# **Crash Tests**

# **New Car Safety** LANDROVER RANGE ROVER 2002 on Front+side+head airbags

# **Overall Evaluation**

#### **Overall score**

29.87 out of 37

Variant:WAGON Kerb weight: 2540 kg Vehicles built: 2002

Eng:3 litre diesel. Category: 4WD - LARGE Test by Euro NCAP

Important note: The European model was tested by EuroNCAP. 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 Landrover Range Rover was introduced in 2002.

Dual front airbags, side airbags and head-protecting side curtains are standard equipment. ABS brakes and electronic stability control are also standard.

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. 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 Landrover Range Rover scored 11.866 out of 16 in the offset crash test. The passenger compartment held its shape very well. Protection from serious chest and leg injury was marginal for the driver.

The vehicle scored 16 out of 16 in the side impact crash test. A further 2 points were earned in the optional pole test.

## FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4pts, chest 1.91pts, upper legs 2pts, lower legs 3.956pts.

The passenger compartment held its shape very well in the offset crash test. The brake pedal moved rearwards by 15mm and upwards 20mm. The steering wheel hub moved forwards 14mm, upwards 44mm and sideways 4mm. The front ("A") pillar moved 9mm rearwards. The width of the driver's doorway shortened by 10mm. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

The airbag cushioned the head of the driver and contact was stable. Dash components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag.

## 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 Range Rover. Such vehicles can be expected to perform relatively well in this particular side impact test.

The vehicle was eligible for an optional pole impact test, since it had head-protecting side airbags and scored four



Offset crash test at 64km/h

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.

#### INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"			Side Impact Crash Test at 50km/h
	Driver	Passn	Driver
Head HIC	307	198	1.1
Acceleration (g for 3ms)	47.2	38	4.8
Neck - Shear (kN)	0.29	0.44	-
Tension (kN)	1.17		-
Extension (Nm)	12.32	11.27	-
Chest Accln (g for 3ms)	-	-	-
Compression (mm)	36.63		1.79
Viscous criterion (m/s)	0.2	0.12	0
Abdomen - Force (kN)	-	-	0.1
Pelvis - Force (kN)	-	-	0.46
Upper legs Force Left	1.9		
(kN) Righ	0.95	2.25	
Knee displ (mm) Left	0.01	C	
Righ	0.01	0.52	
Lower legs Force Left	1.04	1.38	
(kN) Right	1.48	0.9	
Index (Upper/Low) Left	0.29/0.14	0.36/0.18	
Righ	0.41/0.22	0.22/0.11	

#### **Bonus points (maximum 5)**

Pole Test: 2pts Seat belt reminders: Not eligible

Modifiers for offset test scores Head

Chest No deduction Upper leg Variable & conc. loading 2 pt deduction L & R (Driver & passn) Lower lea No deduction Foot score Score 4 points

#### Pedestrian rating (2002 protocol)

2.4 points out of 36.

Child head impacts 0.01pts; adult head impacts 2.4pts; upper leg nil pts and lower leg impacts nil pts.



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No deduction

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