

2015





# Adult Occupant



97%



Safety Assist

Child Occupant

87%

Pedestrian



72%



100%

## **SPECIFICATION**

Tested Model	Volvo XC90 D5 'Momentum', LHD
Body Type	5 door SUV
Year Of Publication	2015
Kerb Weight	2040kg
VIN From Which Rating Applies	applies to all XC90's of the specification tested
Class	Large Off-Road 4x4

# **SAFETY EQUIPMENT**

	Driver	Passenger	Rear
FRONTAL CRASH PROTECTION			
Frontal airbag	•	•	_
Belt pretensioner	•	•	•
Belt loadlimiter	•	•	•
Knee airbag	•	×	_
SIDE CRASH PROTECTION			
Side head airbag	•	•	•
Side chest airbag	•	•	×
Side pelvis airbag	×	×	×



# SAFETY EQUIPMENT (NEXT)

	Driver	Passenger	Rear
CHILD PROTECTION			
Isofix		0	×
Integrated CRS		×	0
Airbag cut-off switch		•	_
SAFETY ASSIST			
Seat Belt Reminder	•	•	•

OTHER SYSTEMS	
Active Bonnet (Hood)	×
ESC	•
AEB City	•
AEB Inter-Urban	•
Speed Assistance System	•
Lane Assist System	•

The Safety Equipment includes those items relevant for the year of assessment

Fitted to test car as standard	<ul><li>Fitted to test car as option</li></ul>	— Not applicable	💢 Not available
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O Not fitted to test car but available as option





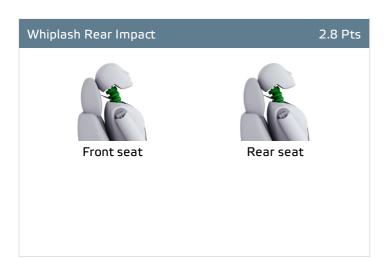
Total 37.0 Pts / 97%

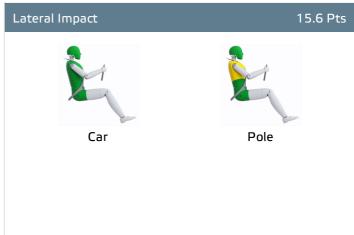
POOR

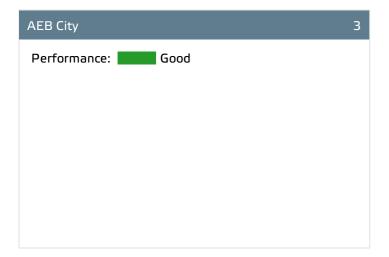




WEAK









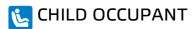


Total 37.0 Pts / 97%

#### Comments on Adult Occupant

The passenger compartment of the XC90 remained stable in the frontal offset test. Dummy readings indicated good protection of the knees and femurs of both the driver and passenger. Volvo demonstrated that a similar level of protection would be provided to occupants of different statures and to those sat in different positions. In the full-width rigid barrier test, protection of the driver dummy was good for all critical body areas. For the rear passenger, protection of the chest was adequate and that of all other body regions was good. In the side barrier test, the XC90 scored maximum points with good protection of all critical body areas. In the more severe side pole impact, protection of the chest was adequate and that of all other body regions was good. In the original side pole test and to a lesser extent in the side barrier test, the side curtain airbag failed to deploy to its full extent at its rearmost edge. This would have resulted in protection for those in the optional third row seats that was less than Volvo had intended. Volvo investigated the cause and have implemented into production a modified trim panel which allows the airbag to deploy as intended. Euro NCAP's assessment is based on the updated vehicle currently being produced and Volvo will contact owners of cars with three seat rows in order to retro-fit the modified component. The front seats and head restraints provided good protection against whiplash injury in the event of a rear-end collision. A geometric assessment of the rear seats indicated good whiplash protection also for occupants of those seats. A standard-fit autonomous emergency braking system operates from the low speeds typical of city driving at which many whiplash injuries occur. The system scored maximum points in Euro NCAP's tests, bringing the car to a halt before collision at all test speeds.

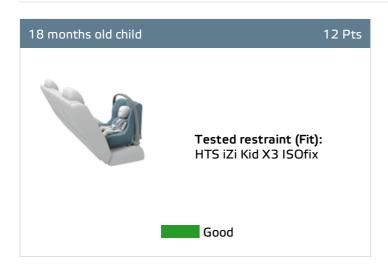




Total 43 Pts / 87%



Crash Test Performance 24 Pts





Safety Features 7 Pts

	Front Passenger	2nd row outboard	2nd row center	3rd row outboard	3rd row center
Isofix	0	•	×	×	
i-Size	0	•	×	×	
Integrated CRS	×	×	0	×	

Fitted to test car as standard

Not on test car but available as option

🗶 Not available

CRS Installation Check 12 Pts

Install without problem
Safety critical problem
Install with care
Installation not allowed

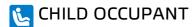
#### Infants up to 13 kg











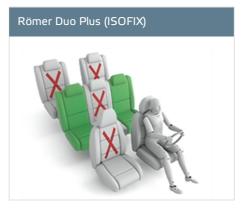
Total 43 Pts / 87%

## Infants and toddlers up to 18 kg



## Toddlers from 9 to 18 kg







#### Toddlers over 18 kg







Total 43 Pts / 87%

	Seat Position					
	Front		2nd row		3rd row	
	PASSENGER	LEFT	CENTER	RIGHT	LEFT	RIGHT
Maxi Cosi Cabriofix (Belt)	•	•	•	•	•	•
Römer King Plus (Belt)	•	•	•	•	•	•
Römer Duo Plus (ISOFIX)	×	•	×	•	×	×
Römer KidFix (Belt)	•	•	•	•	•	•
Maxi Cosi Cabriofix & EasyFix (Belt)	×	•	×	•	×	×
Maxi Cosi Cabriofix & EasyFix (ISOFIX)	×	•	×	•	×	×
BeSafe iZi Kid X3 ISOfix (ISOFIX)	×	•	×	•	×	×
Maxi Cosi Pearl & Familyfix (ISOFIX)	×	•	×	•	×	×
Römer KidFix (ISOFIX)	×	•	×	•	×	×

Install without problem

install with care

safety critical problem

★ Installation not allowed

#### Comments on Child Occupant

Both the 1½ year and 3 year dummies were sat in rearward-facing restraints and the XC90 scored maximum points for its protection of both in the full scale crash tests, with good protection of all parts of the body. The front passenger airbag can be disabled to allow a rearward-facing restraint to be used in that seating position. Clear information is provided to the driver regarding the status of the airbag and the system was rewarded. All of the child restraints for which the XC90 is designed could be properly installed and accommodated in the car, including in the optional thrird row seats. An integrated child restraint is an option for the second row centre position.





Total 25.9 Pts / 72%

GOOD ADEQUATE MARGINAL WEAK POOR

Pedestrian Protection 25.9 Pts



Head Impact	18.6 Pts
Pelvis Impact	1.4 Pts
Leg Impact	6 Pts

#### Comments on Pedestrian

The bumper scored maximum points for its protection of pedestrians' legs, providing good protection in all areas tested. However, the protection offered to the pelvic region was predominantly poor. The bonnet offered good or adequate protection to the head of a struck pedestrian over almost all of its surface and no poor results were recorded, even on the stiff areas around the windscreen. The XC90's standard-fit autonomous emergency braking system recognises pedestrians and cyclists as well as other cars. Euro NCAP will start to assess the performance of such functionality in 2016 so the system cannot be rewarded here.





Total 13 Pts / 100%

GOOD	ADEQUATE	MARGINAL	WEAK	POOR	

Speed Assistance 3 Pts

System Name	Automatic Speed Limiter, ASL & Road Sign Information, RSI	
Speed Limit Information Function	Camera & Map	
Warning Function	System advised	
Speed Limitation Function	System advised	

# **Electronic Stability Control**

3 Pts

System Name	ESC	
PERFORMANCE		
Vehicle Yaw Rate @ COS + 1.00 s	0.3%	meets ECE requirements
Vehicle Yaw Rate @ COS + 1.75 s	0.34%	meets ECE requirements
Lateral Displacement @ BOS + 1.07 s	3.3 m	meets ECE requirements

Seat Belt Reminder 3 Pts

Applies To	All seats		
Warning	Driver Seat	front passenger(s)	rear passenger(s)
Visual	•	•	•
Audible	•	•	•

Pass Fail — Not available

Lane Support 1 Pts

System Name	Lane Departure Warning
Туре	Lane Departure Warning
Operational From	65
Warning	Audible & Haptic
PERFORMANCE	
LDW Confirmation Test	Meets NHTSA requirements





Total 13 Pts / 100%

AEB Interurban 3 Pts

System Name	City Safety			
Туре	Forward Collision Warning with Auto-Brake			
Operational From	4 Km/h			
Additional Information	Default On; Supplementary Warning; Seatbelt Activation			
PERFORMANCE				
Operational Speed	4-230 Km/h	4-230 Km/h		
	Autobrake Function Only	Driver reacts to warning		
Approaching a stationary car	_	Crash avoided up to 80km/h. Crash speed reduced up to 80km/h.		
	Crash avoided up to 70km/h.	Crash avoided up to 80km/h.		
FOLLOWING A CAR AT SHORT DISTANCE				
Car in front brakes gently	Avoidance	Avoidance		
Car in front brakes harshly	Avoidance	Avoidance		
FOLLOWING A CAR AT LONG DISTANCE				
Car in front brakes gently	Avoidance	Avoidance		
Car in front brakes harshly	Avoidance	Avoidance		

#### Comments on Safety Assist

All Safety Assist features assessed by Euro NCAP are standard equipment on the XC90: electronic stability control; a seatbelt reminder for the front and rear seats, including the optional third row seats; a lane assistance system which warns the driver when the car is drifting out of lane and automatically steers the car gently back if needed; a speed assistance system which uses a camera and a digital map to show the local speed limit, allowing the driver to set the speed limiter as appropriate, or allow the system to do so automatically; and an autonomous emergency braking system which scored maximum points in Euro NCAP's tests for inter-urban systems, managing to avoid collision in all of the scenarios and at all of the speeds tested.