

THIS DOCUMENT MUST BE KEPT IN AIRPLANE AT ALL TIMES

CESSNA AIRCRAFT COMPANY

Wichita, Kansas

C. A. A. Approved  
Approval Basis CAR 3  
24 October 1951  
Normal & Utility Category

C.A.A. Identification

MODEL 170 B SEAPLANE

AIRPLANE FLIGHT MANUAL

LIMITATIONS

The following limitations are to be observed in the operation of this airplane as equipped with the six cylinder Continental C-145-2 Engine and EDO Floats, Model 89-2000.

ENGINE LIMITS

2700 R. P. M., 145 Brake H.P. for all operations.

FUEL SYSTEM

Use 80 minimum octane aviation gasoline. (Usable capacity one right tank - 18.5 gallons; one left tank - 18.5 gallons — Total capacity - 37 gallons.)

PROPELLER

1. McCauley Model 1A170 - Static R. P. M. at maximum permissible throttle setting — not more than 2525 R. P. M.; not less than 2300 R. P. M. \*  
(Diameter - Maximum 76 inch; Minimum 74-1/2 inch.)  
\* No additional tolerances permitted.

ENGINE INSTRUMENTS

1. Oil Temperature - Normal operating range 100° - 225° F. (Green Arc).  
Unsafe above 225°F. (Red Line).
2. Tachometer - Do not exceed rated engine speed 2700 R. P. M. (Red Line.)
3. Oil Pressure - Normal range 30 - 40 psi (Green Arc). Idling pressure 5 psi min.  
Maximum pressure 50 psi (Red Line).
4. Fuel Quantity Gauge - Approximately 2-1/2 gallons of fuel unusable in normal flight maneuvers remains in each tank when the gauge registers empty.

AIRPEED LIMITS

(True indicated Airspeed)	<u>NORMAL CATEGORY</u>	<u>UTILITY CATEGORY</u>
Never exceed	140 MPH (Red Line)	140 MPH (Red Line)
Caution Range	110-140 MPH (Yellow Arc)	110 - 140 MPH (Yellow Arc)
Normal Operation	58-110 MPH (Green Arc)	58 - 110 MPH (Green Arc)
Flap Operation	52-100 MPH (White Arc)	52-100 MPH (White Arc)
Maneuvering	105 MPH	110 MPH
Max. Structural Cruising Speed	110 MPH	110 MPH
Max. Speed Flaps Extended	100 MPH	100 MPH
	No Inverted Maneuvers Permitted	No Inverted Maneuvers Permitted

FLIGHT LOAD FACTORS

Flaps Up	+3.8 -1.52	+ 4.4 -1.76
Flaps Down	+3.5	+ 3.5

MAXIMUM WEIGHT -

2106 lbs. 1975 lbs.

CENTER OF GRAVITY, RANGE

NOTE: Datum is forward face of firewall; Leveling Means - upper door sill.

+38. 8" to +44. 4" at 2106 lbs., and 37.0" to +44. 4" at 1800 lbs. or less. Straight line variation of forward limits between above.	+38. 8" to +40. 6" at 1975 lbs., and +37. 0" to +40. 6" at 1800 lbs. or less. Straight line variation of forward limits between above.
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NOTES

1. The following maneuvers are approved for operation in the Utility Category only with recommended entry speeds shown.  
Chandelle - 110 mph; Steep Turn - 100 mph.; Lazy Eight - 110 mph;  
All Stalls (except Whip Stalls) - slow deceleration.
2. It is the responsibility of the pilot and operator to see that the weight and balance are within limitations.
3. Maneuvers involving full application of flight controls should be confined to speeds below maneuvering speed. Abrupt maneuvers should be avoided in speeds exceeding the maneuvering speed.
4. To insure maximum fuel flow take-off and land with fuel valve on both tanks,
5. When using 20° take-off flap, do not retract flaps until all obstacles are cleared and a safe altitude and airspeed are obtained.
6. Avoid sideslips with full (40°) extension of flaps.
7. Lean mixture as required to obtain smooth engine operation when using Carburetor Heat in cruise and climb.