

# Crash Tests

## New Car Safety

### SUBARU IMPREZA

Sept 2001 on

Dual front airbags

#### Overall Evaluation



Overall score

27.49 out of 34

Variant: Sedan.

Engine: 4 Cyl. 2 litre.

Kerb weight: 1330 kg

Category: SMALL CAR

Vehicles built: Sep 2001 (OS) and Sep 2000 (SI)

#### Model History and safety features

The vehicle used in the offset crash test was built in September 2001. Earlier models might provide different levels of protection in this test.

Dual front airbags are standard equipment. 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 front seat belts to reduce slack in the event of a severe crash. The centre rear seat has a 3-point seat belt.

#### OVERALL EVALUATION : 4 Stars

The SUBARU IMPREZA performed well in the offset crash test (score 12.771 out of 16). The passenger compartment held its shape well. Protection from serious injury was good for the head and acceptable for the chest and legs.

The vehicle performed well in the side impact crash (score 14.72 out of 16).

#### FRONTAL OFFSET CRASH TEST

The passenger compartment held its shape well in the offset crash test. The footwell was in good shape. The front part of the driver's floor was pushed rearwards 96mm. The brake pedal moved rearwards by 109mm. The hinge of the brake pedal is designed to release in a severe crash but there was insufficient deformation of the passenger compartment to cause this to happen with the offset crash test. The dash moved 43mm towards the driver. The steering wheel hub moved rearwards 45mm, upwards 16mm and sideways 8mm. The driver's doorway shortened by 45mm. 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. The passenger was also well protected by an airbag. The steering column shroud is padded to protect the driver's knees from the hard components of the steering column.



Offset crash test at 64km/h

#### SIDE IMPACT CRASH TEST

There was good protection from serious injury for the head, abdomen and pelvis. Chest protection was acceptable.

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, giving a maximum possible overall score of 34 points.

#### INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h		Side Impact Crash Test at 50km/h
	Driver	Passn	Driver
Head HIC	342	241	113
Acceleration (g for 3ms)	43.2	37.7	48.8
Neck - Shear (kN)	0.455	0.781	-
Tension (kN)	1.379	1.349	-
Extension (Nm)	15.9	10.4	-
Chest Accln (g for 3ms)	39.1	37.6	-
Compression (mm)	30.4	26.6	28.4
Viscous criterion (m/s)	0.096	0.2	0.32
Abdomen - Force (kN)	-	-	0.51
Pelvis - Force (kN)	-	-	2.44
Upper legs Force			
Left (kN)	5.256	0.513	
Right (kN)	0.53	0.897	
Knee displ (mm)			
Left	4.7	1.7	
Right	1.3	4.6	
Lower legs Force			
Left (kN)	3.31	1.47	
Right (kN)	2.3	1.79	
Index (Upper/Low)			
Left	0.5/0.608	0.307/0.18	
Right	0.384/0.326	0.379/0.26	

#### Modifiers for offset test scores

Head	No penalty
Chest	No penalty
Upper leg Variable & conc. loading	No penalty
Lower leg	No penalty
Foot score	Score 3.65
Brake pedal movement	

#### Pedestrian rating:



14.10 points out of 36 (39.2%).

Child head impacts 8 pts; adult head impacts 5.36 pts; Upper leg 0.23 pts and lower leg impacts 0.51 pts.

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