

Crash Tests

New Car Safety

Mercedes-Benz M-Class

07/2002 on 06/2007 - Frontal+Side+Head

Overall Evaluation



Overall Score
Variant: 4 Dr Wagon

29.64 out of 37
Engine: 2.7L V6 Cyl
Category: Large SUV

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 Mercedes M-Class, with advanced seat belt reminders, was introduced in 2002.

Dual front airbags, side airbags and head-protecting side curtains are standard equipment. ABS brakes and electronic stability control are also standard.

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 seat belt.

Overall Evaluation: 4

The Mercedes M-Class scored 9.64 out of 16 in the offset crash test. The passenger compartment held its shape well. There was a slight risk of serious head injury for the driver. There was a marginal risk of serious chest and leg injury for the driver and 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 and 2 points for advanced seat belt reminders.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 3pts, chest 1.51pts, upper legs 2pts, lower legs 3.13pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 34mm and upwards 21mm. The steering wheel hub moved rearwards 5mm, upwards 30mm and sideways 10mm. The front ("A") pillar moved 20mm 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 but it bottomed out, allowing the head to contact the steering wheel. 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 4pts, chest 4pts, abdomen 4pts, pelvis 4pts.

This test simulates a fairly small car striking the driver's door of the vehicle under test. It is based on a regulation test but the regulation does not apply to vehicles with a high seat height like the M-Class. Such vehicles can be expected to perform relatively well in this particular side impact test.

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 (v3)



4.21 points out of 36.
Child head impacts 1pts;
Adult head impacts 3.21pts;
Upper leg zero pts and
Lower leg impacts zero pts.

Offset crash test at 64km/hr



Injury Measurements

Refer to the information sheet 'How the tests are done'	Offset Crash Test at 64km/h (v3)		Side Impact Crash Test aa 50km/h (v3) Driver
	Driver	Passn	
Head			
- HIC	665	307	8
- Acceleration (g for 3ms)	59.36	46	12.6
Neck			
- Shear (kN)	0.99	0.28	
- Tension (kN)	2.1	0.26	
- Extension (Nm)	14.67	18.59	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	38.97	39.43	2.8
- Viscous Criterion (m/s)	0.16	0.23	0.01
Abdomen			
- Force (kN)			0.3
Pelvis			
- Force (kN)			0.7
Upper Legs Force (kN)			
- Left	3.44	2.62	
- Right	1.96	1.6	
Knee Displacement (kN)			
- Left	1.43	0.15	
- Right	2.37	0.14	
Lower Legs Force (kN)			
- Left	2.8	2.5	
- Right	3.3	2.49	
Index (Upper Lower)			
- Left	0.53 0.28	0.49 0.43	
- Right	0.4 0.48	0.38 0.23	

Bonus points (maximum 5)

Pole Test: 2 points

Seat Belt Reminders: Fitted to both front seats - 2 points

Modifiers for offset test scores

Head	Airbag bottomed out	1 pt deduction
Chest		No deduction
Upper leg	Variable & conc. loading	Variable & conc. loading
Lower leg		No deduction
Foot score		Score 4 points
Structure		No deduction

Modifiers for side impact test scores

Head	Not assessed	No deduction
Chest	Not assessed	No deduction
Upper leg	Not assessed	No deduction
Lower leg	Not assessed	No deduction
Foot score	Not assessed	No deduction
Structure	Not assessed	No deduction



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