

CIRCULAR 31/01 - 2 – 2

SELECTION OF TEST VEHICLES

INTRODUCTION

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. This circular replaces all previously issued fleet selection circulars for ADR 31/--.
2. The intention of the criteria in this circular is to reduce the number of vehicle specifications required to be tested. This circular details the criteria to be considered in selecting the variants of a vehicle model to be tested. The Administrator will usually accept tests conducted in accordance with the criteria as having demonstrated compliance for all variants in the model range. Additional tests may be required for combinations of characteristics not anticipated in this circular.

The Administrator will consider requests for further reductions in the number of tests than established by criteria in this circular on receipt of documented evidence that if tested, the braking test results of the untested vehicles would not result in a less favourable result compared to the tested vehicle. The untested vehicle evidence may be simulated or calculated with any such simulations or calculations being traceable to similar comparisons between tested vehicles.

3. It remains the responsibility of the vehicle manufacturer to ensure that every vehicle to which an identification plate is affixed complies with ADR 31/01 as applicable.

4. SELECTION REQUIREMENTS

Grouping of Braking Systems

4.1 Each unique braking system must be tested. To be considered as the same unique braking system, systems must have a combination of components that have the same physical (material or metallurgical), functional and dimensional properties. Any variation of the components of a braking system will constitute a different unique braking system except for:

- 4.1.1 the length, diameter, material or routing of hydraulic, vacuum, or electrical wiring included in the system;
- 4.1.2 the location of valves, fittings or other devices within a hydraulic or vacuum line.

Grouping of Vehicle Variants

4.2 It is considered that an untested vehicle variant, with the same unique braking system as a tested vehicle variant, will not require testing if when compared to the tested vehicle it:

- 4.2.1 has the same calibration of any ECU controlling the braking system;
- 4.2.2 has the same configuration of axles;
- 4.2.3 has tyres that are no more than 2% greater in diameter, or any amount smaller;
- 4.2.4 has tyres of the same or greater section width;
- 4.2.5 has greater or equal brake cooling airflow;
- 4.2.6 has no higher a road speed per 1,000 rpm for the gear ratio required for the Service Brake Fade Test unless the tested vehicle was fitted with an automatic transmission such that negligible engine braking is provided (e.g. a system with a fluid coupling torque converter);
- 4.2.7 for vehicles without ABS or a load sensing variable proportioning system fitted:
 - 4.2.7.1 has no less of the proportion of the unladen mass on the rear wheels;
 - 4.2.7.2 has a wheelbase no shorter than 10% less in length;
- 4.2.8 has no greater Maximum Loaded Test Mass;
- 4.2.9 for vehicles that are unable to achieve the 45 second braking cycle time in the Type I test, the untested vehicle has a braking cycle time that is no less than that of the tested vehicle;
- 4.2.10 has an equal or lower unbraked trailer mass.

Note: If an untested vehicle has a permissible unbraked trailer mass greater than that of its corresponding tested vehicle an additional SE form for the untested vehicle will be required so that the performance calculations for the unbraked trailer mass can be assessed. In this case the untested vehicle will be treated as a tested vehicle (and shown as such on the SF form), even though all the physical test data will be common to the tested vehicle's SE form. Refer ADR 31/01, Appendix A, Clause 2.1.2.

Partial Testing of Vehicle Variants

4.3 A previously tested vehicle variant fitted with a variation of a unique braking system may be partially tested to demonstrate compliance of the variation in the braking system. The conditions where a vehicle may be subject to a partial test are described below.

4.3.1 the parking brake system shall be tested to Appendix A, Annex 3, Clause 2.3.

4.3.2 the anti-lock system shall be tested to Appendix A, Annex 6.

Note: The varied braking system design should be assigned its own unique brake system identifier. For the variations requiring retesting described in clauses 4.3.1 and 4.3.2 above, the relevant SE form shall contain the results of all in motion tests conducted relevant to the base braking system, not just those conducted resulting from the design variation. The test report for the varied braking system referenced on the SE form must reference the original full test report. Extension sheets attached to the original test report should reference and collate the additional tests.

ALTERNATIVE STANDARDS

5 An untested vehicle variant which is listed in an appropriate Economic Commission for Europe (ECE) approval document (to one of the ECE regulations listed as an alternative standard in the ADR) may be certified without the selection criteria in the circular being applied. All variants to be covered in the application must be included on the Fleet Selection (SF) form. If all variants listed on the SF form are listed in an ECE approval document the tested/untested status is to be recorded as "ECE Approved"

6 An untested vehicle variant that is not listed in an appropriate ECE approval document (to one of the ECE regulations listed as an alternative standard in the ADR) may be certified on the basis of comparison to a vehicle variant tested in accordance with compliance to the technical requirements of an appropriate ECE regulation if:

- the tested vehicle variant is listed in an appropriate ECE approval document and;
- the untested vehicle variant(s), when compared to the tested variant, meets the criteria of this circular.

In this case the variants tested to the ECE regulation and included on the ECE approval are to show the tested/untested status as "ECE - Tested". The variants not tested to the ECE regulation but included in the ECE approval are to show the tested/untested status as "ECE - Approved" and the variants not tested to the ECE regulation and not included on the ECE approval are to show the tested/untested status as "Untested". All variants to be covered in the application must be included on the Fleet Selection (SF) form. A variant marked as Untested may only be compared with a relevant variant which is either "ECE - Tested" or "Tested".

7 A vehicle variant fitted with a variation of a unique braking system (under the conditions set out in paragraph 4.5 above) may be certified on the basis of comparison to a vehicle variant shown as "ECE – Tested" on the SF form. In this case, the variant shall be listed on the SF form and shown as "Tested – Partial".