

# Crash Tests

## New Car Safety

### HOLDEN BARINA

Dec 2005 on

Dual front airbags

#### Occupant Protection



**Occupant Protection Score 14.90 out of 37**

Variant: 5 door hatch

Eng: 1.6L Manual

Kerb weight: 1020 kg

Category: SMALL CAR

Vehicles built: 12/05

#### Model History and Safety Features

The tested model of Holden Barina was introduced in Australia late in 2005.

Dual front airbags are standard equipment. ABS brakes are optional. Side airbags are not available in Australia.

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. Pre-tensioners 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 seat belt.

#### OCCUPANT PROTECTION: 2 Stars

The Barina scored 4.39 out of 16 in the offset crash test. The passenger compartment structure was compromised. Protection from serious chest and leg injury was poor for the driver.

The vehicle scored 10.51 out of 16 in the side impact crash test. There was a moderate risk of serious chest and abdomen injury for the driver.

#### FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 3 pts, chest zero pts, upper legs 1.39 pts, lower legs zero pts.

The passenger compartment structure was compromised in the offset crash test. The brake pedal moved rearwards by 332 mm and upwards 110 mm. It was designed release in this type of crash to reduce leg injury risk, but failed to do so. The steering wheel column released by design and no displacement modifiers were applied. The front ("A") pillar moved 121 mm rearwards. All doors remained closed during the crash. After the crash tools were required to open the driver's door.

The airbag cushioned the head of the driver but contact was unstable, with the head rolling off the side of the airbag. Steering column and dash components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag. No passenger knee contacts were evident.

#### SIDE IMPACT CRASH TEST

Body region scores out of 4 points each: Head 4pts, chest 0.69pts, abdomen 1.81pts, pelvis 4pts.

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.



Offset crash test at 64km/h

#### INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h (v4.1)		Side Impact Crash Test at 50km/h (v4.1)
	Driver	Passn	Driver
Head HIC	265	269	234
Acceleration (g for 3ms)	40.2	40.5	46.6
Neck - Shear (kN)	0.60	0.46	-
Tension (kN)	1.70	1.37	-
Extension (Nm)	39.5	16.6	-
Chest Accln (g for 3ms)	48.500	27.100	-
Compression (mm)	44.20	27.10	28.2
Viscous criterion (m/s)	0.62	0.09	0.52
Abdomen - Force (kN)	-	-	1.82
Pelvis - Force (kN)	-	-	2.48
Upper legs Force			
Left (kN)	2.54	0.62	
Right (kN)	4.60	2.64	
Knee displ (mm)			
Left	1.04	0.01	
Right	1.89	2.81	
Lower legs Force			
Left (kN)	1.40	1.87	
Right (kN)	1.46	2.33	
Index (Upper/Low)			
Left	0.29 / 0.28	0.31 / 0.14	
Right	0.40 / 1.31	0.28 / 0.25	

#### Bonus points (maximum 5)

Pole Test: Not eligible

Seat belt reminders: None

#### Modifiers - offset test scores

Head Unstable airbag contact

1 pt deduction

Chest A-pillar displacement

1 pt deduction

Loss of structure

1 pt deduction

Upper leg Variable & conc. loading

2 pt deduction L & R

Lower leg

No deduction

Foot score Brake pedal displacement

Score zero points

#### Modifiers - side impact test scores

Chest Backplate load

0.07 pt deduction

T12 moment

2 pt deduction

#### PEDESTRIAN PROTECTION RATING (v4.1)

Based on Daewoo Kalos tested by ANCAP in 2003

Child head impacts	Zero	Upper leg impacts	3.4 pts
Adult head impacts	5 pts	Lower leg impacts	Zero
Total (out of 36)	8.4 pts		



**ANCAP**

Crash testing for safety

AUSTRALASIAN  
NEW CAR ASSESSMENT  
PROGRAM

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