INCH-POUND

MIL-DTL-6117J
5 November 2001
SUPERSEDING
MIL-DTL-6117H
10 January 2001

DETAIL SPECIFICATION

TERMINAL, WIRE ROPE ASSEMBLIES, SWAGED TYPE

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers swaging terminals to wire rope to make up wire rope assemblies.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of the documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

* 2.2.1 Specifications. The following specifications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

Beneficial comments (recommendations, additions, deletions) and any pertinent data that may be of use in improving this document should be addressed to: Defense Supply Center Richmond, ATTN: DSCR-VBD, Richmond, VA 23297-5610, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 1560

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SPECIFICATIONS

DEPARTMENT OF DEFENSE

MIL-DTL-781	-	Terminal; Wire Rope Swaging.
MIL-DTL-5688	-	Wire Rope Assemblies; Aircraft, Proof Testing and Prestretching of.
* MIL-DTL-18375	-	Wire Rope, Flexible, Corrosion-Resisting, Nonmagnetic, for Aircraft Control.
MIL-DTL-83420	-	Wire Rope, Flexible, for Aircraft Control.
* MIL-DTL-87161	-	Wire Strand, Nonflexible, for Aircraft Application.

(Unless otherwise indicated, copies of the above specifications are available from the Standardization Documents Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Non-Government publication. The following document forms a part of this document to the extent specified herein. Unless otherwise specified, the issue of the documents that are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

SOCIETY OF AUTOMOTIVE ENGINEERS (SAE), INC.

SAE AS10081 - Terminal Shank-Swaging, Dimensions for (DoD adopted).

(Application for copies should be addressed to the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated detail specifications, specification sheets * or MS sheets), the text of this document takes precedence. Nothing in this document however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

* 3.1 Materials. Wire rope shall conform to MIL-DTL-83420, MIL-DTL-18375, or
* MIL-DTL-87161 (see 6.2). Terminals shall conform to MIL-DTL-781, SAE AS10081 and the
* applicable MS sheet (see 6.2). Special terminals not dimensionally conforming to detail
* specifications shall conform to SAE AS10081 and the applicable detail drawings (see 6.2).

3.2 Swaging. Wire rope assemblies shall be swaged in accordance with the appropriate * specifications and SAE AS10081, as applicable. Before swaging, the fitting shall be anchored to the wire rope with the wire rope end inserted to the full depth of the bore. Swaging shall be accomplished by uniformly cold-working the terminal shank until its dimensions conform to the

appropriate dimensions listed in the applicable specification or, in the case of special terminals, to the appropriate dimensions listed in SAE AS10081.

3.3 Breaking strength. The breaking strength of the wire rope assemblies shall not be less than the allowable minimum breaking strength for the type and size wire rope to which the terminal is attached.

3.4 Workmanship. Workmanship shall be such that, after swaging, terminals shall not contain splits or cracks. Swaging shall not cause injurious defects in the terminal or wire rope.

* 3.5 Proof load test. The wire rope assembly shall withstand the proof load test per MIL-DTL-5688.

4. VERIFICATION

4.1 Inspection lot. An inspection lot of wire rope assemblies shall consist of the number of assemblies of the same materials and wire rope diameter produced consecutively by the same swaging machine, or series of progressive swaging machines, and submitted for inspection at the same time under one contract or purchase order.

4.2 Sampling. Identical sample assemblies may be used for the examination of product and mechanical tests.

4.2.1 Mechanical tests. Assemblies to be inspected shall be chosen from the inspection lot by random sampling. One sample from each lot will be selected for mechanical test.

4.2.2 Proof load test. All wire rope assemblies shall be proof load tested in accordance with MIL-DTL-5688.

4.3 Tests.

4.3.1 Examination of products. Samples shall be examined to determine conformance to the applicable drawing and requirements not covered by the following tests.

4.3.2 Mechanical tests.

4.3.2.1 Breaking strength. The wire rope assembly shall be subjected to a load not less than the allowable minimum breaking strength for the type and size of the wire rope to which the terminals are attached. This information is contained in applicable specifications. The manner in which the load shall be applied to the fitting end of the terminal shall be governed by the design of the fitting. Prior to application of the load, the wire rope shall be marked at the point where it enters the swaging end of the terminal. Breaking of the wire rope before reaching the specified load, any slippage of the wire rope in the fitting, or any signs of failure in the terminal shall constitute failure.

* 5. PACKAGING. This section is not applicable to this specification.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The swaged wire rope assemblies covered by this specification are intended for general aircraft use.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification.
b. Issue of DoDISS to be cited in the solicitation, and if required, the specified issue of individual documents referenced (see 2.2.1 and 2.3).
c. MS part number of terminals, size and type of wire rope desired and length of the assembly, or the applicable detail drawing number (see 3.1).

6.3 Subject term (key word) listing.

* Proof load
* Swaging

6.4 Changes from previous issue. The margins of this specification are marked with asterisks to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the previous issue.

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