



1.



2.



3.



4.

### SPECIFICATIONS

	Long Wing	Combination Wing	A-1	A-2
Span (Upper)	36 ft.	36 ft.	36 ft. 8 in.	36 ft. 8 in.
(Lower)	38 ft.	32 ft.	32 ft. 8 in.	32 ft. 8 in.
Length	24 ft. 11 in.	24 ft. 11 in.	23 ft. 11 in.	24 ft. 11 in.
Area	360 sq. ft.	330 sq. ft.	336 sq. ft.	336 sq. ft.
Powerplant	Curtiss OX-5	Curtiss OX-5	Wright J-5	Curtiss OX-5
Fuel	37 gal.	37 gal.	46 gal.	46 gal.
Empty Weight	1,470 lbs.	1,420 lbs.	1,705 lbs.	1,459 lbs.
Gross Weight	2,230 lbs.	2,180 lbs.	2,491 lbs.	2,245 lbs.
High Speed	92 m.p.h.	100 m.p.h.	126 m.p.h.	99 m.p.h.
Cruise Speed	80 m.p.h.	85 m.p.h.	108 m.p.h.	85 m.p.h.
Landing Speed	35 m.p.h.	38 m.p.h.	39 m.p.h.	34 m.p.h.
Climb	485 ft./min.	514 ft./min.	1,080 ft./min.	514 ft./min.
Ceiling	11,500 ft.	10,200 ft.	17,900 ft.	10,200 ft.
Range	380 mi.	395 mi.	496 mi.	450 mi.



5.

■ ■ The Alexander *Eaglerock* was one of the principal general aviation models of the middle and late 1920's, standing in the top five with the *Waco*, *Travel Air*, the *American Eagle*, and the *Swallow*. However, it has since managed to pull one of aviation's greatest disappearing acts. Few examples are in the hands of today's dedicated antiquers, and the name "Eaglerock" seldom appears in the writings that recall the good old days. All of this is surprising because the various *Eaglerocks* were good airplanes and had characteristics that made them superior to some of the others in certain operations.

The *Eaglerocks* were produced by what would seem an improbable organization in an even more improbable location. The Alexander Aircraft Company was a subsidiary of the Alexander Film Company (later Alexander Industries) of Denver, Colo. At the time, Alexander was a producer of training films for industrial and school use and had been making good use of a company airplane. With the U.S. general aviation industry reviving after several years of suffocation by cheap World War I surplus airplanes, consideration was given to the development and manufacture of an up-to-date design suitable

for private owner, business, and school use.

Following this decision to expand into an entirely new field, the Alexander Aircraft Company was formed and a factory built in Englewood, Colo., a suburb of Denver. The elevation of the factory field was nearly 6,000 feet, just about equal to the ceiling of some of the war-surplus crates then flying. Since the parent company had no previous aircraft design or production experience, recognized experts were brought in to staff the new company.

Appearing in 1925, the first Alexander design was called *Eaglerock*, a name very appropriate to the region where it was built. It was a fine airplane, but was not put into production because it was too advanced for the existing market. A two-seater powered with the war-surplus Curtiss OX-5 90 h.p. engine, it featured folding wings for convenient ground transportation and storage, and even had provision for driving down the road by means of a power takeoff to an oversize tailwheel. Since the public wasn't ready for such gimmicks, a more conventional model was introduced early in 1926.

This, too, was called *Eaglerock*. With wooden wings, the OX-5 engine, welded

steel tube fuselage and tail, and seating for three, the new *Eaglerock* was as similar to its contemporaries as, for example, the Piper *Cherokee* and the Beech *Musketeer* resemble each other today. Its one distinguishing feature was the wing arrangement. Where all of the contemporary biplanes had wings of equal span or the upper slightly longer than the lower, the *Eaglerock* had longer span on the lower wing.

While there may have been some aerodynamic justification for this, such as the increased area down low adding to the ground cushion during takeoff and landing, it seemed to be a production economy in that the increased span of the lower wing just matched the fuselage width. The upper and lower panels were therefore the same size and needed only a rearrangement of the fittings to be interchangeable.

There was no center section. The upper wing panels were joined at the top of a set of cabane struts and the outer, or interplane, struts sloped inward from the bottom instead of being vertical or sloping outward as was common practice.

This long lower-wing model remained in production into 1928, but its demise was preceded by a variant with a new



1. The long-wing Eaglerock was one of the few OX-5-powered biplanes capable of operating on floats. The absence of letters N or NC from the registration number on the rudder means this particular plane was only registered, not licensed. Manufacturer's Photo

2. The combination-wing Eaglerock was identical to the long-wing except for the size of the lower wing panels. The later A-2, powered with the same OX-5 engine, used the same fuselage and tail as the others but incorporated a center-section wing. Photo Gordon S. Williams

3. First of the A-series Eaglerocks was the A-1, fitted with the 220 h.p. Wright J-5 Whirlwind radial engine. Heavier engine resulted in a shorter nose, but the major change in appearance came from the redesigned wings and center section. Photo Robert Esposito

4. Hisso-powered A-3 and A-4 models were much cleaner looking than the OX-5 powered A-2, having a nose radiator in place of the belly radiator as used on the older long-wing and combination-wing models. Photo A.U. Schmidt Collection

5. Because of its light weight, the 100 h.p. Kinner K-5 engine of the A-15 Eaglerock had to be installed farther ahead of the firewall in order to maintain proper balance. Note the wire wheels without brakes, still a common feature of the late 1920's. Photo Gordon S. Williams

wing form. This used the same upper wing panels, including the inward-sloping struts and the cabane at the fuselage, but reduced the span of the lower wing from 38 to 32 feet, or, four feet less than the 36-foot upper.

With no Alexander model numbers in effect at the time, some distinction had to be made between the two versions of the same airplane. The original, with the 38-foot lower wing, became the "Long Wing Eaglerock" while the new one, with two different wing panel sizes, became the "Combination Wing Eaglerock." While these weren't used in the advertising as model designations, they actually appear in Federal registration records of the time.

While both of these Eaglerocks were advertised as being available with other engines, and had been designed with removable engine mounts for this specific purpose, only those powered with the OX-5 received Approved Type Certificates (ATC's): ATC-8 for the long-wing and ATC-7 for the combination-wing, both issued on April 27, 1927. No distinction was made at this time between Eaglerocks with different engines. When there was a difference, it was resolved by merely naming the engine.

This didn't mean that Alexander was backward in the designation department; other manufacturers did the same thing at the time.

Similarly, there was no distinction in the designation of later production models that incorporated such state-of-the-art refinements as divided-axle, or "tripod" landing gear in place of the original cross-axle type.

Early in 1928 another wing change was made. At first, this new version was referred to as the "Center Section Eaglerock," but it had an actual model number that varied with the power plant. The new wings resulted in a major change in appearance—there was now a conventional center section with outward-sloping center section struts; the upper wing still had almost the same overall span, 36 ft. 8 in.; the lower wing was shorter, with 32 ft. 8 in.; and the interplane struts sloped outward from the bottom instead of inward.

The new model carried the designation "Model A," with a dash number to identify the optional powerplant. In those days a mere change of engine resulted in a new ATC even though it was still the same airplane aft of the firewall. The known Eaglerock A variants are described below:

A-1—Power plant, 220 h.p. Wright J-5 air-cooled radial. This model was initially fitted with a large spinner and fairing between the cylinders in the manner of Lindbergh's Ryan "Spirit of St. Louis," but such refinements were soon deleted. ATC-57 issued August 1928. Price was \$2,250, less engine and propeller, or \$6,500 complete.

A-2—The widely-used OX-5 model with belly radiator, similar to long-wing and combination-wing models. ATC-58 issued August 1928. Same \$2,250, less engine and prop, but only \$2,475 with, to reflect the prevailing low price of the WW-1 surplus engine.

A-3 and A-4—Similar airframes powered with either the 150 or 180 h.p. "Hisso" engine. These were Americanized versions of the wartime French Hispano-Suiza manufactured by Wright-Martin and later known as the Wright "A" and "E". Major difference from the A-2 was the use of a nose radiator. Both models received ATC-58 in August 1928. The A-3 sold complete for \$3,250.

A-5—This used another war-surplus engine, the rare 260 h.p. Menasco-Salmson, an American conversion of the

water-cooled French Salmson radial to air cooling. No ATC was issued for this model, the few examples flying unlicensed—only registered, as was permissible in those days.

A-7—This used an imported engine, the 125 h.p. German Siemens air-cooled radial that was marketed in the U.S. by Ryan as the Ryan-Siemens. A somewhat lower type certificate, known as Category 2, was issued to the only A-7 built. This was 2-1, issued on Jan. 1, 1929.

A-11—This one tried the new American Warner "Scarab" air-cooled radial of 110 h.p. without too much success. Although rated at higher power, the Warner, with only 422 cubic inches, didn't have the thrust of the old OX-5 with its 502 cubic inches. No record of either ATC or Category-2 approval.

A-12—Another new American radial, the 130 h.p. "Comet." This was also tried in most of the Eaglerock's contemporaries but saw very little use. The A-12 received ATC-139 in May, 1929, and sold for \$5,847.

A-13—This used the unique Curtiss "Challenger," a six-cylinder, two-row radial of 170 h.p. ATC-141 issued in May 1929, price \$6,096.

A-14—This used the new 165 h.p. Wright J-6-5 (basic Wright J-6 model with five cylinders; there were also J-6-7's and J-6-9's). In spite of the wide use of the J-6-5 in contemporaries, the A-14 was licensed in Category-2, certificate 2-103 being issued July 31, 1929.

A-15—This was hard to distinguish from the A-14 at a distance because its 100 h.p. Kinner K-5 was also a five-cylinder radial. ATC-190 issued July 1929. Original price was \$4,157, lowered to \$3,907.

Various other engines were tried in the Eaglerocks, and one, the Axelson (formerly Floco), was supposed to be in a mass production version. However, neither the ATC, nor category-2 lists, nor contemporary literature, tie specific engines to the numbers missing from the above listing.

With the introduction of the "A" series, Alexander expanded greatly and built a new factory at Colorado Springs. By the end of 1928, the organization had expanded to 39 distributors, 106 dealers, and a busy flying school, making it the largest aircraft sales organization in the United States. However, this boom was to be short-lived. The end of the "big biplane" era was clearly in sight when the world-wide depression started at the end of 1929. Alexander tried to follow the new trend by bringing out an ultra-light two-seat monoplane, the "Flyabout," but the depression killed the market for that, and the company shut down in 1931. However, some of the former employees got together to form a new organization, Aircraft Mechanics, Inc., to re-open the plant and continue production.

Since this organization acquired all rights to the Alexander designs, they now appear in FAA ATC listings and other paperwork as Aircraft Mechanics rather than Alexander, another reason for the disappearance of the Alexander name from the aviation scene. □

## Yesterday's Wings

# The Alexander Eaglerocks

Once among the top five general aviation models, the Colorado-built aircraft does a disappearing act and few of the planes are to be found today

by PETER M. BOWERS / AOPA 54408