

Crash Tests

New Car Safety

SUBARU FORESTER XS-LP

February 2003 on

Dual front & side head airbags



Pole crash test at 29km/h
(driver protected by side head airbag)

Overall Evaluation 

Overall score 32.78 out of 37
 Variant: 2.5X Auto Eng: 4cyl 2.5 litre.
 Kerb weight: 1420 kg Category: Compact 4WD
 Vehicles built: 7/02, 8/02 and 2/03 (Pole Test)

Model History and Safety Features

The tested model of SUBARU FORESTER was introduced in 2002. Vehicles built from February 2003 have improved knee protection and a seat belt reminder for the driver and this revised assessment applies to those vehicles. Dual front airbags and side airbags with head protection are standard equipment on the XS-LP variant (vehicles with build dates of February 2003 on). ABS brakes are standard on all 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. Pretensioners are fitted to the front seat belts to reduce slack in the event of a crash. These seat belts also have load limiters. A three point seat belt is fitted to the centre rear seat. This provides better protection than a two point seat belt.

OVERALL EVALUATION :5 Stars

The SUBARU FORESTER scored 13.78 out of 16 in the offset crash test. The passenger compartment held its shape very well. There was a slight risk of serious chest and leg injury for the driver and passenger. The vehicle scored 16 out of 16 in the side impact crash test and 2 points out of 2 in the optional pole test.

This was the first vehicle tested by ANCAP to earn 5 stars.

FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4pts, chest 2.67pts, upper legs 4pts, lower legs 3.111pts.

The passenger compartment held its shape very well in the offset crash test. The front part of the driver's floor was pushed rearwards 83mm. The brake pedal mounts released during the crash to reduce the risk of leg injury. The dash moved 11mm towards the driver. The steering wheel hub moved rearwards 2mm, upwards -28mm and sideways 20mm. The front ("A") pillar moved 10mm rearwards. The roof had almost no deformation. The width of the driver's doorway shortened by 11mm. All doors remained closed during the crash. After the crash the driver's door could be opened with normal effort. The airbag cushioned the head of the driver and contact was stable. The driver's knees hit the steering column and dash. The passenger's head was cushioned by the airbag. The passenger's knees hit the glove box.

SIDE IMPACT CRASH TEST

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

ANCAP tested a Forester without side head airbags and it scored a full 16 points. Based on test evidence received by ANCAP the XS-LP variant with side head airbags would also score 16 points in the side impact test.

POLE TEST

The XS-LP variant was eligible for a Pole Impact Test since it has head-protecting side airbags. This test can earn eligible vehicles an extra two points. Subaru decided to go ahead with the pole test and the vehicle earned a further two points.

INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h		Pole Crash Test at 29km/h
	Driver	Passn	Driver
Head HIC	398	307	207
Acceleration (g for 3ms)	49.8	44.7	51.34
Neck - Shear (kN)	0.42	0.48	
Tension (kN)	2.17	1.11	
Extension (Nm)	24.4	19.35	
Chest Accln (g for 3ms)	39.2	34.4	
Compression (mm)	31.3	27.3	
Viscous criterion (m/s)	0.19	0.12	
Abdomen - Force (kN)	-	-	
Pelvis - Force (kN)	-	-	
Upper legs Force Left (kN)	1.01	0.7	
Right (kN)	0.6	1.67	
Knee displ (mm) Left	2.14	0.25	
Right	0.35	0.09	
Lower legs Force Left (kN)	2.15	1.6	
Right (kN)	2.44	1.96	
Index (Upper/Low) Left	0.24/0.34	0.38/0.2	
Right	0.52/0.6	0.47/0.39	

Bonus points(maximum of 5, giving possible score of 37)

Pole Test: 2 points

Seat belt reminders: 1 point

Modifiers for offset test scores

Head	No penalty
Chest	No penalty
Upper leg	No penalty
Lower leg	No penalty
Foot score	Score 4 points

Pedestrian rating (2002 protocol)

8.45 points out of 36 (23%)



Child head impacts 4pts; adult head impacts 4.45pts; upper leg zero pts and lower leg impacts zero pts.



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