WILLS WING TECHNICAL BULLETIN

Bulletin #: TB980730 Keyhole Collar Recall and Replacement Date: 07/30/98

Background

Wills Wing gliders manufactured since 1989 have used a part we call the "Keyhole Collar" in combination with a keyhole tang or keyhole channel to secure the bottom front wires to the nose, the top rear wire to the keel, and, on models introduced since 1993, the crossbar sweep wires to the rear keel. Each glider uses two such collars; one on the bottom of the noseplate, and one on the top of the rear keel.

Recently we have seen three incidents of partial failures of this collar. The nature of these failures has ranged from cracks appearing in the part, to a separation of part or all of the "washer" area of the collar from the remainder of the part. In one case, the failure of the collar was coincident with, though apparently not the cause of, the nose wires becoming detached from the noseplate. (The apparent cause of both the wires becoming detached and the failure of the collar in this incident was the fact that the nut which holds the collar on came off of the bolt. See TB# 980716 for more information on this.) As near as we can determine, even a complete, catastrophic failure of the collar would not allow the wires to become detached in flight, so long as the nut remains in place, as either the nut or the head of the bolt (depending on the configuration) would retain the keyhole tang.

However, in our investigation of these incidents we have determined that the part as manufactured is unacceptably brittle, and can be expected to be subject to some probability of failure in normal use. We are therefore recalling all of these parts, and requiring their replacement. We have manufactured new parts out of a different, stronger and less brittle material. The new parts can be distinguished by the color of the plating. The original parts are gold colored 'Cad II' (the same as most AN bolts). The new style replacement parts are silver colored 'Cad I'.

Service Requirement:

Replace both keyhole collars on your glider with new ones. You may obtain new ones through your dealer, or direct from Wills Wing. Please supply the model and serial # of your glider. Note that Falcon 225's use a slightly different collar on the rear keel; it has a wider necked area to accept two keyhole tangs. We will supply parts at no charge on a warranty basis for any gliders manufactured within the last year. We will make the collars available for $1.50 each (normal retail price is $3.00 - $4.50) for gliders more than one year old.

