CHRISTEN ✱ PRODUCT LETTER

No: 000318

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By: FLC Date: 06-04-83 Page: 1 of 1

Send To: 902 LOWER WING KIT

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C CHRISTEN INDUSTRIES INC.
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Subject: TENSIONING OF DRAG AND ANTI-DRAG TIERODS IN UPPER AND LOWER WINGS OF EAGLE II AIRCRAFT

The upper and lower wing assemblies of the Eagle II aircraft are constructed with threaded stainless steel tierods which extend diagonally across each wing bay between the spars and the compression ribs. These tierods are commonly called "drag wires" or "anti-drag wires" because they form the structural trusses of the wings which carry the drag and anti-drag flight loads. They also hold the wings in their proper plan-form shape.

The tierods are tensioned during the wing construction process described in the 902 and 903 product manuals, and they normally remain properly tensioned for the life of the aircraft. Tierods may be found loose on some aircraft during periodic inspections. This condition results from one of the following circumstances which are listed in the order of their likelihood:

1. Tierods were insufficiently tensioned during original wing construction.

2. Wood elements of the wing have shrunk because the environment in which the aircraft is used has lower humidity than that in which it was originally constructed.

3. Compression or shear failure of the drag or anti-drag tierod support blocks has occurred due to impoper block wood grain orientation or improper block installation.

4. Failure or stretch of drag or anti-drag tierods has occurred due to excessive flight loads resulting from improper aircraft operation.

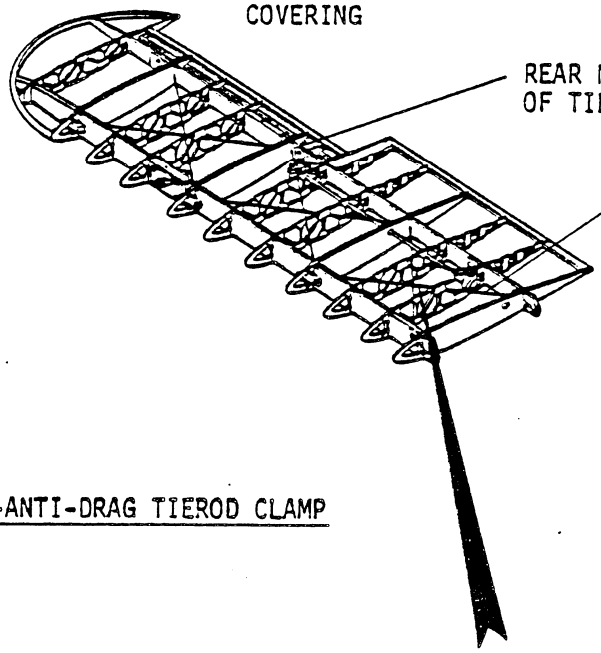
When drag or anti-drag tierods are found loose their installation should be thoroughly inspected and they should be re-tightened. Several inspection and access openings in the fabric covering are provided for this as a part of the wing covering process described in the 923 product manual. Re-tightening of the tierods should be required only once. The need for repeated re-tightening is an indication that there is a structural problem requiring service.

A tierod clamp has been developed as an aid for re-tightening of drag and anti-drag tierods. Its configuration and use are depicted in the enclosed Engineering Sketch X-90166. The 31359-501 Clamp Assembly is available to Eagle builders at a price of $12.50 plus $0.75 sales tax for California residents and $1.33 for UPS shipping.

ENCLOSURE: ENGINEERING SKETCH X-90166

DRAG-ANTI-DRAG TIEROD TENSIONING

TIERODS ARE TENSIONED DURING ORIGINAL WING CONSTRUCTION. THEY MAY BE RE-TENSIONED LATER THROUGH INSPECTION PORTS PROVIDED IN FABRIC COVERING

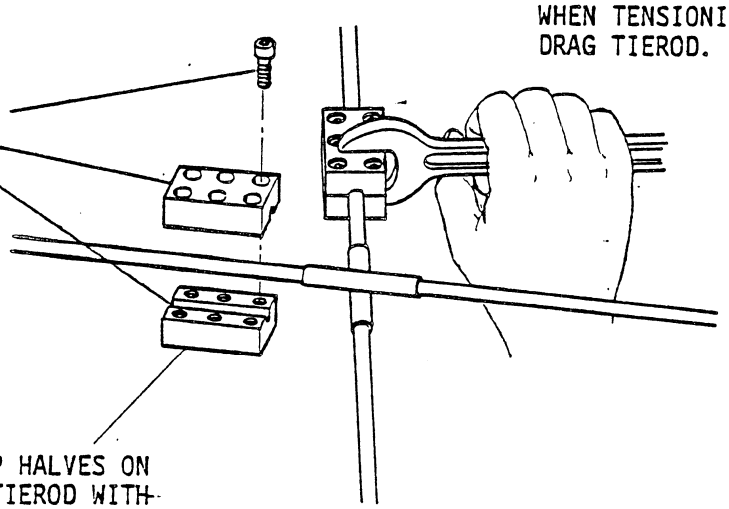


REAR NUTS ARE ADJUSTED FOR TENSIONING OF TIERODS IN OUTER BAYS.

TIERODS ARE SCREWED INTO ATTACHMENT CLEVISES FOR TENSIONING IN INNER BAYS.

DRAG-ANTI-DRAG TIEROD CLAMP

USE WRENCH TO HOLD TIEROD STATIONARY OR TO ROTATE TIEROD WHEN TENSIONING DRAG OR ANTI-DRAG TIEROD.



31359-501
CLAMP ASSEMBLY

ASSEMBLE CLAMP HALVES ON EACH SIDE OF TIEROD WITH SIX SCREWS AND TIGHTEN SECURELY.

UNLESS OTHERWISE SPECIFIED: TOLERANCES: FRAC.± 1/64 DEC. XXX± .005 ANGLES± 0° 30' DIMENSIONS IN INCHES DO NOT SCALE DRAWING	MATERIAL AND CONDITION: NOTED			CHRISTEN INDUSTRIES HOLLISTER, CALIFORNIA	
	FINISH: NONE			ENGINEERING SKETCH	
	DRAWN BY: I. CLEDE	DATE: 6-1-83	PROJECT: EAGLE II AIRCRAFT	TITLE: DRAG-ANTI-DRAG TIEROD CLAMP	
	APPROVED BY: [signature]	DATE: 6-1-83		CODE: PA	NO.: X- 90166 ISSUE:

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