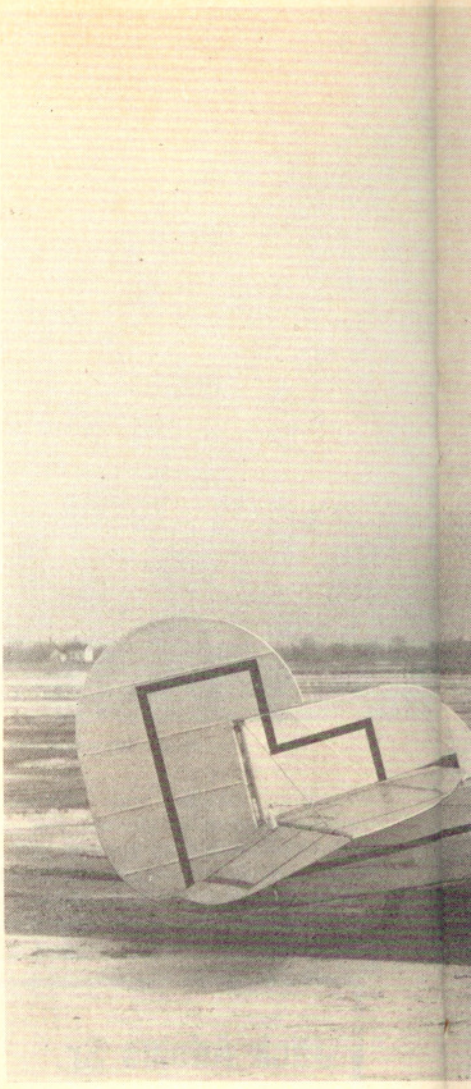
Yesterday's Wings

The Stinson SB-1



by PETER M. BOWERS / AOPA 54408

■■ The long line of Stinson airplanes was a major part of general aviation and some of the airlines from 1926 through 1948. The Stinson name, however, had been famous in aviation since 1914, when the two sisters, Katherine and Marjorie, proved to be the equals of any male exhibition pilot of the time.

Edward A. Stinson—universally known as Eddie—entered aviation in 1915 as a mechanic for his sisters. He was a flight instructor during World War I and subsequently engaged in various phases of flying and promotion. In 1920, in Dayton, Ohio, he formed the Stinson Aeroplane Co., which went out of business after the crash of the only airplane it ever built.

A second Stinson company—formed just after the Ford Air Tour of 1925 started the ball rolling toward a new era of commercial aviation—was originally named the Stinson Airplane Syndicate. It became the Stinson Aircraft Corp. in May 1926, when it was refinanced and a suitable factory was set up in Northville, Mich., a suburb of Detroit.

The original Stinson Detroiter was anything but handsome. Notice that the cabin projects slightly above the upper longeron lines. The generous dihedral on the bottom wing contributed much to the airplane's noted stability. Ford Motor Co. photo.

The first product was a four-place biplane appropriately named the "Detroiter" for the downtown-Detroit loft in which it was built. First flown in January 1926, the prototype looked crude and ugly even by the standards of the day, but it was actually an advanced design.

Cabins for the passengers were just beginning to become accepted features in new American designs, but pilots still felt that they had to have separate, open cockpits from which they could "feel the wind." Eddie Stinson didn't go along with this and committed the aeronautical heresy of putting the pilot in the cabin with the passengers. The cabin was comfortably upholstered and heated, and Stinson took delight in demonstrating the plane in freezing weather while flying comfortably in shirtsleeves.

Two other new features were an electric starter for the air-cooled Wright J-4 radial engine (itself an innovation in a commercial airplane at the time) and mechanical brakes for the wheels. Each of these features had been seen on other designs, but the Detroiter was the first

STINSON SB-1

Specifications and Performance

Span	35 ft 10 in
Length	28 ft 10 in
Wing area	350 sq ft
Powerplant	Wright J-4 Whirlwind, 200 hp, or 220 hp J-5 (1927)
Empty weight	1,700 lb
Gross weight	2,900 lb
High speed	118 mph
Cruise speed	100 mph
Rate of climb	800 fpm
Ceiling	13,500 ft
Range	600 mi
Cost	$11,000

The production SB–1 Detroiter had a redesigned fuselage with cleaner lines and greater depth, but retained the classic gap between the top of the fuselage and the bottom of the upper wing. Ford Motor Co. photo.

to combine them. Later, after a hand-start runaway resulting from a dead battery and a passenger at the controls who did not know how to work the throttle, the Detroiter became the first airplane to use a parking brake.

As a reflection of the basic traditionalism of overall design trends, however, the Detroiter still followed the classic biplane form of having the upper wing a considerable distance above the fuselage. Actually, the distance between the wings was determined by aerodynamic considerations, and the fuselage was made only deep enough to enclose the pilots from the shoulders down. No one seemed to think of raising the top longerons to the upper wing on cabin designs in order to give the paying passengers increased head room.

Construction followed the prevalent standard for new production models: welded-steel-tube fuselage and tail with wood frame wings, all fabric covered.

The finalized production model, introduced in August 1926, featured considerable refinement of line through an entirely new fuselage and vertical tail. The aircraft was designated the "SB-1," for Stinson Biplane, but was marketed under the old name of "Stinson Detroiter." It was a success from the start: a case of exactly the right airplane appearing at the right time. Private owners and small airlines bought 10 in the remaining months of 1926.

When new government regulations covering aircraft airworthiness appeared in January 1927, the SB-1 had no trouble qualifying for Approved Type Certificate No. 24. This was issued in January 1928 and covered both the original 200-hp J-4 engine and the later 220-hp J-5.

Actually, the application for an ATC for the SB-1 was sort of an afterthought —that model had been out of production since mid-1927. Eddie had recognized the obsolescence of the biplane and had introduced and pushed a new model, the SM-1 monoplane. The SM-1, which had received ATC No. 16, was essentially a stretched SB-1 with the lower wing removed and a slightly larger, strut-braced upper wing moved down to the top of the cabin.

The old SB-1 had made its mark, however. One had placed third in the 1926 Ford Air Tour, and others had been the first proper passenger planes on Northwest Airways, now Northwest Airlines. Two were taken to Alaska by the 1927 Detroit News—Hubert Wilkins Arctic Expedition. One crashed there; the other was purchased by Alaskan aviation pioneer Noel Wien and served faithfully on wheels and skis for many years.

A long line of Stinson airplanes followed the original Detroiter, including trimotor airliners, lightplanes, and military STOL types. The firm was absorbed by Vultee Aircraft in 1940 but retained its identity as the Stinson Division. It became part of Consolidated, when Consolidated and Vultee merged, but still built "Stinsons."

After overproducing Stinson Voyagers in the post–World War II years, the Stinson Division was liquidated, and its assets were sold to Piper in December 1948. □