

Crash Tests

New Car Safety

Kia Carnival

07/2006 on 01/0001 - Frontal+Side+Head

Overall Evaluation



Overall Score

Variant: CRDi GL

28.81 out of 37

Engine: 2.9 Litre Diesel
Category: MPV

The diesel left-hand-drive European model was tested by Euro NCAP. Australasian specifications may vary and therefore models sold in Australasia might provide different levels of protection to those described on this page.

Model History and Safety Features

The tested model of Kia Carnival was introduced in Australia during 2006. The Carnival is sold as the Sedona in some European countries.

Dual front airbags and ABS/EBD brakes are standard. Side airbags, head-protecting side curtains and electronic stability control are standard on the Premium and optional on other variants. An advanced seat belt reminder is fitted to the driver's seat of all variants.

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 two point seat belt is fitted to both centre rear seats. This provides inferior protection compared with a three point seat belt.

Overall Evaluation: 4

The Kia Carnival scored 9.81 out of 16 in the offset crash test. The passenger compartment has its shape well, except for footwell deformation. Protection from serious chest and leg injury was marginal for the driver. There was a moderate risk of serious leg injury for the passenger.

The vehicle scored 16 out of 16 in the side impact crash test. A further 2 points were scored in the optional pole test.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 1.57 pts, upper legs 2 pts, lower legs 2.24 pts.

The passenger compartment held its reasonably shape well in the offset crash test. The brake pedal moved rearwards by 112 mm and upwards 13 mm and the footwell ruptured. The steering wheel hub moved rearwards 24 mm and sideways 17 mm. The front ("A") pillar moved 28 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 and contact was stable. Steering column and park brake components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag. Glove box components posed a risk for the passenger's knees.

Side Impact Crash Test

Body region scores out of 4 points each: Head 4 pts, chest 4 pts, abdomen 4 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	Zero
Adult head impacts	2.68
Upper leg impacts	Zero
Lower leg impacts	Zero
Total (out of 36)	2.68

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	548	282	11
- Acceleration (g for 3ms)	56.3	42.5	13.8
Neck			
- Shear (kN)	0.39	0.22	
- Tension (kN)	1.84	1.06	
- Extension (Nm)	10	17	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	39	28.65	18.17
- Viscous Criterion (m/s)	0.27	0.15	0.08
Abdomen			
- Force (kN)			0.5
Pelvis			
- Force (kN)			0.45
Upper Legs Force (kN)			
- Left	3.29	2.86	
- Right	0.49	1.46	
Knee Displacement (kN)			
- Left	0	2.5	
- Right	0	1.6	
Lower Legs Force (kN)			
- Left	2.45	3.02	
- Right	2.49	2.46	
Index (Upper Lower)			
- Left	0.34 0.21	0.68 0.38	
- Right	0.49 0.21	0.28 0.31	

Bonus points (maximum 5)

Pole Test: 2 points

Seat Belt Reminders: Fitted to driver seat only – 1 point

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable & conc. loading for driver & passenger 2 pt deduction L & R
Lower leg	No deduction
Foot score	Brake pedal rearward movement & blocked Score 2.24 points
Structure	

Modifiers for side impact test scores

Head	
Chest	No deduction
Upper leg	
Lower leg	
Foot score	
Structure	



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New Car Assessment Program
PO Box 1555
Canberra ACT Australia 2601