

Crash Tests

New Car Safety

HOLDEN BARINA CITY

2001 on

Dual front airbags

Overall Evaluation



Overall score

27.97 out of 34

Variant: 3 DR HATCH
Kerb weight: 1050 kg
Vehicles built: 5/01 and 5/01

Eng: 4Cyl 1.4 litre.
Category: SMALL CAR

Model History and Safety features

The HOLDEN BARINA was introduced in April 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. Pretensioners and webbing grabbers are fitted to front seat belts to reduce slack in the event of a severe crash.

OVERALL EVALUATION : 4 Stars

The HOLDEN BARINA CITY performed well in the offset crash test (score 13.13 out of 16). The passenger compartment held its shape well. Protection from serious leg injury was adequate for the driver. Chest protection for the passenger was marginal.

The vehicle also performed well in the side impact crash (score 14.84 out of 16).

FRONTAL OFFSET CRASH TEST

The passenger compartment held its shape well in the offset crash test. The front part of the driver's floor was pushed rearwards just 63mm. The brake pedal moved rearwards by 107mm. There was minimal dash movement. The steering wheel hub moved rearwards 23mm, upwards 66mm and sideways 8mm. The front ("A") pillar moved 52mm rearwards. The width of the driver's doorway shortened by 47mm. All doors remained closed during the crash. After the crash a crow bar was required to open the driver's door.

The airbag cushioned the head of the driver but the head then rolled off the side of the airbag and contact was unstable. The driver's knee hit the steering column shroud and dash. The shroud has a light metal plate and foam padding on the inside and these adequately protected the knees from the ignition switch barrel. The passenger's head was cushioned by the airbag. The passenger's knees hit the glove box and dash.

SIDE IMPACT CRASH TEST

The centre pillar and the side door were pushed inwards substantially.

The side window glass did not break. There was no sign of head contact from paint marks but the injury measurements indicate a sudden impact occurred.

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.



Offset crash test at 64km/h

INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h		Side Impact Crash Test at 50km/h
	Driver	Passn	Driver
Head HIC	431	483	236
Acceleration (g for 3ms)	50	58.6	58.3
Neck - Shear (kN)	0.74	0.39	-
Tension (kN)	1.55	1.56	-
Extension (Nm)	23.65	10	-
Chest Accln (g for 3ms)	43.2	39.9	-
Compression (mm)	28.38	33.12	18.27
Viscous criterion (m/s)	0.11	0.12	0.11
Abdomen - Force (kN)	-	-	1.305
Pelvis - Force (kN)	-	-	3.26
Upper legs Force			
Left (kN)	1.53	0.31	
Right (kN)	1.33	1.68	
Knee displ (mm)			
Left	2.57	0.35	
Right	0.36	3.88	
Lower legs Force			
Left (kN)	1.25	1.73	
Right (kN)	1.8	1.4	
Index (Upper/Low)			
Left	0.22/0.23	0.4/0.15	
Right	0.44/0.34	0.33/0.14	

Modifiers for offset test scores

Head	Unstable airbag contact	1 pt penalty
Chest		No penalty
Upper leg		No penalty
Lower leg		No penalty
Foot score	Brake pedal rearward	Score 3.72 pts

Pedestrian rating



7.53 points out of 36 (20.9%)

Child head impacts 1.21 pts; adult head impacts 6.00 pts; Upper leg 0.32 pts and lower leg impacts zero pts.



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