

Two Monocoaches



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Some airplane manufacturers sell their products under their design model numbers while others prefer to use a catchy name for a particular model. A good example of the latter is the Monocoach, which the builder liked so well that he used it twice.

The original Monocoach appeared in 1929, built by the Mono Aircraft Corporation of Moline, Ill. At the time, the company was virtually a one-model firm, turning out the very popular side-by-side, two-seat monocoque sportplane. Since the new design was to be a four-seater, it was entirely logical to relate its larger size to the two-seat Monocoupe by calling it the Monocoach. There also was an open-cockpit trainer version called

the Monoprep, but it was virtually unknown compared to the Monocoupe. The company also built a high-powered Monocoupe variant called the Monosport, but this name was soon dropped in favor of calling it a Monocoupe and adding a number to indicate the horsepower.

(While these designs had nothing to do with the Monocoach directly, they do point up the company's interest in using "Mono" in its airplane designations. Actually, the company took its name from the product. The Monocoupe airplane had been introduced late in 1926, when the company was called Central States Aero Company, Inc., located in Davenport, Iowa. The name change coincided

with reorganization and the late 1928 move to Moline.)

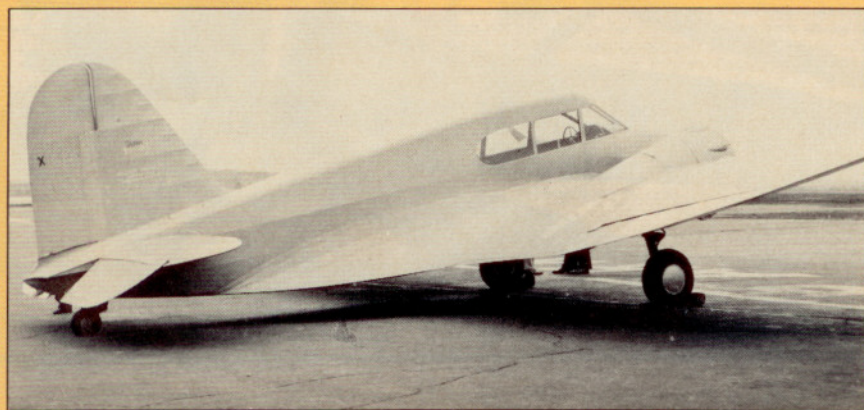
As an airplane, the Monocoach was thoroughly conventional for the time, a high-wing cabin monoplane with wood-frame wings, strut bracing, welded steel tube fuselage and tail, and high-pressure 30 x 5 wheels. The overall configuration made it hard to distinguish at a distance from such designs as the Ryan "Brougham," Travel Air 6000, Flamingo G-1, Curtiss "Robin," Verville "Aircoach," and sundry Stinson "Detroiters" that were flooding the market in the boom year of 1929.

The original Monocoach powerplant was the 185 hp Velie L-9. Velie was an automotive firm that

This is the last Monocoach 201 built. The 220 hp Wright J-5 "Whirlwind" R-790 engine shown was replaced by a J-6-9 R-760 and was delivered as a Monocoach 275. Counting two prototypes and production models, 20 Monocoaches were built in 1929-30.

had no aeronautical background but had taken on the manufacture of a little 50-60 hp five-cylinder radial engine designed by Glenn Angle that became known as the Velie M-5. This engine achieved a degree of fame as the powerplant of the popular Monocoupe. Its success encouraged Velie to go on to bigger things, notably the L-9 (for nine cylinders). But the design was not a success and did not go into production. Velie then got out of the aircraft engine business and sold the rights to the Lambert Engine & Machine Co. of Moline. The old M-5 then became the Lambert R-226 and finally the R-266 with 90 hp.

Mono Aircraft then adopted the popular and very dependable 220 hp Wright J-5 "Whirlwind" radial for the Monocoach. The first production airplane did not meet the full requirements for an Approved Type Certificate (ATC); so it and the next five units were delivered under



Second use of the Monocoach name was for the Mooney-designed twin of 1937, also called Monocoach H. Note the large, single vertical tail on its short fuselage.

Memo Approval 2-109, which was issued on Aug. 16, 1929. Another Monocoach with essential improvements received ATC A-201 on the same day; it and the following six units were marketed as the Monocoach 201.

Thirteen production Monocoaches had been built when Wright discontinued the J-5 in favor of the J-6, which was a modular engine available in three versions: the five-cylinder J-6-5 with 165 hp, the seven-cylinder J-6-7 with 225 hp and the J-6-9 with nine cylinders and 300 hp. Mono Aircraft chose the J-6-7. Because of the engine change, the company had to run the airplane through another certification program. ATC A-275 was awarded to the Monocoach 275 on Nov. 13, 1929. By now it should be evident to you that Mono

Aircraft was using the ATC number as the marketing model number for the 1929 Monocoach. Certification of the 275 came just in time for it to be slapped down by the Great Depression. Only seven 275's were delivered, but at least two of those were re-engined 201's that appear in the production figures for both models.

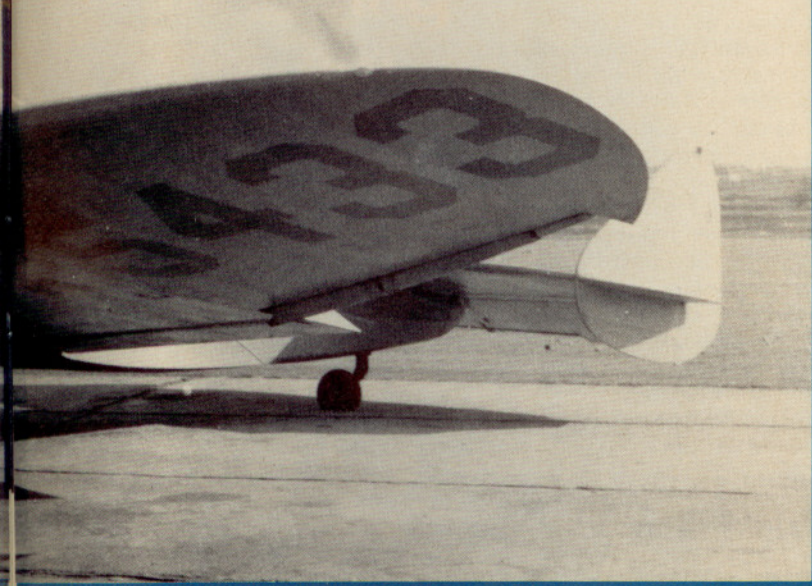
Mono Aircraft managed to hang on for a while by selling Monocoupes, but finally went bankrupt in 1931. The assets were sold to a new firm, The Luscombe Company, which had been formed in St. Louis by former Mono Aircraft President and Chief Engineer Don Luscombe. This firm continued to manufacture and sell the Monocoupe under the firm name of The Monocoupe Corporation. Luscombe left in 1934 to form the Luscombe Airplane Com-

pany, and another firm, Lambert Aircraft Corporation, was formed at Robertson, Mo., a St. Louis suburb, to take over and continue the Monocoupe line. The fact that Lambert also took over manufacture of the Lambert engine (that plant remained in Moline) is a coincidence of names. The new firm honored the famous St. Louis family and Lambert Field, not the established engine builder.

New engineering talent was brought into the Monocoupe Division at this time, and the easing of the depression encouraged the development of new models. Al Mooney, the new vice president and chief engineer, who had started with Alexander and his Eaglerocks in 1925, designed an entirely new enclosed, low-wing Monosport and an open-cockpit equivalent called the Monoprep. (There was no relation between these designs and the out-of-production 1929 models built by the Mono Aircraft Corporation.) These unusual designs were very close-coupled and featured wings of unusually low-aspect ratio. Mooney followed those designs with a really daring innovation, a new Twin Monocoach. (By this time, the name Lambert was being dropped from advertising and the Airplane Division was again referred to as The Monocoupe Corporation.)

Also called the Monocoach H, Mooney's design was the first of the small twins and borrowed heavily from the design concepts of the new Monosport and Monoprep. It had a four-place cabin, dual wheel controls, split trailing edge flaps and retract-

The Twin Monocoach was underpowered with its original 90 hp Lambert radial engines so it was repowered with 150 hp inverted in-line Menascos. Single-engine controllability was improved by a change to twin rudders. Note the wing's low aspect-ratio.



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	MONOCOACH 201-1929	TWIN MONOCOACH-1937
Powerplant	Wright J-5 "Whirlwind" 220 hp @ 1800 rpm	2-Lambert R-266 90 hp @ 2375 rpm
Span	39 ft	36 ft
Length	28 ft 6 in	24 ft
Height	8 ft 7 in	7 ft 10 in
Wing area	230 sq ft	231.2 sq ft
Wing loading	13.4 lbs/sq ft	13.9 lbs/sq ft
Power loading	14.1 lbs/hp	35.8 lbs/hp
Empty weight	1919 lbs	1882 lbs
Gross weight	3092 lbs	3220 lbs
Span	39 ft	36 ft
Performance		
High speed	128 mph	152 mph
Cruising speed	110 mph	139 mph @ 5000 ft
Landing speed	50 mph (no flaps)	45 mph (with flaps)
Initial climb	900 fpm	600 fpm
Ceiling	18,000 ft	15,300 ft
Range	550 mi (63 gal)	915 mi (70 gal)
Price	\$7950	—

able landing gear and was powered by a pair of 90 hp Lambert R-266's. The initially published performance figures were phenomenal for that much airplane with only 180 total horsepower. They were not exceeded significantly by another light twin until the Piper PA-23 "Apache," which was only 300 lbs. heavier but was powered with 150 hp engines, and it came along in 1954. This is the first time that this writer has ever felt it necessary to caution the readers about possible exaggeration of the

manufacturer's published figures.

The Twin Monocoach had its troubles and was never certificated. A need for more power was met by replacing the Lamberts with 150 hp in-line Menasco engines. Directional control with one engine out was improved by adopting a twin rudder arrangement.

Following the initial failure of the Twin Monocoach, Al Mooney purchased the design rights to the enclosed, low-wing Monosport and left Monocoupe Corporation to manufac-

ture his design in Columbus, Ohio, as the Dart (later Culver Dart).

Lambert's Monocoupe Division retained the rights to the Twin Monocoach but changed the name of the 300 hp model to "Zephyr" and the 180 hp version to "Zenith." There is no indication that either model ever was built or sold. The company reorganized in 1940, moved to Orlando, Fla., and again became a one-model (Monocoupe) manufacturer before being taken over by Universal Moulded Products in 1941. □

This Monocoach 275 is the sole survivor of the original 20, restored by a dedicated antiquer. Note the accurate reproduction of the company logo and old-style civil registration. It changed from U.S. to Canadian registry after this photo was taken.

