AEROSPACE MATERIAL SPECIFICATION

AMS5062	REV. H

Issued 1948-09
Revised 2004-03
Noncurrent 2009-08
Reaf. Nonc. 2013-09

Superseding AMS5062G

Steel, Low Carbon
Bars, Forgings, Tubing, Sheet, Strip, and Plate
0.25 Carbon, Maximum
(Composition similar to UNS K02508)

RATIONALE

AMS5062H has been reaffirmed to comply with the SAE five-year review policy.

NONCURRENT NOTICE

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of August 2009. It is recommended, therefore, that this specification not be specified for new designs.

"NONCURRENT" refers to those specifications which have previously been widely used and which may be required for production or processing of existing designs in the future. The Aerospace Materials Division, however, does not recommend these specifications for future use in new designs. "NONCURRENT" specifications are available from SAE upon request.

Similar but not necessarily identical products are covered in the following specifications. However, this listing is provided for information only and does not constitute authority to substitute these specifications for the "NONCURRENT" specification.

ASTM A29 / A29M	Steel Bars, Carbon and Alloy, Hot-Wrought, General Requirements for
ASTM A109 / A109M	Steel, Strip, Carbon (0.25 Maximum Percent), Cold-Rolled
ASTM A516 / A516M	Pressure Vessel Plates, Carbon Steel, for Moderate- and Lower-Temperature Service
ASTM A519	Seamless Carbon and Alloy Steel Mechanical Tubing
ASTM A659 / A659M	Commercial Steel (CS), Sheet and Strip, Carbon (0.16 Maximum to 0.25 Maximum Percent), Hot-Rolled
ASTM A668 / A668M	Steel Forgings, Carbon and Alloy, for General Industrial Use
ASTM A711 / A711M	Steel Forging Stock
ASTM A1008 / A1008M	Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable
ASTM A1011 / A1011M	Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: **http://www.sae.org**

SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AMS5062H

1. SCOPE:

1.1 Form:

This specification covers low-carbon steel in the form of bars, forgings, mechanical tubing, sheet, strip, plate, and forging stock.

1.2 Application:

These products have been used typically for parts for which a wide latitude in composition is permissible and requiring no particular strength or hardness other than that inherent in steel of this type, but usage is not limited to such applications.

1.2.1 Care is required in welding in the event that carbon and manganese approach the maximum limits.

2. APPLICABLE DOCUMENTS:

The issue of the following documents in effect on the date of the purchase order forms a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been cancelled and no superseding document has been specified, the last published issue of that document shall apply.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001 or www.sae.org.

AMS 2231	Tolerances, Carbon Steel Bars
AMS 2232	Tolerances, Carbon Steel Sheet, Strip, and Plate
AMS 2253	Tolerances, Carbon and Alloy Steel Tubing
AMS 2259	Chemical Check Analysis Limits, Wrought Low-Alloy and Carbon Steels

2.1 (Continued):

AMS 2370	Quality Assurance Sampling and Testing, Carbon and Low-Alloy Steel Wrought Products and Forging Stock
AMS 2372	Quality Assurance Sampling and Testing, Carbon and Low-Alloy Steel Forgings
AMS 2806	Identification, Bars, Wire, Mechanical Tubing, and Extrusions, Carbon and Alloy Steels and Heat and Corrosion Resistant Steels and Alloys
AMS 2807	Identification, Carbon and Low-Alloy Steels, Corrosion and Heat Resistant Steels and Alloys, Sheet, Strip, Plate, and Aircraft Tubing
AMS 2808	Identification, Forgings

2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 or www.astm.org.

ASTM E 350	Chemical Analysis of Carbon Steel, Low-Alloy Steel, Silicon Electrical Steel, Ingot Iron, and Wrought Iron

3. TECHNICAL REQUIREMENTS:

3.1 Composition:

Shall conform to the percentages by weight shown in Table 1, determined by wet chemical methods in accordance with ASTM E 350, by spectrochemical methods, or by other analytical methods acceptable to purchaser.

TABLE 1 - Composition

Element	min	max
Carbon	--	0.25
Manganese	--	1.00
Phosphorus	--	0.040
Sulfur	--	0.050

3.1.1 Check Analysis: Composition variations shall meet the applicable requirements of AMS 2259.

3.2 Condition:

The product shall be supplied in the following condition:

3.2.1 Bars and Mechanical Tubing 2.50 Inches (63.5 mm) and Under in Nominal OD or Least Distance Between Parallel Sides: Cold finished.

3.2.2 Bars and Mechanical Tubing Over 2.50 Inches (63.5 mm) in Nominal OD or Least Distance Between Parallel Sides: Hot finished and normalized or otherwise heat treated to produce optimum machinability.

3.2.3 Forgings: Normalized or otherwise heat treated to produce optimum machinability.

3.2.4 Sheet, Strip, and Plate: As rolled.

3.2.5 Forging Stock: As ordered by the forging manufacturer.

3.3 Quality:

The product, as received by purchaser, shall be uniform in quality and condition, sound, and free from foreign materials and from imperfections detrimental to usage of the product.

3.4 Tolerances:

Shall be as follows:

3.4.1 Bars: Shall conform to all applicable requirements of AMS 2231.

3.4.2 Mechanical Tubing: Shall conform to all applicable requirements of AMS 2253.

3.4.3 Sheet, Strip, and Plate: Shall conform to all applicable requirements of AMS 2232.

4. QUALITY ASSURANCE PROVISIONS:

4.1 Responsibility for Inspection:

The vendor of the product shall supply all samples for vendor's tests and shall be responsible for the performance of all required tests. Purchaser reserves the right to sample and to perform any confirmatory testing deemed necessary to ensure that the product conforms to specified requirements.

4.2 Classification of Tests:

All technical requirements are acceptance tests and shall be performed on each heat or lot as applicable.

4.3 Sampling and Testing:

Shall be as follows:

4.3.1 Bars, Mechanical Tubing, Sheet, Strip, Plate, and Forging Stock: In accordance with AMS 2370.

4.3.2 Forgings: In accordance with AMS 2372.