

Crash Tests

New Car Safety

Holden Viva

09/2005 on 12/2009 - Frontal+Side+Head

Overall Evaluation



Overall Score
Variant: 5 Dr Hatch

25.08 out of 37
Engine: 1.8 L
Category: Small Car

Model History and Safety Features

The tested model of Holden Viva was introduced in Australia during 2005.

Dual front airbags and side airbags with head protection are standard equipment. ABS brakes are optional. Electronic stability control is not available.

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.

Overall Evaluation: 4

The Viva scored 11.34 out of 16 in the offset crash test. The passenger compartment held its shape well. Protection from serious chest and leg injury was marginal for the driver.

The vehicle scored 11.75 out of 16 in the side impact crash test. There was a moderate risk of serious chest and abdomen injury for the driver. The vehicle scored a further two points in the optional pole test.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 2.26 pts, upper legs 2 pts, lower legs 3.08 pts.

The passenger compartment held its shape well in the offset crash test. The accelerator pedal moved rearwards by 123 mm and upwards 14 mm. The steering wheel column released by design and no displacement modifiers were applied. The front ("A") pillar moved 44 mm rearwards. All doors remained closed during the crash. After the crash high manual effort was required to open the driver's door.

The airbag cushioned the head of the driver and contact was stable. 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 1.24 pts, abdomen 2.51 pts, pelvis 4 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.

Pedestrian rating (v4.1)



Child head impacts 2.54
Upper leg impacts Zero
Adult head impacts 5.77

Lower leg impacts 1.80
Total (out of 36) 10.11

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	359	284	214
- Acceleration (g for 3ms)	48.4	41.6	63.4
Neck			
- Shear (kN)	0.86	0.42	
- Tension (kN)	1.73	1.25	
- Extension (Nm)	13.7	10.6	
Chest			
- Acceleration (g for 3ms)	45.1	30.8	
- Compression (mm)	34.2	28.3	35.8
- Viscous Criterion (m/s)	0.14	0.12	0.58
Abdomen			
- Force (kN)			1.56
Pelvis			
- Force (kN)			2.52
Upper Legs Force (kN)			
- Left	2.02	0.78	
- Right	3	2.12	
Knee Displacement (kN)			
- Left	5.93	0.8	
- Right	2.25	2.46	
Lower Legs Force (kN)			
- Left	1.06	2.06	
- Right	1.89	1.72	
Index (Upper Lower)			
- Left	0.44 0.37	0.26 0.38	
- Right	0.35 0.48	0.28 0.2	

Bonus points (maximum 5)

Pole Test: 2 points
Seat Belt Reminders: None fitted - zero points

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable & concentrated loading 2 pt deduction L & R
Lower leg	No deduction
Foot score	Accelerator pedal rearward movement Score 3.08 points
Structure	

Modifiers for side impact test scores

Head	
Chest	No deduction
Upper leg	
Lower leg	
Foot score	
Structure	



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