

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 2231B

Issued 5-1-45

Revised 10-1-51

TOLERANCES Carbon Steel Bars

1. PURPOSE: To publish established manufacturing tolerances.
2. APPLICATION: Tolerances shown herein apply, unless otherwise agreed upon by purchaser and vendor. These tolerances apply to all conditions, unless otherwise noted.
3. DIAMETER OR THICKNESS:
 - 3.1 Cold Finished:

TABLE I

Nominal Diameter or Thickness Inches	Tolerances, Inch, Minus Only			
	Maximum of Carbon Range, %			
	0.28 and under	over 0.28 to 0.55 incl	All Carbons Strain Relieved	over 0.55 and all carbons Heat Treated
ROUNDS				
1.000 and under	0.002	0.003	0.004	0.006
Over 1.000 to 2.000, incl	0.003	0.004	0.006	0.008
Over 2.000 to 4.000, incl	0.004	0.005	0.008	0.010
Over 4.000 to 6.000, incl	0.005	0.006	0.010	0.012
Over 6.000 to 7.750, incl	0.006	0.008	0.012	0.016
HEXAGONS				
0.313 and under	0.002	0.003	0.004	0.006
Over 0.313 to 1.000, incl	0.003	0.004	0.006	0.008
Over 1.000 to 2.500, incl	0.004	0.005	0.008	0.010
Over 2.500 to 3.125, incl	0.005	0.006	0.010	0.012
SQUARES				
0.313 and under	0.003	0.004	0.006	0.008
Over 0.313 to 1.000, incl	0.004	0.005	0.008	0.010
Over 1.000 to 2.500, incl	0.005	0.006	0.010	0.012
Over 2.500 to 4.000, incl	0.006	0.008	0.012	0.016
FLATS				
Nominal Width Inches				
0.750 and under	0.003	0.004	0.006	0.008
Over 0.750 to 1.500, incl	0.004	0.005	0.008	0.010
Over 1.500 to 3.000, incl	0.005	0.006	0.010	0.012
Over 3.000 to 4.000, incl	0.006	0.008	0.011	0.016
Over 4.000 to 6.000, incl	0.008	0.010	0.012	0.020
Over 6.000	0.013	--	--	--

Section 7C of the SAE Technical Board rules provides that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to any SAE standard, recommendation, practice, and no commitment to conform to or be guided by any technical report, in formulating and approving technical reports. The Board and its committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."