# **Crash Test Results**

**New Car Safety** 

# **SUZUKI ALTO (RHD)**

2009 on Dual front+side(chest) airbags\*



Occupant Protection

#### Occupant Protection Score 25.55 out of 37

\* Australasian model has side curtains

Variant: 5 door hatch Eng: 1 litre, manual
Kerb weight: 890 kg Category: CAR - LIGHT
Vehicles built: 2009 Tested by Euro NCAP

**Important note**: The right-hand-drive European model was tested by Euro NCAP. Australasian specifications may vary and therefore models sold in Australasia might provide different levels of protection to those described on this page.

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

The Suzuki Alto was introduced in Australia and New Zealand during 2009.

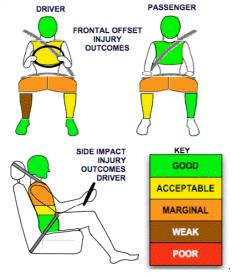
Dual front airbags, side airbags and head-protecting side curtains are standard equipment in Australasia. Antilock brakes (ABS) with electronic brakeforce distribution (EBD) and emergency brake assist are also standard. Electronic stability control (ESC) is optional. An intelligent seat belt reminder is fitted to the driver seat.

Pretensioners are fitted to the front seat belts to reduce slack in the event of a crash. The Alto is a four-seat vehicle

### **OCCUPANT PROTECTION: 4 Stars**

The Alto scored 10.36 out of 16 in the offset crash test. The passenger compartment held its shape well. Protection from serious leg injury was weak for the driver.

The vehicle scored 14.19 out of 16 in the side impact crash test. There was a moderate risk of serious chest injury for the driver. Head protection was good.





Offset crash test at 64km/h

#### FRONTAL OFFSET CRASH TEST (v4.2)

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.25 pts, upper legs 2 pts, lower legs 1.11 pts.

The passenger compartment held its shape well in the offset crash test. The throttle pedal moved rearwards by 9 mm. The clutch pedal moved upwards 27 mm. The steering wheel hub moved 16mm forward, 24mm downward and 19 mm sideways. The front ("A") pillar moved 11 mm rearwards. All doors remained closed during the crash. After the crash all doors could be opened with normal effort. The airbag cushioned the head of the driver and contact was stable. Dash components were a potential source of injury for the knees of the driver and passenger. The passenger's head was cushioned by the airbag.

#### SIDE IMPACT CRASH TEST (v4.2)

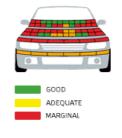
Body region scores out of 4 points each: Head 4 pts, chest 2.48 pts, abdomen 3.71 pts, pelvis 4 pts.

The vehicle tested by Euro NCAP did not have side curtains. These are standard on the Australasian model but, since the head score was a full 4 points in the European test, the presence of side curtains is unlikely to change the score in this test. Head-protecting side airbags can provide protection in more severe side impacts such as that reproduced in the ANCAP pole test. However, since the offset test score was less than 12.5 (the minimum for a 5-star rating) the Australasian Alto was not eligible for this test, which can earn a further two points.

#### PEDESTRIAN PROTECTION: 2 Stars

The front edge of the bonnet scored no points for the protection it offers to pedestrians' legs. The protection offered by the bumper was marginal. Poor protection was provided by the bonnet in most areas likely to be struck by the head of an adult or a child.

the mode of an addition a crima.				
PEDESTRIAN PROTECTION	Child head impacts	4.21		
ANCAP	Adult head impacts	5.29		
Rated ★ ★ ★ ★	Upper leg impacts	Zero		
	Lower leg impacts	3.28		
Tested by Euro NCAP v4.2	Total (out of 36)	12.78		



#### **June 2009**

PO Box 4041 Manuka ACT 2603 alto09.doc Issued 3/6/2009



# **TECHNICAL DATA - SUZUKI ALTO - 2009 on**

#### **INJURY MEASUREMENTS**

Body region		Offset Crash Test at 64km/h (v4.2)		Side Impact Crash Test at 50km/h (v4.2)	
		Driver	Passenger	Driver	
Head HIC		372	314	146	
Acceleration (g for 3ms)		45.7	41.6	49.2	
Neck - Shear (kN)		0.41	0.36	-	
Tension (kN)		1.56	0.91	-	
Extension (Nm)		22.9	10.9	-	
Chest Accln (g for 3ms)		-	-	•	
Compression (mm)		27.25	20.89	18.39	
Viscous criterion (m/s)		0.10	0.08	0.14	
Abdomen - Force (kN)		-	-	1.110	
Pelvis - Force (kN)		-	-	2.610	
Upper legs Force (kN)	Left	0.92	0.10		
	Right	0.48	0.50		
Knee displ (mm)	Left	0.00	0.40		
	Right	1.20	3.80		
Lower legs Force (kN)	Left	1.94	2.00		
- ,	Right	2.46	2.19		
Index (Upper/Low)	Left	0.44 /0.25	0.39 /0.17		
	Right	0.74 /1.05	0.31/0.3		

# **Bonus points (maximum 5)**

Pole Test: Not eligible due to low offset test score Seat belt reminders: 1 (see table below for details)

#### Modifiers - deductions from offset test scores

Head No deduction
Chest No deduction

Upper leg Variable & conc. loading 2 pt deduction Left & Right

for driver and passenger

Lower leg No deduction Foot score Score 4 points

# Modifiers - deductions from side impact test scores

Chest No deduction

# Safety features

These specifications are subject to change. Please check with manufacturer for the latest specifications.

the latest specifications.		T	
Driver airbag	S	Antilock (ABS) brakes / Electronic brake distribution / Brake Assist	S/S/S
Passenger front airbag	S	Electronic stability control (ESC, VSC, DSC, ESP, VSA)	O#*
Side airbags, front seats - chest protection	S	3 point centre rear seat belt	- @
Side airbags, front seats - head protection	S	Active head restraints - front seats	Χ
Side airbags, rear seats - head protection	S*	Intelligent seat belt reminder - driver	S
Driver knee airbag	Х	Intelligent seat belt reminder - front passenger	Х
Seat belt pretensioners (Front/Rear outboard)	S/X	Rear seat belt status indicator	Χ

Key: \* Not fitted to model tested by Euro NCAP. @ Not applicable as there is no centre-rear seating position

S = standard on all variants

O = optional on base variant. May be standard on higher variants

V= not available on base variant but standard or optional on higher variants

X = not available on any variant

# ESC required by ANCAP for 5 star rating from 2008



