

**REPORT NUMBER: 220-MGA-2011-001**

**SAFETY COMPLIANCE TESTING FOR  
FMVSS NO. 220  
SCHOOL BUS ROLLOVER PROTECTION**

**2011 STARCRAFT QUEST SCHOOL BUS  
NHTSA NO.: CB0902**

**PREPARED BY:  
MGA RESEARCH CORPORATION  
5000 WARREN ROAD  
BURLINGTON, WI 53105**



**TEST DATES: OCTOBER 31, 2011 – NOVEMBER 1, 2011**

**FINAL REPORT DATE: DECEMBER 27, 2011**

**FINAL REPORT**

**PREPARED FOR:  
U.S. DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
ENFORCEMENT  
OFFICE OF VEHICLE SAFETY COMPLIANCE  
MAILCODE: NVS-220  
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WASHINGTON, D.C. 20590**



## Technical Report Documentation Page

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<p>4. Title and Subtitle Final Report of FMVSS 220 Compliance Testing of 2011 Starcraft Quest School Bus NHTSA No.: CB0902</p>		<p>5. Report Date December 27, 2011</p>	
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<p>9. Performing Organization Name and Address MGA Research Corporation 5000 Warren Road Burlington, WI 53105</p>		<p>10. Work Unit No.</p>	
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<p>15. Supplementary Notes</p>			
<p>16. Abstract Compliance tests were conducted on the subject 2011 Starcraft Quest School Bus NHTSA No.: CB0902, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-220-02 for the determination of FMVSS 220 compliance.</p> <p>Test failures were as follows: None</p>			
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**SECTION 1**  
**PURPOSE OF COMPLIANCE TEST**

Tests were conducted on a 2011 Starcraft Quest School Bus NHTSA No.: CB0902, in accordance with the specifications of the Office of Vehicle Safety Compliance (OVSC) Test Procedure, TP-220-02, to determine compliance to the requirements of Federal Motor Vehicle Safety Standards (FMVSS) 220, "School Bus Rollover Protection".

This program is sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No.: DTNH22-08-D-00075.

**SECTION 2**  
**TEST DATA SUMMARY**

Based on the tests performed, the 2011 Starcraft Quest School Bus, NHTSA No.: CB0902 appears to meet the requirements of FMVSS 220. The ambient temperature during testing was 20° C.

**TEST RESULTS**

S4.a	The downward vertical movement of any point on the application plate shall not exceed 130 mm.	<b>PASS</b>
S4.b	Each emergency exit shall be capable of:	
	Unlatching per FMVSS 217	<b>PASS</b>
	Opening per FMVSS 217	<b>PASS</b>

Comments: None

**SECTION 3**  
**COMPLIANCE TEST DATA**

The following data sheets document the results of testing on the 2011 Starcraft Quest School Bus, NHTSA No. CB0902.

**DATA SHEET 1**  
**VEHICLE INFORMATION**

Test Vehicle: **2011 Starcraft Quest School Bus**  
Test Lab: **MGA Research Corporation**

NHTSA No.: **CB0902**  
Test Dates: **10/31/11 – 11/01/11**

Contract No.:	DTNH22-08-D-00075
Laboratory Name:	MGA Research Corporation

**INCOMPLETE VEHICLE**

Manufacturer:	Chevrolet
Model:	Bus
VIN:	1GB3G3BG2B1112157
Certification Date:	11/10

**COMPLETED VEHICLE (SCHOOL BUS)**

Manufacturer:	Starcraft Bus
Make/Model:	2011 Quest
VIN:	1GB3G3BG2B1112157
NHTSA No.:	CB0902
Color:	Yellow
GVWR:	5,579 kg / 12,300 lbs
Build Date:	10/10
Certification Date:	11/10

**DATES**

Vehicle Receipt:	12/13/10
Start of Compliance Test:	10/31/11
Completion of Compliance Test:	11/01/11

Comments: All tests were performed in accordance with the references outlined in: TP-220-02.



**DATA SHEET 1 (CONTINUED)**

**VEHICLE INFORMATION**

**SCHOOL BUS UNLOADED VEHICLE WEIGHT (UVW)**

	Units	As Delivered (UVW) (Axle)		
		Front	Rear	Total
Left	kg	816.5	1,031.9	
Right	kg	814.2	1,020.6	
Ratio	%	44.3	55.7	
Totals	kg	1,630.7	2,052.5	3,683.2

**SCHOOL BUS ROOF AND APPLICATION PLATE DATA**

Dimensions	School Bus Roof	Calculated Roof Plate	Actual Roof Plate
Length (mm):	5,284	4,969	5,182
Width (mm):	2,312	914	914

Note: The vehicle was centered laterally and longitudinally under the roof load application plate.

School Bus Has:     Rigid Frame;     Unibody

Components Removed From Vehicle Before Testing:   Roof vent removed.

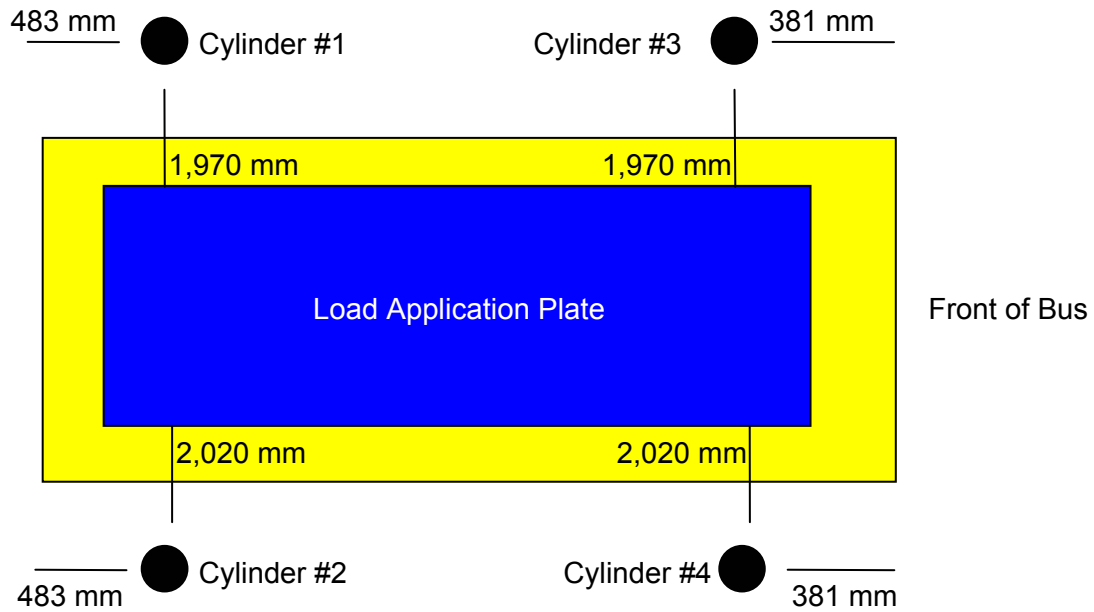
**DATA SHEET 1 (CONTINUED)**

**VEHICLE INFORMATION**

**LINEAR DISPLACEMENT TRANSDUCER LOCATION**

Description	LF	RF	LR	RR
Perpendicular Distance from closest corner of load application plate (mm)	381	381	483	483
From closest outside edge of load application plate (mm)	1,970	2,020	1,970	2,020

Note: LR = Left Rear, RR = Right Rear, LF = Left Front, and RF = Right Front



Comments: Horizontal lasers were used at each roof corner to show individual crush at each corner. Tape was placed on the bus sidewall at the nearest point to the roof corners. This tape was marked at each indicated point of interest during the profile. These marks were measured with a calibrated steel rule at the conclusion of the testing. These are used as the delivered displacement values. Displacement transducers were also used at the cylinders. The measurements in reference to the nearest bus corner can give triangulation coordinates. These measurements are used as secondary to the laser measurements.

Recorded By: Eisa L...

Approved By: Michael Janoy

Date: 11/01/11

**DATA SHEET 2**

**FORCE APPLICATION AND DEFLECTION INFORMATION**

Test Vehicle: **2011 Starcraft Quest School Bus**  
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CB0902**  
 Test Dates: **10/31/11 – 11/01/11**

**FORCE APPLICATION PLATE LOAD CALCULATION**

Unloaded Delivered Weight (UVW):	3,683.2 kg
Calculated Test Load = 1.5 * UVW:	5,524.8 kg (54,176.6 N)
Range of Test Load (-1% to -3%):	5,469.6 kg – 5,359.1 kg (53,634.8 N – 52,551.3 N)

**FORCE APPLICATION PLATE LOAD**


		Pre-load		Maximum Load		Deflection B-A (mm)
		Displacement A (mm)	Load (N)	Displacement B (mm)	Load (N)	
Cylinder	1 (LR)	2	391	6	13,093	4
	2 (RR)	4	264	66	13,422	62
	3 (LF)	2	282	28	13,224	26
	4 (RF)	3	363	57	13,309	54
Total Load			1,300		53,048	


**FORCE APPLICATION PLATE DEFLECTION**

		Pre-load	Maximum Load	Deflection B-A (mm)	Deflection ≤ 130 mm?	
		Displacement A (mm)	Displacement B (mm)		Yes - Pass	No - Fail
Corner of Vehicle Force Application Plate	1 (LR)	4	19	15	<b>PASS</b>	
	2 (RR)	3	22	19	<b>PASS</b>	
	3 (LF)	3	24	21	<b>PASS</b>	
	4 (RF)	3	32	29	<b>PASS</b>	
Average Deflection				21		

Note: LR = Left Rear, RR = Right Rear, LF = Left Front, and RF = Right Front

Comments: Deflection at each corner of the required force application plate area was measured with the use of laser indicators positioned near the four most outboard corners of the vehicle's roof.

Recorded By: 

Approved By: 

Date: 11/01/11

**DATA SHEET 3**

**FORCE AND OPENING AREA TEST OF EMERGENCY EXITS**

Test Vehicle: **2011 Starcraft Quest School Bus**  
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CB0902**  
 Test Dates: **10/31/11 – 11/01/11**

		Yes - Pass	No - Fail
Can all exits be manually released and extended by a single person without tools, remote controls, and without the engine running?		<b>PASS</b>	
Is emergency exit door releasable from inside the school bus?	BEFORE LOAD:	<b>PASS</b>	
	MAXIMUM LOAD:	<b>PASS</b>	
	AFTER LOAD:	<b>PASS</b>	
Is emergency exit door releasable from outside the school bus?	BEFORE LOAD:	<b>PASS</b>	
	MAXIMUM LOAD:	<b>PASS</b>	
	AFTER LOAD:	<b>PASS</b>	

Note: BEFORE, MAXIMUM & AFTER LOAD, refer to the time when the assessment was made relative to load being applied to the school bus roof with the force application plate.

Comments: None

Recorded By: *Eisa Lovelace*

Approved By: *Michael Janney*

Date: 11/01/11

**DATA SHEET 4**

**FORCE AND OPENING AREA TEST OF EMERGENCY EXITS (INTERIOR)**

Test Vehicle: **2011 Starcraft Quest School Bus**  
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CB0902**  
 Test Dates: **10/31/11 – 11/01/11**

**FORCE TO RELEASE (UNLATCH) THE EMERGENCY EXITS**

Exit Location	BEFORE LOAD (N)	Force ≤ 178 N?		MAXIMUM LOAD (N)	Force ≤ 178 N?		AFTER LOAD (N)	Force ≤ 178 N?		Type of Motion
		Yes - Pass	No - Fail		Yes - Pass	No - Fail		Yes - Pass	No - Fail	
Rear Door	35.6	PASS		35.6	PASS		33.4	PASS		Straight
	35.6			33.4			33.4			
	33.4			33.4			33.4			
	Average: 34.9			Average: 34.1			Average: 33.4			

**FORCE TO EXTEND (OPEN) THE EMERGENCY EXITS**

Exit Location	BEFORE LOAD (N)	Force ≤ 178 N?		MAXIMUM LOAD (N)	Force ≤ 178 N?		AFTER LOAD (N)	Force ≤ 178 N?		Type of Motion
		Yes - Pass	No - Fail		Yes - Pass	No - Fail		Yes - Pass	No - Fail	
Rear Door	75.6	PASS		62.3	PASS		57.8	PASS		Rotary
	77.8			57.8			55.6			
	75.6			62.3			55.6			
	Average: 76.3			Average: 60.8			Average: 56.3			

Note: BEFORE, MAXIMUM & AFTER LOAD, refer to the time when the assessment was made relative to load being applied to the school bus roof with the force application plate.

Comments: None

Recorded By: *Eiv Leardue*

Approved By: *Michael Janney*

Date: 11/01/11

**DATA SHEET 5**

**FORCE AND OPENING AREA TEST OF EMERGENCY EXITS (EXTERIOR)**

Test Vehicle: **2011 Starcraft Quest School Bus**  
 Test Lab: **MGA Research Corporation**

NHTSA No.: **CB0902**  
 Test Dates: **10/31/11 – 11/01/11**

**FORCE TO RELEASE (UNLATCH) THE EMERGENCY EXITS**

Exit Location	BEFORE LOAD (N)	Force ≤ 178 N?		MAXIMUM LOAD (N)	Force ≤ 178 N?		AFTER LOAD (N)	Force ≤ 178 N?		Type of Motion
		Yes - Pass	No - Fail		Yes - Pass	No - Fail		Yes - Pass	No - Fail	
Rear Door	122.3	PASS		109.0	PASS		106.8	PASS		Straight
	131.2			113.4			104.5			
	131.2			113.4			104.5			
	Average: 128.2			Average: 111.9			Average: 105.3			

**FORCE TO EXTEND (OPEN) THE EMERGENCY EXITS**

Exit Location	BEFORE LOAD (N)	Force ≤ 178 N?		MAXIMUM LOAD (N)	Force ≤ 178 N?		AFTER LOAD (N)	Force ≤ 178 N?		Type of Motion
		Yes - Pass	No - Fail		Yes - Pass	No - Fail		Yes - Pass	No - Fail	
Rear Door	102.3	PASS		91.2	PASS		55.6	PASS		Straight
	104.5			82.3			57.8			
	95.6			84.5			60.0			
	Average: 100.8			Average: 86.0			Average: 57.8			

Note: BEFORE, MAXIMUM & AFTER LOAD, refer to the time when the assessment was made relative to load being applied to the school bus roof with the force application plate.

Comments: None

Recorded By: *Evo Leach*

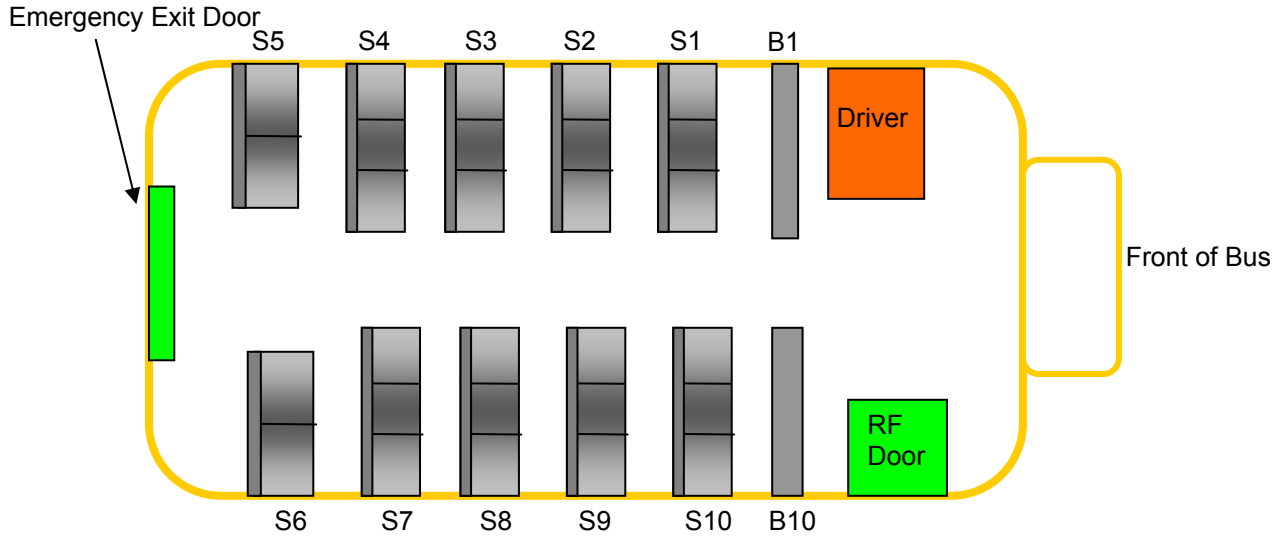
Approved By: *Michael Janney*

Date: 11/01/11

**DATA SHEET 6**  
**EMERGENCY EXIT MEASUREMENTS**

Test Vehicle: **2011 Starcraft Quest School Bus**  
Test Lab: **MGA Research Corporation**

NHTSA No.: **CB0902**  
Test Dates: **10/31/11 – 11/01/11**



		Height (mm)	Width (mm)	Required Test Form (Ellipsoid or Parallelepiped)	Opening allowed unobstructed passage of the test form?	
					Yes – Pass	No – Fail
1	Rear Door	1,456	844	Parallelepiped	<b>PASS</b>	

Comments: None

Recorded By: *Eiv L...*

Approved By: *Michael Janoy*

Date: 11/01/11

**SECTION 4**  
**INSTRUMENTATION AND EQUIPMENT LIST**

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Steel Tape	Stanley	Power Lock	604	08/04/11	02/16/12
Cylinder #1 Load Cell	Interface	1220AF-50K-B	315453	10/26/11	04/26/12
Cylinder #1 Displacement Pot.	Ametek	P-40A	0108-27166	09/02/11	03/02/12
Cylinder #2 Load Cell	Interface	1220AF-50K-B	321811	10/26/11	04/26/12
Cylinder #2 Displacement Pot.	Ametek	P-40A	0304-21633	09/02/11	03/02/12
Cylinder #3 Load Cell	Interface	1220AF-50K-B	326710	10/26/11	04/26/12
Cylinder #3 Displacement Pot.	Ametek	P-40A	0108-27168	09/02/11	03/02/12
Cylinder #4 Load Cell	Interface	1220AF-50K-B	321788	10/26/11	04/26/12
Cylinder #4 Displacement Pot.	Ametek	P-40A	0108-27167	09/02/11	03/02/12
Force Gauge	Wagner	FDK-60	18109	09/08/11	03/08/12
Inclinometer	Digital Protractor	Pro 360	006	When Used	When Used
Parallelepiped	MGA		PARA – 1A	When Used	When Used



**SECTION 5**  
**PHOTOGRAPHS**

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Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation      Test Dates: 10/31/11 – 11/01/11



Frontal View of School Bus Before Testing (as received by MGA)

Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation              Test Dates: 10/31/11 – 11/01/11



Frontal View of School Bus After Testing



Test Vehicle:  
Test Lab:

2011 Starcraft Quest School Bus  
MGA Research Corporation

NHTSA No.:      CB0902  
Test Dates:     10/31/11 – 11/01/11



Rear View of School Bus Before Testing (as received by MGA)

Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Rear View of School Bus After Testing



Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation      Test Dates: 10/31/11 – 11/01/11



Full View of Left Side of School Bus Before Testing (as received by MGA)

**Test Vehicle: 2011 Starcraft Quest School Bus**  
**Test Lab: MGA Research Corporation**

**NHTSA No.: CB0902**  
**Test Dates: 10/31/11 – 11/01/11**



Full View of Right Side of School Bus Before Testing (as received by MGA)



Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation  
NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Full View of Right Side of School Bus After Testing

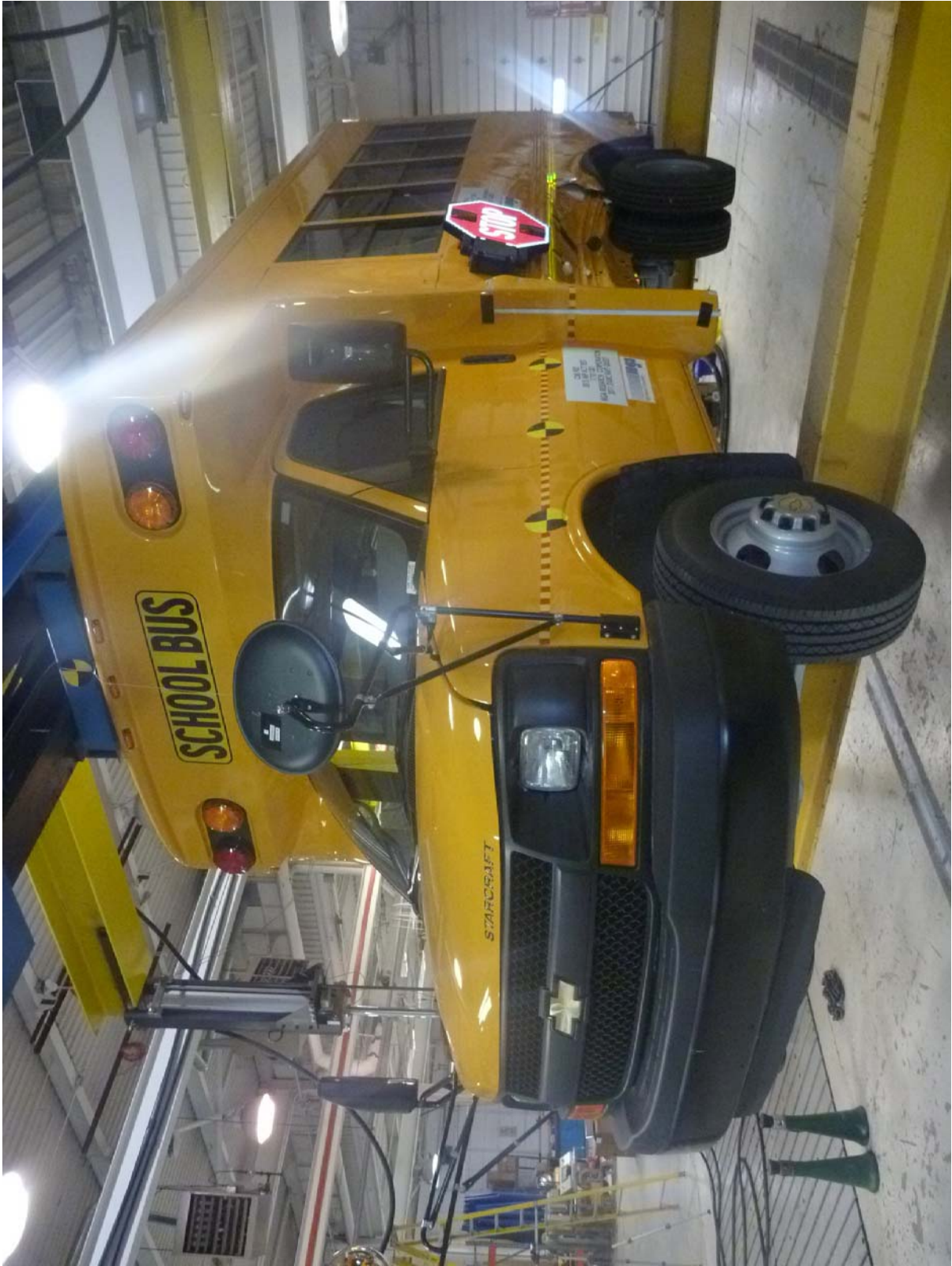


Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation      Test Dates: 10/31/11 – 11/01/11



Left Front 3/4 View of School Bus Before Testing (as received by MGA)

Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation              Test Dates: 10/31/11 – 11/01/11



Left Front 3/4 View of School Bus After Testing



Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Right Front 3/4 View of School Bus Before Testing (as received by MGA)

Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation      Test Dates: 10/31/11 – 11/01/11



Right Front 3/4 View of School Bus After Testing



Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Left Rear ¾ View of School Bus Before Testing (as received by MGA)

Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Left Rear 3/4 View of School Bus After Testing



Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation      Test Dates: 10/31/11 – 11/01/11



Right Rear ¾ View of School Bus Before Testing (as received by MGA)

Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Right Rear 3/4 View of School Bus After Testing



Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Loading Device Placed Against Bus's Roof at Beginning of Test (Right Front)

Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Loading Device Placed Against Bus's Roof at Maximum Load Condition (Right Front)



Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Loading Device Placed Against Bus's Roof at Beginning of Test (Right Rear)

Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

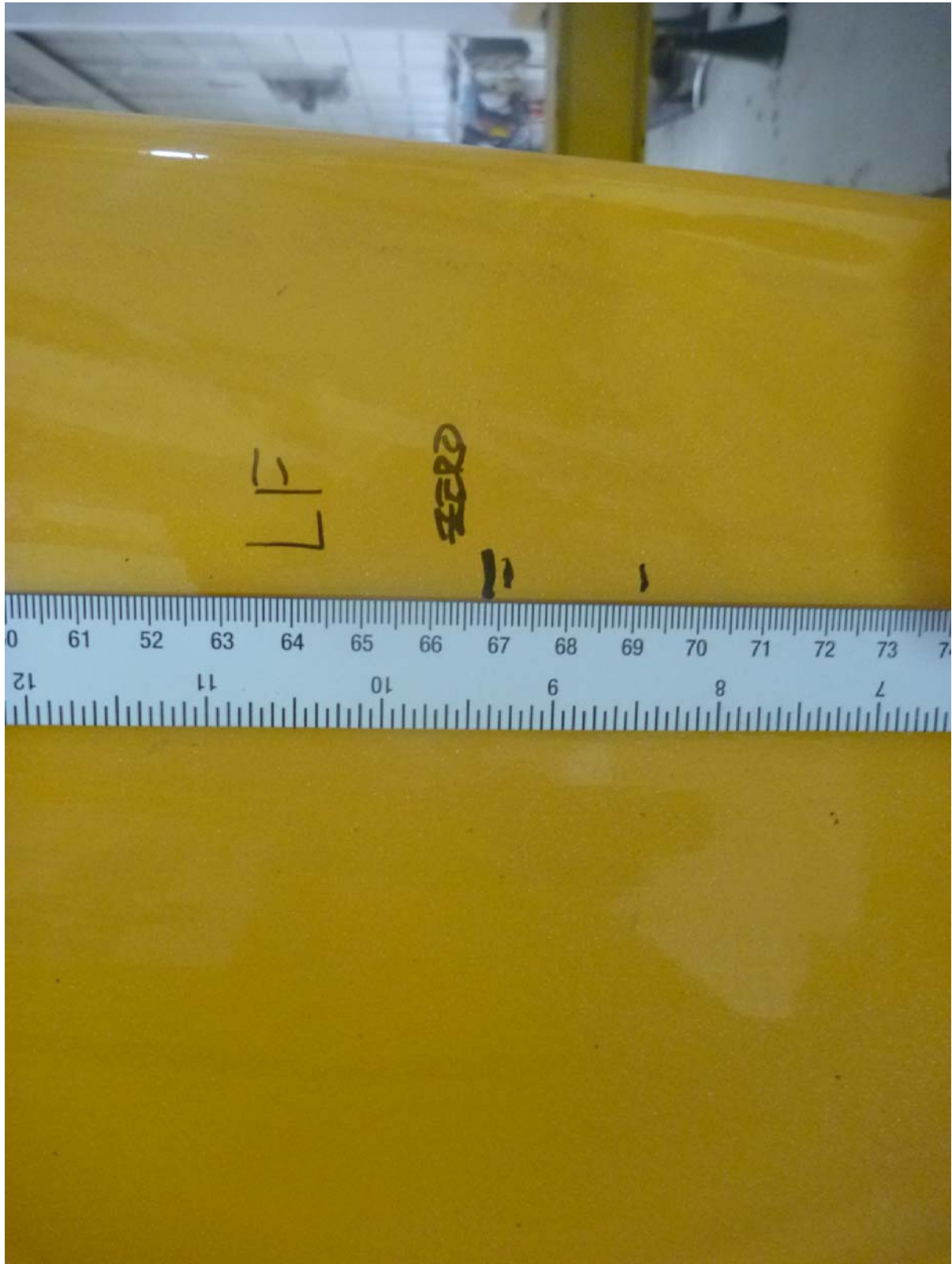
NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Loading Device Placed Against Bus's Roof at Maximum Load Condition (Right Rear)

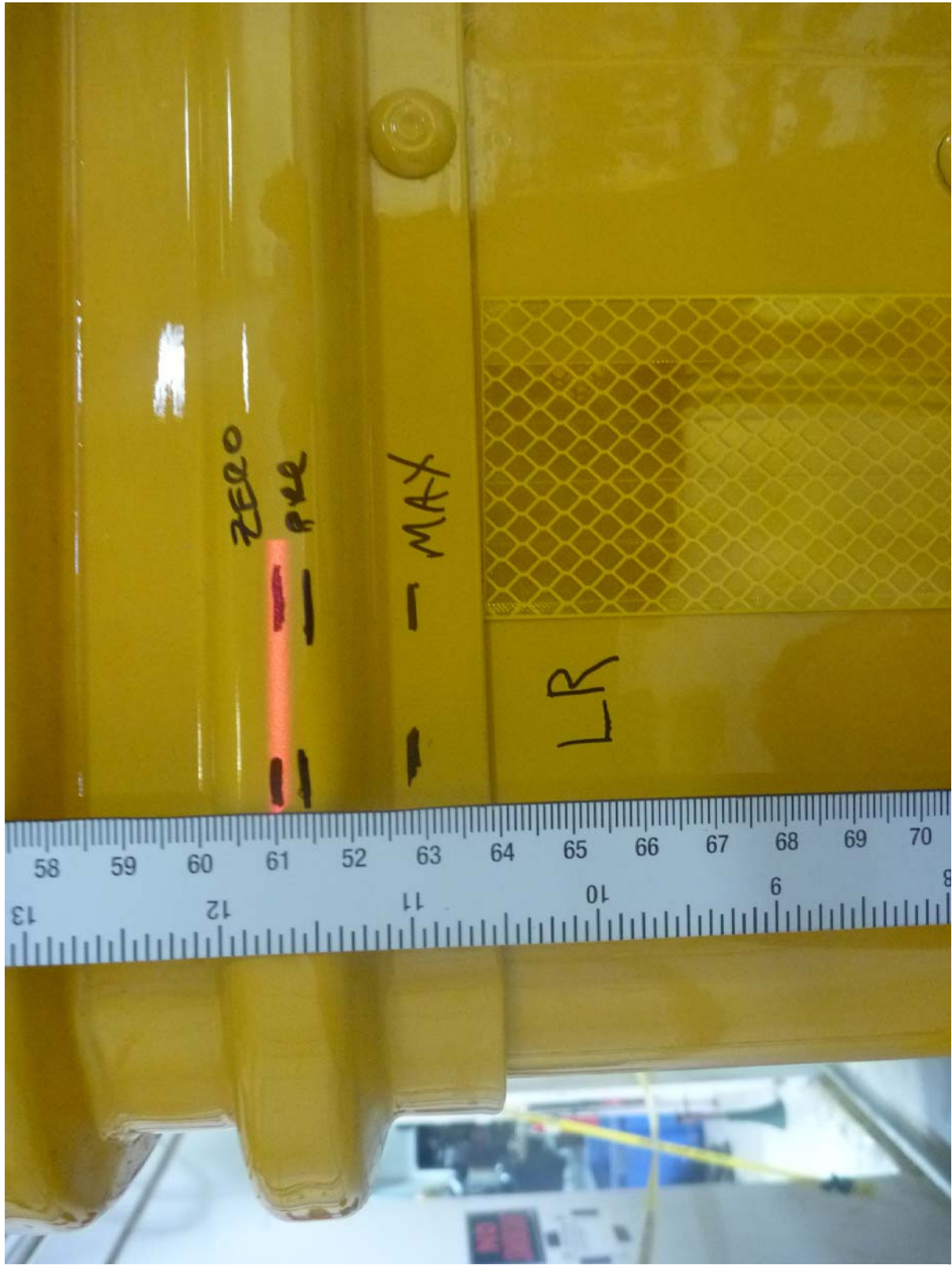


Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation              Test Dates: 10/31/11 – 11/01/11



Backup Roof Deflection Measuring Device at Maximum Load Condition (Left Front)

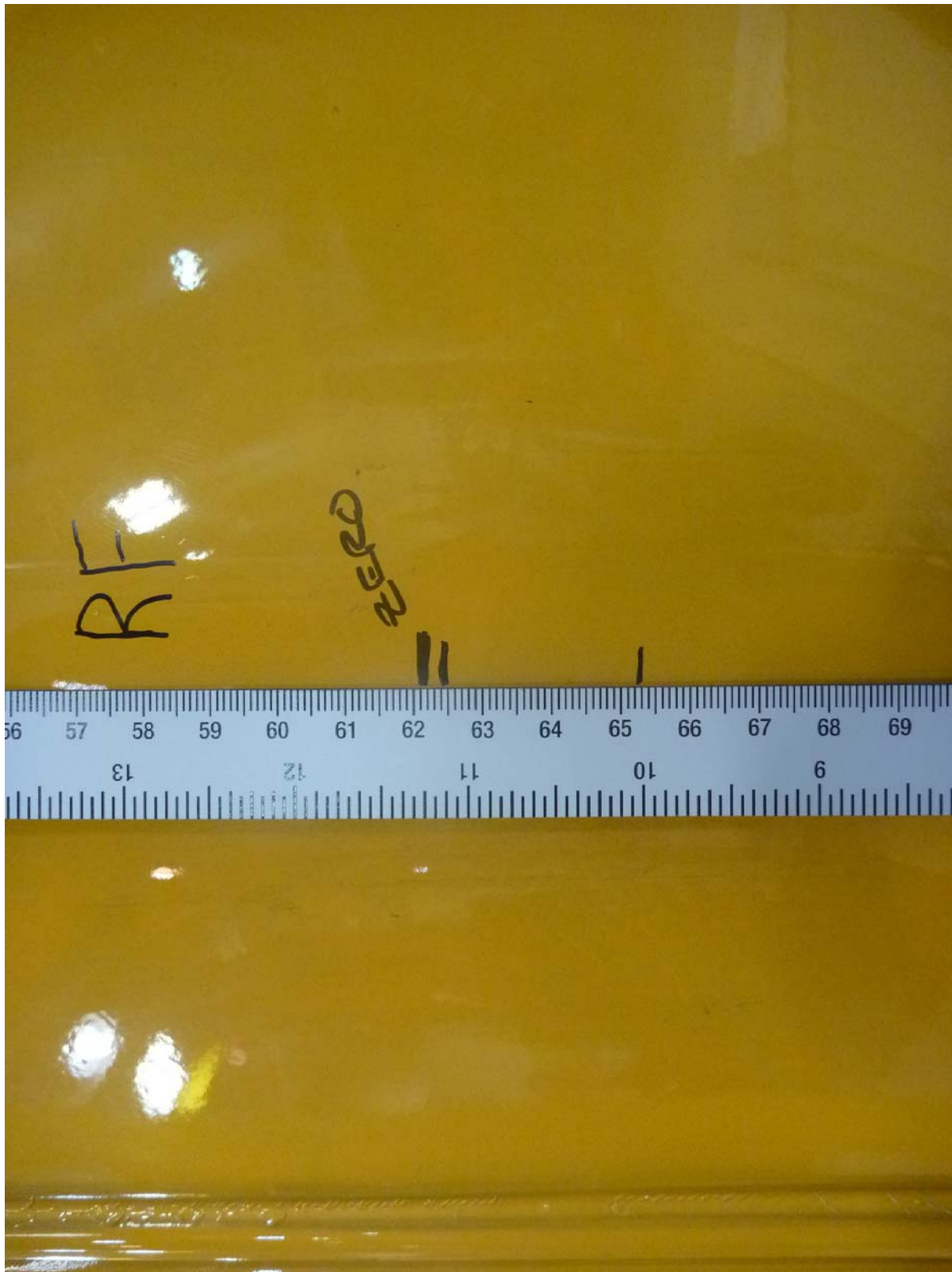
Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation              Test Dates: 10/31/11 – 11/01/11



Backup Roof Deflection Measuring Device at Maximum Load Condition (Left Rear)

Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 - 11/01/11



Backup Roof Deflection Measuring Device at Maximum Load Condition (Right Front)



Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
Test Dates: 10/31/11 - 11/01/11



Backup Roof Deflection Measuring Device at Maximum Load Condition (Right Rear)



Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation      Test Dates: 10/31/11 – 11/01/11



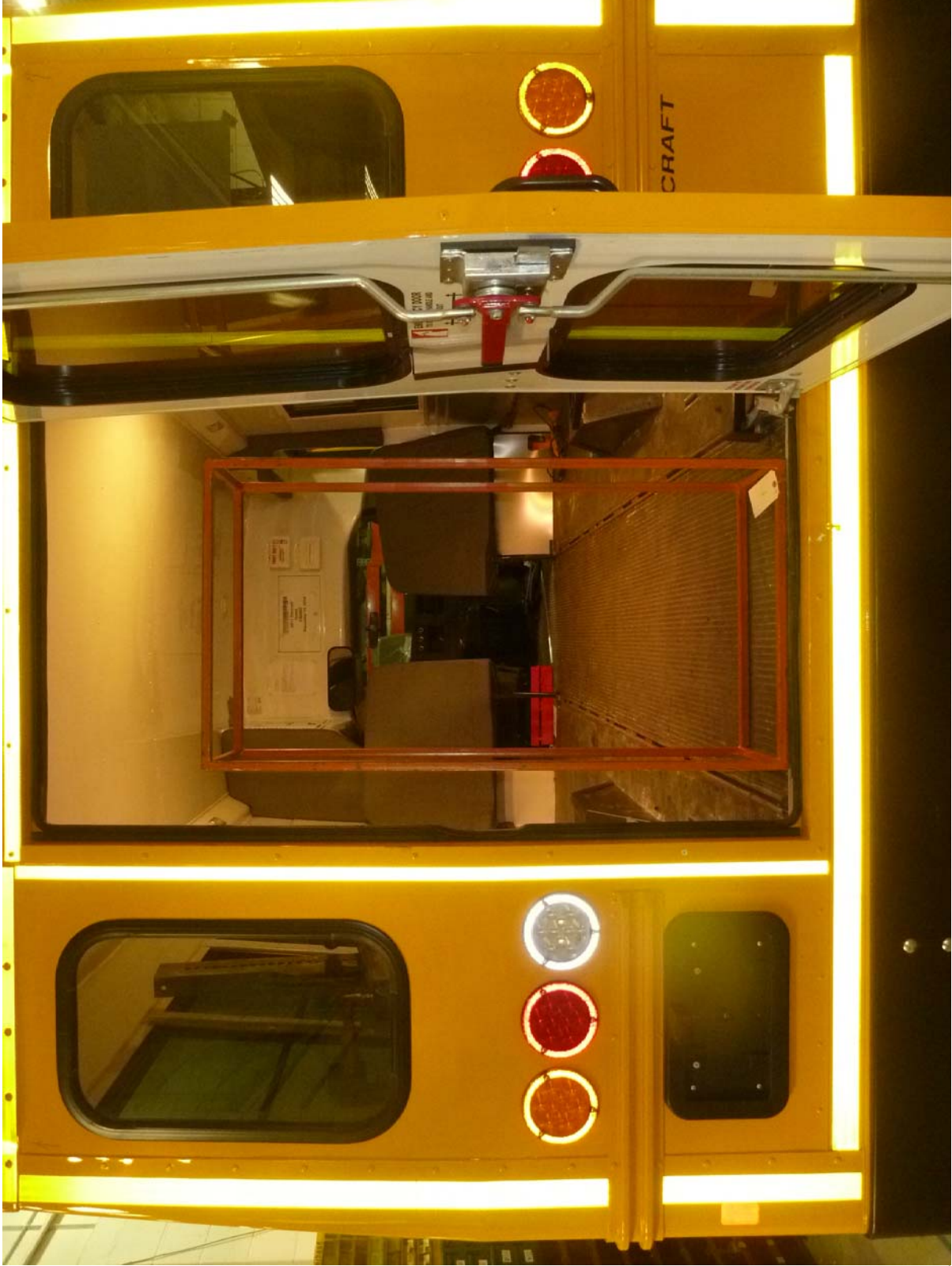
Roof, After Removal of Loading Device, Viewed From the Bus Exterior

Test Vehicle: 2011 Starcraft Quest School Bus  
Test Lab: MGA Research Corporation  
NHTSA No.: CB0902  
Test Dates: 10/31/11 – 11/01/11



Roof, After Removal of Loading Device, Viewed From the Bus Interior

Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
Test Lab: MGA Research Corporation              Test Dates: 10/31/11 – 11/01/11



Rear Exit Door Open With Parallelepiped In Place



Test Vehicle: 2011 Starcraft Quest School Bus      NHTSA No.: CB0902  
 Test Lab: MGA Research Corporation      Test Dates: 10/31/11 – 11/01/11

# STARCRAFT BUS

*a division of Forest River, Inc.*  
 COMPLETED VEHICLE MANUFACTURED BY:  
 Starcraft Bus a Division of Forest River, Inc.  
 2376 Century Drive, Goshen, IN 46528  
 Phone: 800-348-7440  
 Date of Manufacture: Nov-10

INCOMPLETE VEHICLE MANUFACTURED BY:  
 Chevrolet  
 1500 East Route A, Wentzville, MO 63385  
 Phone: 586-492-7440  
 Date of Manufacture: Oct-10  
 GVWR: 12300

GAWR Front: 4300 With LT225/75R16E Tires 16 X 6.5J Rims @ 65 PSI Cold SINGLE  
 GAWR Rear: 8600 With LT225/75R16E Tires 16 X 6.5J Rims @ 65 PSI Cold DUAL  
 VIN: 1GB3G3BG2B1112157

VEHICLE TYPE: STARCRAFT SCHOOL BUS/QUEST  
 VEHICLE MAKE: Chevrolet  
 MODEL NUMBER: ETD021727  
 GROSS VEHICLE WEIGHT: 8174  
 Maximum Permitted Seated Passenger: 28  
 Actual Configured Seating Capacity: 28  
 Maximum Permitted W/C Passengers: 0  
 Actual Configured W/C Capacity: 0

Approval Numbers
MIDWEST TRANSIT

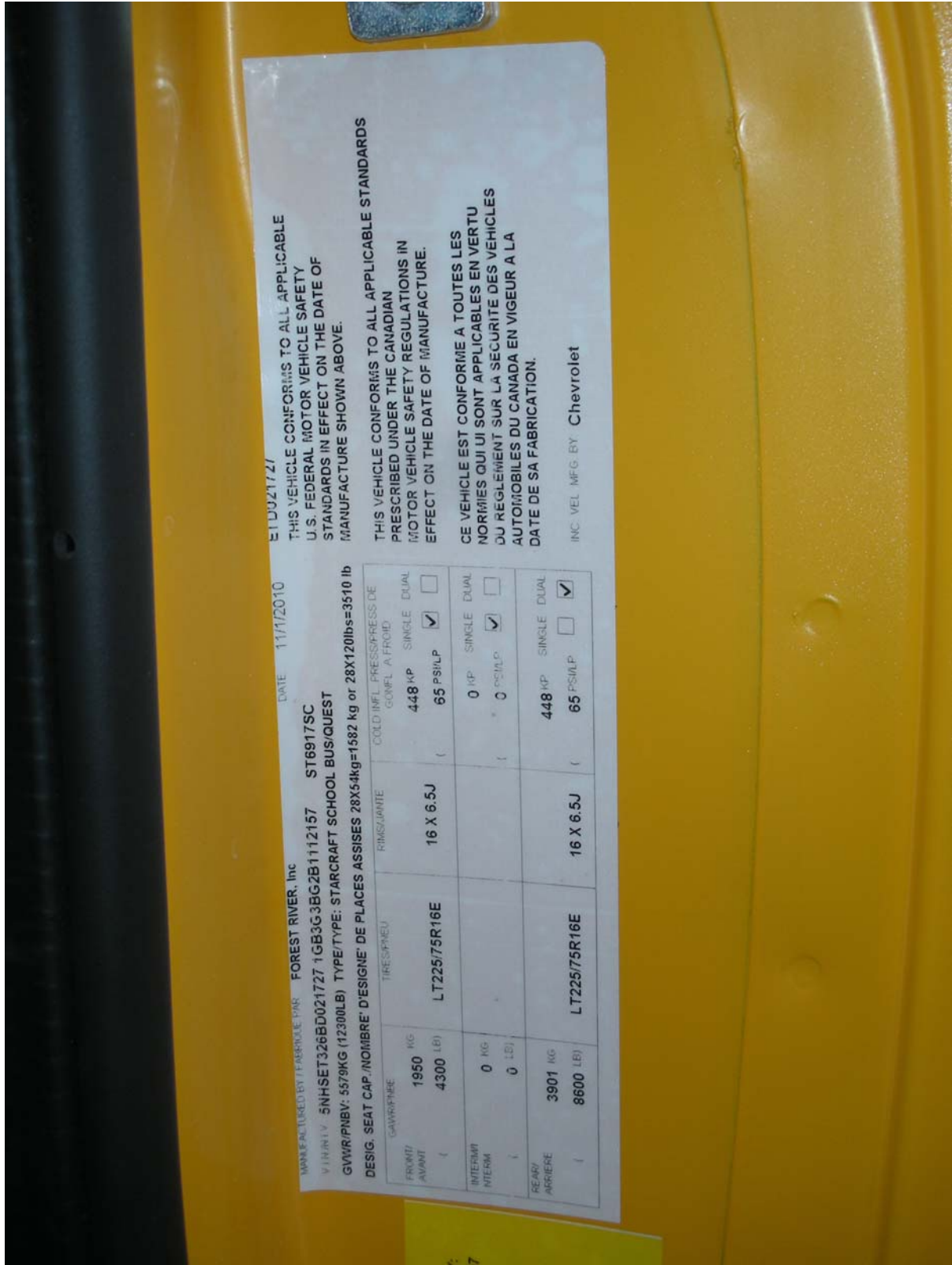
**THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.**

Certification Label and Tire Placard



Test Vehicle: 2011 Starcraft Quest School Bus  
 Test Lab: MGA Research Corporation

NHTSA No.: CB0902  
 Test Dates: 10/31/11 – 11/01/11



E1D0217Z1

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

THIS VEHICLE CONFORMS TO ALL APPLICABLE STANDARDS PRESCRIBED UNDER THE CANADIAN MOTOR VEHICLE SAFETY REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE.

CE VEHICULE EST CONFORME A TOUTES LES NORMES QUI UI SONT APPLICABLES EN VERTU DU REGLEMENT SUR LA SECURITE DES VEHICLES AUTOMOBILES DU CANADA EN VIGEUR A LA DATE DE SA FABRICATION.

INC. VEL. MFG. BY: Chevrolet

DATE: 11/1/2010

MANUFACTURED BY / FABRIQUE PAR: FOREST RIVER, Inc

VIN / NHTA: 5NHSET326BD021727 1GB3G3BG2B1112157 ST6917SC

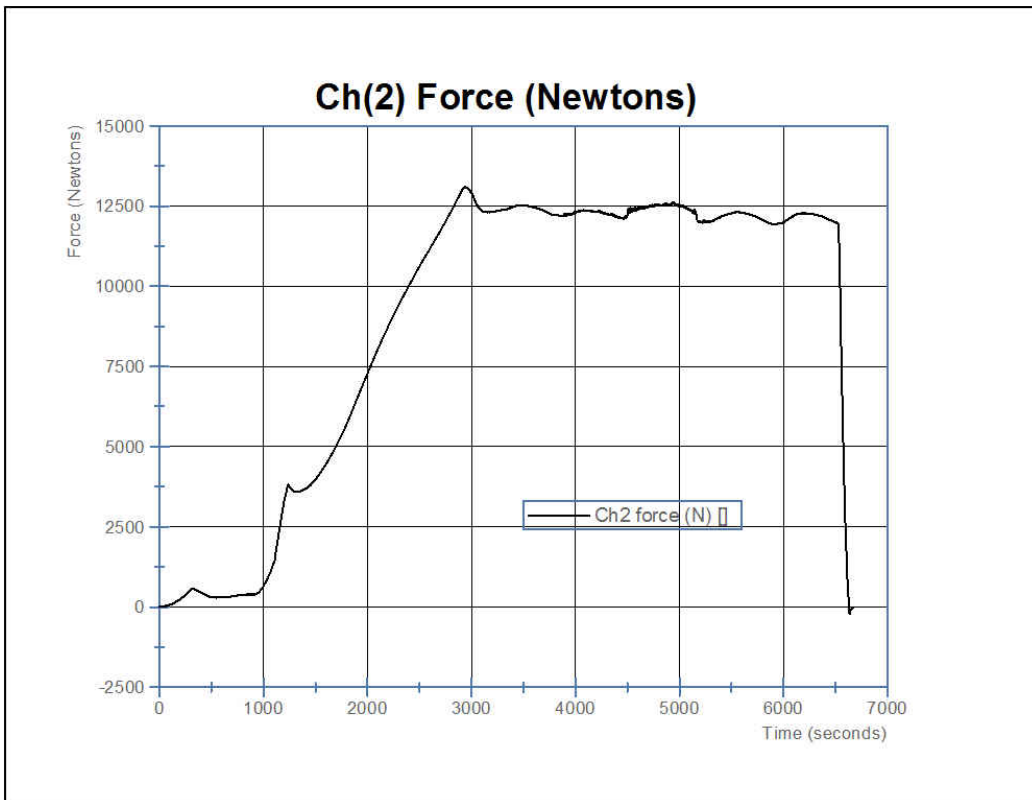
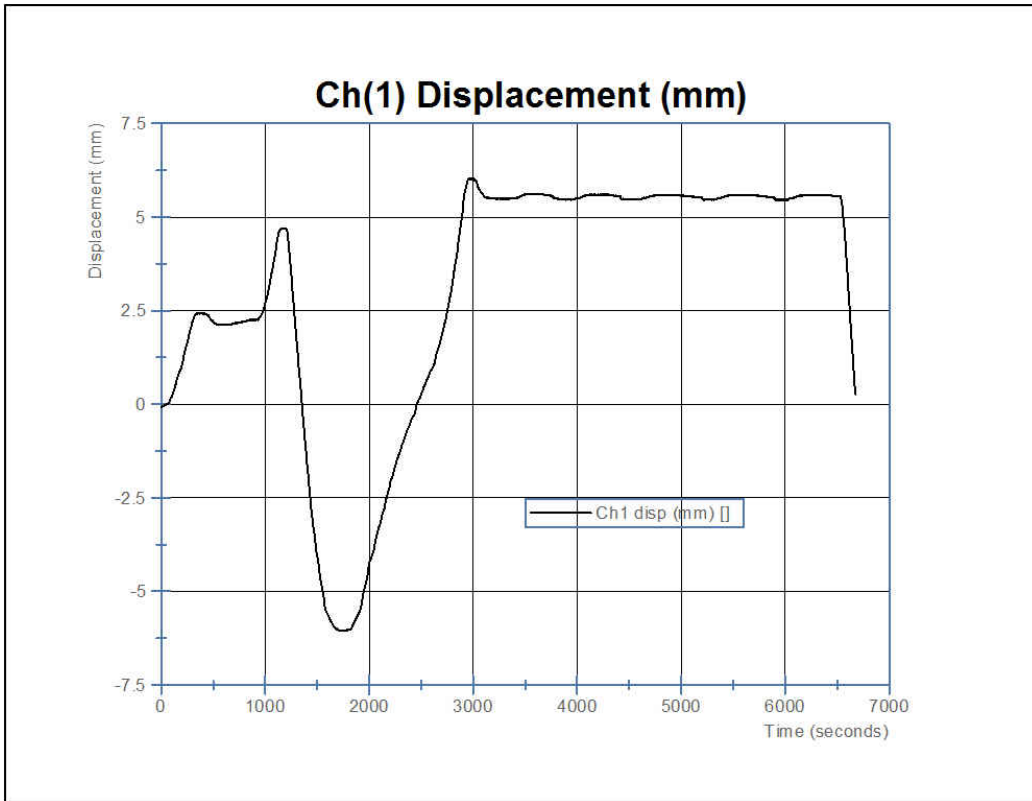
GWR/PBW: 5579KG (12300LB) TYPE/TYPE: STARCRAFT SCHOOL BUS/QUEST

DESIG. SEAT CAP./NOMBRE D'ESIGNE' DE PLACES ASSISES: 28X54kg=1582 kg or 28X120lbs=3510 lb

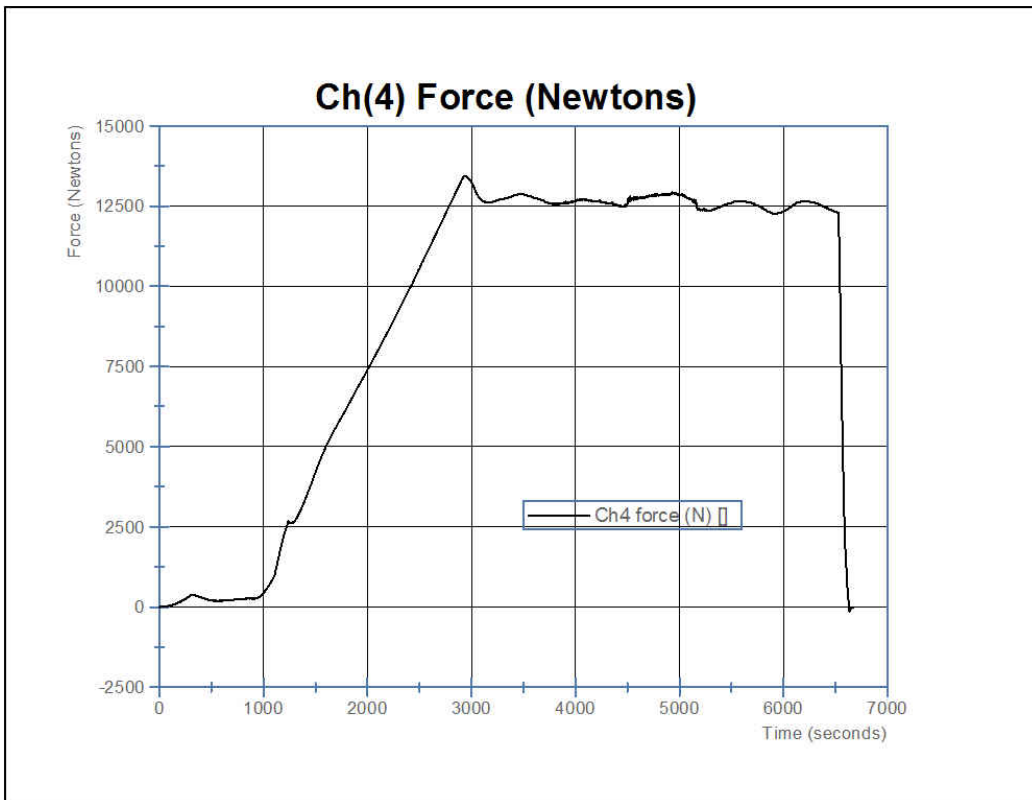
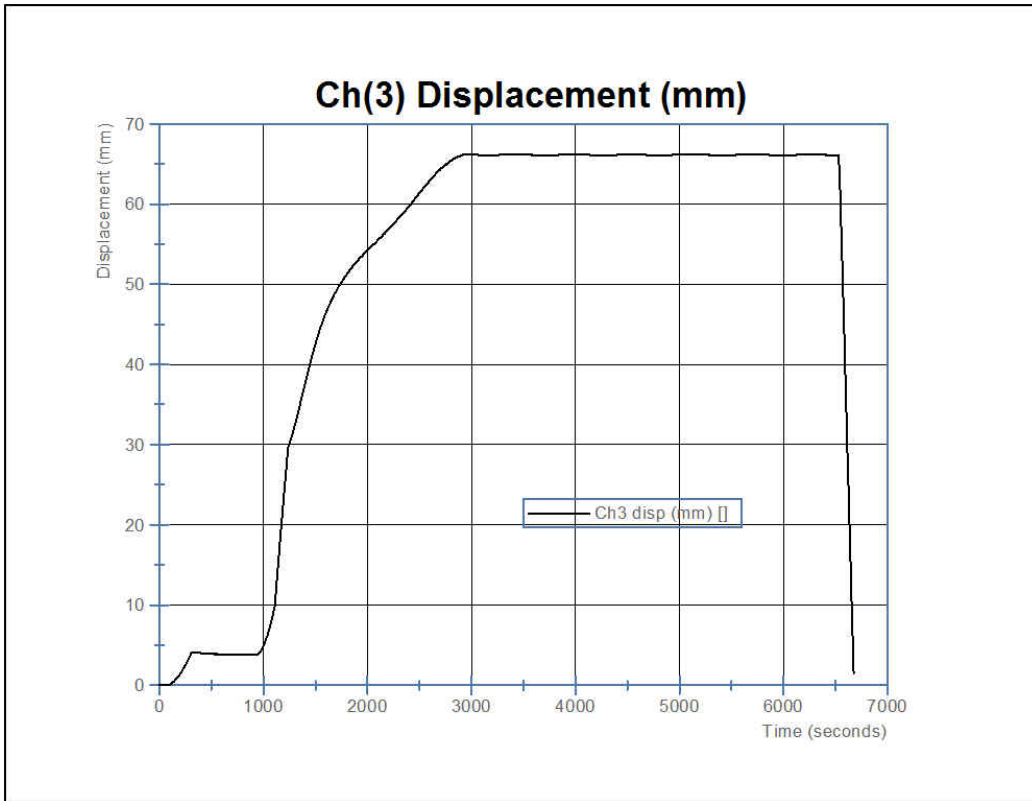
CAVANTAGE	TIRE/NEU	RMS/QUANTE	COLD INFL. PRESS/PRESS-DE GONFL. A FROID
FRONT / AVANT ( ) 1950 KG 4300 LB)	LT225/75R16E	16 X 6.5J	448 kPa ( ) 65 PSI/PS ( ) 448 kPa ( ) 65 PSI/PS ( )
INTERM / INTERM ( ) 0 KG 0 LB)			0 kPa ( ) 0 PSI/PS ( )
REAR / ARRIERE ( ) 3901 KG 8600 LB)	LT225/75R16E	16 X 6.5J	448 kPa ( ) 65 PSI/PS ( ) 448 kPa ( ) 65 PSI/PS ( )

Incomplete Vehicle Label

**SECTION 6**  
**TEST PLOTS**

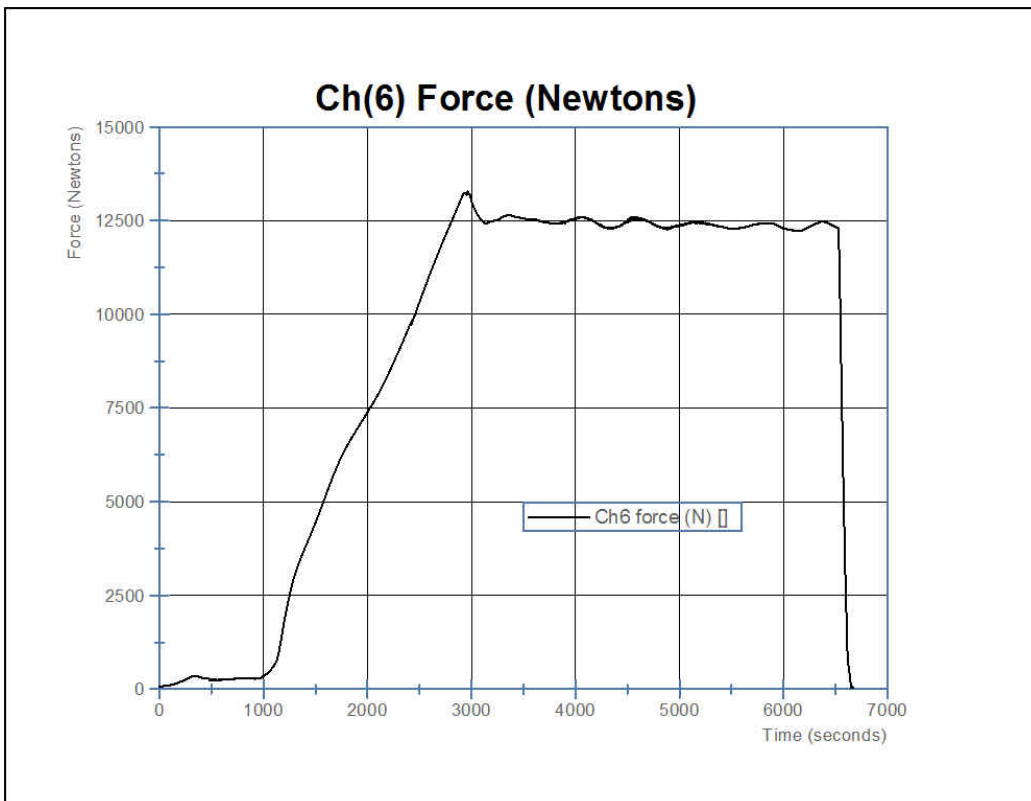
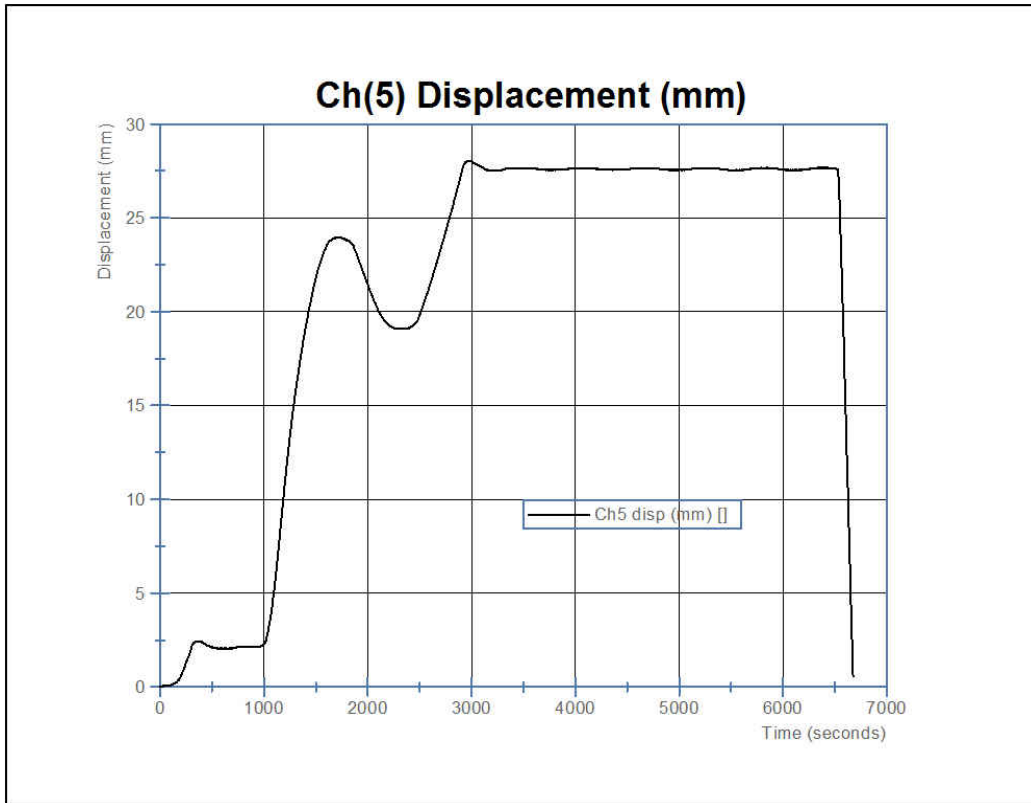


**SECTION 6**  
**TEST PLOTS**





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**TEST PLOTS**

