



SERVICE BULLETIN

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Number: 96-12-1

<u>Synopsis:</u> Affects RV-4. The nuts, bolts and cotter pins securing the rudder cables to the rudder pedal should be safetied and regularly inspected. If the cable becomes disconnected from the pedal, rudder control and tailwheel steering may be lost or compromised.

Action:

- 1. Frequent inspection of the rudder pedal pins. Regardless of other corrective action which may be taken, frequent inspection will reveal potential problems before they become serious.
- 2. Use the largest cotter pin possible, so that it fits snugly in the bolt and so that the pin itself has more strength to resist the forces on it from the pilot's shoe.
- 3. Use .040 safety wire rather than a cotter pin. Safety wired as shown will prevent the castle nut from turning, will prevent the clevis bolt itself from rotating, and is less exposed to pressure from the pilot's show because there are no exposed ends as is the case with cotter pins.
- 4. After the nut is installed and safetied, flatten the end threads of the bolt so that if all else fails, the nut will not easily screw off. (Of course, if this is done, the bolt and nut should not be re-used if it is ever necessary to disconnect the cable for maintenance.)
- 5. After the nut is safetied, using either the cotter pin method or the safety wire method, cover the nut and safety with a structural epoxy such as J-B Weld. This will protect the cotter pin ends from contact with the pilot's shoe.