within the operational limits established for takeoff and landing, respectively, with—
(1) Sections 23.65(b) and 23.67(b)(1) and (2), where appropriate, for takeoff, and
(2) Section 23.67(b)(2), where appropriate, and §23.77(b), for landing.

(d) For multiengine turbine airplanes over 6,000 pounds maximum weight in the normal, utility, and acrobatic category and commuter category airplanes, compliance must be shown at weights as a function of airport altitude and ambient temperature within the operational limits established for takeoff and landing, respectively, with—
(1) Sections 23.67(c)(1), 23.67(c)(2), and 23.67(c)(3) for takeoff; and
(2) Sections 23.67(c)(3), 23.67(c)(4), and 23.77(c) for landing.

§ 23.65 Climb: All engines operating.

(a) Each normal, utility, and acrobatic category reciprocating engine-powered airplane of 6,000 pounds or less maximum weight must have a steady climb gradient at sea level of at least 8.3 percent for landplanes or 6.7 percent for seaplanes and amphibians with—
(1) Not more than maximum continuous power on each engine;
(2) The landing gear retracted;
(3) The wing flaps in the takeoff position(s); and
(4) A climb speed not less than the greater of 1.1 \( V_{MC} \) and 1.2 \( V_{S1} \) for multiengine airplanes and not less than 1.2 \( V_{S1} \) for single-engine airplanes.

(b) Each normal, utility, and acrobatic category reciprocating engine-powered airplane of more than 6,000 pounds maximum weight, and turbine engine-powered airplanes in the normal, utility, and acrobatic category, the steady gradient of climb or descent must be determined at each weight, altitude, and ambient temperature within the operational limits established by the applicant with—
(1) Critical engine inoperative and its propeller in the position it rapidly and automatically assumes;
(2) The landing gear extended, except that if the landing gear can be retracted in not more than seven seconds, the test may be conducted with the gear retracted;
(3) The wing flaps in the takeoff position(s); and
(4) A climb speed equal to that achieved at 50 feet in the demonstration of §23.53.

§ 23.66 Takeoff climb: One-engine inoperative.

For normal, utility, and acrobatic category reciprocating engine-powered airplanes of more than 6,000 pounds maximum weight, and turbine engine-powered airplanes in the normal, utility, and acrobatic category, the steady gradient of climb or descent must be determined at each weight, altitude, and ambient temperature within the operational limits established by the applicant with—
(a) The critical engine inoperative and its propeller in the position it rapidly and automatically assumes;
(b) The remaining engine(s) at takeoff power;
(c) The landing gear extended, except that if the landing gear can be retracted in not more than seven seconds, the test may be conducted with the gear retracted;
(d) The wing flaps in the takeoff position(s);
(e) The wings level; and
(f) A climb speed equal to that achieved at 50 feet in the demonstration of §23.53.

§ 23.67 Climb: One engine inoperative.

(a) For normal, utility, and acrobatic category reciprocating engine-powered airplanes of 6,000 pounds or less maximum weight, the following apply:
(1) Except for those airplanes that meet the requirements prescribed in §23.562(d), each airplane with a \( V_{SO} \) of more than 61 knots must be able to maintain a steady climb gradient of at least 1.5 percent at a pressure altitude of 5,000 feet with the—
(i) Critical engine inoperative and its propeller in the minimum drag position;
(ii) Remaining engine(s) at not more than maximum continuous power;
(iii) Landing gear retracted; and
(iv) Wing flaps retracted; and
(v) Climb speed not less than 1.2 \( V_{S1} \).