INTERNATIONAL STANDARD

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Cycles — Handlebar centre and stem dimensions

Cycles — Dimensions du centre du guidon et de la potence

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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Foreword

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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).

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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).

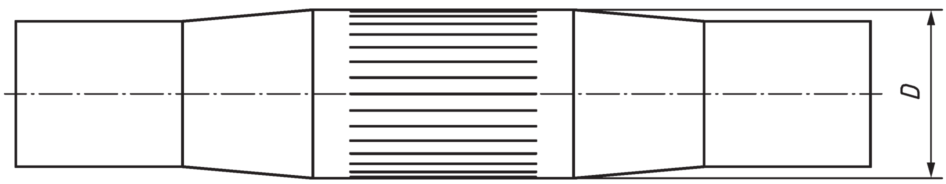

Figure 1 — External diameter of the handlebar

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 $\left(25{,}4^{+0{,}2}_{-0{,}1}\right)$ mm for D and $\left(25{,}4^{+0{,}3}_{-0}\right)$ 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.

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