

Crash Tests

New Car Safety

Suzuki Alto

03/2009 on 01/0001 - Frontal+Side

Overall Evaluation



Overall Score

25.55 out of 37

Variant: 5 dr hatch

Engine: 1 litre manual
Category: Light Car

Australian model has side curtains

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.

Overall Evaluation: 4

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.

Frontal Offset Crash Test

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

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 rating (v4.2)



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.

Child head impacts	4.21
Adult head impacts	5.29
Upper leg impacts	Zero
Lower leg impacts	3.28
Total (out of 36)	12.78

Offset crash test at 64km/hr



Injury Measurements

Refer to the information sheet 'How the tests are done'	Offset Crash Test at 64km/h (v4.2)		Side Impact Crash Test aa 50km/h (v4.2) Driver
	Driver	Passn	
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			
- Acceleration (g for 3ms)			
- Compression (mm)	27.25	20.89	18.39
- Viscous Criterion (m/s)	0.1	0.08	0.14
Abdomen			
- Force (kN)			1.11
Pelvis			
- Force (kN)			2.61
Upper Legs Force (kN)			
- Left	0.92	0.1	
- Right	0.48	0.5	
Knee Displacement (kN)			
- Left	0	0.4	
- Right	1.2	3.8	
Lower Legs Force (kN)			
- Left	1.94	2	
- Right	2.46	2.19	
Index (Upper Lower)			
- 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
Seat Belt Reminders: 1

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable & Conc Loading 2 pt deduction L & R for D & P
Lower leg	No deduction
Foot score	4 pts
Structure	

Modifiers for side impact test scores

Head	
Chest	No deduction
Upper leg	
Lower leg	
Foot score	
Structure	



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