Home Innovation
RESEARCH LABS™

Summit Anchor Impact-Load Resistance Test

Test Report

Prepared For

SUMMIT ANCHOR CO., INC.

July 17, 2018

Report No. LA1189_07172018R1

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BACKGROUND

Summit Anchor Co., Inc. requested dynamic drop testing on six (6) single-point anchor devices. An agreement was entered June 11, 2018, between Summit Anchor Co. and Home Innovation Research Labs, Inc.

TEST SPECIMEN

Six (6) specimens labeled in accordance with client instructions, see Photo 1, were submitted directly to Home Innovation by the client. The specimens were not independently or randomly selected for testing. The specimens were not damaged during shipping and were not tampered with prior to arrival. No special conditions or preparations were observed by Home Innovation. Specimens were received at Home Innovation on May 18 and June 21, 2018, and all testing completed June 22, 2018.

Photo 1. Test Specimen ID

TEST METHODOLOGY AND RESULTS

Testing was conducted, observed and documented by Home Innovation staff. Anchor devices were installed on Home Innovation's W14x48 steel I-beam test frame per the client's installation instructions. Anchor devices were bolted to the test frame using four (4) 5/8" dia. B8 Class 2 stainless steel bolts supplied by the client. Dynamic drop testing was performed using a 6-ft long, 3/8" stainless steel cable, supplied by the client, with a 300-lb weight connected to one end and the other end connected to the anchor eye, see Photo 2.

Photo 2. Typical test set up

The test results are based on a visual assessment of observed breaking, cracking or permanent damage.

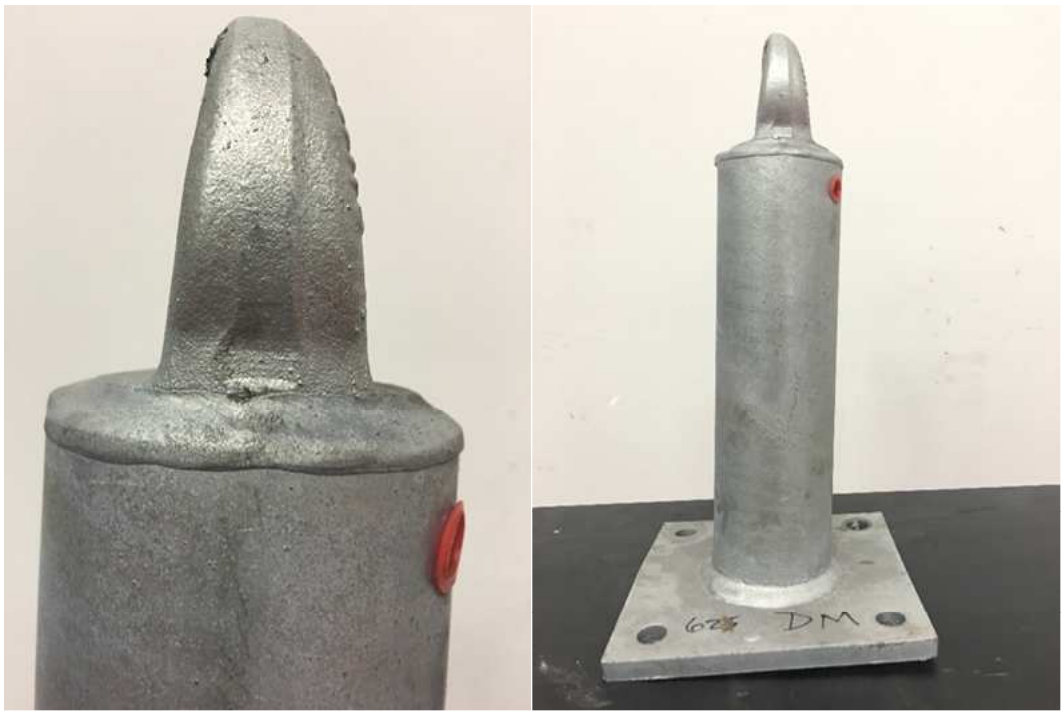
Test	Specimen ID	Base Plate Size	Tube Deflection Before Drop Test	Tube Deflection After Drop Test	Observations
1	SM-1-8-12-12 (W 0.25)	8” x 8” x 1/2”	X	2.7° Down	Base plate bent. No weld breakage.
2	UBAR-1-8-12-58 (DM)	8” x 8” x 5/8”	0.2° Up	0.7° Down	Base plate bent. Eyelet bent. No weld breakage.
3	SM-1-8-12-12 (W 0.25)	8” x 8” x 1/2”	0.0°	4.3° Down	Base plate bent. No weld breakage.
4	SM-1-8-12-12 (DM-W-0.3125)	8” x 8” x 1/2”	X	0.1° Down	Base plate bent. No weld breakage.
5	SM-1-8-12-12 (FB-W-0.3125)	8” x 8” x 1/2”	0.4° Up	3.9° Down	Base plate bent. No weld breakage.
6	SM-1-10-18-58-SST	10.25” x 10.25” x 5/8”	0.1° Up	4.3° Down	Base plate bent. Tube bent 4” from base plate. No weld breakage.
Deflection measured with Husky H1300 digital level calibrated 10/7/2017, due 10/2018.					
X: No deflection measurement taken prior to drop test.					

Specimens After Test – In sequential order from left to right Test 1, 2, 3, 4, 5 and 6

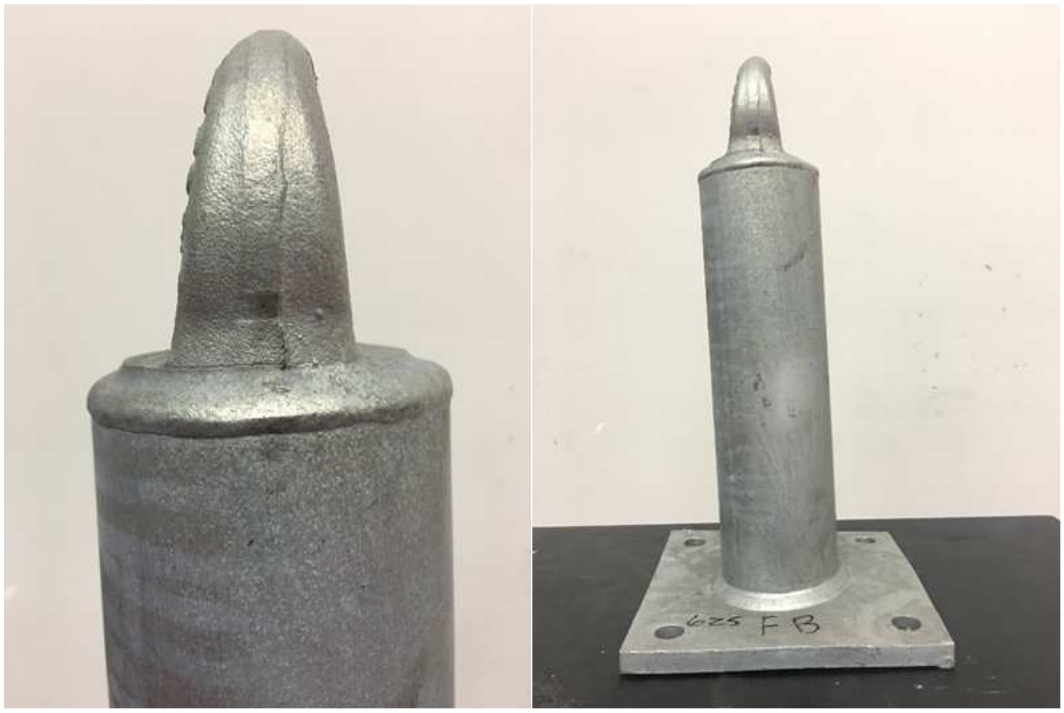
Test 1 - SM-1-8-12-12 (W 0.25)

Test 2 - UBAR-1-8-12-58 (DM)

Test 3 - SM-1-8-12-12 (W 0.25)



Test 4 - SM-1-8-12-12 (DM-W-0.3125)



Test 5 - SM-1-8-12-12 (FB-W-0.3125)

Test 6 - SM-1-10-18-58-SST

Prepared By

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Signed for and on behalf of Home Innovation Research Labs

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