

REPORT NUMBER: 217-MGA-2009-001

**SAFETY COMPLIANCE TESTING FOR
FMVSS NO. 217
SCHOOL BUS EMERGENCY EXITS AND WINDOW
RETENTION AND RELEASE**

**IC CORPORATION
2009 IC CORPORATION RE300 SCHOOL BUS
NHTSA NO.: C90900**

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



TEST DATE: NOVEMBER 12, 2008

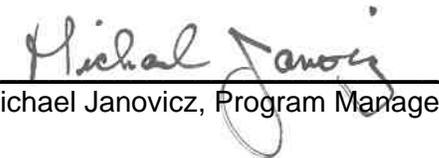
FINAL REPORT DATE: MAY 27, 2009

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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Prepared by:  Date: May 27, 2009
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Final Report Accepted By:



May 27, 2009
Date of Acceptance

Technical Report Documentation Page

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16. Abstract Compliance tests were conducted on the subject 2009 IC Corporation RE300 School Bus, NHTSA No.: C90900 in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-217-06 for the determination of FMVSS 217 compliance. Test failures were as follows: None					
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SECTION 1
PURPOSE OF COMPLIANCE TEST

Tests were conducted on a MY 2009 IC Corporation RE300 School Bus, NHTSA No.: C90900, in accordance with the specifications of the Office of Vehicle Safety Compliance (OVSC) Test Procedures TP-217-06 to determine compliance to the requirements of Federal Motor Vehicle Safety Standards (FMVSS) 217, "School Bus Emergency Exits and Window Retention and Release".

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 MY 2009 IC Corporation RE300 School Bus, NHTSA No.: C90900, appeared to meet the requirements of FMVSS 217. See Data Sheet 1 for Test Summary on the following page.

**DATA SHEET 1
TEST SUMMARY**

GENERAL VEHICLE IDENTIFICATION

Model Year/Mfr. /Make/Model:	2009 IC Corporation RE300	
NHTSA No.:	C90900	
GVWR:	14,424 kg / 31,800 lbs	
Build Date for Bus Chassis:	04/08	
VIN:	4DRBWAAN29A083456	
Seating Capacity:	(1 Driver, 72 Passengers)	
Type of Bus:	School Bus	
Tire Pressure from tire placard (at capacity):	Front: 758 kPa	Rear: 723 kPa
Odometer Reading:	69.2 Miles	

	Pass/Fail
S5.1 WINDOW RETENTION	Pass
S5.2 PROVISION OF EMERGENCY EXITS	Pass
Meets minimum exit provisions	Pass
Meets all other exit requirements	Pass
Meets requirements for additional exits	Pass
S5.2.3.1.A EMERGENCY EXIT DOOR OPERATIONAL REQUIREMENTS	Pass
S5.3 EMERGENCY EXIT RELEASE	Pass
Forces to unlatch the emergency exits	Pass
Forces to open the emergency exits	Pass
S5.4 EMERGENCY EXIT OPENING	Pass
S5.5 EMERGENCY EXIT LABELING AND IDENTIFICATION	Pass
S5.5 TAPE REFLECTIVITY (49CFR 571.131)	Not Tested

COMMENTS: NONE

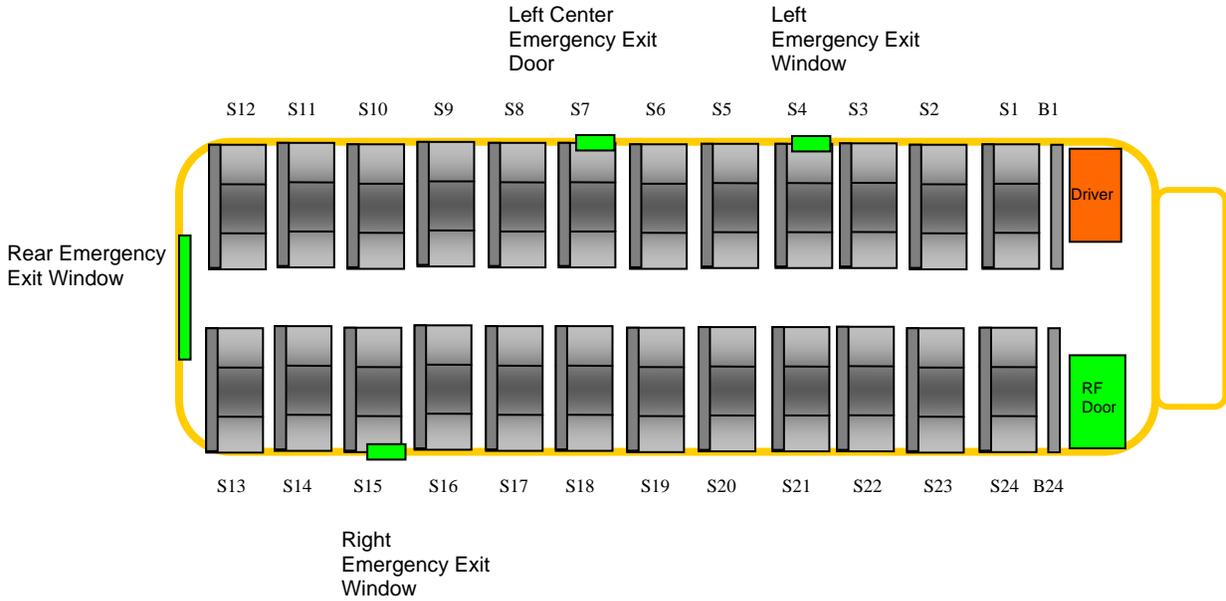
SECTION 3
COMPLIANCE TEST DATA

The following data sheets document the results of testing on the 2009 IC Corporation RE300 School Bus, NHTSA No.: C90900.

DATA SHEET 2
PROVISION OF EMERGENCY EXITS

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
Test Date: **11/12/2008**



		Height (mm)	Width (mm)
1	Left Side Emergency Window Exit	634	582
2	Left Side Emergency Door Exit	1421	636
3	Right Side Emergency Window Exit	636	584
4	Rear Emergency Window Exit	502	1346

Seating Capacity: 73 (Including Driver)

Requirements	Pass/Fail
Bus meets minimum emergency exit provision, based upon Table 2	Pass

Comments: None

DATA SHEET 2 (CONTINUED)
PROVISION OF EMERGENCY EXITS

	Requirements	Pass/Fail
1	Rear Emergency Door – opens outward and is hinged on the right side (either side, if the bus has a GVWR of 10,000 pounds or less), and is operable from both inside and outside of the vehicle.	N/A
2	Side Emergency Door – hinged on its forward side. No more than one side emergency exit door is located, in whole or in part, within the same post and roof bow panel space and each door is operable from both inside and outside the of vehicle.	Pass
3	Rear Push Out Window – provides a minimum opening clearance 41 cm high and 122 cm wide (16" x 48").	Pass
4	Roof Exit – is hinged on its forward side, and is operable from both the inside and outside of the vehicle.	N/A
5	There is an even number of side emergency exit windows on each side of the bus.	Pass
6	The bus is not equipped with both sliding and push-out windows, (except for buses equipped with rear push out emergency exit windows).	Pass
7	A right side emergency exit door, if any, is located as near as practicable to the midpoint of the passenger compartment.	Pass

Comments: None

Recorded By: 

Approved By: 

Date: 11/12/2008

DATA SHEET 3

EMERGENCY EXIT DOOR OPERATIONAL REQUIREMENTS

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
Test Date: **11/12/2008**

	Requirements	Pass/Fail
1	The engine starting system does NOT operate if any Emergency Exit is LOCKED.	N/A
2	All Emergency Door and Roof Exits can be released by one person (from inside and outside of the bus).	Pass
3	When the Release Mechanism is NOT in the closed position and the vehicle ignition is in the "ON" position, there is a continuous warning sound audible at the Driver's DSP and in the vicinity of the Emergency Door(s) having the unclosed mechanism.	Pass
4	Emergency exit release mechanism does not use remote controls or central power systems.	Pass

Comments: None

Recorded By: 

Approved By: 

Date: 11/12/2008

DATA SHEET 4A

EMERGENCY EXIT IDENTIFICATION AND LABELING

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
 Test Date: **11/12/2008**

EMERGENCY EXIT LABELING - INTERIOR

Exit Location	Left Front	Left Center	Rear	Right Rear
Exit Description	Emergency Exit	Emergency Door	Emergency Exit	Emergency Exit
Letter Height (cm)	5	5	5	5
Background Color	White	White	White	White
Location Inside	Above Window	Above Door	Above Window	Above Window
Pass/Fail	Pass	Pass	Pass	Pass

EMERGENCY EXIT OPERATING INSTRUCTIONS - INTERIOR

Exit Location	Left Front	Left Center	Rear	Right Rear
Instructions	Pull Handle and Push Out to Open	To Open, Lift Up Red Bar And Push Out	Pull Handle Out to Open*	Pull Handle And Push Out To Open
Letter Height (cm)	1	1.5	1.3*	1
Letter Color	Black	Black	Black	Black
Background Color	Clear	White	White	Clear
Distance From Release (cm)	1	12	1*	1
Reflective Tape Color	None	None	None	None
Reflective Tape Width (cm)	N/A	N/A	N/A	N/A
Pass/Fail	Pass	Pass	Pass*	Pass

Comments:

* Exit is equipped with two sets of instructions:

- 1) Pull Handle Out To Open; letter height: 1.3 cm
- 2) Pull Out And Down On Red Handle And Push Window Out; letter height 0.325 cm

Recorded By: 

Approved By: 

Date: 11/12/2008

DATA SHEET 4B

EMERGENCY EXIT IDENTIFICATION AND LABELING

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
 Test Date: **11/12/2008**

EMERGENCY EXIT LABELING – EXTERIOR (NOT REQUIRED FOR ROOF EXITS)

Exit Location	Left Front	Left Center	Rear	Right Rear
Exit Description	Emergency Exit	Emergency Exit	Emergency Exit	Emergency Exit
Letter Height (cm)	5	5	5	5
Background Color	Yellow	Yellow	Yellow	Yellow
Location Outside	Above Window	Above Door	Above Window	Above Window
Pass/Fail	Pass	Pass	Pass	Pass

EMERGENCY EXIT RETOREFLECTIVE TAPE - EXTERIOR

Exit Location	Left Front	Left Center	Rear	Right Rear
Perimeter Outlined With Retroreflective Tape (cm)	Yes	Yes	Yes	Yes
Retroreflective Tape Color	Yellow	Yellow	Yellow	Yellow
Retroreflective Tape Width (cm)	2.6	2.6	2.6	2.6
Pass/Fail	Pass	Pass	Pass	Pass

Comments: None

Recorded By: *Eva Lederman*

Approved By: *Michael Janoy*

Date: 11/12/2008

DATA SHEET 4 (CONTINUED)
EMERGENCY EXIT IDENTIFICATION AND LABELING

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
 Test Date: **11/12/2008**

	Requirements	Pass/Fail
1	Each required Emergency Exit is labeled with the words "Emergency Exit" or "Emergency Door" as appropriate in letters at least 5 cm high (2") of a color that contrasts with its background.	Pass
2	Emergency Doors – The designation "Emergency Exit" or "Emergency Door" is located at the top of, or directly above the exit door on both inside and outside surfaces of the bus.	Pass
3	Roof Exits – The designation for roof exits is located on an inside surface of the exit, or within 30 cm (11.8") of the roof exit opening.	N/A
4	Emergency Window Exits – The designation is located at the top of, or directly above, or at the bottom of the emergency window exit on both the inside and outside surfaces of the bus.	Pass
5	Exit Operating Instructions indicate all motions required to unlatch and open the exit, in letters at least 1 cm (.39") high and of a color that contrast with its background and shall be located within 15 cm (5.9") of the release mechanism on the inside surface of the bus.	Pass
6	Each required Emergency Exit opening is outlined around its outside perimeter with a 2.5 cm (1") wide retroreflective tape of red, white, or yellow color.	Pass

Comments: None

Recorded By: 

Approved By: 

Date: 11/12/2008

DATA SHEET 5
TAPE RELECTIVITY TEST

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
Test Date: **11/12/2008**

- _____ Color of retroreflective tape (white, red, or yellow)
- _____ Glass bead retroreflective element material – Fill in Part A
- _____ Prismatic retroreflective element material – Fill in Part B

SPECIFIC INTENSITY PER UNIT AREA
(Candela Per Foot Candle Per Square Foot)

Observation Angle	Entrance Angle	Min. Reqd. Intensity	Recorded Intensity	Pass/Fail
Part A – Glass Bead				
Part B - Prismatic				

This section of tape passes the REFLECTIVITY requirement. Yes___ No___

Comments: **Tape Reflectivity Test Not Performed**

Recorded By: _____

Approved By: _____

Date:

DATA SHEET 6A

FORCE TESTS TO UNLATCH THE EMERGENCY EXITS - INTERIOR

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
 Test Date: **11/12/2008**

Exit Location	Exit Description	High/Low Force Area	Maximum Force Requirement Newtons	Actual Force Measured (N)	Motion(s) Required to Release Exit	Actual Motion(s) to Release Exit	Pass/Fail
Left Side Front	Window	High & Low	178 For Straight Motion, Perpendicular to Exit ----- 89 For Rotary or Straight Motion	1. 35.2	Rotary or Straight	Rotate Handle Inboard and Upward	Pass
				2. 35.2			
				3. 32.9			
				Average: 34.4			
Left Side Center	Door	High	178	1. 42.2	Upward	Rotate Handle Upward	Pass
				2. 41.9			
				3. 44.0			
				Average: 42.7			
Right Side Rear	Window	High & Low	178 For Straight Motion, Perpendicular to Exit ----- 89 For Rotary or Straight Motion	1. 45.0	Rotary or Straight	Rotate Handle Inboard and Upward	Pass
				2. 48.0			
				3. 49.3			
				Average: 47.4			
Rear	Window	High & Low	178 For Straight Motion, Perpendicular to Exit ----- 89 For Rotary or Straight Motion	1. 53.0	Rotary or Straight	Rotate Handle Downward	Pass
				2. 50.9			
				3. 50.8			
				Average: 51.6			

Comments: None

Recorded By: *Eva Leonard*

Approved By: *Michael Janoy*

Date: 11/12/2008

DATA SHEET 6B

FORCE TESTS TO UNLATCH THE EMERGENCY EXITS - EXTERIOR

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
 Test Date: **11/12/2008**

Exit Location	Exit Description	High/Low Force Area	Maximum Force Requirement Newtons	Actual Force Measured (N)	Motion(s) Required to Release Exit	Actual Motion(s) to Release Exit	Pass/Fail
Left Center	Door	High & Low	178 For Straight Motion, Perpendicular to Exit ----- 89 For Rotary or Straight Motion	1. 72.1	Mfr's Discretion	Rotate Lever Upward	Pass
				2. 54.6			
				3. 76.8			
				Average: 67.8			
Rear	Window	High & Low	Not Applicable	1. 87.0	Not Applicable	Pull Handle	Pass
				2. 48.8			
				3. 31.1			
				Average: 55.6			

Comments: None

Recorded By: *Evo [Signature]*

Approved By: *Michael Janoy*

Date: 11/12/2008

DATA SHEET 7A

FORCE TESTS TO OPEN THE EMERGENCY EXITS - INTERIOR

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
 Test Date: **11/12/2008**

Exit Location	Exit Description	High/Low Force Area	Maximum Force Requirement Newtons	Actual Force Measured (N)	Motion(s) required to Open Exit	Actual Motion(s) to Open Exit	Passage of Ellipsoid or Parallelepiped	Pass/Fail
Left Side Front	Window	High & Low	178 For Straight Motion, Perpendicular to Exit	1. 17.4	Rotary or Straight	Push Straight Outward	Ellipsoid	Pass
				2. 17.8				
				3. 19.5				
				Average: 18.2				
Left Side Center	Door	High & Low	178 For Straight Motion, Perpendicular to Exit	1. 20.5	Rotary or Straight	Push Straight Outward	114x61x30 Parallelepiped	Pass
				2. 19.1				
				3. 17.8				
				Average: 19.1				
Right Side Rear	Window	High & Low	178 For Straight Motion, Perpendicular to Exit	1. 25.0	Rotary or Straight	Push Straight Outward	Ellipsoid	Pass
				2. 24.7				
				3. 21.1				
				Average: 23.6				
Rear	Window	High & Low	178 For Straight Motion, Perpendicular to Exit	1. 167.6	Straight, Perp. to Exit	Push Straight Outward	Ellipsoid	Pass
				2. 162.1				
				3. 157.7				
				Average: 162.5				

Describe in the comments section if more than one force and motion are required to unlatch the exit.

Comments: None

Recorded By: *Eva Leander*

Approved By: *Michael Janoy*

Date: 11/12/2008

DATA SHEET 7B

FORCE TESTS TO OPEN THE EMERGENCY EXITS - EXTERIOR

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
 Test Date: **11/12/2008**

Exit Location	Exit Description	High/Low Force Area	Maximum Force Requirement Newtons	Actual Force Measured (N)	Motion(s) required to Open Exit	Actual Motion(s) to Open Exit	Passage of Ellipsoid or Parallelepiped	Pass/Fail
Left Center	Door	High & Low	178 For Straight Motion, Perpendicular to Exit	1. 20.5	Rotary or Straight	Pull Straight Outward	114x61x30 Parallelepiped	Pass
				2. 29.1				
				3. 28.0				
				Average: 25.9				
Rear	Window	High & Low	Not Applicable	1. 89.9	Not Applicable	Pull Straight Outward	Ellipsoid	Pass
				2. 91.9				
				3. 101.0				
				Average: 94.3				

Describe in the comments section if more than one force and motion are required to unlatch the exit.

Comments: None

Recorded By: *Evo Leard*

Approved By: *Michael Janoy*

Date: 11/12/2008

DATA SHEET 8
EMERGENCY EXIT EXTENSION

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
Test Date: **11/12/2008**

	Requirements	Pass/Fail
1	Exit(s) can be extended by a single person.	Pass
2	Each emergency exit door is equipped with a positive door opening device that meets the requirements (outlined in Section S5.4.1 (3) of FMVSS 217).	Pass
3	There is a 30 cm (11.81") wide clear aisle space for each side emergency door exit.	Pass
4	For flip-up seat adjacent to the side emergency door exit it automatically assumes and retain a vertical position when not in use, so that no portion of the seat bottom is within the 30 cm (11.81") aisle clearance space.	Pass
5	There is no seat or barrier which extends past the side door opening.	Pass
6	There is no obstruction of door latch mechanism for the rear emergency door.	Pass

Comments: None

Recorded By: 

Approved By: 

Date: 11/12/2008

DATA SHEET 9
WINDOW RETENTION TEST

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
Test Date: **11/12/2008**

1	Test Window Identification:	Left Emergency Window Exit		
2	Provide a detailed description of the window such as fixed, push out, single or double glazed, horizontal or vertical sliding, etc.	Push Out, Vertical Rotating		
3	Provide the horizontal and vertical glazing dimensions for each panel.	538 mm X 304 mm		
4	Did the window pass the retention requirements? Describe how the window structure and glazing withstood the force per the PASS/FAIL criteria:	Max Displacement of 44.4 mm was Reached PASS Glazing Shattered at 2283 N		
5	Did the window pass the force tests to unlatch and open the exit after the completion of the retention test?	Unlatch Force Measured (N)	Open Force Measured (N)	Pass/ Fail
		1. 9.5	1. 15.4	Pass
		2. 8.1	2. 15.8	Pass
		3. 8.5	3. 13.9	Pass

Comments: None

Recorded By: 

Approved By: 

Date: 11/12/2008

DATA SHEET 9 (CONTINUED)

WINDOW RETENTION TEST

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
 Test Date: **11/12/2008**

1	Test Window Identification:	Left Emergency Door Exit		
2	Provide a detailed description of the window such as fixed, push out, single or double glazed, horizontal or vertical sliding, etc.	Fixed, Single Glazed		
3	Provide the horizontal and vertical glazing dimensions for each panel.	568 mm X 478 mm		
4	Did the window pass the retention requirements? Describe how the window structure and glazing withstood the force per the PASS/FAIL criteria:	Max Displacement of 29.6 mm was Reached PASS Glazing Shattered at 1331 N		
5	Did the window pass the force tests to unlatch and open the exit after the completion of the retention test?	Unlatch Force Measured (N)	Open Force Measured (N)	Pass/ Fail
		1. 34.6	1. 23.8	Pass
		2. 30.4	2. 16.8	Pass
		3. 33.2	3. 28.5	Pass

Comments: None

Recorded By: 

Approved By: 

Date: 11/12/2008

SECTION 4
INSTRUMENTATION AND EQUIPMENT LIST

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C90900**
Test Date: **11/12/2008**

Equipment	Manufacturer	Model/Serial No.	Cal. Date	Next Cal. Date
Load Cell	Interface	1210AF 5K-62736	10/28/08	04/28/09
Inclinometer	Digital Protractor	Pro 360 / Comp Lab	09/30/08	03/30/09
Linear Potentiometer	Ametek	P-40A-HT / 21954	08/25/08	02/25/09
Digital Calipers	Mitutoyo	CD-6" cs/ 0441288	06/16/08	12/16/08
Steel Tape	Stanley	Powerlock / 546	05/20/08	11/20/08
Ellipsoid	MGA	ELLIP – 1A	When Used	When Used
Parallelepiped	MGA	PARA – 1A	When Used	When Used
Force Gauge	Quantrol	DMLC1120014	09/19/08	03/19/09

**SECTION 5
PHOTOGRAPHS**

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Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Exterior Left Side View of School Bus

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



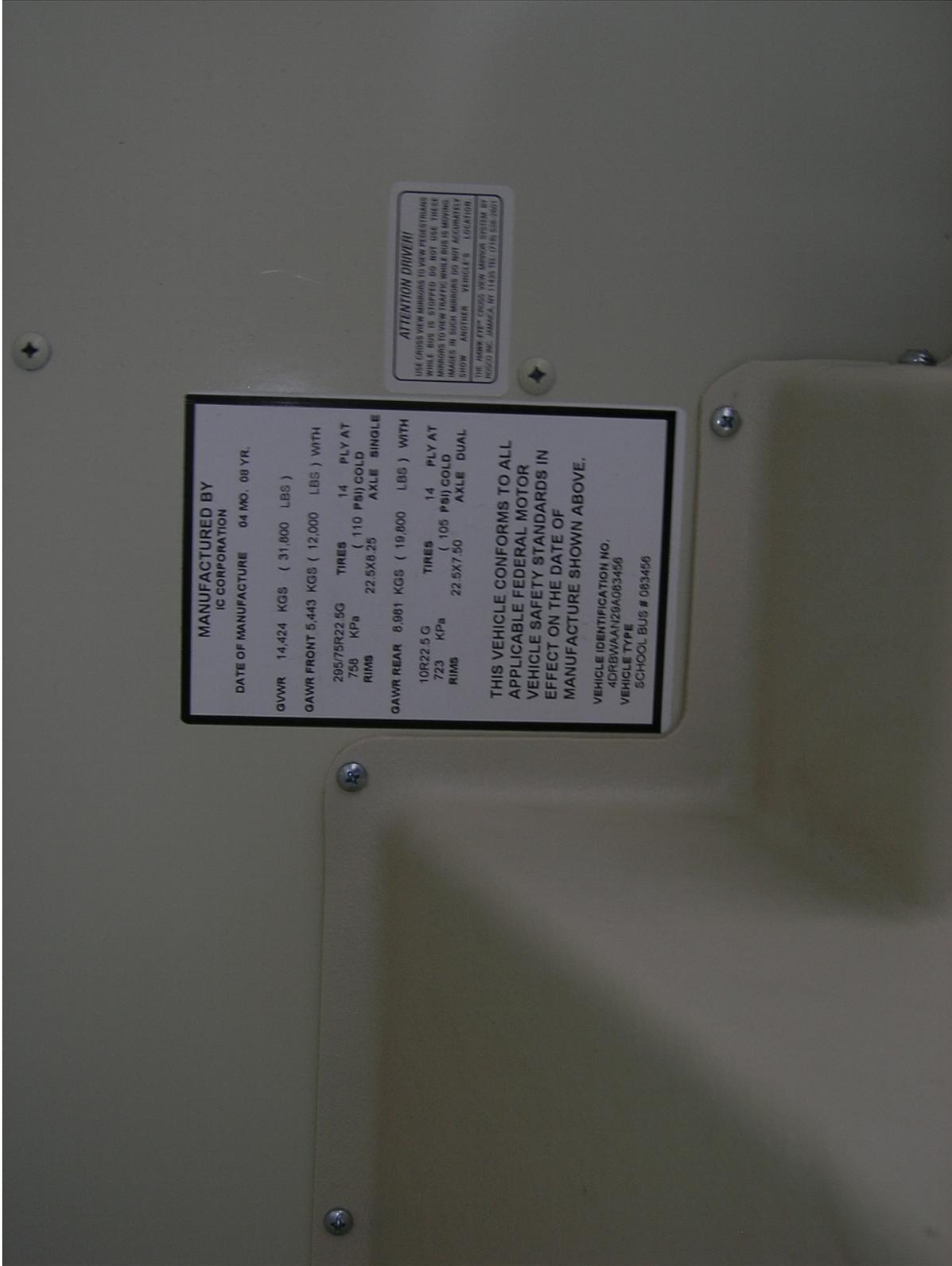
Exterior Right Front $\frac{3}{4}$ View of School Bus

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Exterior Left Rear $\frac{3}{4}$ View of School Bus

Test Vehicle: **2009 IC CORPORATION RE300 SCHOOL BUS** NHTSA No.: **C90900**
 Test Lab: **MGA RESEARCH CORPORATION** Test Date: **11/12/2008**



MANUFACTURED BY
IC CORPORATION

DATE OF MANUFACTURE 04 MO. 08 YR.

GAWR 14,424 KGS (31,800 LBS)

GAWR FRONT 5,443 KGS (12,000 LBS) WITH

295/75R22.5G TIRES 14 PLY AT
758 KPa (110 PSI) GOLD
RIMS 22.5X8.25 AXLE SINGLE

GAWR REAR 8,981 KGS (19,800 LBS) WITH

10R22.5G TIRES 14 PLY AT
723 KPa (105 PSI) GOLD
RIMS 22.5X7.50 AXLE DUAL

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

VEHICLE IDENTIFICATION NO.
4DRBWA1129A063456
VEHICLE TYPE
SCHOOL BUS # 083456

ATTENTION DRIVER!

USE CROSS VIEW MIRRORS TO VIEW PEDESTRIANS
WHEN A BUS IS STOPPED DO NOT USE THESE
MIRRORS WHILE BUS IS MOVING.
IMAGES IN SUCH MIRRORS MAY NOT ACCURATELY
SHOW ANOTHER VEHICLE'S LOCATION.

THE HAWK EYE CROSS VIEW MIRROR SYSTEM BY
WORLD WIDE JAMBA, INC. (716) 586-3001

Certification Label

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Interior Front to Rear View Depicting Seating Arrangement

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Interior Rear to Front View Depicting Seating Arrangement

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION
NHTSA No.: C90900
Test Date: 11/12/2008



Left Side Window Exit (Outside View)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Left Side Window Exit (Inside View)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION
NHTSA No.: C90900
Test Date: 11/12/2008



Left Side Door Exit (Outside View)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Left Side Door Exit (Inside View)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Right Side Window Exit (Outside View)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Right Side Window Exit (Inside View)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Rear Exit Window Identification (Outside View)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Rear Exit Window Identification (Inside View)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION
NHTSA No.: C90900
Test Date: 11/12/2008



Left Side Window Emergency Exit Ellipsoid Clearance

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Left Side Door Emergency Exit Parallelepiped Clearance

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION
NHTSA No.: C90900
Test Date: 11/12/2008



Left Side Door Emergency Exit 30 cm Minimum Clearance

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION
NHTSA No.: C90900
Test Date: 11/12/2008



Right Side Window Emergency Exit Ellipsoid Clearance

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Rear Window Emergency Exit Ellipsoid Clearance

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION
NHTSA No.: C90900
Test Date: 11/12/2008



Retention Test of Left Side Window (Pre-Test)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Retention Test of Left Side Door Exit (Pre-Test)

Test Vehicle: 2009 IC CORPORATION RE300 SCHOOL BUS NHTSA No.: C90900
Test Lab: MGA RESEARCH CORPORATION Test Date: 11/12/2008



Retention Test of Left Side Door Exit (Post-Test)

SECTION 6
TEST PLOTS

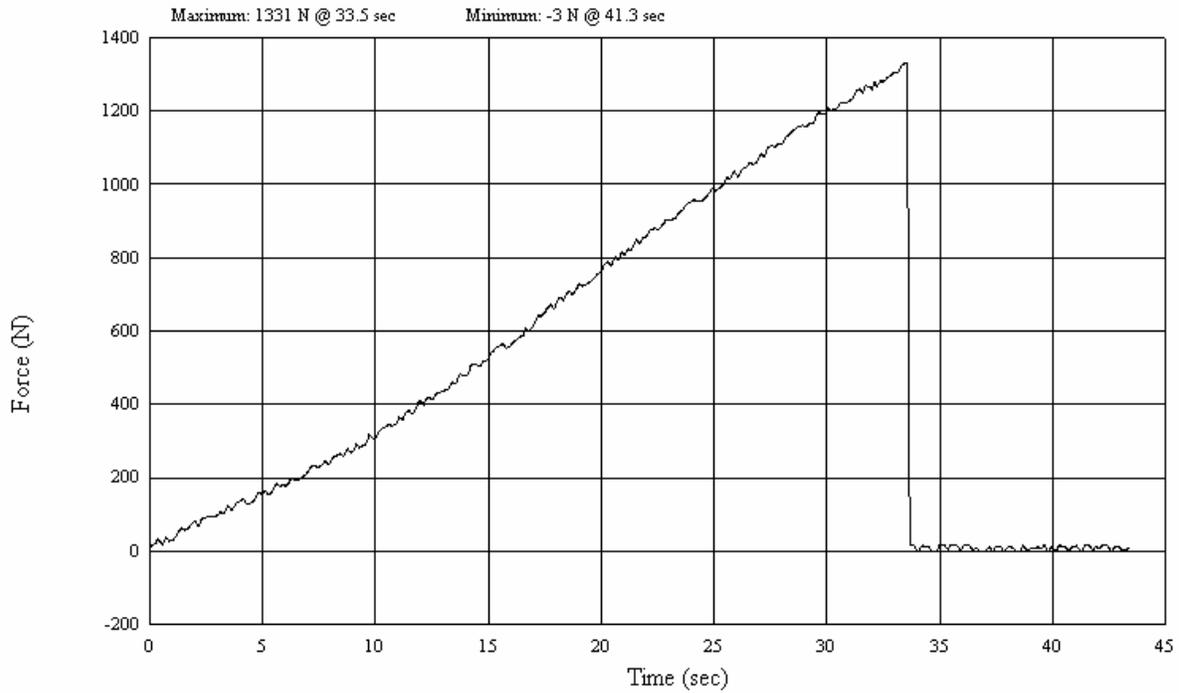
<u>No.</u>		<u>Page No.</u>
1	Left Side Emergency Door Exit Displacement vs. Time	44
2	Left Side Emergency Door Exit Force vs. Time	44
3	Left Side Emergency Window Exit Displacement vs. Time	45
4	Left Side Emergency Window Exit Force vs. Time	45



Force (N) vs Time (sec)

Test Description: FMVSS 217 Force vs. Time
Component ID: 2009 IC Corporation RE300 School Bus
NHTSA No.: C90900
Left Side Emergency Exit Door

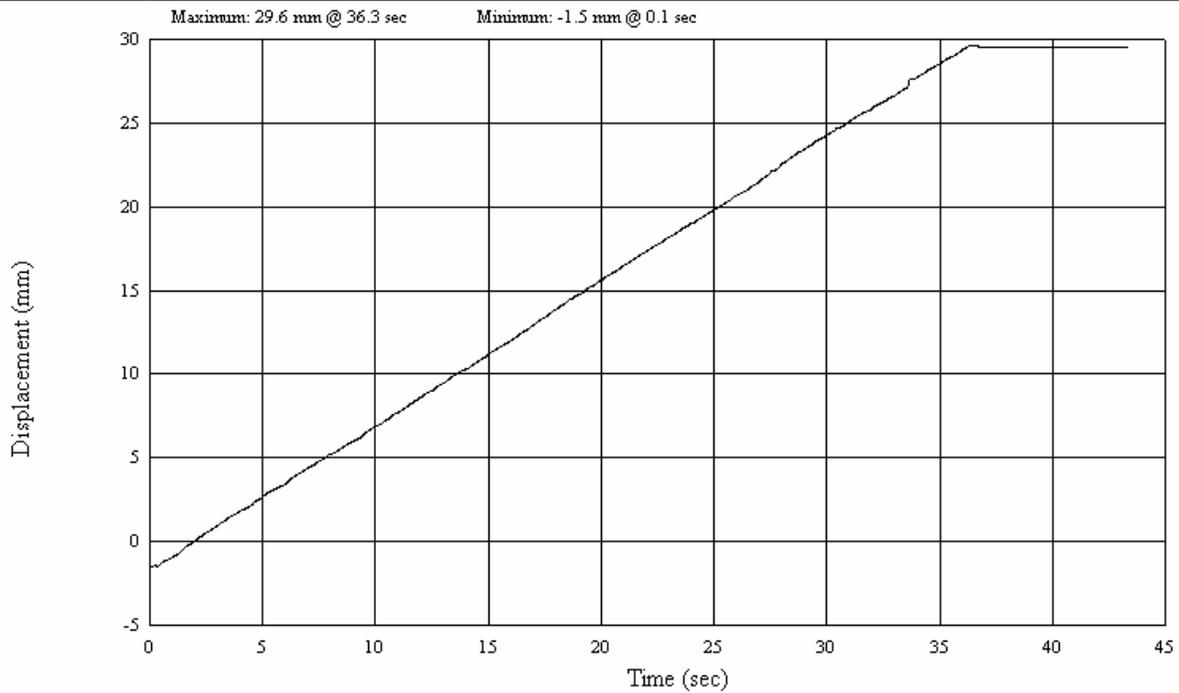
Test Date: 11/12/2008



Displacement (mm) vs Time (sec)

Test Description: FMVSS 217 Displacement vs. Time
Component ID: 2009 IC Corporation RE300 School Bus
NHTSA No.: C90900
Left Side Emergency Exit Door

Test Date: 11/12/2008

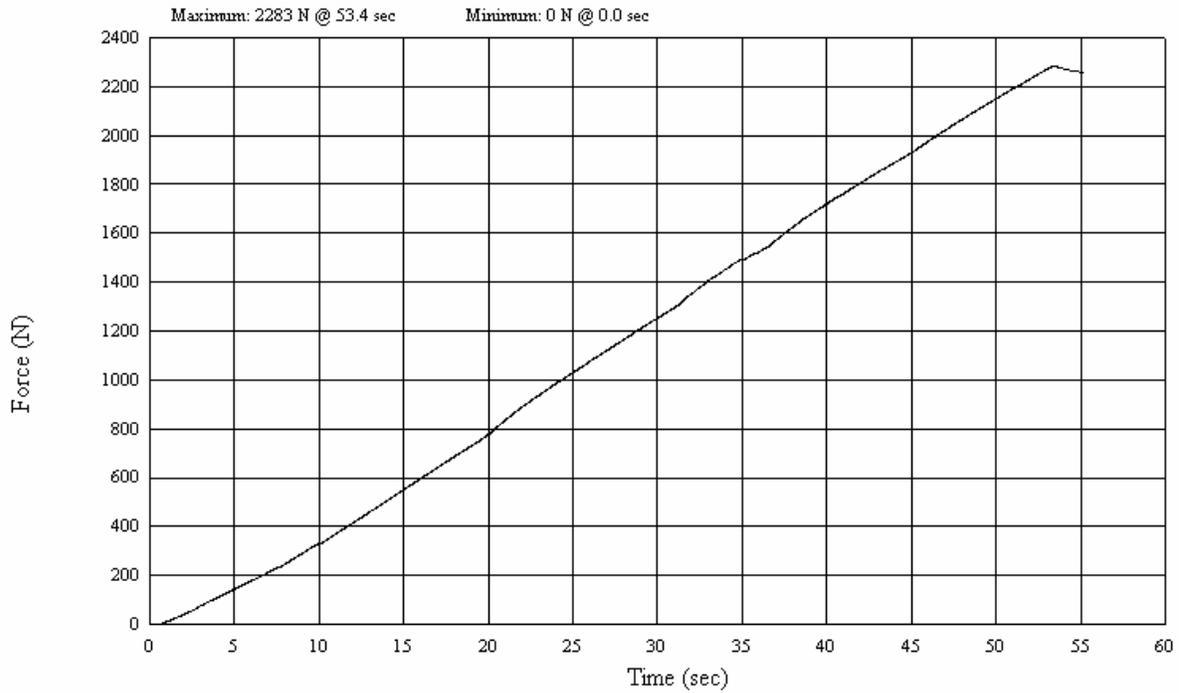




Force (N) vs Time (sec)

Test Description: FMVSS 217 Force vs. Time
Component ID: 2009 IC Corporation RE300 School Bus
NHTSA No.: C90900
Left Side Window Exit

Test Date: 11/12/2008



Displacement (mm) vs Time (sec)

Test Description: FMVSS 217 Displacement vs. Time
Component ID: 2009 IC Corporation RE300 School Bus
NHTSA No.: C90900
Left Side Window Exit

Test Date: 11/12/2008

