

CRASH CAE IN THE ALL NEW VOLVO XC90 AND SPA PLATFORM

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KEYWORDS –

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ABSTRACT –

The all new XC 90 is the first car built on Volvo's new SPA platform (Scalable Platform Architecture).

The development has been highly CAE oriented. No complete car prototypes have been built during the development phase.

The crash team has worked with 7 complete car CAE loops during the development phase. Several new challenges has been faced during the development , such as, extensive material failure predictions, multi-cell extruded crash boxes, new IIHS small-overlap rating and optimized crash pulses.

The complete car structure crash model has now been merged with the detailed interior model, giving a model with more than 10milj elements. This model is used for extracting rating/dummy criteria's directly.

