FINAL REPORT NUMBER
401-NVS-05-005

SAFETY COMPLIANCE TESTING FOR
FMVSS 401
Interior Trunk Release

2005 Lincoln LS
NHTSA No.C50206

Prepared by:
NHTSA
OFFICE OF VEHICLE SAFETY COMPLIANCE
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DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA

1/27/2006

FINAL REPORT

PREPARED FOR:

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Report Date: 1/27/2005

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401-NVS-05-005

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## Abstract
A compliance test was conducted on the subject 2005 Lincoln LS, NHTSA No. C50206 in accordance with the U.S. Department of Transportation, National Highway Traffic Safety Administration's Laboratory Test Procedure TP-401-91. The test was conducted by NHTSA Office of Vehicle Safety Compliance test engineers on 1/27/2005.

**Test Location:**
Lincoln Dealer in Rockville, MD

Test failures were as follows: NONE

## Key Words
Compliance Testing
Safety Engineering
FMVSS 401
2005 Lincoln LS

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Unclassified
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1.0 PURPOSE OF COMPLIANCE TEST

The purpose of this compliance test was to determine whether the subject vehicle, a 2005 Lincoln LS, 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 by NHTSA Office of Vehicle Safety Compliance test engineers on 1/27/2005.

Test Location:
Lincoln Dealer in Rockville, MD
2.0 TEST PROCEDURE AND DISCUSSION OF RESULTS

Based on the test performed, the Vehicle: 2005 Lincoln LS, NHTSA No. C50206 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 39.2 newtons (8.8 lbs.) or less.
3.0 COMPLIANCE TEST DATA

DATA SHEET 1
FMVSS 401 - VEHICLE DESCRIPTION

VEHICLE MY/MAKE/MODEL/BODY STYLE: 2005 Lincoln LS
VEH. NHTSA NO.: C50206 ; VIN: 1LNHM86S86Y607282

DATE OF TEST: 1/27/2005 TEST LAB: BY OVSC @ DEALER

GVWR: 2195 KG MANUFACTURED DATE: 08/04

TRUNK LOCATION: ⊗ REAR ⊘ FRONT
If Front, Front Opening?
NUMBER OF TRUNK LID LATCHING POSITIONS: 1

INTERIOR TRUNK RELEASE: ⊘ MANUAL ⊗ AUTOMATIC ⊘ BOTH

POWER OPERATED CLOSURE: No

OWNER'S MANUAL DESCRIPTION OF TRUNK RELEASE: ⊗ YES ⊘ NO

REMOVABLE EQUIPMENT DELIVERED IN TRUNK:
SPARE TIRE: ⊗ (SIZE) T145/80D16
TIRE JACK: ⊘
LUG WRENCH: ⊘
TOOL BOX: ⊘ (SIZE)
PARTITIONS:
OTHER:

REMARKS:

RECORDED BY: Eduardo Maximo Aviles DATE: 1/27/2005

APPROVED BY: Eduardo Maximo Aviles
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: 2005 Lincoln LS
VEH. NHTSA NO.: C50206 _______; VIN: 1LNHM88S85Y607282
DATE OF TEST: 1/27/2005

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

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

Does Release Mechanism require electric power:  circled Yes  circled No

Can release mechanism be easily seen inside the closed trunk:  circled Yes  circled 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 (Newton)</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>39.2</td>
<td>circled Yes  circled No</td>
<td>circled Pass  circled Fail</td>
</tr>
<tr>
<td>Attempt 2</td>
<td>39.2</td>
<td>circled Yes  circled No</td>
<td>circled Pass  circled Fail</td>
</tr>
<tr>
<td>Attempt 3</td>
<td>39.1</td>
<td>circled Yes  circled No</td>
<td>circled Pass  circled Fail</td>
</tr>
<tr>
<td>Average -</td>
<td>39.2</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 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>ENGINE IDLING</td>
<td>Not Applicable</td>
<td>☑ Yes ☐ No</td>
<td>☑ Pass</td>
</tr>
<tr>
<td>Attempt 1</td>
<td></td>
<td>☑ Yes ☐ No</td>
<td>☑ Pass</td>
</tr>
<tr>
<td>Attempt 2</td>
<td></td>
<td>☑ Yes ☐ No</td>
<td>☑ Pass</td>
</tr>
<tr>
<td>Attempt 3</td>
<td></td>
<td>☑ Yes ☐ No</td>
<td>☑ Pass</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>☑ Yes ☐ No</td>
<td>☑ Pass</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>☑ Yes ☐ No</td>
<td>☑ Pass</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>☑ Yes ☐ No</td>
<td>☑ Pass</td>
</tr>
</tbody>
</table>

Describe method used to propel vehicle:

☒ Pass ☐ Fall

REMARKS:

RECORDED BY: Eduardo Maximo Aviles  DATE: 1/27/2005

APPROVED BY: Eduardo Maximo Aviles
<table>
<thead>
<tr>
<th>Requirement</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>0</td>
<td>1</td>
<td>Manual Release</td>
</tr>
<tr>
<td>If manual release, lighting feature is included.</td>
<td>0</td>
<td>1</td>
<td>Self lighting (Phosphorescence)</td>
</tr>
<tr>
<td>If automatic release, unlashes trunk lid within 5 minutes.</td>
<td>0</td>
<td>1</td>
<td>N/A</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.</td>
<td>0</td>
<td>1</td>
<td>N/A</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 6km/h, must release the primary latch and may release all latches. At speeds greater than 6km/h must release the primary latch only.</td>
<td>0</td>
<td>1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Pass** ☑  **Fail** ☐

**RECORDED BY:** Eduardo Maximo Aviles  
**DATE:** 1/27/2005  
**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>Shimpo Force Gauge</td>
<td>Model MF-50 KG</td>
<td>12/08/03</td>
<td>Manufacturer</td>
</tr>
</tbody>
</table>
5.0 - Photographs