



CIRCULAR 85/00 – 2 – 1

GUIDELINES FOR SELECTION OF TEST VEHICLES FOR DEMONSTRATION OF COMPLIANCE WITH ADR 85/00

1. INTRODUCTION

- 1.1. This Circular should be read in conjunction with Circular 0-2-11 "*General Procedures for Selection of Vehicles and Components for ADR Compliance Testing*" containing requirements applicable to all ADRs.
- 1.2. The intention of the criteria in this circular is to assist manufacturers in selecting the "worst case" – i.e. to identify the vehicle configuration which would produce the lowest level of occupant protection when tested in accordance with the ADR. Given the complex nature of the ADR requirements and the multiplicity of vehicle parameters which could have an effect on dynamic crash response, and the likelihood that a given parameter will have a different effect in different vehicle configurations, the criteria in this circular should only be seen as general guidelines on matters to be considered.
- 1.3. In some cases, more than one test may be required to demonstrate compliance for all variants offered in a vehicle model range.

2. WORST CASE CRITERIA

Also see Circular 0-2-11 Section 5 Worst Case Criteria

- 2.1. All variants offered within a model range are required to comply with the ADR.
- 2.2. Recognising that manufacturers often offer a large number of combinations of specifications in any one vehicle model range, the Administrator will accept that a planned program of tests on particular vehicle specifications will validate a defined range of variants provided the "worst case" test vehicle is selected with due regard to the contributing parameters.
- 2.3. All design variations which could have an effect on the performance criteria responses measured by the WorldSID 50th percentile adult male, or compliance with the door latch and hinge system or fuel system integrity requirements, need to be addressed in relation to test vehicle selection. Manufacturers must be able to demonstrate that all variants in a model range are represented by the selected test vehicle(s).
- 2.4. For a given vehicle configuration, the Administrator will accept a previously tested vehicle as representative of a variant if the sum of the unladen vehicle mass and the rated cargo and luggage mass of the variant is not more than 8 per cent greater than that of the tested vehicle.
- 2.5. Common variations and details to be considered are listed in paragraph 2.6 below, to assist manufacturers to establish "worst case" design parameters and determine the number of tests required to demonstrate compliance for all variants offered in a model range.

2.6. Common variations include:

Variation	Details to be considered
Sum of the unladen vehicle mass and the rated cargo and luggage mass	<p>Generally the heaviest within the group being validated by each test will be the worst case.</p> <p>Mass distribution of variants should be considered with regard to the rotational effects.</p>
Protective system(s)	<p>Side airbag volume, geometry, operating pressure, inflators, sensors, control module and deployment algorithm.</p> <p>The safety belts fitted for the front row outboard seating positions, including the operation of any pretensioners.</p> <p>The design and location of the safety belt anchorages provided for the front row outboard seating positions.</p>
Passenger compartment	<p>The structure, dimensions, lines and materials of the side walls of the passenger compartment, including any optional arrangements or interior fittings within or about the side walls of the passenger compartment.</p> <p>Symmetry about the vehicle longitudinal centre plane.</p>
Front seats	<p>Shape (e.g. side bolster support), mechanical properties (e.g. stiffness, strength), seat adjustments, manikin H-point and design torso angle.</p>
Door latches and hinges	<p>Mechanical properties, design and construction of the door latch and hinge systems.</p>
Type of fuel system(s)	<p>The design, construction and layout of the entire fuel system from the fuel tanks through to the engine induction system.</p>
Body construction	<p>Structure, materials, style, symmetry and dimensions (including vehicle width, wheelbase, no. of side doors and the overall length of the vehicle).</p>