

287275

DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

RECEIVED  
JUN 15 2004  
OFFICE OF THE ASSISTANT SECRETARY FOR  
REGULATORY AFFAIRS

**In the Matter of Baby Trend, Inc. - Petition Under 49 C.F.R. Part 556  
Exemption for Inconsequential Non-Compliance  
RE: NVS-222ALa / PE-213-040202A/B**

**Petitioner:** Baby Trend, Inc., a California corporation  
1567 South Campus Avenue  
Ontario, CA 91761

**Petitioner's**

**Counsel:** Frederick B. Locker, Esq.  
Locker Greenberg & Brainin, LLP  
420 Fifth Avenue  
New York, NY 10018

NHTSA - 2004 - 18653 - 1

This is a Petition filed pursuant to 49 C.F.R. Part 556, *Exemption for Inconsequential Defect or Non-Compliance*. This procedure is permitted for the purpose of exempting manufacturers of motor vehicle equipment from the National Highway Traffic Safety Act's Notice and Remedy Requirements when a non-compliance is determined to be inconsequential as it relates to motor vehicle equipment safety. The Company believes that the evidence on the record conclusively indicates that the potential non-compliance is inconsequential and is unrelated to the safe and effective use of its child restraint seats.

**Background**

On June 2, 2004, Baby Trend, Inc. filed a Defect and Non-Compliance Report pursuant to the requirements of 49 C.F.R. Part 573. In such report, the Company indicated a potential technical non-compliance with Federal Motor Vehicle Safety Standard No. FMVSS 213, Section 5.2.3.2, Head Impact Protection, which states that "*each system surface, except for protrusions that comply with S.5.2.4, which is contactable by the dummy head when the system is tested in accordance with S.6.1, shall be covered with slow recovery, energy absorbing material with the following characteristics: (a) A 25 percent compression-deflection resistance of not less than 0.5 and not more than 10 pounds per square inch when tested in accordance with S.6.3 ...*" existed in connection with certain Latch-Loc infant car seats, Model #s 6078, 6076, 6020 and 6188, comprised of approximately 150,730 child restraint

seats sold between approximately June 2002 and June 2003.<sup>1</sup> The report was filed without prejudice, and notwithstanding the Company's position that the foam covering as molded onto the seat back constitutes energy-absorbing material with compression-deflection resistance more than adequate to provide ample protection under real world use conditions and when the product is tested in accordance with FMVSS No. 213.

The Company does not consider the product to be defective, and filed the report as a precaution. The Company does not believe that any of the seats diminishes energy absorption in a molded state of the expanded polystyrene and polyurethane foam covering over the shell. This is substantiated by previous correspondence between the Company and the agency and test-reports including, but not limited to, TRL Limited Technical Services Group Test Report under Regulation No. 41-Annex 17: Test of Energy Absorbing Material dated April 22, 2004, Test No. 01QC00-04 (previously furnished and attached to the Part 573 Report).

The initial Part 573 Report was filed after cross-correspondence between NHTSA staff and the Company raised a question about isolated component testing on foam sheets consisting of foam material with an expanded polystyrene (EPS) backing, with compression-deflection resistance that was less than set forth in FMVSS No. 213, §5.2.3.2(a). Technical issues were subsequently noted involving variability in application of testing methodologies between Certified Analytical Laboratory Services, Inc. (formerly CALSPAN) and NHTSA staff. Certified Analytical Laboratory Services applied the Section 6.3.4.1 compression-deflection resistance methodology on square sheet stock white foam in the appropriate ambient laboratory conditions and did not note any lack of conformance for white foam material with no back, green foam material with no back, white shaped foam material with no back, green shaped foam material with polybead backing and white foam shaped material with polybead backing. This information was supplied by the Company to NHTSA staff. Questions arose between the laboratory technicians about variability in testing methodologies to ensure absolute real world integrity of the product as it related to performance of the energy absorbing foam material in actual use as molded on seat shells. The Company also performed an Regulation No. 44, Annex 17 Test of the Energy Absorbing Material on the seats with calibrated dummies (see report provided, which in turn noted satisfactory real-world energy absorption performance of the molded foam covered seat shells). As a result of these technical variations in methodology and as applied by Certified Analytical Laboratory Services, Inc. when compared to NHTSA review of the same material, the Company filed its Part 573 Report with disclaimer as a

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1

Model	First Production	Units Sold-2002	Units Sold-2003	Units Sold-2004
6078	06/24/2002	27,488	38,310	0
6076	09/17/2002	14,413	30,236	0
6020	01/28/2003	0	25,560	0
6188	06/10/2003	0	14,777	0
<b>TOTALS</b>		41,901	108,829	0
<b>Total Number Potentially Affected by the Recall</b>				150,730

precaution. As previously stated, the Company does not believe that the product presents any real world safety hazard as verified by highly sensitive testing with calibrated dummies on actual production product. To the extent that there is variability in testing methodology, such as that requires clarification between NHTSA and third party independent laboratories, such clarification should be made with publication of guidelines and the opportunity for public notice and comment so as to avoid any confusion or disadvantage in the marketplace. The failure to establish clear testing methodologies and criteria, to publish such requirements in a way that makes it clear to the public, is likely to create confusion (such as occurred in this instance) as to the appropriate methodology to measure energy absorption characteristics of CRS materials (a copy of the filed report is annexed hereto).

In addition to substantiation of this Petition and the position set forth by the Company in its original Part 573 Report filed with NHTSA, the Company has undertaken additional testing of the subject products in accordance with the revised Federal Motor Vehicle Safety Standard (FMVSS) No. 213, *Child Restraint Systems*, 49 C.F.R. §571.213. This Standard was subject to revision under final rule dated June 23, 2003 and docketed at 49 C.F.R. Part 571, Docket No. NHTSA-03-15351, RIN2127-AI34. FMVSS 213 was amended by such rule to incorporate improved test dummies and updated procedures to test child restraints. The revisions incorporated (a) an updated bench seat used to dynamically test add-on child restraint systems; (b) a sled pulse that provides a wider test corridor; (c) improved child test dummies; and (d) expanded applicability to child restraint systems recommended for use by children weighing up to 65 lbs. The results of the revised Standard is that child restraints will be tested next year using the most advanced test dummies available under conditions simulating use in current motor vehicles. The rule fulfilled the mandate in the Transportation Recall Enhancement Accountability and Documentation Act (the "TREAD Act", November 1, 2000, Pub.L 106-414, 114 Stat.1800) to initiate rulemaking for the purpose of proving the safety of child restraints.

Despite the fact that testing to the revised Standard is not yet required, the Company has undertaken such testing to ensure that the technical non-compliance alleged with the component of the subject products is inconsequential as it relates to child restraint system safety. Testing was performed at Advanced Information Engineering Services Transportation Sciences Center during June 2004, utilizing the Center's tandem configuration HYGE Sled with reinforced seat covers on both benches. Three sled tests were performed utilizing six (6) subject seats in the rearward facing reclined configuration with either a 9-month-old size dummy or a 12-month-old size crabi dummy employing either the integral rigid latch system or the "soft latch" restraint system. Results of the tests indicated that the products were in compliance to the requirements of the revised FMVSS 213 Standard and that the safety and integrity of the CRS products were maintained. A copy of this report is annexed hereto. Additional film and information can be obtained from the laboratory.

This data and the original data provided to the NHTSA staff confirms that the subject seats are safe for continued use and support a determination of inconsequentiality.

Respectfully submitted,

Locker Greenberg & Brainin, LLP, on behalf of  
**BABY TREND, INC.**

**From:** Jean Vincent [jvincent@LockerLaw.com]  
**Sent:** Thursday, July 15, 2004 11:51 AM  
**To:** Parker, Deborah  
**Subject:** Re: NVS-222ALa/PE-213-040202A/B - Baby Trend, Inc.

Dear Ms. Parker:

In response to your telephone call to our office today regarding the Petition Under 49 C.F.R. Part 556: Exemption for Inconsequential Non-Compliance for Baby Trend, Inc., please be advised as follows:

The total of 108,829 for **Units Sold-2003** in column 3 of the chart, is the correct figure. The quantity of **Units Sold-2003** for Model #6020 was 25,506, not 25,560. Two digits of that figure were inadvertently transposed.

A corrected chart follows. It should be noted that these figures were sent in correspondence dated April 23, 2004 from Baby Trend, Inc. to Jeffrey Guiseppe at NHTSA.

Model	First Production	Units Sold-2002	Units Sold-2003	Units Sold-2004
6078	06/24/2002	27,488	38,310	0
6076	09/17/2002	14,413	30,236	0
6020	01/28/2003	0	25,506	0
6188	06/10/2003	0	14,777	0
<b>TOTALS</b>	41,901	108,829	0	

**Total Number Potentially Affected by the Recall 150,730**

Please treat this information as an amendment to the Petition Under 49 C.F.R. Part 556 Exemption for Inconsequential Non-Compliance Re: NVS-222-Ala/PE-213-040202A/B and Part 573-Defect and Non-Compliance Report submitted on behalf of Baby Trend, Inc.

Jean Vincent

Office of Frederick B. Locker, Esq.

Locker Greenberg & Brainin, LLP

7/15/2004

Safety Defect and Noncompliance Report Guide for Equipment  
**PART 573 Defect and Noncompliance Report<sup>1</sup>**

**On June 1, 2004, Baby Trend, Inc. decided that a technical non-compliance with Federal Motor Vehicle Safety Standard No. FMVSS 213, Section 5.2.3.2, Head Impact Protection, which states that "each system surface, except for protrusions that comply with S.5.2.4, which is contactable by the dummy head when the system is tested in accordance with S.6.1, shall be covered with slow recovery, energy absorbing material with the following characteristics: (a) A 25 percent compression-deflection resistance of not less than 0.5 and not more than 10 pounds per square inch when tested in accordance with S.6.3 ..." exists in items of motor vehicle equipment listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports. This report is being filed without prejudice, and notwithstanding the Company's position that the foam covering as molded onto the seat back constitutes energy-absorbing material with compression-deflection resistance more than adequate to provide ample protection under real world use conditions and when the product is tested in accordance with FMVSS No. 213.**

Date this report was prepared: June 2, 2004

Furnish the manufacturer's identification code for this recall (if applicable): N/A

**1. Identify the full corporate name of the fabricating manufacturer/brand name/trademark owner of the recalled item of equipment. If the recalled item of equipment is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.**

Baby Trend, Inc.  
1567 South Campus Avenue  
Ontario, CA. 91761

**Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.**

Chip Whalen, General Manager  
Baby Trend, Inc.  
1567 South Campus Avenue  
Ontario, CA. 91761

**Telephone Number:** (909) 773-0018, X213

**Fax No.:** (909) 773-0108

**Email:** [chip@babytrend.com](mailto:chip@babytrend.com)

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<sup>1</sup> Each manufacturer must furnish a report, to the Associate Administrator for Safety Assurance, for each defect or noncompliance condition which relates to motor vehicle safety.

**Name and Title of Person who prepared this report.**

Frederick B. Locker, Esq.  
Attorney for Baby Trend, Inc.  
Locker Greenberg & Brainin, LLP  
420 Fifth Avenue  
New York, NY 10018  
**Telephone:** (212) 391-5200, X16  
**Email:** [fblocker@lockerlaw.com](mailto:fblocker@lockerlaw.com)

**FAX:** (212) 391-2035

**Signed:** Frederick B. Locker

**I. Identify the Recalled Items of Equipment**

**2. Identify the Items of Equipment Involved in this Recall, for each make and model or applicable item of equipment product line (provide illustrations or photographs as necessary to describe the item of equipment), provide:**

**Generic name of the item:** Latch-Loc and Adjustable Back Latch-Loc Infant Car Seat

**Make:** Baby Trend      **Model:** 6078

**Part Number:** N/A **Size:** N/A

**Function:** Child restraint system

**Make:** Baby Trend      **Model:** 6076

**Part Number:** N/A **Size:** N/A

**Function:** Child restraint system

**Make:** Baby Trend      **Model:** 6020

**Part Number:** N/A **Size:** N/A

**Function:** Child restraint system

**Make:** Baby Trend      **Model:** 6188 (Adjustable Back)

**Part Number:** N/A **Size:** N/A

**Function:** Child restraint system

**Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Widgets equipped with certain items of equipment from January 1, 1996, through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period.**

**II. Identifying the Recall Population**

**3. Furnish the total number of items of equipment recalled potentially containing the defect or noncompliance.**

<b>Model</b>	<b>First Production</b>	<b>Units Sold-2002</b>	<b>Units Sold-2003</b>	<b>Units Sold-2004</b>
6078	06/24/2002	27,488	38,310	0
6076	09/17/2002	14,413	30,236	0
6020	01/28/2003	0	25,560	0
6188	06/10/2003	0	14,777	0
<b>TOTALS</b>		41,901	108,829	0

**Total Number Potentially Affected by the Recall:** 150,730

**4. Furnish the approximate percentage of the total number of items of equipment estimated to actually contain the defect or noncompliance:** The Company does not consider the product to be defective, and is filing this report as a precaution. The Company does not believe that any of the seats diminishes energy absorption in a molded state of the expanded polystyrene and polyurethane foam covering over the shell. Please refer to previous correspondence of the Company dated April 19 and April 23, 2004 and the TRL Limited Technical Services Group Test Report under Regulation No. 41-Annex 17: Test of Energy Absorbing Material dated April 22, 2004, Test No. 01QC00-04.

**Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled items of equipment:** See response to Question 4.

### **III. Describe the Defect or Noncompliance**

**5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.**

By correspondence dated March 24, 2004 from Jeffrey Giuseppe, Chief, Equipment Division, Office of Vehicle Safety Compliance, National Highway Traffic Safety Administration, a question was raised about isolated component testing on foam sheets consisting of foam material with an expanded polystyrene (EPS) backing, with compression-deflection resistance that was less than set forth in FMVSS No. 213, §5.2.3.2(a). Technical issues were subsequently noted involving variability in application of testing methodologies between John G. Fisher, Jr. at Certified Analytical Laboratory Services, Inc. (formerly CALSPAN), 4455 Genesee Street, P.O. Box 400, Buffalo, NY 14225 and NHTSA staff. Mr. Fisher applied the Section 6.3.4.1 compression-deflection resistance methodology on square sheet stock white foam in the appropriate ambient laboratory conditions and did not note any lack of conformance for white foam material with no back, green foam material with no back, white shaped foam material with no back, green shaped foam material with polybead backing and white foam shaped material with polybead backing. This information was supplied by the Company to Anthony Lazzaro, Safety Compliance Engineer at NHTSA. Questions arose between the laboratory technicians about variability in testing methodologies to ensure absolute real world integrity of the product as it related to performance of the energy absorbing foam material in actual use as molded on seat shells. The Company also performed an Regulation No. 44, Annex 17 Test of the Energy Absorbing Material on the seats with calibrated head forms (see report provided, which in turn noted satisfactory real-world energy absorption performance of the molded foam covered seat shells). In turn, because of these technical variations in methodology and as applied by Certified Analytical Laboratory Services, Inc. when compared to NHTSA review of the same material, the Company is electing to file this report as a precaution. As previously stated, the Company does not believe that the product presents any real world safety hazard as verified by highly sensitive testing with calibrated head forms on actual production product. To the extent that there is variability in testing methodology, such as that requires clarification between NHTSA and third

party independent laboratories, such clarification should be made with publication of guidelines and the opportunity for public notice and comment so as to avoid any confusion or disadvantage in the marketplace. The failure to establish clear testing methodologies and criteria, to publish such requirements in a way that makes it clear to the public, is likely to create confusion (such as occurred in this instance) as to the appropriate methodology to measure energy absorption characteristics of CRS materials.

**Describe the cause(s) of the defect or noncompliance condition.** See above response.

**Describe the consequence(s) of the defect or noncompliance condition.** See above response. The Company does not believe that there exists a safety consequence to any testing variability, as noted above. As such, any technical non-compliance that may be reasonably determined is inconsequential in relation to the safe use and performance of the product (for all the reasons enumerated above).

**Identify any warning which can (a) precede or (b) occur.** N/A

**If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.**

Kingstar Business Group  
SHIN KIN SAN INDUSTRIAL AREA,  
QING XI TOWN,  
DONG GUAN CITY,  
GUANGDONG, CHINA 523648

**Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:**

Steven Hu, President

#### **IV. Provide the Chronology in Determining the Defect/Noncompliance**

*If the recall is for a defect, complete item 6, otherwise item 7.*

**6. With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.**

The Company does not believe that the product contains a defect which in any way creates a substantial product hazard or real world likelihood of injury.

**7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.**

This report is based upon the previously referenced correspondence from NHTSA to the Company dated March 24, 2004. NHTSA possesses the test report performed by SGS Laboratories for its own account.

#### **V. Identify the Remedy**

**8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.** The Company has specified purchase of foam with even greater than normal energy absorption characteristics that should compensate for

any variabilities in testing methodologies employed. This will involve use of a composite EPS foam with performance characteristics (see attachment).

**Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.** N/A. See above.

**Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.** The product styles have not been discontinued. Future production will contain the revised EPS/213 composite foam. See response to question 8 above and attachments.

#### **VI. Identify the Recall Schedule**

**Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please, identify any foreseeable problems with implementing the recall.** N/A.

#### **VII. Furnish Recall Communications**

**9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.** N/A

**Note: These documents are to be submitted separately from those provided in accordance with Part 573.8 requirements.**

*The Privacy Act of 1974 - Public Law 93-579, As Amended: This information is requested pursuant to the authority vested in the National Highway Traffic Safety Act and subsequent amendments. You are under no obligation to respond to this questionnaire. Your response maybe used to assist the NHTSA in determining whether a manufacturer should take appropriate action to correct a safety defect. If the NHTSA proceeds with administration enforcement or litigation against a manufacturer, your response, or statistical summary thereof, may be used in support of the agency's action.*

Certified Analytical Laboratory SERVICES  
 John G. Fisher, Jr., Directory NYS ELAP ID # 10383  
 4455 Genesee Street, Box 400, Buffalo, NY 14225 (716) 631-6799

ENERGY ABSORBING MATERIALS PERFORMANCE TEST

Report No. : 4053

Date of Test: 4/9/04

Item: SEAT BACK  
 Mr. Chip Whalen  
 Baby Trend Inc.  
 1567 South Campus Ave.  
 Ontario, California 91761

Laboratory Ambient Conditions During Testing

Temperature 51 Degrees F  
 Relative Humidity 48 %

S6.3 Compression-Deflection Resistance (25% compression)

Base Material Type	Test Procedure Used	Normalized Load Value (lb./sq. in.)
WHITE FOAM NO BACK	3.4.1	0.61

Remarks: SQUARE SEAT STUCK WHITE FOAM

Certified Analytical Laboratory Services  
 4455 Genesee St. Box 400 Buffalo NY 14225  
*JGF* 4/15/04

Certified Analytical Laboratory SERVICES  
 John G. Fisher, Jr., Directory NYS ELAP ID # 10383  
 4455 Genesee Street, Box 400, Buffalo, NY 14225 (716) 631-6799

ENERGY ABSORBING MATERIALS PERFORMANCE TEST

Report No. : 4053

Date of Test: 4/14/04

Item: SEAT BACK

Mr. Chip Whalen  
 Baby Trend Inc.  
 1567 South Campus Ave  
 Ontario, California 91761

Laboratory Ambient Conditions During Testing

Temperature	<u>70</u>	Degrees F
Relative Humidity	<u>50</u>	%

S6.3 Compression-Deflection Resistance (25% compression)

Base Material Type	Test Procedure Used	Normalized Load Value (lb./sq. in.)
GREEN FOAM NO BACK	3.4.1	1.64

Remarks: SHAPED FOAM NO BACKING

Certified Analytical Laboratory Services  
 4455 Genesee St Box 400 Buffalo NY 14225  
 JGF 4/15/04

Certified Analytical Laboratory SERVICES  
 John G. Fisher, Jr., Directory NYS ELAP ID # 10383  
 4455 Genesee Street, Box 400, Buffalo, NY 14225 (716) 631-6799

ENERGY ABSORBING MATERIALS PERFORMANCE TEST

Report No. : 4053

Date of Test: 4/14/04

Item: SEAT BACK

Mr. Chip Whalen  
 Baby Trend Inc.  
 1567 South Campus Ave  
 Ontario, California 9176

Laboratory Ambient Conditions During Testing

Temperature 70 Degrees F  
 Relative Humidity 50 %

S6.3 Compression-Deflection Resistance (25% compression)

Base Material Type	Test Procedure Used	Normalized Load Value (lb./sq. in.)
WHITE FOAM NO BACK	3.4.1	0.91

Remarks: SHAPED FOAM. NO BACKING

Certified Analytical Laboratory Services  
 4455 Genesee St Box 400 Buffalo NY 14225  
*JGF* 4/15/04

Certified Analytical Laboratory SERVICES  
 John G. Fisher, Jr., Directory NYS ELAP ID # 10383  
 4455 Genesee Street, Box 400, Buffalo, NY 14225 (716) 631-6799

ENERGY ABSORBING MATERIALS PERFORMANCE TEST

Report No. : 4053

Mr. Chip Whalen  
 Baby Trend Inc.  
 1567 South Campus Ave.  
 Ontario, California 91761

Date of Test: 4/13/04

Item: SEAT BACK

Laboratory Ambient Conditions During Testing

Temperature 71 Degrees F  
 Relative Humidity 49 %

S6.3 Compression-Deflection Resistance (25% compression)

Base Material Type	Test Procedure Used	Normalized Load Value (lb./sq. in.)
GREEN FOAM WITH POLY BEAD BACK	3.4.1	2.40

Remarks: SHAPED GREEN FOAM WITH POLY BEAD BACKING

Certified Analytical Laboratory Services  
 4455 Genesee St. Box 400 Buffalo NY 14225  
 JGF 4/15/04

Certified Analytical Laboratory SERVICES  
 John G. Fisher, Jr., Directory NYS ELAP ID # 10383  
 4455 Genesee Street, Box 400, Buffalo, NY 14225 (716) 631-6799

ENERGY ABSORBING MATERIALS PERFORMANCE TEST

Report No. : 4053

Date of Test: 4/13/04

Item: SEAT BACK

Mr. Chip Whalen  
 Baby Trend Inc.  
 1567 South Campus Ave.  
 Ontario, California 91761

Laboratory Ambient Conditions During Testing

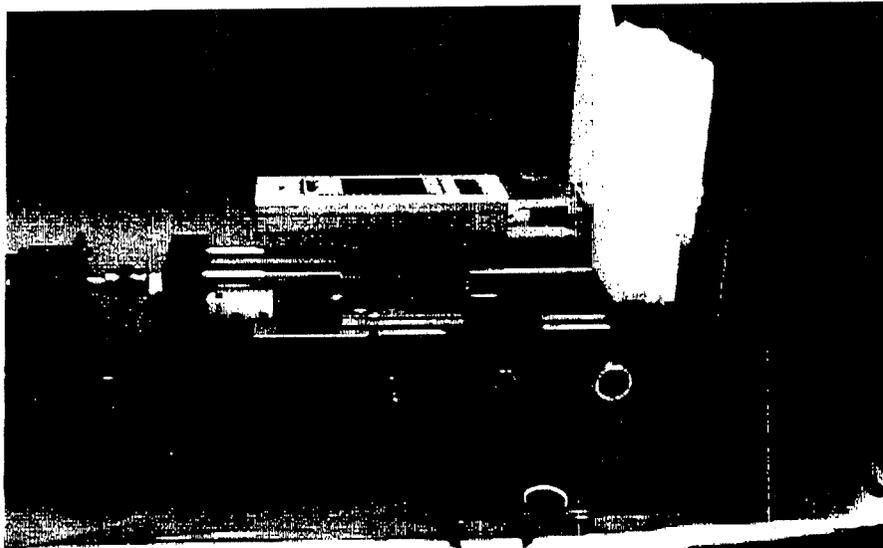
Temperature 71 Degrees F  
 Relative Humidity 49 %

S6.3 Compression-Deflection Resistance (25% compression)

Base Material Type	Test Procedure Used	Normalized Load Value (lb./sq. in.)
WHITE FOAM WITH	3.4.1	1.53
Poly Bead BACK		

Remarks: SHAPED WHITE FOAM WITH POLY BEAD BACKING

Certified Analytical Laboratory Services  
 4455 Genesee St Box 400 Buffalo NY 14225  
 JGF 4/15/04



Received Time Apr.15. 12:13PM

**TRL Limited  
Technical Services Group**



## **TEST REPORT**

### **REGULATION No. 44 - ANNEX 17 TEST OF ENERGY ABSORBING MATERIAL**

**Customer: Baby Trend Inc.**

**Test No.: 01QC00-04**

**Test Date: 22 April 2004**

If you have any questions relating to this test please  
contact the Technical Services Group Manager:  
**Mr P Bignell direct line + 44 (0)1344 770125**  
Fax: + 44 (0)1344 770356 email: [pbignell@trl.co.uk](mailto:pbignell@trl.co.uk)

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Switchboard: + 44 (0)1344 773131 fax: + 44 (0)1344 770356  
Website: <http://www.trl.co.uk>

**TRL Limited**  
**Technical Services Group**

**TEST REPORT**

**REGULATION No. 44 - ANNEX 17**  
**TEST OF ENERGY ABSORBING MATERIAL**

**Test Number:** 01QC00-04

**Test Date:** 22 April 2004

**Customer:** Baby Trend Inc.      **Contact:** Mr. Chip Whalen  
**Address:** 1567 S. Campus Avenue, Ontario CA 91761  
**Tel:** 001-909-773-0018  
**E-mail:** [chipw@babytrend.com](mailto:chipw@babytrend.com)  
**Fax:** 001-909-773-0108

**TRL Reference:** TS1602

**Report Date:** 28 April 2004

**Test Engineer:** D Hunton

This is an unpublished report prepared for the customer named above and must not be referred to in any publication without the permission of the customer. The views expressed are those of the author(s) and not necessarily those of the customer.

Approvals	
Project Manager	
QARO	

## TEST CONDITIONS

This test was performed at the **Dummy Calibration Facility** as per **Regulation No. 44, Annex 17** using the **TRL Head Form Drop Rig**.

Test No.		Impactor Mass (kg)	Drop Distance (mm)
01QC00-04	Required	2.75 ± 0.05	100 +5, -0
	Actual	2.73	101

## INSTRUMENTATION

### Accelerometers:

Location	Identification	Next Cal. Date	X	Range (g)
Uniaxial - Centre of Head Form	B23686	16/07/2004	✓	300

## DATA RECORDING

Data Acquisition Unit : Mini DAU 122 K3700 – S.1  
Pre-Trigger Length : 0.4 Sec  
Post-Trigger Length : 3.0 Sec  
Sample Rate : 20,000 Hz  
Anti Alias Filter : 3,500 Hz

## DATA PROCESSING

Zeroed over -200 to -300 ms  
Filtered at CFC 1000 Hz  
Windowed to -250 to +250 ms  
Plotted over -10 to +60 ms

## TEST RESULTS

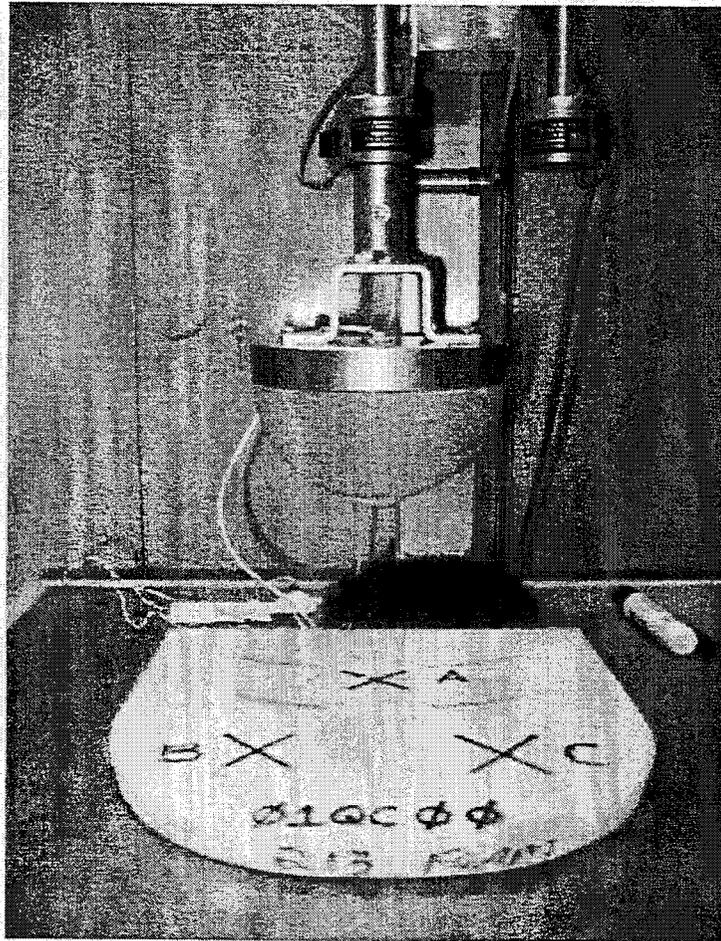
Pass/Fail Criteria: Acceleration must not exceed 60g.

Test No.	Maximum Acceleration (g)	PASS/FAIL
01QC00A	127.81	FAIL
01QC00B	149.01	FAIL
01QC00C	144.52	FAIL
01QC01A	16.55	PASS
01QC01B	18.46	PASS
01QC01C	18.52	PASS
01QC02A	16.34	PASS
01QC02B	18.96	PASS
01QC02C	18.91	PASS
01QC03A	18.36	PASS
01QC03B	20.35	PASS
01QC03C	20.61	PASS
01QC04A	16.02	PASS
01QC04B	18.23	PASS
01QC04C	18.75	PASS

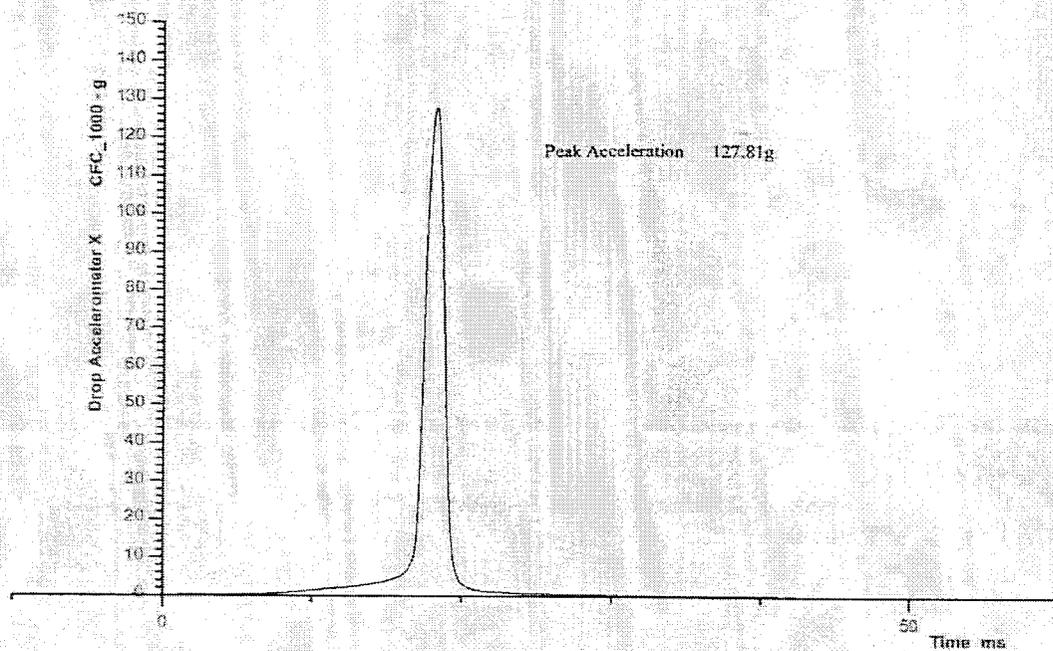
### Data Certified by:

Name:	D Hunton	Date:	28 April 2004	Signature:	
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# GRAPHICAL PRESENTATIONS

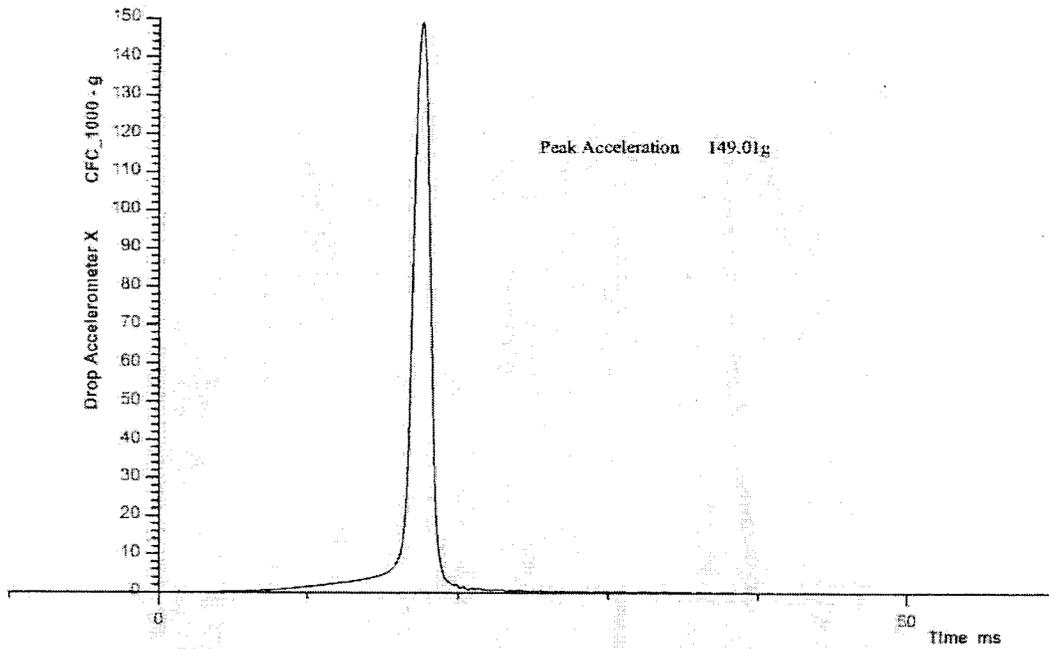


**Test Points - Bare Foam Material**



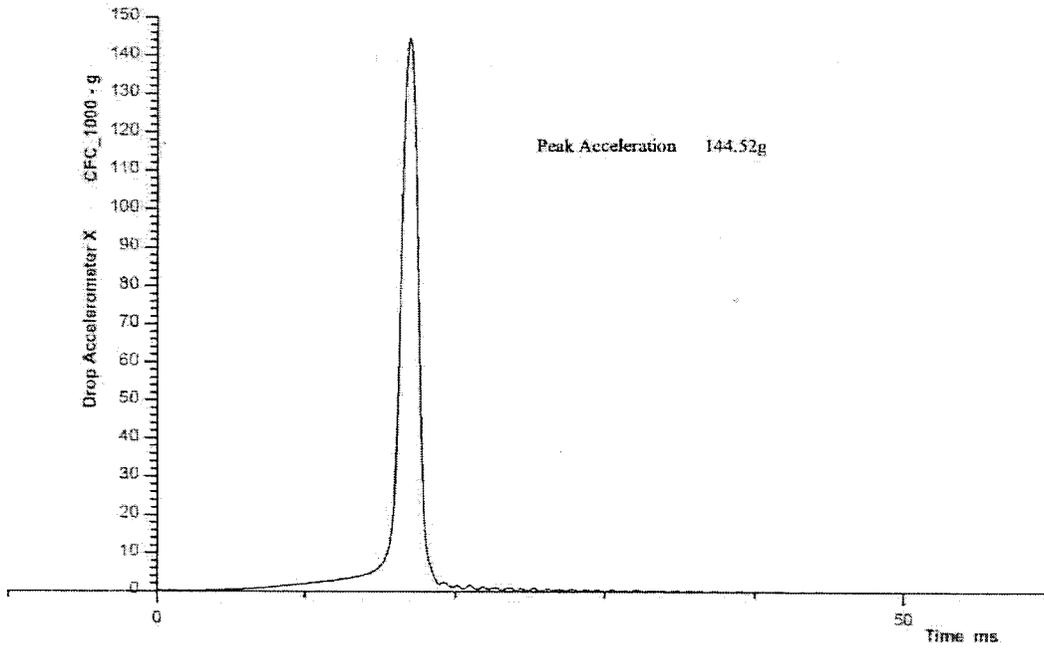
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01QC00A Regulation 44 Energy Absorbtion 22/04/04



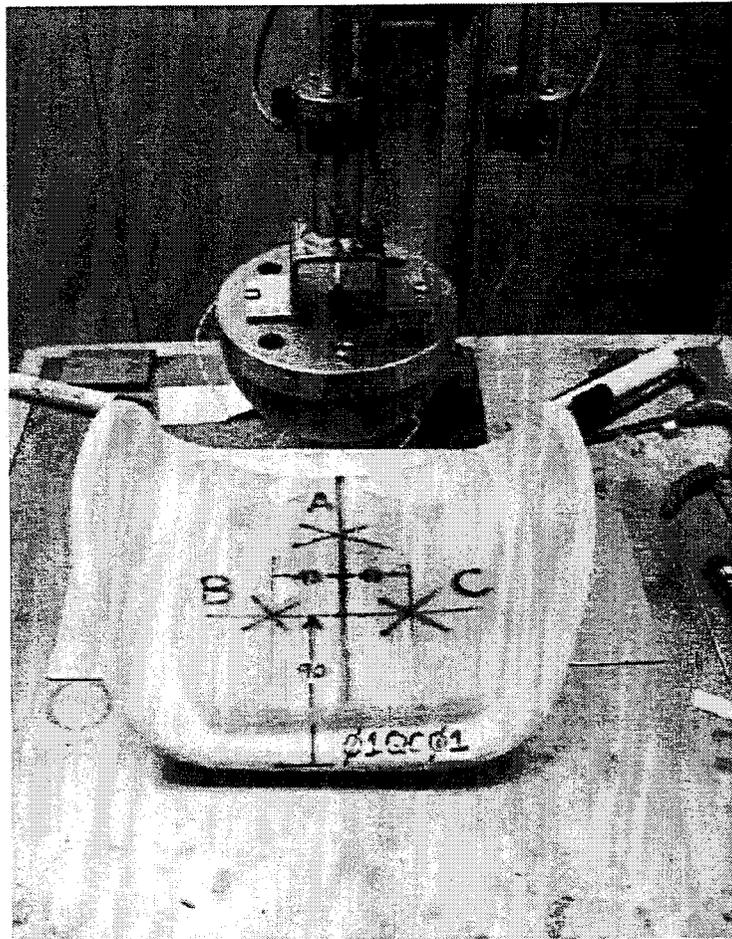
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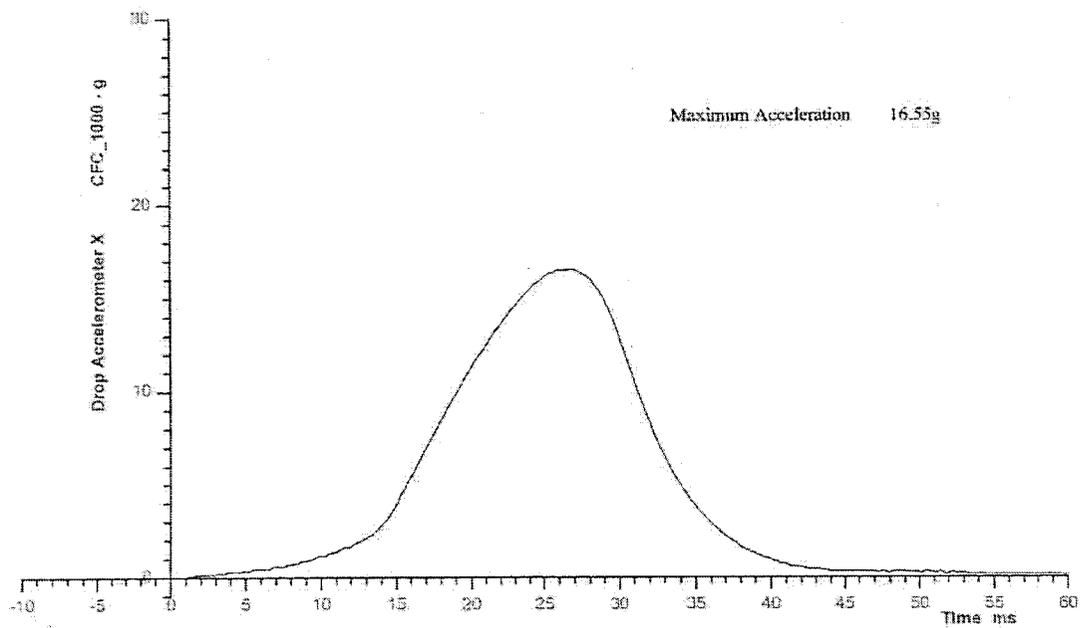


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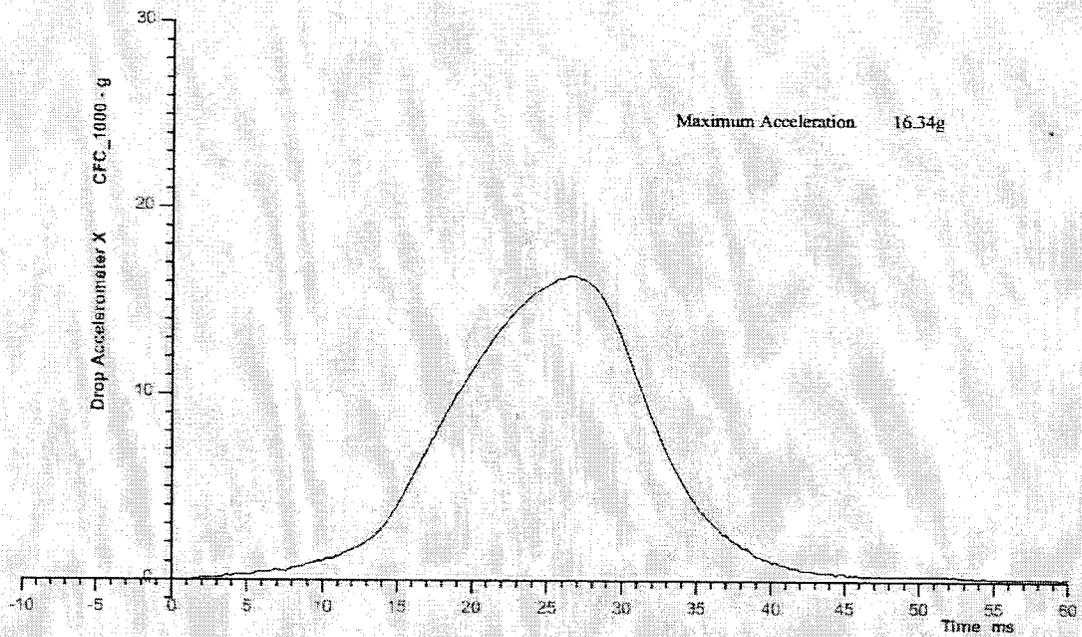


### Test Points - Combined Foam and Polystyrene Backrest



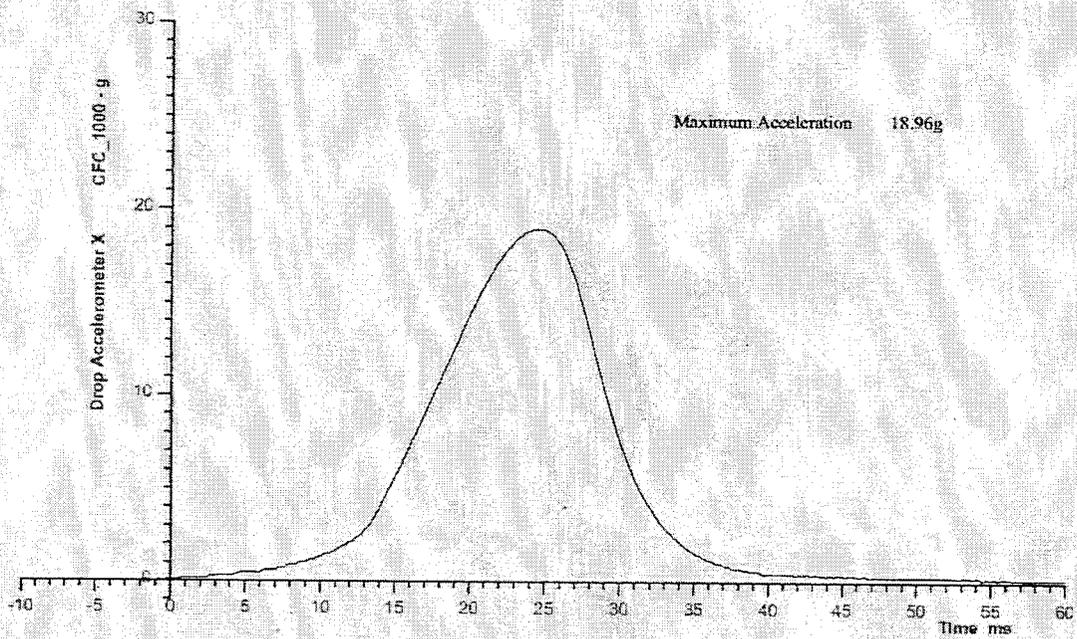
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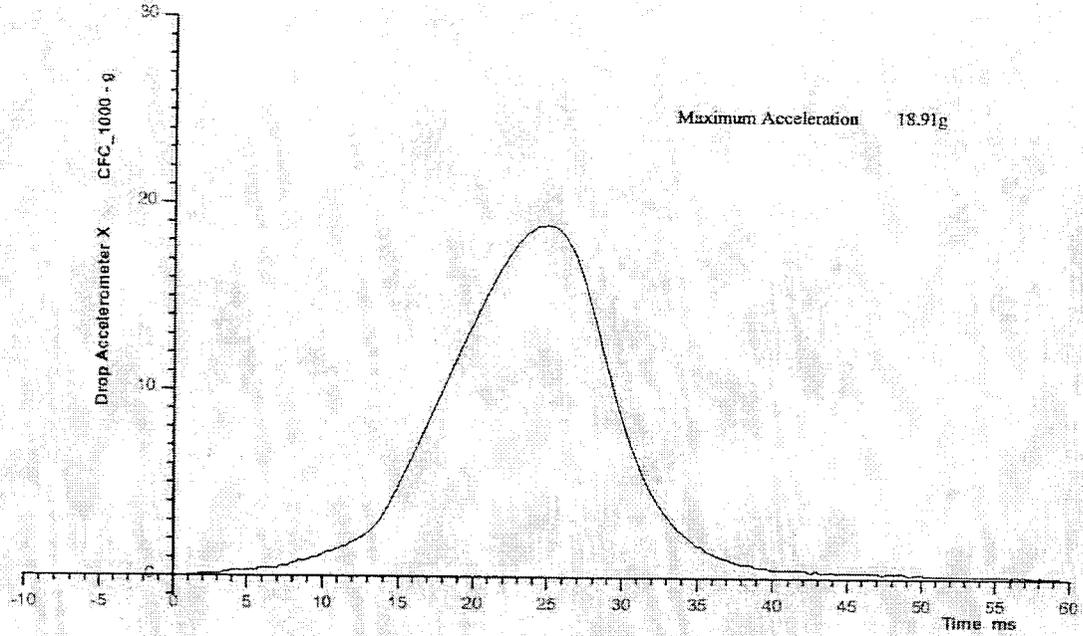
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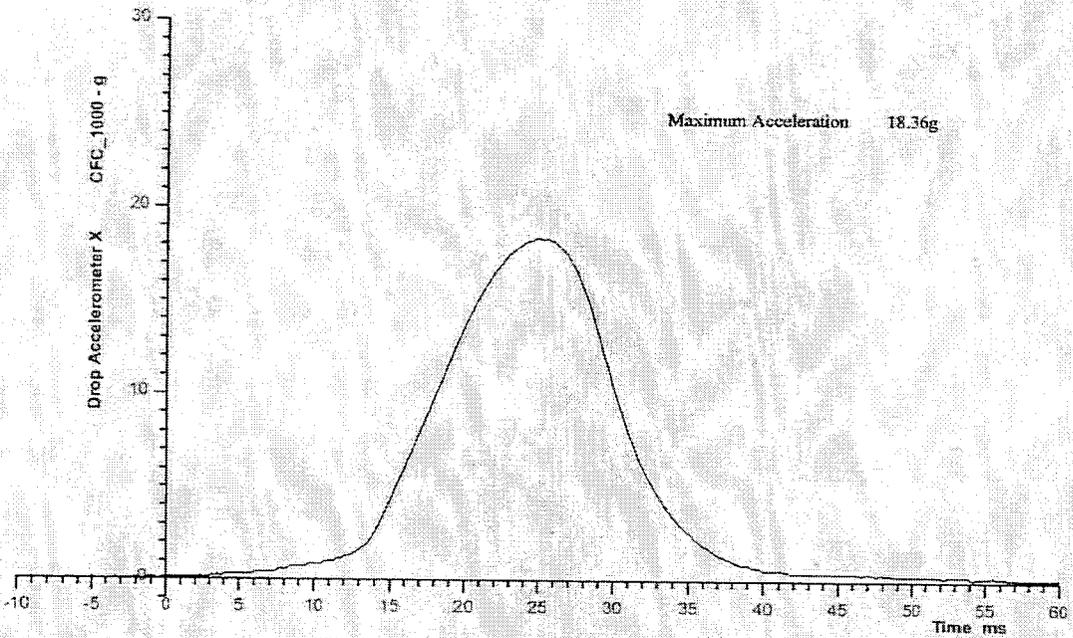
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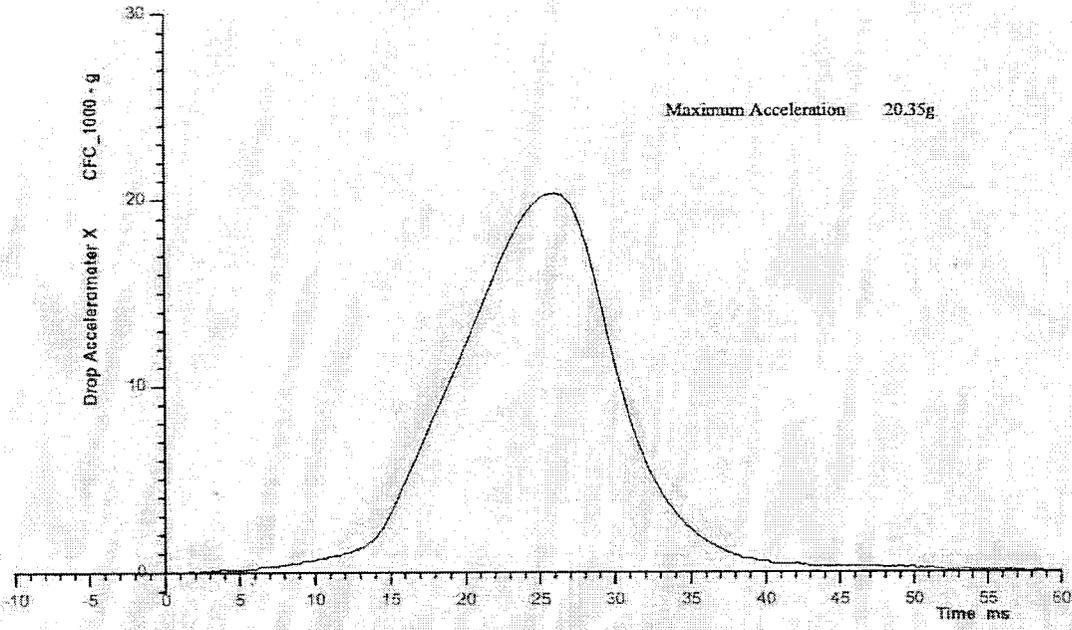
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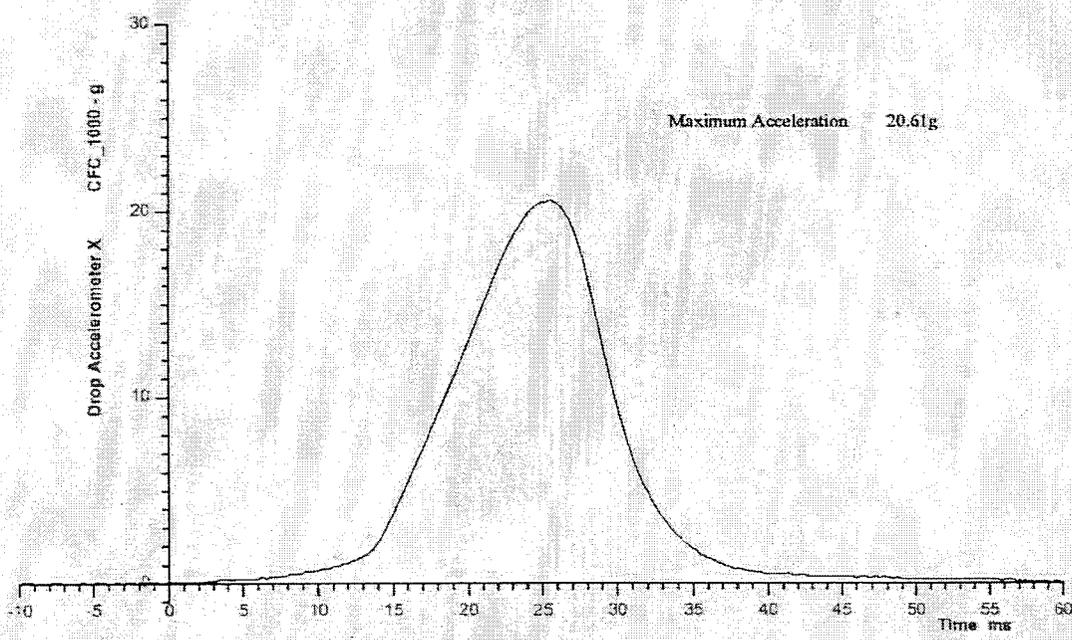
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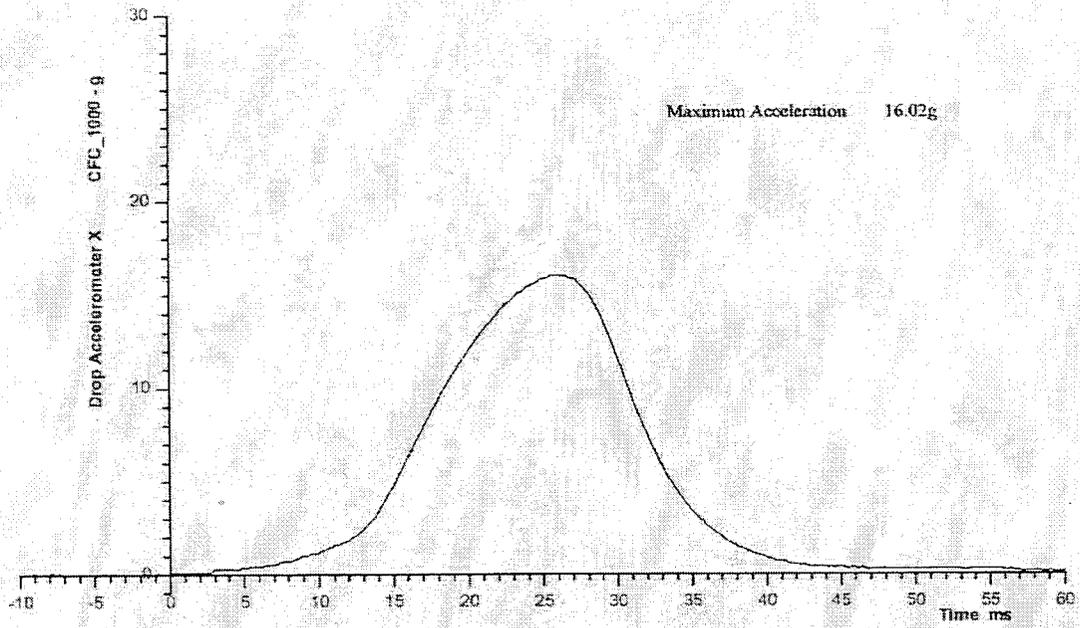
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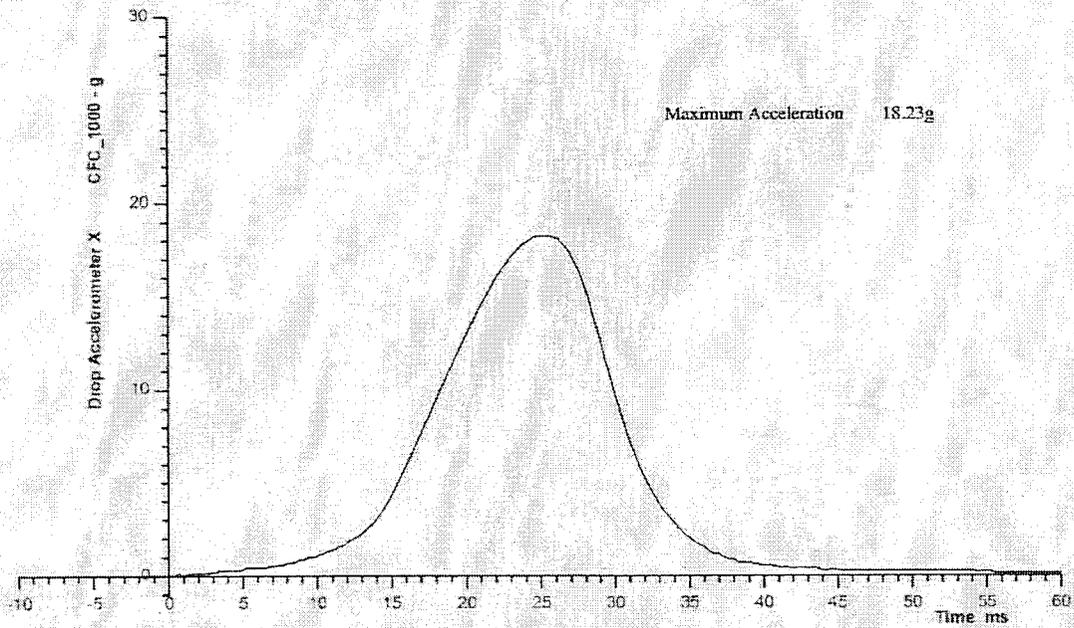
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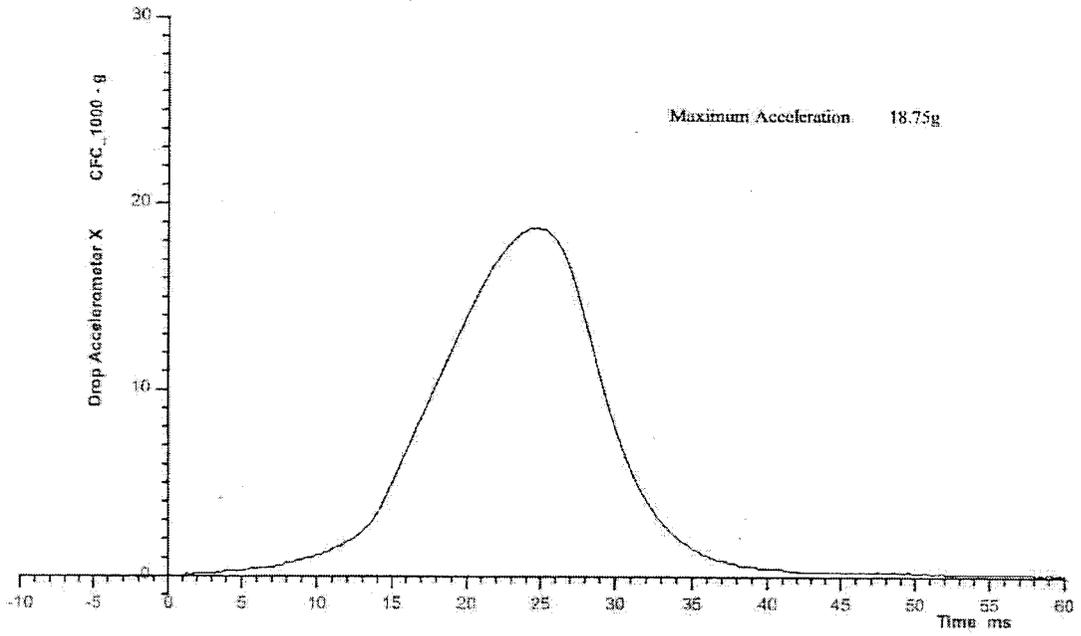
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01QC04B Regulation 44 Energy Absorbtion 22/04/04



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01QC04C Regulation 44 Energy Absorbtion 22/04/04



*Chip Whalen*

*1567 South Campus Avenue*

*Ontario, CA 91761*

*(909) 773-0018 ext. 213, fax (909) 773-0108*

*E-mail [chip@babytrend.com](mailto:chip@babytrend.com)*

April 19, 2004

Tony Lazzaro  
U.S. Dept. of Transportation  
National Highway Traffic Safety Administration  
Office of Vehicle Safety Compliance  
400 Seventh Street, S.W.  
Washington, DC 20590

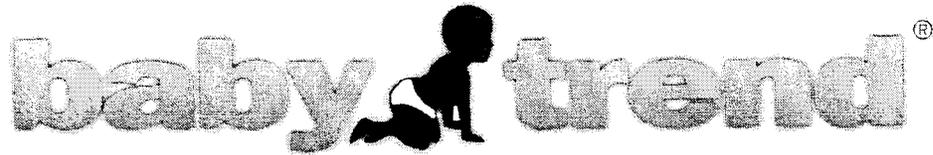
Re: NVS-222A1a/PE-213-040202A/B

Dear Tony,

We sent additional foam and EPS materials to Certified Analytical Laboratory Services for testing of Compression-Deflection Resistance both individually and as a stacked composite. Again, we received far different results, dated April 15, 2004, than reported by SGS in your testing. We found a load value of 0.61 (the lowest reading in the series) for the foam only and a load value of 1.53 (the lowest reading in the series using molded EPS) for the stacked composite.

A portion of this testing was performed on flat material rather than on material taken directly from production seats, as in our previous testing. We had hoped to duplicate the SGS testing by using the same size material. The results are fairly consistent with our previous testing and far different from that of SGS.

The large variance in the test results can only be explained by either a difference in the testing methodology or a difference in the material being tested. The material was sent from the supplier in China to our OEM vendor and then on to you. We suspect that, because the material was not from an actual production run (due to your special size requirement) the wrong material may have been sent. We would like to propose that a sample of the material in your possession be sent to Certified Analytical Labs for testing. We hope to isolate whether we have a difference in the test procedure or a problem with the material that was supplied. We would also like to suggest that you discuss the test procedure directly with Jack Fisher at Certified Analytical Labs.



*Chip Whalen*

*1567 South Campus Avenue*

*Ontario, CA 91761*

*(909) 773-0018 ext. 213, fax (909) 773-0108*

*E-mail [chip@babytrend.com](mailto:chip@babytrend.com)*

Given our independent testing of the actual production Head Impact Protection material of the Latch-Loc and Adjustable back Latch-Loc Infant Child Restraint Systems, we continue to believe that we are in compliance with the standard.

Please let me know your thoughts on the foregoing.

Sincerely,

Chip Whalen  
General Manager



*Chip Whalen*

*1567 South Campus Avenue*

*Ontario, CA 91761*

*(909) 773-0018 ext. 213, fax (909) 773-0108*

*E-mail [chip@babytrend.com](mailto:chip@babytrend.com)*

April 23, 2004

Jeffrey Giuseppe  
Chief, Equipment Division  
Office of Vehicle Safety Compliance  
U.S. Dept. of Transportation  
National Highway Traffic Safety Administration  
400 Seventh Street, S.W.  
Washington, DC 20590

Re: NVS-222A1a/PE-213-040202A/B

Dear Mr. Giuseppe,

Following please find responses to the numbered information requests in your above referenced letter dated March 24, 2004.

1. The total number of Baby Trend Latch-Loc (model number 6078, 6076, and 6020) and Adjustable Back Latch-Loc (model number 6188) seats sold in the United States can be found in the following table.

Model	First Production	Units Sold in 2002	Units Sold in 2003	Units Sold in 2004
6078	6/24/2002	27,488	38,310	0
6076	9/17/2002	14,413	30,236	0
6020	1/28/2003	0	25506	0
6188	6/10/2003	0	14777	0
Totals		41,901	108,829	0

2. We performed testing at Certified Analytical Laboratory Services on May 8, 2002 prior to production of the product. The initial testing, Exhibit 1, showed a Compression Deflection of 0.44 pounds per square inch. We instructed our OEM vendor to adjust the material to meet the 0.50 pound requirement. Copies of the correspondence and specification sheets are attached as Exhibit 2. The density of the material was adjusted from 23.7 kg/m<sup>3</sup> on the test sample to 30.0kg/m<sup>3</sup> on production (see product specification sheet Exhibit 10). Our initial engineering design philosophy was to provide energy absorption far in excess of the requirements in 213 via the stacked composite of Expanded Poly Styrene and



*Chip Whalen*

*1567 South Campus Avenue*

*Ontario, CA 91761*

*(909) 773-0018 ext. 213, fax (909) 773-0108*

*E-mail [chip@babytrend.com](mailto:chip@babytrend.com)*

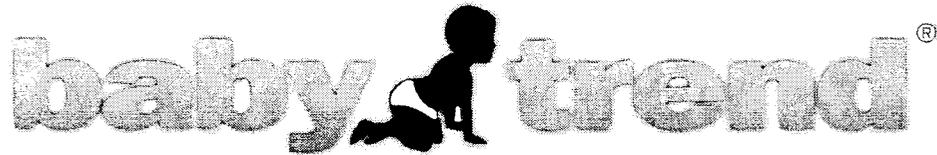
Polyurethane foam (please see number 4 following). We performed compression deflection testing on the stacked composite at Certified Analytical Laboratory Services on February 10, 2004 finding a result of 0.96 pounds per square inch (Exhibit 3). We performed additional testing on the foam only on April 9, 2004 finding a result of 0.61 pounds per square inch on a flat sheet (Exhibit 4) of the material and a result of 0.91 on material taken from a production car seat (Exhibit 5). We performed additional stacked composite testing on April 9, 2004 finding a result of 1.53 (Exhibit 6). We performed an ECE R44 Annex 17 Test of Energy Absorbing Material (copy of the test procedure is Exhibit 7) at TRL Limited in the United Kingdom on April 23, 2004 on FMVSS 213 compliant foam as a base for comparison and on 4 samples of our production foam and EPS composite. The base acceleration result for the 213 foam was 140.4G (ECE R44 limit is 60G). The four composite samples produced results of 17.9G, 18.2G, 19.9G and 17.7G. A summary report can be seen as Exhibit 8. We expect to have the formal report by May 7<sup>th</sup>.

3. Please see the table following for a summary of the testing performed.

Date	Laboratory	Result Exhibit #
May 8, 2002	Certified Analytical Laboratory Services	1
February 10, 2004	Certified Analytical Laboratory Services	3
April 9, 2004	Certified Analytical Laboratory Services	4, 5 and 6
April 23, 2004	TRL Limited	8

The test reports include the address and contact information for each lab. A copy of Certified Analytical Laboratory Services test procedures is attached as Exhibit 11. Please see Exhibit 9 for a complete list of the instrumentation, with all relevant calibration information.

4. The design of the Baby Trend Latch-Loc infant car seats is intended to generally provide superior protection for the occupant and, specifically, to provide better management of head impact energy. To this end, the design includes a stacked composite of energy absorbing materials: Expanded Poly Styrene and Polyurethane Foam. The support for the decision to utilize Expanded Poly Styrene as a component of the energy absorbing material in the restraint came from consideration of the permanently deformable material necessitated by the head energy absorption requirements of the European R44 standard, SAE presentations by various automotive manufacturers on impact energy absorption technologies, CPSC work in bicycle helmet construction, and work being



*Chip Whalen*

*1567 South Campus Avenue*

*Ontario, CA 91761*

*(909) 773-0018 ext. 213, fax (909) 773-0108*

*E-mail [chip@babytrend.com](mailto:chip@babytrend.com)*

performed by ISO Working Group 1 Side Impact Ad hoc Committee. Our ECE R44 Annex 17 Test of Energy Absorbing Material testing shows that the actual absorption properties of our composite as compared to FMVSS 213 compliant foam gives a 700 % improvement in head impact energy absorption. Please see Exhibit 8 TRL Test Report Summary showing the results of the comparison study.

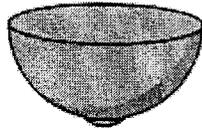
5. Ongoing quality control and incoming material conformance testing focused on the flammability of the material rather than on the compression deflection values.
6. We have received no consumer complaints related to the possible noncompliance of the Latch-Loc restraints.
7. The variance in the test results can only be explained by either a difference in the testing methodology or a difference in the material being tested. The material was sent from the supplier in China to our OEM vendor and then on to you. We suspect that, because the material was not from an actual production run (due to your special size requirement) the wrong material may have been sent. Mr. Lazzaro of your office has discussed with Jack Fisher of Certified the test procedures that he applied in his work noting a variance with the current revised NHTSA test procedure. We have sent additional samples to Jack Fisher to re-test using the revised NHTSA procedures and anticipate receiving results on April 28<sup>th</sup>.

Given our independent testing of the actual production Head Impact Protection material of the Latch-Loc and Adjustable back Latch-Loc Infant Child Restraint Systems to date, we continue to believe that we are in compliance with the standard.

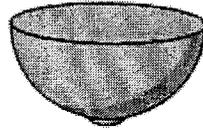
Sincerely,

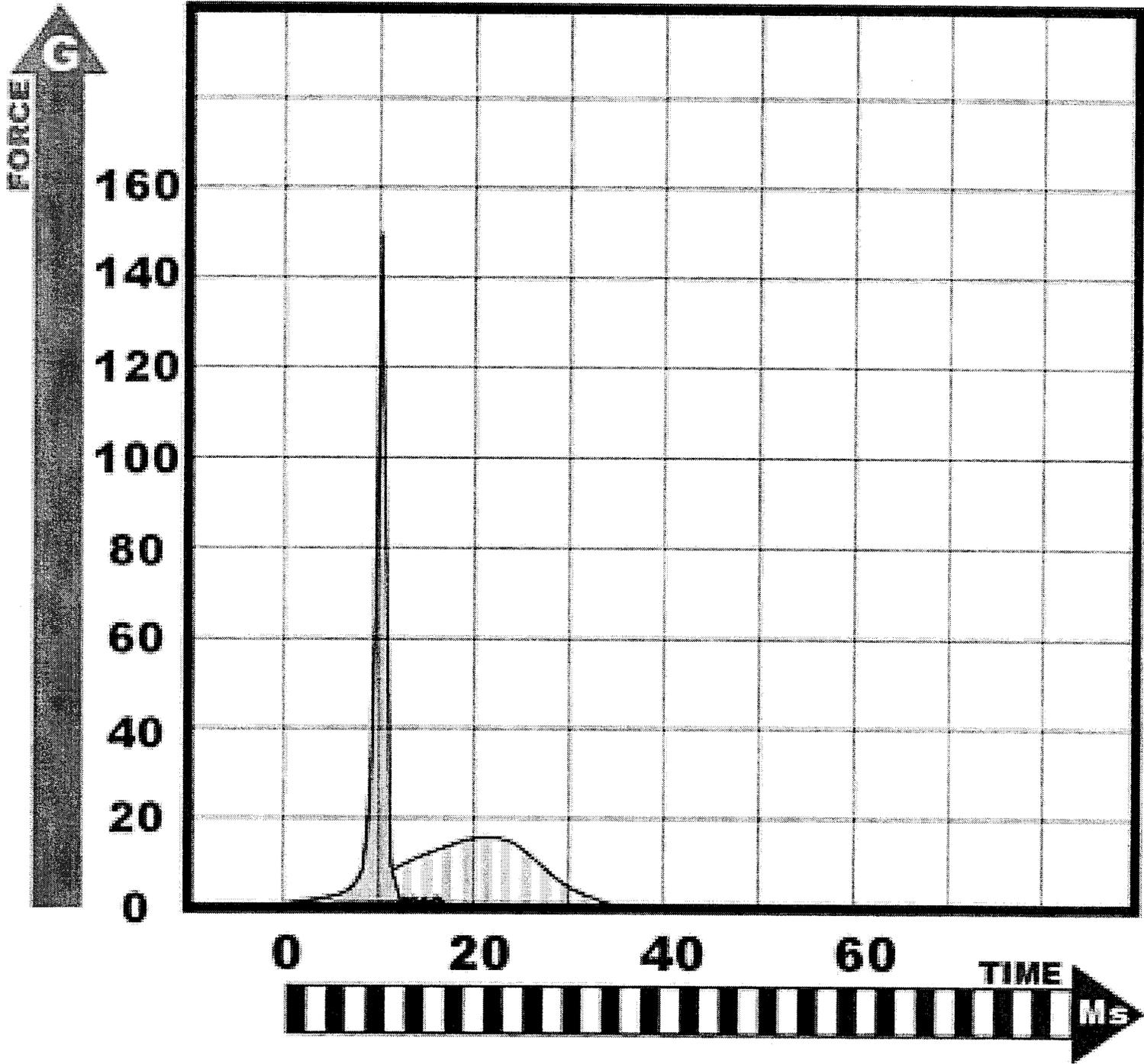
Chip Whalen  
General Manager

FMVSS 213 foam



EPS / 213 composite





# Advanced Information Engineering Services

A GENERAL DYNAMICS COMPANY

BABY TREND

CHILD RESTRAINT SLED TESTS

Advanced Information Engineering Services Test Report No. 8699 – 04-5

June 2004

Prepared for:

BABY TREND  
1567 S. Campus Avenue  
Ontario, California 91761

## FOREWORD

This report presents the results of a child restraint test program performed at Advanced Information Engineering Services' Transportation Sciences Center for Baby Trend during June 2004.

Program Manager: Robert Hathaway Jr.

Project Engineer(s): Richard Lavocat

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## 1.0 INTRODUCTION AND SUMMARY

This report presents the results of a sled test program performed at Advanced Information Engineering Services' Transportation Sciences Center for Baby Trend during June 2004. All tests were performed on the Transportation Sciences Center's tandem configuration HYGE Sled; utilizing on a reinforced seat cover on both benches. The standard seats were equipped with new certified foam prior to each day of testing. The objective of these tests was to obtain data in accordance with "Advanced Information Engineering Services Test Procedures for Commercial Child and Infant Restraint Sled Tests".

The test(s) conducted under this program are indicator test(s) of dynamic restraint performance and are not to be considered test(s) that assure passage of any government standards. The indicator test data presented in this report are solely advisory and are intended to assist you in determining the appropriateness of any future action and are not to be considered a warranty or guarantee of performance for any specific purpose.

Three sled tests were performed utilizing six Baby Trend Infant Car Seats – these units were all tested in the rearward-facing, reclined configuration with either a nine month-old size dummy; or a twelve month-old size CRABI dummy. Either the integral rigid LATCH system, or the “soft” LATCH restraint systems were utilized. Please refer to the test summary pages for specific test details.

Table 1 lists the test matrix and notes the dummy and restraint configurations. Appendix A contains the acceleration-time histories, data traces, and photographs for these tests. High-speed video for these tests was shipped under separate cover.

**TABLE 1  
SLED TEST DATA SUMMARY**

<i>Sted Test</i>	<i>Restraint/Configuration</i>	<i>HIC36</i>	<i>Seat Back Rotation Angle (degree)</i>	<i>Comments</i>
06-4- 21 A (C)	Baby Trend Infant Restraint CRABI 12, Rearward-reclined	498	70	Model 6188 – rigid LATCH system utilized. Seat back in the fully extended position.
06-4-21 B (C)	Baby Trend Infant Restraint 9MO, Rearward-reclined	N/M	70	“Soft” LATCH system utilized. The belts were threaded through the upper slots on the seat back.
06-4- 22 A (C)	Baby Trend Infant Restraint CRABI 12, Rearward-reclined	579	69	Model 6078 – rigid LATCH system utilized. The belts were threaded through the upper slots on the seat back.
06-4-22 B (C)	Baby Trend Infant Restraint 9MO, Rearward-reclined	N/M	65	“Soft” LATCH system utilized. The belts were threaded through the upper slots on the seat back.
06-4- 23 A (C)	Baby Trend Infant Restraint CRABI 12, Rearward-reclined	N/M	68	“Soft” LATCH system utilized. The belts were threaded through the upper slots on the seat back.
06-4-23 B (C)	Baby Trend Infant Restraint 9MO, Rearward-reclined	N/M	66	“Soft” LATCH system utilized. The belts were threaded through the upper slots on the seat back.

(\*) N indicates North, S indicates South, C indicates Center seating locations.  
A indicates front bench, B indicates rear bench.

APPENDIX A  
DATA TRACES AND PHOTOGRAPHS