Red Alert

REDNZ 22-008

Parking Trucks on Slopes

CAMs #352829

This Red Alert supersedes REDNZ 20-001, SAFNZ 21-031 and REDNZ 22-004, and these historical documents will now be removed from the Hub

1. Incident

Trucks roll away uncontrolled on hills and slopes for a couple of reasons. Either the park brake wasn't properly put on, or the park brake fails.

We fit our trucks with park brake alarms to warn us when we've forgotten to pull the park brake on. Brake failures though are harder to predict and manage.

As many of you will know, **almost all small to medium sized (4x2) trucks in New Zealand are fitted with "Cardan Shaft" park brake systems.** These typically work by clamping the driveshaft and if worn or out of adjustment they may not hold the vehicle on a slope. They require regular maintenance and we make sure that they are thoroughly checked before each COF.

Cardan Shaft park brake systems present a significant safety risk and WKNZTA now report at least four fatal accidents in NZ relating to Cardan shaft park brakes in the past 10 years.

Please note: The Nissan truck involved in our tragic 2019 accident was not fitted with a Cardan Shaft park brake - that was a different type of park brake failure all together.

This Red Alert and the attached "Parking on Slopes KnowHow" set out our minimum requirements for parking a truck safely on a slope. It also includes the practical elements of earlier industry alerts.

2. Mandatory Requirements to Prevent Trucks Running Away

(a) The NZ Road Code makes it very clear that there are three things we must do when parking on slopes. **These three things are our first line of defence.** Vehicle runaways will almost always be prevented when we apply these three basic minimum requirements:

Safe parking guidelines

Following the guidelines below will ensure that when you park your vehicle it won't rollaway when parking forwards on a steep road.

- Turn the front wheels towards the kerb.
- Leave your car in reverse gear if it's manual, or in park if it's automatic.
- Apply your handbrake.

How to park safely | Waka Kotahi NZ Transport Agency (nzta.govt.nz)

(b) Trucks parked on slopes don't usually run away when the driver is in the cab. Therefore, **whenever it is practical, drivers should stay in the cabs of their trucks.**

(c) When an unattended 4x2 truck is parked on a slope, and the driver can't leave the truck in reverse gear and turn the wheels towards the kerb (or another suitable barrier) **then wheel chocks must be used.**

(d) 4x2 Trucks are at an increased risk of running away when:

- The park brake is also holding the weight of a trailer
- We're loading or unloading machinery from an attached transport trailer
- The load on the back of the truck is changing
- An auxiliary motor is being used, like a watercart motor, concrete pump, or generator
- Something is causing the truck to vibrate, like a vibrating roller or heavy plate
- On certain road types such as gravel, mud or snow where there is less grip for tyres

In these situations and, if the driver cannot stay in the cab of the 4x2 truck, then wheel chocks must be used.

(e) When we're using chocks, most often it will be safest to **slip them into place from the left hand side of the truck** so that there's no risk of being run over by the truck or the traffic. Sometimes though, if for example there's a steep drop off or bank, you may have to slip the chocks into place from the RHS of the truck. If this is the case please be doubly sure to watch out for traffic.

(f) Vehicles fitted with Cardan Shaft park brakes must now display a warning sticker in the cab of the truck to comply with WKNZTAs new COF requirements.

3. Required Actions

(a) Discuss the key points in this Red Alert and the attached KnowHow with staff at your next team meeting (Senior Managers). Consider giving drivers a copy of both documents.

(b) Group Mechanical Engineer (GE) will adjust the Certified Safe checklist for trucks to cover the fitment of Cardan shaft warning label and wheel chocks to all 4x2 trucks at the next Certified Safe Inspection. Details will also be provided on a suitable wheel chock supplier.

(c) Give a copy of this alert to your subcontractors and advise them that from 1 January 2023 these will form part of our FH site requirements.

(d) Monitor and check in on the implementation of these requirements to help strengthen safe parking habits.

4. Revision History

Date	Author	Brief Description of Change
01/09/2022	T Talbot	Author
25/08/2022	T Talbot	Update based on feedback for publishing
05/09/2022	T Talbot	Confirms that chock requirement applies to 4x2 trucks

5. Closeout Requirements

Please discuss this Red Alert with your teams, complete the items below and return to your Safety Manager. They will collate all responses for the business unit and send a single confirmation to the HSQES Analyst at nzincident@fultonhogan.com before 14 October 2022.

5.1. What date was this Red Alert communicated to the workplace: ____/____/20___

5.2. Could this incident occur in your Region/Project? (Circle your answer below)

YES If Yes, please answer questions 5.3 & 5.4
NO If No, please answer question 5.5

5.3. Have all the actions and recommendations been implemented? (Circle your answer below)

YES If Yes, please answer question 5.4
NO If No, please answer question 5.5

5.4. Are these measures sufficient to eliminate or reduce the risk of an incident (or similar) described in the alert from happening again? (Circle your answer below)

YES or No

If No, please raise a CAM's case listing the required actions and accountabilities to be taken in order to eliminate or reduce the risk. Record the CAM's number below:

CAMs Case Number: CAMs-_____

5.5. Please note the reasons why this incident could not occur within your region / project?

_____

_____

_____

_____

_____

_____

_____

In signing this document, I confirm that the actions above have been completed in this region/project.

Region / Project: _____

Region / Project Manager Name: _____

Signature: _____ Date: _____