

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

**Airworthiness Directive**

**90-06-14 R1 BOEING:** Amendment 39-6544 as corrected by Amendment 39-6605. Docket No. 89-NM-99-AD.

Applicability: Model 747 series airplanes, listed in Boeing Service Bulletin 747-53-2293, dated December 22, 1988, certificated in any category.

Compliance: Required as indicated, unless previously accomplished.

To prevent rapid cabin pressure loss due to cracking in the nose wheel well box structure, accomplish the following:

A. Perform the following inspections at the intervals indicated below, in accordance with Boeing Service Bulletin 747-53-2293, dated December 22, 1988. The specified flight cycles (or threshold) applies to the cycles accumulated on the structure within the corresponding inspection areas, and not necessarily to the total number of cycles on the airplane; therefore, inspections may be deferred in any area where structure has been replaced with new structure, until the new structure reaches the appropriate flight cycle threshold.

NOTE: Flight cycles as defined herein need not be counted if cabin differential pressure was below 2.0 psi.

1. Prior to the accumulation of 4,000 flight cycles or within 1,500 flight cycles after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 1,500 flight cycles, conduct a detailed visual internal and external inspection for cracks in the top panel and intercostals of the nose wheel well structure.

2. Prior to the accumulation of 10,000 flight cycles or within 1,500 flight cycles after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 3,000 flight cycles, conduct a detailed visual internal and external inspection for cracks in the nose wheel well vertical beam clips and adjacent sidewall panel web.

3. Prior to the accumulation of 10,000 flight cycles or within 1,500 flight cycles after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 1,500 flight cycles, conduct a detail visual internal and external inspection for cracks in the nose wheel vertical beam webs.

B. If cracks are found during any of the inspections required by paragraph A., above, prior to further flight, conduct an inspection for secondary cracking at locations specified in Boeing Service Bulletin 747-53-2293, dated December 22, 1988. Repair all cracks, prior to further flight, by replacing cracked parts with original design parts, or by repairing cracked structure in accordance with Boeing Service Bulletin 747-53-2293, dated December 22, 1988, or the 747 Structural Repair Manual (SRM).

C. As an alternative to the repetitive inspections required by paragraphs A.1. and A.3., above, conduct a detailed visual inspection plus a high frequency eddy current (HFEC) inspection of the nose wheel well top panel and intercostals and nose wheel well vertical beam webs, in accordance with Boeing Service Bulletin 747-53-2293, dated December 22, 1988, at intervals not to exceed 3,000 flight cycles.

D. As an alternative to the inspection of nose wheel well top panel intercostals, sidewall panel vertical beam clips, and vertical beam webs, required by paragraphs A., and C., above, replace the nose wheel well top panel intercostals, sidewall panel vertical beam clips, and vertical beam webs with redesigned structure and conduct an inspection for cracking of adjacent structure within the threshold specified in paragraph A., above, in accordance with Boeing Service Bulletin 747-53-2293, dated December 22, 1988. Repair any cracks prior to further flight, in accordance with the Boeing service bulletin. Replacement with redesigned structure constitutes terminating action for the repetitive inspections of that structure required by paragraphs A. and C., above.

E. For Model 747SR airplanes, all specified flight limits, allowance periods, and reinspection intervals may be multiplied by a 1.2 adjustment factor, based on mixed operation at lower cabin pressure differentials.

F. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

NOTE: The request should be forwarded through an FAA Principal Maintenance Inspector (PMI), who will either concur or comment, and then send it to the Manager, Seattle Aircraft Certification Office.

G. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, Transport Airplane Directorate, 17900 Pacific Highway South, Seattle, Washington, or at the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-6605, AD 90-06-14, is corrected by Amendment 39-6605, AD 90-06-14 R1.

The effective date for the requirements of this amendment remains April 24, 1990, as specified in Amendment 39-6544, AD 90-06-14.

This correction is effective on May 18, 1990.