Federal Aviation Administration, DOT

§ 23.725  Takeoff warning system.

For commuter category airplanes, unless it can be shown that a lift or longitudinal trim device that affects the takeoff performance of the aircraft would not give an unsafe takeoff configuration when selection out of an approved takeoff position, a takeoff warning system must be installed and meet the following requirements:

(a) The system must provide to the pilots an aural warning that is automatically activated during the initial portion of the takeoff roll if the airplane is in a configuration that would not allow a safe takeoff. The warning must continue until—

(1) The configuration is changed to allow safe takeoff, or

(2) Action is taken by the pilot to abandon the takeoff roll.

(b) The means used to activate the system must function properly for all authorized takeoff power settings and procedures and throughout the ranges of takeoff weights, altitudes, and temperatures for which certification is requested.

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§ 23.723  Shock absorption tests.

(a) It must be shown that the limit load factors selected for design in accordance with §23.473 for takeoff and landing weights, respectively, will not be exceeded. This must be shown by energy absorption tests except that analysis based on tests conducted on a landing gear system with identical energy absorption characteristics may be used for increases in previously approved takeoff and landing weights.

(b) The landing gear may not fail, but may yield, in a test showing its reserve energy absorption capacity, simulating a descent velocity of 1.2 times the limit descent velocity, assuming wing lift equal to the weight of the airplane.


§ 23.725  Limit drop tests.

(a) If compliance with §23.723(a) is shown by free drop tests, these tests must be made on the complete airplane, or on units consisting of wheel,