

Test Loading of Shelf Brackets

REPORT TO: **Mike Andrews**DATE: **12/7/07**TEST REQUIREMENTS: **1000 Pound Load and Drop Weight Test**JOB NO.: **101015**ITEM INSPECTED: **21", 15" & 8" Shelf Brackets**LAB NO.: **8671****References:**

ANSI/BHMA A156.9-2003; Test 8: Shelf Brackets and Standards and Ornamental Shelf Support Test

Summary:

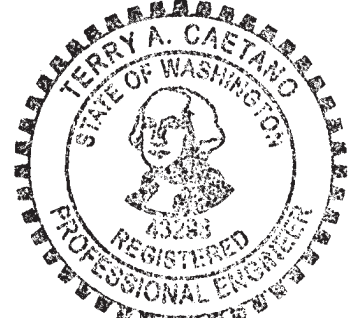
The shelf brackets were tested in accordance with the referenced standard and supported the test load without failure.

Test Procedure:

Two shelf brackets were mounted to a wall at 16" centers with 1/4" wide x 1-1/2" long lag bolts in accordance with ANSI/BHMA 156A-2003 paragraphs 4.9.2, 4.9.3, & 4.9.5 – 4.9.9. The top support was drilled through the stud and mounted using 1/4" all-thread. A load of 1000 pounds was applied using 5-pound weights. Deflection was measured at each 50-pound increment. Upon completion of the drop weight test, additional weight was added to the bracket until a load of 1,500 lbs. was achieved. The deflection was again checked at 50-pound increments and the bracket subjected to a drop weight test. A listing of results may be found in Table 1. A full listing of results may be found in Appendix A.

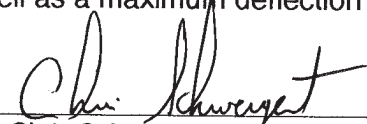
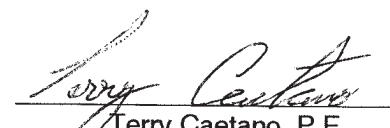
Table 1. Bracket Testing Results

Bracket Size	Deflection @ 1000 Lbs	Deflection @ 1500 Lbs
21" Set #1	5/16"	15/32"
21" Set #2	5/16"	1/2"
15" Set #1	7/32"	11/32"
15" Set #2	7/32"	5/16"
8" Speed Brace Set #1	1/8"	13/64"
8" Speed Brace Set #2	3/16"	1/4"

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Deflection for the 21", 15", and 8" brackets was measured at 21.5", 15.5", and 8.5" respectively.

All samples met the three requirements of the referenced standard for applied load, shock load testing as well as a maximum deflection of 3°.


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