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## **Ships and marine technology — Guidelines for the assessment of speed and power performance by analysis of speed trial data**

*Navires et technologie maritime — Lignes directrices pour l'évaluation des performances de vitesse et de puissance par analyse des données d'essais de vitesse*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 15016 was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 9, *General requirements*.

Annexes A to F form a normative part of this International Standard.

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## Introduction

This International Standard concerns the method of analysing the results obtained from speed trials.

The primary purpose of speed trials is to determine ship performance in terms of speed, power and propeller revolutions under prescribed ship conditions, and thereby verify the satisfactory attainment of the contractually stipulated ship speed. Ship speed is that realized under the contractually stipulated conditions which usually are no wind, no waves, no current, deep water, smooth hull and propeller surfaces.

Such stipulated conditions cannot normally all be expected to be met during the actual trials. In practice, certain corrections for the environmental conditions have to be considered, as for water depth, wind, waves and current.

The purpose of this International Standard is to define basic requirements for the performance of speed trials, and to provide procedures for evaluation and correction of speed trials covering all influences which may be relevant for the individual trial runs based on sound scientific grounds, thus giving confidence to the customer with respect to the final results.

The procedure specified in this International Standard has been derived largely on the basis of published data on speed trials and on ship performance, the more important among them being listed in normative annexes A to F.