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SCC NORTHWEST MANUFATURING LTD. 2008 CHRYSLER SEBRING SEATS WITH SCC NORTHWEST LTD SEAT COVERS STATIC AIRBAG DEPLOYMENT TEST SERIES





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TEST REPORT

C13I7-030.1 MGA REPORT NO.:

December 7, 2012 TEST(S) PERFORMED ON:

TEST DESCRIPTION: Static Airbag Deployment

ITEM DESCRIPTION: 2008 Chrysler Sebring with SCC Northwest Mfg. LTD. Seat Covers

MGATP SAD **PROCEDURE NUMBER:**

09/18/12

TEST REFERENCE

NUMBER(S):

P21497-P21499

TEST LABORATORY: MGA Research Corporation

> 446 Executive Drive Troy, Michigan 48083

SUBMITTED TO: Steven Koyama

SCC Northwest Manufacturing LTD.

1330 William Street Vancouver, BC V5L 2P5

REPORT DATE: December 10, 2012

MGA PERSONNEL: William Mangu

> William Mangum Project Leader

Test Personnel: Shanon Brintley Justin Lewis



^{*} The results presented in this report relate only to the specified test items.

^{**} This report shall not be reproduced except in full, without the written approval of the laboratory.

MGA Report No.: C12I7-030.1 Customer: SCC Northwest Manufacturing LTD. Page 2 of 19

Test Type: Static Airbag Deployment Program: 2008 Chrysler Sebring

Objective

The purpose of this report is to document the results of a static airbag deployment test series performed by MGA Research Corporation (MGA) for SCC Northwest Manufacturing LTD (SCC Northwest). The items tested were 2008 Chrysler Sebring Seats with SCC Northwest Manufacturing LTD Seat Covers. The testing was conducted on December 7, 2012 at MGA in Troy, Michigan.

Customer-Specified Requirements

Three (3) airbag was tested following the specifications provided by the customer.

• Three (3) at ambient (+23°C) temperature

Test Procedure

- The seats and covers were supplied by SCC Northwest Mfg. LTD.
- The seats were adjusted to mid track, full down and a 4.5° back angle measured from head restraint position. A lexan shield was secured 50mm from the outboard side of the seat to simulate the door and b-pillar.
- The airbag was deployed at time zero t(0) = 10 msec.
- MGA's high-speed video cameras were used to capture the airbag deployment event at 2,000 fps.
- Pre and post-test photographs were taken and all fragmentation was collected and weighed.

Equipment

MGA's Kayser Threde airbag deployment system was used for this testing.

Equipment	Serial #	Manufacturer	Calibration Date	Calibration Due Date
Tape Measure	TPM200	Stanley	02/07/2012	02/07/2013
Digital Protractor	MGA00518	Mitutoyo	12/04/2012	12/04/2013

Test Results

Pre and post-test photographs for this testing can be found in Appendix A. All data is traceable to the National Institute of Standards and Technology (NIST).

SCC Northwest Mfg Ltd 2008 Chrysler Sebring Seats With SCC Northwest Mfg Ltd. Seat Covers SIAB Deployment MGA Job No. C13I7-030.1

Summary

MGA Test No.	Date	Sample	Temperature (°C)	Breakout Time (ms)	Full Inflation Time (ms)	Post-Test Comments
P21497	12/7/2012	OEM Seat (Baseline)	22.1	2.50	7.50	•Airbag deployed •No visible damage
P21498	12/7/2012	OE Grey Cover	22.3	3.50	7.50	•Airbag deployed •Airbag labels came off during deployment
P21499	12/7/2012	Ballistic Grey Cover	22.2	3.00	7.00	•Airbag deployed •Airbag labels came off during deployment

Additional test documentation can be found in the following appendices.

MGA Report No.: C12I7-030.1 Test Type: Static Airbag Deployment Customer: SCC Northwest Manufacturing LTD. Program: 2008 Chrysler Sebring Page 3 of 19

Appendix A Test Data and Photographs

Page 4 of 19

MGA Report No.: C12I7-030.1 Test Type: Static Airbag Deployment

MGA Test #: P21497 Test Date: 12/07/2012



Pre-Test Photo #1 of Test #P21497



Pre-Test Photo #2 of Test #P21497

Page 5 of 19



Post-Test Photo #1 of Test #P21497



Post-Test Photo #2 of Test #P21497

Page 6 of 19

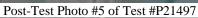


Post-Test Photo #3 of Test #P21497



Post-Test Photo #4 of Test #P21497

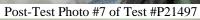






Post-Test Photo #6 of Test #P21497







Post-Test Photo #8 of Test #P21497

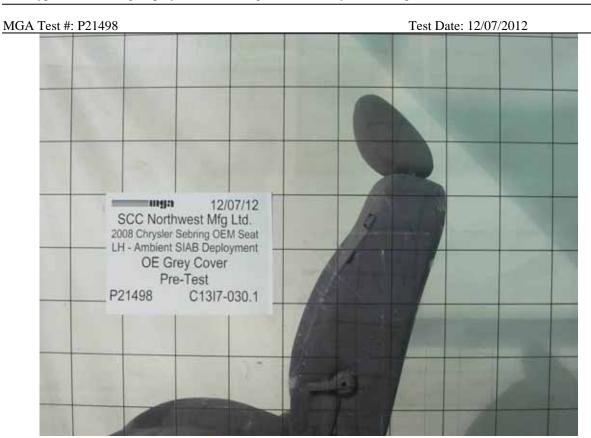
Page 9 of 19



Post-Test Photo #9 of Test #P21497

Page 10 of 19

MGA Report No.: C12I7-030.1 Program: 2008 Chrysler Sebring Test Type: Static Airbag Deployment



Pre-Test Photo #1 of Test #P21498



Pre-Test Photo #2 of Test #P21498

Program: 2008 Chrysler Sebring



Post-Test Photo #1 of Test #P21498



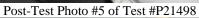
Post-Test Photo #2 of Test #P21498





Post-Test Photo #4 of Test #P21498







Post-Test Photo #6 of Test #P21498



Post-Test Photo #7 of Test #P21498



Post-Test Photo #8 of Test #P21498

Page 15 of 19

Test Type: Static Airbag Deployment Program: 2008 Chrysler Sebring

MGA Test #: P21499

Test Date: 12/07/2012

SCC Northwest Mfg Ltd.
2008 Chrysler Sebring DEM Seat
LH - Ambient SIAB Deployment
Ballistic Grey Cover
Pre-Test
P21499 C13I7-030.1

Pre-Test Photo #1 of Test #P21499



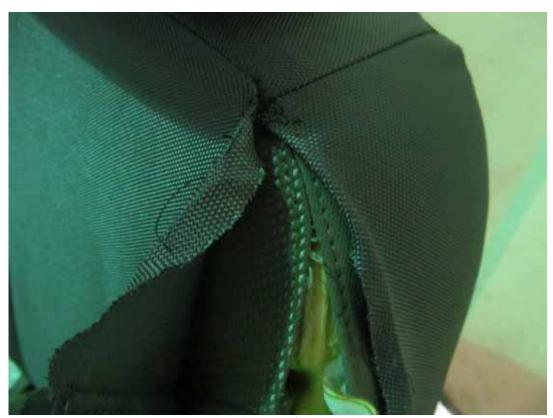
Pre-Test Photo #2 of Test #P21499





Post-Test Photo #2 of Test #P21499

Page 17 of 19



Post-Test Photo #3 of Test #P21499



Post-Test Photo #4 of Test #P21499

Page 18 of 19



Post-Test Photo #5 of Test #P21499



Post-Test Photo #6 of Test #P21499

Page 19 of 19



Post-Test Photo #7 of Test #P21499



Post-Test Photo #8 of Test #P21499