

REPORT NUMBER: 110-MGA-07-001

**SAFETY COMPLIANCE TESTING FOR
FMVSS NO. 110
TIRE SELECTION AND RIMS FOR
MOTOR VEHICLES WITH A GVWR OF 4,536 KG OR LESS**

**LES ENTERPRISES MICHEL CORBEIL INC.
2006 CORBEIL SCHOOL BUS
NHTSA NO.: C60902**

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



FINAL REPORT DATE: JUNE 27, 2007

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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16. Abstract A compliance test was conducted on the subject 2006 Corbeil School Bus, NHTSA No. C60902, in accordance with FMVSS 110, "Tire selection and rims for motor vehicles with a GVWR of 4,536 KG or less," and TP-110T-01. The vehicle was weighed in the unloaded and fully loaded conditions and its tires, rims, and related information were checked. Test failures: The vehicle placard is not "permanently affixed" as required by FMVSS 110. The vehicle placard lists the tire inflation pressures in "LBS" instead of "PSI" as shown in Figure 1 of FMVSS 110. The incorrect vehicle capacity weight is listed on the vehicle placard. The vehicle placard lists the GVWR in place of the vehicle capacity weight.			
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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, Placard, and Tire Inflation Pressure Labels	6
	Data Sheet 3 - Weight Distribution	10
	Data Sheet 4 - Owner's Manual Requirements	12
4	Instrumentation and Equipment List	14
5	Photographs	17
6	Laboratory Notice of Test Failure	34

SECTION 1
PURPOSE OF COMPLIANCE TEST

The purpose of this test report is to document the results of tests performed on a MY 2006 Corbeil School Bus, NHTSA No.: C60902, in accordance with the requirements stated in Federal Motor Vehicle Safety Standard (FMVSS) No. 110, "Tire Selection and Rims for Motor Vehicles with a GVWR of 4,536 KG or less. "

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. This standard also establishes location, content, and format requirements for the Vehicle Placard and optional Tire Inflation Pressure Label.

SECTION 2

TEST PROCEDURE AND DISCUSSION OF RESULTS

Testing of the 2006 Corbeil School Bus, NHTSA No. C60902 was conducted at MGA Research Corporation in accordance with NHTSA TP-110T-01, dated December 15, 2005 and MGA-TP-110-02 dated December 11, 2006. 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 labeling was surveyed to ensure that the vehicle manufacturer's recommended rims were suitable for the recommended tires. The vehicle placard was photographed and checked for compliance to location, content, and format requirements, 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-one passengers (one adult driver and twenty 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. 110. The vehicle rims are suitable for the vehicle tires and contain the required markings. The vehicle placard did not meet certain content and format requirements.

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

Model Year/Mfr. /Make/Model:	2006 Corbeil School Bus	
Date of Manufacture:	06/29/2006	
NHTSA No.:	C60902	
GVWR:	4,355 KG / 9,600 lbs	
Build Date for Bus Chassis:	04/01/2006	
Incomplete Vehicle Make/Model:	Ford	
VIN:	1FDSE35L66DA60778	
Chassis VIN:	1FDSE35L66DA60778	
Designated Seating Capacity:	(1 Driver, 20 Passengers)	
Vehicle Type:	School Bus	
Tire Pressure from tire placard (at capacity):	Front: 380 KPa	Rear: 550 KPa
Odometer Reading:	485 Miles	
Dealer Installed Optional Accessories	None Noted	

SUMMARY

Requirements	PASS/FAIL
TIRE AND RIM SELECTION (FMVSS 120, S5.1) Installed tires and rims are suitable for vehicle	PASS
RIM MARKING (FMVSS 120, S5.2) Rims contain all required markings of proper dimensions	PASS
LABEL INFORMATION The placard and tire inflation pressure label (if provided) are affixed and located correctly, and display the information and format required. (S110, S4.3) The Part 567 certification label shows the size designation of the tires and rims appropriate for the vehicle including the tire size(s) listed on the vehicle placard and, if provided, tire inflation pressure label. (S110, 4.3.3) No inflation pressure other than the maximum permissible inflation pressure is shown on the placard and, if any, tire inflation pressure label unless as required. (S110, S4.3.4)	FAIL
WEIGHT DISTRIBUTION (49 CFR 567 CERTIFICATION) Vehicle loaded with occupants and cargo does not exceed GVWR	PASS
Owner's Manual Requirements, Part 575.6(a) Paragraph (4)(i), (4)(ii), (4)(iii), (4)(vi) and (4)(v) Owner's manual or other document has discussion of Vehicle Placard, Loading and Tires. (49 CFR 575.6 (a)(4)). Owner's manual includes exact statement relating to "Steps for Determining Correct Load Limits." (49 CFR 575.6 (a)(5)).	PASS
RESULTS: Test data indicates compliance with FMVSS 110	FAIL

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

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
 Test Date: **03/08/2007**

GENERAL DATA

Tire Type: (Passenger car or other)	Light Truck
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)	No

TIRE DATA FROM SIDEWALL

	Right Front	Spare
Manufacturer	Hankook	N/A
Brand	Dyna Pro AS	N/A
Tire Size	LT245/75R16	N/A
Maximum Tire Load Rating (KG)	Single: 1380 Dual: 1260	N/A
De-rated Tire Load Rating (KG)	N/A	N/A
Maximum Inflation Pressure (KPA)	550	N/A
Tire has DOT symbol (Yes/No)	Yes	N/A
DOT serial number	DOT T7XD 5JNH	N/A

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

	Front Axle	Rear Axle
A. GAWR (KG) from certification label	1610	2760
B. (No. of tires) x (tire load rating (KG) from above table)	2760	2760
C. Is "B" equal to or greater than "A"? (Yes/No)	Yes	Yes

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

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**

RIM MARKINGS

	Right Front	Spare
A. Source of published dimensions (letter designation)	T	N/A
B. Rim Size	16 x 7 K	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	032506	N/A
Do items A-C appear on weather side of rim? (Yes/No)	Yes	N/A
Letter height (not less than 3mm)	Yes – 3 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	178 mm	N/A
Rim diameter	406 mm	N/A
Rim measurements same as rim markings? (Yes/No)	Yes	N/A

Results	Pass/Fail
TIRE AND RIM SELECTION (FMVSS 120, S5.1) Installed tires and rims are suitable for vehicle	PASS
Rim Marking (FMVSS 120, S5.2) Rims contain all required markings of proper Dimensions	PASS

Remarks: None

Tested By:  Approved By: 
Date: 03/08/2007

**DATA SHEET 2
CERTIFICATION, PLACARD, AND TIRE INFLATION PRESSURE LABELS**

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
 Test Date: **03/08/2007**

CERTIFICATION LABEL INFORMATION

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 back ground? (yes/no)	Yes
Location of Label(s) on the vehicle:	Driver's Seat, above windshield

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

GVWR: 4355 KG	Front Axle	Rear Axle
Tire Size	LT245/75R16	LT245/75R16
Rim Size	16 x 7.0K	16 x 7.0K
Recommended inflation pressure (KPa)	380	550
Are labeled rims suitable for labeled tires (Yes/No) ¹	Yes	Yes
Referenced load rating at label recommended inflation pressure (KG) ¹	1380 x 2	1380 x 2

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

VEHICLE CERTIFICATION LABEL INFORMATION

	Tire Size	Rim Size	Rim Suitable for Tire? (Yes/No)*
Front Axle:	LT245/75R16	16 x 7 K	Yes
Rear Axle	LT245/75R16	16 x 7 K	Yes

RESULTS	PASS/FAIL
LABEL INFORMATION (FMVSS 110, S4.3.3) The Part 567 certification label shows the size designation of the tires and rims appropriate for the vehicle including the tire size(s) listed on the vehicle placard and, if provided, the tire inflation pressure label.	PASS

Tested By:  Approved By: 

Date: 03/20/2007

DATA SHEET 2...continued
CERTIFICATION, PLACARD, AND TIRE INFLATION PRESSURE LABELS

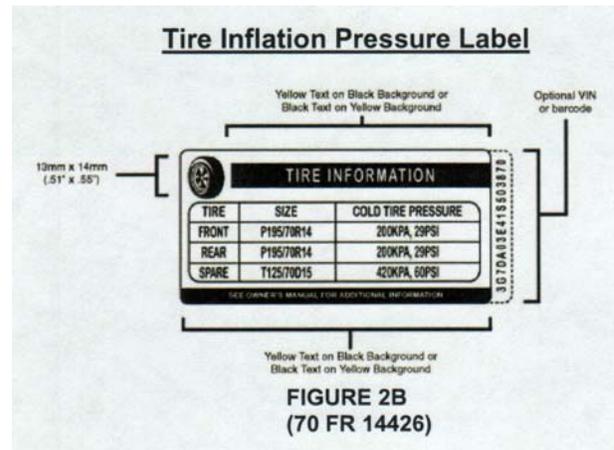
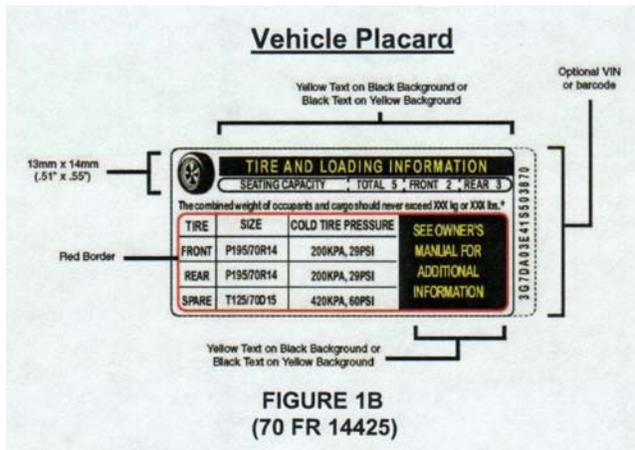
Test Vehicle: **2006 CORBEIL SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
 Test Date: **03/08/2007**

IDENTIFICATION OF VEHICLE LABELING

	(Yes/No)	Location	PASS/FAIL
Vehicle Placard	Yes	Door Latch Post	PASS
Tire Inflation Pressure Label	N/A	N/A	N/A

NOTE: For a vehicle manufactured on and after September 1, 2005, the Vehicle Placard and if provided, Tire Inflation Pressure Label, are to conform to figures 1B and 2B. See the Labeling Notes for additional requirements.



Labeling Notes:

1. Tire size and pressure can be omitted from the Vehicle Placard if same data is displayed on a Tire Inflation Pressure Label.
2. The Alphanumeric Identifier or Barcode, is optional. It can be located vertically, along the right edge or the left edge of the placard or the label, or horizontally, along the bottom edge of the placard or the label.
3. Tire size can include the tire load range identification symbol (“XL” or “reinforced”, “B”, “C”, “D”, “E”, or “F”), the load index number, and the speed rating symbol, located immediately to the right of the tire size designation.
4. The tire “SIZE” heading can be replaced with “ORIGINAL TIRE SIZE” or ‘ORIGINAL SIZE.’
5. The “SPARE” tire heading can be replaced with “SPARE TIRE.”
6. For full size tires, the recommended cold tire inflation pressure can be replaced with “SEE ABOVE.”
7. If no spare tire is provided, the word “NONE” is to replace the manufacturer’s cold tire inflation pressure.

DATA SHEET 2...continued
CERTIFICATION, PLACARD, AND TIRE INFLATION PRESSURE LABELS

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
 Test Date: **03/08/2007**

	Yes/No
Vehicle Placard has the exact color and format as specified in the above Figure 1B and text is in English Language.	No**
Tire Inflation Pressure Label, if provided, has the exact color and format as specified in the above Figure 2B and text is in English language.	N/A
Vehicle Placard and if provided, Tire Inflation Pressure Label are permanently affixed.	No

**The units listed for the inflation pressure are "LBS" instead of "PSI".

VEHICLE PLACARD

Combined weight of occupants and cargo:	4355 KG (7600 lbs)*
Seating Capacity:	Total: 21 (Front: 1, Rear: 20)
Is the number of belted seating positions the same as the labeled seating capacity?	Yes
Is the tire size and pressure provided?	Yes
If no, is the tire size and pressure provided on the Tire Inflation Pressure label?	

VEHICLE PLACARD OR TIRE INFLATION PRESSURE LABEL TIRE INFORMATION

Tire Size:	Front: LT245/75R16	Rear: LT245/75R16
Tire Inflation Pressure (KPa):	Front: 380	Rear: 550
Are the sizes of the installed tires the same as the sizes of the labeled tires?	Yes	
Is the labeled cold tire inflation pressure equal to or less than the sidewall labeled maximum cold tire inflation pressure?*	Front Axle: Yes	Rear Axle: Yes

*Referenced source used for tire/rim match verification: Tire and Rim Association 2007.

DATA SHEET 2...continued
CERTIFICATION, PLACARD, AND TIRE INFLATION PRESSURE LABELS

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
 Test Date: **03/08/2007**

Is (Are) tire size(s) listed on the vehicle placard and/or tire inflation pressure label also listed on the certification label with suitable rim size?	Yes
---	------------

LABELED TIRE CAPACITY AT SPECIFIED PRESSURE

GVWR	4355 KG	
	Front Axle	Rear Axle
A. GAWR (KG) from certification label***	1610	2760
B. Tire Load Rating (KG) of labeled tire size at labeled inflation pressure *	1060	1380
C. Reduced tire load rating if applicable**		
D. (no. of tires) x (tire load rating de-rated if appropriate (KG))	2120	2760
Is "D" equal to or greater than "A"?	Yes	Yes

*Reference source used for determining load rating: Tire and Rim Association 2007

** If a passenger car tire is installed on a multipurpose passenger vehicle (MPV), truck or bus, the tire's load rating is reduced by dividing by 1.10.

*** Certification label lists "GVWR FRONT" and "GVWR REAR" for GAWRs and quantities are labeled in Lbs instead of PSI.

RESULTS	PASS/FAIL
PLACARD (FMVSS 110, S4.3) The placard and tire inflation pressure label (if provided) are affixed and located correctly, and display the information and format required.	FAIL
PLACARD (FMVSS 110, S4.3.4) No inflation pressure other than the maximum permissible inflation pressure is shown on the placard and, if any, tire inflation pressure label unless as required.	PASS

Remarks: (1) GVWR is listed on the Vehicle Placard instead of the Vehicle Capacity Weight. Refer to Section 6, Laboratory Notice of Test Failure.

Tested By: _____ Approved By: *Michael J...*
 Date: 03/20/2007

**DATA SHEET 3
WEIGHT DISTRIBUTION**

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**

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)	380	380	550	550
OCCUPANT AND CARGO LOADS				
Total Occupant Load (KG): [# of designated seating positions x 68 KG per adult or 54 KG per student]	1148 (1-driver, 20-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>4355</u> KG - <u>3106</u> KG - <u>1148</u> KG = <u>101</u> KG (must be positive)				
Describe Placement of Cargo:	101 KG displaced next to driver			

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	1060	640	No	694	No	720	No
Right Front Tire	1060	642	No	666	No	694	No
Front Axle	1610	1282	No	1360	No	1414	No
Left Rear Tire	1380	914	No	1444	Yes	1464	Yes
Right Rear Tire	1380	910	No	1450	Yes	1476	Yes
Rear Axle	2760	1824	No	2894	Yes	2940	Yes
Total Vehicle	4355	3106	No	4254	No	4354	No

* - Vehicle and axle weight ratings (GVWR & GAWR) are located on the vehicle certification label. Vehicle tire load ratings are based upon the inflation pressure specified on the Vehicle Placard for each respective axle, as determined from the appropriate Tire and Rim reference manual.

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

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**

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: Michael Janoj
Date: 03/20/2007

**DATA SHEET 4
OWNER'S MANUAL REQUIREMENTS**

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**

OWNER'S MANUAL DISCUSSES

Part 575.6 (a) Paragraph	Required Discussion Topic	Discussed in Manual? (Yes/No)	Page Numbers
(4)(i)	Tire labeling, including a description and explanation of each marking on the tires provided with the vehicle, and information about the location of the Tire Identification Number (TIN).	Yes	116
(4)(ii)	(A) Description and explanation of recommended cold tire inflation pressure.	Yes	105
	(B) Description and explanation of FMVSS 110 Vehicle Placard and Tire Inflation Pressure Label and their location (s).	Yes	122
	(C) Description and explanation of adverse safety consequences of under-inflation including tire failure.	Yes	106
	(D) Description and explanation for measuring and adjust air pressure to achieve proper inflation.	Yes	105
(4)(iii)	Glossary of tire terminology, including "cold tire pressure," maximum inflation pressure," and "recommended inflation pressure," and all non-technical terms defined in S3 of FMVSS 110 & 139.	Yes	104-107
(4)(vi)	Tire care, including maintenance and safety practices.	Yes	109-114
(4)(v)	(A) Description and explanation of loading and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity.	Yes	120-126
	(B) Description and explanation for calculating total and cargo load capacities with varying seating configurations including quantitative examples showing/illustrating how the vehicle's cargo and luggage capacity decreases as the combined number and size of occupants increase.	Yes	120-126
	(C) Description and explanation for determining compatibility of tire and vehicle load capabilities.	Yes	120-126
	(D) Description and explanation of adverse safety consequences of overloading on handling and stopping and on tires.	Yes	120-126

**DATA SHEET 4...continued
OWNER'S MANUAL REQUIREMENTS**

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**

	(Yes/No)
The following verbatim statement, in the English language, is provided in the Owner's Manual. Reference Part 575.6(a)(5)	Yes

STEPS FOR DETERMINING CORRECT LOAD LIMIT---

- (1) Locate the statements "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.
- (2) Determine the combined weight of the driver and passengers that will be riding in your vehicle.
- (3) Subtract the combined weight of the driver and passenger from XXX kg or XXX lbs.
- (4) The resulting figure equals the available amount of cargo and luggage load capacity. For Example, if the "XXX" amount equals 1400lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5x150)=650 lbs.)
- (5) Determine the combined weight of the luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
- (6) If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

RESULTS	PASS/FAIL
Owner's Manual Requirements, Part 575.6(a) Paragraph (4)(i), (4)(ii), (4)(iii), (4)(vi) and (4)(v) Owner's manual or other document has discussion of Vehicle Placard, Loading and Tires. (49 CFR 575.6 (a)(4)). Owner's manual includes exact statement relating to "Steps for Determining Correct Load Limits." (49 CFR 575.6 (a)(5)).	PASS

Remarks: None

Tested By: _____ Approved By: Michael Janicz
Date: 03/20/2007

SECTION 4
INSTRUMENTATION AND EQUIPMENT LIST

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**

	Digital Caliper	Vehicle Scale	Tape Measure
Make	Mitutoyo	GSE	Stanley
Model	CD-6" CS	Pro-Weigh 84	Powerlock
Serial # (s)	0441288	004804	SN 278
Range	0-150mm	0 to 20,000 lb	0-8 m
Accuracy	.01mm	0.25% static	1 mm
Cal. Date	09/11/06	09/11/06	09/26/06
Cal. Due Date	09/11/07	09/11/07	03/26/07

SECTION 4...continued

INSTRUMENTATION AND EQUIPMENT LIST

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
 Test Date: **03/08/2007**

SCALE CALIBRATION SHEET

VISUAL INSPECTION		ACCEPT	REJECT	LOCATION OF TEST/NOTICE OF SUB-CONTRACTOR					
FUNCTIONALITY; as left		✓		<input type="checkbox"/> This test was conducted at Certified Scale Inc. facility, Menomonee Falls, WI <input checked="" type="checkbox"/> This test was conducted within the customer facility; located at : 5000 Warren Road, Burlington, WI 53105 <input type="checkbox"/> Subcontracted to:					
REPEATABILITY/SENSITIVITY; as left		✓							
PHYSICAL CONDITION; as left		✓							
SUITABILITY FOR INTENDED USE		✓							

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	1000	0	✓		1000	0	✓		995	1005
DISTRIBUTION	2000	2005	5	✓		2000	0	✓		1995	2005
DISTRIBUTION	3000	3010	10	✓		3000	0	✓		2990	3010
DISTRIBUTION	4000	4015	15	✓		4000	0	✓		3990	4010
DISTRIBUTION	5000	5020	20	✓		5000	0	✓		4990	5010
DISTRIBUTION	10,000	10,040	40	✓		10,000	0	✓		9980	10,020
DISTRIBUTION	15,000	15,060	60	✓		15,000	0	✓		14,970	15,030
DISTRIBUTION	18,000	18,075	75	✓		18,000	0	✓		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: <i>tested, cleaned pit of debris, adjusted calibration, tested for as left results. 5# front to back shift error</i>	

MGA2 - NM-695

** 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 09110646401. This report may not be duplicated without written consent of Certified Scale Inc.

This report, page (1) 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 none 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: **2006 CORBEIL SCHOOL BUS**
 Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
 Test Date: **03/08/2007**

SCALE CALIBRATION SHEET

<i>Confidential</i> REPORT OF INSPECTION AND CALIBRATION <i>Trade Secret</i> 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 2</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>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>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 #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
APPROVED										M.W.D.	
PAGE (2) OF (2)											
*** 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 Test Vehicle	18
2	Three-Quarter Rear View of Left Side of Vehicle	19
3	Certification Label	20
4	Incomplete Vehicle Label	21
5	Vehicle Placard	22
6	Right Front Tire Manufacturer	23
7	Right Front Tire Model Number	24
8	Right Front Tire DOT Serial Number	25
9	Right Front Tire Load Ratings	26
10	Right Front Tire Size Designation	27
11	Right Front Rim Manufacturer	28
12	Right Front Rim, DOT, Source of Published Information, Date of Manufacture Markings and Right Front Rim Size	29
13	Vehicle on Scales Doing Measurement of Front Axle Loads	30
14	Vehicle on Scales Doing Measurement of Rear Axle Loads	31
15	Simulated Occupant Loading	32
16	Simulated Cargo Loading	33

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**



Three-Quarter Frontal View of Left Side of Test Vehicle

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**



Three-Quarter Rear View of Left Side of Vehicle

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**

MFD.BY
Les Entreprises Michel Corbeil Inc.

DATE OF MANUFACTURE 06/29/2006

INCOMPLETE VEHICLE MANUFACTURED BY:
FORD

DATE INC. VEH. MFD. 04/01/2006

GVWR 9,600.00

GVWR FRONT 3,550.00Lbs WITH RIMS

LT245/75R16E TIRES, 16 X 7.0K

@ 55.00 PSI COLD

GVWR REAR 6,084.00Lbs WITH RIMS

LT245/75R16E TIRES, 16 X 7.0K

@ 80.00 PSI COLD

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S
FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN
EFFECT IN 06/29/2006

VEHICLE IDENTIFICATION NUMBER:
1FDSE35L66DA60778

VEHICLE TYPE SCHOOL BUS

MODEL 754-NY-20-00WC-EMC

SERIAL GO-63959

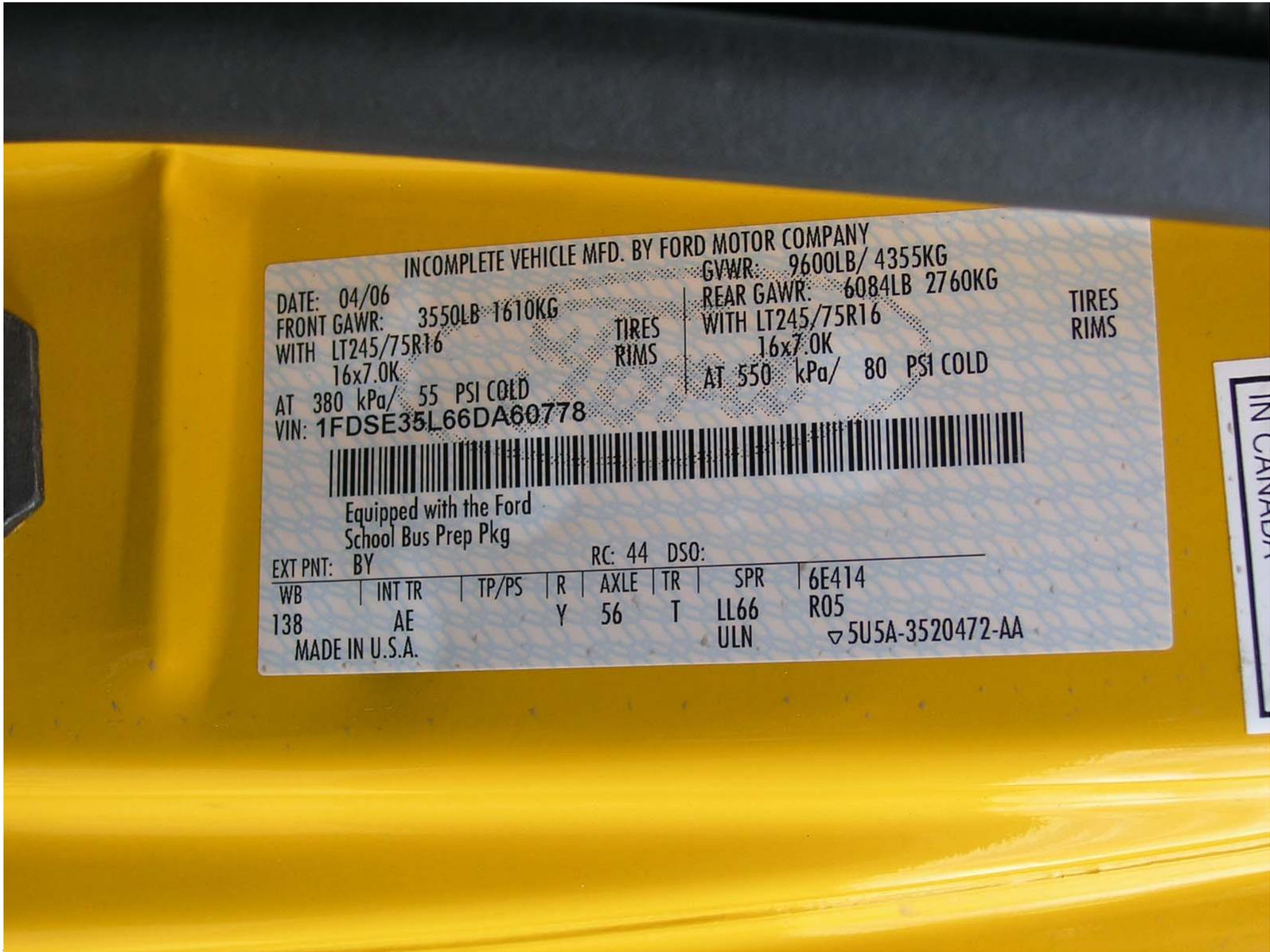


20

Certification Label

Test Vehicle: 2006 CORBEIL SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C60902
Test Date: 03/08/2007



Incomplete Vehicle Label

Test Vehicle: 2006 CORBEIL SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C60902
Test Date: 03/08/2007



Test Vehicle: 2006 CORBEIL SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C60902
Test Date: 03/08/2007



Right Front Tire Manufacturer

Test Vehicle: 2006 CORBEIL SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C60902
Test Date: 03/08/2007



Right Front Tire Model Number

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**



Right Front Tire DOT Serial Number

Test Vehicle: 2006 CORBEIL SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C60902
Test Date: 03/08/2007



Right Front Tire Load Ratings

Test Vehicle: 2006 CORBEIL SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C60902
Test Date: 03/08/2007



Right Front Tire Size Designation

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**



Right Front Rim Manufacturer

Test Vehicle: 2006 CORBEIL SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C60902
Test Date: 03/08/2007



Right Front Rim, DOT, Source of Published Information, Date of Manufacture Markings and Right Front Rim Size

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**



Vehicle on Scales Doing Measurement of Front Axle Loads

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**



Vehicle on Scales Doing Measurement of Rear Axle Loads

Test Vehicle: 2006 CORBEIL SCHOOL BUS
Test Lab: MGA RESEARCH CORPORATION

NHTSA No.: C60902
Test Date: 03/08/2007



Simulated Occupant Loading

Test Vehicle: **2006 CORBEIL SCHOOL BUS**
Test Lab: **MGA RESEARCH CORPORATION**

NHTSA No.: **C60902**
Test Date: **03/08/2007**



Simulated Cargo Loading

SECTION 6
LABORATORY NOTICE OF TEST FAILURE



LABORATORY NOTICE OF TEST FAILURE TO OVSC

Test Procedure:	FMVSS 110	Test Date:	March 8, 2007
Test Vehicle:	Corbeil	Test Lab:	MGA Research Corp.
NHTSA No.:	C60902	Project Engineer:	Jim Hansen
Contract No.:	DTNH22-02-D-01057	Delivery Order No.:	5
MFR.:	Corbeil	VIN:	1FDSE35L66DA60778
Build Date:	06/06		

TEST FAILURE DESCRIPTION

The vehicle placard is not "permanently affixed as required by FMVSS 110."

FMVSS REQUIREMENTS DESCRIPTION

Paragraph S4.3: "Each vehicle, except for a trailer or incomplete vehicle, shall show the information specified in S4.3 (a) through (g), and may show, at the manufacturer's option, the information specified in S4.3 (h) and (i), on a placard permanently affixed to the driver's side B-pillar."

Remarks: No remarks.

Notification to NHTSA (COTR): Lawrence Q. Valvo

Date: June 8, 2007

By: 

SECTION 6... continued
LABORATORY NOTICE OF TEST FAILURE



LABORATORY NOTICE OF TEST FAILURE TO OVSC

Test Procedure:	FMVSS 110	Test Date:	March 8, 2007
Test Vehicle:	Corbeil	Test Lab:	MGA Research Corp.
NHTSA No.:	C60902	Project Engineer:	Jim Hansen
Contract No.:	DTNH22-02-D-01057	Delivery Order No.:	5
MFR.:	Corbeil	VIN:	1FDSE35L66DA60778
Build Date:	06/06		

TEST FAILURE DESCRIPTION

The vehicle placard lists the tire inflation pressures as “LBS” instead of “PSI” as shown in Figure 1 of FMVSS 110.

FMVSS REQUIREMENTS DESCRIPTION

Paragraph S4.3: “...The information specified in S4.3 (e) shall be shown on both the vehicle placard and on the tire inflation pressure label (if such a label is affixed to provide the information specified in S4.3 (c), (d), and, as appropriate, (h) and (i)) may be shown in the format and color scheme set forth in Figures 1 and 2.”

Remarks: No remarks.

Notification to NHTSA (COTR): Lawrence Q. Valvo

Date: June 8, 2007

By: 

SECTION 6... continued
LABORATORY NOTICE OF TEST FAILURE



LABORATORY NOTICE OF TEST FAILURE TO OVSC

Test Procedure:	FMVSS 110	Test Date:	March 8, 2007
Test Vehicle:	Corbeil	Test Lab:	MGA Research Corp.
NHTSA No.:	C60902	Project Engineer:	Jim Hansen
Contract No.:	DTNH22-02-D-01057	Delivery Order No.:	5
MFR.:	Corbeil	VIN:	1FDSE35L66DA60778
Build Date:	06/06		

TEST FAILURE DESCRIPTION

The incorrect Vehicle Capacity Weight is listed on the Vehicle Placard. The vehicle placard lists the GVWR in place of the vehicle capacity weight.

FMVSS REQUIREMENTS DESCRIPTION

Paragraph S4.3(a): Vehicle capacity weight expressed as "The combined weight of occupants and cargo should never exceed XXX kilograms or XXX pounds"

Remarks: No remarks.

Notification to NHTSA (COTR): Lawrence Q. Valvo

Date: June 8, 2007

By: 