Age of heavy vehicle fleet 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 transport inspectors 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.

Average age of the Australian heavy vehicle fleet
The average age of the Australian heavy vehicle fleet has been reported by the Australian Bureau of Statistics as approximately 14 years [1] based on the registration of heavy vehicles. This does not account for vehicles not currently in-service, but still registered. The NRBS took a sample of the fleet currently operating on the nation’s roads.

The NRBS results recorded the average age of in-service heavy vehicles to be approximately nine years. Despite the average registered age exceeding a decade, the NRBS data demonstrates that the in-service fleet is, on average, five years newer.

Figure 1: Average age of the Australian heavy vehicle fleet inspected

Vehicle unit age and relative rate of non-conformity
Vehicle age is the strongest indicator of risk of major non-conformity. 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). Major non-conformities create significant concern over the safety of a vehicle, and subject to conditions and restrictions of use, do not prevent the vehicle from being used on the road. Examples of major non-conformities include when a vehicle falls short of the brake performance required when tested on a roller brake tester.

A comparison of the major non-conformity rate of freight hauling units shows that those units less than two years of age are three times less likely to have a major non-conformity than units from four to seven years of age (see: Figure 2). Significantly, freight hauling units greater than 13 years of age have a rate over 11 times higher than those of less than two years of age.

Figure 2: Relative rate of major non-conformity by vehicle age

References