying issues have been investigated and rectified – and the consequences of failure to do so. VOSA takes wheel security breaches very, very seriously, and its enforcement powers include penalties for operators and for drivers."

Movement indicators

Research from VOSA/TRL has indicated that simple cost effective solutions are to fit wheel nut movement indicators to alert drivers and maintenance engineers of any wheel nut movements and or retainers to ensure that wheel nuts remain tight at all times. Checkpoint Safety is the manufacturer, supplier and inventor of the original wheel nut indicators and retainers. These simple solutions could benefit the industry by helping to eliminate wheel detachment and generate a cost benefit of between \$5.8m – £13.9m annually, according to VOSA/TRL.

This year the company have launched a product called Checkthread; a toolkit

which is designed to be used by service staff and engineers to monitor the quality of wheel studs and stud holes. The kits are easy to use and not only offer a clear way of highlighting fixing problems, but also heighten the awareness of wheel security at an operating level. The kits also allow fleet managers to train staff in detecting problems early, which in turn allows the opportunity to take remedial action.

"We've recently purchased Checkthread toolkits for our mobile vehicles and workshop staff and after testing them for a number of weeks, found them to be a very useful tool in detecting worn or stretched wheel studs" says Andy Willis, Transport Manager Buses at Manchester Airport.

Information for this article has been obtained from VOSA & The UK Department of Transport commissioned TRL (Transport Research Laboratory) Report 2006 & 2010 into 'Heavy Vehicle Wheel Detachment & possible Solutions'.

For further information on Checkpoint Original Loose Wheel Nut Indicators, Retainers & Accessories circle 095 on the readerlink card