

BELLANCA AIRCRAFT CORPORATION
Alexandria, Minnesota 56308

FAA APPROVED

AIRPLANE FLIGHT MANUAL

BELLANCA MODEL 8KCAB

This manual is part of the required equipment and must
remain in Model 8KCAB S/N 137-74 at all times.

Approved:

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for

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AIRPLANE FLIGHT MANUAL - BELLANCA MODEL 8KCAB

RECORD OF REVISIONS

REVISION NUMBER	PAGES AFFECTED	DESCRIPTION	DATE	APPROVED BY*
1	1	Item 1.1.2 Removed Man. Press Instrument Markings	8-3-72	<i>[Signature]</i>
	2	Item 1.1.2 Revised Oil Pressure Green arc from 60-90 psi to 60-100 psi Removed 90-100 psi on yellow arc		
	2	Item 1.1.6 'O' (Empty) <u>was</u> 'E' (Empty)		
	3	Item 1.1.7 On fuel valve control 40 gal. useable <u>was</u> useable cap. 40 gals.		
	4	Item 1.1.7 Adjacent to fuel gauge 'O' (Empty) <u>was</u> 'E' (Empty) Added strobe light switch placard		
	6	Item 1.2.5 'O' (Empty) <u>was</u> 'E' (Empty)		
	8	Item 2.1.4 Rotating beacons and strobe lights <u>was</u> rotating beacons. Added 'Prior to Entering'		
	8	Item 2.1.5 'O' on fuel gauge markings <u>was</u> 'E'		
	9	Item 2.1.7 Alternate static air system. Subtract <u>was</u> Add From <u>was</u> To		
	10	Item 2.2.4 Subtract <u>was</u> Add From <u>was</u> To		

*For Chief, Engineering & Manufacturing Branch, Great Lakes Region, FAA

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1. LIMITATIONS: COMPLIANCE WITH THIS SECTION IS MANDATORY

1.1 NORMAL CATEGORY LIMITATIONS

1.1.1 AIRSPEED LIMITATIONS

SPEED DESIGNATION	CALIBRATED AIRSPEED		AIRSPEED INDICATOR MARKING
	MPH	KNOTS	
Maneuvering (V_A)	121	105	None
Normal operating range	54-160	47-139	Green Arc
Maximum structural cruising (V_{NO})	160	139	--
Caution range	160-180	139-156	Yellow Arc
Never-exceed (V_{NE})	180	156	Red Radial Line

GREEN ARC extends from power-off stall speed (V_{S1}) to maximum structural cruising speed (V_{NO}).

YELLOW ARC extends from maximum structural cruising speed to never-exceed speed (V_{NE}). Operate in this range with caution, and only in smooth air.

RED RADIAL LINE marks the never-exceed speed, which is the maximum safe airspeed.

1.1.2 POWERPLANT LIMITATIONS

ENGINE: Lycoming IO-320-E1A modified per Bellanca STC #SE7CE

ENGINE LIMITS: For all operations, 2700 rpm (150 hp)

FUEL: 80/87 minimum grade aviation gasoline

PROPELLER: Hartzell constant-speed Model HC-C2YL-4/C7663-4

POWERPLANT INSTRUMENT MARKINGS

INSTRUMENT	MARKINGS
Cylinder Head Temperature	Green Arc 90-500 °F
	Red Radial 500 °F
Fuel Pressure	Green Arc 12-45 psi
	Red Radials 12 & 45 psi

POWERPLANT INSTRUMENT MARKINGS (CONT'D)

INSTRUMENT	MARKINGS	
Oil Temperature	Green Arc Red Radial	100-245 °F 245 °F
Oil Pressure	Green Arc Yellow Arcs Red Radials	60-100 psi 25-60 psi 25 psi & 100 psi
Tachometer	Green Arc Red Radial	1800-2700 rpm 2700 rpm

1.1.3 WEIGHT AND BALANCE

MAXIMUM GROSS WEIGHT : 1800 lb.

CENTER-OF-GRAVITY LIMITS: (+13.5) to (+21.0) at 1800 lb.
(+11.5) to (+21.0) at 1550 lb. or less

DATUM: Wing leading edge

Each operator must insure the airplane is properly loaded.
See Section 4, weight and balance procedures.

1.1.4 FLIGHT LOAD FACTORS

MANEUVERING LOAD FACTORS AT 1800 LB GROSS WEIGHT:

Positive: +5 G Negative: -3 G

Gust load factors are less than maneuvering load factors. Maximum load factors for Normal Category operation are shown by the ends of the green arcs on the accelerometer. Load factors within the yellow arc range are permitted only in Acrobatic Category.

1.1.5 KINDS OF OPERATION

Only VFR, day or night, operations are approved. Flight into known icing conditions is prohibited.

1.1.6 UNUSEABLE FUEL

Any fuel remaining in the tanks when fuel gauge reads "0" (Empty) cannot safely be used in flight.

1.1.7 PLACARDSIN FULL VIEW OF PILOT

" NORMAL CATEGORY AIRSPEED LIMITS

MANEUVERING SPEED 121 MPH (105 KNOTS) CAS

DEMONSTRATED CROSSWIND VELOCITY 20 MPH (17 KNOTS)

SOLO FROM FRONT SEAT ONLY. NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED IN NORMAL CATEGORY. DAY OR NIGHT VFR OPERATION ONLY. FLIGHT INTO KNOWN ICING PROHIBITED. TO RECOVER FROM NORMAL OR INVERTED SPIN, USE FULL OPPOSITE RUDDER AND NEUTRALIZE ELEVATOR.

THIS AIRPLANE MUST BE OPERATED AS A NORMAL OR ACROBATIC CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS. MARKINGS AND PLACARDS (EXCEPT ACCELEROMETER MARKINGS) REFER TO NORMAL CATEGORY ONLY. SEE AIRPLANE FLIGHT MANUAL FOR ACROBATIC CATEGORY INFORMATION, WEIGHT AND BALANCE INFORMATION, AND OTHER OPERATING LIMITATIONS."

IN BAGGAGE COMPARTMENT

"MAXIMUM BAGGAGE 100 LB"

ON FORWARD LEFT SIDE WINDOW

"DO NOT OPEN ABOVE 130 MPH"

ON FUEL VALVE CONTROL

"OFF--FUEL--ON
40 GAL. USEABLE"

ON EMERGENCY DOOR RELEASE HANDLE

"EMERGENCY DOOR RELEASE
PULL PIN, PUSH HANDLE"

ADJACENT TO FUEL GAUGE

"FUEL IN TANK WHEN GAUGE READS "0" (EMPTY)

CANNOT BE SAFELY USED IN FLIGHT"

ON STATIC AIR VALVE SELECTOR BRACKET

"ALTERNATE STATIC AIR - PUSH ON."

ADJACENT TO STROBE LIGHT SWITCH

"TURN OFF STROBE LIGHTS WHEN TAXIING IN VICINITY OF OTHER AIRCRAFT OR
DURING FLIGHT THROUGH CLOUD, FOG OR HAZE. STANDARD POSITION LIGHTS
TO BE ON FOR ALL NIGHT OPERATIONS."

1.2 ACROBATIC CATEGORY LIMITATIONS

1.2.1 AIRSPEED LIMITATIONS

With the exception of the maneuvering speed (V_A), all airspeed limitations given in Section 1.1.1 are applicable to the Acrobatic Category. For the Acrobatic Category, the maneuvering speed is:

MANEUVERING SPEED (V_A): 130 mph (116 knots) CAS

1.2.2 POWERPLANT LIMITATIONS

All powerplant limitations given in Section 1.1.2 are applicable to the Acrobatic Category. In addition, the following limitations apply to the Acrobatic Category:

- 1) MINIMUM ACROBATIC OIL: 7 qt.
- 2) MAXIMUM RECOMMENDED ACROBATIC OIL: 8 qt.
- 3) MONITOR OIL PRESSURE WHILE INVERTED. MINIMUM: 60 PSI.

1.2.3 WEIGHT AND BALANCE

MAXIMUM GROSS WEIGHT: 1800 lb.

CENTER-OF-GRAVITY LIMITS: (+13.5) to (+18.5) at 1800 lb.
(+11.5) to (+18.5) at 1550 lb. or less

DATUM: Wing leading edge

Carrying of baggage during acrobatics is prohibited.

Each operator must insure the airplane is properly loaded. See Section 4 for weight and balance procedures.

1.2.4 FLIGHT LOAD FACTOR

MANEUVERING LOAD FACTORS AT 1800 LB GROSS WEIGHT:

Positive: +6 G Negative: -5 G

Gust load factors are less than maneuvering load factors. Maximum load factors for Acrobatic Category operation are shown by red radial lines on the accelerometer. The accelerometer is required for Acrobatic Category operations.

1.2.5 UNUSEABLE FUEL

Any fuel remaining in the tanks when fuel gauge reads "0" (Empty) cannot safely be used in flight.

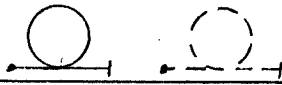
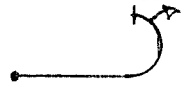
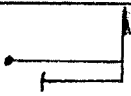
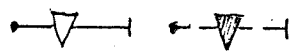
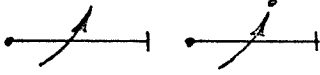
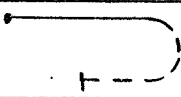


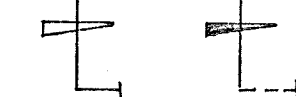
The inverted-fuel header tank provides fuel for at least 2.0 minutes of continuous inverted flight. After two minutes of inverted flight the header tank will automatically refill after approximately 3 minutes of upright, straight-and-level flight.

1.2.6 INVERTED FLIGHT

Continuous inverted flight is limited to a maximum of 2.0 minutes or a minimum oil pressure of 60 psi.-whichever occurs first.

1.2.7 MANEUVERS


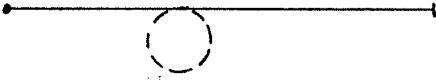

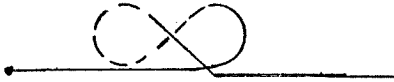


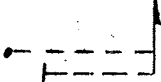

BASIC APPROVED AEROBATIC MANEUVERS

MANEUVER	ARESTI SYMBOL	RECOMMENDED INDICATED ENTRANCE SPEED	
		MPH	KNOTS
LOOP (NORMAL OR INVERTED)		140	122
IMMELMAN		145	126
HAMMERHEAD		130	113
SNAP ROLL (NORMAL OR INVERTED)		90	78
SLOW OR BARREL ROLL		130	113
ENGLISH BUNT		70	61
VERTICAL SLOW ROLL UP		175	156
VERTICAL SLOW ROLL DOWN		60	52
SPIN (NORMAL OR INVERTED)		Slow Deceleration	

Variations or combinations of the above maneuvers are approved provided that speed and load factor limitations are not exceeded.

As a guide to determine 1) whether a maneuver not listed above is approved, and 2) the proper entrance speed for a combination or variation maneuver, some of the possible approved variations and combinations, and the proper entrance speeds are shown below in the Aresti Code.

EXAMPLES OF APPROVED VARIATIONS AND COMBINATIONS

MANEUVER	INDICATED ENTRANCE SPEED	
	MPH	KNOTS
Direction of flight  	70	61
	160	139
	140	122
	130	113
	130	113
	140	122
	170	148

The following maneuvers are not approved:

- 1) TAIL SLIDE
- 2) LOMCEVAK

2. OPERATING PROCEDURES

2.1 NORMAL PROCEDURES

2.1.1 EMERGENCY FUEL PUMP

The emergency electric fuel pump is used only to 1) provide fuel pressure for priming prior to starting engine, and 2) provide fuel pressure in case the engine-driven pump fails. The emergency pump should be off during normal flight.

2.1.2 PARACHUTES

Seat pack parachutes may be used by removing the bottom seat cushions.

2.1.3 INVERTED FUEL AND OIL SYSTEMS

The inverted fuel system consists of a 1.5-gal. header tank in the forward cabin with a standpipe to draw fuel from the center of the tank. One-half (0.75 gal.) of the tank capacity is useable in inverted flight. The system is completely automatic; however, sufficient time (see Section 1.2.5) must be allowed between periods of continuous inverted flight to allow the header tank to refill.

The inverted oil system consists of 1) a baffle and trap door between the engine crankcase and oil sump; 2) a swinging pick-up tube in the oil sump; 3) an oil separator in the breather system; and 4) an electric scavenge pump (activated by mercury switches) to pump oil from the separator to the oil sump. The system is completely automatic. To check the scavenge pump, turn the master switch on and actuate the mercury switch located on the left side of the firewall in the engine compartment. This should activate the pump. The pump is fused by an in-line fuse near the ammeter.

2.1.4 ROTATING BEACONS AND STROBE LIGHTS

Particularly at night, reflections from clouds, haze, or dust can produce optical illusion and intense vertigo. Under these conditions, rotating beacons and strobe lights should be turned off prior to entering.

2.1.5 FUEL SYSTEM

The total useable fuel capacity is 40 gallons, of which approximately 20 gallons is carried in each wing tank. The wing tanks are interconnected both in the vent system and the fuel feed system, and may be considered as one tank. Fuel feeds simultaneously from both tanks, and the total fuel quantity in both tanks is shown by a gauge in the right tank (left tank gauge optional). The gauge is marked in fractions of the total fuel (0, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, F), and reads "0" (Empty) with unuseable fuel in the tanks. Fuel tank caps are not vented and must seal completely to prevent a difference in fuel level between the two tanks.

2.1.6 ALTERNATE AIR

Avoid using alternate air on the ground. With alternate air on, induction air is not filtered and abrasive dirt particles may enter the engine. In flight, use alternate air only when icing is suspected, i.e., since heat causes partial loss of power, do not use when landing unless atmospheric conditions indicate that icing is probable, because full power may be needed on a go-around.

2.1.7 ALTERNATE STATIC AIR SYSTEM

An alternate static air system is provided for use if static system icing or other blockage of the normal static pickup is suspected.

A selector valve located under and to the right side of the instrument panel is used to select either normal or alternate static air.

When on alternate static air subtract 65 ft. from altimeter reading and subtract 10 mph from airspeed indicator reading to obtain correct readings.

2.2 EMERGENCY PROCEDURES

2.2.1 ENGINE RESTART

CAUTION: If propeller ceases to turn, diving will not cause windmilling.

Fuel starvation may occur after a series of inverted maneuvers since the header tank may have insufficient time to refill.

CHECK:

- 1) Assume ERECT flight attitude
- 2) Throttle - 3/4 FORWARD
- 3) Mixture - FULL FORWARD
- 4) Propeller - FULL FORWARD
- 5) Fuel Valve - ON
- 6) Emergency Fuel Pump - ON
- 7) Magnetos - ON
- 8) Master - ON
- 9) Starter - ENGAGE if windmill rpm is insufficient

2.2.2 ALTERNATE AIR

If induction ice is indicated (gradual decrease in manifold pressure), use full alternate air until all ice is dissipated.

2.2.3 FUEL PRESSURE LOSS

For fuel pressure loss or fluctuation turn "ON" the emergency Fuel Pump.

2.2.4 ALTIMETER AND AIRSPEED MALFUNCTION

If the static air system picks up ice or has other blockage suspected, PUSH ON Alternate Static Air.

When Alternate Static Air is PUSH ON:

SUBTRACT: 65 ft. from Altimeter Indication

SUBTRACT: 10 mph from Airspeed Indication to correct reading

3. PERFORMANCE INFORMATION

3.1 CLIMB SPEEDS

BEST RATE-OF-CLIMB SPEED AT SEA LEVEL: 76 mph (66 knots) CAS

BEST ANGLE-OF-CLIMB SPEED AT SEA LEVEL: 64 mph (56 knots) CAS

Best rate-of-climb speed decreases 1 mph per 3000 ft. of altitude.
Best angle-of-climb speed increases 1 mph per 3000 ft. of altitude.

3.2 SERVICE CEILING

SERVICE CEILING: 16000 ft.

4.0 LOADING INFORMATION

Weight and Balance data is prepared individually for each airplane. Procedures used in this section have been approved by the FAA.

Page 13 shows the moment diagram and loading envelope applicable to the Model 8KCAB. A weight and balance report containing the airplane empty weight and moment and the approved equipment list is attached to this manual. These items are explained below.

4.1 MOMENT AND LOADING

The loading envelope shows the allowable limits of total airplane moment from minimum weight to maximum gross weight. The moment diagram gives the moment contribution of the pilot, passenger, fuel, oil, and baggage. To find the moment contribution of a 100-lb passenger, for instance, move up vertically along the weight scale to 100 lb., move right horizontally to the line marked "passenger", and then move down vertically to the moment scale where the moment contribution of 4400 in-lb. is read.

To determine if a particular weight configuration is acceptable, find the total weight and the total moment by summing the contribution of each component including the empty airplane (the oil moment is negative and must be subtracted). On the loading diagram, locate the intersection of a horizontal line at the total weight and a vertical line at the total moment. If this intersection lies within the indicated envelope, and is not in the crosshatched area if operating to the Acrobatic Category, the configuration is acceptable. See page 13.

4.2 WEIGHT AND BALANCE

The weight and balance report gives the official aircraft empty weight, empty moment, empty C.G., and useful load. The empty weight includes unuseable fuel and undrainable oil. See page 14.

4.3 EQUIPMENT

Each item installed on the airplane at the time of weighing is marked with an "X" on the equipment list. The weight and moment arm of each item are also shown. The accelerometer is required for acrobatic category operation only. See page 15.

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4.6 EQUIPMENT LIST

Suffix letters on item numbers:

R: required for FAA certification

S: Standard equipment

A: optional equipment not required

O: optional equipment replacing standard or required item

ITEM NO.	X	DESCRIPTION	DWG	WT, LB	ARM, IN
1R	X	Engine, Lycoming IO-320-E1A modified per Champion STC SE7CE	7-1413	289.32	-38.36
2R	X	Propeller, Hartzell HC-C2YL-4F/FC7663-4	7-1417	53.5	-57.50
3S	X	Spinner, Hartzell 836-52	7-1417	4.63	-58.83
4R	X	Prop Governor, Hartzell F6-31	7-1417	4.0	-22.0
5R	X	Tachometer, recording	7-1422	.66	- 3.40
6R	X	Gage-Manifold pressure,	7-1422	1.19	- 6.69
7R	X	Gage-Fuel pressure,	7-1422	.36	- 2.80
8R	X	Gage, Oil pressure,	7-1422	.35	- 2.80
9R	X	Gage, Oil temp.,	7-1422	.57	-13.00
10R	X	Gage, Ammeter,	7-1422	.26	- 2.80
11R	X	Altimeter, Sensitive	7-1422	1.40	- 3.30
12R	X	Indicator, Airspeed	7-1422	.58	- 3.00
13R	X	Compass, Airpath	7-1422	.77	- 4.00
14A	X	Gage, OAT,	--	.17	+21.00
15A		Turn & Bank, electric,	7-1422	2.00	- 5.00
16R	X	System, Stall warning,	4-1401	.85	0.0
17R	X	Relay, Overvolt	4-1540	.5	-22.42
18R	X	Battery, 35 amp-hr, Gill PS6-11 Inst.	4-1599	30.81	88.47

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EQUIPMENT LIST

ITEM NO.	X	DESCRIPTION	DWG.	WT, LB	ARM, IN
19R	X	Tailwheel, Scott 3200	4-1080	7.80	193.33
20R	X	Filter, Carb air	7-1475	.50	-43.00
21R	X	Position light,	7-1401	.38	17.62
22R	X	Tail light, Grimes A-2064-12	4-1548	.14	202.80
23R	X	Whelen wing tip strobe light Inst.	3-1512	4.25	- 2.00
24R	X	Accelerometer -	7-1422	.40	- 3.0
25R	X	Oil Cooler,	7-1413	2.95	-27.18
26R	X	Pump, Emergency fuel, Weldon 8110-C	7-1413	3.18	-23.40
27R	X	Pump, Oil Scavenge, Airborne 1B5-9	7-1413	2.75	-23.80
28R		Brake Cylinder, Gerdes A-110-10 (Heel)	4-1557	1.00	-10.63
290	X	Brake Cylinder Gerdes A-110-10 (Toe)	4-1624	1.00	-19.38
30R	X	Tire and Tube, 6.00 x 6 Type III, 4 Ply (Both Sides)	7-1307	18.50	1.75
31R	X	Wheel and Brake, Cleveland 40-28, 30-19 (Both Sides)	7-1307	13.94	2.44
32R		Wheel and Brake - McCauley D-30063 C-30018-7	7-1307	13.94	2.44
33R	X	Control, Prop governor,	7-1417	1.0	- 5.0
34A	X	Speaker, Cabin	7-1415	1.36	35.00
35A	X	Transceiver, Narco Escort 110	4-1632	4.7	- 5.8
36A	X	Antenna, Nav., Meriden OD-1	3-1542	1.19	103.00
37A	X	Antenna, Broadband, (Spike Type)	4-1631	.5	94.00
38S	X	Cabin Light,	7-1422	.57	24.00
39A		Glider Tow, Schweitzer 3-1127	7-1143	3.94	113.0
40A		Cigar Lighter	7-1422	.20	.50
41A	X	Microphone, Narco M-700A	2-2078	.5	11.0

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EQUIPMENT LIST

ITEM NO.	X	DESCRIPTION	DWG.	WT, LB	ARM, IN
42A	X	Headset, Telex A610-1	2-2078	.5	11.0
43R	X	Seat Belt, Amer. Safety 500668-1 Fr. & Rr. <i>changed</i>	4-1642	2.00	24.31
44R	X	Relay, Battery-	4-1545	.70	84.0
45A		Ash Tray (2)	7-1269	.75	26.25
46R	X	Seat Inst. Front	4-1642	11.00	17.25
47R	X	Seat Inst. Rear	4-1642	11.00	47.63
48A		Seat Inst. Rear - Wide	4-1405	19.60	47.63
49S	X	Wheel Pants (Cleveland Wheels)	4-1474	10.00	2.00
50S		Wheel Pants (McCauley Wheels)	4-1583	10.00	2.00
51A	X	Rear Seat Heater	7-1478	2.25	- 6.55
52S	X	Landing Lite G.E. 4509	7-1475	.47	-52.32
53R	X	Starter-Prestolite	7-1413	17.00	-44.44
54R	X	Alternator-	7-1413	10.63	-48.36
55R	X	Voltage Reg. -	7-1413	.65	-22.40
56A	X	Brittian Turn Coordinator	7-1422	2.00	- 5.00
57A		Genave Alpha 200 Radio Inst.	4-1511	9.00	- 9.00
58A	X	SHARC 7 Emerg. Locator Trans. <i>Removed</i>	3-1504	2.50	79.00
59A		Fire Extinguisher Inst.	7-1415	5.38	15.00
60A		Hour Meter Inst.	3-1354	.80	- 5.00
61S		Vertical Restraint Harness Fr. (Inertia)	3-1555	2.13	17.25
62A		Vert. Restraint Harness Rr. (Inertia)	3-1555	2.13	47.63
64S		Shoulder Harness Rear	3-1557	.50	74.00
65R	X	Cargo Net	3-1475	1.00	62.00

AIRPLANE FLIGHT MANUAL - BELLANCA MODEL 8KCAB

EQUIPMENT LIST

ITEM NO.	X	DESCRIPTION	DWG.	WT, LB	ARM, IN
66S	X	Shoulder Harness Front (Inertia) <i>Changed</i>	3-1557	1.00	44.00
67A	X	Shoulder Harness Rear (Inertia)	3-1557	1.00	74.00

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

FOR FAA USE ONLY

OFFICE IDENTIFICATION

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

1. AIRCRAFT	MAKE Bellanca Decathlon	MODEL 8K CAB
	SERIAL NO. 137-74	NATIONALITY AND REGISTRATION MARK N86601
2. OWNER	NAME (As shown on registration certificate) Jack Singer or John Leneberry	ADDRESS (As shown on registration certificate) R.R. 1 Hale, Missouri 64643

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	~~~~~ (As described in item 1 above) ~~~~~			X	
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Bellanca Aircraft Corporation Osceola, Wisconsin 54020	<input type="checkbox"/> U.S. CERTIFICATED MECHANIC	MMF 3-14-16
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input type="checkbox"/> CERTIFICATED REPAIR STATION	
	<input checked="" type="checkbox"/> MANUFACTURER	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE 7-16-75	SIGNATURE OF AUTHORIZED INDIVIDUAL David N. Waterman <i>David N. Waterman</i>
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7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA FLT. STANDARDS INSPECTOR	<input checked="" type="checkbox"/> MANUFACTURER	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 7-16-75	CERTIFICATE OR DESIGNATION NO. MMF 3-14-16	SIGNATURE OF AUTHORIZED INDIVIDUAL David N. Waterman <i>David N. Waterman</i>		

4.5 WEIGHT AND BALANCE REPORT - MODEL 8KCABDATE 1-21-74 WEIGHT ACTUAL _____ WEIGHT COMPUTED XA/C SERIAL NO. 137-74 A/C REGISTRATION NO. N86601

TOTAL AIRCRAFT EMPTY WEIGHT INCLUDING UNUSEABLE FUEL (18 LB @ +26) AND

UNDRAINABLE OIL (5 lb @ -34): 1290.66 lbAIRCRAFT EMPTY MOMENT: 15745 in. -lbAIRCRAFT EMPTY C.G.: 12.20 in. aft datumUSEFUL LOAD: 509.34 lb

DATUM: Wing Leading Edge

LEVELING MEANS: Drop plumb line from wing leading edge such that plumb line is 12.18 in. forward of front face of fuselage-strut attach fitting.

*Approved
5-1-74
David S. [unclear]*

See Service Manual for Weighing Procedure.

GOODRICH AVIATION, INC.

Municipal Airport - Ames, Iowa 50010

Telephone 515-232-7662

AIRCRAFT EQUIPMENT LIST

AIRCRAFT MAKE & MODEL : Bellanca 8KCB

SERIAL # : 137-74

N 86601

NUMBER	DESCRIPTION	WEIGHT	ARM
1.	Alcor Feanorix model 35	7.0 lbs	35
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

GOODRICH AVIATION, INC.

WEIGHT AND BALANCE AMENDMENT REPORT

MAKE: Bellanca

MODEL: 8KCAR

SERIAL: 137-74

REGISTRATION: 86601

DATE	EMPTY WEIGHT	EMPTY WEIGHT C. G.		USEFUL LOAD
		<i>Arm</i>	<i>Moment</i>	
5-1-74	1291.86	12.21	15780.00	508.34
<i>Superseded by 3-26-09</i>				