



US Department of Transportation  
Federal Aviation Administration

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

Form Approved  
OMB No. 2120-0020

For FAA Use Only

Office Identification

*WP-27 MS*

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. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

<b>1. Aircraft</b>	Make <b>Republic</b>	Model <b>RC-3</b>
	Serial No. <b>1000</b>	Nationality and Registration Mark <b>N5166B</b>
<b>2. Owner</b>	Name (As shown on registration certificate)	
	<b>Davey Darrell L Davey Deborah A</b>	
		Address (As shown on registration certificate)
<b>6613 Santa Rosa Rd Camarillo Ca 93012-5672</b>		

**3. For FAA Use Only**

*Water detector*

The data identified 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

*22 Sep 99*      *[Signature]*  
DATE                      SIGNATURE                      OAK FSDO

**4. Unit Identification**

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

**6. Conformity Statement**

<b>A. Agency's Name and Address</b>  <b>Kenneth L. Thompson</b> <b>PO Box 411</b> <b>Vineburg, Ca. 95487</b>	<b>B. Kind of Agency</b> <input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	<b>C. Certificate No.</b>  <b>545767051</b>
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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 <i>9-22-99</i>	Signature of Authorized Individual <i>Ken Thompson</i>
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**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

<b>BY</b>	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection <i>9-22-99</i>		Certificate or Designation No. <b>552273581</b>		Signature of Authorized Individual <i>[Signature]</i> Douglas P. Smith	

## 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.)

Republic RC-3      N5166B      Ser.# 1000

2. Description: Installed Kenair model KA WF1 water in fuel detector system. Panel detector/indicator P/N WF1-A mounted in upper face of instrument panel. Republic P/N 1271 fuel strainer modified by drilling a .250 inch thru hole in the removable lower strainer cap to accept fuel detector probe P/N WF-1B. All work done in accordance with AC 43.13 1A, Ch. 11, section 2, para.424, 429, section 3, para. 442, 443, 445 thru 451, fig. 11.7a, section 7, para. 514 thru 520.
3. Control, operation information: Reference flight manual supplement KA WF1 Water in Fuel Detector operation
4. Servicing information: None
5. Maintenance instructions: Must be inspected annually in accordance with FAR 43 appendix D and FAR part 91.
6. Trouble shooting information: N/A
7. Removal and replacement information: None
8. Diagrams: None
9. Special inspection requirements: None
10. Application of protective treatments: None
11. Data: None
12. List of special tools: None
13. For commuter category aircraft: N/A
14. Recommended overhaul periods: No additional overhaul time limitations
15. Airworthiness limitation section: No additional airworthiness limitations
16. Revision: A letter will be submitted to the local FSDO with a copy of the revised FAA form 337

Pg. 1 of 3

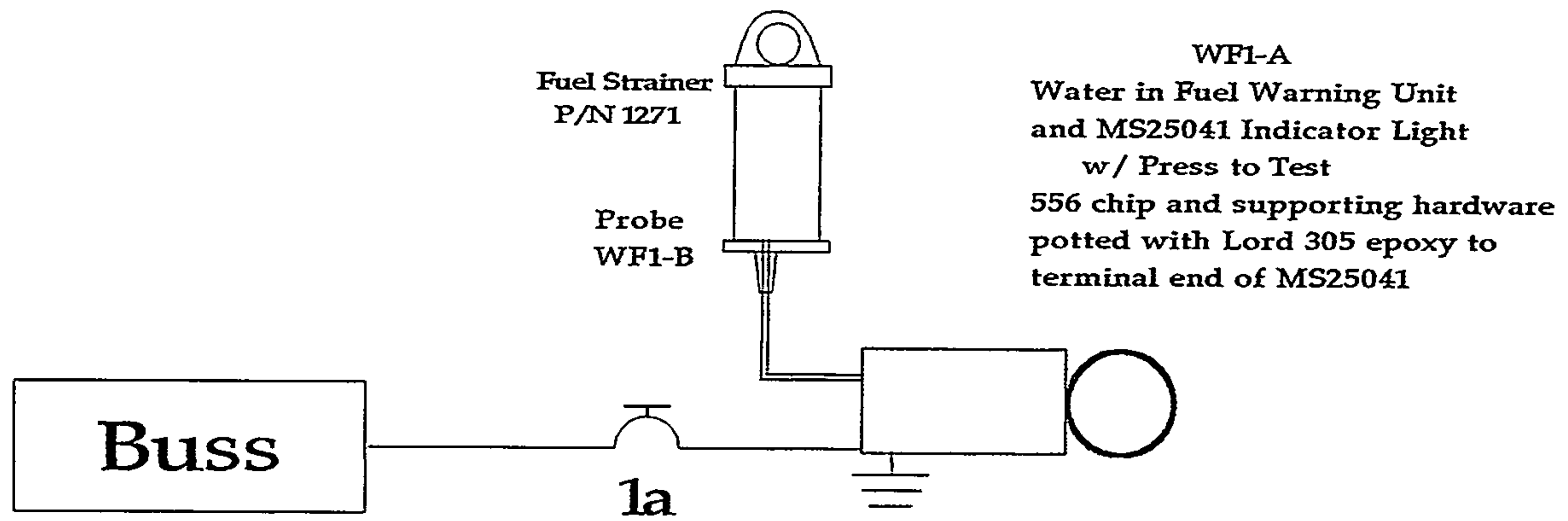
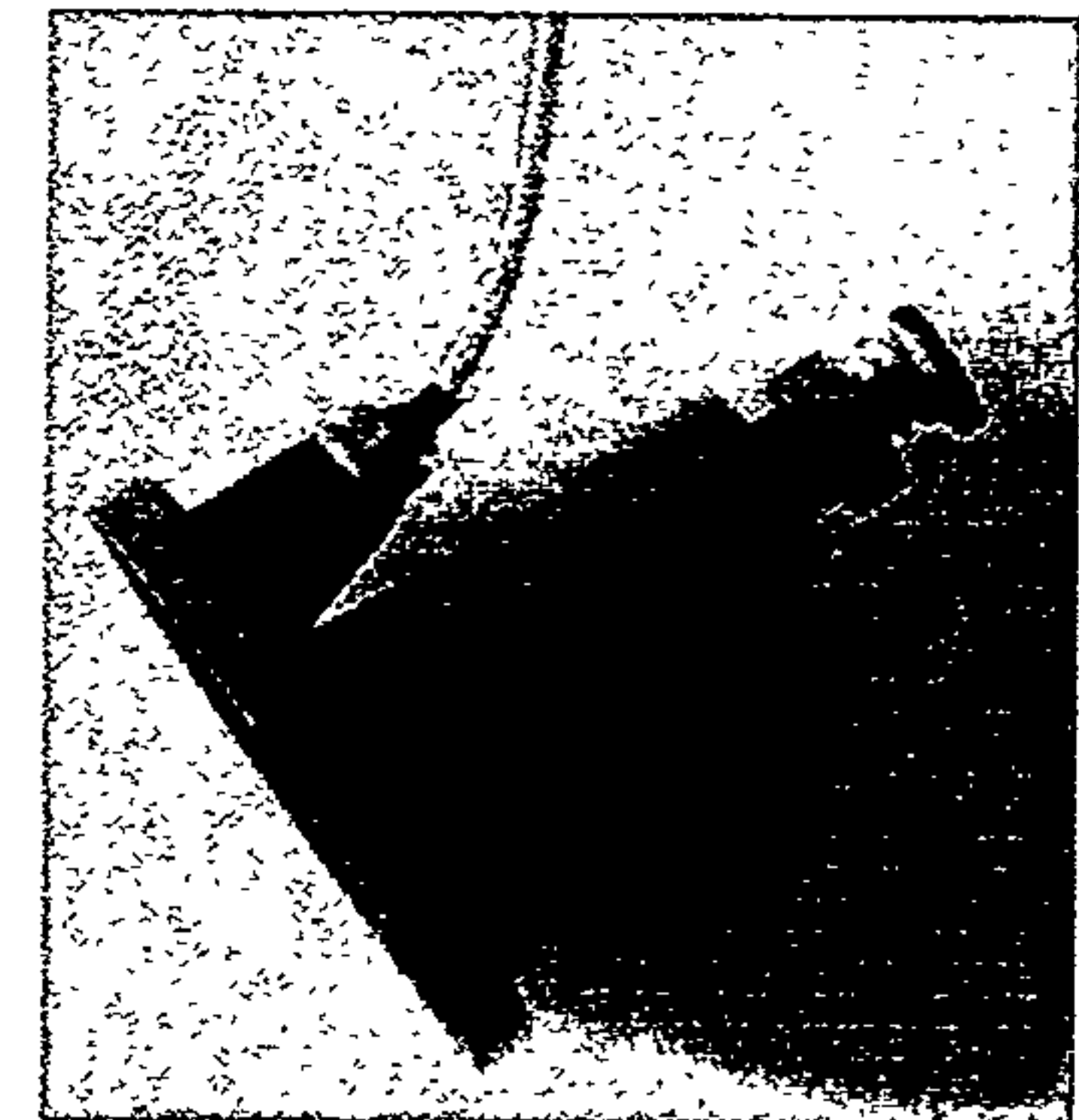
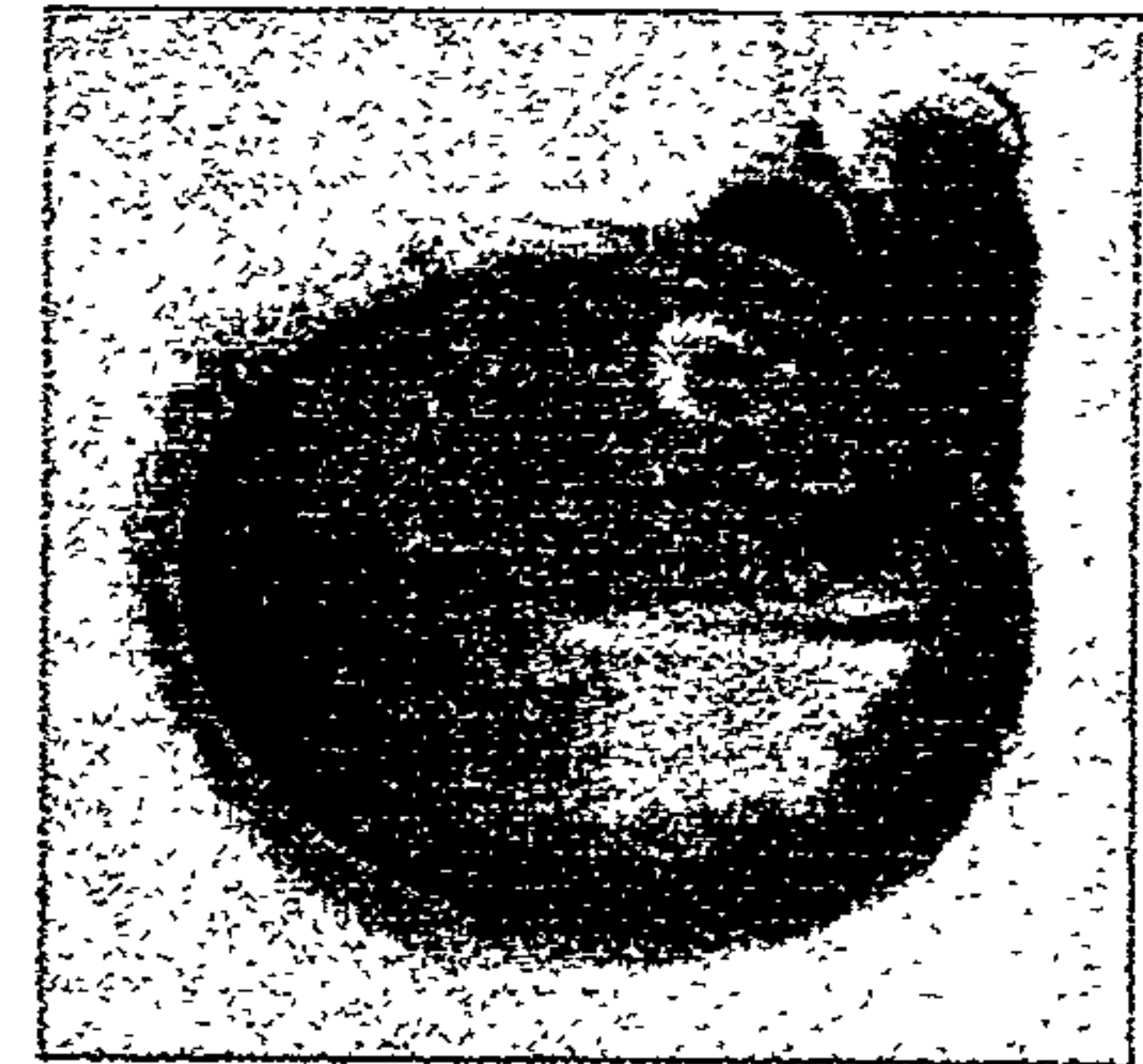
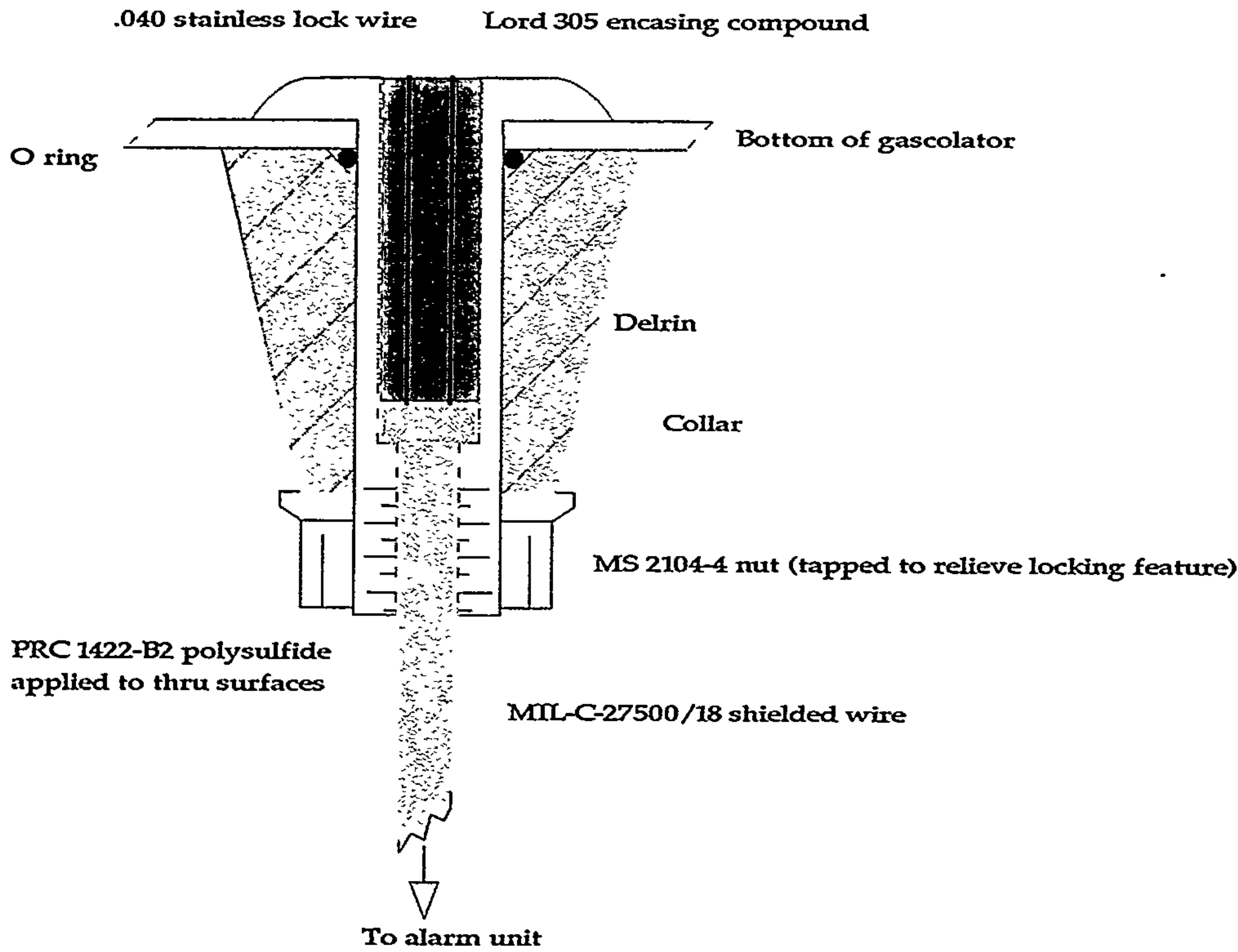
Additional Sheets Are Attached

\*U.S.GPO:1994-568-012/00019

# RC-3 N5166B S/N 1000

## KA WF1 Water in Fuel Detector Probe P/N WF1-B and electrical installation diagram

NAS 1103-4 Bolt (head ground to contour  
and drilled thru #30, counter-bored #18)



When water is detected light  
will flash continuously

9-22-99



Kenair Aviation

KA WF1 Water in Fuel Detector  
Flight Manual Supplement for Republic RC-3 S/N 1000 N5166B

Operation

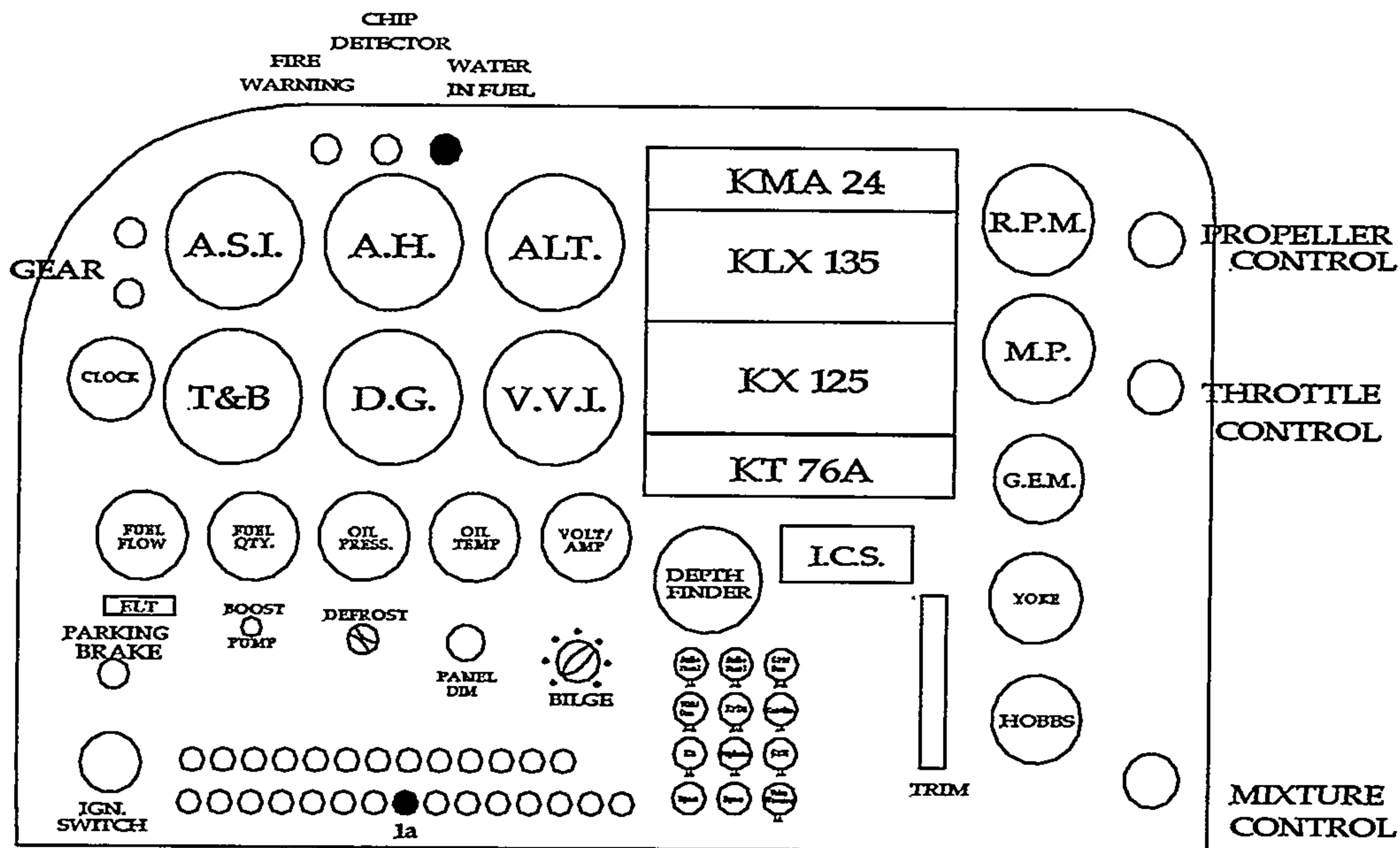
The KA WF1 Water in Fuel Detector is in operation when the main aircraft electrical buss is energized. When the master switch is first switched on the Water Detector will self test as indicated by the indicator light that is mounted in the upper portion on the instrument panel, blinking for a few seconds then the light will turn completely off. The detection system may be checked for operation at any time by using the "push to test" feature of the indicator light.

If indicator light blinks - Land as soon as practical and inspect fuel system for water contamination.

Detection System will reset automatically each time master switch is switched off/on.

To disable Detection System for maintenance pull out the 1 amp circuit breaker located in lower instrument panel.

Water in Fuel Detector Panel Location



9-22-99

Rg 30F3