# **Crash Tests**

## **New Car Safety**

#### **TOYOTA HILUX 4x4** 2005 on

**Dual front airbags** 



#### **Occupant Protection Score** 26.86 out of 37

Variant: SR DOUBLE CAB PICKUP

Eng: 3 litre Turbo Diesel, 5 speed manual

Kerb weight: 1860 kg Category: UTILITY Vehicle built: 9/05

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

The tested model of Hilux 4x4 was introduced in Australia during 2005.

Dual front airbags are standard equipment. ABS brakes are optional for the SR variant.

Pre-tensioners are fitted to the driver and outboard passenger seat belts to reduce slack in the event of a crash. A two point seat belt is fitted to the centre rear seat. This provides inferior protection compared with a three point seat belt. Child restraint anchorages are fitted behind the rear seat but are difficult to reach.

#### **OCCUPANT PROTECTION: 4 Stars**

The Hilux 4x4 scored 10.86 out of 16 in the offset crash test. The passenger compartment held its shape well. Protection from serious chest and 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.

#### FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4 pts, chest 1.61 pts, upper legs 2 pts, lower legs 3.24 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 65 mm and downwards 17mm. The steering wheel hub moved rearwards 40 mm, upwards 15 mm and sideways 10 mm. The front ("A") pillar moved 20 mm rearwards. All doors remained closed during the crash. After the crash high manual effort was required to open the rear door on the driver's side. The other doors opened normally.

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 and contact was stable.

#### 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 seat height like the Hilux 4x4. 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.



Offset crash test at 64km/h

The vehicle was not eligible for a Pole Impact Test since it did not have head-protecting side airbags. This test can earn eligible vehicles an extra two points.

#### **INJURY MEASUREMENTS**

Refer to the infor sheet "How the te done"		Offset Crash Test at 64km/h (v4.1)		Side Impact Crash Test at 50km/h (v4.1)
		Driver	Passn	Driver
Head HIC		535	424	
Acceleration (g for 3ms)		56.9	48.9	
Neck - Shear (kN)		0.50	0.88	
Tension (kN)		1.17	1.64	Default score
Extension (Nm)		7.5	12.3	
Chest Accln (g for 3ms)		41.500	38.000	awarded
Compression (mm)		38.70	29.40	
Viscous criterion (m/s)		0.22	0.13	
Abdomen - Force (kN)		-	-	
Pelvis - Force (kN)		-	-	
Upper legs Force	Left	0.73	0.10	
(kN)	Right	0.09	1.11	
Knee displ (mm)	Left	2.35	0.06	
	Right	0.39	5.74	
Lower legs Force	Left	2.49	1.97	
(kN)	Right	2.82	1.89	
Index (Upper/Low) Left		0.31 /0.57	0.32 /0.32	
	Right	0.49 /0.33	0.4/0.18	

#### **Bonus points (maximum 5)**

Pole Test: Not eligible

Seat belt reminders: Not fitted

Modifiers - offset test scores Head Chest Upper leg Variable & conc. loading Lower leg Foot score

No deduction No deduction 2 pt deduction R No deduction Score 4 points

#### **PEDESTRIAN PROTECTION RATING (v4.1)**

Child head impacts	0.79	Upper leg impacts	zero
Adult head impacts	4.22	Lower leg impacts	zero
Total (out of 36)	5.01	****	



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