

CHAPTER 3

TAIL UNIT

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GENERAL

1. The tail unit consists of the main length of the twin booms, tail plane, elevator, fins and rudders. The fins, which are integral with the booms, support the interposed tail plane and the twin rudders. A servo trim-tab fitted to the elevator is operated by a hand wheel on the left-hand side of the cockpit. The rudder trim-tabs are fitted to the lower end of each rudder, and may only be adjusted when the aircraft is on the ground.

TAIL BOOM (fig. 1)

2. Each tail boom is an oval-section metal structure, with ten diaphragms spaced along its length and reinforced with longitudinal stringers. The boom-to-wing joint diaphragm is an L-section casting, and the boom rear end diaphragms are riveted to the front and rear spars of the fin. Access to the flying control cables is provided by hand holes in each side of the boom. The end fairing of the port boom carries the tail lamp. A bumper is fitted to the underside of the boom ends.

FIN (fig. 2)

3. Each fin is constructed of two light-alloy channel-section spars, pressed ribs and L-section stringers to which the skin is riveted. The spars, the lower ends of

which are riveted to the tail boom diaphragms, accommodate the tail plane attachment fittings. The rear spars also house the elevator end-hinge fittings, and the rudder hinge fittings.

RUDDER (fig. 2)

4. Each rudder is built up from a tubular rudder post and a channel-section spar, to which are attached light-alloy flanged ribs, the whole being covered with a light-alloy skin. Mass balance weights are fitted in the rudder horns.

TAIL PLANE (fig. 2)

5. The tail plane is constructed of two light-alloy channel-section spars, with nose and main ribs and transverse stringers. The component is covered by a light-alloy skin riveted to the spars, ribs, and stringers. The angle of incidence of the tail plane is not adjustable. Two hinges for the elevator attachment are located on the rear spar.

ELEVATOR (fig. 2)

6. The elevator comprises a single channel-section spar with light-alloy ribs and a built-in torque tube, each end of which has a spigot for location in end hinges which are mounted in the fin shroud. Two more hinge fittings are positioned on the spar. Two external mass balance weights are attached on the underside of the elevator to strengthened ribs.

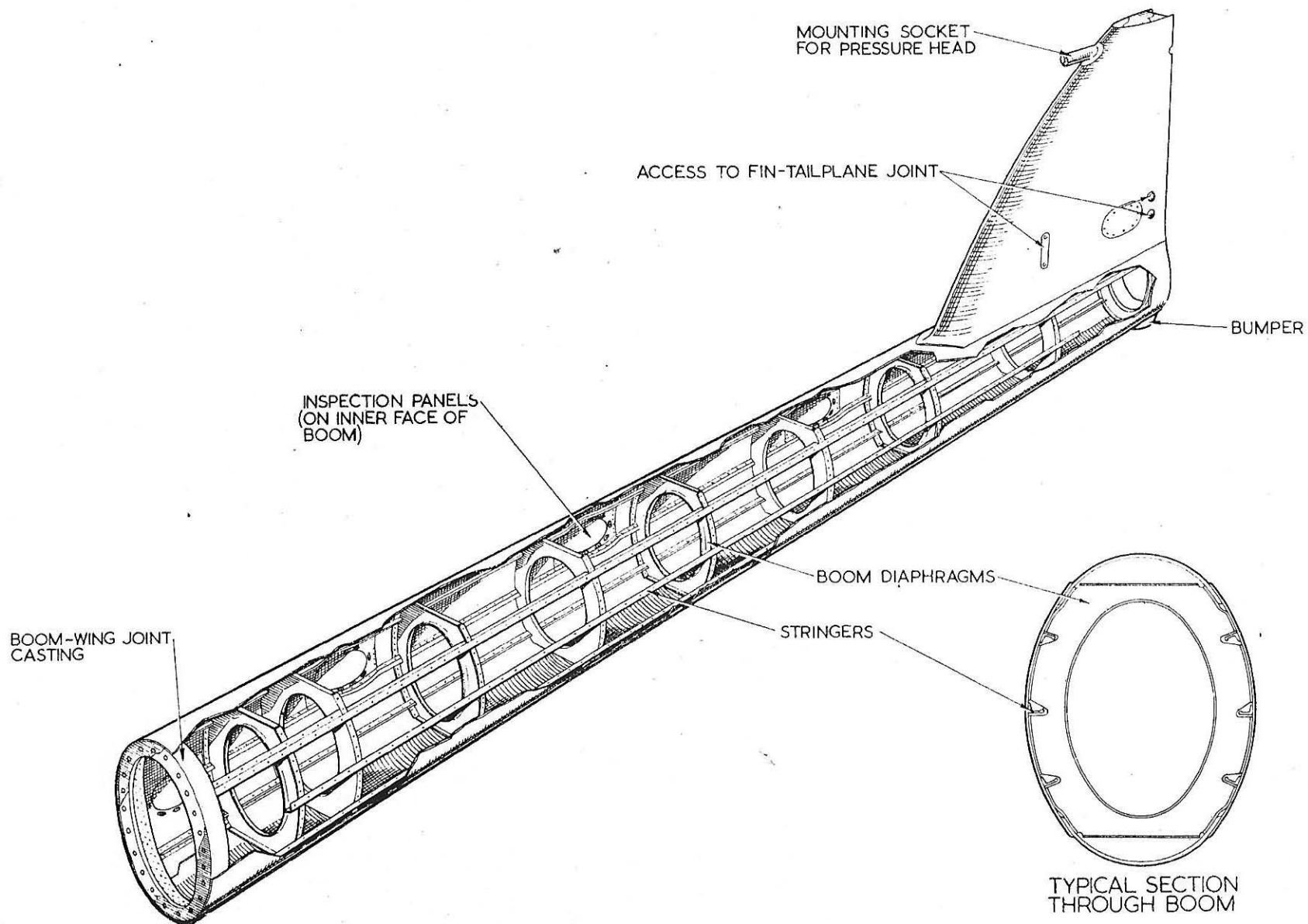
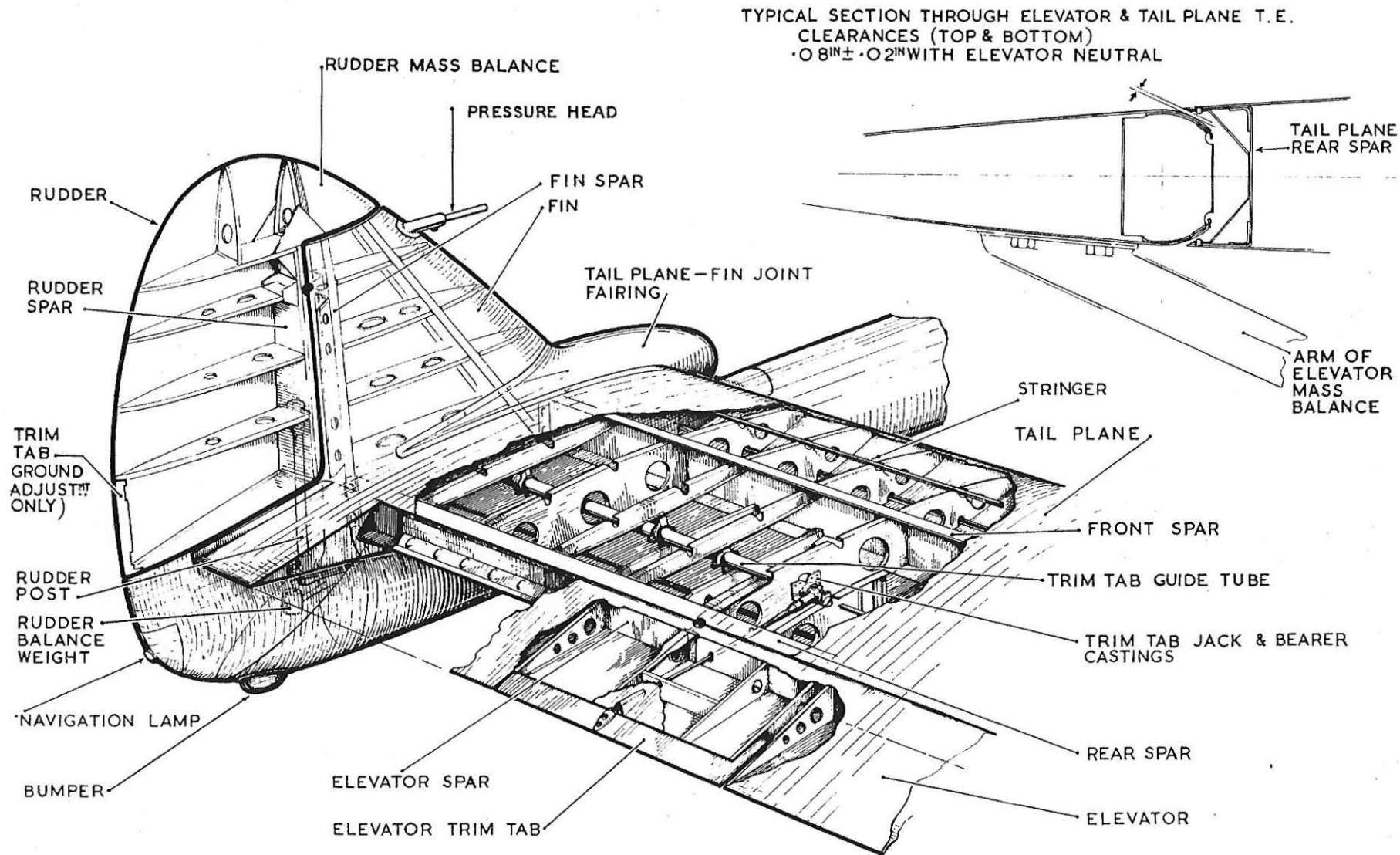


FIG. 1. TAIL BOOM

FIG. 2. TAIL UNIT STRUCTURE



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