FINAL REPORT NUMBER 401-NSA-04-002

SAFETY COMPLIANCE TESTING FOR
FMVSS 401
Interior Trunk Release

2004 Chevrolet Cavalier 2-Door
NHTSA No. C40116

Prepared by:
NHTSA
OFFICE OF VEHICLE SAFETY COMPLIANCE
400 7th Street, SW
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March 29, 2004

FINAL REPORT

PREPARED FOR:

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ENFORCEMENT
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Prepared By:  
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Accepted By:  
Stuart Seigel

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| 15. Supplementary Notes | 16. Abstract  
A compliance test was conducted on the subject 2004 Chevrolet Cavalier 2-Door, NHTSA No. C40116, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-401-01 for the determination of FMVSS 401 compliance. The test was conducted at a Chevrolet Dealership in Northern Virginia, by NHTSA personnel on March 10, 2004. Test failures identified were as follows: NONE |  
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1.0 PURPOSE OF COMPLIANCE TEST

The purpose of this compliance test was to determine whether the subject vehicle, a 2004 Chevrolet Cavalier 2-Door, meets the performance requirements of FMVSS 401, Interior Trunk Release.

The test was conducted in accordance with the U. S. Department of Transportation, National Highway Traffic Safety Administration's Laboratory Test Procedure TP-401-01.

The test was conducted at a Chevrolet Dealership in Northern Virginia on March 10, 2004 by NHTSA Office of Vehicle Safety Compliance test engineers.
2.0 TEST PROCEDURE AND DISCUSSION OF RESULTS

Based on the test performed, the 2004 Chevrolet Cavalier 2-Door, NHTSA No. C40116 appeared to meet the requirements of FMVSS 401.

The vehicle was tested by entering the trunk and closing the lid. The release handle was easily observed in the darkened, enclosed trunk. A force gauge was attached to the release handle and 3 separate attempts were made to exit the trunk by applying a load to the instrument. For each attempt, the trunk released from the single latching position at a force level of approximately 9 newtons (2 lbs.) or less.
3.0 COMPLIANCE TEST DATA

DATA SHEET 1

FMVSS 401 - VEHICLE DESCRIPTION

VEHICLE MY/MAKE/MODEL 2004/ CHEVROLET/ CAVALIER

BODY STYLE: 2-DOOR

VEH. NHTSA NO.: C40116 ________; VIN: 1G1JH14F947239456

DATE OF TEST: 03/10/04

TEST LAB: BY CVSC @ DEALER

GVWR: 1674__ KG

MANUFACTURED DATE: 11/03

TRUNK LOCATION: REAR X __________ FRONT __________

If Front, Front Opening? na

NUMBER OF TRUNK LID LATCHING POSITIONS: 1

INTERIOR TRUNK RELEASE: MANUAL X__; AUTOMATIC ______;

BOTH _____

POWER OPERATED CLOSURE: na

OWNER'S MANUAL DESCRIPTION OF TRUNK RELEASE: YES X

NO _____

REMOVABLE EQUIPMENT DELIVERED IN TRUNK:

SPARE TIRE: X (SIZE) ______

TIRE JACK: X

LUG WRENCH: X

TOOL BOX: ______ (SIZE)_____

PARTITIONS: ______

OTHER: ______

REMARKS:

RECORDED BY: SSA ______ DATE: 03/10/04

APPROVED BY: S. Seigel
3.0 DATA SHEETS....Continued

DATA SHEET 2 (1 of 2)

FMVSS 401 - All trunks except for front trunk compartments with front opening hoods

MANUAL TRUNK RELEASE OPERATION

VEHICLE MY/MAKE/MODEL/BODY STYLE: 2004/CHEVROLET/CAVALIER/2-DOOR

VEH. NHTSA NO.: C40116__________; VIN: 1G1JH14F947239456

DATE OF TEST: 3/10/04

Method used to actuate interior trunk release: T-shaped grab handle to cable
(Grab handle, Rotating lever, etc.)

Can test personnel enter trunk and be closed within: Yes X No ___

If Yes, size of occupant: At least 50th percentile male

Is there access to the trunk compartment by folding down rear seat or partition:
Yes X No ___

Does Release Mechanism require electric power: Yes ___ No X ___

Can release mechanism be easily seen inside the closed trunk: Yes X No ___

Describe method used by vehicle manufacturer to ensure that release mechanism is visible in a closed trunk compartment: Phosphorescence
(Phosphorescence, auxiliary lighting, etc.)

Describe laboratory test method used to determine visibility of release mechanism: Trunk Entry (Trunk entry, darkened room, etc.)

<table>
<thead>
<tr>
<th>Vehicle Stationary (0 km/h)</th>
<th>Force Required to Release Trunk Lid (Newtons) [no requirement]</th>
<th>Trunk Released from All Latching Positions</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO KEY IN IGNITION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempt 1</td>
<td>6.8 N - 1.5 pounds</td>
<td>Yes</td>
<td>pass</td>
</tr>
<tr>
<td>Attempt 2</td>
<td>6.8 N - 1.5 pounds</td>
<td>Yes</td>
<td>pass</td>
</tr>
<tr>
<td>Attempt 3</td>
<td>9.0 N - 2.0 pounds</td>
<td>Yes</td>
<td>pass</td>
</tr>
<tr>
<td>Average</td>
<td>7.5 N - 1.7 pounds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NOTE: *Interior Trunk Release is a totally mechanical system with its operation and functioning not dependant upon engine operation or vehicle speed. The release mechanism will function identical to that of the stationary vehicle with the no key in the ignition (as previously tested) and thus the following tests were not required to be conducted.*

<table>
<thead>
<tr>
<th>Vehicle Stationary (0 km/h)</th>
<th>Force Required to Release Trunk Lid (Newtons) [no requirement]</th>
<th>Trunk Released from All latching positions</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGINE IDLING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempt 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempt 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempt 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vehicle Speed (km/h)</th>
<th>Force Required to Release Trunk Lid (Newtons) [no requirement]</th>
<th>Trunk Released from All latching positions</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Describe method used to propel vehicle: ______________________________

PASS  X  FAIL__________  REMARKS: _______________________  

RECORDED BY: _______  DATE: 3/10/04

APPROVED BY: _______  

S. Seigel
### DATA SHEET 3
**FMVSS 401 - TEST SUMMARY**

<table>
<thead>
<tr>
<th>Description</th>
<th>PASS</th>
<th>FAIL</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic or Manual release mechanism inside the trunk compartment. S4.1</td>
<td></td>
<td>X</td>
<td>Manual release lever handle</td>
</tr>
<tr>
<td>If manual release, lighting feature is included. S4.2(a)</td>
<td></td>
<td>X</td>
<td>Self Lighting</td>
</tr>
<tr>
<td>If automatic release, unlatches trunk lid within 5 minutes. S4.2(b)</td>
<td>na</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Except as provided by S4.3(b), actuation of release mechanism required by S4.1 completely releases trunk lid from all latching positions of the trunk lid latch. S4.3(a)</td>
<td></td>
<td>X</td>
<td>Single Latch Position Only</td>
</tr>
<tr>
<td>For front trunk compartments, front opening hoods, when vehicle is stationary latch releases trunk lid from all locking positions. When moving forward at a speed less than 5km/h, must release the primary latch and may release all latches. At speeds greater than 5km/h must release the primary latch only. S4.3(b)</td>
<td>na</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PASS**  X  **FAIL**

**REMARKS:** RECORDED BY: _SSe_

**APPROVED BY:** _S.Seigel_

**DATE:** _3/10/04_
### 4.0 - Test Equipment List and Calibration Information

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>DESCRIPTION</th>
<th>MODEL/SERIAL NO.</th>
<th>CALIBRATION DATE</th>
<th>NEXT CAL. DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Force Transducer</td>
<td>Viking Jr. Hanson Instrument</td>
<td>Model 890</td>
<td>Manufacturer</td>
<td>Manufacturer</td>
</tr>
</tbody>
</table>
5.0 - Photographs
MFD BY GENERAL MOTORS CORP

DATE       GVWR      GAWR FRT     GAWR RR
11/03  1674 KG  913 KG  761 KG
3690 LB  2013 LB  1677 LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

1G1JH14F947239456  TYPE: PASS CAR

2004 CHEVROLET CAVALIER

VEHICLE CERTIFICATION LABEL
2004 CHEVROLET CAVALIER
NHTSA # CY011C
TRUNK RELEASE HANDLE
8.0 Vehicle Owner's Manual (applicable pages)