



CIRCULAR 73/00 - 2 - 1

GUIDELINES FOR SELECTION OF TEST VEHICLES FOR DEMONSTRATION OF COMPLIANCE WITH ADR 73/00

INTRODUCTION

1. This Circular should be read in conjunction with Circular 0-2-1 "*General Procedures for Selection of Vehicles and Components for ADR Compliance Testing*" containing requirements applicable to all ADRs.
2. The intention of the criteria in this circular is to assist manufacturers in selecting the "worst case" - ie to identify the vehicle configuration which would produce the lowest level of occupant protection when tested in accordance with the ADR. Because of the complex nature of the requirement 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, it is emphasised that they must be seen only as guidelines on matters to be considered.

In certain circumstances, it is anticipated that several tests may be required to demonstrate compliance for each vehicle model.

3. WORST CASE CRITERIA

See Circular 0-2-11 Section 5 Worst Case Criteria

- 3.1. The ADR-calls for every combination of vehicle specification to comply. Recognising that most manufacturers 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 having due regard to the contributing parameters.
- 3.2. Common variations are listed in 3.4 below as guidelines to assist manufacturers to determine the number of tests required in the program. However, for a given vehicle configuration, the Administrator will accept a previously tested vehicle as representative of a variant if the variant has an unladen mass not more than 5% greater than the unladen mass of the tested vehicle.
- 3.3. All variants within a model range where the variations may have an effect on the performance against the injury criteria, need to be addressed in relation to test vehicle selection. Manufacturers must be able to demonstrate that all variants in a group are represented by the selected test vehicle(s).

3.4. Common variations include:

Variation	Remarks, parameters to be considered
Unladen Mass	Generally the heaviest within the group being validated by each test will be the worst case. Mass distribution of variants should be considered with regard to its rotational effects
Propeller Shaft	Rigidity under axial load.
Rear Axle	Rigidity under influence of load along propeller shaft.
Engine and Transmission	Mass, size, symmetry, configuration [whether longitudinal or transverse] and ancillaries.
Steering System	Mechanism type, column design [shear elements etc], location and external dimensions.
Steering Wheel	Size, design and construction.
Pedal Configuration	Manual or automatic, design [shear elements etc]
Body Construction	Structure, materials, style, symmetry and dimensions.
Front Occupant Compartment	Componentry, design, layout, symmetry and construction.
Occupant Restraint System	Type of belt system [pretensioners, webbing clamps, webbing characteristics, etc], airbag [volume, inflator characteristics, etc.]
Front Seats	Mechanical properties [stiffness, anti- submarining design, etc], shape.
Wheels/tyres	Size, design and construction.
Manufacturers Approved Accessories	Influence on test performance [air- conditioning, power steering, sunroof, bullbars, etc.]