

# INTERNATIONAL STANDARD

**ISO**  
**4209-2**

Second edition  
1993-11-01

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## Truck and bus tyres and rims (metric series) —

### Part 2:

#### Rims

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*Pneumatiques et jantes (séries millimétriques) pour camions et autobus —*

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*Partie 2: Jantes*

ISO 4209-2:1993

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Reference number  
ISO 4209-2:1993 (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 voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 4209-2 was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Sub-Committee SC 4, *Trucks and bus tyres and rims*.

This second edition cancels and replaces the first edition (ISO 4209-2:1987), for which rim dimension  $h_{\min}$  of  $22.5 \times 9.75$  in table 4 and rims between  $19.5 \times 10.50$  and  $22.5 \times 14.00$  in table 5 have been modified.

ISO 4209 consists of the following parts, under the general title *Truck and bus tyres and rims (metric series)*:

- Part 1: *Tyres*
- Part 2: *Rims*

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# Truck and bus tyres and rims (metric series) —

## Part 1: Rims

### 1 Scope

ISO 4209 establishes the designation, dimensions and load ratings of metric series of tyres and the designation and dimensions of rims primarily intended for trucks and buses.

Tyre designations, dimensions and load ratings are given in ISO 4209-1.

This part of ISO 4209 specifies the designations, contours and dimensions of drop-centre (one-piece) rims.

The rim dimensions are those rim contour dimensions necessary for mounting and fitment of the tyre to the rim.

### 2 Designation and marking

The rim shall be designated by its nominal rim diameter code and nominal rim width (for example 17.5 × 5.25), and rim flange when specified (for example: 15 × 6 J : 13 × 5.50 B).

### 3 5° tapered (drop-centre) rims

#### 3.1 Rim flange

Rim flange designations are given in table 1.

Table 1 — Rim flanges

Nominal rim diameter	Rim flange <sup>1)</sup>
13 and smaller	B
14	J
15	J
16	J

1) For special service conditions, higher rim flanges may be used.

#### 3.2 Rim contours

Dimensions and tolerances of the rims shall be as given in figure 1 and table 2.

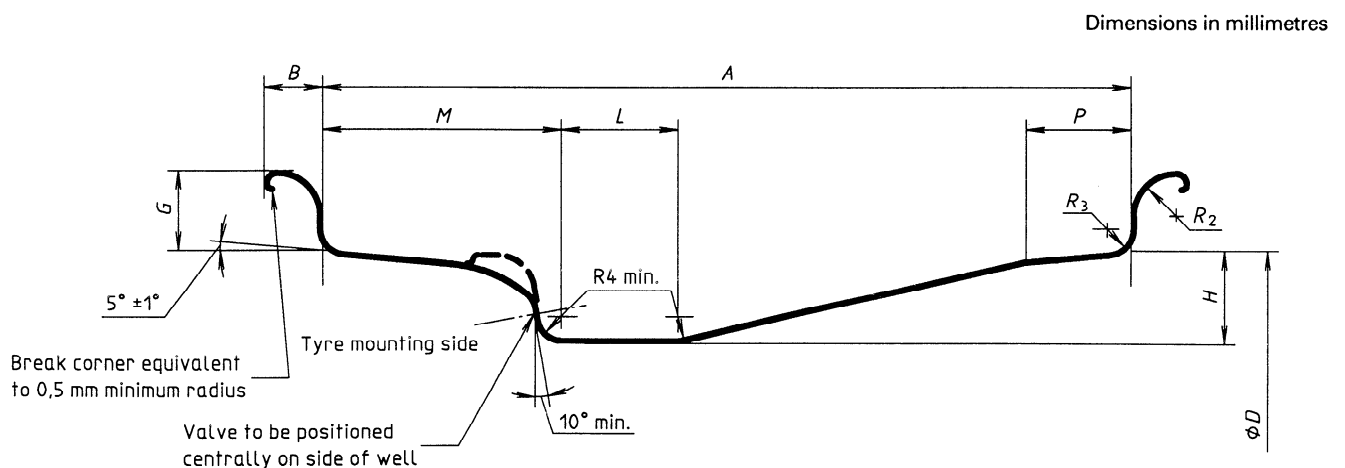


Figure 1 — Dimensions of 5° tapered (drop-centre) rim contours

Table 2 — Dimensions of 5° tapered (drop-centre) rim contours.

Dimensions in millimetres

Rim size designation	A ± 2	B min.	G	P min.	H min.	L min.	M max.	R <sub>2</sub> min.	R <sub>3</sub> max.
12 × 3.50 B	89	10	14 ± 0,8	15	16,5	19	34	7,5	4,5
13 × 3.50 B	101,5			19,8		22	45		
12 × 4.00 B									
13 × 4.00 B	114,5			19,8		22	45		
12 × 4.50 B									
13 × 4.50 B	127			19,8		22	45		
12 × 5.00 B									
13 × 5.00 B	140			19,8		22	45		
12 × 5.50 B									
13 × 5.50 B	152,5			19,8		22	45		
12 × 6.00 B									
13 × 6.00 B	89	10,9	17,8 ± 0,9	15,7	17,3	19	34	9	65
14 × 3 1/2 J									
15 × 3 1/2 J	101,5	10,9	17,8 ± 0,9	19,8	22	45			
14 × 4 J									
15 × 4 J	114,5	10,9	17,8 ± 0,9	19,8	22	45			
16 × 4 J									
14 × 4 1/2 J	127	10,9	17,8 ± 0,9	19,8	22	45			
15 × 4 1/2 J									
16 × 4 1/2 J	140	10,9	17,8 ± 0,9	19,8	22	45			
14 × 5 J									
15 × 5 J	152,5	10,9	17,8 ± 0,9	19,8	22	45			
16 × 5 J									
14 × 5 1/2 J	165	10,9	17,8 ± 0,9	19,8	22	45			
15 × 5 1/2 J									
16 × 5 1/2 J	178	10,9	17,8 ± 0,9	19,8	22	45			
14 × 6 J									
15 × 6 J	203	10,9	17,8 ± 0,9	19,8	22	45			
16 × 6 J									
14 × 6 1/2 J	228,5	10,9	17,8 ± 0,9	19,8	22	45			
15 × 6 1/2 J									
16 × 6 1/2 J	254	10,9	17,8 ± 0,9	19,8	22	45			
14 × 7 J									
15 × 7 J	152,5	11,4	19,9 ± 0,9	20	20	20	10,7		
16 × 7 J									
14 × 8 J	165	11,4	19,9 ± 0,9	20	20	20	10,7		
15 × 8 J									
16 × 8 J	178	11,4	19,9 ± 0,9	20	20	20	10,7		
14 × 9 J									
15 × 9 J	203	11,4	19,9 ± 0,9	20	20	20	10,7		
16 × 9 J									
14 × 10 J	228,5	11,4	19,9 ± 0,9	20	20	20	10,7		
15 × 10 J									
16 × 10 J	254	11,4	19,9 ± 0,9	20	20	20	10,7		
16 × 6 K									
16 × 6 1/2 K	165	11,4	19,9 ± 0,9	20	20	20	10,7		
16 × 7 K									
16 × 8 K	178	11,4	19,9 ± 0,9	20	20	20	10,7		
16 × 9 K									
16 × 10 K	203	11,4	19,9 ± 0,9	20	20	20	10,7		
16 × 10 K									

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**3.3 Rim diameters**

The nominal and specified rim diameters for 5° tapered (drop-centre) rim contours are given in table 3.

**4 15° tapered (drop-centre) rims**

**4.1 Rim contours**

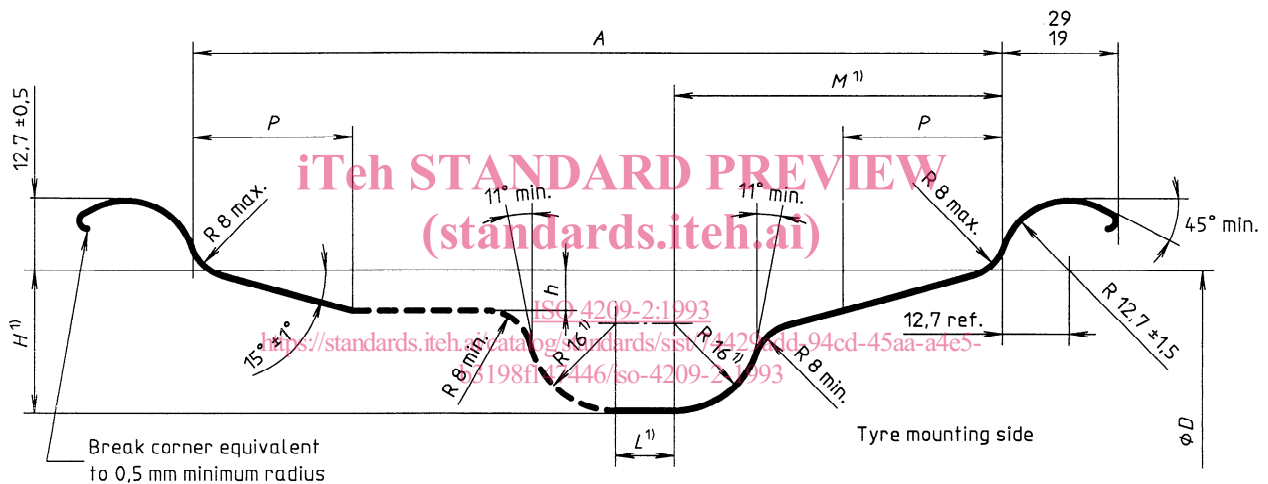
Dimensions and tolerances of rims shall be as given in figure 2 and tables 4 and 5.

**Table 3 — Nominal rim diameter and specified rim diameter**

Nominal rim diameter	Specified rim diameter <sup>1)</sup> D mm ± 0,4
12	304
13	329,4
14	354,8
15	380,2
16	405,6

1) Tolerance is for tyre design purposes only. Rim measurement is by circumference measuring tape related to mandrel.

Dimensions in millimetres



1) These dimensions comprise the minimum well envelope for tyre mounting purposes.

**Figure 2 — Dimensions of 15° tapered (drop-centre) rim contours**

**Table 4 — Dimensions of 15° tapered (drop-centre) rim contours  
for nominal rim width ≤ 9.75**

Dimensions in millimetres

Rim size designation	A ± 3,5	H <sup>1)</sup> min.	h min.	L <sup>1)</sup> min.	M <sup>1)</sup> max.	P min.
17.5 × 5.25	133,5	24	7	4	55	25
19.5 × 5.25		27		8	56	
22.5 × 5.25		30			57	
17.5 × 6.00	152,5	24	8,5	11	60	30 <sup>3)</sup>
19.5 × 6.00		27			62	
22.5 × 6.00		30			63	
17.5 × 6.75	171,5	24	9	14	62 <sup>2)</sup>	25
19.5 × 6.75		27			64	30 <sup>3)</sup>
22.5 × 6.75		30			66 <sup>2)</sup>	32
17.5 × 7.50	190,5	24	9,5	21	65 <sup>2)</sup>	25
19.5 × 7.50		27			67 <sup>2)</sup>	30
22.5 × 7.50		30			68 <sup>2)</sup>	34
24.5 × 7.50		30	10		70 <sup>2)</sup>	
17.5 × 8.25	209,5	24	9,5	14	55	26
19.5 × 8.25		27			67	30
22.5 × 8.25					10	70 <sup>2)</sup>
24.5 × 8.25					72 <sup>2)</sup>	
19.5 × 9.00	228,5	30	9,5	28	68	30
22.5 × 9.00					70 <sup>2)</sup>	36
24.5 × 9.00			10		72 <sup>2)</sup>	
22.5 × 9.75	247,5				70 <sup>2)</sup>	

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1) These dimensions comprise the minimum well envelope for tyre mounting purposes.  
 2) Larger dimensions may be used subject to confirmation by tyre mounting trials.  
 3) For light truck application (load index ≤ 124 in single mounting), 25 mm may be used. These rims shall be appropriately identified.

**Table 5 — Dimensions of 15° tapered (drop-centre) rim contours for nominal rim width  $\geq 10.50$**

Dimensions in millimetres

Rim size designation	A $\pm 5$	H <sup>1)</sup> min.	h min.	L <sup>1)</sup> min.	M <sup>1)</sup> max.	P
17.5 × 10.50	266,5	24	9,5	14	55	26
19.5 × 10.50	266,5	30	10	30	68 <sup>2)</sup>	34
22.5 × 10.50					70	
19.5 × 11.75	68 <sup>2)</sup>					
22.5 × 11.75	70 <sup>2)</sup>					
19.5 × 12.25	68 <sup>2)</sup>					
22.5 × 12.25	70 <sup>2)</sup>					
19.5 × 13.00	68 <sup>2)</sup>					
22.5 × 13.00	70 <sup>2)</sup>					
19.5 × 14.00	68 <sup>2)</sup>					
22.5 × 14.00	70 <sup>2)</sup>					
19.5 × 15.00	68 <sup>2)</sup>	11				
22.5 × 15.00	70 <sup>2)</sup>					
20.5 × 16.00	70 <sup>2)</sup>					
22.5 × 16.00	70 <sup>2)</sup>					
20.5 × 18.00	70 <sup>2)</sup>					
22.5 × 18.00	70 <sup>2)</sup>					
	457					

1) These dimensions comprise the minimum well envelope for tyre mounting purposes.  
2) Larger dimensions may be used subject to confirmation by tyre mounting trials.

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**4.2 Rim diameters**

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The nominal and specified rim diameters for 15° tapered (drop-centre) rim contours are given in table 6.

**Table 6 — Nominal rim diameter and specified rim diameter**

Nominal rim diameter	Specified rim diameter <sup>1)</sup> D mm $\pm 0,4$
17.5	444,5
19.5	495,3
20.5	520,7
22.5	571,5
24.5	622,3

1) Tolerance is for tyre design purposes only. Rim measurement is by circumference measuring tape related to mandrel.

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**Descriptors:** road vehicles, trucks, buses (vehicles), rims, dimensions, contours, designation.

Price based on 5 pages

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