

CIRCULAR 0-1-2

A GUIDE TO THE CERTIFICATION OF NEW VEHICLES – TYPE APPROVAL

1. Introduction

Before a new vehicle can be registered for the first time in Australia, it must meet the requirements of the <u>Motor Vehicle Standards Act 1989</u> (the Act). The Act applies to all new vehicles – whether road motor vehicles or road trailers. Under the Act, new vehicles are required to be fitted with an identification plate (formerly known as a compliance plate). The identification plate provides a clear indication to the state or territory registering authority – and to the owner and the general public – that the vehicle is ready for use in transport on public roads in Australia.

2. A federal system

The Australian, state and territory governments jointly maintain a federal system for regulating road vehicles. The system establishes national design and performance standards for vehicles. These standards are established under the Act; they are known as the "Australian Design Rules" (the ADRs). The ADRs are designed to make vehicles safe to use, to control vehicle emissions, to secure vehicles against theft and to promote the saving of energy.

The Australian Government maintains jurisdiction over road vehicles up to the point of first supply to the Australian market. Once a vehicle has been supplied to the market, it is "in-service". State and territory governments are responsible for continued regulation after this point (eg, vehicle registration, roadworthiness, the approval of modifications to vehicles in-service).

3. Certification

Under the road vehicle certification system, approvals are granted to place identification plates on new vehicles. The process of applying for, and obtaining, approval to plate vehicles is called "certification". The certification process in Australia is administered by the Australian Government – in particular, by the Vehicle Safety Standards (VSS) Branch of the Australian Department of Infrastructure, Transport, Regional Development and Local Government.

The Administrator of Vehicle Standards (the Administrator) is appointed under the Act. The Administrator is the delegate of the Minister for Infrastructure, Transport, Regional Development and Local Government, for relevant decision-making purposes. The Administrator is the General Manager of VSS.

Administrator's Circulars are documents issued by the Administrator. These circulars provide guidance and information on the administrative arrangements covering the policy and procedures supporting the certification process.

4. Different schemes

Various paths are available for new vehicles to be certified and supplied to the market, and different schemes have been tailored to suit the spectrum of vehicle types and the businesses that manufacture, import or handle these vehicles.

Type approval is an approach to certification that has been developed globally to meet the needs of mainstream vehicles (the largest segment of vehicles supplied to the market) and mass-market, high-volume suppliers.

New specialist or enthusiast vehicles may be assessed via alternative, low-cost, concessional schemes. Under these schemes, vehicle standards are based on, but are not identical to, the ADRs. These schemes are targeted to meet the needs of low volume vehicles and the small businesses that handle them. The schemes offer clearly-defined processes that are more suitable for small firms. Alternative forms of evidence are allowed, thereby eliminating the need for some of the more expensive or destructive forms of vehicle testing. By offering different schemes, the road vehicle certification system provides consumers with a greater choice of vehicles.

5. An introduction to type approval

The ADRs are generally framed as performance-based standards. In this respect, the ADRs reflect the style of vehicle standards that are used internationally.

This means that ADRs specify a minimum level of performance that a vehicle must achieve, rather than mandate specific design features. The ADRs set out the test methods by which vehicle performance is to be demonstrated. For example, the occupant protection ADRs specify impact conditions and the limits on loadings that can be recorded by instrumented dummies. Vehicles are crash tested, usually in specialised facilities (such as test laboratories).

In short, some of the test methods specified under the ADRs can be exhaustive and costly. As a result, to ensure that mainstream certification is cost-effective, under type approval a single certification process covers the entire production run of the vehicle type.

Under type approval, manufacturers certify that a type of vehicle complies with the ADRs. Sample vehicles are selected to represent the vehicle type. The sample vehicles are tested in accordance with the ADRs. If the sample vehicles pass the tests, the tests are used to produce evidence to certify that the vehicle type is "standard" – that is, in compliance with all relevant ADRs.

Once the type has been approved, all vehicles of that type are then authorised for manufacture or import – and for supply to the market – in "full volume" (ie, in unlimited numbers, over the entire production run of the vehicle type). Following the grant of type approval, the manufacturer is then responsible for ensuring that all vehicles of that type are identical to the approved sample. This further step is generally known as "conformity of production", and is achieved through the use of quality assurance systems.

Types usually comprise a specific make and model (eg, the Toyota Camry). In some cases, vehicle types can include known combinations or "variants". Manufacturers can either test samples of each variant, or make an assessment of the overall type and test the "worst case" variants.

6. Elements of the Type Approval System

(a) Application Procedures

VSS does not test vehicles for certification purposes. The manufacturer is responsible for ensuring compliance with the ADRs. The certification process allows the manufacturer ("the licensee") to conduct the tests required by the various ADRs. The manufacturer can conduct those tests wherever and whenever it is convenient to the manufacturer providing, of course, that the tests are conducted properly. In order to demonstrate compliance with all applicable ADRs, several test vehicles are usually required, especially for passenger cars and light commercial vehicles.

Having conducted all the appropriate tests, the manufacturer must then <u>submit an</u> <u>application</u> to VSS for approval to fit identification plates to the particular type of vehicle that has been tested. In order to demonstrate that the testing has been done correctly and that the vehicle meets the requirements, the manufacturer is required to submit to VSS a summary of the evidence of compliance for the applicable ADRs.

The Road Vehicle Certification System (RVCS) allows manufacturers to electronically submit an application. The licensee <u>certifies</u> that the vehicles they supply to the market meet prescribed standards as specified in the ADRs. The RVCS allows lodgement of test data using electronic forms software. Manufacturers wanting to apply for approval to fit identification plates must first register as a licensee with the RVCS.

The necessary documentation, including information and instructions on how RVCS operates, is accessible from the Department's website at http://rvcs.dotars.gov.au/RegisterHere.html. The RVCS log-on page is at http://rvcs.dotars.gov.au/LogOn.html.

The type approval certification process is supported by Administrator's Circulars and Vehicle Standards Bulletins. These documents (which include ADR-specific circulars) set out the arrangements under which applications can be made and the basis on which approvals are issued. They can be accessed from the Department's website at http://rvcs.dotars.gov.au/Circulars/AllCirculars/0-1-1%20Index.htm. Relevant circulars are mentioned in the following sections as appropriate.

(b) Approval Procedures

When satisfied that a vehicle type complies, the Administrator issues a document known as an Identification Plate Approval. This is the authority to allow the manufacturer to fit identification plates to vehicles of the approved type. The approval document may include conditions which must be adhered to by the approval holder. Approvals are issued under section 10A of the Act.

(c) Test Facility/Design Facility Inspections

The information provided by a manufacturer in an application for type approval is subject to scrutiny by VSS. This includes the conduct by VSS of quality assurance audits of the test and design facilities that are used in the ADR tests.

The Administrator requires confirmation that the design level of components or systems tested is known, that the test procedures and results of the tests are valid and that the test results are consistent with the submitted summary of evidence forms.

Refer circular 0-12-0; Test Facility Inspection

(d) Conformity of Production (COP) Audits

VSS also conducts quality assurance audits of the manufacturing facilities.

The Administrator requires confirmation that the design level of components and systems (relevant to ADRs) that are used on the production line – as well as the general controls over the production processes – are adequate to ensure that the completed vehicles conform to the approved design.

Together with the test facility and design facility inspections outlined above, these audits ensure that vehicles are produced to the same design. Thus, if the design is known to comply, and vehicle production is to the approved design, then all vehicles produced are taken to comply; this is the fundamental principle of the type approval system.

Refer circular 0-13-1; Conformity of production

(e) Single Uniform Type Inspection (SUTI)

The Administrator determines when a sample of a vehicle type needs to be made available for inspection as part of the certification process for obtaining Identification Plate Approval. This inspection may assist the registration inspection requirements of the States and Territory registration authorities, and is called Single Uniform Type Inspection (SUTI).

Refer circular 0-14-1; Procedures for Single Uniform Type Inspection (SUTI).

7. Certification Procedures for New Vehicles

(a) Full Volume

Manufacturers wishing to market new vehicles in unrestricted or unlimited numbers (known as "full volume") must provide evidence of compliance with all applicable ADRs for certification.

A full volume manufacturer is one that holds approval to place identification plates on new vehicles supplied to the Australian market in unlimited numbers.

As some of the tests required to demonstrate compliance with the ADRs result in vehicles being crashed, it is only cost-effective to obtain approval to fit plates to vehicle models that have significant markets.

For full volume manufacturers demonstrating compliance with all applicable ADRs, approvals are issued under subsections 10A(1) or 10A(2) of the Act; the vehicles are recognised as standard vehicles.

Refer circular 0-3-4; Motor Vehicle Identification Plate Approval, circular 0-3-3; Motor Vehicle Make and Model and circular 0-3-2; Identification Plates.

(b) Low Volume

Manufacturers wishing to supply limited numbers of new vehicles may be able to certify the vehicles under the <u>Low Volume Scheme</u>. The scheme caters for manufacturers who supply less than 25, or up to 100, vehicles per year.

The intent of the scheme is to promote the availability of vehicles to enthusiasts, where the vehicles may not otherwise be marketed due to the high costs associated with full volume certification. The scheme provides major concessions by allowing alternative forms of evidence to be submitted against some of the ADRs; these ADRs would otherwise require destructive or costly vehicle testing.

The scheme is restricted to vehicle makes and models that are listed on the Register of Specialist and Enthusiast Vehicles (the Register). Criteria for vehicles to be entered on the Register are outlined under regulation 24 of the <u>Motor Vehicle Standards Regulations</u> 1989 (the Regulations). Further background (including the Register itself) is available from the Department's website at http://rvcs-prodweb.dot.gov.au/sevs/SEVSfront.html.

For low volume manufacturers, approvals are issued under subsection 10A(1) or 10A(2) or 10A(3) of the Act; the vehicles may or may not be standard vehicles, depending on their evidence of compliance.

Refer circular 0-4-1; Procedures for the Certification of New Motor Vehicles supplied in Low Volume and circular 0-2-12; Specialist and Enthusiast Vehicle Scheme (SEVS) Eligibility.

(c) Low Production Passenger Cars (LPPC)

A special certification scheme for Low Production Passenger Cars has been developed to cater for the certification of new vehicles that are listed on the Register but are unable to demonstrate compliance with the requirements of the Low Volume Scheme.

Passenger cars (MA category) listed on the Register and which are manufactured by a Manufacturer whose total worldwide production does not exceed 500 units per annum, with no indications that production is likely to exceed that level, are eligible for certification under the LPPC arrangements.

Holders of an approval for Low Production Passenger Cars will be authorised to supply up to 25 plates per annum.

Participation in the LPPC scheme will be considered on a case-by-case basis and will be restricted to vehicle models having a high commercial value when compared to mainstream models in an equivalent market segment. Participation will also be restricted to vehicle types that State and Territory registration authorities have not refused to allow on public roads.

For low volume manufacturers using the LPPC arrangements, approvals are issued under subsection 10A(3) of the Act; the vehicles are not recognised as standard vehicles.

Refer circular 0-2-13; Certification of New Low Production Passenger Cars (MA category only) and circular 0-2-12; Specialist and Enthusiast Vehicle Scheme (SEVS) Eligibility.

8. Test and Evaluation Vehicles

State and Territory registering authorities have agreed on arrangements that apply for the registration of test and evaluation vehicles and their use on public roads. Where such vehicles are to be registered, these authorities must be contacted to ascertain their particular registration requirements.

For full volume original manufacturers only, these arrangements are outlined in circular 0-4-8; Registration and Use of Evaluation Vehicles. Full volume original manufacturers are licensees holding an identification plate approval under subsection 10A(1) of the Act without restriction on the volume of vehicles that can be supplied. Circular 0-4-8 applies to vehicles that are to be used for test and evaluation purposes on public roads.

Under circular 0-4-8, test and evaluation vehicles are categorised as pre-release-evaluation, market-evaluation or engineering-evaluation. Conditions for vehicle registration and disposal apply; these conditions vary according to the category. Only pre-release-evaluation vehicles may be supplied to the market in Australia, and only if the approval conditions have been met.

For low volume manufacturers, including LPPC approval holders, test and evaluation vehicles may be imported, but only if an import approval has been issued by the Administrator. An application for approval to import a test or evaluation vehicle must be submitted, and approval given, before the importer makes any arrangements for shipping the vehicle to Australia.

Conditional import approvals for test or evaluation vehicles for low volume manufacturers or LPPC approval holders are issued under paragraphs 18(1)(a) or (b) of the Regulations depending upon whether the vehicles are new or used.

Refer Vehicle Standards Bulletin No. 10; Importing Vehicles to Australia

9. Certification Procedures for Trailers

(a) Trailers with ATM up to 4.5 tonnes.

The Administrator has determined that trailers of an Aggregate Trailer Mass (ATM) up to 4.5 tonnes will not be subject to certification under the type approval system. Therefore whilst manufacturers of these trailers are not required to affix identification plates to their trailers, they are required to meet all of the applicable ADRs for trailers in accordance with the Act.

Vehicle Standards Bulletin No. 1; National Code of Practice – Building Small Trailers up to 4.5 tonnes, summarises the construction requirements necessary for caravans and trailers to meet the applicable ADRs. The Administrator has determined that trailers built to meet the requirements of VSB No. 1 are accepted as meeting the applicable ADRs.

Registration of vehicles remains the responsibility of the State or Territory registering authorities, and trailer manufacturers should consult these authorities.

Refer circular 0-2-7; Certification of trailers with ATM of less than 4.5 tonnes

(b) Trailers with ATMs over 4.5 tonnes.

Normal type approval arrangements (described under Part 6) apply, and certification is required using the RVCS. Further details on the specific certification procedures for these trailers are contained in *circular 0-3-6; Certification Procedures for Trailers*.