

# Crash Tests

## New Car Safety

### HOLDEN RODEO (2WD)

1999 on

No airbags

#### Overall Evaluation\*



#### Overall score\*

19.13 out of 34

\* High risk of life threatening head and neck injury in offset test.

Variant: Single cab, 2WD

Eng: V6 3.2 litre.

Kerb weight: 1490 kg

Category: UTILITY

Vehicles built: May 2001

#### Model History and Safety features

This model HOLDEN RODEO two wheel drive was introduced in 1999.

The tested vehicles did not have airbags. Dual front airbags are available as an option for about \$1,500. The front seat belt buckles are mounted on the seats. This feature improves the fit of the seat belt. Webbing grabbers are fitted to the seat belts.

#### OVERALL EVALUATION : 3 Stars

The HOLDEN RODEO scored 3.129 out of 16 in the offset crash test. The passenger compartment was substantially deformed. Protection from serious head injury was poor for the driver. The vehicle scored 16 out of 16 in the side impact crash.

#### FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck zero pts, chest 1.13pts, upper legs 2pts, lower legs zero pts.

The passenger compartment was substantially deformed in the offset crash test. The road wheel pushed into, and ruptured, the footwell. The front part of the driver's floor was pushed rearwards 253mm. The folded floor panel almost trapped the driver's foot. The brake pedal moved rearwards by 362mm and upwards 259mm. It was close to the seat. The dash moved 109mm towards the driver. The steering wheel hub moved rearwards 101mm, upwards 199mm and sideways 14mm. The front ("A") pillar moved 98mm rearwards. The roof was starting to tear from the b-pillar. The width of the driver's doorway shortened by 100mm. All doors remained closed during the crash. After the crash high manual effort was required to open the driver's door.

The driver's head hit the steering wheel hub with hard contact and protection from serious injury was poor. Chest protection was weak. The driver's knee hit the dash and steering column. The steering column adjuster bracket and ignition switch barrel were potential sources of knee injury. There was no passenger head strike. The passenger's knees hit the glove box and dash.

#### SIDE IMPACT CRASH TEST

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

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 Rodeo.



Offset crash test at 64km/h

Such vehicles can be expected to perform relatively well in this particular side impact test and the Rodeo earned full marks.

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, giving a maximum possible overall score of 34 points.

#### INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h		Side Impact Crash Test at 50km/h
	Driver	Passn	Driver
<b>Head HIC</b>	1252	476	134
Acceleration (g for 3ms)	127.6	50.2	58.2
<b>Neck - Shear (kN)</b>	0.79	1.25	-
Tension (kN)	3.44	2.15	-
Extension (Nm)	25	19.45	-
<b>Chest Accln (g for 3ms)</b>	40.7	36.1	-
Compression (mm)	35.13	33.82	6.6
Viscous criterion (m/s)	0.12	0.14	0.03
<b>Abdomen - Force (kN)</b>	-	-	0.41
<b>Pelvis - Force (kN)</b>	-	-	1.16
<b>Upper legs Force</b>	0.14	1.06	
Left			
(kN) Right	0.44	0.7	
Knee displ (mm) Left	0.48	0.19	
Right	1.25	0.5	
<b>Lower legs Force</b>	3.61	1.48	
(kN) Right	3.21	1.52	
Index (Upper/Low) Left	0.94/0.39	0.29/0.29	
Right	2.02/1.67	0.38/0.42	

#### Modifiers for offset test scores

Head	Steering col. movement	1 pt penalty
Chest	Loss of structure	1 pt penalty
Upper leg	Variable & conc. loading	2 pt penalty L & R
Lower leg	Brake pedal upward	1 pt penalty
Foot score	Brake pedal rearward	Zero score

#### Pedestrian rating

16.11 points out of 36 (44.8%)



Child head impacts 7.52pts; adult head impacts 6.32pts; upper leg zero pts and lower leg impacts 2.27pts.

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