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# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure

#### 1. Planning Information

##### A. Effectivity

- (1) All Hartzell Engine Technologies LLC (HET) CD series combustion heaters with part numbers shown in Table 1 using an external fuel solenoid contained in a shroud assembly are affected by this Service Letter (SL).
- (2) All HET CD series combustion heaters with serial number HA17060001 and prior are affected by this Service Letter.

**WARNING:** DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE LETTER. THE INFORMATION CONTAINED IN THIS SERVICE LETTER MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS SERVICE LETTER OR THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE. REFER TO THE JANITROL.AERO WEBSITE FOR THE MOST RECENT REVISION LEVEL OF THIS SERVICE LETTER.

##### B. Concurrent Requirements

- (1) None

##### C. Reason:

- (1) As a product improvement and part number consolidation effort, HET has decided to replace the existing welded heater fuel solenoid shroud and associated hardware with a die formed version on CD series combustion heaters.
- (2) Replacing the welded heater fuel solenoid shroud with the die formed version will provide common part numbers across the Janitrol Aero combustion heater lines.
- (3) This change is being implemented on new and factory rebuilt combustion heaters. There is no requirement to change shrouds in the field, however, the previous configuration of the welded heater fuel solenoid shroud will no longer be available.

# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure

#### D. Description

- (1) This publication provides Additional Maintenance Information (AMI).
- (2) This Service Letter provides notification that a configuration change has been made as a product improvement and part number consolidation effort.
- (3) This configuration change requires new Janitrol Aero style heater fuel solenoid shroud and hardware. Instructions for the change or repair of the new configuration are included.

#### E. Approval

- (1) FAA acceptance has been obtained on the technical data in this publication that affects type design.

#### F. Manpower

- (1) No additional time required when performed at overhaul.

#### G. References

- (1) HET P/N MM10001 Overhaul Manual Rev. L or later FAA approved revision.

#### H. Other Publications Affected

- (1) None

## 2. Material Required

#### A. As desired at overhaul or repair requiring replacement of the CD series fuel solenoid shroud, the following material is required:

- (1) One (1) each, Upper Shroud, fuel solenoid, HET P/N from Table 1 as applicable.
- (2) One (1) each, Lower Shroud, fuel solenoid, HET P/N from Table 1 as applicable.
- (3) Two (2) each, Screw, Upper Shroud, HET P/N 86D38-2.
- (4) One (1) each, Fitting, 90°, HET P/N 81030.
- (5) One (1) each, Nut, fitting, P/N MS36591-45.
- (6) One (1) each, Washer, fitting, P/N AN960-916L.
- (7) One (1) each, Gasket, fitting, HET P/N F44A06.
- (8) One (1) each, Grommet, P/N MS35489-6.
- (9) One (1) each, Grommet, P/N MS35489-8S fuel solenoid shroud.
- (10) One (1) each, Label, fuel filter, HET P/N 81031.

# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure

#### 3. Accomplishment Instructions

**WARNING 1:** THIS PROCEDURE MUST BE PERFORMED BY COMPETENT AND QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH AIRCRAFT MAINTENANCE THAT IS SPECIFIC TO THE CABIN HEATING SYSTEM. FAILURE TO DO SO MAY RESULT IN ECONOMIC LOSS, EQUIPMENT DAMAGE, AND/OR PHYSICAL INJURY.

**WARNING 2:** DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE LETTER AND THE APPLICABLE AIRCRAFT AND/OR HET HEATER MAINTENANCE MANUALS. INFORMATION CONTAINED IN THESE MANUALS OR THIS SERVICE LETTER MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE.

**CAUTION:** DO NOT DEPEND ON THIS SERVICE LETTER FOR GAINING ACCESS TO THE HEATER INSTALLED IN THE AIRCRAFT. ACCESS REQUIRES THE USE OF THE APPLICABLE MANUFACTURER'S MAINTENANCE MANUALS OR SERVICE INSTRUCTIONS. IN ADDITION, ANY PREFLIGHT OR IN FLIGHT OPERATIONAL CHECKS REQUIRE USE OF THE APPROPRIATE AFM OR POH.

A. Removal of the welded heater fuel solenoid shroud (original configuration). Refer to Fig. 1.

**NOTE:** HET does not require that the existing heater fuel solenoid shroud be replaced unless damaged or other problems exist. The improved version may be installed as desired at overhaul or other convenient maintenance.

- (1) Ensure Master Power is OFF and the Fuel Selector is in the OFF position.
- (2) Disconnect the overboard drain tube from the fuel solenoid base shroud.
- (3) Remove the two (2) screws retaining the fuel solenoid shroud cover and remove cover.
- (4) Remove grommet P/N 60533 from the end of base shroud.
- (5) Provide a small container to contain any fuel in the heater fuel line while the line is being removed.
- (6) While holding the fuel filter housing with an appropriate size wrench, loosen the B-nut and disengage the fuel line.
  - (a) Do not loosen the fuel filter housing unless the filter will be changed.

# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure

- (7) Follow the fuel solenoid electrical wires back to the terminal connector and disconnect.
- (8) Remove the grommet supporting the electrical wires and pull wires through the hole one at a time.
- (9) Using a 3/4 inch wrench on the hex end of the valve, unscrew the fuel solenoid from the fuel feed elbow fitting (rotate counter clockwise looking at the elbow fitting).
  - (a) Remove the fuel solenoid assembly from the base shroud.

**CAUTION:** WHILE LOOSENING THE NUT AT THE BASE OF THE ELBOW FITTING, THE FUEL FEED FITTING MUST NOT MOVE. MOVEMENT OF THE FITTING MAY CRACK THE BRAZING AT THE DOUBLE WALLED FUEL FEED LINE AND CREATE A FUEL LEAK. ALWAYS HOLD THE INLET FITTING BY THE FLATS FROM INSIDE THE HEATER.

- (10) If equipped, remove the four (4) or eight (8) screws, depending on heater model, holding the ventilating fan endplate.
  - (a) Remove the fan endplate.
- (11) It may be necessary to remove the ventilating fan in order to access the back of the fuel feed tubes. Remove if necessary.
  - (a) Measure the length of the motor shaft protruding from the fan and record dimension for use during re-assembly.
  - (b) Loosen the Allen screw and remove the ventilating fan.
- (12) Hold the fuel feed inlet fitting in position using a long reach 7/8 in. wrench across the flats. Refer to Fig. 1a detail.
  - (a) Remove the elbow fitting.
  - (b) Remove the 7/8 nut and washer holding the fuel shroud base and fuel feed inlet.
  - (c) Remove the fuel shroud base and fuel shroud base gasket.

B. Installation of the current series heater fuel solenoid shroud (new configuration). Refer to Figure 2.

**NOTE:** Prior to starting installation, it is necessary to obtain the part number of the upper and lower fuel shroud needed for the specific heater part number. Refer to Table 1 for assistance in choosing the correct replacement part numbers.

- (1) Install a new gasket HET P/N F44A06 over the heater fuel feed inlet.
- (2) Install the new lower fuel shroud over the heater fuel feed inlet. Refer to Table 1 for P/N.
- (3) Install a new washer P/N AN960-916L and nut P/N MS36591-45 on the heater fuel feed inlet finger tight.

# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure

**CAUTION:** WHEN THE NUT AT THE FUEL FEED INLET FITTING IS TIGHTENED, THE FITTING MUST NOT MOVE. MOVEMENT OF THE FITTING MAY CRACK THE BRAZING AT THE DOUBLE WALLED FUEL FEED LINE AND CREATE A FUEL LEAK. ALWAYS HOLD THE INLET FITTING BY THE FLATS FROM INSIDE THE HEATER.

- (4) Hold the fuel feed inlet fitting using a long-reach 7/8 in. wrench across the flats. Refer to Figure 1a.
  - (a) Tighten nut P/N MS36591-45 on the heater fuel feed.
- (5) Place a small quantity of thread sealant, Loctite® NS5109 Gasket Maker or equivalent, on the pipe thread of the 90° Fitting HET P/N 81030.
- (6) Install the HET P/N 81030 Fitting into the fuel feed fitting and tighten.
  - (a) Align the HET P/N 81030 Fitting so the fuel solenoid will be centered in the lower fuel shroud.
- (7) Install the fuel solenoid and filter assembly into the lower fuel solenoid shroud.
  - (a) Place a small quantity of thread sealant, Loctite® NS5109 Gasket Maker or equivalent, on the pipe thread of the fuel solenoid and install into the 90° Fitting.
  - (b) Tighten using a 3/4 inch wrench on the valve hex end.
- (8) Install the fuel solenoid electrical wires by pulling through the hole in the lower shroud one at a time.
  - (a) Install the P/N MS35489-6 grommet.
- (9) Connect the fuel solenoid electrical wires at the existing terminal connector.
- (10) Connect the fuel solenoid fuel supply B-nut finger tight.
- (11) While holding the fuel filter housing with an appropriate size wrench, tighten the B-nut to the specified torque shown in the applicable aircraft maintenance or service manual.
- (12) Install new grommet P/N MS35489-8S into the end of lower fuel solenoid shroud.
- (13) If the ventilating fan was removed, re-install on motor shaft using dimension recorded in step 3.A.(11).(a) and tighten the Allen screw.
- (14) If removed, reinstall the ventilating fan endplate and tighten four (4) or eight (8) screws, depending on heater model, holding the ventilating fan endplate.
- (15) Prior to installing the upper fuel solenoid shroud, apply heater fuel pressure to check for leaks in the fuel solenoid, filter, fittings, and B-nut of the inlet fuel.
  - (a) To apply heater fuel pressure, refer to the applicable aircraft service or maintenance manual, AFM or POH.

# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure

(16) Install upper fuel solenoid shroud.

(a) Install two (2) upper fuel solenoid shroud screws and tighten.

(b) Install a P/N 81031 label on the upper fuel shroud.

(17) Connect the overboard drain line from the lower fuel solenoid shroud. Location may vary.

#### C. Return to Service

(1) Perform a heater operational check in accordance with the applicable aircraft maintenance manual, AFM, or POH.

#### 4. Contact Information

A. Contact **HET Product Support** for all communications regarding the technical content of this Service Letter.

(1) Phone +1.334.386.5400 (Option 2)

(2) Fax +1.334.386.5450.

(3) E-mail at [techsupport@HartzellEngineTech.com](mailto:techsupport@HartzellEngineTech.com).

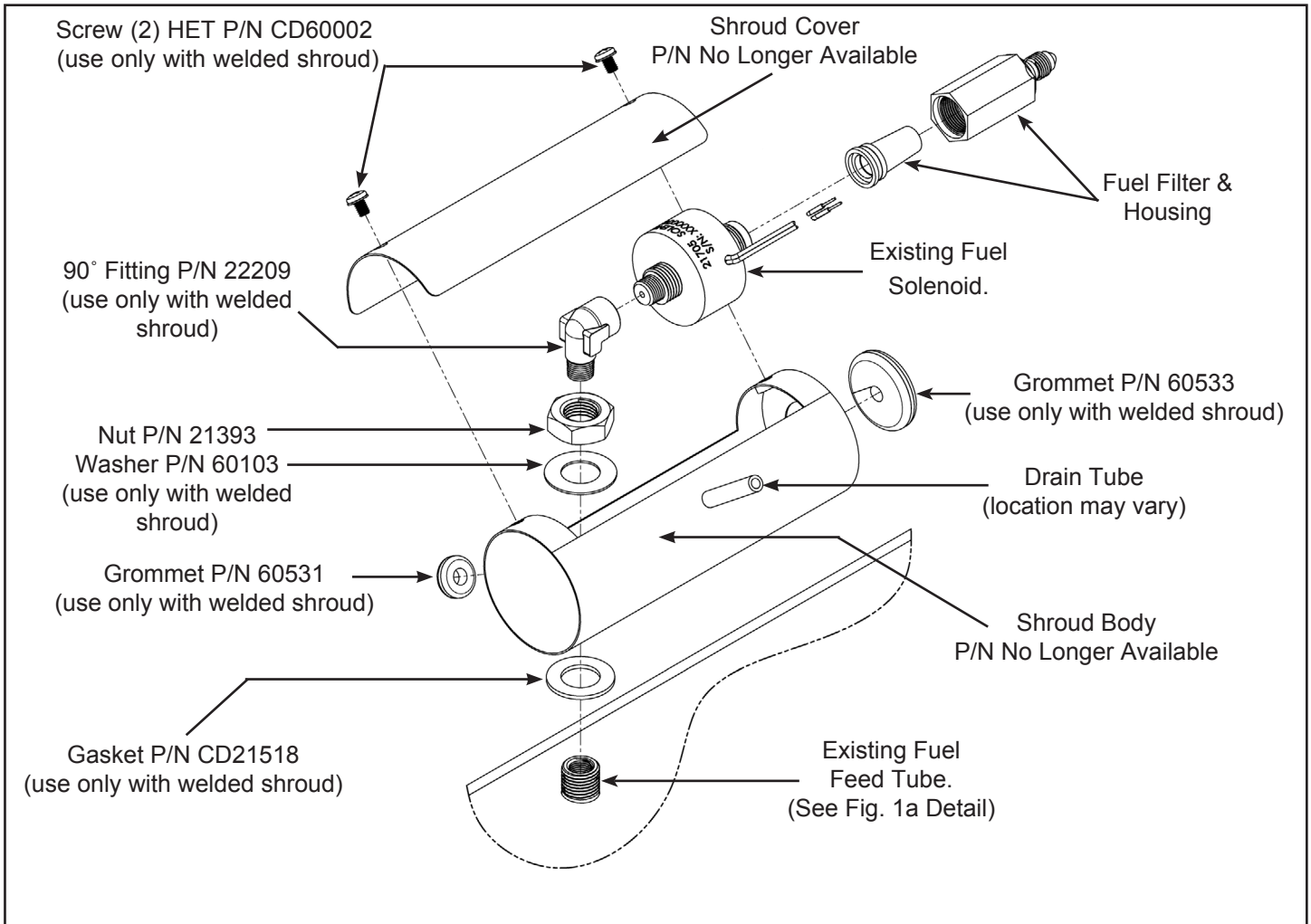
(4) Address

Hartzell Engine Technologies LLC  
2900 Selma Highway  
Montgomery, AL 36108  
USA.

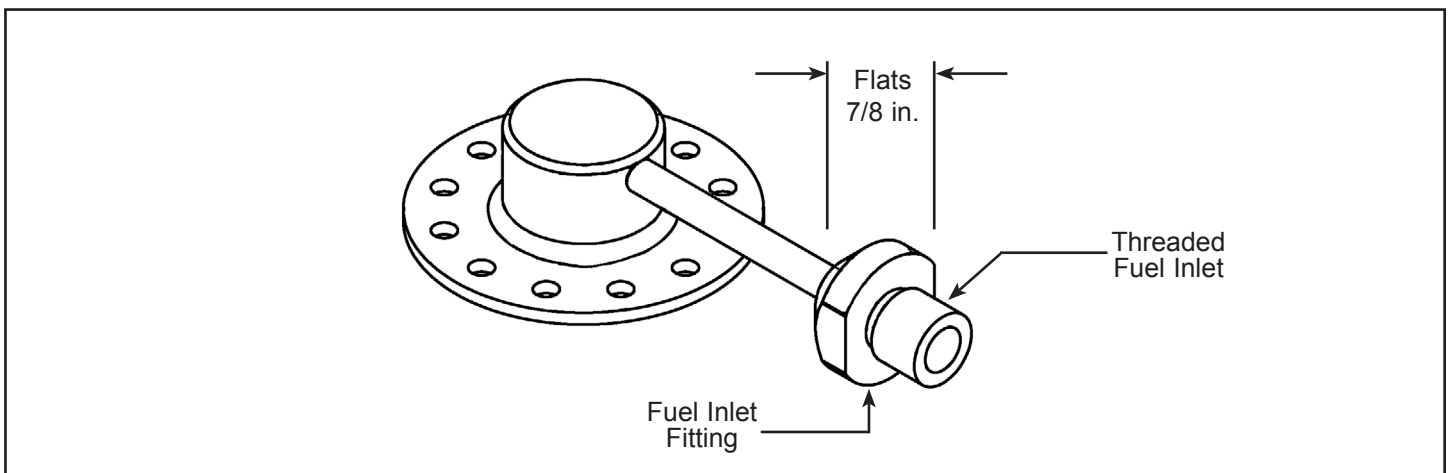
# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure



**Figure 1 - Fuel Solenoid Shroud & Hardware  
(Welded Version)**

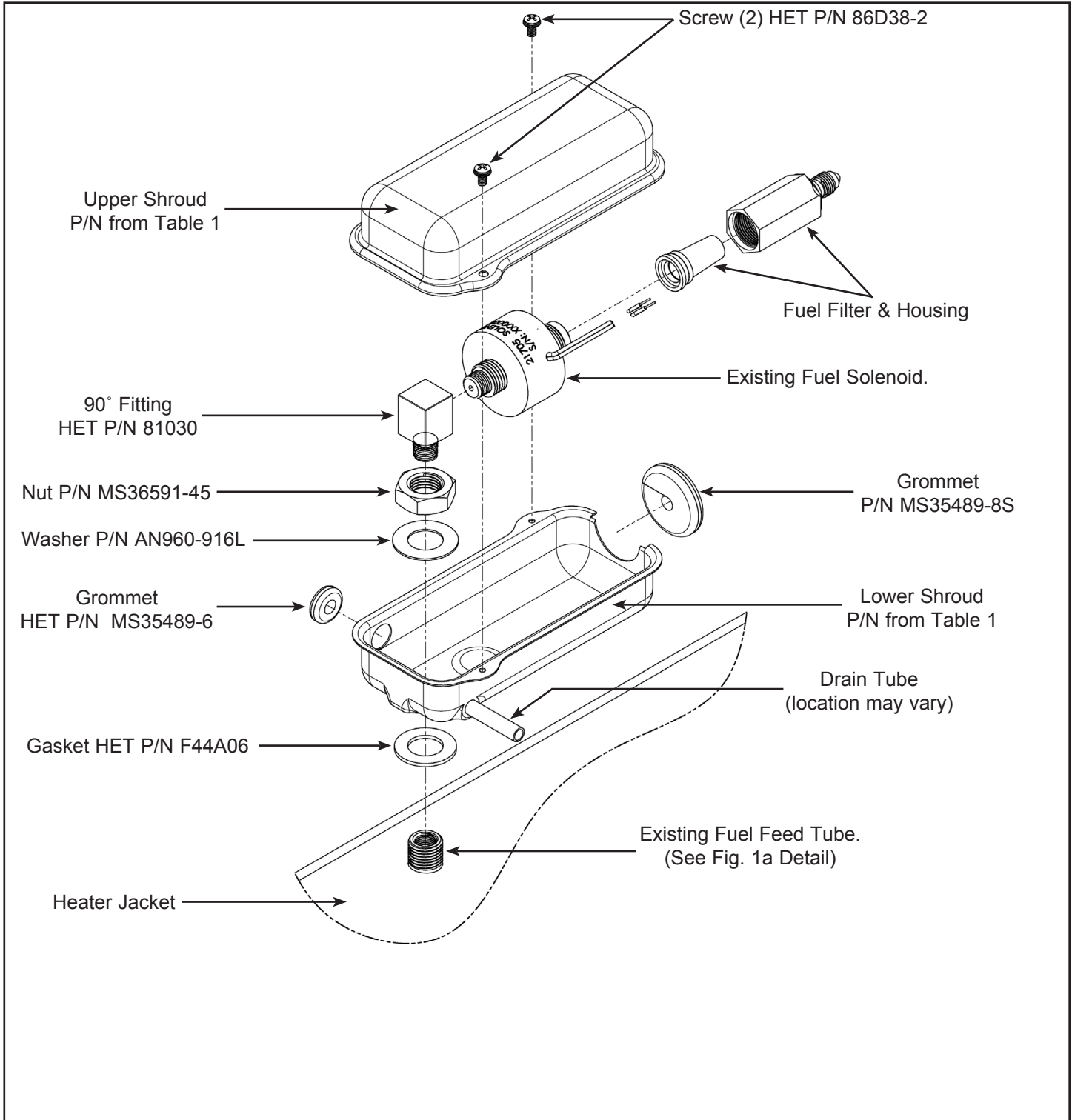


**Figure 1a - CD Series Fuel Feed Assembly**

# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure



**Figure 2 - New HET Fuel Solenoid Shroud & Hardware  
(Formed Version)**



# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure

TABLE 1

Heater Part number	Original Heater	Aircraft	New Lower	New Upper
CD11010-1	C&D	Velocity	87D77-3	87D69-1
CD11014-1	37D88, A37D88, B37D88 (Janitrol)	Bell 206A, 206B	87D77-1	87D69-1
CD11047-1	74D01, -1, -2, -3EL (Janitrol)	Diamond DA-42 L	87D77-3	87D69-1
CD11049-1	74D01, -1, -2, -3EL (Janitrol)	Cessna P337, T337H	87D77-1	87D69-1
CD11050-1	42D79, -1 (Janitrol)	Cessna 337, A to H, T337, B to H	87D77-3	87D69-1
CD11214-1	979-B1, 940 (South Wind)	Cessna 337, A to H, T337, B to H	87D77-2	87D69-1
CD11215-1	940 (South Wind)	Lake LA-4, A, P, LA4-200	87D77-3	87D69-1
CD12003-1	22D25, -1 EL (Janitrol)	Aerostar PA60-600, 601	87D77-3	87D69-1
CD12004-1	23E62, -1, -2 EL (Janitrol)	Piper PA31T3 T1040	87D77-3	87D69-1
CD12006-1	940 (South Wind)	Piper PA30 Twin Commanche	87D77-3	87D69-1
CD12007-1	96D75, -1 (Janitrol)	Twin Commander 700	87D77-3	87D69-1
CD12008-1	STC kit rear heater SA02487CH	Navion, A, B, C, D, E, F, G	87D77-3	87D69-1
CD12009-1	A34D51, B34D51 EL (Janitrol)	Beech 60, A60, B60 Duke	87D77-3	87D69-1
CD12010-1	B34D51, D34D5 1EL (Janitrol)	Aerostar PA60-601P, 602P, 700P	87D77-3	87D69-1
CD12011-1	940 (SW), 99C42 (Janitrol)	Lake LA-4, A, P, LA-4-200, 250	87D77-3	87D69-1
CD12012-1	37D77, 37D77-1EL (Janitrol)	Piper PA-23, 23-235, 23-250, E23-25	87D77-3	87D69-1
CD12015-1	STC kit, heater SA02707CH	Gulfstream G-44, G-44A	87D77-3	87D69-1
CD12016-1	mod kit rear heater	Navion, A, B, C, D, E, F, G	87D77-3	87D69-1
CD12017-1	mod kit rear heater	Navion, A, B, C, D, E, F, G	87D77-3	87D69-1
CD12018-1	mod kit rear heater	Navion, A, B, C, D, E, F, G	87D77-3	87D69-1
CD12022-1	62D33, 1, 2 10E21-1, 2, 3, 4EL (Jan)	Piper PA31T, 31T1 Chyenne	87D77-4	87D69-1
CD12030-1	mod kit heater	DeHavillan DHC-2	87D77-4	87D69-1
CD12031-1	A39D59, C39D59EL (Janitrol)	Piper PA31, 31-300, 31-325, 31-350	87D77-3	87D69-1
CD12032-1	39D59, B39D59, D39D59EL (Jan)	Piper PA31, 31-325	87D77-3	87D69-1
CD12036-1	45D70, 45D70-1, -2EL (Janitrol)	Piper PA-23, 23-235, 23-250, E23-25	87D77-3	87D69-1
CD12039-1	47D65, 47D65-1, -2, -3EL (Janitrol)	Piper PA31P	87D77-3	87D69-1
CD12043-1	C15C54 (Janitrol)	Twin Commander 500, 520, 560, 680	87D77-3	87D69-1
CD12044-1	62D95-1 (Janitrol)	Twin Commander 500-S	87D77-3	87D69-1
CD12059-1	82D31-1, -2, 90D38-1EL (Janitrol)	Piper PA34-200, 200T, 220T	87D77-1	87D69-1
CD12060-1	90D38-2EL (Janitrol)	Piper PA44-180, 180T	87D77-3	87D69-1
CD12061-1	96C62, 96C62-1 (Janitrol)	Cessna 310, T310, 320	87D77-3	87D69-1
CD12064-1	8240E (South Wind)	Cessna 310Q, T310Q	87D77-3	87D69-1
CD12065-1	8240A, C (South Wind)	Cessna 310, 320, Beech D18S	87D77-3	87D69-1
CD12089-1	20D35-1EL, 96C92-X (Janitrol)	Lake LA-4, A, P, LA-4-200, 250	87D77-3	87D69-1
CD12090-1	20D35 (Janitrol)	Piper PA30, PA-39	87D77-3	87D69-1
CD12091-1	mod kit heater	Cessna 190, 195, 195A, 195B	87D77-4	87D69-1
CD12099-1	39D90, 39D90-1EL (Janitrol)	Bell 206L	87D77-1	87D69-1
CD12188-1	91E88-1(IS), 90D39-2 (Janitrol)	Piper PA44-180	87D77-3	87D69-1
CD12189-1	91E88-1(IS) (Janitrol)	Piper PA34-220T	87D77-1	87D69-1
CD14010-1	94DB24, 978 (South Wind)	Cessna 310, 310A	87D77-3	87D69-1
CD14019-1	07E94-1(EL) (Janitrol)	Beech 76	87D76-6	87D78-4

# Service Letter

## Service Letter No. 060

### CD Series Combustion Heater Fuel Shroud & Hardware Supersedure

TABLE 1 (Cont'd)

Heater Part number	Original Heater	Aircraft	New Lower	New Upper
CD14020-1	07E94-2(EL) (Janitrol)	Beech 76	87D76-6	87D78-4
CD14025-1	A34D35(EL) (Janitrol)	Cessna 414, 421, 421A, 421B	87D77-3	87D69-1
CD14026-1	02E17-1, 13E55-1(EL) (Janitrol)	Cessna 414, 414A, 421C	87D77-4	87D69-1
CD14027-1	02E17-2, 13E55-2(EL) (Janitrol)	Cessna 340A	87D77-4	87D69-1
CD14028-1	02E17-2, 13E55-2(EL) (Janitrol)	Cessna 340A	87D77-4	87D69-1
CD14048-1	65D79, -1, -2, -3EL (Janitrol)	Piper PA31-350	87D77-3	87D69-1
CD14050-1	D83A28, F83A28 (Janitrol)	Beech 95 series	87D76-6	87D78-4
CD14060-1	C83A28, E83A28 (Janitrol)	Beech 50 series	87D77-3	87D69-1
CD14066-1	8259A, DL, FL, FL1 (South Wind)	Cessna 411, 411A	87D77-3	87D69-1
CD14070-1	8259L (South Wind)	Britten Norman BN-2 series	87D77-2	87D69-1
CD14071-1	8259GL, GL1, GL2, HL1, HL2 (SW)	Cessna 401, A, B, 402, A, B, C, 404	87D77-3	87D69-1
CD14072-1	8259HR (South Wind)	Cessna 310R, T310R	87D77-3	87D69-1
CD14073-1	8259JR2 (South Wind)	Cessna 310R, T310R	87D77-3	87D69-1
CD14075-1	8259M (South Wind)	Cessna 335	87D77-3	87D69-1
CD14077-1	8472D (South Wind)	Cessna 340, 340A	87D77-3	87D69-1
CD14078-1	8472C, 8472E (South Wind)	Cessna 414, 421B, 421C	87D77-3	87D69-1
CD14125-1	82D20 -1, -2EL (Janitrol)	Beech 58P, 58PA	87D77-4	87D69-1
CD14126-1	07E02-1(EL) (Janitrol)	Beech 58P, 58PA	87D76-6	87D78-4
CD14152-1	19E69-1(EL) (Janitrol)	Cessna T303	87D77-4	87D69-1
CD14186-1	94E11-1(EL) (Janitrol)	Britten Norman BN-2, 2A, 2A-6, 2A-8	87D77-4	87D69-1
CD14190-1	90E00-1(EL) (Janitrol), mod kit	BN Group BN-2T, Beech 99, A, B	87D77-4	87D69-1
CD14192-1	81D94-1, -2, -3 EL (Janitrol)	Beech 95, 55, 58, 58TC	81151	87D78-1
CD14193-1	81D94-1, -2, -3 EL (Janitrol)	Beech 95, 55, 58, 58TC	87D76-6	87D78-4
CD50000-1	STC mod kit SA02816CH	Beech G58	81151	87D78-1
CD52000-1	91E88-1(IS) (Janitrol)	Piper PA34-220T	87D77-3	87D69-1
CD52001-1	90D38-2EL (Janitrol)	Piper PA44-180, 180T	87D77-3	87D69-1
CD52002-1	90D38-2EL (Janitrol)	Piper PA44-180, 180T	87D77-3	87D69-1