



**Mining and
Automotive**
Skills Alliance

AUR21926

Certificate II in Automotive Tyre Servicing Technology

Supporting Information for Registered Training Organisations

Supplement to the Companion Volume Implementation Guide |
AUR Automotive Retail, Service and Repair Training Package

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Purpose of this Document

The AUR21926 Certificate II in Automotive Tyre Servicing Technology is a nationally recognised qualification delivered under the AUR Automotive Retail, Service and Repair Training Package. It provides learners with the foundational skills and knowledge required to safely service, repair, replace and maintain tyres and wheel assemblies across a range of vehicle types, including passenger and light commercial vehicles, heavy vehicles, agricultural equipment, and off-the-road (OTR) earthmoving equipment.

Tyre servicing is a high-risk occupation. Incidents involving tyres, rims and wheel assemblies, particularly on heavy vehicles and earthmoving equipment, have resulted in fatalities and life-changing injuries across Australian worksites. The catastrophic energy released during a tyre failure or explosive separation of multi-piece rim components can project debris at lethal velocity, and the consequences of error are frequently irreversible.

This document provides supporting information to assist RTOs in contextualising their delivery of AUR21926 in line with current regulatory requirements, industry standards, and evidence from real-world incidents and coronial investigations. RTOs are encouraged to integrate this material into their training and assessment strategies to ensure learners are equipped with up-to-date, jurisdiction-aware knowledge before entering the workplace.

Note for RTOs

The references below are not exhaustive. RTOs should monitor relevant state and territory regulators and industry bodies for updated guidance as it is published. All URLs were current at the time of publication; RTOs should verify currency and check regulator websites for updated versions prior to each training cycle.

About This Document

This document was prepared by the Mining and Automotive Skills Alliance (AUSMASA) as a supplement to the Companion Volume Implementation Guide for AUR21926 Certificate II in Automotive Tyre Servicing Technology. It is intended for use by Registered Training Organisations and should not be distributed to learners as a standalone resource.



Australian Standards

Standards – Relevant to Specific Specialisations

- AS 4457.1 Earth-moving machinery: Off-the-road wheels, rims and tyres – Maintenance and repair, Part 1: Wheel assemblies and rim assemblies
- AS 4457.2 Earth-moving machinery: Off-the-road wheels, rims and tyres – Maintenance and repair, Part 2: Tyres
- AS 1973-1993 Pneumatic Tyres: Passenger Car, Light Truck and Truck/Bus – Retreading and Repair Processes (Standards Australia). Primary Australian Standard governing retreading and in-service repair of tyres. Note: does not apply to motorcycle tyres, temporary spares, or tyres designed for earthmoving, agricultural or aviation applications.
- Australian Design Rule (ADR) 23 Passenger Car Tyres. Foundational federal design standard for tyre construction. All tyres fitted to Australian vehicles must comply. Referenced in NSW VSI.09 and the National Code of Practice for Light Vehicle Construction and Modification.
- Australian Design Rule (ADR) 42 General Safety Requirements (motorcycles manufactured after 1 July 1988). Governs mudguard and wheel coverage requirements for motorcycles. Relevant to tyre fitting and replacement.
- Tyre and Rim Association of Australia (TRAA) Standards Manual (current edition, updated annually). Primary national reference for dimensional standards governing tyre and rim combinations across all vehicle types. RTOs must reference the current year's edition. Available via tyreandrim.org.au.

Motorcycle Tyre Repair — Important Limitation: Unlike passenger car and truck tyres, motorcycle tyres are explicitly excluded from AS 1973-1993. Repair of motorcycle tyres should only be undertaken in strict accordance with the individual tyre manufacturer's specifications. RTOs must ensure this distinction is clearly addressed in training materials for the motorcycle elective units.



Jurisdictional Resources and Regulatory Guidance

Australia's work health and safety framework is primarily state and territory administered, and the regulatory landscape for tyre servicing varies meaningfully across jurisdictions. RTOs delivering AUR21926 must ensure their training materials reflect applicable information in the jurisdictions where their learners will work.

Where incidents, coronial findings or regulator investigations are referenced, RTOs are strongly encouraged to use these as case study material to contextualise the consequences of unsafe practice and reinforce the rationale behind safe work procedures.

Queensland

- Recognised Standard 13 (RS13) – Tyre, Wheel and Rim Management (Resources Safety & Health Queensland). Mandatory compliance standard for tyre, wheel and rim management at coal mines and mineral mines in Queensland. RTOs delivering Specialisation D (OTR Tyres) to Queensland learners must ensure training aligns with RS13 requirements, including the requirement for RIICOM201E and RIIWHS201E.
- Mineral Mines and Quarries Guidance Note QGN31 – Tyre, Wheel and Rim Management. Provides operational guidance supplementary to RS13.
- Technical Reference Guide MDG1032 – Development of a Fire or Explosion Principal Hazard Management Plan. Relevant to tyre-related fire and explosion risk management.
- MDG15 – Guideline for Mobile and Transportable Plant for Use at Mines (other than underground coal mines).
- QLD Mines Safety Bulletin No. 77 – Earthmover Tyre and Rim Safety (Resources Safety & Health Queensland). Emphasises that training for onsite tyre servicemen must only be provided by RTOs experienced in tyre and rim maintenance using approved training packages.
- QLD Mines Safety Bulletin No. 118 – Working Safely with Tyres: Highway-Style Haulage Trailer (Resources Safety & Health Queensland). Issued following a fatality involving a bulk coal transport trailer wheel replacement. Covers premature failure of radial construction tyres and the importance of treating highway truck-type tyres differently from earthmover tyres during maintenance.
- QLD Safety Alert – Line of Fire and Exclusion Zone Failings (Resources Safety & Health Queensland, September 2024). A tyre fitter was struck by a falling bead seat band and side ring during a vertical mount of a five-piece wheel assembly on a rear dump truck at a surface mine. Identifies over-reliance on administrative controls and failure to establish exclusion zones as contributing factors. Recommended as case study material.
- QLD Tyre Safety Campaign – Industry Intervention 2021-22 (WorkSafe Queensland). A targeted compliance campaign across multiple industries to raise awareness of tyre handling and storage risks.



New South Wales

- NSW Resources Regulator – Investigation Information Release IIR24-01: Two Workers Injured When Truck Tyre Explodes (February 2024). Two workers were injured when a B-double semi-trailer tyre exploded while they attempted to locate an air leak with the tyre mounted on a fitting machine. Workers suffered perforated eardrums, hearing loss, lacerations and an eye injury. A completed investigation report and WHS undertaking were published in July 2025. Recommended as case study material.
- NSW SafeWork – Worker Fatally Injured in Split Rim Incident (October 2025). A tyre technician was fatally injured while removing an outer wheel assembly on a 60-tonne reach stacker. The outer tyre exploded while the technician was working on the assembly. SafeWork NSW issued detailed guidance on controls for split-rim tyre work following this incident.
- NSW VSI.09 – Wheels and Tyres (Transport for NSW). Covers standards for fitting wheels and tyres to registered NSW vehicles, including ADR 23 compliance, the TRAA Standards Manual, and rules governing alternative tyre and rim combinations.

Victoria

- VIC VSI 16 – Tyre Maintenance and Repair (Transport Victoria, October 2021). Made under the Road Safety (Vehicles) Regulations 2021; applies to vehicles with a GVM of 4.5 tonnes or less. Covers roadworthy tyre standards, repair procedures, run-flat tyres, tyre pressure monitoring systems (TPMS), and the requirement to follow TRAA repair procedures.
- VIC WorkSafe – Removing and Fitting Vehicle Wheels and Tyres (WorkSafe Victoria). Covers manual handling risks specific to tyre fitting, noting standard weight ranges for passenger, four-wheel drive and truck tyres, and recommending use of mechanical aids including tyre trolleys and dollies.
- VIC – Road Safety (Vehicles) Regulations 2021, as applicable to motorcycles. RTOs must ensure learners understand that TRAA repair procedures referenced in VSI 16 do not extend to motorcycle tyres, and that motorcycle tyre repair is governed by manufacturer specifications.

Western Australia

- WA – Tyre Safety for Earth-Moving Machinery on Western Australian Mining Operations: Guideline (WorkSafe Western Australia / DEMIRS). Describes common hazards when working with tyres, rims, wheels and assemblies on mining equipment and provides guidance on safe systems of work in a mining environment. Highly relevant for Specialisation D delivery.



Australian Capital Territory

- WorkSafe ACT – Heavy Vehicle Tyre Inflation (Safety Alert). Directly addresses controls for inflating heavy vehicle tyres including the requirement to use appropriately designed safety cages, establish exclusion zones, use remote inflation equipment, and deflate tyres fully before any rim work. Identifies conditions under which no maintenance may proceed (pressurised tyre on a wheel). Available via [worksafe.act.gov.au](https://www.worksafe.act.gov.au). Recommended as companion material to the QLD Safety Alert on exclusion zone failings.

South Australia, Northern Territory and Tasmania

Note for RTOs delivering in SA, NT and TAS

At the time of publication, SafeWork SA, NT WorkSafe and WorkSafe Tasmania do not publish tyre-specific guidance. RTOs delivering in these jurisdictions should reference the national model codes of practice and apply the relevant Australian Standards. RTOs should monitor SafeWork SA, NT WorkSafe and WorkSafe Tasmania for updated guidance.



National and Heavy Vehicle Resources

- National Heavy Vehicle Regulator (NHVR) – National Heavy Vehicle Inspection Manual (NHVIM), Section 5: Wheels, Tyres and Hubs (current version). The national inspection standard for heavy vehicles (>4.5t GVM). Covers wheel and rim checks, rim fastener inspection, retaining ring inspection, tyre condition assessment, and retreaded tyre compliance with AS 1973. Available via nhvr.gov.au. Note: applies in all states and territories except Western Australia and the Northern Territory.
- NHVR – Vehicle Standards Bulletin 6 (VSB6) V3.2: National Code of Practice for Heavy Vehicle Modifications. Includes checklist E3 (Fitting of non-standard front wheel, tyre or rim) and is the primary standard used by Approved Vehicle Examiners for approving tyre and rim modifications on heavy vehicles.
- NHVR – Chain of Responsibility (CoR) under the Heavy Vehicle National Law. CoR provisions impose safety duties on all parties in the heavy vehicle supply chain, including maintenance providers. Tyre technicians working on heavy vehicles for commercial operators should understand that CoR obligations may apply.
- National Code of Practice for Light Vehicle Construction and Modification (NCOP) – Section LS: Tyres, Suspension and Steering (Australian Government, Department of Infrastructure). Covers requirements for wheel and tyre modifications on light vehicles, including maximum tyre and rim size combinations and standards compliance for replacement alloy rims.
- Safe Work Australia – Model Code of Practice: Managing the Work Environment and Facilities. Relevant to the design of tyre servicing facilities, including workspace layout, lighting, and emergency arrangements.



ACARP Research Reports

The Australian Coal Association Research Program (ACARP) has funded a significant body of research directly relevant to the management of OTR tyre and rim hazards in heavy industry. While primarily targeted at the coal mining sector, the human factors, risk management principles and equipment handling findings are applicable across all heavy vehicle tyre servicing contexts covered by AUR21926.

Access to ACARP Reports

ACARP reports are available to Australian coal industry levy payers via the ACARP website (www.acarp.com.au). RTOs without direct access may contact ACARP directly to discuss access arrangements. Reports marked below as highly recommended should be prioritised for trainer professional development.

Key ACARP Research – Recommended for All OTR Trainers

- ACARP C15046 – OTR Tyre and Rim Safety Review (May 2007). Foundational review finding that OTR tyre and rim related work results in more than 80% fatal or potentially fatal outcomes for personnel involved. Identified that 51% of incidents occur during tyre and rim maintenance, with inadequate awareness and competence accounting for a further 17%. Established the evidence base for strict management and individual-level controls for all OTR tyre work. **HIGHLY RECOMMENDED** as background reading for all trainers delivering OTR tyre content.
- ACARP C37007 – A Case Review on Integrated OTR Tyre Handling Operations (September 2025). Examines how OTR tyre handling operations are shaped by management decisions across time, functional units and organisational levels.
- ACARP C33005 – Human Factors Aspects of Tyre Handling Equipment Design and Operation Examined within an EMESRT Control Framework Approach – Phases 1, 2 and 3 (2023). Evaluated human factors aspects of tyre handling equipment design and operation and developed functional performance requirements for tyre handling equipment.
- ACARP C35020 – Human Factors Approach to Elicit Knowledge from Domain Experts on Tyre Handling Scenarios with Fatal Hazard Exposures – Phases 1 and 2 (July 2024). Developed scenario-based knowledge resources applicable to training delivery.

EMESRT Resources

The Earth Moving Equipment Safety Round Table (EMESRT) has developed freely available resources directly applicable to tyre handler training and OTR tyre safety. These are suitable for use as supplementary training materials:

- EMESRT Tyre Management Improvement
- EMESRT Tyre Handler Scenario-Based Storyboard Animations. Scenario-based visual resources illustrating tyre handler operation and associated hazards. Suitable for use as case study and discussion material in classroom and worksite training contexts.