

GAF N22 and N24 Series Aeroplanes

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**AD/GAF-N22/58**  
**Amdt 5**

**Horizontal Stabiliser**

**8/96**

Applicability: All models.

- Requirement:
1. Remove modification N568 machined braces, P/N 1/N-30-250, and inspect the horizontal stabiliser centre section structure, in accordance with ASTA Nomad Service Bulletin ANMD-55-26, Revision 8, Accomplishment Instructions, Part 1.
  2. Reinforce the dorsal fin & the rear fuselage structure, in accordance with ASTA Nomad SB ANMD-55-26, Revision 8, Accomplishment Instructions, Part 2.
  3. Rework the horizontal stabiliser structure and install modification N663 and N768, in accordance with ASTA Nomad Service Bulletin ANMD-55-26, Revision 8, Accomplishment Instructions, Part 3 or 4 as applicable.

*Note: For the purposes of this AD, installation of modifications N663 and N768 does not 'zero time' the tailplane.*

4. Retire the complete horizontal stabiliser structure from service, including trim tab assemblies.

Compliance: Accomplish Requirements 1, 2 and 3 before further flight, unless previously accomplished, except that changes introduced by Revision 8 of SB ANMD-55-26, including new lockwire requirements, may be accomplished not later than the next issue of a Maintenance Release after 18 July 1996.

For tailplanes with the original main spars, or that were resparred at less than 5000 hours tailplane time in service, retire the horizontal stabiliser from service before exceeding 15000 hours **spar** time in service; or

For tailplanes resparred after 5000 hours tailplane time in service, retire the horizontal stabiliser from service before 20,000 hours **tailplane** time in service.

*Note: For the purposes of this AD, "resparred" means a complete main spar 'tip to tip' and centre section box replacement.*

Background: This directive arose from field reports of cracking in the stabiliser centre section. Investigation of a fatal tailplane failure suggested that undetected cracks may propagate beyond safe limits, despite relatively stringent inspections. Reports have also been received of cracks occurring in the spar cap flanges fitted with modification N569. This modification impedes inspection of the area and is required to be removed.

Amendment 2 was issued to require compliance with SB Revision 2, which called up repetitive eddy current inspections, since it was found that visual inspection was not sufficiently sensitive in the web lightening hole area.

**SCHEDULE OF AIRWORTHINESS DIRECTIVES**

Amendment 3 introduced Revision 3 of the SB, which required precautionary measures to be taken during engine ground running to minimise loads on the horizontal stabiliser, and a modification which would constitute terminating action for the repetitive inspections.

Amendment 4 introduced Revision 4 of the SB, which changed the effectivity to include post-mod N663 aircraft. Investigation by the manufacturer suggested that stresses in the centre section may eventually cause cracking even in aircraft modified to N663. This Revision also altered engine ground run conditions, and initial inspection and accomplishment instructions.

Amendment 5 introduces a retirement life, and calls up Revision 8 which specifies N768 as the required terminating modification. The manufacturer's substantiation of the tailplane fatigue life is ongoing. Testing and analysis undertaken to date are not completely exhaustive in determining the final life. However, based on the information provided to the Authority, an interim life has been established. This life will be reviewed as the manufacturer's test program progresses.