ISO 19030-3:2016-11 (E)

Ships and marine technology - Measurement of changes in hull and propeller performance - Part 3: Alternative methods

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Measurement parameters and alternatives 2
4.1 General 2
4.2 Proxy for the primary measurement parameters 2
4.2.1 General 2
4.2.2 Proxy for speed through water measurement (speed over ground measurement) 2
4.2.3 Proxy for delivered power (Alternative methods for estimating delivered 4.3 Secondary measurement parameters and alternatives 4
4.3.1 General 4
4.3.2 Alternative measurement of wind speed 5
4.3.3 Alternative measurement of static draught (fore and aft) 5
4.3.4 Alternative measurement of water depth 5

5 Measurement procedures and alternatives 5
5.1 General 5
5.2 Data acquisition 5
5.3 Data storage 6
5.4 Data preparation 6
5.4.1 General 6
5.4.2 Alternative procedure for expected speed calculation 6

6 Calculation of performance indicators (PIs) 9
6.1 General 9
6.2 Definition of performance indicators 9
6.3 Calculation of performance indicators 9
6.3.1 General 9
6.3.2 Determination of reference conditions 9
6.3.3 Establishment of reference period and evaluation, and alternative durations of reference and evaluation periods 10
6.3.4 Extraction of subsets of performance values from the complete set with performance indicators that fulfil reference conditions for reference periode(s) and evaluation period .10
6.3.5 Calculation of the PI 10

7 Accuracy of the performance indicators (PIs) 11
7.1 General 11
7.2 Standard combinations or primary parameters, secondary parameters and measurement procedure details 11
7.3 Estimations of the uncertainty in the period average performance value 11
7.4 Calculating the performance indicator and estimating the accuracy of the performance indicator 13

Bibliography 15