

State of registration and non-conformity

National Roadworthiness Baseline Survey Overview

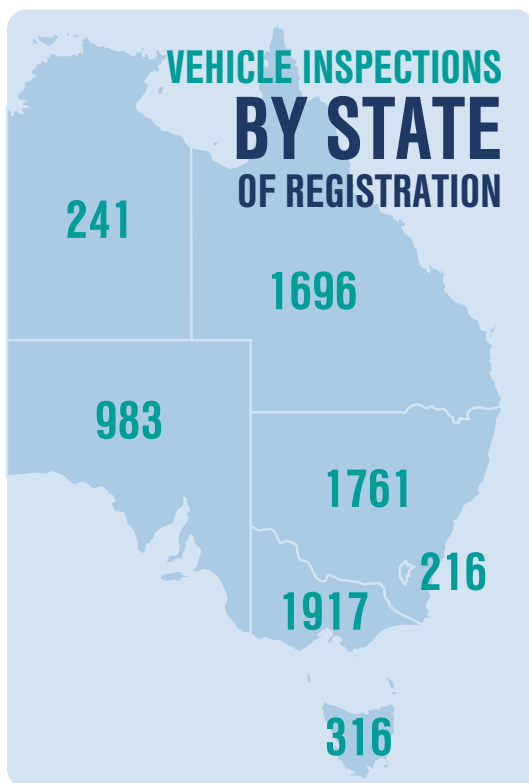
The heavy vehicle health check

The NHVR coordinated a National Roadworthiness Baseline Survey (NRBS) of 7,130 heavy vehicles across Australia during August to November 2016. Throughout the survey period 364 authorised officers inspected rigid trucks, semi-trailers, B-doubles, road trains, buses and special purpose vehicles (SPV) at 168 inspection sites, including roadside check points and in state inspection facilities and transport operator depots.

Number of vehicles inspected during the NRBS

During the NRBS 7,130 vehicle/combinations were inspected through three intercept methods, with 86% of vehicle inspections being conducted in the state where the vehicle was registered.

Figure 1: Number of inspections by state of registration



The highest number of vehicles inspected (2,082) were from Victoria, which is to be expected given they have the highest registered number of heavy vehicles (see Figure 1).

The primary purpose of the NRBS was to assess risk of non-conformity with vehicle standards rather than risk of harm or crashes due to non-conformity. Further research may examine the linkages with crash data to provide an analysis of the relationship between non-conformity and harm.

A non-conformity describes an item that does not meet the heavy vehicle safety standards. Non-conformities can be classified as minor, major or major (grounded).

International comparison

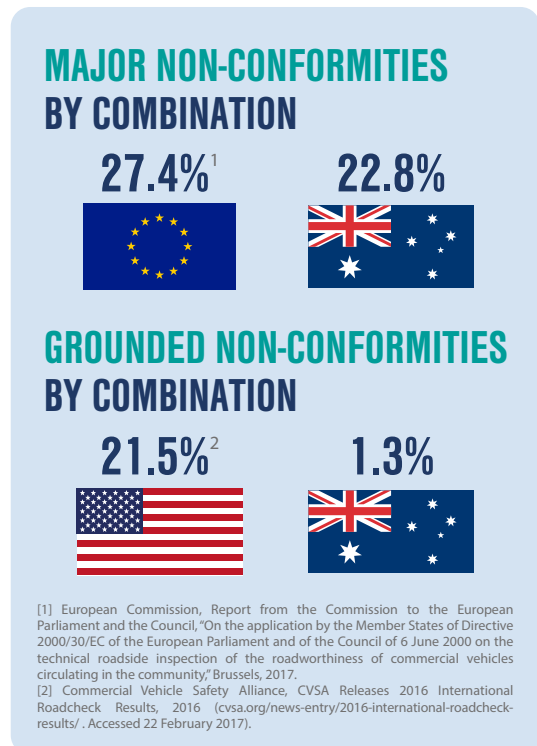
International comparisons are made very difficult by the absence of any agreed international reporting standards or processes.

In 2013 to 2014, the European Union (EU) undertook 292,838 roadside intercept inspections of commercial vehicles. The study reported a rate of prohibition notices, which is broadly equivalent to a major non-conformity, of 27.4% [1]. A major non-conformity creates a significant concern over the safety of a vehicle, and subject to conditions and restrictions of use, does not prevent the vehicle from being used on the road.

The NRBS findings indicate a major non-conformity rate of 22.8% (see Figure 2). During the North American Commercial Vehicle Safety Alliance's 3 day 'international roadcheck' inspection exercise in June 2016, 62,796 vehicles were inspected with 21.5% of vehicles being placed 'out-of-service' [2], which is equivalent to a major (grounded) non-conformity (see Figure 2). A major (grounded) non-conformity creates critical concern over the safety of a vehicle and the vehicle must not be used on a road while the non-conformity exists.

The NRBS findings indicate that only 1.3% of vehicles inspected had a major (grounded) non-conformity. As such, almost 99% of vehicles inspected were able to continue with their journey.

Figure 2: International non-conformities



Non-conformity by state of registration

There is a difference in the number of non-conformities found in each state and territory. However, the rate of non-conformity with vehicle standards is generally consistent, with a 69.4% chance of identifying a non-conformity on a vehicle combination.

Regardless of the classification (Formal Warning, Minor or Major), identified, non-conformity rates were comparable between the larger jurisdictions and the results suggest that there are variations in the way jurisdictions classify non-conformities.

A large number of non-conformities identified were minor, such as cracked indicator lenses or damaged marker plates. Minor non-conformities create a concern over the safety of a vehicle, and subject to conditions, do not prevent the vehicle from being used on the road.

The Roadworthiness Program is continuing to build a national inspection approach to achieve consistent inspections to deliver consistent outcomes and a safer heavy vehicle fleet.

Inspecting the right vehicles for the right reasons

The results of the National Roadworthiness Baseline Survey provides data to support a more consistent, focused and efficient inspection approach. The data enables the NHVR to identify high-risk vehicle components, vehicle systems, vehicle types, operators and industry sectors.

The objective of the NHVR moving toward selecting vehicles based on risk is to improve efficiency of inspection resources, which will ultimately improve the safety of the national heavy vehicle fleet.

A framework for inspecting vehicles based on risk is due to be presented to Transport Ministers at the Transport Infrastructure Council (TIC) meeting in November 2017.

Building a consistent way of inspecting

The National Heavy Vehicle Inspection Manual (NHVIM) formed the basis of the health check inspection and will continue to support consistent reporting of inspection outcomes nationally. Through consistent reporting the NHVR will be able to focus on identifying high-risk vehicle components, vehicle systems, vehicle types, operators and industry sectors.

The NRBS results highlight that there is a need for the NHVR to set standards for inspectors to deliver consistent inspection outcomes nationally. The Roadworthiness Program is working on developing a Consistent Inspection Framework which aims to be a transparent and reliable inspection method for regulating inspection of heavy vehicles.

Consistent inspections, consistent outcomes

The inspection approach adopted by inspectors across the country will be the same. So, when a vehicle is selected for inspection, the process and outcome will be reliable, regardless of where the vehicle is inspected.

Future research activities

It is proposed that another health check occur within three years (expected to be in 2019) to evaluate the success of any new national inspection approach adopted. The data from NRBS will be used to focus on specific mechanical factors that are high risk and critical to vehicle safety, such as brakes. There is still further work required to assist the NHVR's national consistent inspection approach and this may include an analysis of state compliance data compared to the NRBS results, as well as identifying trends and correlations between the results. There is also work required to determine the extent of the link between mechanical condition and heavy vehicle crashes to continue to inform our risk and evidence-based approach to heavy vehicle maintenance.

References

[1] European Commission, Report from the Commission to the European Parliament and the Council, "On the application by the Member States of Directive 2000/30/EC of the European Parliament and of the Council of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the community," Brussels, 2017.

[2] Commercial Vehicle Safety Alliance, *CVSA Releases 2016 International Roadcheck Results*, 2016 (cvsa.org/news-entry/2016-international-roadcheck-results/. Accessed 22 February 2017).

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Telephone: 1300 MYNHVR (1300 696 487)*
Email: info@nhvr.gov.au

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