FINAL REPORT NUMBER
401-NVS-05-013

SAFETY COMPLIANCE TESTING FOR
FMVSS 401
Interior Trunk Release

2005 Porsche Boxster
NHTSA No. C50518

Prepared by:
NHTSA
OFFICE OF VEHICLE SAFETY COMPLIANCE
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3/30/2005

FINAL REPORT

PREPARED FOR:

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
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16. Abstract A compliance test was conducted on the subject 2005 Porsche Boxster 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 by NHTSA Office of Vehicle Safety Compliance test engineers on 3/30/2005. Test Location: Porsche Dealership in Arlington, VA. Test failures identified were as follows: NONE.
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A. Vehicle Front

B. Vehicle Rear

C. Trunk Open

D. Vehicle Certification Label

E. Trunk Release Handle

F. Force Transducer Attached to Release Lever

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1.0 PURPOSE OF COMPLIANCE TEST

The purpose of this compliance test was to determine whether the subject vehicle 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 by NHTSA Office of Vehicle Safety Compliance test engineers on 3/30/2005

Test Location:
Porsche Dealership in Arlington, VA
2.0 TEST PROCEDURE AND DISCUSSION OF RESULTS

Based on the test performed, the subject vehicle appeared to meet the requirements of FMVSS 401.

The vehicle was tested by entering the trunk and closing the lid. The release slide lever 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 34.3 newtons (7.7 lbs.) or less.
3.0 COMPLIANCE TEST DATA

DATA SHEET 1
FMVSS 401 - VEHICLE DESCRIPTION

VEHICLE MAKE/MODEL/BODY STYLE: 2005 Porsche Boxster
VEH. NHTSA NO.: G60518 ; VIN: WP0CA298X5U710781

DATE OF TEST: 3/30/2005 TESTING LAB: BY QVSC @ DEALER

GVWR: 1812 KG MANUFACTURED DATE: 12/04

TRUNK LOCATION: C REAR C FRONT

If Front, Front Opening? Yes
NUMBER OF TRUNK LID LATCHING POSITIONS: 2
INTERIOR TRUNK RELEASE: C MANUAL C AUTOMATIC C BOTH
POWER OPERATED CLOSURE: No
OWNER'S MANUAL DESCRIPTION OF TRUNK RELEASE: C YES C NO

REMOVABLE EQUIPMENT DELIVERED IN TRUNK:
SPARE TIRE: C (SIZE) ________________
TIRE JACK: C
LUG WRENCH: C
TOOL BOX: C (SIZE) ________________
PARTITIONS: ________________________________
OTHER: __________________________________

REMARKS:
________________________________________

RECORDED BY: Eduardo Maximo Aviles DATE: 3/30/2005
APPROVED BY: Eduardo Maximo Aviles
### MANUAL TRUNK RELEASE OPERATION

**Vehicle MY/Make/Model/Body Style:** 2005 Porsche Boxster

**VEH. NHTSA NO.:** C50518, **VIN:** WP0GA298X5U710781

**Date of Test:** 3/30/2005

**Method used to actuate interior trunk release:** Grab Handle

**Can test personnel enter trunk and be closed within:**
- Yes [ ]
- No [x]

**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 [ ]
- No [x]

**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><strong>No Key in Ignition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempt 1</td>
<td>34.3</td>
<td>Yes [x]</td>
<td>Pass [x]</td>
</tr>
<tr>
<td>Attempt 2</td>
<td>34.3</td>
<td>Yes [x]</td>
<td>Pass [x]</td>
</tr>
<tr>
<td>Attempt 3</td>
<td>34.3</td>
<td>Yes [x]</td>
<td>Pass [x]</td>
</tr>
<tr>
<td>Average</td>
<td>34.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**DATA SHEET 2 (2 of 2)**

FMVSS 401 - MANUAL TRUNK RELEASE OPERATION (continued)

*NOTE: Interior Trunk Release is a totally mechanical system with its operation and functioning not dependent upon engine operation or vehicle speed. The release mechanism will function identical to that of the stationary vehicle with the 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)</th>
<th>Trunk Released from All Latching Positions</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINE IDLING</td>
<td>[no requirement]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempt 1</td>
<td>34.3</td>
<td>Yes</td>
<td>Pass</td>
</tr>
<tr>
<td>Attempt 2</td>
<td>34.3</td>
<td>Yes</td>
<td>Pass</td>
</tr>
<tr>
<td>Attempt 3</td>
<td>34.3</td>
<td>Yes</td>
<td>Pass</td>
</tr>
<tr>
<td>Average -</td>
<td>34.3</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)</th>
<th>Trunk Released from All Latching Positions</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>34.3</td>
<td>Yes</td>
<td>Pass</td>
</tr>
<tr>
<td>20</td>
<td>34.3</td>
<td>Yes</td>
<td>Pass</td>
</tr>
<tr>
<td>30</td>
<td>34.3</td>
<td>Yes</td>
<td>Pass</td>
</tr>
</tbody>
</table>

Describe method used to propel vehicle:
Vehicle was driven in a parking lot.

\[ Pass \quad \text{Fall} \]

**REMARKS:**

RECORDED BY: Eduardo Maximo Aviles          DATE: 3/30/2005

APPROVED BY: Eduardo Maximo Aviles
<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.</td>
<td>☑</td>
<td>☒</td>
<td></td>
</tr>
<tr>
<td>If manual release, lighting feature is included.</td>
<td>☑</td>
<td>☒</td>
<td></td>
</tr>
<tr>
<td>If automatic release, unlatches trunk lid within 5 minutes. S4.2(b)</td>
<td>☑</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>☒</td>
<td></td>
</tr>
<tr>
<td>For front trunk compartments, front opening hood, 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>☑</td>
<td>☒</td>
<td></td>
</tr>
</tbody>
</table>

☑ Pass    ☒ Fail

RECORDED BY: Eduardo Maximo Aviles           DATE: 3/30/2005

APPROVED BY: Eduardo Maximo Aviles
### 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.</td>
<td>Model 890</td>
<td>Manufacturer</td>
<td>Manufacturer</td>
</tr>
<tr>
<td></td>
<td>Hanson Instrument</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


5.0 - Photographs