Airplane Static Stress Testing
Load Cell

Industry: Aerospace

Summary

Customer Challenge

Airplane static stress testing simulates extreme flight conditions to assess the aircraft's structural integrity. The challenge is accurately measuring the forces on key components without causing damage. Load cells are crucial for providing precise data on the stress experienced by parts like the fuselage and wings. This data helps engineers identify weak points and ensure the aircraft's safety and reliability.

Interface Solution

Interface suggests using multiple 1208 Flange Standard Precision Universal LowProfile Load Cells during the static stress test. 1208's are installed along the aircraft to measure forces and stresses that might be experienced during various flight conditions. Force is exerted on the aircraft and its wings. This allows engineers to make adjustments to the design to enhance performance and structural integrity.

Results

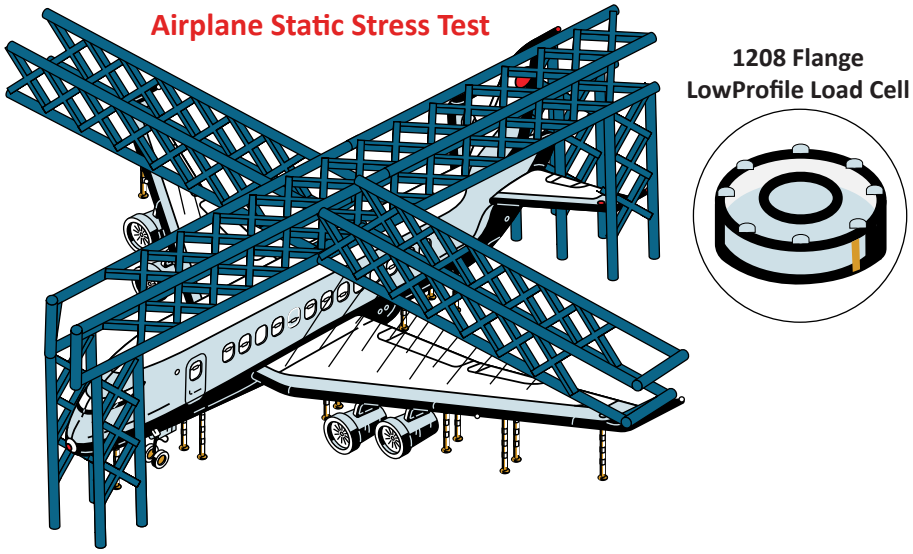
Interface's 1208 Flange Standard Precision Universal LowProfile Load Cells usage was a success providing accurate, real-time data on the forces experienced during teh airplane static stress test.

Materials

- 1208 Flange Standard Precision Universal LowProfile Load Cells

How It Works

1. Multiple 1208 Flange Standard Precision Universal LowProfile Load Cells are installed at certain key points along the aircraft and its wings for the static stress test.
2. The static aircraft is subjected to a number of different flight conditions.
3. The load cells measure the forces at these specific locations, which are then sent ot the customer's computer system for analysis.



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