Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE, WARRENDALE, PA. 15096

AEROSPACE MATERIAL SPECIFICATION

AMS 7236B
Superseding AMS 7236A

Issued 7-15-63
Revised 10-15-79

UNS R30605

RIVETS, ALLOY, CORROSION AND HEAT RESISTANT
52Co - 20Cr - 10Ni - 15W

SAE Technical Board rules provide that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade or their use by governmental agencies is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended 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."

SAENORM.COM : Click to view the full PDF of ams7236b

1. SCOPE:

1.1 Type: This specification covers rivets fabricated from a corrosion and heat resistant cobalt alloy.

1.2 Application: Primarily for joints requiring high strength up to 1500°F (815°C) and oxidation resistance up to 2000°F (1095°C).

2. APPLICABLE DOCUMENTS: The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications (AMS) shall apply. The applicable issue of other documents shall be as specified in AMS 2350.

2.1 SAE Publications: Available from Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096.

2.1.1 Aerospace Material Specifications:

AMS 2350 - Standards and Test Methods
AMS 5759 - Alloy Bars, Forgings, and Rings, Corrosion and Heat Resistant, 52Co - 20Cr - 10Ni - 15W

2.2 Government Publications: Available from Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

2.2.1 Military Standards:

MIL-STD-794 - Parts and Equipment, Procedures for Packaging and Packing of
MIL-STD-1312 - Fasteners, Test Methods

3. TECHNICAL REQUIREMENTS:

3.1 Material and Fabrication: Rivets shall be manufactured from AMS 5759 corrosion and heat resistant alloy wire cold drawn from hot finished wire or rod which has been previously ground or has had surface preparation (other than by pickling) for removal of seams and other injurious surface imperfections. Rivets shall be cold headed or hot headed, unless purchaser permits forming of the heads by machining.

3.2 Condition: Solution heat treated.

3.3 Heat Treatment: Rivets shall be solution heat treated by heating to 2150°F ± 25 (1175°C ± 15) holding at heat for 10 - 20 min., and either quenching in water or rapid air cooling.

3.4 Properties: Rivets shall conform to the following requirements:

3.4.1 Formability: Rivets shall withstand being driven satisfactorily with a full head free from cracks; rivets may be heated for driving.

Copyright 1979 by Society of Automotive Engineers, Inc.
All rights reserved.

3.4.2 Hardness: Rivets shall have hardness not higher than 285 HV10 or equivalent, determined in accordance with MIL-STD-1312, Test No. 6.

3.5 Quality: Rivets, as received by purchaser, shall be uniform in quality and condition, sound, smooth, and free from internal and external imperfections detrimental to their performance.

4. QUALITY ASSURANCE PROVISIONS:

4.1 Responsibility for Inspection: The vendor of rivets shall supply all samples and shall be responsible for performing all required tests. Results of such tests shall be reported to the purchaser as required by 4.4. Purchaser reserves the right to perform such confirmatory testing as he deems necessary to ensure that the rivets conform to the requirements of this specification.

4.2 Classification of Tests:

4.2.1 Acceptance Tests: Tests to determine conformance to requirements for material (3.1) and hardness (3.4.2) are classified as acceptance tests and shall be performed on each lot.

4.2.2 Periodic Tests: Tests to determine conformance to requirements for formability (3.4.1) are classified as periodic tests and shall be performed at a frequency selected by the vendor unless frequency of testing is specified by purchaser.

4.3 Sampling: Shall be in accordance with the following; a lot shall be all rivets of the same part number solution heat treated in a single furnace charge:

4.3.1 Acceptance Tests:

4.3.1.1 Material: One sample from bars or wire from each heat.

4.3.1.2 Hardness: One sample, consisting of five pieces, from each lot.

4.3.2 Periodic Tests: As agreed upon by purchaser and vendor.

4.4 Reports: The vendor of rivets shall furnish with each shipment three copies of a report stating that the chemical composition of the rivets conforms to the applicable material specification, showing the results of tests to determine conformance to the hardness requirements, and stating that the rivets conform to the other technical requirements of this specification. This report shall include the purchase order number, this specification number and its revision letter, contractor or other direct supplier of material, part number, nominal size, and quantity.

4.5 Resampling and Retesting: If any rivet or specimen used in the above tests fails to meet the specified requirements, disposition of the rivets may be based on the results of testing three additional rivets or specimens for each original nonconforming specimen. Failure of any retest rivet or specimen to meet the specified requirements shall be cause for rejection of the rivets represented and no additional testing shall be permitted. Results of all tests shall be reported.

5. PREPARATION FOR DELIVERY:

5.1 Identification and Packaging:

5.1.1 Rivets of each different part number shall be packaged in separate containers.

SAENORM.COM : Click to view the full PDF of ams7236b