

# Crash Tests

## New Car Safety

### Mitsubishi Lancer

06/2007 on 12/2009 - Frontal+Side+Head+Knee

#### Overall Evaluation



#### Overall Score

Variant: ES Sedan

33.56 out of 37

Engine: 2 litre, 5 speed manual

Category: Small Car

#### Model History and Safety Features

The tested model of Mitsubishi Lancer was introduced in Australia and New Zealand during 2007.

Dual front airbags and a driver knee airbag are standard equipment. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC) are also standard. Side airbags and head-protecting side curtains are standard on all New Zealand variants and the Australian VR and VRX variants. They are optional on the ES variants in Australia. Intelligent 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 Lancer 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. All other injury measurements were good.

ANCAP tested the non-curtain Lancer, which scored 14 out of 16 in the side impact test. All injury measurements were good but the chest score was reduced due to unrealistic loading of the dummy's pelvis. The Lancer with side airbags could be expected to provide better protection. A further 2 points were earned in the optional pole test of a Lancer equipped with side curtain airbags.

#### Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.56 pts, upper legs 4 pts, lower legs 4 pts.

The passenger compartment held its shape well in the offset crash test. The accelerator pedal moved rearwards by 86 mm. The clutch pedal moved upwards 24 mm. The steering wheel hub moved 14mm forward, 22 mm upward and 19 mm sideways. The front ("A") pillar moved 15 mm rearwards. All doors remained closed during the crash. After the crash the driver's door could be opened with normal effort. The airbag cushioned the head of the driver and contact was stable. The knee airbag protected the driver's knees from the risk of additional injury. The passenger's head was cushioned by the airbag.

#### Side Impact Crash Test

Body region scores out of 4 points each: Head 4 pts, chest 2 pts, abdomen 4 pts, pelvis 4 pts.

ANCAP side-impact tested the non-curtain Lancer (see separate rating). Those results were used in this assessment. Mitsubishi provided information to ANCAP which confirmed that the model with side (thorax) and curtain airbags provides better protection than the tested model. 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)



The majority of adult and child head impacts scored partial points. The vehicle received zero points for the upper leg tests, and performed fairly well in the full leg to bumper tests. The tested bumper design applies to Lancers built from July 2008 (earlier builds were also 2 stars).

Child head impacts	6.37
Adult head impacts	3.81
Upper leg impacts	Zero
Lower leg impacts	5.44
Total (out of 36)	15.62

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	233	329	17
- Acceleration (g for 3ms)	39.8	42	17.6
Neck			
- Shear (kN)	0.4	0.55	
- Tension (kN)	1.13	1.14	
- Extension (Nm)	19.1	14.6	
Chest			
- Acceleration (g for 3ms)	39.7	34.8	
- Compression (mm)	24.3	25.1	19.9
- Viscous Criterion (m/s)	0.11	0.08	0.14
Abdomen			
- Force (kN)			0.35
Pelvis			
- Force (kN)			1.81
Upper Legs Force (kN)			
- Left	1.78	0.26	
- Right	0.98	0.85	
Knee Displacement (kN)			
- Left	3.59	0.31	
- Right	2.35	1.41	
Lower Legs Force (kN)			
- Left	1.56	1.27	
- Right	1.8	1.4	
Index (Upper   Lower)			
- Left	0.26   0.25	0.25   0.25	
- Right	0.28   0.31	0.24   0.2	

#### Bonus points (maximum 5)

Pole Test: 2

Seat Belt Reminders: 2

#### Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	No deduction
Lower leg	No deduction
Foot score	4 points
Structure	measured relative to the driver's seat.

Note: Steering column & pedal movements are

#### Modifiers for side impact test scores

Head		
Chest	T12 loading (moment)	2 pt deduction
Upper leg		
Lower leg		
Foot score		
Structure		



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