

REPORT NUMBER: 213-CAL-19-027

**SAFETY COMPLIANCE TESTING FOR FMVSS 213
CHILD RESTRAINT SYSTEMS**

**Clek
Filo, Model FL19U1**

**PREPARED BY:
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BUFFALO, NY 14225**



Report Date: July 2019

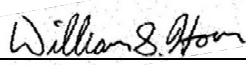
FINAL REPORT

**PREPARED FOR:
U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Enforcement
Office of Vehicle Safety Compliance
Mail Code: NVS-220, W43-481
1200 New Jersey Avenue, SE
Washington, DC 20590**

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Prepared by:  Date: **July 9, 2019**
Adam Hardbatt, SLED
Engineer

Approved by:  Date: **July 9, 2019**
William Horn, SLED Director

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By: _____

Acceptance Date: _____

213-CAL-19-027

Technical Report Documentation Page

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SECTION 1 PURPOSE AND TEST PROCEDURE

PURPOSE

The tests performed are part of the safety compliance program for the National Highway Traffic Safety Administration (NHTSA) by Calspan Corporation under Contract No. DTNH22-17-R-0037. The purpose of the testing is to determine whether production child restraint systems meet the minimum inspection and dynamic test requirements of TP-213-10, "Child Restraint Systems".

TEST PROCEDURE

The Calspan Corporation Test Procedure for FMVSS 213, submitted and approved by the Office of Vehicle Safety Compliance, National Highway Traffic Safety Administration contains the specific procedures used to conduct this test. This procedure shall not be interpreted to be in conflict with any portion of FMVSS 213 and amendments in effect as noted in the applicable contract.

SECTION 2 INTRODUCTION AND SUMMARY

This report presents all of the FMVSS 213 compliance inspection and test data obtained on the Clek, Fillo, Model FL19U1 child restraint system. The restraint was dynamically tested in the following configurations:

- H3 6YO, Forward Facing, other configuration, lap belt, tether free, upright 1
- 12 month, CRABI, Rear Facing, other configuration, latch, tether free, recline 2
- H3 6YO, Forward Facing, other configuration, lap belt, top tether, upright 1
- 12 month, CRABI, Forward Facing, other config, latch, top tether, upright 1
- H3 W6YO, Forward Facing, other configuration, lap belt, top tether, upright 2
- H3 3YO, Forward Facing, other configuration, latch, top tether, upright 1

Inversion testing was performed in both the forward Y-axis rotation and in the lateral X-axis rotation for the following configurations:

- 12 month, CRABI, rear facing, other configuration, lap belt, tether free and reclined
- 12 month, CRABI, forward facing, other configuration, lap belt, tether free and Upright
- 3 year old H3, forward facing, other configuration, lap belt, tether free and Upright

The inspection and testing of the Clek, Fillo, Model FL19U1 child restraint met the requirement(s) of FMVSS No. 213 when tested in accordance with TP-213-10 in the configurations and conditions documented in this report.

No test failures were identified

Restraint system inspection, dynamic sled testing and inversion testing were performed by Calspan Corporation, Buffalo NY. Compliance test data sheets for all tests are found in the Data Sheets and Test Data Sections of this report.

**SECTION 3
DATA SHEET 1
CHILD RESTRAINT SYSTEM IDENTIFICATION**

Report No. 213-CAL-19-027

Manufacturer:	Clek
Place of Manufacture per S5.5.2(d):	Canada
Model No.	Foonf, FO19U1
Group No.	027

1	Item Code	027-FL19U1-01-6H3FN2FU
	Date of Manufacture	3/22/2019
	Sled Test No.	FM06-19-98A
2	Item Code	027-FL19U1-02-12CRNLFR
	Date of Manufacture	3/22/2019
	Sled Test No.	FM06-19-98B
3	Item Code	027-FL19U1-03-6H3FN2TU
	Date of Manufacture	3/22/2019
	Sled Test No.	FM06-19-99A
4	Item Code	027-FL19U1-04-12CFNLTU
	Date of Manufacture	3/22/2019
	Sled Test No.	FM06-19-99B
5	Item Code	027-FL19U1-05-6W3FN2TU
	Date of Manufacture	3/22/2019
	Sled Test No.	FM06-19-100A
6	Item Code	027-FL19U1-06-3H3FNLTU
	Date of Manufacture	3/22/2019
	Sled Test No.	FM06-19-100B

**SECTION 4
DYNAMIC TEST RESULTS DATA SUMMARY**

Child Restraint System – Clek / Fillo / FL19U1										
Item Code	Sled Test No.	Dummy Selection and Test Mode (see legend below)	Lower Anchors Used Y/N	Tether Used Y/N	HIC (1000 max)	Chest g clip (60 g max)	Head Excursion (720 mm max, 813 mm max w/o tether)	Knee Excursion (915 mm max)	Seat Back Angle (70 deg max)	Pass/Fail
027-FL19U1-01-6H3FN2FU	06-19-98A	6H3 FFU	N	N	808	51	807	817	N/A	Pass
027-FL19U1-02-12CRNLFR	06-19-98B	12C RFR	Y	N	348	41	N/A	N/A	41	Pass
027-FL19U1-03-6H3FN2TU	06-19-99A	6H3 FFU	N	Y	469	48	647	755	N/A	Pass
027-FL19U1-04-12CFNLTU	06-19-99B	12C FFU	Y	Y	266	43	557	525	N/A	Pass
027-FL19U1-05-6W3FN2TU	06-19-100A	6W3 FFU	N	Y	N/A	N/A	653	763	N/A	Pass
027-FL19U1-06-3H3FNLTU	06-19-100B	3H3 FFU	Y	Y	N/A	N/A	595	691	N/A	Pass

Test Mode:

RF - Rear Facing
 FF - Forward Facing
 U - Upright mode
 R - Reclined mode

ATD:

NIN – Newborn Infant
 12C -12 MO, CRABI
 3H3 – 3 YO, Hybrid III
 6H2 – 6YO Hybrid 2
 6H3 – 6YO Hybrid III
 6W3 – 6 YO, Weighted Hybrid III
 TH3 – 10YO Hybrid III

**SECTION 5
DATA SHEET 2
LABELING
(FMVSS 213, S5.3, S5.5)**

Report No.:	213-CAL-19-027	Model No.:	Filo, FL19U1
Test Date:	24 June 2019		

Requirement	Pass / Fail
The labels on the subject child restraint system were inspected and compared to the requirements of FMVSS No. 213 S5.3.1(b) and S5.5, as applicable	Pass

The following failures were identified:
No failures

Remarks:
Photographs of the labels are included in section 9.

Recorded by: 
Adam Hardbattle, SLED Engineer

Date: June 24, 2019

**DATA SHEET 3
PRINTED INSTRUCTIONS FOR PROPER USE
(FMVSS 213, S5.6)**

Report No.:	213-CAL-19-027	Model No:	Filo, FL19U1
Test Date:	24 June 2019		

Requirement	Pass / Fail
The printed instructions accompanying the subject child restraint system were inspected and compared to the requirements of FMVSS No. 213 S5.6, as applicable	Pass

The following failures were identified:
No failures

Remarks:
None

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: June 24, 2019

**DATA SHEET 4
REGISTRATION FORM
(FMVSS 213, S5.8)**

Report No.:	213-CAL-19-027	Model No.:	Flo, FL19U1
Test Date:	24 June 2019		

Requirement	Pass / Fail
The printed registration form accompanying the subject child restraint system and the electronic registration form were inspected and compared to the requirements of FMVSS No. 213 S5.6, as applicable	Pass

The following failures were identified:
No failures

Remarks:

Photographs of the registration are included in section 9.

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: June 24, 2019

**DATA SHEET 5
MAXIMUM CHILD WEIGHT FOR LOWER ANCHOR USE
(FMVSS 213, S5.5.2(I)(3))**

Report No.:	213-CAL-19-027	Model No:	Flo, FL19U1
Test Date:	24 June 2019		

For child restraints manufactured on or after February 27, 2015:

Installation Mode	A Max Child weight is Required for this installation mode (Y or N)	Installation Diagram Shown (Y or N)	Max Child Weight Indicated on Installation Diagram (lb)
Rear Facing	Y	Y	35
Forward Facing	Y	Y	40


CRS Weight (lb)	Child Weight (CW) Calculation (lb)	Rounded CW Limit permitted under S5.5.2(I)(3)(A)	Calculated CW	Rounded CW
			15 < CW ≤ 20	20
			20 < CW ≤ 25	25
			25 < CW ≤ 30	30
			30 < CW ≤ 35	35
			35 < CW ≤ 40	40
			40 < CW ≤ 45	45
			45 < CW ≤ 50	50
			50 < CW ≤ 55	55
			55 < CW ≤ 60	60

29 lbs	Rear Facing 60-CRS Weight = 31 lbs	35 lbs
	Forward Facing 65-CRS Weight = 36 lbs	40 lbs

Section	Requirement	Pass / Fail
S5.5.2(I)(3)(A)	A maximum child weight is required on an installation diagram when the CRS+child weight is greater than 65 lb for CRS that are used with the internal harness and installed with lower anchors. The maximum weight on the label conforms to the limits established in S5.5.2(I)(3)(A)	N/A
S5.5.2(I)(3)(B)	For CRS that can be used both forward and rear-facing either: (1) separate diagrams are provided and labeled; or (2) only one diagram is applicable, provided, and labeled; or (3) two diagrams are applicable and the diagram shown contains the lesser of the permitted weights	Pass

The following failures were identified:
No failures

Remarks:
None

Recorded by: 
Adam Hardbatt, SLED
Engineer

Date: June 24, 2019

DATA SHEET 6
ATTACHMENT TO ANCHORAGE SYSTEM
(FMVSS 213, S5.9)

Report No.:	213-CAL-19-027	Model No:	Flllo, FL19U1
Test Date:	24 June 2019		

Section	Requirement	Pass / Fail
S5.9(a)	This add-on child restraint system (excluding car beds, harnesses and belt-positioning seats) has a permanently attached anchorage system having components that enable the restraint to be securely fastened to the lower anchorages.	Pass
	The anchorage system has components which can only be removed with a tool, such as a screwdriver.	Pass
	Note: If this is a rear facing child restraint system with a detachable base, then only the base is required to have the components.	Pass
S5.9(b)	This child restraint system has components for attaching the system to a tether anchorage, and those components include a tether hook that conforms to the configuration and geometry specified in Figure 22 of TP-213-10.	Pass
S5.9(c)	This child restraint system has adjustable components for attaching the system to a tether anchorage or to lower anchors to allow the restraint to be tightened to the vehicle.	Pass
S5.9(d)	If the anchorage system on this child restraint has components other than hooks, that enables the restraint to be securely fastened to the lower anchors, it provides either an indication when each attachment to the lower anchorage becomes fully latched or attached, or provides a visual indication that all attachments to the lower anchorages are fully latched or attached.	Pass
	Visual indications are visible under normal daylight lighting conditions.	N/A

The following failures were identified:
No failures

Remarks:
None

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: June 24, 2019

**DATA SHEET 7
INSTALLATION
(FMVSS 213, S5.3)**

Report No.:	213-CAL-19-027	Model No:	Flllo, FL19U1
Test Date:	24 June 2019		

Section	Requirement	Pass / Fail					
S5.3.1	Add-on child restraints meet either (a) or (b) as appropriate	Pass					
S5.3.1(a)	Except for components designed to attach a child restraint anchorage system, this add-on child restraint does not have any means designed for attaching the system to a vehicle seat cushion or vehicle seta back and any component (except belts) that is designed to be inserted between the vehicle seat cushion and vehicle seat back	Pass					
S5.3.1(b)	Harness manufactured for use on school bus seats must meet S5.3.1(a) unless labeled appropriately. Refer to the labeling data sheet for the specific requirements.	N/A					
S5.3.2	The child restraint system is capable of being installed as required by Table S5.3.2 of FMVSS No. 213. Shaded section indicate installation means required by standard.	Pass					
		<i>Lap Belt</i>	<i>Lap belt & Tether (if needed)</i>	<i>Lower Anchors</i>	<i>Lap & Shoulder belt</i>	<i>Seat back Mount</i>	
	<i>Harnesses per S5.3.1(b)(1)-(3) & Figure 12</i>						N/A
	<i>Other Harnesses</i>						N/A
	<i>Car Beds</i>						N/A
	<i>Rear-Facing Restraints</i>	X		X	X		Pass
	<i>Belt-Positioning Seats</i>						N/A
<i>All other child restraints</i>	X	X	X	X		Pass	
S5.3.3	If a car bed, this child restraint system is designed to be installed laterally.	N/A					

The following failures were identified:
No failures

Remarks:
None

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: June 24, 2019

DATA SHEET 8
MINIMUM HEAD SUPPORT SURFACE
(FMVSS 213, S5.2.1)

Report No.:	213-CAL-19-027	Model No:	Filo, FL19U1
Test Date:	24 June 2019		

Section	Requirement	
S5.2.1.2	The child restraint system is exempt from S5.2.1.1 if it is a forward facing restraint and the target points on either side of the dummy's head (using the largest test dummy specified in S7, excluding the 6-year old) is below the top of the test seat	
S5.2.1.1(a)	Maximum Recommended Child Weight	Minimum Seat Back Height Required
	≤ 18 kg (39.7 lb)	50 cm (19.7 in.)
	> 18 kg (39,7 lb)	56 cm (22 in.)
S5.2.1.1(b)	Side Wing Depth	Minimum Back Support Width
	< 102 mm (4.0 in)	203 mm (8 in.)
	≥ 102 mm (4.0 in)	156 mm (6 in.)

The child restraint system is exempt from S5.2.1.1 **NO**

Back Support Height

Manufacturers Recommended Maximum Child Weight kg (lb)	Measured Height mm (in)	Pass / Fail
29.5 (65)	560mm (22in)	Pass

Back Support Width

Measured Side Wing Depth mm (in)	Measured Width mm (in)	Pass / Fail
70mm (2.75in)	225mm (8.9in)	Pass

The following failures were identified:
No failures

Remarks:
None

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: June 24, 2019

DATA SHEET 9
TORSO IMPACT PROTECTION
(FMVSS 213, S5.2.2)

Report No.:	213-CAL-19-027	Model No:	Flllo, FL19U1
Test Date:	24 June 2019		

Section	Surface Requirement	Contour Requirement	Other Requirement
S5.2.2.1(a)	Back Support Surface	Flat or concave	Continuous surface area of ≥ 85 in ²
S5.2.2.1(b)	Side Support Surface	Flat or concave	Continuous surface area of ≥ 24 in ² for restraints having a recommended child weight of ≥ 20 lb
		Flat or concave	Continuous surface area of ≥ 48 in ² for restraints having a recommended child weight of < 20 lb
S5.2.2.1(c)	Horizontal Cross Sections of Surfaces Restraining Torso Forward Movement	Flat or concave	
	Vertical Longitudinal Cross Sections of Surfaces Restraining Torso Forward Movement	Flat or concave	Radius of Curvature ≥ 2 in
S5.2.2.2	Fixed or Moveable Surface Forward of Dummy		Must be used to restrain dummy and allow compliance with injury & excursion data

Support Surface Results

Surface	Contour	Measured Area	Pass / Fail
Back Support	Flat	≥ 85 in ²	Pass
Side Support	Flat	≥ 24 in ²	Pass

Surfaces Restraining Torso Forward Movement Results

	Contour	Measured Area	Pass / Fail
Horizontal Cross Section	N/A	N/A	N/A
Vertical Cross Section	N/A	N/A	N/A

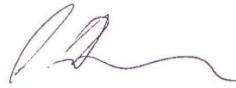
Fixed or Movable Surfaces Forward of Dummy Results

Yes/No	Pass / Fail
No	Pass

The following failures were identified:
No failures

Remarks:
None

Recorded by:



Adam Hardbatt, SLED
Engineer

Date:

June 24, 2019

**DATA SHEET 10
PROTRUSION LIMITATION
(FMVSS 213, S5.2.4)**

Report No.:	213-CAL-19-027	Model No:	Filo, FL19U1
Test Date:	24 June 2019		

S5.2.4 Any portion of a rigid structural component within or underlying a contactable surface is subject to the protrusion limitations described below.

Test	Compliance Requirement	Test Result	Pass/Fail
Height	≤ 9.53 mm (3/8 in.)	≤ 9.53 mm ($\leq 3/8$ in)	Pass
Edge Radius	≥ 6.35 mm (1/4 in.)	≥ 6.35 mm ($\geq 1/4$ in)	Pass

The following failures were identified:
No failures

Remarks:
None

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: June 24, 2019

DATA SHEET 11
DYNAMIC IMPACT TEST CONDITIONS – TEST 1
(FMVSS 213, S6.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98A
Test Date:	21 June 2019	Item Code	027-FL19U1-01-6H3FN2FU

Laboratory Ambient Conditions During Testing:

Temperature Degrees C (F)	21.3C (70.3F)
Relative Humidity %	59.3%

Pulse:

Test Configuration (I or II):	I
Velocity (km/h (mph)):	47.3 km/h (29.4 mph)

Dummy:

Dummy Description:	H3 6 Year Old (Part 572R)
Dummy Serial Number:	158


Restraint Installation:

Installed Direction:	Forward Facing
Base Usage:	None
Attachment Method:	Lap Belt
Tether Usage:	Tether Free
Seat Back Position:	Upright 1
Internal Shoulder Harness Position:	Slot 6, Counted from bottom up
Buckle Harness Position:	Front

Remarks:

Pre and Post Test Photos are presented in Section 9.

Recorded by: _____


Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

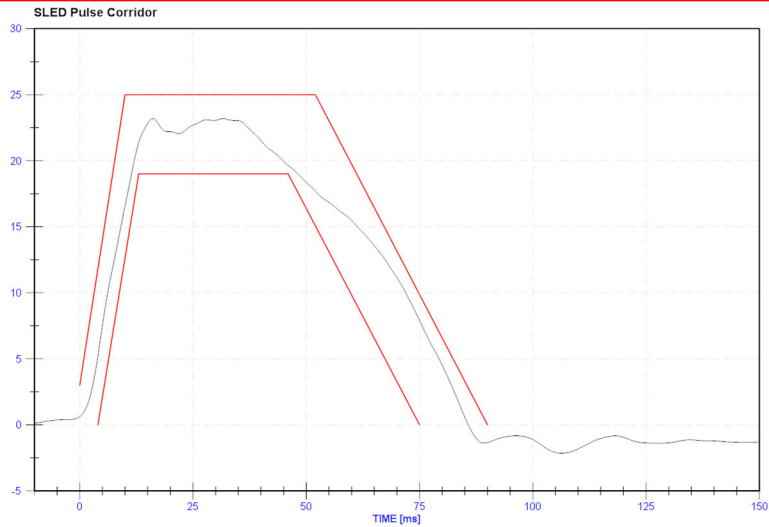
**DYNAMIC IMPACT SLED PULSE – TEST 1
(FMVSS 213, S6.1)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98A
Test Date:	21 June 2019	Item Code	027-FL19U1-01-6H3FN2FU



NHTSA FM06-19-098

Test Date:
June 21, 2019

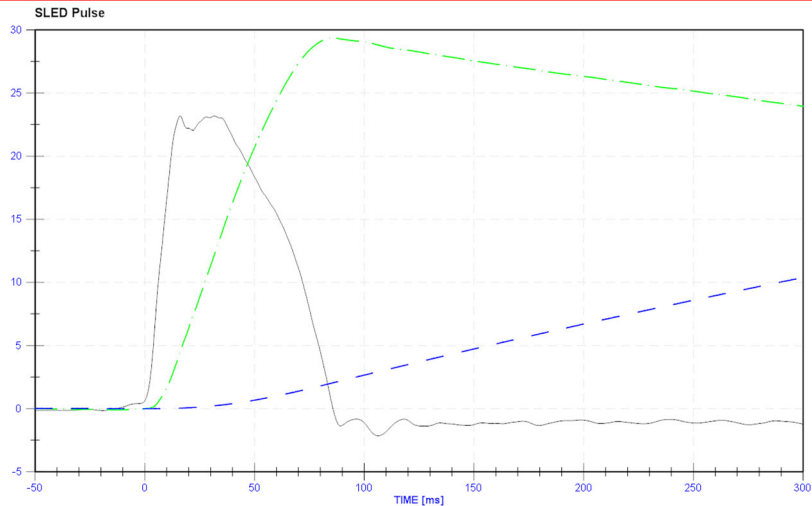


	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g/s)	23.18	10.2	CFC 60	S0SLED0000R0ACXD



NHTSA FM06-19-098

Test Date:
June 21, 2019



	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g/s)	23.18	106.4	CFC 60	S0SLED000000ACXD
SLED Velocity (mph)	29.36	-12.5	CFC 180	S0SLED000000VAXC
SLED Displacement (ft)	10.38	0.9	CFC 180	S0SLED000000DVXC

DATA SHEET 12
BELT RESTRAINT – TEST 1
(FMVSS 213, S5.4.3)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98A
Test Date:	21 June 2019	Item Code	027-FL19U1-01-6H3FN2FU

Section	Requirement	Pass / Fail
S5.4.3.1	Snug Fit of Belts. Belts that are part of the restraint and designed to restrain the child are adjustable to snugly fit any child of height and weight identified by the manufacturer in accordance with the manufacturers installation instructions.	Pass


Section	Requirement	Yes / No	Pass / Fail
S5.4.3.2	Direct Restraint. Belts impose no loads on the child resulting from mass of the system or the test seat		Pass
	The restraint has one or more belts that contact the dummy for restraint	Yes	If all are "Yes" Restraint fails S5.4.3.2
	The restraint has a rigid structure behind the dummy	Yes	
	The restraint could move relative to the belt	No	

Section	Requirement	Pass / Fail
S5.4.3.3	Seating Systems. Except for harness and infant restraints for children up to 10kg (22lb), each restraint designed for a child in a seated position and having belts shall provide.	Pass
S5.4.3.3(a)	Upper torso restraint (either belts or a shield)	Pass
S5.4.3.3(b)	Lower torso restraint (either belts or a shield)	Pass
S5.4.3.3(c)	Crotch restraint (either a belt attached to the lap belt or a shield)	Pass

Section	Requirement	Pass / Fail
S5.4.3.4	Harnesses. Each harness shall:	N/A
S5.4.3.3(a)	Provide upper torso restraint)	N/A
S5.4.3.3(b)	Provide lower torso restraint (lap & crotch)	N/A
S5.4.3.3(c)	Prevent Standing	N/A

Remarks

Recorded by:


 Adam Hardbattle, SLED Engineer

Date:

July 8, 2019

DATA SHEET 13
BUCKLE RELEASE – TEST 1
(FMVSS 213, S5.4.3.5, S6.2)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98A
Test Date:	21 June 2019	Item Code	027-FL19U1-01-6H3FN2FU

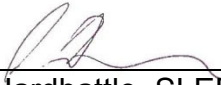
Section	Requirement	Measurement	Pass / Fail
S5.4.3.5(a)	Pre-Impact Release Force Releases under 40-60 N	58 N	Pass
S5.4.3.5(a)	Post-Impact Release Force* Releases \leq 71 N	49 N	Pass
S5.4.3.5(a)	Minimum Surface Area of Buckle \geq 3.9 cm ² (0.6 in ²)	4 cm ²	Pass
S5.4.3.5(a)	Buckle Integrity Shall not release during testing	No Release	Pass

*Not applicable unless determined using the largest test dummy specified in S7 for use in testing the seat.

Remarks

None

Recorded by: _____


Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

DATA SHEET 14
SYSTEM INTEGRITY – TEST 1
(FMVSS 213, S5.1.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98A
Test Date:	21 June 2019	Item Code	027-FL19U1-01-6H3FN2FU

S5.1.1 When dynamically tested, the child restraint shall:

Section	Requirement	Pass / Fail
S5.1.1(a)	Structural Integrity – Exhibit no complete separation of any load bearing structural element	Pass
	Exhibit no partial separation with exposing surfaces with a radius of less than 9.53 mm (3/8 in.)	Pass
	Exhibit no partial separation with exposing surfaces with protrusions greater than 6.35 mm (1/4 in.)	Pass
S5.1.1(b)(1)	Adjustment Position – Remain in the same adjustment position during the test that it was immediately before the test	Pass
S5.1.1(b)(2)(ii)	Exposed Openings – Have no exposed opening larger than 6.35 mm (1/4 in.) before the test becomes smaller during the testing as a result of the movement of the seating service relative to the restraint system as a whole.	Pass
S5.1.1(c)	Seating Surface Angle – Forward facing restraints do not allow the angle between the system's back support surface and seating surface and seating surface to be less than 45 degrees at the completion of the test	Pass

Remarks

None

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

**DATA SHEET 15
INJURY CRITERIA – TEST 1
(FMVSS 213, S5.1.2)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98A
Test Date:	21 June 2019	Item Code	027-FL19U1-01-6H3FN2FU

Section	Requirement
S5.1.2.1(a)	Head Injury Criterion The maximum calculated head injury criterion for a 36 millisecond time interval (HIC36) shall not exceed 1,000. HIC is not calculated when using the 6-year-old weighted and 10-year-old test dummies.
S5.1.2.1(b)	Chest Injury Criterion The chest acceleration shall not exceed 60g for intervals whose cumulative duration is more than 3 milliseconds

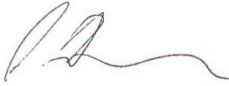
Head Injury Criterion Results

Calculated HIC36	Pass / Fail
808	Pass

Chest Injury Criterion Results

Max Acceleration lasting 3ms (g)	Pass / Fail
51	Pass

Remarks
None

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: July 8, 2019

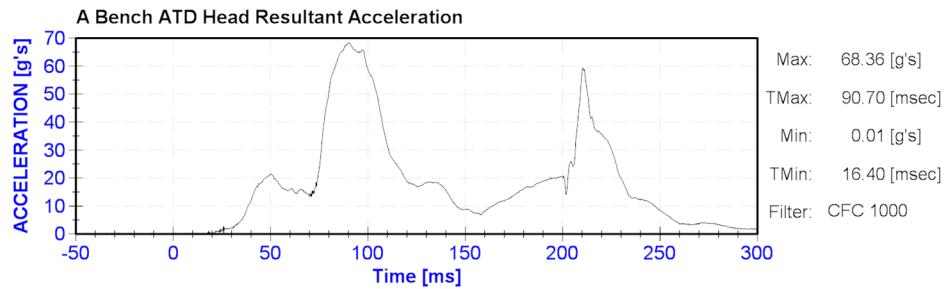
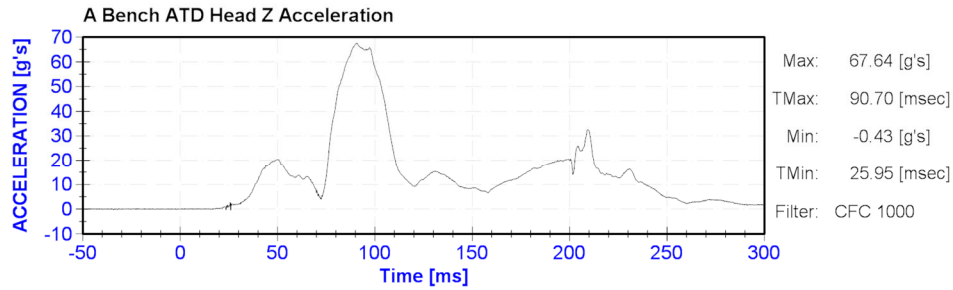
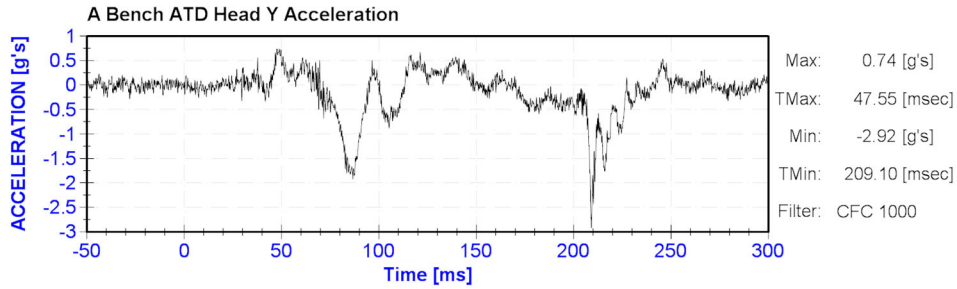
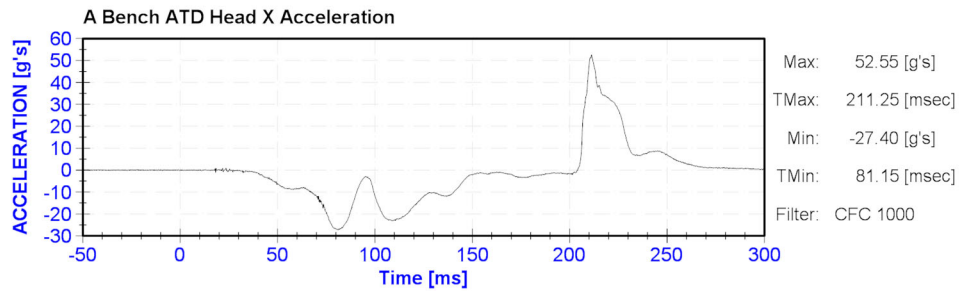
**INJURY CRITERIA – HEAD ACCELERATION PLOTS – TEST 1
(FMVSS 213, S5.1.2)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98A
Test Date:	21 June 2019	Item Code	027-FL19U1-01-6H3FN2FU
HIC 36ms	808	Resultant	68 g's



NHTSA FM06-19-098

Test Date:
June 21, 2019



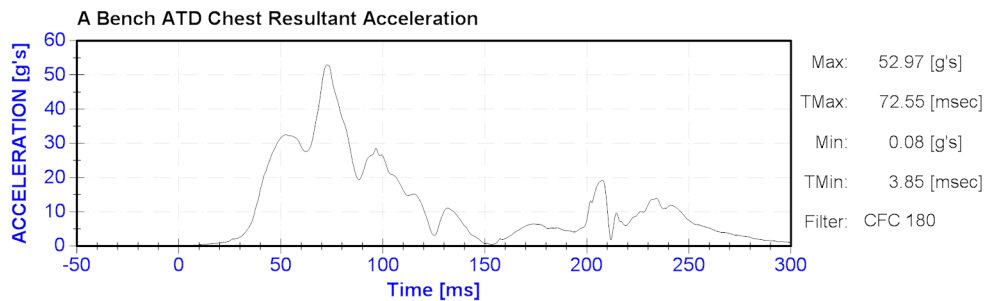
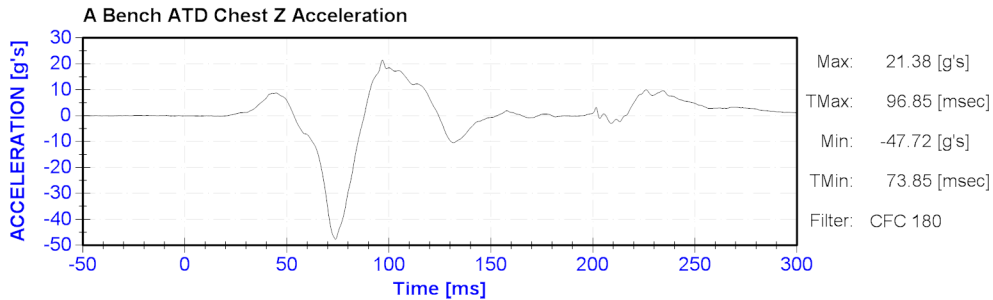
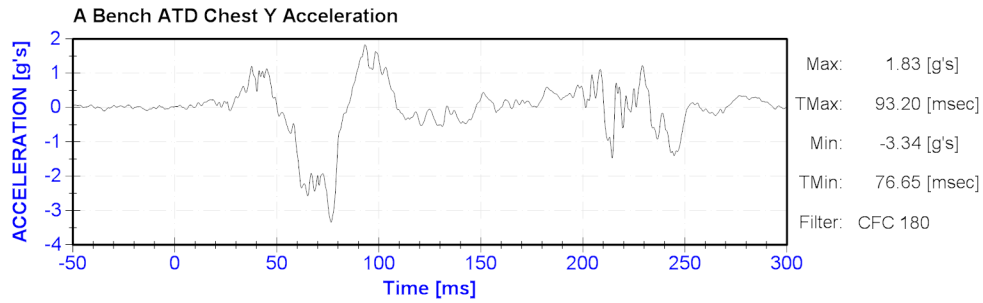
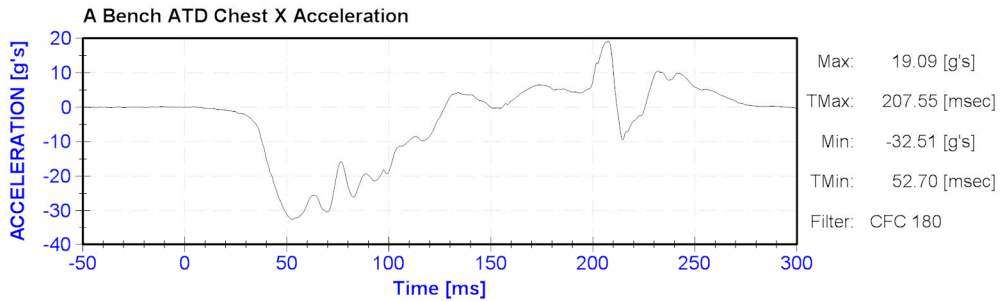
**INJURY CRITERIA – CHEST ACCELERATION PLOTS – TEST 1
(FMVSS 213, S5.1.2)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98A
Test Date:	21 June 2019	Item Code	027-FL19U1-01-6H3FN2FU
3ms Clip	51 g's	Resultant	53 g's



NHTSA FM06-19-098

Test Date:
June 21, 2019



DATA SHEET 16
OCCUPANT EXCURSION – TEST 1
(FMVSS 213, S5.1.3, S5.1.4, S5.2.1.1(c))

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98A
Test Date:	21 June 2019	Item Code	027-FL19U1-01-6H3FN2FU

FORWARD-FACING RESTRAINTS

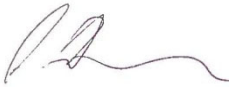
Section	Requirement	Measurement	Pass / Fail
S5.1.3.1	Torso Retention – CRS shall retain the torso within system		Pass
S5.1.3.1(a)(1)	Head Excursion - ≤ 720 mm (28.4 in.) with tether ≤ 813 mm (32 in.) No tether	807	Pass
S5.1.3.1(a)(2)	Knee Excursion - < 91.5 cm (36 in.)	817	Pass
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45	Pass

REAR-FACING RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
S5.1.3.2	Torso Retention – CRS shall retain the torso within system		N/A
S5.1.3.2	Head Target Excursion – Not beyond restraint's top and forward edge		N/A
S5.1.4	Back Support Angle - Angle between the back support surface and vertical ≤ 70 degrees	N/A	N/A
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45	N/A

Remarks

Excursion camera locations (forward of Z point) are 28.4", Camera speed = 2000fps and focal length of lenses = 12.5mm

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

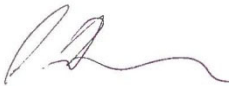
Date: July 8, 2019

DATA SHEET 17
OCCUPANT EXCURSION – TEST 1
(FMVSS 213, S5.1.3.3)

CAR BED RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
Head – Torso Retention (FMVSS 213, S5.1.3.3)	Retain within confines of system	N/A	N/A

Remarks

Recorded by: 
Adam Hardbatt, SLED
Engineer

Date: July 8, 2019

DATA SHEET 18
DYNAMIC IMPACT TEST CONDITIONS – TEST 2
(FMVSS 213, S6.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98B
Test Date:	21 June 2019	Item Code	027-FL19U1-02-12CRNLFR

Laboratory Ambient Conditions During Testing:

Temperature Degrees C (F)	21.3C (70.3F)
Relative Humidity %	59.3%

Pulse:

Test Configuration (I or II):	I
Velocity (km/h (mph)):	47.3 km/h (29.4 mph)

Dummy:

Dummy Description:	CRABI 12 Month (Part 572R)
Dummy Serial Number:	085

Restraint Installation:

Installed Direction:	Rearward Facing
Base Usage:	Use of <i>Required</i> rebound bar
Attachment Method:	Lower Anchor
Tether Usage:	Tether Free
Seat Back Position:	Recline 2 with recline foot
Internal Shoulder Harness Position:	Slot 3, Counted from bottom up
Buckle Harness Position:	Rear

Remarks:

Pre and Post Test Photos are presented in Section 9.

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

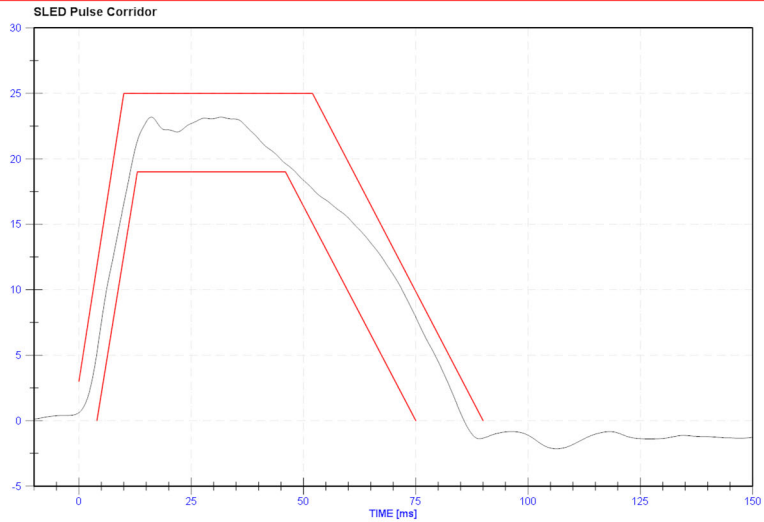
DYNAMIC IMPACT SLED PULSE – TEST 2 (FMVSS 213, S6.1)

Report No.:	213-CAL-19-027	Sled Test No.:	FM06-19-98B
Test Date:	21 June 2019	Item Code	027-FL19U1-02-12CRNLFR



NHTSA FM06-19-098

Test Date:
June 21, 2019

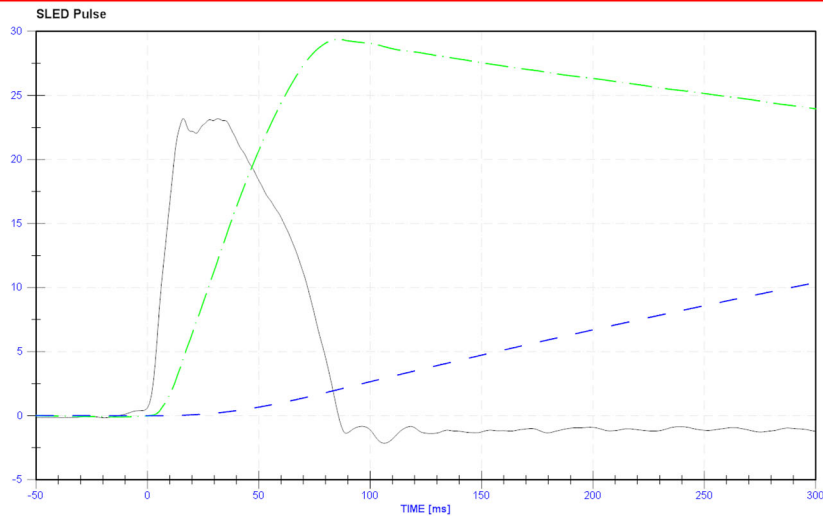


	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.18	16.2	CFC 60	S0SLED0000R00ACXD



NHTSA FM06-19-098

Test Date:
June 21, 2019



	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.18	106.4	CFC 60	S0SLED0000000ACXD
SLED Velocity (mph)	29.36	-12.5	CFC 180	S0SLED0000000VAXC
SLED Displacement (ft)	10.38	0.9	CFC 180	S0SLED0000000DVXC

DATA SHEET 19
BELT RESTRAINT – TEST 2
(FMVSS 213, S5.4.3)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98B
Test Date:	21 June 2019	Item Code	027-FL19U1-02-12CRNLFR

Section	Requirement	Pass / Fail
S5.4.3.1	Snug Fit of Belts. Belts that are part of the restraint and designed to restrain the child are adjustable to snugly fit any child of height and weight identified by the manufacturer in accordance with the manufacturers installation instructions.	Pass


Section	Requirement	Yes / No	Pass / Fail
S5.4.3.2	Direct Restraint. Belts impose no loads on the child resulting from mass of the system or the test seat		Pass
	The restraint has one or more belts that contact the dummy for restraint	Yes	If all are "Yes" Restraint fails S5.4.3.2
	The restraint has a rigid structure behind the dummy	Yes	
	The restraint could move relative to the belt	No	

Section	Requirement	Pass / Fail
S5.4.3.3	Seating Systems. Except for harness and infant restraints for children up to 10kg (22lb), each restraint designed for a child in a seated position and having belts shall provide.	Pass
S5.4.3.3(a)	Upper torso restraint (either belts or a shield)	Pass
S5.4.3.3(b)	Lower torso restraint (either belts or a shield)	Pass
S5.4.3.3(c)	Crotch restraint (either a belt attached to the lap belt or a shield)	Pass

Section	Requirement	Pass / Fail
S5.4.3.4	Harnesses. Each harness shall:	N/A
S5.4.3.3(a)	Provide upper torso restraint)	N/A
S5.4.3.3(b)	Provide lower torso restraint (lap & crotch)	N/A
S5.4.3.3(c)	Prevent Standing	N/A

Remarks

Recorded by:


 Adam Hardbattle, SLED Engineer

Date:

July 8, 2019

DATA SHEET 20
BUCKLE RELEASE – TEST 2
(FMVSS 213, S5.4.3.5, S6.2)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98B
Test Date:	21 June 2019	Item Code	027-FL19U1-02-12CRNLFR

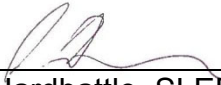
Section	Requirement	Measurement	Pass / Fail
S5.4.3.5(a)	Pre-Impact Release Force Releases under 40-60 N	53 N	Pass
S5.4.3.5(a)	Post-Impact Release Force* Releases \leq 71 N	62 N	Pass
S5.4.3.5(a)	Minimum Surface Area of Buckle \geq 3.9 cm ² (0.6 in ²)	4 cm ²	Pass
S5.4.3.5(a)	Buckle Integrity Shall not release during testing	No Release	Pass

*Not applicable unless determined using the largest test dummy specified in S7 for use in testing the seat.

Remarks

None

Recorded by: _____


Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

DATA SHEET 21
SYSTEM INTEGRITY – TEST 2
(FMVSS 213, S5.1.1)

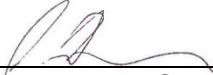
Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98B
Test Date:	21 June 2019	Item Code	027-FL19U1-02-12CRNLFR

S5.1.1 When dynamically tested, the child restraint shall:

Section	Requirement	Pass / Fail
S5.1.1(a)	Structural Integrity – Exhibit no complete separation of any load bearing structural element	Pass
	Exhibit no partial separation with exposing surfaces with a radius of less than 9.53 mm (3/8 in.)	Pass
	Exhibit no partial separation with exposing surfaces with protrusions greater than 6.35 mm (1/4 in.)	Pass
S5.1.1(b)(1)	Adjustment Position – Remain in the same adjustment position during the test that it was immediately before the test	Pass
S5.1.1(b)(2)(ii)	Exposed Openings – Have no exposed opening larger than 6.35 mm (1/4 in.) before the test becomes smaller during the testing as a result of the movement of the seating service relative to the restraint system as a whole.	Pass
S5.1.1(c)	Seating Surface Angle – Forward facing restraints do not allow the angle between the system's back support surface and seating surface and seating surface to be less than 45 degrees at the completion of the test	N/A

Remarks

None

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

**DATA SHEET 22
INJURY CRITERIA – TEST 2
(FMVSS 213, S5.1.2)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98B
Test Date:	21 June 2019	Item Code	027-FL19U1-02-12CRNLFR

Section	Requirement
S5.1.2.1(a)	Head Injury Criterion The maximum calculated head injury criterion for a 36 millisecond time interval (HIC36) shall not exceed 1,000. HIC is not calculated when using the 6-year-old weighted and 10-year-old test dummies.
S5.1.2.1(b)	Chest Injury Criterion The chest acceleration shall not exceed 60g for intervals whose cumulative duration is more than 3 milliseconds

Head Injury Criterion Results

Calculated HIC36	Pass / Fail
348	Pass

Chest Injury Criterion Results

Max Acceleration lasting 3ms (g)	Pass / Fail
41	Pass

Remarks

None

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

**INJURY CRITERIA – HEAD ACCELERATION PLOTS – TEST 2
(FMVSS 213, S5.1.2)**

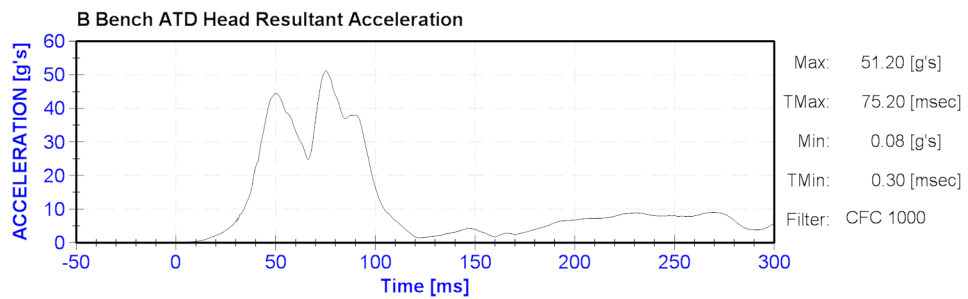
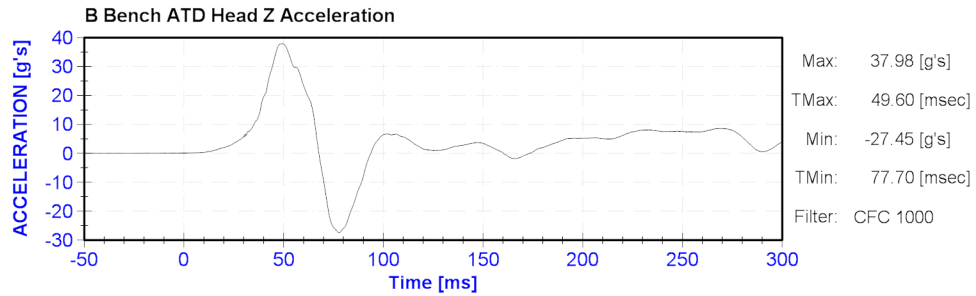
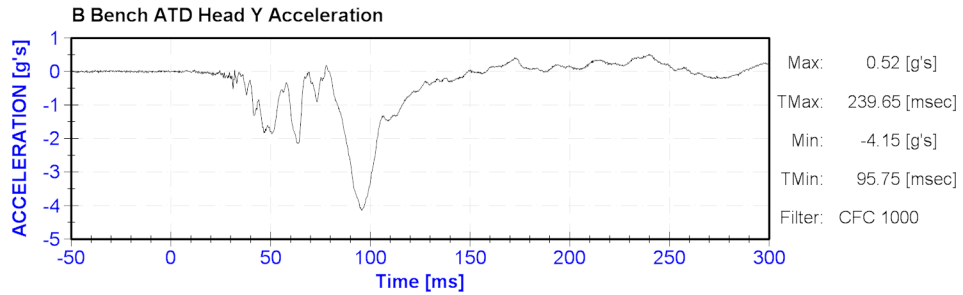
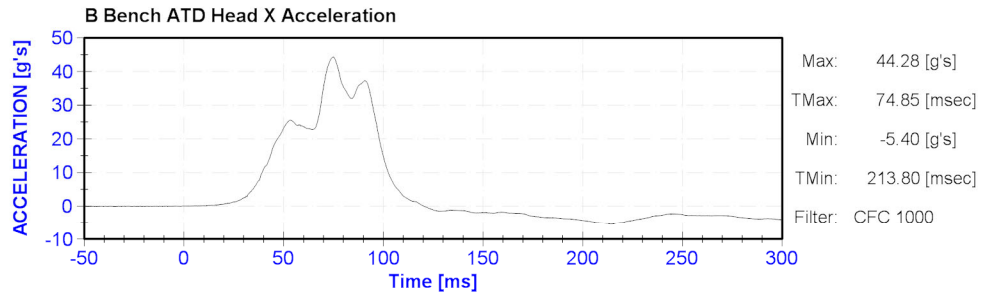
Report No.:	213-CAL-19-027
Test Date:	21 June 2019
HIC 36ms	348

Sled Test No.	FM06-19-98B
Item Code	027-FL19U1-02-12CRNLFR
Resultant	51 g's



NHTSA FM06-19-098

Test Date:
June 21, 2019



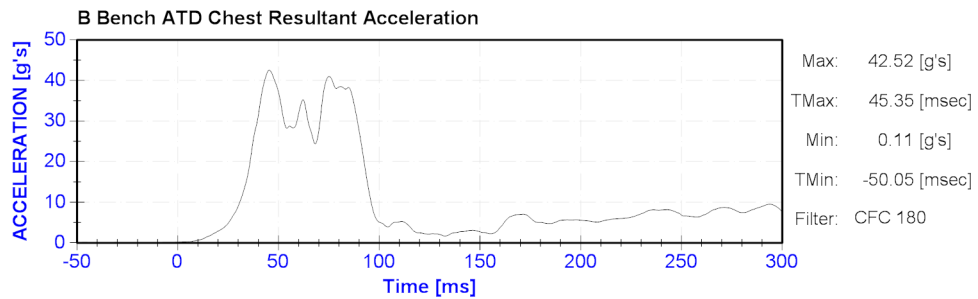
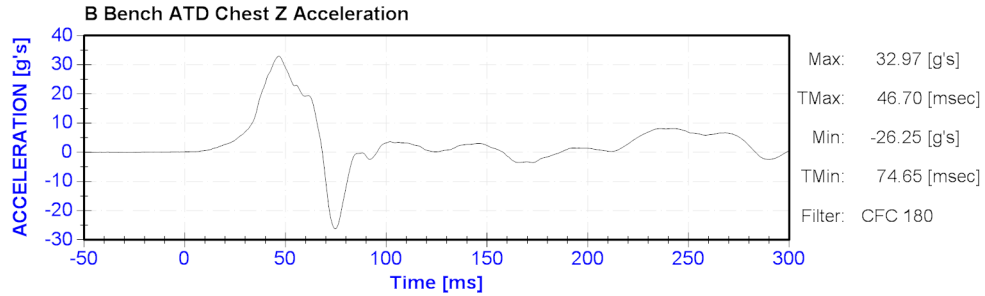
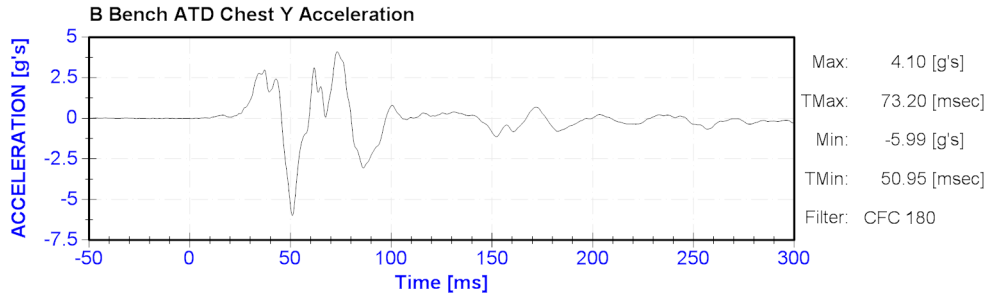
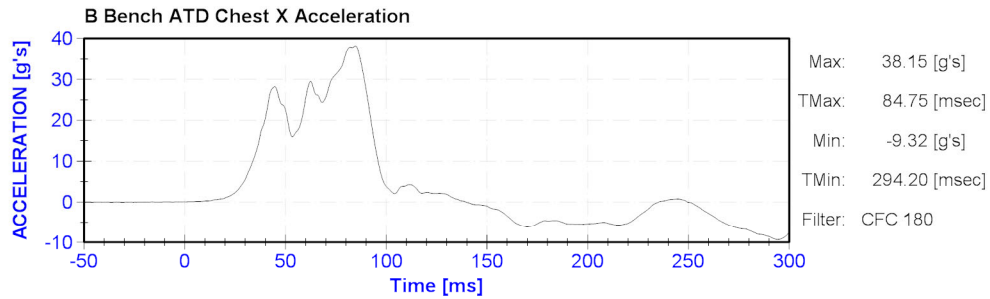
**INJURY CRITERIA – CHEST ACCELERATION PLOTS – TEST 2
(FMVSS 213, S5.1.2)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98B
Test Date:	21 June 2019	Item Code	027-FL19U1-02-12CRNLFR
3ms Clip	41 g's	Resultant	43 g's



NHTSA FM06-19-098

Test Date:
June 21, 2019



DATA SHEET 23
OCCUPANT EXCURSION – TEST 2
(FMVSS 213, S5.1.3, S5.1.4, S5.2.1.1(c))

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-98B
Test Date:	21 June 2019	Item Code	027-FL19U1-02-12CRNLFR

FORWARD-FACING RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
S5.1.3.1	Torso Retention – CRS shall retain the torso within system		N/A
S5.1.3.1(a)(1)	Head Excursion - ≤ 720 mm (28.4 in.) with tether ≤ 813 mm (32 in.) No tether	N/A	N/A
S5.1.3.1(a)(2)	Knee Excursion - ≤ 91.5 cm (36 in.)	N/A	N/A
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	N/A

REAR-FACING RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
S5.1.3.2	Torso Retention – CRS shall retain the torso within system		Pass
S5.1.3.2	Head Target Excursion – Not beyond restraint's top and forward edge		Pass
S5.1.4	Back Support Angle - Angle between the back support surface and vertical ≤ 70 degrees	64	Pass
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	Pass

Remarks

Excursion camera locations (forward of Z point) are 28.4", Camera speed = 2000fps and focal length of lenses = 12.5mm

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

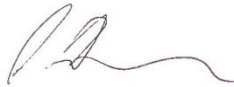
DATA SHEET 24
OCCUPANT EXCURSION – TEST 2
(FMVSS 213, S5.1.3.3)

CAR BED RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
Head – Torso Retention (FMVSS 213, S5.1.3.3)	Retain within confines of system	N/A	N/A

Remarks

Recorded by: _____



Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

DATA SHEET 25
DYNAMIC IMPACT TEST CONDITIONS – TEST 3
(FMVSS 213, S6.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6H3FN2TU

Laboratory Ambient Conditions During Testing:

Temperature Degrees C (F)	21.4C (70.5F)
Relative Humidity %	62.6%

Pulse:

Test Configuration (I or II):	I
Velocity (km/h (mph)):	47.3 km/h (29.4 mph)

Dummy:

Dummy Description:	H3 6 Year Old (Part 572R)
Dummy Serial Number:	158

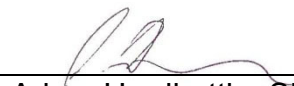
Restraint Installation:

Installed Direction:	Forward Facing
Base Usage:	Other Configuration
Attachment Method:	Lap belt
Tether Usage:	Top Tether
Seat Back Position:	Upright, 1
Internal Shoulder Harness Position:	Slot 6, Counted from bottom up
Buckle Harness Position:	Forward

Remarks:

Pre and Post Test Photos are presented in Section 9.

Recorded by: _____


Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

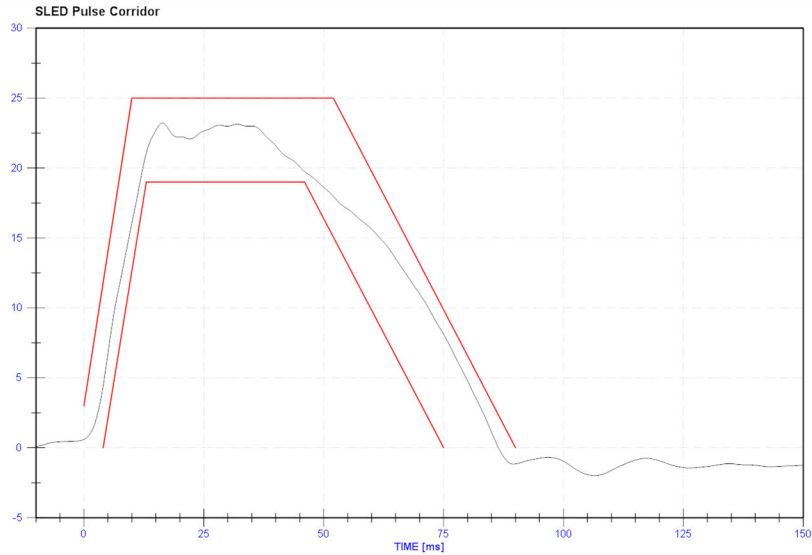
**DYNAMIC IMPACT SLED PULSE – TEST 3
(FMVSS 213, S6.1)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6H3FN2TU



NHTSA FM06-19-099

Test Date:
June 21, 2019

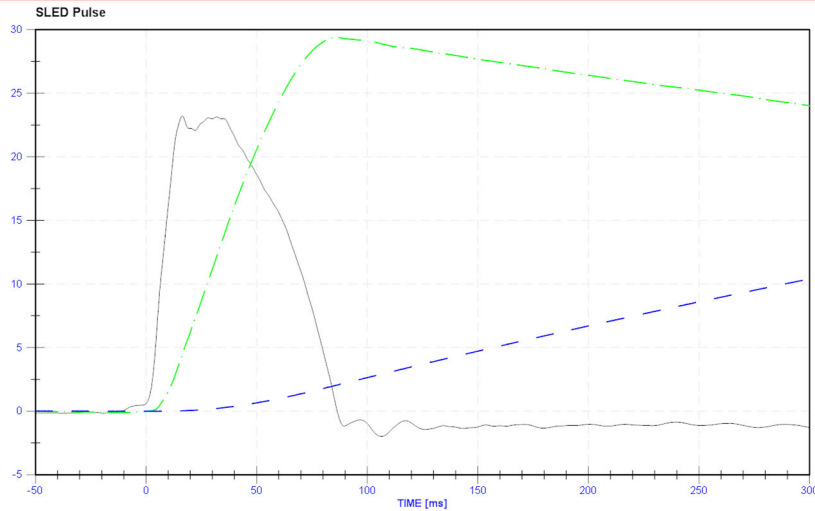


	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.21	16.4	CFC 60	S0SLED000R00ACXD



NHTSA FM06-19-099

Test Date:
June 21, 2019



	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.21	106.5	CFC 60	S0SLED000000ACXD
SLED Velocity (mph)	29.36	-11.8	CFC 180	S0SLED000000VAXC
SLED Displacement (ft)	10.39	0.9	CFC 180	S0SLED000000DVXC

DATA SHEET 26
BELT RESTRAINT – TEST 3
(FMVSS 213, S5.4.3)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6H3FN2TU

Section	Requirement	Pass / Fail
S5.4.3.1	Snug Fit of Belts. Belts that are part of the restraint and designed to restrain the child are adjustable to snugly fit any child of height and weight identified by the manufacturer in accordance with the manufacturers installation instructions.	Pass


Section	Requirement	Yes / No	Pass / Fail
S5.4.3.2	Direct Restraint. Belts impose no loads on the child resulting from mass of the system or the test seat		Pass
	The restraint has one or more belts that contact the dummy for restraint	Yes	If all are "Yes" Restraint fails S5.4.3.2
	The restraint has a rigid structure behind the dummy	Yes	
	The restraint could move relative to the belt	No	

Section	Requirement	Pass / Fail
S5.4.3.3	Seating Systems. Except for harness and infant restraints for children up to 10kg (22lb), each restraint designed for a child in a seated position and having belts shall provide.	Pass
S5.4.3.3(a)	Upper torso restraint (either belts or a shield)	Pass
S5.4.3.3(b)	Lower torso restraint (either belts or a shield)	Pass
S5.4.3.3(c)	Crotch restraint (either a belt attached to the lap belt or a shield)	Pass

Section	Requirement	Pass / Fail
S5.4.3.4	Harnesses. Each harness shall:	N/A
S5.4.3.3(a)	Provide upper torso restraint)	N/A
S5.4.3.3(b)	Provide lower torso restraint (lap & crotch)	N/A
S5.4.3.3(c)	Prevent Standing	N/A

Remarks

Recorded by:


 Adam Hardbattle, SLED Engineer

Date:

July 8, 2019

DATA SHEET 27
BUCKLE RELEASE – TEST 3
(FMVSS 213, S5.4.3.5, S6.2)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6H3FN2TU

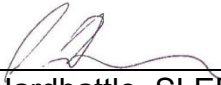
Section	Requirement	Measurement	Pass / Fail
S5.4.3.5(a)	Pre-Impact Release Force Releases under 40-60 N	51 N	Pass
S5.4.3.5(a)	Post-Impact Release Force* Releases \leq 71 N	52 N	Pass
S5.4.3.5(a)	Minimum Surface Area of Buckle \geq 3.9 cm ² (0.6 in ²)	4 cm ²	Pass
S5.4.3.5(a)	Buckle Integrity Shall not release during testing	No Release	Pass

*Not applicable unless determined using the largest test dummy specified in S7 for use in testing the seat.

Remarks

None

Recorded by: _____


Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

DATA SHEET 28
SYSTEM INTEGRITY – TEST 3
(FMVSS 213, S5.1.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6H3FN2TU

S5.1.1 When dynamically tested, the child restraint shall:

Section	Requirement	Pass / Fail
S5.1.1(a)	Structural Integrity – Exhibit no complete separation of any load bearing structural element	Pass
	Exhibit no partial separation with exposing surfaces with a radius of less than 9.53 mm (3/8 in.)	Pass
	Exhibit no partial separation with exposing surfaces with protrusions greater than 6.35 mm (1/4 in.)	Pass
S5.1.1(b)(1)	Adjustment Position – Remain in the same adjustment position during the test that it was immediately before the test	Pass
S5.1.1(b)(2)(ii)	Exposed Openings – Have no exposed opening larger than 6.35 mm (1/4 in.) before the test becomes smaller during the testing as a result of the movement of the seating service relative to the restraint system as a whole.	Pass
S5.1.1(c)	Seating Surface Angle – Forward facing restraints do not allow the angle between the system's back support surface and seating surface and seating surface to be less than 45 degrees at the completion of the test	Pass

Remarks

None

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: July 8, 2019

**DATA SHEET 29
INJURY CRITERIA – TEST 3
(FMVSS 213, S5.1.2)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6H3FN2TU

Section	Requirement
S5.1.2.1(a)	Head Injury Criterion The maximum calculated head injury criterion for a 36 millisecond time interval (HIC36) shall not exceed 1,000. HIC is not calculated when using the 6-year-old weighted and 10-year-old test dummies.
S5.1.2.1(b)	Chest Injury Criterion The chest acceleration shall not exceed 60g for intervals whose cumulative duration is more than 3 milliseconds

Head Injury Criterion Results

Calculated HIC36	Pass / Fail
469	Pass

Chest Injury Criterion Results

Max Acceleration lasting 3ms (g)	Pass / Fail
48	Pass

Remarks

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: July 8, 2019

**INJURY CRITERIA – HEAD ACCELERATION PLOTS – TEST 3
(FMVSS 213, S5.1.2)**

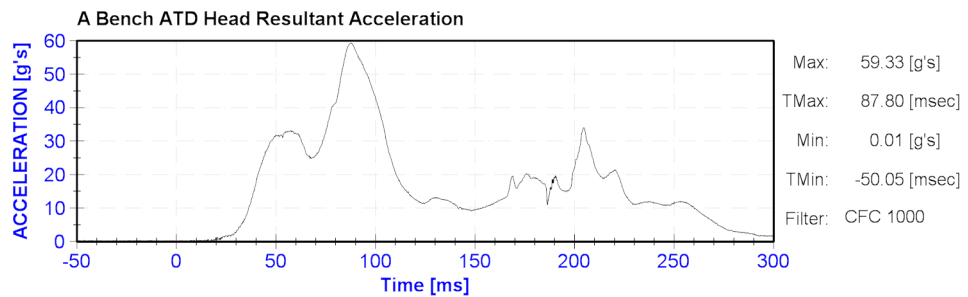
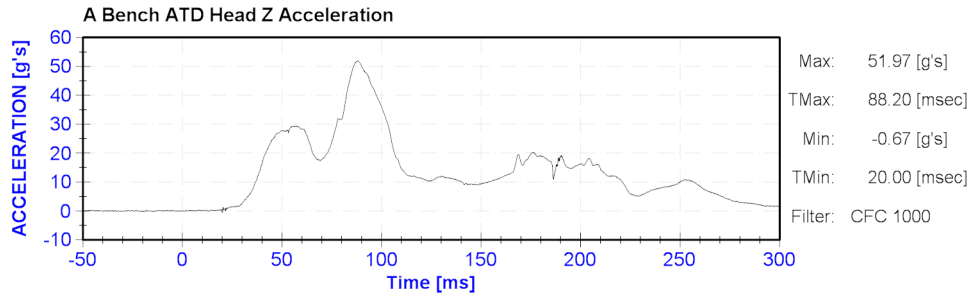
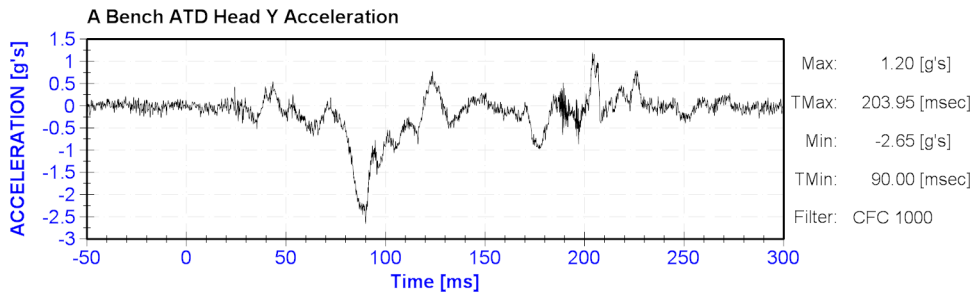
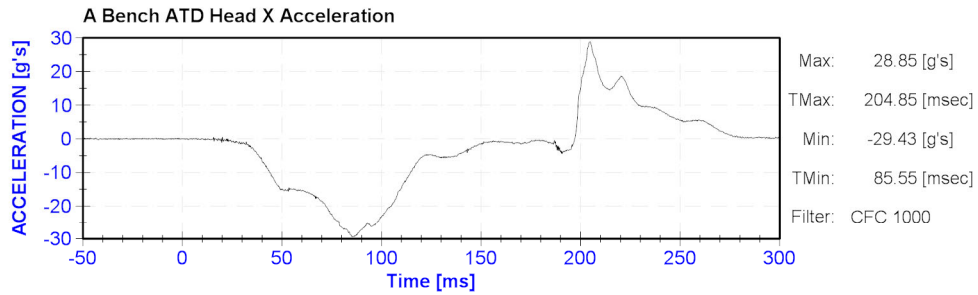
Report No.:	213-CAL-19-027
Test Date:	21 June 2019
HIC 36ms	469

Sled Test No.	FM06-19-99A
Item Code	027-FL19U1-03-6H3FN2TU
Resultant	59 g's



NHTSA FM06-19-099

Test Date:
June 21, 2019



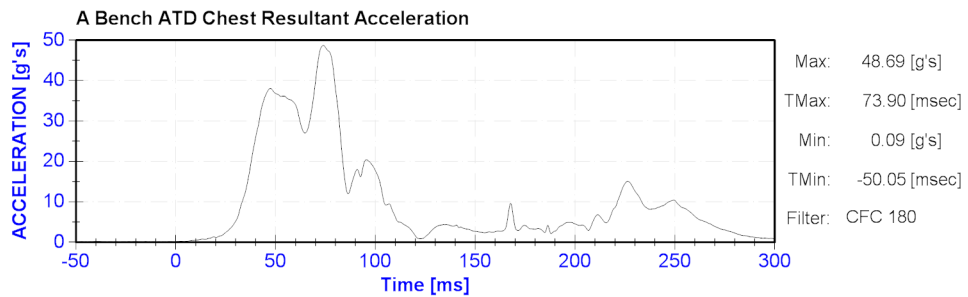
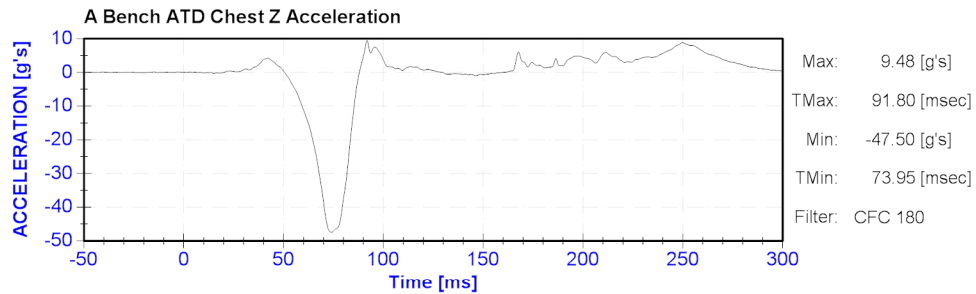
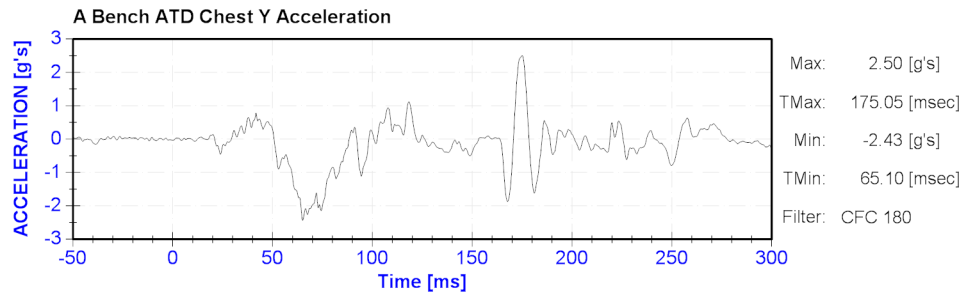
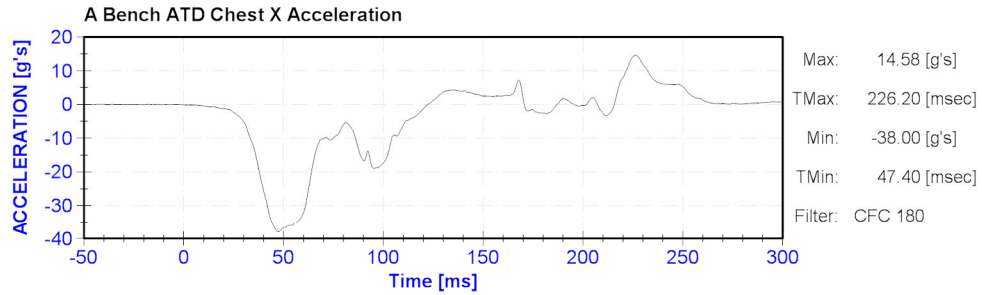
INJURY CRITERIA – CHEST ACCELERATION PLOTS – TEST 3 (FMVSS 213, S5.1.2)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6H3FN2TU
3ms Clip	48 g's	Resultant	49 g's



NHTSA FM06-19-099

Test Date:
June 21, 2019



DATA SHEET 30
OCCUPANT EXCURSION – TEST 3
(FMVSS 213, S5.1.3, S5.1.4, S5.2.1.1(c))

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6H3FN2TU

FORWARD-FACING RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
S5.1.3.1	Torso Retention – CRS shall retain the torso within system		Pass
S5.1.3.1(a)(1)	Head Excursion - ≤ 720 mm (28.4 in.) with tether ≤ 813 mm (32 in.) No tether	647	Pass
S5.1.3.1(a)(2)	Knee Excursion - ≤ 91.5 cm (36 in.)	755	Pass
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	Pass

REAR-FACING RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
S5.1.3.2	Torso Retention – CRS shall retain the torso within system		N/A
S5.1.3.2	Head Target Excursion – Not beyond restraint's top and forward edge		N/A
S5.1.4	Back Support Angle - Angle between the back support surface and vertical ≤ 70 degrees	N/A	N/A
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	N/A

Remarks

Excursion camera locations (forward of Z point) are 28.4", Camera speed = 2000fps and focal length of lenses = 12.5mm

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

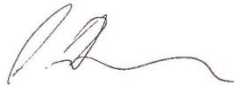
DATA SHEET 31
OCCUPANT EXCURSION – TEST 3
(FMVSS 213, S5.1.3.3)

CAR BED RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
Head – Torso Retention (FMVSS 213, S5.1.3.3)	Retain within confines of system	N/A	N/A

Remarks

Recorded by: _____



Adam Hardbatt, SLED
Engineer

Date: _____

July 8, 2019

DATA SHEET 32
DYNAMIC IMPACT TEST CONDITIONS – TEST 4
(FMVSS 213, S6.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99B
Test Date:	21 June 2019	Item Code	027-FL19U1-04-12CFNLTU

Laboratory Ambient Conditions During Testing:

Temperature Degrees C (F)	21.4C (70.5 F)
Relative Humidity %	62.6%

Pulse:

Test Configuration (I or II):	I
Velocity (km/h (mph)):	47.3 km/h (29.4 mph)

Dummy:

Dummy Description:	CRABI 12 Month Old (Part 572R)
Dummy Serial Number:	085

Restraint Installation:

Installed Direction:	Forward Facing
Base Usage:	Other Configuration
Attachment Method:	Lower Anchors
Tether Usage:	Top Tether
Seat Back Position:	Upright, 1
Internal Shoulder Harness Position:	Slot 4, Counted from bottom up
Buckle Harness Position:	Rearward

Remarks:

Pre and Post Test Photos are presented in Section 9.

Recorded by: 

Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

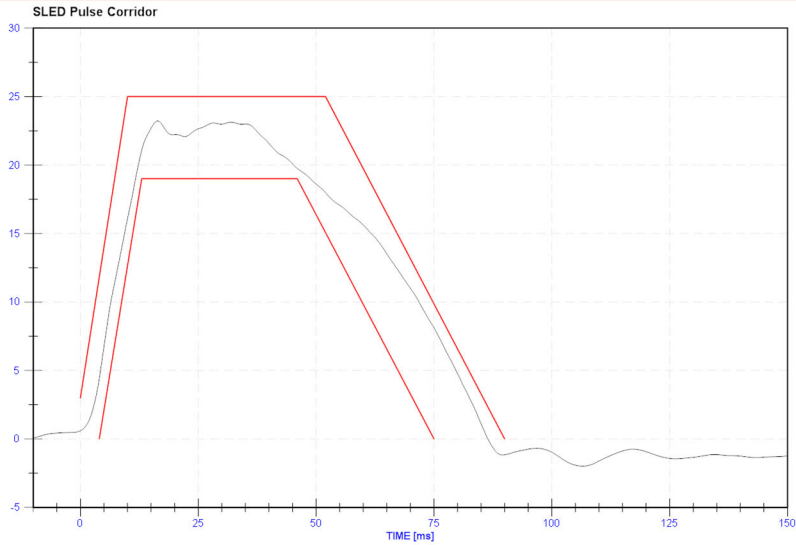
DYNAMIC IMPACT SLED PULSE – TEST 4 (FMVSS 213, S6.1)

Report No.:	213-CAL-19-027	Sled Test No.:	FM06-19-99B
Test Date:	21 June 2019	Item Code	027-FL19U1-04-12CFNLTU



NHTSA FM06-19-099

Test Date:
June 21, 2019

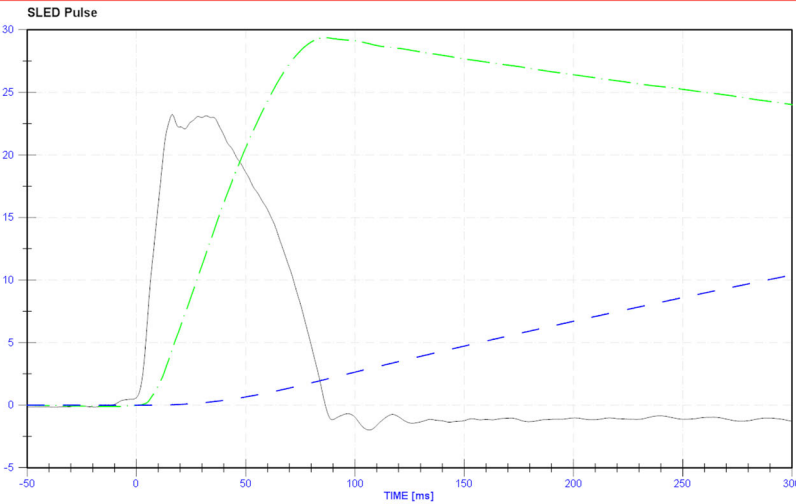


	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.21	16.4	CFC 60	S0SLED000R00ACXD



NHTSA FM06-19-099

Test Date:
June 21, 2019



	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.21	106.5	CFC 60	S0SLED000000ACXD
SLED Velocity (mph)	29.36	-11.8	CFC 180	S0SLED000000VAXC
SLED Displacement (ft)	10.39	0.9	CFC 180	S0SLED000000DVXC

**DATA SHEET 33
BELT RESTRAINT – TEST 4
(FMVSS 213, S5.4.3)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99B
Test Date:	21 June 2019	Item Code	027-FL19U1-04-12CFNLTU

Section	Requirement	Pass / Fail
S5.4.3.1	Snug Fit of Belts. Belts that are part of the restraint and designed to restrain the child are adjustable to snugly fit any child of height and weight identified by the manufacturer in accordance with the manufacturers installation instructions.	Pass


Section	Requirement	Yes / No	Pass / Fail
S5.4.3.2	Direct Restraint. Belts impose no loads on the child resulting from mass of the system or the test seat		Pass
	The restraint has one or more belts that contact the dummy for restraint	Yes	If all are "Yes" Restraint fails S5.4.3.2
	The restraint has a rigid structure behind the dummy	Yes	
	The restraint could move relative to the belt	No	

Section	Requirement	Pass / Fail
S5.4.3.3	Seating Systems. Except for harness and infant restraints for children up to 10kg (22lb), each restraint designed for a child in a seated position and having belts shall provide.	Pass
S5.4.3.3(a)	Upper torso restraint (either belts or a shield)	Pass
S5.4.3.3(b)	Lower torso restraint (either belts or a shield)	Pass
S5.4.3.3(c)	Crotch restraint (either a belt attached to the lap belt or a shield)	Pass

Section	Requirement	Pass / Fail
S5.4.3.4	Harnesses. Each harness shall:	N/A
S5.4.3.3(a)	Provide upper torso restraint)	N/A
S5.4.3.3(b)	Provide lower torso restraint (lap & crotch)	N/A
S5.4.3.3(c)	Prevent Standing	N/A

Remarks

Recorded by:


Adam Hardbattle, SLED Engineer

Date:

July 8, 2019

DATA SHEET 34
BUCKLE RELEASE – TEST 4
(FMVSS 213, S5.4.3.5, S6.2)

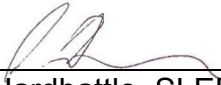
Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99B
Test Date:	21 June 2019	Item Code	027-FL19U1-04-12CFNLTU

Section	Requirement	Measurement	Pass / Fail
S5.4.3.5(a)	Pre-Impact Release Force Releases under 40-60 N	46 N	Pass
S5.4.3.5(a)	Post-Impact Release Force* Releases \leq 71 N	49 N	Pass
S5.4.3.5(a)	Minimum Surface Area of Buckle \geq 3.9 cm ² (0.6 in ²)	4 cm ²	Pass
S5.4.3.5(a)	Buckle Integrity Shall not release during testing	No Release	Pass

*Not applicable unless determined using the largest test dummy specified in S7 for use in testing the seat.

Remarks

None

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: July 8, 2019

DATA SHEET 35
SYSTEM INTEGRITY – TEST 4
(FMVSS 213, S5.1.1)

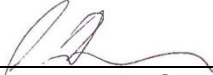
Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99B
Test Date:	21 June 2019	Item Code	027-FL19U1-04-12CFNLTU

S5.1.1 When dynamically tested, the child restraint shall:

Section	Requirement	Pass / Fail
S5.1.1(a)	Structural Integrity – Exhibit no complete separation of any load bearing structural element	Pass
	Exhibit no partial separation with exposing surfaces with a radius of less than 9.53 mm (3/8 in.)	Pass
	Exhibit no partial separation with exposing surfaces with protrusions greater than 6.35 mm (1/4 in.)	Pass
S5.1.1(b)(1)	Adjustment Position – Remain in the same adjustment position during the test that it was immediately before the test	Pass
S5.1.1(b)(2)(ii)	Exposed Openings – Have no exposed opening larger than 6.35 mm (1/4 in.) before the test becomes smaller during the testing as a result of the movement of the seating service relative to the restraint system as a whole.	Pass
S5.1.1(c)	Seating Surface Angle – Forward facing restraints do not allow the angle between the system's back support surface and seating surface and seating surface to be less than 45 degrees at the completion of the test	Pass

Remarks

None

Recorded by: 
 Adam Hardbatt, SLED
 Engineer

Date: July 8, 2019

**DATA SHEET 36
INJURY CRITERIA – TEST 4
(FMVSS 213, S5.1.2)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99B
Test Date:	21 June 2019	Item Code	027-FL19U1-04-12CFNLTU

Section	Requirement
S5.1.2.1(a)	Head Injury Criterion The maximum calculated head injury criterion for a 36 millisecond time interval (HIC36) shall not exceed 1,000. HIC is not calculated when using the 6-year-old weighted and 10-year-old test dummies.
S5.1.2.1(b)	Chest Injury Criterion The chest acceleration shall not exceed 60g for intervals whose cumulative duration is more than 3 milliseconds

Head Injury Criterion Results

Calculated HIC36	Pass / Fail
266	Pass

Chest Injury Criterion Results

Max Acceleration lasting 3ms (g)	Pass / Fail
43	Pass

Remarks

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

**INJURY CRITERIA – HEAD ACCELERATION PLOTS – TEST 4
(FMVSS 213, S5.1.2)**

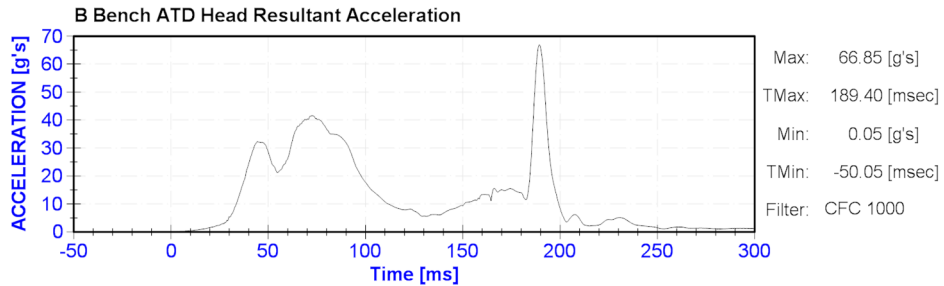
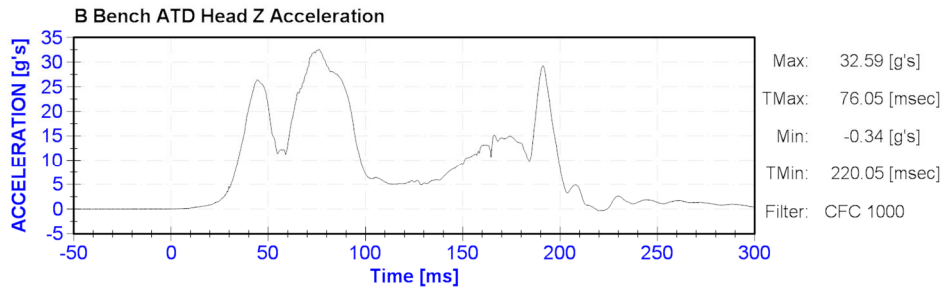
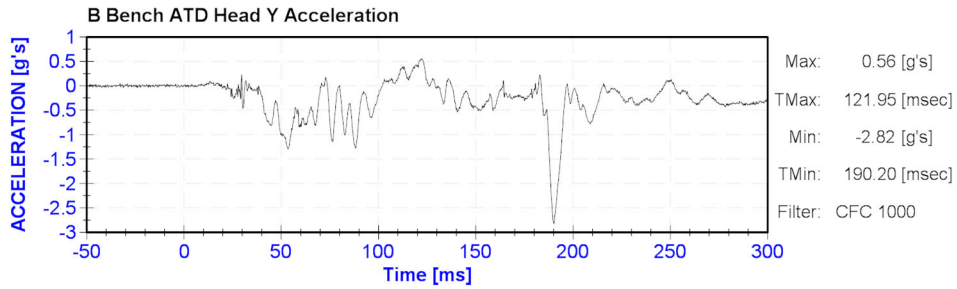
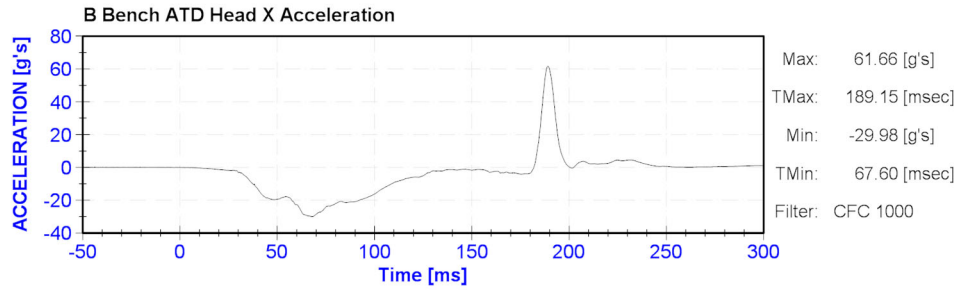
Report No.:	213-CAL-19-027
Test Date:	21 June 2019
HIC 36ms	266

Sled Test No.	FM06-19-99B
Item Code	027-FL19U1-04-12CFNLTU
Resultant	67 g's



NHTSA FM06-19-099

Test Date:
June 21, 2019



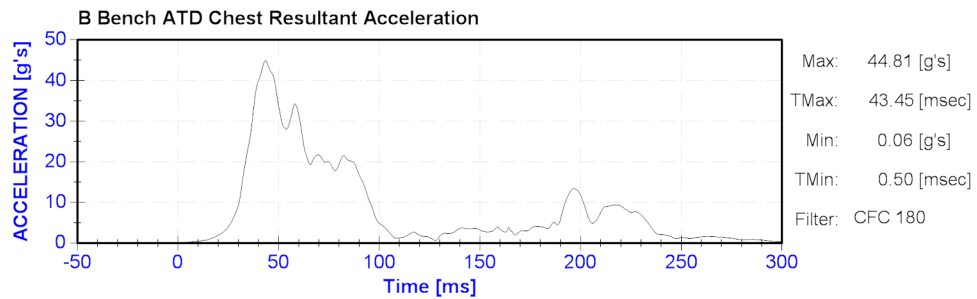
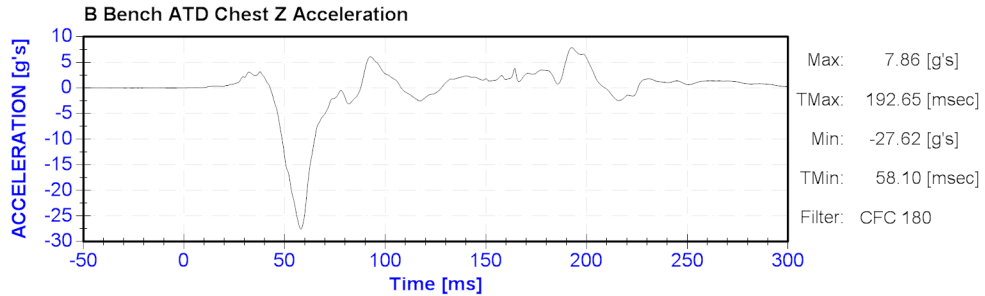
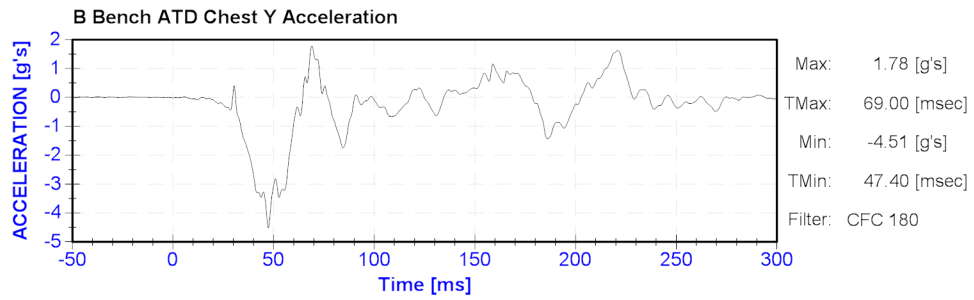
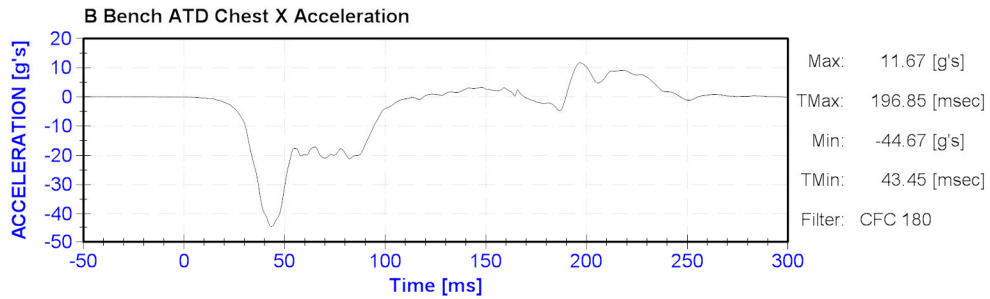
INJURY CRITERIA – CHEST ACCELERATION PLOTS – TEST 4 (FMVSS 213, S5.1.2)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99B
Test Date:	21 June 2019	Item Code	027-FL19U1-04-12CFNLTU
3ms Clip	43 g's	Resultant	45 g's



NHTSA FM06-19-099

Test Date:
June 21, 2019



**DATA SHEET 37
OCCUPANT EXCURSION – TEST 4
(FMVSS 213, S5.1.3, S5.1.4, S5.2.1.1(c))**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-99B
Test Date:	21 June 2019	Item Code	027-FL19U1-04-12CFNLTU

FORWARD-FACING RESTRAINTS

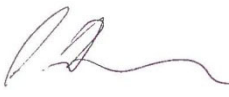
Section	Requirement	Measurement	Pass / Fail
S5.1.3.1	Torso Retention – CRS shall retain the torso within system		Pass
S5.1.3.1(a)(1)	Head Excursion - ≤ 720 mm (28.4 in.) with tether ≤ 813 mm (32 in.) No tether	557	Pass
S5.1.3.1(a)(2)	Knee Excursion - ≤ 91.5 cm (36 in.)	525	Pass
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	Pass

REAR-FACING RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
S5.1.3.2	Torso Retention – CRS shall retain the torso within system		N/A
S5.1.3.2	Head Target Excursion – Not beyond restraint's top and forward edge		N/A
S5.1.4	Back Support Angle - Angle between the back support surface and vertical ≤ 70 degrees	N/A	N/A
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	N/A

Remarks

Excursion camera locations (forward of Z point) are 28.4", Camera speed = 2000fps and focal length of lenses = 12.5mm

Recorded by: 
Adam Hardbatt, SLED
Engineer

Date: July 8, 2019

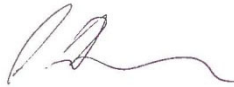
DATA SHEET 38
OCCUPANT EXCURSION – TEST 4
(FMVSS 213, S5.1.3.3)

CAR BED RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
Head – Torso Retention (FMVSS 213, S5.1.3.3)	Retain within confines of system	N/A	N/A

Remarks

Recorded by: _____



Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

DATA SHEET 39
DYNAMIC IMPACT TEST CONDITIONS – TEST 5
(FMVSS 213, S6.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100A
Test Date:	21 June 2019	Item Code	027-FL19U1-05-6W3FN2TU

Laboratory Ambient Conditions During Testing:

Temperature Degrees C (F)	21.3C (70.3F)
Relative Humidity %	58.6%

Pulse:

Test Configuration (I or II):	I
Velocity (km/h (mph)):	47.2 km/h (29.3 mph)

Dummy:

Dummy Description:	H3 Weighted 6 Year Old (Part 572R)
Dummy Serial Number:	163


Restraint Installation:

Installed Direction:	Forward Facing
Base Usage:	Other Configuration
Attachment Method:	Lap Belt
Tether Usage:	Top Tether
Seat Back Position:	Upright, 1
Internal Shoulder Harness Position:	Slot 6, Counted from bottom up
Buckle Harness Position:	Forward

Remarks:

Pre and Post Test Photos are presented in Section 9.

Recorded by: _____


Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

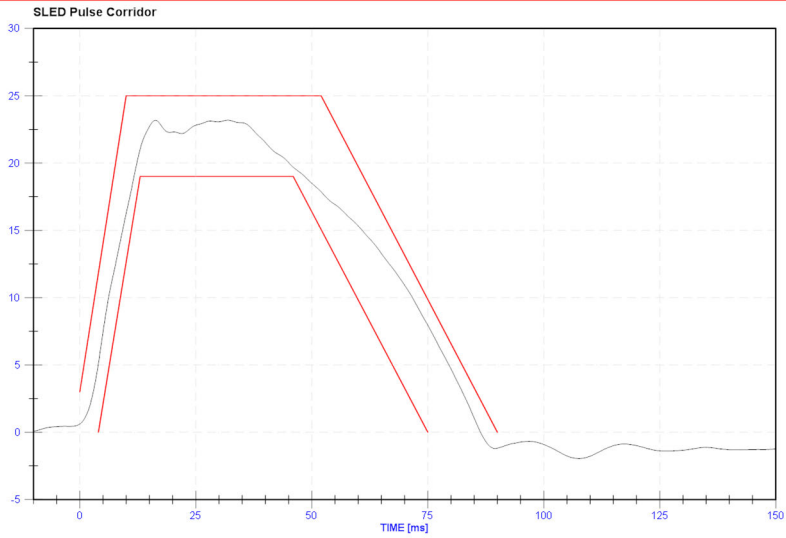
**DYNAMIC IMPACT SLED PULSE – TEST 5
(FMVSS 213, S6.1)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6W3FN2TU



NHTSA FM06-19-100

Test Date:
June 21, 2019

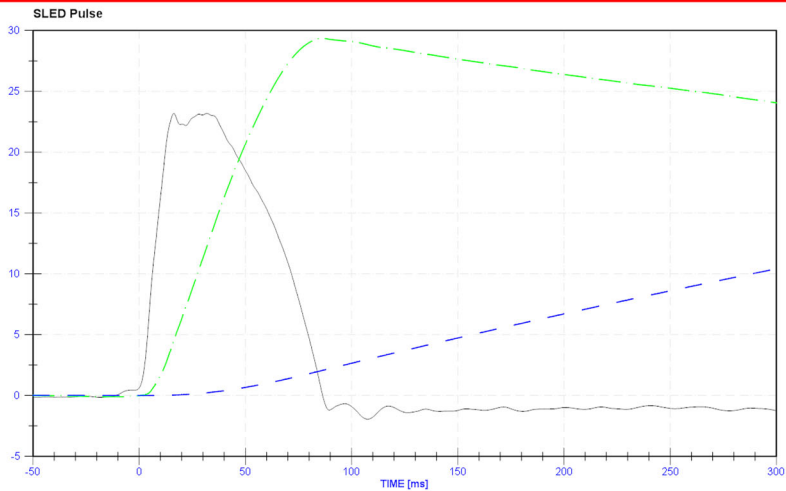


	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.18	31.9	CFC 60	S0SLED000R00ACXD



NHTSA FM06-19-100

Test Date:
June 21, 2019



	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.18	107.6	CFC 60	S0SLED0000000ACXD
SLED Velocity (mph)	29.34	-10.6	CFC 180	S0SLED0000000VAXC
SLED Displacement (ft)	10.40	1.0	CFC 180	S0SLED0000000DVXC

DATA SHEET 40
BELT RESTRAINT – TEST 5
(FMVSS 213, S5.4.3)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6W3FN2TU

Section	Requirement	Pass / Fail
S5.4.3.1	Snug Fit of Belts. Belts that are part of the restraint and designed to restrain the child are adjustable to snugly fit any child of height and weight identified by the manufacturer in accordance with the manufacturers installation instructions.	Pass


Section	Requirement	Yes / No	Pass / Fail
S5.4.3.2	Direct Restraint. Belts impose no loads on the child resulting from mass of the system or the test seat		Pass
	The restraint has one or more belts that contact the dummy for restraint	Yes	If all are "Yes" Restraint fails S5.4.3.2
	The restraint has a rigid structure behind the dummy	Yes	
	The restraint could move relative to the belt	No	

Section	Requirement	Pass / Fail
S5.4.3.3	Seating Systems. Except for harness and infant restraints for children up to 10kg (22lb), each restraint designed for a child in a seated position and having belts shall provide.	Pass
S5.4.3.3(a)	Upper torso restraint (either belts or a shield)	Pass
S5.4.3.3(b)	Lower torso restraint (either belts or a shield)	Pass
S5.4.3.3(c)	Crotch restraint (either a belt attached to the lap belt or a shield)	Pass

Section	Requirement	Pass / Fail
S5.4.3.4	Harnesses. Each harness shall:	N/A
S5.4.3.3(a)	Provide upper torso restraint)	N/A
S5.4.3.3(b)	Provide lower torso restraint (lap & crotch)	N/A
S5.4.3.3(c)	Prevent Standing	N/A

Remarks

Recorded by:


 Adam Hardbattle, SLED Engineer

Date:

July 8, 2019

DATA SHEET 41
BUCKLE RELEASE – TEST 5
(FMVSS 213, S5.4.3.5, S6.2)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6W3FN2TU

Section	Requirement	Measurement	Pass / Fail
S5.4.3.5(a)	Pre-Impact Release Force Releases under 40-60 N	53 N	Pass
S5.4.3.5(a)	Post-Impact Release Force* Releases \leq 71 N	56 N	Pass
S5.4.3.5(a)	Minimum Surface Area of Buckle \geq 3.9 cm ² (0.6 in ²)	4 cm ²	Pass
S5.4.3.5(a)	Buckle Integrity Shall not release during testing	No Release	Pass

*Not applicable unless determined using the largest test dummy specified in S7 for use in testing the seat.

Remarks

None

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: July 8, 2019

DATA SHEET 42
SYSTEM INTEGRITY – TEST 5
(FMVSS 213, S5.1.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6W3FN2TU

S5.1.1 When dynamically tested, the child restraint shall:

Section	Requirement	Pass / Fail
S5.1.1(a)	Structural Integrity – Exhibit no complete separation of any load bearing structural element	Pass
	Exhibit no partial separation with exposing surfaces with a radius of less than 9.53 mm (3/8 in.)	Pass
	Exhibit no partial separation with exposing surfaces with protrusions greater than 6.35 mm (1/4 in.)	Pass
S5.1.1(b)(1)	Adjustment Position – Remain in the same adjustment position during the test that it was immediately before the test	Pass
S5.1.1(b)(2)(ii)	Exposed Openings – Have no exposed opening larger than 6.35 mm (1/4 in.) before the test becomes smaller during the testing as a result of the movement of the seating service relative to the restraint system as a whole.	Pass
S5.1.1(c)	Seating Surface Angle – Forward facing restraints do not allow the angle between the system's back support surface and seating surface and seating surface to be less than 45 degrees at the completion of the test	Pass

Remarks

None

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

**DATA SHEET 43
INJURY CRITERIA – TEST 5
(FMVSS 213, S5.1.2)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100A
Test Date:	21 June 2019	Item Code	027-FL19U1-03-6W3FN2TU

Section	Requirement
S5.1.2.1(a)	Head Injury Criterion The maximum calculated head injury criterion for a 36 millisecond time interval (HIC36) shall not exceed 1,000. HIC is not calculated when using the 6-year-old weighted and 10-year-old test dummies.
S5.1.2.1(b)	Chest Injury Criterion The chest acceleration shall not exceed 60g for intervals whose cumulative duration is more than 3 milliseconds

Head Injury Criterion Results

Calculated HIC36	Pass / Fail
N/A	N/A

Chest Injury Criterion Results

Max Acceleration lasting 3ms (g)	Pass / Fail
N/A	N/A

Remarks

Weighted H3-6YO: No Injury Criteria or Instrumentation

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

DATA SHEET 44
OCCUPANT EXCURSION – TEST 5
(FMVSS 213, S5.1.3, S5.1.4, S5.2.1.1(c))

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100A
Test Date:	21 June 2019	Item Code	027-FL19U1-05-6W3FN2TU

FORWARD-FACING RESTRAINTS

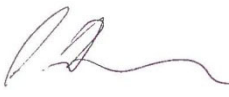
Section	Requirement	Measurement	Pass / Fail
S5.1.3.1	Torso Retention – CRS shall retain the torso within system		Pass
S5.1.3.1(a)(1)	Head Excursion - ≤ 720 mm (28.4 in.) with tether ≤ 813 mm (32 in.) No tether	653	Pass
S5.1.3.1(a)(2)	Knee Excursion - ≤ 91.5 cm (36 in.)	763	Pass
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	Pass

REAR-FACING RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
S5.1.3.2	Torso Retention – CRS shall retain the torso within system		N/A
S5.1.3.2	Head Target Excursion – Not beyond restraint's top and forward edge		N/A
S5.1.4	Back Support Angle - Angle between the back support surface and vertical ≤ 70 degrees	N/A	N/A
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	N/A

Remarks

Excursion camera locations (forward of Z point) are 28.4", Camera speed = 2000fps and focal length of lenses = 12.5mm

Recorded by: 
 Adam Hardbattle, SLED
 Engineer

Date: July 8, 2019

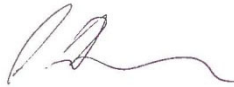
DATA SHEET 45
OCCUPANT EXCURSION – TEST 5
(FMVSS 213, S5.1.3.3)

CAR BED RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
Head – Torso Retention (FMVSS 213, S5.1.3.3)	Retain within confines of system	N/A	N/A

Remarks

Recorded by: _____



Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

DATA SHEET 46
DYNAMIC IMPACT TEST CONDITIONS – TEST 6
(FMVSS 213, S6.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100B
Test Date:	21 June 2019	Item Code	027-FL19U1-06-3H3FNLTU

Laboratory Ambient Conditions During Testing:

Temperature Degrees C (F)	21.1C (70.0F)
Relative Humidity %	52.5%

Pulse:

Test Configuration (I or II):	I
Velocity (km/h (mph)):	47.6 km/h (29.6 mph)

Dummy:

Dummy Description:	H3 3 Year Old (Part 572R)
Dummy Serial Number:	034


Restraint Installation:

Installed Direction:	Forward Facing
Base Usage:	Other Configuration
Attachment Method:	Lower Anchors
Tether Usage:	Top Tether
Seat Back Position:	Upright, 1
Internal Shoulder Harness Position:	Slot 5, Counted from bottom up
Buckle Harness Position:	Forward

Remarks:

Pre and Post Test Photos are presented in Section 9.

Recorded by: _____


Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

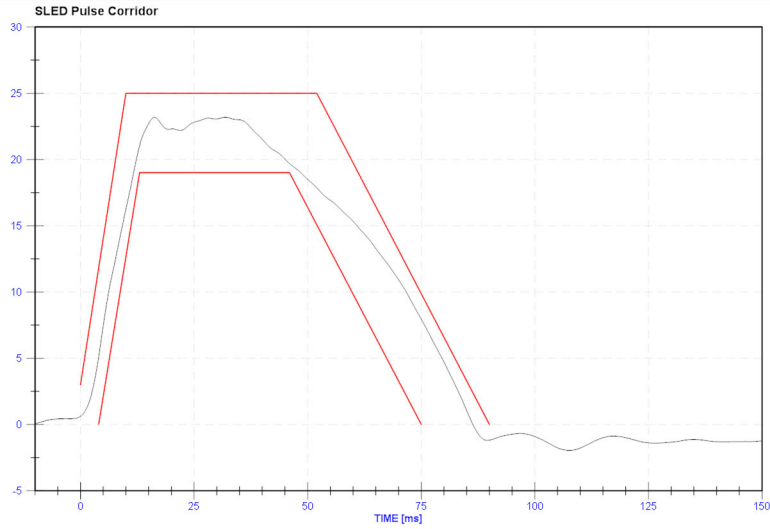
DYNAMIC IMPACT SLED PULSE – TEST 6 (FMVSS 213, S6.1)

Report No.:	213-CAL-19-027	Sled Test No.:	FM06-19-100B
Test Date:	21 June 2019	Item Code	027-FL19U1-06-3H3FNLTU



NHTSA FM06-19-100

Test Date:
June 21, 2019

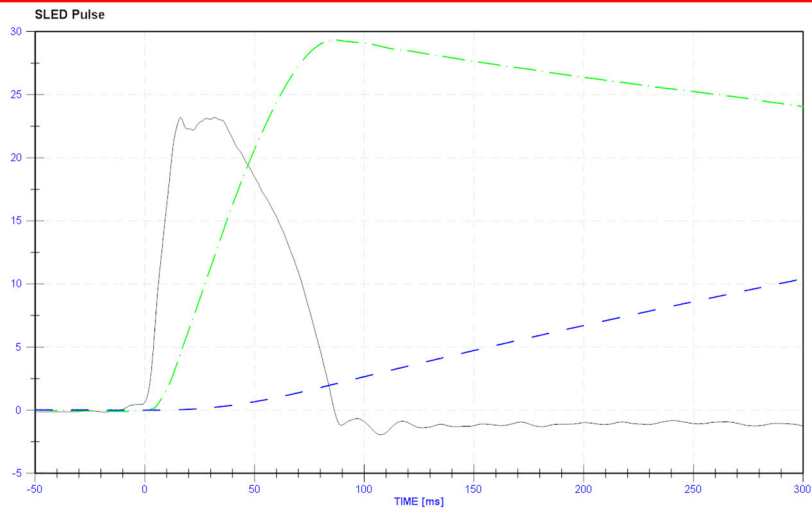


	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.18	31.9	CFC 60	S0SLED000R00ACXD



NHTSA FM06-19-100

Test Date:
June 21, 2019



	Maximum	Time (ms)	Filter Class	Legend
SLED Acceleration (g's)	23.18	107.6	CFC 60	S0SLED000000ACXD
SLED Velocity (mph)	29.34	-10.6	CFC 180	S0SLED000000VAXC
SLED Displacement (ft)	10.40	1.0	CFC 180	S0SLED000000DVXC

DATA SHEET 48
BUCKLE RELEASE – TEST 6
(FMVSS 213, S5.4.3.5, S6.2)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100B
Test Date:	21 June 2019	Item Code	027-FL19U1-06-3H3FNLTU

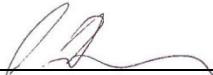
Section	Requirement	Measurement	Pass / Fail
S5.4.3.5(a)	Pre-Impact Release Force Releases under 40-60 N	49 N	Pass
S5.4.3.5(a)	Post-Impact Release Force* Releases \leq 71 N	57 N	Pass
S5.4.3.5(a)	Minimum Surface Area of Buckle \geq 3.9 cm ² (0.6 in ²)	4 cm ²	Pass
S5.4.3.5(a)	Buckle Integrity Shall not release during testing	No Release	Pass

*Not applicable unless determined using the largest test dummy specified in S7 for use in testing the seat.

Remarks

None

Recorded by: _____


Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

DATA SHEET 49
SYSTEM INTEGRITY – TEST 6
(FMVSS 213, S5.1.1)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100B
Test Date:	21 June 2019	Item Code	027-FL19U1-06-3H3FNLTU

S5.1.1 When dynamically tested, the child restraint shall:

Section	Requirement	Pass / Fail
S5.1.1(a)	Structural Integrity – Exhibit no complete separation of any load bearing structural element	Pass
	Exhibit no partial separation with exposing surfaces with a radius of less than 9.53 mm (3/8 in.)	Pass
	Exhibit no partial separation with exposing surfaces with protrusions greater than 6.35 mm (1/4 in.)	Pass
S5.1.1(b)(1)	Adjustment Position – Remain in the same adjustment position during the test that it was immediately before the test	Pass
S5.1.1(b)(2)(ii)	Exposed Openings – Have no exposed opening larger than 6.35 mm (1/4 in.) before the test becomes smaller during the testing as a result of the movement of the seating service relative to the restraint system as a whole.	Pass
S5.1.1(c)	Seating Surface Angle – Forward facing restraints do not allow the angle between the system's back support surface and seating surface and seating surface to be less than 45 degrees at the completion of the test	Pass

Remarks

None

Recorded by: 
 Adam Hardbatt, SLED
 Engineer

Date: July 8, 2019

**DATA SHEET 50
INJURY CRITERIA – TEST 6
(FMVSS 213, S5.1.2)**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100B
Test Date:	21 June 2019	Item Code	027-FL19U1-06-3H3FNLTU

Section	Requirement
S5.1.2.1(a)	Head Injury Criterion The maximum calculated head injury criterion for a 36 millisecond time interval (HIC36) shall not exceed 1,000. HIC is not calculated when using the 6-year-old weighted and 10-year-old test dummies.
S5.1.2.1(b)	Chest Injury Criterion The chest acceleration shall not exceed 60g for intervals whose cumulative duration is more than 3 milliseconds

Head Injury Criterion Results

Calculated HIC36	Pass / Fail
384	Pass

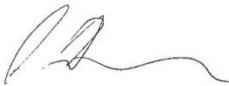
Chest Injury Criterion Results

Max Acceleration lasting 3ms (g)	Pass / Fail
42	Pass

Remarks

None

Recorded by: _____


Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

**INJURY CRITERIA – HEAD ACCELERATION PLOTS – TEST 6
(FMVSS 213, S5.1.2)**

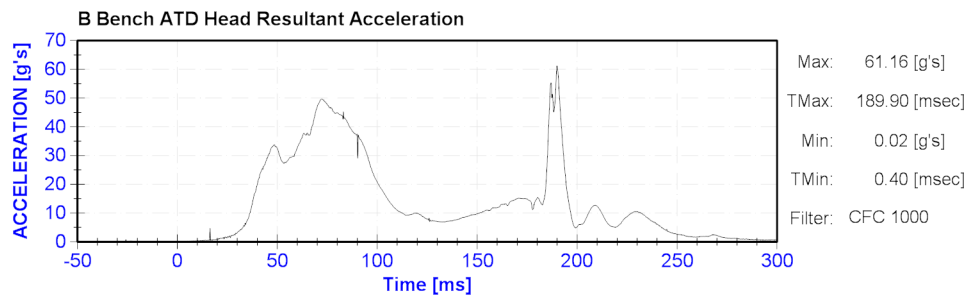
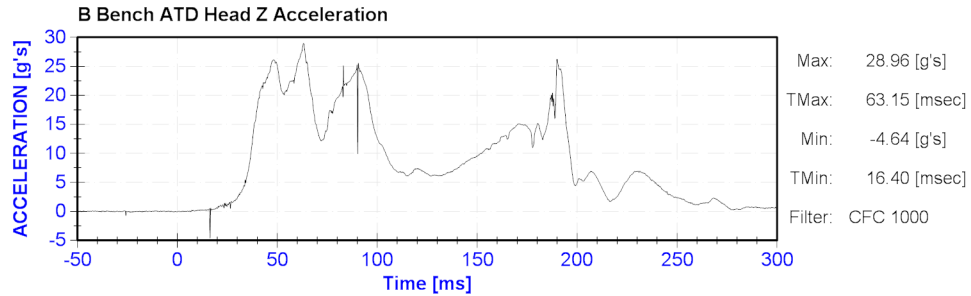
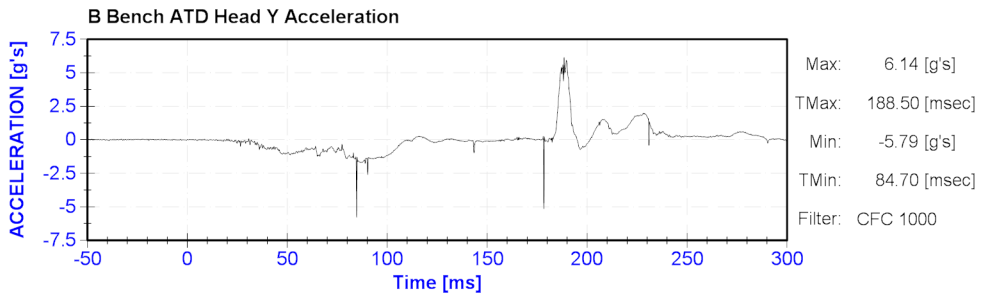
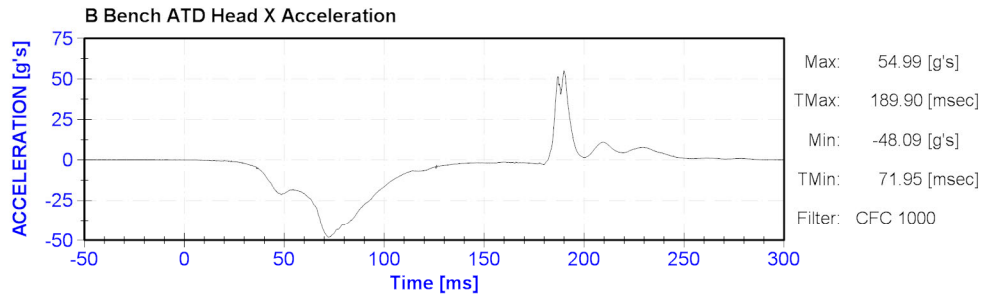
Report No.:	213-CAL-19-027
Test Date:	21 June 2019
HIC 36ms	384

Sled Test No.	FM06-19-100B
Item Code	027-FL19U1-06-3H3FNLTU
Resultant	61 g's



NHTSA FM06-19-100

Test Date:
June 21, 2019



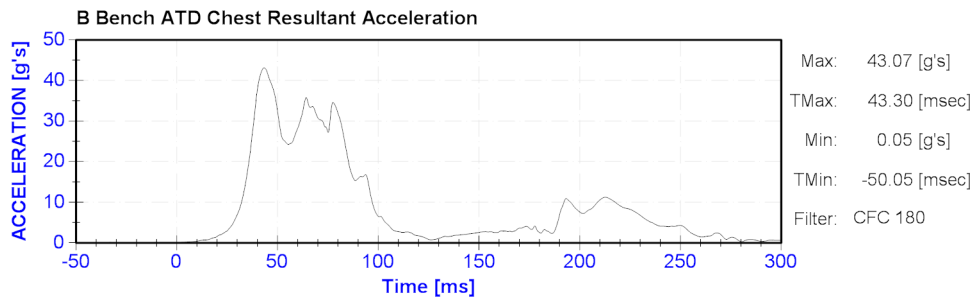
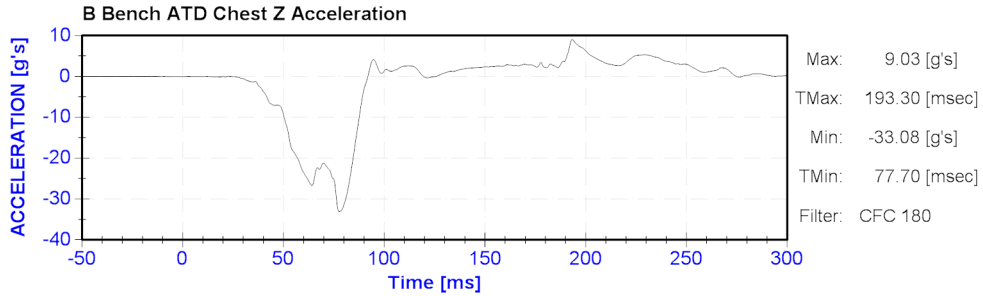
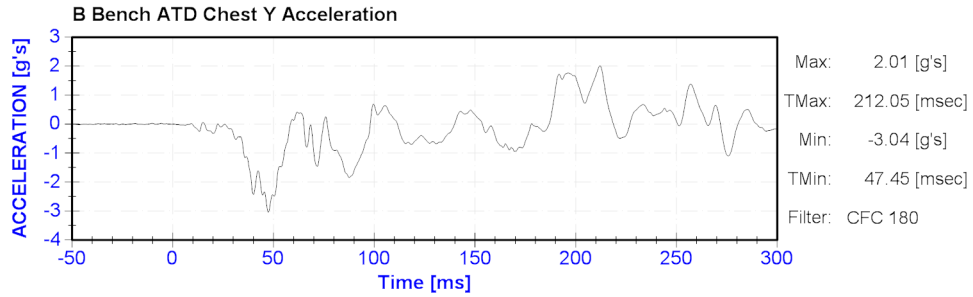
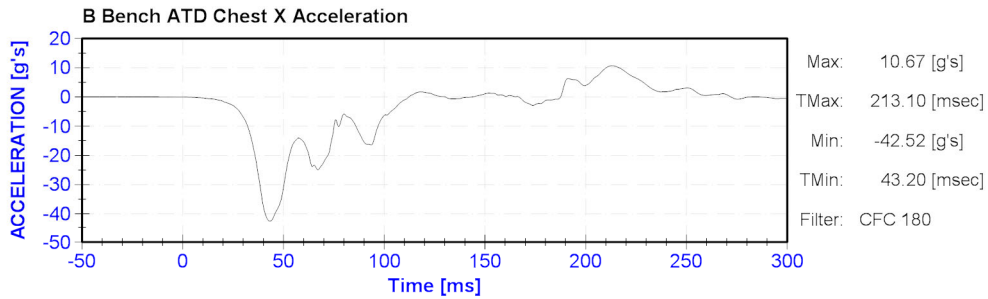
INJURY CRITERIA – CHEST ACCELERATION PLOTS – TEST 6 (FMVSS 213, S5.1.2)

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100B
Test Date:	21 June 2019	Item Code	027-FL19U1-06-3H3FNLTU
3ms Clip	42 g's	Resultant	43 g's



NHTSA FM06-19-100

Test Date:
June 21, 2019



**DATA SHEET 51
OCCUPANT EXCURSION – TEST 6
(FMVSS 213, S5.1.3, S5.1.4, S5.2.1.1(c))**

Report No.:	213-CAL-19-027	Sled Test No.	FM06-19-100B
Test Date:	21 June 2019	Item Code	027-FL19U1-06-3H3FNLTU

FORWARD-FACING RESTRAINTS


Section	Requirement	Measurement	Pass / Fail
S5.1.3.1	Torso Retention – CRS shall retain the torso within system		Pass
S5.1.3.1(a)(1)	Head Excursion - ≤ 720 mm (28.4 in.) with tether ≤ 813 mm (32 in.) No tether	595	Pass
S5.1.3.1(a)(2)	Knee Excursion - ≤ 91.5 cm (36 in.)	691	Pass
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	Pass

REAR-FACING RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
S5.1.3.2	Torso Retention – CRS shall retain the torso within system		N/A
S5.1.3.2	Head Target Excursion – Not beyond restraint's top and forward edge		N/A
S5.1.4	Back Support Angle - Angle between the back support surface and vertical ≤ 70 degrees	N/A	N/A
S5.2.1.1(c)	Head-Torso Angle - Rearward change ≤ 45 degrees	≤ 45°	N/A

Remarks

Excursion camera locations (forward of Z point) are 28.4", Camera speed = 2000fps and focal length of lenses = 12.5mm

Recorded by: 
Adam Hardbattle, SLED
Engineer

Date: July 8, 2019

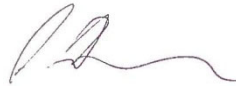
DATA SHEET 52
OCCUPANT EXCURSION – TEST 6
(FMVSS 213, S5.1.3.3)

CAR BED RESTRAINTS

Section	Requirement	Measurement	Pass / Fail
Head – Torso Retention (FMVSS 213, S5.1.3.3)	Retain within confines of system	N/A	N/A

Remarks

Recorded by: _____



Adam Hardbattle, SLED
Engineer

Date: _____

July 8, 2019

DATA SHEET 53
AIRCRAFT PASSENGER SEAT INVERSION – TEST A
(FMVSS 213, S8.2, S8.2.5, S8.2.6)

Report No.:	213-CAL-19-027	Test No.	FM07-19-103
Test Date:	8 July 2019	Item Code	027-FL19U1-Inv01-12CRN2FR

Laboratory Ambient Conditions During Testing:

Temperature Degrees C (F)	21.3C (70.3F)
Relative Humidity %	51.4%

Dummy:

Dummy Description:	CRABI 12 Month Old (Part 572R)
Dummy Serial Number:	085

Restraint Installation:

Installed Direction:	Rearward Facing
Base Usage:	Use of <i>Required</i> rebound bar
Attachment Method	Lap belt
Tether Usage	No
Seat Back Position:	Recline 2 and recline foot
Internal Harness Shoulder Strap Position:	Slot 2, Counted from bottom up
Internal Harness Crotch Strap Position:	Rearward

Rotation About Y-Axis (Forward):

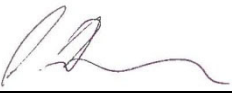
Section	Requirement	Pass/Fail
S8.2.5	The test dummy shall be retained within the CRS	Pass
S8.2.5	The CRS shall be restrained within the aircraft seat	Pass

Rotation About X-Axis (Lateral):

Section	Requirement	Pass/Fail
S8.2.6	The test dummy shall be retained within the CRS	Pass
S8.2.6	The CRS shall be restrained within the aircraft seat	Pass

Remarks:

None

Recorded by: 
Adam Hardbatt, SLED
Engineer

Date: July 8, 2019

DATA SHEET 54
AIRCRAFT PASSENGER SEAT INVERSION - TEST B
(FMVSS 213, S8.2, S8.2.5, S8.2.6)

Report No.:	213-CAL-19-027	Test No.	FM07-19-104
Test Date:	8 July 2019	Item Code	027-FL19U1-Inv02-12CFN2FU

Laboratory Ambient Conditions During Testing:

Temperature Degrees C (F)	21.6C (70.8F)
Relative Humidity %	51.2%

Dummy:

Dummy Description:	CRABI 12 Month Old (Part 572R)
Dummy Serial Number:	085

Restraint Installation:

Installed Direction:	Forward Facing
Base Usage:	No
Attachment Method	Lap belt
Tether Usage	No
Seat Back Position:	Recline #1
Internal Harness Shoulder Strap Position:	Slot 4, Counted from bottom up
Internal Harness Crotch Strap Position:	Rearward

Rotation About Y-Axis (Forward):

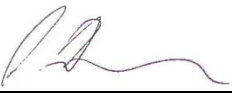
Section	Requirement	Pass/Fail
S8.2.5	The test dummy shall be retained within the CRS	Pass
S8.2.5	The CRS shall be restrained within the aircraft seat	Pass

Rotation About X-Axis (Lateral):

Section	Requirement	Pass/Fail
S8.2.6	The test dummy shall be retained within the CRS	Pass
S8.2.6	The CRS shall be restrained within the aircraft seat	Pass

Remarks:

None

Recorded by:  _____
Adam Hardbatt, SLED
Engineer

Date: July 8, 2019

DATA SHEET 55
AIRCRAFT PASSENGER SEAT INVERSION - TEST C
(FMVSS 213, S8.2, S8.2.5, S8.2.6)

Report No.:	213-CAL-19-027	Test No.	FM07-19-105
Test Date:	8 July 2019	Item Code	027-FL19U1-Inv03-3H3FN2FU

Laboratory Ambient Conditions During Testing:

Temperature Degrees C (F)	21.6C (70.8F)
Relative Humidity %	51.3%

Dummy:

Dummy Description:	H3 3 Year Old (Part 572R)
Dummy Serial Number:	034

Restraint Installation:

Installed Direction:	Forward Facing
Base Usage:	No
Attachment Method	Lap belt
Tether Usage	No
Seat Back Position:	Recline #1
Internal Harness Shoulder Strap Position:	Slot 6, Counted from bottom up
Internal Harness Crotch Strap Position:	Forward

Rotation About Y-Axis (Forward):

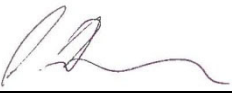
Section	Requirement	Pass/Fail
S8.2.5	The test dummy shall be retained within the CRS	Pass
S8.2.5	The CRS shall be restrained within the aircraft seat	Pass

Rotation About X-Axis (Lateral):

Section	Requirement	Pass/Fail
S8.2.6	The test dummy shall be retained within the CRS	Pass
S8.2.6	The CRS shall be restrained within the aircraft seat	Pass

Remarks:

None

Recorded by: 
Adam Hardbatt, SLED
Engineer

Date: July 8, 2019

SECTION 6

INTERPRETATION AND/OR DEVIATIONS FROM FMVSS 213

There were no deviations from FMVSS 213

SECTION 7 TEST CONFIGURATION CODES

The following table explains the code used to describe the test configurations in this report. For example, the test configuration code 12CFNLFU indicates that the child restraint sled test was conducted using a 12-month old CRABI dummy, installed in the forward facing direction with no optional base, the latch system, no tether, and in the upright position.

Dummy Description	NIN – Newborn Infant
	3H3 – 3 YO, Hybrid III
	12C -12 MO, CRABI
	6H2 – 6YO Hybrid II
	6H3 – 6YO, Hybrid III
	6W3 – 6 YO, Weighted Hybrid III
	TH3 – 10YO, Hybrid III
Installed Direction	R – Rear Facing
	F – Forward Facing
	S- Faces Sideways (applies to carbeds)
Base Usage	B – Optional base used with CRS
	N – All other configurations
Attachment Method	L – Lower anchors
	2 – Lap belt
	3 – Lap & shoulder belt
	M – Seat back mount
Tether Usage	T – Tether
	F – Tether Free
Seat Back Position	U – Upright
	R – Reclined
	N – No Back Booster
	B - Booster

**SECTION 8
INSTRUMENTATION CALIBRATION**

Sled and Facility Calibrations

<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
DTS Unit #736	ESL 400704	All	12/10/2018	12/10/2019
DTS Unit #737	ESL 400705	All	12/10/2018	12/10/2019
Temp and Humidity Recorder Onset HOBO	ESL 400632	All	11/08/2018	11/08/2019
Digital Angle Gauge Digi-Pas	ESL 400482	All	9/24/2018	9/24/2019
Bosch/Kent Moore Belt Tension Gauge +/- 1 lb.	ESL 400415	All	3/25/2019	9/25/2019
Bosch/Kent Moore Belt Tension Gauge +/- 1 lb.	ESL 400943	All	3/25/2019	9/25/2019
Imada Force Gauge Model DPSH-440R	ESL 400931	All	3/12/2019	3/12/2020
Imada Force Gauge Model DS2-110	ESL 400368	All	8/10/2018	8/10/2019
Imada Force Gauge Model ZTS-550	ESL 400474	All	7/28/2018	7/28/2019
Proto Torque Wrench	ESL 400978	All	7/19/2018	7/19/2019
Sled Primary x Accelerometer Endevco 7292A	10302	All	5/6/2019	5/6/2020
Sled Secondary X Endevco 7264	P69794	All	5/6/2019	5/6/2020
Sled Secondary Y Endevco 7264	P71301	All	5/6/2019	5/6/2020
Sled Secondary Z MS 64CM30	MS26652	All	5/6/2019	5/6/2020

ATD Calibrations

<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
NewBorn	032	ATD	NA	NA

<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
12 Month CRABI	85	ATD	5/14/2019	7/17/2019
<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
Head X Accelerometer Endevco 7264	AC-P83422	ATD	6/14/2019	12/14/2019
Head Y Accelerometer Endevco 7264	AC-P84349	ATD	6/14/2019	12/14/2019
Head Z Accelerometer Endevco 7264	AC-P82321	ATD	6/14/2019	12/14/2019
Chest X Accelerometer Endevco 7264	AC-P74971	ATD	6/14/2019	12/14/2019
Chest Y Accelerometer Endevco 7264	AC-P74780	ATD	6/14/2019	12/14/2019
Chest Z Accelerometer Endevco 7264	AC-P52158	ATD	6/14/2019	12/14/2019

<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
3 year old Hybrid 3	034	ATD	2/04/2019	7/17/2019
<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
Head X Accelerometer Endevco 7264	AC-P51732	ATD	6/14/2019	12/14/2019
Head Y Accelerometer Endevco 7264	AC-P77601	ATD	6/14/2019	12/14/2019
Head Z Accelerometer Endevco 7264	AC-P64084	ATD	6/14/2019	12/14/2019
Chest X Accelerometer Endevco 7264	AC-P51874	ATD	6/14/2019	12/14/2019
Chest Y Accelerometer Endevco 7264	AC-P74969	ATD	6/14/2019	12/14/2019
Chest Z Accelerometer Endevco 7264	AC-P58862	ATD	6/14/2019	12/14/2019

<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
6 year old Hybrid 2	220	ATD	2/11/2019	7/17/2019
<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
Head X Accelerometer Endevco 7264	AC-P50073	ATD	02/05/2019	08/05/2019
Head Y Accelerometer Endevco 7264	AC-P82751	ATD	02/05/2019	08/05/2019
Head Z Accelerometer Endevco 7264	AC-P72377	ATD	02/05/2019	08/05/2019
Chest X Accelerometer Endevco 7264	AC-P80250	ATD	02/05/2019	08/05/2019
Chest Y Accelerometer Endevco 7264	AC-P52098	ATD	02/05/2019	08/05/2019
Chest Z Accelerometer Endevco 7264	AC-P80269	ATD	02/05/2019	08/05/2019

<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
6 year old Hybrid 3	158	ATD	2/11/2019	7/17/2019
<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
Head X Accelerometer Endevco 7264	AC-P52128	ATD	2/07/2019	8/07/2019
Head Y Accelerometer Endevco 7264	AC-P83340	ATD	2/07/2019	8/07/2019
Head Z Accelerometer Endevco 7264	AC-P51684	ATD	2/07/2019	8/07/2019
Chest X Accelerometer Endevco 7264	AC-P51878	ATD	2/07/2019	8/07/2019
Chest Y Accelerometer Endevco 7264	AC-P63954	ATD	2/07/2019	8/07/2019
Chest Z Accelerometer Endevco 7264	AC-P74950	ATD	2/07/2019	8/07/2019

<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
6 year old Weighted Hybrid 3	163	ATD	2/11/2019	7/17/2019

<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
10 year old Hybrid 3	D023	ATD	2/20/2019	7/17/2019
<i>Instrument</i>	<i>Serial Number</i>	<i>Certification Test</i>	<i>Calibration Date</i>	<i>Due Date</i>
Chest X Accelerometer Endevco 7264	AC-P52004	ATD	2/12/2019	8/12/2019
Chest Y Accelerometer Endevco 7264	AC-P68051	ATD	2/12/2019	8/12/2019
Chest Z Accelerometer Endevco 7264	AC-P82749	ATD	2/12/2019	8/12/2019

Bench Foam Calibrations

Test #	Calibration	Bottom 2"	Bottom 4"	Back 2"	Back 4"
FM06-19-98A	Pre	C295-2x20 53.8 lbs	T43-4x20 24.8 lbs	H140-2x24 53.5 lbs	S37-4x24 25.5 lbs
	Post	C295-2x20 52.7 lbs	T43-4x20 23.9 lbs	H140-2x24 50.5 lbs	S37-4x24 23.5 lbs
FM06-19-98B	Pre	C275-2x20 46.2 lbs	T50-4x20 24.0 lbs	H131-2x24 54.2 lbs	S38-4x24 26.8 lbs
	Post	C275-2x20 50.0 lbs	T50-4x20 24.4 lbs	H131-2x24 53.5 lbs	S38-4x24 27.0 lbs
FM06-19-99A	Pre	C270-2x20 55.2 lbs	T67-4x20 26.3 lbs	H137-2x24 54.1 lbs	S12-4x24 25.6 lbs
	Post	C270-2x20 53.8 lbs	T67-4x20 25.3 lbs	H137-2x24 52.2 lbs	S12-4x24 25.0 lbs
FM06-19-99B	Pre	C263-2x20 53.5 lbs	T62-4x20 23.0 lbs	H142-2x24 52.7 lbs	S32-4x24 22.9 lbs
	Post	C263-2x20 52.5 lbs	T62-4x20 22.1 lbs	H142-2x24 52.0 lbs	S32-4x24 23.3 lbs
FM06-19-100A	Pre	C276-2x20 50.0 lbs	T66-4x20 25.7 lbs	H154-2x24 54.6 lbs	S33-4x24 24.3 lbs
	Post	C276-2x20 46.6 lbs	T66-4x20 25.9 lbs	H154-2x24 54.0 lbs	S33-4x24 23.6 lbs
FM06-19-100B	Pre	C269-2x20 53.1 lbs	T68-4x20 24.7 lbs	H138-2x24 52.9 lbs	S34-4x24 24.3 lbs
	Post	C269-2x20 53.4 lbs	T68-4x20 24.2 lbs	H138-2x24 53.9 lbs	S34-4x24 24.2 lbs

Section 9 PHOTOGRAPHS

Sled Photos

Sled Buck – Standard Bench Seat and Configuration

213-CAL-19-027

027-FL19U1-01-6H3FN2FU

027-FL19U1-02-12CRNLFR

027-FL19U1-03-6H3FN2TU

027-FL19U1-04-12CFNLTU

027-FL19U1-05-6W3FN2TU

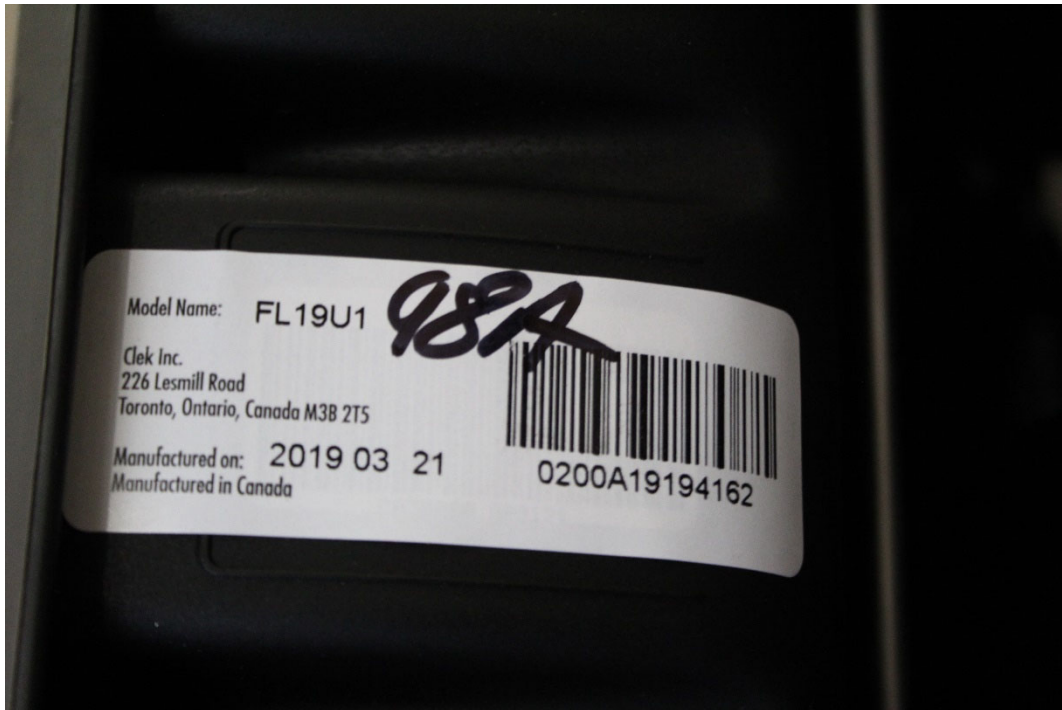
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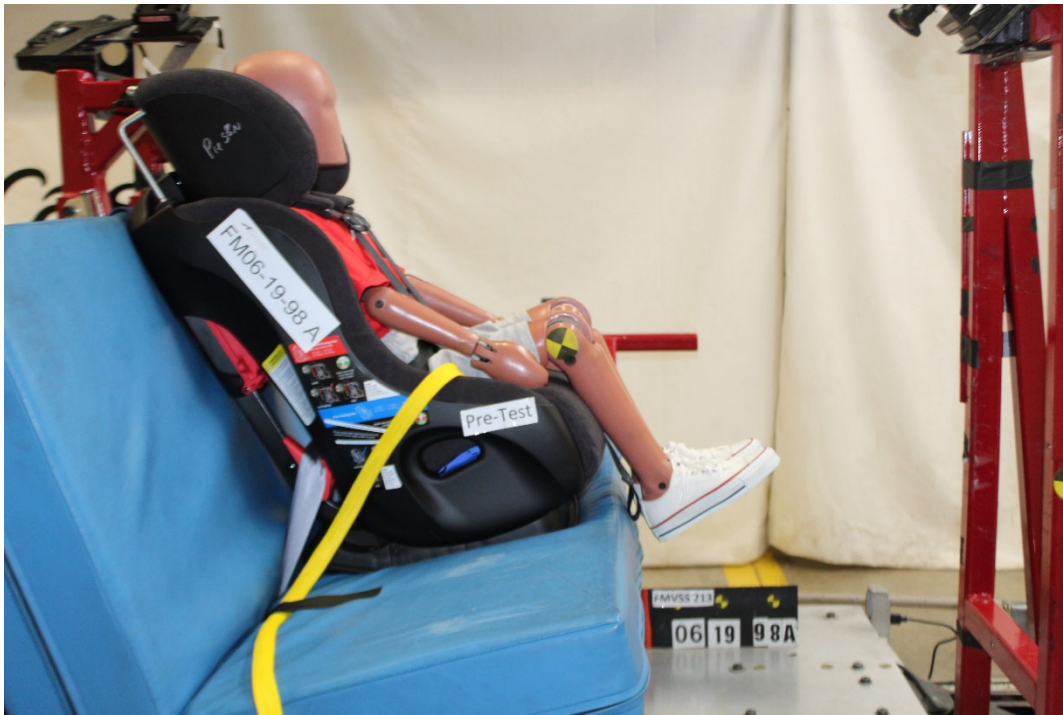
Dynamic Test Photos

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Pre Test

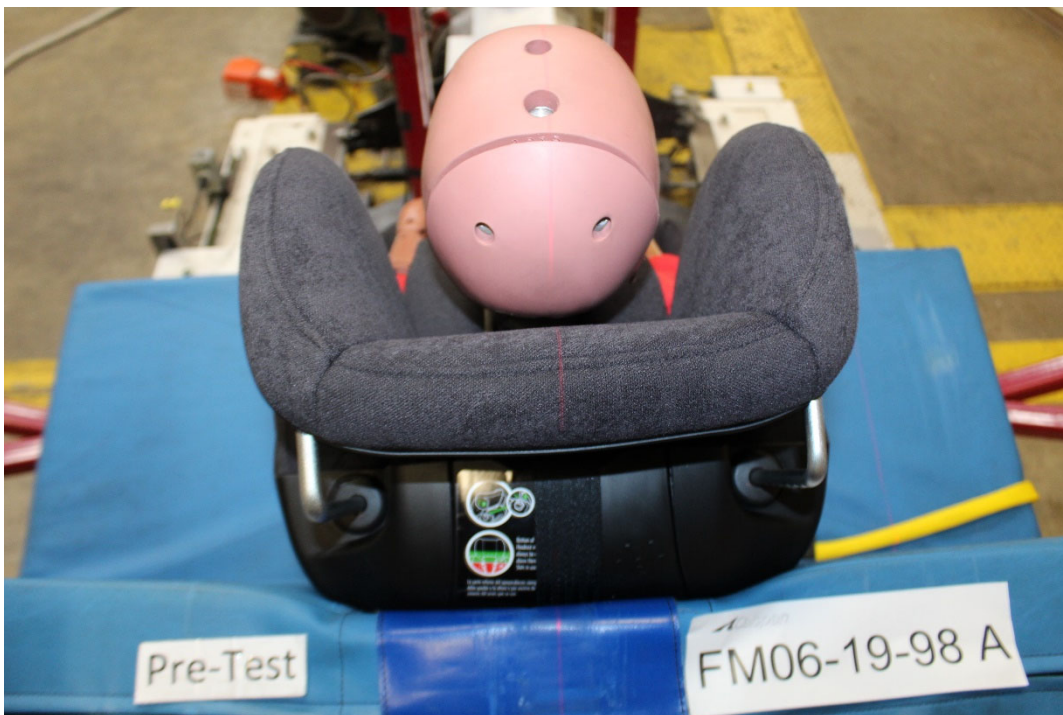
213-CAL-19-027
FM06-19-98A



027-FL19U1-01-6H3FN2FU Pre Test	213-CAL-19-027 FM06-19-98A
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027-FL19U1-01-6H3FN2FU Pre Test	213-CAL-19-027 FM06-19-98A
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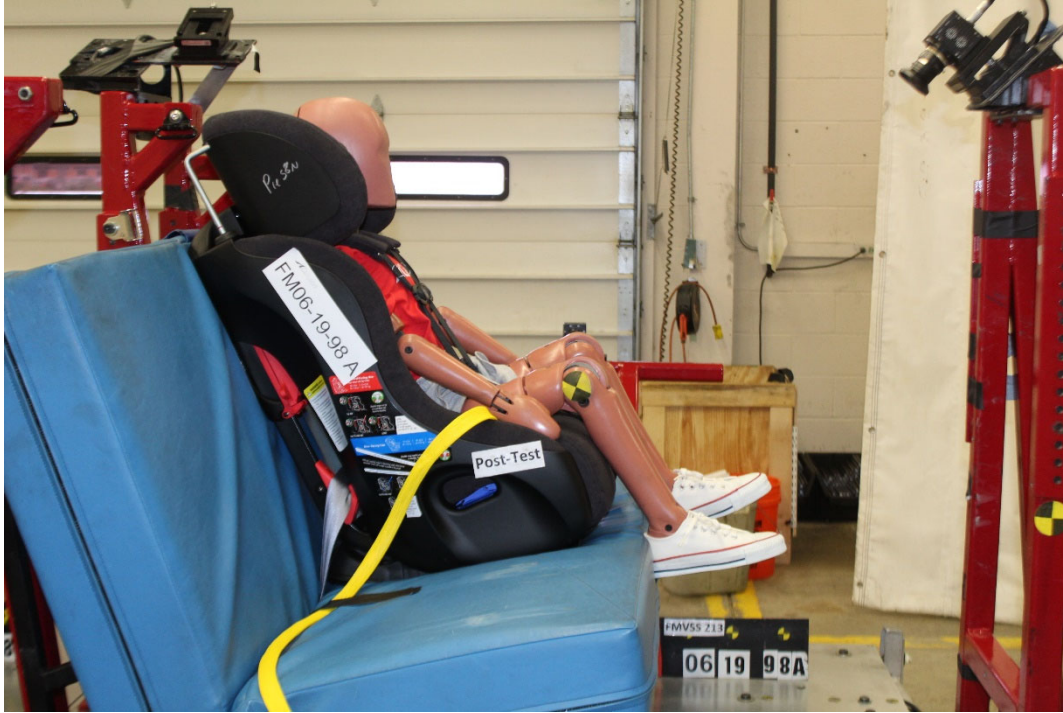


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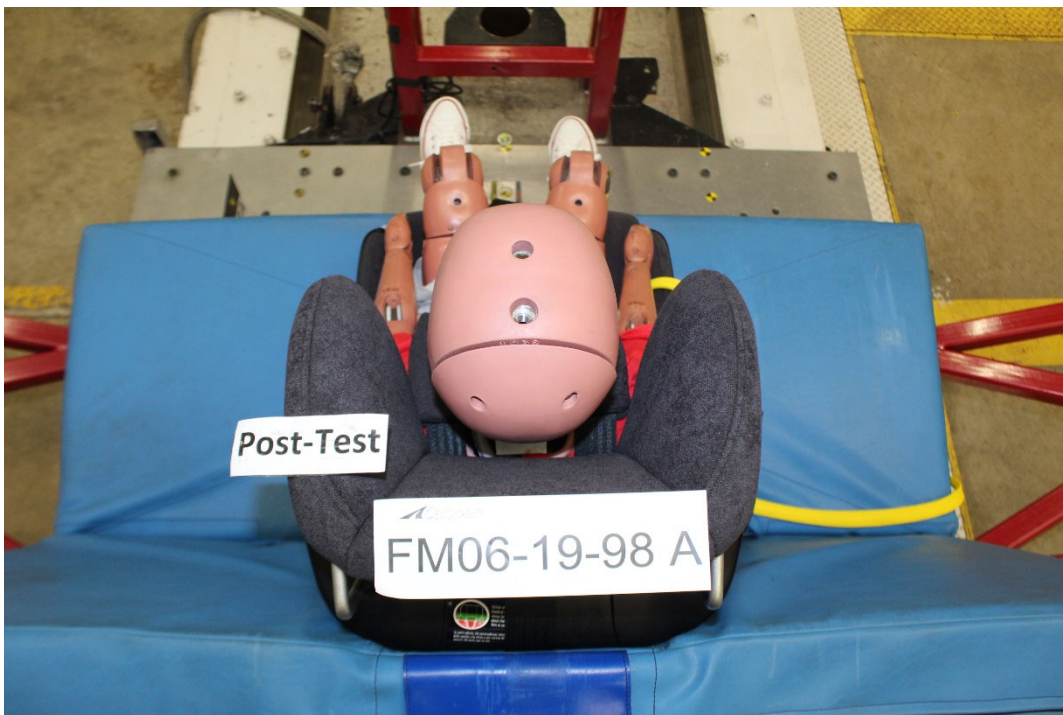
213-CAL-19-027
FM06-19-98A



027-FL19U1-01-6H3FN2FU Post Test	213-CAL-19-027 FM06-19-98A
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027-FL19U1-01-6H3FN2FU Post Test	213-CAL-19-027 FM06-19-98A
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027-FL19U1-01-6H3FN2FU
Post Test

213-CAL-19-027
FM06-19-98A



Dynamic Test Photos

027-FL19U1-02-12CRNLFR
Pre Test

213-CAL-19-027
FM06-19-98B



027-FL19U1-02-12CRNLFR
Pre Test

213-CAL-19-027
FM06-19-98B



027-FL19U1-02-12CRNLFR
Pre Test

213-CAL-19-027
FM06-19-98B



027-FL19U1-02-12CRNLFR Pre Test	213-CAL-19-027 FM06-19-98B
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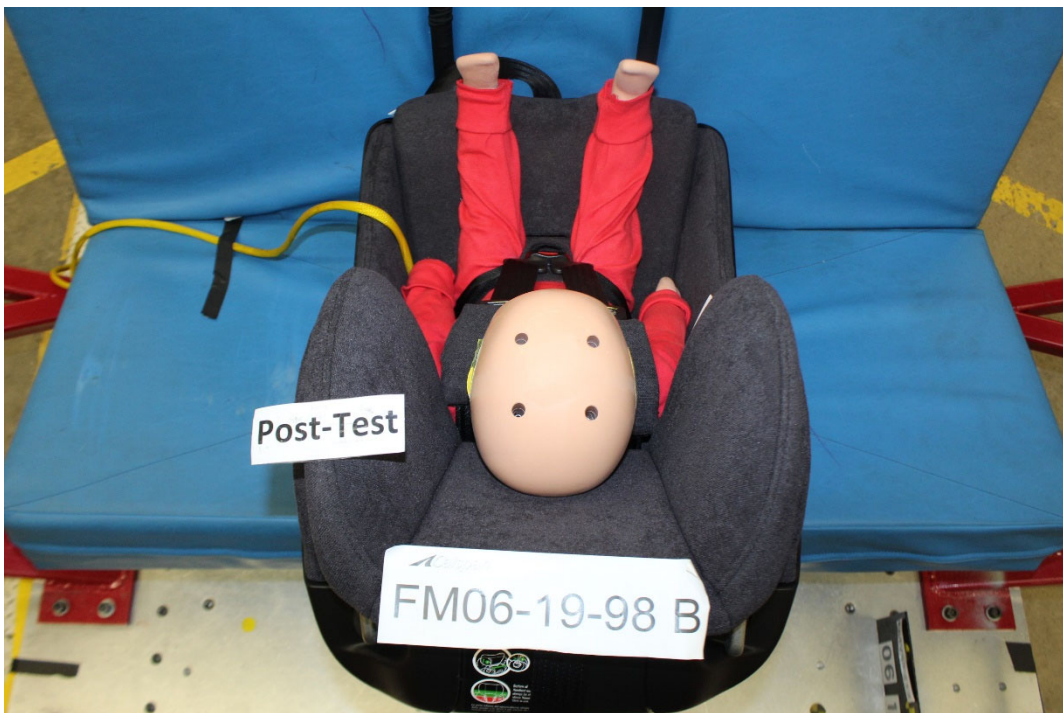


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027-FL19U1-02-12CRNLFR
Post Test

213-CAL-19-027
FM06-19-98B



027-FL19U1-02-12CRNLFR
Post Test

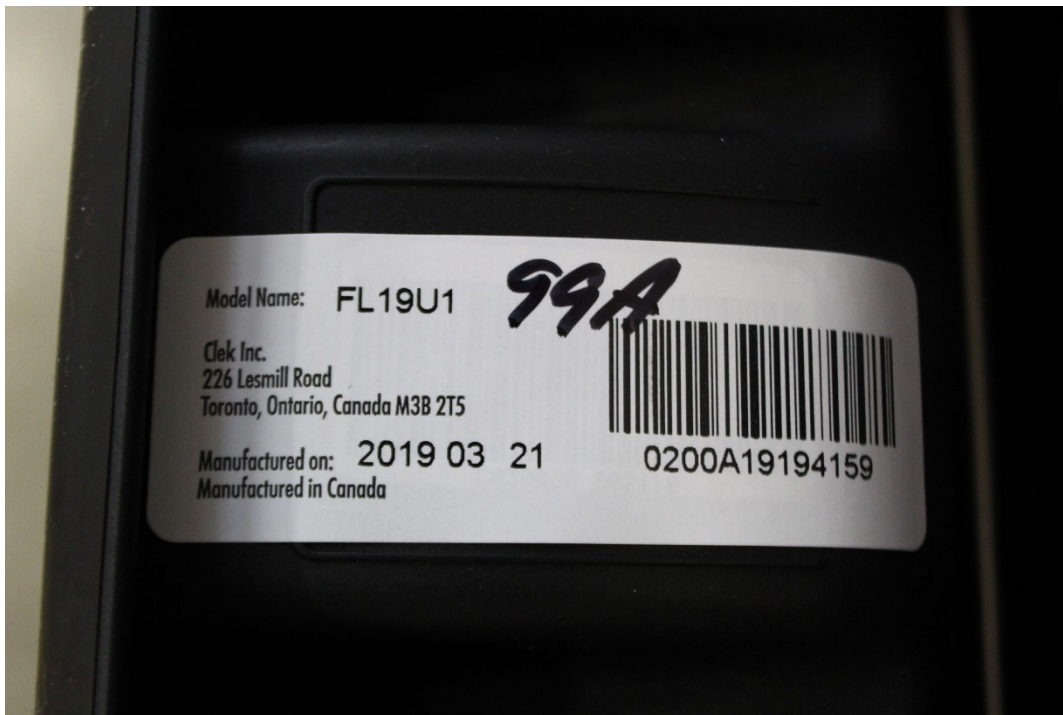
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FM06-19-98B



Dynamic Test Photos

027-FL19U1-03-6H3FN2TU
Pre Test

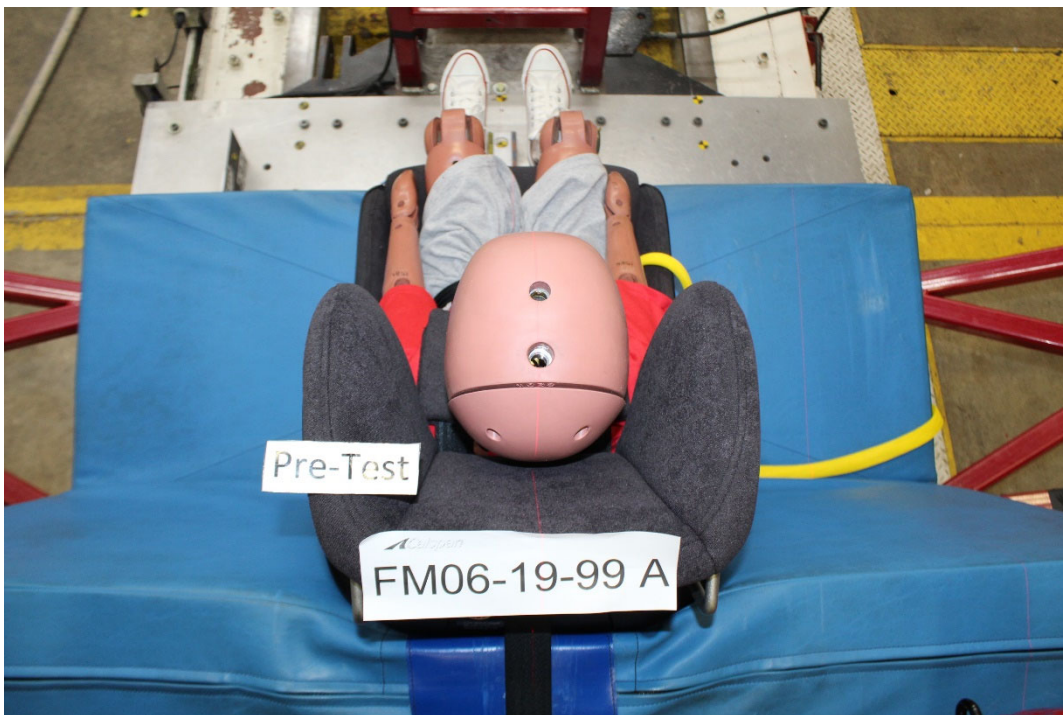
213-CAL-19-027
FM06-19-99A



027-FL19U1-03-6H3FN2TU Pre Test	213-CAL-19-027 FM06-19-99A
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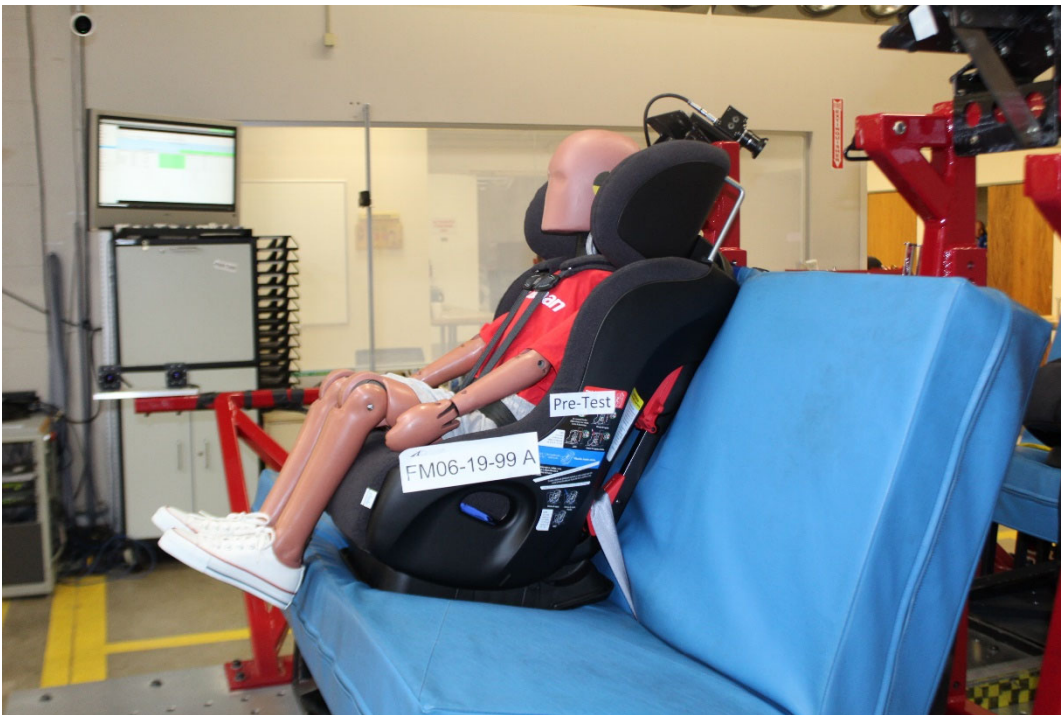


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027-FL19U1-03-6H3FN2TU
Pre Test

213-CAL-19-027
FM06-19-99A

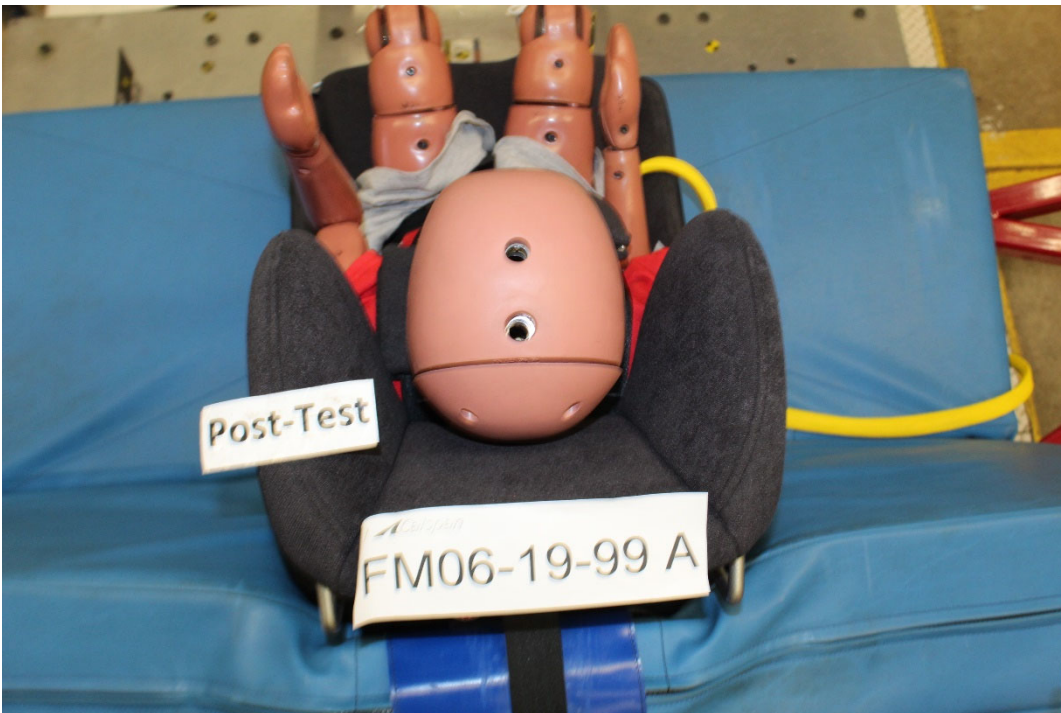


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027-FL19U1-03-6H3FN2TU
Post Test

213-CAL-19-027
FM06-19-99A



027-FL19U1-03-6H3FN2TU Post Test	213-CAL-19-027 FM06-19-99A
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Dynamic Test Photos

027-FL19U1-04-12CFNLTU
Pre Test

213-CAL-19-027
FM06-19-99B

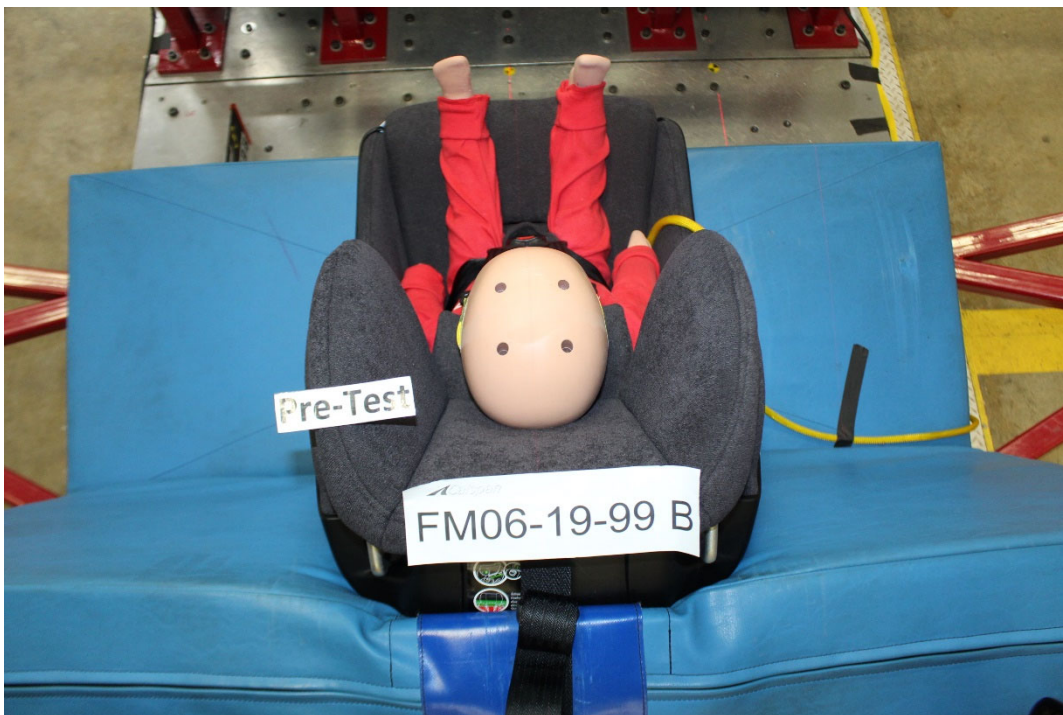


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027-FL19U1-04-12CFNLTU
Pre Test

213-CAL-19-027
FM06-19-99B



027-FL19U1-04-12CFNLTU
Pre Test

213-CAL-19-027
FM06-19-99B



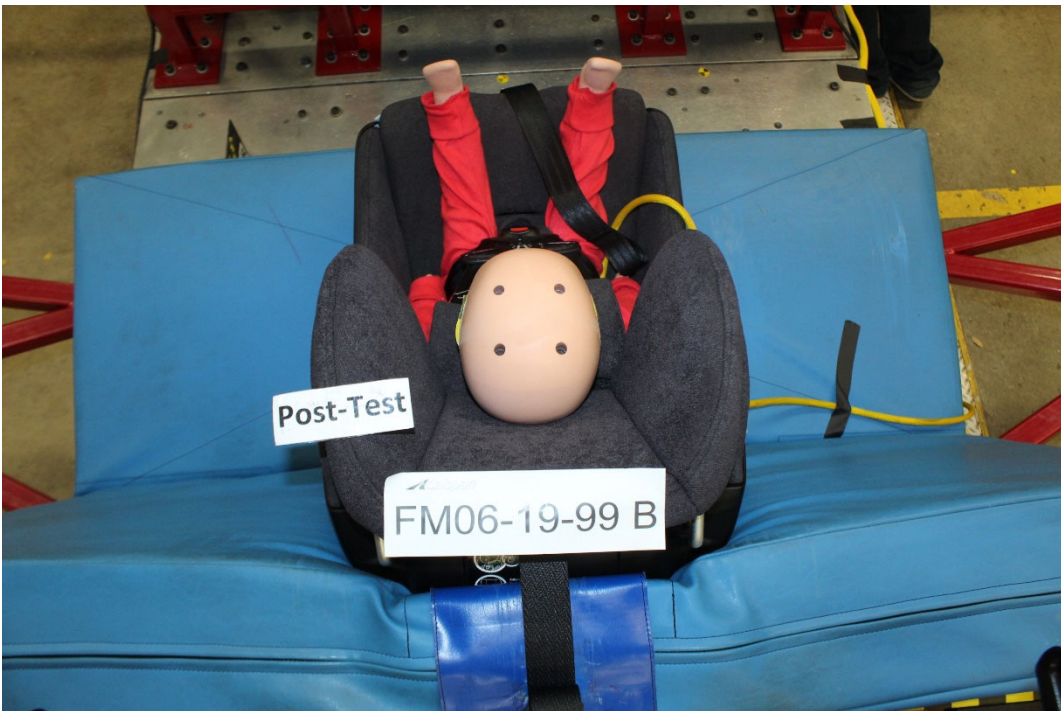
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Post Test

213-CAL-19-027
FM06-19-99B



027-FL19U1-04-12CFNLTU
Post Test

213-CAL-19-027
FM06-19-99B



027-FL19U1-04-12CFNLTU Post Test	213-CAL-19-027 FM06-19-99B
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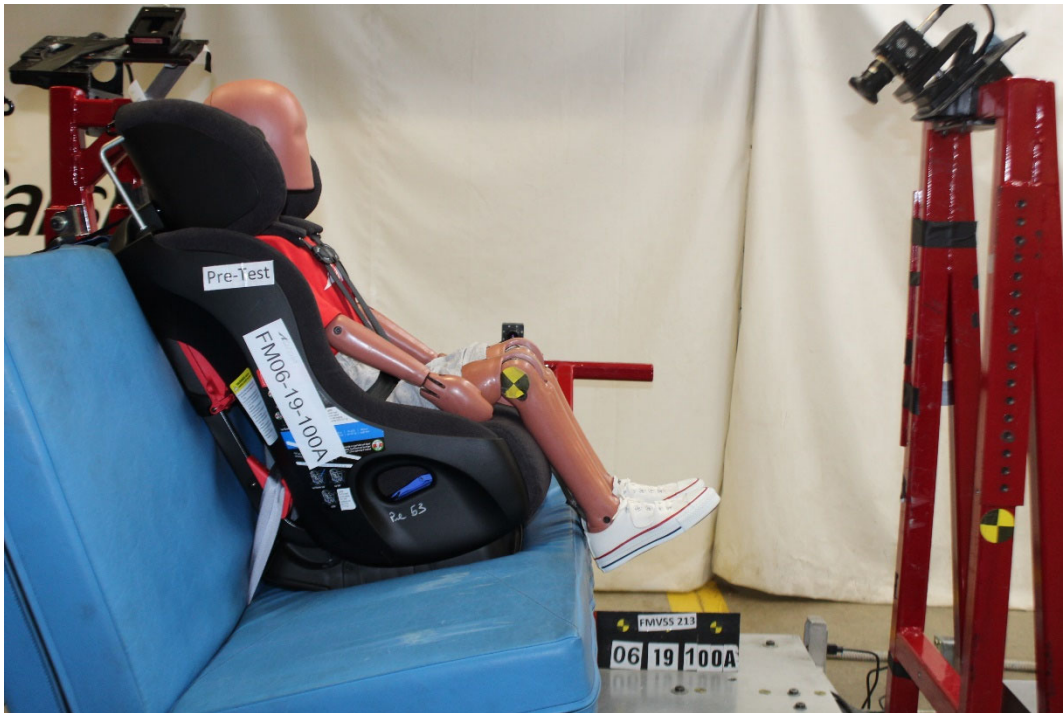


Dynamic Test Photos

027-FL19U1-05-6W3FN2TU Pre Test	213-CAL-19-027 FM06-19-100A
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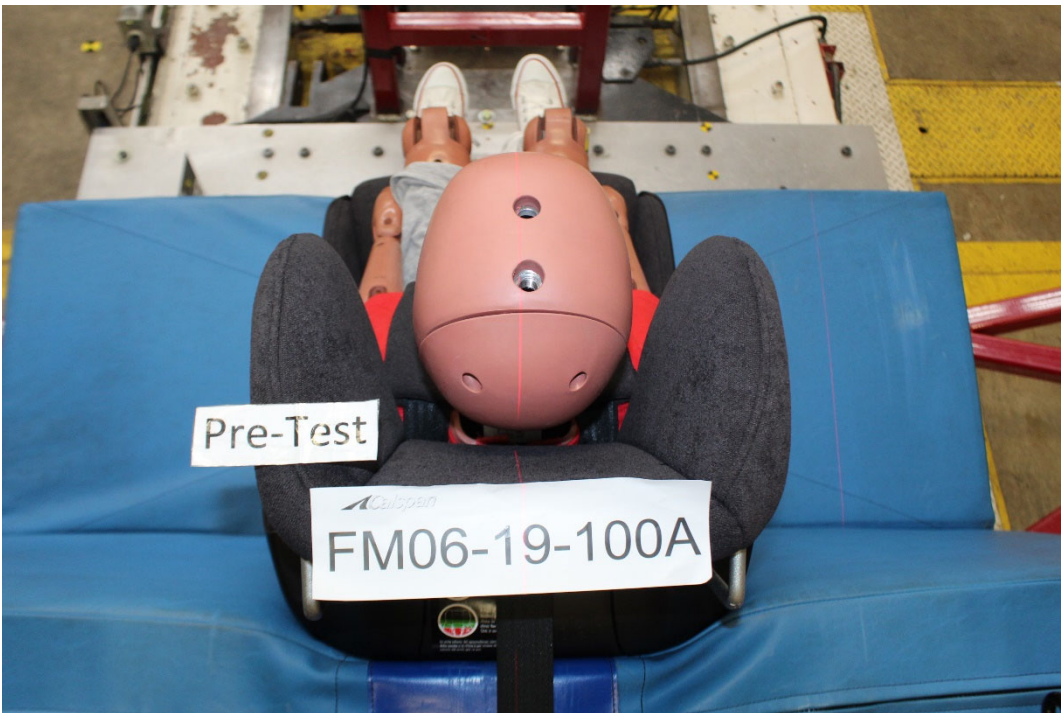


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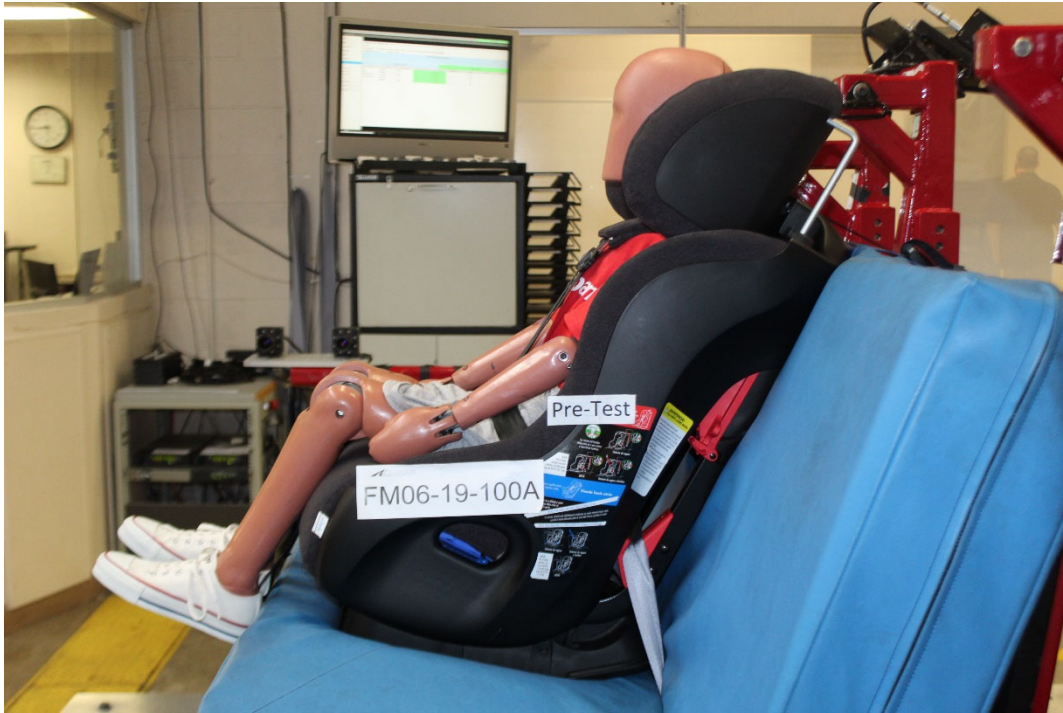


027-FL19U1-05-6W3FN2TU
Pre Test

213-CAL-19-027
FM06-19-100A



027-FL19U1-05-6W3FN2TU Pre Test	213-CAL-19-027 FM06-19-100A
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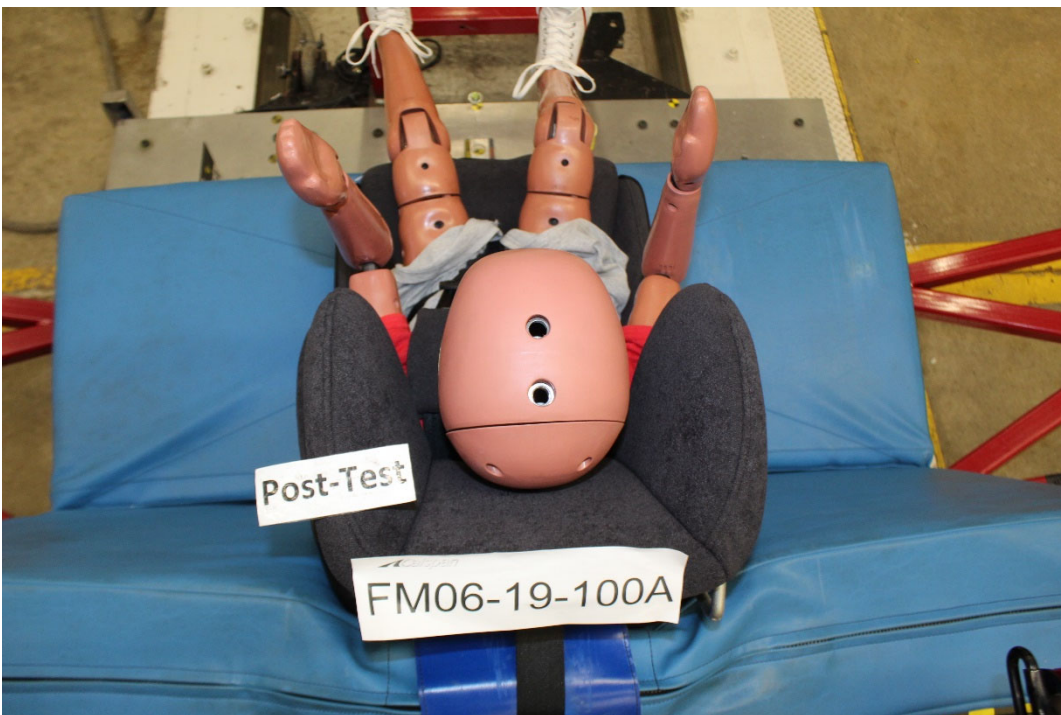


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027-FL19U1-05-6W3FN2TU
Post Test

213-CAL-19-027
FM06-19-100A



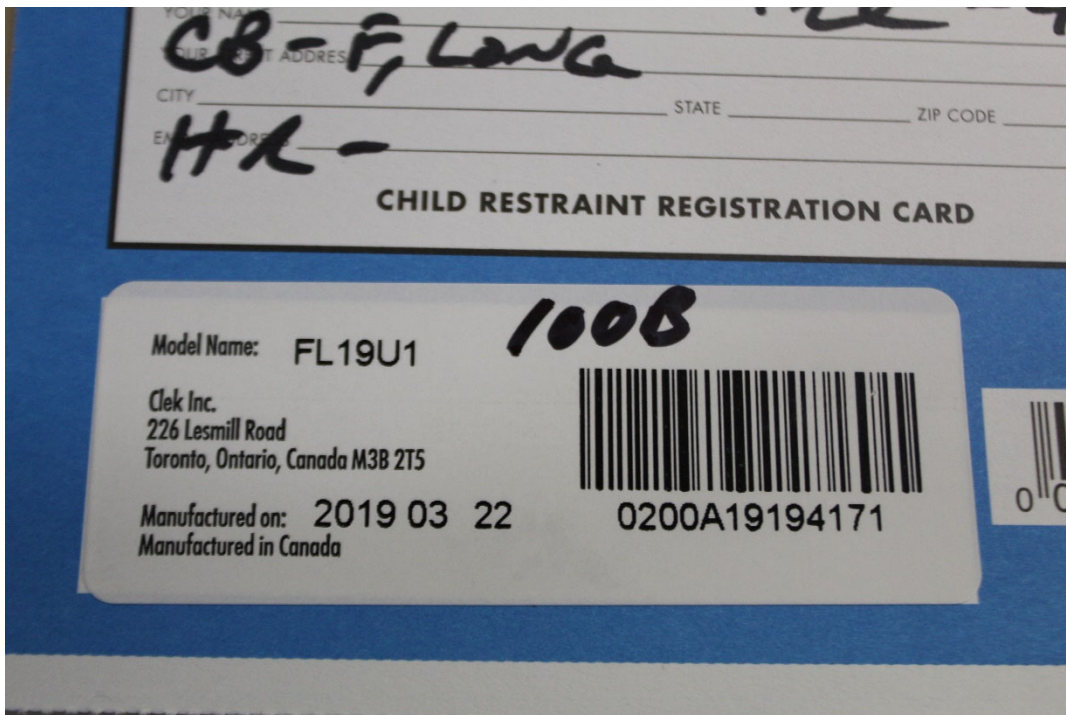
027-FL19U1-05-6W3FN2TU Post Test	213-CAL-19-027 FM06-19-100A
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Dynamic Test Photos

027-FL19U1-05-3H3FNLTU
Pre Test

213-CAL-19-027
FM06-19-100B

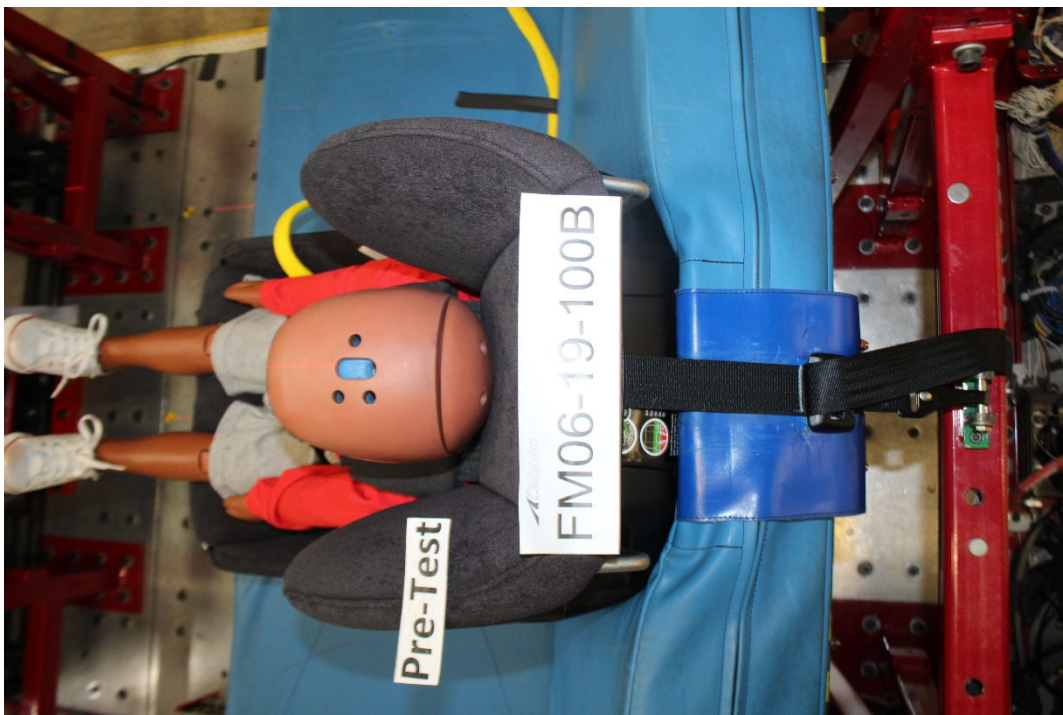


027-FL19U1-05-3H3FNLTU
Pre Test

213-CAL-19-027
FM06-19-100B



027-FL19U1-05-3H3FNLTU Pre Test	213-CAL-19-027 FM06-19-100B
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027-FL19U1-05-3H3FNLTU Pre Test	213-CAL-19-027 FM06-19-100B
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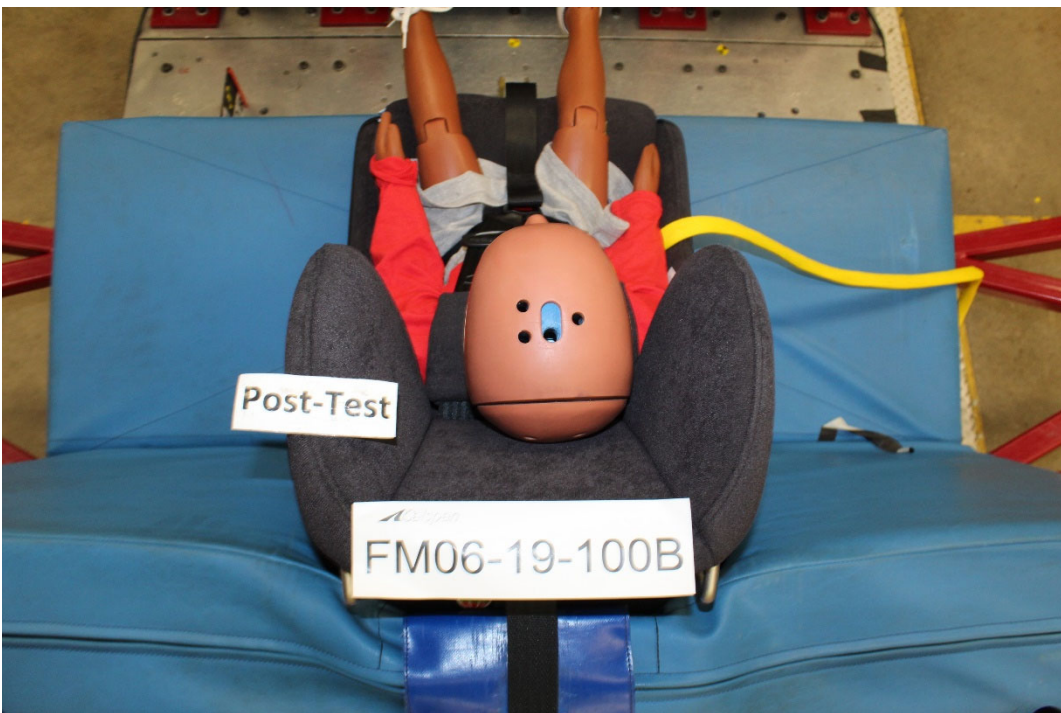


027-FL19U1-05-3H3FNLTU Post Test	213-CAL-19-027 FM06-19-100B
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027-FL19U1-05-3H3FNLTU
Post Test

213-CAL-19-027
FM06-19-100B



027-FL19U1-05-3H3FNLTU Post Test	213-CAL-19-027 FM06-19-100B
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Inversion Test Photos

027-FL19U1-INV01-NINRN2FR
Pre Test X-Axis

213-CAL-19-027
FM07-19-103



027-FL19U1-INV01-NINRN2FR
Post Test X-Axis

213-CAL-19-027
FM07-19-103



Inversion Test Photos

027-FL19U1-INV01-NINRN2FR
Pre Test Y-Axis

213-CAL-19-027
FM07-19-103



027-FL19U1-INV01-NINRN2FR
Post Test Y-Axis

213-CAL-19-027
FM07-19-103



Inversion Test Photos

027-FL19U1-INV02-12CFN2FU
Pre Test X-Axis

213-CAL-19-027
FM07-19-104



027-FL19U1-INV02-12CFN2FU
Post Test X-Axis

213-CAL-19-027
FM07-19-104



Inversion Test Photos

027-FL19U1-INV02-12CFN2FU
Pre Test Y-Axis

213-CAL-19-027
FM07-19-104



027-FL19U1-INV02-12CFN2FU
Post Test Y-Axis

213-CAL-19-027
FM07-19-104



Inversion Test Photos

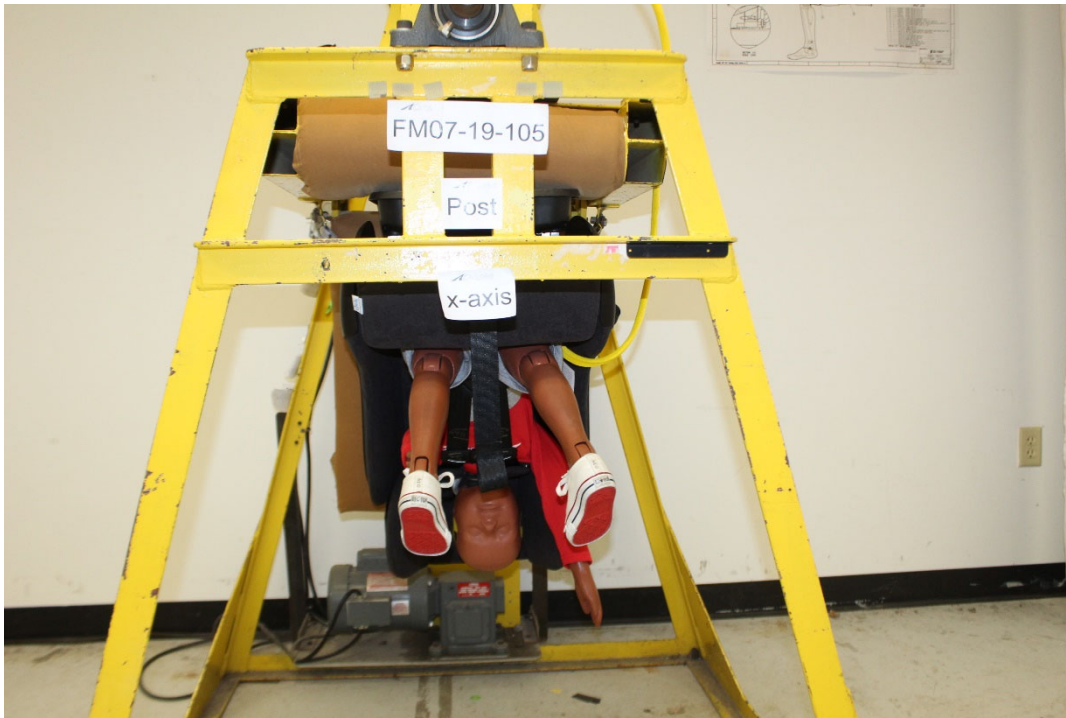
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Pre Test X-Axis

213-CAL-19-027
FM07-19-105



027-FL19U1-INV03-3H3FN2FU
Post Test X-Axis

213-CAL-19-027
FM07-19-105



Inversion Test Photos

027-FL19U1-INV03-3H3FN2FU
Pre Test Y-Axis

213-CAL-19-027
FM07-19-105



027-FL19U1-INV03-3H3FN2FU
Post Test Y-Axis

213-CAL-19-027
FM07-19-105



Inspection Photos

Registration
213-CAL-19-027

<p>027-FL19U1-01-6H3FN2FU 027-FL19U1-03-6H3FN2TU 027-FL19U1-05-6W3FN2TU</p>	<p>027-FL19U1-02-12CRNLFR 027-FL19U1-04-12CFNLTU 027-FL19U1-06-3H3FNLTU</p>
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FOR YOUR CHILD'S CONTINUED SAFETY

Please take a few moments to promptly fill out and return the attached card or register online using the direct link to the manufacturer's registration website provided.

Although child restraint systems undergo testing and evaluation, it is possible that a child restraint could be recalled.

In case of a recall, we can reach you only if we have your name and address, so please send in the card or register online to be on our recall list.

Please fill this card out and mail it NOW,
or register online at www.clekinc.com/register
while you are thinking about it.

This card is already addressed and we've paid the postage.

IMPORTANT

In case of a recall, we can reach you only if we have your name and address. You **MUST** send in the attached card or register online to be on our recall list. We've already paid the postage.

Do it today.

Tear off and mail this part

Consumer: Just fill in your name and address.

YOUR NAME _____

YOUR STREET ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

EMAIL ADDRESS _____

CHILD RESTRAINT REGISTRATION CARD

Model Name: **FL19U1**

Clek Inc.
226 Lonsill Road
Toronto, Ontario, Canada M3B 2T5

Manufactured on: **2019 03 22**

Manufactured in Canada

0200A19194156

0 023445 0

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 271 DETROIT MI

POSTAGE WILL BE PAID BY ADDRESSEE

CLEK INC
400 GRAND RIVER AVE STE 200
DETROIT MI 48226-9983

https://clekinc.com/product-registration/

Product Registration

HOW YOUR CHILD'S CONTINUED SAFETY

Although child restraint systems undergo testing and evaluation, it is possible that a child restraint could be recalled.

In case of a recall, we can reach you only if we have your name and address, so please fill in the registration form to be on our recall list.

To make it possible to register your child restraint system, you will need to provide the model number, serial number and date of manufacture. This information is printed on the registration card and can also be found on a vehicle label located on the back of the child restraint system.

The registration is only applicable to child restraint systems purchased in the United States.

PARA LA SEGURIDAD CONTINUADA DE SU NIÑO

Aunque el sistema de seguridad infantil se somete a pruebas y evaluaciones, existe la posibilidad de que sea necesario retirarlo del mercado.

En caso de un retiro, nosotros solo podremos contactarlo si tenemos su nombre y dirección, de modo que tenga a bien llenar el formulario de registro para estar en nuestra lista.

Para que sea posible registrar el sistema de seguridad infantil, debe proporcionar el número de modelo, el número de serie y la fecha de fabricación. Esta información se encuentra impresa en la tarjeta de registro y también se puede encontrar en una etiqueta ubicada en la parte posterior del sistema de seguridad infantil.

El registro de seguridad solo es aplicable a los sistemas de seguridad infantil comprados en los Estados Unidos.

Please Complete the Following Form to Register Your Clek Product.

Customer Information

First Name (Required) * Last Name (Required) *

Address 1 (Required) 1 * Address 2 (Optional) 2

City (Required) * State (Required) * ZIP Code (Required) *

Email Address (Optional) Confirm Email (Optional)

Product Information

Model Name (Required) * Date of Manufacture (Printed on Manufacturer's) *

Serial Number (Printed on Back)

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Label Photos

Labels	
213-CAL-19-027	
027-FL19U1-01-6H3FN2FU	027-FL19U1-02-12CRNLFR
027-FL19U1-03-6H3FN2TU	027-FL19U1-04-12CFNLTU
027-FL19U1-05-6W3FN2TU	027-FL19U1-06-3H3FNLTU



Labels	
213-CAL-19-027	
027-FL19U1-01-6H3FN2FU	027-FL19U1-02-12CRNLFR
027-FL19U1-03-6H3FN2TU	027-FL19U1-04-12CFNLTU
027-FL19U1-05-6W3FN2TU	027-FL19U1-06-3H3FNLTU

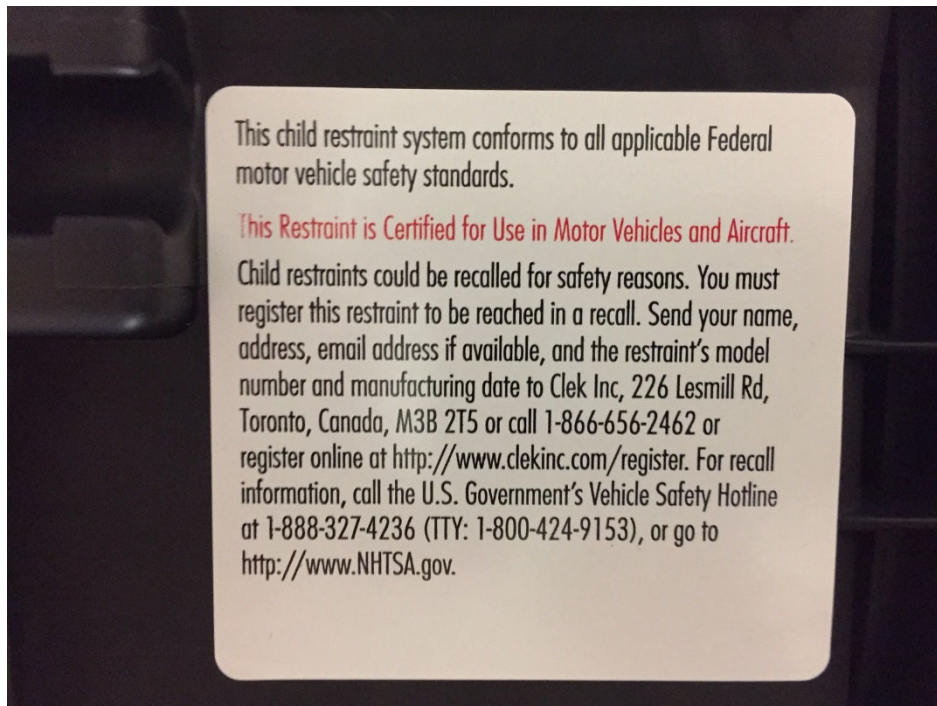
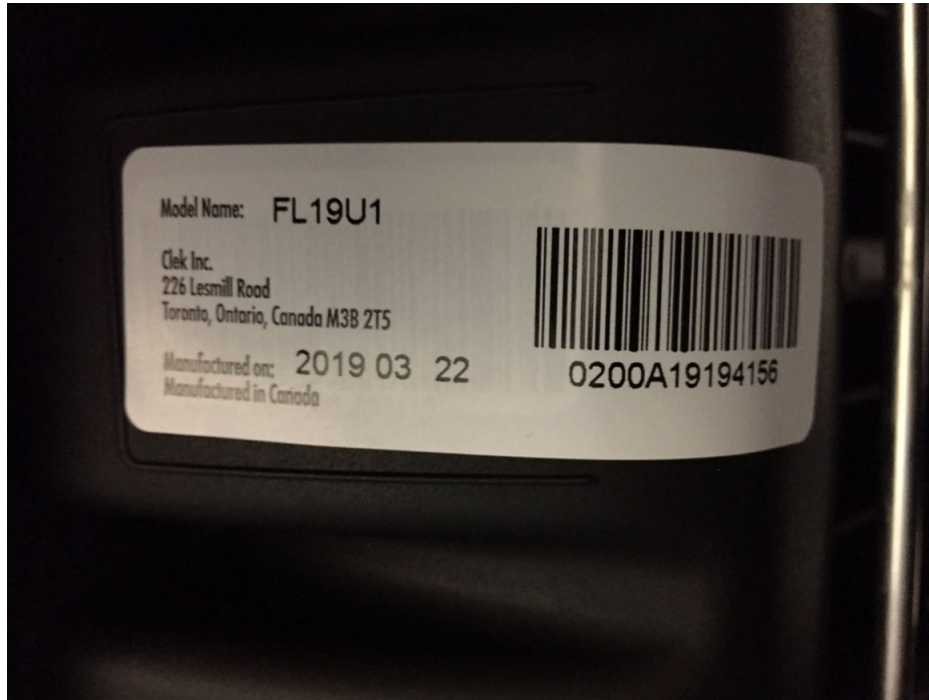


Labels

213-CAL-19-027

027-FL19U1-01-6H3FN2FU
027-FL19U1-03-6H3FN2TU
027-FL19U1-05-6W3FN2TU

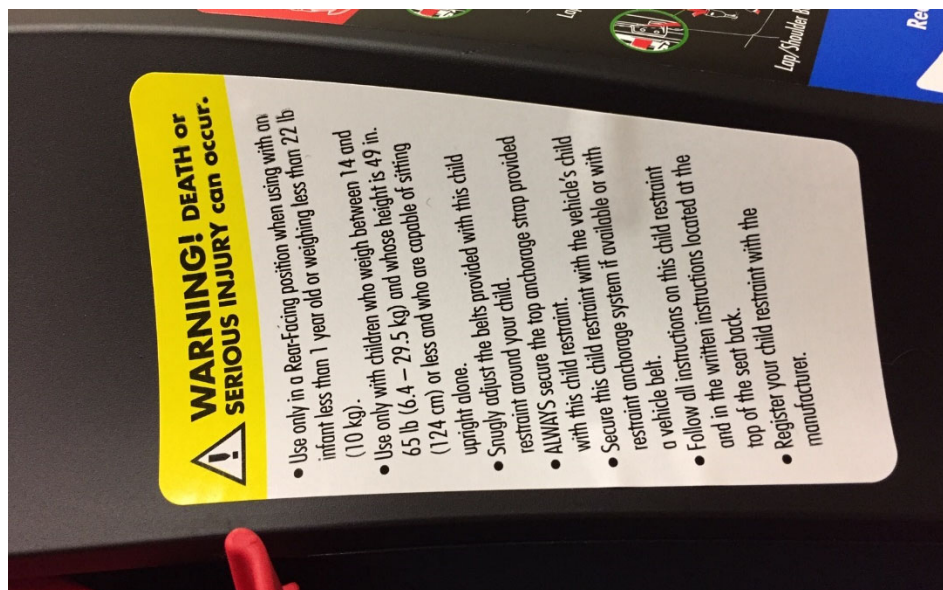
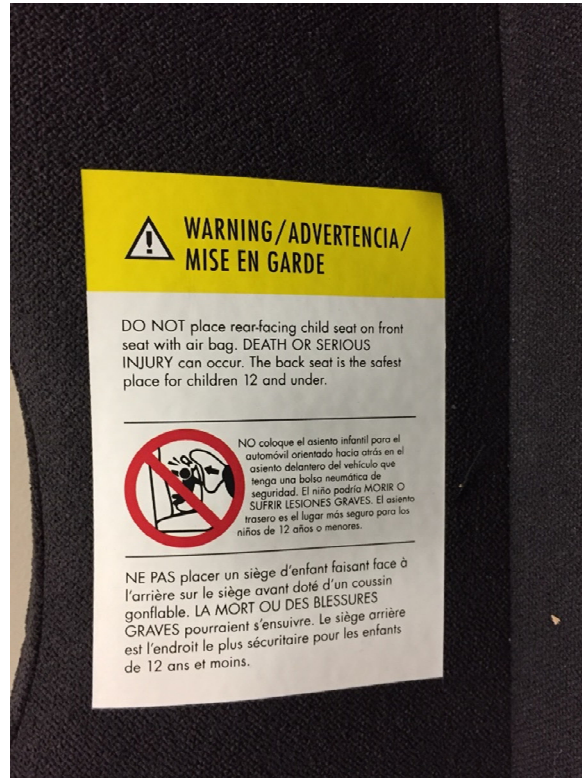
027-FL19U1-02-12CRNLFR
027-FL19U1-04-12CFNLTU
027-FL19U1-06-3H3FNLTU



Labels
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