Crash Tests

New Car Safety

Mercedes-Benz B-Class

03/2006 on 12/2011 - Frontal+Side+Head

Overall Evaluation



Overall Score **33.57 out of 37**
Variant: B180 CDI
Engine: 2 Litre diesel
Category: Medium Car

Vehicles tested after 1 January 2008 will require Electronic Stability Control in order achieve a 5 star rating. This vehicle was tested prior to this date and may or may not meet this new requirement.
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 Mecedes B Class was introduced in Australia during 2006.

Dual front airbags and side airbags with head-protection are standard equipment for the front seats. ABS/EBD brakes and electronic stability control are also standard. Advanced seat belt reminders are fitted to all seats. Active head restraints and a tyre pressure warning system are also fitted.

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. Pre-tensioners 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: 5

The Mercedes B-Class scored 12.57 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. There was a slight risk of serious chest 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.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.1 pts, upper legs 2 pts, lower legs 3.47 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 20 mm and downwards 1mm. The steering wheel hub moved forwards 3mm and upwards 2 mm. The front ("A") pillar moved 1 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. Steering column components were a potential source of injury for the driver's left knee. 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 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 rating (v4.1)



Child head impacts	4.62
Adult head impacts	1.00
Upper leg impacts	0.40
Lower leg impacts	6.00
Total (out of 36)	12.02

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	Passn	Driver
Head			
- HIC	508	332	63
- Acceleration (g for 3ms)	60.2	46.5	36.6
Neck			
- Shear (kN)	0.68	0.37	
- Tension (kN)	0.72	0.69	
- Extension (Nm)	14.9	9.3	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	28.28	24.16	18.85
- Viscous Criterion (m/s)	0.25	0.1	0.08
Abdomen			
- Force (kN)			0.56
Pelvis			
- Force (kN)			0.8
Upper Legs Force (kN)			
- Left	0.37	0.28	
- Right	0.58	0.19	
Knee Displacement (kN)			
- Left	0	0	
- Right	0	0	
Lower Legs Force (kN)			
- Left	2.62	1.77	
- Right	2.37	1.56	
Index (Upper | Lower)			
- Left	0.5 | 0.51	0.46 | 0.16	
- Right	0.52 | 0.17	0.35 | 0.15	

Bonus points (maximum 5)
Pole Test: 2 points
Seat Belt Reminders: Fitted to all seats – 3 points

Modifiers for offset test scores

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

Modifiers for side impact test scores

Head	
Chest	No deduction
Upper leg	
Lower leg	
Foot score	
Structure	

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