DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A-802
Revision 24
ROGERS
(MITCHELL)
(AERONCA)
15AC
S15AC

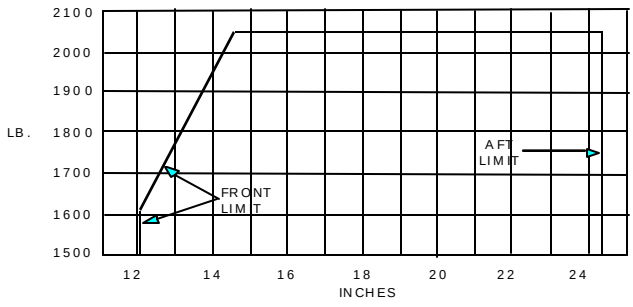
August 31, 2000

AIRCRAFT SPECIFICATION NO. A-802

Type Certificate Holder	Burl A. Rogers P. O. Box 671487 Chugiak, Alaska 99567-1487
Type Certificate Ownership Record	Aeronca Aircraft Corporation transferred ownership of Aircraft Type Certificate No. 802 to Aeronca Manufacturing Corporation on August 18, 1950. Aeronca Manufacturing Corporation transferred ownership of Aircraft Type Certificate No. 802 to Aeronca, Inc., on May 13, 1966. Aeronca, Inc., transferred ownership of Aircraft Type Certificate No. 802 to William Brad Mitchell or Sandra Mitchell on April 11, 1991. William Brad Mitchell transferred ownership of Aircraft Type Certificate No. 802 to Burl A. Rogers on July 10, 2000.

I - Model 15AC - 4 PCLM (Normal Category) Approved September 23, 1948

Engine	Continental C-145-2 or O-300-A (See also Item 109 for optional engines)	
Fuel	80 minimum Octane aviation gasoline	
Engine limits	For all operations, 2700 r.p.m. (145 h.p.)	
Airspeed limits	Maneuvering	91 m.p.h. (79 knot)
(True Indicated)	Maximum structural cruising	110 m.p.h. (96 knot)
	Never exceed	139 m.p.h. (121 knot)
	All Model 15AC airplanes are eligible for these revised airspeed limits without any structural modification other than the remarking of the airspeed instrument.	
Propeller limits	Static r.p.m. at max. permissible throttle setting:	
(with Item 1(a))	not over 2490, not under 2290. No additional tolerance permitted.	
	Diameter: not over 76 in., not under 71 in.	
C.G. range	(+14.5) to (+24.3) at 2050 lb.	
	(+12.1) to (+24.3) at 1606 lb. or less. Straight line variation between points given.	



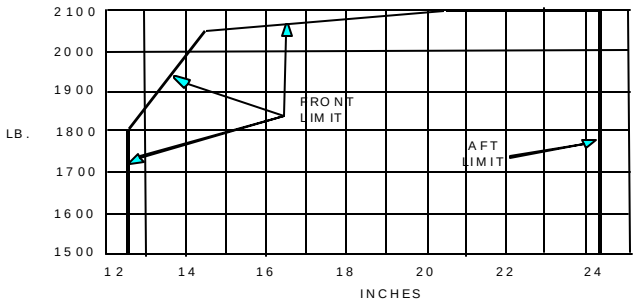
Page No.	1	2	3	4	5	6	7
Rev. No.	24	24	24	24	24	24	24

Empty weight C.G. range	None		
Maximum weight	2050 lb.		
No. seats	4 (1 adjustable from +19 to +22, one at +21, 2 at +52).		
Maximum baggage	120 lb. (+77)		
Fuel capacity	36 gal (+10)		
Oil capacity	8 qts. (-45)		
Control surface movements	Elevator	Up 15°	Down 20°
	Elevator trim tab	Up 23.5°	Down 49.5°
	Aileron	Up 30°	Down 11°
	Rudder	Right 25°	Left 25°
Serial Nos. eligible	15AC-1 and up		
Required equipment	(Landplane) Item 1(a), 101, 102, 103, 104, 106, 201, 202, 204, 301, 302 and 401(a). (Skiplane) Item 1(a), 101, 102, 103, 104, 106, 208, 210, 301, 302, and 401(a) with 401(c).		

II - Model S15AC - 4 PCSM (Normal Category) Approved September 23, 1948

(Same as 15AC except for float installation, larger elevator trim tab, and fuselage reinforcement)

Engine	Continental C-145-2 or O-300-A (See also Item 109 for optional engines)	
Fuel	80 minimum octane aviation gasoline	
Engine limits	For all operations, 2700 r.p.m. (145 hp.)	
Airspeed limits	Never exceed	126 m.p.h. (110 knot)
(True Indicated)	Maximum Structural Cruising	100 m.p.h. (87 knot)
	Maneuvering Speed	88 m.p.h. (77 knot)
Propeller limits	See Item 2(b)	
C.G. range	(+20.4) to (+24.3) at 2100 lb. (+14.5) to (+24.3) at 2050 lb. (+12.6) to (+24.3) at 1800 lb. or less Straight line variation between points given	



Empty weight C.G. range	None		
Maximum weight	2100 lb.		
No. seats	4 (one adjustable from +19 to +22, one at +21, two at +52).		
Maximum baggage	120 lb. (+77)		
Fuel capacity	36 gal. (+10)		
Oil capacity	8 qts. (-45)		
Control surface movements	Elevator	15 ° Up	20° Down
	Elevator trim tab	20.5° Up	51° Down
	Aileron	30° Up	11° Down
	Rudder	25° Right	25° Left
Serial Nos. eligible	15AC-1 and up, Serial Nos. 15AC-1 through 15AC-176, 15AC-178 through 15AC-196 and 15AC-198 eligible as seaplane, when fuselage rear float carry through member is reinforced by clamp-on fitting as per Aeronca Dwg. No. S-23. Serial Nos. 15AC-177, 15AC-197, 15AC-199 and up require no reinforcement.		
Required equipment	Items 2(b), 101, 102, 103, 104, 106, 108, 209, 301, 302, 401(b).		

Specifications Pertinent to All Models

Datum	Leading edge of wing
Leveling means	Lower door sill
Certification basis	Aircraft Type Certificate No. 802 Part 03 of the Civil Air Regulations effective December 15, 1946 (Normal Category). Date of Application for Type Certificate July 23, 1947.
Production basis	None. Prior to original certification of each aircraft manufactured subsequent to February 27, 1952, a CAA or FAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data, and a check of the flight characteristics.

Equipment: A plus (+) or minus (-) sign preceding the weight of an optional item indicates the net weight change when that item is installed in place of the equivalent required item.

Propellers and Propeller Accessories (See Note 3)

1. Propeller:
   (a) (Model 15AC with Continental C-145-2 engine) Sensenich 73BR45, 73BR44, Lewis L6FK39, or any other fixed pitch wood propeller eligible for the engine power and speed. All propellers must meet the diameter and r.p.m. limits given under "Propeller limits" — 14 lb. (-65)
   NOTE: INSTALLATIONS ACCOMPLISHED AFTER MARCH 30, 1951 ELIGIBLE ONLY ON C-145 DAMPERED ENGINES DENOTED BY SUFFIX LETTER "D" ON ENGINE SERIAL NUMBER.
2. Propeller:
   (a) (Model 15AC with Continental C-145-2 engine) McCauley 1A170-DM7653-DM7643 or any other McCauley 1A170 propeller which meets the following limits: Static r.p.m. at max. permissible throttle setting: not over 2490, not under 2240. No additional tolerance permitted. Diameter: not over 76 in., not under 74 in. — 34 lb. (-65)
   (b) (Model S15AC with Continental C-145-2 engine) McCauley 1A170-DM7645, -DM7643, or any other McCauley 1A170 propeller which meets the following limits: Static r.p.m. at max. permissible throttle setting: not over 2540, not under 2380. No additional tolerance permitted. Diameter: not over 76 in., not under 74 in. — 34 lb. (-65)
   (c) (Model 15AC and S15AC with Item 109(a) engine) McCauley 1A170-DM7647 or any other McCauley 1A170 propeller which meets the following limits: Static r.p.m. at max. permissible throttle setting: not over 2600, not under 2400. No additional tolerance permitted. Diameter: not over 76 in., not under 74 in. Placard required: "Avoid continuous engine operation between 2150 and 2250 r.p.m." — 34 lb. (-65)
   (d) (Model 15AC and S15AC with Item 109(b) engine) McCauley 1A170 propeller which meets the following limits: Static r.p.m. at max. permissible throttle setting: not over 2450, not under 2250. No additional tolerance permitted. Diameter: not over 76 in., not under 74 in. Placard required: "Avoid continuous engine operation between 2100 and 2300 r.p.m." — 34 lb. (-65)
3. Propeller Spinner (Aeronca Dwg. No. 3-988) — 1 lb. (-69)

4. Propeller:
   (a) (Model 15AC with Continental C-145-2 engine) Koppers' Aeromatic F200/00-73E (eligible only on C-145 dampered engines denoted by suffix letter "D" on engine serial number). Parts List Assembly No. 4336. Low Pitch Setting 14° measured at 24 inch station. Static r.p.m. at max. permissible throttle setting: not over 2700, not under 2600. No additional tolerance permitted. Diameter: not over 73 in., not under 71.5 in. When this propeller is installed, installation and operation must be accomplished in accordance with Koppers' "Installation and Operating Limitations No. 27" and Item 401(d) must be appended to the Airplane Flight Manual, Item 401(a). — 31 lb. (-65)
   (b) (Model 15AC with Continental C-145-2 engine) Koppers' Aeromatic F200/00-74E (eligible only on C-145 dampered engines denoted by suffix letter "D" on engine serial number). Parts list assembly No. 4389, -1 (rev. 2-3-50). Low pitch setting 14° at 24 inch sta. Static r.p.m. at max. permissible throttle setting: not over 2700, not under 2600. No additional tolerance permitted. Diameter: not over 74 in., not under 72.5 in. When this propeller is installed, installation and operation must be accomplished in accordance with Koppers' "Installation and Operating Limitations No. 55", and Item 401 (f) must be appended to the Airplane Flight Manual, Item 401(a). — 31 lb. (-65)
5. Propeller:
   (a) (Model 15AC with Continental C-145-2 engine)
   Hartzell adjustable, model HA-12UF-3 hub, 8032-6 to -8 blades — 21 lb. (-65)
   Note: INSTALLATIONS ACCOMPLISHED AFTER MARCH 30, 1951, ELIGIBLE ONLY ON C-145 DAMPERED ENGINES DENOTED BY SUFFIX LETTER "D" ON ENGINE SERIAL NUMBER."
   Static r.p.m. at max. permissible throttle setting: Not over 2490, not under 2240. No additional tolerance permitted.
   Diameter: Not over 74 in., not under 72 in.
6. Propeller:
   (a) (Model S15AC with Continental C-145-2H engine)
   McCauley - 2 position controllable, hub 2B36C7 blades 78K-2 — 60 lb. (-65)
   Pitch settings at 30 inch sta.: Low 11° high 16°
   Diameter: Not over 76 in., not under 74.5 in.
   Reinforcement of forward fuselage required in accordance with Ellis Air Lines, Ketchikan, Alaska, Dwg. No. AER A-1-1 and CAA Airplane Flight Manual Supplement dated November 15, 1955, required (Item 401(i))
7. Propeller:
   (a) (Model 15AC only) Sensenich M74DM fixed pitch metal (eligible only on C-145 dampered engines denoted by suffix letter "D" on engine serial number). — 29 lb. (-65)
   Static r.p.m. at max. permissible throttle setting:
   Not over 2490, not under 2240.
   No additional tolerance permitted.
   Diameter: Not over 74 in., not under 72 in.
   (b) (Model S15AC only) Sensenich M74DM fixed pitch metal (eligible only on C-145 dampered engines denoted by suffix letter "D" on engine serial number). — 29 lb. (-65)
   Static r.p.m. at max. permissible throttle setting:
   Not over 2540, not under 2380.
   No additional tolerance permitted.
   Diameter: Not over 74 in., not under 72 in.

	(c) (Model 15AC and S15AC with item 109 (a) installed) Sensenich M74DM fixed pitch metal. Static r.p.m. at maximum permissible throttle setting: Not over 2600, not under 2400. No additional tolerance permitted. Diameter: Not over 74 in., not under 72 in. Applicable Airplane Flight Manual shall be revised by the Modifier and approved by the FAA Engineering and Manufacturing Division to reflect this installation change	29 lb. (-65)
Engine and Engine Accessories - Fuel and Oil System		
101.	Carburetor air heater (Aeronca Dwg. No. 7-866)	1 lb. (-46)
102.	Carburetor air scoop (Aeronca Dwg. No. 3-978 on Serial Nos. 15AC-1 through 15AC-483; Aeronca Dwg. No. 4-1002 on Serial Nos. 15AC-484 and up)	4 lb. (-48)
103.	Starter - Delco-Remy (Cont. No. 50309)	16 lb. (-46)
104.	Exhaust system - Kay Industries (Aeronca Dwg. No. 7-819)	16 lb. (-45)
105.	Deleted.	
106.	Pressure type oil cooler installation (Aeronca Dwg. No. 7-832E)	10 lb. (-41)
107.	Oil filter, Fram PB-5, Kit No. K-510 [Fram Installation Dwgs. No. 62395 and No. 62395A (detail pertinent to installation with suction type oil cooler installation not applicable) or Installation Dwg. No. 62893 and Instruction Sheet No. 62892] (weight includes one quart of oil).	5 lb. (-24)
108.	Oil capacity plate for Model S15AC (Aeronca Dwg. No. 2-1440)	No weight change
109.	Engine	
	(a) Franklin 6A4-165-B3 eligible only when installed in accordance with Maine Air Service Inc., 133 Massachusetts Avenue, South Portland, Maine 04106, Franklin Aeronca Conversion Kit No. 1-8-50 Installation Instructions. Fuel: 80 Minimum octane aviation gasoline Engine limits: For all operations, 2800 r.p.m. (165 hp.) Oil capacity: 9 quarts (-40) Requires installation of Items 2(c) and 401(g).	Use actual weight
	(b) Franklin 6A4-150-B3. Same as 109(a) except for limitations as follows: Engine limits: For all operations, 2600 r.p.m. (150 hp.) Oil capacity: 2 gal. (-40) Requires installation of items 2(d) and 401(h)	Use actual weight
Landing Gear and Floats		
201.	Two main wheel-brake assemblies, 6.00-6, Type III	
	(a) Goodyear Model No. LF6HBD Wheel Assembly No. 511960M Brake Assembly No. 9521239	13 lb. (0)
	(b) Goodyear Model CL6HBM (cross-wind wheel) Wheel and Brake Assembly No. 266AX36 (Installed in accordance with Aeronca Dwg. No. 7-890)	32 lb. (0)
	(c) Cleveland Model DHB-3 Wheel Assembly No. C-38500H Brake Assembly No. C-2000H	13 lb. (0)
202.	Two main wheel 4-ply rating tires, 7.00, Type III (with regular tubes)	20 lb. (0)
204.	Tail wheel assembly	
	(a) Maule, SFS-1-2, swivel type (Aeronca Dwg. No. 7-842)	6 lb. (+211)
	(b) Scott Model 3200 steerable, swiveling (Installed in accordance with Scott Bulletin No. I-170)	8 lb. (+211)
208.	Skis (Serial Nos. 15AC-1 through 15AC-32 must have landing gear modified in accordance with Aeronca Dwg. No. 7-818 to be eligible as skiplanes)	
	(a) Federal A2500A (Federal Installation Dwg. No. 11G174)	74 lb. (0)
	(b) Federal A2500 (Federal Installation Dwg. No. 11G174)	65 lb. (0)
	(c) Federal A3500 (Federal Installation Dwg. No. 11G174)	68 lb. (0)
	(d) Federal A3500A (Federal Installation Dwg. No. 11G174)	82 lb. (0)

209.	Edo Model 89-2000 float installation Elevator tab assembly per Aeronca Dwg. No. 5-504 required with this installation.	245 lb. (+19)
210.	Cuff assembly ski gear fairing (Aeronca Dwg. No. 4-984)	No weight change
211.	Consolidair Model 17 wheel fender (Consolidair Dwg. No. 0046)	9 lb. (0)

Electrical Equipment

301.	Battery - Willard AW-12-25 safety fill	24 lb. (-27)
302.	Engine-driven generator (Continental Dwg. No. 40435)	10 lb. (-46)
303.	Landing light - GE 4357	3 lb. (+11)
304.	Position lights (Aeronca Dwg. No. 7-843)	2 lb. (+122)

Interior Equipment

401. (a) (Model 15AC) CAA Approved Airplane Flight Manual dated August 9, 1949, or dated September 23, 1948, or CAA tentatively approved Flight Manual dated March 31, 1948.

(b) (Model S15AC) CAA tentatively approved Airplane Flight Manual dated July 16, 1948 or approved Airplane Flight Manual dated September 23, 1948.

(c) CAA approved Skiplane Supplement to Airplane Flight Manual, dated January 25, 1949. In lieu of this item the following Skiplane Performance information may be appended to the performance Section of Item 401(a):
"TAKE-OFF AND LANDING DISTANCE - Under the most favorable conditions of smooth packed snow at temperatures approximating 32 degrees F the skiplane take-off distance is approximately 10% greater than that shown for the landplane and the skiplane landing distance is approximately 20% greater than that shown for the landplane. In estimating take-off and landing distance for other conditions caution should be exercised in that lower temperatures or other snow conditions will usually increase the take-off distances and either decrease or increase the landing distances.
NORMAL RATE OF CLIMB - Reduce rate of climb values of landplane by approximately 10%.
STALLING SPEEDS (POWER OFF) - Stalling speeds for skiplane are same as shown for landplane."

(d) CAA approved Supplement to Airplane Flight Manual, dated June 28, 1949. Required with Item 4(a).

(e) CAA approved Supplement on Sevdy-Sorenson Corporation Sprayer Installation dated May 3, 1949, to Airplane Flight Manual.

(f) CAA approved Supplement to Airplane Flight Manual, dated March 15, 1950. Required with Item 4(b).

(g) CAA approved Supplement to Airplane Flight Manual, dated August 11, 1950. Required with Item 109(a).

(h) CAA approved Supplement to Airplane Flight Manual, dated October 5, 1950. Required with Item 109(b).

(i) CAA approved Supplement to Airplane Flight Manual, dated November 15, 1955. Required with Item 6(a).

402.	Cabin heater (Aeronca Dwg. No. 7-866)	2 lb. (-46)
403.	Rear seat cabin heater (Aeronca Dwg. No. 7-891)	3 lb. (+10)

Miscellaneous (Not listed above)

601.	Auxiliary door for left side, installed in accordance with Levens Bros. Air Service Ltd., Toronto, Canada, Dwg. No. 11A and installation instructions	+11 lb. (+24)
602.	Crop sprayer installation (Sevdy-Sorenson) installed in accordance with Sevdy-Sorenson, Worthington, Minn., drawing and installation instructions dated May 3, 1949 Placard required on Tank: "Maximum allowable tank load * lb." *Determine the lb. of load by weight and balance computation When this sprayer is installed, aircraft must be certificated and operated in accordance with Item 401(e), "CAA approved Supplement dated May 3, 1949, to Airplane Flight Manual." This supplement must appended to the Airplane Flight Manual, Item 401(a).	+32 lb. (+37)

NOTE 1. Current weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all time thereafter (except in the case of air carrier operators having an approved weight control system).

NOTE 2. The following placard must be displayed in front of and in clear view of the pilot: "This airplane must be operated as a normal category airplane in compliance with the limitations of the CAA approved Airplane Flight Manual. No acrobatic maneuver (including spins) are approved."

NOTE 3. All propellers and propeller accessories eligible on the Continental C-145-A engine are also eligible on the Continental O-300-A engine.

NOTE 4. Revision 20 of this Aircraft Specification dated April 1, 1971, is incorrectly numbered Revision 16.
Revision 21 of this Aircraft Specification dated September 4, 1973, is incorrectly numbered Revision 17.
Revision 22 of this Aircraft Specification dated April 26, 1991, is incorrectly numbered Revision 18.
Revision 23 of this Aircraft Specification dated April 28, 2000, is incorrectly numbered Revision 19.

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