INTERNATIONAL STANDARD

ISO 3832

Second edition
1991-09-15

Corrected and reprinted
1991-12-01

Passenger cars — Luggage compartments — Method of measuring reference volume

Voitures particulières — Coffres à bagages — Méthode de mesure du volume de référence

Reference number
ISO 3832:1991(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 3832 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Sub-Committee SC 6, *Terms and definitions of dimensions and masses*.

This second edition cancels and replaces the first edition (ISO 3832:1976), of which it constitutes a minor revision.

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Printed in Switzerland

Passenger cars — Luggage compartments — Method of measuring reference volume

1 Scope

This International Standard specifies a method of measuring the reference volume of the luggage compartments of passenger cars.

2 Definitions

For the purposes of this International Standard, the following definitions apply.

2.1 unit module: Rectangular parallelepiped, with rounded edges of maximum radius 10 mm and of the dimensions and volume specified in table 1.

Table 1 — Unit modules

Unit module	Length mm	Width mm	Height mm	Volume dm^3
Type A	400 ± 1	200 ± 1	100 ± 1	8
Type B	200 ± 1	100 ± 1	50 ± 1	1

2.2 reference volume of luggage compartment: Sum total of the volumes of unit modules (2.1) which can be placed in a luggage compartment, according to the procedure specified in clause 3.

The reference volume, expressed in cubic decimetres, may be used for comparison of different passenger cars (see clause 5).

3 Procedure

3.1 Measurement of volume of closed luggage compartment without direct connection with passenger compartment

NOTE 1 For vehicles with tailgates (hatchbacks), the parcel-shelf in its normal position defines the upper limit of the compartment, and the volume may be measured according to the following method.

3.1.1 The luggage compartment shall contain all fittings installed in production by the car manufacturer (spare wheel, jack, etc.). Other fittings, either not installed or only optional such as first-aid kit, fire extinguisher, etc. shall not be considered.

3.1.2 Fill the luggage compartment with the number of unit modules (2.1) representing the largest capacity using type A or B, as appropriate. Piling up of unit modules shall not impede closing of the compartment.

3.1.3 Calculate the reference volume, in cubic decimetres, of the luggage compartment by adding the total volumes of the unit modules placed in the luggage compartment in accordance with 3.1.2.

3.2 Measurement of volume of luggage compartment open to passenger compartment

3.2.1 The luggage compartment shall contain all fittings installed in production by the car manufacturer (spare wheel, jack, etc.). Other fittings, either not installed or only optional such as first-aid kit, fire extinguisher, etc., shall not be considered.

3.2.2 Where special features, such as folding or removable rear seat or backrest have been provided by the manufacturer to obtain maximum loading volume, three separate measurements shall be made with:

a) the rear seats and backrest in the normal position for seated passengers;

b) the rear seats and/or backrest folded or removed.

In both cases, the loading limits shall be as follows.

1) front loading limit: the rear side of the backs of the seats situated immediately in front of

the luggage compartment set at normal driving or riding position as defined by the manufacturer and/or the folded rear seats.

2) upper loading limit: a plane parallel to the main load floor through the upper extremity of the backrest of the seats situated immediately in front of the luggage compartment, head-restraints not included. The height of seat backs with integral head-restraints is calculated according to the manufacturer's specifications;

c) the rear seats and/or backrest folded or removed with the front loading limit above the backrest being a vertical plane tangential to the rear side of the front seat backrest and the load height limited by the roof headlining.

3.2.3 Fill the luggage compartment as indicated in 3.1.2.

3.2.4 Calculate the three different reference volumes, in cubic decimetres, of the luggage compartment by adding the total volumes of the unit modules placed in the luggage compartment in each case in accordance with 3.2.3.

4 Reference volume codes

Each reference volume of the luggage compartment considered in this International Standard shall be assigned a code in accordance with table 2.

Table 2 — Reference volume codes

Luggage compartment	Upper loading limit	Position of rear seat and/or backrest	Volume code
Closed without direct connection with passenger compartment	—	—	V210
Open to passenger compartment	Plane parallel to the main load floor through the upper extremity of the backrest	Normal	V211
		Folded or removed	V212
	Roof headlining	Folded or removed	V214

5 Designation

To facilitate comparison between passenger cars, the reference volume of a luggage compartment measured in accordance with this International Standard shall be designated by the following elements, in the order given:

a) denomination: luggage compartment volume;

b) reference to this International Standard;

c) reference volume code (see table 2);

d) numerical value of the volume (see 3.1.3 or 3.2.4).

Example

A reference volume of 216 dm^3 of a luggage compartment open to the passenger compartment with the upper loading limit being a parallel plane to the main load floor through the upper extremity of the backrest and with the rear seats in their normal position shall be designated as follows:

Luggage compartment volume ISO 3832-V211-216

When the reference volume of a luggage compartment measured in accordance with this International Standard is given alone, for example in an individual specification, this volume shall be expressed in cubic decimetres followed by the note "in accordance with ISO 3832".

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