

---

**AIRWORTHINESS DIRECTIVE**

---

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

---

**Boeing 747 Series Aeroplanes****AD/B747/307                      Integrated Drive Generator Power Feeder                      8/2004  
Cables**

**Applicability:** Model 747-400 and -400F series aeroplanes having line numbers 696 through 1310 inclusive and equipped with Rolls Royce engines.

**Requirement:**

1. Perform a general visual inspection for damage or arcing of the power feeder cables of the integrated drive generator (IDG) and the cable conduit, per the Accomplishment Instructions of Boeing Service Bulletin (SB) 747-24A2240, Revision 1, dated 20 February 2003.

*Note 1: For the purposes of this Directive, a general visual inspection is defined as: 'A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked.'*

2. Repair any damage, detected during the Requirement 1 inspection, in accordance with SB 747-24A2240, Revision 1.
3. Perform a general visual inspection for chafing and arcing damage of the power feeder cables of the IDG and hydraulic lines on each outboard strut aft of the block clamp, per the Accomplishment Instructions of Boeing Alert Service Bulletin (ASB) 747-24A2247, dated 10 July 2003.
4. Repair any chafing or arcing damage, detected during the Requirement 3 inspection, in accordance with ASB 747-24A2247.
5. Remove the conduit, install a new shield/bracket assembly and replace two hydraulic lines with two new hydraulic lines in each engine strut, per the Accomplishment Instructions of Boeing SB 747-24A2242, Revision 1, dated 14 August 2003.

## Boeing 747 Series Aeroplanes

AD/B747/307 (continued)

6. Pressurise the hydraulic system, examine the new hydraulic lines and connectors for leaks and, if necessary, repair any leaks in accordance with Accomplishment Instructions of SB 747-24A2242, Revision 1.

Accomplishment of Requirements 5 and 6 terminates the Requirement 1 repetitive inspections.

7. Replace the wiring and hydraulic tubing support bracket per the Accomplishment Instructions of Boeing ASB 747-24A2243, dated 31 October 2002.

Accomplishment of Requirement 7 terminates the Requirement 3 repetitive inspections.

*Note 2: FAA AD 2004-11-03 Amdt 39-13648 refers.*

**Compliance:** For Requirement 1 - Within 90 days after the effective date of this Directive and thereafter, at intervals not to exceed 10,000 hours time in service (TIS), until Requirements 5 and 6 are accomplished.

For Requirement 2 - Before further flight after the Requirement 1 inspection.

For Requirement 3 - Within 90 days after the effective date of this Directive and thereafter, at intervals not to exceed 10,000 hours TIS, until Requirement 7 is accomplished.

For Requirement 4 - Before further flight after the Requirement 3 inspection.

For Requirement 5 - Within 48 months after the effective date of this Directive.

For Requirement 6 - Before further flight after completing Requirement 5.

For Requirement 7 - Within 48 months after the effective date of this Directive.

This Airworthiness Directive becomes effective on 5 August 2004.

**Background:** This Directive requires repetitive inspections for damage or arcing of the IDG power feeder cables and conduit in the forward section of all four struts together with any necessary repairs. The Directive also requires repetitive inspections for chafing damage or arcing of the adjacent hydraulic lines in the aft section of the outboard struts. Additionally, the Directive introduces eventual terminating actions for the repetitive inspections.

## Boeing 747 Series Aeroplanes

AD/B747/307 (continued)

These action are necessary to prevent damage and arcing to the conduit and power feeder cables of the IDG, which could result in a fire in the engine strut; and to prevent damage to the adjacent hydraulic lines in the aft section of the outboard struts, which could result in reduced controllability of the aeroplane.



James Coyne  
Delegate of the Civil Aviation Safety Authority

23 June 2004