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US Department
of Transportation
Federal Aviation
Administration

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

Form Approved DMB No. 2120-0020 2/28/2011	Electronic Tracking Number

For FAA Use Only

AGL-FSDO-GL

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)) Nationality and Registration Mark Serial No. 1075-2008 N989CD 1. Aircraft Mode Series 8 8KCAB American Champion Address (As shown on registration certificate) Name (As shown on registration certificate) Address 3299 45th Street West Doyle, Charles P. 2. Owner Webster State MN City Doyle, Jody J. 55088 Country USA 3. For FAA Use Only THE DATA IDENTIFIED HEREIN COMPLIES WITH APPLICABLE AIRWOR-THINESS REQUIREMENTS AND IS APPROVED ONLY FOR THE ABOVE. DESCRIBED AIRCRAFT SUBJECT TO CONFORMITY INSPECTION BY PERSON AUTHORIZED IN FAR 43.7. DATE FAA INSPECTOR 5. Unit Identification 4. Type Make Model Senal No. Repair Alteration (As described in Item 1 above) 1 AIRFRAME POWERPLANT PROPELLER APPLIANCE Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency Benjamin M Redman DBA: RARE Aircraft Ltd U. S. Certificated Mechanic Address 3431 W Frontage Rd Foreign Certificated Mechanic C. Certificate No. Owatonna Certificated Repair Station 473119579 country USA Zip Certificated Maintenance Organization 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 fumished herein is true and correct to the best of my knowledge Signature/Date of Authorized Individual Extended range fuel per 14 CFR Part 43 Benjamin Redman 473119579 Арр. В 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 FAA Flt. Standards Persons Approved by Canadian Maintenance Organization Manufacturer Inspector Department of Transport BY Other (Specify) Inspection Authorization FAA Designee Repair Station Signature/Date of Authorized Individual Certificate or Designation No.

NOTICE

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

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

N989CD 9/17/08

Nationality and Registration Mark

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 boited 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.

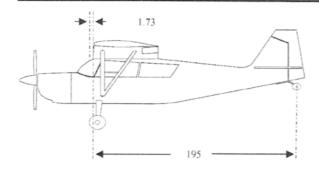
This system is to be used in accordance with FAR Part 137.37 and is intended for use as a Visual Collision Avoidance System, (VCAS).

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.

AMERICAN CHAMPION AIRCRAFT CORPORATION ROCHESTER, WISCONSIN 53167

WEIGHT AND BALANCE WORKSHEET



Model Number Serial Number:

Identification Number:

Signed:

8KCAB (180 HP/CS Prop)

1075-2008 N989CD

8/26/2008

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:

Left Wheel Weight:

624 lbs.

Right Wheel Weight:

635 lbs.

Tail Wheel Weight

74 lbs.

3. Total Aircraft Weight (Full Oil):

1333 lbs.

	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: Wing Leading Edge

CENTER OF GRAVITY LIMITS:

NORMAL CATEGORY

ACROBATIC CATEGORY

(+14.7 in.) To (+18.5 in.) At 1950 lbs. (+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.

US Department of Transportation Federal Aviation Administration							OMB	Form Approved OMB No. 2120-0020 11/30/2007 For FAA Use Only			Number				
	Sti u CuOi	is and dispo	nt or type all sition of this S.C. §46301(a	entries. See Title form. This report	e 14 (is req	CFR uire	§43.9, Part 4 d by law (49 U	3 Append S.C. §44	lix B, 701).	and A Failure	C 43.	9-1 (or	r subs	sequent revision ult in a civil per	n thereof) for nalty for each
Nationality and Registration Mark N234HB				Serial No. 692-92											
1. A	ircraft	Make						Model	Model				S	Series	
			can Champ			8KCAB									
		1		egistration certific	ate)				Address (As shown			egistra	tion c	certificate)	
2. 0	wner	All AVI	ation LLC					City	Address P.O. Box 191 City Issaguah			715			14/4
							zip 98027				Country USA			WA	
					_	3	. For FAA Use		0002	-	_		Country	USA	
	4. Ty	pe	1	O GO DATE	008	5	FAX inspector.		-01	T					
Re	epair	Alteration	Unit					ation				-			
	- CPail		Onic		IVI	fake			Model «(As described in Item					Seria	al No.
		\checkmark	AIRFRAME					-dAs d				above)		
-[POWERPL	ANT											
[PROPELLE												
[APPLIANCE	Type Manufacturer											
							onformity Stat								
A. Ag	Terry I	lame and Ad	ddress			В	Kind of Agend								
		31st Dr NV	N			V		U. S. Certificated Mechanic				Manufacturer			
City	Arlingt			State WA		\vdash	Foreign Certificated Mechanic Certificated Repair Station				C. Certificate No.				
Zip	98223		Intry USA				Certificated N				AP2751427				
	furnishe	d herein is t	rue and corre	eration made to the with the requirement of the best of m	ny kno	wle	dge.	m 5 abov Federal /	e and Aviation	desc on Reg	ribed (julation	on the	revers that t	se or attachmen he information	its hereto
	ded rang 4 CFR P B			gnature/Date of A	n	νy	Bun	1		61	16	10	8		
Purs	suant to	the author	rity given p	ersons specified	helow	. th	val for Return	ed in iter	n 5 '	was in	nenact	ad in	the	mannar	had b. #
Pursuant to the authority given persons specified below Administrator of the Federal Aviation Administration and is					T-	Approved Re			ejecte	ejected					
3Y -	Inspector Manufacturer					M	aintenance Org	Persons Approved by Canadian Department of Transport Other (Specify)							
	FA	A Designee	F	Repair Station	X	In	spection Author	rization		Other	(Spe	city)			

Signature/Date of Authorized Individual

Mps 6-162008

Certificate or Designation No.

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 nation	nality and registration m	nark and date work co	mpleted.)
	N234HB		
Aircraft make and model: American Champion Super Decathlor	Nationality and Registr	ration Mark	Date
Installed Smoking Airplanes, model SA-201, smoke system as a oil tank and electric oil pump are self contained and mounted or	a complete kit as su	upplied by Smoki	ng Airplanes. The
through an Aero quip 305-4 hose under the floor boards to the	panel. The oil hose	then routes throu	igh the left side
firewall via an AN bulkhead fitting to a stainless steel exterior br fitting that is clamped to the exhaust stack. The oil pump obtain			
breaker switch power wire is attached to the main bus. The red time the CB switch is turned on.			
The tank/pump unit is mounted to the aft baggage floor at fusela			
together using 5/8X.058 4130 steel tubing050 4130 plates we 1/4 drilled head bolts. The 2 front attach points on the mounting to	re welded to the tu bracket bolt to the r	be frame for attac rear seat aft attac	ching the tank with h points with 1/4 AN
bolts. The rear two attach points of the mounting bracket attach baggage compartment. The tank is mounted to the bracket with	via 4130 steel clan	mps to the 7/8" V	brace in the
and around the tube frame. The Bracket and smoke system is in	nstalled in such a w	vay that it will not	interfere with
removal or replacement of the ELT or any aspect of the ELT. The bracket are supported by the floor. This installation conforms to			ame mounting
The electrical system employs aircraft approved wire, circuit bre	aker, connectors, e	etc. from the bus	to the tank/pump
unit. All routing, connections, wire size, etc. conforms to AC43, are not a factor due to this being an intermittent load.	13-2A chapter 11, s	section 2 and 3, E	Electrical load limits
Smoking Airplanes Installation and operations manual was strict of this manual is included with the 337 packet.	tly adhered to in all	l aspects of the in	stallation. A copy
The removal and reinstallation of this unit requires a logbook en	try in accordance w	with FAR 43, and	shall be
accomplished by properly certificated personnel, holding at leas equipment list must be updated accordingly and each re-installa applicable Instructions for Continued Airworthiness (ICA's).	t an airframe certifi ition must comply w	icate. The weight with the install ma	and balance and nual and all
The intent of this unit is to provide assistance to other aircraft in	a flight through rur	al country for view	al identification
of other aircraft. It is not approved for any other purposes other	than operational te	esting.	iai identification
Incorporated in Smoking Airplanes installation and operations me present in the aircraft. A copy of this is attached.	anual are the oper	rating instructions	that must be
Instructions for Continued Airworthiness are incorporated in the and operating instructions as well an additional ICA attached to	Smoking Airplanes this document (pag	s manuals part of ge 3).	the installation
Weight and Balance and equipment list is amended.			
This is a one time approval for this aircraft only.	Р	Page 2 of 4	

Additional Sheets Are Attached