

INTERNATIONAL STANDARD

ISO
5995-2

Second edition
1988-12-15



INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Moped tyres and rims —

**Part 2:
Rims**

iTeh STANDARD PREVIEW

Pneumatiques et jantes pour cyclomoteurs — Partie 2: Jantes (standards.itteh.ai)

ISO 5995-2:1988

<https://standards.itteh.ai/catalog/standards/sist/2196efbe-ec64-4760-abd5-9bacefc2d44d/iso-5995-2-1988>

Reference number
ISO 5995-2:1988 (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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 5995-2 was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*.

This second edition cancels and replaces the first edition (ISO 5995-2 : 1984) and incorporates draft addendum 1 of 1986.

ISO 5995 consists of the following parts, under the general title *Moped tyres and rims*:

Part 1: Tyres

Part 2: Rims

Annexes A and B of this part of ISO 5995 are for information only.

Moped tyres and rims —

Part 2: Rims

1 Scope

This part of ISO 5995 specifies the dimensions of tapered bead seat rims (straight side) for moped tyres. It applies to those rim contour dimensions necessary for tyre mounting and fitting of the tyre to the rim, terms for which are used in accordance with ISO 3911.

Annex A provides details on permitted rim width codes for tyres used on mopeds and small cubic capacity motorcycles designed for a maximum speed of 100 km/h. Annex B presents methods for measuring and gauging dimensions of tapered bead seat rims for mopeds.

NOTE — Tyre designation, dimensions and load ratings are given in ISO 5995-1.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 5995. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 5995 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3911 : 1977, *Wheels/rims — Nomenclature, designation, marking and units of measurement*.

ISO 4249-3 : 1986, *Motorcycle tyres and rims (Code-designated series) — Part 3: Rims*.

ISO 5995-1 : 1982, *Moped tyres and rims — Part 1: Tyres*.

ISO 6054-2 : 1986, *Motorcycle tyres and rims (diameter codes 4 to 12) — Scooter type — Part 2: Rims*.

3 General

3.1 Rim contour

The rim on the side of the tyre shall have a smooth contour free of sharp edges.

3.2 Rim valve hole

The rim valve hole shall be centred on the bottom of the rim well. On the tyre side, the edges shall be rounded or chamfered, while on the hub side, the edges shall be free of burrs which could damage the valve.

3.3 Definition of H_1 and L_1

H_1 represents the unobstructed depth above the rim base, with the rim tape fitted to permit fitting of the tyre.

L_1 represents the well width above the rim tape.

4 Designation and marking

The rim shall be designated by its nominal diameter code and nominal width (for example 18 × 30,5).

5 Rim contours

Dimensions and tolerances of tapered bead seat rims are given in table 1.

6 Rim diameters

Nominal rim diameter codes, specified rim diameters and measuring rim diameters are given in table 2.

7 Permitted rim widths

The permitted rim width codes for moped tyres are given in table 3.

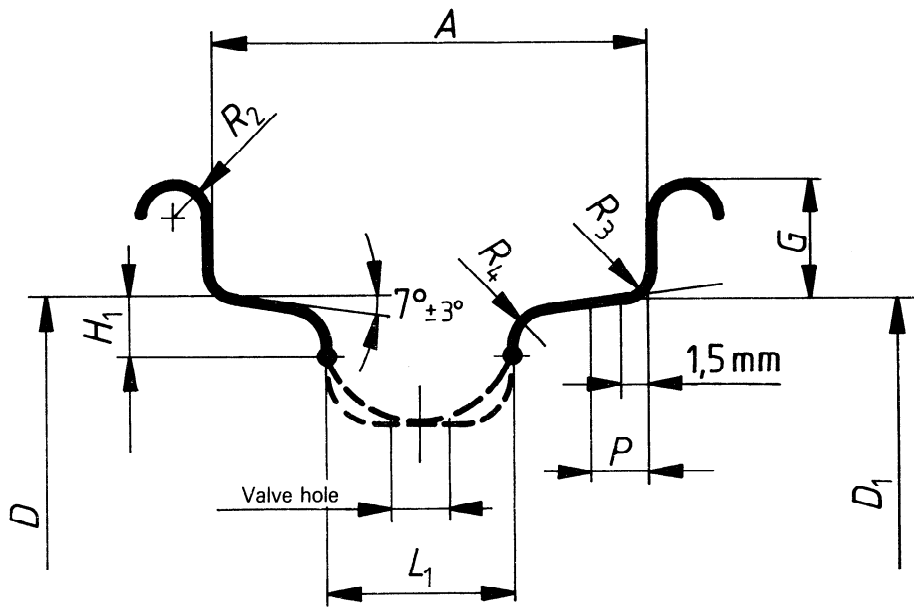


Figure 1 – Contour of tapered bead seat rims (straight side)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Table 1 – Dimensions of tapered bead seat rims (straight side)

ISO 5995-2:1988

Dimensions in millimetres

Nominal rim width code	A	G	P	H_1 (1)	L_1 (2)	R_2	R_3	R_4
	± 1	$+ 0,5$ $- 1$	min.	min.	min.	min.	max.	min.
27	27	7,5	3,5	3,5	14	2,5	1	2,5
30,5	30,5	8	3,5	3,5	14	2,5	1	2,5
34	34	10	4,5	4,5	16	4,5	1,5	3
38	38	10,5	5	5	16	7	1,5	3,5

1) For rim diameters less than or equal to 400 mm, increase the depth $H_{1, \text{min}}$ by 1 mm.

2) Dimension H_1 in conjunction with dimension L_1 defines the unobstructed space above the nipple heads, with the tape fitted to permit satisfactory fitting of the tyre. The actual well depth of the rim shall be determined at the rim manufacturer's discretion in order to achieve this objective.

Table 2 – Specified rim diameters and measuring rim diameters

Dimensions in millimetres

Nominal rim diameter code	Specified rim diameter D	Measuring rim diameter ¹⁾ D_1
14	357,47	357,1
15	382,87	382,5
16	405,97	405,6
17	433,67	433,3
18	459,07	458,7
19	484,47	484,1
21	535,27	534,9

1) Tolerance on the measured bead seat circumference ($\pi \times$ measuring rim diameter) of the rim is $\begin{matrix} + 2 \\ - 0,5 \end{matrix}$ mm.

Table 3 – Permitted rim width codes (moped tyres)

Nominal rim diameter code	Nominal section width S_N Code	Permitted rim width codes	
		Tapered bead seat rims	Cylindrical WM rims ¹⁾
≥ 12	1 3/4	27 – 30,5	1.20
	2	27 – 30,5 – 34	1.20 – 1.35
	2 1/4	27 – 30,5 – 34 – 38	1.20 – 1.35 – 1.50
	2 1/2	30,5 – 34 – 38	1.20 – 1.35 – 1.50 – 1.60
	2 3/4	34 – 38	1.35 – 1.50 – 1.60 – 1.85
	3	38	1.50 – 1.60 – 1.85
≤ 10	2 1/2	Divided rims ²⁾ 1.50 – 1.75	Drop-centre rims ²⁾ 1.50 ³⁾ – 1.85 ³⁾
	3	1.75 – 2.10	1.85 ³⁾ – 2.15 ³⁾ – 2.50 – 2.50C

1) See ISO 4249-3 for details.
 2) See ISO 6054-2 for details.
 3) MT contour.

Annex A
(informative)

Permitted rim width codes for tyres used on mopeds and small cubic capacity motorcycles designed for a maximum speed of 100 km/h

NOTE — ISO 5995-1 gives further information on moped tyres.

Table A.1 — Permitted rim width codes

Nominal section width S_N Code	Permitted rim width codes — Cylindrical rims
2	1.20 – 1.35
2 1/4	1.20 – 1.35 – 1.50 – 1.60
2 1/2	1.35 – 1.50 – 1.60 – 1.85
2 3/4	1.50 – 1.60 – 1.85
3	1.60 – 1.85 – 2.15
3 1/4	1.85 ¹⁾ – 2.15 ¹⁾

1) — MT rims also permitted.

ITeH STANDARD PREVIEW
(standards.iteh.ai)

ISO 5995-2:1988

<https://standards.iteh.ai/catalog/standards/sist/2196ef6e-ec64-4760-abd5-9bacefc2d44d/iso-5995-2-1988>

Annex B (informative)

Methods for measuring and gauging moped rim dimensions

B.1 Scope

This annex defines methods of measuring and gauging dimensions of tapered bead rims for mopeds.

Standardization of rim dimensions applies only to those contour dimensions necessary for tyre mounting and the fitment of the tyre to the rim.

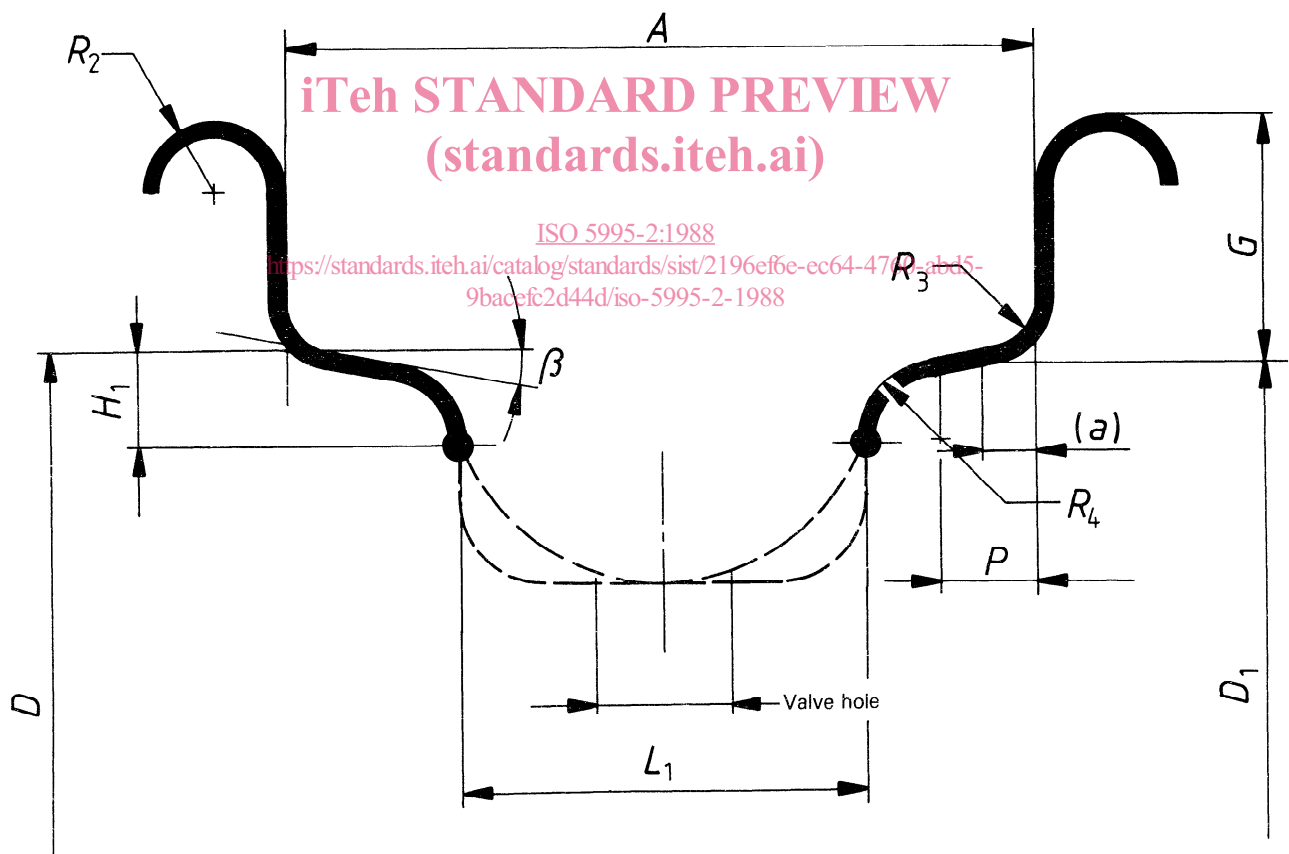
B.2 Rim dimension measurements

B.2.1 General

All measurements shall be made on rims ready for tyre mounting and placed on flat surfaces. For accurate measurements, gauge and tapes shall always be set perpendicular to the rim flanges on both bead seats.

B.2.2 Main rim dimensions to be measured and gauged

The main rim dimensions which shall be measured and gauged are indicated in figure B.1.



Key

- | | |
|--|--|
| <p>A Specified rim width</p> <p>(a) Circumference measuring point on the tyre bead seat = 1,5 mm</p> <p>D Specified rim diameter</p> <p>D_1 Measuring rim diameter</p> <p>G Flange height</p> <p>H_1 Unobstructed depth above rim base with rim tape fitted to permit tyre fitment</p> | <p>L_1 Well width above rim tape</p> <p>P Bead seat width</p> <p>R_2 Flange radius</p> <p>R_3 Bead seat radius</p> <p>R_4 Well radius top</p> <p>β Bead seat angle</p> |
|--|--|

Figure B.1 – Rim dimensions

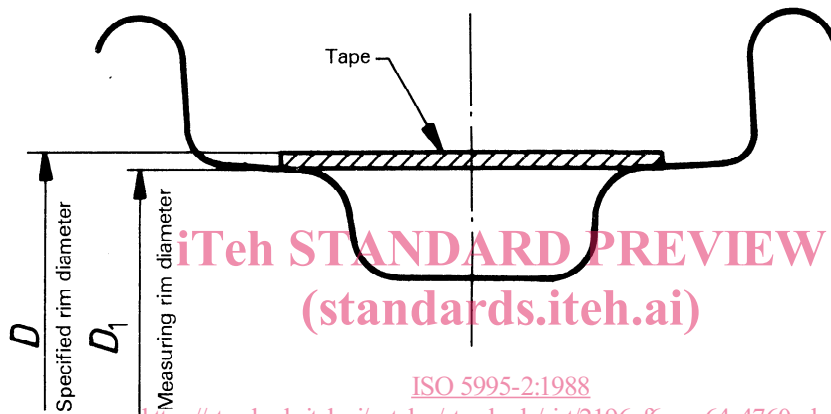
B.3 Methods of measuring specified diameter and bead seat circumference

B.3.1 First method

The rim measurement is made around a standard level circumference related to mandrel circumference. A tape as illustrated in figure B.3 is used, care being taken to choose the correct tape for the rim to be measured. The tape shall be marked with details of rim width code and nominal rim diameter. The reference temperature shall be 20 °C.

Check (gauge) the tape on the appropriate mandrel and surface plate, with the tape flat. The tape shall contact the rim on both bead seats equally. Tape widths shall be indicated in table B.1. The straight end of the tape shall contact the other end within the notch.

It is recommended that, except for experienced rim inspectors, two persons are needed to make the measurement — one holding the tape position and applying not more than 50 N pull on the ends, the other taking the readings.



ISO 5995-2:1988
<https://standards.iteh.ai/catalog/standards/sist/2196ef7e-ec64-4760-abd5-9bacefc2d44d/iso-5995-2-1988>
Figure B.2 — Rim measurement

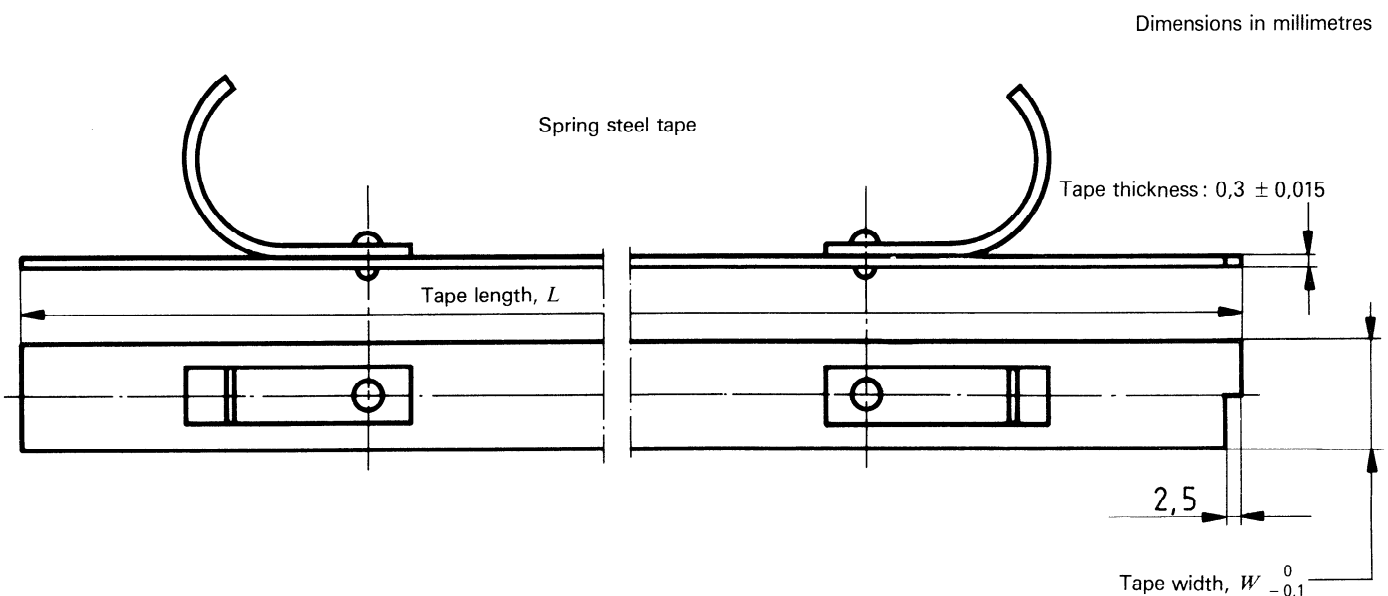


Figure B.3 — Tape details

Table B.1 — Tape widths for moped rims

Dimensions in millimetres

Rim width	Tape width
27	24
30,5	27,5
34	31
38	35

B.3.2 Second method

Measure the circumference of the upper part of both flanges by means of an inextensible steel tape-line (10 mm width, and 0,3 mm thickness with 0,5 mm graduations) taking care that it contacts the rim. Record the two measurements U_{0A} and U_{0B} .

Using an appropriate vernier gauge, as illustrated in figure B.5, measure the height of both flanges in at least four points equally spaced around the circumference, taking care that the cor-

rect protusion is used (1,5 mm for moped rims). Calculate the averages of the two flange heights G_A and G_B (see figure B.6).

Calculate the measured circumferences U_{1A} and U_{1B} by the following equations:

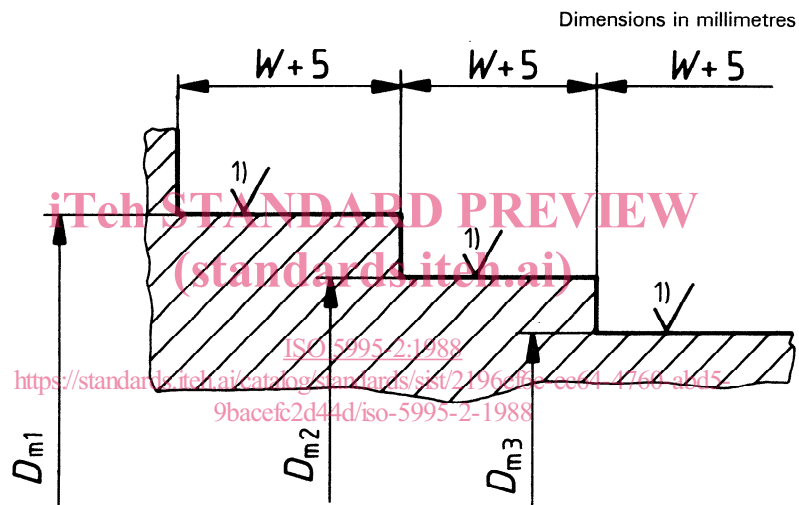
$$U_{1A} = U_{0A} - 2 \pi G_A$$

$$U_{1B} = U_{0B} - 2 \pi G_B$$

NOTE — When rims have a difference of more than 2 mm between the two outer circumferences U_{0A} and U_{0B} , the vernier gauge should be appropriately applied and a spacer with a thickness, t , catering for the difference in circumference

$$t = \frac{|U_{0A} - U_{0B}|}{2 \pi}$$

should be interposed between the top of the shorter flange and the vernier gauge (see figure B.7).



1) Surface roughness value at the discretion of the person checking.

NOTE — Tolerance on D_m measurement is $-0,05$

Figure B.4 — Tape mandrel

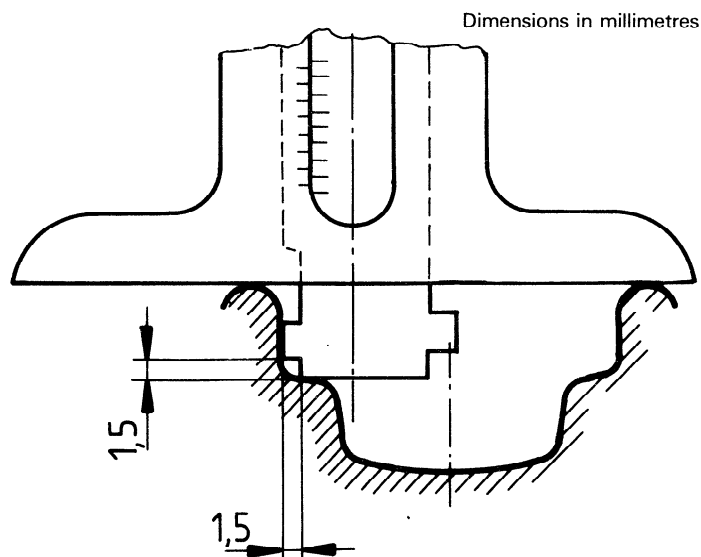


Figure B.5 — Vernier gauge (1/20 mm graduation)