Society of Automotive Engineers, Inc.
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AEROSPACE MATERIAL SPECIFICATION

AMS 3813/3

Issued 4-15-78
Revised

ROPE, ARAMID FIBER, JACKETED
Parallel Yarn, Braided Jacket

1. SCOPE:

1.1 Form: This specification covers parallel-yarn ropes formed from impregnated aramid fibers.

1.2 Classification: The ropes are classified by size, based on the nominal diameter of the finished rope as shown in Table I.

2. APPLICABLE DOCUMENTS: Shall be as shown in AMS 3813.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification: The complete requirements for procuring the ropes described herein shall consist of this document and the latest issue of the basic specification, AMS 3813.

3.2 Material and Construction: The rope shall consist of aramid fiber constructional yarns gathered together in a parallel arrangement without twist, and covered with a braided jacket. The yarns shall be impregnated with an elastomeric formulation, filling the interstices between the yarns and between the yarns and the jacket so that the yarns are flexibly bonded to each other and to the jacket.

3.2.1 Constructional Yarn: Each single yarn shall conform to AMS 3904/5 and shall be free of splices.

3.2.2 Elastomeric Formulation: Shall be chloroprene rubber, applied so that each constructional yarn is heavily coated.

3.2.3 Jacket: Shall be a braided polyester jacket, bonded to the rope with a flexible, impervious layer of chloroprene rubber.

3.2.4 Rope Size: Shall be designated by the finished nominal diameter as shown in Table I.

3.3 Properties: Shall be as specified in Table I and as follows; the properties of ropes having sizes other than those listed in Table I shall be as agreed upon by purchaser and vendor.

3.3.1 Breaking Strength: Shall be as specified in Table I.

3.3.2 Linear Density: Shall be within ±10% of the value determined during preproduction testing. Nominal values are shown in Table I.

3.3.3 Weatherability: The breaking strength, after exposure to accelerated weathering conditions, shall be not less than 95% of the value specified in Table I.

3.3.4 Vibration Fatigue: The breaking strength, after exposure to simulated aeolian vibration conditions, shall be not less than 95% of the value specified in Table I.