

Legal Torque

New Dimensions and Mass Rule

- Catherine Bormans -

New Rule

New Zealand has become the first country in the world requiring trucks to meet minimum standards for stability.

On 1 July 2002 the Land Transport Rule: Vehicle Dimensions and Mass came into effect.

The changes brought about by the new rule are essentially two-fold. First, the rule requires heavy motor vehicles to meet new stability standards. Secondly, it simplifies the mass and dimensions limits of different types of heavy vehicles.

Why did the existing legislation need to be changed?

In part, the introduction of this new rule was due to the process already being undertaken by the LTSA to update existing land transport legislation by converting much of it into rules.

But the particular reasons for rationalising the legislation in this case had more to do with the fact that:

- ❖ The previous dimension limits were complex and there was a lack of consistency between vehicle classes and types.

New Zealand has a particularly high rate of heavy vehicle rollover crashes compared to other countries

- ❖ There was no requirement for vehicles to meet a minimum dynamic stability performance, so although vehicles may have met the prescribed limits, they could nevertheless have been unstable and dangerous.

- ❖ Compliance costs were high due to the various exemption and permit regimes.

Stability Requirements

Stability standards do not currently exist in other countries, although Canada, Australia and the United States are considering such a regime.

New Zealand has a particularly high rate of heavy vehicle rollover crashes compared to other countries. With New Zealand's winding and difficult network of roads, the potential for rollover crashes is high.

The statistic quoted leading up to the introduction of the rule was that 29 percent of heavy vehicle crashes attended by the Commercial Vehicle Investigation Unit from July 1996 to November 1999 involved trucks rolling over. The equivalent statistic in the United States is just over three percent.

Under the rule, heavy vehicles will be required to undergo stability testing before they can be issued with a Certificate of Fitness.

Vehicles that do not meet the minimum stability requirement will need to be modified or the loads being carried on the vehicle will have to be reduced either in height or weight.

The stability checks will be carried out using a "static roll threshold" (SRT) calculator which indicates how much force a vehicle can withstand in a steady curve without tipping over. The calculator uses a set of mathematical equations to determine a vehicle's likelihood of rolling over.

The stability calculations will provide a clear indication of what amount of stability is acceptable and drivers

will know exactly how high and heavy their vehicles can safely be loaded.

All heavy trucks and trailers will need to meet the minimum stability requirements. Trailers over 10 tonnes gross weight will have to be tested and given a stability certificate.

Vehicles registered before 1 July 2002 must be tested before their first certificate of fitness check on or after 1 July 2003. Vehicles registered after 1 July 2002 must be tested before their first certificate of fitness check occurring after 1 January 2003. After their initial test, an SRT rating will be shown on the vehicle's certificate of loading and will be checked when the certificate of fitness inspections are made.

Changes to dimensions and mass

The new rule also simplifies the mass and dimensions limits of different types of heavy vehicles.

The rule does not increase the maximum weight (44 tonnes) or length (20 metres) permitted. What it does do is permit more vehicles to have access to those upper limits enabling them to operate at optimum capacity.

Specific Changes

The following is a summary of some of the changes brought about by the new rule.

❖ **Rear overhang has been increased.**

Rear overhang has been increased slightly for rigid trucks to allow for the type of vehicles currently being manufactured around the world. Other conditions have been introduced to improve safety, such as a minimum front axle mass and coupling position restrictions if towing a trailer.

❖ **Minimum mass on front axles.**

Trucks will now need to have a minimum weight on their front axle equivalent to at least 20% of the vehicle's total weight. This is a safety requirement to allow for the increase in rear

overhang now permitted. This means that vehicles need to be loaded in an appropriate way so that at least 20% of the truck's weight is on the steering axle, thereby enabling safe steering.

❖ **Front overhang has been increased.**

The front overhang on trailers has been increased slightly which will bring New Zealand in line with international standards.

❖ **Increased mass limit and overall length for semi-trailers.**

To encourage the use of superior performing semi-trailers, increases in overall length (from 17 to 18 metres) and mass (from 39 tonnes to 41 tonnes) are being permitted.

❖ **Trailer: Truck Mass Ratio.**

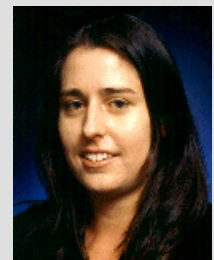
Heavy trailers have been identified as more likely to show stability problems than trucks. For this reason the maximum weight on the axles of the heavy trailer is now limited and cannot be more than 50% higher than the mass of the vehicle which tows it.

Trailers within this limit are easier to control when breaking and during emergency manoeuvres.

The rule provides that operators, modifiers, vehicle inspectors, inspecting organisations and manufacturers are all responsible for ensuring compliance with the rule.

These are just some of the new changes introduced by the new rule. If you would like to discuss any aspect of the new changes, please don't hesitate to contact us.

For further information please contact **Catherine Bormans** on telephone **09 915 2412**, email **cmb@fmlaw.co.nz** or visit our website **www.fmlaw.co.nz**



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