

ALERT SERVICE BULLETIN



Service Bulletin No.: DA20-27-03, Rev. 0

Date Issued: September 24, 1996

Title: Rudder Control Cables, Forward

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1. ATA Code: 2720

PLANNING INFORMATION

2. Effectivity: All DA20 Katana Aircraft

3. General: There have been several cases of the forward swaged cable connections contacting the rudder pedal assemblies, which can cause excessive bending of the rudder cable and possible subsequent failure of the rudder cable at the swaged joint. There is also the possibility, that when the pedals are adjusted to the most forward position, full rudder travel is not available. This bulletin provides the necessary inspections and corrective actions to ensure that the minimum required clearance between the rudder cable swage connection and the pedal assembly exists.

4. Compliance: Compliance with this bulletin is urgently recommended as follows:

Action 10.1 - before next flight.

Action 10.2 - upon receipt of material, but no later than 25 flight hours after receipt of this bulletin.

Action 10.3 - no later than 25 flight hours after receipt of this bulletin.

Action 10.4 - at operator's discretion. Action 10.4 may be performed in lieu of Action 10.3.

Note: If Action 10.3 is performed, it is recommended that Action 10.4 be accomplished at the next convenient major inspection.

5. Approval: Engineering data referenced or contained in this bulletin is approved as part of the type design.

6. Labor: Action 10.1 - 5 minutes
Action 10.2 - 5 minutes
Action 10.3 - 0.5 manhours
Action 10.4 - 8 manhours

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7. Material:	Description	Qty	Part Number
	Stop, Pedal, Retrofit	2	20-2700-00-99

4 Rudder Cable Assemblies, consisting of:

Description	Qty	Part Number
Cable Sleeve, Oval, Locoloc	8	SL2-4P
Thimble, cable	8	AN100-4
Cable, 1/8" dia.	as req'd	SF12579 (MIL-W-83420)
Cotter Pin	4	MS24665-153

8. Special Tools: Crimp tool, rudder cable swage

9. References: DA20 Katana Maintenance Manual
FAA Advisory Circular AC43.13

10. Accomplishment Instructions:

- 10.1 Visually inspect all four forward rudder cables in the vicinity of the forward swage connection (ref. Fig. 1). Damaged cable assemblies must be replaced (ref. Action 10.4).
- 10.2 Visually inspect each pedal assembly for the presence of the white plastic pedal stop (p/n 20-2700-00-03) (ref. Fig. 1, Item 1). If pedal stop **is** installed, proceed with action 10.3. If pedal stop **is not** installed, install the split pedal stop (p/n 20-2700-00-99) by snapping it onto the upper pedal assembly guide tube between the firewall and the sliding pedal assembly (ref. Fig. 1).
- 10.3 **Note:** This action will reduce the forward pedal adjustment range by approx. 0.75 in (20 mm). If the full range of pedal adjustment is desired, Action 10.4 should be accomplished.
 - 10.3.1 Adjust pedals to their most rearward position. (Fig. 1 shows in most forward position). Remove the cotter pin, Item 2. Relieve cable tension by pulling back on the rudder pedal. Remove cable retaining pin, Item 3. Reconnect cable in the next hole position, as shown. Secure cable retaining pin with a new cotter pin. This must be performed on all four cables.

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10.3.2 Adjust pedals to their most forward position. Check that no part of the pedal assembly (other than the 'S'-tube) contacts the cable assemblies, throughout the full range of pedal movement. Check that the rudder moves completely from stop to stop.

10.4 **Note:** This action will retain/restore the maximum available forward pedal adjustment range, by replacing existing forward rudder cables with longer cable assemblies.

10.4.1 Adjust pedals to their most rearward position. Remove the cotter pin, Item 2. Relieve cable tension by pulling back on the rudder pedal. Remove cable retaining pin, item 3.

10.4.2 Replace all four cable assemblies in accordance with Maintenance Manual, Chapter 27-20-20.

10.4.3 Adjust pedals to their most forward position. Check that no part of the pedal assembly (other than the 'S'-tube) contacts the cable assembly, throughout the full range of pedal movement. Check that the rudder moves completely from stop to stop.

11. Weight and Balance: N/A

12. Electrical Load Data: N/A

13. Credit Information:

Action 10.1	None
Action 10.2	Full parts credit, no labor allowance.
Action 10.3	Labor allowance of 0.5 manhours.
Action 10.4	If carried out as a result of Action 10.1. Full parts credit and labor allowance of 8 manhours. No credit if carried out at operators discretion.

Parts and labor credit will be issued upon receipt of a completed warranty application form if received no later than November 15, 1996.

14. Illustrations: Figure 1: Pedal Assembly

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 information letter.

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