## **Sportsman Service Bulletin 61**

<u>Note</u> :	This Service Bulletin was also released as Glasair Service Bulletin 160
<u>Subject</u> :	Nose Gear Axle Nut
Applicability:	All Sportsman Aircraft with nose gear.
<u>Issue</u> :	Nose fork axle nut replacement.
Compliance Time:	Prior to first flight or, if currently flying, prior to next flight or at next annual condition inspection

## **Discussion and Background Information:**

We have been informed of two Glasair incidents since 2001 in which the nose wheel axle detached from the nose wheel fork causing substantial damage to the engine and prop (and the airframe as well in one case). The exact cause in both incidents is unclear; however, in light of the combined hundreds of thousands of successful take-off and landings with the Glasair and Sportsman nose fork and axle design, we speculate that something out of the ordinary must have contributed to these incidents.

Notwithstanding, because nose gear shimmy can cause fairly severe side loads to the axle and fork assembly, replacement of the AN364-428A (shear) axle nut with an AN365-428A (tension) nut would be a prudent change.

Note: On Glasair retractable gear aircraft, it may not be feasible to use the AN365-428A tension nut due to width constraints of the nose gearbox. If such is the case for your particular installation, please note that it is possible to get the strength advantages of the larger AN365 tension nut by using a lower height MS21042-4 steel self-locking nut, which offers very high-tension strength of 6200 lbs.

## **Required Action:**

Replace the AN364-428A axle nut with either an AN365-428A nut or MS21042-4 steel self-locking nut. Note: Most aviation parts supply houses stock both of these nuts. If you are placing an order for other parts or accessories, you can contact the Glasair Aviation Parts Department at: <u>parts@glasairaviation.com</u> or 360-435-8533 X 221 and order the parts; however, we currently have a \$25.00 order minimum charge. Therefore, we suggest that you obtain these through your local aviation parts supply house.

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