ISO 12217-1:2013-03 (E)

Small craft - Stability and buoyancy assessment and categorization - Part 1: Non-sailing boats of hull length greater than or equal to 6 m

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 2
3.1 Primary 2
3.2 Downflooding 4
3.3 Dimensions, areas and angles 5
3.4 Condition, mass and volume 7
3.5 Othertermsanddefinitions 9

4 Symbols 11

5 Procedure 13
5.1 Maximum load 13
5.2 Sailing or non-sailing 13
5.3 Tests and calculations to be applied 13
5.4 Variation in input parameters 13

6 Tests, calculations and requirements 14
6.1 Downflooding 14
6.2 Offset-load test 19
6.3 Resistance to waves and wind 20
6.4 Heel due to wind action 22
6.5 Recess size 23
6.6 Habitable multihull boats 26
6.7 Motor sailers 26
6.8 Flotation requirements 27
6.9 Detection and removal of water 27

7 Application 27
7.1 Deciding the design category 27
7.2 Meaning of the design categories 27

Annex A (normative)Fullmethodforrequireddownfloodingheight 29

Annex B (normative) Method for offset-load test 32

Annex C (normative)Methodsforcalculatingdownfloodingangle 40

Annex D (normative) Method for measuring freeboard margin 42

Annex E (normative) Determining the curve of righting moments 44

Annex F (normative)Methodforlevelflotationtest 47

Annex G (normative) Flotation material and elements 52

Annex H (normative) Information for owner's manual 54

Annex I (informative) Summary of requirements 56

Annex J (informative) Worksheets 57

Bibliography 74