Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N.Y. 10001

AEROSPACE STANDARD

AS 1182

Issued 5-15-71
Revised

STANDARD MACHINING ALLOWANCE, Aircraft Quality and Premium Quality Steel Products

1. PURPOSE: The purpose of this document is to provide the aerospace industry with standards for minimum stock removal allowances for bars and tubing to provide surfaces which are required to pass magnetic particle inspection requirements. Surfaces after such stock removal will be free from decarburization, seams, laps, tears, cracks, pits, and other injurious surface imperfections.

2. APPLICABLE DOCUMENTS: The following publications form a part of this standard to the extent specified herein. The latest issue of Aerospace Material Specifications (AMS) and AISI Steel Products Manual shall apply.

2.1 SAE Publications: Available from Society of Automotive Engineers, Inc., Two Pennsylvania Plaza, New York, New York, 10001.

2.1.1 Aerospace Material Specifications:

AMS 2241 - Tolerances, Corrosion and Heat Resistant Steel Bars and Wire and Titanium and Titanium Alloy Bars and Wire
AMS 2251 - Tolerances, Alloy Steel Bars
AMS 2243 - Tolerances, Corrosion and Heat Resistant Steel Tubing
AMS 2253 - Tolerances, Carbon and Alloy Steel Tubing
AMS 2350 - Standards and Test Methods

2.2 AISI Publications: Available from American Iron and Steel Institute, 150 East Forty-Second Street, New York, New York, 10017.

2.2.1 Steel Products Manual:

Steel Specialty Tubular Products Section

3. REQUIREMENTS:

3.1 Hot Rolled or Cold Drawn Low Alloy and Martensitic Corrosion Resistant Steel Bars (See 3.1.1):

TABLE I

Hot Rolled Size Inches	Minimum Stock Removal From Surface, Inch	Cold Drawn Size Inches
Up to 0.500, incl	0.030	Up to 0.4375, incl
Over 0.500 to 0.750, incl	0.045	Over 0.4375 to 0.6875, incl
Over 0.750 to 1.000, incl	0.060	Over 0.6875 to 0.9375, incl
Over 1.000 to 1.500, incl	0.075	Over 0.9375 to 1.4375, incl
Over 1.500 to 2.000, incl	0.090	Over 1.4375 to 1.9375, incl
Over 2.000 to 2.500, incl	0.125	Over 1.9375 to 2.4375, incl
Over 2.500 to 3.500, incl	0.156	Over 2.4375 to 3.3750, incl
Over 3.500 to 4.500, incl	0.187	Over 3.3750 to 4.3750, incl
Over 4.500 to 6.000, incl	0.250	