

## Press Release

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# World Traffic Safety Award

### Volvo XC 90 SUV

NEW YORK, NY - The 'next generation of SUV' - the Volvo XC90 - has won independent recognition from a panel of Safety experts more than seven months before it goes on sale to the public.

The prestigious 2002 World Traffic Symposium's Traffic Safety Achievement Award for manufacturers was awarded to the Volvo XC90 to recognize the innovative use of electronics in this new SUV to help reduce rollover accidents.

This award underlines Volvo's long-tradition of safety research and engineering solutions that have kept the company at the forefront in safety leadership.

### Roll-over Protection System (ROPS)

ROPS was first introduced in the 1998 C70 Convertible, this next generation is designed with sensors that detect vehicle pitch angle, roll-rate, road speed, steering wheel placement, and is coupled with a software algorithm that calculates solutions for actions by other vehicle systems. For example, as rollover starts ROPS software activates the Anti-locking Brake System (ABS) and as necessary engine throttle to bring the vehicle into a more normal position. Rollovers are in part due to a high center of gravity. The XC90 was specially engineered to have a low center of gravity, thanks to low engine cradle placement and a lightweight roof structure.

"Think of the ROPS system acting like a bicycle under hard front wheel braking," said, William Shapiro, P.E. Manager, Automotive Safety, Volvo Cars of North America, LLC. "When you apply hard pressure to the front brake, the bike wants to move over that stopped (frictioned) wheel. What we're doing is creating friction on one or more wheels to help reduce the rate of pitch and roll."

In the event of a rollover, ROPS is keyed to activate additional passenger protection features. Inflatable Curtains (IC) on both sides is deployed to help protect the occupant's head. IC covers all three seating rows and remains inflated for about 5 seconds. At the same time, pyrotechnically actuated seat belt pre-tensioners are used to help hold occupants tightly in their seats. The vehicle roof structure is reinforced with a combination of light weight High Strength Steel (HSS) and Boron coated steel for roof crush resistance.

### Roll Over Accidents

In 1996, 46 percent of the sport utility vehicles involved in fatal crashes in rural areas experienced rollover--more than any other type of vehicle. Rollover rates for passenger cars were 21 percent. Other vehicle types involved in rural fatal crashes were 21 percent for passenger cars. The rollover rates for vehicles in fatal crashes in urban areas were lower: 25 percent for sport utility vehicles, 9 percent for passenger cars, according to NHTSA

XC90 safety features include: Side Impact Protection System, Side Impact Air Bags for fronted seated occupants, three point seat belts in all seven seating positions, and Car to Car crash

compatibility just to mention a few.

"Real world data, like NHTSA's, clearly shows areas of improvement for automobile manufactures. We started a database in 1972 that today has over 25,000 real world accidents. Using real world safety performance will help to keep Volvo a recognized safety innovator," comments Shapiro. "It's in our genetic makeup."

XC 90 goes on sale late fall of 2002.

For additional information:

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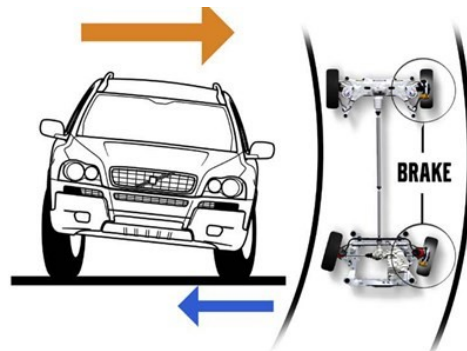
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