

# SERVICE BULLETIN



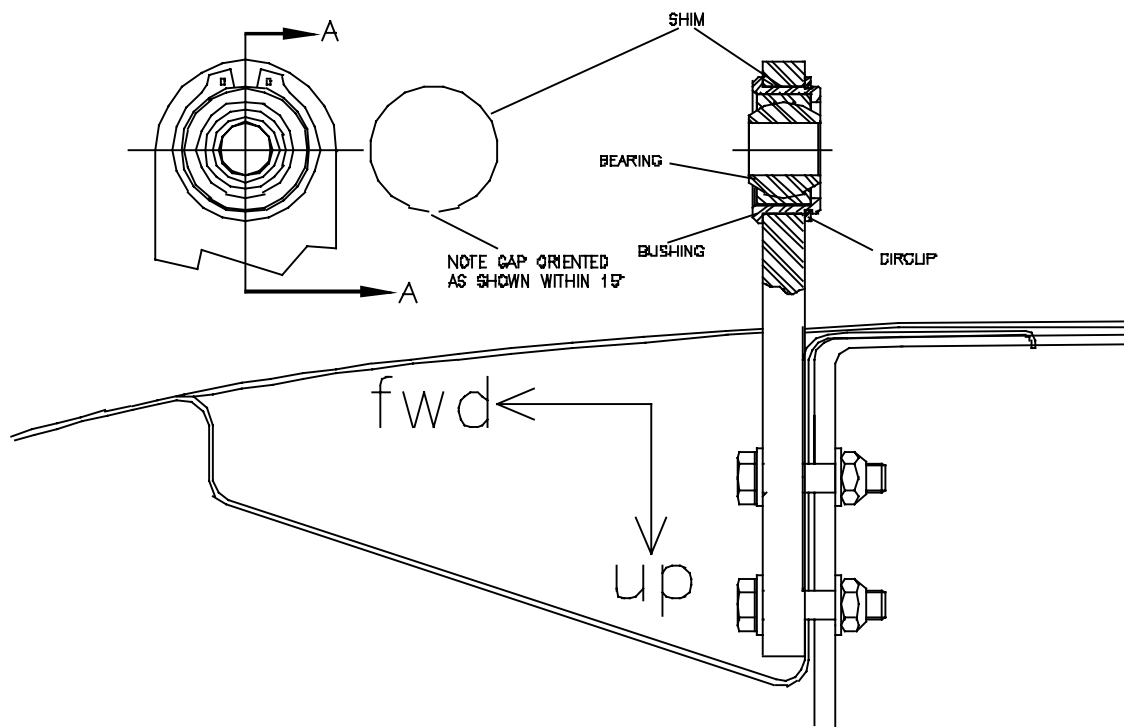
**Service Bulletin No.: DA20-55-03 Rev 0**

**Title:** Stabilizer Shim, Mount, Forward

**Date Issued:** Sept 9, 1996

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- 1. ATA Code:** 5510
  - 2. Effectivity:** All DA 20 Katanas S/N 10001 to 10201 inclusive.
  - 3. General:** There may be excessive clearance between the stabilizer forward mount and its bearing bushing. This bulletin describes the inspection to determine if excessive clearance exists and the shimming procedure to eliminate such clearance.
  - 4. Compliance:** Compliance with this bulletin is urgently recommended as follows:  
  
Action 1 - every 100 hrs until Action 2 has been accomplished.  
Action 2 - no later than next 1000 hr inspection.  
**NOTE: Perform Action 1 upon receipt of Service Bulletin.**
  - 5. Approval:** Engineering data referenced or contained in this Bulletin is approved as part of the type design.
  - 6. Labour:** Action 1 - 0.1 hrs.  
Action 2 - 1.5 hrs.
  - 7. Material:** FWD Bearing Shim, peelable 20-5384-02-03  
Loctite 680 (Diamond P/N 68035)  
Loctite *Chisel* Gasket Remover (Diamond P/N 79040) (or equivalent)  
Cleaning Solvent (see 10.2.8) (Diamond P/N 75559)
  - 8. Special Tools:** N/A
  - 9. References:** DA 20 Katana Maintenance Manual
  - 10. Accomplishment Instructions:**
    - 10.1 Action 1, Inspection**
      - 10.1.1 Restrain the aircraft from moving. Inspect forward stabilizer mount for excessive play by pushing up on the stabilizer leading edge with approximately 20 to 40 lbs (each hand 6 to 10 inches from centre) checking for excessive vertical movement at the leading edge of the gap seal (0.5 to 1mm / .020" to .040").  
**If there is excessive play, Action 2 must be complied with immediately.**



## 10.2 Action 2, Repair

- 10.2.1 Remove stabilizer as per Maintenance Manual, Chapter 55-10 and place upside down on cushioned work bench.
- 10.2.2 Remove forward stabilizer mount bushing circlip and push bushing forward out of aluminum mount plate with gentle wiggling action. Do not scrape away protective anodized coating. Loctite remover may be applied to aid removal. Protect the bearing with tape!
- 10.2.3 Inspect aluminum mount plate for wear damage. If damage is found, contact DAI Customer Support. If no damage is found, proceed as follows.
- 10.2.4 Clean inner surface of bore of mount plate and outer surface of bushing of all remnants of Loctite using Loctite remover and/or scraper, being careful not to damage either surface or the aluminum's protective coating.
- 10.2.5 Measure the bushing (outer) diameter and the plate bore (inner) diameter to the nearest 0.001" (0.25 mm) and record difference.

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- 10.2.6 For each 0.004" (0.1 mm) of clearance, peel and apply one layer of shim stock to the bushing, taking care to not obstruct the circlip groove and that any sharp edges of the shim are broken.
- 10.2.7 Trial dry fit the bushing into the mount plate. Note that damaged shim corners or "dog ears" will make installation difficult and possibly scrape away the aluminum's protective coating. Burnish edges of shim as necessary. Finger pressure should be sufficient to install the bushing. The gap on the length of the shim should be .020 " to .040". (.5 to 1mm). Trim length if necessary. Remove the bushing and inspect shim shock to ensure that it is intact.
- 10.2.8 Clean the bushing and mount plate with solvent. Suitable solvents are Loctite cleaning solvent # 755, Acetone or MEK. Be neat! Apply loctite 680 to mount plate bore, bushing O.D. and to both surfaces of the shim. **NOTE: This is important to avoid a potential dissimilar metal corrosion issue!** Permanently install bushing with shim into plate (**must be from forward side!!**), ensuring that the bushing shoulder is fully seated. Orient the **gap** in the shim **up** as installed on the aircraft (**+/- 15 deg**). Remember that the stabilizer is upside down (see 10.2.1).
- 10.2.9. Install circlip, ensuring that it is fully seated and allow assembly to air (ambient) dry 8 hours minimum before reinstalling stabilizer and 12 hours before flight.
- 10.2.10 Reinstall stabilizer as per Maintenance Manual Chapter 55-10.

**11. Weight and Balance: N/A**

**12. Electrical Load Data: N/A**

**13. Credit:** 1.5 hrs labour credit plus full parts credit applicable to **Action 2** providing a completed warranty application is received at Diamond by December 31, 1996.

*To obtain satisfactory results, procedures specified in this service information letter must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft Industries Inc. cannot be responsible for the quality of work performed in accomplishing the requirements of this service letter.*

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