SAE International

SURFACE VEHICLE RECOMMENDED PRACTICE

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Superseding J851 SEP2007

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

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE Truck and Bus Wheel Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

1. ***Scope***—This SAE Recommended Practice establishes dimensions for wheels for demountable rims, demountable rims, and rim spacers. The dimensions given are those necessary to maintain serviceability and interchangeability of the demountable rims, rim spacers, and wheels for demountable rims. Special and less common applications are not covered in this recommended practice.

2. ***References***

2.1 Applicable Publication—The following publication forms a part of this specification to the extent specified herein. Unless otherwise specified, the latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

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

2.2 Related Publications—The following publications are provided for information purposes only and are not a required part of this document.

2.2.1 SAE PUBLICATION—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 J1835—Fastener Hardware for Wheels for Demountable Rims

2.2.2 ISO PUBLICATION—Available from ANSI, 25 West 43rd Street, New York, NY 10036-8002, Tel: 212-642-4900, www.ansi.org.

ISO 3911—Wheels/rims for pneumatic tyres—Nomenclature, designation and marking

3. ***Definitions***—A detailed listing of basic nomenclature is contained in SAE J393. Figures 1A to 6 introduce, illustrate, and specify additional nomenclature and definitions. All dimensions are in inches unless otherwise specified.

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
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SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/J851_201103

4. Dimensions for a Wheel for Demountable Rim

4.1 Front Wheel for Demountable Rim—(See Figures 1A and 1B.)

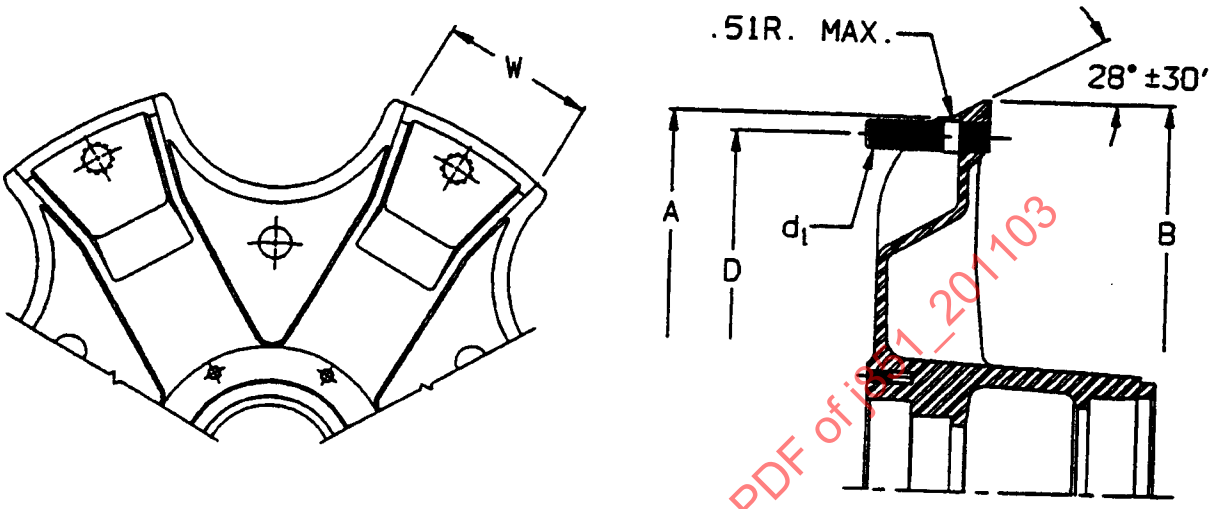

FIGURE 1A—FRONT WHEEL

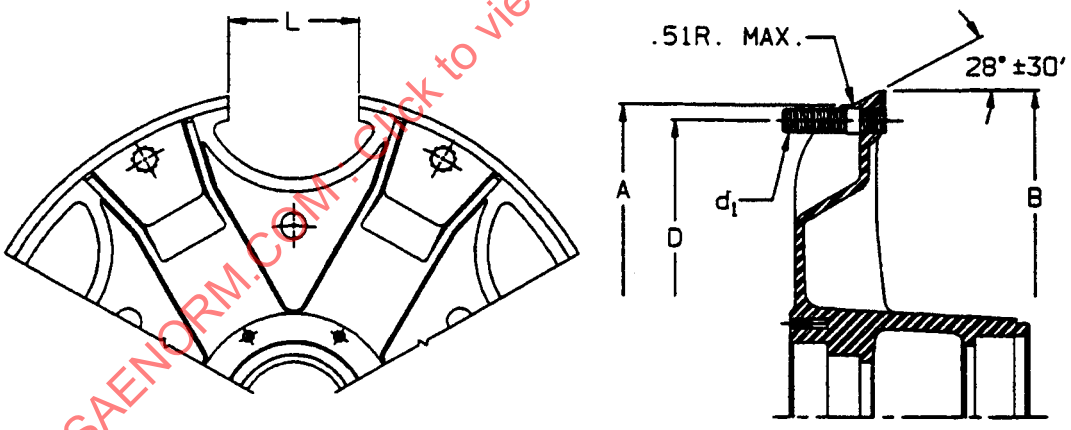

FIGURE 1B—FRONT WHEEL WITH SPECIAL RIM LOCATOR SLOT

4.2 Rear Wheel for Demountable Rims—(See Figures 2A and 2B.)

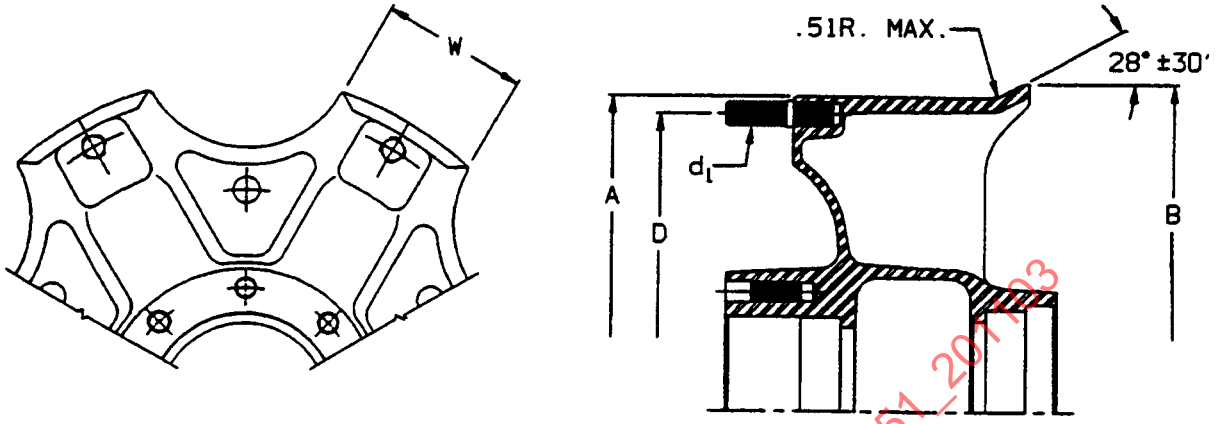

FIGURE 2A—REAR WHEEL

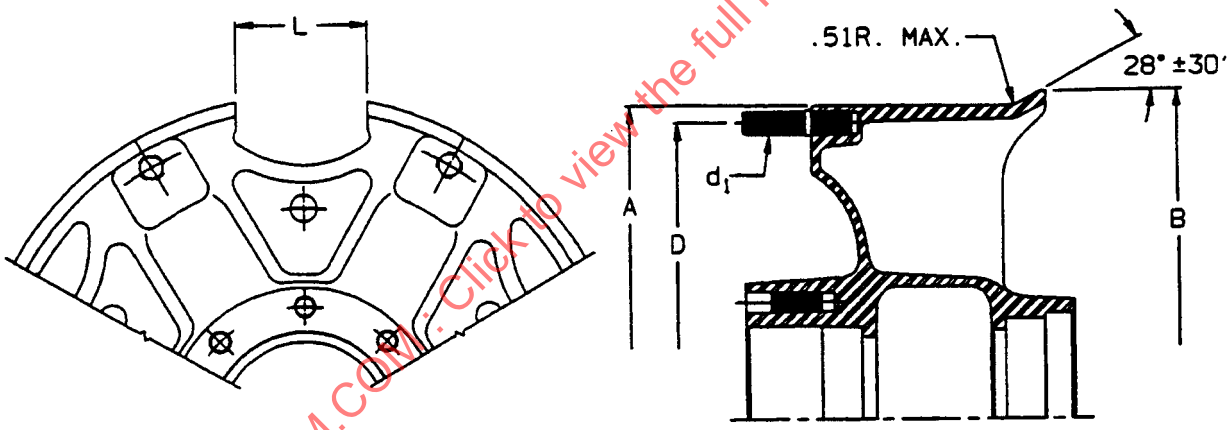

FIGURE 2B—REAR WHEEL WITH SPECIAL RIM LOCATOR SLOT

4.3 Definition of Wheel Dimensions (see 4.4 for values)

A = Rim mounting diameter (when used)
B = Wheel outside diameter
D = Rim clamp stud/bolt circle diameter
d_1 = Rim clamp stud or bolt (size and thread)
W = Bevel width (rim contact bearing width)
L = Rim locator width (minimum of one slot)

4.4 Wheel Dimensions and Tolerances—(See Table 1.)

TABLE 1—WHEEL DIMENSIONS AND TOLERANCES

Rim Size	A +0/–0.015	B +0/–0.030	D (Ref) Front	D (Ref) Rear	W (Min)	L (Min)	d_1
15 × 8.0 Max	13.550	14.365	12.500	12.500	2.00	3.90	3/4-10
20 × 8.0 Max	18.550	19.365	17.500	17.500	2.50	3.90	3/4-10
22 × 8.0 Max	20.550	21.365	19.500	19.500	2.75	4.60	3/4-10
24 × 8.0 Max	22.550	23.365	21.500	21.500	2.75	5.40	3/4-10
All 17.5	13.550	14.365	12.500	12.500	2.00	3.90	3/4-10
All 22.5	18.550	19.365	17.500	17.500	2.50	3.90	3/4-10
All 24.5	20.550	21.365	19.500	19.500	2.75	4.60	3/4-10
20 × 8.5 to 10.0	18.422(1)	19.281	17.500(2)	17.375	2.75	3.90	3/4-10
22 × 8.5 to 10.0	20.422(1)	21.281	19.500	19.375	2.75	4.60	3/4-10
24 × 8.5 to 10.0	22.422(1)	23.281	21.500(3)	21.375	2.75	5.40	3/4-10

1. Tolerance +0/–0.023.
2. With double bevel rims a bolt circle diameter of 16.625 can be used.
3. With double bevel rims a bolt circle diameter of 20.625 can be used.

5. Rim Dimensions

5.1 Demountable Rims—(See Figures 3 to 5.)

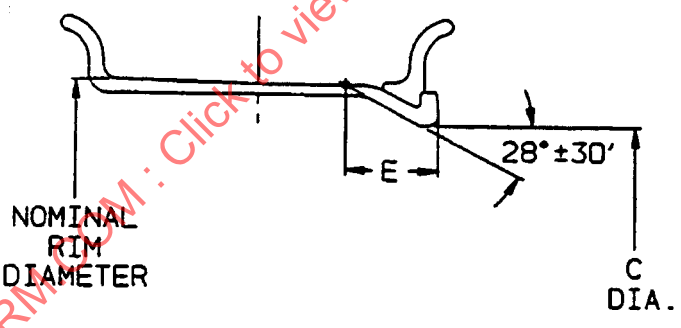

FIGURE 3—MULTI-PIECE FLAT BASE RIM

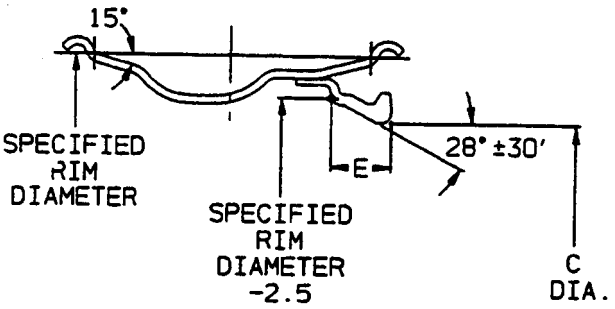

FIGURE 4—FULL DROP CENTER RIM