REPORT NUMBER 118-GTL-08-011

SAFETY COMPLIANCE TESTING FOR FMVSS NO. 118 POWER-OPERATED WINDOW, PARTITION AND ROOF PANEL SYSTEMS

SAAB AUTOMOBILE AB
2008 SAAB 95 WAGON PASSENGER CAR
NHTSA NO. C80508

GENERAL TESTING LABORATORIES, INC.
1623 LEEDSTOWN ROAD
COLONIAL BEACH, VIRGINIA 22443

DECEMBER 23, 2008

FINAL REPORT

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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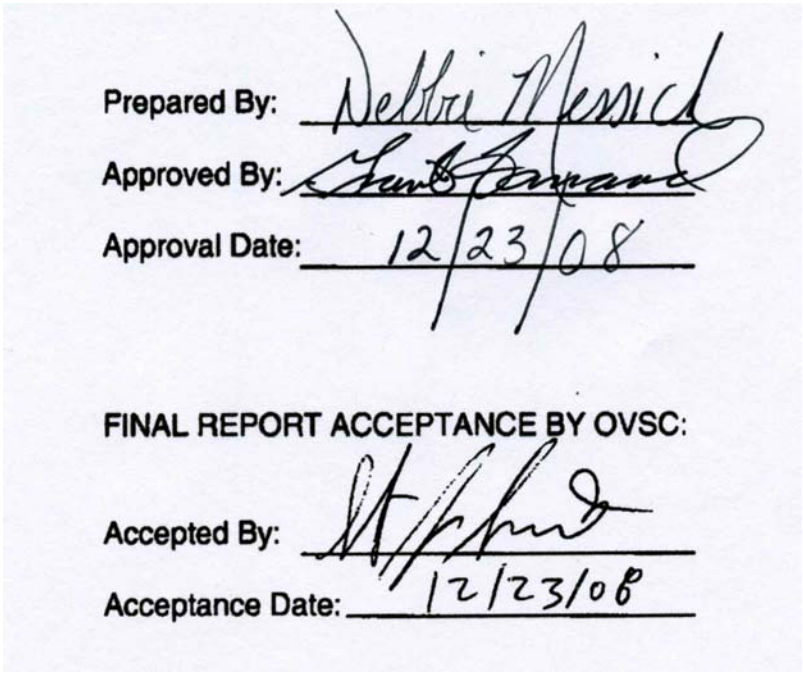

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15. Supplementary Notes

16. Abstract

Compliance tests were conducted on the subject 2008 Saab 95 Wagon Passenger Car in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-118-06 for the determination of FMVSS 118 compliance.

Test failures identified were as follows:
None

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SECTION 1

PURPOSE OF COMPLIANCE TEST

1.0 PURPOSE OF TEST

A model year 2008 Saab 95 Wagon Passenger Car was subjected to Federal Motor Vehicle Safety Standard (FMVSS) No. 118 testing to determine if the vehicle was in compliance with the requirements of the standard. FMVSS 118 specifies requirements for power-operated window, partition, and roof panel systems to minimize the likelihood of death or injury from their accidental operation.

1.1 The test vehicle was a 2008 Saab 95 Wagon Passenger Car. The vehicle was identified as follows:

A. Vehicle Identification Number: YS3ED59G783503647

B. NHTSA No.: C80508

C. Manufacturer: SAAB AUTOMOBILE AB

D. Manufacture Date: 09/07

E. Color: Gray

1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 118 testing on December 19, 2008.

SECTION 2

TEST PROCEDURE AND SUMMARY OF RESULTS

2.0 TEST PROCEDURE

All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Procedure TP-118-06 dated 12 April 2006 and General Testing Laboratories, Inc. (GTL) Test Procedure, TP-118-03A, “Power Operated Window, Partition and Roof Panel Systems”.

FMVSS 118 Compliance Testing was performed in the following sequence:

A. Test Vehicle Identification/Documentation
B. Power Window, partition and roof panel identification/documentation
C. Interior, exterior and remote control switch identification/documentation
D. Pre-test operation of all power windows, partitions and roof panels
E. Photograph vehicle and interior, exterior and remote control devices
F. Perform Interior Locking System Off Test
G. Perform Interior Locking System with Key Removed Test
H. Perform Exterior Locking System Test
I. Perform Remote Actuation Device Test
J. Perform Occupant Compartment Actuation Device Test(Sphere Test/Pull up or Pull Out Test)
K. Perform Automatic Reversal System Test

Above tests H, I, and K were not required on this vehicle due to no exterior or remote actuation devices and no automatic reversal mechanism. Test J was performed for information purposes only.

2.1 SUMMARY OF RESULTS

The power window operational test resulted in no anomalies being noted. Test data indicate the FMVSS 118 requirements appear to have been satisfied. All test data resulting from the tests were recorded on test data sheets in Section 3.

SECTION 3

TEST DATA

3.0 TEST RESULTS

The following data sheets document the results of FMVSS 118 testing on the 2008 Saab 95 Wagon.

FMVSS 118
COMPLIANCE DATA SUMMARY SHEET

VEHICLE MAKE/MODEL/BODY STYLE: 2008 SAAB 95 WAGON

VEHICLE NHTSA NO: C80508 VIN: YS3ED59G783503647

VEHICLE TYPE: PASSENGER CAR DATE OF MANUFACTURE: 09/07

LABORATORY: GENERAL TESTING LABORATORIES TEST DATE: 12/19/08

REQUIREMENT	PASS	FAIL	N/A
S4 Interior Locking system in Off Position(s)	X		
S4 Interior Locking System with Key Removed	X		
S4 Exterior Locking System			X
S4 Remote Actuation Device			X
S6(A) Occupant Compartment Actuation Devices (Sphere Test)	X*		
S5 Automatic Reversal System			X
S6 (C) Actuation Devices (Pull up or Pull out test)			X*

REMARKS: * Compliance not required

RECORDED BY: G. Farrand DATE: 12/19/08

APPROVED BY: D. Messick

WPRP PRE-OPERATIONAL CHECK

VEHICLE MAKE/MODEL/BODY STYLE: 2008 SAAB 95 WAGON

VEHICLE NHTSA NO: C80508 VIN: YS3ED59G783503647

VEHICLE TYPE: PASSENGER CAR DATE OF MANUFACTURE: 09/07

LABORATORY: GENERAL TESTING LABORATORIES TEST DATE: 12/19/08

Identify power-operated WPRP and WPRP actuation devices

	LEFT FRONT	LEFT REAR	RIGHT FRONT	RIGHT REAR	TAIL GATE	LEFT VENT	RIGHT VENT	ROOF PANEL
Power WPRP Installed	X	X	X	X				X
Individual Interior Actuation Devices		X		X				
Master Control Panel Actuation Devices	X	X	X	X				
WPRP Operated by Exterior Locking System								
WPRP Operated by Remote Control								
WPRP with Auto-Reverse Capability								
WPRP with Express-Up Capability								

Master Control Panel Location: ON CENTER CONSOLE BETWEEN FRONT SEATS

Exterior Locking System Location: N/A

Remote Control Type: ( ) Line of Sight ( ) Non-line of Sight

WPRP Actuation Device Design (Toggle, Rocker, Push/Pull (Lever) or describe other):

Master Control Panel Push/Pull
Individual Window Rocker Switch
Roof Panel Rocker Switch
Vents

Interior Locking System Key Positions (clockwise): LOCK, OFF, ON, START

All WPRP open/close cycles are satisfactory with key in “ON” position:
(X) YES ( ) NO

All WPRP open/close cycles are satisfactory with key in “ACCESSORY” position:
( ) YES (X) Not Applicable –No power to WPRP’s

REMARKS:

RECORDED BY: G. Farrand DATE: 12/19/08
APPROVED BY: D. Messick

DATA SHEET 1
INTERIOR LOCKING SYSTEM TEST

VEHICLE MAKE/MODEL/BODY STYLE: 2008 SAAB 95 WAGON

VEHICLE NHTSA NO: C80508 VIN: YS3ED59G783503647

VEHICLE TYPE: PASSENGER CAR DATE OF MANUFACTURE: 09/07

LABORATORY: GENERAL TESTING LABORATORIES TEST DATE: 12/19/08

Key lock position at start of test execution: (X) ON ( ) ACCESSORY, Then to:
Key lock off position during test execution: ( ) LOCK (X) OFF ( ) ACCESSORY

ACTUATION DEVICES	DOORS CLOSED		LEFT DOOR OPEN		RIGHT DOOR OPEN		PASS/ FAIL
	INOP.	OPER.	INOP.	OPER.	INOP.	OPER.	
MASTER CONTROL PANEL ACTUATION DEVICES							
Left Front (LF)	X		X		X		P
Right Front (RF)	X		X		X		P
Left Rear (LR)	X		X		X		P
Right Rear (RR)	X		X		X		P
Tail Gate (TG)							
Vents							
Roof Panel (RP)							
INDIVIDUAL ACTUATION DEVICES							
Left Front (LF)							
Right Front (RF)							
Left Rear (LR)	X		X		X		P
Right Rear (RR)	X		X		X		P
Tail Gate (TG)							
Vents							
Roof Panel (RP)	X		X		X		P

REMARKS:

RECORDED BY: G. Farrand DATE: 12/19/08

APPROVED BY: D. Messick

DATA SHEET 2
INTERIOR LOCKING SYSTEM WITH KEY REMOVED TEST

VEHICLE MAKE/MODEL/BODY STYLE: 2008 SAAB 95 WAGON

VEHICLE NHTSA NO: C80508 VIN: YS3ED59G783503647

VEHICLE TYPE: PASSENGER CAR DATE OF MANUFACTURE: 09/07

LABORATORY: GENERAL TESTING LABORATORIES TEST DATE: 12/19/08

Key lock position at start of test execution: (X) ON ( ) ACCESSORY, Then to:
Key lock off position during test execution: (X) LOCK ( ) OFF ( ) ACCESSORY

ACTUATION DEVICES	DOORS CLOSED		LEFT DOOR OPEN		RIGHT DOOR OPEN		PASS/ FAIL
	INOP.	OPER.	INOP.	OPER.	INOP.	OPER.	
MASTER CONTROL PANEL ACTUATION DEVICES							
Left Front (LF)	X		X		X		P
Right Front (RF)	X		X		X		P
Left Rear (LR)	X		X		X		P
Right Rear (RR)	X		X		X		P
Tail Gate (TG)							
Vents							
Roof Panel (RP)							
INDIVIDUAL ACTUATION DEVICES							
Left Front (LF)							
Right Front (RF)							
Left Rear (LR)	X		X		X		P
Right Rear (RR)	X		X		X		P
Tail Gate (TG)							
Vents							
Roof Panel (RP)	X		X		X		P

REMARKS:

RECORDED BY: G. Farrand DATE: 12/19/08

APPROVED BY: D. Messick

DATA SHEET 3
OCCUPANT COMPARTMENT ACTUATION DEVICE TEST
SPHERE TEST

VEHICLE MAKE/MODEL/BODY STYLE: 2008 SAAB 95 WAGON
VEHICLE NHTSA NO: C80508 VIN: YS3ED59G783503647
VEHICLE TYPE: PASSENGER CAR DATE OF MANUFACTURE: 09/07
LABORATORY: GENERAL TESTING LABORATORIES TEST DATE: 12/19/08

ACTUATION DEVICES	APPLICABLE (YES/NO*)	SPHERE ACTIVATED ACTUATION DEVICE CLOSES WPRP (YES/NO)	TEST RESULT PASS/FAIL	COMPLIANCE REQUIRED (Y/N**)
MASTER CONTROL PANEL ACTUATION DEVICES				
Left Front (LF)	Yes	Yes	N/A**	No
Right Front (RF)	Yes	Yes	N/A**	No
Left Rear (LR)	Yes	Yes	N/A**	No
Right Rear (RR)	Yes	Yes	N/A**	No
Tail Gate (TG)				
Vent Window(s)				
Partition (P)				
Roof Panel (RP)				
INDIVIDUAL ACTUATION DEVICES				
Left Front (LF)				
Right Front (RF)				
Left Rear (LR)	Yes	Yes	N/A**	No
Right Rear (RR)	Yes	Yes	N/A**	No
Tail Gate (TG)				
Vent Window (s)				
Partition(P)				
Roof Panel (RP)	*	Yes	*	No

*This requirement does not apply to actuation devices that are mounted in a vehicle's roof, headliner, or overhead console and that can close a window, partition, or roof panel only by continuous rather than momentary switch actuation or actuation devices that comply with the reversing requirement of FMVSS 118, S5.
** Requirement is effective 1 October 2008. Early compliance is voluntary and test results are used for information only.

RECORDED BY: G. Farrand DATE: 12/19/08
APPROVED BY: D. Messick

DATA SHEET 4
OCCUPANT COMPARTMENT ACTUATION DEVICE TEST
FOR POWER-OPERATED WINDOWS ONLY
PULL UP OR PULL OUT TEST

VEHICLE MAKE/MODEL/BODY STYLE: 2008 SAAB 95 WAGON
VEHICLE NHTSA NO: C80508 VIN: YS3ED59G783503647
VEHICLE TYPE: PASSENGER CAR DATE OF MANUFACTURE: 09/07
LABORATORY: GENERAL TESTING LABORATORIES TEST DATE: 12/19/08

ACTUATION DEVICES	SWITCH ORIENTATION A – horizontal B – vertical C - angled	CLOSES POWER-OPERATED WINDOW ONLY IF: PULL UP OR PULL OUT	TEST RESULT PASS/FAIL	COMPLIANCE REQUIRED (Y/N**)
MASTER CONTROL PANEL ACTUATION DEVICES				
Left Front (LF)	C	Pull Up	Pass	No
Right Front (RF)	C	Pull Up	Pass	No
Left Rear (LR)	C	Pull Up	Pass	No
Right Rear (RR)	C	Pull Up	Pass	No
Vent Window(s)				
INDIVIDUAL ACTUATION DEVICES				
Left Front (LF)				
Right Front (RF)				
Left Rear (LR)	B	Rocker	Pass	No
Right Rear (RR)	B	Rocker	Pass	No
Vent Window(s)				

** Requirement is effective 1 October 2010. Early compliance is voluntary and test results are used for information only.

RECORDED BY: G. Farrand DATE: 12/19/08
APPROVED BY: D. Messick

SECTION 4
TEST EQUIPMENT LIST

VEHICLE MAKE/MODEL/BODY STYLE: 2008 SAAB 95 WAGON
VEHICLE NHTSA NO: C80508 VIN: YS3ED59G783503647
VEHICLE TYPE: PASSENGER CAR DATE OF MANUFACTURE: 09/07
LABORATORY: GENERAL TESTING LABORATORIES TEST DATE: 12/19/08

ITEM	MFR	MODEL	S/N	CAL. PERIOD	DATE OF LAST CALIB.	REMARKS
SLR DIGITAL CAMERA	NIKON	D50	N/A	N/A	N/A	
PINCH FORCE SENSOR	SENSOR DEVELOPMENTS, INC.	10293	179104	12 MO.	06/08	

REMARKS:

RECORDED BY: G. FARRAND DATE: 12/19/08

APPROVED BY: D. MESSICK

SECTION 5

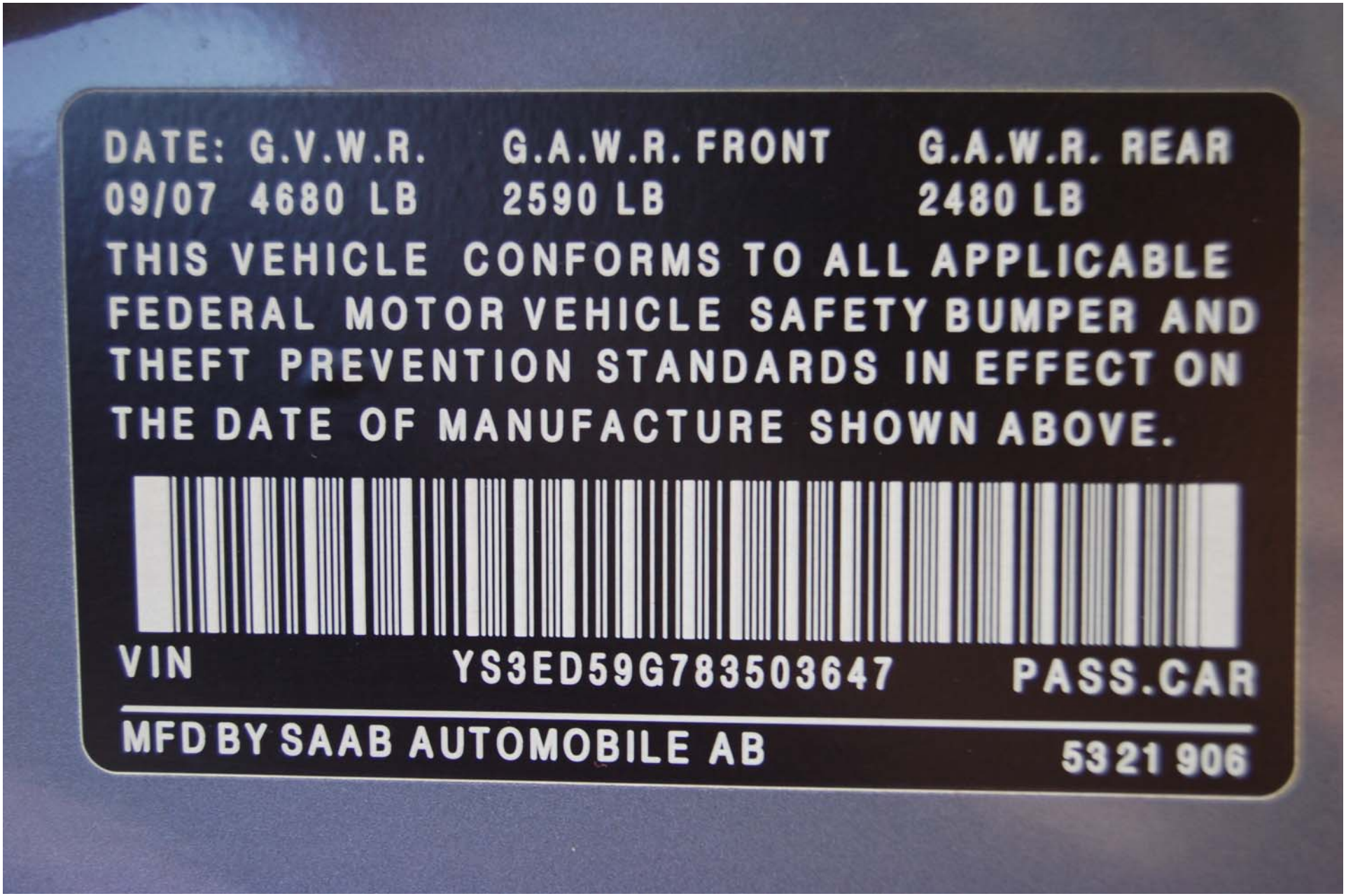
PHOTOGRAPHS

2008 SAAB 95 WAGON
NHTSA NO. C80508
FMVSS NO. 118

FIGURE 5.1
¾ FRONTAL VIEW FROM RIGHT SIDE OF VEHICLE

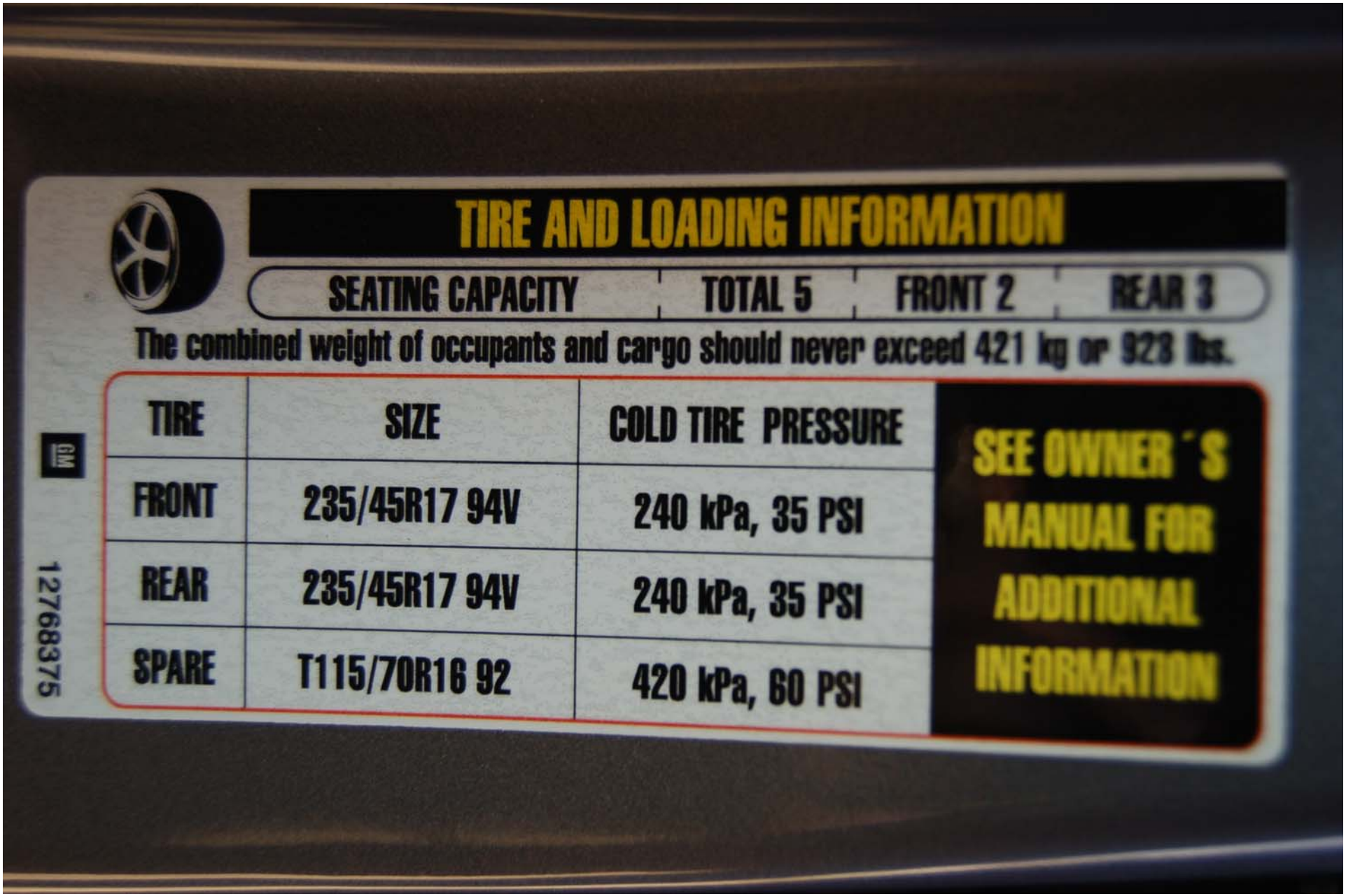
2008 SAAB 95 WAGON
NHTSA NO. C80508
FMVSS NO. 118

FIGURE 5.2
¾ REAR VIEW FROM LEFT SIDE OF VEHICLE



2008 SAAB 95 WAGON
NHTSA NO. C80508
FMVSS NO. 118

FIGURE 5.3
CLOSE-UP VIEW OF VEHICLE CERTIFICATION LABEL



2008 SAAB 95 WAGON
NHTSA NO. C80508
FMVSS NO. 118

FIGURE 5.4
CLOSE-UP VIEW OF TIRE INFORMATION PLACARD

2008 SAAB 95 WAGON
NHTSA NO. C80508
FMVSS NO. 118

FIGURE 5.5
CLOSE-UP VIEW OF VEHICLE IGNITION SWITCH

2008 SAAB 95 WAGON
NHTSA NO. C80508
FMVSS NO. 118

FIGURE 5.6
CLOSE-UP VIEW OF POWER WINDOW MASTER WHICH INCLUDES LEFT AND RIGHT FRONT WINDOW SWITCHES

2008 SAAB 95 WAGON
NHTSA NO. C80508
FMVSS NO. 118

FIGURE 5.7
CLOSE-UP VIEW OF LEFT REAR POWER WINDOW SWITCH

2008 SAAB 95 WAGON
NHTSA NO. C80508
FMVSS NO. 118

FIGURE 5.8
CLOSE-UP VIEW OF RIGHT REAR POWER WINDOW SWITCH

2008 SAAB 95 WAGON
NHTSA NO. C80508
FMVSS NO. 118

FIGURE 5.9
CLOSE-UP VIEW OF POWER ROOF PANEL SWITCH

SECTION 6
OWNER'S MANUAL INFORMATION

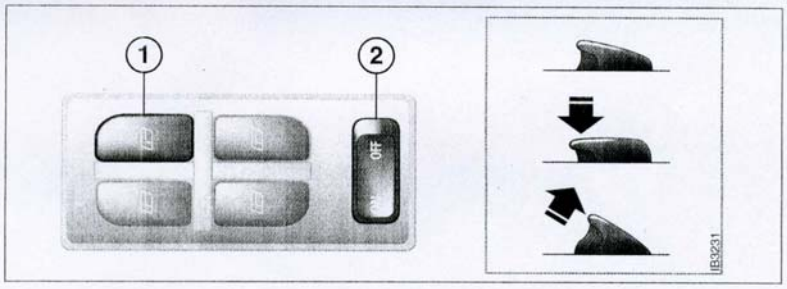
Electric windows

⚠ WARNING

Bear in mind the pinch hazard when the side windows are being wound up.

- **Always** remove the ignition key when you leave the car. This prevents personal injury caused by the electric windows, for example, due to children playing.
- The person operating the electric windows is responsible for ensuring that no one, especially children, has their head, hands or fingers in the window openings, before raising the windows. Raising the windows could otherwise cause serious or fatal injuries.
- Do not extend your arm, head etc. out of an open window while driving.

The electric motors of the front windows are equipped with overload protection (integrated thermal protection). This protection operates when the windows are wound down automatically (switch pressed fully down).



1 Window switches
2 Switch for rendering rear door window switches inoperative

To open:

Front windows: press the front of the switch

Rear windows: Press the back of the switch.

The switches for the front windows have a third position for automatic opening of the window. Press the switch fully down to lower the window completely.

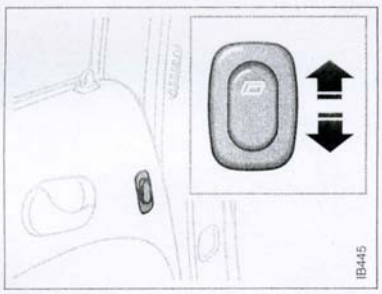
To cancel automatic lowering of the window, lift the switch briefly.

To close:

Front windows: Lift the front of the switch.

Rear windows: Lift the back of the switch.

The actuating motor will be switched off automatically when the window is fully closed or when the switch is released.



Switch for rear side window

Child safety: rear windows (ON/OFF)

The window switches on the rear doors can be rendered inoperative by the ON/OFF switch in the panel on the center console.

When the switch is ON, the rear side windows can be operated by the switch on each rear door. The switch's back lighting will be activated.

When the switch is OFF, the rear side windows can only be operated from the panel on the center console. When off, the switch's back lighting will also be switched off.

Rearview mirrors

Door mirrors

The door mirrors may have an auto dimming function ✻ and the passenger side door mirror is of the wide-angle "aspheric" type.

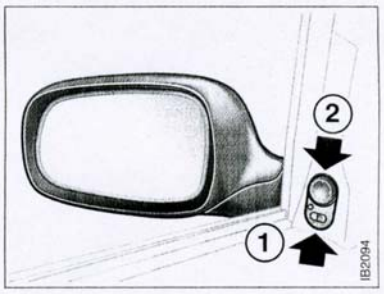
The adjusting switch is on the driver's door.

If the car is equipped with a programmable driver's seat, the settings of the door mirrors can also be stored in the preset buttons for the seat (see page 20).

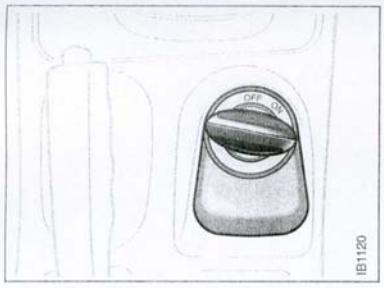
The door mirrors are designed to fold back if knocked. They can also be fully retracted for parking in tight spaces, such as on the car deck of a ferry. Remember to fold them out again before driving off.

NOTE

The door mirrors should be fully retracted before the car enters an automatic car wash.



Adjusting the door mirrors
1 Select mirror
2 Use touch pad to adjust mirror



Ignition switch

The combined ignition switch and gear-lever lock is located in the center console between the front seats. The ignition key can only be removed when reverse is engaged (automatic transmission: selector in "P" position).

The key fits all the locks on the car. The key number is specified on the small plastic strap that comes with the keys when the car is delivered. Keep a note of the key number in a safe place, as you will need to quote it if ordering a replacement key.

See also page 44.

LOCK position

Engage reverse and turn the key to LOCK.

Automatic transmission: select "P".

The gear lever is locked. This is the only position in which the key can be removed.

The parking lights, hazard warning lights and interior lighting all work.

OFF position

Gear lever no longer locked.
Certain electrical circuits operational.

ON position

All electrical circuits working.

Do not leave the key in the ON position when the engine is not running.

Turn the key to OFF to switch off the electrical circuits. In the ON position certain warning and indicator lights come on as a check, and they normally are extinguished after about 3 seconds.

ST (starter) position

The starter operates when the key is turned to this position. When released, the key will spring back to the ON position.

If the engine fails to start, the key must first be turned back to the position between OFF and LOCK before the starter can be operated again.

When the starter motor is running, several electrical circuits are disconnected to facilitate starting.