

Crash Tests

New Car Safety

Holden Barina

08/2008 on 09/2011 - Frontal+Side+Head

Overall Evaluation



Overall Score

Variant: 3 Door Hatch

24.89 out of 37

Engine: 1.6 litre

Category: Small Car

Model History and Safety Features

The tested model of Holden Barina (Model Year 2009) was introduced in Australia in mid 2008. This 4 star rating only applies to the 3 door hatch which had safety-related improvements for cars built from May 2008. The 5 door hatch and sedan have received similar safety-related improvements as the 3 door hatch but these bodystyles have not been tested by ANCAP.

Dual front airbags and side airbags with head-protection are standard equipment.

Antilock brakes with Electronic Brakeforce Distribution (EBD) are optional. Electronic stability control (ESC) is not available. An advanced seat belt reminder is fitted to the driver seat.

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. Pretensioners are fitted to the front seat belts to reduce slack in the event of a crash. A three point seat belt is fitted to the centre rear seat. This provides better protection than a two point (lap) seat belt.

Overall Evaluation: 4

4 stars. The Barina scored 9.03 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well. Protection from serious chest and leg injury was marginal 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 and pelvis injury for the driver.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 3 pts, chest 2.34 pts, upper legs 2 pts, lower legs 1.69 pts.

The passenger compartment held its shape reasonably well but there was buckling in the roof, door and sill which indicated it was reaching its limit. The accelerator pedal moved rearwards by 108 mm and upwards 9 mm. The steering wheel hub moved 62 mm rearward, 19mm downward and 14 mm sideways. The steering column mounts broke away by design. The front ("A") pillar moved 88 mm rearwards. All doors remained closed during the crash. After the crash tools were needed to manipulate the lock mechanism of the driver door. The door then opened with high manual effort. The airbag cushioned the head of the driver but contact was unstable, with the head rolling off the side and striking the door. Steering column components were a potential source of injury for the driver's knees. 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 3.64 pts, abdomen 4 pts, pelvis 3.213 pts.

An optional pole test is available for vehicles that are within reach of a 5 star rating and have head-protecting side airbags for extra protection in severe side impacts. The pole test can earn an extra 2 points. Although the Barina has these devices it was not eligible for a pole test as it needed more than 2 points to reach 5 stars.

Pedestrian rating (v4.1)

(0 stars)

Rating Pending. ANCAP plans to conduct pedestrian protection tests for this model Barina. A similar model (Chev Aveo) tested by Euro NCAP in 2006 achieved 3 stars for pedestrian protection.

Offset crash test at 64km/hr



Injury Measurements

Refer to the information sheet 'How the tests are done'	Offset Crash Test at 64km/h (v4.1)		Side Impact Crash Test aa 50km/h (v4.1)
	Driver	Passn	Driver
Head			
- HIC	451	260	87
- Acceleration (g for 3ms)	52.2	40.3	34.3
Neck			
- Shear (kN)	0.63	0.59	
- Tension (kN)	1.65	1.03	
- Extension (Nm)	7.4	9.1	
Chest			
- Acceleration (g for 3ms)	48	29.8	
- Compression (mm)	33.6	20.7	17.7
- Viscous Criterion (m/s)	0.14	0.05	0.09
Abdomen			
- Force (kN)			0.827
Pelvis			
- Force (kN)			3.59
Upper Legs Force (kN)			
- Left	1.11	0.28	
- Right	2.3	2.74	
Knee Displacement (kN)			
- Left	1.98	0.02	
- Right	1.67	2.58	
Lower Legs Force (kN)			
- Left	1.65	1.92	
- Right	1.09	2.33	
Index (Upper Lower)			
- Left	0.25 0.15	0.32 0.2	
- Right	0.28 0.92	0.26 0.21	

Bonus points (maximum 5)

Pole Test: Not tested

Seat Belt Reminders: 1

Modifiers for offset test scores

Head	Unstable airbag contact	1 pt deduction
Chest		No deduction
Upper leg	Variable & Conc. Loading	2 pt deduct R, 1 pt deduct L
Lower leg		No deduction
Foot score	Pedal movement	3.7 pts
Structure	Note: Steering column & pedal movements are	measured relative to the driver's seat.

Modifiers for side impact test scores

Head		
Chest	T12 load	0.36 deduction
Upper leg		
Lower leg		
Foot score		
Structure		



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