Submission on the Land Transport Rule: Regulatory Systems Rule Amendment (RSRA) 2025

Submitted to:
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Submitted by:

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1. Introduction

The Crane Association of New Zealand (CANZ) welcomes the opportunity to provide feedback on the proposed amendments under the Land Transport Rule: Regulatory Systems Rule Amendment (RSRA) 2025.

2. General Comments

CANZ supports the overall aim of the RSRA to make minor and technical amendments that enhance clarity and reduce compliance costs without compromising safety.

Mobile cranes are fundamentally distinct from general heavy vehicles. Their design prioritises lifting capability over transport efficiency, resulting in specialised structures, unique axle configurations, and non-standard braking and steering systems. Regulatory frameworks must recognise these differences to ensure mobile cranes can be imported, certified, and operated safely within New Zealand.

Treating mobile cranes as a subset of general heavy vehicles risks creating compliance issues and operational inefficiencies. We therefore urge NZTA to adopt a tailored regulatory framework that reflects the specialised nature of cranes. The following sections outline specific concerns and recommendations related to the proposed amendments.

3.2 Heavy-vehicle Brakes 2006 – Clause 1.2(4)(b)

Proposal 2.

CANZ Position and Concerns: While CANZ supports robust and practical safety verification methods, we have significant concerns that the current framing of this proposal as limited strictly to non-towing vehicles may inadvertently restrict the operation of specialised heavy vehicles, particularly mobile cranes, which require occasional or operational towing configurations.

Specific Concerns Raised

1. **Exclusion of Certain Mobile Cranes from Compliance Pathways**
   Although mobile cranes are classified as rigid and often operate without towing, there is a crucial subset of these vehicles that tow specialised trailers. These are not conventional towing operations but involve trailers that:
   - Support boom extensions and/or counterweights
   - Are used temporarily or operationally to manage axle loading, especially to:
     - Comply with New Zealand's overweight (OW) permitting system
     - Reduce bridge and road infrastructure stress
2. **Impact on Road and Bridge Infrastructure Compliance**
   This towing practice supports the goals of:
   - Reducing individual axle loading
   - Enabling more compliant and safer crossing of sensitive infrastructure (e.g., aged bridges)
   - Reducing the need for multiple trips, thereby decreasing road usage and emissions
3. **Barrier to Operation Under the New Rule**
   By restricting dynamic testing to "non-towing vehicles," the proposal would:
   - Exclude mobile cranes with trailer-aided configurations from this method of compliance
   - Potentially prohibit the operation of these cranes unless re-tested under more restrictive static brake validation methods
   - Result in limited access to regions dependent on such configurations due to New Zealand's unique geography and infrastructure

CANZ Recommendation:

To ensure the regulation remains fit-for-purpose, CANZ recommends the following refinements to Proposal 2:

- Clarify or expand the definition of "non-towing vehicle" to include mobile cranes that tow only for load distribution purposes
- Permit dynamic testing as a valid compliance method for these special cases, provided that:
  - The trailer used is integral to compliance with OW permitting

Conclusion:

Mobile cranes are critical to infrastructure, construction, and emergency response sectors across New Zealand. CANZ urges the NZTA to consider the practical realities of mobile crane operation and the strategic importance of allowing dynamic testing for a broader scope of heavy vehicles where safety and compliance can still be demonstrated.

Limiting the proposal strictly to rigid non-towing vehicles could have unintended consequences, including operational limitations and increased infrastructure wear—counter to the objectives of the rule itself.

3.2 Heavy-vehicle Brakes 2006 – Clause 2.7: ABS Requirements

Proposal 4:

CANZ supports the overarching goal of enhancing road safety, including through the introduction of anti-lock braking systems (ABS) on certain heavy vehicles. However, we strongly oppose a blanket mandate requiring ABS on all heavy vehicles, including mobile cranes.

Mobile cranes are highly specialised machines, engineered not solely for high-speed transport but also for safe and stable lifting operations. Their unique design characteristics include non-standard axle configurations, complex articulated or steer-by-wire systems, and structures focused on stability during stationary lifting and dynamic road handling. Consequently, they operate under very different conditions from conventional freight or passenger vehicles.

Key Points:

- **Design Incompatibility:** Many crane models particularly Rough Terrain, City, Pick-and-Carry, and Articulated Cranes are not equipped with ABS as standard. These cranes are optimised for high-stability operations and often feature off-road chassis designs where ABS is neither required nor compatible.
- **Limited Road Use:** Cranes typically travel short distances on public roads at low speeds, further reducing the applicability and necessity of ABS. Their primary operational context is off-road or within restricted environments such as construction sites.
- **Manufacturer Input:** Major international manufacturers including Liebherr, Grove, Tadano, Demag, Kato, Franna, Terex, and Sany have confirmed that many crane models are not factory-fitted with ABS. While some All-Terrain and Truck Crane models offer ABS, a significant portion of the global crane fleet does not.
- **Retrofit Limitations:** Although some aftermarket ABS kits exist, they may not be legally compliant or technically feasible due to incompatibilities with the vehicle's architecture, cost constraints, and lack of manufacturer integration support.
- **Operational Consequences:** A mandatory ABS requirement would restrict the import and certification of essential crane types that play a critical role in infrastructure and utility operations throughout New Zealand.

Suggested Changes:

CANZ recommends that NZTA revise Clause 2.7 to include:

- Recognition of mobile cranes as a distinct class of specialist heavy vehicles.
- An exemption for cranes that cannot be factory-equipped with ABS, supported by manufacturer evidence.

Conclusion:

While CANZ supports road safety initiatives, regulations must remain fit for purpose. A one-size-fits-all ABS mandate would pose substantial barriers for crane operators and importers, disrupt essential

services, and overlook the proven safety of cranes without ABS. We urge NZTA to adopt a differentiated, risk-based approach that reflects the technical realities of crane design and use.

3.2 Heavy-vehicle Brakes 2006 – Clause 7.1(4)(c)(ii)

Proposal 5 recommends requiring all towing vehicles to have ABS functionality.

Implications for Mobile Cranes:

While most mobile cranes operate as standalone units, a subset regularly tow boom trailers. These configurations are:

- Essential for transporting long booms or counterweights
- Frequently used to comply with axle loading and bridge restrictions
- Operated by members to access infrastructure-challenged regions

ABS Retrofitting Challenges:

- Specialist mobile cranes, are often not equipped with ABS
- Retrofitting ABS may be technically infeasible or unsupported by manufacturers
- Even newer models may not offer ABS, depending on specification

Barrier to Fleet Renewal:

This proposal may unintentionally discourage fleet modernisation by disqualifying newer models lacking ABS, contrary to safety goals.

CANZ Recommendations:

- Introduce exemptions or conditional pathways for mobile cranes towing boom/counter weight trailers.

Conclusion:

Proposal 5 risks unintentionally limiting specialist crane configurations. CANZ urges NZTA to consider excluding mobile cranes from this section.

3.2 Heavy-vehicle Brakes 2006 – Clause 7.5

Proposal 7 Recommends amending clause 7.5 to ensure heavy vehicles have anti-lock braking system (ABS) functionality

Conclusion

As mentioned in the previous sections, a one-size-fits-all approach is not suitable for all heavy vehicles. Mandating the installation of ABS functionality across all heavy vehicles will restrict the types of cranes eligible for registration in New Zealand. Specific crane designs serve distinct functions within the construction industry, and limiting the range of crane types available will have a significant impact on infrastructure development and the broader construction sector across New Zealand.

3.5 Vehicle Dimensions and Mass 2016 – Clauses 6.21 & 6.22: Swept Path Requirements and Crane Definition

Proposal 12

CANZ acknowledges the constructive intent of Proposal 12, which aims to reduce compliance burdens by exempting some mobile cranes from individual swept path assessments. While supportive of this goal, we have serious concerns about terminology and scope.

Key Issues:

1. **Ambiguous Terminology – "Power Crane":**
    - Not recognised within the NZ crane industry or by international standards.
    - Risks confusion among enforcement officers and certifiers.
    - Should be replaced with "mobile crane" to align with:
        - Manufacturer classifications
        - Other New Zealand Legislation
        - VDAM
2. **Misalignment with Existing Legislation:**
    - “Power crane” is undefined and conflicts with established terminology, increasing compliance uncertainty.
    - Current frameworks already recognise mobile cranes as a distinct, non-freight vehicle class.
3. **Unclear Exemption Criteria:**
    - Unclear eligibility thresholds may unintentionally exclude certain crane models.
4. **Operational Impacts:**
    - Ambiguous rule language could limit access to equipment vital for infrastructure delivery.

Suggested Changes:

1. Replace "power crane" with "mobile crane" throughout the rule.
2. Introduce a consistent and harmonised definition of "mobile crane" across NZTA rules, that includes the following sub model types:
    - All Terrain Cranes
    - City Cranes
    - Rough Terrain Cranes
    - Pick-and-Carry Cranes
    - Mobile Tower Cranes
    - Truck-Mounted Cranes
    - Articulated Cranes

Conclusion:

While CANZ supports efforts to streamline compliance, success depends on precise language and clearly defined technical criteria. Replacing "power crane" with "mobile crane" and aligning terminology across legislation will ensure clarity, enforceability, and consistency with industry norms.

3.6 Clause 6.56 – Revocation of a Permit

Proposal 14

CANZ conditionally supports aligning overdimension permit revocation with overweight permit criteria but only where contextually relevant.

Key Clarifications

- Each permit type serves a distinct regulatory purpose
- Blanket application may misrepresent different operational risks
- Misapplied conditions can disrupt critical crane operations

Suggested Position and Changes

1. Allow similar revocation methods only when contextually relevant
2. Define specific revocation triggers for overdimension permits
3. Avoid generic conditions that don't reflect crane operations

Conclusion

Regulatory alignment should not compromise permit regime integrity or operational viability. CANZ supports clarity and effectiveness through targeted revocation mechanisms.

4. Conclusion

The Crane Association of New Zealand (CANZ) supports NZTA's intent to modernise and clarify land transport rules through the RSRA 2025. However, we stress the importance of maintaining a regulatory approach that is practical, inclusive of specialist vehicle types, and reflective of industry realities.

In particular, we urge that:

- Mobile cranes be formally recognised as a distinct class of vehicle with structural and operational differences from general heavy vehicles;
- One-size-fits-all regulations—especially concerning braking, steering, and swept paths—be avoided;
- Terminology across rules and legislation be harmonised to ensure consistency and legal clarity;
- Targeted exemptions and separate permit frameworks be retained where appropriate to safeguard fair access and operational continuity.

3.3 Steering Systems 2001 –Steer-by-Wire Systems

Proposal 18

CANZ supports the proposed update to allow international standards as an alternative compliance pathway for steering systems, particularly in acknowledging indirect systems such as "steer-by-wire." However, we are concerned a blanket approach to approved international standards may

inadvertently restrict the importation or manufacture of mobile cranes by only approving approved international standards designed for passenger vehicles and standard on road heavy vehicles such as trucks and trailers.

Operational Context:

Steer-by-wire systems have been widely used in mobile cranes for decades. These systems eliminate the need for mechanical linkage between the steering wheel and rear axles, instead using sensors and actuators to control steering.

- **Common Application:**
  - 2-axle cranes: rear axle is steer-by-wire.
  - 3-axle cranes: either axles 2 and 3 or just axle 3 is steer-by-wire.
  - 4-axle cranes: axles 3 and 4 is steer-by-wire.
  - 6-axle cranes: axles 4, 5, and 6 is steer-by-wire.
- **Prevalence:** Majority of mobile cranes in New Zealand are equipped with rear-axle steer-by-wire systems.
- **Design Justification:** These systems are essential for manoeuvrability and stability. They are engineered for both on-road and off-road use and automatically adjust based on speed and front axle angle.

Suggested Changes:

- Explicitly recognise steer-by-wire systems on rear axles of mobile cranes within the rule text or guidance materials.
- Ensure that international standards adopted by NZTA do not inadvertently exclude mobile cranes due to their specialised configurations and operational characteristics.

Conclusion:

CANZ strongly urges NZTA to ensure the revised Steering Rule does not unintentionally restrict the use of mobile cranes with steer-by-wire systems. These long-established systems are vital to crane safety and performance and must remain available under New Zealand's regulatory framework.

Summary:

CANZ remains committed to ongoing engagement with NZTA and looks forward to contributing further to a regulatory environment that ensures safety and supports the effective functioning of New Zealand's lifting and construction sectors.

Submitted by,

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