# **Crash Test Results**

**New Car Safety** 

## SUBARU LIBERTY

2004 on

Front+side+head airbags



Occupant Protection

#### Occupant Protection Score 35.52 out of 37

Variant: Wagon\* Eng: 2.5 litre

Kerb weight: 1440 kg Category: MEDIUM CAR/MPV Vehicles built: 2/04 and 09/03 Tested in Japan

\* Note: ANCAP was provided with evidence that the results also apply to the Liberty sedan

#### **Model History and Safety Features**

This result applies to the Subaru Liberty with side curtains from 2004. A separate rating is available for the non-curtain version.

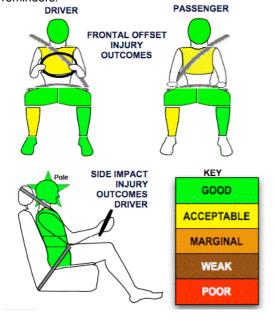
Dual front airbags, side airbags and head-protecting side curtains are standard equipment from 2007. Antilock brakes (ABS) with electronic brake distribution (EBD) are also standard. Electronic stability control (ESC) is available on some variants. Advanced seat belt reminders are fitted to all seats.

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. 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 (lap) seat belt.

#### **OCCUPANT PROTECTION: 5 Stars**

The Subaru Liberty scored 14.52 out of 16 in the offset crash test. The passenger compartment held its shape very well in the offset crash test.. There was a slight risk of chest and lower leg injury for the driver and passenger.

The vehicle scored 16 out of 16 in the side impact crash test. A further 2 points were scored in the optional pole test and three points were awarded for advanced seat belt reminders.





Action shot from pole impact test

#### FRONTAL OFFSET CRASH TEST (v4.0)

Body region scores out of 4 points each: Head/neck 4pts, chest 3.21pts, upper legs 4pts, lower legs 3.31pts.

The passenger compartment held its shape very well in the offset crash test. The brake pedal moved rearwards by 25mm and upwards 12mm. The steering wheel hub moved forwards 10mm and upwards 11mm. The front ("A") pillar moved 7mm rearwards. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

The airbag cushioned the head of the driver and contact was stable. The passenger's head was also cushioned by an airbag.

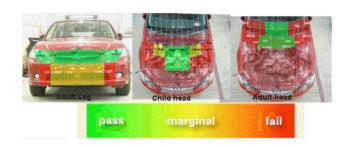
### SIDE IMPACT CRASH TEST (v4.0)

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

The vehicle was eligible for an optional pole impact test, since it had head-protecting side airbags and scored four points for the head in the side impact test. The manufacturer decided to go ahead with the pole test and the vehicle earned a further two points.

#### **PEDESTRIAN PROTECTION RATING (v4.1)**

PEDESTRIAN PROTECTION	Child head impacts	5.85
ANCAP	Adult head impacts	5
Rated * * *	Upper leg impacts	6
Tidlod A A A A	Lower leg impacts	1.8
	Total (out of 36)	18.65



### **Sept 2007**

PO Box 1555 Canberra ACT Australia 2601 liberty07.doc Updated 8/8/07



# **TECHNICAL DATA - SUBARU LIBERTY WITH CURTAINS - 2004 on**

#### **INJURY MEASUREMENTS**

Body region		Offset Crash Test at 64km/h (v4)		Side Impact Crash Test at 50km/h (v4)	
		Driver	Passenger	Driver	
Head HIC		316		42	
Acceleration (g for 3	3ms)	43.1	40.2	21.9	
Neck - Shear (kN)		0.61	1.07	-	
Tension (kN)		1.09	1.23	-	
Extension (N	m)	30.4	15.4	-	
Chest Accln (g for 3	3ms)	-	-	-	
Compression (mm)	)	27.51	25.86	11.67	
Viscous criterion (n	n/s)	0.19	0.15	0.06	
Abdomen - Force (F	kN)	-	-	0.730	
Pelvis - Force (	(N)	-	-	0.950	
Upper legs Force	Left	0.61	0.35		
	(kN) Right	0.24	0.29		
Knee displ (mm)	Left	0.40	0.50		
	Right	0.50	1.30		
Lower legs Force	Left	1.55	1.95		
	(kN) Right	1.52	2.48		
Index (Upper/Low)	Left	0.27 /0.37	0.37 /0.24		
	Right	0.48 /0.25	0.48/0.55		

### **Bonus points (maximum 5)**

Pole Test: 2 pts

Seat belt reminders: 3 (see table below for details)

#### Modifiers - deductions from offset test scores

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



Chest No deduction

## Safety features

These specifications are subject to change. Please check with manufacturer for the latest specifications.

Driver airbag	S	Antilock (ABS) brakes / Electronic brake distribution	S/S
Passenger front airbag	S	Electronic stability control (ESC, VSC, DSC, ESP, VSA)	V
Side airbags, front seats - chest protection	S*	3 point centre rear seat belt	S
Side airbags. front seats - head protection	S*	Active head restraints - front seats	X
Side airbags. rear seats - head protection	S*	Intelligent seat belt reminder - driver	S
Driver knee airbag	X	Intelligent seat belt reminder - front passenger	S
Front seat belt pretensioners	S	Rear seat belt status indicator	S

 $<sup>^{\</sup>star}$  Standard from 2007. Prior to 2007, optional on some variants and standard on others.

Key:

S = standard on all variants

O = optional on base variant. May be standard on higher variants

V= not available on base variant but standard or optional on higher variants

X = not available on any variant



