

Crash Tests

New Car Safety

HOLDEN COMMODORE VY

April 2003 on

Dual front airbags

Overall Evaluation



Overall score

26.74 out of 37

Variant: Executive sedan Eng:V6 3.8L litre.

Kerb weight: 1570 kg Category:LARGE/MEDIUM CAR

Vehicles built: 9/02 and 6/02

Model History and Safety Features

The tested model of HOLDEN COMMODORE VY was introduced in 2002. A seat belt reminder and a minor change to the rear doors were introduced in April 2003. An upgraded rear door was used in the side impact test.

Dual front airbags are standard equipment. Side airbags with head protection are standard on some variants and available as part of an optional package on others. They were not on the tested vehicles. ABS brakes, driver's seat belt reminder, automatic headlights ("twilight sentinel") and emergency mode features, such as fuel cut-off in a severe crash, are standard on all variants.

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. These seat belts also have load limiters. A three point seat belt is fitted to the centre rear seat. This provides better protection than a two point seat belt.

OVERALL EVALUATION 4 Stars

The HOLDEN COMMODORE VY scored 12.79 out of 16 in the offset crash test. The passenger compartment held its shape well. There was a marginal risk of serious chest injury for the driver and passenger.

The vehicle scored 12.96 out of 16 in the side impact crash test. Protection from serious chest injury was weak for the driver.

FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4pts, chest 2.63pts, upper legs 3pts, lower legs 3.16pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 117mm and upwards 16mm, relative to the driver's seat. The dash moved 48mm towards the driver. The steering wheel hub moved rearwards 11mm, upwards 72mm and sideways 10mm. The front ("A") pillar moved 78mm rearwards. The roof had very little deformation and the width of the driver's doorway shortened by 44mm. All doors remained closed during the crash. After the crash tools were required to open 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 passenger's right knee hit the glove box and dash.

SIDE IMPACT CRASH TEST

Body region scores out of 4 points each: Head 4pts, chest 1.2pts, abdomen 3.76pts, pelvis 4pts.



Offset crash test at 64km/h

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.

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
Head HIC	349	219	142
Acceleration (g for 3ms)	49.2	38.3	39.1
Neck - Shear (kN)	0.64	0.71	-
Tension (kN)	1	1.22	-
Extension (Nm)	17.3	22.7	-
Chest Accln (g for 3ms)	39.7	33.6	-
Compression (mm)	31.6	31.5	36
Viscous criterion (m/s)	0.11	0.12	0.58
Abdomen - Force (kN)	-	-	1.09
Pelvis - Force (kN)	-	-	2.02
Upper legs Force (kN)			
Left	0.67	0.26	
Right	0.59	0.38	
Knee displ (mm)			
Left	0.52	0.17	
Right	0.28	0.09	
Lower legs Force (kN)			
Left	1.23	2.13	
Right	2.01	2.14	
Index (Upper/Low)			
Left	0.41/0.42	0.28/0.16	
Right	0.37/0.38	0.59/0.46	

Bonus points (maximum 5)

Pole Test: Not eligible Seat belt reminders: 1pt
Holden introduced a driver seat belt reminder system in vehicles built from April 2003, earning one bonus point.

Modifiers for test scores

Offset crash test

Head No deduction
Chest No deduction
Upper leg Conc. loading 1 pt deduct. R
Lower leg No deduction
Foot score Score 3.32 points
Door opening during crash No deduction

Side impact crash test

Door opening during crash No deduction
Back plate load 1.12kN Not applied

Pedestrian rating (2002 protocol): Nil Stars

0.08 points out of 36 (0.2%)

Child head impacts 0.08pts; adult head impacts zero pts; upper leg zero pts and lower leg impacts zero pts.



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