Next generation of Cargo Doors

Kenneth Karlsson
SAAB AB, Aerospace Systems

Within the Aerospace Business weight is always in focus. We want structures with as low weight as possible in order to reduce the CO2 emissions. By integrating structures, we can reduce the number of fasteners used which reduces both the weight of the structure as well as the amount of work for installing the fasteners. Within the Clean Sky 2 project Saab Aerospace Systems are developing five Cargo Doors using different techniques:

- TD1: Friction Stir Welding, Roll forming, High Energy Hydroforming and Additive Manufacture
- TD2: Laser Welding, Creep forming, Additive Manufacture, Orbital Drilling and Collaborative Robots
- TD3: High Energy Hydroforming, Additive Manufacture, Topology Optimization and Powder Coating
- TD4: Adhesive Bonding, Additive Manufacture, Powder Coating and Electromechanical system
- TD5: Composite Cargo Door produced using vacuum infusion technology

Both TD4 and TD5 are fully operational and will be tested in a fuselage. The electro mechanic systems used for the opening, closing and locking the door is also developed by Saab. This presentation will look at some of the challenges and highlights from these Cargo Doors.

Copyright © ESI Group, 2021. All rights reserved.