



CASE STUDY: **CONNETICS**

CONNETICS POWERS AHEAD WITH SAFER VEHICLES

New Zealand utility infrastructure services company, Connetics, has become one of the first companies in NZ to install the **MAX-SAFE Anti-Rollaway Brake System™** on a range of vehicles.

While searching for safety solutions for cranes, Connetics discovered an ideal active braking solution that could work across their entire fleet, improving safety outcomes.

MAX-SAFE  | MAXIMUM SAFETY
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When you see the kits, the installation and how it works in action, no driver intervention, nothing for the driver to remember, safety of the vehicle and safety of people, it's well worth it.

WAYNE MUIZNIEKS | Fleet Coordinator
Connetics, New Zealand

BUSINESS OVERVIEW

Connetics is a New Zealand company responsible for designing, constructing, and maintaining overhead and underground lines used for utility and infrastructure services. The company operates out of depots in Wellington, Christchurch, and Central Otago with a fleet of 280 vehicles that includes crane trucks, bucket trucks and tippers, many of which can be called upon 24 hours a day.

The span of the company's work involves setting up new utility infrastructure for property and construction developments; maintaining powerlines, streetlights, and other utility services to reduce any outages; and repairing damaged lines so power can be restored as soon as possible.

Staff work day and night in all types of weather which, being New Zealand, can mean snow, strong winds and rain, and at times on steep and mountainous terrains.



We wanted to find a solution to make crane-lifting procedures safer.

THE SAFETY CHALLENGE

In early 2021, a Safety Think Tank at Connetics identified that they wanted to reduce the risks around cranes and improve crane truck safety.

WAYNE MUIZNIEKS,
Fleet Coordinator at Connetics

Crane trucks work on or near high voltage transmission or distribution networks, which amplify the inherent risks of crane operations. Common risk factors include:

- Crane stability which can be affected by weight of load, movement of the crane, boom length, wind conditions, ground stability and the slope supporting the crane tyres.
- Vehicle stability which requires tyre surfaces to be touching and sufficiently anchored, and the brakes to be always engaged (so the truck won't slip, roll or tip) – all while the truck is running and operating the crane.
- People safety – Connetics staff work around the vehicle and on the crane and at times alongside people from other companies, at times in elevated risk emergency situations.

“We wanted to find a solution to make crane-lifting procedures safer,” said Wayne Muiznieks, Fleet Coordinator at Connetics. “When lifting certain loads, crane trucks have the potential to tip over or run away. How could we make sure the brakes would be activated when required? We decided to segregate the crane issue and the rollaway issue. For us having a good safety braking system would enhance safety.”



THE HUNT FOR AN ANTI-ROLLAWAY SOLUTION

Connetics spent several months researching and trialling three different braking solutions.

First up was a mechanical collar that was applied over the brake handle. It relied on human intervention – people – to take it off and on.

The second solution involved installing a hydraulics system into the truck. “To make this work our drivers had to hold the brake down while depressing a switch, then let out the clutch while accelerating. It was an analogue system, cumbersome and not practical if you were taking off on an incline,” said Wayne.

The third solution, the MAX-SAFE one, was discovered via a YouTube clip of Gary Puklowski, Managing Director of Autokraft Electrical and Diesel, demonstrating the automatic braking function by opening the truck door as the vehicle was driving along – it stopped automatically and immediately. (See: https://www.youtube.com/watch?v=r3JEnwA_KQ4)



Developed by an Australian company, the **MAX-SAFE Anti-Rollaway Brake System™** provides an active safety solution in the event that the park brake is not fully applied before leaving the vehicle. It provides protection for the driver, occupants, bystanders and workers – while also preventing damage to the vehicle and surrounding property. In Australia, it has been used by thousands of waste management vehicles for a number of years.





THE TRIAL

Connetics decided to involve three different departments and vehicle types in the **MAX-SAFE Anti-Rollaway Brake System™** trial:

- A Crane Truck (2020 Isuzu FVZ1400M, with a Palfinger PK17.001 crane at the rear).
- A 20-tonne tipper, often a vehicle used in suburban streets, so a high risk if it were to run away.
- An Elevating Work Platform (EWP) vehicle – an Articulated Boom Lift.

Staff from MAX-SAFE’s New Zealand distributor, Autokraft Electrical and Diesel, travelled to Christchurch to install and test each solution on the three vehicles.

The trial consisted of hill parking with the brake off, opening the door with the driver off the seat, and parking the truck with the brake off and with the driver leaving the vehicle.

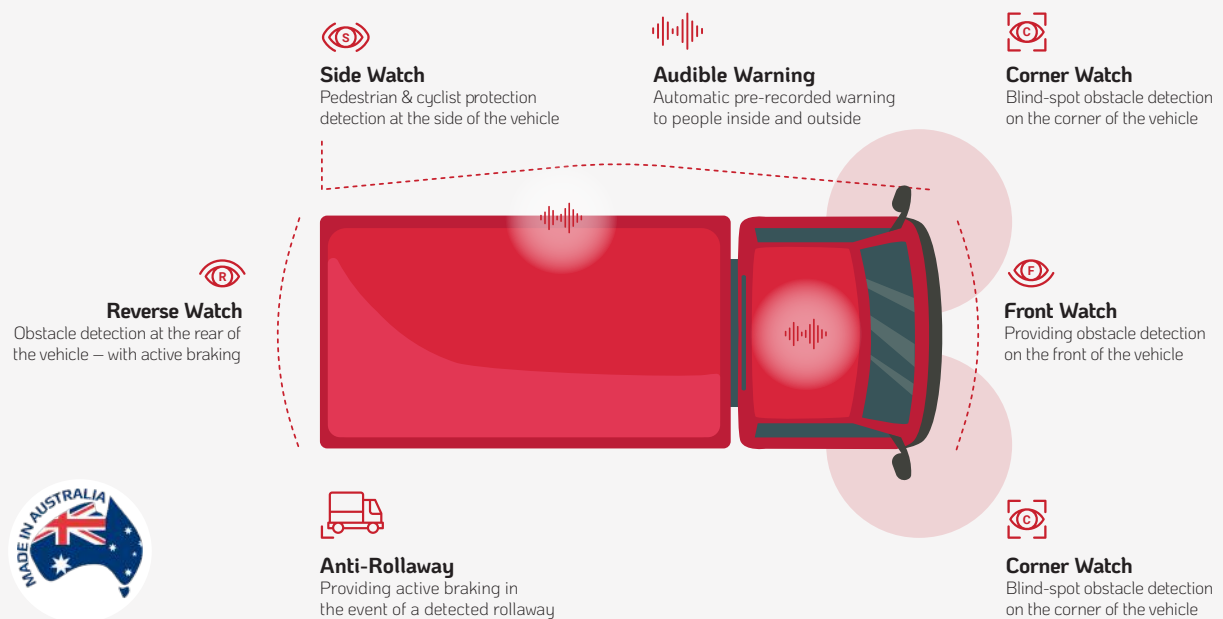
Autokraft’s Gary Puklowski also provided a demonstration to the drivers and explained what the system did, what each indicator light meant, and what happens when they open the vehicle door.

“Our drivers knew what the solution was capable of and were left alone to make up their own minds as to what they thought of it,” said Wayne. “After three weeks of usage we sought their feedback, which is what sold us. It was a system that worked well and did everything as it should. Because there is no driver intervention other than the checks, they were often unaware that the system was there – it was just the system’s lights on the dash display that would remind them.”

THE MAX-SAFE SAFETY ECO-SYSTEM

The **MAX-SAFE Anti-Rollaway Brake System™** is part of the **MAX-SAFE Safety Eco-System™**, the most advanced, preventative safety system for heavy vehicle fleet management.

The MAX-SAFE Safety Eco-System uses on board intelligence and a suite of technology solutions to prevent accidents from happening. When integrated with fleet management software, it provides fleet managers with unparalleled oversight of their vehicles and drivers, and the most effective means to deliver on safety goals.



ROLL-OUT

Connetics has a fleet of 280 vehicles which includes crane trucks, bucket trucks and tippers. While usage / mileage and condition vary per vehicle, on average vehicles are replaced after eight years of service.

The **MAX-SAFE Anti-Rollaway Brake System™** will be installed on approximately 90 vehicles at a rate of two a month over the next 3-4 years – essentially every truck that has an identified risk element attached. Priority will be given to latest purchases, newer vehicles and higher risk vehicles, e.g., those working on hills or other challenging environments or for specific contract purposes.

ADDED BONUSES

Installing the **MAX-SAFE Anti-Rollaway Brake System™** has also made it easier for Connetics to comply with more stringent safety requirements tied to site development and civil road construction projects. Fulton Hogan, for example, requires all vehicles used on their sites to be fitted with a park brake alarm. “Now when we contract for them the MAX-SAFE solution ticks that box. It’s an added bonus,” said Wayne, who is inspired by continuous improvement and optimisation.



...the MAX-SAFE solution complies with client site safety requirements. It's an added bonus.

WAYNE MUIZNIEKS, Fleet Coordinator at Connetics

OUTCOME & VALUE

According to Wayne, what reaffirmed to them that they had made the right decision to go with MAX-SAFE was when the kits arrived, they discovered they were custom designed for each brand of truck.

“You have an Isuzu lead that fits into an Isuzu plug. There’s no splicing of wires or intervention on our behalf. Nothing that can compromise the system.

“In our experience you pay for what you get and it’s a really good system. If you want a good anti-rollaway system for all round safety, this is it. Holistically, when you see the kits, the installation and how it works in action, no driver intervention, nothing for the driver to remember, safety of the vehicle and safety of people, it’s well worth it.”

In terms of working with Autokraft and MAX-SAFE, Wayne said he expects good performance and a good price from his service providers and found Autokraft delivered on that front. “I found them to be very professional and would happily recommend them.

“We are pleased that through them we have discovered this solution and we look forward to other New Zealand companies taking it on board,” said Wayne. “Once they see the **MAX-SAFE Anti-Rollaway Brake System™** and see it in action, they will be hard pressed to say no to it if they are serious about safety. It’s a good product and their people will be safer for it.”

We are pleased that through them we have discovered this solution and we look forward to other New Zealand companies taking it on board.

WAYNE MUIZNIEKS, Fleet Coordinator at Connetics

KEY BENEFITS

The **MAX-SAFE Anti-Rollaway Brake System™**

- ◆ Maximum safety for all people and property.
- ◆ Active, automatic system – no driver intervention, no complicated processes.
- ◆ Inbuilt algorithms for constant self-analysis for faults.
- ◆ Mitigates human error (when forgetting to apply park brake).
- ◆ Ideal for fast-moving/emergency services.
- ◆ Prevents runaway vehicles, including on steep hills.
- ◆ Out of the box customised solution with ready to go plugs for each vehicle type – no splicing of wires, full confidence in the integrity of the system.
- ◆ Same solution works on all vehicle types.
- ◆ Inbuilt park brake alarm – meets site safety requirements.
- ◆ Back-up service – experienced NZ-based dealer for installation and service.
- ◆ Confidence in the solution, peace of mind knowing people are safer.
- ◆ Add-on reversing radar technology can be installed with the braking system at a later date (allowing for initial financial constraints, new regulations, etc.).



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MAX-SAFE ANTI-ROLLAWAY BRAKE SYSTEM

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- ◆ MAX-SAFE Maximum Safety®
- ◆ MAX-SAFE Reverse Watch®

With thanks to Connetics for provision of images of
fleet vehicles and snow work operations.

Published February 2022.

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