



## **ROTARY OPERATOR PERFORMANCE TEST REPORT**

**Rendered to:**

**ACME WINDOW AND DOOR HARDWARE**

**SERIES: Decore Dual Arm (132635)**

**PRODUCT: Rotary Window Operators**

**Report No.: D2697.03-106-31**

**Report Date: 08/06/14**

**Test Record Retention Date: 07/14/18**



**ROTARY OPERATOR PERFORMANCE TEST REPORT**

Rendered to:

ACME WINDOW AND DOOR HARDWARE  
777 Schwab Road  
Unit J  
Hatfield, Pennsylvania 19440

Report No.: D2697.03-106-31  
Test Start Date: 06/13/14  
Test Completion Date: 07/14/14  
Report Date: 08/06/14  
Test Record Retention Date: 07/14/18

**Series:** Decore Dual Arm (132635)

**Product:** Rotary Window Operators

**Project Summary:** Architectural Testing, Inc. was contracted by Acme Window and Door Hardware to conduct rotary operator cycling tests on one design of rotary window operators. This report details the results of testing and the performance capabilities for those samples tested. All operators met the requirements for a Class C-C30 and C-HC40 rated window operator as specified in AAMA 901-07 and AAMA 907-05.

**Results Summary**

<b>Operator Model</b>	<b>AAMA 901</b>	<b>AAMA 907</b>
Decore Series (132635) (Dual Arm / Coated Carbon Steel)	Pass	Pass

**Test Methods:** The test specimens were evaluated in accordance with the following:

*AAMA 901-07, Voluntary Specifications for Rotary Operators in Window Applications*

*AAMA 907-05, Voluntary Specifications for Corrosion Resistant Coatings on Carbon Steel Components*

*ASTM E 405-04, Standard Test Methods for Wear Testing of Rotary Operators for Windows*

**Test Sample Description:** All specimens were constructed of coated carbon steel as noted in the results tables. Four operators were tested by Architectural Testing, Inc. in accordance with AAMA 901. Two operators were tested in accordance with AAMA 907. Specimens were submitted directly to Architectural Testing by Acme Window and Door Hardware under initial submittal status.

Individual operator model test conditions are listed in the table below:

Operator Model	Pivot Distance of Arm (in)		Load Carried (%)	
	<b>Decore Series (132635) (Dual Arm / Coated Carbon Steel)</b>	3.754	9.623	28

**Test Results:** The results are reported in the following tables.

**AAMA 901 Test Results:** Test loads, which were used for testing to Class C-C30 and C-HC40, are as follows:

500 Cycles				7,500 Cycles			
Operating Moment		Closing Torque		Operating Moment		Closing Torque	
120 in·lb		60 in·lb		60 in·lb		60 in·lb	
Short Arm		Long Arm		Short Arm		Long Arm	
P1	P2	P1	P2	P1	P2	P1	P2
9.0 lbs	17.9 lbs	9.0 lbs	18.0 lbs	4.5 lbs	9.0 lbs	4.5 lbs	9.0 lbs

Specimen No.	Cycles Completed	Window Designation	Results*
1	500 of 500 / 7,500 of 7,500	Commercial	Pass
2	500 of 500 / 7,500 of 7,500		Pass
3	500 of 500 / 7,500 of 7,500		Pass
4	500 of 500 / 7,500 of 7,500		Pass

\* Performance Requirements:

1. All specimens must be able to raise and lower the weights through a complete cycle at the end of the test.
2. Failure of any one operator shall constitute failure of that set of operators.

**AAMA 907 Test Results:** Upon completion of 300 hours of exposure to ASTM B 117 conditions, the specimen visual evaluations are as follows: (test was performed 10/13/13, reference report number D2697.02)

<b>Specimen No.</b>	<b>Results</b>
<b>1</b>	Pass - No visible corrosion present on significant surfaces
<b>2</b>	Pass - No visible corrosion present on significant surfaces

Architectural Testing will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Architectural Testing, Inc. for the entire test record retention period.

Results obtained are tested values and were secured using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimens tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC.:

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Technician I  
Components / Materials Testing

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Components / Materials Testing

DMF:jmb/jas

Attachments (pages)      This report is complete only when all attachments listed are included.  
Appendix A - Photographs (1)



### Revision Log

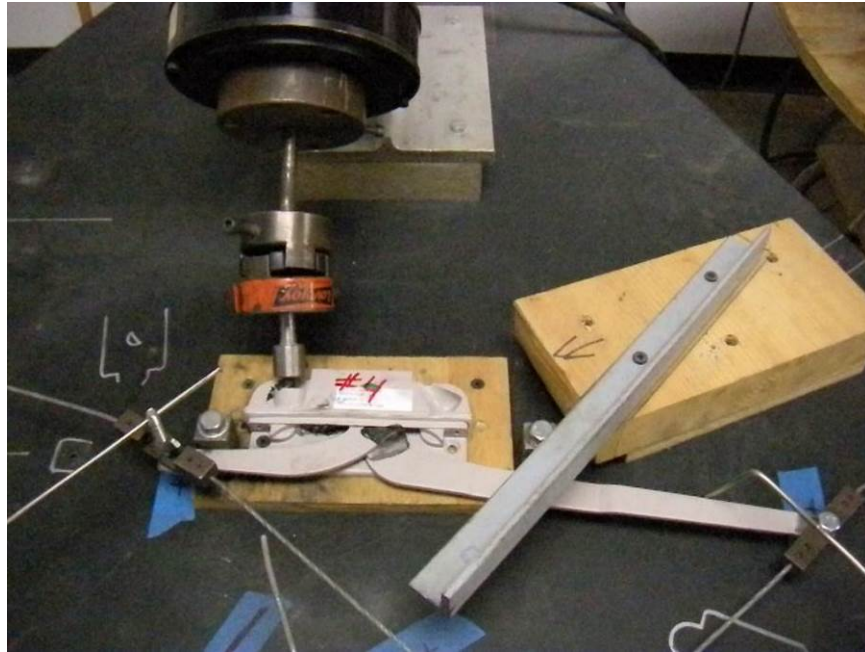
<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	08/06/14	N/A	Original report issue



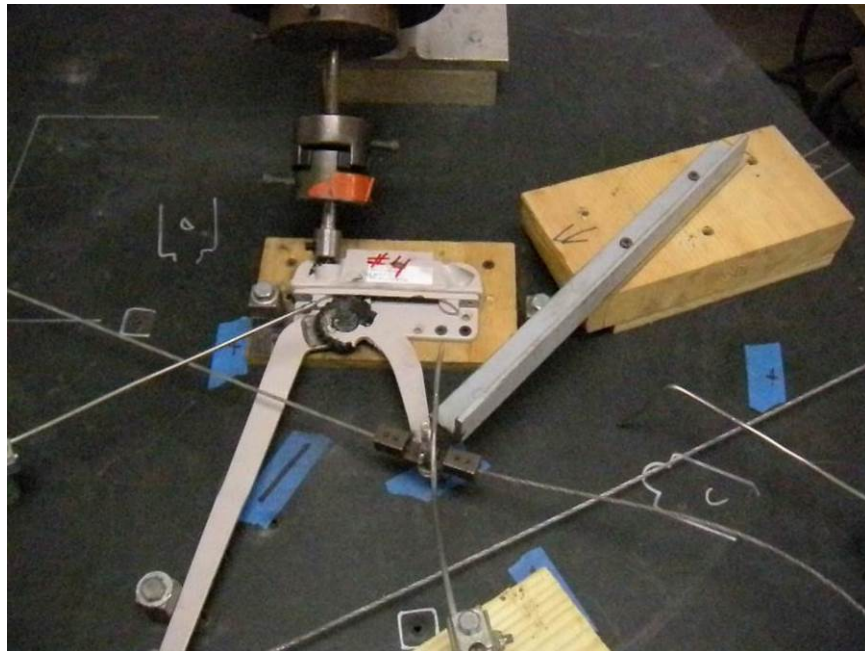
D2697.03-106-31

## **APPENDIX A**

### **Photographs**



**Photo No. 1**  
**Dual Arm Operator - Closed Position**



**Photo No. 2**  
**Dual Arm Operator - Open Position**