

FED. SUPPLY CLASS

53GP

FOREWORD

This standard sets forth standard test procedures for determining the capability of externally threaded fasteners to withstand the various stress corrosion conditions encountered when used in military weapons systems.

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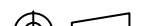
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① COMPLETELY REVISED

THE INITIAL RELEASE OF THIS DOCUMENT SUPERSEDES DOD-STD-1312-109.
DESIGNATION FOR THIS TEST METHOD REMAINS MIL-STD-1312-109.

THIRD ANGLE PROJECTION		CUSTODIAN	REVISION
		NATIONAL AEROSPACE STANDARDS COMMITTEE	1
PROCUREMENT SPECIFICATION	NONE	TITLE	CLASSIFICATION
		FASTENER TEST METHODS, METRIC METHOD 109 STRESS CORROSION	STANDARD PRACTICE
		NAM 1312-109	
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1. SCOPE

- 1.1 Applicability. This test method establishes the procedure for determining the relative susceptibility of threaded fasteners to stress corrosion cracking. This is an accelerated test in which the test specimen is subjected to a sustained tensile stress and exposed to an alternate immersion cycle in a 3,5 percent sodium chloride solution.
- 1.2 Potential hazard. This test is potentially hazardous since the fastener is subjected to a high sustained load. It is recommended that the testing area be completely enclosed to prevent injury to personnel working in the proximity of the test area. It is also recommended that safety masks be worn when loading and examining the specimen.

2. REFERENCED DOCUMENTS

The following document(s) forms a part of this specification to the extent specified herein. The issues of the documents which are indicated as DOD adopted shall be the issue in the current DoDISS and the supplement thereto, if applicable.

ASTM International

ASTM E126 Inspection, Test, and Standardization of Hydrometers
ASTM E1417 Inspection, Penetrant Method of
ASTM E1444 Inspection Process, Magnetic Particle

Copies can be obtained from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. www.astm.org

ASME

ASME B46.1 Surface Texture (Surface Roughness, Waviness, and Lay)

Copies can be obtained from ASME, Three Park Ave., New York, NY 10016-5990. www.asme.org

3. DEFINITIONS

Not applicable.

4. GENERAL REQUIREMENTS

- 4.1 Test apparatus. The apparatus used in the stress corrosion test shall include the following:

- a. Test units (see 4.1.1).
- b. Length-measuring instrument (see 4.1.2).
- c. Test chamber equipped with devices for producing an alternate immersion cycle, racks for supporting the specimens and a circulating air system (see 4.1.3).
- d. Salt solution reservoir (see 4.1.4).

4.1.1 Test units

- 4.1.1.1 Test cylinders. Test cylinders shall be as specified in procurement or other documents. Unless otherwise specified, the test cylinders shall conform to Figure 1. The test cylinder may be reused provided that:

- a. It has not been damaged by a previous test.
- b. It has been reworked by machining or cleaning to remove all corrosion or rust products that affect the test conditions.

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