

Crash Tests

New Car Safety

Mazda 6

08/2003 on 07/2005 - Frontal+Side+Head

Overall Evaluation



Overall Score

Variant: Sports 5 Dr Hatch

26.27 out of 37

Engine: 2.3 Litre

Category: Medium Car

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 Mazda 6 was introduced in Australia during 2003.

Dual front airbags, side airbags and head-protecting side curtains are standard equipment on all variants from December 2003. ABS brakes 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

The Mazda 6 (LHD) scored 11.23 out of 16 in the offset crash test. The passenger compartment held its shape well, except for footwell deformation. Protection from serious leg injury marginal for the driver.

The vehicle scored 13.04 out of 16 in the side impact crash test. There was a moderate risk of serious chest injury for the driver. A further 2 points were scored in the optional pole test and this earned the vehicle a 4 star rating (minimum 24.5 pts).

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4pts, chest 2.7pts, upper legs 2pts, lower legs 2.53pts.

The passenger compartment held its shape well except for the footwell, which ruptured. The brake pedal moved rearwards by 70mm and upwards 25mm. The steering wheel hub moved rearwards 6mm, downwards 11mm and sideways 6mm. The front ("A") pillar moved 37mm rearwards. The width of the driver's doorway shortened by 39mm. All doors remained closed during the crash. After the crash high manual effort was required to open the driver's door.

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 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 2.77pts, abdomen 3.39pts, pelvis 4pts. Modifier: 1.11pt deduction for backplate load of 2.67kN.

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)



6.66 points out of 36.

Child head impacts 4.01pts;

Adult head impacts 0.02pts;

Upper leg 1.91pts and lower leg impacts 0.72pts.

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)		Side Impact Crash Test aa 50km/h (v4)
	Driver	Passn	Driver
Head			
- HIC	219.2	113.6	56
- Acceleration (g for 3ms)		30.18	23.88
Neck			
- Shear (kN)	0.32	0.58	
- Tension (kN)	0.92	0.71	
- Extension (Nm)	4.24	9.56	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	31.12	26.68	28.16
- Viscous Criterion (m/s)	0.09	0.09	0.47
Abdomen			
- Force (kN)			1.23
Pelvis			
- Force (kN)			0.86
Upper Legs Force (kN)			
- Left	0.72	0.56	
- Right	0.93	0.12	
Knee Displacement (kN)			
- Left	0.27	0	
- Right	1.18	0	
Lower Legs Force (kN)			
- Left	2.09	3.16	
- Right	2.61	1.57	
Index (Upper Lower)			
- Left	0.34 0.36	0.44 0.19	
- Right	0.71 0.73	0.34 0.23	

Bonus points (maximum 5)

Pole Test: 2 points

Seat Belt Reminders: None fitted - zero points

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable & conc. loading
Lower leg	2 pt deduction L&R
Foot score	No deduction
Structure	Score 3 pts
	No deduction

Modifiers for side impact test scores

Head	No deduction
Chest	Backplate load
Upper leg	1.11 pt deduction
Lower leg	No deduction
Foot score	No deduction
Structure	No deduction



Version 1, Published on: 4/12/2010
Published by
New Car Assessment Program
PO Box 1555
Canberra ACT Australia 2601