

# Crash Test Results

## New Car Safety

### HYUNDAI iLOAD VAN

March 2009 on

Dual front airbags



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 1.24 pts, upper legs 1.58 pts, lower legs 3 pts.

The passenger compartment held its shape reasonably well in the offset crash test. A box section that supports the dash separated from the a-pillar and the floor panel also separated from the a-pillar. The accelerator pedal moved rearwards by 96 mm. The clutch pedal moved downwards 8mm. The steering wheel hub moved 28 mm rearward, 14mm downward and 12 mm sideways. The front ("A") pillar moved 4 mm rearwards. All doors remained closed during the crash. After the crash the driver's door could be opened with high manual effort.

The airbag cushioned the head of the driver and contact was stable. Steering column and dash components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag. The glove box support structure was a potential source of injury for the passenger's right knee.

#### SIDE IMPACT CRASH TEST (v4.1)

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

#### PEDESTRIAN PROTECTION: 1 Star

A poor result, with all areas needing attention.

**Occupant Protection Score 25.81 out of 37**

Variant: 3 seat van

Eng: 2.4 Petrol

Kerb weight: 1940 kg

Category: VAN - LARGE

Vehicle built: 3/09

Tested by KATRI (Korea)

#### Model History and Safety Features

The tested model of Hyundai iLoad van was introduced in Australia during 2008. This rating applies to iLoads with improved structural design, built from March 2009. The offset crash test was conducted by the South Korean government test organisation KATRI, under ANCAP supervision. The rating also applies to the diesel variant.

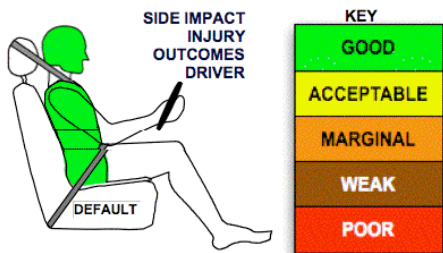
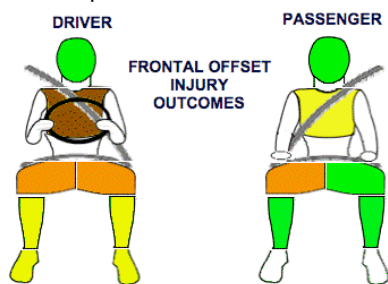
Dual front airbags are standard equipment. Antilock brakes (ABS) with electronic brake distribution (EBD) is also standard. Electronic stability control (ESC) is optional in Australia but standard in New Zealand.


Pretensioners are fitted to the outboard front seat belts to reduce slack in the event of a crash. A 2-point seat belt is fitted to the centre front seat. This provides inferior protection compared with a 3-point point (lap) seat belt. This seating position also lacks the protection of an airbag.

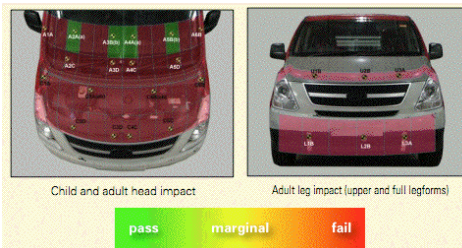
#### OCCUPANT PROTECTION: 4 Stars

The iLoad scored 9.81 out of 16 in the offset crash test. The passenger compartment held its shape well, except for the dashboard support structure. Protection from serious chest injury was weak for the driver.

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



PEDESTRIAN PROTECTION		Child head impacts	Zero
 v4.1	Adult head impacts	2	
	Upper leg impacts	Zero	
	Lower leg impacts	Zero	
	Total (out of 36)	2	



July 2009

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iLoad09.doc

Issued 10/7/2009



# TECHNICAL DATA - HYUNDAI iLOAD - Mar 2009 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
<b>Head HIC</b>	402	121	Default score awarded
Acceleration (g for 3ms)	51.6	35.5	
<b>Neck - Shear (kN)</b>	-	0.74	
Tension (kN)	-	1.59	
Extension (Nm)	-	39.6	
<b>Chest Accln (g for 3ms)</b>	-	-	
Compression (mm)	34.33	25.55	
Viscous criterion (m/s)	0.28	0.18	
<b>Abdomen - Force (kN)</b>	-	-	
<b>Pelvis - Force (kN)</b>	-	-	
<b>Upper legs Force (kN)</b>			
Left	0.62	0.20	
Right	4.36	1.77	
Knee displ (mm)			
Left	0.83	2.31	
Right	1.75	2.71	
<b>Lower legs Force (kN)</b>			
Left	2.40	1.49	
Right	1.08	1.61	
Index (Upper/Low)			
Left	0.33 /0.57	0.27 /0.20	
Right	0.30 /0.62	0.37/0.32	

### Bonus points (maximum 5)

Pole Test: Not eligible

Seat belt reminders: None

### Modifiers - deductions from offset test scores

Head	No deduction
Chest	Loss of structure 1 pt deduction
Upper leg	Variable & conc. loading Drv 2 pt deduction Left & Right Passn 2 pt deduction Right
Lower leg	No deduction
Foot score	Footwell rupture Score 3 points

### Modifiers - deductions from side impact test scores

Chest Default score awarded

### Safety features

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



Driver airbag	S	Antilock (ABS) brakes / Electronic brake distribution / Brake Assist	S/S/X
Passenger front airbag	S*	Electronic stability control (ESC, VSC, DSC, ESP, VSA)	O# (S NZ)
Side airbags, front seats - chest protection	X	3 point centre rear seat belt	-
Side airbags, front seats - head protection	-	Active head restraints - front seats	X
Side airbags, rear seats - head protection	-	Intelligent seat belt reminder - driver	X
Driver knee airbag	X	Intelligent seat belt reminder - front passenger	X
Seat belt pretensioners (Front/rear outboard)	S/-	Rear seat belt status indicator	X

Key: \* Centre front passenger seat has no airbag and a two-point seat belt with no pretensioner.

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

# ESC required by ANCAP for 5 star rating from 2008



**ANCAP**

Crash testing for safety

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