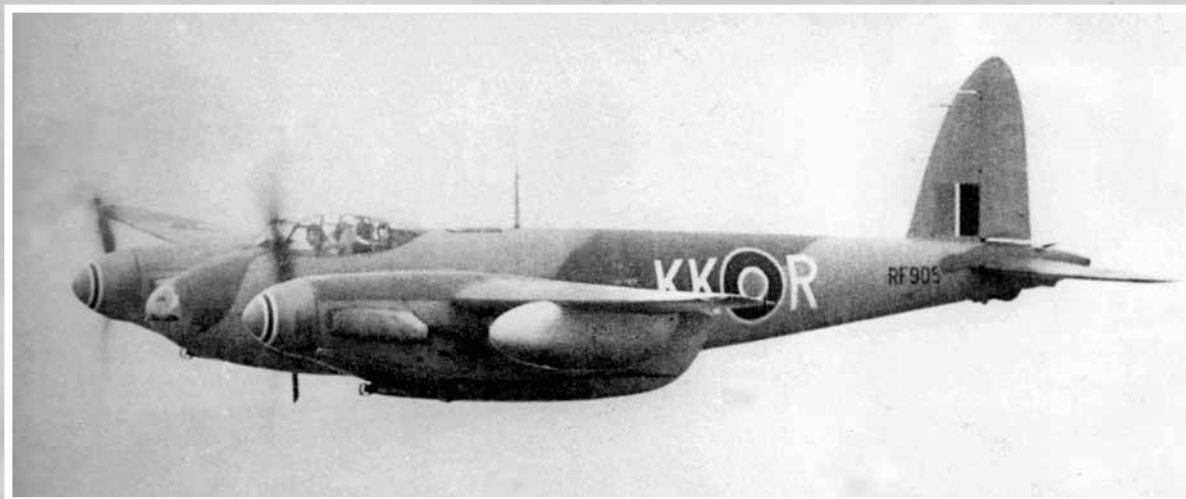




Main photo: Seen during an anti-shipping operation, 248 Squadron FB VI 'DM-Y' (serial number unknown) displays its squadron code letters forward of the roundel (A), this was to provide room for the application of AEAF 'Distinctive Markings' on the rear fuselage. Note the tiered rocket rail installation.

Inset top left: 333 (Norwegian) Squadron FB VI RF905 'KK-R', probably during the return flight home from Banff to Norway on 8 June 1945. Note the Norwegian flag markings on the spinners, the airframe retaining its original Night Fighter Scheme.

Below: 235 Squadron FB VI HR366 running up at Banff in February 1945. As the personal aircraft of Group Captain the Hon. Max Aitken, HR366 wore the code letters 'MA-01' and carried his rank pennant beneath the cockpit. Note the silver doped 100 gallon drop tanks plus the red spinners. This aircraft would later become '6675' with the Turkish Air Force.

Right inset: Group Captain the Hon. Max Aitken poses with HR366 at Banff.



FB XVIII COASTAL COMMAND

FB VI HJ732/G at Hatfield following conversion into the prototype FB XVIII equipped with the 6 PDR Class 'M' Gun. Originally conceived as a tank buster, the FB XVIII was instead employed on Coastal Command anti-shipping operations, principally targeting U-Boats. This Mosquito version would be unofficially nicknamed 'Tsetse' after the large biting flies of tropical Africa.

Replacing the FB VI's four 20mm cannons, the 'M' Gun was a 6 PDR (57mm) QF (Quick Firing) anti-tank weapon with one piece ammunition but a single shot. As the weapon was intended to be fully automatic, the Molins Company devised an auto-loading system with ammunition stacked in columns, four or five shells being accommodated in each 'clip'.

HJ732/G began firing tests on 6 June 1943, its maiden flight taking place two days later. Note the fairing (A) for the 'M' Gun's hydro-pneumatic recuperator unit (recoil buffer) located beneath the forward fuselage. The gun's axis was offset slightly to starboard of the centre line, the muzzle (B) projecting 2 ft, 1.5 inches beneath the nose.

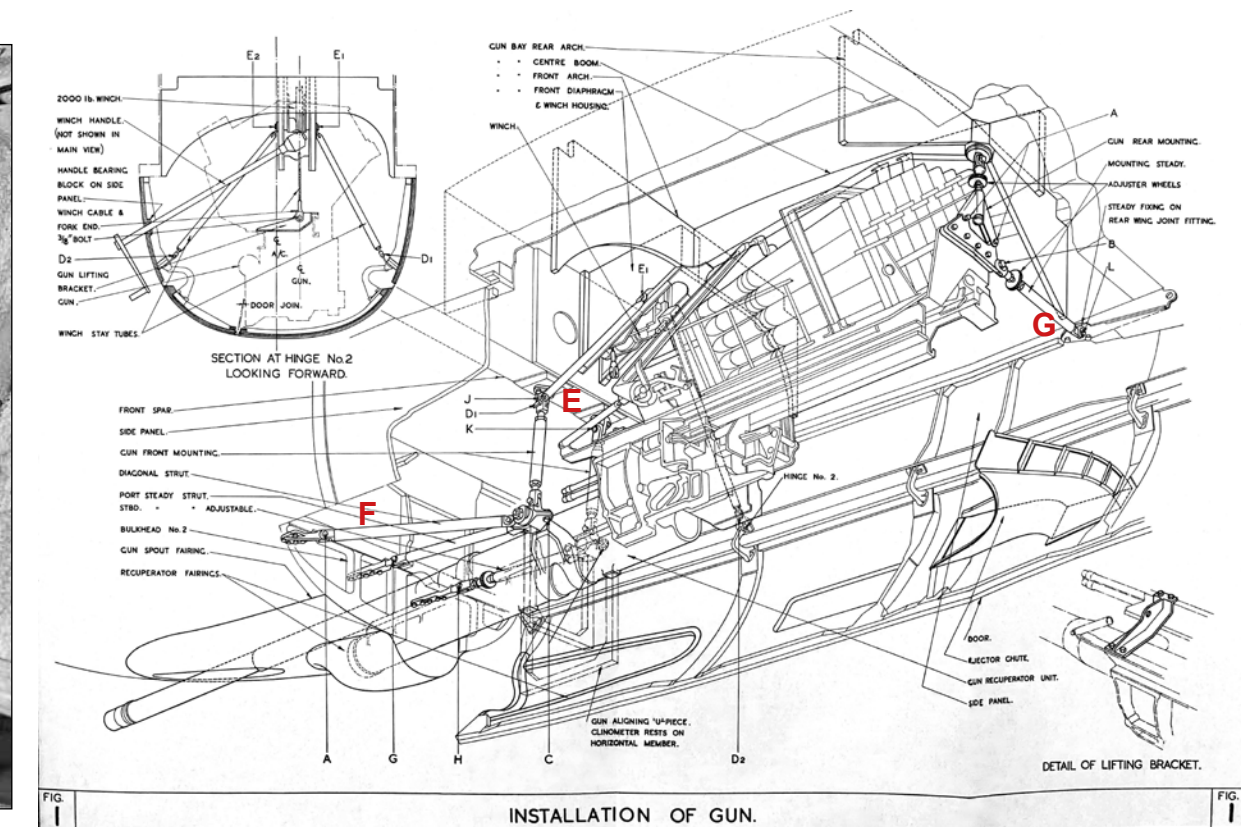
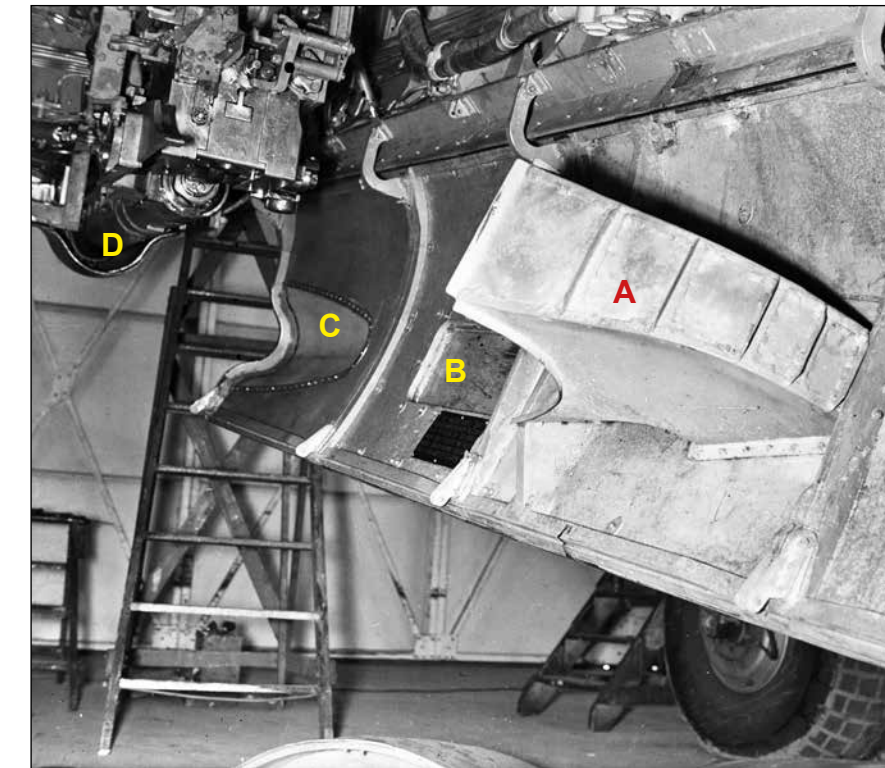
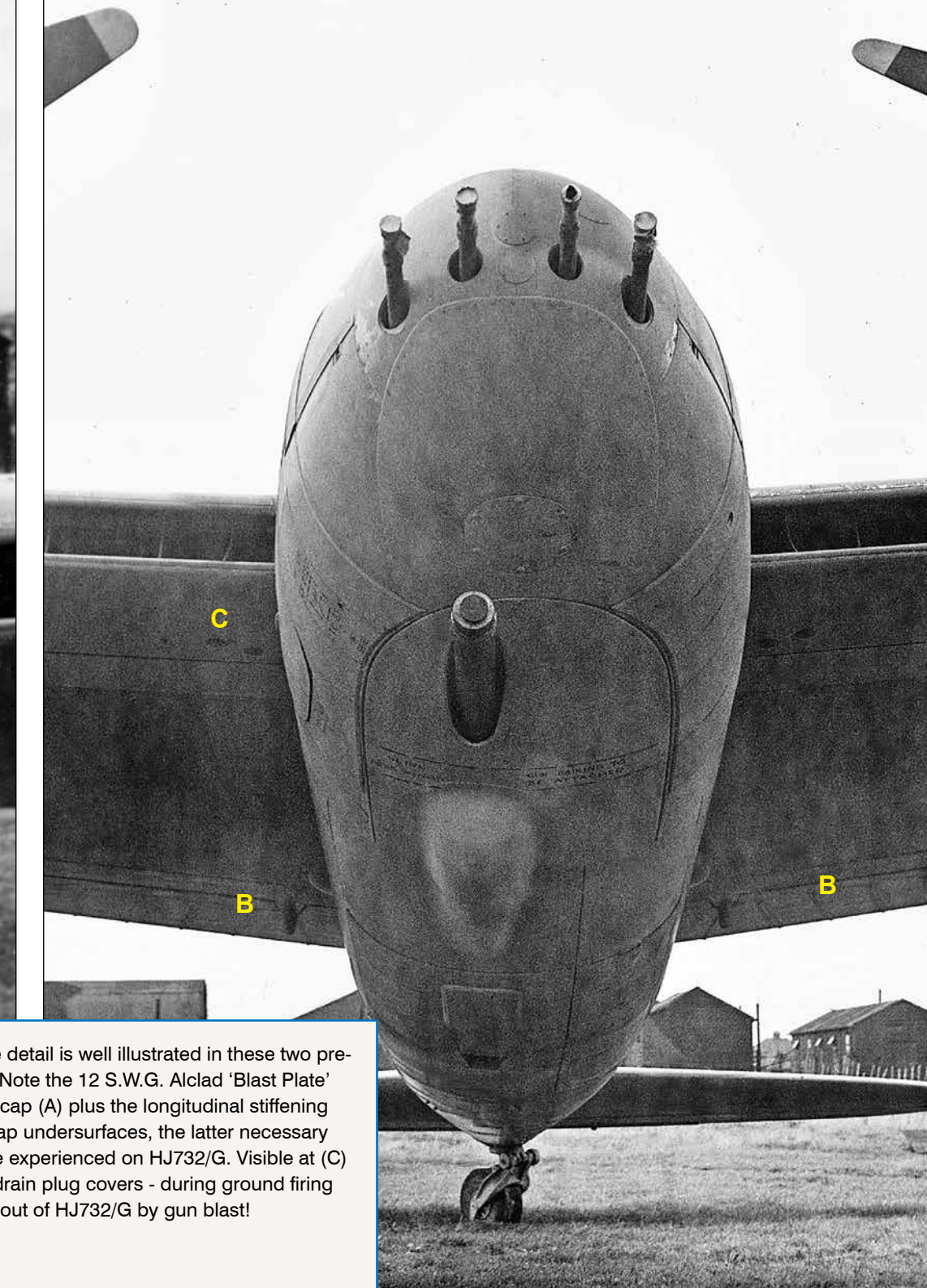


This shot of HJ732/G is believed to have been taken during A&AEE acceptance trials. Aside from the 'M' gun's muzzle and recuperator unit fairing, HJ732/G appears very similar to a standard FB VI but there were notable structural differences to accommodate the 'M' Gun. These included modifications to the mainplane centre section including removal of the two 25 gallon fuel tanks. Additionally, fuselage bulkhead No.2 was partly cut away - to allow the gun barrel to pass through it - and the ventral bay doors completely re-designed. Production FB XVIII's would differ still further, HJ732/G, acting principally as a trials installation aircraft.

During 'M' Gun firing trials, careful observation was made to assess the effect of blast on HJ732/G's primary structure. Movement was noted on the fuselage side panels but, to quote A&AEE: *"Firing was thus continued until the de Havilland representative satisfied himself that the amount of movement was not greater than that for which the fuselage had been designed."*



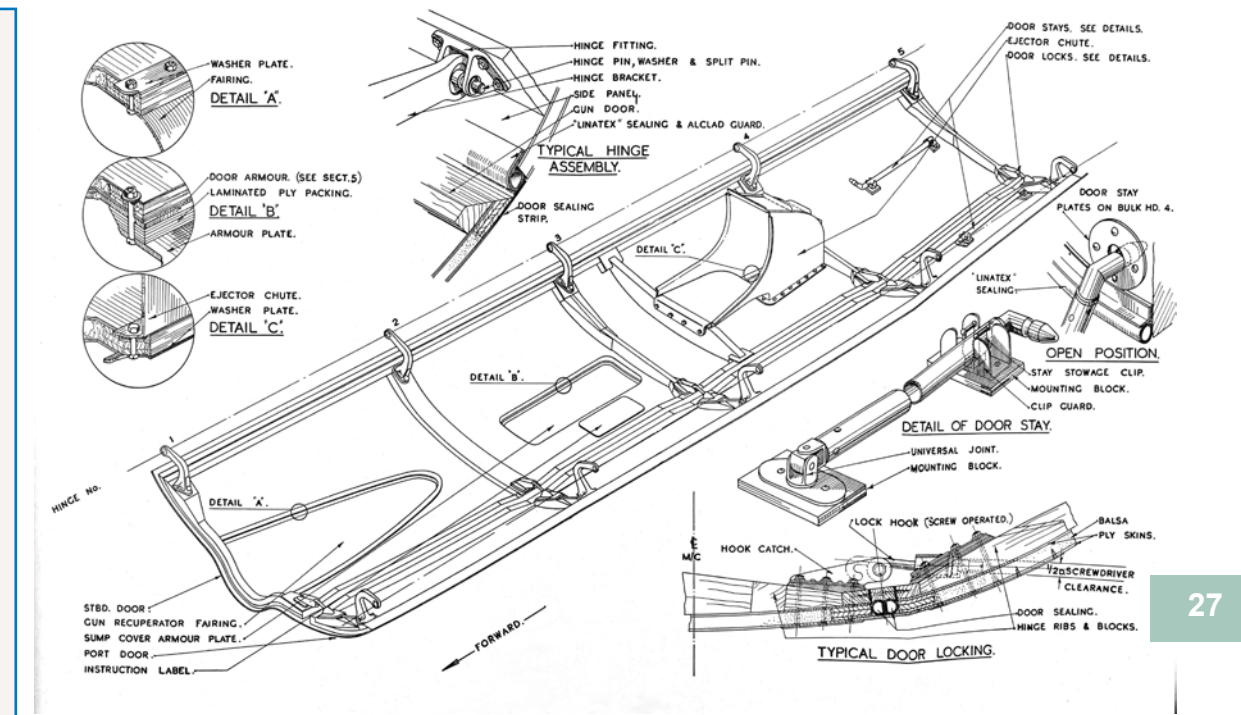
Production FB XVIII nose detail is well illustrated in these two pre-delivery shots of PZ467. Note the 12 S.W.G. Alclad 'Blast Plate' extending over the nose cap (A) plus the longitudinal stiffening ribs (B) on the inboard flap undersurfaces, the latter necessary due to gun blast damage experienced on HJ732/G. Visible at (C) are the coolant radiator drain plug covers - during ground firing trials these were sucked out of HJ732/G by gun blast!

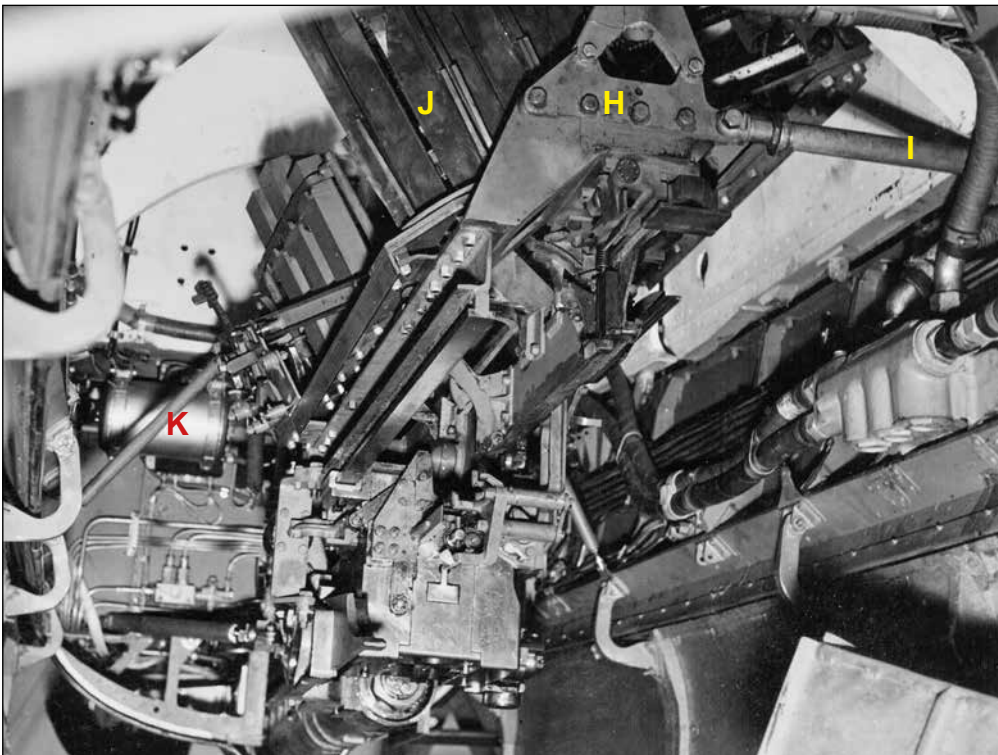


Upper left: HJ732/G's gun bay (looking forward towards fuselage bulkhead two) showing the starboard door with its shell case ejection chute at the rear (A); sump cover plate in the centre (B), plus the aft section of the gun recuperator fairing (C). The shell case ejection chute was modified for the production FB XVIII. Mounted beneath the gun (D) is the hydro-pneumatic recuperator unit (recoil buffer).

Upper right: Extract from 'Air Publication AP 2019E 'The 6 PDR. Class 'M' Gun Installation in the Mosquito FB Mk.XVIII' showing the gun mounted within the ventral bay. The "G" load of the gun was transferred directly to the main spar centre section (E); side loads being taken by two struts, one picking up on the port extremity of the cockpit floor armour plating (F); the other on the rear starboard side of the gun bay, connecting with the wing-to-fuselage 'Joint B' lower mounting bracket (G). The latter also absorbed moment loads caused by the recuperator mechanism being off-set from the main gun mountings.

Lower right: Extract from 'Air Publication AP 2019E 'The 6 PDR. Class 'M' Gun Installation in the Mosquito FB Mk.XVIII' showing layout and features of the gun bay doors.

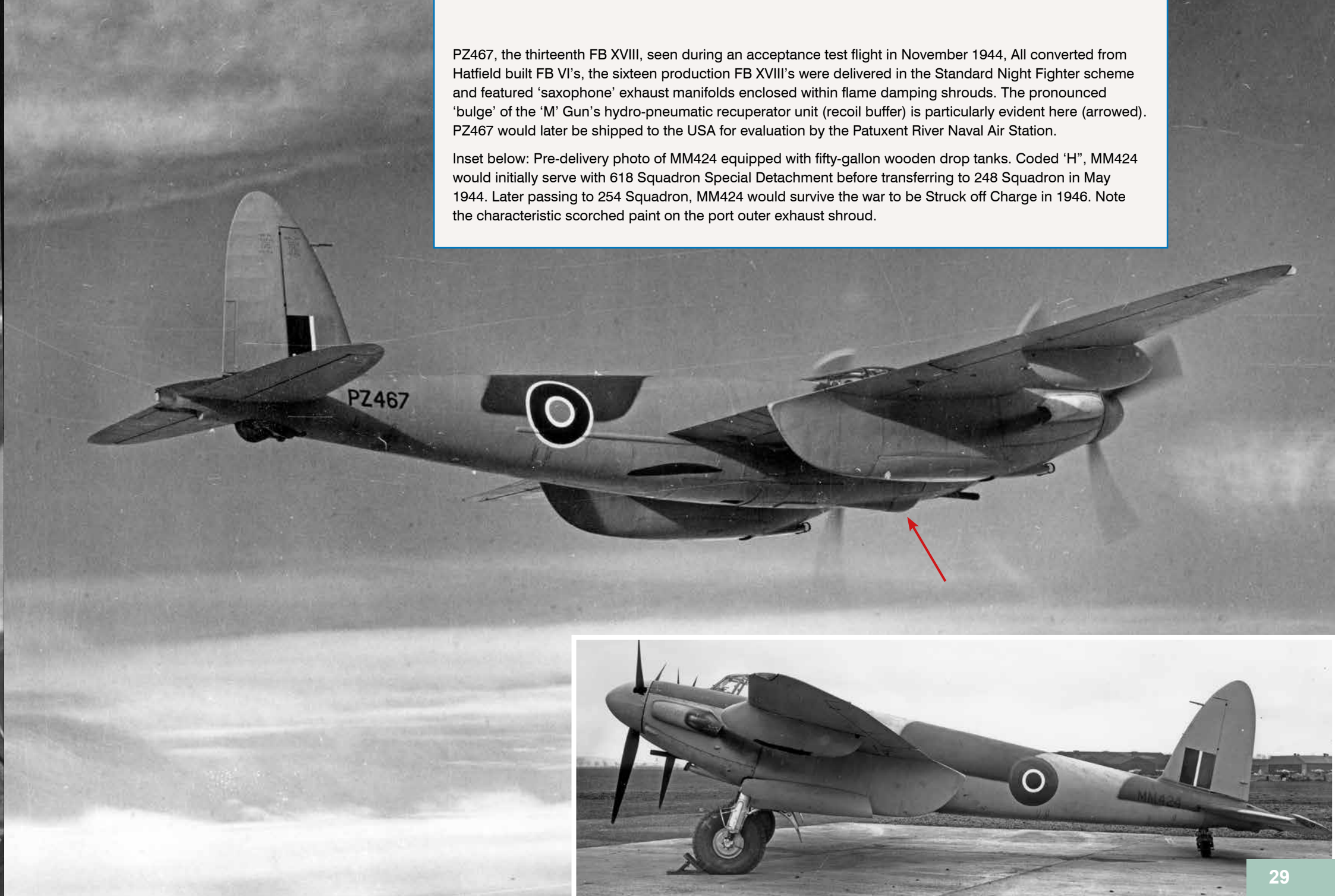
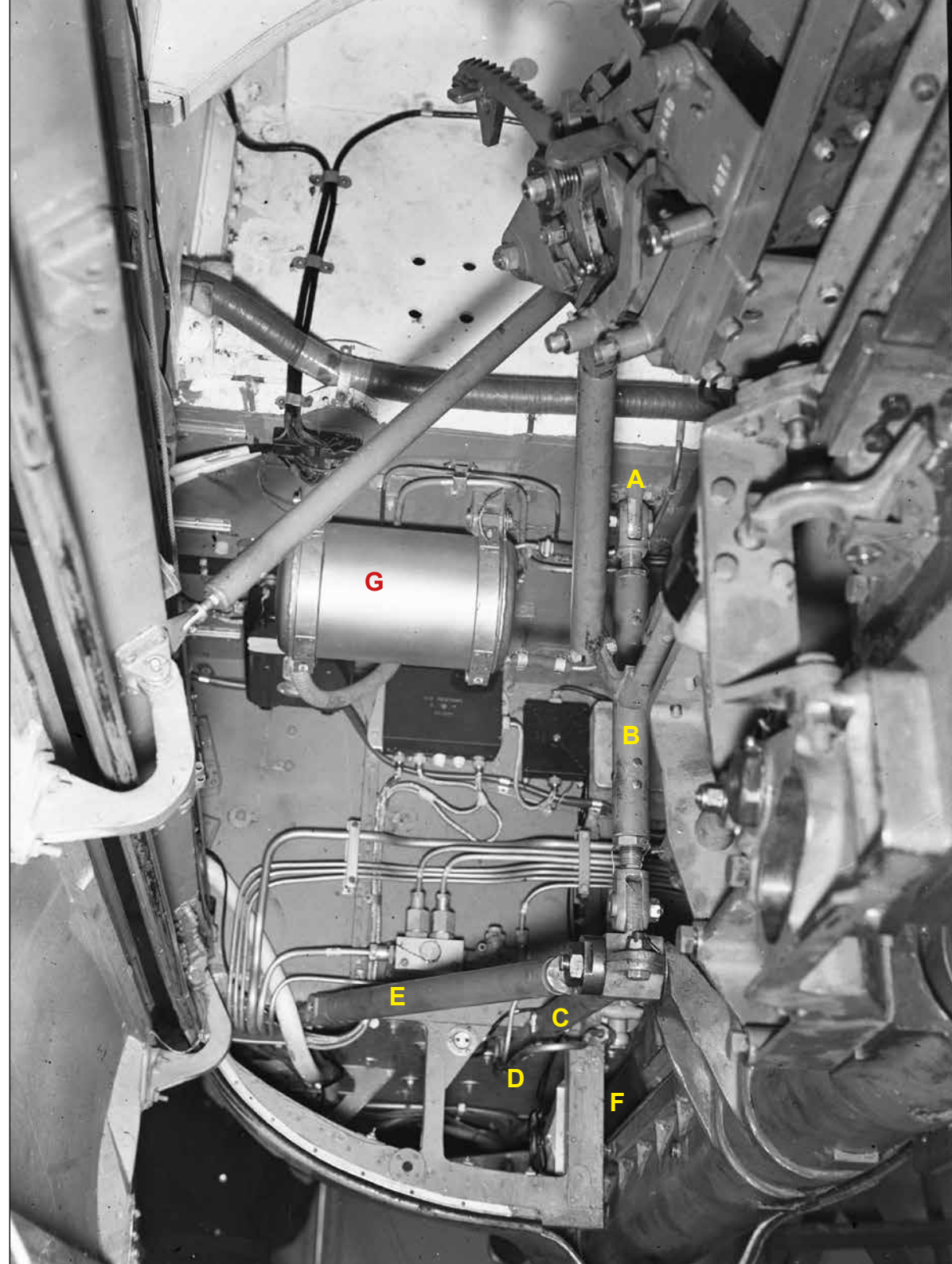




Two more images featuring HJ732/G's gun bay interior:

Right: The axis of the 'M' Gun was 3 (three) 15/16 " (inch) to starboard of the centre line, being installed parallel to the fore and aft line of the aircraft and depressed three and a quarter degrees down from rigging datum. Anchored to the mainplane forward spar lower boom (A) is the gun's port front mounting (B) with two 17 S.W.G. steel struts connected to its lower end. The right hand steady strut (C) attached to the cockpit floor armour plating (D) and - along with a similar strut on the starboard side - took the gun's main recoil and run-out loads. The diagonal strut (E) took side loads and also connected to the cockpit floor armour plating. In order to accommodate the gun barrel, the starboard lower face of fuselage bulkhead two has been removed (F). Also mounted on the front spar is the windscreen de-icing tank (G). A 65 gallon long-range tank was installed at the rear of the gun bay.

Upper left: View from directly behind the 'M' Gun showing its rear mounting (H) and mounting steady (I) plus the ammunition hopper (J). An electrically operated 'charger arm' moved another clip into place as the previous one was expended, allowing the large rounds to be automatically fed into the breech without links. The 'M' Gun used a recoil action to cycle the mechanism, with spent cases being ejected through the starboard ventral bay door chute. Note the gun winch stay tube (K) with its lower end mounted on the fuselage side panel. Ammunition capacity was 24 rounds i.e. 23 in the feed and one in the chamber.



PZ467, the thirteenth FB XVIII, seen during an acceptance test flight in November 1944. All converted from Hatfield built FB VI's, the sixteen production FB XVIII's were delivered in the Standard Night Fighter scheme and featured 'saxophone' exhaust manifolds enclosed within flame damping shrouds. The pronounced 'bulge' of the 'M' Gun's hydro-pneumatic recuperator unit (recoil buffer) is particularly evident here (arrowed). PZ467 would later be shipped to the USA for evaluation by the Patuxent River Naval Air Station.

Inset below: Pre-delivery photo of MM424 equipped with fifty-gallon wooden drop tanks. Coded 'H', MM424 would initially serve with 618 Squadron Special Detachment before transferring to 248 Squadron in May 1944. Later passing to 254 Squadron, MM424 would survive the war to be Struck off Charge in 1946. Note the characteristic scorched paint on the port outer exhaust shroud.

