

Federal Aviation Regulation

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Sec. 25.733

Part 25 AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES	
Subpart D--Design and Construction	Landing Gear

Sec. 25.733

Tires

- (a) Each landing gear wheel must have a tire--
 - (1) That is a proper fit on the rim of the wheel; and
 - (2) Whose load rating is not exceeded under--
 - (i) Equal static loads, corresponding to the most critical combination of maximum takeoff weight and center of gravity position, on each main wheel tire; and
 - (ii) Equal loads corresponding to the ground reactions in paragraph (b) of this section, on each nose wheel tire.
- (b) The applicable ground reactions are as follows:
 - (1) The static ground reaction for the tire with the most critical combination of takeoff weight and center of gravity position. This load may not exceed the static rating of the tire.
 - (2) The dynamic ground reaction for the tire at maximum landing weight, assuming that the mass of the airplane is concentrated at the most critical location of the center of gravity for this weight and is exerting a force of 1.0g downward and 0.31g forward with the reactions being distributed to the nose and main wheels by the principles of statics and with a 0.31g drag reaction at the ground applied at each wheel with brakes. This load may not exceed the dynamic rating of the tire.
 - (3) The dynamic ground reaction for the tire at design takeoff weight, assuming that the mass of the airplane is concentrated at the most critical location of the center of gravity for this weight and is exerting a force of 1.0g downward and 0.20g forward. The reactions in this case must be distributed to the nose and main wheels by the principles of statics and a 0.20g drag reaction at the ground is applied at each wheel with brakes. This load may not exceed the dynamic rating of the tire.

▶ **Comments**

▼ **Document History**

Notice of Proposed Rulemaking Actions:

Notice of Proposed Rulemaking. Notice No. [64-28](#); Issued on 05/14/64.

Final Rule Actions:

Final Rule. Docket No. [5066](#); Issued on 11/03/64.