

# Crash Test Results

## New Car Safety

### MERCEDES M-CLASS (LHD)

2008 on Front, side+head & knee airbags



**ANCAP** Occupant Protection  
Rated ★★★★★

**Occupant Protection Score 33.97 out of 37**

Variant: ML320 CDI Eng: 3 litre diesel  
Kerb weight: 2200 kg Category: 4WD - LARGE  
Vehicles built: 2008 Tested by Euro NCAP

**Important note:** 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 M-Class was introduced in Australia during 2008. Knee airbags, as fitted to the tested vehicle, are standard for the 2009 Model Year (supplied in Australia from September 2008).

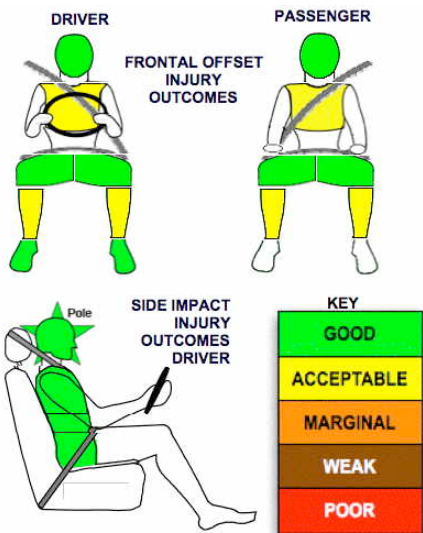
Dual front airbags, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC) are also standard. Intelligent seat belt reminders are fitted to both front seats. PRE-SAFE is standard but was disengaged for the crash tests.

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.

#### OCCUPANT PROTECTION: 5 Stars

The M-Class scored 13.97 out of 16 in the offset crash test. The passenger compartment held its shape very well. There was a slight risk of serious chest and leg injury for both the driver and passenger.

The vehicle scored 16 out of 16 in the side impact crash test and a further two points in the optional pole test.



Offset crash test at 64km/h

#### FRONTAL OFFSET CRASH TEST (v4.2)

Body region scores out of 4 points each: Head/neck 4 pts, chest 2.99 pts, upper legs 4 pts, lower legs 2.98 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 57 mm. The steering wheel hub moved 71mm forward, 31mm downward and 4 mm sideways. The front ("A") pillar moved 22 mm rearwards. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

The airbag cushioned the head of the driver and contact was stable. There were no knee hazards. The passenger's head was cushioned by the airbag.

#### SIDE IMPACT CRASH TEST (v4.2)

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 PROTECTION: 1 Star

The bumper and bonnet leading edge offered only poor leg protection. The bonnet top was also rated as predominantly poor for the protection offered to a child's head.

PEDESTRIAN PROTECTION	Child head impacts	0.69
<p>Rated ★★★★★ Tested by Euro NCAP v4.2</p>	Adult head impacts	5.43
	Upper leg impacts	Zero
	Lower leg impacts	Zero
	Total (out of 36)	6.12



GOOD  
ADEQUATE  
MARGINAL

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m\_class08.doc  
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**ANCAP**

Crash testing for safety  
AUSTRALASIAN  
NEW CAR ASSESSMENT  
PROGRAM

# TECHNICAL DATA - MERCEDES M-CLASS - 2009 Model Year

## INJURY MEASUREMENTS

Body region	Offset Crash Test at 64km/h (v4.2)		Side Impact Crash Test at 50km/h (v4.2)
	Driver	Passenger	Driver
<b>Head HIC</b>	355	290	3
Acceleration (g for 3ms)	44.4	43.7	6.9
<b>Neck - Shear (kN)</b>	0.75	0.38	-
Tension (kN)	1.30	0.71	-
Extension (Nm)	4.0	5.7	-
<b>Chest Accln (g for 3ms)</b>	-	-	-
Compression (mm)	29.05	23.07	7.90
Viscous criterion (m/s)	0.17	0.17	0.01
<b>Abdomen - Force (kN)</b>	-	-	0.150
<b>Pelvis - Force (kN)</b>	-	-	0.810
<b>Upper legs Force (kN)</b>			
Left	1.81	0.91	
Right	1.92	1.12	
<b>Knee displ (mm)</b>			
Left	5.00	0.00	
Right	3.20	0.00	
<b>Lower legs Force (kN)</b>			
Left	2.18	2.38	
Right	3.02	2.41	
<b>Index (Upper/Low)</b>			
Left	0.34 /0.29	0.61 /0.39	
Right	0.42 /0.34	0.63/0.24	

### Bonus points (maximum 5)

Pole Test: 2 pts

Seat belt reminders: 2 (see table below for details)

### Modifiers - deductions from offset test scores

Head	No deduction
Chest	No deduction
Upper leg Variable & conc. loading	No deduction
Lower leg	No deduction
Foot score	Score 4 points

### Modifiers - deductions from side impact test scores

Chest	No deduction
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### Safety features

These specifications are subject to change. Please check with manufacturer for the latest specifications.



Driver airbag	S	Antilock (ABS) brakes / Electronic brakeforce distribution / Brake Assist	S/S/S
Passenger front airbag	S	Electronic stability control (ESC, VSC, DSC, ESP, VSA)	S#
Side airbags, front seats - chest protection	S	3 point centre rear seat belt	S
Side airbags, front seats - head protection	S	Active head restraints - front seats	S
Side airbags, rear seats - head protection	S	Intelligent seat belt reminder - driver	S
Driver knee airbag	S	Intelligent seat belt reminder - front passenger	S
Seat belt pretensioners (Front/Rear outboard)	S/S	Rear seat belt status indicator	X

Key:

S = standard on all variants

O = optional on base variant. May be standard on higher variants

V= not available on base variant but standard or optional on higher variants

X = not available on any variant

# ESC required by ANCAP for 5 star rating from 2008