



MESSERSCHMITT BF 109



A beautifully restored Bf 109G-10 in the collection of the National Museum of the United States Air Force at Dayton, Ohio.

The Mustang's primary fighter adversary in Europe was the Messerschmitt's Bf 109. Most Luftwaffe aces flew the type and it remained a worthy opponent until the last days of the war.

Germany's main fighter of World War Two, the Messerschmitt Bf 109, was the most-produced fighter aircraft in history, with nearly 34,000 built up to 1945.

The predecessor to the 109 was the Bf 108 Taifun. A fighter using many of the 108's components was built as a private venture because designer Willi Messerschmitt had fallen out with the Nazi Air Ministry after one of his M.20 airliners crashed with officers aboard.

The official designation of the new fighter was Bf 109, for Bayerische

Flugzeugwerke (Bavarian Aircraft Factory) although the Allies usually referred to it as the Me 109 and this usage appears in many contemporary German documents. Later Messerschmitt aircraft such as the Me 262 jet and Me 163 rocket fighter were designated for their designer

Battle of Britain

The first aircraft flew in late May 1935 fitted with a Rolls-Royce Kestrel engine, as the intended Junkers Jumo 210A was not ready. The Bf 109 prototypes broke records and caused a sensation at pre-

SPECIFICATIONS

ARMAMENT: One 30mm MK 108 cannon and two 13mm MG 131 machine guns

ENGINE: One Daimler-Benz DB 605D inverted V rated at 1,850 hp for take-off

MAXIMUM SPEED: 426mph at 24,280ft (686km/h at 7,401m)

RANGE: 373 miles (600km)

CEILING: 41,400ft (12,618m)

RATE OF CLIMB: 19,700ft (6,004m) in 5.8 mins

SPAN: 32ft 0in (9.75m)

LENGTH: 29ft 5in (8.84m)

HEIGHT: 8ft 2.5in (2.44m)

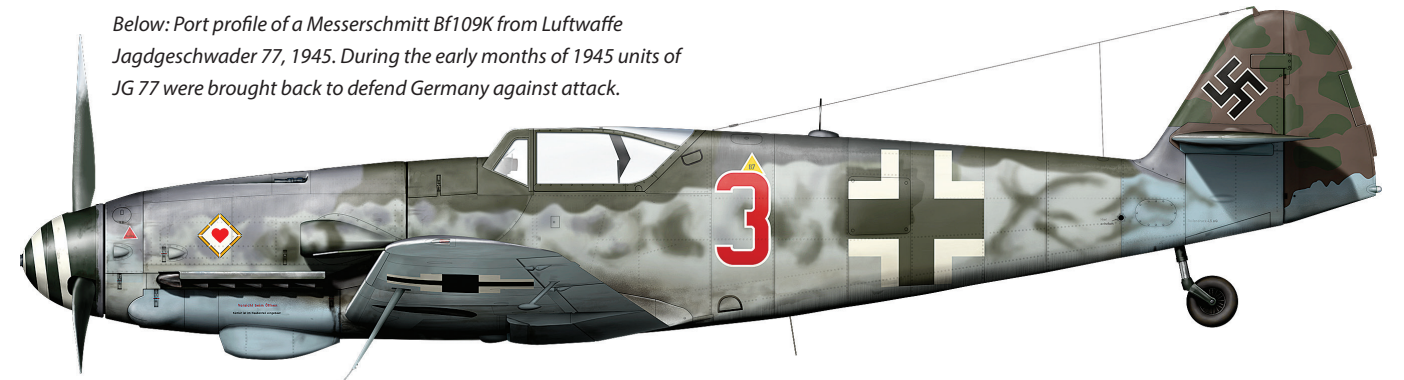
EMPTY WEIGHT: 5,180lb (2,350kg)

LOADED WEIGHT: 7,496lb (3,400kg)

war international air meetings. In 1936 the 109 won a competitive evaluation against the Heinkel He 112 and was ordered into production for the Luftwaffe.

Early models saw combat with Germany's Condor Legion in the Spanish Civil War, proving superior to the

Below: Port profile of a Messerschmitt Bf109K from Luftwaffe Jagdgeschwader 77, 1945. During the early months of 1945 units of JG 77 were brought back to defend Germany against attack.



Russian aircraft flown by the Republican forces. The Bf 109E with a Daimler-Benz DB 601 engine entered service at the end of the conflict and served during the Battle of Britain, proving an equal match to the Spitfire Mk I. The fuel-injected engine allowed it to perform negative-G manoeuvres that the Spitfire and Hurricane with their float carburetors could not follow without their engines cutting out. Machine-guns were fitted in the wings as well as the engine cowl and propeller hub in order to give a similar punch to the eight-gun British fighters.

The Bf 109F appeared in service from early 1941, with a more streamlined nose and armament moved out of the wings. It had two 7.92 mm machine-guns mounted on top of the engine and a 20mm cannon firing through the propeller hub. The wings were given rounded tips. It was similar in performance to the Spitfire Mk V.



Fighter ace

The Bf 109G introduced the Daimler-Benz DB 605A engine and a stronger structure. Armament was increased with the machine-guns increasing to 13mm caliber and the cannon to 30mm. Introduced in 1942, the Bf 109G was faster but less maneuverable than previous versions and became heavier as it developed, becoming less of a match for Allied fighters like the Spitfire Mk IX and P-51D Mustang.

Erich Hartmann, the greatest fighter ace of all time, scored all of his 352 confirmed victories in the Bf 109. The

vast majority were over the Eastern Front against, but in June 1944 he claimed a P-51 over Romania and in 1945 was credited with another over Prague. Most of the Luftwaffe's other top aces flew Bf 109s for most or all of their careers.

The Bf 109 was hard to handle on the ground, particularly on the take-off run, because of its narrow track undercarriage. The increased power of the DB 605 engine made this worse, leading to the introduction of a taller fin and rudder during G production, which gave the pilot more control authority. The final German model was the Bf

109K, which had design modifications to ease production. Many Gs and Ks were equipped with underwing 20mm cannon tubs, which boosted firepower but further adversely affected handling.

Czechoslovakia continued production after the war using Junkers Jumo 211 engines and Bf 109G-6 airframes left behind by the Germans. The resulting Avia S-99 had terrible flight characteristics, but Israel used them in the 1948 War of Independence. Spain also found itself with airframes and first tried Hispano-Suiza engines but settled on the Rolls-Royce Merlin. The resulting Hispano Ha-112 Buchóns flew ground attack missions against rebels in Spain's African colonies and remained in service until the late 1960s.

Left: A Bf 109 goes down to the guns of a USAAF fighter in February 1944.

Below: Later models of the Messerschmitt Bf 109s concentrated their firepower in the nose, with guns firing above and through the centre of the engine.

