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INTERNATIONAL
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AEROSPACE MATERIAL SPECIFICATION

SAE AMS 2809

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Identification
Titanium and Titanium Alloy Wrought Products

1. SCOPE:

This specification covers procedures for identifying wrought products of tantium and titanium alloys.

2. APPLICABLE DOCUMENTS:

None.

3. TECHNICAL REQUIREMENTS:

3.1 Bars and Wire:

Shall be identified as follows:

3.1.1 Each straight bar over 0.500 in. (12.50 mm) in nominal diameter or least width of flat surface shall be marked in a row of characters recurring at intervals not greater than 3 ft (900 mm) with the material specification number and its revision letter, if any, heat number, and manufacturer's identification. The characters shall be of such size as to be legible, shall be applied using a suitable marking fluid whose residue shall contain not more than traces of halogen-bearing compounds, and shall be removable in hot alkaline cleaning solution without rubbing. The markings shall have no deleterious effect on the product or its performance and shall be sufficiently stable to withstand normal handling.

3.1.2 Straight bars and wire 0.500 in. (12.50 mm) and under in nominal diameter or least width of flat surface shall be securely bundled and identified by a durable tag marked with the purchase order number, the material specification number and its revision letter, if any, heat number, nominal size, and manufacturer's identification and attached to each bundle or shall be boxed and the box marked with the same information.

3.1.3 Coiled bars and wire shall be securely bundled and identified by a durable tag marked with the purchase order number, the material specification number and its revision letter, if any, heat number, nominal size, and manufacturer's identification and attached to each coil or shall be boxed and the box marked with the same information.

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3.2 Sheet, Strip, and Plate:

Shall be identified as follows:

3.2.1 Each sheet, strip, and plate shall be marked on one face, in the respective location indicated below, with the material specification number and its revision letter, if any, heat number, manufacturer's identification, and nominal thickness. The characters shall be applied using a suitable marking fluid whose residue shall contain not more than traces of halogen-bearing compounds, and shall be removable in hot alkaline cleaning solution without rubbing. The markings shall have no deleterious effect on the product or its performance and shall be sufficiently stable to withstand normal handling.

3.2.1.1 Flat strip 6 in. (150 mm) and under in width shall be marked in one or more lengthwise rows of characters recurring at intervals not greater than 3 ft (900 mm).

3.2.1.2 Flat sheet, flat strip over 6 in. (150 mm) in width and plate shall be marked in lengthwise rows of characters recurring at intervals not greater than 3 ft (900 mm), the rows being spaced not more than 6 in. (150 mm) apart and alternately staggered.

3.2.1.3 Coiled sheet and strip shall be marked near both the outside and inside ends of the coil; the markings shall be applied as in 3.2.1 or shall appear on a durable tag or label attached to the coil and marked with the information of 3.2.1. When the product is wound on cores, the tag or label may be attached to the core.

3.3 Aircraft Tubing:

Shall be identified as follows:

3.3.1 Aircraft Tubing Other Than Hydraulic:

3.3.1.1 Straight tubes 0.029 in. (0.75 mm) and over in wall thickness and 0.500 in. (12.50 mm) and over in nominal OD, minor axis, or least width of flat surface shall be marked in a row of characters recurring at intervals not greater than 3 ft (900 mm) with the material specification number and its revision letter, if any, heat number, manufacturer's identification, and nominal wall thickness. The characters shall be of such size as to be legible, shall be applied using a suitable marking fluid whose residue shall contain not more than traces of halogen-bearing compounds,and shall be removable in hot alkaline cleaning solution without rubbing. The markings shall have no deleterious effect on the tubing or its performance and shall be sufficiently stable to withstand normal handling.

3.3.1.2 Straight tubes under 0.029 in. (0.75 mm) in wall thickness or under 0.500 in, (12.50 mm) in nominal OD, minor axis, or least width of flat surface shall be securely bundled and identified by a durable tag marked with the information of 3.3.1 and attached to each bundle or shall be boxed and the box marked with the same information.

3.3.1.3 Coiled tubing shall be securely bundled and identified by a durable tag marked with the purchase order number, the material specification number and its revision letter, if any, heat number, nominal OD and wall thickness, and manufacturer's identification and attached to each coil or shall be boxed and the box marked with the same information.

3.3.2 Aircraft Hydraulic Tubing:

3.3.2.1 Straight tubing 0.029 in. (0.75 mm) and over in wall thickness and 0.250 in. (6.25 mm) and over in OD, minor axis, or least width of flat surface shall be marked in a row of characters recurring at intervals not greater than 3 ft (900 mm) with the material specification number and its revision letter, if any, heat number, manufacturer's identification, and nominal wall thickness. The characters shall be of such size as to be legible, shall be applied using a suitable marking fluid whose residue shall contain not more than traces of halogen-bearing compounds, and shall be removable in hot alkaline cleaning solution without rubbing. The markings shall have no deleterious effect on the tubing or its performance and shall be sufficiently stable to withstand normal handling.

3.3.2.2 Straight tubing under 0.029 in. (0.75 mm) in wall thickness or under 0.250 in. (6.25 mm) in nominal OD, minor axis, or least width of flat surface shall be securely bundled and identified by a durable tag marked with the information of 3.3.2.1 and attached to each bundle or shall be boxed and the box marked with the same information.

3.3.2.3 Coiled tubing shall be securely bundled and identified by a durable tag marked with the purchase order number, the material specification number and its revision letter, if any, heat number, nominal OD and wall thickness, and manufacturer's identification and attached to each coil or shall be boxed and the box marked with the same information.

3.4 Extruded Bars, Rods, Tubing, and Shapes:

Shall be identified as follows:

3.4.1 Each straight bar, rod, and tube 0.500 in. (12.50 mm) and over in nominal OD or least width of flat surface and each straight shape with configuration allowing access to a flat surface at least 0.500 in. (12.50 mm) wide recessed not more than 1 in. (25 mm) below the outline of the shape shall be marked in a row of characters recurring at intervals not greater than 3 ft (900 mm) with the material specification number and its revision letter, if any, heat number, and manufacturer's identification. The characters shall be of such size as to be legible, shall be applied using a marking fluid whose residue shall contain not more than traces of halogen-bearing compounds, and shall be removable in hot alkaline cleaning solution without rubbing. The markings shall have no deleterious effect on the product or its performance and shall be sufficiently stable to withstand normal handling.

4. QUALITY ASSURANCE PROVISIONS:

Not applicable.