VOLVO

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Volvo Group Australia submission to

ADR Harmonisation Review 2024-25

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VOLVO

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1.0 Introduction

Volvo Group Australia (VGA) welcomes the opportunity to contribute to the Australian Government's review into the harmonisation of the Australian Design Rules (ADR). Please see below comments, examples and recommendations from VGA for consideration in this review with the focus on –

- Shortening timelines and/or simplifying the process
- Increasing clarity and eliminating contradicting ADRs
- Reducing costs
- Ensuring agility to keep up with rapidly changing vehicle technologies and advances
- Supporting Australia's high focus on world class safety and transition to net zero

2.0 About Volvo Group Australia

Volvo Group Australia (VGA) has more than 1,600 local employees, and manages the manufacturing, distribution and operation of Volvo Trucks, Mack Trucks, UD Trucks, Volvo Bus, Volvo Penta marine and industrial engines, Volvo Construction Equipment and Volvo Financial Services. In recent years, on average approximately one third of all heavy-duty trucks, and 40% of all heavy-duty buses delivered into the Australian market are Volvo Group Australia brands and products.

2.1. Local manufacturing

Since 1972 VGA has produced more than 80,000 Australian Made Volvo and Mack trucks, and today are Australia's largest vehicle manufacturing powerhouse. Every truck built at our Wacol, Queensland facility carries official 'Australian Made' certification. Please see below an overview of the models of trucks we currently manufacture at this facility, which enter operations in a number of wide-ranging industry segments and applications from demanding haul, mining and heavy construction and transport to local, regional and economic haul, distribution, light construction and more.

It is critical the ADR process takes into consideration the specific characteristics and needs of local manufacturing, since it delivers the ability to offer unique Australian features and specifications that international factories are unable to provide.

*** Import from Sweden & convert in local Modification Centre to dual Steer i.e. for waste trucks etc.**

2.2. A global perspective

As you are aware, the Australian truck market is typically divided into manufacturers/suppliers from three main regions – Europe, America and Japan. At VGA we are proud to offer the Australian industry products from each of these regions -

- **Volvo Trucks (COE) and Volvo Buses** – European (Swedish) origin; Both imported and locally made.
- **Mack Trucks (Conventional / Bonneted)** – American origin; Locally made.
- **UD Trucks (COE)** – Japanese origin

Based on this experience we feel that we are able to provide relevant insights into the opportunities and challenges for ADR harmonisation, taking into consideration both global design and/or manufacturing, as well as local Australian Made.

3.0 Feedback, examples and recommendations

3.1. Consultation and local input

When it comes to the ADR process, VGA would like to stress the importance of keeping adequate time for consultation. Key items to consider for this consultation period include -

- It is important this consultation is industry specific. For example, what works for cars does not necessarily work for trucks and/or buses.
- It is critical this consultation is done with local Australian input since the way we use vehicles (climate/topography/applications/distances) is often different to other countries across Europe, U.S. and Asia.

We also recommend including ADR introduction timing as part of this consultation. For example, local manufacturing often requires more preparation time for 'major' ADR introductions (i.e. emissions, braking, active safety systems etc.) to enable time for items such as new production tooling and equipment, local testing (if required) and local logistics flows and supply chain sourcing and set-up etc.

3.2. ADR process review cannot occur in isolation

While we understand that some of the items raised in this section of our response may be out of scope for this ADR review, VGA would like to highlight the fact that the ADR process cannot occur in isolation, as the practicalities and implementation is so closely linked to the -

- Heavy Vehicle National Law (HVNL) – although this only covers NHVR jurisdictions
- ROVER system and Road Vehicle Standards (RVS) legislation

VGA recommends that the Federal Government finds a way to build hierarchy between the above in a clear and more practical manner, so it is both faster to change the law and avoids uncertainties. For example, this may mean that some ADRs are less prescriptive and allow for the HVNL to manage the enforcement and compliance.

There are also currently some examples where the ADR and HVNL are not aligned, which adds unnecessary complication and confusion.

For example –

- **ADR 42/04 & ADR 95/00** both have max tyre pressure limits of 825kPa despite there having been ongoing discussion to align with Europe's 900 kPa for some time now, which also better aligns with both OEM stated vehicle capabilities and tyre manufacturers' recommendations.
    - The lower tyre pressure limits also restrict axle weights, in turn reducing productivity.
    - Recommendation would be to simply have the ADR match the international tyre and rim standards to enable maximum productivity and remove unnecessary confusion / misalignment.
- **Partially completed vehicle notice** is another example where contradictions between RVSA and the HVNL exist. This is an issue that lies in the RVSA realm rather than specifically the ADR's but it is important any government reviews aim to remove contradictions and misaligned rules and regulations.
    - When we import a unit from overseas our Vehicle Type Approval (VTA) doubles as the import approval for the vehicle. This means the vehicle must be built 100% in accordance with ADR's prior to arriving in Australia. However, at the same time HVNL exempts certain ADR's under its "Partially Completed Vehicle Notice". This provides contradiction between the RVSA and HVNL. It would be beneficial if there could be some alignment in the RVSA in particular.

3.2.1. ADRs, HVNL and NTC interdependence

The current process to introduce and implement new and/or amendments to existing ADRs is extremely long and at times very confusing. Looking at recent examples, this is largely due to the interdependence between the ADRs and the HVNL, and the dependence on sign off not only in Parliament but also by the National Transport Commission (NTC). Recent examples highlight that the timeline for the NTC sign off in particular is not set-up with the industry's best interests in mind. This is further exasperated by the fact that each jurisdiction must then endorse and sign off on any changes to see them come into effect.

Recommendation is for there to be more than one annual review by the NTC – i.e. the opportunity to call for a meeting for urgent items and/or enable the opportunity to get items on NTC agendas at least quarterly. This need is growing in importance due to the rapid pace technologies are now advancing and being introduced to deliver advantages related to key areas such as safety, environment and productivity.

For example –

- The recent Euro VI ADR introduction saw a number of OEMs, including Volvo, unable to meet the current twin-steer axle spacings regulation in Australia due to the increased dimensions of the enhanced Euro VI mufflers. For the Volvo brand the axle spacing change required to keep up with the latest emissions technology was only an additional 245mm, which does not have any impacts on safety, road or asset wear etc. Unfortunately however, because industry did not successfully get this item onto the NTC's November 2024 meeting agenda, we must now wait until November 2025 for a resolution. The result is restricted consumer choice in the market for

twin-steer trucks in 2025, and significant financial, brand image and reputational impacts on the manufacturers unable to supply.

3.2.2. Vehicle Type Approval (VTA) application process

Again, while this item may be out of scope for this specific ADR review, it is another example of how the current interconnected process is inefficient and mandates unnecessarily long timeframes.
Currently all new VTA applications have a 60 business days approval processing time. While this is very long, we do understand the government allowing themselves adequate time to balance demand and their resources etc.

Where this process could be improved however is to enable application updates to be made during the 60 business days period. For example, in the EU system OEM's can update evidence for individual regulations concurrently. The way the current ROVER system works however, we need to update our regulations in batches due to the long processing time. This makes it difficult to maintain the Australian VTA with the rate updates are made by global organisations.

To improve and speed up this process, VGA recommends to enable -

- The ability to have multiple applications for the same Type Approval open at the same time (this was possible in the old system).
- "Self-certification" i.e. approval automatically granted if a 'known and authorised' OEM uploads a valid certificate to the system, which would then immediately enable the vehicle to operate legally on Australian roads. Should an accessor later find during the 60-day period that the certificate is not valid for any reason, the vehicle would need to be taken off the road immediately, in accordance with existing recall processes. Potentially, the authorities could also give the OEM in question an official warning that may impact their 'known and authorised' status.
- The ability to 'batch' upload in the system would make administration easier

3.2.3. Accepting whole Vehicle Type Approvals

Improved timelines and efficiencies would similarly be gained if the ADR process recognised whole Vehicle Type Approvals.

For example –

- In the EU the whole VTA automatically covers the ECE R48. In contrast, locally the ADR 13/00 accepts the ECE R48 as an alternative standard, but the ECE R48 only accepts ECE compliant lamps as per the regulation. If a vehicle is compliant to ECE R48, is it currently still necessary to submit every ECE number on individual SE forms for every lamp despite the ECE R48 certificate already stating all of the individual component ECE certificate numbers. This is a clear example of local process mandating unnecessary administration for all parties.

3.3. Recognising difference between Cab Over Engine and Conventional trucks

In contrast to Europe where the vast majority (if not all) trucks on the road are Cab Over Engine (COE) models, Australia has a mix of both COE and Conventional (bonneted) trucks in operation. Typically for

example, trucks from European and Asian origins are COE, while trucks from American origins are conventional. In 2024, the heavy-duty truck market was made up of 74% COE, and 26% Conventional trucks.

Given on average one in every four trucks delivered in the Australian market is bonneted, it is essential to ensure all ADRs are viable for both truck model types. In recent times, there have been examples whereby an ADR is not viable/possible for bonneted trucks.

For example –

- **Forthcoming introduction of ECE R167 – Direct Vision** which is currently proposed to become mandatory in Europe from January 7th, 2026. This regulation specifies the requirements on the driver's direct vision (i.e. the vision achieved without the aid of indirect vision devices such as mirrors or cameras) of the area directly to the front and to the sides of the driver's cab. While we recognise that the intention of this regulation is positive from a safety perspective, together with TIC and other OEMs, we warn that it is impossible for bonneted trucks to comply with the current drafting of this regulation.

3.4. Adopt more international standards but ensure no 'conflicts'

As a global manufacturer and supplier of heavy vehicles, VGA is very supportive of the ADRs adopting more international standards and agree that this would significantly reduce costs and timelines.

VGA recommends that the two primary international standards Australia should adopt are the –

- ***Economic Commission for Europe (ECE)*** – noting that increasingly Japanese OEMs are aligning already with these European standards also.
- ***U.S. Federal Motor Vehicle Safety Standards (FMVSS)***

Harmonisation with international standards would also see Australian operators access a number of benefits including increased model choice, productivity, efficiency and safety etc.

For example -

- **ADR 42 & ADR 43 retractable axle requirements** don't currently align with the ECE. The largest barrier being transition mass limits which don't match either European or Australian local road limits. This has been discussed for some time now but no action to date, and the local take up of retractable axles affected. This misalignment is currently preventing VGA offering its 6x2 Volvo Battery Electric model that offers additional total cost of ownership benefits including less energy consumption, tyre wear and maintenance requirements.
- **ADR 43 load sharing suspension requirements** don't currently align with Europe. We have found in practice that non-driven axle vehicles e.g. 6x2 can be prone to traction issues. However, this seems to be largely avoided in Europe due to the ability to have unequal load sharing capability via switched input. Again, this delivers safety, tyre wear and productivity benefits.

In doing this alignment/harmonisation however, it is critical for the ADRs to acknowledge BOTH the ECE and FMVSS standards, as they can be at times conflicting. Similarly, some ADRs such as ADR 42/05 requirements are vague compared to global standards.
For example -

- A lot of the sections of ADR 42/05 and some of the new ADR90s directly correlate with FMVSS regulations. It would be nice to see the FMVSS accepted as 'alternative standards' more widely when it is determined the FMVSS requirements meet or exceed the requirements of the relevant ADR. The obvious positive is it will make offering in Australia products that are compliant in the U.S. market easier, less time consuming and cheaper compared to today.
- Other examples include FMVSS 121 Air brake systems and FMVSS 136 ESC.

3.4.1. Up to date International Standards 'harmonisation table of equivalency'

To enable the above harmonisation in an efficient manner, VGA stress the importance for the current International Standards 'harmonisation table of equivalency' to be kept up to date with the introduction and amendment of all ADRs. The current table for example has not been updated in approximately 3 years despite a number of regulation changes – both locally and abroad.

For example –

- **ADR 65 – Maximum Road Speed Limiter** does not recognise ECE Regulation 89 as an alternative standard. This needs to be corrected. The department will accept the ECE 89 certificate number as evidence, but officially the ADR does not recognise the equivalent ECE Reg. This ADR has never been updated.

3.5. Testing facilities

3.5.1. Recognise accredited international testing

To leverage the benefits from ADRs adopting more international standards, it is critical that the local ADR process recognises and accepts testing evidence produced from accredited overseas organisations. For example, those that are officially recognised in a country participating in the 1958 Agreement. While in principle this is already in place, the implementation of this is not yet fully functioning in practice.

For example –

- An issue was raised recently with VGA that testing evidence provided by an accredited testing organisation from an overseas country (that is a participant of the 1958 UN Agreement) will not be accepted by DIRD unless that organisation has a valid test facility within the ROVER system. This can be a major barrier to offering certain products to Australia as there is reluctance to test a vehicle twice to the same standard just because the initial test was performed by a test facility not registered in ROVER and this can come at a very high cost.

3.5.2. Ensure availability of local testing facilities

Testing is one of the major costs for all OEMs, hence it is advantages that ADRs recognise tests conducted on accredited international testing facilities as per 3.5.1 above. In addition however, there are truck models that are designed and manufactured in Australia, for example some Mack Truck

models with unique Australian specifications, that cannot be tested overseas. When introducing new ADRs and mandating specific certificates and testing, it is therefore essential that local testing facilities are available. This would be a major cost saving for suppliers.

For example –

- This recently occurred when ADRs were introduced from Europe such as bicycle radar, lane departure markings, noise testing etc. While European vehicles were able to use the certificates from their European tests, this added major cost to non-European vehicles.

3.5.3. Acceptance of computer simulations as evidence of compliance

To help eliminate waste, reduce cost and improve the practical side of compliance, another recommendation is for the ADRs to accept computer simulations for evidence of compliance. While VGA recognises that some physical testing is required, a combination of both physical testing and computer simulations would be very practical and not impact reliability and accuracy of results.

For example –

- Physical brake testing could be done on certain wheelbases (longest and shortest), with computer simulations performed for the lengths in between. The cost savings this would offer is in the millions of AUD dollars.

4.0 Conclusion

Volvo Group Australia again commends the Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA) for its review into the harmonisation of the Australian Design Rules (ADR), and foresee that many benefits for the Australian Heavy Vehicle industry can be achieved.

We would also like to acknowledge that some of the above items included in this submission may be out of the scope for this review, but we greatly value the Department for taking these into consideration for future reviews.

Please do not hesitate to reach out to us should you require any further information on any of the above items and recommendations raised.