

**Murphy Aircraft mfg. ltd.**  
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Chilliwack, British Columbia, Canada  
V2R 4H5

## **Technical Bulletin**

**September 29, 1997**  
**Chilliwack, British Columbia**

**Attention:** Rebel and Elite Owners with Spring Gear  
**Subject:** Inboard Spring Gear Bolt (AN6-45A)

**Contact:**                   **Technical Services**  
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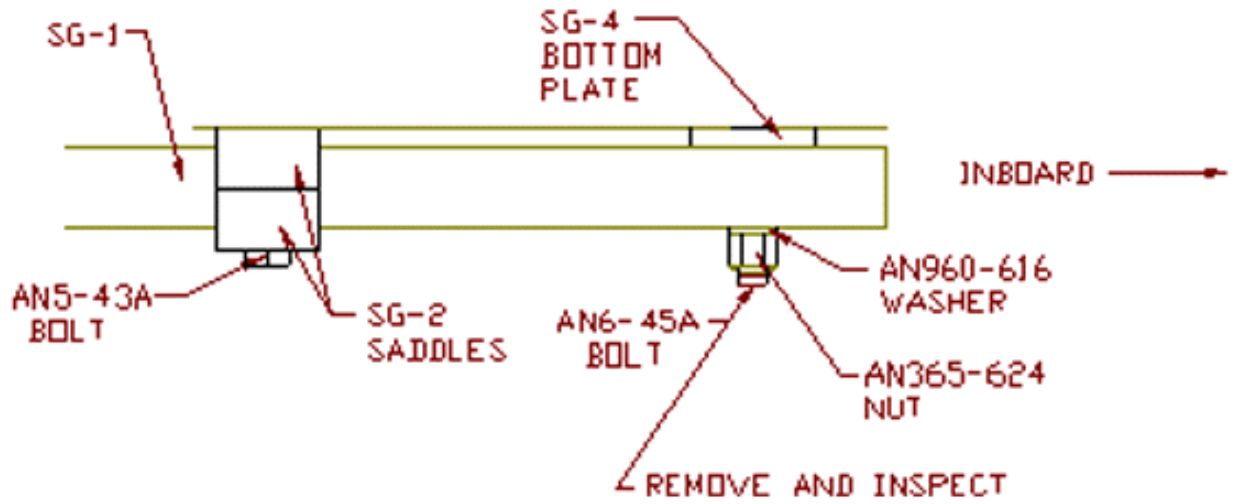
We have been notified by a Rebel customer of an incident involving the failure of the inboard Spring Gear Bolt (AN6-45A) after only 50 hours of service. The customer tells us that the inboard Spring Gear Bolt on one side of the aircraft failed to the breaking point while the inboard Spring Gear Bolt on the other side of the aircraft was found, upon inspection, to have been stretched and bent.

We at Murphy Aircraft have complete faith in the design of the Spring Gear and the way in which it attaches to the aircraft. The design of the Spring Gear was performed by an experienced and renowned Aeronautical Engineer and his design was proven empirically by performing drop tests on the aircraft which meet the highest standards in the industry.

We have many Rebel customers who have installed the Spring Gear on their aircraft having logged several hundred hours with no reported problems. Our own aircraft, an Elite (1800 lb.), has close to 300 hours with Spring Gear. This aircraft is our demo and as such has been subjected to numerous hard landings. An examination of the inboard Spring Gear bolts showed no problems.

We have received the broken bolt from the customer and we have sent it to a lab for further analysis. We believe this failure to be an isolated case but we would like you to check your inboard Spring Gear bolts for any signs of failure as a precautionary measure. We would appreciate it if you could please inform us of your findings one way or the other. Respond to the above address by phone or fax, or send e-mail to [murtech@murphyair.com](mailto:murtech@murphyair.com).

\* When re-attaching the bolts remember to tighten to the specified torque value of 13 - 16 ft.\*lb.



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