

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				FOR FAA USE ONLY	
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.				OFFICE IDENTIFICATION	
1. AIRCRAFT	MAKE	REPUBLIC	MODEL	RC-3	
	SERIAL NO.	765	NATIONALITY AND REGISTRATION MARK	N6499K	
2. OWNER	NAME (As shown on registration certificate)		ADDRESS (As shown on registration certificate)		
	EDMOND F. FREEMAN		342 Westridge Drive Abilene, Tx. 79605		
The information furnished herein complies with 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.					
4. UNIT IDENTIFICATION			SW-GADO-7, Lubbock, Texas		
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****				X
POWERPLANT	AVCO LYCOMING	GO-480-G2D6	L-197-34		X
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 Drive Abilene, Tx. 79605		<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		1580607	
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	6-5-86		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>		
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA RT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION	6-11-86		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>		
	CERTIFICATE OR DESIGNATION NO. 1580607				

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.)

C.H.T. and E.G.T. Monitoring System

1. Installed J-type Thermocouple, Westberg P/N 712-7DX on each cylinder in the hole provided.
2. Installed K-type Thermocouple, Westberg P/N 712-5W on each cylinder exhaust pipe approximately 3.75 inches from cyl. flange in 3/16" hole drilled in pipe.
3. All Thermocouple leads routed and clustered beneath #3 & #4 cyl. respectively and clamped to engine mount assembly with Adel clamps.
4. Additionally, leads spiral wrapped and routed direct to each wing root area, left bank cyl. leads to left wing root and right bank cyl. leads to right wing root.
5. Isothermol cold reference junction provided in each wing root by installing a Bud Box, P/N CU-124, on the inside of the bottom wing faring, using P/N AN526R screws and P/N MS21059L3 Nut Plates. Reference provided to O.A.T. by installing a small scoop on the outside of the faring, below each box.
6. Located within the reference junction are Two terminal strips, P/N TRW-6-141, to which the Thermocouples are attached.
7. Thermocouple cylinder selection is provided for by installing a six position switch. Westberg P/N 254-21EDP, Knob and position placard in head liner above pilot's position, connected to the C.H.T. and E.G.T. indicators, previously installed on F.A.A. Form 337 dated April 24, 1984.
8. Cold reference junctions and switch assembly are connected together using two Beldon P/N 8456 multi-conduit cables, 6 ft. long (approx.) and four terminal strips at the switch assembly to which the switch is soldered. The cables are routed from the wing roots through the forward vertical firewall, protected by rubber grommets along the top of the cabin above the headliner, tie wrapped as necessary to the switch assembly. General layout of system as per attachment.
9. All major components manufactured by Westberg Mfg. Co., Inc. and meet the requirements of T.S.O. C-43.
10. System calibrated at 70°F-O.A.T.
For O.A.T. below 70°, the correct readings would be the meter reading minus the number of degrees O.A.T. is below 70°F. For O.A.T. above 70°F add that amount to the meter reading.
11. Additionally, C.H.T. portion of System calibrated for flight test purposes using a millivolt meter, Simpson 460, read out. Calibration accomplished using a C.M.S., Inc. ASTM-55HL thermometer to monitor the cold reference junction, and an ERTCO, ASTM-7F thermometer to monitor the hot reference junction. With all thermocouples in hot oil, the corrections noted in the attachment are applicable.
12. Components manufactured or installed using standard aircraft maintenance practices.
13. Weight and balance, equipment list revised.

END

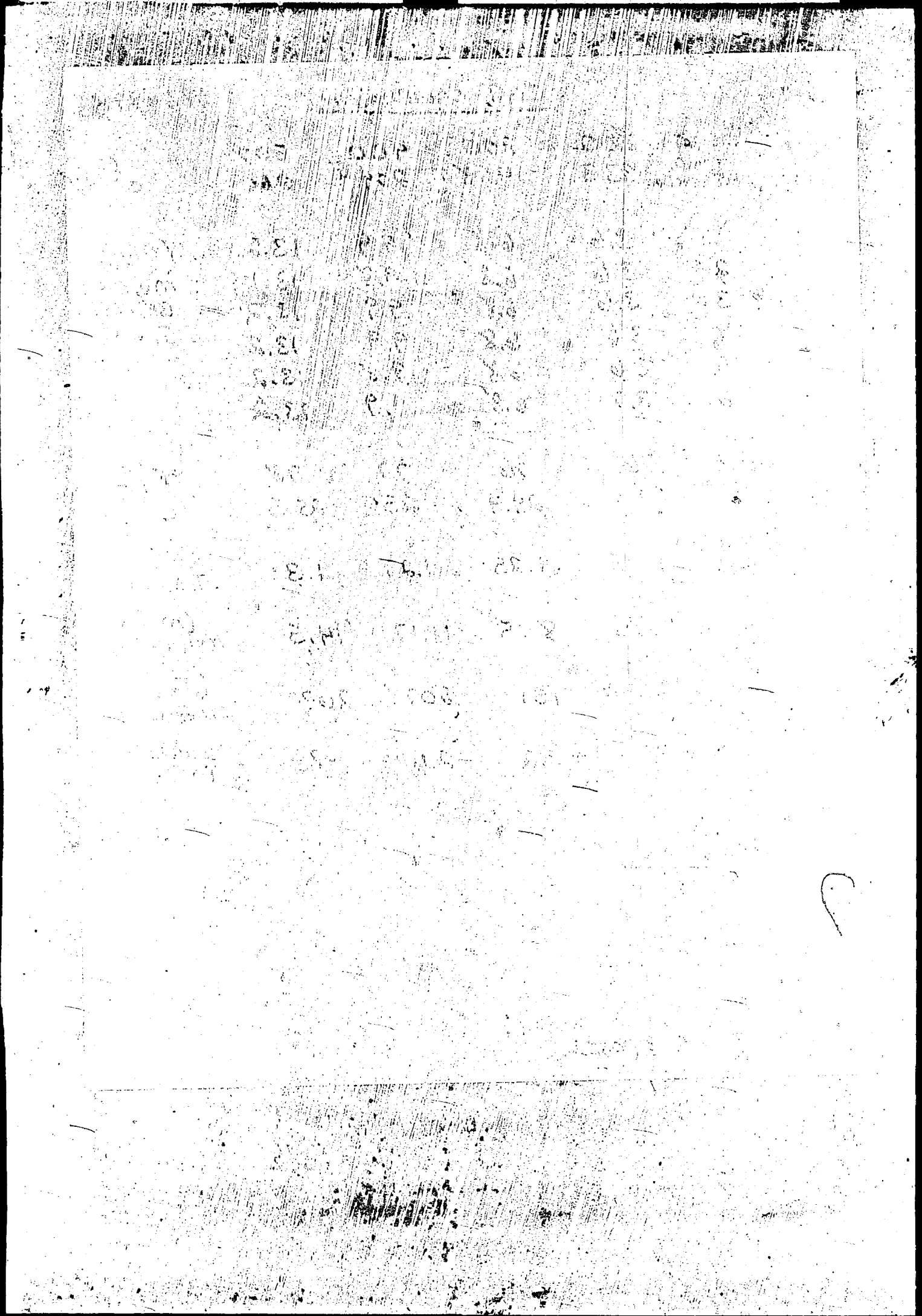
ADDITIONAL SHEETS ARE ATTACHED

C.H.T. CALIBRATION

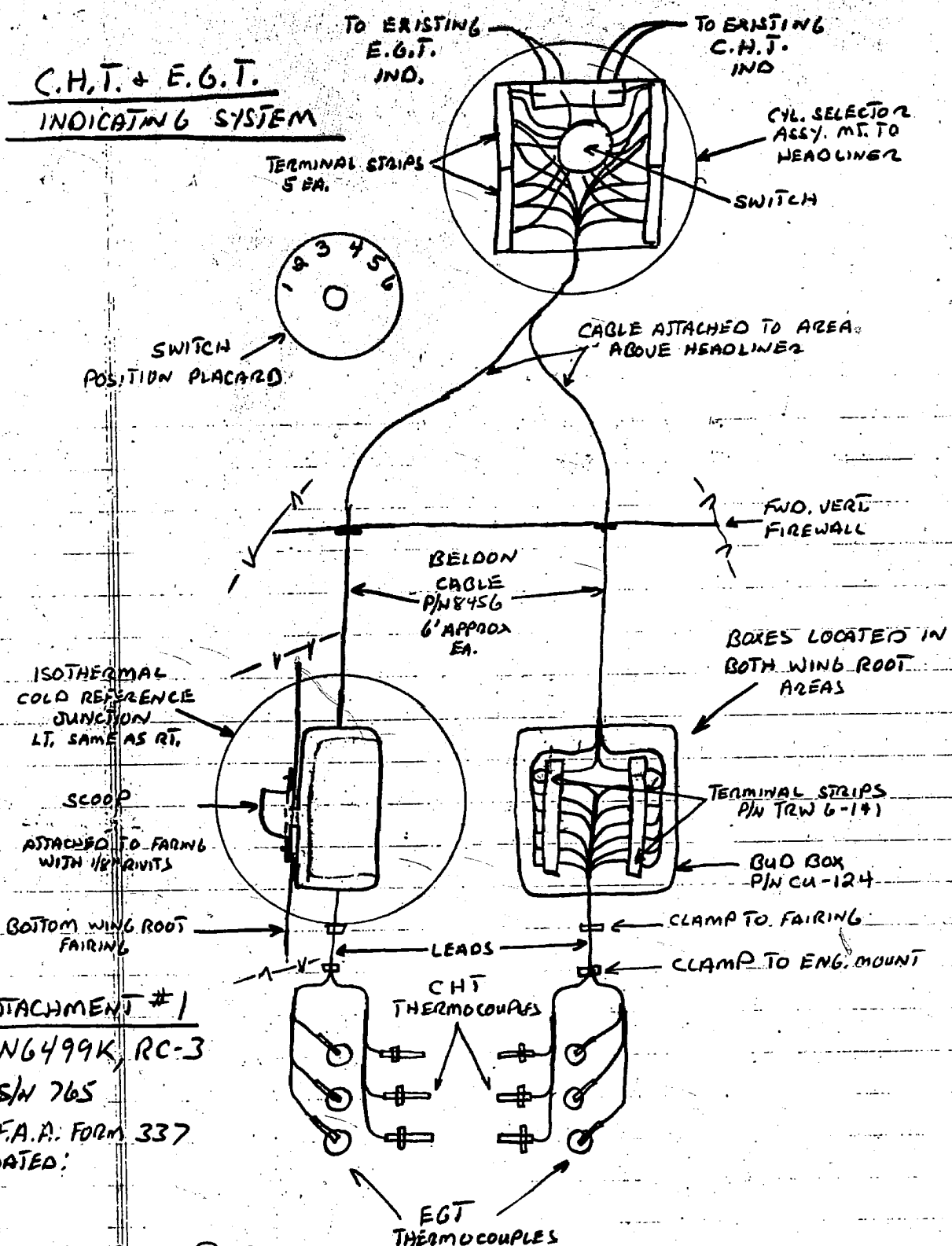
N6499K

	OIL BATH TEMP. HOT JUNCTION	200	300	400	500	$^{\circ}F(T_2)$ $^{\circ}C$
		93.3	148.8	204.4	260	
		3.6	6.8	9.9	13.2	(MV ₁)
		3.6	6.8	9.8	13.1	MV ₁ DIFF.
CYL#		3.6	6.8	9.9	13.2	BETWEEN
		3.6	6.8	9.9	13.2	T ₁ + T ₂
		3.6	6.8	9.8	13.2	
		3.7	6.8	9.9	13.2	
	COLD JUNCTION	76 24.4	76 24.4	77 25	78 25.5	$^{\circ}F(T_1)$ $^{\circ}C$
	N.B.S. TABLES	1.25	1.25	1.27	1.3	(MV ₂) T ₁ TO MV.
)	4.85	8.05	11.17	14.5	(MV ₃) MV ₁ + MV ₂
		92.5	151	207	267	(T ₃) MV ₃ TO $^{\circ}C$
		+ .8	- 2.2	- 2.6	- 7	CORRECTION T ₃ TO T ₂ $^{\circ}C$

ATTACHMENT #2
N6499K, RC-3
SN 765
F.A.A. FORM 337
DATED.



C.H.T. + E.G.T.
INDICATING SYSTEM



ATTACHMENT #1
 N6499K, RC-3
 S/N 765
 F.A.A. FORM 337
 DATED: