

From: CENTRAL DEFECT AUTHORITY,
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- A. SI/Hunter/107A
Air Conditioning System: Pre-Cooler: Leaking
- B. Hunter Mk 6, 7, 7a, 9 and 10 Aircraft.
- C. Cases have occurred where the pre-cooler in the air conditioning system has leaked due to failure of the matrix at the hot air inlet end. Although no immediate Flight Safety risk arises from a leaking pre-cooler, eventual loss of cabin pressurisation and failure of the cabin temperature control could result from a badly ruptured matrix.

Part 'A'

- D.1a. Within 28 days of receipt of this Instruction, or at the next Minor Servicing, whichever is the sooner, and at each subsequent Minor Servicing:
- b. (1) Ensure cabin conditioning selector in the cockpit is in the "OFF" position.
- (2) Refer to A.P.4347, Vol. 1, Sect. 3, Chap. 8, Fig. 'Air Conditioning System Installation (2)' and disconnect pipe from E.C.U. to pre-cooler at the flexible hose attachment to E.C.U.
- (3) Fit locally manufactured adaptor to end of flexible hose.

Note:

The adaptor to be manufactured locally is to connect an air supply of 80 - 100 lb/sq. inch to the flexible hose. As it may vary according to the form of air supply it is not possible to specify a standard adaptor.

- (4) Obtaining access through adjacent fuselage panel, disconnect the three pipes from the top of the pre-cooler by pass valve and blank off the three connections on the pre-cooler by pass valve, using the following items or any suitable alternatives:-

28F/9717654	Sleeve Outer	AGS.2111	Qty. 2
28F/1013959	Cover Cap	AGS.1236B	Qty. 2
*28F/1011818	Plug Nipple	AGS.1104H	Qty. 1
*28F/9439105	Union Adaptor	AGS.1150H	Qty. 1
*28F/8011823	Sleeve Outer	AGS.904H	Qty. 1

*Items used as one assembly.

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- (5) Disconnect the small bore pipe supplying the extractor valve, ram air valve and hood seal, at the connection adjacent to frame 24, obtaining access through an adjacent fuselage access panel.
- (6) Blank off the exposed end of the pipe leading to the pre-cooler to pre-cooler by pass valve connection, using the following items or any suitable alternatives:-

28F/9717654	Sleeve Outer	AGS.2111	Qty. 1
28F/1013959	Cones Cap	AGS.1236B	Qty. 1
- (7) Position a technician in air intake holding suitable blank over entry of pre-cooler cooling air inlet duct.
- (8) Connect air supply to adaptor at end of flexible hose and apply pressure of 80 - 100 lb/sq. inch.
- (9) A second technician is to hold his hand over the exit of the pre-cooler cooling air outlet duct, located on the port side of the fuselage and if air is expelled from the duct the pre-cooler is leaking from the matrix. Restore the system and proceed in accordance with the instructions contained in Part B of this Instruction.
- (10) If no air is expelled from the pre-cooler cooling air outlet duct, the pre-cooler is to be regarded as 'Serviceable' and no further action, other than to restore the system, is required.
- (11) Disconnect the air supply, remove adaptor from the flexible hose and reconnect flexible hose to the E.C.U.
- (12) Remove the blank from the pipe at frame 24 and remake the pipe connection.
- (13) Remove the blanks from the three connections at the top of the pre-cooler by pass valve and reconnect the three pipes to the valve.
- (14) Refit panels.
- (15) Ground test the air conditioning system, using an external supply, in accordance with current instructions.

Note:

The pre-cooler is located between frame 27-30 on Hunter Mk. 6, 9, 10 and 12 and between frame 34-36 on Hunter Mk. 7, 8 and 11.

- c. Estimated Man Hours: 2 (excluding functional tests).

Part B.

- D.1a. Within 28 days of satisfaction of Part A of this Instruction where pre-cooler was found to be leaking, proceed as follows:-
- b. (1) Remove E.C.U. in accordance with current procedure.
 - (2) Remove cooling air ducts from forward and rear ends of the pre-cooler.
 - (3) Examine pre-cooler and confirm that matrix has failed.

Note:

Where the pre-cooler appears to be satisfactory on visual examination, it will be necessary to repeat the pressure test detailed in Part A of this Instruction in order to establish the source of the leak and rectify accordingly.

- (4) Replace pre-cooler.
 - (5) Refit cooling air ducts at forward and rear ends of pre-cooler.
 - (6) Refit E.C.U.
 - (7) Ground test the air conditioning system, using an external supply, in accordance with current instructions.
- c. Estimated Man Hours: $\frac{1}{2}$ (inspection only after E.C.U. removal).

Part C

D.1a. At the next Major Servicing and at each subsequent Major Servicing, proceed as follows:-

- b. (1) Remove E.C.U. in accordance with current procedure, where this is not already removed.
- (2) Remove cooling air ducts from forward and rear ends of pre-cooler.
- (3) Examine pre-cooler for evidence of failure of the matrix. Where the matrix is found to be satisfactory no further action is required.
- (4) Where the matrix is defective, replace the pre-cooler.
- (5) Refit cooling air ducts at forward and rear ends of pre-cooler.
- (6) Instal E.C.U.
- (7) Ground test the air conditioning system, using an external supply, in accordance with current instructions, if the air conditioning system has been disturbed.

c. Estimated Man Hours: $\frac{1}{2}$ (inspection only after E.C.U. removal).

E. Record on appropriate forms and enter into Supplementary Record Sheet of the Servicing Schedule.

F. Nil.

G. Nil.

H.1 Nil.

2 No.

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