

Abstract Submitted
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Cavitation inception on rudder models with smooth and scalloped leading edges MARK MURRAY, Mechanical Engineering Department, United States Naval Academy, LAURENS HOWLE, Mechanical Engineering Department, Duke University — We present experimental results, based on water channel testing, comparing the lift and drag characteristics of rudder models with a smooth and scalloped leading edge at velocities which induce cavitation at the low pressure areas of the foils. We also compare the point of cavitation inception. We have found that leading edge cavitation occurs sooner in the scalloped leading edge model, but never progresses over the entire leading edge as it does with the smooth leading edge model.

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