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

DAIMLERCHRYSLER CORPORATION
2003 DODGE RAM 1500 PICKUP TRUCK
NHTSA NO. C30312

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

SEPTEMBER 26, 2003
FINAL REPORT

PREPARED FOR

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
400 SEVENTH STREET, SW
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WASHINGTON, D.C. 20590
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NHTSA No. C30312

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June 02, 2003

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16. Abstract
This test was conducted on the subject 2003 Dodge Ram 1500 Pickup Truck 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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5.4 Tire Showing Model
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5.6 Tire Showing Max Load Rating and Max Inflation Pressure
5.7 Vehicle Ballasted to Simulate Normal Load Condition

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SECTION 1

INTRODUCTION

1.0 PURPOSE OF INDICANT TEST

A 2003 Dodge Ram 1500 Pickup Truck 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 Dodge Ram 1500 Pickup Truck. Nomenclature applicable to the test vehicle are:

A. Vehicle Identification Number: 1D7HU18N23S207307
B. NHTSA No.: C30312
C. Manufacturer: DAIMLERCHRYSLER CORPORATION
D. Manufacture Date: 12/02

1.2 TEST DATE

The test vehicle was subjected to testing on June 02, 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 Dodge Ram 1500 Pickup is a truck 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
DATASHEET 1
SUMMARY

VEHICLE MAKE/MODEL/BODY STYLE: 2003 DODGE RAM 1500 PICKUP TRUCK
VEHICLE NHTSA NO.: C30312; VIN: 1D7HU18N23S207307
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 06/02/03

REQUIREMENT

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

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. YES

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). N/A

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 inward-facing surface of the door next to the driver's seating position. YES

REMARKS:

RECORDED BY: DATE: 06/02/03
APPROVED BY:
DATA SHEET 2
TEST VEHICLE INFORMATION/RECEIVING INSPECTION

LABORATORY: GENERAL TESTING LABORATORIES
DATE: 06/02/03

VEHICLE MODEL YEAR/MAKE/MODEL/BODY STYLE: 2003 DODGE RAM 1500 PICKUP TRUCK
MANUFACTURE DATE: 12/02 NHTSA NO.: C30312 BODY COLOR: RED
VIN: 1D7HU18N235207307 VEHICLE TYPE: TRUCK
CVWR 3017 kg (6650 lbe) GAWR(Fr) 1770 kg (3900 lbe) GAWR(Rr) 1770 kg (3900 lbe)

BELTED SEATING POSITIONS: FRONT 3 MID N/A REAR 3 OTHER N/A

ENGINE DATA: 8 Cylinders 4.7 Liters ___ Cubic inches

TRANSMISSION DATA: X Automatic ___ Manual 5 No. of Speeds

FINAL DRIVE DATA: X Rear Drive ___ Front Drive X 4 Wheel Drive

INSTALLED TIRE DATA: Size: LT275/70R17 Mfr. - GOODYEAR

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

<table>
<thead>
<tr>
<th></th>
<th>X Air Conditioning</th>
<th>X Traction Control</th>
<th>X Clock</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Tinted Glass</td>
<td>All Wheel Drive</td>
<td></td>
<td>Roof Rack</td>
</tr>
<tr>
<td>X Power Steering</td>
<td>Cruise Control</td>
<td></td>
<td>Console</td>
</tr>
<tr>
<td>X Power Windows</td>
<td>Rear Window Defroster</td>
<td></td>
<td>Driver Air Bag</td>
</tr>
<tr>
<td>X Power Door Locks</td>
<td>Sun Roof or T-Top</td>
<td></td>
<td>Passenger Air Bag</td>
</tr>
<tr>
<td>X Power Driver Seat</td>
<td>Tachometer</td>
<td></td>
<td>Front Disc Brakes</td>
</tr>
<tr>
<td>X Power Brakes</td>
<td>Tilt Steering Wheel</td>
<td>X Rear Disc Brakes</td>
<td></td>
</tr>
<tr>
<td>X Anti-lock Brake System</td>
<td>AM/FM/CD</td>
<td>Other</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: 06/02/03

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

VEHICLE MAKE/MODEL/BODY STYLE: 2003 DODGE RAM 1500 PICKUP TRUCK
VEHICLE NHTSA NO.: C30312; VIN: 1D7HU18N23S207307
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 06/02/03

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

Tire Pressure:
LF 241 KPA (35 psi) LR 241 KPA (35 psi)
RF 241 KPA (35 psi) RR 241 KPA (35 psi)

A. MEASURED CURB WEIGHT WITH INSTALLED OPTIONS AND ACCESSORIES

<table>
<thead>
<tr>
<th></th>
<th>KG</th>
<th></th>
<th></th>
<th>KG</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td>714</td>
<td>(1575 LB)</td>
<td>LR</td>
<td>517</td>
<td>(1140 LB)</td>
</tr>
<tr>
<td>RF</td>
<td>705</td>
<td>(1555 LB)</td>
<td>RR</td>
<td>513</td>
<td>(1130 LB)</td>
</tr>
</tbody>
</table>

Front Axle 1420 KG (3130 LB) Rear Axle 1030 KG (2270 LB)

Total Vehicle 2449 KG (5400 LB)

B. MEASURED VEHICLE WEIGHT IN NORMAL LOAD CONDITION

(1) Seating Capacity (from Tire Information Placard) = N/A
    Seating Capacity (# of belted seating positions) = 6

(2) Normal Load # of Occupants from Appendix
    Occupant Distribution: Front Seat- 2  Second Seat- 1
    Third Seat- N/A  Fourth Seat- N/A

(3) Total Normal Occupant Load 204 KG (450 LB)
    (# of occupants x 68 KG per occupant)

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

<table>
<thead>
<tr>
<th></th>
<th>KG</th>
<th></th>
<th></th>
<th>KG</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td>769</td>
<td>(1696 LB)</td>
<td>LR</td>
<td>560</td>
<td>(1234 LB)</td>
</tr>
<tr>
<td>RF</td>
<td>766</td>
<td>(1688 LB)</td>
<td>RR</td>
<td>558</td>
<td>(1231 LB)</td>
</tr>
</tbody>
</table>

Frt Axle 1535 KG (3384 LB) Rr Axle 1118 KG (2465 LB)

Total Vehicle 2653 KG (5849 LB)
DATA SHEET 3 – CONTINUED

(5) Calculated Vehicle Normal Load on the Tire
Front Tires (measured front axle normal load/2) = 767 KG (1692 LB)
Rear Tires (measured front axle normal load/2) = 559 KG (1233 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>(a) Installed Tire Size</td>
<td>LT275/70R17</td>
</tr>
<tr>
<td>Max. Load Rating on Sidewall</td>
<td>1180KG(2600 LBS)</td>
</tr>
<tr>
<td>Reduced Sidewall Load Rating (if applicable)*</td>
<td>N/A</td>
</tr>
<tr>
<td>High Speed Test Load (88% of sidewall max. load rating)</td>
<td>1038 KG(2288 LBS)</td>
</tr>
<tr>
<td>(b) Optional Tire Size(s)</td>
<td>P245/70R17</td>
</tr>
<tr>
<td>Max. Load Rating on Sidewall (From 2003 Tire &amp; Rim Association Yearbook)</td>
<td>1180KG(2600 LBS)</td>
</tr>
<tr>
<td>Reduced Sidewall Load Rating (if applicable)*</td>
<td>N/A</td>
</tr>
<tr>
<td>High Speed Test Load (88% of sidewall max. load rating)</td>
<td>1038 KG(2288 LBS)</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: 06/02/03
APPROVED BY: [Signature]
DATA SHEET 4
TIRE INFORMATION LABEL OR PLACARD

VEHICLE MAKE/MODEL/BODY STYLE: 2003 DODGE RAM 1500 PICKUP TRUCK
VEHICLE NHTSA NO.: C30312; VIN: 1D7HU18N23S207307
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 06/02/03

A. Vehicle Type from Certification Label: TRUCK

B. Identify Vehicle Labeling:

Vehicle has a combined Certification Tire Information Label (X) Yes ( ) No
Is Label Permanently Affixed: (X) Yes ( ) No
Label Location: Driver's Door Jam
Description of Label: Black/White Sticker

Vehicle has a separate Tire Information Label or Placard ( ) Yes (X) No
Is Label Permanently Affixed: ( ) Yes ( ) No
Label Location:
Description of Label:

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

Vehicle Capacity Weight - Ni/A(see remarks)

Designated Seating Capacity (DSC) - Ni/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:

P245/70R17  FRONT - 241 kPa (35 psi)
REAR - 241 kPa (35 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 a truck do not include Vehicle Capacity Weight (VCW) or Designated Seating Capacity (DSP) as required by FMVSS 110 passenger car labeling.

RECORDED BY: [Signature] DATE: 06/02/03
APPROVED BY: [Signature]
DATA SHEET 5
VEHICLE TIRE DATA

VEHICLE MAKE/MODEL/BODY STYLE: 2003 DODGE RAM 1500 PICKUP TRUCK
VEHICLE NHTSA NO.: C30312; VIN: 1D7HU18N23S207307
LABORATORY: GENERAL TESTING LABORATORIES
TEST DATE: 06/02/03

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

INFORMATION FROM TIRE SIDEWALL:

Right Front Tire

Tire Size Designation
LT275/70R17

Tire Load Index/Speed Symbol
114/110R

Maximum Inflation Pressure
350 kPa (50 psi)

Maximum Load Rating
1180 KG (2600 LBS)

Mfr. Name or Brand & Code
GOODYEAR WRANGLER

Tube or Tubeless
TUBELESS

Treadwear/Traction/Temp. Grades

Sidewall (Plies & Composition)
3 PLY POLYESTER

Tread (Plies & Composition)
2 PLY STEEL

Serial Number: Right Front - DOT MKXC LREV 4602

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

REMARKS:

RECORDED BY: [Signature] DATE: 06/02/03

APPROVED BY: [Signature]
### TABLE 1 - INSTRUMENTATION & 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>12/02</td>
<td>05/04</td>
</tr>
<tr>
<td>SURFACE LEVEL</td>
<td>CTL</td>
<td>N/A</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
</tbody>
</table>
SECTION 5
PHOTOGRAPHS
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.