

N3738E – Champ

Aircraft Fact Book

AERONCA CHAMP N3738E (CONT A65-8)

PREFLIGHT

COCKPIT

- Controls free
- Radio and Intercom - OFF
- Magnetos - OFF
- Fuel - ON
- Visual check of instruments
- Fuel tank and hoses
- Brakes
- Rudder pedal tube
- Seat belts

RIGHT WING

- Gas cap on securely
- Wing root fairing
- Step back and check the top of the wing for rips or tear in the fabric, or any other abnormality (ice, dirt, etc.)
- Trailing edge

AILERON

- Check the four (4) attachment points
- Ensure all nuts, bolts and cotter pins are in place and in good shape
- Aileron control
- Check nuts, bolts and cotter pins both above and below the wing
- Check for movement
- Wing tip
- Wing movement - grasp the wing tip and move the wing fore-aft and up-down, ensure there is no unusual movement, watch the landing gear

STRUTS

- Bolts and lock nuts are in place
- Attachment to the wing, cross members, fuselage
- Leading edge
- Check pitot tube and make sure it is clear

LANDING GEAR

- Bolts, nuts, tires, and brake cables
- Check strut to wheel cable
- Check fabric for damage

ENGINE & NOSE

- Check fuel level
- Drain valve
- Check fuel for water and dirt
- Bird nests, no FOD
- Oil 3 to 4 quarts
- No leaks
- Wires – plug, mags
- Cowling securely attached, general condition
- Cooling intake
- Air intake - check filter

PROPELLER

- Check leading edge for dents, cracks or damage
- Tug or pull to ensure it is on
- Check spinner security
- Exhaust pipes
- Grab and check for movement

LEFT WING

- Repeat checks made to right wing

LEFT FUSELAGE

- Check for fabric damage

ELEVATOR

- Check the two (2) attachment points, nuts, bolts and cotter pins
- Check for loose movement
- Check tension and attachment on four (4) elevator wires (both elevator and rudder)
- Check trim for wire tension

RUDDER

- Check the two (2) attachment points, nuts, bolts and cotter pins
- Check control wires for looseness
- Check for loose movement

TAIL WHEEL

- Check rubber, springs, nuts and bolts

RIGHT FUSELAGE

- Check for fabric damage

BEFORE ENGINE START

- Logs – Note Tach time
- Intercom and Radio - OFF.
- Throttle - CLOSED.
- Magnetos - OFF.
- Fuel - ON.
- Carburetor Heat - OFF.
- Pull Prop Through - 4 to 6 Blades

CAUTION: DO NOT let the airplane roll as the starter is standing near

ENGINE START

- Seatbelt fastened.
- Brakes - ON.
- Stick - AFT.
- Area - CLEAR.
- Magnetos - BOTH.
- Engine - START.
- RPM – 1000 rpm
- Oil Pressure – INDICATION (15-32 psi) within 5 secs

BEFORE TAXI

- Intercom - ON.
- Radio - ON.
- Brakes - CHECK.
- Taxi

BEFORE TAKEOFF

- Controls - CHECK.
- Pitch Trim - SET.
- Instruments – CHECK (Altitude set).
- RPM – 1,700 indicated
- Magnetos – CHECK (max 50 rpm drop).
- Carburetor Heat – CHECK.
- Oil Temperature - CHECK.
- Oil Pressure - CHECK.
- RPM - IDLE.
- Seatbelts - FASTENED.
- Door- CLOSED.

TAKEOFF

- Power - FULL.
- RPM - CHECK.
- Climb out - 60 MPH.
- Cruise RPM – 2150 (4.5 gph)
- Trim as needed

LANDING

- Fuel - ON.
- Primer – LOCKED.
- Carburetor Heat - ON BELOW 2,000 RPM.
- Approach speed – 60 mph

AFTER LANDING

- Carburetor Heat - OFF.

SHUTDOWN

- Magnetos - OFF.
- Intercom and Radio - OFF.
- Fuel - OFF.
- Cockpit - CLEAN and NEAT, Stick tied
- Logs – Enter Hobbs Time In Book
- DOUBLE CHECK AND REFUEL THE AIRCRAFT !
- Hangar Or Tie down

AIR SPEEDS

Clean Stall – 38 mph
Vx – Best Angle of Climb – 50 mph
Vy – Best Rate of Climb – 60 mph
Best Glide – 60 mph
Maneuvering Speed – 95 mph
Never Exceed – 129 mph
Empty Weight - 818 lb
Useful load – 502 lb
With 13 Gal. Fuel – 424 lb
C. G. 15.32 in. (C.G. Range from W&B Report - 13.6 to 15.7)
Since empty C.G. falls within range no further computations are necessary.
June 22, 2006

WEIGHT AND BALANCE REPORT

Date 4/13/89 Make & Model Cessna 7AC Serial # 7115 NH 3738E

Right scale reading 390 Tare — Net Weight 390 lbs. (1)
 Left scale reading 362 Tare — Net Weight 362 lbs. (1)
 Nose or Tail scale reading 66 Tare — Net Weight 66 lbs. (1)
 Total Net Weight 818 lbs. (2)
 Distance from Main Wheel Centers to Nose or Tail Wheel Center (Actual) _____ In. (3)
 Empty C.G. in Relation to Main Wheel=(1) _____ X (3) = _____ Inches (4)

Distance Forward (-) 25 or Aft (+) _____ From Datum to Main Whl. Centers (5)
 C.G. as weighed in Relation to Datum(4) 15.32 + or - (5) 0.25 = 15.32 Inches
 Above weight (2) includes: Fuel _____ lbs. at Arm _____ Oil _____ lbs. at Arm _____
 Fuel _____ lbs. at Arm _____
 NET EMPTY WEIGHT (Fuel & Oil Removed) = 818 lbs. COMPUTED EMPTY C.G. 15.32

Empty Weight C.G. Range (See Pertinent Specifications) 13.6 to 15.7

If Actual or Computed Empty Weight C.G. is within above range, no fore or aft check is necessary. If it is possible to load aircraft in manner not shown in specifications, complete calculations should be made.

Loaded C.G. Limits (See Pertinent Specifications) 10.9 to 19.5

CHECK OF MOST CRITICAL CONDITIONS

	Most Forward C.G.				Most Rearward C.G.		
	Weight	Arm	Moment		Weight	Arm	Moment
Airplane Empty	818	15.32	12,738.0		818	15.32	12,738.0
Pilot	170	+11.5	1955		170	+11.5	1955
Fuel ^{Wing tank} 13 gal	78	+24	1872	13 gal Wing tank	78	+24	1872
Fuel							
Oil	7.5	-33	-247.5		7.5	-33	-247.5
Passengers					170	+42	7140
Passengers							
Baggage					20	+64	1280
TOTALS:	1073.5	15.2	16,317.5		1263.5	19.2	24,737.5

MOST FORWARD C.G. = ~~15.2~~ 10.9

MOST REARWARD C.G. = ~~19.5~~ 19.2

For Correct Leveling Means, Datum, Weights and Arms of Fuel, Oil, Pilot, Baggage, Passengers, etc., see Pertinent Aircraft Specification.

For Equipment List, when Above Empty Weight and C.G. were computed, see reverse side.

DATE WEIGHED 4/13/89 BY Lincoln J. Dow CERTIFICATE # AE 1165250

MAX. WT. 1320
 - 1263.5 56.5 useful load

Experimental Aircraft Association, Inc.
3000 Poberezny Road
Oshkosh, WI 54901

Auto Fuel STC

FAA APPROVED

AIRPLANE FLIGHT MANUAL SUPPLEMENT

(See FAA Approved Models List (AML) for approved aircraft and engines)

REGISTRATION NUMBER N3738E

SERIAL NUMBER 7AC-7115

This FAA Approved Flight Manual Supplement must be carried in the aircraft when the aircraft is operated using unleaded automotive gasoline or 82 UL avgas in accordance with STC No. SA01944CH. The information contained herein supplements or supersedes the basic placards and instrument markings only in those areas listed.

FAA APPROVED: Joseph C. Miess

DATE: 02 MAR 2004

REVISED: _____



SECTION I - LIMITATIONS

- A. Unleaded automotive gasoline per ASTM Specification D-439 or D-4814; or 82 UL avgas per ASTM Spec. D-6227 (color purple), as applicable.
- B. Placard Required

Located at each fuel filler inlet, adjacent to aviation gasoline/fuel tank capacity placard:

**THIS AIRCRAFT IS APPROVED TO USE THE
FOLLOWING UNLEADED GASOLINES:**

Automotive Gasoline 87 MIN. AKI
Per ASTM Spec. D-4814

Or 82 UL Aviation Gasoline
Per ASTM Spec. D-6227 (Color Purple)

DO NOT USE AUTOMOTIVE GASOLINE CONTAINING ALCOHOL

SECTION II - PROCEDURES

A. Normal

1. Preflight Inspection

It is the pilot-in-command's responsibility to insure that the tank sumps are drained and that the fuel strainer is drained before each flight. It is also the pilot's responsibility to take corrective action if water or any other contaminant is found when draining at those points.

2. Fueling with Unleaded Automotive Gasoline

Use the same care as when fueling with aviation fuel to insure that only contaminant-free, water-free fuel enters the tank. It is the responsibility of the pilot to insure that the fuel conforms to unleaded automotive gasoline per ASTM Spec. D-439 or D-4814; or 82 UL avgas per ASTM Spec. D-6227 (color purple), as applicable.

FAA APPROVED DATE 02 MAR 2004

3. Mixing Fuels

Aviation gasoline may be mixed with unleaded automotive gasoline or 82UL avgas. Any mixture containing unleaded automotive gasoline or 82UL avgas must be operated in accordance with the placards or precautions established in this AFM.

4. Carburetor Ice

When using unleaded automotive gasoline, the onset of carburetor ice may occur earlier under the same atmospheric conditions than when using 80/87 minimum grade aviation gasoline. There is no change in the techniques for recognizing and correcting for carburetor ice.

5. Engine Operation

Engine operation must conform to the engine manufacturer's recommendations except that fuel per this STC is approved.

6. Contamination Control

The following guidance is taken from Advisory Circular (AC) 20-43C, "Aircraft Fuel Control":

Keep fuel tanks full; water condenses on the walls of partially filled tanks and enters the fuel system. Filter all fuel entering the tank. Drain fuel sumps regularly. Periodically inspect and clean all fuel strainers (screens) and occasionally flush the carburetor bowl as recommended by the aircraft manufacturer. The best insurance against fuel problems is to practice good housekeeping in your routine maintenance and be constantly alert.

The operator is referred to this AC for more detail.

B. Emergency

No change.

SECTION III - PERFORMANCE

No Change

FAA APPROVED DATE 02 MAR 2004



The Leader In Recreational Aviation

Supplemental Type Certificate for the use of Auto Fuel or
82 UL Avgas in accordance with STC SA01944CH and
STC SE01943CH

The Experimental Aircraft Association, Inc. authorizes the installation of STC
SA01944CH and STC SE01943CH on the following aircraft:

Make: AERONCA

Model: 7AC

Aircraft S/N: 7AC-7115

Registration No.: N3738E

Registered Owner: JAMES WRIGHT

Once installed on the above aircraft this authorization shall remain with the aircraft upon
transfer of ownership. These STCs may not be transferred to other aircraft without
written permission from the Experimental Aircraft Association, Inc.

Date: 24 Oct 2005

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

Number SA01944CH

This certificate issued to Experimental Aircraft Association, Inc.
3000 Poberezny Road
Oshkosh, WI 54901

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part * of the * Regulations.*

*Original Product - Type Certificate Number.** See attached FAA Approved Model List (AML)
*Make.** No. SA01944CH for list of approved airplanes and
*Model.** applicable airworthiness regulations.

Description of Type Design Change:

Modify airplane to fly on unleaded automotive gasoline, 87 minimum antiknock index, per ASTM Specification D-439 or D-4818 of any volatility class, A through E, or 82UL AVGAS per ASTM D-6227.

Limitations and Conditions:

1. The engine installed in the airplane must be approved for the use of the fuels specified above, either by Supplemental Type Certificate Number SE01943CH dated March 5, 2004, or later FAA approved revision or by another equivalent FAA approval.
2. FAA approved Airplane Flight Manual (AFM) Supplement EAASTCAFM, dated March 2, 2004, or later FAA approved revision is required.

(See Continuation Sheet page 3 of 3)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

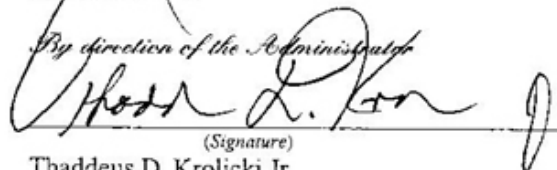
Date of application: February 25, 2004

Date of issuance: March 5, 2004

Date reissued:

Date amended:

By direction of the Administrator



(Signature)

Thaddeus D. Krolicki Jr.
Manager, Propulsion Branch
Chicago Aircraft Certification Office

(Title)



Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 1 year, or both.