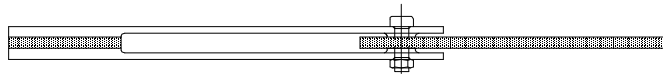


DOUBLE SHEAR BEARING STRENGTH TEST FIXTURE - PROCEDURE A (CS)



Specimen:	Width	1.5"
	Thickness	0.125 - 0.208" (3 - 5mm)
	Length	Up to 8.5"
Fixture:	Construction	High strength steel with protective plating
	Temperature	-120 to 250°F (-85 to 122°C)
	Mounting	Grips (not included)
	Capacity	1,000 lbs
	Weight	5 lbs approximately
	Dimensions	1.5" x 0.6" x 8" approximately
	Standard	Manufactured in accordance with ASTM D5961

Model No. ASTM.D5961.11 - Double Shear Fastener Test Fixture

The Double Shear Fixture applies a double shear load via two loading plates secured to the test specimen with a close-tolerance, lightly torqued fastener (or pin). The two loading plates are secured in a standard tensile grip set with a spacer (any common test material) between the loading plates to provide proper spacing. The fixture is constructed from high strength steel, with a protective black oxide finish in accordance with ASTM D5961.

MODEL NO. ASTM.D5961.11

ASTM, TENSION, COMPOSITE, DOUBLE, SHEAR,

ACCESSORIES

ACC.D5961.1101 - 200 Pound Screw Action Grips

Model No. Grip.10100.201- (1) 200lbs Screw Action Grip with 1" Square Grip Faces

SPARE PARTS

SPA.D5961.1101 - Extra 1/4" Diameter Hardened Pin

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

<http://www.astm.org/Standards/D5961.htm>

ASTM D5961/D5961M-13

Standard Test Method for Bearing Response of Polymer Matrix Composite Laminates

1.1 This test method covers the bearing response of pinned or fastened joints using multi-directional polymer matrix composite laminates reinforced by high-modulus fibers by double-shear tensile loading (Procedure A), single-shear tensile or compressive loading of a two-piece specimen (Procedure B), single-shear tensile loading of a one-piece specimen (Procedure C), or double-shear compressive loading (Procedure D). Standard specimen configurations using fixed values of test parameters are described for each procedure. However, when fully documented in the test report, a number of test parameters may be optionally varied. The composite material forms are limited to continuous-fiber or discontinuous-fiber (tape or fabric, or both) reinforced composites for which the laminate is balanced and symmetric with respect to the test direction. The range of acceptable test laminates and thicknesses are described in 8.2.1. 1.2 This test method is consistent with the recommendations of MIL-HDBK-17, which describes the desirable attributes of a bearing response test method. 1.3 The multi-fastener test configurations described in this test method are similar to those used by industry to investigate the bypass portion of the bearing bypass interaction response for bolted joints, where the specimen may produce either a bearing failure mode or a bypass failure mode. Note that the scope of this test method is limited to bearing and fastener failure modes. Use Test Method D7248/D7248M for by-pass testing. 1.4 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard. 1.4.1 Within the text the inch-pound units are shown in brackets. 1.5 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

Extracted, with permission, from ASTM D5961 Standard Test Method for Bearing Response of Polymer Matrix Composite Laminates, copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be purchased from ASTM International, www.astm.org.