# **Crash Tests**

# **New Car Safety**

# **SUZUKI GRAND VITARA**

2002 on

**Dual front airbags** 

### **Overall Evaluation**



#### **Overall score**

#### 22.94 out of 34

Variant: 5 door wagon I Kerb weight: 1640kg

Eng: 2.7 litre (Europe).
Category: Compact 4WD

Vehicles built: 2002

**Important note**: The *left hand drive* European model was used for the tests conducted by EuroNCAP. Australian specifications may vary and therefore models sold in Australia might provide different levels of protection than those described on this page.

### **Model History and Safety Features**

The tested model of SUZUKI GRAND VITARA was introduced in 2001.

Dual front airbags are standard equipment.

The front seat belt buckles are mounted on the seats and the upper anchorages are adjustable. These features improve the fit of the seat belt.

#### **OVERALL EVALUATION: 3 Stars**

The SUZUKI GRAND VITARA scored 8.089 out of 16 in the offset crash test. The passenger compartment was judged to be structurally unstable. There was a moderate risk of serious chest and leg injury was for the driver.

The vehicle scored 14.85 out of 16 in the side impact crash test. There was a slight risk of serious chest injury for the driver.

## FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4pts, chest 0.61pts, upper legs 2pts, lower legs 1.48pts.

The passenger compartment was moderately deformed in the offset crash test. There was significant distortion of the footwell and firewall. The brake pedal moved rearwards by 163mm and upwards 97mm. The steering wheel hub moved rearwards 50mm, upwards 72mm and sideways 23mm. The front ("A") pillar moved 71mm rearwards. The roof buckled upwards above the driver. The driver's door buckled and was beginning to tear apart. All doors remained closed during the crash. After the crash high manual effort was required to open the driver's door and rear door on the driver's side.

The airbag cushioned the head of the driver and contact was stable. Brackets behind the dash and steering column components were potential sources of knee injury for the driver. The passenger's head was cushioned by the airbag. There were potential sources of knee injury for the passenger.

#### SIDE IMPACT CRASH TEST

Body region scores out of 4 points each: Head 4pts, chest 2.85pts, abdomen 4pts, pelvis 4pts.

This test simulates a fairly small car striking the driver's door of the vehicle under test. It is based on a regulation test but the regulation does not apply to vehicles with a high seat height like the Grand Vitara. Such vehicles can be expected to perform



Offset crash test at 64km/h

relatively well in this particular side impact test. There was, however, a slight risk of serious chest injury for the driver.

The vehicle was not eligible for a Pole Impact Test since it did not have head-protecting side airbags. This test can earn eligible vehicles an extra two points, giving a maximum possible overall score of 34 points.

#### **INJURY MEASUREMENTS**

Refer to the informatio sheet "How the test ar done"		Offset Crash Test at 64km/h	
	Driver	Passn	Driver
Head HIC	368.1	366.3	127.8
Acceleration (g for 3ms)	48.62		51.53
Neck - Shear (kN)	1.059		-
Tension (kN)	1.644	1.66	-
Extension (Nm)	7.01	12.46	-
Chest Accln (g for 3ms	-	-	-
Compression (mm)	38.74	34.03	27.75
Viscous criterion (m/s)	0.22	0.17	0.23
Abdomen - Force (kN)	-	-	0.48
Pelvis - Force (kN)	-	-	1.79
Upper legs Force Left	0.781	1.72	
(kN) Righ	nt 0.9884	1.01	
Knee displ (mm) Left	1.51	4.35	
Righ	nt 0.04	0.47	
Lower legs Force Left	1.51	2.41	
(kN) Righ	nt 1.9	1.81	
Index (Upper/Low) Left	0.45/0.25	0.32/0.35	
Righ	nt 0.45/0.22	0.28/0.26	

## **Bonus points**

Pole Test: Not eligible Seat belt reminders: Not eligible

# Modifiers for offset test scores

HeadNo penaltyChestNo penaltyUpper legVariable & Conc. loading2pt penalty L&RLower legUpward pedal move.1pt penaltyFoot scoreRearward pedal move.Score 1.48pts

# Pedestrian rating (2002 protocol) ZERO STARS

Zero points out of 36



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