

# Crash Tests

## New Car Safety

### HOLDEN CRUZE

2003 on

Dual front airbags

#### Overall Evaluation



**Overall score** 19.53 out of 37

Variant: Hatch/Wagon

Eng:1.5L litre.

Kerb weight: 1000 kg

Category: Compact 4WD

Vehicles built: 6/02

#### Model History and Safety Features

The tested model of HOLDEN CRUZE was introduced in Australia during 2002.

Dual front airbags are standard equipment. ABS brakes are available as an option.

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. Pretensioners are fitted to the front seat belts to reduce slack in the event of a crash.

#### OVERALL EVALUATION : 3 Stars

The HOLDEN CRUZE scored 7.35 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well except for footwell intrusion. Protection from serious chest and leg injury was marginal for the driver.

The vehicle scored 12.18 out of 16 in the side impact crash test. Protection from serious head injury was marginal for the driver.

#### FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4pts, chest 1.77pts, upper legs 1.38pts, lower legs 0.2pts.

The front part of the driver's floor was pushed rearwards 159mm and was severely folded. The brake pedal moved rearwards by 195mm and upwards 84mm, relative to the driver's seat. The dash moved 73mm towards the driver. The steering wheel hub moved rearwards 27mm, downwards 14mm and sideways 9mm, relative to the driver's seat. The front ("A") pillar moved 67mm rearwards. The roof buckled upwards above the driver and the width of the driver's doorway shortened by 51mm. All doors remained closed during the crash. After the crash all doors could be opened without tools but the rear door needed to be opened before the driver's door.

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. The edge of the console was a potential source of injury to the passenger's right knee.

#### SIDE IMPACT CRASH TEST

Body region scores out of 4 points each: Head 0.5pts, chest 3.68pts, abdomen 4pts, pelvis 4pts.

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..



Offset crash test at 64km/h

#### INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h (v4.0)		Side Impact Crash Test at 50km/h (v4.0)
	Driver	Passn	Driver
Head HIC	578	565	394
Acceleration (g for 3ms)	60.4	60.7	86
Neck - Shear (kN)	-	0.58	-
Tension (kN)	2.12	1.62	-
Extension (Nm)	10.3	16.1	-
Chest Accln (g for 3ms)	51.9	38.4	-
Compression (mm)	37.6	31.4	23.6
Viscous criterion (m/s)	0.23	0.17	0.31
Abdomen - Force (kN)	-	-	0.96
Pelvis - Force (kN)	-	-	2.3
Upper legs Force (kN)			
Left	0.47	0.32	
Right	4.62	2.05	
Knee displ (mm)			
Left	1.49	0.61	
Right	3.44	5.25	
Lower legs Force (kN)			
Left	1.58	2.03	
Right	1.29	2.89	
Index (Upper/Low)			
Left	0.59/0.43	0.45/0.3	
Right	0.25/1.04	0.36/0.41	

#### Bonus points (maximum 5)

Pole Test: Not eligible

Seat belt reminders: Not eligible

#### Modifiers for offset test scores

Head

No deduction

Chest

No deduction

Upper leg Variable & conc. loading

2 pt deduction L & R

Lower leg Pedal upward movement

0.75 deduction

Foot score

Score 0.2points

#### Pedestrian rating (v4.0)



5.21 points out of 36

Child head impacts 0.21pts; adult head impacts 5pts; upper leg 0pts and lower leg impacts 0pts.



December 2003

Published by

New Car Assessment Program

PO Box 1555

Canberra ACT Australia 2601

CRUZE03.doc issued 9-Dec-03