

Lincoln and Lincoln-Page



BY PETER M. BOWERS
AOPA 54408

One of the problems that observers of the general aviation scene have faced over the years is that of distinguishing a particular model from a very similar one made by another manufacturer. No better example can be found than the 1928 Lincoln-Page, which was a dead ringer for the contemporary Swallow 90.

The Lincoln-Page firm had a long and notable career prior to acquiring that name in 1927. It was founded in 1919 as Nebraska Aircraft Corp. based at Lincoln, Neb. It was one of several small companies that sprang up around the country to refurbish war-surplus military aircraft for resale to private users.

Nebraska Aircraft specialized in the Standard J-1, a two-seat trainer that resembled the more famous Curtiss JN-4 Jenny but was a later design (by some two years) and, in the opinion of many, a considerably better airplane. It had one major handicap, however. The original 100-hp

Hall-Scott A-7A engine was so troublesome that the Army left most of the 1601 Standards that were delivered (out of 4301 ordered) in their crates.

Since the Standard had a slightly wider fuselage than the Jenny, it was easy to expand the front cockpit to relatively comfortable side-by-side seating.

Nebraska's major change, however, was to replace the Hall-Scott with another wartime product, the 150-hp Wright Model A. This was the Americanized version of the French Hispano-Suiza, commonly referred to as the Hisso. It was installed behind a new and very neat nose radiator that Nebraska developed to replace the unsightly column-type radiator that Standard had used.

Nebraska's three-seater was marketed as the Lincoln H.S. (for Hispano-Suiza) and was so well accepted that it became known as the Lincoln-Standard to distinguish it from the

Hisso Standards put out by other firms that showed less originality.

In 1922, President Ray Page reorganized the firm as Lincoln Aircraft Corp. Rebuilding Standards was still the main business, but the firm also ran a flying school.

Otto Timm was brought in to do some redesign work on the Standard, and he converted the front cockpit to four seats in a semi-cabin. This five-place model was marketed as the LS-5 for Lincoln-Standard, and the three-seater became the LS-3 (but was seldom called that).

In 1923, Timm was replaced as chief engineer by Swen Swanson, who developed some entirely new commercial designs. But the market simply wasn't ready for these, and the firm went back to refurbishing war surplus. Swanson left in 1925 to join Arrow Aircraft in Havelock, Neb., where he developed a new five-seater that drew heavily on the Lincoln-Standard, five-place concept.

The fame of the Nebraska Aircraft and Lincoln Aircraft companies, predecessors of Lincoln-Page, was built on the Lincoln-Standard airplane, a modification of the Standard J-1 trainer. This Lincoln-Standard was still flying in the mid 1930's.

By late 1926, Page realized that new production was finally taking over the market and that there was no longer a future in surplus, particularly in view of the new Civil Air Regulations and the associated airworthiness requirements. He dumped the remaining LS stock at bargain prices and reorganized the company again in 1927. He brought in Victor Roos, former general manager and secretary-treasurer of the famous Swallow Aircraft Corp. of Wichita, who then became president of the new Lincoln-Page Aircraft Corp., with Page as vice president.

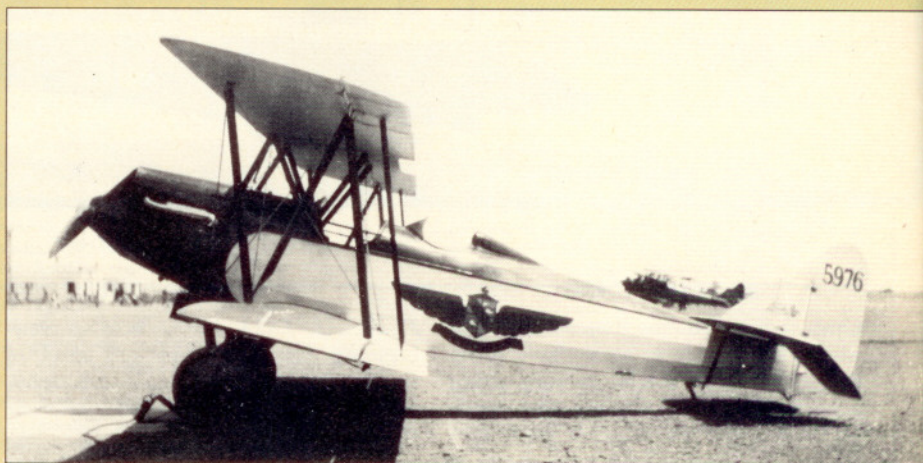
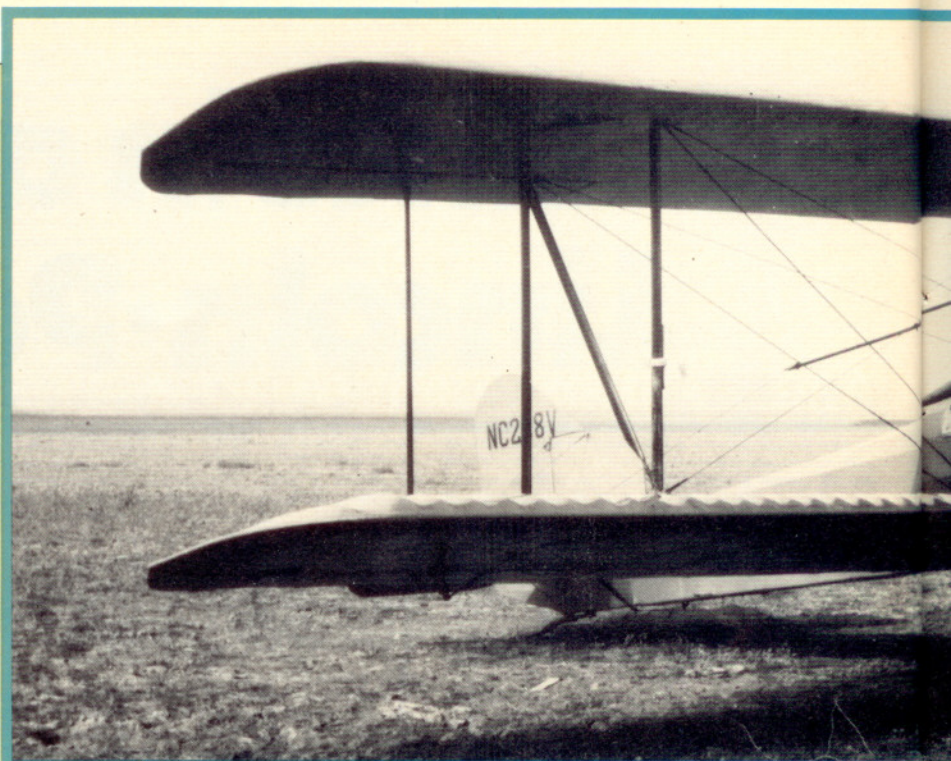
The new firm had no established engineering team capable of producing an up-to-date design, but it didn't need one. Roos brought with him the details of the current Swallow model.

In the early 1920's, Swallow had been one of the pioneers in pushing new design, rather than old concepts based on World War I thinking but was retrograde in one serious respect—the management insisted on retaining wood-and-wire construction for the fuselage. More progressive designers like Walter Beech and Lloyd Stearman left Swallow because of this policy and formed the competing Travel Air Mfg. Co., Inc., in 1924. Swallow continued to build wood fuselages until 1926, when the boss finally let Waverly Stearman, Lloyd's brother, design a new model with welded steel tube fuselage and tail.

This was originally marketed as the Super Swallow because of its big advance over the 1926 model, but it soon became the Swallow 90, named for the original version with the 90-hp war-surplus Curtiss OX-5 engine, and the Swallow 220, named for the same airframe with the new 220-hp Wright J-5 "Whirlwind" air-cooled radial engine.

Swallow got into serious financial difficulties in 1927 and some key personnel, including Roos, left. The company survived, however, and regained a good share of the market with derivatives of the Super Swallow.

Meanwhile, in Nebraska, Lincoln-Page quickly went into production on its newly-acquired design, which it marketed as the LP-3 (for Lincoln-Page three-seater). To show how up-to-date this was at the time, the Super Swallow received its Approved Type Certificate (ATC), No. 21, in December, 1927. The LP-3 received ATC-28 in March, 1928. The two planes were so similar that the major dimensional difference between them



The initial product of the Lincoln-Page Aircraft Corporation, the three-seat LP-3, was almost an exact duplicate of the 1927 Super Swallow, which also used the Curtiss OX-5.



The final Lincoln-Page product was the Page Trainer, a two-seat trainer derived from the LP-3. The PT-K model, shown here was identical to the PT-W model except for the engine.



In 1929 the LP-3 was updated by rearranging the center struts and enlarging the vertical fin. The LP-3 here retained the OX-5 engine, but the LP-3A's used a Wright-Hispano.

	LP-3	PT-K
	Specifications	
Powerplant	Curtiss OX-5	Kinner K-5
	90 hp @ 1400 rpm	100 hp @ 1810 rpm
Span	32 ft 8 in	32 ft 3 in
Length	23 ft 2 in	25 ft 7 in
Wing Area	298 sq ft	297 sq ft
Empty Weight	1350 lbs	1176 lbs
Gross Weight	2200 lbs	1767 lbs
	Performance	
High Speed	100 mph	104 mph
Cruising Speed	85 mph	85 mph
Landing Speed	40 mph	35 mph
Initial Climb	500 ft/min	800 ft/min
Ceiling	12,000 ft	13,500 ft
Range	400 mi (40 gals)	330 mi (28.5 gals)
Price	\$2500	\$4175 reduced to \$3865 in 1930



was only about two square feet in the wing area.

Construction was thoroughly conventional for the time, with the previously mentioned steel tube fuselage and tail, wood-frame wings with solid spruce spars and stitch-and-plywood ribs, divided-axle landing gear with rubber-cord springing, and a steel-tube tail skid that was later replaced by a leaf spring. In common with all other low-priced models on the market, the engine was the Curtiss OX-5 under a tightly-fitted contour cowl as pioneered by Swallow in 1923 and quickly adopted by such firms as Travel Air and Waco.

There was a powerplant option, however. The LP-3A was available with a 150-hp Hisso and was licensed under Memo Approval 2-66 on May 13, 1929. This was amended in September of that year to permit the use of the 180-hp Hisso E. For customers who already had an engine, the LP-3 was available for \$2250 less engine and propeller. Unused OX-5's were selling for \$250 at the time.

Both Swallow and Lincoln-Page then went on to develop lighter two-seat trainer models from their common prototype. Lincoln came out with the PT model (for Page Trainer) and updated the basic LP-3 to use some PT features. The PT started out with the ubiquitous OX-5 but was quickly adapted to new air-cooled radial engines that were just coming on the market. The PT-K with 100-hp Kinner K-5 received ATC-279 on Dec. 4, 1929, and the PT-W with 110-hp Warner got ATC-284 on December 31. These were produced concurrently with the updated LP-3's that were still powered with the OX-5.

The dates of PT certification foretell the rest of the story. While they were good airplanes for their purpose, the PT's did not sell well, nor did the equivalent Swallow models or any of their competitors: the depression had nearly wiped out the market for that type of airplane. In May 1931, Lincoln-Page merged with the old American Eagle firm to become American Eagle-Lincoln in the American Eagle plant at Fairfax Airport, Kansas City, and the Lincoln, Neb., plant was closed. Victor Roos was president and treasurer of the new company. The advertised products were the newly-designed American Eagle Eaglet ultra-light monoplane and the Lincoln PT. The Eaglet was the principal product. One last PT is reported to have been assembled as late as 1936.