# Crash Test Results New Car Safety

## **MAHINDRA PIK-UP**

2007 on



Occupant Protection Score Variant: Dual Cab 4x4 Er

Kerb weight: 2150 kg

Vehicles built: 2007

re 16.49 out of 37 Eng: 2.5 Turbo Diesel Category: Utility

No airbags

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

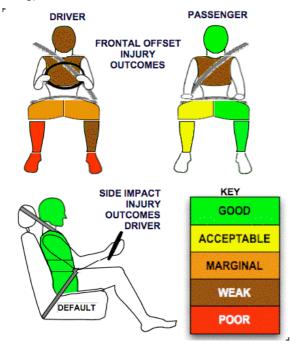
The tested model of Mahindra Pik-up was introduced in Australia during 2007.

The Pik-up has minimal safety features. ABS brakes are optional. The Australian distributor advises that driver and passenger airbags will become available during 2008. There are no top tether anchorages for child restraints so this vehicle is unsuitable for transporting children under the age of four (it is recommended that these children be in an approved child seat or infant capsule - both of which need a top tether anchorage). The distributor advises that this will be addressed during 2009.

### **OCCUPANT PROTECTION: 2 Stars**

The Mahindra Pik-up scored 3.44 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well, except for steering column, footwell and pedal intrusion. Protection from serious leg injury was poor for the driver. Chest protection was weak for the driver and passenger. Driver head protection was also weak.

The vehicle was awarded a default score of 16 out of 16 in the side impact crash test. However, the low offset score meant that the vehicle was limited to a 2 star rating and an overall score of 16.49 (the maximum available for a 2 star rating).





Offset crash test at 64km/h

### FRONTAL OFFSET CRASH TEST (v4.1)

*Body region scores out of 4 points each*: Head/neck 1 pts, chest 0.44 pts, upper legs 2 pts, lower legs zero pts.

The passenger compartment held its shape reasonably well in the offset crash test. However, the brake pedal moved rearwards by 223 mm and upwards 107 mm. The steering wheel hub moved 53 mm rearward, 141 mm upward and 23 mm sideways. The front ("A") pillar moved 84 mm rearwards. All doors remained closed during the crash. After the crash the driver's door could be opened with high manual effort. The driver's head hit the hub of the steering wheel. Steering column and dash components were a potential source of injury for the driver's knees. The dash was a hazard for the passenger's right knee.

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

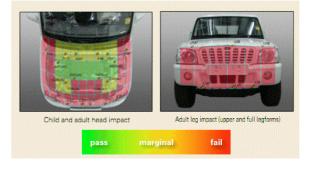
*Body region scores out of 4 points each*: Head 4 pts, chest 4 pts, abdomen 4 pts, pelvis 4 pts.

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 Pik-up. 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**

Like many vehicles of this type, a poor result for the Pik-up. The child zones scored particularly poorly, and the leg results were uniformly poor. The adult zones scored well in the middle of the bonnet but the top edge of the bonnet received partial points only.

PEDESTRIAN PROTECTION	Child head impacts	0.32			
	Adult head impacts	6.57			
Rated $\star \star \star \star$	Upper leg impacts	Zero			
	Lower leg impacts	Zero			
v4.1	Total (out of 36)	6.89			



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### **TECHNICAL DATA - MAHINDRA PIK-UP - 2007 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	
Head HIC		477	285		
Acceleration (g for 3ms)		69.4	40.7		
Neck - Shear (kN)		0.92	0.95	Default	
Tension (kN)		2.07	1.63	score	
Extension (Nm)		6.9	10.0	awarded	
Chest Accln (g for 3ms)		36.5	36.7		
Compression (mm)		43.00	46.90		
Viscous criterion (m/s)		0.24	0.29		
Abdomen - Force (kN)		-	-		
Pelvis - Force (kN)		-	-		
Upper legs Force (kN)	Left	2.67	0.64		
	Right	3.27	1.63		
Knee displ (mm)	Left	1.46	0.46		
	Right	0.45	0.87		
Lower legs Force (kN)	Left	3.73	1.67		
	Right	4.77	2.45		
Index (Upper/Low)	Left	0.81 /0.71	0.28 /0.12		
	Right	0.77 /1.51	0.47/0.45		

### Bonus points (maximum 5)

Pole Test: Not eligible due to a lack of head-protecting side airbags Seat belt reminders: None

### Modifiers - deductions from offset test scores

Steering column movement Head Chest Upper leg Variable & conc. loading Driver Passenger Lower leg Pedal upward movement Foot score Pedal rearward movement Note: Steering column and pedal movements are measured relative to the driver seat.

1 pt deduction No deduction 2 pt deduction Left & Right 1 pt deduction Right 1 pt deduction Score zero points



### Modifiers - deductions from side impact test scores Default score awarded

### Safety features

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

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

Key:

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

