

Crash Tests

New Car Safety

Toyota Camry

03/2010 on 04/2011 - Frontal+Side+Head

Overall Evaluation



Overall Score

28.22 out of 37

Variant: Hybrid

Engine: 2.4 litre petrol/electric
Category: Large Car

Model History and Safety Features

The tested model of Toyota Camry Hybrid was introduced in Australia during 2010. Dual front airbags, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC) are also standard. An advanced seat belt reminder is fitted to the driver seat. A reversing camera is standard. 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 (lap) seat belt.

Overall Evaluation: 4

4 Stars. The Camry Hybrid scored 12.37 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well. Protection from serious leg injury was marginal for the driver and passenger. The vehicle scored 14.85 out of 16 in the side impact crash test. There was a slight risk of serious chest and pelvic injury for the driver.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 4 pts, upper legs 2 pts, lower legs 2.37 pts.

The passenger compartment held its shape reasonably well in the offset crash test. There was deformation of the a-pillar and door sill. The floor under the driver buckled and the seat tilted forward and sideways. The accelerator pedal moved rearwards by 91 mm. The brake pedal moved upwards 49 mm. The steering wheel hub moved 16mm forward, 60 mm upward and 5 mm sideways. The a-pillar moved 28 mm rearwards. All doors remained closed during the crash. After the crash the driver's door could be opened with high manual effort.

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 right knee. 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 3.03 pts, abdomen 4 pts, pelvis 3.81 pts.

The vehicle was not eligible for a Pole Impact Test because the offset test score was less than 12.5 (the minimum needed for a 5-star rating). This test can earn eligible vehicles an extra two points.

Pedestrian rating (v4.1)

(0 stars)

Pending

Offset crash test at 64km/hr



Injury Measurements

Refer to the information sheet 'How the tests are done'	Offset Crash Test at 64km/h (v4.2)		Side Impact Crash Test aa 50km/h (v4.2)
	Driver	Passn	Driver
Head			
- HIC	269	185	29
- Acceleration (g for 3ms)	43.5	33.9	20.4
Neck			
- Shear (kN)	0.36	0.33	
- Tension (kN)	1.46	0.59	
- Extension (Nm)	8.7	8.5	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	19	18.3	11.9
- Viscous Criterion (m/s)	0.04	0.05	0.07
Abdomen			
- Force (kN)			0.87
Pelvis			
- Force (kN)			3.14
Upper Legs Force (kN)			
- Left	1.42	0.64	
- Right	0.25	3.24	
Knee Displacement (kN)			
- Left	0.4	1.95	
- Right	0.4	3.8	
Lower Legs Force (kN)			
- Left	1.55	1.94	
- Right	1.42	4.44	
Index (Upper Lower)			
- Left	0.33 0.45	0.32 0.18	
- Right	0.29 0.36	0.42 0.49	

Bonus points (maximum 5)

Pole Test: Not eligible

Seat Belt Reminders: 1

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable & Conc. loading
Lower leg	2 pt deduction Right
Foot score	No deduction
Structure	4 pts
Note: Steering column and pedal movements	
are measured relative to the driver's seat	

Modifiers for side impact test scores

Head		
Chest	Backplate & spine loads	0.97pt deduction
Upper leg		
Lower leg		
Foot score		
Structure		



Version 1, Published on: 28/04/2010
Published by
New Car Assessment Program
PO Box 1555
Canberra ACT Australia 2601