

**MANDATORY SERVICE BULLETIN NO. DAC1-27-03 REV. 1**

SUPERSEDES DAC1-27-03 REV. 0

**I TECHNICAL DETAILS**

**I.1 Category**

Mandatory.

**I.2 Airplanes Affected**

Type: DA 20-C1

Serial Numbers: C0001 and up, with flap bellcrank P/N 22-2750-03-00 installed

**I.3 Time of Compliance**

Compliance with this service bulletin is mandatory. For aircraft with greater than 3000 hours of flight time, carry out the inspection within 10 hours or 6 months, whichever comes first. Aircraft with less than 3000 hours, carry out the inspection at the next 100 hour inspection. Inspection in this area is required every 100 hours thereafter as per the Aircraft Maintenance Manual.

**I.4 Subject**

ATA code: 2750.

**I.5 Reason**

There have been two reported failures of the flap bellcrank (P/N 22-2750-03-00), one at 4500 TTSN and one at 7500 TTSN. This type of failure could result in the flaps being disconnected from the actuator (not asymmetrical) which could result in an unsafe condition for certain phases of flight. Pending further investigation, it is not known if this failure is the result of overload (e.g. flap deployment above  $V_{fe}$ ) or other causes, (e.g. fatigue, corrosion, defect). As a precaution, we are requesting all operators of DA 20 aircraft to inspect the bellcrank in accordance with this MSB.

**I.6 Approval**

Engineering data referenced or contained in this service bulletin is approved as part of the type design. Also see drawing 22-5310-48-00-B7.

**I.7 Accomplishments/Instructions**

1. Remove the center fuselage access panels.
2. Inspect the flap bellcrank, P/N 22-2750-03-00 around the weld connecting the top arm to the bellcrank tube. Look for cracks or any other damage in the area around the weld joint from both sides of the bellcrank. In particular, look thoroughly on the left hand side at the base of the vertical weld. Refer to Figure 1.
3. Move the flaps into the landing position in order to inspect fully around the weld joint.

4. If a crack or damage is found, replace the bellcrank with P/N 22-2750-04-00.
5. Report any findings to Diamond Aircraft Industries Inc. via e-mail at [custsupp@diamondair.com](mailto:custsupp@diamondair.com).
6. Re-install center fuselage access panels.

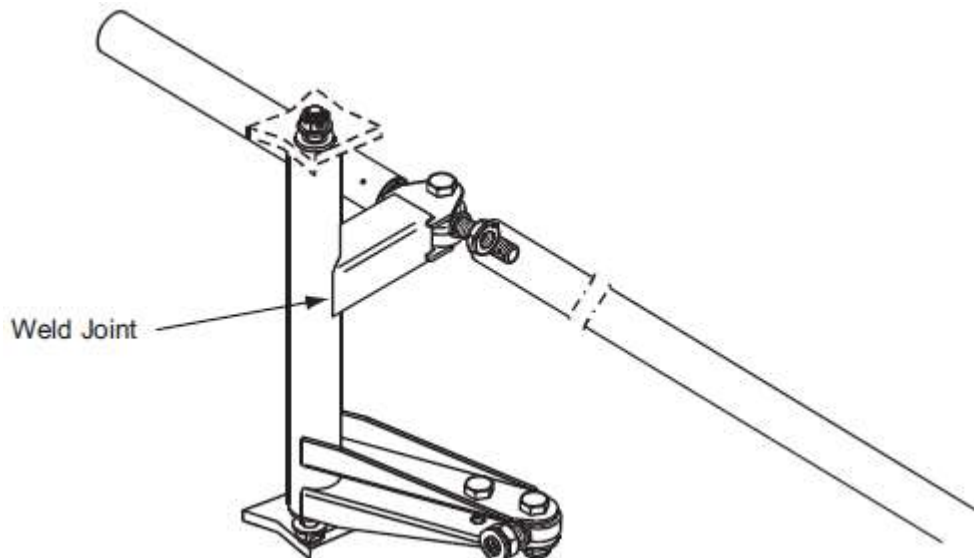


Figure 1 - flap bellcrank.

**I.8 Mass (Weight) and CG**

Not affected by this service bulletin.

**I.9 Electrical Load Data**

Not applicable.

**II PLANNING INFORMATION**

**II.1 Material and Availability**

No materials are required to carry out this inspection.

**II.2 Special Tools**

Bright flashlight and a mirror.

**II.3 Labour Effort**

Approximately 0.5 hours will be required to accomplish this service bulletin.

Diamond Aircraft Industries  
**MANDATORY SERVICE BULLETIN**  
Model DA 20-C1

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**II.4 Credit**

Not applicable.

**II.5 Reference Documents**

DA 20-C1 Aircraft Maintenance Manual, document # DA201-C1.

**III REMARKS**

1. All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.
2. Completion of all work must be recorded in the logbook.
3. In case of doubt, contact Diamond Aircraft Industries.