



SLOVENSKI STANDARD
oSIST prEN ISO 11243:2014
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Kolesa - Prtljažniki za kolesa - Zahteve in preskusne metode (ISO/DIS 11243:2014)

Cycles - Luggage carriers for bicycles - Requirements and test methods (ISO/DIS 11243:2014)

Fahrräder - Gepäckträger für Fahrräder - Anforderungen und Prüfverfahren (ISO/DIS 11243:2014)

Cycles - Porte-bagages pour bicyclettes - Exigences et méthodes d'essai (ISO/DIS 11243:2014)

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Cycles — Luggage carriers for bicycles — Requirements and test methods

Cycles — Porte-bagages pour bicyclettes — Exigences et méthodes d'essai

ICS: 43.150

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ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

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ISO/DIS 11243:2014(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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11243 was prepared by Technical Committee ISO/TC 149, *Cycles*, Subcommittee SC 1, *Cycles and major sub-assemblies*.

This second edition cancels and replaces the first edition (ISO 11243:1994), of which has been technically revised.

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Introduction

This International Standard has been developed in response to demand throughout the world, and the aim has been to ensure that luggage carrier manufactured in compliance with it will be as safe as is practically possible. The tests have been designed to ensure the strength and durability of the luggage carrier, demanding high quality throughout and consideration of safety aspects from the design stage onwards.

The scope has been limited to safety considerations, and has specifically avoided standardization of components.

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Cycles — Luggage carriers for bicycles — Requirements and test methods

1 Scope

This International Standard specifies safety and performance requirements for the design and testing of luggage carriers intended for mounting (with or without tool) above and adjacent to the wheels of cycles and lays down guide lines for instructions on the use and care of such luggage carriers.

This document does not apply to removable luggage (for example handlebar bags or baskets that are not permanently attached).

Toy carrier intended to be mounted on bicycles for young children in the scope of ISO 8098 are not covered by this standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14344, *Child use and care articles – Child seats for cycles – Safety requirements and test methods*

ISO 8098, *Cycles — Safety requirements for bicycles for young children*

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3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

cycle

vehicle that has at least two wheels and is propelled solely or mainly by the muscular energy of the person on that vehicle, in particular by means of pedals

3.2

luggage carrier

device, including containers such as baskets, that is mounted and permanently attached above and/or adjacent to the rear wheel(s) (in the case of a rear luggage carrier) or front wheel(s) (in the case of a front luggage carrier) of a cycle and that is exclusively designed for carrying luggage or children in child-seats

3.3

luggage carrier platform

the flat part of the luggage carrier upon which loads may be placed or fixed, or the flat top rail from which panniers may be hung or the bottom part of a container (for example a basket)

3.4

luggage carrier platform length, *L*

maximum overall length of the luggage carrier platform (flat part)

3.5

visible crack

crack which results from a test where that crack is visible to the naked eye

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3.6

fracture

unintentional separation into two or more parts

3.7

toy carrier

carrier with a part intended for containing a toy of a maximum weight of 1 kg

4 Classification

The manufacturer shall classify the carrier with the maximum load capacity for which it is intended, taking into consideration any restrictions laid down in [Table 1](#).

If the carrier is intended to carry a child seat, designed to clamp onto the platform of a normal rear luggage carrier, classified for 9-22 kg (see EN 14344), the maximum load capacity of the luggage carrier shall be at least 27 kg.

In [Table 1](#), the maximum limit (if any) for the load capacity is indicated for each type of luggage carrier that falls within the scope of this standard. The applicable requirements and test methods differ according to the type and maximum load capacity.

The following terminology is used in the table:

- normal rear carrier: rear carrier supported by fixings to the bicycle frame close to the rear wheel axle.
- frame-mounted beam carrier: rear carrier that is structurally a cantilever, fixed to the bicycle frame in front and/or above the rear wheel. It may also be fixed to the seat post, in addition to the frame, but receives no support from the bicycle frame near to the axle of the rear wheel.
- seat post-mounted beam carrier: rear carrier that is structurally a cantilever, fixed to the seat post of the bicycle without additional fixings to the frame.
- above wheel front carrier: front carrier with a platform upon which loads can be placed above the front wheel.
- low-load front carrier: front carrier that is exclusively designed for carrying a pair of panniers, where the “platform” is a pair of rails (from which the panniers hang) one each side of the wheel and not more than 200 mm above the lower points of attachment of the carrier near to the axle of the front wheel.
- front-mounted container: container such as a basket that is mounted and permanently attached above the front wheel of a bicycle and that is exclusively designed for carrying luggage.

Table 1 — Maximum load capacity for the types of luggage carrier

Type of luggage carrier	Rear luggage carriers			Front luggage carriers		Front-mounted container
	Normal	Beam		Above wheel	Low-load	
		Seat post-mounted	Frame-mounted			
Maximum load capacity, Kg	–	10	27	10	18	10

For transporting heavier load, the maximum load specified in [Table 1](#) can be exceeded providing that the bicycle sustain such load.

5 Requirements and test methods

5.1 General

In general, for static and fatigue tests, each type of test shall be conducted on a new test sample, but if only one test sample is available, it is permissible to conduct all of the tests on the same sample with the sequence of testing in the order: fatigue tests, static tests.

In the strength tests all components shall be in the fully-finished condition.

The test frequency shall be stated in all fatigue test reports.

The luggage carrier shall be tested using the connecting interface position(s) and type(s) according to the luggage carrier manufacturer's specifications.

The luggage carrier shall be tested with all accessories provided (e.g. lock, pumps ...).

For luggage carrier intended to be fitted on an EPAC and designed to include a battery, the test shall be performed with the battery in addition to the mass defined in [Clause 4](#).

5.2 Tolerances

Unless otherwise stated the following tolerances shall be used:

All forces shall have an accuracy of 0/+ 5 %.

All masses shall have an accuracy of ± 1 %.

All dimensions shall have an accuracy of ± 1 mm.

All time measurements shall have an accuracy of ± 1 s.

All angles shall have an accuracy of $\pm 1^\circ$.

All frequencies and amplitudes shall have an accuracy of ± 5 %.

5.3 Sharp edges

Exposed edges that could come into contact with the rider's or a transported person's hands, legs, etc., during normal riding or normal handling and normal maintenance shall be neither sharp nor designed such that injuries can arise when the bicycle is used correctly. Spring ends shall be rounded or fitted with protective caps.

5.4 Security of safety-related fasteners

5.4.1 Security of screws

Any screws used in the assembly of the luggage carrier or screws used to attach the luggage carrier shall be provided with suitable locking devices, for example, lock-washers, lock-nuts, or stiff nuts.

5.4.2 Minimum failure torque

The minimum failure torque of screws for the fastening of the luggage carrier to the cycle shall be at least 50 % greater than the manufacturer's recommended tightening torque.

NOTE For example, mechanical and physical properties of bolts are specified in ISO 898-1.^[1]