

Twin Commander (Gulfstream/Rockwell/ Aerocommander 500, 600 and 700) Series Aeroplanes

AD/AC/91

**Wing - Main Spar Lower Cap Forward
Flange at Wing Station 96**

5/95

Applicability:

MODEL	SERIAL NUMBERS (Inclusive)
500	618 to 750
560A	231 to 450
560E	433 to 750
680	242 to 658
680E	623 to 750
720	501 to 750

Requirement:

1. Visually inspect for interference between the forward flange of the main spar lower cap and the outboard flange of the firewall assembly. Inspect in accordance with Twin Commander Service Bulletin (SB) 212, Accomplishment Instructions Part I.
2. Inspect all aircraft, even those without interference, in the following order:
 - (a) Remove a section of the wing to nacelle fairing at WS 96 in accordance with paragraphs a. and b. of Twin Commander SB 212, Accomplishment Instructions Part II.
 - (b) Remove any interference in accordance with paragraphs c. and d. of Twin Commander SB 212, Accomplishment Instructions Part II.
 - (c) Visually inspect the forward flange of the main spar lower cap for corrosion or other surface damage in the radius area.
 - (d) Blend corroded or damaged areas with 180 grit abrasive paper, observing the precautions in the figure at the bottom of page 9 of Twin Commander SB 212.
 - (e) Inspect the main spar lower cap for cracks using Fluorescent Dye Penetrant in accordance with Twin Commander SB 212, "Inspection Procedure".
 - (f) If the spar cap is not cracked, polish any reworked area to a finish of 32RMS or smoother.
 - (g) Repaint bared areas.
 - (h) Repair the access hole in the nacelle in accordance with paragraphs k. to m. of Twin Commander SB 212, Accomplishment Instructions Part II.

SCHEDULE OF AIRWORTHINESS DIRECTIVES

Note: Although this Directive is similar to FAA AD 94-04-15 and refers to Twin Commander SB 212, it is not identical to either. This Directive takes precedence.

Compliance: Inspect in accordance with Requirements 1 and 2 before 50 hours time in service from 27 April 1995, except as follows:

If Part I of Twin Commander SB 212 was complied with before this Directive was issued on 27 April 1995, re-open the access hole in the nacelle and comply with Requirement 2 before 250 hours time in service after 27 April 1995.

If Parts I and II of Twin Commander SB 212 were complied with before this Directive was issued on 27 April 1995, further work may be required. Owners must contact the Authority for advice through their local District Office.

Background: Two aircraft have been found with cracks caused by fatigue, aggravated by fretting of the firewall on the forward flange of the main spar lower cap. In one case the cracks caused the loss of a wing and a fatal accident. The Directive varies the crack inspection procedure to make it more effective and requires all aircraft to be inspected for cracks, even those without interference.