



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

Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

AGL-FSDO-GLIS

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark N989CD	Serial No. 1075-2008	
	Make American Champion	Model 8KCAB	Series 8
2. Owner	Name (As shown on registration certificate) Doyle, Charles P. Doyle, Jody J.		Address (As shown on registration certificate) Address 3299 45th Street West City Webster State MN Zip 55088 Country USA

3. For FAA Use Only

THE DATA IDENTIFIED HEREIN COMPLIES WITH APPLICABLE AIRWORTHINESS REQUIREMENTS AND IS APPROVED ONLY FOR THE ABOVE DESCRIBED AIRCRAFT SUBJECT TO CONFORMITY INSPECTION BY A PERSON AUTHORIZED IN FAR 43.7.

9/18/08
DATE *[Signature]* FAA INSPECTOR

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name Benjamin M Redman DBA: RARE Aircraft Ltd	Address 3431 W Frontage Rd	<input checked="" type="checkbox"/> U. S. Certificated Mechanic	Manufacturer
City Owatonna State MN	Zip 55060 Country USA	<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
		<input type="checkbox"/> Certificated Repair Station	473119579
		<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual Benjamin Redman 473119579 <i>[Signature]</i>
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is Approved Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)

Certificate or Designation No.	Signature/Date of Authorized Individual <i>9-18-08</i>
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NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

N989CD

9/17/08

Nationality and Registration Mark

Date

Install smoking airplanes, model SA-201, smoke system as a complete kit as supplied by Smoking Airplanes. The smoke oil tank and electric pump are self contained and mounted on the floor of the baggage compartment. Oil is pumped through Aeroquip hose, secured under the floor boards through the right side of the firewall via an AN bulkhead fitting to a stainless steel exterior braided teflon hose. This hose attaches to the injector fitting that is clamped to the exhaust stack. The oil pump receives is power from a 15 amp circuit breaker switch that is wired to the main electrical buss. Any time the smoke oil electrical system is armed a red led light is illuminated on the instrument panel. Adjacent to the smoke system arm/power 15 amp switchable breaker is a selector switch that allows selection of continuous operation of the smoke pump or allows activation of the momentary push button switch that is mounted on the top of the pilots aircraft control stick.

The tank/pump unit is mounted to the baggage compartment floor at fuselage station 70. The baggage compartment floor was removed and remounted using AN-4 bolts and wood washers replacing the originally used plastic retainer push clips used by the manufacture. The smoke oil tank and pump unit were mounted to the floor board using the supplied brackets bolted through the floor board itself. On the bottom side of the floor board aluminum doubler reinforcement plates were fabricated for the smoke oil tank hold down bolts to pass through for reinforcement of the attaching points. In addition to the supplied brackets that allow fasteners to secure the tank into them four eyebolts are also bolted into the floorboards through the doubler plates to allow two ratchet straps to also be employed in securing the smoke oil tank and pump system.

The electrical system employs aircraft approved wire, circuit breaker and connectors from the bus to the tank/pump unit. All routing, connections, wire size and installation conforms to AC43, 13-2A chapter 11, section 2 and 3. Electrical load limits are not a factor due to this being an intermittent load.

This system is to be used in accordance with FAR Part 137.37 and is intended for use as a Visual Collision Avoidance System, (VCAS).

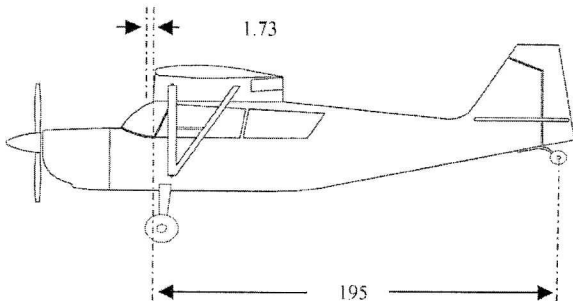
The removal and reinstallation of this unit requires a logbook entry in accordance with FAR 43, and shall be accomplished by a properly rated person holding at least an airframe certificate. The weight and balance and equipment list must be updated accordingly and each reinstallation must be accomplished in accordance with the install manual and all applicable Instructions for Continued Airworthiness (ICA). Operational instructions for the system must be present in the aircraft anytime the system is installed.

ICA is attached to Pg. 3 of this 337.

Additional Sheets Are Attached

AMERICAN CHAMPION AIRCRAFT CORPORATION
 ROCHESTER, WISCONSIN 53167

WEIGHT AND BALANCE WORKSHEET



Model Number **8KCAB (180 HP/CS Prop)**

Serial Number: 1075-2008

Identification Number: N989CD

Date: 8/26/2008

Signed: [Signature]

Aircraft Leveling Means: Drop plumb line from wing leading edge so that it is 12.18 inches forward of front face fuselage wing strut fitting.

Weight Actual: 1333

1. Left Wheel Weight:	624 lbs.	Right Wheel Weight:	635 lbs.
2. Tail Wheel Weight	74 lbs.		
3. Total Aircraft Weight (Full Oil):	1333 lbs.		
C.G. = $\left(\frac{195 \text{ in.} \times 74 \text{ lbs.}}{1333 \text{ lbs.}} \right) + 1.73 \text{ in.} = 12.52 \text{ in. aft L.E.}$			
	WEIGHT (lbs.)	ARM (in.)	MOMENT (in. lbs.)
Aircraft Weight with Full Oil	1333	12.52	16689.16
Subtract Drainable Oil (of 19 lbs, 5 lbs. is undrainable)	-14	-34	+476
Add 0.75 Gallons Unuseable Fuel (Header Tank)	+4.5	-13	-58.5
Add 2.25 Gallons Unuseable Fuel (Wing Fuel Tanks)	+13.5	+26	+351
TOTALS	1337	XXXXX	17457.66
Aircraft Empty C.G.	13.06 in. aft datum		
Normal Category Useful Load	613 lbs.		
Acrobatic Category Useful Load	463 lbs.		
Datum: <u>Wing Leading Edge</u>			
CENTER OF GRAVITY LIMITS:			
NORMAL CATEGORY	(+ 14.7 in.) To (+ 18.5 in.) At 1950 lbs.		
ACROBATIC CATEGORY	(+ 13.5 in.) To (+ 18.5 in.) At 1800 lbs.		
	(+ 11.5 in.) To (+ 18.5 in.) At 1550 lbs. or less		
	Straight line variation between points given.		