

Pressure- & bending tests successfully completed

The test plans for ground testing as well as flight. Successful tests to meet both FAA and EASA requirements have proven the viability and operational potential of the Fokker50Freighter configuration.

The general lay-out around the forward large cargo door opening, as well as the 90" x 70" forward large cargo door with its new latching and locking system installed, were inspected and passed all tests.

After successful completion of the limit pressure test to 5.82 psi., the following company tests were performed to gain additional confidence in the design. Strain gage measurements were taken during all these tests.

1. The aircraft was loaded with a simulated cargo load in the forward fuselage. The nose gear attach fitting was loaded with a vertical up force of 4,000 lbs. to simulate max. loaded aircraft on the ground. Clearance between the forward large cargo door and aircraft skin cut-out were measured. Door operation was checked by closing and latching. The door stayed essentially in the same location with respect to the fuselage cut-out and operation was standard.

2. To guard against takeoff when one latch is unlocked, a fail safe pressure test was performed with the front latch disengaged. Significant leakage due to door deflection in the front was noticed. Pressurization cart compressor reached its flow limit. Maximum pressure of 4.90 psi. was achieved in this test and held for several minutes. This compares well with the normal cabin pressure of 4.16 psi. and max. relief valve setting of 4.38 psi. It is likely that the pilots will notice the leakage and deflection caused by the disengaged front latch.

3. Two additional fail safe pressure tests were run with second and third latch removed. For both tests, leakage was minimal and planned maximum pressure of 5.61 psi was achieved. [5.61 psi = 1.15 x (4.38psi + 0.5 psi max. ext. aero press)] Door operations continue to be normal after all the tests.

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