

REPORT NUMBER: 120-MGA-07-003

**SAFETY COMPLIANCE TESTING FOR
FMVSS NO. 120
TIRE SELECTION AND RIMS
FOR MOTOR VEHICLES WITH A GVWR OF MORE THAN 4,536 KG**

**IC CORPORATION
2007 IC BE 200 SCHOOL BUS
NHTSA NO.: C70901**

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



FINAL REPORT DATE: JULY 11, 2007

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
MAIL CODE: NVS-220
1200 NEW JERSEY AVENUE, S.E.
WASHINGTON, D.C. 20590**

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Prepared by:  Date: July 11, 2007
James Hansen, Project Engineer

Reviewed by:  Date: July 11, 2007
Michael Janovicz, Program Manager

FINAL REPORT ACCEPTED BY OVSC:



July 11, 2007
Date of Acceptance

Technical Report Documentation Page

1. Report No. 120-MGA-07-003	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Final Report of FMVSS 120 Compliance Testing of 2007 IC BE 200 School Bus NHTSA No.:C70901		5. Report Date July 11, 2007	
		6. Performing Organization Code MGA	
7. Author(s) James Hansen, Project Engineer Michael Janovicz, Program Manager		8. Performing Organization Report No. MGA-DOT-120-07-003	
9. Performing Organization Name and Address MGA Research Corporation 5000 Warren Road Burlington, WI 53105		10. Work Unit No.	
		11. Contract or Grant No. DTNH22-02-D-01057	
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance Mail Code: NVS-220 1200 New Jersey Avenue, S.E. Washington, D.C. 20590		13. Type of Report and Period Covered Final Report 05/02/07 – 07/11/07	
		14. Sponsoring Agency Code NVS-220	
15. Supplementary Notes			
16. Abstract A compliance test was conducted on the subject 2007 IC BE 200 School Bus, NHTSA No. C70901, in accordance with FMVSS 120, "Tire selection and rims for motor vehicles with a GVWR of more than 4,536 kilograms," and TP-120-03. The vehicle was weighed in the unloaded and fully loaded conditions and its tires, rims, and related information were checked. Test failures: None			
17. Key Words Compliance Testing Safety Engineering FMVSS 120		18. Distribution Statement Copies of this report are available from: NHTSA Technical Information Services (NPO-411) 1200 New Jersey Ave., S.E. Washington, DC 20590 Email: tis@nhtsa.dot.gov FAX: 202-493-2833	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 32	22. Price

TABLE OF CONTENTS

<u>Section</u>		<u>Page No</u>
1	Purpose of Compliance Test	1
2	Test Procedure and Discussion of Results	2
3	Compliance Test Data	4
	Data Sheet 1 - General Tire and Rim Data	4
	Data Sheet 2 - Certification and Tire Label Information	6
	Data Sheet 3 - Weight Distribution	8
4	Instrumentation and Equipment List	10
5	Photographs	13

SECTION 1
PURPOSE OF COMPLIANCE TEST

The purpose of this test report is to document the results of tests performed on a MY 2007 IC BE 200 School Bus, NHTSA No.: C70901, in accordance with the requirements stated in Federal Motor Vehicle Safety Standard (FMVSS) No. 120, “ Tire selection and rims for motor vehicles with a GVWR of more than 4,536 kilograms.”

This standard establishes requirements to ensure that applicable vehicles are equipped with tires of adequate size and load rating and rims of appropriate size and type designation.

SECTION 2

TEST PROCEDURE AND DISCUSSION OF RESULTS

Testing of the 2007 IC BE 200 School Bus, NHTSA No. C70901, was conducted at MGA Research Corporation in accordance with NHTSA TP-120-03, dated April 10, 2000 and MGA-TP-120-03 dated November 20, 2002. The vehicle mounted tires and rims were surveyed to ensure that the rims were suitable for the tires and that the tires inflated to the maximum inflation pressure stated on the tire sidewall were appropriate for the vehicle's certified Gross Axle Weight Ratings (GAWR). The vehicle certification and tire information labeling was surveyed to ensure that the vehicle manufacturer's recommended rims were suitable for the recommended tires, and that the recommended tires inflated to the recommended inflation pressures stated on the labeling were appropriate for the vehicle's certified GAWRs. The vehicle was ballasted and weighed in three different loading conditions to determine if axle or tire overloading could occur. The three loading conditions were:

Condition 1 – Unloaded Vehicle Weight (UVW).

Condition 2 – Vehicle in Condition 1 state plus the addition of ballast to simulate twenty passengers (one adult driver and nineteen students).

Condition 3 – Vehicle in Condition 2 state plus the addition of ballast to simulate cargo loading. Target vehicle load is the certified gross weight rating (GVWR).

The vehicle mounted tires inflated to the inflation pressure labeled on the tire sidewall have a load rating appropriate to carry the maximum loads as required by FMVSS No. 120. The vehicle rims are suitable for the vehicle tires and contain the required markings.

SECTION 2...continued
TEST PROCEDURE AND DISCUSSION OF RESULTS

Model Year/Mfr. /Make/Model:	2007 IC BE 200	
Incomplete Vehicle Make/Model:		
NHTSA No.:	C70901	
GVWR:	7,938 KG / 17,500 lbs	
Build Date for Bus Chassis:	04/06	
VIN:	4DRAPAFK07A407251	
Chassis VIN:	4DRAPAFK07A407251	
Designated Seating Capacity:	(1 Driver, 19 Passengers)	
Vehicle Type:	School Bus	
Tire Pressure from certification label (at capacity):	Front: 655 KPa	Rear: 655 KPa
Odometer Reading:	1190 Miles	
Dealer Installed Optional Accessories	None Noted	

SUMMARY

Requirements	PASS/FAIL
TIRE AND RIM SELECTION (S5.1) Installed tires and rims are suitable for vehicle	PASS
Rim Marking (S5.2) Rims contain all required markings of proper dimensions	PASS
LABEL INFORMATION (S5.3) Vehicle has proper certification/tire information label. Label tires at recommended inflation pressure and rims are suitable for vehicle.	PASS
Weight Distribution (49 CFR 567 Certification) Vehicle loaded with occupants and cargo does not exceed GVWR	PASS
Results: Test data indicates compliance with FMVSS 120	PASS

SECTION 3
COMPLIANCE TEST DATA
DATA SHEET 1
GENERAL TIRE AND RIM DATA

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
 Test Date: **05/02/07**

GENERAL DATA

Tire Type: (Passenger car or other)	Truck/Bus
Are the tire and rim sizes the same for all axles, including the spare?	Yes
Does the tire size fitted to the axles appear on the Certification or Tire label? (If NO, describe)	Yes
Number of axles	2
Dual tires on rear axle(s)	Yes

TIRE DATA FROM SIDEWALL

	Right Front	Spare
Manufacturer	Hankook	N/A
Brand	AH06	N/A
Tire Size	225/70R19.5	N/A
Maximum Tire Load Rating (KG)	Single: 1650 Dual: 1550	N/A
De-rated Tire Load Rating (KG)	N/A	N/A
Maximum Inflation Pressure (KPa)	660	N/A
Tire has DOT symbol (Yes/No)	Yes	N/A
DOT serial number	DOT 5M4Y R4H3405	N/A

MOUNTED TIRE VS. AXLE RATING COMPARISON
 (AT SIDEWALL MAXIMUM INFLATION PRESSURE)

	Front Axle	Rear Axle
A. GAWR (KG) from certification label	3175	4762
B. (No. of tires) x (tire load rating (KG) from above table)	3300	6200
C. Is "B" equal to or greater than "A"? (Yes/No)	Yes	Yes

**DATA SHEET 1...continued
GENERAL TIRE AND RIM DATA**

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
 Test Date: **05/02/07**

RIM MARKINGS

	Right Front	Spare
A. Source of published dimensions (letter designation)	T	N/A
B. Rim Size	19.5 x 6.75	N/A
C. Does rim contain DOT symbol? (Yes/No)	Yes	N/A
D. Manufacturer's name, symbol or trademark (copy format)	Accuride	N/A
E. Date of manufacture or symbol	02 14 06	N/A
Do items A-C appear on weather side of rim? (Yes/No)	Yes	N/A
Letter height (not less than 3mm)	4 mm	N/A
Lettering (impressed or embossed)	Impressed	N/A
Are all rim markings legible? (Yes/No)	Yes	N/A
Do all markings comply with requirements? (Yes/No)	Yes	N/A
Rims are suitable for tires on vehicles? (Yes/No)	Yes	N/A

RIM MEASUREMENTS

	Right Front	Spare
Rim width	171.5 mm	N/A
Rim diameter	495.3 mm	N/A
Rim measurements same as rim markings? (Yes/No)	Yes	N/A

Results	Pass/Fail
TIRE AND RIM SELECTION (S5.1) Installed tires and rims are suitable for vehicle	PASS
Rim Marking (S5.2) Rims contain all required markings of proper dimensions	PASS

Remarks: None

Tested :  Approved By: 
 Date: 05/02/07

**DATA SHEET 2
CERTIFICATION AND TIRE LABEL INFORMATION**

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
Test Date: **05/02/07**

LABEL INFORMATION

Label Design (Combined Certification and Tire Label):	Yes
Label Design (Separate Tire Information Label):	No
Label in English? (Yes/No)	Yes
Block capital letter and numbers are not less than 2.4 mm in height (yes/no):	Yes
Label is permanently affixed; describe method of affixing (rivets, glue, etc.)	Yes/ Glue
Does label text color contrast with background? (yes/no)	Yes
Location of Label(s) on the vehicle:	Above Windshield on the Driver's Side

TIRE AND RIM DATA FROM LABEL (FOR EACH GAWR/GVWR)

GVWR: 7938 KG	Front Axle	Rear Axle
Tire Size	225/70R19.5F	225/70R19.5F
Rim Size	19.5 x 6.75	19.5 x 6.75
Recommended inflation pressure (KPa)	655	655
Are labeled rims suitable for labeled tires (Yes/No) ¹	Yes	Yes
Referenced load rating at label recommended inflation pressure (KG) ¹	1630	1525

¹ Referenced source for tire/rim match and load rating data: 2007 Year Book Tire & Rim Assoc.

CERTIFICATION/TIRE LABEL MAXIMUM CAPACITY COMPARISON

GVWR: 7938 KG	Front axle	Rear Axle
A.GAWR (KG) FROM CERTIFICATION LABEL	(C) 3175	(D) 4762
B.(No. of tires) x (Tire load rating (KG))	3260	6100
Is "B" equal or greater than "A"? (Yes/No)	Yes	Yes
Is (C) plus (D) equal to or greater than GVWR? (Yes/No)	No ⁽¹⁾	

RESULTS	PASS/FAIL
LABEL INFORMATION (S5.3) Vehicle has proper certification/tire information label. Label tires at recommended inflation pressure and rims are suitable for vehicle.	PASS

Tested By:  Approved By: 
Date: 05/02/2007

DATA SHEET 2 (CONTINUED)
CERTIFICATION AND TIRE LABEL INFORMATION

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
Test Date: **05/02/07**

⁽¹⁾The sum of the GAWRs, listed in kg. is less than the GVWR by one kilogram. However, when listed in pounds, the sum of the GAWRs and the GVWR are equal. The sum of the GAWRs is 17,500 lbs. The GVWR is 17,500 lbs. Because this is clearly a unit conversion issue, this is not considered a failure.

**DATA SHEET 3
WEIGHT DISTRIBUTION**

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
Test Date: **05/02/07**

FLUID LEVELS				
Fuel:	FULL			
Coolant:	FULL			
Other Fluids: <u>Washer fluid, brake fluid, etc.</u>	FULL			
TIRE PRESSURES				
Tire	Left Front	Right Front	Left Rear	Right Rear
Tire Pressure (KPa)	655	655	655	655
OCCUPANT AND CARGO LOADS				
Total Occupant Load (KG): [# of designated seating positions x 68 KG per adult or 54 KG per student]	1094 (1-driver, 19-students)			
Manufacturer's Rated Cargo Load (KG): [If not stated on vehicle or provided in owner's manual leave blank]	N/A			
Certified GVWR - Measured UVW - Total Occupant Load = Rated Cargo Load <u>7,938</u> KG - <u>5,708</u> KG - <u>1,094</u> KG = <u>1,136</u> KG (must be positive)				
Describe Placement of Cargo:	Down Center aisle			

WEIGHT DISTRIBUTION

ITEM	Tire or Vehicle Rating* (KG)	CONDITION 1 UVW (KG)		CONDITION 2 Cond. 1 + occupants (KG)		CONDITION 3 Cond. 2 + cargo (KG)	
		Measured	Overload	Measured	Overload	Measured	Overload
Left Front Tire	1650	1162	No	1308	No	1298	No
Right Front Tire	1650	1234	No	1370	No	1382	No
Front Axle	3175	2396	No	2678	No	2680	No
Left Rear Tire	3100	1584	No	2002	No	2558	No
Right Rear Tire	3100	1728	No	2142	No	2696	No
Rear Axle	4762	3312	No	4144	No	5254	Yes
Total Vehicle	7938	5708	No	6822	No	7934	No

* Vehicle and axle weight ratings (GVWR & GAWR) are located on the vehicle certification label plate. Vehicle tire load ratings are based upon the inflation pressure specified on the certification label plate for each respective axle, as determined from the appropriate tire manufacturer's specification table.

**DATA SHEET 3...continued
WEIGHT DISTRIBUTION**

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
Test Date: **05/02/07**

RESULTS	PASS/FAIL
Weight Distribution (49 CFR 567 Certification) Vehicle loaded with occupants and cargo does not exceed GVWR	PASS

Remarks: None

Tested By:  Approved By: 
Date: 03/22/2007

**SECTION 4
INSTRUMENTATION AND EQUIPMENT LIST**

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
 Test Date: **05/02/07**

	Digital Caliper	Vehicle Scale	Tape Measure
Make	Mitutoyo	GSE	Stanley
Model	CD-6" CS	Pro-Weigh 84	Powerlock
Serial # (s)	0441288	004804	SN 281
Range	0-150mm	0 to 20,000 lb	0-5 m
Accuracy	.01mm	0.25% static	1 mm
Cal. Date	09/11/06	09/11/06	02/27/07
Cal. Due Date	09/11/07	09/11/07	08/27/07

SECTION 4...continued

INSTRUMENTATION AND EQUIPMENT LIST

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
 Test Date: **05/02/07**

SCALE CALIBRATION SHEET

Confidential Trade Secret REPORT OF INSPECTION AND CALIBRATION Operating Under A2LA Accreditation #2006.01; Performed by Certified Scale Inc. N57 W13640 Carmen Avenue, Menomonee Falls, WI 53051. As Directed by MGA Research Corporation											
TYPE <u>DIGITAL FLOOR</u>		CLASS <u>III</u>		MODEL <u>465</u>		CAPACITY <u>20,000</u>					
MANUFACTURER <u>GSE</u>		SERIAL # <u>004804</u>		ID# <u>NONE</u>		MAX. LOAD <u>15,000</u>					
LOCATION <u>BUS AND TRUCK BAY 1</u>		MINIMUM DIVISION <u>5</u>		UNITS <u>Lbs.</u>							
TEST AND UNCERTAINTY PROCEDURE JUSTIFICATION					NIST TRACEABLE TEST STANDARDS USED THIS CALIBRATION						
PLEASE REFER TO TEST JUSTIFICATION AND UNCERTAINTY POLICY MADE PART OF SCALE MAINTENANCE AND CALIBRATION PROCEDURE MANUAL; SERIAL # MGA-704-L1					50# NUMBERS <u>C800/NL 01</u> THRU <u>C819 /NSC 34</u>						
<input checked="" type="checkbox"/> THERE WAS NO DEVIATION IN PROCEDURE AS WRITTEN					1000# NUMBERS <u>NSI-A100</u> THRU <u>NSI-A114</u>						
<input type="checkbox"/> DEVIATION FROM PROCEDURE IS NOTED HEREUPON					SUBSTITUTION LOAD <input type="checkbox"/> <u>1624</u>						
TEST WEIGHT CERTIFICATION					ESTIMATE OF ENVIRONMENTAL CONDITIONS						
PLEASE REFER TO TEST STANDARD TRACEABILITY DOCUMENTS MADE PART OF SCALE MAINTENANCE AND CALIBRATION PROCEDURE MANUAL; SERIAL # MGA-704-L1					Temperature <u>105</u> ° Humidity <u>70</u> % Air Movement <u>minimal</u>						
Vibration <u>minimal</u> Other <u>none</u>											
VISUAL INSPECTION				ACCEPT	REJECT	LOCATION OF TEST/NOTICE OF SUB-CONTRACTOR					
FUNCTIONALITY; as left				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> This test was conducted at Certified Scale Inc. facility, Menomonee Falls, WI					
REPEATABILITY/SENSITIVITY; as left				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> This test was conducted within the customer facility; located at :					
PHYSICAL CONDITION; as left				<input checked="" type="checkbox"/>	<input type="checkbox"/>	5000 Warren Road, Burlington, WI 53105					
SUITABILITY FOR INTENDED USE				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Subcontracted to:					
*** FINAL TEST RESULTS ***											
TEST POINT	AS FOUND			A C C E P T	R E J E C T	AS LEFT		A C C E P T	R E J E C T	TOLERANCES	
	EXPECTED VALUE	MEASURED VALUE	ERROR			MEASURED VALUE	ERROR			LOW LIMIT	HIGH LIMIT
SCALE #1											
DISTRIBUTION	1000	<u>1000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>1000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	995	1005
DISTRIBUTION	2000	<u>2005</u>	<u>5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>2000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1995	2005
DISTRIBUTION	3000	<u>3010</u>	<u>10</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>3000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2990	3010
DISTRIBUTION	4000	<u>4015</u>	<u>15</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>4000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3990	4010
DISTRIBUTION	5000	<u>5020</u>	<u>20</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>5000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4990	5010
DISTRIBUTION	10,000	<u>10,040</u>	<u>40</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>10,000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9980	10,020
DISTRIBUTION	15,000	<u>15,060</u>	<u>60</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>15,000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14,970	15,030
DISTRIBUTION	18,000	<u>18,075</u>	<u>75</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>18,000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17,960	18,040
M.W.D.											
PAGE (1) OF (2) APPROVED											
*** FINAL CONCLUSIONS ***											
As FOUND: ACCEPT <input type="checkbox"/> REJECT <input checked="" type="checkbox"/>			As LEFT: ACCEPT <input checked="" type="checkbox"/> REJECT <input type="checkbox"/>			ACTION PENDING: <input type="checkbox"/>					
*** STATEMENT OF ESTIMATED UNCERTAINTY AND CONFIDENCE ***											
<input type="checkbox"/> ESTIMATED UNCERTAINTY OF THIS CALIBRATION IS _____; BY CSI TYPE EVALUATION DEFAULT; WITH A CONFIDENCE LEVEL OF 99%.											
<input checked="" type="checkbox"/> UNCERTAINTY OF THIS CALIBRATION IS UNKNOWN BY STATISTICAL CALCULATION; ASSUMED EQUAL TO ±50% OF THE MINIMUM VALID DIVISION.											
Technician's Comments/Observations/Opinions: <u>tested, cleaned pit of debris, adjusted calibration, tested for as left results. 5# print to lock shift error</u>											
<small>MGA2 - NM-695</small>											
<small>** THIS REPORT IS APPLICABLE ONLY TO THE DEVICE IDENTIFIED IN THE LOCATION SPECIFIED AS PART OF THIS REPORT. **</small>											
The serial number of this report is <u>091106MGA01</u> . This report may not be duplicated without written consent of Certified Scale Inc.											
This report, page <u>(1)</u> of <u>(2)</u> was completed on <u>09-11-2006</u> by <u>[Signature]</u> Certified Scale Inc. Representative											
Next scheduled Full Calibration is due <u>09-2007</u> Date. Next Preventive Maintenance visit is due <u>none</u> Date											
Revision - 0		Certified Scale Inc. - Quality Procedure Manual - Controlled Document						R-510L1RIC (File #5.10.c)			

SECTION 4...continued

INSTRUMENTATION AND EQUIPMENT LIST

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
 Test Date: **05/02/07**

SCALE CALIBRATION SHEET

TEST AND UNCERTAINTY PROCEDURE JUSTIFICATION		NIST TRACEABLE TEST STANDARDS USED THIS CALIBRATION									
PLEASE REFER TO TEST JUSTIFICATION AND UNCERTAINTY POLICY MADE PART OF SCALE MAINTENANCE AND CALIBRATION PROCEDURE MANUAL; SERIAL # MGA-704-L1		50# NUMBERS <u>CRD/NSC 01</u> THRU <u>819 NSC 34</u>									
<input checked="" type="checkbox"/> THERE WAS NO DEVIATION IN PROCEDURE AS WRITTEN		500# NUMBERS <u>B05</u> THRU <u>06</u>									
<input type="checkbox"/> DEVIATION FROM PROCEDURE IS NOTED HEREUPON		1000# NUMBERS <u>NSIA 100</u> THRU <u>NSIA 114</u>									
TEST WEIGHT CERTIFICATION		ESTIMATE OF ENVIRONMENTAL CONDITIONS									
PLEASE REFER TO TEST STANDARD TRACEABILITY DOCUMENTS MADE PART OF SCALE MAINTENANCE AND CALIBRATION PROCEDURE MANUAL; SERIAL # MGA-704-L1		Temperature <u>65°</u> Humidity <u>70%</u> Air Movement <u>minimal</u>									
Vibration <u>minimal</u> Other <u>now</u>											
VISUAL INSPECTION		LOCATION OF TEST/NOTICE OF SUB-CONTRACTOR									
FUNCTIONALITY; as left	<input checked="" type="checkbox"/>	<input type="checkbox"/> This test was conducted at Certified Scale Inc. facility, Menomonee Falls, WI									
REPEATABILITY/SENSITIVITY; as left	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> This test was conducted within the customer facility; located at:									
PHYSICAL CONDITION; as left	<input checked="" type="checkbox"/>	5000 Warren Road, Burlington, WI 53105									
SUITABILITY FOR INTENDED USE	<input checked="" type="checkbox"/>	<input type="checkbox"/> Subcontracted to:									
*** FINAL TEST RESULTS ***											
TEST POINT	As Found			A C C E P T	R E J E C T	As Left		A C C E P T	R E J E C T	TOLERANCES	
	EXPECTED VALUE	MEASURED VALUE	ERROR			MEASURED VALUE	ERROR			LOW LIMIT	HIGH LIMIT
SCALE #2											
DISTRIBUTION	1000	<u>10250</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>1000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	995	1005
DISTRIBUTION	2000	<u>2020</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>2000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1995	2005
DISTRIBUTION	3000	<u>3005</u>	<u>5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>3000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2990	3010
DISTRIBUTION	4000	<u>4005</u>	<u>5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>4000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3990	4010
DISTRIBUTION	5000	<u>5000</u>	<u>10</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>5000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4990	5010
DISTRIBUTION	10,000	<u>10020</u>	<u>20</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>10000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9980	10,020
DISTRIBUTION	15,000	<u>15030</u>	<u>30</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>15000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14,970	15,030
DISTRIBUTION	18,000	<u>18035</u>	<u>35</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>18000</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17,960	18,040
										M.W.D.	
PAGE (2) OF (2) APPROVED											
*** FINAL CONCLUSIONS ***											
As Found: ACCEPT <input checked="" type="checkbox"/> REJECT <input type="checkbox"/>		As Left: ACCEPT <input checked="" type="checkbox"/> REJECT <input type="checkbox"/>		ACTION PENDING: <input type="checkbox"/>							
*** STATEMENT OF ESTIMATED UNCERTAINTY AND CONFIDENCE ***											
<input type="checkbox"/> ESTIMATED UNCERTAINTY OF THIS CALIBRATION IS _____ BY CSI TYPE EVALUATION DEFAULT; WITH A CONFIDENCE LEVEL OF 99%.											
<input checked="" type="checkbox"/> UNCERTAINTY OF THIS CALIBRATION IS UNKNOWN BY STATISTICAL CALCULATION; ASSUMED EQUAL TO ±50% OF THE MINIMUM VALID DIVISION.											
Technician's Comments/Observations/Opinions: <u>tested, cleaned pit, adjusted calibration, noted for as left results</u>											

** THIS REPORT IS APPLICABLE ONLY TO THE DEVICE IDENTIFIED IN THE LOCATION SPECIFIED AS PART OF THIS REPORT. **
 The serial number of this report is 091106MGA01. This report may not be duplicated without written consent of Certified Scale Inc.
 This report, page (2) of (2) was completed on 09-11-2006 by [Signature] Certified Scale Inc. Representative
 Next scheduled Full Calibration is due 09-2007 Date. Next Preventive Maintenance visit is due 2006 Date.
 Revision - 0 Certified Scale Inc. - Quality Procedure Manual - Controlled Document R-510L1RIC (File #5.10.c)

**SECTION 5
PHOTOGRAPHS**

TABLE OF PHOTOGRAPHS

<u>No.</u>		<u>Page No.</u>
1	Three-Quarter Frontal View of Left Side of Vehicle	14
2	Three-Quarter Rear View of Left Side of Vehicle	15
3	Certification Label	16
4	Tire Manufacturer	17
5	Tire Model Number	18
6	Tire DOT Serial Number and Tire Load Ratings	19
7	Tire Size Designation	20
8	Rim Manufacturer	21
9	Rim DOT and Source of Published Information	22
10	Rim Size	23
11	Date of Manufacture Markings	24
12	Vehicle on Scales Doing Measurement of Front Axle Loads	25
13	Vehicle on Scales Doing Measurement of Rear Axle Loads	26
14	Simulated Occupant Loading	27
15	Simulated Cargo Loading	28

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
Test Date: **05/02/07**



Three-Quarter Frontal View of Left Side of Vehicle

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
Test Date: **05/02/07**



Three-Quarter Rear View of Left Side of Vehicle

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
Test Date: **05/02/07**

MANUFACTURED BY
IC CORPORATION

DATE OF MANUFACTURE 04 MO. 06 YR.

GVWR 7,938 KGS (17,500 LBS)

GAWR FRONT 3,175 KGS (7,000 LBS) WITH

225/70R19.5F TIRES 12 PLY AT
655 KPa (95 PSI) COLD
RIMS 19.5X6.75 AXLE SINGLE

GAWR REAR 4,762 KGS (10,500 LBS) WITH

225/70R19.5F TIRES 12 PLY AT
655 KPa (95 PSI) COLD
RIMS 19.5X6.75 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.
4DRAPAFK07A407251

VEHICLE TYPE
SCHOOL BUS # 407251

ATTENTION DRIVER!
USE CROSS VIEW MIRRORS TO VIEW PEDESTRIANS
WHILE BUS IS STOPPED DO NOT USE THESE
MIRRORS TO VIEW TRAFFIC WHILE BUS IS MOVING.
IMAGES IN SUCH MIRRORS DO NOT ACCURATELY
SHOW ANOTHER VEHICLE'S LOCATION.
THE HAWK-EYE™ CROSS VIEW MIRROR SYSTEM BY
ROSCO INC. JAMAICA, NY 11435 TEL: (718) 526-2601

16

Certification Label

Test Vehicle: 2007 IC BE 200 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C70901
Test Date: 05/02/07



Test Vehicle: 2007 IC BE 200 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C70901
Test Date: 05/02/07



18

Tire Model Number

Test Vehicle: 2007 IC BE 200 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C70901
Test Date: 05/02/07



19

Tire DOT Serial Number and Tire Load Ratings

Test Vehicle: 2007 IC BE 200 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C70901
Test Date: 05/02/07



Tire Size Designation

Test Vehicle: 2007 IC BE 200 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

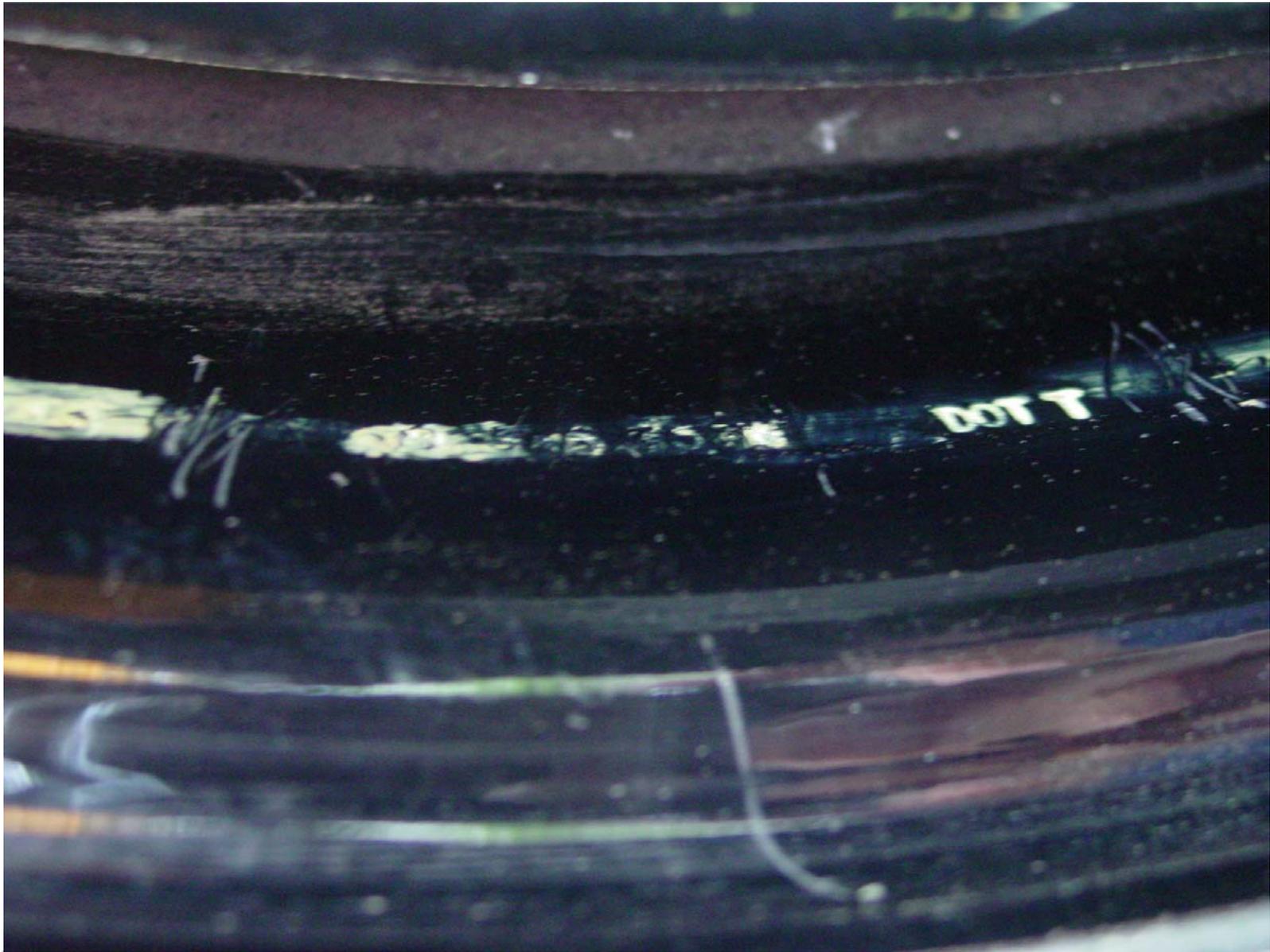
NHTSA No.: C70901
Test Date: 05/02/07



Rim Manufacturer

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

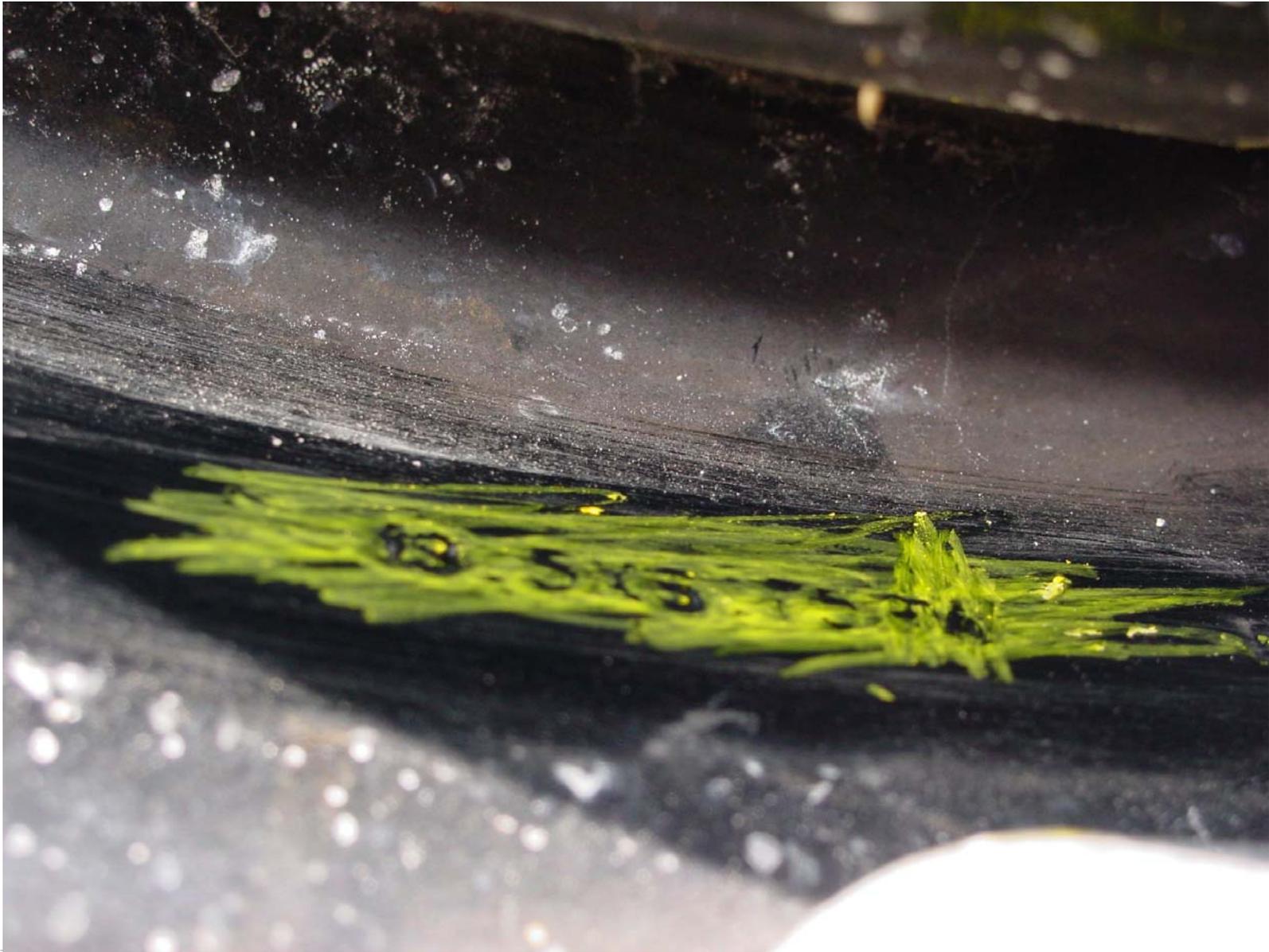
NHTSA No.: **C70901**
Test Date: **05/02/07**



Rim DOT and Source of Published Information

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
Test Date: **05/02/07**

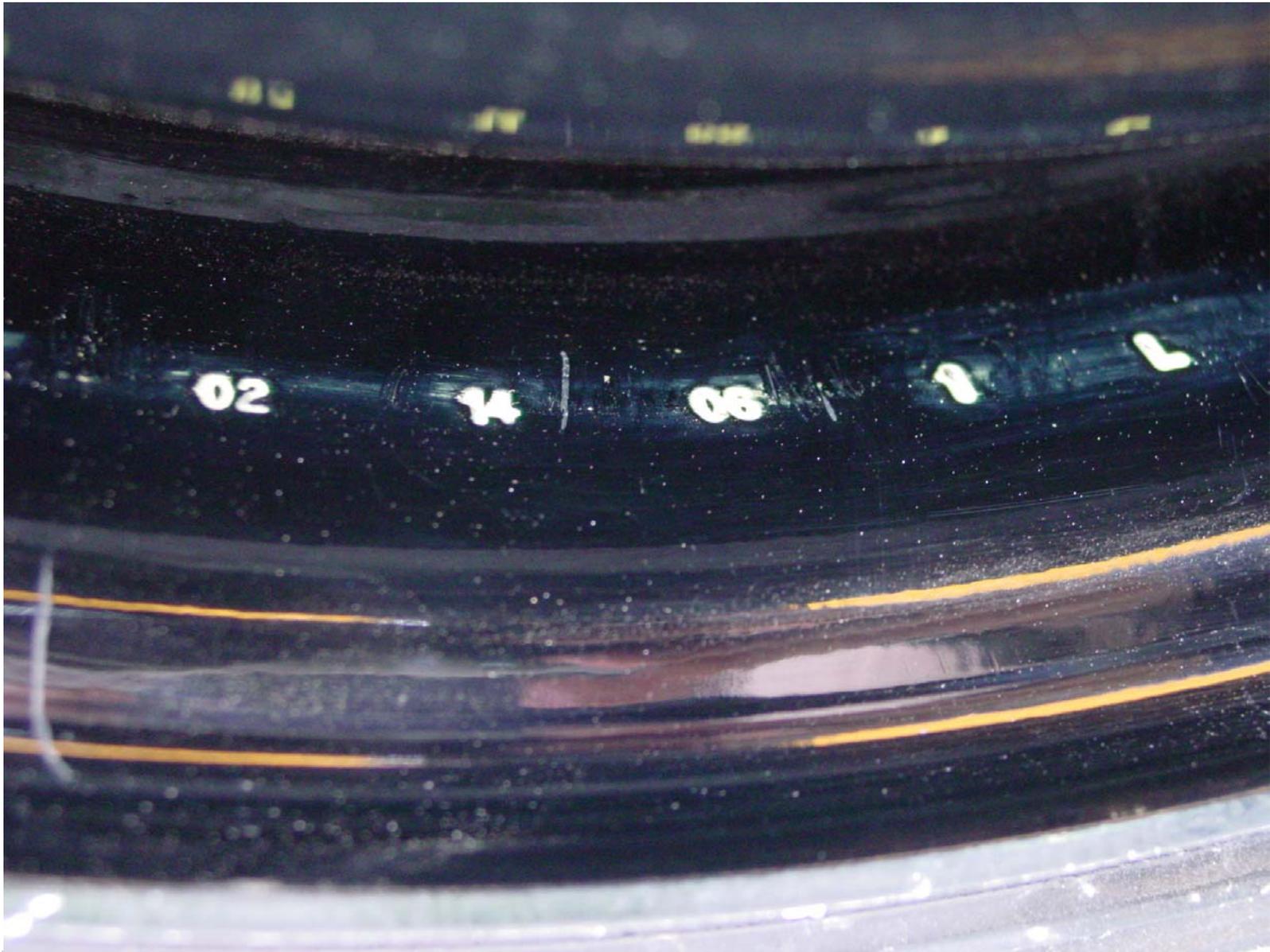


23

Rim Size

Test Vehicle: 2007 IC BE 200 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C70901
Test Date: 05/02/07



Date of Manufacture Markings

Test Vehicle: 2007 IC BE 200 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C70901
Test Date: 05/02/07



Vehicle on Scales Doing Measurement of Front Axle Loads

Test Vehicle: **2007 IC BE 200 SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C70901**
Test Date: **05/02/07**



Vehicle on Scales Doing Measurement of Rear Axle Loads

Test Vehicle: 2007 IC BE 200 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C70901
Test Date: 05/02/07



Simulated Occupant Loading

Test Vehicle: 2007 IC BE 200 SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C70901
Test Date: 05/02/07



Simulated Cargo Loading