

Using the surface panel method to predict the steady performance of ducted propellers(PDF)

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Title: Using the surface panel method to predict the steady performance of ducted propellers

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关键词: surface panel method; ducted propeller; velocity potential iteration; steady hydrodynamic performance

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摘要: A new numerical method was developed for predicting the steady hydrodynamic performance of ducted propellers. A potential based surface panel method was applied both to the duct and the propeller, and the interaction between them was solved by an induced velocity potential iterative method. Compared with the induced velocity iterative method, the method presented can save programming and calculating time. Numerical results for a JD simplified ducted propeller series showed that the method presented is effective for predicting the steady hydrodynamic performance of ducted propellers.

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备注/Memo: -

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