

SW-FSDO-66

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DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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

Approved Budget Bureau No. 74-R060.1
FOR FAA USE ONLY
OFFICE IDENTIFICATION SW-FSDO-66

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: REPUBLIC MODEL: RC-3
SERIAL NO. 765 NATIONALITY AND REGISTRATION MARK: N6499K

2. OWNER NAME (As shown on registration certificate): EDMOND F. FREEMAN ADDRESS (As shown on registration certificate): 342 Westridge Dr. Abilene, Tx 79605

The alteration identified hereon is for FAA use only. The applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in FAR 43, section 43.7.

10-31-85 (Date) Anthony J. Allen (Signature of FAA Inspector)

4. UNITS TO BE REPAIRED OR ALTERED

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.
Edmond F. Freeman 342 Westridge Dr. Abilene, Tx 79605	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	1580607
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input type="checkbox"/> CERTIFICATED REPAIR STATION	
	<input 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: 10-31-85 SIGNATURE OF AUTHORIZED INDIVIDUAL: Edmond F. Freeman

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	MANUFACTURER	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION	OTHER (Specify)
		FAA DESIGNEE		

DATE OF APPROVAL OR REJECTION: 10-31-85 CERTIFICATE OR DESIGNATION NO.: 1580607 SIGNATURE OF AUTHORIZED INDIVIDUAL: Edmond F. Freeman

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.)

CABIN HEATING SYSTEM

- (1) Manufactured hot air control valve from 1020 .025" steel sheet as shown in attached photo #1 and attached drawing. The operation of the hot air control valve is designed so that the hot air is dumped overboard when the valve is selected to the off position, thus maintaining the cooling provision for the heat exchanger as required by F.A.R. 23.1125(a)(3).
- (2) Cut 3" hole in lower lt. corner of aft. vertical firewall and installed control valve in hole using AN3-4 bolts, and AN365-1032 nuts, four of each, valve mount plate sealed to firewall using pro-seal 700 firewall sealant.
- (3) Installed aero duct CET-1 between hot air outlet, provided on exchanger cooling shroud, and inlet to valve assy. Mounted duct with two AN737TW107 clamp assys. Supported duct by attaching it to the servo body assy.
- (4) Removed rt. aft. cabin floor access panel, attached Bud box p/n AU-1029-HG to panel using 4 ea. AN365-1032 nuts and AN3-4 bolts. Cut two 1" holes in bottom of box through panel and attached a Beechcraft p/n 96-919100-51 elbow weld. assy. to each hole with outlet facing fwd, using four 1/8" rivets. Cut a 1" hole in each side of the box and attached the Beechcraft elbow assys. with outlet facing fwd as before. Cut a 3" hole in the back of the box and attached a Beechcraft p/n 96-91910-31 weld. assy. duct adapter using 1/8" rivets.
- (5) Manufactured rear seat kick panel from 1/2" honeycomb Al. stock and attached same to the front of the seat frame with MS35207 machine screws and AN365 nuts. Cut 1.25" holes just inbd of the rear seat attach brackets and installed 1" plastic duct adapters.
- (6) Installed Aeroduct CET-1 between the duct adapters on the kick panel and the side mounted elbows on the box assy. using AN737 clamps and supporting the duct by attaching to seat brackets and kick panel.
- (7) Cut 3.5" hole in rear cabin bulkhead, behind the distribution box in line with the 3" Beechcraft duct adapter. Glued rubber channel within the hole to protect from sharp edges.
- (8) Installed Aeroduct CET-1 routing duct and supporting along a path across the aileron cable cover, down along the rt. aft. rear spar carry thru support, to below the baggage compartment floor along the rt. side of the aircraft thru the hole in the bulkhead and attaching to the distribution box with a AN737 clamp.
- (9) Removed both fwd. floor access covers and attached duct adapters and deflectors as shown in photo #2.
- (10) Installed Aeroduct CET-1 between the fwd bottom Beechcraft elbows on the distribution box, fwd. to the duct adapters on the fwd. access covers using AN737 clamps and supporting the duct along the seat support hat channels under

ADDITIONAL SHEETS ARE ATTACHED

N16499K, RC-3, SN 765

F.A.A. Form 337

DATED:

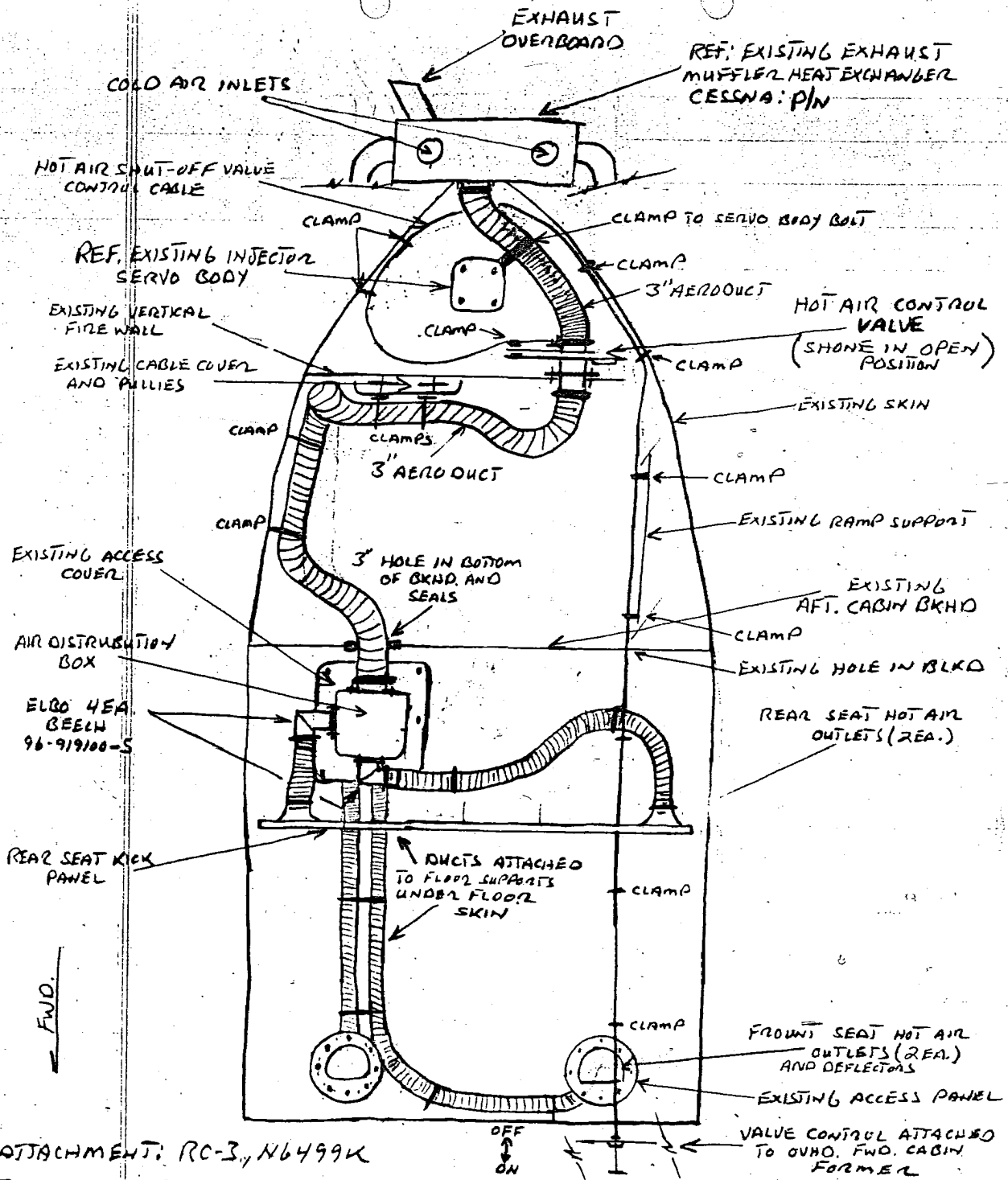
CABIN HEATING SYSTEM (cont.)

the floor and across the back of the fwd. compt. bkhd. and re-installing the fwd. floor access covers.

- (11) See attached drawing for component layout details.--
- (12) Manual operation of the hot air control valve is provided at the pilot station by a push-pull cable control assy. installed over the pilots head on the fwd. cabin former. This cable is installed and routed as indicated on the attached drawing.
- (13) Components manufactured and installed using standard aircraft maintenance practices.
- (14) Heat exchanger Cessna p/n 0750130, exchanger shroud, mounting installation, inlet cooling ducts and fittings, pending approval with engine installation, S.T.C. F.A.A. Project No. A6930SW-S.
- (15) Placed "Medical Saf-T Inc." carbon monoxide indicator in cockpit within view of the pilot, the use of which is required during heater operation to detect failure of the heat exchanger plenum.
- (16) Weight and balance revised.

***** END *****

Page 2 of 6 pages

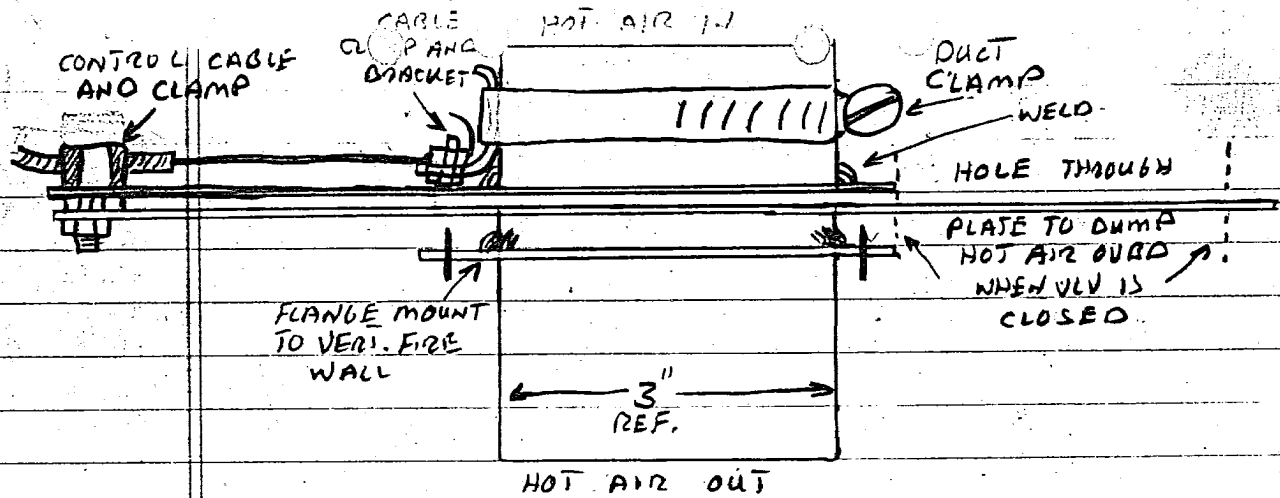


ATTACHMENT: RC-3, N6499K

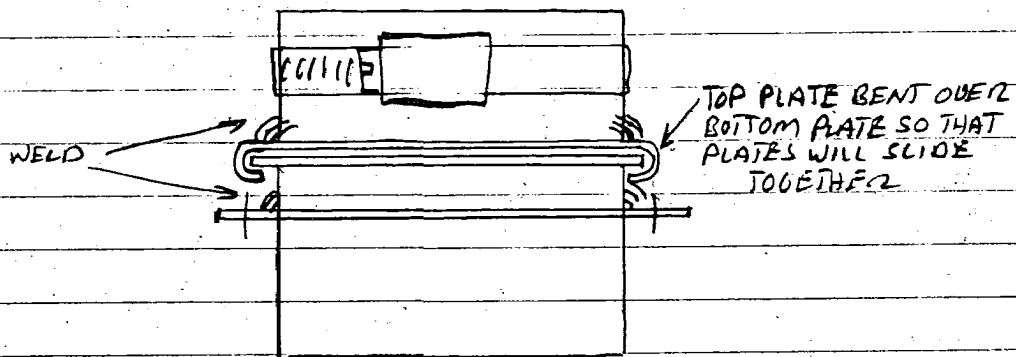
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DATE:

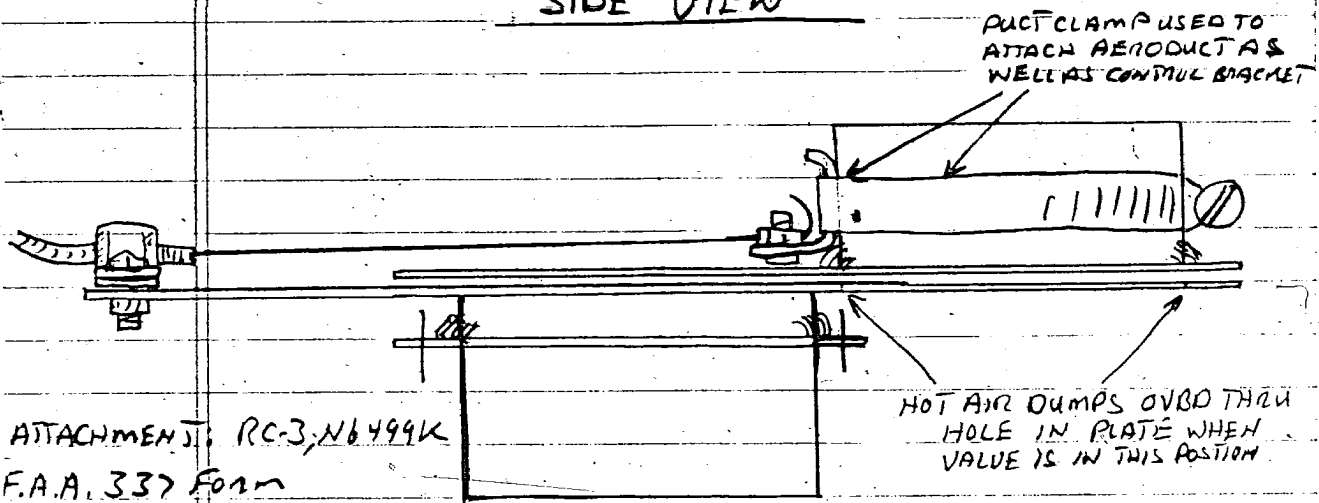
A/C, S/4 765



HOT AIR CONTROL VALVE (OPEN POSITION)



SIDE VIEW



ATTACHMENT: RC-3, N6499K

F.A.A. 337 Form

DATED:

A/C, S/N 765

HOT AIR CONTROL VALVE (CLOSED POSITION)

ATTACHMENT:
RC-3, N6499K
S/N 765
F.A.A. Form 337
DATE:

PHOTO #1

HOT AIR CONTROL VALVE

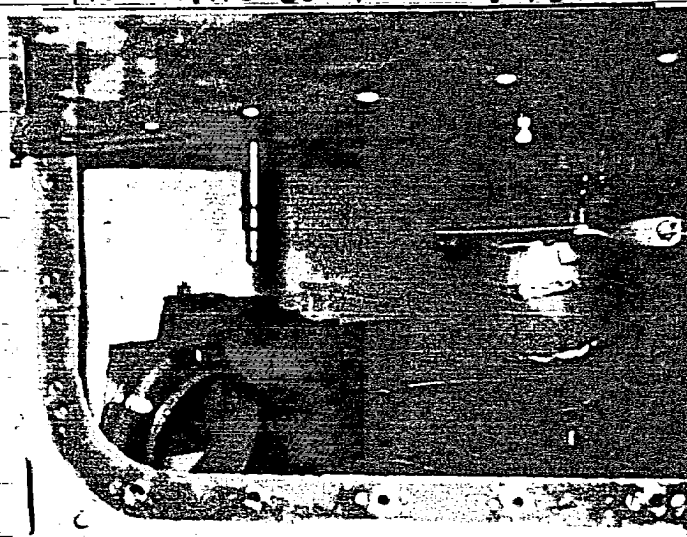


PHOTO #2

FWD. HOT AIR OUTLETS AND DEFLECTORS