

Crash Tests

New Car Safety

TOYOTA ECHO

2003 on

Driver airbag

Overall Evaluation



Overall score

23.64 out of 37

Variante: 3 DR HATCH

Eng: 1.3 litre, Manual

Kerb weight: 930 kg

Category: LIGHT CAR

Vehicles built: 10/03

Model History and Safety Features

The Toyota Echo was introduced in 1999. The previous ANCAP assessment (a four star result) was based on a Euro NCAP test of a vehicle fitted with driver and passenger airbags. A passenger airbag was optional (as part of a safety pack) in Australia at the time but is no longer available. ANCAP therefore decided to test a vehicle without the passenger airbag. Dual airbags are standard on Toyota Echoes in New Zealand and the previously published results still apply to those vehicles.

A driver's airbag is standard equipment on the Australian model.

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 : 3 Stars

The Toyota Echo scored 7.64 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well in the offset crash test, except for clutch pedal movement. Protection from serious chest injury was marginal for the driver and passenger. Driver lower leg protection was poor.

The vehicle scored 16 out of 16 in the side impact crash test.

FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4pts, chest 1.64pts, upper legs 2pts, lower legs zeropts.

The passenger compartment held its shape reasonably well in the offset crash test. The front part of the driver's floor was pushed rearwards 109. The clutch pedal moved rearwards by 225mm and the brake pedal moved upwards 88mm, relative to the driver's seat. The dash moved 2mm towards the driver. The steering wheel hub moved rearwards 22mm, upwards 45mm and sideways 16mm, relative to the driver's seat. The front ("A") pillar moved 26mm rearwards. The width of the driver's doorway shortened by 23mm. 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. Steering column components were a potential source of injury for the driver's knees. There was no passenger head contact. Centre console components were a potential source of injury to the passenger's right knee.

SIDE IMPACT CRASH TEST

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

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.



Offset crash test at 64km/h

INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h (v4.0)		Side Impact Crash Test at 50km/h (v4.0)
	Driver	Passn	Driver
Head HIC	412	428	60
Acceleration (g for 3ms)	48.3	50.5	28.2
Neck - Shear (kN)	0.57	1.2	-
Tension (kN)	1.75	1.97	-
Extension (Nm)	30.9	18.7	-
Chest Accln (g for 3ms)	44.5	35.8	-
Compression (mm)	31.7	38.5	15.9
Viscous criterion (m/s)	0.15	0.11	0.09
Abdomen - Force (kN)	-	-	0.69
Pelvis - Force (kN)	-	-	2.69
Upper legs Force Left	1.94	0.17	
(kN) Right	1.78	0.98	
Knee displ (mm) Left	4.24	1.38	
Right	4.27	4.98	
Lower legs Force Left	1.23	1.42	
(kN) Right	1.32	0.89	
Index (Upper/Low) Left	0.31/0.16	0.45/0.19	
Right	0.36/0.28	0.42/0.11	

Bonus points (maximum 5)

Pole Test: Not eligible

Seat belt reminders: None

Modifiers for offset test scores

Head

No deduction

Chest

No deduction

Upper leg Variable & conc. loading

2 pt deduction L & R

Variable contact

Pass 1pt deduction R

Lower leg

No deduction

Foot score Rearward clutch displace.

Score zero points

Pedestrian rating (v4.0)



8.6 points out of 36

Child head impacts 4.6pts; adult head impacts 4pts; upper leg zero pts and lower leg impacts zero pts.



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