# **Crash Tests**

# **New Car Safety**

# Alfa Romeo 159

07/2006 on 01/0001 - Frontal+Side+Head



Overall Score

Variant: 4 Dr Sedan (LHD)

33.84 out of 37 Engine: 1.9 Litre Diesel Category: Luxury

Vehicles tested after 1 January 2008 will require Electronic Stability Control in order achieve a 5 star rating. This vehicle was tested prior to this date and may or may not meet this new requirement.

The left-hand-drive diesel European model was tested by Euro NCAP. Australasian specifications may vary and therefore models sold in Australasia might provide different levels of protection to those described on this page.

## **Model History and Safety Features**

The tested model of Alfa Romeo 159 was introduced in Australia during 2006. In Australia the 159 is available with a 2.2 litre diesel engine

Dual front airbags, driver knee airbag, side airbags and head-protecting side curtains are standard equipment.

ABS/EBD brakes and electronic stability control are also standard.

Advanced seat belt reminders are fitted to both front seats.

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. Pre-tensioners are fitted to the front seat belts to reduce slack in the event of a crash. A three point seat belt is fitted to the centre rear seat. This provides better protection than a two point seat belt.

#### Overall Evaluation: 5

The Alfa Romeo 159 scored 15.47 out of 16 in the offset crash test. The passenger compartment held its shape well. There was a slight risk of serious chest and leg injury for the driver and passenger.

The vehicle scored 14.36 out of 16 in the side impact crash test. There was a slight risk of serious chest injury for the driver. A further 2 points were scored in the optional

#### **Frontal Offset Crash Test**

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.80 pts, upper legs 4 pts, lower legs 3.67 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 33 mm and the clutch downwards 18mm. The steering wheel hub moved rearwards 17 mm, upwards 2 mm and sideways 2mm. The front ("A") pillar moved 18 mm rearwards. All doors remained closed during the crash. After the crash high manual effort was required to open the driver's door.

The airbag cushioned the head of the driver and contact was stable. A knee airbag helped protect the driver's knees from injury. The passenger's head was cushioned by the airbag.

# **Side Impact Crash Test**

Body region scores out of 4 points each: Head 4 pts, chest 3.36 pts, abdomen 4 pts,

The vehicle was eligible for an optional pole impact test, since it had head-protecting side airbags and scored four points for the head in the side impact test. The manufacturer decided to go ahead with the pole test and the vehicle earned a further two points.

# Pedestrian rating (v4.1)



Child head impacts 4.28 Adult head impacts 2.7 Upper leg impacts Lower leg impacts Total (out of 36) 8.98





**Injury Measurements** 

Refer to the information sheet	Offset Crash Test at 64km/h		Side Impact
'How the tests are done'	(v4.1)		Crash Test aa
			50km/h (v4.1)
	Driver	Passn	Driver
Head			
- HIC	263	198	21
- Acceleration (g for 3ms)	39.8	33.3	13.7
Neck			
- Shear (kN)	0.59	0.6	
- Tension (kN)	1.14	0.14	
- Extension (Nm)	0	13.2	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	23.39	23.19	25.18
- Viscous Criterion (m/s)	0.05	0.1	0.16
Abdomen			
- Force (kN)			0.66
Pelvis			
- Force (kN)			1.27
Upper Legs Force (kN)			
- Left	0.84	0.33	
- Right	0.39	0.69	
Knee Displacement (kN)			
- Left	0.28	0.36	
- Right	0.95	0.42	
Lower Legs Force (kN)			
- Left	2.49	1.83	
- Right	1.59	2.04	
Index (Upper   Lower)			
- Left	0.43   0.17	0.3   0.26	
- Right	0.36   0.28	0.4   0.2	

### Bonus points (maximum 5)

Pole Test: 2 points

Seat Belt Reminders: Fitted to both front seats - 2 points

### **Modifiers for offset test scores**

Head No deduction No deduction Chest Upper leg No deduction Lower leg No deduction Foot score Score 4 points Structure

# Modifiers for side impact test scores

Head Chest Upper leg Lower leg Foot score

Structure Door opened during crash 1 point deduction

