

# Crash Tests

## New Car Safety

### Daihatsu Materia

12/2007 on 01/0001 - Frontal+Side

#### Overall Evaluation



**Overall Score**  
Variant: Wagon

**26.68 out of 37**  
Engine: 1.5 litre  
Category: Small Car

Tested vehicle did not have side curtains but they are standard in New Zealand. The 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 Daihatsu Materia was introduced in New Zealand during 2007. It is not sold in Australia.

Dual front airbags, side airbags and head-protecting side curtains are standard equipment in New Zealand. Antilock brakes (ABS) with electronic brake distribution (EBD) are also standard. Electronic stability control (ESC) is optional. Intelligent seat belt reminders are fitted to both front seats.

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 Materia scored 9.60 out of 16 in the offset crash test. The passenger compartment held its shape well. Protection from serious leg injury was marginal for the driver.

The vehicle scored 15.08 out of 16 in the side impact crash test. There was a slight risk of serious chest for the driver.

#### Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 2.54 pts, upper legs 0.53 pts, lower legs 2.52 pts.

The passenger compartment held its shape well in the offset crash test. The clutch pedal moved rearwards by 137 mm and upwards 20 mm. The steering wheel hub moved 7mm forward, 25 mm upward and 2 mm sideways. The front ("A") pillar moved 12 mm rearwards. All doors remained closed during the crash.

The airbag cushioned the head of the driver and contact was stable. 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.

#### Side Impact Crash Test

Body region scores out of 4 points each: Head 4 pts, chest 3.08 pts, abdomen 4 pts, pelvis 4 pts.

The vehicle tested by Euro NCAP 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. The New Zealand Materia has standard side curtains and so can be expected to offer better protection in side impacts than the European model.

#### Pedestrian rating (v4.1)



Child head impacts	1.49
Adult head impacts	8.00
Upper leg impacts	0.09
Lower leg impacts	6.00
Total (out of 36)	15.58

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	510	253	113
- Acceleration (g for 3ms)	58.4	39.9	38.4
Neck			
- Shear (kN)	0.36	0.93	
- Tension (kN)	1.45	1.04	
- Extension (Nm)	33	10.2	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	32.2	20.91	18.31
- Viscous Criterion (m/s)	0.15	0.08	0.13
Abdomen			
- Force (kN)			0.86
Pelvis			
- Force (kN)			1.88
Upper Legs Force (kN)			
- Left	3.12	0.93	
- Right	1.13	0.09	
Knee Displacement (kN)			
- Left	1	0.6	
- Right	9.3	0	
Lower Legs Force (kN)			
- Left	0.78	2.29	
- Right	1.13	2.08	
Index (Upper   Lower)			
- Left	0.48   0.24	0.44   0.17	
- Right	0.54   0.2	0.41   0.15	

#### Bonus points (maximum 5)

Pole Test: Not eligible - no head protecting side airbags

Seat Belt Reminders: 2

#### Modifiers for offset test scores

Head		No deduction
Chest		No deduction
Upper leg	Variable & conc. loading	Driver 2 pt deduction L & R, Passenger 1 pt deduct
Lower leg		No deduction
Foot score	Clutch displacement	Score 2.52 pts
Structure		

#### Modifiers for side impact test scores

Head		
Chest	Backplate load	0.92 pt deduction
Upper leg		
Lower leg		
Foot score		
Structure		



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