# **Crash Tests**

# **New Car Safety**

## **BMW 3-Series**

07/2005 on 10/2011 - Frontal+Side+Head



Overall Score Variant: 320d Sedan 34.65 out of 37 Engine: 3.2 Litre Category: Luxury

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 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 BMW 3-Series was introduced in Australia during 2005.

Dual front airbags, side airbags and head-protecting side curtains are standard equipment. ABS/EBD brakes and electronic stability control are also standard. Advanced seat belt reminders are fitted to both front seats.

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 BMW 3-Series scored 15.56 out of 16 in the offset crash test. The passenger compartment held its shape well. There was a slight risk of serious chest injury for the driver and a slight risk of lower leg injury for the passenger.

The vehicle scored 15.09 out of 16 in the side impact crash test. There was a slight risk of serious abdomen injury for the driver. 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 3.95 pts, upper legs 4 pts, lower legs 3.613 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 13 mm and downwards 2mm. The steering wheel hub moved rearwards 3 mm, upwards 7 mm and sideways 3 mm. The front ("A") pillar moved 3 mm rearwards. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

Airbags cushioned the head of the driver and passenger and contact was stable.

#### **Side Impact Crash Test**

Body region scores out of 4 points each: Head 4 pts, chest 4 pts, abdomen 3.09 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

#### Pedestrian rating (v4.1)



Total (out of 36) 3.93; Child head impacts 2.34 Adult head impacts 1.59 Upper leg impacts Zero. Lower leg impacts Zero





**Injury Measurements** 

Refer to the information sheet	Offset Crash Test at 64km/h		Side Impact
'How the tests are done'	(v4.1)		Crash Test aa
			50km/h (v4.1)
	Driver	Passn	Driver
Head			
- HIC	166	128	73
- Acceleration (g for 3ms)	32.9	27.6	27.4
Neck			
- Shear (kN)	0.71	0.58	
- Tension (kN)	0.55	0.71	
- Extension (Nm)	10.7	20.1	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	22.37	17.44	18.83
- Viscous Criterion (m/s)	0.05	0.06	0.1
Abdomen			
- Force (kN)			1.34
Pelvis			
- Force (kN)			2.07
Upper Legs Force (kN)			
- Left	0.38	0.24	
- Right	0.39	0.26	
Knee Displacement (kN)		•	
- Left	0	0	
- Right	0	0	
Lower Legs Force (kN)	4.40	0.50	
- Left	1.18	2.58	
- Right	1.54	1.53	
Index (Upper   Lower)	0.0010.00	0.44.1.0.05	
- Left	0.33   0.23	0.41   0.25	
- Right	0.33   0.17	0.34   0.16	

#### Bonus points (maximum 5)

Pole Test: 2 points

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

#### **Modifiers for offset test scores**

Head No deduction No deduction Chest Upper leg No deduction Lower leg No deduction Foot score Score 4 points No deduction Structure

### Modifiers for side impact test scores

Head No deduction Chest No deduction Upper leg No deduction Lower leg No deduction Foot score No deduction Structure No deduction



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