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March 20, 2020

Re: Evaluation Report for Models 4600/4650/6600/8300/8500/8650/5150/5200/TM515/TM525
FL# 10737

SUBMITTED BY:

Wayne Dalton, A Division of Overhead Door Corporation
3395 Addison Drive
Pensacola, FL 32514

One Door Drive
P.O. Box 67
Mt. Hope, OH 44660

1. PRODUCT NAME

Models 4600/4650/6600/8300/8500/8650/5150/5200/TM515/TM525

2. SCOPE OF EVALUATION

Structural Transverse Wind Loads and Large Missile Impact and Cyclic Wind Pressure Resistance. Since every door size cannot be tested, engineering analysis using a comparative analysis, as permitted per the Florida Product approval 61G20-3, were used to analyze the doors and make the wind load designs.

The addition of new option code 2254.

3. USES

Models 4600/4650/6600/8300/8500/8650/5150/5200/TM515/TM525 garage doors are used for residential and commercial applications with specified allowable design pressures.

4. DESCRIPTION

General

The Models 4600, 4650, 6600, 8300, 8500, 8650 and the Models 5150, 5200, TM515, and TM525 are insulated sectional overhead doors constructed from galvanized steel sections with foamed in place polyurethane insulation.

The Models 4600, 8300, 5150 and TM515 have 1-5/16" thick panels. The doors are available in heights up to 24'-0".

The Models 4650, 8500, 5200 and TM525 have 1-13/16" thick panels. The doors are available in heights up to 24'-0".

The Models 6600 and 8650 has 1-5/16" thick panels with a decorative overlay. The doors are available in heights up to 14'-0".

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Door Tracks

All door assemblies listed in this report have both vertical and horizontal tracks from a minimum 16 gage, 33 ksi steel and finished with an ASTM A525 G-40 galvanized coating. The vertical tracks are attached to the supporting structure with jamb brackets as specified on the most recent manufacturer's installation instructions/drawings.

Glazed Sections

Option code assemblies listed in Table 1 of this report with glazed openings that meet the requirements for impact resistance have glazing that is made of ¼" polycarbonate constructed per windload drawings or an equivalent product approved for use in Florida, and can be installed in the top or intermediate sections of the garage door. These assemblies are available for use with the glazing option in wind-borne debris regions and are indicated so in Table 1. Refer to the most recent manufacturer's installation instructions/drawings for glass size limitations.

The drawings that are not indicated for use in wind-borne debris regions with the glazing option are available with a minimum of 0.090-inch thick standard SSB glass windows that are installed in frames and inserted in the top or intermediate section of the door. The glazing is not impact resistant and does not meet the requirements for windborne debris regions. Refer to the most recent manufacturer's installation instructions/drawings for glass size limitations.

Wind Load Bracing

All drawings listed in Table 1 of this report are braced on the inside of the doors with three inch or four inch horizontal spanning U-bars. Each U-bar is made of either 16-gage, 18-gage or 20-gage ASTM A653 steel with a minimum yield strength of 80 ksi and are finished with an ASTM A525 minimum G-40 galvanized coating. The gage and quantity of U-bar braces varies depending on the amount of windload resistance required and the height of the door.

In addition to three-inch horizontal spanning U-bars, some of the assemblies listed in Tables 1 of this report are braced with vertical aluminum posts made up of 0.125-inch thick 6063-T6 aluminum alloy. The post is a telescoping post assembly. The outer member outside diameter is 1.75" wide x 4.00" long. The inner member outside diameter is 1.47" wide x 3.72" long. Reference drawing 312957 for additional information on the installation of the post assembly

Jamb Attachment

Method of securing the door to the mounting surface is detailed in the Jamb Connection Supplement, P/N 324620.

5. INSTALLATION

All drawings listed in this report are to be installed in accordance with the most recent manufacturer's published installation instructions/drawings and this report.

The most recent manufacturer's installation instructions/drawings shall be strictly adhered to and a copy of these instructions/drawings shall be available at all times on the job site during installation.

6. ALLOWABLE TRANSVERSE WIND LOADS

Design wind load pressures for garage doors shall be determined in accordance with Florida Building Code and shall not exceed the allowable transverse wind loads shown in the following tables:

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Table 1: Models 4600/4650/6600/8300/8500/8650/5150/5200/TM515/TM525
Allowable Transverse Wind Loads and Impact Rating

Windload Specification Option Code	Maximum Size		Positive Design PSF	Negative Design PSF	Reinforcement	Glazing Available (Yes/No)
	Width	Height				
2200	9'-2"	24'-0"	12.80	14.80	3", 20 gage U-bars	Yes
2201	9'-2"	24'-0"	19.10	20.60	3", 20 gage U-bars	Yes
2202	9'-2"	24'-0"	22.90	26.30	3", 20 gage U-bars	Yes
2203 ²	9'-2"	24'-0"	26.90	30.80	3", 20 gage U-bars	Yes
2204 ²	9'-2"	24'-0"	35.70	41.00	3", 20 gage U-bars	Yes
2205 ²	9'-2"	24'-0"	41.00	46.30	3", 20 gage U-bars	Yes
2206 ²	9'-2"	24'-0"	46.00	52.00	3", 20 gage U-bars	Yes
2207 ²	9'-2"	24'-0"	64.00	72.00	3", 18 gage U-bars	Yes
2210	12'-2"	24'-0"	16.50	18.40	3", 20 gage U-bars	Yes
2211	12'-2"	24'-0"	19.30	21.60	3", 20 gage U-bars	Yes
2212 ²	12'-2"	24'-0"	22.40	25.10	3", 20 gage U-bars	Yes
2213 ²	12'-2"	24'-0"	25.70	28.80	3", 20 gage U-bars	Yes
2214 ²	12'-2"	24'-0"	33.10	37.00	3", 18 gage U-bars	Yes
2311 ²	12'-2"	24'-0"	46.00	52.00	3", 20 gage U-bar, 4" 18 gage U-Bars	Yes
2240	16'-2"	24'-0"	12.40	13.80	3", 20 gage U-bars	Yes
2241	16'-2"	24'-0"	23.00	25.00	3", 18 gage U-bars	Yes
2242 ²	16'-2"	24'-0"	30.00	33.50	3", 18 gage U-bars	Yes
2243 ²	16'-2"	24'-0"	34.40	38.30	3", 18 gage U-bars	Yes
2244 ² Post	16'-2"	8'-0"	46.00	52.00	3", 20 gage U-bars + (1) Aluminium Post	Yes
2341 ²	16'-2"	24'-0"	46.00	52.00	3", 20 gage U-bar, 4" 16 gage U-Bars	Yes
2250	18'-2"	24'-0"	12.40	13.80	3", 18 gage U-bars	Yes
2251 ²	18'-2"	24'-0"	23.00	25.00	3", 18 gage U-bars	Yes
2252 ²	18'-2"	24'-0"	30.00	33.50	3", 18 gage U-bars	No
2254 ²	18'-2"	24'-0"	30.00	33.50	3", 18 gage U-bars	Yes
2253 ² Post	18'-2"	8'-0"	46.00	52.00	3", 18 gage U-bars + (2) Aluminium Post	Yes
2351 ²	18'-2"	24'-0"	46.00	52.00	3", 18 gage U-bar, 4" 16 gage U-Bars	Yes
2260	22'-2"	24'-0"	15.45	16.79	3", 18 gage U-bars	Yes
2261	22'-2"	24'-0"	20.15	22.50	3", 18 gage U-bars	No

Note:² The option code assemblies indicated in Table 1 have been tested for impact resistance and therefore may be used with optional glazing in the wind-borne debris region if glazing is allowed.

7. SUBSTANTIATING DATA

1. Test Report Numbers 092613C, 092613D, 092613A, 092613B, 111113A, 111113B, 102913A, 102913B, 102913C, 111313A, 101813A, 101813B, 101813C, 102213A, 090913A.1, 091213B.1, 082413A.1, 082713A.1,

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081613B.1, 082113A.1, 081213A.1, 073113A.1, 080113A.1, 072513A.1, 072513B.1, 111919A, 112019A, 112119A, 112219A, 120419B, 120519A, 120519B, 120919A, 121019A, 121219A, 121619A, 121719A, 121919A, 122019A, 122319A, 122619A, 122719A, 010620A, 013120A and 022120A in accordance with ANSI/DASMA 108-2005,

ANSI/DASMA 108-2012, and ANSI/DASMA 108-2017 for transverse wind load and ANSI/DASMA 115-2005, ANSI/DASMA 115-2012, and ANSI/DASMA 115-2017 for large missile impact resistance by Wayne Dalton, a Division of Overhead Door Corporation, 3395 Addison Dr Pensacola, FL.

2. Test reports J1626.03-801-18-r0, J1626.02-801-18-r0, and J1626.03-801-18-r0, tested in accordance with TAS201, TAS 202 and TAS 203 by Architectural Testing Inc. 2865 Market Loop, Suite B Southlake, TX 76092.

3. Both test labs were accredited at the time of testing.

4. Installation instructions and supplemental data sheets prepared by Wayne Dalton, a Division of Overhead Door Corporation.

8. REPORT SUMMARY

Upon review of the data submitted by Wayne Dalton, a Division of Overhead Door Corporation, it is my opinion that the models as described in this report conform with or are a suitable alternative to the code standards and sections in the Florida Building Code 6th Edition (2017).

9. LIMITATIONS

Any reference in this report to the manufacturer's "most recent" information is a direct reference to the most recent information submitted by Wayne Dalton, a Division of Overhead Door Corporation to the Florida Building Commission as part of their Florida Product Approval application for the drawings listed in Table 1 of this report. This evaluation report and the most recent installation instructions, when required by the building official, shall be submitted at the time of permit application.

The design of the supporting structural elements shall be the responsibility of the design professional for the building structure and in accordance with current building codes for the loads listed in Table 1 of this report.

The doors shall not be located in areas where the transverse wind loads exceed the allowable loads shown in Table 1 of this report.

10. IDENTIFICATION

Each Model series covered by this report shall be labeled with the manufacturer's name and/or trademark for field identification.

Please feel free to contact me if you need any additional information.

Sincerely,

John
Christian Voelkel

Christian Voelkel
FL PE 82229



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