

PIPER CONSIDERS COMPLIANCE MANDATORY
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October 21, 1985

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VENDOR SERVICE PUBLICATION

TO: All Affected Owners, Piper Cheyenne Sales Centers and Cheyenne Service Centers

SUBJECT: Janitrol Aero Service Bulletin No. 75 (O-Ring Replacement and Check of Fuel Fitting on Certain Janitrol Aero Aircraft Heaters using JP Type Fuels)

MODELS AFFECTED:

PA-31T Cheyenne  
PA-31T Cheyenne II  
PA-31T1 Cheyenne I  
PA-31T1 Cheyenne IA  
  
PA-31T3 T-1040

SERIAL NUMBERS AFFECTED:

31T-7400002 through 31T-7720069  
31T-7820001 through 31T-8120104  
31T-7804001 through 31T-8104101  
31T-8304001 through 31T-8304003  
31T-1104004 through 31T-1104017  
31T-8275001 through 31T-8275017,  
31T-8275025, 31T-8375001 through  
31T-8375003, 31T-8375005,  
31T-8475001, and 31T-5575001

NOTE: VSP-53 does not apply if Janitrol Aero Service Bulletin No. 75 has been complied with.

PURPOSE:

To assure distribution of the attached Janitrol Aero Service Bulletin No. 75 to all affected owners and Piper Cheyenne Field Service Facilities.

SPECIAL INSTRUCTIONS:

1. Gain access to the heater by removing right side forward fuselage panel.
2. Gain access to the Manufacturer's data plate by untaping the insulation forward of the ignition unit and peeling it back. The plate is secured to the outboard side of heater can, either to the rear or below the boss for the ignitor plug.

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ATA: 2148

SPECIAL INSTRUCTIONS (CONT'D):

3. Only the following part number heaters are affected by this Service Release:

10E21-2  
10E21-4  
10E21-3 (Mod Kit 19E40-1)  
23E62-1  
23E62-2

NOTE: Not all above listed aircraft have these affected heaters installed, but some substitutions may have occurred in the field.

4. If your heater part number is not listed in Instruction 3, reinstall insulation and secure with high temperature tape. Install right side forward fuselage panel. No further action is required.
5. If your heater part number is listed in Instruction 3, refer to attached Janitrol Aero Service Bulletin No. 75 for further instructions. (Page 1: Section 2 - Accomplishment Instructions).

Credit is available for labor on aircraft in warranty only, when filed through your Piper Cheyenne Field Service Facility. Factory participation will remain in effect for a period of time not to exceed 180 days from the date of this Service Release.

NOTE: If you are no longer in possession of the affected aircraft, please forward this information to the current owner.



**SERVICE BULLETIN**  
**NO. 75**

HEAT TRANSFER AND CONTROL PRODUCTS FOR THE AEROSPACE INDUSTRY

LITHO IN USA JE 85

O-RING REPLACEMENT AND CHECK OF FUEL FITTING ON CERTAIN JANITROL AERO AIRCRAFT HEATERS USING JP TYPE FUELS. (DOES NOT APPLY TO HEATERS USING GASOLINE FUEL.)

PREFACE: The O-ring PN 25C85-93 used in the filter assembly provides a marginal amount of compression. To insure against fuel leakage it is being replaced by O-ring PN 25C85-131 which offers greater compression. Also there was a small percentage of heaters produced with spiral grooves on the end of the fuel feed fitting at the "O" ring sealing surface of the fuel fitting. (See Detail A of Figure 2.) Any fitting with grooves must be replaced in accordance with this bulletin.

1. Planning Information

- A. Effectivity - This bulletin applies to Heaters PN 88D81-2, 10E21-2, 10E21-3, 10E21-4, 23E62-1, 23E62-2, 24E07-1, 26E46-1 and 90E00-1.
- B. Reason - To prevent possible fuel leakage into cabin ventilating air stream and/or to ambient. Applies to all heaters as listed in "A" above.
- C. Description - Replace O-ring PN 25C85-93 with replacement PN 25C85-131 and inspect for grooves on the end of the fuel fitting of the solenoid assembly. If grooves are found, replacement of solenoid assembly is required.
- D. Compliance - Comply at next heater maintenance period provided no fuel fumes have been noticed during heater operation. If fuel fumes have been encountered, this must be accomplished prior to next operation of the heater. In any case, compliance with this bulletin must be completed within the next 100 heater hours or 60 days after date of this service bulletin, whichever occurs first.
- E. Material - Kit PN 90E74-1. Also an exchange solenoid valve assembly will be required if spiral grooves are found to be present on the fuel fitting.
- F. Tooling, Price & Availability - No special tooling is required. See foot notes at end of Page 3.
- G. Weight and Balance - Less than .1 pound. No effect.

2. Accomplishment Instructions

- A. These instructions are for a typical installation.
- B. Removal and Disassembly - (Refer to Figures 1 and 2 and Table 1)
  - (1) Loosen clamp nearest heater. Slide rubber hose and upper shroud cup up the fuel line. Remove fuel inlet feed line from reducer.
  - (2) Remove the heater from the aircraft, if required. Heaters with access window in jacket assembly do not have to be removed from aircraft. (See Table 1.)

- (3) Loosen and remove filter assembly.

NOTE: On units removed from aircraft, place a wrench on fitting flat of fuel feed line of solenoid valve to prevent twisting the line. Heaters with access window have a fitting holding tab to prevent rotation during disassembly and reassembly.

- (4) Separate reducer from filter body. Remove and discard O-rings (PN 25C85-93 and PN MS29512-6).
- (5) Carefully inspect end of fuel fitting. (See Detail A of Figure 2.) If grooves are found, the solenoid valve assembly must be replaced to prevent possible fuel leakage. Return to Janitrol Aero for replacement. (See Note 2 at bottom of Page 3.)
- (6) If grooves are found, remove solenoid valve assembly.
- (7) If the solenoid valve assembly is removed it will be necessary to remove gasket (PN B44A06) at heater jacket, then scrape or sand off the Permatex sealer residue from both sides of jacket.

NOTE: Take care to prevent dust and debris from entering combustion tube or fuel line. Cover openings. Small particles can clog heater spray nozzle.

#### C. Cleaning

- (1) Clean all parts in cleaning solvent Spec. P-D-680 or equivalent. Dry parts using clean, filtered compressed air at 20 pounds or less.

CAUTION: Wear safety glasses or goggles to keep solvent spray or blown material from eyes.

#### D. Reassembly (Refer to Figure 2)

- (1) Install a replacement solenoid valve assembly if grooves were found in existing assembly. Install o-ring or gasket as supplied with exchange unit, then install solenoid valve assembly.
- (2) Coat new gasket B44A06 on both sides with Permatex No. 1372 FORM-A-GASKET or equivalent and install gasket onto fitting next to heater jacket.
- (3) Align lower shroud cup with overboard drain directed downward, and place in position onto fitting end of solenoid valve assembly.
- (4) Assemble the filter assembly. Wet the replacement O-ring 25C85-131 using kerosene (JP-5) as lubricant and install into groove in filter body. Install new O-ring MS29512-6 onto reducer and install reducer into filter assembly. Torque at 22-25 ft. lbs.
- (5) Screw filter assembly build-up onto solenoid valve assembly fitting. On heaters which have been removed from aircraft, use a wrench on fitting flat inside heater jacket to prevent twisting fuel line. Torque at 10-12 ft. lbs.

- (6) Install heater in aircraft. Connect fuel inlet line and torque at 10-12 ft. lbs. Leave rubber hose and clamps up on fuel inlet line so a check can be made for leaks.
- (7) Start heater and check for leaks. If no leaks are found, proceed to step 8, if leaks are observed check tightness of fuel line, reducer and filter assembly or for damage to O-rings.
- (8) Slide rubber hose and clamps into position on lower shroud cup and secure in place by tightening clamp.
- (9) Place the split grommet over fuel line and work into upper shroud cup.
- (10) Attach overboard drain line to lower shroud cup.

E. Re-Identification

Date and attach decal label to upper shroud cup.

KIT PN 90E74-1 consists of:

PART NO.	DESCRIPTION	QTY
25C85-131	O-Ring	1
MS29512-6	O-Ring	1
B44A06	Gasket	1
MS35489-7S	Grommet	1
90E78-1	Decal	1
90E75-1	Instructions	1

NOTE 1. 90E74-1 Kits are being supplied at no charge by Janitrol Aero Division, see Note 2 for address.

NOTE 2. If inspection reveals spiral grooves on the fuel fitting of the solenoid valve assembly, this assembly should be returned for immediate exchange. This return must be accomplished prior to exchange. Return shipment should be addressed:

Janitrol Aero Division/Ocala Unit  
 Midland Ross Corporation  
 1900 N.E. 25th Avenue  
 Ocala, FL 32670  
 Attention: Solenoid Expedite Exchange

For answers to technical questions or information on exchange solenoid assembly contact Tom Michael at the Ocala Unit, phone 904-622-1101

TABLE 1. APPLICATION

HEATER PN	INSTALLED ON AIRCRAFT	AIRFRAME MFG OR HEATER INSTALLER	REQUIRES REMOVAL FROM AIRCRAFT
88D81-2	Turbine Eagle - Cessna 421C	Eagle Leasing	Yes
88D81-2	P.166DL3	Piaggio	Yes
88D81-2	Turbine Eagle - Cessna 421C	Riley Aircraft	Yes
88D81-2	Unknown	Capitol Air	Yes
88D81-2	Convair 600	SMB Stage Line	Yes
10E21-2	Cheyenne	Piper	No
10E21-4	Cheyenne	Piper	No
10E21-3	Cheyenne (Mod Kit 19E40-1)	Piper	Yes
23E62-1	T1040	Piper	No
23E62-2	T1040	Piper	No
24E07-1	D0128-6	Dornier	No
26E46-1	P68B	Partenavia	No
90E00-1	Turbine Islander	Pilatus Britten-Norman	No

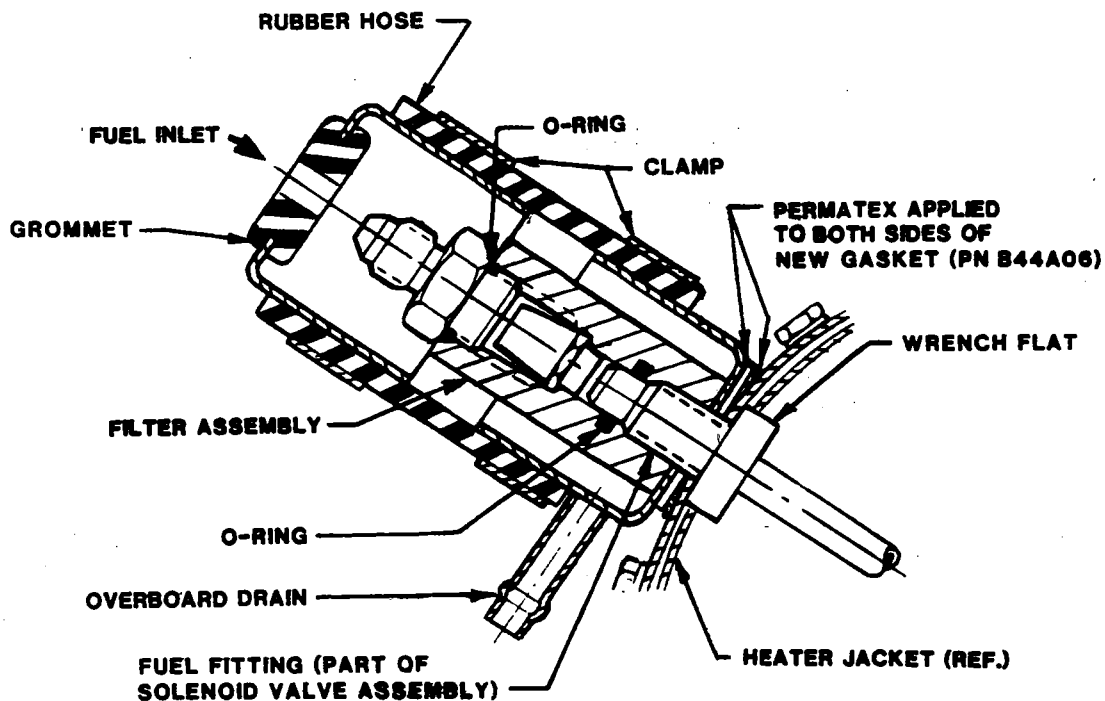


Figure 1. Typical view, installed

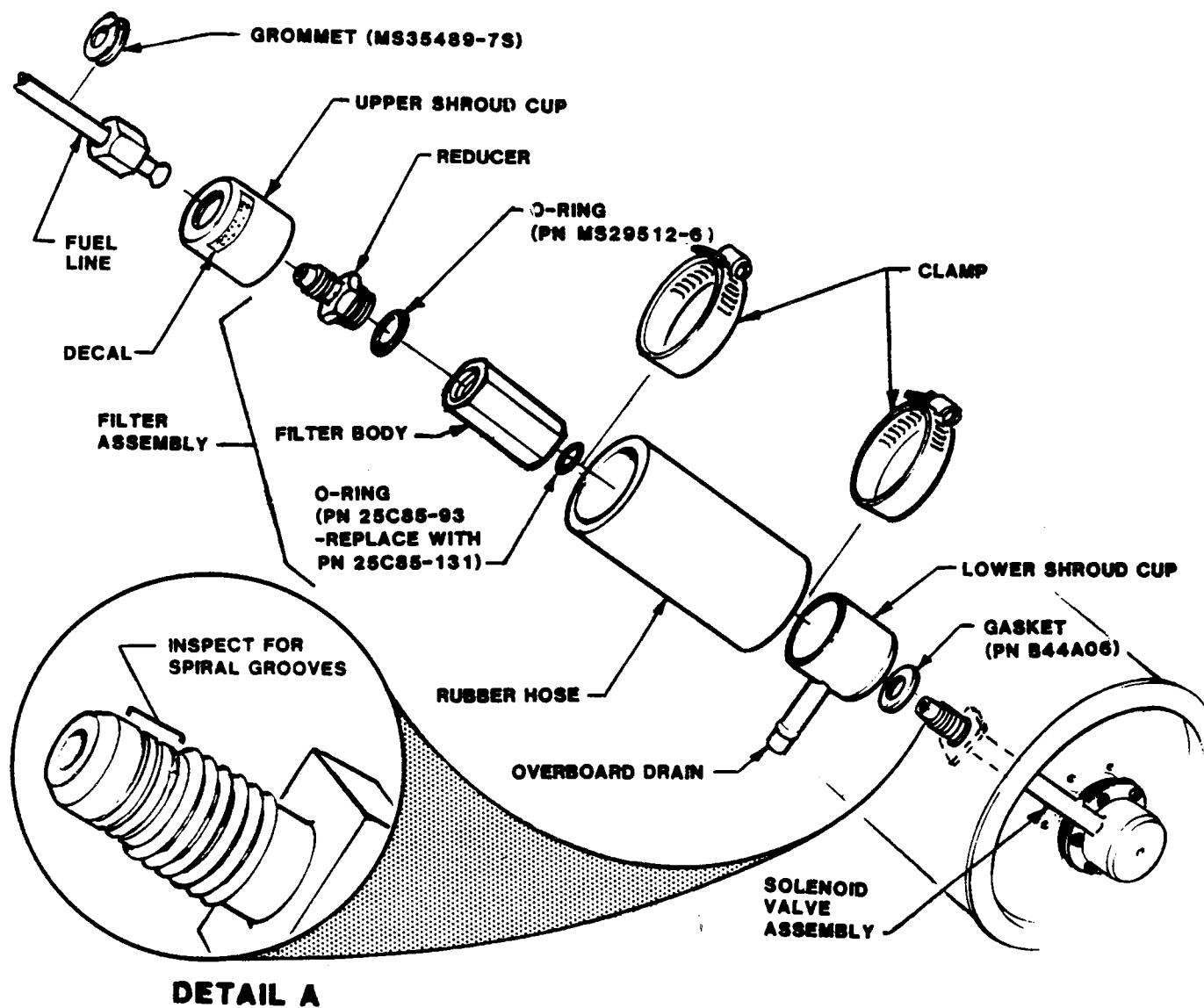


Figure 2. Typical exploded view