# Crash Tests





**Overall score** Variant: ST

Eng: 4 cyl 2.5 litre.

25.1 out of 37

Kerb weight: 1440kg

Category: Compact 4WD Vehicles built: 2001 (offset), 2002 (side) & 2004 (pole)

Important note: The left hand drive European model was used for the offset test conducted by Euro NCAP.

Australian specifications may vary and therefore models sold in Australia might provide different levels of protection in the offset test to those described on this page.

# **Model History and Safety Features**

The tested model of Nissan X-Trail was introduced in late 2001.

Dual front airbags are standard equipment, as are ABS brakes. Side airbags were standard in Europe in 2002 but were not available in Australia by mid-2005. Electronic stability control is not available in Australia but is available in Europe. 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 : 4 Stars**

The Nissan X-Trail scored 9.10 out of 16 in the offset crash test. The passenger compartment held its shape well except for excessive pedal movement. Protection from serious leg injury was poor for the driver.

The Australian vehicle (without side airbags) scored 16 out of 16 in the side impact crash test. Zero points were scored in the Australian pole test.

# FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4pts, chest 2.74pts, upper legs zero pts, lower legs 2.36pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 117mm and upwards 40mm. The steering wheel hub moved rearwards 46mm, upwards 54mm and sideways 13mm. The front ("A") pillar moved 32mm rearwards. The width of the driver's doorway shortened by 29mm. All doors remained closed during the crash. After the crash a high manual effort was required to open the driver's door.

The airbag cushioned the head of the driver and contact was stable. Steering column components were potential sources of injury to the driver's knees. The passenger's head was cushioned by the airbag. The dash had a potential source of injury for the passenger's inboard knee.

# SIDE IMPACT CRASH TEST

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

This test simulates a small car striking the driver's door of the vehicle under test. High seat vehicles like the X-Trail can be expected to perform relatively well in this particular side impact test.

ANCAP chose to conduct a pole test as part of a research program. This is usually an optional test for vehicles with head-



Offset crash test at 64km/h

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 a done"		Offset Crash Test at 64km/h (Euro NCAP v3.0)		Side Impact Crash Test at 50km/h (v3.0)
		Driver	Passn	Driver
Head HIC		377.4	267.9	53
Acceleration (g for 3m	s)	50.19	40.4	24.2
Neck - Shear (kN)		-	-	-
Tension (kN)		-	-	-
Extension (Nm)		16.9	27.52	I
Chest Accln (g for 3ms)		-	-	I
Compression (mm)		30.81	25.16	3.5
Viscous criterion (m/s)		0.18	0.11	0
Abdomen - Force (kN)		-	-	0.976
Pelvis - Force (kN)	)	-	-	0.91
Upper legs Force Le	eft	7.1	3.17	
(kN) Rig	jht	1.35	0.7	
Knee displ (mm) Lef	ť	1.29	4.55	
Rig	jht	0.24	2.01	
Lower legs Force Lef	ť	0.68	2.27	
(kN) Rig	ht	2.03	2.67	
Index (Upper/Low) Le	eft	0.23/0.34	0.33/0.34	
Rig	jht	0.77/0.56	0.27/0.29	

### **Bonus** points

Pole Test (v4.0): Zero pts Seat belt reminders: None

#### Modifiers for offset test scores

Head Chest		No deduction No deduction
Upper leg	Variable & Conc. loading	2pt deduction L&R
Lower leg		No deduction
Foot score	Brake pedal rear move	Score 3.32 pts
Lower leg	Ŭ	No deduction

#### Pedestrian rating (v3.0)

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10.37 points out of 36 (29%)

Child head impacts zero pts; adult head impacts 8.37pts; upper leg zero pts and lower leg impacts 2pts.



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