

Crash Tests

New Car Safety

MERCEDES M-CLASS (LHD)

2002 on Front+side+head airbags

Overall Evaluation



Overall score 29.64 out of 37

Variant: WAGON Eng: 2.7 litre.
Kerb weight: 2100 kg Category: 4WD - LARGE
Vehicles built: 2002 Test by Euro NCAP

Important note: 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 Stars

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.



Offset crash test at 64km/h

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.

INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h		Side Impact Crash Test at 50km/h
	Driver	Passn	Driver
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 Accln (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 Left (kN)	3.44	2.62	
Right (kN)	1.96	1.6	
Knee displ (mm) Left	1.43	0.15	
Right	2.37	0.14	
Lower legs Force Left (kN)	2.8	2.5	
Right (kN)	3.3	2.49	
Index (Upper/Low) Left	0.53/0.28	0.49/0.43	
Right	0.4/0.48	0.38/0.23	

Bonus points (maximum 5)

Pole Test: 2pts Seat belt reminders: 2 pts

Modifiers for offset test scores

Head Airbag bottomed out 1pt deduction
Chest No deduction
Upper leg Variable & conc. loading 2 pt deduction L & R (Drv & passn)
Lower leg No deduction
Foot score Score 4 points

Pedestrian rating (2002 protocol)

4.21 points out of 36.

Child head impacts 1pts; adult head impacts 3.21pts; upper leg nil pts and lower leg impacts nil pts.



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