

A.T.C. #163  
(6-29)  
BUHL "SPORT AIRSEDAN", CA-3D



Fig. 205. The Buhl "Sport Airsedan" CA-3D with a 300 h.p. Wright J6 engine.

The dashing Buhl "Sport Airsedan" was a 3 place enclosed sesqui-plane of high performance that was primarily leveled at the sportsman-pilot or the business man in a hurry; a discriminate owner who would want to own and enjoy a swift and manuverable airplane, but would much rather have it with the enclosed quiet and comfort of a cabin, and not have to be decked out in helmet and goggles. The brawny "Sport Airsedan" had nearly all the speed and verve of the high-powered open cockpit biplane, but with the added attraction of a roomy and comfortable cabin for three, and a payload high enough to allow ample baggage for all aboard. More or less a custom built sport model, the model CA-3D as powered with the 9 cylinder Wright J6 engine of 300 h.p., had many added custom features and was built to the individual tastes and dictates of the customer. The "Sport Airsedan" was predictable and flew well with a light touch, and with the power reserve of the Wright J6-9 engine, was an airplane of exceptional performance that was able to comply eagerly to the whims and fancies of any pilot.

Loren Mendell, pilot of the record-breaking "Angeleno", now had a model CA-3D "Sport Airsedan" that he called the "Angeleno Jr."; brimming with competitive spirit, he had flown this craft in the Oakland, Calif. to Cleveland, Ohio Air Derby that was run off in connection with the National Air Races for 1929 held in Cleveland. Pressed very hard by his competition, Mendell came in first as he flashed across the line some 3 minutes

ahead of second place. Mendell also flew in the Rim of Ohio Air Derby and came in a close third. Though the "Sport Airsedan" was in small number, they were extremely busy craft and were seen scurrying along on errands of all sorts, in all parts of the country. The type certificate number for the Buhl "Sport Airsedan" model CA-3D as powered with the 300 h.p. Wright J6 engine, was issued in June of 1929 and some 5 or more examples of this model were manufactured by the Buhl Aircraft Company at their plant in Marysville, Michigan. Like most of the aircraft manufacturers of this day, Buhl had a small engineering staff that never exceeded over 5 men, but Ettienne Dormoy who presided over the engineering staff like the "maestro" of a concert orchestra, was a brilliant man who kept the staff busy with a continuous flow of new ideas and new designs. Those ideas that materialized into projects, were designed, built, and flight tested in the matter of months; certainly a far cry from the tedious and lengthy procedures that are practiced in this day and age of aircraft manufacture!

Listed below are specifications and performance data for the Buhl "Sport Airsedan" model CA-3D as powered with the 300 h.p. Wright J6 series engine; length overall 25'0"; hite overall 8'2"; wing span upper 36'0"; wing span lower 20'10"; wing chord upper (constant) 72"; wing chord lower (tapered) 33" mean; wing area upper 190 sq.ft.; wing area lower 50 sq.ft.; total wing area 240 sq.ft.; wt. empty 2017; useful load 1183; payload with

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90 gal. fuel was 430 lbs.; gross wt. 3200 lbs.; max. speed 150; cruising speed 125; landing speed 47; climb 1200 ft. first min. at sea level; service ceiling 20,000 ft.; gas cap. 90 gal.; oil cap. 5 gal.; cruising range at 15 gal. per hour was 700 miles; price at the factory field was \$12,000.

The fuselage framework was built up of welded chrome-moly steel tubing, faired to shape with formers and fairing strips and covered in a combination of metal and fabric. The cabin portion of the fuselage was covered in metal panels, and the rear portion from the entry door back was covered in fabric; there was a large cabin entry door and a convenient step on each side. The cabin was sound-proofed and insulated and there were provisions for cabin heat and ventilation; a large baggage compartment was aft of the cabin and was accessible from inside or out. The wing framework was built up of spruce and plywood box-type spars for the upper panels and spars of solid spruce for the lower panels; wing ribs were built up of spruce and plywood in truss form and the completed framework was fabric covered. The two gravity-feed fuel tanks were mounted in the upper wing, one flanking each side of the fuselage. The ailerons in the upper wing panels were of the "balanced horn" type, but the "horn" was inset from the tip; all movable control surfaces were aerodynamically balanced. The fabric covered tail-group was built up of welded chrome-moly steel tubing; the fin was ground adjustable and the horizontal stabilizer was adjustable in flight. The landing gear was of the split-axle type in the normal 3-member arrangement, and used air-oil shock absorbing struts; wheels were 30x5. Wheel brakes, wiring for navigation lights,

and a metal propeller were standard equipment. It might be well to note that chrome-moly (molybdenum) steel tubing, which was now being used almost universally, had inherent properties quite attractive to the builders of aircraft; it was light and tough and was welded quite easily into major parts of the airframe. For example, the fuselage for the "Sport Airedan" was built up of welded chrome-moly steel tubing and weighed under 200 pounds in the bare condition, or about one-tenth of the weight for the completed airplane. If this same fuselage were built up of even the highest grade of carbon steel, it would weigh nearly 400 pounds for a frame that would be equal in strength; one can readily see that this extra weight would be a serious loss to the useful load available. There was continuous development in various models of the "Airedan" series for the next year or so, and several were modified into special-purpose airplanes mounting engines of higher horsepower. A light low-wing monoplane seating two side-by-side was developed, but never went beyond the prototype stage. Another monoplane developed was the high-performance "Airster" that was built as a 3 place airplane for the sportsman-pilot, or as a one-place craft for carrying airmail and air-cargo. The next Buhl development of any note was the popular "Bull Pup", which will be discussed in the chapter for A.T.C. # 405.

Listed below are Buhl CA-3D entries that were gleaned from various records; this list may lack one or two entries, but it does show the bulk of this model that were built.

NC-7448; CA-3D (# 35) Wright J6.  
NC-9631; CA-3D (# 45) Wright J6.  
NC-9635; CA-3D (# 49) Wright J6.  
NC-8447; CA-3D (# 53) Wright J6.



Fig. 206. The "Sport Airedan" was a clean design; note the sesquiplane arrangement.

BUHL "SPORT AIRSEDAN" CA-3D



*Fig. 207. The CA-3D "Angelino Jr." was the sister ship to the earlier record-breaking "Angelino".*

NC-8451; CA-3D (# 57) Wright J6.  
Model CA-3D serial # 35 was originally a  
J5 powered CA-3C, and was modified to a  
CA-3D by installation of Wright J6-9 engine;

models CA-3D serial # 45 and # 53 later  
as CA-3D Special 4 place craft on Group  
2-72; model CA-3D serial # 57 later modi-  
fied to CA-3E with Packard Diesel engine.