

CHRISTEN *

PRODUCT LETTER

No: 000311

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Subject: HORIZONTAL STABILIZER
INCIDENCE ON EAGLE II
AIRCRAFT

We have received several inquiries from Eagle II builders about horizontal stabilizer incidence. Some builders have expressed interest in increasing the incidence because they have noticed that the elevator is slightly down relative to the stabilizer when the aircraft is trimmed for cruise flight.

A slight down elevator position normally exists when the aircraft is trimmed for cruise flight because upward stabilizer incidence has been intentionally set at one degree. This relatively small incidence partially compensates for the upper wing downwash which creates downward pressure on the stabilizer during flight. Increasing the incidence to fully compensate for downwash and to obtain full streamlining of the elevator in cruise would produce less optimal inverted flight trim. The present incidence setting is considered to be the best compromise of all design objectives.

We recommend that all Eagle II builders maintain the standard one degree stabilizer incidence when constructing the aircraft.

ENCLOSURES:

None