



ADR HARMONISATION REVIEW

AUSTRALIAN TRUCKING ASSOCIATION SUBMISSION 31 JANUARY 2025

1. About the Australian Trucking Association

The Australian Trucking Association is a united voice for our members on trucking issues of national importance. Through our eleven member associations, we represent the 60,000 businesses and 200,000 people who make up the Australian trucking industry.

In all, the ATA represents Australia's leading purchasers and users of trucks, although our associate members include Volvo Group Australia, PACCAR Australia and Daimler Truck.

2. Introduction

In December 2024, the Department of Infrastructure, Transport, Regional Development, Communications and the Arts announced an external review of Australian Design Rule (ADR) harmonisation with international standards¹. The review is to assess the processes for harmonising the ADRs with international vehicle standards, specifically UN Regulations.

The review is to identify practical implementable changes to reduce the regulatory burdens involved in providing road vehicles to the Australian market and that would remove any unnecessary productivity barriers, without compromising safety.

3. How harmonisation is going and what the Government should do

The process of harmonising the ADRs with the UN regulations started when Australia acceded to the UN ECE agreement in 2000.

In 2010, 29 UN regulations were harmonised. A further five were harmonised in 2015-16. The time span of 10 years to initially accept a UN ECE as an acceptable alternate approval standard, 12 years to adopt the harmonisation ADR, Harmonisation ADR 2012, and the additional five years for accept a few more UN standards shows that the current system is inherently slow.

The ATA considers that Australia should harmonise the ADRs for light vehicles entirely with the UN regulations in a rapid, progressive and concise manner.

Rapidly harmonising the light vehicle ADRs with international standards would enable global vehicle manufactures to release new vehicles into our market with the latest technologies in a shorter time frame at lower cost, as they would be certifying to a set of global standards and not to Australian specific regulations. This would also reduce the burden of maintaining Australia's own light vehicle standards.

¹ Department of Infrastructure, Transport, Regional Development, Communications and the Arts, ADR Harmonisation review 2024-25.

Light vehicles approved for release into the market would meet the latest global safety and emission standards; Australia would continue to have input into the light vehicle standards through the department's international representation work.

Australia should, however, disentangle its heavy vehicle design rules from the light vehicle rules and retain them.

This is because—

- Australia is the world leader in allowing long and heavy vehicles onto the road network. These vehicles are specific to our country and of course need specific regulations for their safe and efficient operation. This is discussed further in section 3(a)
- Australia imports heavy vehicles from Europe, Japan, China and the USA. To support choice in the market, the ADRs support a range of alternative standards. This is discussed further in section 3(b)
- International standards are for overseas markets and are not always suitable for Australian conditions or operational practices. To ensure vehicle and road user safety, some ADRs can only be partially aligned to international standards (see section 3(c))
- Australia no longer makes cars, but we make and even export trucks and trailers. Our domestic truck and trailer manufacturing industry provides an individual and customised product to the Australian market. Manufacturers can supply customers with solutions to their truck and trailer requirements using local knowledge, manufacturing and suppliers (see section 3(d)).

The heavy vehicle standards would continue to be based on the UN regulations and harmonised wherever possible but would continue to include deemed to comply references to US / Japanese standards and standards to suit our own conditions.

(a) Australia needs specific standards to support our multi-combination vehicles

Australia uses long, safe and highly productive multi-combination vehicles that do not exist in Europe. We have specific ADRs for issues relating to mass and the design of vehicles used in B-doubles and road trains. Other ADRs include technical requirements based on the needs of multi-combination vehicle users.

ADR 63 is for trailers designed for use in '*Road Trains*' having a '*Gross Combination Mass*' not exceeding 125 tonnes. In Europe, trucks rarely tow more than 40 tonnes

ADR64 is for heavy goods vehicles designed for use in road trains and B-doubles. The function of this national standard is to specify additional design and construction requirements for hauling vehicles designed to be used in road trains and B-doubles.

ADR 14/02 Rear view mirrors was the most contentious ADR to be harmonised with a UN ECE as a part of the Safer Freight Vehicles package. The convex mirror that is listed in the regulation is only directly suited to European prime mover and single trailer combinations. In the Australian market - where trucks frequently operate with two or more trailers - the flat mirror is vital for the safe operation of these longer combinations as it provides a much more

accurate depth of view and allow distances to be accurately assessed. Even though a flat mirror has a reduced field of view compared to a convex style this issue was countered by making them larger and specifying a minimum size. An industry led demonstration – for the benefit of the Department - proved the case for flat mirrors for rear view and eventually drove the change required to amend the ADR.

(b) Australia accepts a range of international heavy vehicle standards

Australia has a diverse range of heavy truck brands available in the market. Some of these vehicles have European origins, some United States and others from Asia.

As a result of this diverse marketplace arising from local manufacturing and overseas manufacture and importing, we have three sets of vehicle standards that can be submitted and accepted for certain ADRs. ADR80/04 is an example of this multi-region standards acceptance where we accept US EPA 2013 or JNLT 2017 as conformance to 80/04.

Harmonising Australia's heavy vehicle standards with the UN regulations would reduce choice for trucking businesses, because of the cost of certifying vehicles to the UN standards as well as their home market standards would result in some vehicle manufacturers ceasing the importation of models that are certified to US / Japanese standards. Additionally, there is a lack of testing facilities in Australia making testing to new requirements a near impossibility.

It would also have a significant impact on local trailer manufacturing and may result in local manufacturers closing, again reducing choice for trailer purchasers.

(c) Some international standards are not appropriate for the Australian market

The UN regulations are written for European conditions. Adopting regulations direct from overseas can inadvertently result in unsafe conditions putting the public and trucking operators at risk.

ADR 35/05 was partially harmonised with a UN ECE which permitted some trucks to have an alternate approval through UN ECE R13. This harmonisation resulted in some trucks utilising service air to apply and hold the trailer parking brake.

Previous versions of this ADR mandated that trailers park on spring brakes. The harmonisation with UN ECE R13 meant that trailers parked on air would have to be chocked when parked with considerable time and expense incurred by operators with the installation / removal of chocks, replacement of lost and damaged chocks and the risk the driver is subjected to walking around the vehicle performing this task.

Trailers parking on air is specific to Europe where prime movers only tow a single trailer and the park brake testing methodology for a prime mover involves the truck and trailer combination: the trucks brakes must hold the combination on an incline to pass. Australian truck combinations often have more than one trailer and have a higher gross combination mass (GCM), to subject an Australian prime mover to this test and expect it to pass is beyond the realm of possibility.

ADR35/06 updated this clause to remove the optional of trailers parking on air and reverted to mechanical actuation of service brakes during parking.

Separately, ADR 38/05 provides a unique pathway for compliance through the “sub-assembly” approach. This has provided Australian operators and manufacturers with a robust, economical and safe alternative to other international standards.

This unique approach places the onus of testing onto the sub-assembly suppliers as opposed to the trailer manufacturers. This reduces the overall costs associated with testing allowing innovation and for smaller manufacturers to compete. This method for demonstrating compliance is different to the UN requirements, which require total trailer testing at a significantly greater cost, favouring larger manufacturers. This was an intentional design by the department to reduce costs.

(d) Australia has a valuable domestic truck and trailer manufacturing industry

There are two major entities manufacturing heavy trucks in Australia: PACCAR Australia (Kenworth and DAF) and Volvo Group Australia (Volvo and Mack). There are also hundreds of local heavy (and light) trailer manufacturers.

The trucking industry benefits from this local manufacturing base by being able to customise their heavy vehicles to a specific task or purpose. Businesses that choose to purchase Australian built trucks and trailers for the long haul market, hostile environments or heavy haulage applications choose them because of their local customisation capability.

For example, PACCAR Australia individually builds each truck to a customer’s request. Wheelbases, powertrains, cabins and sleepers, thermal insulation, acoustic dampening, load capacity and ratings can be individualised at the Bayswater plant.

A unique customisation offered is corrosion protection for chassis and cabin components as certain trucks are used in mine site delivery roles (materials, fuel, vehicles) and the ground water used for dust reduction is 16 times more corrosive than sea water. Without local manufacturing this option would not be readily available and either require significant rework of an imported truck or higher component replacement during service life.

The benefits of customisation extend to the fuel capacity of long haul vehicles. Australia has some of the longest delivery routes and distances between fuel stops of anywhere in the world. Long haul, heavily laden road trains can consume one litre of fuel per 900m travelled (typical of late model 140 tonne road trains) and fuel storage in tanks often exceed 1,000 litres. Many imported heavy vehicles would require aftermarket up fitting for additional fuel tanks prior to being put into service. This work would also involve costly approval via VSB6 and an approved vehicle examiner.

Another example is road train capable trailers, which the UN regulations simply do not cover adequately.

The development of the ADRs needs to evolve at a pace that can be met by Australia’s local manufacturers and international suppliers who develop specific Australian models.

With each change to a standard that is implemented manufacturers need time to develop their product, test and certify and the plant requires upgrading through capital projects and line balancing activities. For example, when Euro V was adopted in ADR80/04, several months of on line prototype build trials, new plant equipment installation and commissioning and final validation was required by local manufacturers.

4. Disentangling the heavy and light vehicle standards

The ADRs can be broad in their application and intent, and often cover all vehicles not just light vehicles or heavy vehicles.

The broad coverage of these ADRs has the potential to either delay their harmonisation with the UN regulations (because of the need to consider Australia-specific heavy vehicle issues) or create regulatory issues for Australia trucking operators (if the harmonisation takes place without considering the specific issues affecting the industry).

As the general ADRs are considered for harmonisation, provisions affecting heavy vehicles of mass greater than 3.5 tonnes should be moved to specific heavy vehicle standards.

This would align the Vehicle Standard (Australian Design Rule – Definitions and Vehicle Categories) 2005 for Medium Goods Vehicle (NB1) with the international breakpoints listed in Trans/WP.29/1045 for Truck N2: GVM \leq 3.5t–12t.

The discontinuity has long been a source of over-complexity as can be seen, for example, in the application clause of ADR 97/00 – Advanced Emergency Braking for Omnibuses, and Medium and Heavy Goods Vehicle, where there are four categories of ADRs – two being a subset of NB whereas the UN Regulations list only three with no subsets.

It should be emphasised that the ATA is not suggesting changing the applicability of other truck regulations or the driver licence class breakpoints. The change we are proposing is to the ADR categories only.

5. Other issues

(a) Coordinating the ADRs with the in-service standards

States and territory legislation takes over from the ADRs after vehicles have been supplied to the market which is commonly taken as at the point of registration and after any approved vehicle modifications.

There is a disconnect between some ADRs and the in-service regulations, in that changes to the ADRs to adjust vehicle designs may require a follow up change to the HVNL or regulations to allow them to be used on the road system.

For example, an issue arose from the implementation of Euro VI emission standards for heavy vehicles in that the larger exhaust muffler required to treat engine gases could not be packaged within the existing spacing distance for twin steer axles.

It took considerable high level effort to secure the necessary change to the ADR and an interim fix involving the issue of permits to allow these vehicles to be manufactured or imported with wider axle spacing.

The interaction of the ADRs and the in-service standards should be streamlined, so a change in the ADRs results in a corresponding change to the in-service standards.

(b) There is a long backlog of heavy vehicle standard issues

There is a long backlog of issues with the ADRs that need to be addressed.

These include ADR 42/05 - General safety requirements, which covers numerous aspects of both light and heavy vehicles. Updates are required for modern safety technologies such as Advanced Emergency Braking and Advanced Driver Assistance Systems (ADAS). There is a section for truck and trailer lighting connectors relating to heavy vehicles that requires updating and is also a candidate for removal from general standards and placed into a heavy vehicle specific standard as set out in section 4.

While amendments to specific ADRs are outside the scope of the review, the ATA's proposed approach to harmonising the light vehicle ADRs should enable the department to focus more resources on keeping Australia's highly specific heavy vehicle ADRs up to date.