

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A-720
Revision 4
RANKIN
(Porterfield)
CP-55
CP-65
LP-65
FP-65
CS-65

June 15, 1983

AIRCRAFT SPECIFICATION NO. A-720

Type Certificate Holder: Joe Rankin
Route 3
Marysville, Missouri 64468

I. - Model CP-55, 2 PCLM

Engine	Continental A-50-8 See Item 201(a) for optional engines.
Engine Limits	For all operations, 1900 r.p.m. (50 hp.)
Airspace Speed	Level flight or climb 102 m.p.h. (89 knots) True Ind. Glide or dive 138 m.p.h. (120 knots) True Ind.
Propeller limits	Status r.p.m. at maximum permissible throttle setting: Not over 1875, not under 1670. No additional tolerance permitted. Diameter: Not over 85 in., not under 70 in.
C.G. range	(+10.5) to (+19.9)
Empty weight	(+15.8) to (+16.4) If empty weight C.G. falls within this range, it is unnecessary to check critical forward and aft C.G. positions. This range not valid for non-standard arrangements.
Maximum weight	1160 lbs.
No. of seats	2 (+8 and +36)
Maximum baggage	40 lbs. (+52)
Fuel capacity	13-1/2 gals. (-16)
Oil capacity	1 gallon (-31)
Serial Nos. eligible	651 and up manufactured prior to January 8, 1946.
Required Equipment	In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: 101, 102, 103, 104, 105, 106, 107, 108 Not eligible for <u>original</u> certification with single ignition engine after August 1, 1941.

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II - Model CP-65, 2 PCLM; CS-65, 2 PCSM (CP-65 same as CP-55 except for engine installation)

Engine	Continental A-65-8 See Item 201(b) for optional engines.		
Engine limits	For all operations, 2300 r.p.m. (65 hp.)		
Airspeed limits	Landplane:	Level flight or climb	102 m.p.h. (89 knots) True Ind.
		Glide or dive	138 m.p.h. (120 knots) True Ind.
Seaplane:		Level flight or climb	97 m.p.h. (84 knots) True Ind.
		Glide or dive	135 m.p.h. (117 knots) True Ind.
Propeller limits	Static r.p.m. at maximum permissible throttle setting: Landplane: Not over 2165, not under 1860 Seaplane: Not over 1975, not under 1750 Diameter: Landplane: Not over 85 in., not under 68 in. Seaplane: Not over 76 in., not under 73-3/4 in.		
C.G. range	Landplane:	(+10.5) to (+19.9)	
	Seaplane:	(+11.0) to (+18.7)	
Empty weight	Landplane:	(+15.8) to (+16.4)	
	Seaplane:	(+14.5) to (+17.4) provided placard: "Solo from front seat only," otherwise none.	
	If empty weight C.G. falls within the given range, it is unnecessary to check critical forward and aft C.G. positions. These ranges not valid for non-standard arrangements.		
Maximum weight	Landplane:	1200 lbs., Seaplane: 1325 lbs.	
No. of seats	2 (+8 and +36)		
Maximum baggage	40 lbs. (+52)		
Fuel capacity	13-1/2 gals. (-16)		
Oil capacity	1 gal. (-31)		
Serial Nos. eligible	Landplane:	651 and up)	
	Seaplane:	981 and up) manufactured prior to January 8, 1946.	
Required equipment	In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: Landplane: 101, 102, 103, 104, 105, 106, 107, 108 Seaplane: 101, 102, 103, 104, 105, 151, 152, 153, 154 Not eligible for <u>original</u> certification with single ignition engine after August 1, 1941.		

III - Model LP-65, 2 PCLM (Same as CP-55 except engine installation)

Engine	Continental O-145-B2 See Item 201(c) for optional engines.		
Engine limits	For all operations, 2550 r.p.m. (65 hp.)		
Airspeed limits	Level flight or climb	102 m.p.h. (89 knots) True Ind.	
	Glide or dive	138 m.p.h. (120 knots) True Ind.	
Propeller limits	Static r.p.m. at maximum permissible throttle setting: Not over 2425, not under 2225. No additional tolerance permitted. Diameter: Not over 87.6 in., not under 67 in.		

III - Model LP-65, 2 PCLM (cont'd)

C.G. range	(+10.5) to (+19.9)
Empty weight	(+15.8) to (+16.4) If empty weight C.G. falls within this range, it is unnecessary to check forward and aft critical C.G. positions. This range not valid for non-standard arrangements.
Maximum weight	1200 lbs.
No. of seats	2 (+8 and +36)
Maximum baggage	40 lbs. (+52)
Fuel capacity	13-1/2 gals. (-16)
Oil capacity	1 gal. (-37)
Serial Nos. eligible	651 and up manufactured prior to January 8, 1946.
Required equipment	In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: Items 101, 102, 103, 104, 105, 106, 107, 108

IV - Model FP-65, 2 PCLM (Same as CP-55 except engine installation)

Engine	Franklin 4AC-176-82 See Item 201(d) for optional engines.
Engine limits	For all operations, 2200 r.p.m. (65 hp.)
Airspeed limits	Level flight or climb 102 m.p.h. (89 knots) True Ind. Glide or dive 138 m.p.h. (120 knots) True Ind.
Propeller limits	Static r.p.m. at maximum permissible throttle setting: Not over 2190, not under 2075. No additional tolerance permitted. Diameter: Not over 72 in., not under 69 in.
C.G. range	(+10.5) to (+19.9)
Empty weight	(+15.8) to (+16.4)
C.G. range	If empty weight C.G. falls within this range, it is unnecessary to check forward and aft critical C.G. positions. This range not valid for non-standard arrangements.
Maximum weight	1200 lbs.
No. of seats	2 (+8 and +36)
Maximum baggage	40 lbs. (+52)
Fuel capacity	13-1/2 gals. (-16)
Oil capacity	5 qts. (-37)
Serial Nos. eligible	651 and up manufactured prior to January 8, 1946.
Required equipment	In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: 101, 102, 103, 104, 105, 106, 107, 108

SPECIFICATIONS PERTINENT TO ALL MODELS

Datum	Wing leading edge
Leveling means	Top fuselage cross tubes on left hand side of airplane just aft of rear seat and just forward of instrument panel.
Certification basis	Type Certificate No. 720 (CAR 4(a) requirements)
Export eligibility	Eligible for export to all countries subject to the provisions of MOP 2-4, except as follows: (a) Canada - Landplane - eligible - skiplane - not eligible. However, structure complies with Canadian requirements for ski installation with max. ski height of 8-1/2 in. and a max. overhang of 1-15/16 in. to outer face of brake plate - seaplane, max. weight 1320 lbs.
Equipment:	A plus (+) or minus (-) sign preceding the weight of an item of equipment indicates net weight change when that item is installed. Approval for the installation of all items of equipment listed herein has been obtained by the aircraft manufacturer except those items preceded by an asterisk (*). The asterisk denotes that approval has been obtained by someone other than the aircraft manufacturer. An item marked with an asterisk may not have been manufactured under an FAA monitored or approved quality control system, and therefore attention should be paid to workmanship and conformity with pertinent data called for in this specification.

Propellers and Propeller Accessories

101.	Propeller - wood, fixed or adjustable pitch, with hub	
	CP series	16 lbs. (-49)
	LP series	12 lbs. (-50)
	FP series	11 lbs. (-51)
109.	Propeller - Sensenich M74CK, fixed pitch metal	
	(a) Model M74CK (CP-65 landplane only)	21 lbs. (-49)
	Static r.p.m. at maximum permissible throttle setting:	
	Not over 2165, not under 1860	
	No additional tolerance permitted	
	Diameter: Not over 74 in., not under 72 in.	
	(b) Model M74CK-2 (LP-65) with Lycoming O-145-B1 engine)	21 lb. (-50)
	Static r.p.m. at maximum permissible throttle setting:	
	Not over 2425, not under 2225	
	No additional tolerance permitted.	
	Diameter: Not over 72 in., not under 68 in.	

Engines and Engine Accessories - Fuel and Oil System

102.	Engine cowl -	CP series	9 lbs. (-40)
		LP and FP series	10 lbs. (-36)
103.	Two exhaust manifolds -	CP series	5 lbs. (-37)
		LP and FP series	4 lbs. (-36)
104.	Carburetor heater -	CP series	3 lbs. (-40)
		LP and FP series	3 lbs. (-35)
105.	Firewall - terneplate		10 lbs. (-22)
201.	Engines		
	(a) Model CP-55		
	(1) Continental A-50-7		10 lbs. (-27)
	(b) Models CP-65 and CS-65		
	(1) Continental A-65-7		10 lbs. (-27)
	(2) Continental A-65-9		+3 lbs. (-27)
	(c) Model LP-65		
	(1) Lycoming O-145-B1		-11 lbs. (-27)
	(d) Model FP-65		
	(1) Franklin 4AC-176-B1		-7 lbs. (-27)
	(2) Franklin 4AC-176-B3		Neglect wt. change

202.	Firewall - stainless steel	-5 lbs. (-22)
207.	Cabin heater	1 lb. (-28)
210.	Engine primer	1 lb. (-11)
220.	Cowl flaps	2 lbs. (-23)

Landing Gear and Floats

106.	6.00.6 wheels	
	(a) Shinn 6C2 or 6C4 (Type I gear)	7 lbs. (+ 3)
	(b) Shinn 6C5 (Type II gear)	7 lbs. (- 1)
	107. 2-ply tires and tubes	
	(a) Type I gear	16 lbs. (+ 3)
	(b) Type II gear	16 lbs. (- 1)
108.	Tail skid spring and shoe	5 lbs. (+193)
151.	Edo 60-1320 floats and struts	172 lbs. (+16)
153.	Water rudder control system	3 lbs. (+55)
203.	Tail wheels	
	(a) 6x2.00 full swivel with special spring	+4 lbs. (+195)
	(b) 6x2.00 steerable with special spring	+5 lbs. (+195)
	(c) 3-3/8 solid rubber	+2 lbs. (+195)
209.	4-ply tires and tubes	
	(a) Type I gear	+2 lbs. (+ 3)
	(b) Type II gear	+2 lbs. (- 1)
211.	Wheel streamlines	
	(a) Type I gear	10 lbs. (+ 6)
	(b) Type II gear	10 lbs. (+ 2)
217.	Parking brake	1 lb. (0)
218.	6.00-6 wheels with brakes	
	(a) Shinn 6C2HB or 6C4HB (Type I gear)	+7 lbs. (+ 3)
	(b) Shinn 6C5HB (Type II gear)	+7 lbs. (- 1)
221.	Skis	Use actual weight change
	(a) Federal SC-1	
	(b) Richards 1A	
	(c) Escanaba EAS-100	

Electrical Equipment

204.	Battery installation in engine compartment (Reading 324L or 333L)	16 lbs. (-29)
215.	Shielding	3 lbs. (-15)
216.	Bonding	2 lbs. (+60)
219.	Landing light (wing leading edge) one or two	2 lbs. ea. (+ 5)

Interior Equipment

206.	Rear instrument case with instruments	9 lbs. (+22)
213.	Skylight	Neglect weight change
214.	Emergency exit	2 lbs. (+21)

Miscellaneous (not listed above)

152.	Auxiliary seaplane fin (Dwg. 1510)	3 lbs. (+169)
154.	Seaplane structural changes noted in Change D, Dwg. A-658: Change A, Dwg. 1201; NOTE 7, Dwg. 1200; Change J, Dwg. 1506 and Dwg. 1712	
205.	Stainless metal striping	3 lbs. (+45)

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 operators having an approved weight control system).

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