

Press Release

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VOLVO XC70 ALL TERRAIN FEATURES FULL COMPLIMENT OF SAFETY EQUIPMENT

- ALL VOLVO SAFETY SYSTEMS FULLY FUNCTIONING
- STANDARD SIDE IMPACT PROTECTION SYSTEM
- WHIPS SYSTEM HELPS PROVIDE PROTECTION FROM REAR IMPACTS
- DYNAMIC STABILITY & TRACTION CONTROL (DSTC) HELPS MAINTAIN CONTROL

Las Vegas, Nevada (November 1, 2005) – Volvo cars have always been known as one of the automotive industry leaders when it comes to safety. This year's SEMA concept car, the Volvo XC70 All Terrain (AT) is no exception. All of the standard Volvo safety systems built within the durable XC70 wagon are retained as designed and fully functioning.

"We simply wouldn't build a concept car like the XC70 AT without insuring that Volvo's legendary safety equipment is not removed or modified in any way," commented Volvo Cars of North America President & CEO, Anne Belec. "Even if we never intend to produce this car or even let anyone drive it, Volvo's core value of providing safety won't be compromised."

This means that the XC70 AT is packed with the latest passive and active safety technology. Standard equipment on the production XC70 includes Volvo's Side Impact Protection System (SIPS) that includes multiple airbags and an Inflatable Curtain (IC), orthopedic-designed seats with an integrated Whiplash Protection System (WHIPS) and anti-submarine bolsters and pyrotechnically charged pre-tensioning seatbelts in all seating positions.

Optional items found on the XC70 AT that aid the driver in adverse conditions include Volvo's Dynamic Stability & Traction Control System (DSTC) and the new-for-2005 model year Four-C active chassis system. Additional specialty equipment installed by ipd, the Volvo aftermarket specialists charged with building the XC70 AT, include a 10,000-pound Warn winch that has been incorporated into the front bumper housing, PIAA halogen lighting for nighttime desert driving and 13.2-inch Brembo brakes from the Volvo V70 R high performance sport wagon.

VOLVO'S SIDE IMPACT PROTECTION SYSTEM (SIPS)

Even if the XC70 AT has the ability to ride up to 10 inches higher than the production Volvo XC70, side impacts must still be taken into account. Fortunately, Volvo's Side Impact Protection System is retained in the XC70 AT.

Based on the basic principle that crash forces should be directed through the car's body structure and around the passenger compartment, the Volvo XC70 utilizes a unique system of tubes and cross members, along with differing steel grades, to help protect the passengers in the event of a side impact collision.

Special steel tubes located at the base of the front seats transfer crash energy from the doors to the center of the vehicle, helping to protect the occupants. Airbags also factor into SIPS; they play an important part in a side impact. Seat mounted bags deploy to help prevent the door from contacting the front occupants. At the same time the Inflatable Curtain (IC) instantly falls from the headliner. The IC helps protect all outboard seating positions from window glass or protruding

objects from entering the cabin.

VOLVO'S WHIPLASH PROTECTION SYSTEM (WHIPS)

Whiplash injuries are one of the most common injuries experienced in a collision. Even a low-speed incident can cause neck and back injuries to occur. The Volvo Whiplash Protection System (WHIPS) is designed to help protect occupants in the event of a rear-end collision.

WHIPS is an integrated safety system within the Volvo XC70 and the SEMA prepared XC70 AT. The Volvo system for avoiding neck injuries is one of the most effective on the market. In the event of a powerful rear-end collision the backrests and head restraints in the front seats follow the movements of the seat occupant's body.

Additionally, all five of the seating positions in the XC70 AT retain the pyrotechnically charged pre-tensioning seatbelts. In a powerful collision the belts retract extremely quickly with the assistance of small charges mounted in the A- and B-pillars (and in the middle position of the rear seat). The occupants are pulled tightly into the contours of the orthopedic-designed seats and headrests, limiting movement of the neck and back.

DYNAMIC STABILITY TRACTION CONTROL (DSTC)

Volvo's Dynamic Stability Traction Control is standard on the XC70 AT. The system continuously monitors a number of factors such as heading angle (the direction in which the vehicle is pointing), course angle (direction in which the vehicle is traveling) and vehicle slip (the difference between heading angle and course angle).

DSTC incorporates several sensors to help the driver maintain control and keep the vehicle on the road in adverse driving conditions or accident avoidance maneuvers. Spin Control reduces engine torque when wheel slip is detected. Traction Control brakes the spinning wheel under acceleration in a split- μ situation where one wheel begins spinning faster than another (this usually occurs when one tire is on a slipper surface such as ice, or is not in contact with the road, which can occur in certain off-road situations). Active Yaw Control stabilizes the vehicle in understeer or oversteer conditions.

In an understeer condition, Active Yaw Control may intervene in two ways. (1) Engine power is automatically reduced, which allows increased lateral grip and a decrease in speed of the front wheels. (2) The inside rear wheel, and in some cases, the inside front wheel are automatically braked. The asymmetrical braking force helps to turn the car into the curve. The lateral force on the braked rear wheel is reduced, affecting the car in the same direction. The vehicle speed is also reduced due to the engine and the brake interventions, making possible an even tighter curve radius.

When oversteer occurs, Active Yaw Control will automatically apply the brake to the outside front wheel. The asymmetrical braking force compensates for the too rapid turn of the vehicle. The outside front wheel loses a portion of the lateral force while braking, which also contributes to slowing the vehicle turn. The force of the brake intervention depends on, among other things, the amount of oversteering and the available road friction.

VCNA, part of the Volvo Car Corporation of Gothenburg, Sweden, provides marketing, sales, parts, service, technology and training support to Volvo automobile retailers in the United States, and oversees Volvo operations in Canada, Mexico and Puerto Rico.

Volvo has been building cars with Safety in mind for over 75 years. The 2006 Volvo Cars model line-up includes: the award-winning new S40 and its wagon counterpart the all-new V50; the award-winning XC90; the sporty S60 sedan – including the award-winning performance sedan – S60 R and the performance wagon version – V70 R; the flagship S80 luxury sedan; versatile V70 wagon and rugged XC70 (Cross Country); and, the all-new C70 convertible.

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