

# SERVICE BULLETIN

## AA-SB-53-002

### Stabilator Hinge Brackets - replacement

#### **1. Planning Information**

##### **1.1 EFFECTIVITY**

R2160 aircraft prior to s/n 010.

##### **1.2 CONCURRENT REQUIREMENTS**

Nil

##### **1.3 REASON**

It has become evident that historical manufacturing tolerances have resulted in some lack of interchangeability of stabilator assemblies. In particular, new stabilators or stabilators embodying main spar components from current production may not be compatible with fuselage hinge bracket lateral spacing.

This service bulletin covers the installation of fuselage mounted hinge brackets that are compatible with current production components.

##### **1.4 DESCRIPTION**

Existing p/n 21-23-36-000 hinge brackets are removed and replacement p/n 21-23-36-010 hinge brackets are installed.

##### **1.5 COMPLIANCE**

Optional, on an "as required" basis.

##### **1.6 APPROVAL**

By delegated authority (Alpha Aviation Concept Ltd, DO75992)

##### **1.7 WEIGHT AND BALANCE**

Negligible effect on weight and balance.

##### **1.8 REFERENCES**

R2000 Service Manual.

##### **1.9 OTHER PUBLICATIONS AFFECTED**

Nil

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#### **2. Accomplishment Instructions**

##### a) Verification of existing geometry

- i) With reference to the R2000 series service manual, section 4.4, remove stabilator.
- ii) With reference to Figure 2-1 determine the distance between the outer faces of the existing 21-23-36-000 brackets. The correct design distance is the distance of 257 mm shown on figure 2-1.
- iii) If the distance determined is 257 mm then new stabilators or stabilators embodying main spar components from current production will be compatible and no further action is required.
- iv) If the distance determined is not 257 mm then existing brackets will need replacement if new stabilators or stabilators embodying main spar components from current production are to be installed.

##### b) Installation of New Brackets

- i) Obtain two brackets part number 21-23-36-010. These brackets differ from the standard brackets by having a wider attachment flange (30 mm rather 25 mm) and are supplied with attachment holes undrilled. Brackets will be supplied with an approved bearing installed.
- ii) The installed geometry to be achieved is shown in figure 2-1. This geometry is now jig controlled and the dimensions do not have a tolerance band. It is recommended that a locally made jig fixture be produced to ensure that the required geometry is achieved.
- iii) When the required geometry has been established transfer the attachment hole locations from the fuselage rear bulkhead to the p/n 21-23-36-010 brackets. Finish holes in the brackets by drilling 6 mm
- iv) Install brackets on the rear bulkhead using existing hardware. Install the attachment bolts with the nuts and washers inside the bulkhead and torque attachment bolts to 44 inch /lb.

##### c) Records

Record embodiment of this service bulletin in the aircraft log book.

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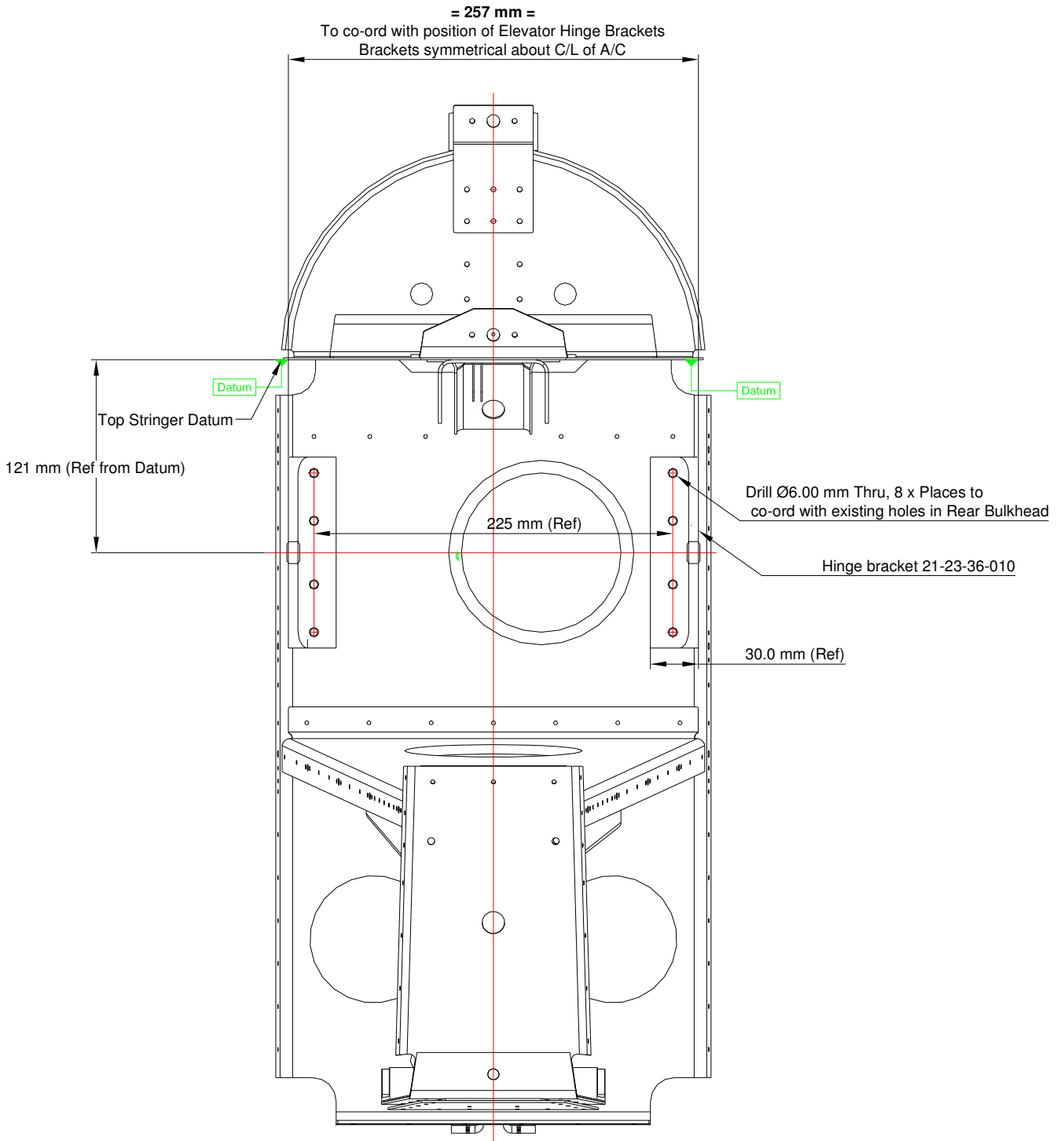


Figure 2-1



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