

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A-761
Revision 18
American Champion
(Bellanca)
(Trytek)
(Aeronca)
11AC
S11AC
11BC
S11BC
January 9, 2009

TYPE CERTIFICATE DATA SHEET NO. A-761

Type Certificate Holder: American Champion Aircraft Corp.
P. O. Box 37
Rochester, Wisconsin 53167

I - Model 11AC, 2 PCLM, Approved September 28, 1945
(See Section III for conversion to model 11BC)

Engine Continental A-65-8

Fuel 73 minimum octane aviation gasoline

Engine Limits For all operations, 2300 r.p.m. (65 hp.)

Airspeed Limits (CAS) Level flight or climb 95 m.p.h. (83 knots)
Glide or dive 128 m.p.h. (111 knots)

Propeller Limits Static rpm at maximum permissible throttle setting:
(For fixed pitch wood propeller) Not over 2300, not under 1990. No additional tolerance permitted
Diameter: not over 72 in., not under 70 in.

C.G. Range (+12.4) to (+22.0) (Rear limit may be(+23.2) provided intentional spins are prohibited).

Empty Weight C.G. Range (+12.9) to (+19.6) with standard fuel tank only
(+12.9) to (+15.2) with Item 104 installed
When the empty weight C.G. falls within these ranges, it is unnecessary to check the critical forward and aft C.G. positions. Ranges are not valid for arrangements other than indicated.

Maximum Weight 1250 lbs.

No. of Seats 2 (adjustable from +21.5 to +25.5)

Maximum Baggage 70 lbs. (+48.5). Placard required on instrument panel:
"INTENTIONAL SPINNING PROHIBITED WHEN BAGGAGE IS CARRIED"

Fuel Capacity 15 gal. (-6)

Oil Capacity 1 gal. (-32)

Control Surface Movements

Elevator	Up	26°	Down	24.5°
Elevator Trim Tab	Up	23°	Down	31°
Ailerons	Up	28°	Down	18°
Rudder	Right	28°	Left	28°

Serial No. Eligible 11AC-1 and up

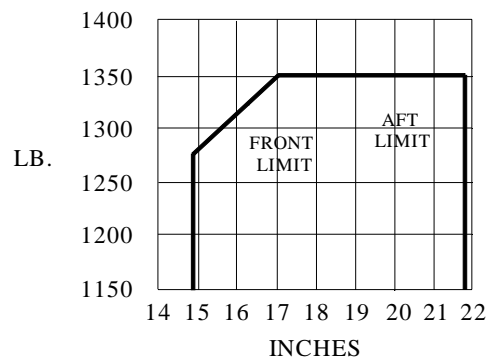
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Required Equipment In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: 1, 101, 102, 201, 202

II - Model S11AC, 2 PCSM, Approved July 22, 1947

Engine	Continental A-65-8F
Fuel	73 minimum octane aviation gasoline
Engine Limits	For all operations, 2300 r.p.m. (65 hp.)
Airspeed Limits (CAS)	Level flight or climb 90 m.p.h. (78 knots) Glide or dive 122 m.p.h. (106 knots)
Propeller Limits (For fixed pitch wood propeller)	Static rpm at maximum permissible throttle setting: Not over 2170, not under 2070. No additional tolerance permitted Diameter: not over 72 in., not under 70 in.
C.G. Range	(+17.0) to (+21.9) at 1350 lb. (+14.9) to (+21.9) at 1278 lb. or less. Straight line variation between points given.



Empty Weight C.G. Range	None																				
Maximum Weight	1350 lbs.																				
No. of Seats	2 (adjustable from +21.5 to +25.5)																				
Maximum Baggage	70 lbs. (+48.5). Placard required on instrument panel: "INTENTIONAL SPINNING PROHIBITED WHEN BAGGAGE IS CARRIED"																				
Fuel Capacity	15 gal. (-6)																				
Oil Capacity	1 gal. (-32)																				
Control Surface Movements	<table border="0"> <tr> <td>Elevator</td> <td>Up</td> <td>26°</td> <td>Down</td> <td>24.5°</td> </tr> <tr> <td>Elevator Trim Tab</td> <td>Up</td> <td>23°</td> <td>Down</td> <td>31°</td> </tr> <tr> <td>Ailerons</td> <td>Up</td> <td>28°</td> <td>Down</td> <td>18°</td> </tr> <tr> <td>Rudder</td> <td>Right</td> <td>28°</td> <td>Left</td> <td>28°</td> </tr> </table>	Elevator	Up	26°	Down	24.5°	Elevator Trim Tab	Up	23°	Down	31°	Ailerons	Up	28°	Down	18°	Rudder	Right	28°	Left	28°
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Elevator Trim Tab	Up	23°	Down	31°																	
Ailerons	Up	28°	Down	18°																	
Rudder	Right	28°	Left	28°																	
Serial No. Eligible	11AC-1 and up																				
Required Equipment	In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: 1, 101, 208, 209																				

III - Model 11BC, 2 PCLM, Approved August 26, 1947

(Model 11AC eligible for conversion to Model 11BC when accomplished in accordance with Aeronca Service Letter No. 17. The nameplate must be re-stamped with the proper model designation and the letters "CONV" added. The airplane serial number should not be changed.)

Engine	Continental C-85-8F				
Fuel	80 minimum octane aviation gasoline				
Engine Limits	For all operations, 2575 r.p.m. (85 hp.)				
Airspeed Limits (CAS)	Level flight or climb	95 m.p.h.	(83 knots)		
	Glide or dive	129 m.p.h.	(112 knots)		
Propeller Limits (For fixed pitch wood propeller)	Static rpm at maximum permissible throttle setting: Not over 2380, not under 2160. No additional tolerance permitted Diameter: not over 72 in., not under 70.5 in.				
C.G. Range	(+12.4) to (+21.5)				
Empty Weight C.G. Range	(+12.9) to (+19.1) with standard fuel tank only				
	(+12.9) to (+14.7) with Item 104 installed When the empty weight C.G. falls within these ranges, it is unnecessary to check the critical forward and aft C.G. positions. Ranges are not valid for arrangements, except as noted.				
Maximum Weight	1250 lbs.				
No. of Seats	2 (adjustable from +21.5 to +25.5)				
Maximum Baggage	70 lbs. (+48.5).				
Fuel Capacity	15.5 gal. (-6)				
Oil Capacity	4.5 quarts (-32)				
Control Surface Movements	Elevator	Up	26°	Down	24.5°
	Elevator Trim Tab	Up	23°	Down	31°
	Ailerons	Up	28°	Down	18°
	Rudder	Right	28°	Left	28°
Serial No. Eligible	11BC-1 and up				
Required Equipment	In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: 1, 102, 107, 201, 202				

IV - Model S11BC, 2 PCSM, Approved September 17, 1948

(Same float and fin installation as S11AC)

Engine	Continental C-85-8F				
Fuel	80 minimum octane aviation gasoline				
Engine Limits	For all operations, 2575 r.p.m. (85 hp.)				
Airspeed Limits (CAS)	Level flight or climb	90 m.p.h.	(78 knots)		
	Glide or dive	122 m.p.h.	(106 knots)		
Propeller Limits (For fixed pitch wood propeller)	Static rpm at maximum permissible throttle setting: Not over 2380, not under 2280. No additional tolerance permitted				

	Diameter: not over 72 in., not under 69.5 in.					
C.G. Range	(+17.0) to (+21.9) at 1350 lb. (+14.9) to (+21.9) at 1278 lb. or less. Straight line variation between points given. Figure under Model S11AC also applicable here.					
Empty Weight C.G. Range	None					
Maximum Weight	1350 lbs.					
No. of Seats	2 (adjustable from +21.5 to +25.5)					
Maximum Baggage	70 lbs. (+48.5).					
Fuel Capacity	15.5 gal. (-6)					
Oil Capacity	4.5 quarts (-32)					
Control Surface Movements	Elevator	Up	26°	Down	24.5°	
	Elevator Trim Tab	Up	23°	Down	31°	
	Ailerons	Up	28°	Down	18°	
	Rudder	Right	28°	Left	28°	
Serial No. Eligible	11BC-1 and up					
Required Equipment	In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: 1, 102, 107, 208, 209					

Specifications Pertinent to All Models

Datum	Wing leading edge at fuselage.
Leveling Means	Any portion of the cabin floor to level laterally and longitudinally.
Certification Basis	Type Certificate No. 761 (CAR 4a)
Production Basis	None. Prior to original certification, an FAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data, and a check of the flight characteristics.
Export Eligibility	Eligible for export to all countries subject to the provisions of MOP 2-4 except as follows: Canada - Landplane and seaplane - eligible Skiplane - not eligible
Equipment	A plus (+) or minus (-) sign preceding the weight of an item indicates net weight change when that item is installed.

Propeller and Propeller Accessories

1. Propeller - Any fixed pitch wood propeller eligible for the engine speed and power which meets the static r.p.m. and diameter limits specified for the various models. (11BC cooling test required for the installation of a controllable propeller having a higher static low pitch r.p.m. than that specified under Section III above). 10 lb. (-44)
2. Propeller spinner (Aeronca Dwg. 4-710 and 4-711) (Models 11AC and S11AC only). 1 lb. (-45)

Propeller and Propeller Accessories (contd)

3. Propeller - McCauley 1A90 with following limits: 26 lb. (-44)

- (a) (Model 11AC only)
Static r.p.m. at maximum permissible throttle setting:
Not over 2250, not under 2100. No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
 - (b) (Model S11BC only)
Static r.p.m. at maximum permissible throttle setting:
Not over 2380, not under 2280. No additional tolerance permitted.
Diameter: Not over 71 in., not under 69.5 in.
 - (c) (Model 11BC only)
Static r.p.m. at maximum permissible throttle setting:
Not over 2380, not under 2160. No additional tolerance permitted.
Diameter: Not over 71 in., not under 69.5 in.
 - (d) (Model S11AC only)
Static r.p.m. at maximum permissible throttle setting:
Not over 2170, not under 2070. No additional tolerance permitted.
Diameter: Not over 74 in., not under 72 in.
- 4. Propeller spinner (Aeronca Dwg. 4-708) (Model 11BC only). 1 lb. (-45)
 - 5. Propeller - Hartzell, ground adjustable, hub Model HA-12U, blades 7414 to 6814 or 7214M to 6814M. Eligible at diameter and static r.p.m. limits shown for fixed pitch wood models. 18 lb. (-45)
 - 6. Omitted.
 - 7. Propeller - Koppers Aeromatic F200/00-72D. Parts List Assembly No. 4324, revised Feb. 21, 1949 (Eligible on Model 11AC and S11AC with A-65 engine only) 31 lb. (-45)
Low pitch setting 13° measured at 24 in. sta.
Static r.p.m. at maximum permissible throttle setting:
Not over 2300, not under 2200. No additional tolerance permitted.
Diameter: Not over 72 in., not under 70.5 in.
When this propeller is installed, installation and operation must be accomplished in accordance with Kopper's "Installation Procedure and Operating Limitations No. 22A."
 - 8. Propeller - Sensenich M74CK, fixed pitch metal 21 lb. (-45)
 - (a) (Model 11AC only)
Static r.p.m. at maximum permissible throttle setting:
Not over 2250, not under 2100. No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
 - (b) (Model S11AC only)
Static r.p.m. at maximum permissible throttle setting:
Not over 2170, not under 2070. No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
 - 9. Propeller - Sensenich M74CK-2, fixed pitch metal 21 lb. (-45)
 - (a) (Model 11BC only)
Static r.p.m. at maximum permissible throttle setting:
Not over 2380, not under 2160. No additional tolerance permitted.
Diameter: Not over 72 in., not under 70 in.

Propeller and Propeller Accessories (contd)

- 9. Propeller - Sensenich M74CK-2, fixed pitch metal (contd)
 - (b) (Model S11BC only)
Static r.p.m. at maximum permissible throttle setting:
Not over 2380, not under 2280. No additional tolerance permitted.

Diameter: Not over 72 in., not under 70 in.

Engine and Engine Accessories - Fuel and Oil Systems

101.	Carburetor air heater	1 lb.	(-32)
102.	Carburetor air scoop (Continental A-5810 or Aeronca 4-601)	2 lb.	(-38)
103.	Carburetor air cleaner	1 lb.	(-38)
104.	Auxiliary fuel tank (8 gal. capacity) See NOTE 2(b) for required placard	8 lb.	(+61)
105.	Cabin heater	2 lb.	(-25)
106.	Starter - MacDowell (Aeronca Dwg. 7-600)	9 lb.	(-39)
107.	Hanlon and Wilson mufflers and heaters Aeronca Dwg. 7-557 (NOTE: 11AC and S11AC, weight of exhaust stacks removed to permit the installation -4 lb.)	13 lb.	(-32)
108.	Oil filter, Fram PB-5, Kit No. 510, Fram Industries Dwg. No. 61522 or 62399.	4 lb.	(-21)
109.	Wright winter shutters, installed in accordance with Wright Installation Instructions No. 1, dated December 24, 1949, issued by Wright Flying Service, Williston, ND.	2 lb.	(-26)

Landing Gear and Floats

201.	6.00-6 wheels with brakes (Goodyear Model L6MBD, Wheel Assembly No. 511413-M, Brake Assembly No. 511254-A) with 6.00-6 2 or 4 ply tires or 7.00-6 4-ply tires.	36 lb.	(0)
202.	Tail wheel assemblies		
	(a) 6 x 2.00 steerable Scott Model AST-8, with leaf spring	11 lb.	(+181)
	(b) Maule Model SFS-12, SAFS-12 or SAFS-14	6 lb.	(+181)
	(c) Scott Model 3-24B steerable	7 lb.	(+181)
	(d) Imperial Model B-100	6 lb.	(+181)
	(e) Decker steerable Model D-501	7 lb.	(+181)
203.	Parking brake (Aeronca Dwg. 7-527)	1 lb.	(-1)
204.	6.00-6 wheels with brakes (Cleveland Model 6:00 DMB, Wheel Assembly No. C-38500, Brake Assembly No. C-7000) with 6.00-6 2 or 4 ply tires or 7.00-6 4-ply tires.	No weight change	
205.	Skis		
	(a) Federal A-1500 (Federal Instal. Dwg. 11R241)	37 lb.	(0)
	(b) Federal CA-1850-6 (Federal Instal. Dwg. 11R241)	48 lb.	(0)
	(c) Federal A-2000A (Federal Instal. Dwg. 11R241)	49 lb.	(0)
	(d) Federal A-2000 (Federal Instal. Dwg. 11R241)	41 lb.	(0)
	(e) Federal A-1850 (Federal Instal. Dwg. 11R241)	38 lb.	(0)
	(f) Federal A-1500A (Federal Instal. Dwg. 11R241)	39 lb.	(0)
	(g) Federal Model AWB-1500 wheel skis when installed in accordance with Federal Instal. Dwg. 11R471. Placard required on ski position selector box:	75 lb.	
	"SKI CONTROL"	<u>Retracted</u>	<u>Extended</u>
	"UP-NEUTRAL-DOWN"	(-6)	(-3.5)

Landing Gear and Floats (contd)

205.	Skis (contd)		
	(h) Federal Model AWB-1500A wheel skis when installed in accordance with Federal Instal. Dwg. 11R471. Placard required on ski position selector box:	84 lb.	
	"SKI CONTROL"	<u>Retracted</u>	<u>Extended</u>
	"UP-NEUTRAL-DOWN"	(-6)	(-3.5)

206.	Toe brakes (Aeronca Dwg. 7-554)	2 lb.	(-5)
207.	Wheel pants (Aeronca Dwg. 7-606B and 7-607A)	6 lb.	(0)
208.	Edo 92-1400 float installation	167 lb.	(+19)
209.	Auxiliary ventral fin (Aeronca Dwg. 4-657)	4 lb.	(+161)
210.	Consolidair Model 17 wheel fenders (Consolidair Installation Dwg. No. 0036)	10 lb.	(0)

Electrical Equipment

301.	Generator - wind-driven (Champion 8 amp.)	8 lb.	(+9)
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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 times thereafter (except in the case of air carrier operations having an approved weight control system).

NOTE 2. (a) On models 11AC and S11AC, the following placard must be installed on the instrument panel in plain view of the pilot.

"INTENTIONAL SPINNING PROHIBITED WHEN BAGGAGE IS CARRIED."

(b) For airplanes equipped with the auxiliary fuel tank, the following placard, or equivalent, must be displayed near the fuel shut-off valve and in view of the pilot.

"TRANSFER FUEL IN LEVEL FLIGHT OR GLIDE ONLY AND WHEN MAIN TANK IS HALF FULL OR LESS. VALVE IS TO BE CLOSED EXCEPT WHILE TRANSFERRING FUEL."

...END...