

FEDERAL AVIATION ADMINISTRATION

Anderson, Greenwood & Co.
Revision 2
(Bellanca)
51
51A
July 1, 1980

TYPE CERTIFICATE DATA SHEET NO. A11SW

This data sheet which is a part of type certificate No. A11SW prescribes conditions and limitations under which the product for which type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder Anderson, Greenwood and Company
Houston, Texas

Model 51, 4 or 5 PCLM (Normal Category), Approved July 28, 1976
Model 51A, 4 or 5 PCLM (Normal Category), Approved June 16, 1980

Engine	AVCO Lycoming O-540-A4D5 with carburetor parts list setting IO-5054 (Model 51 only) AVCO Lycoming IO-540 C4B5 with Bendix Injector, Type RSA-5AD1, Parts List Number 2524213-7 (Model 51A only)	
Fuel	100/130 octane minimum grade aviation fuel	
Engine limits	For all operations, 2575 r.p.m. (250 h.p.)	
Propeller and Propeller limits	Hartzell constant speed, Model HC-E2YR-IBF/F8465-7R or Model HC-E2YR-1S/8465-7R Pitch: High 28.8° ($\pm 1.0^\circ$), Low 15.1° ($\pm 0.2^\circ$) at 30" station Diameter: Not over 77", not under 76" Governor Assembly: Hartzell F-4-25 or F-4-25Z	
Propeller Spinner Assy.	Hartzell C-4565 or C-3245-1P or C-3245-1	
Airspeed limits (CAS)	Never exceed	242 m.p.h. (210 knots)
	Maximum Structural Cruising	190 m.p.h. (165 knots)
	Maneuvering	153 m.p.h. (133 knots)
	Flaps Extended	
	1/2 Flaps (17°)	166 m.p.h. (144 knots)
	Full Flaps (35°)	125 m.p.h. (109 knots)
	Maximum Gear Operation	166 m.p.h. (144 knots)
	Maximum Gear Extension	166 m.p.h. (144 knots)
C.G. range	(+111.0) to (+122.2) at 2180 lbs. (+111.9) to (+122.2) at 2600 lbs. (+118.5) to (+121.8) at 3150 lbs. with straight line variations between points given with landing gear extended. Moment due to gear retraction is +1417 inch-pounds.	
Empty weight C.G. range	None	
Datum	100 inches forward of wing leading edge.	
Leveling means	Two screws--right side of fuselage in front of door.	

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Maximum weight Take-off and landing	3150 lbs.			
No. of seats	4 (2 at +112, 2 at +147) or 5 (2 at +112, 2 at +147, 1 at +182)			
Maximum baggage	250 lbs. (at +174) without fifth seat installed. 235 lbs. (at +174) with fifth seat installed (includes fifth seat passenger & baggage). See Note 3 for data on fifth seat installation.			
Fuel capacity	80 gal. (2 wing tanks at +117) Usable: 76 gal. See Note 1 for data on unusable fuel.			
Oil capacity	12 quarts at +60, 9.25 quarts usable. See Note 1 for data on undrainable oil			
Control surface movements	Wing Flaps	Half	$17 \pm 1^\circ$	Full $35 \pm 1^\circ$
	Aileron	Up	$24 \pm 1^\circ$	Down $12 \pm 1^\circ$
	Aileron Tab	Up	$12 \pm 1^\circ$	Down $24 \pm 1^\circ$
	Rudder	Left	$30 \pm 2^\circ$	Right $30 \pm 2^\circ$
	Stabilator T.E.	Up	$15 \pm 1/2^\circ$	Down $2 \pm 1/2^\circ$
	Trim Range			
	1. Airplane full nose up trim setting stabilator T.E. up $7 \pm 1/2^\circ$ with tab faired			
	2. Airplane full nose down trim setting stabilator T.E. down $1/4 \pm 1/2^\circ$ with tab faired			
	Nose Wheel Travel	Left	$30 \pm 2^\circ$	Right $30 \pm 2^\circ$
Serial Nos. eligible	0001, 0003, and up.			
Certification Basis	Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended through Amendment 13.			
	Type Certificate No. A11SW issued July 28, 1976. Date of Application for Type Certificate, December 12, 1973.			
Production Basis	S/N 3 and up Bellanca Aircraft Corporation, Alexandria, Minnesota; Production Certificate No. 1GL is applicable.			
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.			
	In addition, the Pilot's Operating Handbook and FAA approved Aircraft Flight Manual is required to be on board for Serial Nos. 0001, 0003, and up.			

NOTE 1. Current weight and balance data, including list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

The certificated empty weight and corresponding center of gravity locations must include undrainable oil (not included in the oil capacity) and unusable fuel as noted below.

Fuel 24.4 lbs. at (+117)
Oil 2.0 lbs. at (+60)

Note 2: The following placards must be displayed in clear view of the pilot:

THE MARKINGS AND PLACARD INSTALLED IN THIS AIRPLANE CONTAIN OPERATING LIMITATIONS WHICH MUST BE COMPLIED WITH WHEN OPERATING THIS AIRPLANE IN THE NORMAL CATEGORY. OTHER OPERATING LIMITATIONS WHICH MUST BE COMPLIED WITH WHEN OPERATING THIS AIRPLANE IN THIS CATEGORY ARE CONTAINED IN THE AIRPLANE FLIGHT MANUAL.

DO NOT EXCEED 27" HG M.P. BELOW 2300 RPM.

Note 3: Optional fifth seat installation per Anderson, Greenwood Drawing 519012. Seat weight 12 lbs. @ 188.

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