

No: 000199

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Send To: 906 TAIL STRUCTURES KIT

C-0002

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Subject: TRIMTAB HORN ON EARLY
FIBERGLASS AND ALUMINUM
TRIMTAB ASSEMBLIES

The Eagle aircraft elevator system features dual trimtabs which also function as boost tabs to reduce elevator control pressures. The original trimtab assemblies supplied in early 906 Tail Structures Kits were pre-fabricated assemblies of fiberglass and aluminum. These assemblies featured a relatively short trimtab actuating horn which was intended to provide a high degree of boost, thereby making elevator pressures very light.

The short actuating horn caused greater boost for forward stick (down) elevator) than for back stick (up elevator). This high rate of forward stick boosting produced extremely light elevator control pressures in negative maneuvers, and particularly those associated with outside snap rolls and inverted spins. These very light pressures in inverted attitudes often gave the aircraft an undesirable feeling of aft CG loading, when in fact they were attributable to the boost tab only.

On the basis of flight test data, it was determined that the high boost, and particularly the differential boost, was undesirable. As a result, the trimtabs were redesigned with a longer horn and for fabrication by the builder from aluminum and fabric-covered balsa wood. The new design reduced the boost somewhat and eliminated the differential effect. The redesigned assembly has been standard for the Eagle II aircraft since June of 1978.

Unfortunately, we did not keep accurate records of the few early 906 Tail Structures Kits which included the original fiberglass and aluminum trimtab assemblies, and it is important that all of these assemblies be either replaced with the new type, or have the actuating horns on the original type replaced with a longer horn. Please check your trimtab assemblies to determine whether or not they are of the early fiberglass and aluminum type, or the later balsa wood and aluminum type. If you have the earlier type, please telephone the Christen factory collect and request that a set of new trimtab horns (Christen Part 30688-002) be sent to you immediately. These new horns can be attached by simply drilling out the rivets which hold the old horns in position, and replacing them with the new type utilizing new rivets that will be supplied with the longer horns.

Enclosures:

None