

§ 25.779

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confusion as to the engines they control.

(e) Wing flap controls and other auxiliary lift device controls must be located on top of the pedestal, aft of the throttles, centrally or to the right of the pedestal centerline, and not less than 10 inches aft of the landing gear control.

(f) The landing gear control must be located forward of the throttles and must be operable by each pilot when seated with seat belt and shoulder harness (if provided) fastened.

(g) Control knobs must be shaped in accordance with § 25.781. In addition, the knobs must be of the same color, and this color must contrast with the color of control knobs for other purposes and the surrounding cockpit.

(h) If a flight engineer is required as part of the minimum flight crew (established under § 25.1523), the airplane must have a flight engineer station located and arranged so that the flight crewmembers can perform their functions efficiently and without interfering with each other.

[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25–46, 43 FR 50596, Oct. 30, 1978]

§ 25.779 Motion and effect of cockpit controls.

Cockpit controls must be designed so that they operate in accordance with the following movement and actuation:

(a) Aerodynamic controls:

(1) Primary.

| Controls | Motion and effect |
|----------------|--|
| Aileron | Right (clockwise) for right wing down. |
| Elevator | Rearward for nose up. |
| Rudder | Right pedal forward for nose right. |

(2) Secondary.

| Controls | Motion and effect |
|------------------------------------|---|
| Flaps (or auxiliary lift devices). | Forward for flaps up; rearward for flaps down. |
| Trim tabs (or equivalent). | Rotate to produce similar rotation of the airplane about an axis parallel to the axis of the control. |

(b) Powerplant and auxiliary controls:

(1) Powerplant.

| Controls | Motion and effect |
|---------------------------|---|
| Power or thrust | Forward to increase forward thrust and rearward to increase rearward thrust. |
| Propellers | Forward to increase rpm. |
| Mixture | Forward or upward for rich. |
| Carburetor air heat | Forward or upward for cold. |
| Supercharger | Forward or upward for low blower. For turbosuperchargers, forward, upward, or clockwise, to increase pressure. |

(2) Auxiliary.

| Controls | Motion and effect |
|--------------------|-------------------|
| Landing gear | Down to extend. |

[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25–72, 55 FR 29778, July 20, 1990]

§ 25.781 Cockpit control knob shape.

Cockpit control knobs must conform to the general shapes (but not necessarily the exact sizes or specific proportions) in the following figure: