

# SCHEDULES

## SCHEDULE 1

Technical and administrative requirements for grant of national small series type approval

### PART 2

Requirements for vehicles of category M<sub>1</sub>

#### CHAPTER 2

##### SECTION 1

#### **Wheelchair spaces**

1. A wheelchair space must be fitted with—
  - (a) a wheelchair and wheelchair user restraint system complying with item 19A of the Type Approval Regulation, Annex II, Part III, Appendix 3, or
  - (b) a restraint system comprising—
    - (i) a four point wheelchair tie-down system suitable for general wheelchair application, and
    - (ii) a wheelchair user restraint system comprising a minimum of three anchorage points to provide a pelvic and upper torso restraint system.

#### **Wheelchair tie-down devices**

2. A wheelchair tie-down device must comply with ISO 10542 and be marked accordingly.

#### **Location and geometry of anchorages**

3. The geometry of the wheelchair tie-down and occupant restraint system anchorages and webbing must comply with ISO 10542. A surrogate wheelchair as defined in ISO 10542 or equivalent must be used for this purpose.

#### **Testing of restraint system anchorages**

- 4.—(1) A static test must be conducted on the anchorage points for both the wheelchair tie-downs and occupant restraints in accordance with the following requirements—
  - (a) The tests must be conducted on a vehicle or a representative section of a vehicle structure including any vehicle fittings that are likely to contribute to the strength or rigidity of the structure;
  - (b) The forces specified in paragraph 5 below must be applied by means of a surrogate wheelchair of adequate strength as defined in ISO 10542, or equivalent, with attachment

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points for the front and rear tie-downs and reproducing the geometry of the wheelchair tie-down system;

- (c) The forces specified in paragraph 6 below must be applied by means of a traction device specified in paragraph 5.3.4 of Annex I to [Directive 76/115/EEC](#) as last amended by [Directive 96/38/EC](#)(1) and supported on the surrogate wheelchair defined in (b) above;
  - (d) The forces in sub-paragraphs (b) and (c) above must be applied simultaneously in the forward direction at an angle of  $10^\circ \pm 5^\circ$  above the horizontal plane. The force in (b) must be applied at a height of not less than 200 mm and not more than 300 mm measured vertically above the floor of the wheelchair space;
  - (e) The force in paragraph 5(b) must be applied in the rearward direction at an angle of  $10^\circ \pm 5^\circ$  above the horizontal plane at a height of not less than 200 mm and not more than 300 mm measured vertically above the floor of the wheelchair space;
  - (f) All forces must be applied as rapidly as possible through the central vertical axis of the wheelchair and wheelchair space;
  - (g) All forces must be maintained for a period of not less than 0.2 seconds.
- (2) For test purposes the components comprising the wheelchair tie-down and occupant restraint devices may be replaced with components suitable for test purposes having a similar function.

#### **Forces applied to a wheelchair tie-down system**

- 5. The force applied to the surrogate wheelchair:
  - (a) in the forward direction to be 24.50 kN;
  - (b) in the rearward direction to be 12.25 kN.

#### **Forces applied to an occupant restraint system**

6. The forces must be those specified in paragraph 5.4 of Annex I to [Directive 76/115/EEC](#) as last amended by [Directive 96/38/EC](#).

#### **Anchorage system performance**

- 7. The anchorages will meet the test performance requirements if—
  - (a) no part of the system has failed, or become detached during the test;
  - (b) no part of the anchorage system has deformed to such an extent that sharp edges or protrusion may cause injury.

### *SECTION 2*

Instead of complying with Section 1 an alternative wheelchair tie-down system, docking system or occupant restraint system may be fitted. This may include a rearward facing wheelchair arrangement with appropriate safety features. Evidence must be provided to the approval authority that the system offers an equivalent level of occupant protection for the wheelchair user.

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(1) OJ No. L 187, 26.7.1996, p. 95.