

Crash Test Results

New Car Safety

MERCEDES-BENZ VITO (4 Cyl)

2009 on Front+side+head airbags*



ANCAP

Rated ★★★★★

Occupant Protection

Occupant Protection Score 32.66 out of 37

* Safety equipment, as tested, not standard on all variants

Variant: Viano tested Eng: 2.2 litre

Kerb weight: 2070 kg Category: Van

Vehicles built: 2008/9 Tested by Euro NCAP & ANCAP

Important note: The diesel left-hand-drive European Viano small bus 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. The right-hand-drive Vito van can be expected to provide comparable front occupant protection to the left-hand-drive vehicle tested by Euro NCAP.

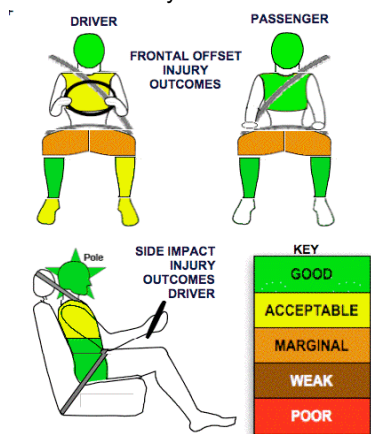
Model History and Safety Features

The tested model of Mercedes-Benz Vito was introduced in Australia during 2004. This 5-star rating applies to 4 cylinder Vitos fitted with bucket front seats, front passenger airbag and head-protecting side curtains, available from January 2009.

A driver airbag, antilock brakes (ABS) with electronic brake distribution (EBD) and electronic stability control (ESC) are standard. A front passenger airbag and head-protecting side curtains for the front seats are optional on the van and crew cab and standard on the wagon. Thorax side airbags are optional. They are recommended by ANCAP but are not required for this 5-star rating. Intelligent seat belt reminders are fitted to both front seats. Three point seat belts are fitted to all rear seats. These provide better protection than a two point (lap) seat belt.

OCCUPANT PROTECTION: 5 Stars

The Vito scored 12.79 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 and passenger. The vehicle scored 15.87 out of 16 in the side impact crash test. There was a slight risk of serious chest injury for the driver. A further two points were earned in the optional pole test, which was conducted by ANCAP. This enabled the Vito to become the first 5-star commercial vehicle rated by ANCAP or Euro NCAP.



Offset crash test at 64km/h (Viano)

FRONTAL OFFSET CRASH TEST (v4.2)

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.79 pts, upper legs 2 pts, lower legs 3 pts.

The passenger compartment held its shape well in the offset crash test. The clutch pedal moved rearwards by 59 mm and upwards 39 mm. The steering wheel hub moved 10mm forward, 83mm downward and 4 mm sideways. The front ("A") pillar moved 31 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. A knee bolster behind the fascia was considered to pose a risk of injury to occupants of different sizes and seating positions. The passenger's head was cushioned by the airbag. Passenger head protection might not be as good without the airbag.

SIDE IMPACT CRASH TEST (v4.2)

Body region scores out of 4 points each: Head 4 pts, chest 3.87 pts, abdomen 4 pts, pelvis 4 pts.

The vehicle tested by Euro NCAP was not eligible for an optional pole impact test, since it did not have head-protecting side airbags. Mercedes-Benz funded an ANCAP pole test of a Viano people mover that has comparable protection to the Vito with side curtains. This earned the Viano and Vito a 5-star rating from ANCAP.

PEDESTRIAN PROTECTION: 1 Star

The bumper and front edge of the bonnet scored no points. The protection offered to the head of a struck child was poor in every area tested and was poor in most areas for an adult's head.

PEDESTRIAN PROTECTION	
 Rated ★★★★★ Tested by Euro NCAP v4.2	Child head impacts
	Adult head impacts
	Upper leg impacts
	Lower leg impacts
	Total (out of 36)
	Zero
	0.92
	Zero
	Zero
	0.92



KEY

- PASS
- MARGINAL
- FAIL

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vito09c.doc Rated: 2009

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ANCAP

Crash testing for safety

AUSTRALASIAN
NEW CAR ASSESSMENT
PROGRAM

TECHNICAL DATA - MERCEDES-BENZ VITO - 2009 on

INJURY MEASUREMENTS

Body region	Offset Crash Test at 64km/h (v4.2)		Side Impact Crash Test at 50km/h (v4.2)
	Driver	Passenger	Driver
Head HIC	378	476	41
Acceleration (g for 3ms)	46.3	57.0	28.3
Neck - Shear (kN)	0.34	0.31	-
Tension (kN)	1.00	0.72	-
Extension (Nm)	20.8	16.9	-
Chest Accln (g for 3ms)	-	-	-
Compression (mm)	23.47	20.06	7.42
Viscous criterion (m/s)	0.11	0.12	0.04
Abdomen - Force (kN)	-	-	0.470
Pelvis - Force (kN)	-	-	0.560
Upper legs Force (kN)	Left	2.28	2.64
	Right	1.51	0.16
Knee displ (mm)	Left	0.10	0.00
	Right	3.60	0.10
Lower legs Force (kN)	Left	2.37	1.15
	Right	0.77	1.70
Index (Upper/Low)	Left	0.53 /0.39	0.27 /0.26
	Right	0.23 /0.20	0.25/0.27

Bonus points (maximum 5)

Pole Test by ANCAP: 2 points. There was a narrow gap between the rear side door and the b-pillar after the test but this did not constitute a modifier.

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 2 pt deduction Left & Right for driver & passenger
 Lower leg No deduction
 Foot score Footwell rupture Score 3 points

Modifiers - deductions from side impact test scores

Chest Backplate load 0.13 pt deduction

Safety features

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



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

Key: * Passenger airbag will be standard from October 2009.

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