SAE International

SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J1835 JAN2014

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Superseding J1835 MAY2004

Fastener Hardware for Wheels for Demountable Rims

RATIONALE

This document is being updated to current standards and to correct some tables to prepare this document to be stabilized at a later date.

1. SCOPE

This SAE Recommended Practice establishes the mounting hardware to be used with demountable rims, wheels for demountable rims, rim spacers designed for 28 degrees bevel mounting systems, and intended for use on commercial vehicles. The dimensions given are those necessary to maintain serviceability and interchangeability of mounting hardware.

This document is divided into two sections. Section 1 establishes the practice for new designs for mounting hardware. Section 2 records information on current mounting hardware. Special and less common applications are not covered in this document.

2. REFERENCES

2.1 Applicable Documents

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

2.1.1 SAE Publications

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

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

3. DEFINITIONS

A detailed listing of basic nomenclature is contained in SAE J393. Figures 1 through 8 and Tables 1 through 3, introduce, illustrate, and specify additional nomenclature and definitions. All dimensions are in inches unless otherwise specified. Single clamps are rim clamps with one hole and double clamps are rim clamps with two holes.

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http://www.sae.org/technical/standards/J1835_201401

4. SECTION 1 - MOUNTING HARDWARE DIMENSIONS (RECOMMENDED PRACTICE)

4.1 Rim Clamp Nut

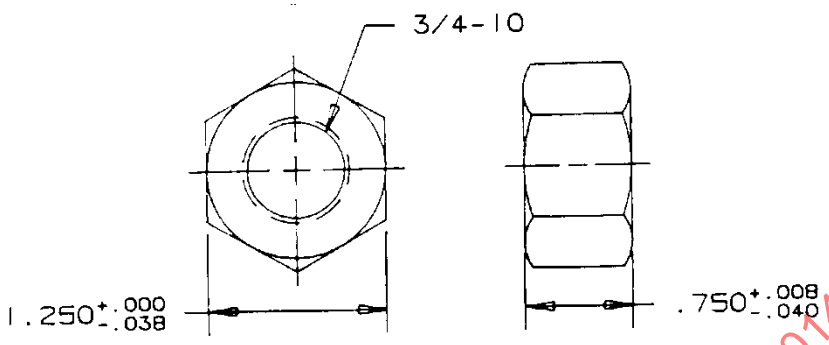

FIGURE 1 - RIM CLAMP NUT

4.2 Rim Clamp Stud Standout

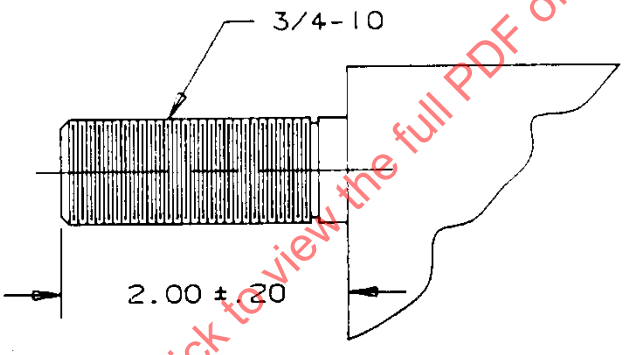

FIGURE 2 - RIM CLAMP STUD STANDOUT

4.3 Rim Clamp Dimensions

4.3.1 Dual Mounting

4.3.1.1 Dual Assembly

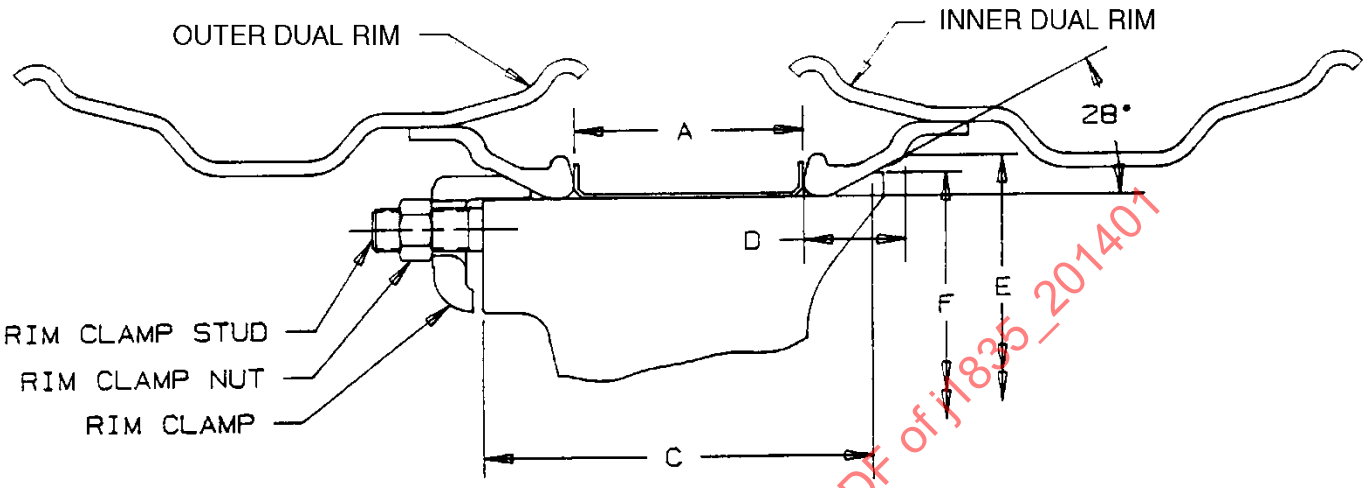

FIGURE 3 - DUAL ASSEMBLY, DROP CENTER RIMS SHOWN

TABLE 1 - DIMENSIONS FOR SINGLE CLAMPS (DUAL MOUNTING), REFER TO FIGURE 3

(A) Spacer Width +0.060 –0.047	(B) Rim Clamp Toe Length ±0.05	(C) Spoke Length ±0.06	(D) Rim Bevel Intersection (28 degrees Layout Line) ±0.040	(E) 28 degrees Bevel Layout Diameter (Nominal Wheel Diameter)	(F) Outside Diameter (Reference)
3.380	1.84	6.56	1.762	15, 20, 22, 24	E – 0.635
3.620	1.59	6.56	1.762	15, 20, 22, 24	E – 0.635
4.000	1.21	6.56	1.762	15, 20, 22, 24	E – 0.635
3.620	1.84	6.81	1.762	20, 22, 24	E – 0.635
4.000	1.46	6.81	1.762	20, 22, 24	E – 0.635
4.250	1.21	6.81	1.762	20, 22, 24	E – 0.635
3.620	1.59	6.81	2.000	20,24	E – 0.719
4.000	1.21	6.81	2.000	20,24	E – 0.719

TABLE 2 - DIMENSIONS FOR DOUBLE CLAMPS (DUAL MOUNTING), REFER TO FIGURE 3

(A) Spacer Width +0.060 –0.047	(B) Rim Clamp Toe Length ±0.05	(C) Spoke Length ±0.06	(D) Rim Bevel Intersection (28 degrees Layout Line) ±0.040	(E) 28 degrees Bevel Layout Diameter (Nominal Wheel Diameter)	(G) Rim Clamp Diameter ±0.03	(H) Hole Spread ±0.01	(J) Rim Clamp Height ±0.03	(F) Outside Diameter (Reference)
4.000	1.21	6.56	1.762	15	13.54	4.50	1.82	E – 0.635
4.000	1.21	6.56	1.762	20	18.54	6.81	2.42	E – 0.635
4.000	1.21	6.56	1.762	22	20.54	8.91	2.42	E – 0.635
3.380	1.84	6.56	1.762	15	13.54	4.50	1.82	E – 0.635
3.380	1.84	6.56	1.762	20	18.54	6.81	2.42	E – 0.635
3.380	1.84	6.56	1.762	22	20.54	8.91	2.42	E – 0.635

4.3.1.2 Single Clamps

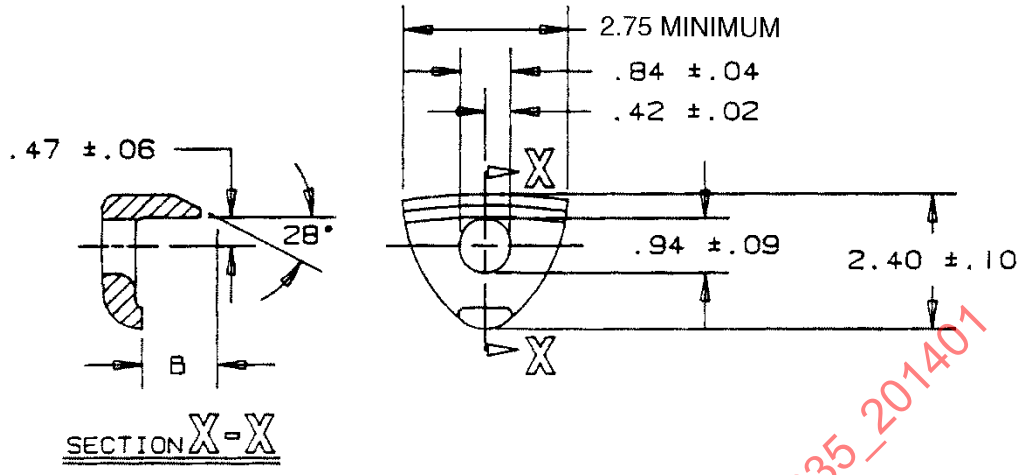

FIGURE 4 - SINGLE CLAMPS

4.3.1.3 Double Clamps

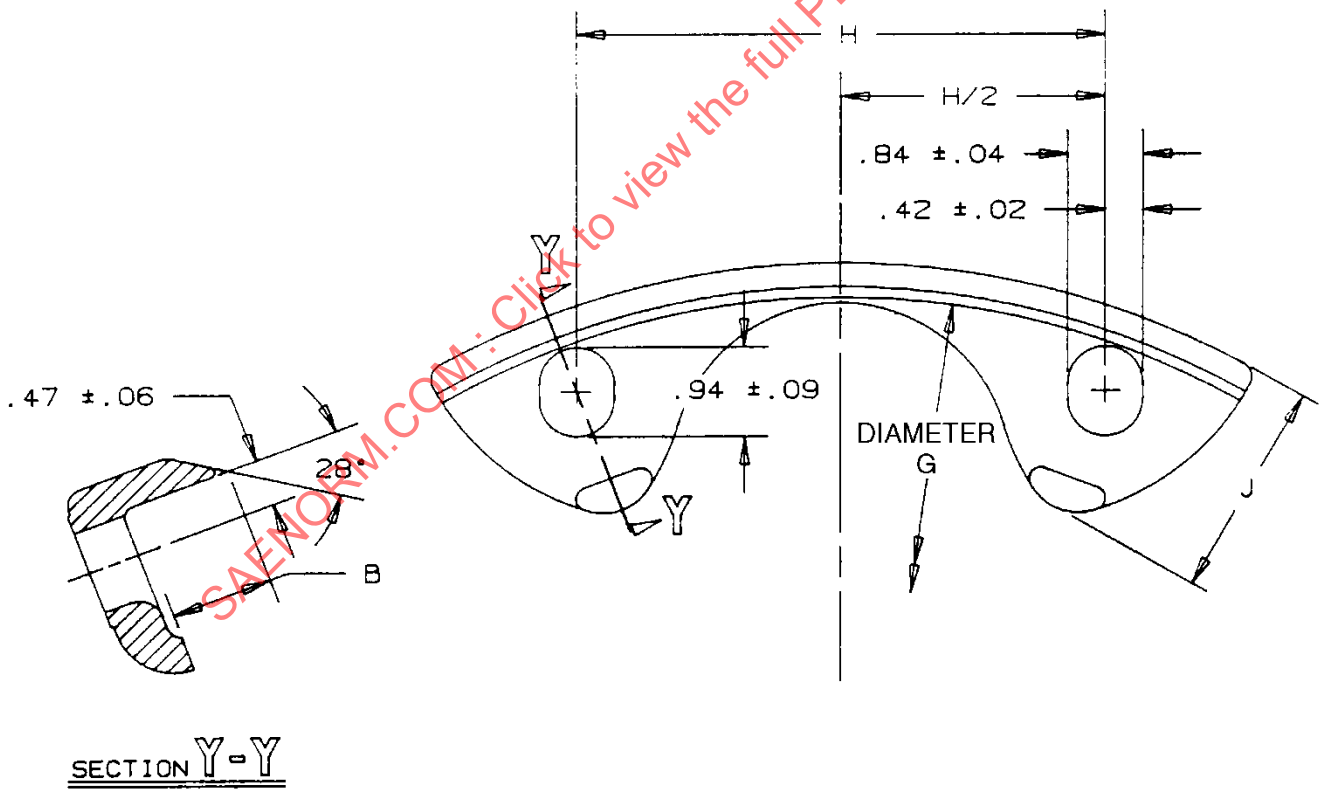

FIGURE 5 - DOUBLE CLAMPS

4.3.2 Single Mounting

4.3.2.1 Single Assembly

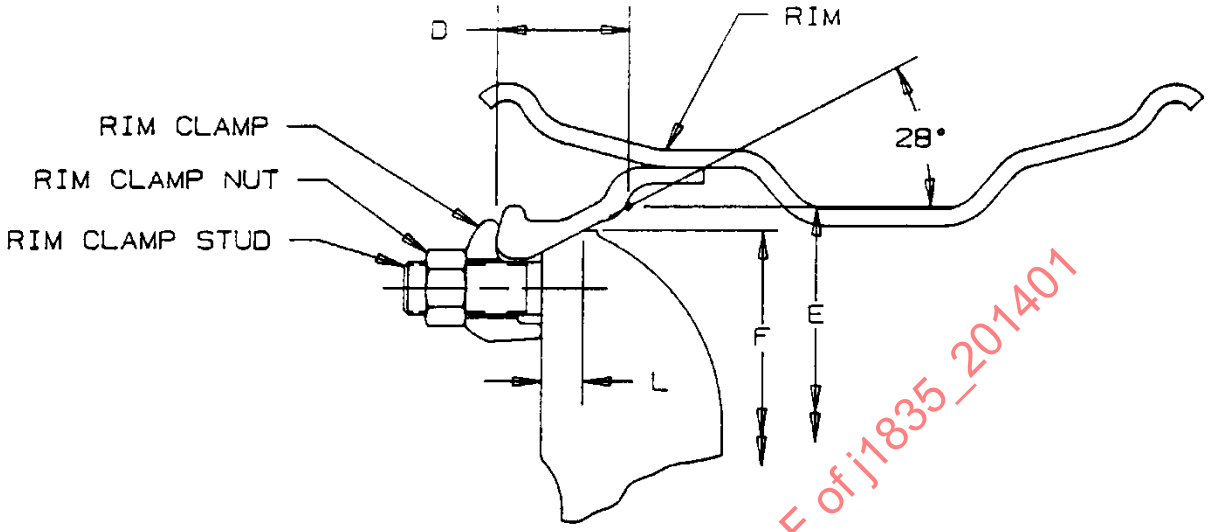

FIGURE 6 - SINGLE ASSEMBLY, DROP CENTER RIM SHOWN

TABLE 3 - DIMENSIONS FOR SINGLE CLAMPS (SINGLE MOUNTING), REFER TO FIGURE 6

(E) 28 degrees Bevel Layout Diameter (Nominal Wheel Diameter)	(D) Rim Bevel Intersection (28 degrees Layout Line ±0.040)	(K) Rim Clamp Offset ±0.03	(L) Bevel Length ±0.06	(F) Outside Diameter (Reference)
20	1.762	0.46	0.60	E – 0.635
22	1.762	0.46	0.60	E – 0.635
24	1.762	0.46	0.60	E – 0.635
20	2.000	0.63	0.60	E – 0.719
24	2.000	0.63	0.60	E – 0.719

4.3.2.2 Single Clamps

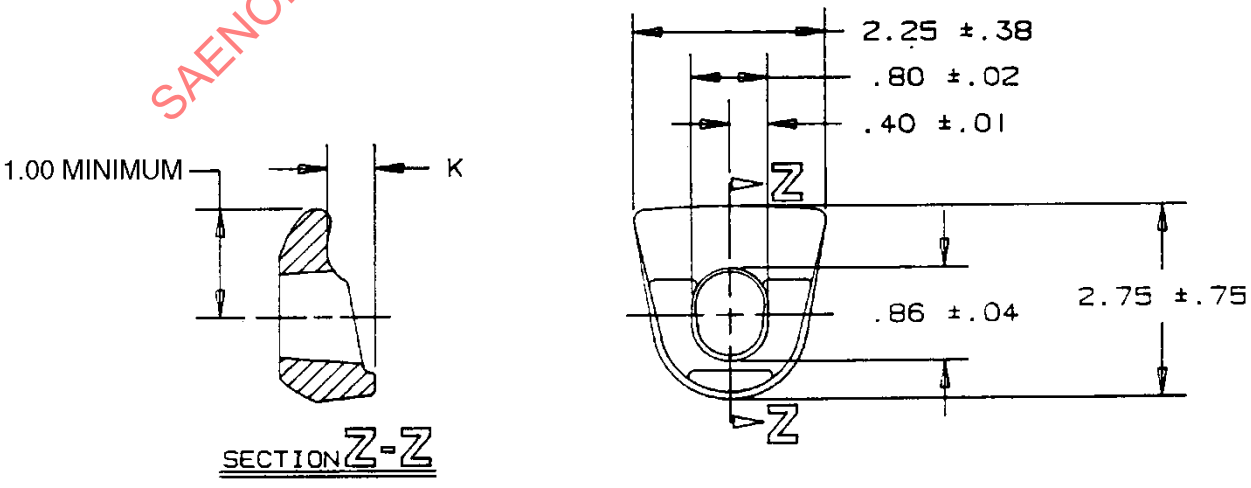

FIGURE 7 - SINGLE CLAMPS