# **Crash Test Results**

**New Car Safety** 

## **MAZDA CX-7**

2006 on Front+side+head airbags



Occupant Protection

Occupant Protection Score 32.66 out of 37

Variant: Classic Eng: 2.3 turbo petrol
Kerb weight: 1750 kg Category: 4WD - MEDIUM

Vehicles built: 8/07

#### **Model History and Safety Features**

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

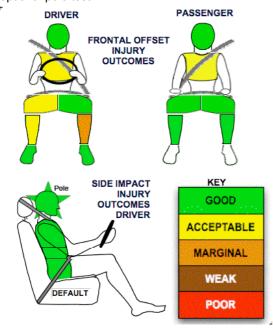
Dual front airbags, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC) are also standard. Advanced seat belt reminders are fitted to both front seats.

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.

#### **OCCUPANT PROTECTION: 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.





Offset crash test at 64km/h

## FRONTAL OFFSET CRASH TEST (v4.1)

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 (v4.1)

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 PROTECTION RATING (v4.1)**

PEDESTRIAN PROTECTION	Child head impacts	3
ANCAP	Adult head impacts	2.62
Rated ★ ★ ★ ★	Upper leg impacts	Zero
Huted A A A A	Lower leg impacts	Zero
	Total (out of 36)	5.62



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## TECHNICAL DATA - MAZDA CX-7 - 2006 on

## **INJURY MEASUREMENTS**

Body region		Offset Crash Test at 64km/h (v4.1)		Side Impact Crash Test at 50km/h (v4.1)
		Driver	Passenger	Driver
Head HIC		245	185	
Acceleration (g for 3ms)		42.8	32.7	
Neck - Shear (kN)		0.23	0.70	Default
Tension (kN)		1.19	1.16	score
Extension (Nm)		14.5	15.0	awarded
Chest Accln (g for 3ms)				
Compression (mm)		26.70	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	1.60	
Knee displ (mm)	Left	1.00	0.06	
	Right	0.45	0.13	
Lower legs Force (kN)	Left	2.99	1.64	
	Right	2.50	1.76	
Index (Upper/Low)	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 (see table below for details)

#### Modifiers - deductions from offset test scores

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

Note: Steering column and pedal movements are measured relative to the

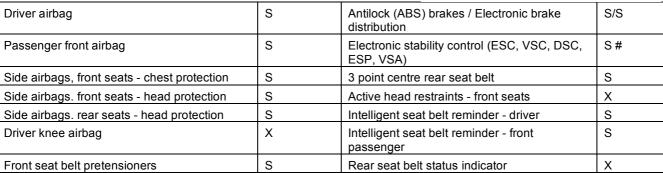
driver's seat.

## Modifiers - deductions from side impact test scores

Default score

## Safety features

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



# ESC required by ANCAP for 5 star rating from 2008

Key:

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



