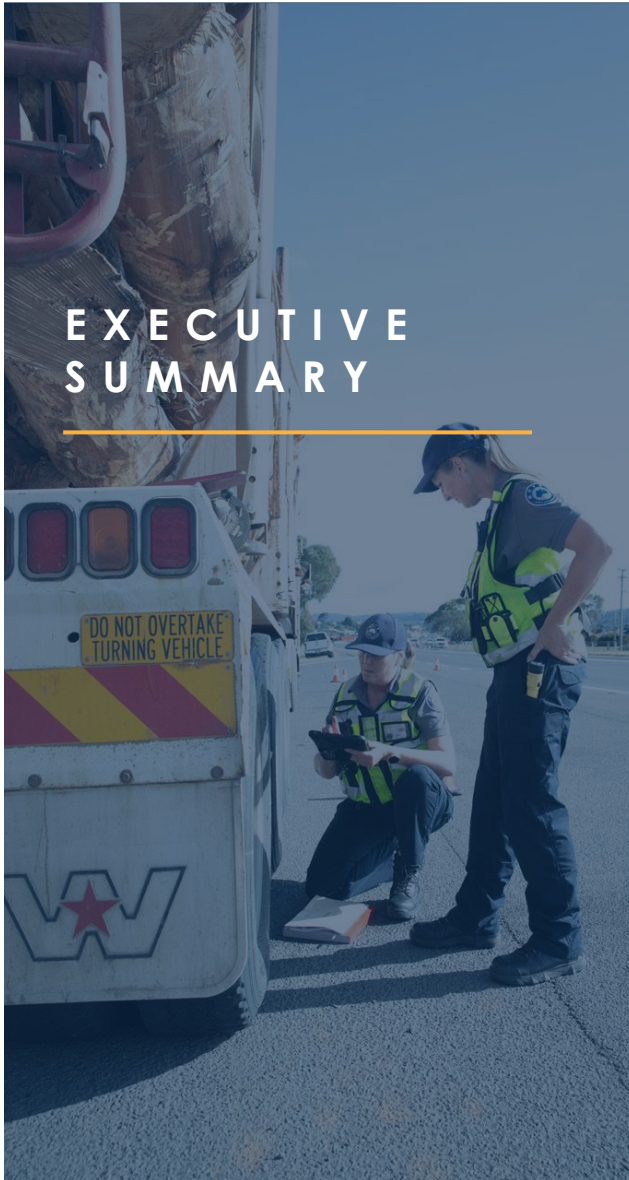


NATIONAL ROADWORTHINESS SURVEY 2024

A health check of Australia's
heavy vehicle fleet
Semi-trailers

MAY
2025





EXECUTIVE SUMMARY

SEMI-TRAILER INSPECTIONS

Overall, in the NHVR Roadworthiness Survey, **1,577 semi-trailers** were inspected.

The majority of semi-trailers were intercepted in the same jurisdiction to which they were registered.

The average age of semi-trailers on Australian roads is **9.5 years**, with a median mileage of over **470,000 km**.

OVERVIEW OF NON-CONFORMITIES

32% of semi-trailers inspected had **at least one non-conformity**, which is stable with the level of conformity seen in 2021 (31%). The incidence of non-conformity remains well below 2016 levels.

The majority of non-conformities were given at most a **minor defect notice** (i.e. the continued use of the vehicle on road poses a safety risk, but the risk is not deemed as imminent or serious). The highest level of non-conformity was minor for **21% of units**.

The second highest level of non-conformity was a **self-clearing defect** for 7% of semi-trailers, which is an increase from 5% in 2021. 'Self-clearing' refers to a non-conformity where the use of the vehicle on road does not pose a safety risk.

Overall, **75% of semi-trailers passed inspection** (i.e. the highest level of non-conformity was a self-clearing defect or the unit had no defect). This remains stable from 74% in 2021.

Semi-trailers inspected in the state they were registered in were compliant 67% of the time, while interstate inspections were compliant 70% of the time.

AREAS OF NON-CONFORMITY

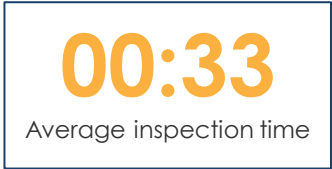
The **most common non-conformity for semi-trailers** across metro and regional Australia is **brakes**. *Lights & reflectors* and *structure & body* are also in the top 3 most common areas of non-conformity.

Non-conformity has remained consistent across most areas, with the exception of *structure & body* which has increased, and *steering & suspension* which decreased since 2021.

NON-CONFORMITY BY JURISDICTION

Incidence of non-conformity in semi-trailers has **increased** for inspections in Victoria (VIC) and the Northern Territory (NT). Despite the increase, non-conformity remains below 2016 levels in these jurisdictions. The highest incidence of non-conformity occurs in regional Queensland (QLD) and metro VIC.

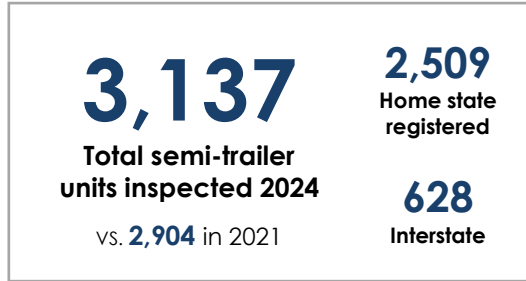
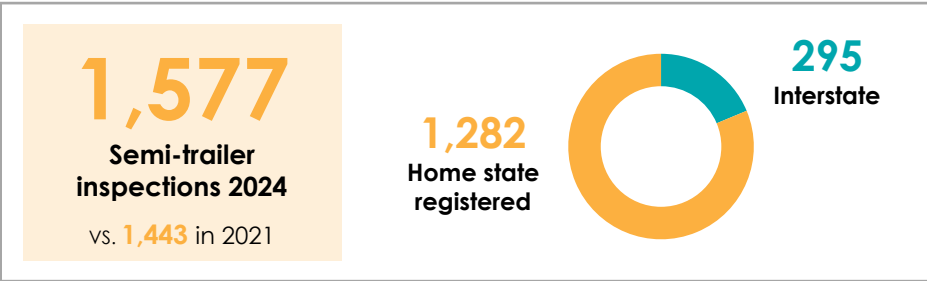
Non-conformity in semi-trailers inspected in QLD, Tasmania (TAS) and the Australian Capital Territory (ACT) has decreased since 2021.



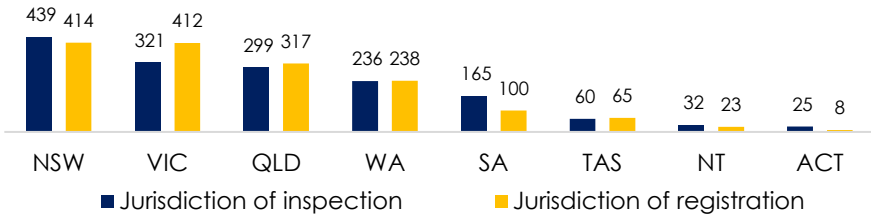
Note: The statistics in this summary relate to all semi-trailer units inspected (inclusive of powered units and trailers) unless otherwise specified. For further breakdown by vehicle type see the full published report on the NHVR website. 'Semi-trailer' in this document refers to one semi-trailer coupled to a prime mover.

OVERVIEW — ALL SEMI-TRAILERS (POWERED AND TRAILERS)

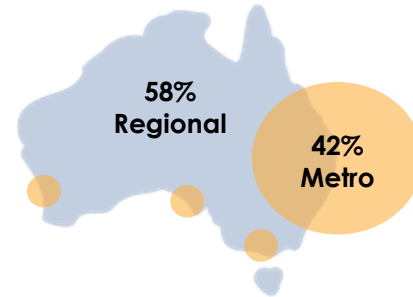
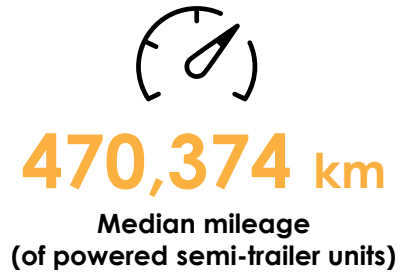
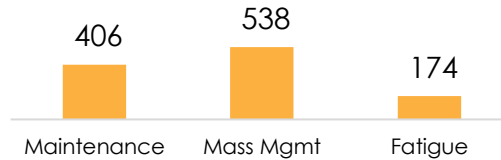
- 32% of semi-trailers inspected nationally had at least one non-conformity.
- 81% of semi-trailers were inspected in their state of registration.



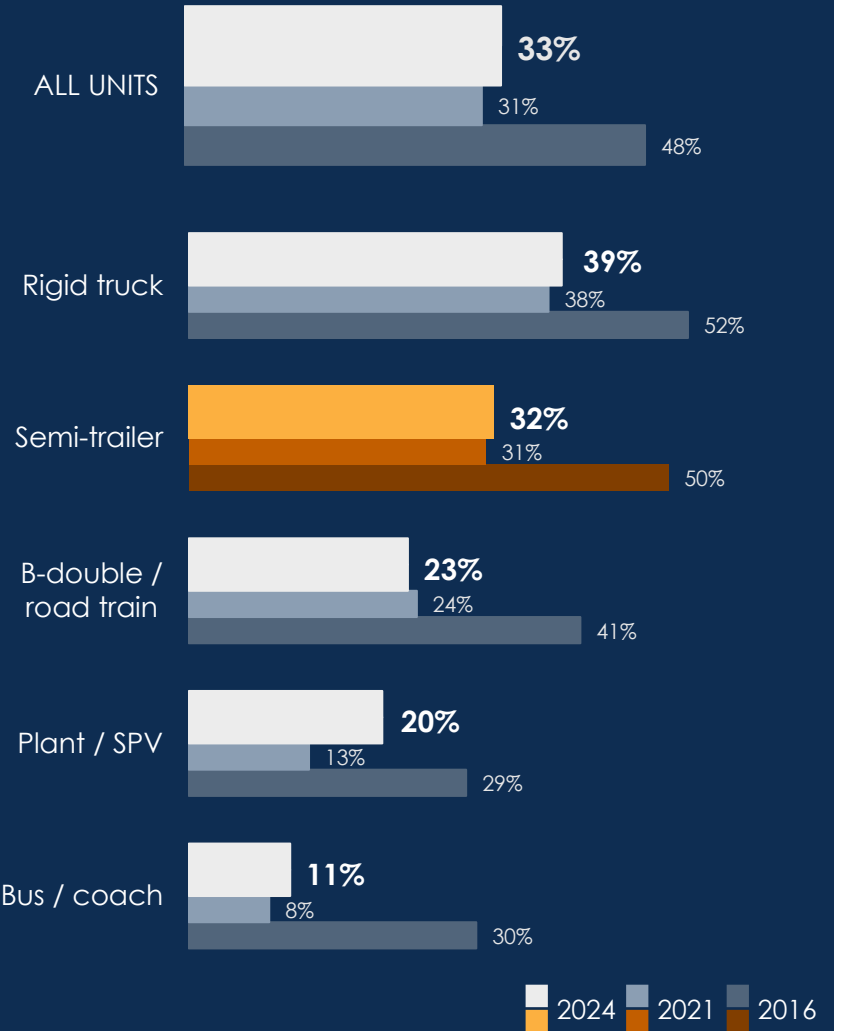
JURISDICTION



SCHEME



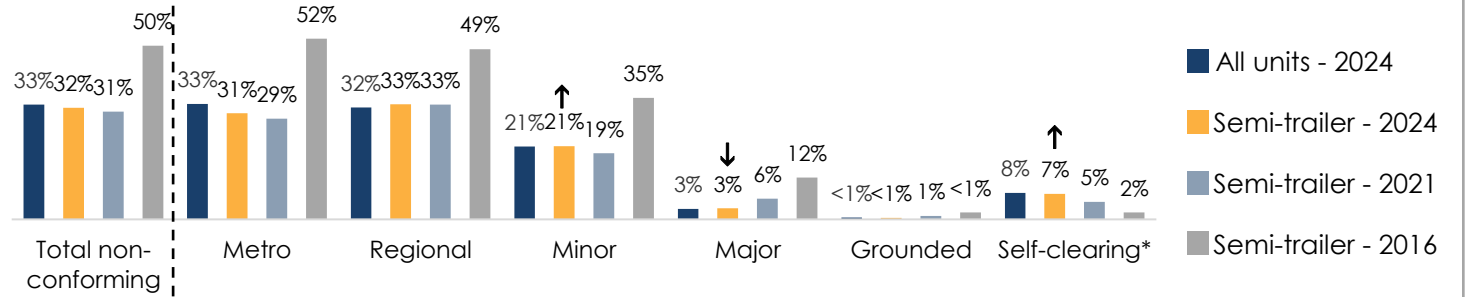
NATIONAL RATES OF NON-CONFORMITY 2024



OVERVIEW OF NON-CONFORMITIES — ALL SEMI-TRAILERS (POWERED AND TRAILERS)

- The incidence of non-conformity overall in semi-trailers has remained stable since 2021, having increased by 1 percentage point (from 31% to 32%).
- Incidence of major non-conformities has decreased since 2021. While minor, self-clearing and having multiple non-conformities have all increased since 2021.

32%
of semi-trailers inspected had a **non-conformity**
Vs. **31%** in 2021



NON-CONFORMITIES

HIGHEST LEVEL OF NON-CONFORMITY

PASS

	Non-conforming units	Multiple non-conformities	Individual non-conformities	Self-clearing*	Minor	Major	Grounded	Unit passed [^] inspection
All units - 2024	4,054	3,668	11,563	955	2,601	438	60	11,263
% of units (n=14,362)	33%	27%		8%	21%	3%	<1%	75%
Semi-trailer - 2024	996	949	1,574	225	659	98	14	2,366
% of units (n=3,137)	32%	31% ↑		7% ↑	21% ↑	3% ↓	<1%	75%
Semi-trailer - 2021	923	515	1,228	155	576	158	34	2,136
% of units (n=2,904)	31%	17%		5%	19%	6%	1%	74%
Semi-trailer - 2016	1,170	730	1,885	40	797	290	40	1,318
% of units (n=2,445)	50%	32%		2%	35%	12%	2%	51%
Home state inspection	808	739	1,219	179	534	85	10	1,880
% of units (n=2,509)	33%	30%		7%	21%	4%	<1%	75%
Interstate inspection	188	210	355	46	125	13	4	486
% of units (n=628)	30%	33%		7%	20%	2%	1%	77%

Note: Counts (n) are reported unweighted, percentages (%) are weighted.

*'Self-clearing defect' was known as 'Formal warning' in 2016. For analysis purposes, the two have been combined and compared.

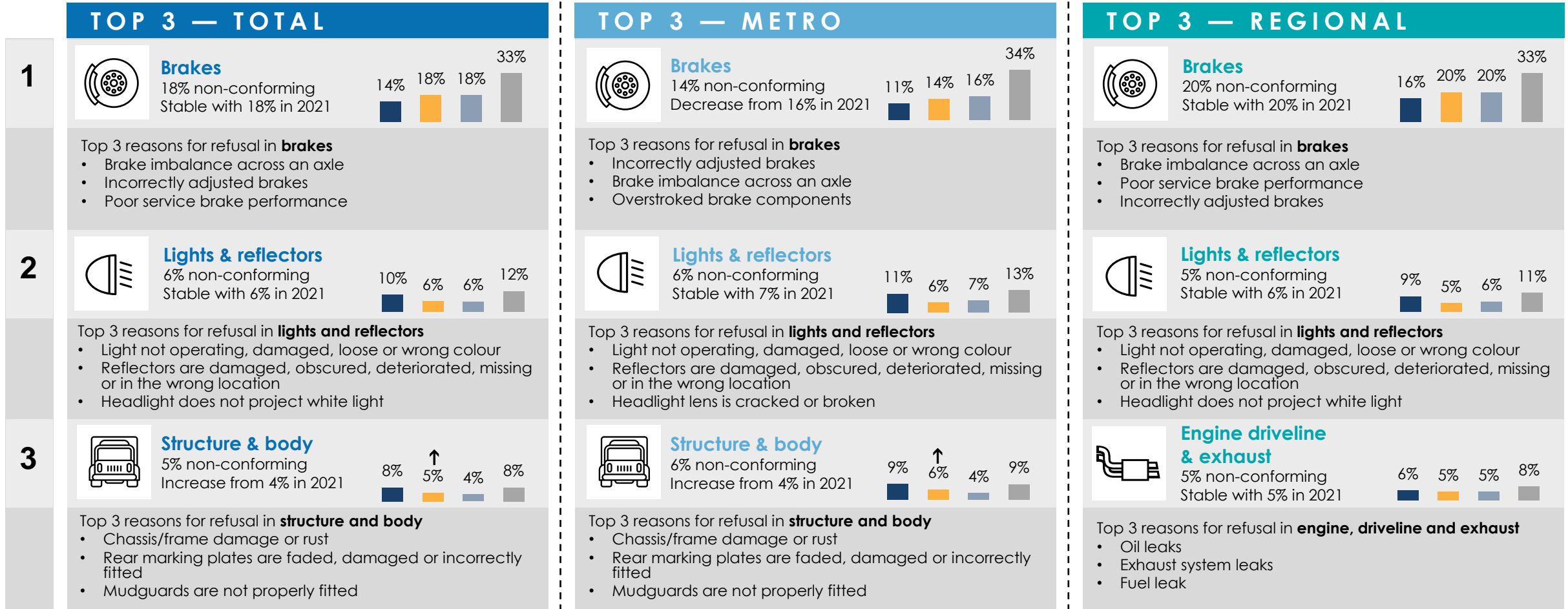
[^]A unit passes inspection if the highest level of non-conformity is self-clearing.

↑ ↓ Statistically significant increase/decrease in comparison with 2021. Absence of arrow means no statistically significant difference.

AREAS OF NON-CONFORMITY — ALL SEMI-TRAILERS (POWERED AND TRAILERS)

- The most common non-conformity among semi-trailers across metro and regional Australia is *brakes*, and this has remained stable with non-conformity in 2021.
- All of the most common areas of non-conformity for semi-trailers are below 2016 levels across metro and regional Australia.

■ All units - 2024
■ Semi-trailer - 2024
■ Semi-trailer - 2021
■ Semi-trailer - 2016














Note: 'Stable with' refers to a change that is not statistically significant.

AREAS OF NON-CONFORMITY SUMMARY — ALL SEMI-TRAILERS (POWERED AND TRAILERS)

- Among semi-trailers, the incidence of non-conformity has remained relatively stable in most areas of non-conformity, except for *structure & body* which has increased, and *steering & suspension* which decreased since 2021.

AREAS OF NON-CONFORMITY

	 Structure	 Seats and seatbelts	 Lights and reflectors	 Mirrors	 Windscreen & windows	 Coupling	 Trailers	 Brakes	 Steering & suspension	 Wheels and hubs	 Engine driveline & exhaust
All units - 2024	856	238	1,057	42	436	154	42	1,907	638	487	752
% of units (n=14,362)	8%	2%	10%	<1%	4%	1%	<1%	14%	6%	4%	7%
Semi-trailer - 2024	172	27	187	4	90	25	18	556	151	125	138
% of units (n=3,137)	5% ↑	1%	6%	<1%	3%	1%	1%	18%	5% ↓	4%	5%
Semi-trailer - 2021	111	21	178	6	83	22	17	541	203	89	138
% of units (n=2,904)	4%	1%	6%	<1%	3%	1%	1%	18%	7%	3%	5%
Semi-trailer - 2016	181	43	270	4	80	81	-	766	385	218	176
% of units (n=2,445)	8%	2%	12%	<1%	3%	3%	-	33%	17%	10%	8%
Home state inspection	141	25	155	4	64	21	16	445	115	97	106
% of units (n=2,509)	6%	1%	6%	<1%	3%	1%	1%	18%	5%	4%	5%
Interstate inspection	31	2	32	0	26	4	2	111	36	28	32
% of units (n=628)	5%	<1%	5%	0%	4%	<1%	<1%	18%	5%	4%	5%

Further information is available in the main report.
Contact natops@nhvr.gov.au to obtain a copy.

