



## Roadworthiness Proposals and Risk Reduction

There is nothing objectionable about anything in these eight points, however the devil is in the detail.

The importance of roadworthiness defects in road crashes is not well known. The roadworthiness of vehicles involved in fatal crashes will usually be assessed by police. Indications are that mechanical defects are the principal causes of about five per cent of serious road crashes. However, sub-standard tyres, brakes and suspensions can be expected to greatly increase road crash risks that are attributed to other causes (such as speeding or inattentive driving). That is, poor roadworthiness reduces the protections that exist against road crashes risks arising from other factors. Poor roadworthiness is probably an important factor in about 10 per cent of crashes involving a heavy vehicle. The NTC report (Phase 2) states that every year in Australia there are about 200 crashes involving heavy vehicles (> 4.5t) that result in a fatality. There are a further 1,500 crashes that result in serious injuries, a further 11,000 crashes resulting in minor injuries and 32,000 crashes causing reported property damage. Based on these figures there are at least 44,700 reported crashes per annum, which is about 125 crashes per day. Un-roadworthiness might be a significant factor in about 10 per cent; which is 13 crashes per day. Inevitably un-roadworthiness will be a major factor in breakdowns but the number and cost of breakdowns that occur daily is not reported. Roughly one in ten heavy motor vehicles (> 4.5t) will on average be involved in a reportable incident each year. The issue of periodic roadworthiness inspections is a principal consideration. The frequency of compulsory periodic roadworthiness inspections ranges from zero in Victoria, to once every ten years in WA and annually in NSW and Queensland and every 9 months in the Northern Territory (averages are quoted). There is no doubt that differences in mandated roadworthiness inspection intervals is a factor in state-of-registration choices for larger operators. There is also no doubt that these differences need to be sorted out. Victoria focuses its roadworthiness effort on

road-side inspection. The 2014 Victorian results (see Figure 2 in the Phase 1 report by the NTC, July 2014) shows that 40-50 per cent of the heavy vehicles that are inspected have a major defect. Five-10 per cent of inspected vehicles are grounded. This is an intolerable defect level and indicates that the industry in Victoria is failing the community. Other states report smaller defect rates. There is disquiet in the operator community about the determination of roadworthiness defects. The concerns relate mainly to assessment of suspension and steering free play, wheel and tyre condition and brake adjustment level. Guidance about particular acceptance limits for roadworthiness assessments is given in the National Heavy Vehicle Inspection Manual (NHVIM) on the NHVR's website. This is a respectable document even though some assessments rely upon interpretation. Manufacturer's limits can trump the NHVIM although this might be difficult to argue on the roadside. Major operators have called for a 'challenge period' to be added to the defect notice process so that evidence that a defect assessment was not correct can be presented. Irrespective of the outcome of a challenge, the issuing of a defect notice does show-up in the operators 'roadworthiness record' and this can affect the operators good standing in the NHVAS scheme. It will also probably trigger mandated periodic inspections based upon a risk approach, so much is at stake. The idea of providing a formal challenge process is not being supported by road agencies. Improvements to the National Heavy Vehicle Accreditation Scheme (NHVAS) will proceed irrespective of broader changes to the regulation of vehicle roadworthiness. The main points are:

- 1 NHVAS administrative and audit changes. There are three modules: Mass Management, Maintenance Management and Fatigue Management; which are independent. The changes will 'reset' the scheme and require more reliable audit requirements, more rigorous performance requirements on participants and a greater compliance check activity by the NHVR.
- 2 NHVAS maintenance module participants

### Suggests Scope of Driver Checks Initial Adjustments

Description	Conditions	Verifying:
Seat adjustments	First start	Seat can be adjusted. Suspension is working freely
Mirror adjustments	First start	Good visibility, particularly at the left
Seatbelts	First start	Seatbelt can be adjusted and clipped
Horn	First start	Horn works

### Before Driving Off

Description	Conditions	Verifying:
Fifth wheel skid plate is greased	Semi-trailer is coupled to towing vehicle	Adequate coupling lubrication
Conduct a tug test	Trailer parking brakes still applied	Fifth wheel jaws are closed
Safety catch on the fifth-wheel handle has dropped	Semi-trailer is coupled to towing vehicle	Lock is engaged after coupling
Fasteners tight on couplings at visible locations	Vehicle parts coupled	Good mechanical condition of the coupling
Air compressor check	First start	Air pressure builds up in a reasonable time
Air warnings work	Before first start	Low-pressure buzzer is working
Tyre Inflation Check	First start and during trip	All tyres are inflated. No leaks and flats, adequate pressure for the load On the road, occasionally feel the temperature of tyres
Check the towing eye	When coupled	No obvious looseness or defects. Thread behind nut is not damaged
Check engine oil level	First start. Engine off	Satisfactory lubrication
Trailers / van bodies are not leaning	Ready to move	Suspensions have not failed
Load is restrained	Ready to move	Load restraints are affixed and tight
Check trailer brakes	Make sure hoses are coupled and not leaking. Connect ABS electrical lead if applicable. Apply the trailer hand piece (if applicable)	Trailer braking action
Identify air leaks from the brake or suspension air systems	Ready to move after air tanks have been charged	No excessive leaks
Identify oil leaks from engine and transmission	Engine running	No excessive oil puddling on the ground
Structural integrity	Ready to move	Structural integrity of the chassis rails where easily visible
Check brake response	As moving off. Apply a heavy brake application	Brakes are working as expected

### On the Road

Description	Conditions	Verifying:
Steering response	Driving at moderate speed. Assess free play in the steering.	Steering linkages are OK.
Vehicle tracking.	Driving at moderate speed.	Wheel alignment, steer tyres are inflated.
Check wheel nut tightness after 100 km.	Only needed on wheels that have been marked as having been recently fitted.	Wheel nuts are tight after fitment.
Wheel hubs are not too hot.	Put hands onto the wheel hubs.	Bearings OK.
Acceptable truck ride-quality.	Response on a bumpy road.	Shock absorbers working.
Brake Compatibility.	Truck and trailer are working together. No clunking, no premature wheel lock-up.	Acceptable brake compatibility.

will need to demonstrate that daily inspections are done to assess the roadworthiness of vehicles before they leave the depot or start a journey.

- 3 NHVAS maintenance module participants must demonstrate that they have a system to report, record and respond to vehicle faults.
- 4 NHVAS maintenance module participants

must have maintenance schedules and methods in place that are timely and effective at keeping vehicles in a road worthiness condition. Further details can be found in Standards and Business Rules (version 2, 1 March 2015) on the NHVR website. The requirement that daily inspections of

vehicle condition be conducted needs further consideration. All operators should have an inspection checklist for drivers. My suggested scope for driver checks is in the tables. I believe that drivers need to inspect vehicles during the trip.

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