

MIL-T-9047G
AMENDMENT 2
30 September 1986
SUPERSEDING
INT. AMENDMENT 1 (SH)
21 January 1981

MILITARY SPECIFICATION

TITANIUM AND TITANIUM ALLOY BARS (ROLLED OR FORGED) AND REFORGING STOCK, AIRCRAFT QUALITY

This amendment forms a part of MIL-T-9047G, dated 15 December 1978, and is approved for use by all Departments and Agencies of the Department of Defense.

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3.1, delete and substitute:

"3.1 Material. Unless otherwise specified (see 6.2), material for products supplied in accordance with this specification shall be produced using the following melting controls.

3.1.1 Commercially pure titanium. Commercially pure titanium shall be electron beam melted or shall be multiple melted with the last one of the melting cycles under vacuum. When multiple melted, the first melt shall be made by consumable electrode, nonconsumable electrode, or electron beam melting practice. The subsequent melt or melts shall be made using consumable electrode practice.

3.1.2 Alloyed titanium. Alloys of titanium shall be multiple melted under vacuum or inert gas with the last one of the melting cycles under vacuum. The first melt shall be made by consumable electrode, nonconsumable electrode, or electron beam melting practice. The subsequent melt or melts shall be made using consumable electrode practice with no alloy additions permitted in the last consumable electrode melt.

3.1.3 Atmosphere. The atmosphere for nonconsumable electrode melting shall be vacuum or shall be inert gas at a pressure not higher than 250 mm of mercury.

3.1.4 Electrode tip. The electrode tip for nonconsumable electrode melting shall be water cooled copper."

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DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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Table I, delete titanium alloy 3Al - 2.5V from the Alpha Titanium Alloy Section and add the alloy to the Alpha-Beta Titanium Alloy Section on Page 6.

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Table II, Footnote 1/, add the following:

"Mechanical properties of sections larger than 16 square inches shall be as specified in the contract or order."

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Table III, Footnote 1/, delete and substitute:

1/ Apply to products with cross sectional area of 16 square inches or less. Properties apply in any grain direction. Mechanical properties of sections larger than 16 square inches shall be as specified in the contract or order."

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Table IV, Footnote 2/, add the following:

"Mechanical properties of sections larger than 16 square inches shall be as specified in the contract or order."

PAGE 16

Table V, first column: under "Product Thickness" delete "0.500 - 2.500, Incl.", "Over 1.500 - 6,000, Incl." and "Over 6.000 - 14,000, Incl." and substitute "0.500 - 1.500, Incl.", "Over 1.500 - 6,000, Incl." and "Over 6.000 - 14,000, Incl." respectively.

Table V, third column: under "Surface Finish II", for Thickness of 0.500 - 1.500 Incl., delete "A" and substitute "AA".

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4.1 Delete and substitute:

"4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except, as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The

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Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Certification of quality compliance. A certificate of quality compliance shall be prepared for each lot of material offered for acceptance (see 6.1.1). The certificate shall include actual data of specified chemical and mechanical tests. Qualitative results of nondestructive tests and other inspections or tests shall be recorded on the certificate. The certificate shall also state that each lot has been sampled, tested, and inspected in accordance with the specification and meets all specification requirements. The certificate shall be signed by a responsible representative of the contractor."

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Add the following:

"6.2.1 Data requirements. When this specification is used in an acquisition and data are required to be delivered, the data requirements identified below shall be developed as specified by an approved Data Item Description (DD Form 1664) and delivered in accordance with the approved Contract Data Requirements List (CDRL), incorporated into the contract. When the provisions of DOD FAR Supplement, Part 27, Sub-Part 27.410-6 (DD Form 1423) are invoked and the DD Form 1423 is not used, the data specified below shall be delivered by the contractor in accordance with the contract or purchase order requirements. Deliverable data required by this specification are cited in the following paragraphs.

<u>PARAGRAPH</u>	<u>DATA REQUIREMENT</u>	<u>APPLICABLE DID</u>
4.1.1	Certificate of Quality Compliance	UDI-A-23264 Certification Data/Report

(Data item descriptions related to this specification, and identified in section 6 will be approved and listed as such in DOD 5000.19L, Vol. II, AMSDL. Copies of data item descriptions required by the contractors in connection with specific acquisition functions should be obtained from the Naval Publications and Forms Center or as directed by the contracting officer.)

6.2.1.1 The data requirements of 6.2.1 and any task in section 3, 4, or 5 of this specification required to be performed to meet a data requirement may be waived by the contracting/acquisition activity upon certification by the offeror that identical data were submitted by the offeror and accepted by the Government under a previous contract for identical item acquired to this specification. This does not apply to specific data which may be required for each contract regardless of whether an identical item has been supplied previously (for example, test reports)."

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Table IX, delete titanium alloy "3A1 - 2.5V" from the Alpha Titanium Alloy Section and add the alloy to the Alpha-Beta Titanium Section.

Last column, under Commercially Pure Ti, delete "CP-B" and substitute "CP-70".

Custodians:

Air Force - 20
Navy - AS
Army - MR

Preparing Activity:

Air Force - 11

(Project 9530-0353)

Review Activities:

Air Force - 84, 99
Navy - SH
Army - AR, MI
DLA - IS

User Activities:

Army - AV