FINAL REPORT NUMBER 401-NV8-05-012

SAFETY COMPLIANCE TESTING FOR FMVSS 401 Interior Trunk Release

2005 Volkswagen Phaeton NHTSA No. C55804

Prepared by: NHTSA OFFICE OF VEHICLE SAFETY COMPLIANCE

400 7th Street, SW Washington, D.C. 20590



1/27/2005

FINAL REPORT

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
400 SEVENTH STREET, SW
ROOM 6111 (NVS-221)
WASHINGTON, D.C. 20590

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Report Date: 1/27/2005

Prepared By: _	Eduario Maximo Avlles, Safety Compilance Enginee
Accepted By:	Eduardo Maximo Aviles

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No. 401-NVS-05-012	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Final Report of FMVSS 401 0 a 2005 Volkswagen Phaeton , I	•	5. Report Date 1/27/2005	<u>.</u> ,
2005 Yellawagoli i Habiai, i		6. Performing Organization Coc OVSC	de
7. Author(s) Eduardo Maximo Aviles, Safe	ety Compliance Engineer	8. Performing Organization Rep 401-NVS-05-012	oort No.
Performing Organization Nar U.S. Department of Transpo National Highway Traffic Safe Enforcement	rtation	10. Work Unit No.	
Office of Vehicle Safety Com 400 Seventh Street, SW Room 6111 Washington, DC 20590	pliance (NVS-221)	11. Contract or Grant No.	
12. Sponsoring Agency Name a U.S. Department of Transpor National Highway Traffic Saf Enforcement Office of Vehicle Safety Com	rtation ety Administration	13. Type of Report and Period Covered Final Test Report	
400 Seventh Street, SW Room 6111 Weshington, DC 20590	panies (1170-221)	14. Sponsoring Agency Code NVS-220	
15. Supplementary Notes		· -	
16, Abstract			
accordance with the U.S. Depart	artment of Transportation, N 401-01. The test was cond 1/27/200	kawagen Phaeton , NHTSA No. I lational Highway Traffic Safety A lucted by NHTSA Office of Vehic	Administration's
Test failures were as follows: N	•	<u> </u>	· <u>·</u>
17. Key Words Compliance Testing Safety Engineering FMVSS 401 2005 Volkswagen Phaeton		18. Distribution Statement Copies of this report are available from: NHTSA Technical Reference Division, Mail Code: NAD-52 400 Seventh Street, SW, Room 5108 Washington, D.C. 20590 Telephone No. (202) 366-4948	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages	22. Price

Form DOT F 1700.7 (8-69)

TABLE OF CONTENTS

SECTION	DESCRIPTION	<u>PAGE NO.</u>	
1.0	PURPOSE OF COMPLIANCE TEST		5
2.0	TEST PROCEDURE AND DISCUSSION OF RESULTS		6
3.0	COMPLIANCE TEST DATA		7
4.0	TEST EQUIPMENT LIST AND CALIBRATION INFORMATION		11
5.0	PHOTOGRAPHS		12

1.0 PURPOSE OF COMPLIANCE TEST

The purpose of this compliance test was to determine whether the subject vehicle, a 2005 Volkswagen Phaeton, 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:

Volkswagen Dealer in Rockville, MD

2.0 TEST PROCEDURE AND DISCUSSION OF RESULTS

Based on the test performed, the Vehicle: 2005 Volkswagen Phaeton, NHTSA No. C55804 appeared to meet the requirements of FMVSS 401.

The vehicle was tested by entering the trunk and closing the ild. 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 9.8 newtons (2.2lbs.) or less.

3.0 COMPLIANCE TEST DATA

APPROVED BY: Eduardo Maximo Aviles

DATA SHEET 1 FMV88 401 - VEHICLE DESCRIPTION

VEHICLE MY/MAKE/M VEH. NHTSA NO.: <u>C5</u>		YLE: 2005 Volkswagen Phaeton ; VIN: WVWAF93D058000238
DATE OF TEST: 1/27/2	2005	TEST LAB: BY OVSC @ DEALER
GVWR: <u>2813</u> KG		MANUFACTURED DATE: 05/04
TRUNK LOCATION: (IONT If Front, Front Opening? POSITIONS: 1
INTERIOR TRUNK RE	LEASE: C MA	NUAL & AUTOMATIC C BOTH
	ESCRIPTION OF	FTRUNK RELEASE: # YES O NO
REMOVABLE EQUIPN SPARE TIRE:		
TIRE JACK:	<u></u> -	50/45R18
LUG WRENCH:		
TOOL BOX:		
PARTITIONS:OTHER:		
REMARKS:	· · ·	·
RECORDED BY: Educ	rdo Maximo Avi	lles DATE: <u>1/27/2005</u>

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 Volkswagen Phaeton
VEH. NHTSA NO.: <u>C55804</u> ; VIN: <u>WVWAF93D058000238</u>
DATE OF TEST: <u>1/27/2005</u>
Method used to actuate interior trunk release: Rotating Handle Other:
Can test personnel enter trunk and be closed within: # Yes C No
lf Yes, size of occupant: <u>At least 50th percentile male</u>
is there access to the trunk compartment by folding down rear seat or partition: <a> Yes <a> No
Does Release Mechanism require electric power:
Can release mechanism be easily seen inside the closed trunk: F Yes C No
Describe method used by vehicle manufacturer to ensure that release mechanism is visible

Describe laboratory test method used to determine visibility of release mechanism:

in a closed trunk compartment: Phosphorescence

lighting, etc)

<u>(Trunk entry, darkened room, et</u>	<u>c.) </u>	
Force Required to Release Trunk Lid (Newtons) [no requirement]	Trunk Released from <u>All</u> latching positions	Pass/Fall
9.8	(FYes €No	@ Paes
		C Fall _
9.8	OF Yes C No	€ Pass
		C Fail
9.8	@ Yes C No	# Pass
		C Fall
8.8		
<u> </u>	Force Required to Release Trunk Lid (Newtons) [no requirement] 9.8 9.8	Force Required to Release Trunk Lid (Newtons) [no requirement] 9.8 Frunk Released from All latching positions 9.8 Frunk Released from All latching positions 9.8 Frunk Released from All latching positions 9.8 Frunk Released from All latching positions

(Phosphorescence, audillary

3.0 DATA SHEETS....Continued

DATA SHEET 2 (2 of 2)

FMV88 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.

Vehicle Stationary (0 km/h) ENGINE IDLING 로 Not Applicable	Force Required to Release Trunk Lid (Newtons) [no requirement]	Trunk Released from <u>All</u> latching positions	Pass/Fail
Attempt 1		CYes C No	C Pass
Attempt 2		C Yes C No	C Pess
Attempt 3		C Yes C No	∩ Pess ∩ Feil
Average -			

Vehicle Speed (km/h)	Force Required to Release Trunk Ltd. (Newtons) [no requirement]	Trunk Released from <u>All</u> latching positions	Pass/Fall
10		C Yes C No	C Pass C Fall
20		C Yes C No	C Pass C Fail
30		C Yes C No	C Pass C Fail

Pass C Fall		
EMARKS:	•	

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

APPROVED BY: Eduardo Maximo Avilos

3.0 DATA SHEETS....Continued

DATA SHEET 3 FMVSS 401 -TEST SUMMARY

	FMV38 401 - 1E81		SUMMART	
	PASS	FAIL	COMMENTS	
Automatic or Manual release mechanism inside the trunk compartment. S4.1	F	ŗ	Autometic release.	
If manual release, lighting feature is included. S4.2(a)	r	٢	N/A	
If automatic release, unlatches trunk lid within 5 minutes. S4.2(b)	(F	۲		
Except as provided by \$4.3(b), actuation of release mechanism required by \$4.1 completely releases trunk lid from all latching positions of the trunk lid latch. \$4.3(a)	., 6	٠		
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)	C	٠ ر	N/A.	

@ Pass ← Fail

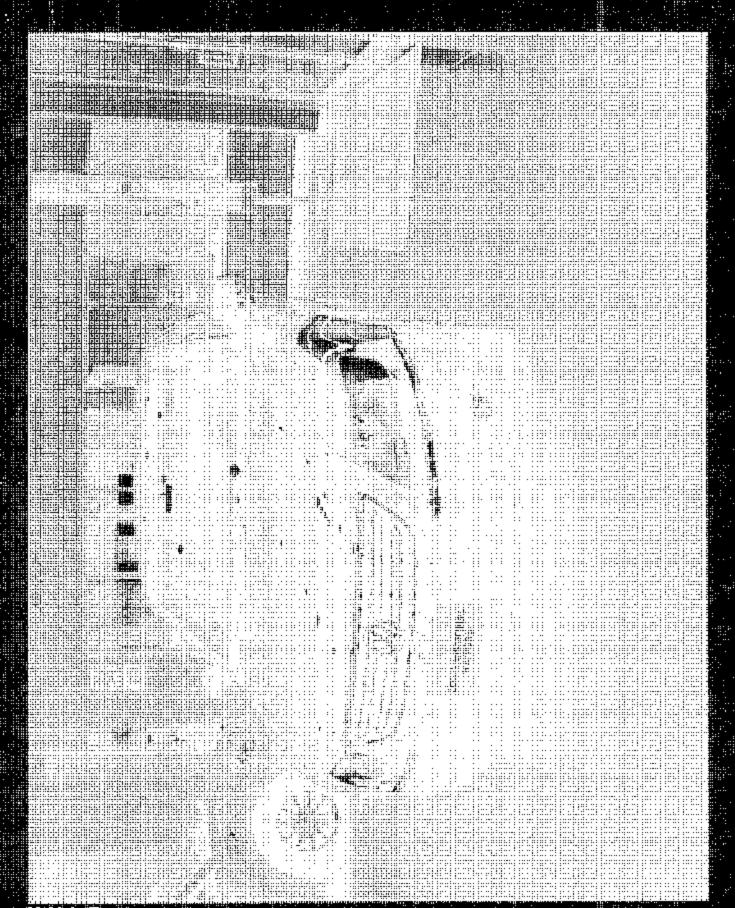
RECORDED BY: Eduardo Maximo Aviles DATE: 1/27/2005

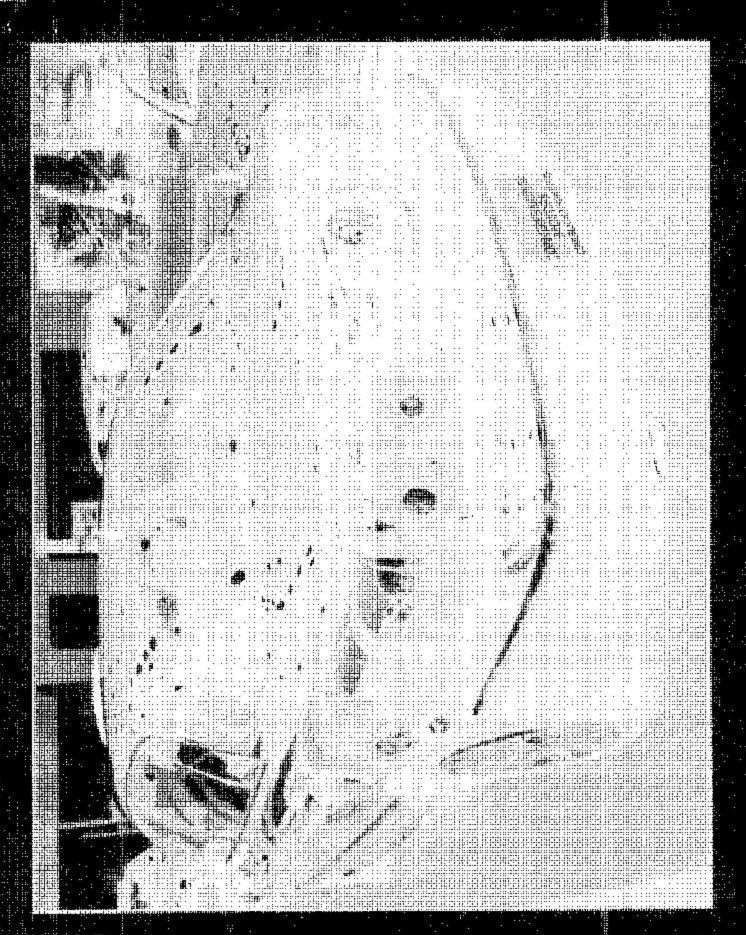
APPROVED BY: Eduardo Maximo Aviles

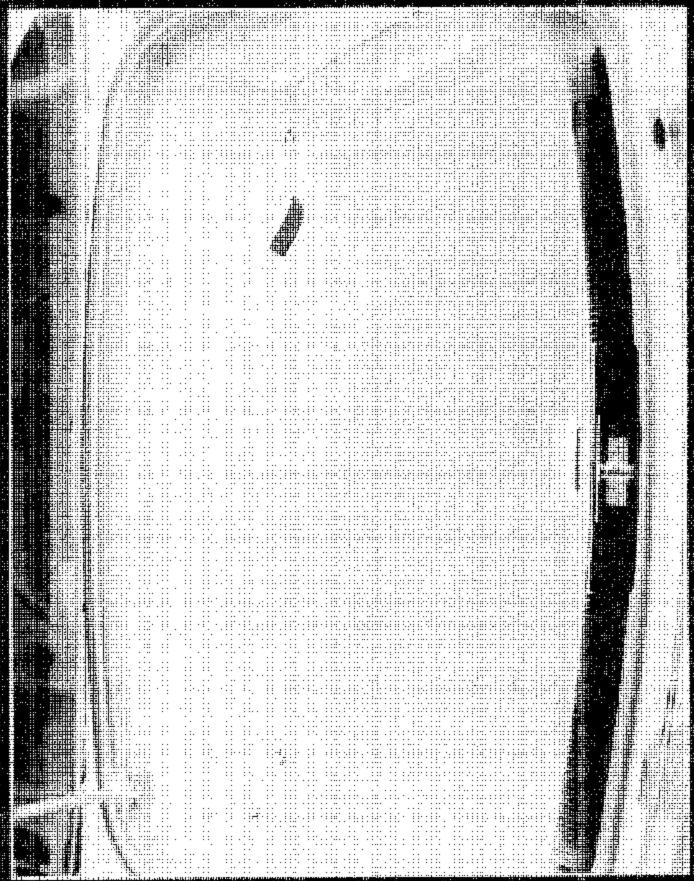
4.0 - Test Equipment List and Calibration Information

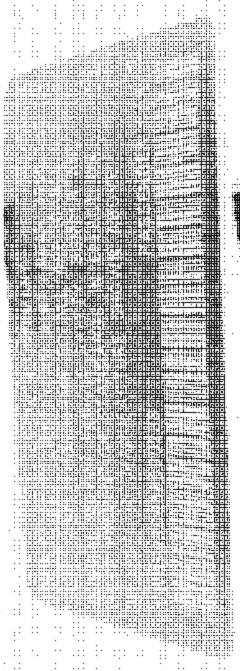
EQUIPMENT	DESCRIPTION	MODEL/SERIAL NO.		NEXT CAL. DATE
	Shimpo Force Gauge	Model MF-50 KG	12/09/03	Menufacturer

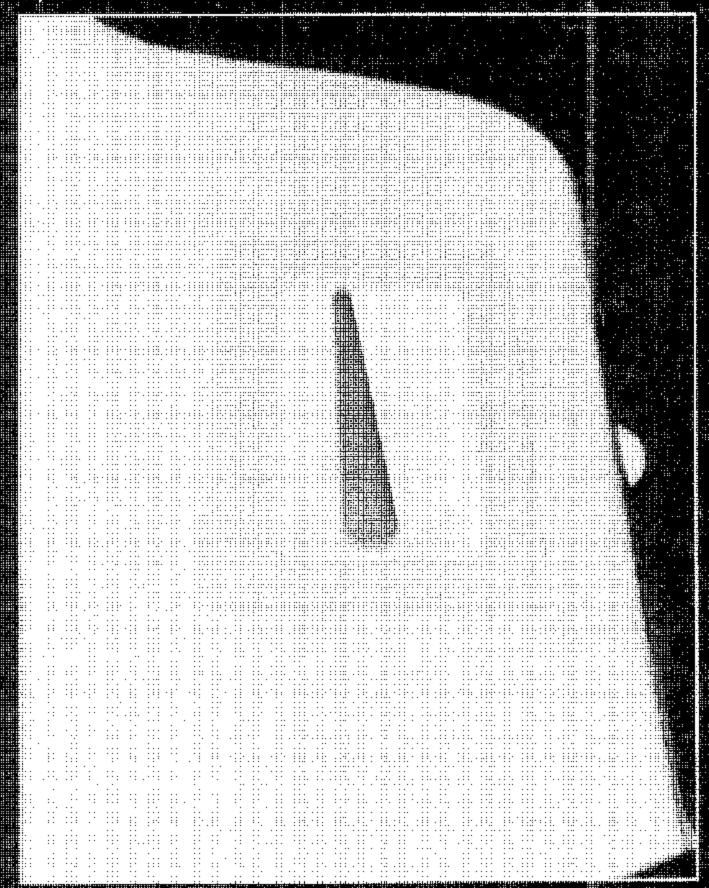
5.0 - Photographs











Bookint 3.3.1 Controls and Equipment - General Information

CAR Selbita License Jede

aral information

VI- 1 highdrand shoulded by water the far in the far

or a '11) place the policy of age of the policy of the pol Fred 102 19m (Michael page) Fill In Intelligible painting party and for the fill intelligible painting party and for the fill intelligible party and for the fill inte

cib to (pic fra periodic frame)

white complete little and the complete the complete little and the complete li

mit to transfer and a period of the party of

mich pighes ipper greet

hattle alith the self co

ingitalle source interpretations in

publicibles wild Mediff for the formal of the forethe of the formal of the formal of the formal of the formal of t

Harfill Wilch Christian Berg clium | Page 2) hat be

Think : Partition in the con-

to Make this that still

k liel while it is cleaning

secre that indifficient s och erstejl lufefriud for

hat siple to a better large distance

to experient from the field of

me hel could make of

e the risk of inju-

्रोक्षाताम् विकासः (सर्_{यक्रस}्

or the tribut liders.

butto is trubuch

in territy but he charing to with the teams in to stab it stantally and ħ

cover for any one government of the entrol t etropk litter Hybinges when the translikely. 148 652

mass he careful often closing the front or hiprores team will not always be able to ar sections injuries under all reconAMERICA SAFE

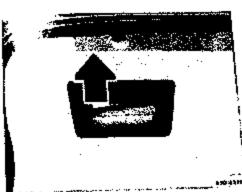
. 4 November 1988 was force on this allow by comb. Sind we have \$1 th , checking, "myer by to ship it institutily or by to price on the translate bill white a declarate.

the syntheterical where cheening the transthat Place is protect finish will executive after any other sec Selected in such the printing the selection of the selections 41-44-0-5

Always sent and herd at WARNING page 41. "Llowing the frank Hd". 4

emergency opening lever for the trunk lid

ergency the trank hil can be opened from inside the luggage compart-



 $(\chi, \Omega_{\rm eff})$ in partial property for each order of the special states of the specia وها مصورون فيستري

Pail the lever in the direction of the up 28 to open the frank hel from the inside of the laggage compartment

persulp previous children and others from being with garage in pullback contractions and a have buy the morney and equations become with the Lappens a comparison of that glosse in the dark

. As hild on other person trapped in the highsige compartment of a webicle can be seriously inpised and esen die.

 Nover leave your vehicle unattended or let children play atomical year vehicle, especially with the mark hid betrigen, Arbible outders wi into the relacte discouple the largeste compacttrees and pull the lid shut becoming trapped and unable to get out. Refing trapped in a vethis to cars feat to sections personal injury, especially when it is very bor or cold.

 Agerty letter Children, disabled persons of Language who cannot belp themselves in the Tohirly the doors can be locked using the remade control key at the power lack button. This could result in people being trapped in the vehicle.

 Heat Institute up in the passenger compartincar and instage comparament of a parted vehicle can result in temperatures in the rehigh that are much higher than the nutside temperatures, particularly in summer. Temperatores can quickly reach levels that can cathe aucunsclousness and seath, particularly to small children.

lid can cause g

Opening and closing