Report No.
2383579-44

CHILD RESTRAINT SYSTEM COMPONENT TESTS FMVSS 213

Model No.
Evenflo Triumph 65

SGS North America Inc.
Consumer Testing Services
291 Fairfield Avenue
Fairfield, NJ 07004

September 20, 2011

FINAL REPORT

213-UST-11-44

PREPARED FOR

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVE, SE (ROOM W45-304)
WASHINGTON, D.C. 20590

Report No.: **2383579-44**

Prepared by: SGS North America Inc.

Approved by: 
Frank Savino

Date: September 20, 2011

Report Accepted by:

Contract Technical Manager, O.V.S.C.
Office of Vehicle Safety Compliance

Accepted By:

Acceptance Date: September 20, 2011

1. Report No. 213-UST-11-44	2. Govt. Accession No.	3. Recipient's Catalog No.	
4. Title and Sub-Title CHILD RESTRAINT SYSTEM, COMPONENT PARTS, Model No.: Evenflo Triumph 65		5. Report Date: September 20, 2011	
6. Performing Organization Code UST-213-11-44		7. Author: Frank Savino, Project Manager	
8. Performing Organization Report No. UST-DOT-213-11-44		9. Performing Organization Name and Address: SGS North America Inc. 291 Fairfield Avenue Fairfield, NJ 07004	
10. Work Unit No.		11. Order Number DTNH22-07-D-00065	
12. Sponsoring Agency Name and Address: U.S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION ENFORCEMENT OFFICE OF VEHICLE SAFETY COMPLIANCE 1200 NEW JERSEY AVE, SE (ROOM W45-304) WASHINGTON, D.C. 20590		13. Type of report and Period Covered FINAL TEST REPORT August 15-September 18, 2011	
14. Sponsoring Agency Code: NVS-220		15.	

16. Abstract
THIS REPORT PRESENTS THE RESULTS OF TESTS PERFORMED IN ACCORDANCE WITH FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 213 ON CHILD RESTRAINT SYSTEM COMPONENT PARTS.

MODEL NUMBER: Evenflo Triumph 65
ALL TESTS WERE SATISFACTORILY COMPLETED.

17. Key Words FMVSS No. 213 Child Restraint System Safety Engineering	18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Administration Technical Information Services, Room 5111 (NPO-411) 1200 New Jersey Avenue, SE (Room E12-100) Washington, DC 20590 email: tis@nhtsa.dot.gov Telephone No. 202-493-2833		
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this Page) Unclassified	21. No. of Pages 37	22. Price

TABLE OF CONTENTS

SECTION 1

PURPOSE AND TEST PROCEDURES

PURPOSE AND TEST PROCEDURES

Purpose: The purpose of this report was to determine if the production child restraint components parts supplied by the National Highway Traffic Safety Administration met the requirements of Federal Motor Vehicle Safety Standard Number 213 - "Child Restraint System".

Test Procedures: The "SGS North America Inc. Laboratories Test Procedure for FMVSS No. 213" dated April 2007 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 No. 213 and amendments in effect as noted in the applicable order.

SECTION 2

INSPECTION DATA AND TEST DATA

INSPECTION AND TEST DATA
FMVSS NO. 213 - CHILD RESTRAINT SYSTEMS

Report No.: 2383579-44

Child Restraint System Identification

Manufacturer:

Name: Evenflo Co. Inc.

Address: 1801 Commerce Drive
Piqua, OH 45356

Model: Triumph 65

Technicians: Edwin Rivera and John Roycraft

Project Manager: Frank Savino

WEBBING PERFORMANCE TESTS (a213-5.4.1)

Report No.: 2383579-44

Test Date: September 18, 2011

Laboratory Ambient Conditions During Testing

Temperature: 73 ° F

Relative Humidity: 50 %

Webbing Usage on Restraint: Harness

Test	Compliance Requirement	Test Result	Pass/Fail
Non-Degraded Webbing (FMVSS 209, S5.1 (b))	New webbing breaking strength, 15,000 N (webbing used to secure CRS to vehicle) or 11,000 N (webbing used to secure child within CRS)	1. 19,900 2. 20,400 3. 18,300 Median: 19,900	Pass
Resistance to Abrasion (FMVSS 209, S4.2(d) & S5.1(d)) Abrasion Cycles Performed 2500 (2500 Required)	Median breaking strength, Newtons (75% of median baseline strength)	1. 19,400 2. 20,500 3. 20,500 Median: 20,500 Strength Retained: 100+%	Pass
Resistance to Buckle Abrasion (FMVSS 209, S5.3(c)) Abrasion cycles Performed 2500 (2500 Required)	Median breaking strength, Newtons (75% of median baseline strength)	1. N/A 2. N/A 3. N/A Median: N/A	N/A

WEBBING PERFORMANCE TESTS (a213-5.4.1) (Continued)

Report No.: 2383579-44

Test Date: September 18, 2011

Test	Compliance Requirement	Test Result	Pass/Fail
Resistance to Light (FMVSS 209, S4.2 (e) & S5.1(e)) Exposure Time 100 Hr. (100 Hours Required)	Median breaking strength, Newtons (60% of median baseline strength)	1. 19,800 2. 19,900 3. 19,700 Median: 19,800 Strength Retained: 99.5%	Pass
	Color Retention >/= No. 2 on the Geometric Gray Scale	1. 5 2. 5 3. 5	Pass
Resistance to Micro-Organisms (FMVSS 209, S4.2 (f), S5.1 (f))	Median breaking strength, Newtons (85% of median baseline strength)	1. N/A 2. N/A 3. N/A Median: N/A	N/A
Width Requirement (FMVSS 213, S5.4.1.3)	Width >/= 38 mm) If webbing contacts the test dummy torso	1. 38.0 2. 38.0 3. 38.0	Pass

Remarks:

Technicians: John Roycraft

Project Manager: Frank Savino

WEBBING PERFORMANCE TESTS (a213-5.4.1)

Report No.: 2383579-44

Test Date: September 17, 2011

Laboratory Ambient Conditions During Testing

Temperature: 73 ° F

Relative Humidity: 50 %

Webbing Usage on Restraint: Latch

Test	Compliance Requirement	Test Result	Pass/Fail
Non-Degraded Webbing (FMVSS 209, S5.1 (b))	New webbing breaking strength, 15,000 N (webbing used to secure CRS to vehicle) or 11,000 N (webbing used to secure child within CRS)	1. 20,200 2. 18,400 3. 20,100 Median: 20,100	Pass
Resistance to Abrasion (FMVSS 209, S4.2(d) & S5.1(d)) Abrasion Cycles Performed 2500 (2500 Required)	Median breaking strength, Newtons (75% of median baseline strength)	1. 19,500 2. 17,800 3. 19,700 Median: 19,500 Strength Retained: 97.0%	Pass
Resistance to Buckle Abrasion (FMVSS 209, S5.3(c)) Abrasion cycles Performed 2500 (2500 Required)	Median breaking strength, Newtons (75% of median baseline strength)	1. N/A 2. N/A 3. N/A Median: N/A	N/A

WEBBING PERFORMANCE TESTS (a213-5.4.1) (Continued)

Report No.: 2383579-44

Test Date: September 17, 2011

Test	Compliance Requirement	Test Result	Pass/Fail
Resistance to Light (FMVSS 209, S4.2 (e) & S5.1(e)) Exposure Time 100 Hr. (100 Hours Required)	Median breaking strength, Newtons (60% of median baseline strength)	1. 17,800 2. 19,600 3. 19,100 Median: 19,100 Strength Retained: 95.0%	Pass
	Color Retention >/= No. 2 on the Geometric Gray Scale	1. 5 2. 5 3. 5	Pass
Resistance to Micro-Organisms (FMVSS 209, S4.2 (f), S5.1 (f))	Median breaking strength, Newtons (85% of median baseline strength)	1. N/A 2. N/A 3. N/A Median: N/A	N/A
Width Requirement (FMVSS 213, S5.4.1.3)	Width >/= 38 mm) If webbing contacts the test dummy torso	1. 39.0 2. 39.0 3. 39.0	N/A

Remarks:

Technicians: John Roycraft

Project Manager: Frank Savino

WEBBING PERFORMANCE TESTS (a213-5.4.1)

Report No.: 2383579-44

Test Date: September 17, 2011

Laboratory Ambient Conditions During Testing

Temperature: 73 ° F

Relative Humidity: 50 %

Webbing Usage on Restraint: Tether

Test	Compliance Requirement	Test Result	Pass/Fail
Non-Degraded Webbing (FMVSS 209, S5.1 (b))	New webbing breaking strength, 15,000 N (webbing used to secure CRS to vehicle) or 11,000 N (webbing used to secure child within CRS)	1. 20,200 2. 20,200 3. 19,600 Median: 20,200	Pass
Resistance to Abrasion (FMVSS 209, S4.2(d) & S5.1(d)) Abrasion Cycles Performed 2500 (2500 Required)	Median breaking strength, Newtons (75% of median baseline strength)	1. 19,900 2. 19,500 3. 19,400 Median: 19,500 Strength Retained: 96.5%	Pass
Resistance to Buckle Abrasion (FMVSS 209, S5.3(c)) Abrasion cycles Performed 2500 (2500 Required)	Median breaking strength, Newtons (75% of median baseline strength)	1. N/A 2. N/A 3. N/A Median: N/A	N/A

WEBBING PERFORMANCE TESTS (a213-5.4.1) (Continued)

Report No.: 2383579-44

Test Date: September 17, 2011

Test	Compliance Requirement	Test Result	Pass/Fail
Resistance to Light (FMVSS 209, S4.2 (e) & S5.1(e)) Exposure Time 100 Hr. (100 Hours Required)	Median breaking strength, Newtons (60% of median baseline strength)	1. 19,700 2. 19,800 3. 19,900 Median: 19,800 Strength Retained: 98.0%	Pass
	Color Retention >/= No. 2 on the Geometric Gray Scale	1. 5 2. 5 3. 5	Pass
Resistance to Micro-Organisms (FMVSS 209, S4.2 (f), S5.1 (f))	Median breaking strength, Newtons (85% of median baseline strength)	1. N/A 2. N/A 3. N/A Median: N/A	N/A
Width Requirement (FMVSS 213, S5.4.1.3)	Width >/= 38 mm) If webbing contacts the test dummy torso	1. 38.5 2. 38.5 3. 38.5	N/A

Remarks:

Technicians: John Roycraft

Project Manager: Frank Savino

BELT BUCKLE AND ADJUSTMENT HARDWARE
PERFORMANCE TESTS (S213-S5.4.2/S209-S4.3)

Report No.: 2383579-44

Test Date: August 19, 2011 **Item Code:** Evenflo Triumph 65

Laboratory Ambient Conditions During Testing

Temperature: 73 °F

Relative Humidity: 50 %

Test	Compliance Requirement	Test Result	Pass/Fail
Corrosion Resistance (FMVSS 209), (S4.3.(a) (2)) Exposure Time 24 Hours (24 Hours Required) Drying Time 1 Hour (1 Hour Required)	No Corrosion (NC)	1. NC 2. NC 3. NC	Pass Pass Pass
Push Buttons S213; S5.4.3.5 (c)	Area ≥ 0.6 sq. in.)	1.07	Pass
	Dimensions	1.50 x 0.91	N/A
Lever Release	Cylinder Insertion	N/A	N/A
Other	Two-finger Access	N/A	N/A

BELT BUCKLE AND ADJUSTMENT HARDWARE
PERFORMANCE TESTS (S213-S5.4.2/S209-S4.3) (Continued)

Report No.: 2383579-44

<table>
<tr><th>Test</th><th>Compliance Requirement</th><th colspan="2">Test Result</th><th colspan="2">Pass/Fail</th></tr>
<tr><td>Buckle Latch (FMVSS 209 S4.3(g)) Follows Corrosion Resistance Cycles 200 (200 Required)</td><td>No Functional Deterioration (NFD)</td><td colspan="2">1. NFD
2. NFD
3. NFD</td><td colspan="2">1. Pass
2. Pass
3. Pass</td></tr>
<tr><td rowspan="6">Buckle Latch (FMVSS 209 S4.3(g)) Corrosion Resistance metal to metal buckles
Note: Cycle Button; Perform manual latching and unlatching prior to partial engagement test. Measurements truncated to one decimal place.</td><td rowspan="6">Partial Engagement Separation Force <5 lb.</td><td colspan="2">Test Result As Received (Results in Pounds)</td><td colspan="2">Test Result After Corrosion Resistance</td></tr>
<tr><td>Front</td><td>Reverse</td><td>Front</td><td>Reverse</td></tr>
<tr><td><u>Sample 1</u>
1) P
2) P
3) P</td><td><u>Sample 1</u>
1) P
2) P
3) P</td><td><u>Sample 1</u>
1) P
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3) P</td><td><u>Sample 1</u>
1) P
2) P
3) P</td></tr>
<tr><td><u>Sample 2</u>
1) P
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3) P</td><td><u>Sample 2</u>
1) P
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3) P</td><td><u>Sample 2</u>
1) P
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3) P</td><td><u>Sample 2</u>
1) P
2) P
3) P</td></tr>
<tr><td><u>Sample 3</u>
1) P
2) P
3) P</td><td><u>Sample 3</u>
1) P
2) P
3) P</td><td><u>Sample 3</u>
1) P
2) P
3) P</td><td><u>Sample 3</u>
1) P
2) P
3) P</td></tr>
</table>

Remarks: P = Pass

Although the buckles do not latch with the tongues in the reverse position, one or both of the tongues can become partially engaged in this position.

Technicians: Edwin Rivera

Project Manager: Frank Savino

BELT BUCKLE AND ADJUSTMENT HARDWARE
PERFORMANCE TESTS (S213-S5.4.2/S209-S4.3)

Report No.: 2383579-44

Test Date: August 19, 2011 **Item Code:** Evenflo Triumph 65

Laboratory Ambient Conditions During Testing

Temperature: 73 °F

Relative Humidity: 50 %

Test	Compliance Requirement	Test Result	Pass/Fail
Temperature Resistance (FMVSS 209), (S4.3.(b)) Exposure Time 24 Hours (24 Hours Required) Drying Time 1 Hour (1 Hour Required)	No Functional Deterioration (NFD)	1. NFD 2. NFD 3. NFD	Pass Pass Pass
Push Buttons S213; S5.4.3.5 (c)	Area ≥ 0.6 sq. in.	1.07	Pass
	Dimensions	1.50 x 0.91	N/A
Lever Release	Cylinder Insertion	N/A	N/A
Other	Two-finger Access	N/A	N/A

BELT BUCKLE AND ADJUSTMENT HARDWARE
PERFORMANCE TESTS (S213-S5.4.2/S209-S4.3) (Continued)

Report No.: 2383579-44

Test	Compliance Requirement	Test Result	Pass/Fail
Buckle Latch (FMVSS 209 S4.3(g)) Follows ***Temperature Resistance*** Cycles 200 (200 Required))	No Functional Deterioration (NFD)	1. NFD 2. NFD 3. NFD	1. Pass 2. Pass 3. Pass

Buckle Latch (FMVSS 209 S4.3(g)) ***Temperature Resistance*** metal to metal buckles Note: Cycle Button; Perform manual latching and unlatching prior to partial engagement test. Measurements truncated to one decimal place.	Partial Engagement Separation Force <5 lb.	Test Result As Received (Results in Pounds)		Test Result After ***Temperature Resistance***	
		Front	Reverse	Front	Reverse
		Sample 1 1) P 2) P 3) P	Sample 1 1) P 2) P 3) P	Sample 1 1) P 2) P 3) P	Sample 1 1) P 2) P 3) P
		Sample 2 1) P 2) P 3) P	Sample 2 1) P 2) P 3) P	Sample 2 1) P 2) P 3) P	Sample 2 1) P 2) P 3) P
		Sample 3 1) P 2) P 3) P	Sample 3 1) P 2) P 3) P	Sample 3 1) P 2) P 3) P	Sample 3 1) P 2) P 3) P

Remarks: P = Pass

Although the buckles do not latch with the tongues in the reverse position, one or both of the tongues can become partially engaged in this position.

Technicians: Edwin Rivera

Project Manager: Frank Savino

APPENDIX A

EQUIPMENT LIST AND CALIBRATION

SGS NORTH AMERICA INC.
TEST EQUIPMENT

NO.	ITEM	MANUFACTURER	MODEL	SERIAL NO.	CAL. PERIOD	DATE OF LAST CAL.	ACCURACY	REMARKS
WEBBING TESTING								
1	Steel Ruler	L.S. Starrett	607R	---	---	---	+/-0.01 inch	Webbing Width
2	Hex-Bar Abrader	U.S. Testing	---	---	1Year*	5/11	---	*Timer-Counter Assembly and Weights
3	Weatherometer	Atlas Electric Co.	CXW	CB-12295	1 Year*	4/11	+/-1%	*Temp. and Voltage Meters
4	Weatherometer	Atlas Electric Co.	CXW	CB-1214	1 Year*	4/11	+/-1%	*Temp. and Voltage Meters
5	Weatherometer	Atlas Electric Co.	XW-WT	W0-3009	1 Year*	4/11	+/-1%	*Temp. and Voltage Meters
6	Color Change - Gray Scale	AATCC	---	---	---	---	---	Visual Comparison
7	Universal Testing Machine	Instron	1115	3289	1 Year	5/11	+/-1%	Webbing Strength
8	Universal Testing Machine	Instron	TTC	4344	1 Year	5/11	+/-1%	Webbing Strength
9	2” Split Drum Grips	U.S. Testing Co.	---	---	---	---	---	Instron Fixture

SGS NORTH AMERICA INC.
TEST EQUIPMENT

NO.	ITEM	MANUFACTURER	MODEL	SERIAL NO.	CAL. PERIOD	DATE OF LAST CAL.	ACCURACY	REMARKS
			BUCKLE TESTING					
10	Salt Spray Chamber	Singleton Corp.	SCCH22	SCCH22-21947	---	---	---	Checked daily in accordance with ASTM B-117
11	Temperature Recorder	Honeywell	DR4300	0318Y359 016800003	1 Year	4/11	+/- 5°F	Monitor Salt Spray Temperature
12	Temperature Humidity Chamber	Blue-M	FR-386PC	AA221	1Year	4/11	+/-2°C +/-5% R.H	Temperature-Humidity Exposure
13	Temperature Humidity Chamber	Blue-M	FR-386PBX	AA278	1Year	4/11	+/-2°C +/-5% R.H	Temperature-Humidity Exposure
14	Temperature Humidity Chamber	Blue-M	LR-386B-MP1	L3-122	1 Year	4/11	+/-2°C +/-5% R.H	Temperature-Humidity Exposure
15	Temperature Chamber	Despatch	52392 V29	037-15	1 Year	4/11	+/-2°C +/-5% R.H	Temperature Exposure
16	Temperature Recorder	Bristol	N15-T25	736652	1 Year	4/11	+/-1%	Temperature Measurement
17	Pushbutton Latch Fixture	U.S. Testing	---	---	1 Year*	5/11	---	Force checked prior to use. *Timer Counter
			STANDARD LABORATORY CONDITIONING					
18	Temperature / Humidity Recorder	Dickson	TH800	07150222	1Year	4/11	+/-2°F +/-5% R.H.	Monitor Room Conditioning

APPENDIX B

INTERPRETATION AND/OR DEVIATIONS FROM FMVSS NO. 213

NO INTERPRETATIONS OR DEVIATIONS FROM FMVSS NO. 213

APPENDIX C

PHOTOGRAPHS

LISTS OF PHOTOGRAPHS

The following section identifies photographed testing equipment.

The following section identifies photographs of the seat.

C-2

C-3

Temperature/Humidity Chamber

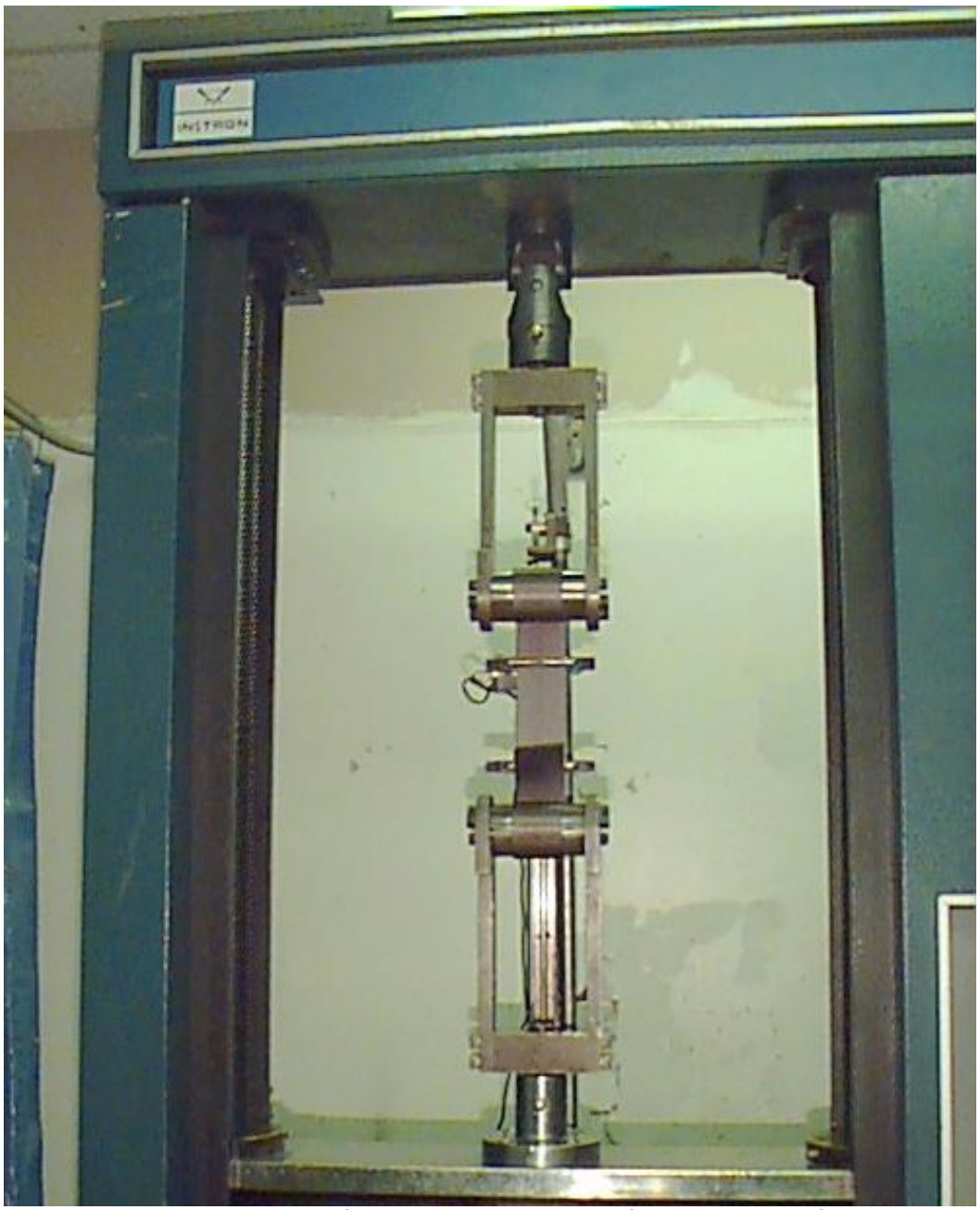
C-4

Temperature Chamber

C-5

Button Cycling Apparatus

C-6

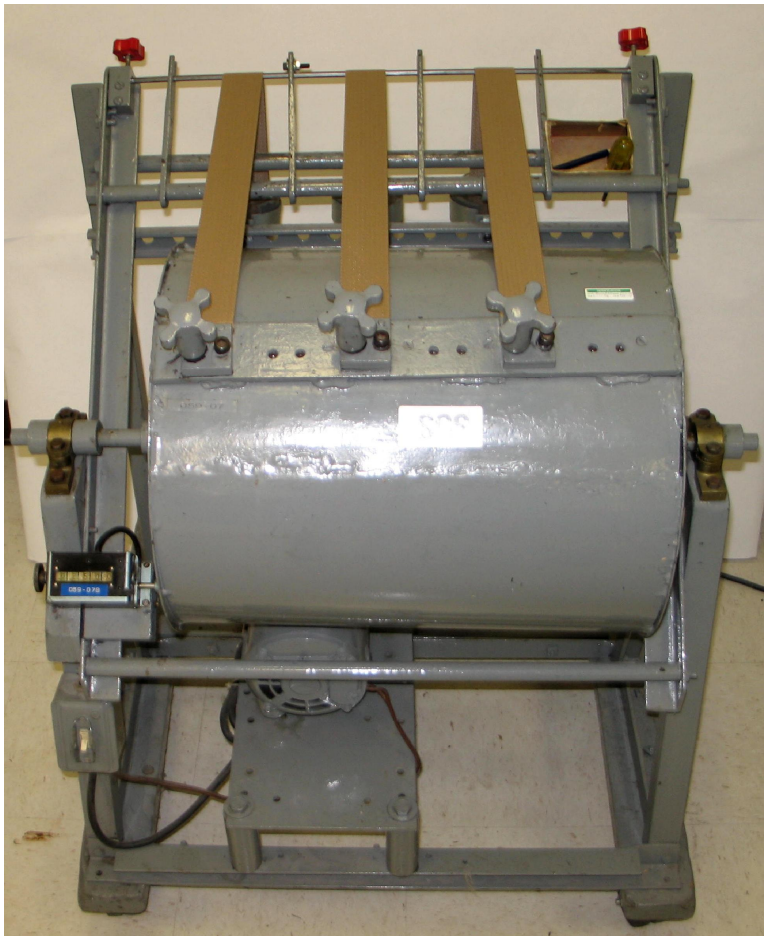


Instron Universal Testing Machine

C-7

Weatherometer

C-8



Hex Bar Abrasion Apparatus

C-9


evenflo
SAFETY. SO SIMPLE!™
#44 EVENFLO TRIUMPH 65
Model: 38211044
C9
SIDE IMPACT TESTED™
Meets or exceeds all applicable Federal Safety Standards AND Evenflo's Side Impact Test Standard
Cumple o excede todas las normas de seguridad federales Y la prueba de impacto lateral de Evenflo
Satisfait ou surpasse toutes les normes de sécurité fédérales en vigueur ANSI QUE le test de choc latéral conforme à la norme d'Evenflo
INFINITE SLIDE HARNESS™
Easily slides for an accurate fit! No rethreading necessary
¡Se desliza fácilmente para un ajuste preciso! No es necesario reinsertar las correas
Coulisse simplement pour obtenir chaque fois un réglage précis! Pas besoin de renfilage
RECLINE I RECLINADO
Upfront multi-position recline for child's comfort while asleep or awake
El reclinado de varias posiciones en la parte delantera brinda comodidad al niño mientras está despierto o dormido
Plusieurs positions d'inclinaison réglables par l'avant pour le confort de l'enfant endormi ou réveillé
TRIUMPH 65™

C-10


evenflo
SAFETY. SO SIMPLE!™
38211044
#1 RATED CAR SEAT
BY A LEADING CONSUMER MAGAZINE
#44 EVENFLO TRIUMPH 65
Model: 38211044
C10
SAFETY. SO SIMPLE!™
Meets or exceeds all applicable Federal Safety Standards AND Evenflo's Side Impact Test Standard
Cumple o excede todas las normas de seguridad federales Y la prueba de impacto lateral de Evenflo
Satisfait ou surpasse toutes les normes de sécurité fédérales en vigueur AINSI QUE le test de choc latéral conforme à la norme d'Evenflo
SIDE IMPACT TESTED™
Designed and tested for structural integrity at energy levels approximately 2X the federal crash test standard
Diseñado y sometido a pruebas de integridad estructural a niveles de energía que equivalen aproximadamente al doble del estándar de pruebas federales de colisión
L'intégrité structurelle a été conçue et testée à des forces d'impact approximativement doubles de celles de la norme fédérale régissant les collisions
Evenflo
Federal
Includes EPP, energy-absorbing foam
Incluye espuma de poliestireno expandido que absorbe energía
Comprend de la mousse EPP absorbant les chocs
5-point harness system
Sistema de arnés de 5 puntos
Système de harnais à 5 points
TRIUMPH 65™
38211044
Old Dominion Freight Lines
Recyclable Paper
Evenflo is committed to preserving our natural resources. This package is recyclable and is printed with water-based inks.
Evenflo ha asumido el compromiso de conservar nuestros recursos naturales. Este paquete es reciclable y está impreso con tintas a base de agua.
Evenflo s'engage à respecter les ressources naturelles. À cette fin, cet emballage est recyclable et est imprimé avec des encres à base d'eau.
13
Do Not Scan
No Escanear

C-11


#44 EVENFLO TRIUMPH 65
Model: 38211044
C11
evenflo
evenflo
TRIUMPH

C-12


#44 EVENFLO TRIUMPH 65
Model: 38211044
C12
Rear Facing 5 – 40 lbs (2.3 – 18 kg)
Lap and Shoulder Belt Installation
Lap Belt Only Installation
LATCH Only Installation
Push LATCH Path for Rear Facing ONLY
Pull and Hold Lever to Release Harness
Tighten Harness
2
3
Arrow must be level with ground when used rear-facing.
UMPH 65

C-13


#44 EVENFLO TRIUMPH 65
Model: 38211044
C13
INFINITE SIDE HARNESS™
RECLINE 1 RECLINADO