

# Crash Tests

## New Car Safety

### NISSAN PATROL

2004 on

Dual front airbags

#### Overall Evaluation



#### Overall score

22.17 out of 37

Variant: ST-S WAGON

Eng: 3 litre Diesel

Kerb weight: 2460 kg

Category: 4WD - LARGE

Vehicles built: 2004

#### Model History and Safety Features

The tested model of Nissan Patrol was introduced in Australia during 2002.

Dual front airbags and ABS brakes are standard on the tested ST-S variant. The DX variant only has a driver airbag. Side (thorax) airbags, ABS brakes and a reversing camera are available on some 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. Seat belt pre-tensioners are not available. A two point seat belt is fitted to the centre rear seat. This provides inferior protection compared with a three point seat belt.

#### OVERALL EVALUATION : 3 Stars

The Nissan Patrol scored 6.17 out of 16 in the offset crash test. The passenger compartment did not hold its shape well. Protection from serious leg injury was poor for the driver. There was a risk of serious chest injury for the driver and passenger.

The vehicle was awarded a default score of 16 out of 16 in the side impact crash test.

#### FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 3pts, chest 1.71pts, upper legs 2pts, lower legs zero pts.

The passenger compartment was compromised in the offset crash test. The road wheel moved rearwards substantially and intruded into the driver's footwell, which ruptured. The brake pedal moved rearwards by 274mm and upwards 181mm relative to the driver's seat. The dash moved 105mm towards the driver. The steering wheel hub moved rearwards 134mm, upwards 148mm and sideways 41mm. The front ("A") pillar moved 105mm rearwards. The width of the driver's door opening shortened by 105mm. 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.

#### SIDE IMPACT CRASH TEST

Default 16 points awarded for side impact test.

The side impact test normally used by ANCAP simulates a 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 seating position like the Patrol. Such vehicles can be expected to perform well in this particular side impact test so ANCAP has decided to award full score for these vehicles instead of conducting a crash test.



Offset crash test at 64km/h

ANCAP chose to conduct a pole test as part of a research program. This is usually an optional test for vehicles with head-protecting side airbags such as curtains. The tested vehicle did not have these and head protection was poor so it scored zero points out of a maximum of two points for the pole test.

#### INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h (v4.1)		Side Impact Crash Test at 50km/h (v4.1)
	Driver	Passn	Driver
Head HIC	463	258	Not tested (default score)
Acceleration (g for 3ms)	56	40.2	
Neck - Shear (kN)	0.63	0.5	
Tension (kN)	1.67	1.37	
Extension (Nm)	18.8	27.7	
Chest Accln (g for 3ms)	33.4	34.3	
Compression (mm)	34.1	34.5	
Viscous criterion (m/s)	0.15	0.18	
Abdomen - Force (kN)	-	-	
Pelvis - Force (kN)	-	-	
Upper legs Force Left	1.17	1.22	
(kN) Right	2.43	2.03	
Knee displ (mm) Left	3.74	4.32	
Right	3.67	5.34	
Lower legs Force Left	1.74	2.19	
(kN) Right	6.04	2.72	
Index (Upper/Low) Left	0.38/0.36	0.3/0.14	
Right	0.76/2.49	0.48/0.27	

#### Bonus points (maximum 5)

Pole Test: Zero points

Seat belt reminders: None

#### Modifiers - offset test scores

Head Steer col. movement 1pt deduction  
Chest Loss of structure 1pt deduction  
    A-pillar displacement 0.1pt deduction  
Upper leg Variable & conc. loading 2 pt deduction L & R  
Lower leg Pedal upward movement 1pt deduction  
    Ruptured footwell 1pt deduction  
Foot score Pedal rearward movement Score zero points

#### Modifiers - side impact test scores

Not tested

#### Pedestrian rating (v4.1)

8.21 points out of 36.



Child head impacts zero pts; adult head impacts 7.33pts; upper leg 0.88pts and lower leg impacts zero pts.



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