

§ 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) The vertical loads prescribed in § 29.521(a), distributed along the length of the bag over three-quarters of its projected area.

(b) *Rigid floats.* Each rigid float must be able to withstand the vertical, horizontal, and side loads prescribed in § 29.521. An appropriate load distribution under critical conditions must be used.

§ 29.755 Hull buoyancy.

Water-based and amphibian rotorcraft. The hull and auxiliary floats, if used, must have enough watertight compartments so that, with any single compartment of the hull or auxiliary floats flooded, the buoyancy of the hull and auxiliary floats, and wheel tires if used, provides a margin of positive water stability great enough to minimize the probability of capsizing the rotorcraft for the worst combination of wave heights and surface winds for which approval is desired.

[Amdt. 29-3, 33 FR 967, Jan. 26, 1968; as amended by Amdt. 27-26, 55 FR 8003, Mar. 6, 1990]

§ 29.757 Hull and auxiliary float strength.

The hull, and auxiliary floats if used, must withstand the water loads prescribed by § 29.519 with a rational and conservative distribution of local and distributed water pressures over the hull and float bottom.

[Amdt. 29-3, 33 FR 967, Jan. 26, 1968]

PERSONNEL AND CARGO
ACCOMMODATIONS

§ 29.771 Pilot compartment.

For each pilot compartment—

(a) The compartment and its equipment must allow each pilot to perform his duties without unreasonable concentration or fatigue;

(b) If there is provision for a second pilot, the rotorcraft must be controllable with equal safety from either

pilot position. Flight and powerplant controls must be designed to prevent confusion or inadvertent operation when the rotorcraft is piloted from either position;

(c) The vibration and noise characteristics of cockpit appurtenances may not interfere with safe operation;

(d) Inflight leakage of rain or snow that could distract the crew or harm the structure must be prevented.

[Doc. No. 5084, 29 FR 16150, Dec. 3, 1964, as amended by Amdt. 29-3, 33 FR 967, Jan. 26, 1968; Amdt. 29-24, 49 FR 44437, Nov. 6, 1984]

§ 29.773 Pilot compartment view.

(a) *Nonprecipitation conditions.* For nonprecipitation conditions, the following apply:

(1) Each pilot compartment must be arranged to give the pilots a sufficiently extensive, clear, and undistorted view for safe operation.

(2) Each pilot compartment must be free of glare and reflection that could interfere with the pilot's view. If certification for night operation is requested, this must be shown by night flight tests.

(b) *Precipitation conditions.* For precipitation conditions, the following apply:

(1) Each pilot must have a sufficiently extensive view for safe operation—

(i) In heavy rain at forward speeds up to V_H ; and

(ii) In the most severe icing condition for which certification is requested.

(2) The first pilot must have a window that—

(i) Is openable under the conditions prescribed in paragraph (b)(1) of this section; and

(ii) Provides the view prescribed in that paragraph.

[Doc. No. 5084, 29 FR 16150, Dec. 3, 1964, as amended by Amdt. 29-3, 33 FR 967, Jan. 26, 1968]

§ 29.775 Windshields and windows.

Windshields and windows must be made of material that will not break into dangerous fragments.

[Amdt. 29-31, 55 FR 38966, Sept. 21, 1990]