SAFETY COMPLIANCE TESTING FOR
FMVSS NO. 110(INDICANT)
TIRE SELECTION AND RIMS

CAMI-AUTOMOTIVE, INC.
2003 CHEVROLET TRACKER, MPV
NHTSA NO. C30115

GENERAL TESTING LABORATORIES, INC.
1623 LEEDSTOWN ROAD
COLONIAL BEACH, VIRGINIA 22443

SEPTEMBER 15, 2003
FINAL REPORT

PREPARED FOR
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Approved By: [Signature]

Approval Date: 09/15/03

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Accepted By: [Signature]

Acceptance Date: 9/24/03
**Title and Subtitle**
Final Report of FMVSS 110 (Indicant) Test of 2003 CHEVROLET TRACKER MPV
NHTSA No. C30115

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**Abstract**
This test was conducted on the subject 2003 Chevrolet Tracker MPV in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-110-02 (partial), to gather data relating to the normal load requirements specified in FMVSS 110. NHTSA's Office of Safety Performance Standards requested this data to support the agency's TREAD tire rulemaking efforts.

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Safety Engineering
FMVSS 110

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SECTION 1

INTRODUCTION

1.0 PURPOSE OF INDICANT TEST

A 2003 Chevrolet Tracker MPV was subjected to a FMVSS No. 110 (Indicant) test intended to gather data relating to the normal load requirements specified in FMVSS 110. NHTSA's Office of Safety Performance Standards requested this data to support the agency's TREAD tire rulemaking efforts.

1.1 TEST VEHICLE

The test vehicle was a 2003 Chevrolet Tracker MPV. Nomenclature applicable to the test vehicle are:

A. **Vehicle Identification Number**: 2CNBE18C736901162

B. **NHTSA No.**: C30115

C. **Manufacturer**: CAMI-AUTOMOTIVE INC.

D. **Manufacture Date**: 07/02

1.2 TEST DATE

The test vehicle was subjected to testing on May 22, 2003.
SECTION 2

TEST PROCEDURE AND SUMMARY OF RESULTS

2.0 TEST PROCEDURE

The vehicle was inspected, photographed and filled with fuel. It was then weighed to establish total curb weight and the weights of all wheels were measured and recorded. The vehicle was then ballasted to its normal load condition (refer to appendix) and the weights of all wheels were measured and recorded. Tire information labeling data and tire sidewall data were recorded.

This indicant test did not include any other requirements in FMVSS 110.

2.1 SUMMARY OF RESULTS

Currently FMVSS 110 applies only to passenger cars. The subject Chevrolet Tracker is a multipurpose passenger vehicle (MPV) and therefore it is not required to meet FMVSS 110 requirements. It was subjected to the normal load testing as executed for FMVSS 110 compliance verification for information only.
SECTION 3
TEST DATA
VEHICLE MAKE/MODEL/BODY STYLE: 2003 CHEVROLET TRACKER MPV
VEHICLE NHTSA NO.: C30115; VIN: 2CNBE18C736901162
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 05/22/03

REQUIREMENT

The vehicle is equipped with tires that meet the requirements of FMVSS 109 or FMVSS 119.

The vehicle normal load on the tire is not greater than the high speed performance test load specified in FMVSS 109 paragraph S5.5 or FMVSS 119 paragraph S7.4.

For passenger cars, the tire information placard is permanently affixed to the glove compartment door or equally accessible location; and displays the required information (FMVSS 110, S4.3).

For vehicles other than passenger cars, a combined certification/tire information label or separate tire information label is permanently affixed to either the hinge pillar, door-latch post or to the inwards-facing surface of the door next to the driver's sealing position (FMVSS 120, S5.3).

YES/NO

YES

YES

N/A

YES

REMARKS:

RECORDED BY: 

DATE: 05/21/03

APPROVED BY: 

DATE: 05/21/03
DATA SHEET 2
TEST VEHICLE INFORMATION/RECEIVING INSPECTION

LABORATORY: GENERAL TESTING LABORATORIES       DATE: 05/22/03

VEHICLE MODEL YEAR/MAKE/MODEL/BODY STYLE: 2003 CHEVROLET TRACKER MPV

MANUFACTURE DATE  07/02  NHTSA NO.: C30115  BODY COLOR: WILDFIRE RED

VIN: 2GNEE18C737901162       VEHICLE TYPE: MPV

GVWR 1580 kg (3483 lbs)   GAWR(Fr) 720 kg (1587 lbs)   GAWR(Rr) 930 kg (2050 lbs)

BELTED SEATING POSITIONS: FRONT 2   MID N/A   REAR 2   OTHER N/A

ENGINE DATA:       4 Cylinders 2.0 Liters  _____ Cubic Inches

TRANSMISSION DATA:  X Automatic Manual  ____ No. of Speeds

FINAL DRIVE DATA:  ______ Rear Drive  ______ Front Drive  ______ 4 Wheel Drive AWD

INSTALLED TIRE DATA: Size - 195/75R15  _________ Mfr. - GOODYEAR

CHECK APPROPRIATE BOXES FOR VEHICLE EQUIPMENT/MAKE SURE ALL OPTIONS ON WINDOW STICKER ARE LISTED:

<table>
<thead>
<tr>
<th></th>
<th>Traction Control</th>
<th>Clock</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Air Conditioning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tinted Glass</td>
<td>All Wheel Drive</td>
<td></td>
</tr>
<tr>
<td>X Power Steering</td>
<td>Cruise Control</td>
<td></td>
</tr>
<tr>
<td>Power Windows</td>
<td>Rear Window Defroster</td>
<td></td>
</tr>
<tr>
<td>Power Door Locks</td>
<td>Sun Roof or T-Top</td>
<td></td>
</tr>
<tr>
<td>Power Seat Driver Side</td>
<td>Tachometer</td>
<td></td>
</tr>
<tr>
<td>Power Brakes</td>
<td>Tilt Steering Wheel</td>
<td></td>
</tr>
<tr>
<td>Antilock Brake System</td>
<td>AM/FM/CD</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ARE ALL OPTIONS LISTED ON "WINDOW STICKER" PRESENT ON THE TEST VEHICLE:
(YES/NO) _______ Yes _______

REMARKS:

RECORDED BY:       DATE: 05/22/03

APPROVED BY:
DATA SHEET 3
CURB WEIGHT WITH OPTIONS AND NORMAL LOAD

VEHICLE MAKE/MODEL/BODY STYLE: 2003 CHEVROLET TRACKER MPV
VEHICLE NHTSA NO.: C30115 ; VIN: 2CNBE18C736901162
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 05/22/03

Full Fluid Levels:
Fuel ________ Full ________; Coolant ________ Full ________; Other Fluids ________ Full ________

Tire Pressure:
LF 180 KPA (26 psi) LR 180 KPA (26 psi)
RF 180 KPA (26 psi) RR 180 KPA (26 psi)

A. MEASURED CURB WEIGHT WITH INSTALLED OPTIONS AND ACCESSORIES

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td>316 KG (697 LB)</td>
<td>LR</td>
<td>294 KG (645 LB)</td>
</tr>
<tr>
<td>RF</td>
<td>310 KG (684 LB)</td>
<td>RR</td>
<td>304 KG (671 LB)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Front Axle</td>
<td>626 KG (1381 LB)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rear Axle</td>
<td>598 KG (1319 LB)</td>
</tr>
</tbody>
</table>

Total Vehicle: 1225 KG (2700 LB)

B. MEASURED VEHICLE WEIGHT IN NORMAL LOAD CONDITION

(1) Seating Capacity (from Tire Information Placard) = ________ N/A
    Seating Capacity (# of belted seating positions) = ________ 4 ________

(2) Normal Load # of Occupants from Appendix
    Occupant Distribution: Front Seat- 2  Second Seat- N/A
    Third Seat - N/A  Fourth Seat- N/A

(3) Total Normal Occupant Load ________ 136 KG (300 LB) ________
    (# of occupants x 68 KG per occupant)

(4) Measured Normal Load on each Wheel and Axles (Sum)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td>347 KG (765 LB)</td>
<td>LR</td>
<td>331 KG (730 LB)</td>
</tr>
<tr>
<td>RF</td>
<td>342 KG (755 LB)</td>
<td>RR</td>
<td>341 KG (751 LB)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Front Axle</td>
<td>689 KG (1520 LB)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rear Axle</td>
<td>672 KG (1481 LB)</td>
</tr>
</tbody>
</table>

Total Vehicle: 1361 KG (3001 LB)
DATA SHEET 3 – CONTINUED

(5) Calculated Vehicle Normal Load on the Tire
Front Tires (measured front axle normal load/2) = 345 KG (760 LB)
Rear Tires (measured front axle normal load/2) = 336 KG (741 LB)

(6) High Speed Test Load from ( ) FMVSS 109 (S5.5), or (X) FMVSS 119 (S7.4)

<table>
<thead>
<tr>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed Tire Size</td>
<td>P195/75R15</td>
</tr>
<tr>
<td>Max. Load Rating on Sidewall</td>
<td>670 KG (1477 LBS)</td>
</tr>
<tr>
<td>Reduced Sidewall Load Rating (if applicable)*</td>
<td>609 KG (1343 LBS)</td>
</tr>
<tr>
<td>High Speed Test Load (88% of sidewall max. load rating)</td>
<td>536 KG (1182 LBS)</td>
</tr>
<tr>
<td>Optional Tire Size(s)</td>
<td>NONE</td>
</tr>
</tbody>
</table>

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

REMARKS: The Vehicle Normal Load on the Tire is not greater than the High Speed Test Load.

RECORDED BY: [Signature] DATE: 05/22/03
APPROVED BY: [Signature]
DATA SHEET 4
TIRE INFORMATION LABEL OR PLACARD

VEHICLE MAKE/MODEL/BODY STYLE: 2003 CHEVROLET TRACKER MPV
VEHICLE NHTSA NO.: C30115 VIN: 2CNBE18C736901162
LABORATORY: GENERAL TESTING LABORATORIES TEST DATE: 05/22/03

A. Vehicle Type from Certification Label: MPV

B. Identify Vehicle Labeling:

Vehicle has a combined Certification Tire Information Label: ( ) Yes (X) No
Is Label Permanently Affixed: ( ) Yes ( ) No
Label Location: ____________________________
Description of Label: ____________________________

Vehicle has a separate Tire Information Label or Placard: (X) Yes ( ) No
Is Label Permanently Affixed: (X) Yes ( ) No
Label Location: Driver's Side "B" Pillar
Description of Label: White/Black Sticker

C. Enter Information from Combined or Separate Tire Information Label/Placard

Vehicle Capacity Weight - N/A (see remarks)

Designated Seating Capacity (DSC) - N/A (see remarks)
Expressed In—
(1) Total No. of Occupants: ( ) Yes ( ) No
(2) Terms of Occupants for Each Seat Location: ( ) Yes ( ) No

Manufacturer's Recommended Tire Size(s) and Cold Tire Inflation Pressure(s) for Maximum Load Vehicle Weight:

P195/75R15 FRONT - 180 kPa (26 psi)
REAR - 180 kPa (26 psi)

Manufacturer's Recommended Tire Size(s) and Cold Tire Inflation Pressure(s) for Other Load Conditions: NONE

REMARKS: The vehicle labeling requirements of FMVSS 120 for an MPV do not include Vehicle Capacity Weight (VCW) or Designated Seating Capacity (DSP) as required by FMVSS 110 passenger car labeling.

RECORDED BY: ____________________________ DATE: 05/22/03

APPROVED BY: ____________________________
DATA SHEET 5
VEHICLE TIRE DATA

VEHICLE MAKE/MODEL/BODY STYLE: 2003 CHEVROLET TRACKER MPV
VEHICLE NHTSA NO.: C30115; VIN: 2CNBE18C736901162
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 05/22/03

All tires on the vehicle are the same size: (Yes/No) Yes

INFORMATION FROM TIRE SIDEWALL:

Right Front Tire

Tire Size Designation: P195/75R15
Tire Load Index/Speed Symbol: 94S
Maximum Inflation Pressure: 300 kPa (44 psi)
Maximum Load Rating: 670 KG (1477 LBS)
Mfr. Name or Brand & Code: GOODYEAR WRANGLER
Tube or Tubeless: TUBELESS
Treadwear/Traction/Temp. Grades: 340/B/B
Sidewall (Plies & Composition): 1 PLY POLYESTER
Tread (Plies & Composition): 1 PLY POLYESTER
2 PLY STEEL

Serial Number: Right Front - DOT MARKINGS VISIBLE ON INSIDE OF TIRE BUT COULD NOT TAKE PHOTO

Tire has "DOT" markings: (X) YES ( ) NO ( ) UNDETERMINED

REMARKS:

RECORDED BY: [Signature] DATE: 05/22/03
APPROVED BY: [Signature]
SECTION 4
INSTRUMENTATION AND EQUIPMENT LIST

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>DESCRIPTION</th>
<th>MODEL/ SERIAL NO.</th>
<th>CAL. DATE</th>
<th>NEXT CAL. DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAD SCALES</td>
<td>#1 199744LF</td>
<td>199744LF</td>
<td>06/02</td>
<td>06/03</td>
</tr>
<tr>
<td></td>
<td>#2 199744RF</td>
<td>199744RF</td>
<td>06/02</td>
<td>06/03</td>
</tr>
<tr>
<td></td>
<td>#3 199744LR</td>
<td>199744LR</td>
<td>06/02</td>
<td>06/03</td>
</tr>
<tr>
<td></td>
<td>#4 199744RR</td>
<td>199744RR</td>
<td>06/02</td>
<td>06/03</td>
</tr>
<tr>
<td>PRESSURE GAGE</td>
<td>WESKLER</td>
<td>0-100</td>
<td>07/02</td>
<td>05/04</td>
</tr>
<tr>
<td>SURFACE LEVEL</td>
<td>GTL</td>
<td>N/A</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
</tbody>
</table>
SECTION 5
PHOTOGRAPHS
FIGURE 52
VEHICLE'S CERTIFICATION LABEL

2003 CHEVROLET TRACKER
NHSTA NO. C3013S
VIN NO. 1HGCD33S132018341
APPENDIX

Table 1 – Occupant Loading and Distribution for Vehicle Normal Load for Various Designated Seating Capacities

<table>
<thead>
<tr>
<th>Designated Seating Capacities, numbers of Occupants</th>
<th>Vehicle normal load, number of occupants</th>
<th>Occupant distribution in a normally loaded vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 through 4</td>
<td>2</td>
<td>2 in front</td>
</tr>
<tr>
<td>5 through 10</td>
<td>3</td>
<td>2 in front, 1 in second seat</td>
</tr>
<tr>
<td>11 through 15</td>
<td>5</td>
<td>2 in front, 1 in second seat, 1 in third seat, 1 in fourth seat</td>
</tr>
<tr>
<td>16 through 22</td>
<td>7</td>
<td>2 in front, 2 in second seat, 2 in third seat, 1 in fourth seat</td>
</tr>
</tbody>
</table>

NOTE: For the indicant test each seat was adjusted to its full down and mid forward to aft position with the seat back adjusted to a 25° reclined angle. Each designated seat position was ballasted with 54 KG (120 LBS) in the seat and 14 KG (30 LBS) on the floor directly in front of the respective seat position.