

# Crash Tests

## New Car Safety

### Toyota Landcruiser

10/2002 on 03/2007 - Dual Frontal

#### Overall Evaluation



#### Overall Score

Variant: 100 Series 4 Dr Wagon

**24.9 out of 37**

Engine: 4.7 Litre V8 (petrol)  
Category: Large SUV

#### Model History and Safety Features

The tested model of Toyota Landcruiser was introduced in Australia during 2002.

Dual front airbags are standard equipment. ABS brakes and electronic stability control are available on some variants.

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. Pre-tensioners 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 Toyota Landcruiser scored 8.9 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well. Protection from serious leg injury was poor for the driver. There was a slight risk of serious chest injury for the driver and passenger.

The vehicle was awarded a default score of 16 out of 16 in the side impact crash test.

#### Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4pts, chest 2.9pts, upper legs 2pts, lower legs zero pts.

The passenger compartment held its shape well, except for the footwell. The road wheel moved rearwards substantially and intruded into the driver's footwell, which ruptured. The brake pedal moved rearwards by 267mm and upwards 145mm relative to the driver's seat. The dash moved 8mm towards the driver. The steering wheel hub moved rearwards 28mm, upwards 40mm and sideways 34mm. The front ("A") pillar moved 36mm rearwards. The width of the driver's door opening shortened by 36mm. 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 and the ignition switch were potential sources of injury for the driver's knees. The passenger's head was cushioned by the airbag.

#### Side Impact Crash Test

Default 16 points awarded for side impact test.

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 seating position like the Landcruiser. Such vehicles can be expected to perform well in this particular side impact test so ANCAP has decided to award full score for these vehicles instead of conducting a crash test.

ANCAP chose to conduct a pole test as part of a research program. This is usually an optional test for vehicles with head-protecting side airbags such as curtains. The tested vehicle did not have these and head protection was poor so it scored zero points out of a maximum of two points for the pole test.

#### Pedestrian rating (v4.1)



7.98 points out of 36.

Child head impacts zero pts;

Adult head impacts 7.97pts;

Upper leg zero pts and lower leg impacts zero pts.

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 at 50km/h (v4.1) Driver
	Driver	Passn	
Head			
- HIC	329	340	
- Acceleration (g for 3ms)	45.8	51.2	
Neck			
- Shear (kN)	0.31	0.32	
- Tension (kN)	1.27	1.05	
- Extension (Nm)	16.7	28.5	
Chest			
- Acceleration (g for 3ms)	35.4	31.3	
- Compression (mm)	29.7	28.1	
- Viscous Criterion (m/s)	0.14	0.11	
Abdomen			
- Force (kN)			
Pelvis			
- Force (kN)			
Upper Legs Force (kN)			
- Left	0.17	1.43	
- Right	1.06	1.59	
Knee Displacement (kN)			
- Left	0.39	3.55	
- Right	0.02	1	
Lower Legs Force (kN)			
- Left	1.25	2.13	
- Right	4.61	3.83	
Index (Upper   Lower)			
- Left	0.43   0.25	0.31   0.47	
- Right	0.56   1.68	0.69   0.91	

#### Bonus points (maximum 5)

Pole Test: Zero points

Seat Belt Reminders: None fitted - zero points

#### Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable and concentrated loading 2 point deduction L and 1 point deduction R
Lower leg	Pedal upward movement and footwell rupture 2 point deduction
Foot score	Score zero points
Structure	

#### Modifiers for side impact test scores

Head	Not assessed
Chest	Not assessed
Upper leg	Not assessed
Lower leg	Not assessed
Foot score	Not assessed
Structure	Not assessed



Version 1, Published on: 10/12/2005  
Published by  
New Car Assessment Program  
PO Box 1555  
Canberra ACT Australia 2601