

# Crash Tests

## New Car Safety

### Smart Smart city

05/2003 on 01/2004 - Dual Frontal

#### Overall Evaluation



#### Overall Score

Variant: 2 Dr Coupe

21.84 out of 37

Engine: 0.7 litre

Category: Light Car

The left-hand-drive European model was tested by EuroNCAP. 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 MCC SMART was introduced in Australia during 2003. Smart is a brand of Daimler-Chrysler.

Dual front airbags and ABS brakes are standard equipment. Side airbags are optional.

The upper portion of the front seat belt passes through guides attached to the seat. This feature improves the fit of the seat belt. Pretensioners are fitted to the seat belts to reduce slack in the event of a crash.

#### Overall Evaluation: 3

The Smart scored 7.1 out of 16 in the offset crash test. The passenger compartment held its shape well. Protection from serious leg injury was poor for the driver. Chest protection was marginal for the passenger.

The vehicle scored 14.75 out of 16 in the side impact crash test. There was a slight risk of serious abdomen injury for the driver.

#### Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4pts, chest 1.187pts, upper legs 0pts, lower legs 1.91pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 24mm. The steering wheel hub moved forwards 17mm and upwards 12mm. The front ("A") pillar moved 26mm rearwards. All doors remained closed during the crash. After the crash both doors could be opened with normal effort.

The airbag cushioned the head of the driver and contact was stable. Vehicle 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 4pts, chest 4pts, abdomen 2.747pts, 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.

#### Pedestrian rating (v2)

( 0 stars)

Tested to previous protocol

Offset crash test at 64km/hr



#### Injury Measurements

Refer to the information sheet 'How the tests are done'	Offset Crash Test at 64km/h (v2)		Side Impact Crash Test aa 50km/h (v2)
	Driver	Passn	Driver
Head			
- HIC	395.8	343.5	193.5
- Acceleration (g for 3ms)	46	46.4	44.8
Neck			
- Shear (kN)	0.29	0.45	
- Tension (kN)	1.35	2.18	
- Extension (Nm)	22.51	21.06	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	28.19	41.69	21.62
- Viscous Criterion (m/s)	0.19	0.24	0.1
Abdomen			
- Force (kN)			1.47
Pelvis			
- Force (kN)			1.31
Upper Legs Force (kN)			
- Left	3.58	0.1	
- Right	5.91	0.29	
Knee Displacement (kN)			
- Left	8.32	0.19	
- Right	11.59	0.42	
Lower Legs Force (kN)			
- Left	2.65	1.12	
- Right	3.11	0.29	
Index (Upper   Lower)			
- Left	0.57   0.2	0.34   0.09	
- Right	0.44   0.87	0.43   0.12	

#### Bonus points (maximum 5)

Pole Test: Zero points

Seat Belt Reminders: None fitted - zero points

#### Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable & conc. loading
Lower leg	2 pt deduction L & R
Foot score	No deduction
Structure	Score 4 points
	No deduction

#### Modifiers for side impact test scores

Head	Not assessed
Chest	Not assessed
Upper leg	Not assessed
Lower leg	Not assessed
Foot score	Not assessed
Structure	Not assessed



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