
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/B747/230 and issues the following AD under subregulation 39.1 (1) of CAR 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/B747/230
Amdt 1

Thrust Reverser Checks

9/2002

Applicability: Model 747-400 series aeroplanes equipped with Rolls-Royce RB211-524G/H series engines, and or RB211-524G-T/H-T series engines.

- Requirement:**
1. Unless previously accomplished, install an additional locking system on each engine thrust reverser in accordance with the accomplishment instructions of Boeing Service Bulletin 747-78-2158 Revision 2 dated July 29, 1999. Concurrent with accomplishment of Boeing SB 747-78-2158 Revision 2, incorporate requirements of Rolls-Royce Service Bulletin RB211-78-9601 Revision 5 dated February 20 1998, and Rolls-Royce Service Bulletin RB211-78-B207 dated November 19 1994.
 2. Unless previously accomplished, incorporate each of the following:
 - (a) Modify fuel temperature indicating system in accordance with Boeing Service Bulletin 747-73-2052 Revision 1 dated April 23 1992; and Rolls-Royce Service Bulletin RB211-71-9043 dated May 4 1990.
 - (b) During accomplishment of Boeing SB 747-73-2052 Revision 1, modify the central maintenance computer system hardware and software in accordance with Boeing SB 747-45-2007 dated March 29 1990 and Boeing SB747-45-2016 Revision1 dated May 2 1996.
 - (c) Install provisional wiring for the locking system on the thrust reversers in accordance with Boeing SB 747-78-2121 dated October 29, 1992 and SB 747-78-2157 Revision 2 dated November 26 1997.
 - (d) Modify the integrated display system software in accordance with Boeing SB 747-31-2246 dated May 2 1996.
 - (e) Install provisions to accommodate installation of an additional locking system on each engine thrust reverser in accordance with Rolls-Royce SB RB211-71-9600 Revision 8 dated May 24 1996 and RB211-71-9608 Revision 3 dated April 18 1997.
 3. Successfully accomplish operational checks of the number 2 and 3 gearbox locks and the air motor brake in accordance with procedures in Appendix 1 of FAA AD 2000-02-22.

Boeing 747 Series Aeroplanes

AD/B747/230 Amdt 1 (continued)

4. If Requirement 3 operational check cannot successfully be carried out in accordance with the procedures in Appendix 1 of FAA AD 2000-02-22, or if any discrepancy is detected during any operational check, repair in accordance with procedures specified in approved maintenance data.
5. Repeat Requirement 3 operational checks if any discrepancies have been corrected under Requirement 4 during compliance with Requirement 3 or 6.
6. Repeat and successfully accomplish operational checks required by Requirement 3.

Terminating Action

Accomplishment of Requirement 1 and 2, or installation of an additional locking system during production in accordance with production equivalent PRR 81000-39, is terminating action for the inspections and tests required by Requirement 3 of AD/B747/277.

Note: FAA AD 2000-02-22 Amendment 39-11540 refers.

Compliance: For Requirement 1: Within 36 months time in service from 13 July 2000 (the effective date of original issue of this Directive).

For Requirement 2: Prior to or concurrent with Requirement 1 compliance.

For Requirement 3: Within 3,000 flight hours after accomplishment of Requirement 1 or within 1,000 flight hours from 13 July 2000 (the effective date of original issue of this Directive), whichever occurred later.

For Requirement 4: Prior to further flight.

For Requirement 5: Prior to further flight.

For Requirement 6: At intervals not exceeding 3,000 flight hours time in service.

This Amendment becomes effective on 5 September 2002.

Boeing 747 Series Aeroplanes

AD/B747/230 Amdt 1 (continued)

Background: This amendment introduces a requirement to repeat operational checks after maintenance, and terminating action for part of AD/B747/277. This Directive was issued after a safety review revealed that in-flight deployment of a thrust reverser could result in significant reduction of aircraft controllability. Therefore this Directive includes actions to ensure the integrity of the fail safe features of the thrust reverser system is maintained by preventing failure modes which could result in inadvertent deployment of a thrust reverser during flight. This amendment does not add aircraft or require more work on aircraft modified in accordance with the original issue of the service bulletin.

The original issue of this Airworthiness Directive became effective on 13 July 2000.



Eugene Paul Holzapfel
Delegate of the Civil Aviation Safety Authority

25 July 2002