AERONAUTICAL
MATERIAL SPECIFICATIONS
SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

AMS 2204

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Revised

TOLERANCES
Aluminum Rolled or Extruded Standard Structural Shapes

1. PURPOSE: To publish established manufacturing tolerances.

2. APPLICATION: Tolerances shown herein are applicable to rolled or extruded standard structural shapes. Standard structural shapes are shapes which are commonly used for structural purposes but limited to shapes commonly produced by rolling, such as angles, channels, Tees, Zees, I-Beams, and H-Beams. Tolerances shown herein apply unless otherwise agreed upon by purchaser and vendor and apply to all tempers, unless otherwise noted. The term "excl" is used to apply only to the higher figure of the specified range.

3. CROSS-SECTIONAL DIMENSIONS:

TABLE I

Nominal Dimension	Shape	Tolerance, Inch or Percent of Nominal Dimension: Alloys 5083, 5086, and 5456	Tolerance, Inch or Percent of Nominal Dimension: Other Alloys
Thickness	Angles, Channels, Tees, Zees, I-Beams, and H-Beams	± 4% or ± 0.015 in., whichever is greater (See Note 1)	± 2-1/2% or ± 0.010 in., whichever is greater (See Note 1)
Flange	Angles and Zees	± 2-1/2% or ± 1/16 in., whichever is greater	± 2-1/2% or ± 1/16 in., whichever is greater
	Channels, Tees I-Beams, and H-Beams	± 4%	± 4%
Depth	Tees, Zees, and H-Beams	± 2-1/2% or ± 1/16 in., whichever is greater	± 2-1/2% or ± 1/16 in., whichever is greater
	Channels and I-Beams	+ 3/32 in., - 1/16 in.	+ 3/32 in., - 1/16 in.

4. LENGTH:

TABLE II

Nominal Width or Depth (Whichever is Greater) Inches	Tolerance, Inch, Plus Only: Length Ranges, Feet: 12 and Under	Over 12 to 30, incl	Over 30 to 50, incl	Over 50
Under 3.000	1/8	1/4	3/8	1
3.000 to 8.000, excl	3/16	5/16	7/16	1
8.000 and over	1/4	3/8	1/2	1

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