

SERVICE BULLETIN

Title: Control Frame Top Security

Identification	SB-021
Status	Recommended
Issue	1
Issue Date	11 December 2018
Applicability	All Airborne Wings
Compliance	Prior to next flight and incorporated in pre-flight inspection.

Issued by: Rick Duncan

Approved by: Rick Duncan – AirBorne Windsports.

Summary of Changes:
First issue

Introduction

Airborne Windsports has received reports of loosening of the AN5 nut of the control frame top horizontal bolt. The bolt and nut secure the down tube top knuckles to the U Bracket. In one reported case the nut was completely removed from the bolt. Another reported that the nut was out of the nyloc.

Under normal circumstances the pre-flight inspection as outlined in section 4.3 of the Aircraft Operating Instructions should identify the loose nut.

Section 5.20.10 of the Wing Maintenance Manual also has a requirement for inspection of the junction. Tension procedures are found in section 20.10.00 of the Wing Maintenance Manual.

When the nut is checked for security the counter sunk hex screw should also be checked

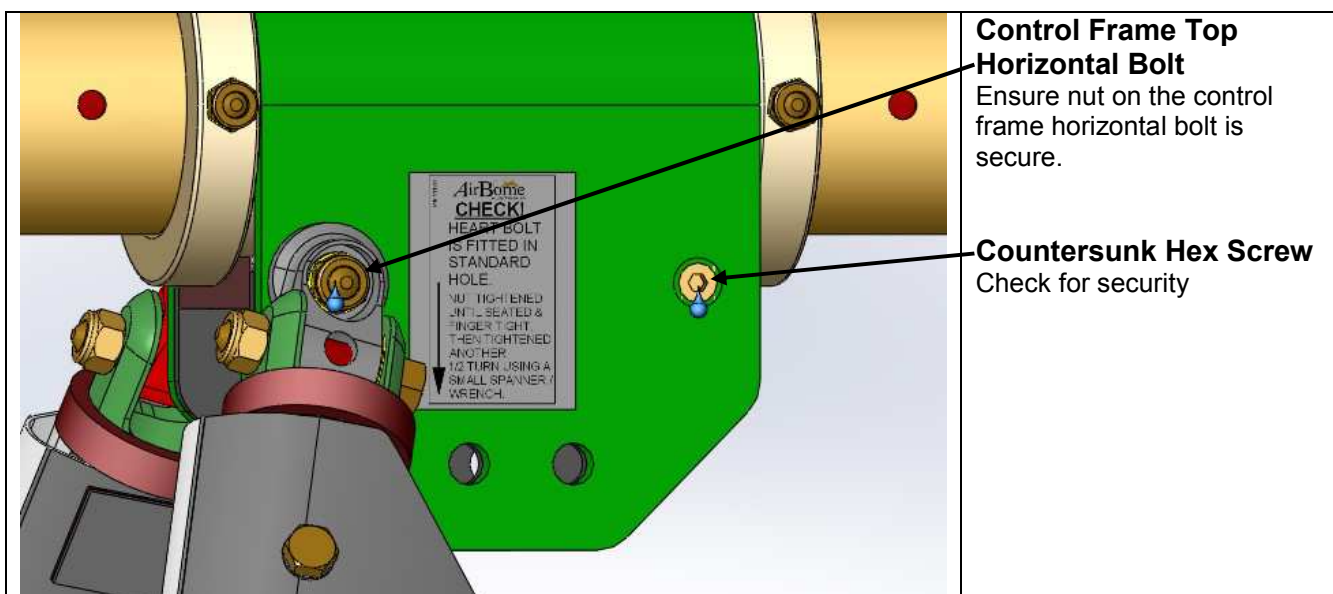


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Action

Tension as per Wing Maintenance Manual. If the nut is loose it should be replaced with a new one. Loctite 262 should be used on the thread in addition to a new nut.

If the countersunk hex screw is loose it should be removed (one side at a time). Loctite 212 should be applied to the thread and then tensioned.

For guidance the following is an extract from the wing maintenance manual:

4.	Down Tubes Top Assembly	The down tubes are also attached to the U-bracket. The down tubes need to move relative to the U Bracket, therefore it is important that they are able to move after tightening. This may be slightly tighter than "Just Not Loose" Ensure that there is no gap between the neg plate and the U-bracket, there should be approx 2-3 threads showing.
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Definition of "Just Not Loose"

A definition of torque has been made for the assembly of this wing which has been called "Just not loose", a setting which is used to achieve the best combination of strength characteristics of the tubing while not allowing any vibration or relative movement of the bolt in the axial direction. In practice this means that the nut shall be tightened adequately to ensure that each of the components that are held by it are in contact with each other, and then approximately ¼ turn more should be made. The resulting fit should not allow any axial movement of the bolt in its location, but will allow rotation (using fingers) of a held component to be achieved with approximately 20mm of lever arm; (eg. a wire tang).

Skills

The maintainer is expected to have the skills as required by the National Aviation Authority (NAA) of the respective country.

Tools

2 x 5/16 sockets and wrench
Allen Key 4mm
Loctite 262 if required.

End of Service Bulletin.