

Investigation of Bird Impact on Tailplane

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Abstract : The typical airplane stabilizer structures consist of two main similar segments (outer and inner parts), one of them a little larger than the other. In this study, bird impact on four different spots of the stabilizer structure: (a) between two ribs of smaller segment, (b) between two ribs of larger segment, (c) on the rib connecting the two segments, and (d) on a middle rib of the smaller segment, is investigated and their results are compared by means of energy absorption, displacement, and bird's mass diagrams as well as visible damage induced on the stabilizer structure.

Keywords : airplane, bird strike, LS-DYNA, stabilizer

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