



SURFACE VEHICLE RECOMMENDED PRACTICE

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(R) Wide Base Disc Wheels and Demountable Rims

RATIONALE

This SAE Recommended Practice establishes uniform engineering nomenclature for wide base disc wheels and demountable rims. During the 5-year review, changes were made to: (1) update SAE and ISO publication titles to current revisions, (2) reformat Section 3 revising definitions for wide base disc wheels and wide base demountable rims and the addition of new definitions for inset, outset, and zeroset as in SAE J393, (3) move Section 3.6 for basic nomenclature to be under Section 4.1, (4) revised format of Tables 1 and 2, and (5) redraw wheel and rim cross sections in Figures 1, 2, 3, and 4 with identification for hub / drum mounting surface and construction type.

All other changes were for general formatting.

1. SCOPE

This SAE Recommended Practice establishes uniform engineering nomenclature for wide base disc wheels and demountable rims. This nomenclature and accompanying figures are intended to define fundamental wide base disc wheel and demountable rim terms. The dimensions given are those necessary to maintain serviceability and interchangeability of the wide base disc wheels and demountable rims with standard hardware. Valve clearances have not been included in this document.

2. REFERENCES

2.1 Applicable Documents

The following publication forms a part of the specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE Publication

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J393 Nomenclature - Wheels, Hubs, and Rims for Commercial Vehicles

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2.2 Related Publications

The following publications are provided for information purposes only and are not a required part of this SAE Technical Report.

2.2.1 SAE Publications

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J694 Disc Wheel/Hub or Drum Interface Dimensions - Truck and Bus

SAE J851 Dimensions - Wheels for Demountable Rims, Demountable Rims, and Spacer Bands - Truck and Bus

2.2.2 ISO Publication

Available from American National Standards Institute, 25 West 43rd Street, New York, NY 10036-8002, Tel: 212-642-4900, www.ansi.org.

ISO 4107 Commercial Vehicles - Wheel-Hub Attachment Dimensions

2.2.3 Tire and Rim Association Publication

Available from The Tire and Rim Association, Inc., 175 Montrose West Avenue, Suite 150, Copley, OH 44321.

Yearbook, The Tire & Rim Association Inc.

3. DEFINITIONS

3.1 Wide Base Disc Wheel

A permanent combination of a disc and a rim (15° tire seat angle) with a 19.5 or 22.5 rim diameter code and a rim width of 266.7 mm (10.50 in) or wider.

3.2 Wide Base Demountable Rim

A rim with permanent 28° bevel mountings (using an adaptor) with a 19.5 or 22.5 rim diameter code and a rim width of 266.7 mm (10.50 in) or wider.

3.3 Inset

The distance from the attachment face of the disc to the centerline of the rim. The centerline of the rim is located inboard of the attachment face of the disc.

3.4 Outset

The distance from the attachment face of the disc to the centerline of the rim. The centerline of the rim is located outboard of the attachment face of the disc.

3.5 Zero set

The centerline of the rim is coincident with the attachment face of the disc.

4. WIDE BASE DISC WHEELS AND DEMOUNTABLE RIMS

4.1 Basic Nomenclature

1. Rim Centerline
2. Inset
3. Outset
4. Adaptor
5. Mounting Band
6. Rim Offset
7. Dual Centerline with 101.6 mm (4 in) wide spacer
8. Axle Track
9. Zeroset

Figures 1, 2, 3, and 4 shown below introduce, illustrate, and specify nomenclature and definitions related specifically to wide base disc wheels and demountable rims. A detailed listing of basic nomenclature is contained in SAE J393.

4.2 Wide Base Disc Wheels

See Figures 1 and 2.

4.3 Wide Base Demountable Rims

See Figures 3 and 4.

4.4 Dimensions

- a. A = Minimum clearance diameter under the rim ledge
- b. B = Minimum clearance diameter under the rim drop center
- c. C = One-half the change in axle track when comparing dual wheel assembly and wide base single

All dimensions are in millimeters followed by inches in parentheses.

4.5 Wide Base Disc Wheel and Demountable Rim Dimensions

See Table 1.

TABLE 1 - WIDE BASE DISC WHEEL AND DEMOUNTABLE RIM DIMENSIONS

Rim Diameter Code	Dimension A Minimum	Dimension B Minimum
19.5	457.7 (18.02)	416.6 (16.40)
22.5	534.9 (21.06)	485.6 (19.12)

4.5.1 Additional Rear Demountable Rim Dimensions

See Table 2.

TABLE 2 - ADDITIONAL REAR WIDE BASE
DEMOUNTABLE RIM DIMENSIONS

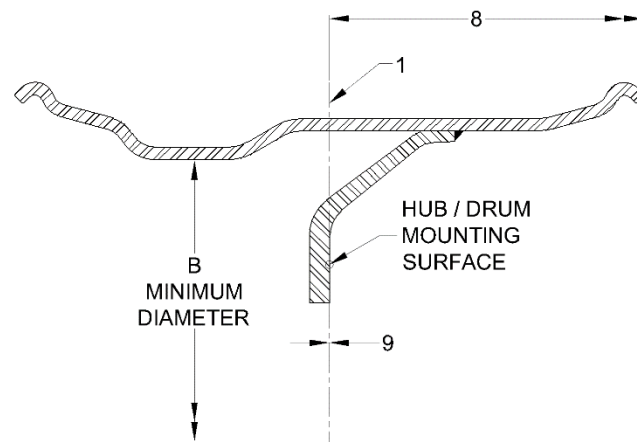
Rim Size	Dimension C
22.5x12.25	9.65 or 47.75 (0.38 or 1.88)
22.5x13.00	0 or 69.85 (0 or 2.75)

5. NOTES

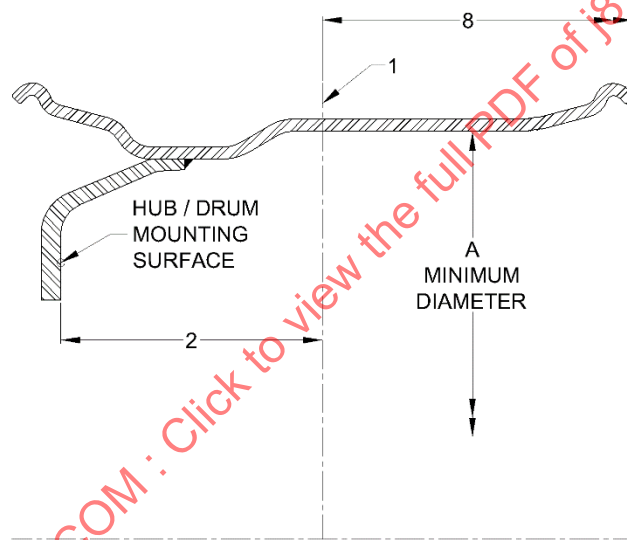
5.1 Marginal Indicia

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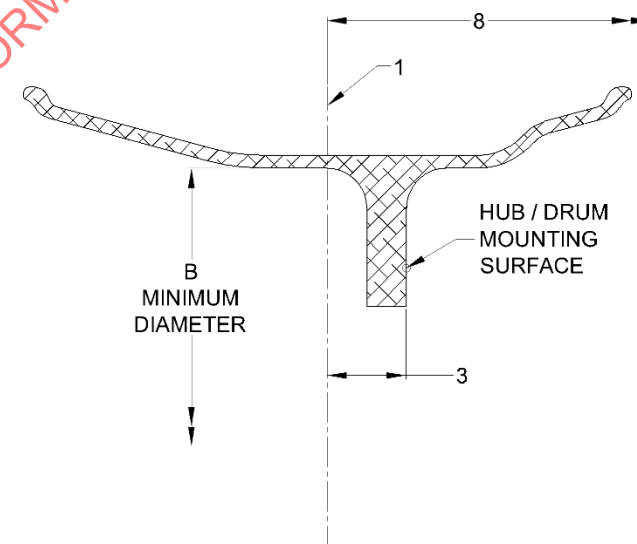
PREPARED BY THE SAE TRUCK AND BUS WHEEL COMMITTEE



Example of
ZEROSET



Example of
INSET



Example of
OUTSET

FIGURE 1 - WIDE BASE DISC WHEELS (FERROUS)

See Section 4.1 for Basic Nomenclature