

## **Criteria for the classification of vehicles in category N** (Extract from Annex II of 2007/46/EC)

### **General Requirements**

The categorisation of a vehicle type in category N shall be based on the technical features of the vehicle as referred to in points 3.2 to 3.6 below.

3.2. As a matter of principle, the compartment(s) where all the seating positions are located shall be completely separated from the loading area.

3.3. By way of derogation from the requirements of point 3.2, persons and goods may be transported in the same compartment under the condition that the loading area is provided with securing devices designed to protect persons transported against the displacement of the load during driving, including severe braking and cornering.

3.4. Securing devices - lashing devices - intended for securing the load as required in point 3.3 as well as partitioning systems, intended for vehicles up to 7,5 tonnes shall be designed in accordance with the provisions of Sections 3 and 4 of Standard ISO 27956:2009 'Road vehicles – Securing of cargo in delivery vans – Requirements and test methods'. **(See extract from standard below)**

3.4.1. The requirements referred to in point 3.4 may be verified by a statement of compliance provided by the manufacturer.

3.4.2. As an alternative to the requirements of point 3.4, the manufacturer may demonstrate to the satisfaction of NSAI that the securing devices fitted show an equivalent level of protection as provided in the referred standard.

3.5. The number of seating positions excluding the driver's seating position shall not exceed:

- (a) 6 in the case of N 1 vehicles;
- (b) 8 in the case of N 2 or N 3 vehicles.

## Extract from Standard ISO 27956:2009

### 3.3.4 Number and alignment of lashing point pairs

**3.3.4.1 Lashing points shall be located on the floor and/or side walls, as closely as possible to the floor, but not more than 150 mm above the floor of the loading area.** The lashing points should be arranged in pairs, located opposite each other and distributed as evenly as possible alongside the loading area.

**3.3.4.3 The lashing point pairs shall be aligned as follows (see Figure 6):**

- the recommended longitudinal spacing,  $LS$ , between two lashing point pairs is  **$LS \leq 700$  mm; however, in any case,  $LS \leq 1\ 200$  mm;**
- the longitudinal distance from the front and rear boundary of the usable loading space shall be not more than **250 mm;**
- the lateral distance from the side boundary of the usable loading space shall not be more than **150mm**

**3.3.4.4 For vehicles having a loading area up to 1 300 mm in length, at least two pairs of lashing points shall be provided** (two lashing points at each side).

The minimum number,  $N$ , of pairs of lashing points shall be based on the length,  $L$ , in millimetres, of the loading space (measured on the floor at  $y = 0$ ) and shall be calculated by taking into account the distances of 250 mm (see 3.3.4.3) and 800 mm spacing, as shown in Equation (1):

$$N = \frac{L - (2 \times 250)}{800} + 1$$

Example:

A delivery van having a length of loading space of 2550mm

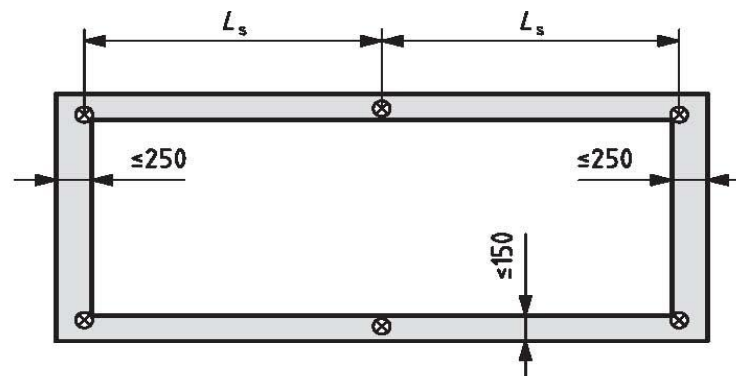
$$N = \frac{2550 - (2 \times 250)}{800} + 1$$

$$N = 2.56 + 1$$

$$N = 3.56$$

$$N = 4 \text{ pairs}$$

**Figure 6 Alignment of lashing point pairs**



Key

### **Mass Requirements (minimum payload requirements)**

3.6. Vehicles shall show a goods-carrying capacity equal or higher than the person-carrying capacity expressed in kg.

3.6.1. For such purposes, the following equations shall be satisfied in all configurations, in particular when all seating positions are occupied:

(a) when  $N = 0$ :

$$P - M \geq 100 \text{ kg}$$

(b) when  $0 < N \leq 2$ :

$$P - (M + N \times 68) \geq 150 \text{ kg};$$

(c) when  $N > 2$ :

$$P - (M + N \times 68) \geq N \times 68;$$

where the letters have the following meaning:

‘P’ is the technically permissible maximum laden mass;

‘M’ is the mass in running order;

‘N’ is the number of seating positions excluding the driver’s seating

#### **Example 1**

2 seater van (driver + one passenger in front row) with a mass in running order of 1500kg and a maximum laden mass of 3500kg

Using the formula (b) above based on  $N = 1$

$$P - (M + N \times 68) \geq 150 \text{ kg}$$

Where:

$$P=3500$$

$$M=1500$$

$$N=1$$

$$3500 - (1500 + 1 \times 68) \geq 150 \text{ kg}$$

$$3500 - (1432)$$

$$2068 \geq 150 \text{ kg} \text{ meets requirement of 3.6 above}$$

#### **Example 2**

5 seater crew cab van (driver + 4 passengers, 1 in front row, 3 in second row) with a mass in running order of 2000kg and a maximum laden mass of 3500kg

Using the formula (c) above based on  $N = 4$

$$P - (M + N \times 68) \geq N \times 68$$

Where:

$$P=3500$$

$$M=2000$$

$$N=4$$

$$3500 - (2000 + 68 \times 4) \geq N \times 68 = 3500 - (2272) \geq 272 = 1228 \geq 272$$

$$\text{meets requirement of 3.6 above}$$

## **Criteria for the categorisation of vehicles as N1.**

A vehicle shall be categorised as N 1 when all the applicable criteria are met.  
When one or more of the criteria are not met, the vehicle shall be categorised as M1.

3.8.2. In addition to the general criteria referred to in points 3.2 to 3.6 above, the criteria specified in points 3.8.2.1 to 3.8.2.3.5 shall be met for the categorisation of vehicles for which the compartment where the driver is located and the load are within a single unit (i.e. bodywork 'BB').

3.8.2.1. The fact that a wall or a partition, complete or partial, is fitted between a seat row and the cargo area shall not rule out the obligation to meet the required criteria.

### **3.8.2.2. The criteria shall be as follows:**

(a) the loading of the goods shall be possible by a rear door, a tailgate or a side-door designed and constructed for that purposes;

(b) in the case of a rear door or a tailgate, the loading aperture shall meet the following requirements:

- (i) In the case the vehicle is fitted with only **one row of seats** or with only the driver seat, the minimum height of **the loading aperture shall be at least 600 mm**;
- (ii) In the case the vehicle is fitted with **two or more rows of seats**, the minimum height of **the loading aperture shall be at least 800 mm** and the aperture shall show a **surface of at least 12 800 cm<sup>2</sup>** ;

(c) The cargo area shall meet the following requirements:

'*cargo area*' means the part of the vehicle located behind the row(s) of seats or behind the driver seat when the vehicle is fitted with only one driver seat;

- (i) the loading surface of the cargo area shall be generally flat;
- (ii) where the vehicle is fitted with **only one row of seats** or with one seat, the minimum **length of the cargo area shall be at least 40 % of the wheelbase**;
- (iii) where the vehicle is fitted with **two or more rows of seats**, the minimum length of the **cargo area shall be at least 30 % of the wheelbase**. Where the seats of the last row of seats can be easily removed from the vehicle without the use of special tools, the requirements regarding the length of the cargo area shall be met with all the seats installed in the vehicle;
- (iv) the requirements regarding the length of the cargo area shall be met when the seats of the first row or of the last row, as the case may be, are upright in their normal position for use by the vehicle occupants.

## **Definitions**

- (a) '*Height of the loading aperture*', means the vertical distance between two horizontal planes tangent respectively to the highest point of the lower part of the doorway and the lowest point of the upper part of the doorway;
- (b) '*surface of the loading aperture*' means the greatest surface of the orthogonal projection on a vertical plane, perpendicular to the centreline of the vehicle, of the maximum aperture permitted when the rear door(s) or tailgate is (are) wide open;
- (c) '*wheelbase*', for the purposes of application of the formulae in points 3.8.2.2 and 3.8.3.1, means the distance between:
- (i) the centreline of the front axle and the centreline of the second axle in the case of a two axle vehicle; or
  - (iii) the centreline of the front axle and the centreline of a virtual axle equally distant from the second and third axle in the case of a three axle vehicle.

### 3.8.2.3.5. Measurement of the length of the cargo area

- (a) When the vehicle is not fitted with a partition or a wall, the length shall be measured from a vertical plane tangent to the rear outermost point of the top of the seat back to the rear internal pane or door or tailgate, in closed position;
- (b) when the vehicle is fitted with a partition or a wall, the length shall be measured from a vertical plane tangent to the rear outermost point of the partition or the wall to the rear internal pane or door or tailgate, as the case may be, in closed position;
- (c) the requirements concerning the length shall be fulfilled at least along an horizontal line situated in the longitudinal vertical plane passing through the centreline of the vehicle, at the level of the load floor.