

Crash Tests

New Car Safety

Mazda CX-7

07/2006 on 01/0001 - Frontal+Side+Head

Overall Evaluation



Overall Score
Variant: Classic

32.66 out of 37
Engine: 2.3 turbo petrol
Category: Medium SUV

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

Model History and Safety Features

The tested model of Mazda CX-7 was introduced in Australia during 2006. 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. 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. 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.

Overall Evaluation: 5

5 stars. The Mazda CX-7 scored 12.66 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.

The vehicle was awarded a default score of 16 out of 16 in the side impact crash test. Two points were earned in the optional pole test.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.17 pts, upper legs 3 pts, lower legs 2.49 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 33 mm and downwards 12mm. The steering wheel hub moved 27mm forward, 28 mm upward and 2 mm sideways. The front ("A") pillar moved 9 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 knees. The passenger's head was cushioned by the airbag. There was excessive forward movement of the older child dummy, seated behind the driver, but this does not affect the adult occupant protection rating.

Side Impact Crash Test

Body region scores out of 4 points each: Head 4.000 pts, chest 4.000 pts, abdomen 4.000 pts, pelvis 4.000 pts.

The side impact test normally used by ANCAP simulates a small car striking the driver's door of the vehicle under test. It is based on a regulation test but the regulation does not apply to vehicles with a high seat height like the CX7. Experience shows that such vehicles can be expected to perform well in this test so ANCAP has decided to award full score for these vehicles instead of conducting a crash test. 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 3
Adult head impacts 2.62
Upper leg impacts Zero
Lower leg impacts Zero
Total (out of 36) 5.62

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
	Driver	Passn	
Head			
- HIC	245	185	
- Acceleration (g for 3ms)	42.8	32.7	
Neck			
- Shear (kN)	0.23	0.7	
- Tension (kN)	1.19	1.16	
- Extension (Nm)	14.5	15	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	26.7	27.83	
- Viscous Criterion (m/s)	0.07	0.07	
Abdomen			
- Force (kN)			
Pelvis			
- Force (kN)			
Upper Legs Force (kN)			
- Left	0.91	0.64	
- Right	0.52	1.6	
Knee Displacement (kN)			
- Left	1	0.06	
- Right	0.45	0.13	
Lower Legs Force (kN)			
- Left	2.99	1.64	
- Right	2.5	1.76	
Index (Upper Lower)			
- Left	0.31 0.74	0.19 0.23	
- Right	0.48 0.35	0.26 0.18	

Bonus points (maximum 5)

Pole Test: 2 pts

Seat Belt Reminders: 2

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Concentrated loading
Lower leg	1 pt deduction R
Foot score	No deduction
Structure	Score 4 pts
	measured relative to the driver's seat.
	Steering column and pedal movements are

Modifiers for side impact test scores

Head	Default score
Chest	
Upper leg	
Lower leg	
Foot score	
Structure	



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