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ATLNC 1023.02-06

Report Date: 01/10/07

Test Dates: 10/23/06

ATLNC Certification # 05-0810.05

Test Requested By: Mike Martin
Carriage House Door Company
1571 E. Main St.
Old Fort, N.C. 28762
Phone: 828-668-1600 Fax: 828-668-1805

Test Standards: FBC TAS 202, 1707.4.3.2.1
ASTM E, 330-00, ANSI / DASMA 108-2002

Test Conditions: 75-80 degrees F

Design Pressures: +21 psf, -21 psf

Description of product tested: Carriage House Door 18' x 8' Model 104 (4) section Wood Garage door as shown in drawing # Carriage-18-8-21-21. Drawing is an integral part of the test report and must accompany the report.

Description of Unit:

Component	Number	Description	Location
Sections	4	216" x 24" Wood section consisting of 1-3/8" thick wood frame sheathed on the interior by 1/4" exterior plywood and exterior by 3/8" exterior plywood attached with 1-1/4" corrugated box nails. The space between the plywood sheathing was filled with foam insulation. Trim was 1" x 6" extra boards. Top section had 2 windows.	Trim as shown in drawing.
Windows	4	DO 43-1/4" x 8", 1/8" thick DSB Glass retained on the outside by 1" x 6" trim board and on the inside by 3/8" x 1-3/4" retainer board. Glass bite - 3/8" with Lexel sealant.	Top section

End stiles	2 per section	5-1/2" wide x 24" x 1-3/8" thick wood style.	End of each section
Intermediate Stiles	4 per section	2-1/4" wide x (section height - rail height) x 1-3/8" thick wood style.	2' OC from section end
Rails	2 per section	Bottom rail on bottom section and top rail on top section 5-1/2" wide x 1-3/8" thick x 205" long. All other rails 2-3/4" wide x 1-3/8" thick x 205" long	Top and bottom of each section.
Steel Roller Hinges	4 per section joint	Double 11 gauge galvanized steel hinges with outer hinge attached with (4) 1/4" x 2-1/4" carriage bolts and inner hinge attached with (4) 1/4" x 1-3/8" lag screws.	Each end stile
Intermediate Hinges	7 per section joint	11 gauge steel hinge attached with (4) 1/4" x 2-1/4" carriage bolts and nuts.	Each intermediate stile
3" Struts	2 on bottom section, 1 on other sections	3" 20 gauge 50 KSI strut attached with (2) 1/4" x 1-3/8" lag screw per stile	Each section as shown in drawing
2" 10 ball steel rollers	4 per side	1-13/16" diameter steel rollers with 7/16" x 9" stem with a 7/16" push nut. No push nut on bottom roller.	One side of door in bottom and top brackets and end hinges
3" 10 ball steel rollers	4 per side	1-13/16" diameter steel rollers with 7/16" x 9" stem with a 7/16" push nut. No push nut on bottom roller.	One side of door in bottom and top brackets and end hinges
Bottom Brackets	2	11ga x 3" x 8" attached with (3) 1/4" x 2-1/4" carriage bolts and nuts.	Bottom left and right corners of bottom section
Top Fixtures	2	12 ga (.101") fixtures, outer attached with (2) 1/4" x 2-1/4" carriage bolt and nuts, inner attached with (2) 1/4" x 1-3/8" lag screws.	2 each top corner of door
2" Vertical Track with track brackets	1	2" x .083" thick track attached to (3) 2-1/2" x 12ga (.101") track brackets with (2) 1/4" rivet per bracket. Bracket attached to jamb with (1) 5/16" x 3" lag screw per bracket. Brackets located 2" from bottom of door then at each section joint, Flag Bracket 87-1/2", 96", 101-1/2" from floor.	One side of door
2" Horizontal	1	Attached to 2" vertical track with (2)	Attached to top of

2" Horizontal track	1	Attached to 2" vertical track with (2) 1/4" x 3/4" track bolts and nuts and to flag bracket with (1) 3/8" x 3/4" carriage bolt.	Attached to top of 2" vertical track.
3" Vertical track with continuous angle		3" x .090" thick vertical track attached tapered continuous angle (.080" x 4" to 3-1/2" x 3"). Angle attached to track with (8) 1/4" x 3/4" track bolts and nuts as shown in drawing. Continuous angle attached to frame with (13) 5/16" x 1-5/8" lag screws located 3-1/2", 10", 16", 22", 28", 34", 40", 46", 58", 70", 82", 96", 102-1/2" as shown in drawing.	One side of door
3" Horizontal track		Attached to 3" vertical track with (2) 1/4" x 3/4" track bolts and nuts and to the vertical continuous angle with (1) 3/8" x 3/4" carriage bolt.	Attached to top of 3" vertical track.
Counter balance System	1	Each side of the door balanced with a 1/8" metal cable. Each cable was attached to the bottom bracket and a drum on each side. Drums attached to a shaft and springs	Above the door

STATIC AIR PRESSURE
TAS 202, ASTM E 330-02

Specimen A
Design Loads +21psf, -21psf

Range of tests

Positive loads

1/2 Test
Test

Time Seconds	Load psf	Max.	Perm.	Recovery
30	15.8	2-5/16"	1/16"	97%
30	31.5	5-1/2"	1/4"	95%

Range of tests

Negative loads

1/2 Test
Test

Time Seconds	Load psf	Max.	Perm.	Recovery
30	15.8	2"	0"	100%
30	31.5	4-1/16"	1/4"	94%

Door was operable before and after all tests.

Note: 2 mil polyethylene film was used for the Static Air Pressure Test, it is the opinion of the undersigned that it had no influence on the results of the test.

Observers-

Tony Sivore / ATL
Eddie Ashe, Keith Owen / ATL
Jim Cox, Brian Koontz / ATL
David W. Johnson, P.E.
Mike Martin, Shawn Guthrie / Carriage House Doors

Keith Owen, Lab Manager
American Test Lab, Inc.

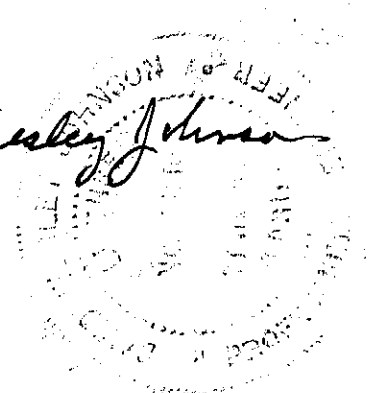
Keith Owen
01/11/07

All Tests Witnessed and Certified by:

David Johnson P. E.
1656 Calvert Rd.
Brevard, NC 28712
Florida P.E. # 00061915

Engineer Seal And Signature

David Wesley Johnson
1/11/07



Disclaimer:

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