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July 22, 2021

Re: Evaluation Report for Models 401/402/403/404/405/406/421/423/427/429/434/436
FL 37792

SUBMITTED BY:

Overhead Door Corporation
2501 S. State Hwy 121, Suite 200
Lewisville, TX 75067

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

1. PRODUCT NAME

Models 401/402/403/404/405/406/421/423/427/429/434/436

2. SCOPE OF EVALUATION

Structural Transverse Wind Loads and Large Missile Impact and Cyclic Wind Pressure Resistance.

3. USES

Models 401/402/403/404/405/406/421/423/427/429/434/436 garage doors are used for commercial applications with specified allowable design pressures.

4. DESCRIPTION

General

Model 401/402/403/404/405/406/421/423/427/429/434/436 series doors are sectional doors constructed of ASTM A653 CS Type B steel finished with an ASTM G-60 galvanized coating and covered with two coats of polyester paint.

Models 405/405/434/436 has a minimum 25-gauge skin, Models 403/404/427/429 has a minimum 24-gauge skin, and Models 401/402/421/423 has a minimum 20-gauge skin.

Model 401/402/403/404/405/406/421/423/427/429/434/436 series doors are 2-inch-thick sections available in insulated or non-insulated panels.

Each section is reinforced with 20-gauge end and center stiles and connected with 14-gauge center hinges and either 14-, 13- or 11-gauge end hinges.

Aluminum full view section shall be constructed of 6063-T6 extruded aluminum. Each section shall be comprised of vertical and horizontal aluminum extrusions and may have a 2-1/4" integral fin across the section.

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Door Tracks

All door assemblies listed in this report have both vertical and horizontal tracks ranging from a minimum 15 gauge to maximum 12 gauge 33 ksi steel and finished with an ASTM A525 G-40 galvanized coating. The vertical tracks are attached to the supporting structure with wall angle as specified on the most recent manufacturer's installation instructions/drawings.

Glazed Sections

Non-impact resistant glazing is available with a minimum of 0.125-inch thick DSB glass windows that may be installed in the intermediate sections of the door, having a maximum height of 6.70" and a maximum length of 24.00".

Non-impact resistant aluminum full view sections with a minimum of 0.125-inch thick DSB glass windows may replace any section except the top and bottom sections. The glass panels will have a maximum height of 22.3" and a maximum length of 58.5".

Impact resistant glazing is available with a minimum of 0.25-in thick impact resistant polycarbonate windows that may be installed in the intermediate sections of the door, having a maximum height of 11" and a maximum length of 17".

Wind Load Bracing

All option code assemblies listed in Tables 1 and 2 of this report are braced on the inside of the doors with either two-inch, three-inch, or four-inch horizontal spanning U-bars, six-inch horizontal spanning C-channels, or a combination there of.

Two-inch U-bars are made of 20-gauge ASTM A653 steel with a minimum yield of 80 ksi and are finished with an ASTM A525 minimum G-40 galvanized coating.

Three-inch U-bars are made of either 18 gauge or 20-gauge ASTM A653 steel with a minimum yield of 80 ksi and are finished with an ASTM A525 minimum G-40 galvanized coating.

Six-inch C-channels are made of 16 gage ASTM A653 steel with a minimum yield of 50 ksi and are finished with an ASTM A525 minimum G-40 galvanized coating.

Refer to most recent manufacturer's installation instructions/drawings for the locations of the wind load bracing specific to each option code assembly.

Jamb Attachment

Method of securing the door to the mounting surface is listed in the most recent manufacturer's installation instructions/drawings or 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.

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

6. ALLOWABLE TRANSVERSE WIND LOADS

Design wind load pressures for garage doors shall be determined in accordance with section 1609 of 7th Edition Florida Building Code and shall not exceed the allowable transverse wind loads shown in Tables 1 and 2.

Table 1: Models 421/423/427/429/434/436
Allowable Transverse Wind Loads and Impact Rating

Windload Specification Option Code	Drawing Number	Maximum Size		Positive Design PSF	Negative Design PSF	AFV Available	Glazing Available (Yes/No)
		Width	Height				
2060	411776	9'-4"	24'-1"	11.40	12.70	Yes	Yes
2061	411777	9'-4"	24'-1"	15.90	18.20	Yes	Yes
2062	411778	9'-4"	24'-1"	17.00	19.40	Yes	Yes
2063	411779	9'-4"	24'-1"	20.90	23.60	Yes	Yes
2064 ²	411780	9'-4"	24'-1"	28.40	32.20	Yes	Yes
2065 ²	411781	9'-4"	24'-1"	37.50	42.50	Yes	Yes
2066 ²	411782	9'-4"	24'-1"	44.00	49.80	Yes	Yes
2070	411783	10'-4"	24'-1"	11.70	13.30	Yes	Yes
2071	411784	10'-4"	24'-1"	15.90	18.20	Yes	Yes
2072	411785	10'-4"	24'-1"	17.00	19.40	Yes	Yes
2073	411786	10'-4"	24'-1"	20.90	23.60	Yes	Yes
2074 ²	411787	10'-4"	24'-1"	37.50	42.50	Yes	Yes
2075 ²	411788	10'-4"	24'-1"	44.00	49.80	Yes	Yes
2020	411789	12'-2"	24'-1"	11.40	12.70	Yes	Yes
2024	411790	12'-2"	24'-1"	20.90	23.60	Yes	Yes
2021	411791	12'-2"	24'-1"	23.70	26.60	Yes	Yes
2025 ²	411792	12'-2"	24'-1"	31.60	35.40	Yes	Yes
2026 ²	411793	12'-2"	24'-1"	44.00	49.80	Yes	Yes
2030	411794	14'-2"	24'-1"	11.40	12.70	Yes	Yes
2032	411795	14'-2"	24'-1"	15.90	18.20	Yes	Yes
2031 ²	411796	14'-2"	24'-1"	20.20	22.70	Yes	Yes
2040	411797	16'-2"	24'-1"	11.40	12.70	Yes	Yes
2041	411798	16'-2"	24'-1"	20.20	22.70	Yes	Yes
2046 ²	411800	16'-2"	24'-1"	31.60	35.40	Yes	Yes
2047 ²	411801	16'-2"	24'-1"	44.00	49.80	Yes	Yes
2050	411802	24'-2"	24'-1"	20.20	22.70	No	Yes
2052 ²	411803	24'-2"	24'-1"	31.60	35.40	No	Yes

Note:² The option code assemblies indicated in Table 1 have been tested for impact resistance.

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Table 2: Models 401/402/403/404/405/406
Allowable Transverse Wind Loads and Impact Rating

Windload Specification Option Code	Drawing Number	Maximum Size		Positive Design PSF	Negative Design PSF	AFV Available	Glazing Available (Yes/No)
		Width	Height				
2060	411776	9'-4"	24'-1"	11.40	12.70	Yes	Yes
2063	411779	9'-4"	24'-1"	20.90	23.60	Yes	Yes
2070	411783	10'-4"	24'-1"	11.70	13.30	Yes	Yes
2073	411786	10'-4"	24'-1"	20.90	23.60	Yes	Yes
2020	411789	12'-2"	24'-1"	11.40	12.70	Yes	Yes
2024	411790	12'-2"	24'-1"	20.90	23.60	Yes	Yes

7. SUBSTANTIATING DATA

1. Test Report Numbers 072720E, 072720D, 072720C, 072720B, 072720A, 072120B, 072120B, 072720F, 072220A, 073020A, 011121C, 011121B, 011121A, 011321A, 011421A, 012021A, 011821A, 090320A, 010521B, 010521A, 010621B, 010621A, 093020A, 010721A, 092820A, 122920A, 123020A., 123020B, 092220A, 122220A, 121820A, 120820A, 101320A, 120320A, 111120A, 071620A, 070220B, and 070820B in accordance with ANSI/DASMA 108-2017 for transverse wind load 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. The lab was accredited at the time of testing.
3. 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, 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 7th Edition Florida Building Code listed in section 9 of this report.

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 Tables 1 and 2 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 Tables 1 and 2 of this report.

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The doors shall not be in areas where the transverse wind loads exceed the allowable loads shown in Tables 1 and 2 of this report.

The garage door assemblies listed in Tables 1 and 2 of this report are not approved for use in the "High Velocity Hurricane Zone" as defined in the Florida Building Code.

10. IDENTIFICATION

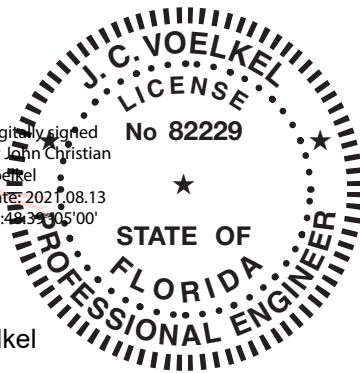
Each Model series covered by this report shall be labeled with the manufacturer's name and/or trademark for field identification.

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

Sincerely,

John
Christian
Voelkel

Digitally signed
by John Christian
Voelkel
Date: 2021.08.13
07:48:39 -05'00'



Christian Voelkel
FL PE 82229

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