PROGRESS IN AIRCRAFT DESIGN SINCE 1903

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
LANGLEY RESEARCH CENTER • HAMPTON, VIRGINIA
NORTH AMERICAN P-51B "MUSTANG"

The “Mustang” was the classic fighter of World War II. Its lines, its performance and its versatility stamped it as a thoroughbred. It has fought in unknown numbers of wars and armed conflicts all over the world. It has carried every available weapon, has flown photo-reconnaissance missions at low and high levels, and has done dive-bombing. After World War II, it was used for racing and even for executive transport. But it almost didn't get off the ground.

The British were responsible for the birth of this remarkable aircraft. In April 1940, they indicated their willingness to buy it off the drawing board if North American would guarantee that the first prototype would fly within 120 days after the signing of the contract. The airplane was ready on time, but the engine wasn't. Nevertheless, the British bought, and the “Mustang I” was off and running.

Four “Mustang Is” were re-engined by the British with the Rolls-Royce “Merlin”, and the result was a winner. The P-51B was the first production version of the “Mustang” to use the engine, and it was built under orders placed in 1942 and 1943.

Royal Air Force squadrons first took the plane into combat; the first American missions were flown with P-51Bs December 1, 1943, on a fighter sweep over France. On December 13, P-51Bs and P-38s flew a fighter escort mission for a B-17 bombing raid on Kiel, a round-trip distance of about 1,000 miles. This first escort task for the “Mustang” emphasized its long range, and — in one way — was the beginning of the end for Germany. From then on, the bomber formations had long-range fighter escorts that could outfight almost anything the Germans ever were to send against them.

The P-51B and its identical twin, the P-51C, served only with Great Britain, the United States, and China, in the European and the China-Burma-India theaters of war. More advanced versions of the “Mustang” were built in much larger quantities and served in the air forces of many countries during and after the war.

Manufacturer: North American Aviation, Inglewood, California.
Powerplant: One Rolls-Royce “Merlin” V1650-3 liquid-cooled engine rated at 1,520 horsepower for takeoff.
Dimensions: Wing span, 37 ft.; overall length, 32 ft. 2.38 in.; wing area, 233 square feet.
Normal gross weight: 9,800 pounds (P-51B).
Armament: Four .50-cal. machine guns and two 500-pound bombs.
Typical performance: Maximum speed, 439 mph.; range, approximately 1,300 miles.
First flight: October 26, 1940 (NA-73 prototype).
Total built: 14,490 of all models were delivered.