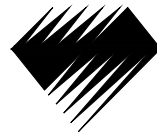


SERVICE BULLETIN



Diamond
AIRCRAFT

Service Bulletin No.: DA20-27-05, Rev. 0

Date Issued: November 13, 1996

Title: Rudder Support Bracket Inspection

Page: 1 of 4

1. ATA Code: 2720

Planning Information:

2. Effectivity: All DA20 Katana's S/N 10001 to 10183 inclusive.

3. General: Failure to use 'Control Locks' during high wind gusts or wake turbulence may result in damage to the 'Rudder Support Bracket'. This bulletin addresses the inspection of the 'Rudder Support Bracket' (P/N 20-5545-01-00) and replacement if necessary. Ongoing inspection requirements of this particular area of the aircraft at 100 hour intervals will be added to the maintenance manual.

4. Compliance: Compliance with 10.1 Inspection; Upon receipt of this service bulletin Compliance with 10.2 Replacement; Before the next flight if the 'Rudder Support Bracket' exceeds the inspection criteria of 10.1.4. Compliance with Replacement 10.2; At the next 100 hour inspection with intermediate inspections at 20 hour intervals, if the Rudder Support Bracket is within the limits of 10.1.4.

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

6. Labor: 30 minutes initial inspection. 3 hours if rudder support bracket replacement is required.

7. Material: If Required

Item	Qty	Description	Part Number
1	1	Rudder Support Bracket	20-5545-03-00
2	7	Nuts	MS21044N4
3	2	Cotter Pin	MS24665-151

Items 2 & 3, procure locally

8. Special Tools: Not Applicable

9. References: Doc No. DA201 DA20 Maintenance Manual.

10. Accomplishment Instructions:

10.1.0: Inspection

- 10.1.1 Remove control lock if installed.
- 10.1.2 Use a flashlight and suitable inspection mirror to examine the entire 'Rudder Support Bracket' for damage, paying particular attention to the area around the rudder stops as shown in figure 1.
- 10.1.3 If no damage is present install the control lock.

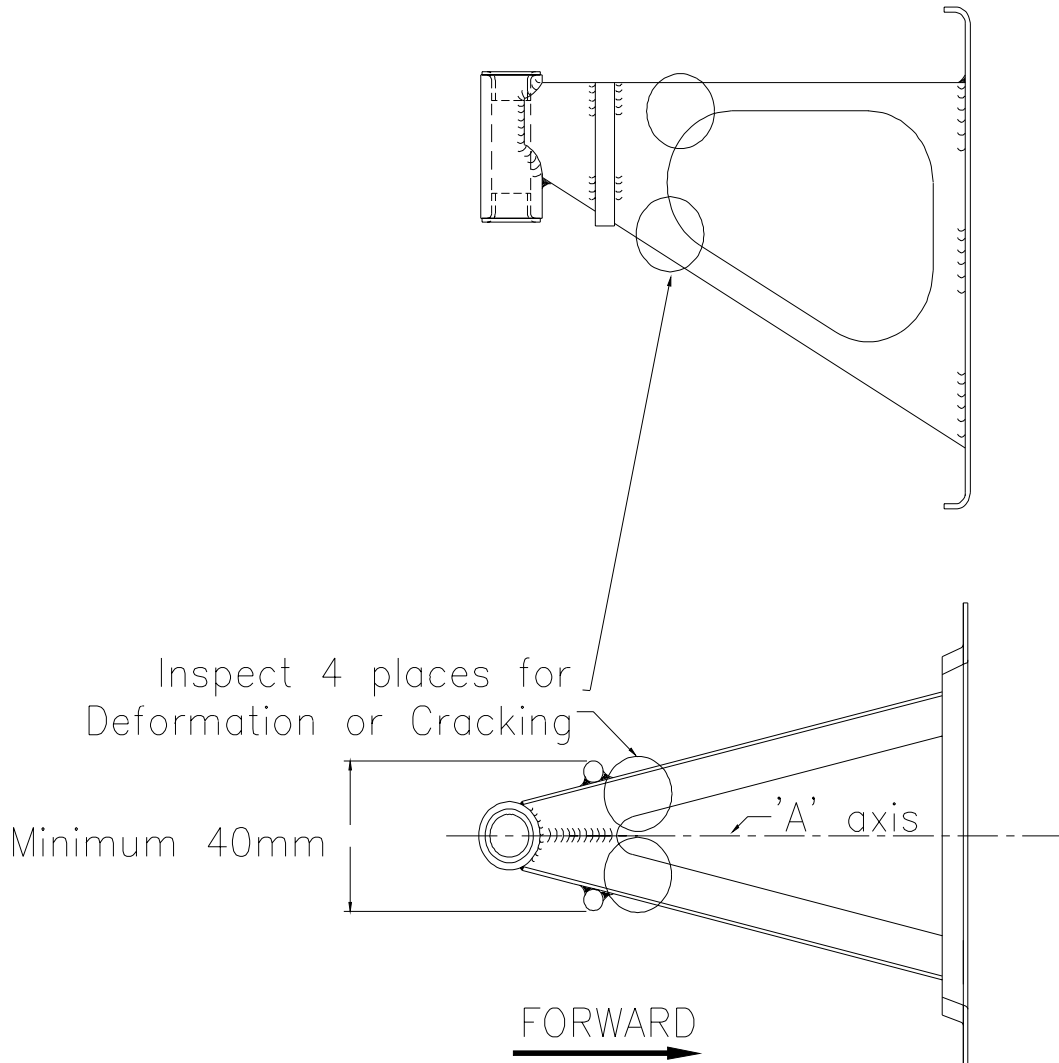


Figure 1.

- 10.1.4** If damage of any form is noted remove the rudder and check that the deformation of the rudder tower is within the following specified limits.
- a.) Check that the rudder tower has remained symmetrical along the 'A' axis as depicted in figure 1.
 - b.) Check that the dimension between the rudder stops is **not** less than 40mm.
 - c.) Check that there is no visible cracking of the metal.
- 10.1.5** If the Rudder Support Bracket is within the above limits but shows signs of deformation the aircraft may be operated for a period up to the next 100 hour inspection with 20 hour intermediate inspections after which time the part may be replaced at the operator's convenience.
- 10.1.6** If the deformation of the Rudder Support Bracket exceeds the limits described in 10.1.4 a,b or c replace it in accordance with 10.2 before further flight.

10.2.0: Rudder Support Bracket Replacement

- 10.2.1** Remove the cable pivot hardware (see figure 2) from the lower rudder mounting plate. Discard the MS21044N4 nuts.
- 10.2.2** Remove the rudder pivot hardware (see figure 2) from the lower rudder mounting plate. Discard the MS21044N4 nut.
- 10.2.3** Remove the lower and upper Trim actuator attachment pins (discard cotter pins) and position the actuator so as to gain access to the upper mounting hardware on the rudder support bracket. See Figure 3.

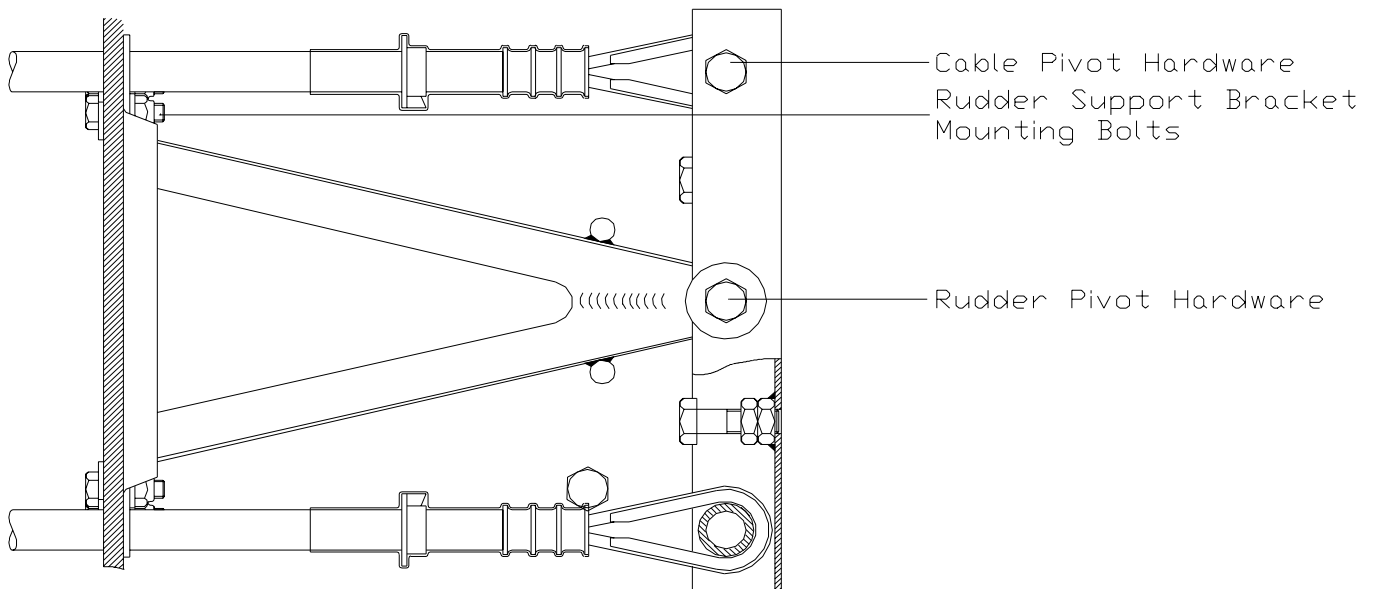


Figure 2

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Page: 4 of 4

- 10.2.4 Remove the upper and lower mounting bolts to remove the Rudder Support Bracket. Discard the MS21044N4 nuts.
- 10.2.5 For installation reverse the sequence of removal. Apply a torque of 65 in/Lbs. to the rudder support bracket mounting bolts.
- 10.2.6 Check the rudder cable tension, neutral position and travel of the rudder in accordance with the maintenance manual (Doc No. DA201) chapter 27-20-20 section 4. Adjustment.

Lower and Upper Trim Actuator
Attachment Pins

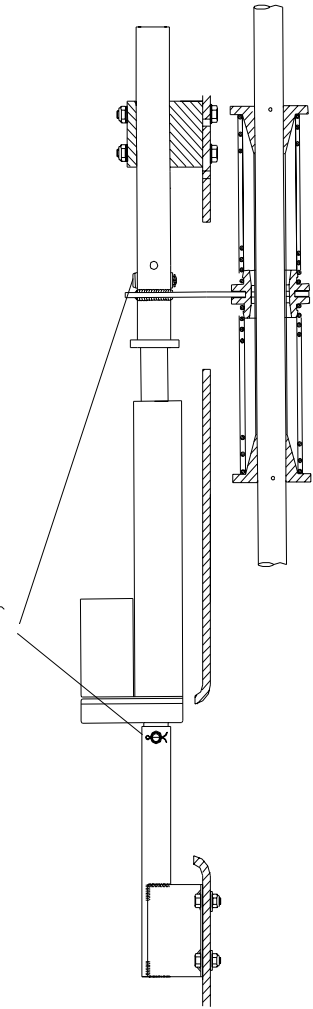


Figure 3

11. Weight and Balance: Negligible.

12. Electrical Load Data: Not Applicable.

13. Credit: A full parts credit and a labor allowance of 3 hours will be given only if a parts change is required and upon receipt of a completed warranty claim form returned along with the removed part, no later than February 28, 1997

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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