

**FINAL REPORT NUMBER
401-NVS-05-007**

**SAFETY COMPLIANCE TESTING FOR
FMVSS 401
Interior Trunk Release**

**2005 Saab 9-5 Sedan
NHTSA No. C50516**

**Prepared by:
NHTSA
OFFICE OF VEHICLE SAFETY COMPLIANCE
400 7th Street, SW
Washington, D.C. 20590**



1/13/2005

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.

Prepared By: _____


Eduardo Maximo Aviles, Safety Compliance Engineer

Accepted By: _____

Eduardo Maximo Aviles

Report Date: 1/13/2005

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No. 401-NVS-05-007	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Final Report of FMVSS 401 Compliance Testing of a 2005 Saab 9-5 Sedan , NHTSA No. C50516		5. Report Date 1/13/2005	
		6. Performing Organization Code OVSC	
7. Author(s) Eduardo Maximo Aviles, Safety Compliance Engineer		8. Performing Organization Report No. 401-NVS-05-007	
9. Performing Organization Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance (NVS-221) 400 Seventh Street, SW Room 6111 Washington, DC 20590		10. Work Unit No.	
		11. Contract or Grant No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance (NVS-221) 400 Seventh Street, SW Room 6111 Washington, DC 20590		13. Type of Report and Period Covered Final Test Report	
		14. Sponsoring Agency Code NVS-220	
15. Supplementary Notes			
16. Abstract A compliance test was conducted on the subject 2005 Saab 9-5 Sedan , NHTSA No. C50516 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 1/13/2005. Test Location: Saab Dealership in Northern Virginia Test failures were as follows: NONE			
17. Key Words Compliance Testing Safety Engineering FMVSS 401 2005 Saab 9-5 Sedan		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) 368-4948	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages	22. Price

TABLE OF CONTENTS

<u>SECTION</u>	<u>DESCRIPTION</u>	<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 Saab 9-5 Sedan, 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 1/13/2005.

Test Location:

Saab Dealership in Northern Virginia

2.0 TEST PROCEDURE AND DISCUSSION OF RESULTS

Based on the test performed, the Vehicle: 2005 Saab 9-5 Sedan, NHTSA No. C50516 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 49 newtons (11 lbs.) or less.

3.0 COMPLIANCE TEST DATA

DATA SHEET 1
FMVSS 401 - VEHICLE DESCRIPTION

VEHICLE MY/MAKE/MODEL/BODY STYLE: 2005 Saab 9-5 Sedan

VEH. NHTSA NO.: C50516 ; VIN: Y83EH49G253509334

DATE OF TEST: 1/13/2005

TEST LAB: BY QVSC @ DEALER

GVWR: 2064 KG

MANUFACTURED DATE: 10/04

TRUNK LOCATION: ☒ REAR ☐ FRONT

If Front, Front Opening?

NUMBER OF TRUNK LID LATCHING POSITIONS: 2

INTERIOR TRUNK RELEASE: ☐ MANUAL ☒ AUTOMATIC ☐ BOTH

POWER OPERATED CLOSURE: N/A

OWNER'S MANUAL DESCRIPTION OF TRUNK RELEASE: ☒ YES ☐ NO

REMOVABLE EQUIPMENT DELIVERED IN TRUNK:

SPARE TIRE: ☒ (SIZE) T115/70R16

TIRE JACK: ☒

LUG WRENCH: ☒

TOOL BOX: ☒ (SIZE) Tire Diameter

PARTITIONS: _____

OTHER: _____

REMARKS:

Toolbox was inside the spare tire wheel well.

RECORDED BY: Eduardo Maximo Aviles

DATE: 1/13/2005

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 Saab 9-5 Sedan

VEH. NHTSA NO.: C50516 ; VIN: YS3EH49G253509334

DATE OF TEST: 1/13/2005

Method used to actuate interior trunk release: Grab Handle

Other:

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

Does Release Mechanism require electric power: ☐ Yes ☒ No

Can release mechanism be easily seen inside the closed trunk: ☒ Yes ☐ 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.)

Vehicle Stationary (0 km/h)	Force Required to Release Trunk Lid (Newtons) [no requirement]	Trunk Released from All latching positions	Pass/Fail
NO KEY IN IGNITION			
Attempt 1	49	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input checked="" type="radio"/> Pass <input type="radio"/> Fail
Attempt 2	49	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input checked="" type="radio"/> Pass <input type="radio"/> Fail
Attempt 3	49	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input checked="" type="radio"/> Pass <input type="radio"/> Fail
Average -	49		

3.0 DATA SHEETS....Continued

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.

Vehicle Stationary (0 km/h)	Force Required to Release Trunk Lid (Newtons) [no requirement]	Trunk Released from All latching positions	Pass/Fail
ENGINE IDLING <input checked="" type="checkbox"/> Not Applicable			
Attempt 1		<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Pass <input type="radio"/> Fail
Attempt 2		<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Pass <input type="radio"/> Fail
Attempt 3		<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Pass <input type="radio"/> Fail
Average -			

Vehicle Speed (km/h)	Force Required to Release Trunk Lid (Newtons) [no requirement]	Trunk Released from All latching positions	Pass/Fail
10		<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Pass <input type="radio"/> Fail
20		<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Pass <input type="radio"/> Fail
30		<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Pass <input type="radio"/> Fail

Describe method used to propel vehicle:

☐ Pass ☐ Fail

REMARKS:

RECORDED BY: Eduardo Maximo Aviles DATE: 1/13/2005

APPROVED BY: Eduardo Maximo Aviles

3.0 DATA SHEETS....Continued

DATA SHEET 3 FMVSS 401 -TEST SUMMARY

	PASS	FAIL	COMMENTS
Automatic or Manual release mechanism inside the trunk compartment. S4.1	Ⓐ	Ⓒ	Manual release.
If manual release, lighting feature is included. S4.2(a)	Ⓐ	Ⓒ	Self lighting (Phosphorescence).
If automatic release, unlatches trunk lid within 5 minutes. S4.2(b)	Ⓒ	Ⓒ	Not applicable.
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. S 4.3(a)	Ⓐ	Ⓒ	
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)	Ⓒ	Ⓒ	Not applicable.

Ⓐ Pass Ⓒ Fail

RECORDED BY: Eduardo Maximo Aviles

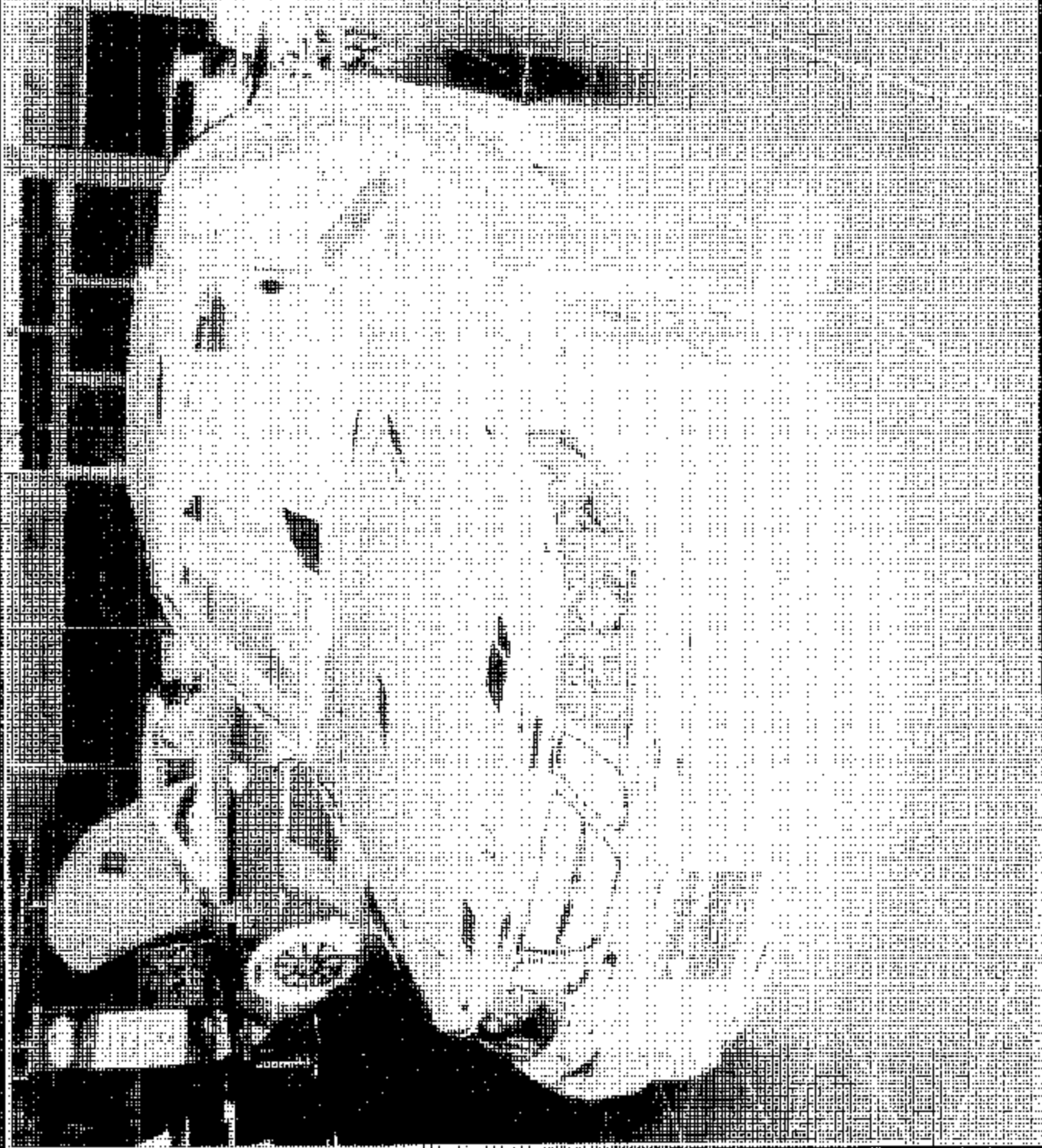
DATE: 1/13/2005

APPROVED BY: Eduardo Maximo Aviles

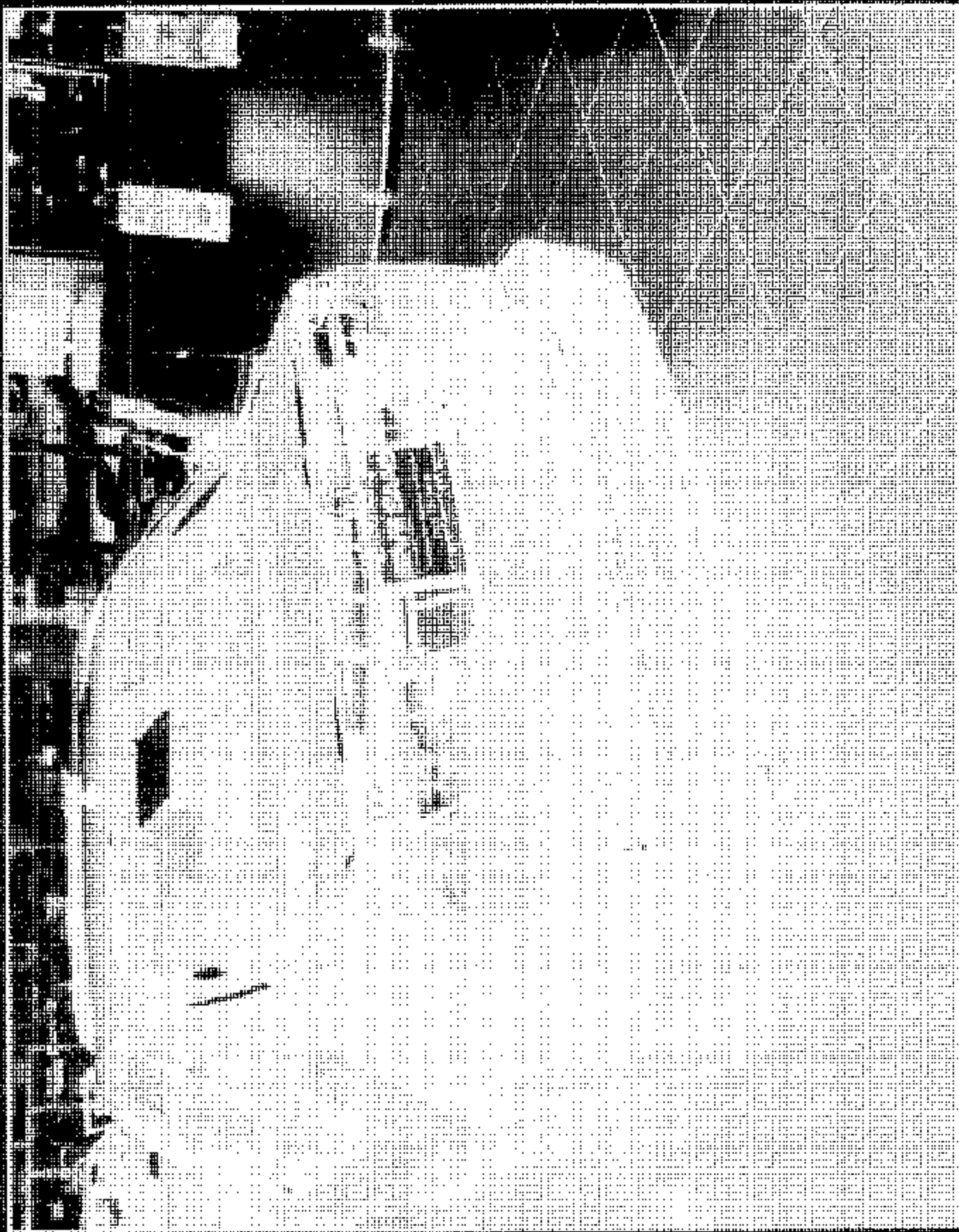
4.0 - Test Equipment List and Calibration Information

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

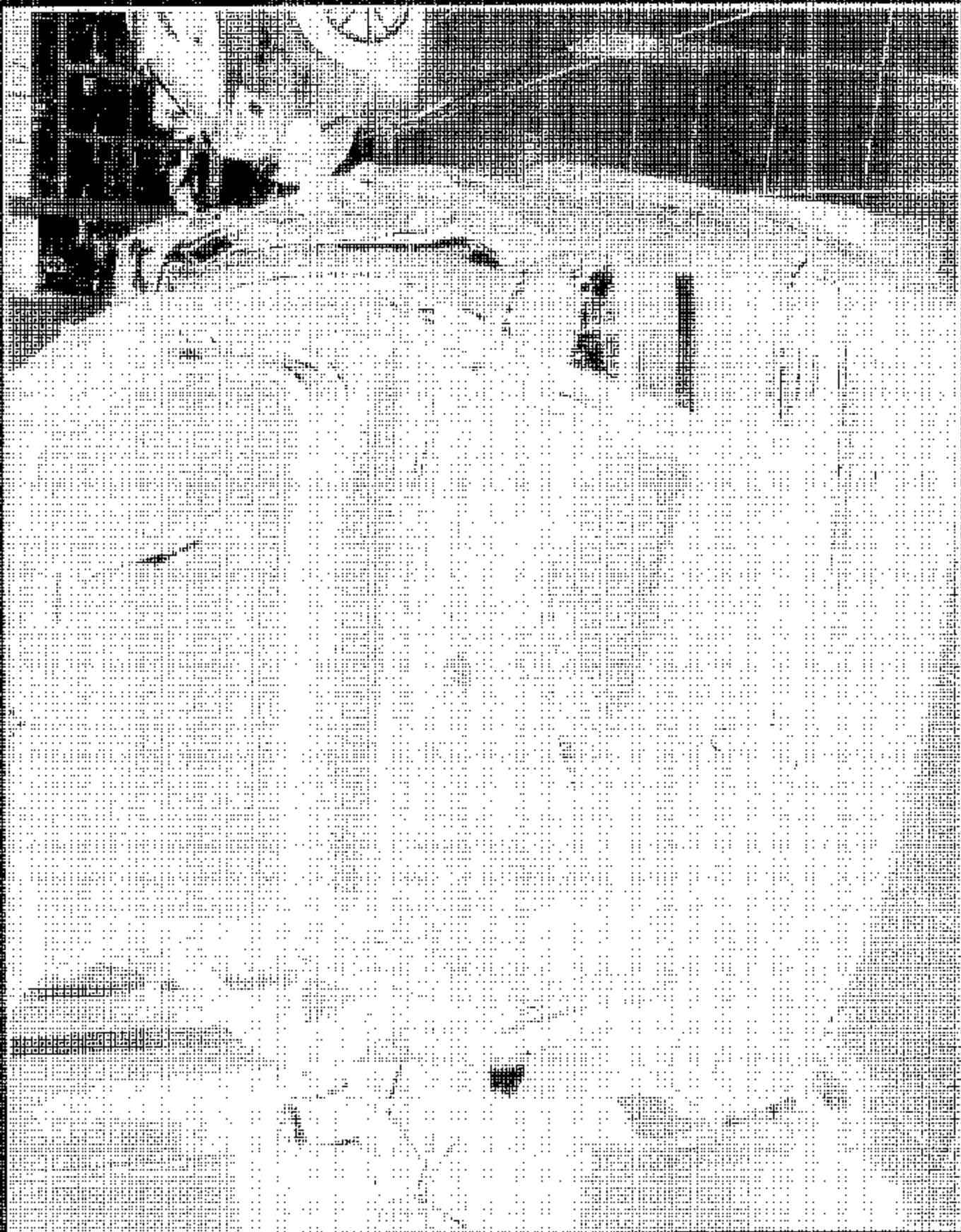
5.0 - Photographs



Vehicle Front



Vehicle Rear



Trunk Open

[illegible]



Trunk Release Handle/Lever



Force Transducer Attached to Release Handle

