

British Aerospace BAe 125 Series Aeroplanes

AD/HS 125/159

Wiring Inspections

**1/2000
DM**

Applicability: Model Hawker 1000 series aeroplanes serial numbers 258151, 258159 and 259003 through 259052 inclusive.

Requirement: 1. Perform a detailed visual inspection of the PS wire bundle coming from the bung 'DF' for chafing against the front ventral tank transfer/crossfeed actuator, in accordance with Raytheon Aircraft Service Bulletin SB 24-3201 dated October 1998.

Note 1: For the purposes of this Airworthiness Directive, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

2. Perform the applicable action when the following conditions are found during the Requirement 1 inspection:
- a. **No chafing** - Ensure a minimum 0.25-inch clearance exists between the PS wire bundle and valve actuator; and install spiral wrap, as necessary, in accordance with the service bulletin.
 - b. **Chafing on a 22, 20, 16, or 14 gauge (non-shielded) wire** - Repair chafed wire by splicing the damaged section using MIL-S-81824/1 splices. Ensure a minimum 0.25-inch clearance exists between the wire bundle and valve actuator; and install spiral wrap, as necessary, in accordance with the service bulletin.
 - c. **Chafing on a 10 gauge wire** - Replace the entire wire with a new 10 gauge wire. Ensure a minimum 0.25-inch clearance exists between the wire bundle and valve actuator; and install spiral wrap, as necessary, in accordance with the service bulletin.
3. Perform a detailed visual inspection of the shielded wires going to the fuel probe 'G' for chafing against the wing transfer valve actuator and mounting screws, in accordance with Raytheon Aircraft Service Bulletin SB 24-3201 dated October 1998.
4. Perform the applicable action when the following conditions are found during the Requirement 3 inspection:
- a. **No chafing** - Ensure a minimum 0.25-inch clearance exists between the wire bundle and valve actuator; and install spiral wrap, as necessary, in accordance with the service bulletin.

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- b. **Chafing** - Replace the entire shielded wire with a new shielded wire. Ensure a minimum 0.25-inch clearance exists between the wire bundle and valve actuator; and install spiral wrap, as necessary, in accordance with the service bulletin.
5. Perform a borescope inspection of the entire forward wing spar/forward ventral tank area for chafing of any other wire or wire bundle; and install spiral wrap, as necessary; in accordance with Raytheon Aircraft Service Bulletin SB 24-3201 dated October 1998.
6. Perform the applicable action when the following conditions are found during the Requirement 5 inspection:
- a. **No chafing** - No further action is required by this Airworthiness Directive.
 - b. **Chafed wire or wire bundle** - Repair in accordance with a method approved by the Head, Certification Standards Branch, Standards Division, CASA. For a repair method to be approved by the Head, Certification Standards Branch, as required by this paragraph, the approval letter must specifically reference this Airworthiness Directive.

Note 2: FAA AD 99-23-10 Amdt 39-11406 refers.

- Compliance:
- 1. Within 50 hours time in service after 17 December 1999.
 - 2. Prior to further flight.
 - 3. Within 50 hours time in service after 17 December 1999.
 - 4. Prior to further flight.
 - 5. Within 50 hours time in service after 17 December 1999.
 - 6. Prior to further flight.

This Airworthiness Directive becomes effective on 17 December 1999.

- Background:
- Raytheon has received a report of wire bundle chafing against the forward tank transfer/crossfeed valve which caused an electrical short and resulted in the failure of a landing light. This directive is intended to prevent a short circuit caused by wire chafing, which can cause a fire in the ventral fuel tank area.