

Abstract

Amr A. Mohamed Mohamed Hassan

Stationary and Low Speed Performance Characteristics of Open and Ducted CPPs

Existing available systematic propeller tests provide useful data base to help the designer understand the factors which influence propeller performance under various operating conditions. They also provide design diagrams, and/or charts, which will assist in Selecting the most appropriate dimensions of actual propellers to particular ship applications. Some information pertaining to stationary operation is not explicitly given by these tests. Typical examples of stationary low speed applications includes tug boats, fishing vessels, dynamic/ tracking and heavy lift vessels. In early work by the authors, static performance characteristics of open and ducted fixed pitch propellers have been studied. Thrust, torque, and affectivity have been identified in static mode condition and related to both configurationally and operational conditions.