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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Truck and bus tyres and rims (metric series) —

Part 2 : Rims

Pneumatiques et jantes pour véhicules utilitaires (séries millimétriques) —

Partie 2 : Jantes

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Reference number
ISO 4209-2:1987 (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.

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 4209-2 was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Truck and bus tyres and rims (metric series) —

Part 2 : Rims

1 Scope and field of application

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 References

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

ISO 4209-1, *Truck and bus tyres and rims (metric series) — Part 1 : Tyres.*

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 ¹⁾
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 are given in figure 1 and table 2.

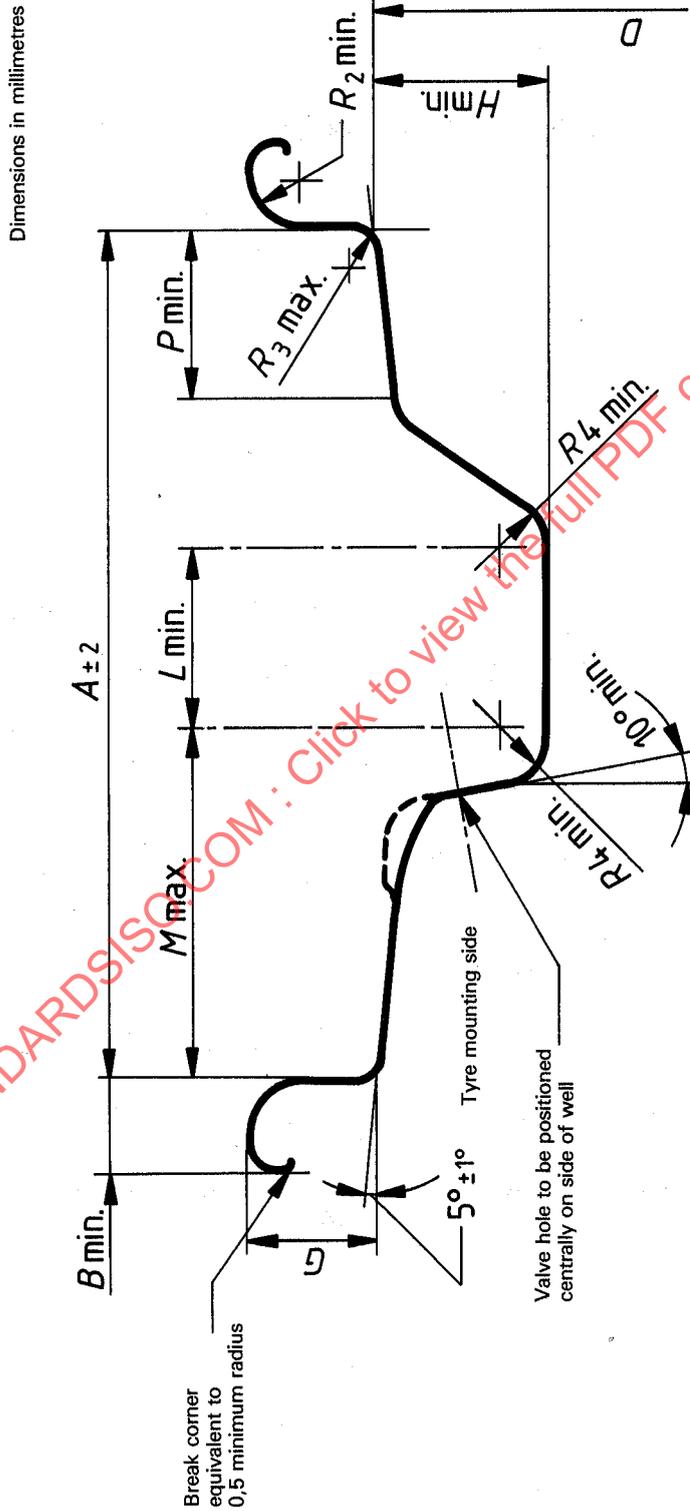


Figure 1 — Dimensions of 5° tapered (drop-centre) rim contours

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

Dimensions in millimetres

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

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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 are given in figure 2 and tables 4 and 5.

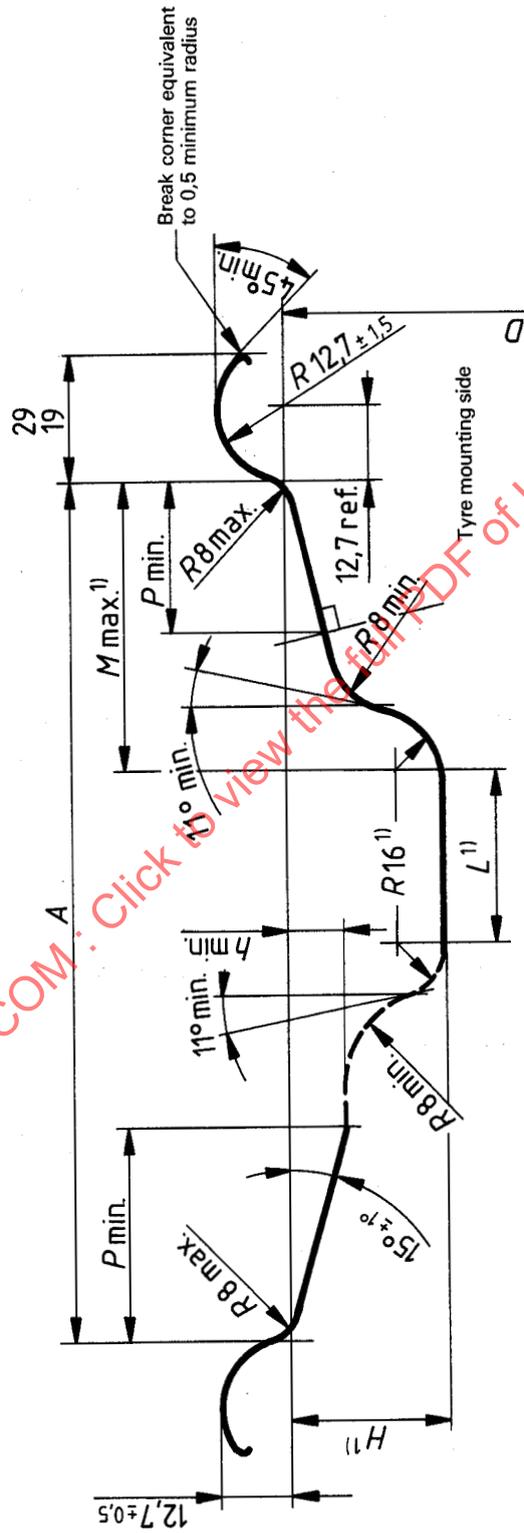
Table 3 — Nominal rim diameter and specified rim diameter

Nominal rim diameter	Specified rim diameter ¹⁾ <i>D</i> ± 0,4 mm
12	304,0
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.

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Dimensions in millimetres



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

- 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 min. may be used. These rims shall be appropriately identified.

Table 5 — Dimensions of 15° tapered (drop-centre) rim contours for nominal rim width > 10,50

Dimensions in millimetres

Rim size designation	A ± 5,0	H ¹⁾ min.	h min.	L ¹⁾ min.	M ¹⁾ max.	P	
17.5 × 10.50	266,5	30	11	30	55	26	
19.5 × 10.50	266,5				68 ²⁾		
22.5 × 10.50					70		
19.5 × 11.75					298,5		68 ²⁾
22.5 × 11.75	70 ²⁾						
19.5 × 12.25	311,0						68 ²⁾
22.5 × 12.25					70 ²⁾		
19.5 × 13.00					330,0		68 ²⁾
22.5 × 13.00	70 ²⁾						34
19.5 × 14.00	355,5						
22.5 × 14.00					70 ²⁾		
19.5 × 15.00					381,0		68 ²⁾
22.5 × 15.00	70 ²⁾						
20.5 × 16.00	406,5						70 ²⁾
22.5 × 16.00					70 ²⁾		
20.5 × 18.00		457,0	70 ²⁾				
22.5 × 18.00	70 ²⁾						

- 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.

4.2 Rim diameters

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

5 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).

Table 6 — Nominal rim diameter and specified rim diameter

Nominal rim diameter	Specified rim diameter ¹⁾ $D \pm 0,4$ mm
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 purpose only. Rim measurement is by circumference related measuring tape to mandrel.

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