

Crash Tests

New Car Safety

Holden Epica

03/2007 on 08/2008 - Frontal+Side+Head

Overall Evaluation



Overall Score

Variant: CDX sedan

26.41 out of 37

Engine: 2.5 litre

Category: Medium Car

Model History and Safety Features

The tested model of Holden Epica was introduced in Australia during 2007. Dual front airbags and side airbags with head-protection are standard equipment. Antilock brakes (ABS) with electronic brake distribution (EBD) are also standard. Side curtains are standard on the CDXi. An intelligent 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 Holden Epica scored 8.91 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 and chest protection was marginal.

The vehicle scored 14.5 out of 16 in the side impact crash test. There was a slight risk of serious chest and pelvic injury for the driver. A further 2 points were earned in the optional pole test.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 1.67 pts, upper legs 2.31 pts, lower legs 0.93 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 58 mm and upwards 39 mm. The steering wheel hub moved rearwards 75 mm, downwards 16mm and sideways 28 mm. The front ("A") pillar moved 33 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. The head rolled off the side of the airbag after the peak of the crash. 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 2.82 pts, abdomen 4 pts, pelvis 3.68 pts.

The vehicle was eligible for an optional pole impact test, since it had head-protecting side airbags and scored four points for the head in the side impact test. The manufacturer decided to go ahead with the pole test and the vehicle earned a further two points and a 4 star rating.

Pedestrian rating (v4.1)



Child head impacts	5.54
Adult head impacts	2.50
Upper leg impacts	Zero
Lower leg impacts	5.76
Total (out of 36)	13.80

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
	Driver	Passn	
Head			
- HIC	475	331	70
- Acceleration (g for 3ms)	60	45.1	42.7
Neck			
- Shear (kN)	0.4	0.54	
- Tension (kN)	1.74	1.18	
- Extension (Nm)	8.7	8.5	
Chest			
- Acceleration (g for 3ms)	47.3	34.3	
- Compression (mm)	38.33	29.4	27.9
- Viscous Criterion (m/s)	0.14	0.08	0.25
Abdomen			
- Force (kN)			0.71
Pelvis			
- Force (kN)			3.24
Upper Legs Force (kN)			
- Left	4.71	0.55	
- Right	2.72	2.8	
Knee Displacement (kN)			
- Left	0	0.15	
- Right	1.28	3.88	
Lower Legs Force (kN)			
- Left	3.82	2.62	
- Right	1.8	2.82	
Index (Upper Lower)			
- Left	1.09 0.41	0.27 0.24	
- Right	0.38 0.59	0.49 0.46	

Bonus points (maximum 5)

Pole Test: 2 points

Seat Belt Reminders: 1 on CDX, 2 on CDXi

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Conc. loading
Lower leg	No deduction
Foot score	4 points
Structure	Steering column & pedal movements
	are measured relative to driver's seat

Modifiers for side impact test scores

Head	
Chest	No deduction
Upper leg	
Lower leg	
Foot score	
Structure	



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