# Crash Tests

# **New Car Safety**

# **HYUNDAI TUCSON (LHD)**

2006 on Front+side & head airbags

# **Occupant Protection**



#### **Occupant Protection Score** 29.24 out of 37

Variant: Elite Eng: 2.2 litre diesel

Kerb weight: 1760 kg Category: 4WD - COMPACT

Vehicles built: 2006 Test by Euro NCAP

Important note: The diesel left-hand-drive European model was tested by Euro NCAP. Australasian specifications may vary and therefore models sold in Australasia might provide different levels of protection to those described on this page.

## **Model History and Safety Features**

The tested model of Hyundai Tucson was introduced in Australia during 2006. The Australian model has a 2.7 litre petrol engine.

Dual front airbags and ABS/EBD brakes are standard eqquipment. Side airbags and head-protecting side curtains are standard on the Elite variant but are not available on the base variant. 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.

## **OCCUPANT PROTECTION: 4 Stars**

The Tucson scored 11.24 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. Leg protection was also marginal for the passenger.

The vehicle scored 16 out of 16 in the side impact crash test. A further 2 points were scored in the optional pole test

#### FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4 pts, chest 2.61 pts, upper legs 2 pts, lower legs 2.62 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 116 mm and upwards 30 mm. The steering wheel hub moved rearwards 21 mm, downwards 3mm and sideways 16 mm. The front ("A") pillar moved 3 mm rearwards. 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. Dash and steering column components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag. Dash and centre console components were a potential source of injury for the passenger's knees.

#### SIDE IMPACT CRASH TEST

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

This test simulates a fairly 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 Tucson. Such vehicles can be expected to perform relatively well in this particular side impact test.



Offset crash test at 64km/h

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

#### **INJURY MEASUREMENTS**

Refer to the informatio sheet "How the test an done"	e at 64	Offset Crash Test at 64km/h (v4.1)		
	Driver	Passn	Driver	
Head HIC	280	230	35	
Acceleration (g for 3ms	43.8	37.6	19.9	
Neck - Shear (kN)	0.41	0.59	-	
Tension (kN)	1.17	0.79	-	
Extension (Nm)	18.7	15.8	ı	
Chest Accln (g for 3ms	-	-	-	
Compression (mm)	31.70	23.60	19.20	
Viscous criterion (m/s)	0.14	0.12	0.15	
Abdomen - Force (kN)	-	-	0.700	
Pelvis - Force (kN)	-	-	0.690	
Upper legs Force Lef	t 2.67	2.47		
(kN) Righ	nt 3.12	0.78		
Knee displ (mm) Left	0.00	4.45		
Righ	nt 0.00	1.31		
Lower legs Force Left	1.05	2.48		
(kN) Righ	nt 1.76	2.41		
Index (Upper/Low) Lef	t 0.30 /0.71	0.31 /0.18		
Righ	nt 0.55 /0.31	0.25/0.18		

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

Pole Test: 2 pts Seat belt reminders: Not fitted

Modifiers - offset test scores

Head No deduction No deduction Chest Upper leg Variable & conc. loading 2 pt deduction L & R

for driver & passenger Lower leg No deduction Foot score Brake pedal rearward Score 3.11 points **Modifiers - side impact test scores** 

No deduction

### PEDESTRIAN PROTECTION RATING (v4.1)

Child head impacts	Zero	Upper leg impacts	Zero
Adult head impacts	4	Lower leg impacts	Zero
Total (out of 36)	4	* ~ ~	$\Diamond$



NEW CAR ASSESSMENT PROGRAM

# August 2006

PO Box 1555 Canberra ACT Australia 2601 tucson06.doc issued 29/7/06