
Cycles — Handlebar centre and stem dimensions

Cycles — Dimensions du centre du guidon et de la potence

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 149, *Cycles*.

This second edition cancels and replaces the first edition (ISO 6699:1990), which has been technically revised with the following changes:

- a) [Table 1](#), with common stem clamp diameters and relating tolerances, has been added;
- b) [Figure 1](#) has been simplified;
- c) [Figure 2](#) has been updated.

Cycles — Handlebar centre and stem dimensions

1 Scope

This International Standard specifies the dimensions and tolerances to ensure secure assembly between the stem and the handlebar centre of a bicycle.

This International Standard is applicable for bicycles intended for use on public roads, and on which the saddle can be adjusted to provide a saddle height of 635 mm or more.

This International Standard is not applicable for specialized types of bicycle, such as tradesmen's delivery bicycles, tandems, toy bicycles and bicycles designed and equipped for use in sanctioned competitive events.

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.

ISO 4210-2:2015, *Cycles — Safety requirements for bicycles — Part 2: Requirements for city and trekking, young adult, mountain and racing bicycles*

3 Dimensions

3.1 External diameter of the handlebar

The external diameter of the handlebar, D , at the stem interface shall be according to [Table 1](#) (see [Figure 1](#)).



Figure 1 — External diameter of the handlebar

Table 1 — Dimensions and tolerances

Dimensions in millimetres

Handlebar clamp diameter D	Stem clamp diameter d
$22,2^{+0}_{-0,2}$	$22,2^{+0,25}_{-0}$
$25,4^{+0}_{-0,2}$ ^a	$25,4^{+0,25}_{-0}$ ^a
$26,0^{+0}_{-0,2}$	$26,0^{+0,25}_{-0}$
$31,8^{+0}_{-0,2}$	$31,8^{+0,25}_{-0}$
$35,0^{+0}_{-0,2}$	$35,0^{+0,25}_{-0}$

^a For handlebars which are produced by hydroforming, the dimensions and tolerances could be $(25,4^{+0,2}_{-0,1})$ mm for D and $(25,4^{+0,3}_{-0})$ mm for d , based on the characteristics of the manufacturing process.

3.2 Internal diameter of the stem clamp

The internal diameter of the stem clamp, d , shall be according to [Table 1](#) (see [Figure 2](#)).



Figure 2 — Internal diameter of the stem clamp

The internal diameter of the stem clamp can be measured with a tube of the corresponding external diameter.

3.3 Assembly conditions

The assembly of the stem and the handlebar bend, with the clamping bolt tightened with the torque recommended by the manufacturer, shall comply with the requirements of ISO 4210-2:2015, 4.7.