



Operating Guidelines for

PASS-2-LOAD

Inspections

OG7-Version 3.6

Safe Load Program (SLP)

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1. PREFACE

These guidelines have been developed by Safe Load Program™ (SLP) for use by major refiner-marketers involved in the distribution of petroleum products across Australia.

They do not replace any applicable statutory regulations, which take precedence at all times, nor do they override any specific requirements set by individual loading facilities.

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1.1 Acronym's & Abbreviations

ADF	Australian Defence Force	ADGC	Australian Dangerous Goods Code
ADR	Australian Design Rule	AIL	Authorised Inspection Location
AIP	Australian Institute of Petroleum	AS	Australian Standard
CD	Compliance Document	DG	Dangerous Goods
EBS	Electronic Braking System	ESC	Electronic Stability Control
ESC	Enhanced Stability Control	JV	Joint Venture
NDG	Non-Dangerous Goods	NHVR	National Heavy Vehicle Regulator
NTC	National Transport Commission	NVIM	National Vehicle Inspection Manual
OG	Operating Guidelines	OPS	Overfill Protection System
OS	Operating Standard	P2L	Pass-2-Load
RSC	Roll Stability Control	RSS	Roll Stability System
RTS	Return to service	SFL	Safe Fill Level
TEBS	Trailer Electronic Braking System	VCP	Vehicle Compliance Program

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2. INTRODUCTION

2.1 Purpose and objective

The Pass-2-Load (P2L) scheme assesses whether bulk fuel road tank vehicles meet the safety and compliance requirements set by Safe Load Program (SLP) members for entry, loading and exit at participating facilities. These guidelines ensure road tankers undergo safety inspections every six months to confirm compliance with relevant Australian Standards, the Australian Dangerous Goods Code, and SLP reference documents.

The purpose of these guidelines is to provide Authorised Inspection Locations and their inspectors with the technical information needed to assess and report on tanker compliance. Throughout this document, the terms *bulk fuel road vehicle*, *road tank vehicle*, and *tanker* are used interchangeably.

2.2 Scope

A Pass-2-Load inspection is mandatory for all road tankers loading bulk liquid petroleum products at facilities operated by SLP Joint Venture member companies. A Pass-2-Load label must be issued and affixed to each individual component of the tanker combination.

Notes:

Petroleum-loading facilities not operated by SLP Joint Venture members generally require compliance with the SLP Pass-2-Load scheme as a minimum standard for loading bulk petroleum products. These guidelines serve as a reference for conducting Pass-2-Load inspections, which require an inspection checklist and label for each component of a bulk liquid fuel tanker. Vehicles subject to inspection include prime movers, rigid tankers, tanker trailers, road-train dollies and trailers used to transport bulk petroleum products, including those fitted with demountable tanks. Demountable tanks designed or modified for bottom loading may also require a Pass-2-Load inspection (see Section 5.16 – Demountable Tanks).

2.3 Non-dangerous goods carrying vehicles

SLP joint-venture terminals, including diesel-only sites, will not permit loading by any tanker that fails to meet all compliance requirements for a dangerous goods transport vehicle. To qualify for a Pass-2-Load inspection, all fuel tanker barrels—including those dedicated to combustible-only products—must comply with the ADGC requirements applicable to dangerous goods tankers under state or territory legislation. The sole exemption is that combustible-only tankers are not required to hold a dangerous goods licence if the owner elects not to obtain one.

Note:

“SLP verifies that all tankers meet the minimum Dangerous Goods vehicle requirements under the ADGC, excluding the requirement to hold a Dangerous Goods licence for vehicles transporting combustible-only products.”

2.4 New designs and innovations

These guidelines do not restrict the use of alternative materials, equipment, designs, or methods that are not specifically described. Alternatives that differ from the stated requirements may be accepted if they deliver equivalent outcomes. Any new design or innovation must receive written approval from the Safe Load Program General Manager.

2.5 Copyright

These guidelines are formatted to allow the copying of Pass-2-Load compliance checklists. Copyright does not restrict the reproduction of these sections, or any other parts of the guidelines, when required to support the Pass-2-Load scheme.

2.6 Referenced documents

These guidelines reference the documents listed below. Their associated regulations, codes of practice, and standards apply throughout this document, not only where explicitly cited.

Australian Code for the Transport of Dangerous Goods by Road and Rail

National Transport Commission (NTC) Load Restraint Guide

ADR42 General Safety Requirements

AS1180 Methods of test for hose made from elastomeric materials

AS1678.X1:1993 Emergency Procedure Guide

AS1841:2007 Portable fire extinguishers

AS1850:2009 Portable fire extinguishers

AS2683:2000 Hose and hose assemblies for distribution of petroleum and petroleum products

AS2809.1:2008 Road tank vehicles for dangerous goods: General requirements

AS2809.2:2008 Road tank vehicles for dangerous goods: Tankers for flammable liquids

AS2809.1:2020 Road tank vehicles for dangerous goods: General requirements

AS2809.2:2020 Road tank vehicles for dangerous goods: Tankers for flammable liquids

AS2809.1:2023 Road tank vehicles for dangerous goods: General requirements

AS2809.2:2023 Road tank vehicles for dangerous goods: Tankers for flammable liquids

AS3790:1992 Portable warning triangles for motor vehicles

AS5602:2009 Vehicle bottom loading and vapour recovery

AS/NZS60079.14 Explosive atmosphere Part 14: Design selection, erection & initial inspection

AS/NZS60079.15 Explosive atmospheres Part 15: Equipment protection by type of inspection

NSW EPA Dangerous goods tank vehicle inspection manual V3.0 – November 2023

2.7 Definitions

Terms used in these guidelines carry their standard industry meanings, including any specialised interpretations relevant to the trades or professions involved.

A more comprehensive list of definitions specific to Dangerous Goods vehicle design and compliance requirements can be found in AS 2809.1:2023 Section 1.4 Terms and definitions.

2.8 Conditions

The Pass-2-Load label remains valid until the expiry date shown; however, access to loading facilities is always subject to facility management discretion. Access may be denied or withdrawn at any time if the vehicle's condition is considered unsatisfactory. If the hydrostatic or hatch-and-vent test expires during the Pass-2-Load period, the Pass-2-Load label must show an expiry date no later than the next required test. To preserve the full six-month Pass-2-Load period, the required hydrostatic or hatch-and-vent test must be completed before or at the time of inspection.

2.9 Pass-2-Load scheme administration

The administration of the Pass-2-Load scheme is the responsibility of Safe Load Program ©.

2.10 Authorised inspection location (AIL)

A Pass-2-Load label may only be issued by an Authorised Inspection Location (AIL). AILs are registered business entities with qualified personnel, appropriate technical expertise, and the facilities necessary to conduct road-tanker inspections in accordance with these guidelines. All AILs licensed by SLP must pay an annual licence fee and are subject to periodic audits to ensure ongoing compliance with the Pass-2-Load scheme.

2.11 Vehicle legislative compliance

The vehicle owner or operator, by presenting a vehicle for assessment under the Pass-2-Load scheme, confirms that it is roadworthy, registered, licensed, and compliant with all applicable Australian Standards, Codes, and legislative requirements necessary for entry to an SLP participating member facility.

Pass-2-Load inspections support JV partner companies in protecting people, property, and the environment; however, they do not verify roadworthiness or replace the vehicle owner's obligations under AS2809.1:2023, AS2809.2:2023, or earlier standards.

The following summary outlines the minimum vehicle maintenance requirements for dangerous goods road tank vehicles as specified in AS2809.1:2023.

AS2809.1:2023

VEHICLE INSPECTIONS

REFER SECTION 3.1 INSPECTION

An inspection system must be in place for the safety of the road tank vehicle; the vehicle owner and/or operator can perform this process.

The inspection process must be determined by distance travelled or time, but in all cases inspection intervals must not exceed three months in service.

The vehicle must be maintained in accordance with the NHVR National Heavy Vehicle Inspection Manual (HVIM)

Regular inspection and maintenance

The following inspections must be carried out at the specified frequencies.

General items to be checked are found in (AS 2809.1 / Australian Dangerous Goods Code):

Three monthly vehicle inspection to determine safety of the road tank vehicle:

- *Visual external tank inspection (for defects or damage)*
- *Tyres, wheels and brakes (all in good order and not needing replacement)*
- *Suspension (in good order)*
- *Chassis and subframe (in good order)*
- *Steering (in good order)*
- *Fifth wheel coupling(s) (in good order)*
- *Engine (in good order)*
- *Lights, conduits (all undamaged and working)*
- *Electrical equipment undamaged and in good order*
- *Fire extinguishers [correct number present and located appropriately, tags fitted and current (6 months)]*
- *Signs of product leaks (check that there are none)*
- *Stowed safety gear (all gear present and stowed appropriately)*
- *Drive away protection (fitted and functioning)*
- *Landing legs (in good order)*

- Tank attachment (in good order)
- Vehicle attachments (interlock system functioning to ensure projecting items are stowed properly)
- Rear impact protection (fitted and in good order)
- Guarding to all rotating parts (fitted and in good order)
- Tail shaft protection (fitted so as to prevent damage to tank and pipework)
- Valve operation marking (clearly visible and legible)
- Valves interlocks (functioning)
- Battery protection (secured)
- Battery isolation switch (located appropriately, clearly visible, easily accessible, clearly labelled)
- Roll-over shutdown switch (test that it functions)
- Brake roll stability control functioning (ESC or RSC)
- Emergency information panel (points to mount EIP, if required, are present)
- Tank conformance plate (plate fixed to vehicle with information permanently marked)
- Hydrostatic test plate (fitted and test current)
- Hose assembly test date (test is current)
- Hose assembly to be inspected for damage over its entire length (no damage present)
- Manholes fitted with effective closures (closed and secured) and vents fitted and in good order.
- Protective caps on outlets and tethered

Additional items to be checked for flammable liquids can be found in (AS 2809.2):

Three monthly vehicle inspection to determine safety of the road tank vehicle:

- Hot component shielding or deflectors (fitted)
- Stowage of hoses and other loose equipment (restrained)
- Enclosed air spaces (screwed openings present for venting and draining, top mounted to be plugged, bottom unplugged)
- Protection of wiring (securely fastened and located so that they are protected against, rubs, ingress of product, mechanical and thermal stress)
- Is hatch and vent assembly testing current

General items to be checked (AS 2809.1 / Australian Dangerous Goods Code):

Six monthly vehicle inspection to determine safety of the road tank vehicle:

- Earth reel undamaged and in good order and continuity has been checked (if earth reel is fitted)

Five yearly vehicle inspection to determine safety of the road tank vehicle:

- Visual internal tank inspection (for defects)
- Review of vehicle conformance to AS 2809

Additional items to be checked for flammable liquids (AS 2809.2):

Five yearly vehicle inspection to determine safety of the road tank vehicle:

- Roll-over protection (clearance and undamaged)
- No hoses between the tank internal valve and first outside valve

Performance testing

Performance tests must be carried out at the specified frequencies to ensure safety of the road tank vehicle.

General Items to be tested (AS 2809)

Testing frequency Six Months:

- Electrically continuous hose assemblies to be tested for electrical continuity

Testing frequency Twelve Months:

- Hose assembly pressure test

Testing frequency Thirty Months:

- Hatches, vents and valves (The pressure-tightness of every hatch, vent, and valve, including the vapour vents and the vapour recovery system, must be tested at 25 kPa, either on the tank with the pressure-vacuum vents blanked off, or after removal from the tank, i.e. as a bench test.)
- Pressure-vacuum vents (P/V vents must be removed and completely dismantled and cleaned. New seals and gaskets must be fitted. The reassembled vents must be subjected to the test procedure specified in Appendix B, for check tests.)

Testing frequency Five Years:

- Tank hydrostatic testing, refer to AS 2809.2 Pressure testing as part of commissioning Clause 2.13 Tanks

Repairs must be completed and checked by a competent person before entry back into service.

2.11.1 Inspection “ACTIONS” details for AS2809.1:2023 and AS2809.2:2023

SLP has created specific checklists for vehicles designed and built to meet the requirements of Australian Standards 2809.1:2023 and 2809.2:2023, in this document the required “action checks” for these vehicles will be shown as below.

Figure 1 – AS2809.1:2023 and 2809.2:2023 actions

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

• Example?
• Example?

2.12 Australian defence force vehicles and equipment

Australian Defence Force (ADF) road tankers are built to comply with the relevant Australian Design Rules, Australian Standards, and the Australian Dangerous Goods Code. Their compliance is documented in the ADF’s *Technical Regulations of ADF Materiel Manual – Land* (issued 01/12/2009). As these vehicles meet or exceed all applicable requirements, they are not required to obtain dangerous goods registration under individual state or territory legislation.

Aviation refuelling hoses fitted to ADF vehicles must comply with the *Joint Inspection Group Guidelines for Aviation Fuel Quality Control & Operating Procedures for Joint Into-Plane Fuelling Services*, as endorsed by the IATA Technical Fuels Group.

For ADF vehicles, isolating the Park Brake Door Alarm is acceptable when operating in blackout mode. As ADF road tank vehicles do not typically load at commercial petroleum-loading facilities, a Return to Service checklist is not required following a Pass-2-Load inspection unless specifically requested by the customer.

2.13 Roles and Responsibilities

Role	Responsibilities
Safe Load Program (SLP)	<ul style="list-style-type: none"> • Approve and licence authorised inspection locations (AIL's). • Provide and review Pass-2-Load and RTS compliance documentation. • Conduct assessments of AIL's. • Maintain a register of AIL's and audit status. • Issue Pass-2-Load labels and RTS tags to AIL's and maintain a register.
Equipment Owner and or Operator	<ul style="list-style-type: none"> • Ensure all vehicles presented for inspection are roadworthy and can provide evidence to support compliance if requested. • Ensure the vehicle is registered in the SLP vehicle compliance program system. • Ensure equipment is presented for inspection in compliance with: <ul style="list-style-type: none"> ▪ Relevant Australian standards. ▪ The Australian dangerous goods code (ADGC). ▪ Australian design rules. ▪ State legislative requirements ▪ State dangerous goods licencing conditions
Authorised Inspection Location (AIL)	<ul style="list-style-type: none"> • Have and maintain a workplace health and safety, security and environmental management system. • Have individual/s responsible for the management and safe operation of the SLP Pass-2-Load and RTS process within the AIL business. • Be responsible for ensuring checklist inspectors are skilled and are competent to perform the Pass-2-Load and RTS inspection processes. • Conduct Pass-2-Load and RTS inspections in a safe and appropriate location. • Ensure working at heights measures are in place where necessary. • Provide tools and equipment to safely perform checklist inspections. • Provide completed 'AIL' compliance checklists as requested. • Issue only Pass-2-Load labels purchased from SLP. • Ensure RTS inspections are conducted when required prior to returning a tank or tanker to a customer. • Do not provide or on-sell labels to third parties without prior written approval by SLP. • Retain inspection and RTS records via the SLP Vehicle Compliance Program in soft copy. Or in hard copy only were approved under the specific licence agreement with SLP.
SLP Pass-2-Load checklist assessor	<ul style="list-style-type: none"> • Adhere to Pass-2-Load and RTS inspection guidelines for vehicle inspections. • Use RTS Tags that meet or exceed the requirements of the SLP Pass-2-Load RTS compliance process. • Ensure only vehicles that pass inspection are issued with a Pass-2-Load label and RTS tags. • Complete RTS inspection tags as required when returning a tank or tanker back into service.

Role	Responsibilities
SLP Joint Venture Loading Facilities	<ul style="list-style-type: none"> • Only allow loading by vehicles with a valid Pass-2-Load label and RTS tag when and were issued under the RTS process. • Spot check vehicles entering their facility for compliance with Pass-2-Load and RTS vehicle compliance requirements. • On failure of compliance with Pass-2-Load spot check, advise vehicle operator or owner and SLP administration. • For demountable tanks or Isotainers, it is the responsibility of the loading facility to confirm that the vehicle is safe to be loaded each time it enters the facility.

3. INSPECTIONS

3.1 Performing inspections

Pass-2-Load inspections must be performed by competent personnel who possess recognised qualifications, relevant industry experience, and the technical capability to safely inspect and service road tank vehicles. Inspections must use the approved Pass-2-Load checklist or an equivalent company checklist that meets or exceeds SLP requirements.

Inspections must be carried out with the tanker unladen, isolated from ignition sources, and positioned in a safe work area. Appropriate working-at-heights measures and a lock-out/tag-out system must be in place.

Authorised mobile inspection licence holders may conduct inspections at remote locations, provided all safety requirements are met, a documented risk assessment (e.g., work permit or JSA) is completed, and the inspection can be performed to full Pass-2-Load standards.

For each completed inspection, the AIL must record the pass number, vehicle registration, inspection date, expiry month, and retain a copy of the completed checklist. Checklists may be completed electronically in the SLP VCP system or manually and uploaded immediately after the inspection.

A Pass-2-Load label must be issued and affixed to every unit in a tanker combination at the time of inspection. Labels expire on the last day of the sixth month following the inspection. To maintain compliance for the full period, fire extinguishers and hoses must be tested during the inspection so their expiry aligns with the label.

The only exception is when the vehicle owner or operator maintains a fleet-wide common test date for extinguishers and/or hoses. Written assurance of this arrangement must be provided to the AIL and noted on the checklist, as responsibility for expired equipment remains with the owner/operator.

3.1.2 Return to service (RTS)

It is the responsibility of the AIL to ensure that, upon completion of a Pass-2-Load inspection, each vehicle departs in a safe and load-ready condition. This includes confirming all hatches, camlock caps, hoses, and ancillary equipment are properly secured, and that an RTS tag checklist has been completed and signed by the RTS inspector when required.

An RTS checklist must be completed whenever a tanker barrel or its ancillary equipment—such as hatches, valves, vents, or pipework—has been opened, repaired, replaced, inspected, or tested.

Before returning a vehicle to the customer, the inspector must:

- Determine whether an RTS tag is required.
- If required, complete all repairer, inspector, and vehicle details on the tag.
- Inspect the tank or tanker using the RTS checklist.
- Ensure the equipment is fully closed and ready for loading.
- Sign the RTS tag.
- Photocopy or photograph the tag and upload it to the SLP Vehicle Compliance Program under the current Pass-2-Load inspection record.
- Attach the tag to the vehicle's drive-away protection gate.

Once these steps are complete, the vehicle may be handed back to the customer.

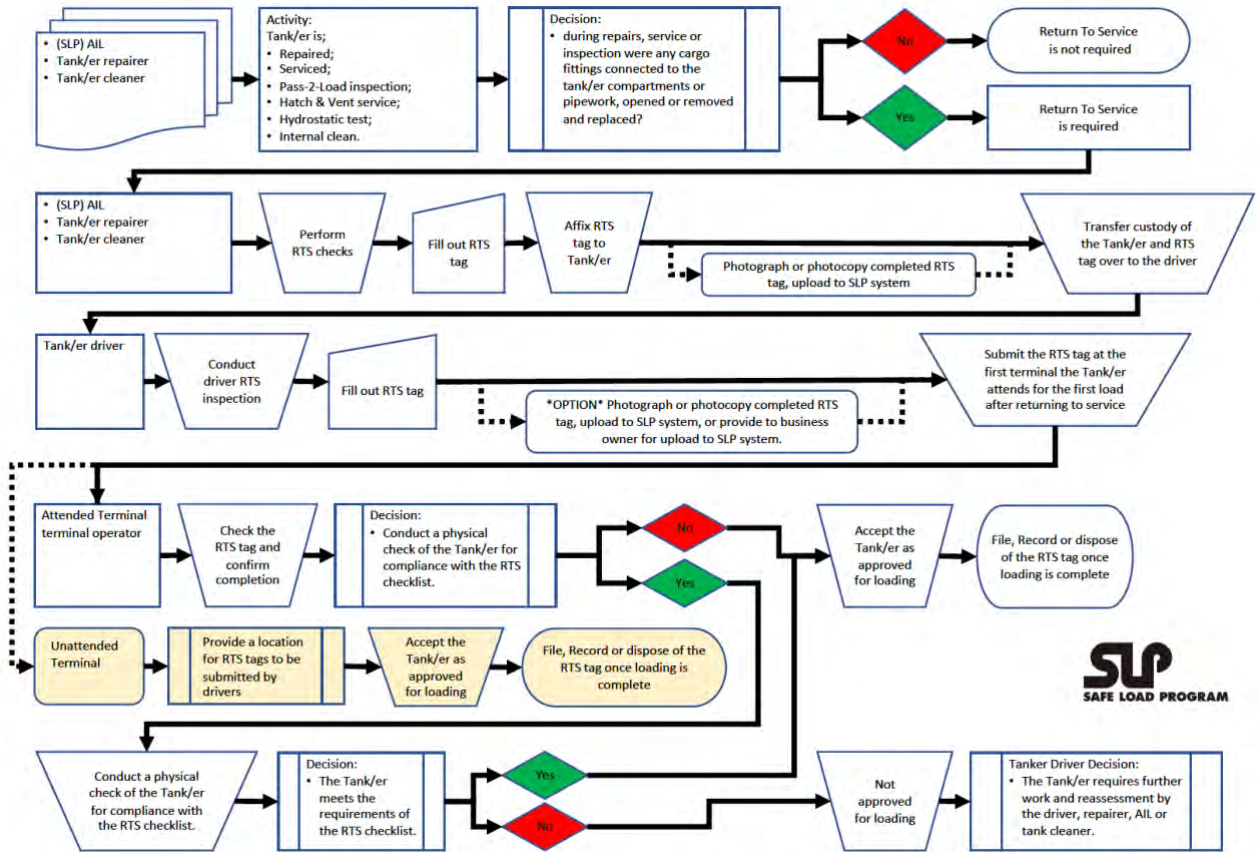


Figure 10 Return to service process flow diagram



Figure 11 RTS tag in use



Figure 12 RTS tag in use

3.2 Pass-2-Load labels

SLP Inspection Locations must record the following information on all Pass-2-Load labels:

- The registration number of the equipment inspected.
- The AIL name and/or licence number.
- The inspection completion date in **DD/MM/YYYY** format (e.g., **01/10/2023**).
- The expiry month in numeric format (e.g., an expiry of 31/08/2023 is recorded as **8**).

Note:

Pass-2-Load labels must be purchased from www.safeloadprogram.com.au. They are uniquely identified and must not be exchanged or on-sold without prior SLP approval. Labels must be affixed to the vehicle immediately upon completion of the inspection and before it leaves the inspection location.

Figure 2 – Pass-2-Load Label

How to use

Equipment:

Enter the equipment ID / Rego Number

Issued By:

Enter the AIL NAME or NUMBER

Insp Date:

Date of inspection

Expiry

Month:

Month the Pass-2-Load will expire

The pass will expire on the last day of the entered month.

The image shows a yellow rectangular label form. At the top left is a QR code. To its right, the text "PASS-2-LOAD" is printed in large, bold, black letters. Below the QR code, there are three rows of input fields, each with a label to its left: "Equipment:" followed by a rounded rectangular box containing the placeholder text "Registration"; "Issued by:" followed by a rounded rectangular box containing the placeholder text "AIL Name or Number"; and "Insp Date:" followed by a rounded rectangular box containing the placeholder text "MM / YYYY". To the right of these three boxes is a vertical rounded rectangular box containing the placeholder text "MONTH". At the bottom left of the form, the text "Pass Number" is followed by a rounded rectangular box containing the placeholder text "0000000000". At the bottom right of the form is the SLP logo.

Information on the Pass-2-Load label must remain legible for the full six-month validity period. SLP recommends using weatherproof indelible ink markers only; ballpoint pens, pencils, or similar writing tools must not be used as they fade.

3.3 Label positioning

- **Prime Mover / Rigid Cab-Chassis**

Affix the label near the kerbside door, on the kerbside chassis rail, or another clearly visible location on the left-hand side of the vehicle.

- **Tanker**

Affix the label directly to the chassis (forward of or above the delivery outlets) or on the kerbside front bulkhead.

- **Dollies, Skels, etc.**

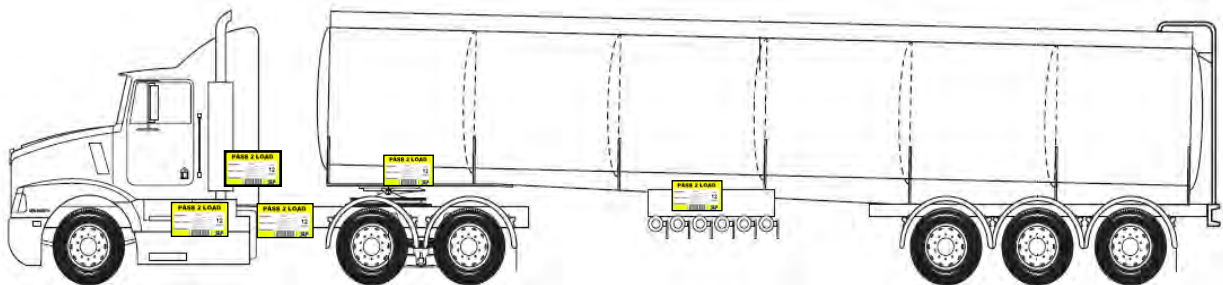
Affix the label on the kerbside in a location protected from damage due to dust or gravel.

- **Prohibited Locations**

Do not attach labels to the windscreen.

Do not attach labels in any position where they cannot be read from ground level (e.g., rear cabin window).

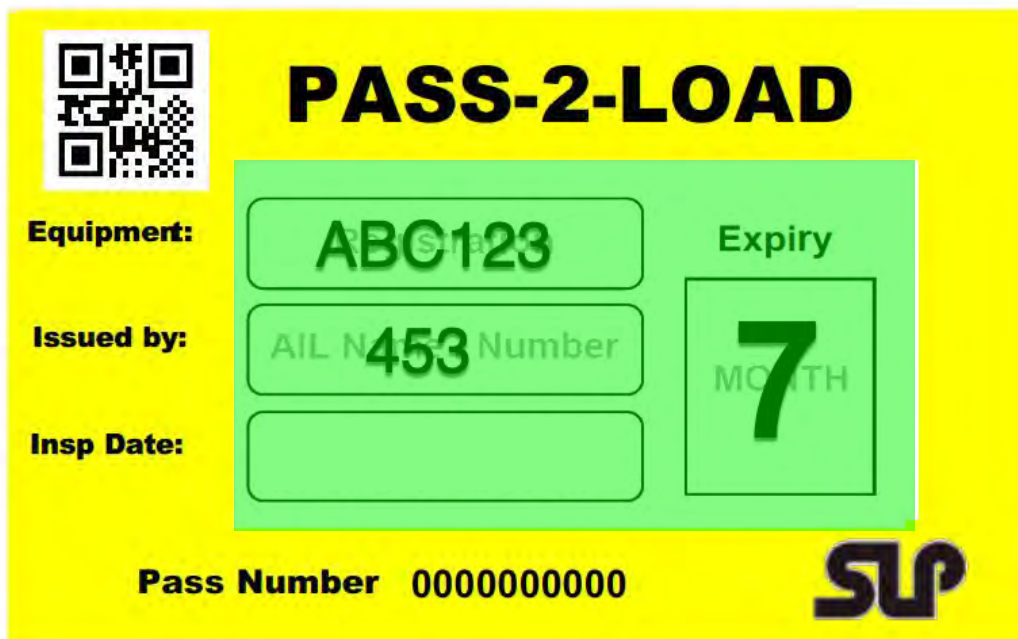
Figure 3 – Pass-2-Load Correct Label Placement



3.4 NON-dangerous goods Pass-2-Load labels

Vehicles that meet OG-7 Pass-2-Load requirements but do not hold a current Dangerous Goods Licence must be issued an SLP Pass-2-Load label with a green insert. This identifies the vehicle as approved to load non-dangerous, combustible products at SLP-participating facilities.

Figure 4 - Non-dangerous goods



4. PRIME MOVER / RIGID VEHICLE – INSPECTION GUIDE

4.1 Vehicle registration

The owner or operator presenting the vehicle for inspection confirms that it is registered, roadworthy, and listed as *LIVE* in the SLP Vehicle Compliance Program. *Figure 5.*

The AIL is not required to independently verify vehicle registration for a Pass-2-Load inspection. However, it must confirm that the vehicle is registered in the SLP Vehicle Compliance Program before the inspection begins. *Figure 5.*

For unregistered vehicles presented for a Pass-2-Load inspection, the Vehicle Identification Number (VIN) may be used on the inspection checklist. The AIL must locate the vehicle in the SLP Vehicle Compliance Program using the VIN and ensure it is registered in the system before commencing the inspection.

Note: For all subsequent Pass-2-Load inspections, the vehicle registration number must be used once the owner has updated the details in the SLP Vehicle Compliance Program.

Figure 5 – Registered for inspection/Live

Rego	Type	VIN	State	Manufacturer	Live	Tier
✓ Demo01	Tanker	000789BEST678TRUCK	NSW	Holmwood	☑	Registered For Inspection

ACTION: Record:

- Vehicle registration (or ID) number on the inspection checklist

4.2 Vehicle dangerous goods registration

Prime movers are not required to hold a dangerous goods vehicle licence.

4.3 Electrical equipment

4.3.1 Vehicle main driver cabin

Ref: AS2809.1:2023 Section 2.1.9 Vehicle main driver cabin

The main driver cabin is classified as a non-hazardous area during normal operations, provided all doors and windows remain closed during product loading or unloading. Electrical devices installed in the cabin for driver safety, operational data entry, or monitoring may remain powered during these activities.

Safe Load Program does not support the use of an in-cabin non-essential electrical device switch on Dangerous Goods vehicles. Where operators choose to install such a switch, the following electrical systems are considered essential for driver and vehicle safety and must not be isolated by a non-essential switch:

- Headlights; Taillights; Clearance lights; Brake lights; Turn indicator signal lights; Daytime running lights;
- Cabin interior lights;
- Exterior cabin step entry lights;
- Windscreen wipers;
- Vehicle warning device (horn);
- Electric windows;
- Electric seat controls;
- Intelligent tracking devices;
- Driver video monitoring systems;
- Driver fatigue monitoring, reporting or fatigue data entry systems;
- Any item that, by its nature is a safety device and or is deemed by the vehicle owner or manufacture as a driver or vehicle safety device must not be isolated via a non-essential switch.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- | |
|--|
| • Is the power supplied to electrical devices in the vehicle cabin isolated by the vehicle ignition switch? (Devices can remain operational via the devices own internal power) |
| • Devices fitted in the vehicle cabin that remain operational via internal power after the ignition is turned off, are intended for driver safety, monitoring or reporting only? |
| • If fitted; ensure the non-essentials switch does not isolate any safety related feature on the vehicle? Refer safety features list section 4.3.1 OG7-Version 3.5? |

4.3.2 Battery

4.3.2.1 Battery AS2809:2008

Ref: AS2809.1:2008 Section 2.1.9

The battery must be securely mounted, properly ventilated, readily accessible, and fitted with a durable, acid-resistant, electrically insulated cover.

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Are batteries firmly secured to prevent movement?
- Are batteries ventilated?
- Are the batteries accessible?
- Are the batteries covered by a substantial acid-resistant cover?
- Is the cover electrically insulated on the side adjacent the battery terminals?

4.3.2.2 Battery AS2809:2023

Ref: AS2809.1:2023 Section 2.1.10

Battery terminals must be electrically insulated, or the battery must be fitted with an insulating cover. Batteries located outside the engine bay must not be installed in sealed enclosures. Batteries must be securely mounted to prevent movement and must have a minimum clearance of 25 mm between the terminals and any conductive surface on all sides. Where available, factory-fitted in-frame battery installations should be used, and routing battery cables within the chassis is preferred.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- | |
|---|
| <ul style="list-style-type: none">• Battery terminals are insulated, or the batteries covered by an insulated battery cover? |
| <ul style="list-style-type: none">• Batteries are firmly secured, ventilated, and there is a minimum of 25 mm clearance between battery terminals and any conductive surface? |

4.3.3 Battery isolation switch

4.3.3.1 Battery isolation switch AS2809:2008

Ref: AS2809.1:2008 Section 2.1.10

A battery isolation switch must be installed that shuts down the engine and all power sources. The switch actuator must be positioned on the driver's side, immediately to the rear of the cabin, where it is clearly visible, easily accessible from outside the vehicle, and clearly labelled. The switch must have an EX or equivalent rating in accordance with AS/NZS 2381.1.

Note:

If the engine is equipped with an alternator, isolating the battery before the engine has stopped may cause alternator damage unless the field coils are disconnected first.

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- The Battery Isolation Switch can be operated from the immediate rear of and outside the driver side of the cabin, this can be by means of a remote switch?
- The Battery Isolation Switch mode of operation is clearly visible and easily accessible to a person outside the vehicle.
- The Battery Isolation Switch shuts down the engine and all power sources.
- The Battery Isolation Switch or remote switches are clearly labelled as: **Battery Isolation Switch?**

4.3.3.2 Battery isolation switch AS2809:2023
Ref: AS2809.1:2023 Section 2.1.11

The battery isolation switch must shut down the engine—including any auxiliary engines—and all electrical systems that are not designed to remain permanently energised. It should be installed as close to the battery as practicable, and if a single-pole switch is used, it must be fitted in the supply lead.

A control for the battery isolation switch must be positioned as close as practicable to the driver’s door, clearly visible and easily accessible from ground level. It must be labelled “**BATTERY ISOLATION SWITCH**” and include its mode of operation.

If the switch is electrically operated and remains energised, it must comply with the requirements for permanently energised circuits. Additional isolation switches may be installed if they are clearly identified and, where electrically operated, also comply with the requirements for permanently energised circuits. The switch must break all relevant circuits within 10 seconds of activation and meet a minimum IP65 rating in accordance with IEC 60529.

Battery cable connections on the isolation switch must be rated to at least IP54 unless they are fully enclosed within the battery box, in which case insulation with a rubber cap is sufficient to prevent short circuits.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

<ul style="list-style-type: none"> • The battery isolation switch is located as close as practicable to the driver’s door, outside the vehicle cabin. (This can be by means of a remote switch)
<ul style="list-style-type: none"> • The isolation switch is in a position that is visible and easily accessible while standing on the ground?
<ul style="list-style-type: none"> • The isolation switch shuts down the engine, auxiliary engine and all power sources that are not permanently energised?
<ul style="list-style-type: none"> • The battery isolation switch or remote switches are clearly labelled: BATTERY ISOLATION SWITCH
<ul style="list-style-type: none"> • The battery isolation switch is labelled with its method of operation.
<ul style="list-style-type: none"> • The batteries are isolated within 10 seconds of the battery isolation switch being activated.

4.3.4 In cabin battery isolation switch

Ref: AS2809.1:2023 Section 2.1.11

A Battery Isolation Switch must be installed inside the vehicle cabin on the dashboard. It must be clearly visible, easily accessible, and identified with a crossed-battery symbol or the label “**BATTERY ISOLATION SWITCH.**” The switch must be protected against accidental activation by either a protective cover or a dual-action control.

If the in-cabin Battery Isolation Switch remains energised after activation, it must comply with the requirements for permanently energised circuits.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

<ul style="list-style-type: none">• Is a battery isolation switch located inside the vehicle cabin, on the vehicle dashboard in a position that is visible and accessible?
<ul style="list-style-type: none">• Is the battery isolation switch clearly labelled, Battery Isolation Switch or a crossed battery logo?
<ul style="list-style-type: none">• Is the battery isolation switch labelled with its mode of operation?
<ul style="list-style-type: none">• Is the battery isolation switch fitted with a protective cover or is the switch a dual action control switch?
<ul style="list-style-type: none">• Are the batteries isolated within 10 seconds of the battery isolation switch being activated?

4.3.5 Permanently energized circuits

4.3.5.1 Permanently energized circuits AS2809:2008

Ref: AS2809.1:2008 Section 2.6

Electrical components that remain energised after the battery isolation switch is opened must be appropriate for the hazardous area in which they are installed and must comply with AS/NZS 60079.14. This requirement applies to vehicles built to AS2809.1:2008 for the transport of dangerous goods.

ACTION: CHECK:

- If cables, connections and equipment undamaged and in good working order?
- Is wiring outside and to the rear of the cab securely fastened and located such that it is adequately protected against vibration, impact, abrasion and any type of mechanical and thermal stress?
- If permanently energised circuits are installed, are they suitable for the hazardous area they are located?

4.3.5.2 Permanently energized circuits AS2809:2023

Ref: AS2809.1:2023 Section 2.1.12

Electrical components that remain energised after the battery isolation switch is opened must be suitable for the hazardous area in which they are installed and must comply with AS/NZS 60079.14.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

<ul style="list-style-type: none">• Are cables, connections and equipment undamaged and in good working order?
<ul style="list-style-type: none">• Are cables, connections and equipment securely fastened and located such that they are adequately protected against vibration, impact, abrasion and any other types of mechanical and thermal stress?
<ul style="list-style-type: none">• If permanently energised circuits are installed, are they suitable for the hazardous area they are located?

4.3.6 Electrical wiring

4.3.6.1 Electrical wiring AS2809:2008

Ref: AS2809.2:2008 Section 2.6 Vehicle cabling and electrical equipment

Cables must be installed in accordance with the Australian Design Rules for motor vehicles and trailers. Cabling to intrinsically safe equipment may be protected by methods other than conduit. All cabling located outside or to the rear of the cabin must comply with AS/NZS 2053 Parts 1, 2 and 7, AS D26 (flared fittings), or an equivalent protective method. Cables must be securely fastened and protected against vibration, impact, abrasion, and other mechanical or thermal stresses. Except for the main battery supply, starter, and alternator circuits, all circuits must be protected by an appropriate fuse or circuit breaker. These must be mounted in the cab or in a junction box and must be of a non-sparking type as defined in AS/NZS 60079.15. Any electrical equipment required to operate during product transfer and located within a hazardous area must be certified for that environment.

Hazardous areas are defined as follows:

- Within 500 mm of any point of product release is Class 1, Zone 1.
- The area to the rear of the cabin and within an 8-metre radius of any uncapped valve or transfer connection, from ground level to 500 mm high, is Zone 2.

Cabling to the tanker rear is considered suitable for temporary Zone 2 use if it meets these conditions:

- Conduit and fittings provide weather-proof protection.
- If conduit is not used, sealed glands must be installed.
- Junction boxes for non-intrinsically safe cabling must be weather-proof with threaded or bonded entries.
- Proprietary equipment that cannot accept standard connectors must be hazard-assessed and protected using an equivalent method.

Cabling installed in conduit that meets Zone 1 requirements, including associated glands and junction boxes, is considered compliant for Zone 1 use.

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Is wiring outside and to the rear of the cab securely fastened and located such that it is adequately protected against vibration, impact, abrasion and any type of mechanical and thermal stress?
- Is the wiring outside and to the rear of the cab enclosed in conduit or is it protected by an alternate means having at least an equivalent effectiveness?
- Ensure there are no exposed single insulated wires, electrical connections or terminals.
- If light lenses, seals, rubbers and mountings in good condition weatherproof and in working order?
- If work lights and switches positioned at least 500mm away from any product valve or tank opening, free of cracks and protected by wire guards or hardened plastic covers?
- Electrical equipment used during cargo transfer suitable for use in a hazardous area?

4.3.6.2 Electrical wiring AS2809:2023

Ref: AS2809.1:2023 Section 2.2 Cabling and wiring

Cables must be securely fastened and protected against vibration, impact, abrasion, and mechanical or thermal stress. They may be installed in rigid conduits in accordance with AS/NZS 2053.1 or AS/NZS 2053.7, or meet the requirements of ECE R105 or the Zone 1 provisions of AS/NZS 60079.14. Robust conduit systems complying with other relevant standards are acceptable, and alternative protective methods may also be used. Wiring supplied by the vehicle manufacturer for components such as transmission sensors and braking systems is exempt.

Examples of acceptable methods of cable protection can be found in AS 2809.1:2023 Figure 2.4.1

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Wiring and or conduits are undamaged and in good working order?
- Wiring is securely fastened and located such that it is adequately protected against vibration, impact, abrasion and any other types of mechanical and thermal stress.

4.3.7 Electrical equipment

4.3.7.1 Electrical equipment AS2809:2023

Ref: AS2809.1:2023 – Section 2.3 Equipment for hazardous areas

Electrical equipment located outside or behind the road-tank vehicle cabin must meet one of the following requirements: it must be rated to at least IP65, or, if supplied by the vehicle manufacturer and below IP65 (e.g., transmission or braking system sensors), it must be secured against disconnection and protected from water and dirt. All equipment must also comply with the hazardous-area classification requirements of AS/NZS 60079.15. Except for the main battery, starter, and alternator circuits, all circuits must be protected by a fuse or circuit breaker. These protective devices must be installed within the cabin, or if mounted externally, must be suitable for hazardous areas in accordance with AS/NZS 60079.14.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- | |
|--|
| <ul style="list-style-type: none">• Electrical components are undamaged and in good working order? |
| <ul style="list-style-type: none">• Electrical components are rated IP65 or secured against accidental disconnection and protected from the ingress of water and dirt? |
| <ul style="list-style-type: none">• Equipment intended to be powered during product transfer conforms to the requirements of the zone in which it operates? |

Note:

Air-conditioning units installed at the rear of the vehicle cabin must be isolated to prevent automatic operation in hazardous areas. These units are considered compliant if they can only be activated manually by the driver from inside the cabin.

4.3.8 Lighting

4.3.8.1 Lighting AS2809:2023

Ref: AS2809.1:2023 Section 2.4 Lighting for hazardous areas

Road-tank-vehicle lighting that operates during product transfer and is positioned within a hazardous zone must meet the following requirements:

- Mandatory ADR 13/00 (or later) lighting may be installed within a hazardous zone but must be LED, rated at least IP67, and located no closer than 500 mm to any product connection point or vent.
- Non-mandatory lighting required for operator safety may also be installed in hazardous zones, provided it is LED, rated at least IP67, consumes no more than 40 W per lamp, and is not positioned within 1000 mm of any product connection point or vent.
- All equipment, including junction boxes, located within hazardous zones must have a minimum rating of IP67.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

• Mandatory lighting within 1 metre of a product connection or vent is LED and a minimum of IP67?
• Mandatory lighting is not located within 500 mm of any product connection or vent?
• Non-mandatory lighting is not located within 1 metre of any product connection or vent?
• Non-mandatory lighting that's required for operator safety e.g. work lights, is "LED" a minimum rating of IP67 with a maximum power consumption of 40W?
• Non-mandatory lighting that's required for operator safety e.g. work lights, is "LED" a minimum rating of IP67 with a maximum power consumption of 40W?
• Electrical connections between truck and trailers, have a minimum rating of IP54?
• Electrical connections between truck and trailers include a latch to prevent accidental disconnection?

4.3.8.2 Electrical connections between truck & trailers AS2809:2023

Ref: AS2809.1:2023 Section 2.3 Electrical connections between truck & trailers

Electrical connections between the truck and trailer must be rated at least IP54 and incorporate a latch to prevent accidental disconnection.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

• Electrical connections between truck and trailers, have a minimum rating of IP54?
• Electrical connections between truck and trailers incorporate a latch to prevent accidental disconnection?

4.3.9 Vehicle rollover device

4.3.9.1 Vehicle rollover device AS2809:2008

Ref: AS2809.1:2008 Section 2.1.11; AS2809.2:2008 Section 2.6.3

Purpose-built road tank vehicles must be equipped with a rollover-sensing device that automatically shuts down the engine and isolates all power sources during a rollover event, activated via the battery isolation switch. The device must also allow for straightforward self-testing.

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Is rollover device operational, and cannot be activated at less than 45 degrees to the vertical?
- Does the rollover device shut down the engine and isolate all power when tested?

Note:

Electronic rollover protection devices with an incorporated self-test switch, replicate a rollover scenario when the test button is actuated, these devices are not required to be physically handled to 45 degrees in a test. Remote test switches for rollover protection devices must not be fitted unless they fully replicate a rollover scenario. Vehicle rollover protection devices are not required for vehicles manufactured for petroleum fuel transport before Sep 1999.

Vehicles manufactured prior to Sep 1999 but retrofitted after that date to carry bulk petroleum products must be fitted with a rollover protection device.

4.3.9.2 Vehicle rollover device AS2809:2023

Ref: AS2809.1:2023 Section 2.1.13 Vehicle rollover device

A roll-over cut-out device must be installed to automatically shut down the engine, including any auxiliary engines, and all non-permanently-energised power sources. The device must activate when the vehicle exceeds a 45° tilt from the normal vertical plane and must trigger within three seconds of detecting a roll-over event.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- | |
|---|
| <ul style="list-style-type: none">• The rollover device is operational and cannot be activated at less than 45 degrees to the vertical? |
| <ul style="list-style-type: none">• The rollover device has a maximum 3 second delay to activate from detection? |

Note:

The three-second activation delay applies in addition to any delay inherent in the battery isolation switch. Electronic rollover protection devices equipped with a test function that accurately simulates a rollover event do not require physical tilting to 45°. Test switches must not be installed unless they fully replicate a rollover scenario. Rollover protection devices are not required on vehicles manufactured for petroleum fuel transport before September 1999. However, any vehicle built prior to this date and later retrofitted for bulk petroleum transport must be fitted with a compliant rollover protection device.

4.4 Safety equipment

4.4.1 Safety equipment AS2809:2008

Ref: AS2809.1:2008 Section 2.6

For the loading, cartage and delivery of class 3 liquid petroleum products, safety equipment includes, but is not limited to:

- Fire extinguishers
- Eye wash kit
- Intrinsically safe torch
- Breakdown triangles
- Safety cones
- Spill kits

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

SLP recommends that new vehicles be equipped with:

- A first aid kit located in the vehicle cabin.
- A product spill kit fitted on or in the vehicle, fully stocked and secure.

ACTION: CHECK:

- Safety equipment is in a readily accessible location and not within close proximity of the discharge connections?

4.4.2 Safety equipment AS2809:2023

Ref: AS2809.1:2023 Section 2.9.1 Safety equipment

The road tank vehicle must incorporate provision for the storage of the emergency personal protection equipment and safety equipment required under the ADG Code.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Safety equipment as required by the ADG code is available and readily accessible?

4.4.3 Park brake door alarm

Ref: SLP OG7-CD-3.5

Vehicles must be equipped with a park-brake door alarm or a factory-fitted system that sounds an audible warning or automatically applies the parking brake when the driver's door is opened without the park brake engaged.

ACTION: CHECK:

- Is the vehicle fitted with a park brake door alarm or an auto parking brake device?
- Does the park brake door alarm operate with the ignition switch turned off?
- Is the park brake door alarm clearly audible at a minimum of 3 metres from the vehicle?

Note:

For ADF vehicles, refer to section 1.12. There is no requirement for the alarm to continue to operate once the vehicle door is closed.

4.4.4 Fire extinguishers

Ref: ADGC Chapter 12 (12.1.2.5.5) and table 12.1

Note:

To ensure fire extinguishers remain valid for the full six-month Pass-2-Load period, they must be inspected, tested, and tagged at the time of the SLP inspection—unless the vehicle owner or operator provides written confirmation that the extinguishers are maintained under a common expiry-date service agreement. All testing and tagging must comply with AS1841-2007 and AS1850-2009.

ACTION: CHECK:

- Is there a fire extinguisher located inside the cabin and readily accessible, or as an alternative the fire extinguisher is located directly behind the cabin or mounted on the rear of the cabin?
- Is the fire extinguisher mounted securely by means of a quick-release attachment?
- Has the fire extinguisher been inspected, tested and tagged? Or does the vehicle operator have a service agreement to ensure extinguishers are serviced every 6 months.

4.4.5 Eyewash kit

Ref: ADGC Section 12.1.3 table 12.2

ACTION: CHECK:

- Is there a full eye wash kit available, accessible and ready for use (250ml minimum)?

Note:

The *preferred* position being in the vehicle cabin on the passenger side, where the kit can be reached by a driver standing at ground level when the cabin door is opened.

4.4.6 Torch

Ref: AS/NZ60079.11:2011, ADGC Section 12.1.3 table 12.2

ACTION: CHECK:

- Is there a working torch located in the vehicle that is marked as suitable for use in hazardous areas?

4.4.7 Safety hazard devices

Ref: AS 3790:1992; ADGC Section 12.1.1

ACTION: CHECK:

- Are there are three (3) double-sided reflector triangles in a readily accessible location?
- Are all safety hazard devices clean and ready for use?

4.4.8 Emergency information holder

Ref: ADGC Section 11.2.1&2

The vehicle must be equipped with an emergency information holder located inside or adjacent to a cabin door, or elsewhere in the cabin with its location clearly indicated inside the driver's door. The holder must be marked "**Emergency Procedure Guides**" or "**Emergency Information**" in red lettering at least 10 mm high on a white background.

ACTION: CHECK:

- Is an emergency information holder fixed inside a cabin door or immediately adjacent a door? If the emergency information holder is fixed elsewhere in the vehicle cabin, is the holders location details provided/labelled on the inside of the driver's door?
- Is the holder marked **Emergency Procedure Guides** or **Emergency Information**?

4.4.9 Emergency procedure guide (EPG)

Ref: AS 1678.X1:1993; ADGC Section 11.2.1

A Dangerous Goods - Initial Emergency Response Guide (SAA/SNZ HB 76:2010) approved by Standards Australia must be located in the Emergency Information Holder in the vehicle.

ACTION: CHECK:

- Is there a dangerous goods Initial Emergency Response Guide in the emergency information holder?

4.4.10 Class diamond holder

Ref: ADGC Section 5

ACTION: CHECK:

- Is there a red class 3 diamond attached to the front of the vehicle?
(If the vehicle is exclusively used for non-dangerous goods, the vehicle is not required to have a class 3 diamond attached to the front of the vehicle)
- Is the class 3 diamond clearly visible, reversible and in good condition?

4.5 Heat shielding

4.5.1 Heat shielding AS2809:2008

Ref: AS2809.1:2008 and AS2809.2:2008, ADR/42; SLP-OG7-CD-3.6-3.7

Shielding is required where there is a possibility of a flammable liquid spillage contacting a hot engine or exhaust component surface.

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- All hot engine or exhaust system components that are at risk of being splashed during loading or in transit are protected by metal shielding?
- All hot engine or exhaust system components within 1 metre of product carrying components are shielded?
- There is a minimum 50 mm gap between hot engine or exhaust components and the metal shielding?
- There is a minimum 75 mm gap between shielding and the tanker compartment and or product carrying components?
- Any holes or air-cooling perforations in the vehicle exhaust shielding must be located on the side furthest from the product tank and all product transfer equipment.
- Does the vertical exhaust shielding extend as far as practicable to the top of the exhaust outlet?
- Is the top of the exhaust shielding liquid tight?
- Is the exhaust shielding securely in place and not lower than the top of the cabin?
- If the exhaust system runs under the product tank, it must be protected by metal shielding?

4.5.2 Heat shielding AS2809:2023

Ref: AS2809.1:2023 Section 2.4.3 Spillage hazards

Ref: AS2809.2:2023 Section 1.6.1 Spillage control

Any part of the propulsion engine, auxiliary engine, or exhaust system that can exceed 180°C must be protected by an appropriate shield or deflector to prevent hazards in the event of a spill or leak.

Note:

If the auto-ignition temperature of the intended cargo is below 200 °C, any component capable of reaching a temperature within 20 °C of that threshold must be treated as a hot surface.

The vehicle must be designed to prevent drips or spills from contacting critical components. Where a spill or leak could present a hazard, appropriate shields or deflectors must be installed. No part of the propulsion or auxiliary engine exhaust system may be within 200 mm of any product-carrying component unless:

- The distance between a spillage shield and the product-carrying component is at least 75 mm.
- The distance between any hot component and the spillage shield is at least 50 mm.
- These distances may be reduced to no less than 25 mm each, provided the total separation between the hot component and the product-carrying component remains at least 125 mm.

[Refer: TIC Technical Guide Procedure for hot component surface temperature assessment](#)

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

• Hot components at risk of being splashed are protected by a shield or deflector?
• Hot components must not be within 200 mm of a product carrying component?
• If shielding is fitted, there is a minimum 50 mm gap between any hot component and the shielding?
• If shielding is fitted, there is a minimum 75 mm gap between shielding and the product tank?

4.6 Exhaust outlets

4.6.1 Exhaust outlets AS2809:2008

Ref: AS2809.1:2008, Ref: AS2809.2:2008,
Ref: ADR42 Section 10, SLP-OG7-CD-3.6-3.7

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

Vertical exhaust outlet

ACTION: CHECK:

- The vertical exhaust outlet is a minimum distance of 1 metre from any tank opening?
- The vertical exhaust outlet is not lower than the top of the vehicle cabin?
- If a left-hand exhaust is fitted, it must discharge either vertically, directly to the rear or at 45 degrees to the left-hand side of the vehicle?

Horizontal exhaust outlet

ACTION: CHECK:

- The horizontal exhaust outlet discharges to the right-hand side of the vehicle?
- Exhaust outlet does not discharge within 1 metre of a tank opening, product connection point or vent: wherever possible the exhaust outlet should be located as close as practicable behind the rear front wheel?

To assist in maintaining the vehicles compliance with Australian Design Rules and to avoid modifications to the original vehicle exhaust system design, SLP is allowing greater flexibility in relation to the horizontal exhaust outlet location, our guidance is taken from the requirements of AS2809.1:2023. Section 1.6.2 Propulsion or auxiliary engine exhaust.

Note:

Vertical exhausts that discharge directly upward do not require rain hats. Exhaust outlets that discharge to the rear, or horizontal outlets directed to the right-hand side, comply with Australian Standards. However, on conventional vehicles, horizontal outlets positioned forward of the rearmost seating position will breach ADR 42. Where conflicts exist, Australian Design Rules take precedence over Australian Standards.

4.6.2 Exhaust outlets AS2809:2023

Ref: AS2809.2:2023 Section 1.6.2 Propulsion or auxiliary engine exhaust

A propulsion or auxiliary engine exhaust outlet must not discharge within 1000 mm of any product connection point, vent or product carrying component opening.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Exhaust outlet does not discharge within 1 metre of a tank opening, product connection point or vent?

4.7 Engine emergency shut-down system

4.7.1 Engine emergency shut-down system AS2809:2008

Ref: AS2809.1:2008 Section 2.5

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- For pump vehicles only; is the emergency shutdown switch easily accessible?
- Does the emergency shutdown switch shut down the engine when activated?
- Is the emergency shutdown switch clearly labelled, **EMERGENCY STOP**?

4.7.2 Engine emergency shut-down system AS2809:2023

Ref: AS2809.1:2023 Section 2.8.1 Propulsion engines

The vehicle engine or an auxiliary engine may be used for the propulsion of a product pump.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

Vehicles fitted with a product pump.

ACTION: CHECK:

- | |
|---|
| <ul style="list-style-type: none">• Pump vehicles only; The pump drive engine is fitted with an emergency shutdown system that is easily identified and accessible by the operator? |
| <ul style="list-style-type: none">• The emergency shutdown switch, shuts down the engine when activated? |
| <ul style="list-style-type: none">• The emergency shutdown switch is clearly labelled: EMERGENCY STOP? |

Note:

The Battery Isolation Switch is an appropriate shutdown device if the above conditions are met. In such cases, the Battery Isolation Switch must be labelled "Battery Isolation Switch" and also labelled "Emergency Stop"

4.8 Auxiliary engines

4.8.1 Auxiliary engines AS2809:2008

Ref: AS2809.2:2008 Section 1.7.3

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- If the permanently mounted auxiliary engine and all attachments is suitable for operating in a Zone 1 hazardous area?
- If the permanently mounted auxiliary engine intake and exhaust outlet terminate at a level not lower than the top of the vehicle cabin?

4.8.2 Auxiliary engines AS2809:2023

Ref: AS2809.1:2023 Section 1.6.2 Propulsion or auxiliary engine exhaust

Ref: AS2809.2:2023 – Section 2.8.2 Auxiliary engines

For a permanently mounted auxiliary engine and all attachments.

The auxiliary engine of the road tank vehicle may be used as the pump drive engine. In this case the engine must be provided with at least one emergency shutdown on the discharge side and must be labelled "EMERGENCY ENGINE STOP". The engine air intake must not be located within 1.0 m of any product tank opening, connection point or vent. Auxiliary engines and all their attachments must be suitable for the hazardous area in which they operate.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- | |
|--|
| <ul style="list-style-type: none">• The exhaust outlet does not discharge within 1000 mm (1 metre) of any tank opening, product connection point or vent? |
| <ul style="list-style-type: none">• No part of an auxiliary engine exhaust system located within 200 mm of any product carrying component unless it conforms with the requirements of Section "Heat Shielding" |

5. TANK BARREL – INSPECTION GUIDE

5.1 Vehicle registration

The vehicle owner or operator presenting the vehicle for inspection affirms that it is registered, roadworthy, and listed as **LIVE** in the SLP Vehicle Compliance Program. Verification of registration by the AIL is not required; however, the AIL must confirm that the vehicle is registered in the SLP Vehicle Compliance Program before beginning the Pass-2-Load inspection.

For vehicles not yet registered, the Vehicle Identification Number (VIN) may be used on the inspection checklist, and the AIL must locate and register the vehicle in the system prior to inspection. Isotainers must be registered using their unique serial number, entered without spaces, hyphens, or special characters.

Note:

For all subsequent Pass-2-Load inspections, the vehicle registration number must be used once updated in the SLP Vehicle Compliance Program.

ACTION: RECORD:

- the vehicle registration (or ID) number on the Trailer Inspection Checklist.

5.2 Vehicle dangerous goods (DG) registration

Verify that the vehicle's Dangerous Goods (DG) registration is current through a label, compliance plate, online record, or written confirmation from the owner. If the vehicle is dedicated to combustible-only products, a DG licence is not required.

Notes:

If a vehicle displays an expired Dangerous Goods (DG) label, or a newly registered vehicle has not yet been issued one, this must be recorded on the inspection checklist. The owner or operator must also be formally advised that the vehicle is not permitted to carry dangerous goods until the label is fitted. In jurisdictions that do not issue DG registration labels, the owner or operator must provide written confirmation—email is sufficient—that the vehicle is registered to carry dangerous goods.

Is the tanker registered for Dangerous Goods?

Yes Confirm the validity and currency of the DG registration label, note the expiry date on the inspection checklist.

No. Indicate on the checklist by writing “non-DG” on the inspection checklist in the box labelled DG Number and entering “N/A” in question 1 section 1. Vehicle Placards and Dangerous Goods Registration.

ACTION: CHECK:

- Is the tanker dangerous goods registration current?

ADF vehicles refer to SLP OG-7 Section 1.12

5.3 Tank certification ADGC - Section 6.9

Information must be displayed on a certification plate on the tank or tank frame in a conspicuous place readily available for inspection:

The following information must be located on the Tank Certification/Compliance Plate.

ACTION: CHECK:

- Does the tank compliance plate show the name of the tank barrel manufacturer?
- Does the tank compliance plate show the design approval number?
- Does the tank compliance plate show the date of manufacture and test date?
- Does the tank compliance plate show the tank barrel serial number?

Note:

For terminal access inspection of new equipment, the test date on the tank certification plate is the date of the initial hydrostatic test.

Hydrostatic and Hatch & Vent integrity test dates subsequent to the initial test may be displayed on numerous and various certification plates.

5.3.1 Roll stability

5.3.1.1 NSW EPA Requirements

New South Wales (NSW) – Environmental Protection Authority (EPA) requires that from the 1st of January 2019 all heavy vehicle tank trailers loaded with dangerous goods (DG) and driven on New South Wales roads must be fitted with a functioning roll stability system (RSS).

Roll Stability System may also be referred to as:

- Enhanced Stability Control (ESC)
- Electronic Stability Control (ESC)
- Roll Stability Control (RSC)
- Trailer Electronic Braking System (TEBS)

It is unlawful to operate, drive, load and/or consign a dangerous goods heavy vehicle tank trailer that is not fitted with RSS that operates on NSW roads.

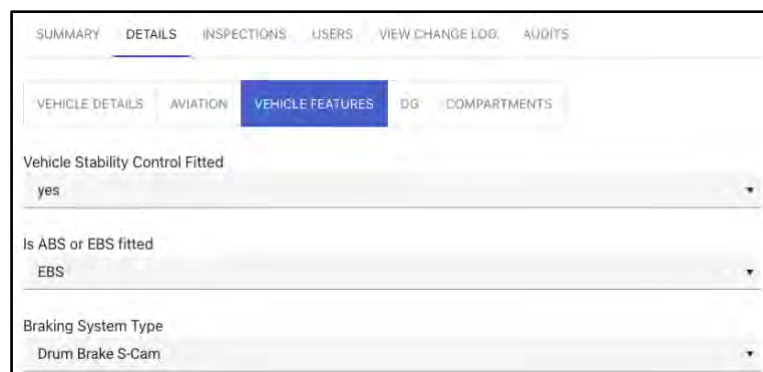
Review the SLP vehicle compliance system (Figure 6) and confirm the tanker owner has indicated the tanker is or is not fitted with stability control and ABS or EBS.

If the tanker owner has indicated the tanker is fitted with Vehicle Stability Control.

ACTION: CHECK:

- Is the vehicle fitted with a data plate indicating the tanker is equipped with an electronic braking system complete with stability control?

Figure 6 - (*fitted with stability control and ABS or EBS*)



The screenshot shows a web-based interface for vehicle compliance. At the top, there are navigation tabs: SUMMARY, DETAILS, INSPECTIONS, USERS, VIEW CHANGE LOG, and AUDITS. Below these is a secondary set of tabs: VEHICLE DETAILS, AVIATION, VEHICLE FEATURES (which is highlighted in blue), DG, and COMPARTMENTS. Under the 'VEHICLE FEATURES' tab, there are three dropdown menus. The first is labeled 'Vehicle Stability Control Fitted' and has 'yes' selected. The second is labeled 'Is ABS or EBS fitted' and has 'EBS' selected. The third is labeled 'Braking System Type' and has 'Drum Brake S-Cam' selected.

5.4 Hydrostatic test

Ref: AS2809.1:2023 Section 3 Vehicle inspection

Ref: AS2809.2:2023 Section 2.8 Pressure testing as part of commissioning

Petroleum fuel tanker barrels are hydrostatically pressure tested at the time of manufacture; subsequent hydrostatic testing must be carried out at intervals not exceeding 5 years.

If the date of the previous Hydrostatic Test is over 4.5 years, the next test will be due prior to the expiry of the Pass-2-Load. If so, the vehicle owner/operator must be notified to authorise the Hydrostatic Test to be carried out, or alternately, the Pass-2-Load expiry date must be brought forward to align with the Hydrostatic expiry date.

Validate the date of the previous hydrostatic test and note the date on the inspection checklist and record the next due date on the inspection checklist.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- | |
|--|
| <ul style="list-style-type: none">• Is the tank barrel within its 5-year hydrostatic test period? |
| <ul style="list-style-type: none">• Will the tank remain within its hydrostatic test period until its next Pass-2-Load expiry date is due? (If no, the Pass-2-Load expiry must be brought forward to align with the date of its hydrostatic test expiry) |

Note:

Vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo. Where repairs and modifications are carried out on tank compartments and or ancillary equipment, must be hydrostatically tested in accordance with AS2809.2-2008 Section 2.7

Vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo. Where repairs and modifications are carried out on tank compartments and or ancillary equipment, must be hydrostatically tested in accordance with AS2809.1-2023 Section 3.8 and AS2809.2-2023 Section 2.8.

SLP requires that probe heights are checked and adjusted for compliance during a 5-year Hydrostatic test. Should probe heights require adjustment, refer to SLP Operating Standard [SLP OS-10](#)

An SLP Return to Service Tag as per section 3.1.2 Return to service (RTS) must be completed whenever a tanker barrel and its ancillary equipment (hatches, valves, vents & pipework) have been subject to repairs, maintenance, inspection and testing.

5.5 Hatch and vent test

Ref: AS2809.1:2008 Section 3.5

Ref: AS2809.1:2023 Section 3 Vehicle inspection

Ref: AS2809.1:2023 Appendix B

Fuel-tanker hatches, vents and valves—including vapour-recovery components—must be pressure-tested at intervals not exceeding 2.5 years. Pressure-vacuum vents are to be removed, dismantled, cleaned, fitted with new seals and gaskets, and re-tested, or replaced with new or refurbished units.

A hydrostatic test conducted every 2.5 years satisfies this requirement, provided new seals and gaskets are installed. If the previous hydrostatic or Hatch & Vent test is more than two years old, the next test will fall due before the Pass-2-Load expiry. In such cases, the owner or operator must either authorise testing or have the Pass-2-Load expiry brought forward to align with the relevant test date.

Probe heights must be verified and adjusted during each 2.5-year Hatch & Vent inspection in accordance with SLP OS-10. Inspectors must confirm the date of the initial or most recent Hatch & Vent test and record both the date and the next due test month and year on the inspection checklist.

Required for vehicles manufactured to meet AS2809.1 for the transport of dangerous goods cargo.

ACTION:

- Is the tank barrel within the 2 ½ year hatch and vent test period?
- Will the tank remain within its hatch and vent test period till its next Pass-2-Load expiry date is due? (If no, the Pass-2-Load expiry must be brought forward to align with the date of its hatch and vent test expiry date)

5.6 Tank shell (barrel)

5.6.1 Drainage from coaming

Ref: AS2809.2:2008 Section 2.2.13 Roll over protection

Ref: AS2809.1:2023 Section 1.1.1 Scope

Ref: AS2809.2:2023 Section 2.2.16 Roll over protection

Tanks with a capacity greater than 2500 litres must have rollover protection (or coaming) incorporating drains to prevent liquid from collecting on top of the tank.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Is the tank fitted with rollover protection (coaming) and drains?
- Are the drainpipes in a serviceable condition and not blocked?
- Do the drainpipes discharge clear of and below any hot component?

Isotainers as per AS2809.1:2023 Section 1.1.1 Scope

- Is the Isotainer tank protective frame in good condition and free of damage or corrosion?
- Are the Isotainer tank container connection couplings in good condition and free of damage?
- Is a warning sign fitted near the loading valve area, "WARNING" that the maximum height to the top of the loading valve must not exceed 1280mm. If exceeded, alternative loading instructions must be applied.

5.6.2 Tank shell condition

Ref: AS2809.2:2008 Section 3

Ref: AS2809.1:2023 Section 3.2

The tank shell and connections must be free of cracks, defective welding, serious dents and corrosion.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- The tank, its attachments and connections are free of cracks, defective welding, serious dents and corrosion?
- Check there is no sign of liquid weeping from the tank, its attachments, connections?
- Check degassing holes are unplugged and there is no evidence of product leaks?

Note:

Tell-tale indicators of cracking include staining caused by product weeping through the tank shell. Degassing holes on the top of the tanker must remain plugged, while those at the bottom must remain open. If plugs are found in bottom degassing holes between compartments, internal cracking should be suspected and the plugs removed.

If any evidence of product leakage is present, the Pass-2-Load inspection cannot proceed until a hydrostatic test is completed and all necessary repairs have been carried out.

5.6.3 Electrical bonding / earthing

Ref: AS2809.2:2008

Ref: AS2809.2:2023 Section 2.6 Electrical bonding

Ref: AS2809.2:2023 Section 2.7 Earthing point

The electrical resistance between the tank and the tanker chassis, the trailer undercarriage and the earthing reel connection clamp must not exceed 10Ω.

On tankers where there is provision for top loading, at least one bare metal lug must be welded to an integral part of the tank for use as an earthing / bonding point.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- There must be less than 10Ω resistance between the tank shell and any part of the vehicle?
- If the vehicle can top load, is there a clean and bare earth lug located on the tank coaming?

Tankers fitted with an earthing reel.

ACTION: CHECK:

- If fitted, the earth reel is secure and in good condition?
- The earth reel has been tested 6 monthly for electrical continuity, is tagged & in test date?
- There is less than 10Ω resistance between the earth reel cable clamp & any part of the tanker?

5.7 Vehicle drive-away protection

5.7.1 Vehicle drive-away protection AS2809:2008

Ref: AS2809.1:2008 Section 2.1.12 Drive away protection.

This drive-away protection requirement applies only to vehicles designed for bottom loading. All road tank vehicles must be equipped with a system that immobilises the vehicle whenever product is being transferred to or from the tanker.

Wheel chocks or other external devices must not be used as the primary means of immobilisation.

Bottom-loading vehicles must be fitted with a safety gate or cover over the inlet and outlet valves that, when raised or opened automatically immobilises the vehicle.

Top-loading vehicles may use an alternative immobilisation method that meets the requirements of the standard; spring parking brakes are considered acceptable.

For bottom loading vehicles

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Does the safety gate or cover activate a brake interlock securing the vehicle against movement during a transfer of product to or from the vehicle?
- Is there a safety gate or cover over the inlet/outlet valves that prevents the operator from attaching a loading arm when the gate is closed?
- With the safety gate or cover closed, is the overfill protection system plug prevented from being connected?
- Does the safety gate or cover have a secure locking method in the closed position?

Vehicle drive-away protection (continued)

5.7.2 Vehicle drive-away protection AS2809:2023

Ref: AS2809.1:2023 Section 2.4.2 Brake interlock drive away protection.

An interlock system must be fitted to ensure that the vehicle is secured against movement when product is being transferred. The interlock system must be installed so that the interlock cannot be engaged unless the vehicle brake is first engaged. The interlock system must be designed in a way that it cannot be released unless the vehicle brake is engaged.

Items attached to the tank or tank pipework, e.g. a vapour hose, that have the potential to cause structural damage to product-carrying components or loss of containment if left unsecured or left projecting from the tank, must be interlocked with the vehicle braking system to prevent the vehicle from moving in the event the items are not stowed, removed and or secured.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

<ul style="list-style-type: none">• With the vehicle park brake applied:<ul style="list-style-type: none">• Step 1: open the safety gate (or cover);• Step 2: release the vehicle park brake;• Step 3: confirm the vehicle brakes remain active and the vehicle is immobilised
<ul style="list-style-type: none">• With the vehicle park brake released:<ul style="list-style-type: none">• Step 1: open the safety gate (or cover);• Step 2: confirm the vehicle brakes remain released, and the vehicle can be moved?
<ul style="list-style-type: none">• Is there a safety gate over the inlet/outlet valves that prevents the operator from attaching a loading arm when the gate (or cover) is closed?
<ul style="list-style-type: none">• With the safety gate (or cover) closed, is the overfill protection system plug prevented from being connected?

5.8 Valves / fittings and delivery lines

Ref: AS2809.2:2008 Section 2.3 Valves

Ref: AS2809.2:2023 Section 2.3.3 Valves, 2.5 Pipework and pipe fittings, 2.8.2 Piping

5.8.1 API outlet valve inspection

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Is the loading/unloading valve and venting control system free from air leaks?
- Are all fittings, O-rings and seals free from leaks, breaks, cracks, wear or other damage?
- Are all outlets valve caps and adaptors connected by a cable or steel chain?
- Do API valve handles open \cup and close \cap in the same direction?
- Are all locking pins, bushes, camlock levers, and cur-clips undamaged and in working order?
- Utilizing an API wear gauge, are all API valve nose cones within wear tolerances?
- Are all gaskets subject to bottom load pressure of a non-cork type?

Note:

It is essential that an "API Nose Cone Testing Gauge" is used to check API nose cone for signs of wear from dust cap cam levers and loading coupling connector lugs. All API valves in a group must be consistent across the discharge point i.e. all actuating handles must open and close the valve in the same direction. From January 1st 2015 equipment presented for a Pass-2-Load inspection must be fitted with [non-cork gaskets](#) on valves and delivery lines that are exposed to product pressure when the tanker is bottom loaded.

5.8.2 Product outlet markings

All outlets must be clearly marked with the compartment (SFL) Safe Fill Level and an indicator able to identify the product in that compartment.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- All outlets are clearly marked with the compartment safe fill level directly above each outlet.
- There are legible product tumblers, indicators or tags in working order for each compartment?

5.8.3 Emergency shut-off system

The Emergency Shut-off System is designed to stop product flow during an emergency while product is being discharged. It is not intended for use during loading operations. The system is activated by Emergency Stop (E-Stop) switches located on the tanker. At minimum, one E-Stop must be positioned adjacent to the discharge outlets. Additional E-Stops may also be installed on the tank-top walkway and at the front and rear left-hand side of the vehicle. All components of the Emergency Shut-off System must be clearly labelled and function-tested.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Test discharge system E-stops, when activated visually confirm all internal valves close?
- Are all tanker emergency stops clearly labelled?

5.8.4 Top of tank inspection

Caution: Working at height protection must be available and employed when carrying out a Pass-2-Load inspection, i.e. lift-up tanker rails, harness, access to a gantry etc. A tank compartment is a confined space and may contain flammable vapours or low levels of breathable air. Exercise all necessary care while working around an open compartment. If a light source is required to check the internals of the tank, only torches or work lights rated for use in hazardous areas can be used.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

5.8.4.1 Top of tank inspection AS2809:2008 & AS2809:2023

ACTION: CHECK:

- Are compartments internally clean, free of dirt, scum or heavy staining, verify that internal stains cannot be dislodged by mopping or scrubbing the surface or the stain?
- Do compartment internal valves close without delay when an emergency stop is actuated?
- Are dip and fill tubes secure?
- Are pressure/vacuum vents in place, free from visible damage and vent wire mesh is clean?
- Are all fittings, O-rings and seals free from leaks, breaks, cracks or other damage or wear?
- Where applicable, are the cables connecting the top and bottom operators in working order?
- Can all compartment hatches and emergency vents/inspection hatches be firmly secured?
- All dust caps have the correct fitting seals and can be locked/secured in the closed position?
- Rollover guards, domes or combings are a minimum of 25mm above any tank fitting it protects?
- Are tell-tale degassing and vapour combing rail test holes on the top of the tanker barrel plugged?
- Wiring protection and or conduits are undamaged and in good working order?
- Check if work lights and switches positioned at least 500mm away from any product valve or tank opening, free of cracks and protected by wire guards or hardened plastic covers?

Specific to Isotainers

- If fitted, is the vacuum pressure gauge in good condition and working order?
- Is the vacuum pressure valve closed and capped securely?

5.8.4.2 Top of tank inspection AS2809:2023

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

• Wiring connections are undamaged, rated IP65; or protected from the ingress of water/dirt and secured against accidental disconnection?
• Connections and enclosures (i.e. junction boxes) are a minimum rating of IP67?
• Mandatory lights within 1 metre of a product connection or vent are "LED" and a minimum rating of IP67?
• Mandatory lighting must not be within 500 mm of any DG product connection point or vent?
• Non-mandatory lighting is a minimum of 1 metre from any product vent or tank opening?
• Non-mandatory lighting is not located within 1 metre of any product connection point or vent?

5.9 Overfill protection devices for bottom loading

Ref: AS2809.2:2023 Section 2.3.7 Loading protection

Ref: AS5602:2009; [SLP OS-10](#)

All vehicles operating at bottom-loading facilities must be fitted with an Overfill Protection System (OPS). The OPS uses a 10-point plug connected to compartment-top probes that automatically stop loading if product contacts a probe. An OPS wet-probe test must be performed to verify correct operation, and all probes must also be visually confirmed as correctly installed. All probes are required to pass the wet test using an approved testing device.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Using an approved testing device, do all overfill protection probes pass a wet test?
- Over fill wiring and conduit components conform with the hazardous zone in which it operates?
- All over fill protection probes secure and correctly installed?

CAUTION:

The wet test must be conducted by immersing compartment probes in either a non-flammable petroleum liquid (a combustible product of diesel or heating-oil)

If petroleum vapours are present, steps must be taken to mitigate static electricity and to avoid inhaling petroleum liquid vapours when the hatch is open.

Note:

An alternative wet test liquid is cold black coffee; clear water must not be used to perform a wet test. The wet test cup must not be made from a clear material (e.g. plastic or glass).

It is a SLP requirement that probe heights are checked and adjusted for compliance during a 2 ½ year Hatch & Vent inspection and 5-year Hydrostatic test. Should probe heights require adjustment, the following guidelines should be applied and for more detailed instructions and measurements; refer to SLP Operating Standard [SLP OS-10](#)

Minimum Ullage

(vapour space between the maximum capacity of a tank compartment and the Safe Fill Level)

3% of the maximum capacity of the compartment or a minimum of 230 litres, whichever is the greater.

5.9.1 Removable probes

Ref: AS2809.2:2023 Section 2.3.7 Loading protection

Ref: AS5602:2009; [SLP OS-10](#)

Where removable probes are fitted, an interlock system is required to ensure the overfill protection system is disabled when any single probe is removed.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- If removable overfill protection probes are fitted, is the overfill protection system disabled when any single probe is removed?

5.10 Vapour vents

Ref: AS2809.2:2008 Section 2.3.8

Ref: AS2809.2:2023 Section 2.3.4 Vents

Sequential vapour vent interlock systems prevent loading should any vapour vent stay closed on a compartment when the safety gate is actuated, sequential vents must be fitted and fully operational.

Note:

Some vapour-vent systems require both the safety gate to be raised and a pneumatic button near the discharge outlets to be activated, which opens the internal valves and vapour vents simultaneously. While compliant with SLP requirements, these systems are not commonly used across the industry.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Is there a sequential vapour vent interlock system in place?
- Does the overfill protection system prevent loading until all vapour vents are open?
- Does the overfill protection system stop the vehicle loading if a vapour vent closes due to a loss of air pressure?
- Do all vapour vents open when the safety gate is opened and close when the gate is closed?

5.11 Vehicle placards

5.11.1 Emergency information panels (EIPs)

ADGC Section 5

ACTION: CHECK:

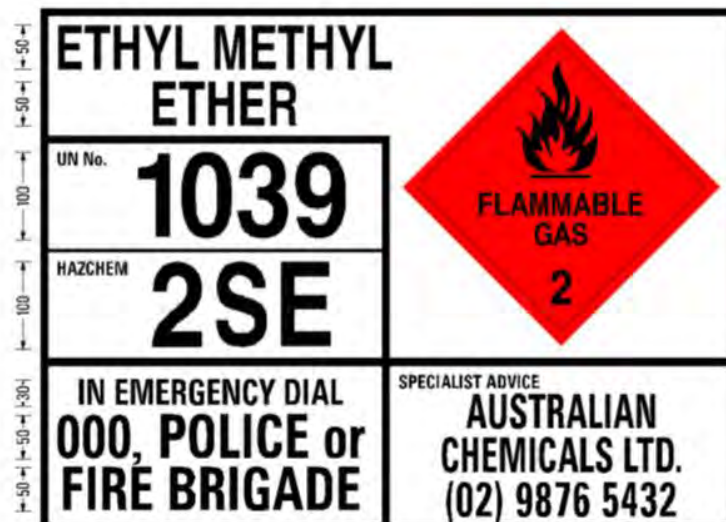
- Are emergency information panels clearly visible, legible and in good condition?
- Are emergency information panels displayed on both sides and the rear of the tank barrel?
- Do emergency information panels display emergency contact details and phone numbers?
- Can emergency information panels be easily accessed from ground level?

Note:

When completing an inspection check to ensure EIP signs can be easily accessed from ground level. EIP's located to the rear of B-Double lead tankers must have a means of safe access to the EIP, either via a step or ladder and platform, a method where a driver can stand to safely access and adjust the EIP. If a vehicle is fitted with EIP signs that are not easily accessible from the ground, or where a rear B-Double lead tanker EIP is not supplied with a safe means of access then this risk should be raised with the vehicle owner and a note placed on the SLP inspection form. The Australian Dangerous Goods Code Part 5 provides an example of an EIP with specialist advice lettering 50 mm in height (Figure 9). SLP recommends lettering of 50 mm high used in providing specialist advice information. If the tanker is not licensed for Dangerous Goods, the tanker must not be fitted with EIPs for class 3 products unless the panels are secured in a manner that does not easily allow the class 3 panels to be displayed.

Figure 9 – (Example of Completed Emergency Information Panel)

All measurements are in millimetres



5.12 Safety equipment

Ref: AS2809.1:2008 Section 2.7 Safety

ADGC Part 12 Table 12.2

Ref: AS2809.1:2023 Section 2.9.1 Safety

For the loading, cartage and delivery of class 3 liquid petroleum products, safety equipment includes, but is not limited to:

- Fire extinguishers
- Eye wash kit
- Intrinsically safe torch
- Breakdown triangles
- Safety cones
- Spill kit

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Is safety equipment easily accessible and located away from the discharge connections?

5.12.1 Fire extinguishers

Ref: AS2809.2:2008 Section 2.3

Ref: AS1841

Ref: AS1850

Ref: AS1851

ADGC Part 12 Table 12.1

Ref: AS2809.1:2023 Section 2.6 Fire extinguishers

Fire extinguishers must be tested and tagged at the time of inspection to ensure they remain valid for the full six-month Pass-2-Load period, unless the vehicle owner or operator provides written confirmation that they are maintained under a common expiry-date service agreement.

Required for vehicles manufactured to meet AS2809 for the transport of dangerous goods cargo.

ACTION: Check:

- Will fire extinguishers remain in date for the 6-month Pass-2-Load period?
(or is a service agreement in place)
- All fire extinguishers are mounted securely with a quick release attachment.
- All fire extinguishers are located where they can be easily accessed?
- Are all fire extinguishers attached in the preferred locations as detailed?
 - Preferred locations are:
 - One (1) only - located on the discharge side or near the driver's door.
 - Two (2) only - located on the left side toward the rear, and on the right side towards the front.

Check that the vehicle carries the correct number and type of fire extinguishers as outlined in the following Index ADGC Part 12.1.2 - Table 12.1.

TYPE AND NUMBER OF FIRE EXTINGUISHERS

Application	Minimum requirement
All types of dangerous goods containing flammables with up to (and including) 10,000 litres total capacity.	1 x 30B dry powder that is to be placed in the cabin, or at the front of any trailer transporting a placard load.
Non-flammable goods in tanks	1 x 60B dry powder, or 2 x 30B dry powder, in the load area
Flammable goods packed in tanks, or bulk containers greater than 10,000 litres total capacity	2 x 60B dry powder, or 1x 80B dry powder and 1 x 20B foam, in the load area
As an alternative to being located in the cabin the fire extinguisher may be located directly behind the cabin or may be mounted on the rear of the cabin.	

5.13 Electrical system and wiring

5.13.1 Vehicle cabling and electrical equipment AS2809:2008

Ref: AS2809.2:2008 Section 2.6 Vehicle cabling and electrical equipment

Cables must be securely fastened and protected against vibration, impact, abrasion and any other type of mechanical or thermal stress. Cabling can be protected by means other than conduit.

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- wiring on the vehicle is securely fastened and located such that it is adequately protected against vibration, impact, abrasion and any other types of mechanical and thermal stress.
- the wiring is enclosed in conduit or is it protected by an alternate means having at least an equivalent effectiveness as illustrated in AS2809.2-2008 Fig 2.3.
- the wiring has no exposed single insulation or conductors.
- all lights are weatherproof and in working order?
- are light lenses, seals, rubbers and mountings in good condition?
- are work lights and switches positioned at least 500mm away from any product valve or tank opening, free of cracks and protected by wire guards or hardened plastic covers.
- electrical equipment used during cargo transfer is suitable for use in a hazardous area.

5.13.2 Cabling and wiring AS2809.2:2023

Ref: AS2809.2:2023 Section 2.2 Cabling and wiring

Ref: AS2809.1:2023 Section 2.3 Electrical connections between truck & trailers

Cables must be securely fastened and protected against vibration, impact, abrasion and any other types of mechanical and thermal stresses. Cables can be installed in rigid conduits in accordance with AS/NZS 2053.1 or AS/NZS 2053.7. or cables can be installed conforming to ECE R105 requirements or cables meeting the Zone 1 requirements of AS/NZS 60079.14.

Robust conduit systems conforming to other relevant Standards may also be accepted and cabling may be protected by means other than conduits. Wiring fitted by the road tank vehicle manufacturer for items such as sensors and braking systems is exempt. Examples of acceptable methods of cable protection can be found in AS 2809.1:2023 Figure 2.4.1

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

- | |
|--|
| • Wiring and or conduits are undamaged and in good working order? |
| • Wiring is securely fastened and located such that it is adequately protected against vibration, impact, abrasion and any other types of mechanical and thermal stress? |
| • Electrical connections between truck and trailers, have a minimum rating of IP54 and incorporate a latch to prevent accidental disconnection? |

5.13.3 Electrical equipment AS2809.2:2023

Ref: AS2809.2:2023 Section 2.3 Equipment for hazardous areas

Electrical equipment must meet one of the following requirements:

- Vehicle manufacturer's electrical equipment must be rated to a minimum of IP65.
- Equipment fitted by the vehicle manufacturer, e.g. sensors or electronic braking system components, that does not meet IP65, is accepted, provided it is secured against disconnection and protected from the ingress of water and dirt.
- Electrical equipment must conform to the requirements of the zone in which it operates as specified in AS/NZS 60079.15.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

• Electrical components are undamaged and in good working order?
• Electrical components are rated IP65 or secured against accidental disconnection and protected from the ingress of water and dirt?
• Equipment powered during product transfer conforms to the requirements of the zone in which it operates?

5.13.4 Lighting AS2809.2:2023

Ref: AS2809.2:2023 Section 2.4 Lighting for hazardous areas

Vehicle lighting that may be active during product transfer and is located within a hazardous zone must conform with the following:

- Vehicle lighting installed under the mandatory requirements of ADR 13/00 or later may be mounted in a hazardous zone, the lighting must be LED, a minimum of IP67 and must not be located within 500 mm of any product connection point or product vent opening.
- Vehicle lighting deemed non-mandatory may be fitted within a hazardous zone if the lighting is required to improve operator safety. The lighting must be LED, must be a minimum of IP67 with a maximum power consumption of 40W per lamp and must not be located within 1 metre of any product connection point or product vent opening.
- Mandatory and non-mandatory equipment, connections and enclosures (i.e. junction boxes) within a hazardous zone must have a rating of IP67 or higher.

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

ACTION: CHECK:

• Mandatory lights within 1 metre of a product connection or vent are "LED" and a minimum rating of IP67?
• Mandatory lighting is not within 500 mm of any product connection point or vent?
• Non-mandatory lighting is "LED" a minimum rating of IP67 and a maximum power usage of 40W?
• Non-mandatory lighting is not located within 1 metre of any product connection point or vent?
• Connections and enclosures (i.e. junction boxes) are a minimum rating of IP67?

5.14 Vapour hoses and transfer hoses

Ref: ADGC 10.1.3

Ref: AS1180

Ref: AS2683:2000 Section 1.5.1 & 1.5.3

To ensure vapour and delivery hoses remain in date for the 6-month Pass-2-Load period, it is required that they be tested and tagged at the time of the inspection to ensure the hose testing expiry date aligns with the Pass-2-Load expiry date.

Required for vehicles manufactured to meet AS2809.1:2008 for the transport of dangerous goods cargo.

ACTION: CHECK:

- Will the vapour hose and all transfer hoses on the vehicle at the time of inspection remain in test date for the 6-month Pass-2-Load period? (or is a service agreement in place)
- all hoses on the vehicle have identification tags certifying manufacture and test details?
- all hoses and hose fittings are undamaged, and seals are in good condition?
- if the vapour hose coupling is stowed/connected to a dummy adaptor the hose coupling poppet must be closed when connected?
- If the vapour hose coupling stowage point is fitted with a device to open the poppet during loading or unloading, ensure the stowage point is c/w stainless steel wire gauze of 425 to 600 micron?

5.14.1 Vapour hose brake interlock drive away protection AS2809:2023

Ref: AS2809.1:2023 Section 2.4.2 Brake interlock drive away protection

Required for vehicles manufactured to meet AS2809.1:2023 for the transport of dangerous goods cargo.

Isotainers may be equipped with vapour hoses permanently attached to the tank or the tank frame or may feature a dry brake vapour valve adaptor designed for connection to a flexible vapour hose and coupler within the gantry loading bay.

Vapour hose driveaway functionality testing will require the Isotainer to be attached with its intended operating Skel or trailer. If, however the Isotainer is tested independently of the Skel or trailer, the same intended outcome must be verified by the inspector.

ACTION: CHECK: Tanks with a vapour hose permanently attached

<ul style="list-style-type: none">• Will the vapour hose and all transfer hoses on the vehicle at the time of inspection remain in test date for the 6-month Pass-2-Load period?
<ul style="list-style-type: none">• All hoses on the vehicle have identification tags certifying manufacture and test details?
<ul style="list-style-type: none">• Are hoses and hose fittings undamaged and seals are in good condition?
<ul style="list-style-type: none">• With the vehicle park brake applied:<ul style="list-style-type: none">• Step 1: disconnect/release the vapour hose from its stowed position;• Step 2: release the vehicle park brake;• Step 3: confirm the vehicle brakes remain active and the vehicle is immobilised?
<ul style="list-style-type: none">• With the vehicle park brake released:<ul style="list-style-type: none">• Step 1: disconnect/release the vapour hose from its stowed position releasing;• Step 2: confirm the vehicle brakes remain released, and the vehicle can be moved?
<ul style="list-style-type: none">• Check the vapour hose coupling is stowed/connected to a stowage point on the tanker?
<ul style="list-style-type: none">• Check the vapour hose poppet remains closed while the vehicle is in transit?
<ul style="list-style-type: none">• If the vapour hose coupling stowage point is fitted with a device to open the poppet during loading or unloading, ensure the stowage point is c/w stainless steel wire gauze of 425 to 600 micron?

Note:

6 monthly electrical continuity testing must be performed at the time of the Pass-2-Load inspection and proof of current test period for individual hoses must be provided on the hose identification plate.

Hydrostatic (pressure) testing must be performed every twelve months and proof of current test period for individual hoses must be provided on the hose identification plate. If the expiry date of the hydrostatic test falls during the Pass-2-Load period, hoses must be retested at the time of the Pass-2-Load inspection.

The only exemption to testing hoses at the time of the Pass-2-Load inspection is when assurance is provided in writing by the vehicle owner/operator that they are tested on or by a common date by a service provider.

ACTION: CHECK: Tanks fitted with a dry brake vapour valve adaptor

- | |
|---|
| <ul style="list-style-type: none">• With the vehicle park brake applied:<ul style="list-style-type: none">• Step 1: connect a vapour hose to the dry brake vapour adaptor;• Step 2: release the vehicle park brake;• Step 3: confirm the vehicle brakes remain active and the vehicle is immobilised? |
| <ul style="list-style-type: none">• With the vehicle park brake released:<ul style="list-style-type: none">• Step 1: connect a vapour hose to the dry brake vapour adaptor;• Step 2: confirm the vehicle brakes remain released, and the vehicle can be moved? |

5.15 Stowage of hoses and equipment

Ref: AS5602:2009 Section 6.4

Ref: NTC Load restraint guide

Ref: AS2809.1:2023

All accessories and removable equipment must be securely restrained to prevent ejection during a crash or incident. If a product bucket (draining, slops, or drip bucket) is carried, it must be metal, fitted with a sealable lid, and equipped with a static-earth lead and bonding clamp.

A lid is not required if the tanker is fitted with a dedicated slops/drainings tank for containing product during transit.

*The bonding clamp and bucket must be tested every six months using an ohmmeter or suitable device, and resistance must not exceed **10 ohms** (Ω).*

ACTION: CHECK:

- Are all hoses, fittings and equipment secured on the vehicle?
- If fitted, a draining bucket has a lid, a static cable and clamp and is secure and in good condition?
- The draining bucket is tagged as continuity tested within the last 6 months.
- There is less than 10 Ω resistance between the earth reel cable clamp and any part of the bucket?

5.16 Portable and or Demountable tanks (Isotainers)

Ref: AS2809.1:2023 Section 1.1 Scope

Ref: ADGC Section 8.2.2

Ref: NTC Load restraint guide

Portable or demountable tanks (Isotainers) designed for repeated bottom loading must comply with the SLP Isotainer Tank Inspection Checklist AS2809:2020/23. Although some units may be classified as intermodal and not strictly required to meet AS2809, they must still satisfy the minimum standards for use at SLP-participating terminals. These standards cover electrical isolation, ingress protection, venting and vapour management, overfill protection, drive-away prevention, and equipment placement to support safe manual handling during loading operations.

Checklists may be completed on portable or demountable tanks (Isotainers) independently of the vehicle. The inspection location must ensure that, when the tank is paired with its vehicle for loading, all requirements of AS2809.1:2023, the ADGC, and the NTC Load Restraint Guide are fully met.

Vehicles with varying tank-bed heights may be used when loading portable or demountable tanks; therefore, compliance with the maximum allowable loading-valve height must be verified in consultation with the vehicle and tank operator.

*A warning sign must be installed adjacent to the loading-valve area stating **“WARNING: Maximum loading-valve height must not exceed 1280 mm.”** If this height is exceeded, alternative loading procedures are to be implemented.*

The drive-away protection system of the vehicle must be fully compatible with that of the portable or demountable tank, and this compatibility must be verified prior to operation.

