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MILITARY STANDARD

FASTENER TEST METHODS
METHOD 24,
RECEPTACLE TORQUE-OUT,
PANEL FASTENERS



FSC 53GP

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DEPARTMENT OF DEFENSE
WASHINGTON, DC 20301

Fastener Test Methods, Method 24, Receptacle Torque-Out. Panel Fasteners

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FOREWORD

This standard sets forth a standard test procedure for determining the torque-out capabilities of receptacle assemblies of structural panel fasteners.

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1. SCOPE

1.1 Applicability. This test method covers the procedure and apparatus required for testing the torque-out capability of receptacle assembly of structural panel fasteners.

2. REFERENCED DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards and handbooks. Unless otherwise specified, the following specifications, standards and handbooks of the issue listed in the current Department of Defense Index of Specifications and Standards (DoDISS) and the supplement thereto (if applicable), form a part of this standard to the extent specified herein.

STANDARDS

FEDERAL

GGG-W-686 Wrench, Torque

MILITARY

MS20426 Rivet, Solid, Countersunk 100 Degrees, Precision Head, Aluminum and Aluminum Alloy

(Copies of specifications, standards, handbooks, drawings and publications required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

3. DEFINITIONS

Not applicable.

4. GENERAL REQUIREMENTS

4.1 Test apparatus.

4.1.1 Torque-out. Torque applied to the receptacle should be measured with a torque indicating wrench calibrated for accuracy within the limits specified by GGG-W-686. The wrench scale should be selected so that the anticipated loading is within the middle of the scale.

5. DETAIL REQUIREMENTS

5.1 Test procedure.

5.1.1 Torque-out test. Unless otherwise specified, mount receptacle assembly on rigid test plate using MS20426 AD rivets. Apply

torque to the receptacle by means of a stud sufficiently long to avoid any clamping loading. Use torque measuring device to record test load in a clockwise direction. When subjected to required minimum values, there shall be no failure or permanent deformation visible to the unaided eye to any of the receptacle components. Failure of the attaching rivets or other specified fastener is not to be interpreted as a failure of the receptacle.

6. NOTES

6.1
following data:

Test report. The test report shall include the

- a. Fastener description.
 - (1) Part number.
 - (2) Lot identification.
 - (3) Material.
 - (4) Heat treat.
 - (5) Grip length.
 - (6) Mating part.
 - (7) Measured fastener diameter.
- b. Test machine.
 - (1) Model and serial number.
 - (2) Calibration date.
- c. Ultimate load.
- d. Installation procedure.
- e. Test load and load rate.
- f. Type of failure.
- g. Method of support.
- h. Date of test.
- i. Test performed by.

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