

Key Differences between UK and Australian vehicles and their standards!!

CLOCS-A is a national road safety program targeting transport and logistics related risks from major infrastructure projects in Australia. CLOCS-A is inspired by the success of the CLOCS program that Transport for London established to tackle the same challenges now faced in Australia here we now have \$200 billion worth infrastructure projects in the pipeline.

CLOCS is now the UK's only safety standard for construction logistics and recognised as best practice. However, in adapting CLOCS to Australia there are a number of differences between the UK and Australia which are summarised below (current as at 1st November 2021):

Area	Australia	UK
Driver licences (Goods Vehicles)	<p>Above 4.5 t GVM requires an endorsement (VicRoads)</p> <ul style="list-style-type: none"> Light Rigid (LR) for GVMs above 4.5 t ≥ 8 t requires 12 months car driving experience. Medium Rigid (MR) for GVMs above 8 t requires 12 months car driving experience. Heavy Rigid (HR) for GVMs above 8t with 3 or more axles requires 24 months car driving experience. Heavy Combination (HC) Truck and 1 trailer requires 12 months HR experience plus 24 months car driving experience Multi Combination (MC). For combinations larger than HC, requires 12-month HC experience. 	<p>Above 3.5 t GVM requires an endorsement:</p> <ul style="list-style-type: none"> “C1” Medium size 3.5 ≥ 7.5 t “C” Large over 3.5 t <ul style="list-style-type: none"> Thereafter, take 35 hours of periodic training every 5 years to stay qualified. You need to renew HGV licence every 5 years, and every year when you reach 65. year old.
Maximum vehicle speed (km/h)	<p>Vehicles with a GVM greater than 12 t must comply to ADR65/00 which speed limits these vehicles to 100km/h otherwise for lighter vehicles, the post vehicle speed applies up to 110km/h</p> <p>In NSW and QLD, Roads Trains are speed limited to 90km/h.</p>	<p>For goods vehicles from 3.5 to 7.5 t are limit to 80km/h operating on single carriageway, 96km/h on a dual carriageway and 112km/h on a motorway, unless towing a trailer when 96km/h applies.</p> <p>For goods vehicles greater than 7.5 tonne as above, but maximum road speed 96 km/h.</p>
Overall Width	2.5 m with an additional 50mm to cover load restraint systems	2.55m plus load restraint systems and 2.6m for refrigerated bodies (hard sides)
Overall Height	4.3m – general access 4.6m – restricted access	4.0m
Axle Masses (t)	<p>Front, single steer axle – 6.0 or 6.5 with ADR80/02 (Euro IV) Emissions</p> <p>Rear single drive axle – 9 (GML)</p> <p>(General Mass Limits)</p> <p>Rear tandem axle group – 17 (HML)</p> <p>(HML – Higher Mass Limits)</p>	<p>Front, single steer axle – 7.1</p> <p>Rear, single drive axle – 11.5</p> <p>Rear tandem axle group – 19</p>

Area	Australia	UK
GCM (t) example	45.5 (HML) for 6 axle semi combination	44.0 for 6 axle semi combination
Combinations (typical) With Overall length (OAL – m)	<p>For the construction segment</p> <ul style="list-style-type: none"> Truck with 3 to 6 axle dog trailers <p>For distribution</p> <ul style="list-style-type: none"> 6 axle Semi for 19m or 20m. 9 axle B-Double for 26m. 11 axle A-Double for 30m. Road trains in remote areas <p>Typically, in a curtain side trailer configuration</p>	<p>For the construction segment</p> <ul style="list-style-type: none"> Truck as 3 or 4 axle rigids <p>For distribution</p> <ul style="list-style-type: none"> 6 axle semi for 16.5m semi combination or 18.75 draw bar “lorry”. <p>There are no “longer” combinations</p> <p>Typically, in a hard sided body configuration</p>
Managing Driver hours	<p>Paper based Log Book with a recent option of an EWD (Electronic Work Diary).</p> <p>Records driving hours and rest break locations.</p> <p>Required for vehicles with a GVM greater than 12t GVM but not required where the driver will only drive within a 100km radius of the driver’s base. This work is referred to as 100km work in the HVNL</p>	<p>Digital Tachograph required since 1 May 2006, for a goods vehicle above 3.5t GVM.</p> <p>Records information about driving time, speed and distance.</p>
Noxious Engine Exhaust Emissions	<p>ADR80/03 (Euro V) mandatory from Jan/11</p> <p>ADR80/04 (Euro VI Step “C”) has not been drafted. Timing TBA. TIC is targeting 2024/25</p> <p>There are no green emission (CO₂) requirements.</p>	<p>Euro V mandatory from Oct/09</p> <p>Euro VI Step “A” mandatory from Jan/14</p> <p>Note London has a Low Emissions Zone (LEZ), and from the 25/Oct/21, it is expanding to an ULEZ from central London to create a single, larger zone up to the North Circular Road (A406) and South Circular Road (A205). See appendix A for further details</p>
Permitted access areas	None in Australia	<p>Heavy Goods Vehicle Safety Permit for Direct Vision Standard (DVS).</p> <p>For all trucks with a GVM greater than 12t GVM entering or operating in the Greater London from 26/Oct/20. Features:</p> <ul style="list-style-type: none"> Min. DVS rating or safe system From 1 to 3 stars by 2024
Spray suspension	No specific requirements other than “complete mudguards” for all wheel ends	Required for motor vehicles above 12 tonne GVM or trailers with an ATM above 3.5 tonne
Braking – Antilock Braking System (ABS)	<p>Trucks</p> <p>ADR35/05, ABS was mandatory from 1/ Nov/17</p> <p>Trailers</p> <p>ADR38/04, mandated ABS or load sensing brakes from 1/Jan/15</p> <p>ADR38/05, mandated ABS with Stability Control from 1/Nov/19</p>	<p>It is guesstimate that ABS was mandated before 1998!</p> <p>USA – New trailers, single unit trucks and buses that have air brakes must have had ABS since 1998, and new single unit trucks and buses with hydraulic brakes must have ABS after 1999.</p>

Area	Australia	UK
Braking – Stability Control	<p>Trucks</p> <p>ADR35/06 mandatory from 1/Jan/22</p> <p>Draft ADR35/07 extends Stability Control to all rigids.</p> <p>Timing – TBA</p> <p>Trailers</p> <p>ADR38/05 Stability Control mandatory from 1/Nov/19</p>	<p>Truck and trailer mandated by the EU GSR Regulation 661/2009 for:</p> <ul style="list-style-type: none"> all new type heavy vehicles by 1/Nov/11 and all new heavy vehicles by 1/Nov/14 <p>UN R13 – Heavy Vehicle Braking</p>
Braking – Advanced Emergency Braking (AEB) System	<p>Draft ADR97/00 AEB .</p> <p>Timing – TBA</p> <p>Based on UN R131</p>	<p>Mandated by the EU GSR Regulation 661/2009 for:</p> <ul style="list-style-type: none"> all new type heavy vehicles by 1/Nov/13 and all new heavy vehicles in 1/Nov/15.UN R131 – Advanced Emergency Braking Systems
Lane Departure Warning (LDW) System	<p>Draft ADR99/00 – Lane Departure Warning system proposed via safer freight vehicles package.</p> <p>It will only be mandatory for heavy trucks exceeding 2.5m width, optional for vehicles up to and including 2.5m wide.</p> <p>Based on UN R130.</p>	<p>Mandated by the EU GSR Regulation 661/2009 for:</p> <ul style="list-style-type: none"> all new type heavy vehicles by 1/Nov/13 and all new heavy vehicles in 1/Nov/15. <p>UN R130 – Lane Departure Warning System</p>
Front Underrun Protection (FUP) Device	<p>Common from ADR80/02 (Euro IV), required from 28/Feb/2008 to achieve 6.5t steer axle loads, but ADR84/00 mandated it from 1/Jan/2012 for 12t GVM vehicles</p>	<p>It is guesstimate that FUP was mandated about 1994 via UN R93 FUP</p>
Bull Bar	<p>Common as either an alloy bumper or poster 4 Bull Bar</p>	<p>Uncommon</p>
Side Underrun Protection (SUP)	<p>Draft ADR106/00 SUP, proposed via safer freight vehicles package. It will only be mandatory for heavy vehicles and trailers exceeding 2.5m width, optional for vehicles up to and including 2.5m wide</p> <p>Based on UN R73/01 The draft ADR in its current form, does not apply to Prime Movers.</p>	<p>UN ECE R73 for Lateral Protection Devices first published 2007!</p> <p>UK specific – The Road Vehicles (Construction and Use) Regulations 1986 Regulations 1986 first required SUP (“sideguards”) in 1986 and specifies 2kN impact strength</p> <p>(UN R73 specifies only 1kN)</p>
Rear Underrun Protection (RUP)	<p>RUP requirements are detailed in ADR 91/00 for new ADR category TC/TC trailers from 1/Jul/19.</p> <p>ADR42/04 General Safety Requirements for rear bumper for “semi-trailer” with simple dimensional guide.</p> <p>Not required for rigid trucks or other types of trailers such as pig trailers.</p> <p>ADR 91/00 does list UN R58 as an accepted alternative standard.</p>	<p>UN R58 for Rear Underrun Impact Protection requires heavy vehicles and trailers to be fitted. Ground clearance and strength requirements more stringent than ADR 91/00, although R58 is listed as an acceptable alternative standard.</p>

Area	Australia	UK
Conspicuity Markings	Optional requirement via ADR13/01 Lighting. Safer Freight Vehicles package will mandate for heavy vehicles and trailers exceeding 2.5m width, optional for vehicle up to and including 2.5m wide.	UN R104 first published 2014
Day Time Running (DTR) Lamps	ADR76/00 DTR lamps & ADR13/00 lamps provide an “if fitted” requirement The ADR calls up UN ECE R87	Mandatory UN ECE R87 Day Time Running Lamps for Power Driven Vehicles
Reverse light	Reversing lights on trailers are optional. Proposal to mandate as part of the Safer Freight Vehicles package for wider trailers.	Mandatory
Reversing alarm	Not an ADR requirement – Commonly fitted to trucks, but not to trailers, as the wiring for trailer reversing lamp is frequently not provided.	Mandatory
Mirrors (Indirect Vision)	Amendment of ADR14/02 Mirrors defines New York style “ cross over mirrors ” as an option as part of Safer Freight Vehicle’s package. Draft ADR14/03 Mirrors is only mandatory for heavy vehicles and trailers exceeding 2.5m width, optional for vehicles up to and including 2.5m wide via Safer Freight Vehicle’s Package.	Mandatory under the UN R46 for Indirect Vision Requirements Class IV, V, VI!!
Heavy-duty vehicles direct vision	No requirement.	Introduced in Regulation (EU) 2019/2144 , expected: <ul style="list-style-type: none"> 2026 for new type vehicles 2029 for all new heavy vehicles London Direct Vision Standard (currently exclusive to Greater London area current standard requires one star minimum to operate in London)
Blind Spot Information Systems (BSIS)	Draft ADR105/00 – BSIS. Proposed via Safer Freight Vehicles package. Only mandatory for heavy vehicles and trailers exceeding 2.5m width, optional for vehicles up to and including 2.5m wide. Based on UN R151. Although Office of Road Safety draft NRSS 2021-2030 vehicle safety fact sheet mentions as a priority area for an ADR.	Introduced in UN R151 2019/2144, expected: <ul style="list-style-type: none"> 2022 for new type vehicles 2024 for all new vehicles UN R151 – Blind Spot Information System for the Detection of Bicycles
Roadworthiness and Maintenance	Victoria requires a roadworthy at change of ownership NSW, for HVs, it is annual from first registration plus on-road intercepts and Safety/Weigh stations	DoT – Annual roadworthy 6weekly inspection at approved locations: <ul style="list-style-type: none"> Roller Brake test RSL tampering / test

Other Items		
Foundation brakes	Mixed – Disc/Drums	Disc
Age vehicle age See below	Approaching 15 years	Approaching 9 years

Other items beyond this project.

- Noise, wheel spray suspension (Guard/mudflap)

For further background on the differences between Australia and Europe, refer to :

<https://www.churchilltrust.com.au/project/the-nrma-act-road-safety-trust-churchill-fellowship-to-investigate-best-practices-to-improve-heavy-vehicle-safety-in-urban-environments/>

For specific information on the vehicle safety section refer to page 49

Appendix A - London Ultra Low Emission Zone (ULEZ)

To help improve air quality, an Ultra Low Emission Zone (ULEZ) operates 24 hours a day, 7 days a week, every day of the year, except Christmas Day (25 December), within the same area of central London as the Congestion Charge. Most vehicles, including cars and vans, need to meet the ULEZ emissions standards or their drivers must pay a daily charge to drive within the zone:

- £12.50 for most vehicle types, including cars, motorcycles and vans (up to and including 3.5 tonnes)
- £100 for heavier vehicles, including lorries (over 3.5 tonnes) and buses/coaches (over 5 tonnes)

Minimum emission standards

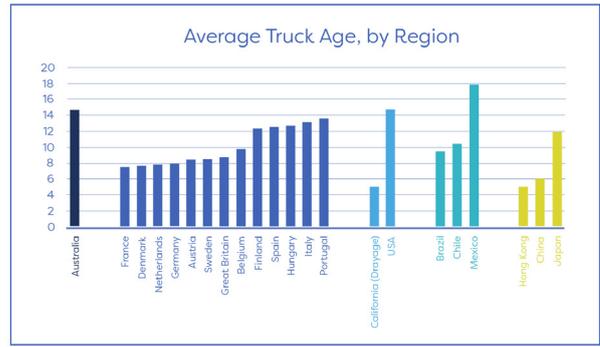
For a lorry, van or specialist heavy vehicle over 3.5 tonnes gross vehicle weight (GVW), or a bus/minibus or coach weighing over 5 tonnes GVW, the minimum emissions standard is Euro VI (NOx and PM).



from 25th Oct 2021 ->



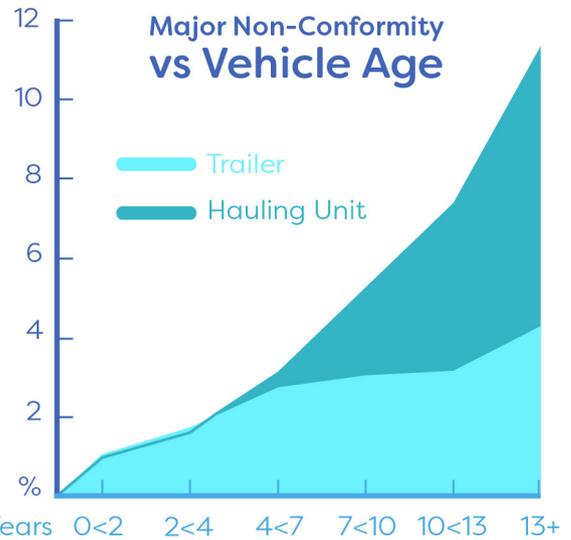
Appendix B – Average truck age by region.



Source: TIC’s Truck Plan

www.truck-industry-council.org/downloads

Appendix C – Comparison between vehicle age and major non-conformity (roadworthiness)



Source NHVR NRBS survey conducted Nov 2016*.

Survey data shows that the truck’s roadworthiness non-conformity, typically rises exponentially according to the age of the vehicle.