



# SLOVENSKI STANDARD

## SIST EN 1646-2:2000

01-december-2000

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### Leisure accommodation vehicles - Motor caravans - Part 2: User payload

Leisure accommodation vehicles - Motor caravans - Part 2: User payload

Bewohnbare Freizeitfahrzeuge - Motorcaravans - Teil 2: Zuladung

**iTeh STANDARD PREVIEW**

Véhicules habitables de loisirs - Autocaravanes - Partie 2: Charges utiles

Ta slovenski standard je istoveten z: **EN 1646-2:1998**

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#### **ICS:**

43.100	Osebni avtomobili. Bivalne prikolice in lahke prikolice	Passenger cars. Caravans and light trailers
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EUROPEAN STANDARD

EN 1646-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 1998

ICS 43.100

Descriptors: motor caravans, specifications, computation, useful loads, minimum value

English version

**Leisure accommodation vehicles - Motor caravans - Part 2: User payload**Véhicules habitables de loisirs - Autocaravanes - Partie 2:  
Charges utilesBewohnbare Freizeitfahrzeuge - Motorcaravans - Teil 2:  
Zuladung

This European Standard was approved by CEN on 1 July 1998.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 245 "Leisure accommodation vehicles", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 1999, and conflicting national standards shall be withdrawn at the latest by January 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This European standard is one of a series covering the habitation and design aspects of leisure accommodation vehicles.

The method of calculation of minimum user payloads to be allowed for when designing caravans is specified in EN 1645-2.

## 1 Scope

This European standard specifies the method of calculation of minimum user payloads to be allowed for when designing motor caravans.

It also sets out the information relating to user payload to be included in the user's handbook.

It applies to motor caravans as defined in EN 27418.



## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 27418 Leisure accommodation vehicles - Vocabulary (ISO 7418:1989)

## 3 Definitions

For the purposes of this standard the definitions given in EN 27418 and in Directive 95/48/EEC relating to the masses and dimensions of motor vehicles of category M<sub>1</sub> apply, together with the following:

**3.1 maximum technically permissible laden mass:** As stated by the vehicle manufacturer. This mass takes into account specific operating conditions including factors such as the strength of materials, loading capacity of the tyres etc.

**3.2 mass of the vehicle with bodywork in running order:** Mass of the vehicle with bodywork in running order, or mass of the chassis with cab if the manufacturer does not fit the bodywork (including coolant, oils, fuel, tools, spare wheel and driver).

**3.3 mass of the conventional load (allowance for passengers):** Mass allowance of 75 kg multiplied by the number of passenger seating positions (including folding (tip-up) seats) designated by the manufacturer (excluding driver).

**3.4 user payload:** The difference between the maximum technically permissible laden mass (see 3.1) and the mass with bodywork in running order (see 3.2). Payload includes the conventional load, essential habitation equipment, personal effects and optional equipment.

**3.5 essential habitation equipment :** Those items and fluids required for the safe and proper functioning of the equipment for habitation as defined by the manufacturer of the motor caravan.

**3.6 personal effects:** Those items which a user can choose to carry in a motor caravan and which are not included as essential habitation equipment or optional equipment.

**3.7 optional equipment:** Items made available by the manufacturer over and above the standard specification for the motor caravan.

## 4 Calculation of user payload

### 4.1 General

The mass of any item shall not be included more than once.

### 4.2 Conventional load

The mass of the conventional load (allowance for passengers) is the mass allowance that a manufacturer shall make to allow for the carriage of passengers (excluding the driver). This mass is calculated by multiplying the number of passenger seating positions (including folding (tip-up) seats), designated by the manufacturer, by 75 kg.

### 4.3 Essential habitation equipment

The essential habitation equipment shall include the following items, as appropriate, in the state given:

a) Liquefied Petroleum Gas (LPG) system

The mass of the recommended cylinder(s) or tank(s) when filled to 90 % of their permissible maximum capacity;

b) Fluids

The mass of the liquids normally remaining in systems:

- 1) water heater system - full;
- 2) central heating system - full;
- 3) fresh water tank(s) - 90% full;
- 4) waste water tank - empty;
- 5) toilet system flushing tank - full;
- 6) toilet system holding tank - empty;
- 7) essential fluids for the use of any other items of standard equipment - full.

c) Electrical supply

- 1) an allowance of 4 kg for the low voltage (LV) connection cable;
- 2) the mass of a recommended auxiliary battery, but only when provision has been included.

### 4.4 Personal effects

Personal effects are typically items common to all occupants such as food, cutlery, pots, pans, first aid box, maps, portable chemical toilet, levelling blocks, TV and radio, fire blanket or fire extinguisher and items personal to each occupant such as clothing, footwear, bedding, books,



cameras, toys and toiletries. Bicycles, boats, sail boards, sports equipment etc. are also included whether carried on racks or otherwise.

The minimum mass allowance  $M$ , in kilograms for personal effects for a motor caravan shall be calculated from the following formula:

$$M = 10n + 10l$$

where:

$l$  is the overall length of the motor caravan in metres or, in the case of a de-mountable unit, the overall length of the habitation capsule;

$n$  is the maximum number of passengers, including the driver, as stated by the manufacturer.

#### 4.5 Optional equipment

The manufacturer shall specify the mass of each item of optional equipment offered including the mass of any fluids required for its safe and proper functioning.

NOTE: Typical table of available options:

Optional item	Mass in kg
Air Conditioning	40
Bicycle rack	8
Awning	38

#### 5 User's handbook

The manufacturer shall state in the user's handbook the following information including the definitions where appropriate:

- the maximum technically permissible laden mass, in kilograms;
- the mass in running order (mass of the vehicle with the bodywork in running order), in kilograms;
- the mass of the maximum user payload ( a minus b ), in kilograms;
- the mass of the essential habitation equipment for the motor caravan, in kilograms.

The manufacturer shall indicate clearly that the payload includes:

- the conventional load (allowance for passengers);
- essential habitation equipment (see 5 d)),
- optional equipment;
- personal effects.

The manufacturer shall give information and general principles relative to the correct distribution of the various loads.

The manufacturer shall also include the following notes in the user's handbook:

NOTE 1: PLEASE TAKE CARE TO ENSURE THAT YOU HAVE ALLOWED FOR THE MASSES OF ALL ITEMS YOU INTEND TO CARRY IN THE MOTOR CARAVAN. e.g. passengers, optional equipment, essential habitation equipment and personal effects such as clothing, food, pets, bicycles, sailboards, sports equipment etc.

NOTE 2: **WARNING** - UNDER NO CIRCUMSTANCES SHOULD THE MAXIMUM TECHNICALLY PERMISSIBLE LADEN MASS OF THIS MOTOR CARAVAN BE EXCEEDED.

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