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Commercial vehicles — Wheel-hub attachment dimensions

National foreword

This British Standard is the UK implementation of ISO 4107:2023. It supersedes BS ISO 4107:2010, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee AUE/15, Safety related to vehicles.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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**Commercial vehicles — Wheel-hub
attachment dimensions**

*Véhicules utilitaires — Caractéristiques dimensionnelles de la fixation
de la roue sur le moyeu*



Reference number
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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 document 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 of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 33, *Vehicle dynamics, chassis components and driving automation systems testing*.

This fifth edition cancels and replaces the fourth edition (ISO 4107:2010), which has been technically revised.

The main changes are as follows:

- Table 1: tolerances have been adjusted to state-of-the-art developments.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document was developed in response to requests to establish uniform wheel-hub interface dimensions used on vehicles with flat attachment-style wheel mountings. There are other dimensional and performance characteristics of the wheel system that are also evaluated to ensure proper usage on a vehicle.

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Commercial vehicles — Wheel-hub attachment dimensions

1 Scope

This document specifies the dimensions necessary for the attachment of a commercial road vehicle wheel on the hub of the vehicle whose fixing has six, eight or ten stud holes.

This document considers the flat attachment type with centring on central bore, which is the recommended type for future equipment. Other types are currently in use.

The specifications do not imply that the wheel is interchangeable from one vehicle to another.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

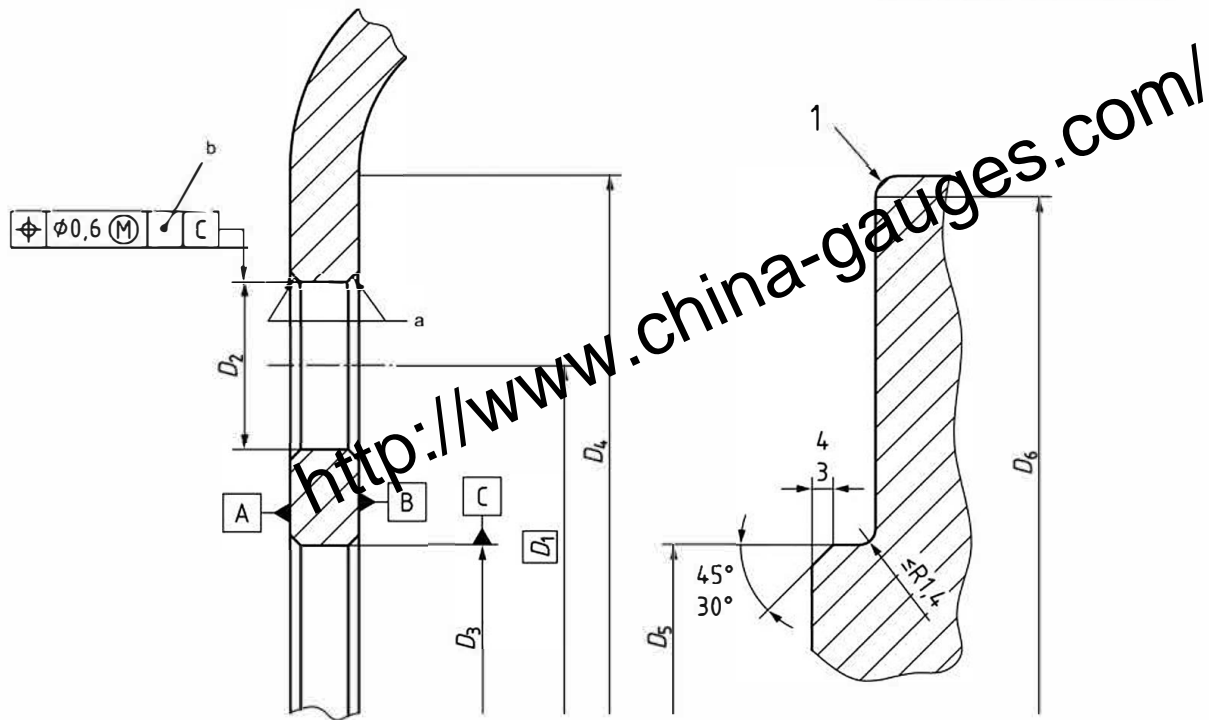
ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Flat attachment with centring on central bore

The dimensions of the wheel and hub shall be as specified in [Figure 1](#) and [Table 1](#).

Dimensions in millimetres



Key

1 sharp edge broken by radius or chamfer

NOTE The wheel support is shown on the right for information.

a Break sharp edge.

b A or B.

Figure 1 — Dimensions of wheel and hub

Table 1 — Dimensions

Dimensions in millimetres

Number of studs	Bolt circle diameter D_1	Bolt hole diameter ^a D_2 ($\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$)	Central bore diameter ^b D_3 ($\begin{smallmatrix} +0,2 \\ 0 \end{smallmatrix}$)		Disc flat diameter D_4 min.	Stud ^c	Wheel support ^c	
			Ferrous	Aluminium			D_5 ($\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$)	D_6 ($\begin{smallmatrix} 0 \\ -5 \end{smallmatrix}$)
			6	205 245			21 (26 for sleeve nuts)	161 202
8	222,25 275 ^d	24 (30 for sleeve nuts)	164 221	164,2 221,2	280 325	20	163,8 220,8	277 320
10	285,75 335	26 (32 for sleeve nuts)	220 281	220,2 281,2	345 390	22	219,8 280,8	340 385

^a The tolerance of +3/0 is applied for punched bolt holes on the inner side of the attachment.

^b Continuous centre bore chamfer $1,5^{+1}_0 \times 45^\circ$ at least on contact side or on both sides.

^c For information. Interrupted wheel support is not recommended.

^d Optional construction: $D_2 = 26$ mm with 22 mm stud.

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