

# Atlas deutscher und ausländischer Seeflugzeuge.

## THE FRIEDRICHSHAFEN SEAPLANES

### PART 5 - THE FINAL DESIGNS

*Compiled by Paul Leaman*

**T**HE FF41A, A THREE-BAY BIPLANE, came in two versions. A total of nine of the type were built. The first, 678, delivered in August 1916 had a complex triple tail arrangement. Later machines had a large single tail fin and rudder. It was powered by two 150hp Benz Bz.III engines, fitted with streamlined housings between its wings and driving tractor propellers. It carried a crew of three and was intended for long range patrol work and was armed with a single flexibly mounted machine gun in its nose and carried a torpedo.

The FF43 was a neat looking single-seat, single-bay station defence floatplane fighter. It was powered by a single 160hp Mercedes D.III and armed with a pair of machine guns firing through the propeller arc. It failed to find approval and only one of the type was built.

The FF44 was a very clean looking three-bay, conventional two-seat floatplane. It was powered by a single 240hp Maybach Mb.IV engine fitted with reduction gear. With a crew of two and a flexibly mounted machine gun in the rear cockpit, it was

*The photographs below show the remains of what is thought to have been an early variant of the FF41.* *:P. Grosz via the late W. Evans*



intended for maritime patrol work. Only one of the type, in fact, converted from the earlier FF34 and using that machine's components where practical, was built.

The FF48 was intended as a two-seat fighter seaplane. With two-bay wings, it was armed with a single forward firing machine gun for the pilot and a flexibly mounted machine gun in the rear cockpit for the observer. It was powered by a 240hp Maybach Mb.IV engine and, considering its size, was reasonably fast. Three were built but we have no record of any service with the German navy.

The FF49B was the bomber version of the FF49 design. A large three-bay biplane, it was powered by a single 200hp Benz Bz.IV engine. It was unarmed but carried a radio transmitter and its pilot sat in the rear cockpit. Twenty five of the type were built. We have no record of its deployment and service use.

The FF49C was the reconnaissance/patrol version of the FF49 design. It was of similar main appearance and build to the FF49B but some later batches had a revised tail plane/fin layout, designed to improve the observer's field of fire for his flexibly mounted machine gun in its rear cockpit. It does not appear to have been fitted with a forward firing gun for the pilot. A total of 195 of the type were built and it saw extensive use over the North Sea.

The FF53 was a torpedo carrying three bay float plane powered by two 260hp Mercedes C.IVa engines. Three were built.

The FF59C was a development of the FF39/49C reconnaissance/patrol design. FF49C with Marine Number 1822 was modified to form the prototype and a number of tail fin layouts were tried. It was powered by a 200hp Benz Bz.IV engine and carried both transmitting and receiving radio equipment as well as a flexibly mounted machine gun in its rear cockpit for its observer. No bracing cables were fitted to the inner bays allowing the observer to fire forward between the wings without risk. It is thought that twenty of the type were built and delivered from June 1918 onwards.

The FF60 was a giant experimental three winged floatplane and was powered by four 160hp Mercedes D.III engines. Intended for long range marine patrol it was to carry a crew of four and be armed with three or four flexibly mounted machine guns. Only one of the type was built (the 'Atlas' shows 2 ordered) and this was completed in November 1918 just before the Armistice. It is not thought that it ever flew. No further development was made and its eventual fate is unknown.

The FF63 was a single engined two-seat monoplane fighter probably inspired by the Hansa Brandenburg W29 and powered by a 160hp Mercedes D.III engine. Only one was built, possibly numbered 3303, and delivered in June 1918. Its use and fate are not known.

The FF64 was a two-seat single-engined reconnaissance aircraft, with folding wings and designed to be carried aboard a ship. It was powered by a 160hp Mercedes D.III engine and fitted with radio transmitting and receiving equipment. It was armed with a single flexibly mounted machine gun in the rear cockpit. Three of the type were built and delivered in March 1918, but probably never saw service.