

Toll Group submission to the Joint Select Committee on Road Safety

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Purpose

To recommend measures that will result in improved road safety in the freight sector with flow-on effects to the general road network

Introduction

With over 125 years' experience, Toll Group, proudly part of Japan Post, operates an extensive global logistics network across 1,200 locations in more than 50 countries. Our 40,000 employees provide a diverse range of transport and logistics solutions covering road, air, sea and rail to help our customers best meet their global supply chain needs.

Toll Group welcomes the opportunity to provide a submission to the Joint Select Committee on Road Safety.

The Committee's terms of reference are to inquire into and report on:

- (a) measures to support the Australian Parliament's ongoing resolve to eliminate road crash fatal and serious injuries with a focus on ways to achieving Vision Zero by 2050;
- (b) the effectiveness of existing road safety programs across Australia; opportunities to improve them and encourage broader take-up of effective approaches;
- (c) opportunities for government policy in health, education, industry, transport and other areas to contribute to road trauma elimination, integrating Safe System principles;
- (d) opportunities to embed road trauma prevention across Australian Government portfolios and agencies; and
- (e) opportunities to reduce road trauma in the workplace, working with Work Health and Safety agencies and employers across Australia; including a focus on heavy vehicles and the gig economy.

Toll's submission is focused on heavy vehicles, which are over-represented in road crash fatalities and injuries. This disproportionate representation does not reflect greater culpability but the fact that greater mass means incidents involving heavy vehicles tend to have higher impacts.¹ An individual is up to three times more likely to die in a crash where a heavy vehicle is involved.²

Toll Group believes all injuries are preventable and that everyone has the right to go home safely. It is our contention that more can and should be done to reduce the social and economic cost of road-related injury and death.

Most of the proposals contained in this submission are not new. We have advocated for them in various forums including the 2014 Parliamentary Inquiry into Aspects of Road Safety, the NSW Stay Safe Committee, the 2019 Senate Inquiry into the importance of a viable, safe, sustainable and efficient road transport industry (Regional Affairs and Transport References Committee), correspondence with former Prime Minister Malcolm Turnbull and numerous submissions to the National Transport Commission's Heavy Vehicle National Law Review.

Viable solutions exist, but they require the political will to go beyond holding inquiries.

Limitations of existing road safety philosophy

Existing state and territory road safety strategies and the National Road Safety Strategy Draft pay insufficient attention to heavy vehicles and, more generally, to vehicles as a workplace. Truck drivers, couriers, taxi drivers, removalists and delivery drivers utilise the road network in a particular way. Unlike general commuters, persons for whom the vehicle is a workplace are vulnerable to supply chain pressures that can result in unsafe outcomes on the road.

¹ Data published by National Transport Insurance (NTI) indicates that for multi vehicle fatal incidents in 2020 the driver of the lighter vehicle or the third party was at fault 78.3% of the time. Where a car and a truck were involved in a non-fatal crash, the car was the at-fault party 35.5% of the time. NTI, NTARC *Major accident investigation 2021 report covering major incidents in 2020, 2021*, p.17

² New South Wales Auditor General, *Improving road safety – heavy vehicles*, May 2009, p.14

With the exception of the National Heavy Vehicle Regulator's [Strategy](#), current state and national road safety strategies largely ignore the impact of commercial imperatives on road safety outcomes. The safe systems approach contends that safe drivers, safe vehicles, safe roads and swift post-trauma responses will result in vision zero. But when dealing with people who drive for a living, safe driving and safe vehicles are predicated on:

- sufficient income and competence to maintain and service vehicles;
- reasonable time to complete the task without resorting to speeding or ignoring fatigue breaks;
- reasonable conditions of work that do not incentivise or demand dangerous hours; and
- sufficient time for the restorative rest necessary to maintain alertness on the road.

As the gig economy expands and we are exposed to the potential "uberisation" of freight, the safe systems approach must be expanded to include the concept of safe conditions of work. Road safety strategies can look to the Heavy Vehicle National Law (HVNL) for an example of how this can be done. The primary duty in the HVNL recognises that drivers who are under commercial pressure effectively only have two ways to increase productivity: they can either speed so as to complete more drops, or ignore fatigue breaks so as to increase work time.

The effects of speed and fatigue on the road network are well known and Toll will not re-prosecute them here. The point is that the primary duty in the HVNL places an obligation on all parties in the supply chain to head off the incentive to speed and/or drive fatigued by allocating reasonable time to the transport task.

Recommendation: that state and national road safety strategies give specific consideration to vehicles as workplace and develop strategies that target safe conditions of work.

Safe roads is challenging because while road safety strategies are set at the national and state level, the vast majority of Australia's road network is managed and maintained by local government. The National Road Safety Strategy Draft acknowledges that road and road infrastructure design, maintenance and upkeep is largely a local government responsibility. It talks vaguely about 'upskilling' local government and the need for the different tiers of government to work together.

However, as Toll has argued elsewhere,³ there is currently no direct relationship between road funding, road use, road pricing and road treatment. The capacity to influence local government on how to design their roads is therefore inevitably limited. A holistic solution requires an overhaul of the vehicle pricing, charging and funding regime.

Recommendation: that the stalled Heavy Vehicle Road Reform be prioritized and incorporate holistic road funding and charging models that incentivise local government to deliver road safety treatments.

Introduce incentives for the uptake of newer, safer vehicles

New technologies and advancements in vehicle design have significant potential to drive road safety benefits. The impact of mandatory seat belts and random breath testing demonstrates over recent decades how profoundly policy initiatives allied to new technologies can impact the road toll.⁴

It is imperative that policy makers across Australia seize the opportunity provided by new technologies to further reduce trauma and the loss of life on Australian roads. There are clearly technological and design measures with strong potential to impact the road toll. A 2014 study undertaken by the Monash University Accident Research Centre estimated a 25 per cent fatal crash reduction, saving 67 lives per year, from Automated Emergency Braking (AEBS) alone.⁵ The study also estimated that 16 lives could be saved by Lane Departure Warning Systems, 11 lives from

³ Toll Group submission on "[Easy access to suitable routes](#)", National Transport Commission, June 2019

⁴ Department of Infrastructure and Regional Development, *Impact of Road Trauma and Measures to Improve Outcomes*, December 2014, p. 30

⁵ Budd and Newstead, Potential Safety Benefits of Emerging Crash Avoidance Technologies in Australasian Heavy Vehicles, MUARC Report 324, September 2014

Electronic Stability Control and 10 lives from Fatigue Warning Systems. In total the amount of lives that could be saved from mandating this equipment is more than 100 per year.

AEBS and Electronic Stability Control are particularly important for heavy vehicles given the prevalence of “off path on curve” inappropriate speed crashes. Inappropriate speed accounts for nearly 14 per cent of large losses, with 77.1 per cent of these being ‘untripped rollovers’:

“where due to the combination of centre of gravity height and the speed of the vehicle, [the truck] rolls over...while on a curve in the roadway”.⁶

Government needs to be prepared to pull the policy levers that encourage the purchase of newer vehicles with life-saving equipment. These include stamp duty concessions, registration fee discounts, reductions in fuel excise (or future road user charges), greater access to regulatory concessions, preference in government contracts, in addition to the axle load limits reform mentioned below. Somewhat radically, Australia could even consider a “hard stop” on vehicle age as happens in Singapore.⁷

There is clearly a precedent for government to consider. The Federal Interstate Registration Scheme (FIRS) offered stamp duty concessions on the purchase of new vehicles intended for interstate freight cartage. The scheme was disbanded when the Heavy Vehicle National Law was introduced because that law was supposed to include a genuinely national approach to registration, making the very concept of “interstate” largely moot. A national approach to registration has now been shelved and as a result, ironically interstate freight operators are arguably worse off than they were in the previous regime.

Recommendation: that government pull the policy levers that encourage the purchase of newer, safer vehicles to lower the overall age of Australia's heavy vehicle fleet.

Address disincentives to fleet modernisation

Australia's heavy vehicle fleet is old by international standards. While the average age of vehicles 3.5 tonne and above in Australia is 13.8 years old, in Germany it is 6.7, in Sweden 7.07, Hungary 12.6 and Japan 11.8.⁸ The relationship between vehicle age and safety outcomes is also well known.⁹

Unfortunately, there is a perverse disincentive for road freight operators to purchase newer, safer vehicles and that is mass. Newer, safer vehicles tend to be heavier than older models making them less productive. Operators therefore have an economic incentive to hold onto older vehicles for longer.

Table 1 below demonstrates a live example from the Toll fleet. The new Quon is a 6x2 rigid vehicle manufactured by UD. It has significantly greater safety features than the ‘Condor’ model it replaces, also manufactured by UD. Those features include EBS, stability control and cruise control. However, it is 517 kg heavier and thus reduces the payload.

Table 1: Specifications of UD Condor 6x2 versus UD Quon 6x2

Key specifications	UD Condor 6x2 (current)	UD Quon 6x2 (new)
Model	PD24280	CD25360
Engine	7 Litre	8 Litre
Hp	280	360

⁶ NTI, NTARC, *Major accident investigation 2021 report covering major incidents in 2020, 2021*, p.9

⁷ <https://www.aas.com.sg/resources/coe/coe-prices.html>

⁸ Truck Industry Council, *Modernising the Australian Truck Fleet*, Budget submission 19/20 Appendix A

⁹ National Heavy Vehicle Regulator, “Age of heavy vehicle fleet and non-conformity”, May 2017, <https://www.nhvr.gov.au/files/201701-0459-factsheet-nrbs-report-2.pdf>. We note that kilometres travelled is an alternative measure of risk.

Key specifications	UD Condor 6x2 (current)	UD Quon 6x2 (new)
Torque (Nm)	883	1,428
GVM (kg)	24,000	26,000
GCM (kg)	28,000	
Tare Weight (kg)	6,675	7,192
Emission standard	Euro 5	Ppnlt (Higher standard than Euro 6)
Transmission	Allison	Escot VI (Group transmission)
Rear suspension	Hendrickson	Group 8 Airbag
Brakes	Drum	Disc
ABS	Yes	Yes
EBS	No	Yes
Economy Mode From Start Up	No	Yes
UD Stability control (UDSC)	No	Yes
Traffic Eye Brake (TEB)	No	Yes
Lane Departure system (UDWS)	No	Yes
Driver Alert System (DAS)	No	Optional
Traffic Eye Cruise	No	Yes
Exhaust Brake	Yes	Yes
Engine Brake	No	Yes
Brake Blending	No	Yes
LED Headlamps	No	Yes
Day Time Running Lights	No	Yes
Nenpi (Economy) coach	No	Yes
ESCOT Roll (coast function)	No	Yes
Accelerator Limiter	No	Yes
Cruise control	Yes	Yes
Soft Cruise Control	No	Yes
ECO Mode	No	Yes
Steering Wheel Controls	No	Yes
Low maintenance components	No	Yes
Factory Low Drag Aero Kit	No	Yes
Immobiliser	No	Yes

Similarly, a trailer fitted with a rated gate system can add upward of 500kg to the tare mass, which equates directly to reduced payload. The solution is for Australia's regulated axle load limits to be revised to enable new, safer vehicles to operate without suffering a reduction in payload.

Recommendation: that axle mass limits be revised to remove the disincentive to purchase safer, but heavier, vehicles.

This tension between safety and productivity also extends to dimensions as established in the Vehicle Standards. For example, bonneted trucks are more conducive to driver wellbeing than cabover trucks because of the reduced vibration, easier ingress and egress from the cabin and greater space for sleeper berths. Toll is encouraged by the Commonwealth's work to expand vehicle dimension to

accommodate new safety features,¹⁰ however, length restrictions in the regulations inhibit the take-up of bonneted vehicles.

Recommendation: that dimension limits be revised to encourage the purchase of bonneted trucks.

Promote the uptake of high productivity vehicles

High productivity vehicles (HPVs), sometimes known as Performance Based Standards (PBS) vehicles, differ from other heavy vehicles in that they are designed around performance outcomes rather than built to prescriptive rules. This allows designers to innovate and maximise freight productivity while conforming to safety and stability outcomes. These designs require approval by a panel convened by the national heavy vehicle regulator (NHVR) and are permitted only on restricted networks. Diagram 1 below shows one of Toll's HPVs, an AB-triple operating in Alice Springs.

Diagram 1: Toll Group AB-Triple



A comprehensive 2014 Austroads study found that HPVs deliver markedly better safety, environmental and productivity benefits over conventional vehicles. The study found that there were 76 per cent fewer accidents in HPVs than would be the case for conventional trucks.

“This will lead to an estimated saving of 96 lives and \$63 million in insurance claims by 2030. As an example, current B-triple combinations are an [sic] 80 per cent less accident prone, on a major accident basis, than conventional semi-trailers”.¹¹

Despite the manifest safety benefits, pockets of the community reject HPVs as “monster trucks”. Other road users can find the vehicles intimidating, difficult to overtake and compromising of local

¹⁰ Department of Infrastructure, Transport, Regional Development and Communications, *Discussion Paper: Safer Freight Vehicles*, April 2021

¹¹ Austroads Research Report AP-R465-14, *Quantifying the Benefits of High Productivity Vehicles*, July 2014, p. 48

amenity. The fact is, however, that refusing access to high productivity vehicles does not ground the freight. It simply transfers it onto different vehicles that make more trips.

“The trucks don’t stop if HPV access is denied. Rather, the same amount of freight moves through the same route on more trucks, at higher costs, with higher safety risk, and with higher environmental and amenity impacts”.¹²

These perverse outcomes can be changed by:

- synchronising PBS design approval with access approval;
- educating road managers and the community at large about the benefits of HPVs¹³ and challenging the “monster trucks” narrative; and
- differentiating permit fees according to the safety, emissions and productivity rating of the vehicle configuration.

An education campaign needs to contain facts about the benefits of high productivity vehicles. For example, in 2019 the Tasmanian Government approved access to three A-Doubles on Toll’s network under a 12-month trial. This was a first for Tasmania and delivered huge benefits to Toll, its customers and the community.

A-Doubles have two 40-foot trailers – carrying four containers, compared to B-Doubles that can only carry three. High-level benefits of the trial include:

- Annual trips saved: 558
- Annual km saved: 167,400 km
- Annual fuel saved: ~100,000 litres
- Annual carbon emissions saved: 272 tCO₂-e.

Recommendation: that high productivity vehicles be encouraged, including through the use of community education campaigns.

Devise and promote national heavy vehicle driver competencies and attributes

Toll believes that more needs to be done to articulate, promote and assess driver competencies, attributes, behaviours and skills. Where heavy vehicle drivers are concerned, there are gaps between the expectations set by the licensing system, the HVNL, workplace health and safety laws and state-based road rules.

Unless a driver completes a qualification within the transport and logistics training package it is likely that their formal training is limited to the functional competencies required to drive a vehicle and to understanding the road rules. The licensing competency elements required for TLIC3004 “Drive Heavy Rigid Vehicle” are:

- Drive heavy rigid vehicle;
- Monitor traffic and road conditions; and
- Monitor and maintain vehicle performance.

There are no performance elements related to safety culture, understanding and applying road rules, anticipating light vehicle driver behaviour (a key risk for Toll group) or understanding obligations under the HVNL. Nor are there elements related to load planning, mass management, trailer coupling or

¹² National Transport Commission, *Easy access to suitable routes*, June 2019, p.59

¹³ We note Austroads’ finding that a local road manager was convinced that trucks with 20% more payload capacity would result in 20% more trucks on the road. See Austroads, Research Report AP-R559-18, *Local Road Access for High Productivity Freight Vehicles*, February 2018, p. 17

load restraint.¹⁴ This is also true of the licensing competencies for heavy combinations and multi-combination vehicles.

Truck driving is about a great deal more than simply operating and controlling a heavy vehicle. Safe drivers need to understand the principles of load restraint and mechanical safety. They need to grasp the regulatory framework within which they operate and how to work within the rules and, ideally, towards best practice. They must have the professional and personal confidence to refuse to cart a load that they believe may be unsafe or non-compliant. This is no small ask. There is a natural disinclination for employees to “bite the hand that feeds them” and little recognition that exercising the obligation to refuse is an act of leadership. Leadership, in most cases, doesn’t just “happen”. Workers need to be encouraged and coached to see speaking out about safety as a personal, even a moral, obligation. They must also know they will be supported by their leaders and managers if they do speak out.

The challenge for Toll and other operators is how to equip drivers with the broad suite of soft and hard skills required to be a safe driver and, once acquired, how to maintain it. The fact that this is an industry-wide challenge is suggested by the results of the 2015 Transport and Logistics Skills Council report which found that teaching and training was the highest-ranked employer-identified skill need.¹⁵ Twenty three per cent of employers reported that they required teaching and training skills ‘to a great extent’, while 34 per cent reported it was a need ‘to some extent’.

There is an increasing recognition that truck drivers are often first responders in the event of an incident¹⁶ but there is no requirement for truck drivers to attain basic first aid skills.

Industry and government should work together to develop a matrix of competencies, skills, attributes, attitudes and behaviours designed to support supply chain safety. The *Review of the National Heavy Vehicle Driver Competency Framework* is a useful place to start for drivers.¹⁷

Recommendation: that a national driver licensing competency framework be introduced.

Suicide by Truck

If it is true that what is measured is what is managed, the government’s unwillingness to collect and publish data on suicide by truck almost guarantees that a significant road safety risk will never be addressed. Toll Group estimates that around 1 in 5 of the onroad fatalities with which it is involved are suicide by truck, whereby car drivers or pedestrians deliberately place themselves into the path of the oncoming vehicle with the intent of ending their lives.

The NTI’s data is consistent with Toll’s:

“In 2020, 43.5% of fatal car and truck crashes were indicated or strongly indicated to be suicide”.¹⁸

This was an increase from previous years where 37.5 per cent (2017) and 37.9 per cent (2019) of fatal car and truck crashes were indicated or strongly indicated for suicide.¹⁹

¹⁴ It should be noted, however, that some of the Licensing Guidebooks issued by state authorities do address these issues. NSW’s *Heavy Vehicle Driver Handbook* is particularly comprehensive.

¹⁵ Transport and Logistics Industry Skills Council, Department of Education and Training, *Environmental Scan*, Canberra, 2015, p. 19

¹⁶ <https://www.smh.com.au/national/tackling-the-hidden-issue-of-truckies-acting-as-paramedics-on-remote-australian-roads-20190726-p52b7c.html>

¹⁷ Austroads, Research Report AP – R544-18, *Review of the National Heavy Vehicle Driver Competency Framework*, May 2018

¹⁸ NTI, NTARC, *Major accident investigation 2021 report covering major incidents in 2020, 2021*, p.17

¹⁹ The NTI suggests the uptick is a result of Covid-19 reducing traffic volumes and thereby reducing the total number of accidental road deaths.

Suicide by truck is a complex and sensitive issue and one that the road freight industry cannot solve unilaterally. To date the heavy lifting on the issue has been done almost entirely by industry through the National Road Safety Partnership Programs Suicide on the Road Network Working Group. (Though credit is due to Austroads for part-funding the Group).

Toll Group has briefed BITRE and the National Office of Road Safety on suicide by truck and urged reporting on the issue. We understand the concern about a contagion or 'copy-cat' effect. However, recent evidence shows that sober, measured reporting on suicide by truck does not have a contagion effect.²⁰ The United Kingdom and Sweden both publish this data and have not experienced correlated contagion.

Toll Group agrees with Austroads that:

*"[S]tate and national transport authorities include reporting of suicide in road safety statistics. While it is acknowledged that these may not be considered directly a component of road safety, the results of suicide data are still relevant as a road safety issue"*²¹

Recommendation: that BITRE collects and publishes data on suicide on the road network, noting the Mindframe Guidelines on how this can be done sensitively so as not to produce a contagion effect.

Educate light vehicle drivers about how to drive safely around trucks

Heavy vehicles maneuver very differently to light vehicles. They are longer, wider and require greater stopping distance than cars because of their significantly higher mass.

It is questionable whether car drivers are sufficiently educated about how to drive safely around heavy vehicles. For example, the NSW driver knowledge test contains 364 potential questions for novice drivers. Of these, only one asks a question about light and heavy vehicle interaction while only two questions relate to traffic signs featuring trucks.

A corresponding lack of understanding of truck stopping distance may partly explain the inadequate following distance incidents noted by the NTI.

*"[i]t is important to emphasise here that while from an insurance and road rules point of view, that the vehicle at the rear is at-fault, truck drivers have for decades been highlighting issues around other vehicles cutting into their safe stopping distance".*²²

Recommendation: that state novice driver tests and state and national road safety strategies place greater attention on educating light vehicle drivers about how to drive safely around trucks.

Fitness for Duty Standard

Road transport is the only safety-critical transport mode that does not have a fitness for duty standard. Toll is concerned that the absence of fitness for duty standards in road transport is having a negative effective on driver health and wellbeing. Around 12 per cent of the on-road and driver

²⁰ National Suicide on the Road Network Working Group, March 2021

²¹ Austroads Internal Report, *Road Transport Suicide Prevention*, 2020, p.28

²² The NTI measures "inadequate following distance" as a subcategory of driver error. Driver error accounted for 40.6% of large losses in 2020. Of that 40.6%, inadequate following distance accounted for 9.3%. NTI, NTARC, *Major accident investigation 2021 report covering major incidents in 2020, 2021*, p.13

fatalities that involve Toll are caused by non-work related issues.²³ These principally relate to drivers' cardiovascular health.

The approach to cardiovascular health in Assessing Fitness to Drive (AFTD)²⁴ is limited in that it largely relies on driver self-report, does not include screening for diabetes or hyperlipidaemia, and does not include an ECG. This may account for why many drivers that die as a result of cardiovascular disease have no prior knowledge of the presence of the condition.²⁵

The Australian Trucking Association has also expressed reservations about the limitations of AFTD, principally with regards to diabetes, screening for sleep apnoea and cardiac screening.²⁶

Our view is that the law should mandate fitness for duty standards as occurs in the rail, maritime and aviation sectors.

Recommendation: that a fitness for duty standard be developed for heavy vehicle drivers

Zero BAC for truck drivers in all states

Toll Group finds it unconscionable that the NSW drink driving law for truck drivers only applies to drivers of vehicles in excess of 13.9 tonnes. NSW is the only jurisdiction that permits a driver of a truck to have some blood alcohol content (0.02) and legally drive. In all other jurisdictions the BAC limit for drivers of vehicles 4.5 tonne and above is 0.00.

There is no valid reason why any truck driver should have any alcohol in their system. They should not be drinking before or during their work shift. Nor should they imbibe so much the night before a work shift that they still have alcohol in their system the next day as this impacts their ability to have a restorative rest break as required under fatigue laws.

Recommendation: that the BAC limit for drivers of vehicles 4.5 tonne and above be 0.00 in all states and territories.

²³ Based on data from 30 June 2007 to 6 February 2019

²⁴ AFTD is *not* a fitness for duty standard. It is a licensing test at a point in time only.

²⁵ Routley, Staines, Brennan et al, *Suicide and Natural Deaths in Road Traffic – Review*, MUARC, August 2003, p. 20

²⁶ ATA, [Submission to Assessing Fitness to Drive: 2014 Review](#), December 2014