Federal Aviation Administration, DOT

§ 29.753  Main float design.

(a) Bag floats. Each bag float must be designed to withstand—

(1) The maximum pressure differential that might be developed at the maximum altitude for which certification with that float is requested; and
(2) Hold the rotorcraft parked on a 10-degree slope on a dry, smooth pavement.

(b) Rigid floats. Each rigid float must be able to withstand the vertical, horizontal, and side loads prescribed in §29.521(a), distributed along the length of the bag over three-quarters of its projected area.

§ 29.737  Skis.

(a) The maximum limit load rating of each ski must equal or exceed the maximum radial limit load determined under the applicable ground load requirements of this part.

(b) There must be a stabilizing means to maintain the ski in an appropriate position during flight. This means must have enough strength to withstand the maximum aerodynamic and inertia loads on the ski.

FLOATS AND HULLS

§ 29.751  Main float buoyancy.

(a) For main floats, the buoyancy necessary to support the maximum weight of the rotorcraft in fresh water must be exceeded by—

(1) 50 percent, for single floats; and
(2) 60 percent, for multiple floats.

(b) Each main float must have enough water-tight compartments so that, with any single main float compartment flooded, the main floats will provide a margin of positive stability great enough to minimize the probability of capsizing.

§ 29.735  Brakes.

For rotorcraft with wheel-type landing gear, a braking device must be installed that is—

(a) Controllable by the pilot;
(b) Usable during power-off landings; and
(c) Adequate to—

(1) Counteract any normal unbalanced torque when starting or stopping the rotor; and

(2) Hold the rotorcraft parked on a 10-degree slope on a dry, smooth pavement.

§ 29.733  Tires.

Each landing gear wheel must have a tire—

(a) That is a proper fit on the rim of the wheel; and
(b) Of a rating that is not exceeded under—
(1) The design maximum weight;
(2) A load on each main wheel tire equal to the static ground reaction corresponding to the critical center of gravity; and
(3) A load on nose wheel tires (to be compared with the dynamic rating established for those tires) equal to the reaction obtained at the nose wheel, assuming that the mass of the rotorcraft acts as the most critical center of gravity and exerts a force of 1.0 g downward and 0.25 g forward, the reactions being distributed to the nose and main wheels according to the principles of statics with the drag reaction at the ground applied only at wheels with brakes.

(c) Each tire installed on a retractable landing gear system must, at the maximum size of the tire type expected in service, have a clearance to surrounding structure and systems that is adequate to prevent contact between the tire and any part of the structure or systems.