

VOLVO SUPERTRUCK 1

Automotive Architecture/Design/Packaging

ALTEN ADDED VALUE

Rapid ramp up of team to enable Volvo to meet tight deadlines for SuperTruck program

ALTEN assumed high level of ownership of components and Test & Verification work

Extensive background in heavy truck engineering from concept to production

Key TOOLS & Technologies
CATIA 3DX, Enovia, CREO, PDM link, KOLA, AVP, ANSA, ANSYS, CANalyzer, Matlab, dSpace, Simulink

KEY DATA

Team Size: 5 Engineers
Time: 2 Years
Location: Greensboro, NC
Work Package

ALTEN TECHNOLOGY

SUPERTRUCK R&D PROGRAM

OVERVIEW

- ALTEN Technology closely integrated with Volvo's advanced development teams to support the U.S. Dept of Energy SuperTruck program. This program had lofty targets of 50% improvements in freight efficiency (ton-miles per gallon) over a 2009 baseline vehicle as well as 50% brake thermal efficiency of the diesel engine.

PROJECT DETAILS

- Performed R&D, component ownership and Test & Verification work on the Electrical HW & SW systems
- Re-design of full chassis to dramatically reduce system weight while maintaining vehicle rigidity and performance – included ME and Analysis teams
- Owned vehicle architecture to ensure Chassis, Engine, Cab and Electrical were developed in harmony
- Oversaw component development with selected suppliers
- Results
 - 40% improvement in complete vehicle aerodynamics vs 2009 baseline
 - 70% improvement in fuel efficiency
 - On-time, on budget project completion

