DIN EN ISO 12217-3:2016-03 (E)

Small craft - Stability and buoyancy assessment and categorization - Part 3: Boats of hull length less than 6 m (ISO 12217-3:2 015)

Contents

Page

European foreword ... **4**

Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2013/53/EU aimed to be covered ... **5**

Foreword ... **6**

Introduction ... **8**

1 Scope ... **9**

2 Normative references ... **10**

3 Terms and definitions ... **10**
3.1 Primary ... 10
3.2 Downflooding ... 12
3.3 Condition and mass ... 13
3.4 Other definitions ... 15

4 Symbols ... **17**

5 Procedure ... **18**
5.1 Maximum load ... 18
5.2 Sailing or non-sailing ... 18
5.3 Tests to be applied ... 19
5.3.1 General ... 19
5.4 Alternatives ... 19
5.5 Variation in input parameters ... 19

6 Tests to be applied to non-sailing boats ... **20**
6.1 General ... 20
6.2 Habitable non-sailing multihull boats ... 21
6.3 Downflooding ... 21
6.3.1 Requirements for downflooding openings ... 21
6.3.2 Downflooding height with maximum load ... 23
6.3.3 Downflooding height — outboard boats when starting ... 26
6.4 Recess size ... 26
6.4.1 Application ... 26
6.4.2 Simplified methods ... 27
6.4.3 Direct calculation method ... 28
6.5 Offset-load test ... 28
6.5.1 General ... 28
6.5.2 Simplified procedure for offset-load test ... 30
6.5.3 Full procedure for offset load-test ... 32
6.5.4 Procedure for gunwale load test ... 34
6.6 Heel due to wind action ... 35
6.6.1 General ... 35
6.6.2 Calculation ... 35
6.6.3 Requirement ... 35
6.7 Level flotation test ... 35
6.8 Basic flotation test ... 36
6.9 Capsize-recovery test ... 36
6.10 Detection and removal of water ... 37

7 Tests to be applied to sailing boats ... **37**
7.1 General ... 37
7.2 Downflooding ... 38
7.3 Recess size ... 39
7.4 Flotation tests ... 39
7.4.1 Level flotation test ... 39
7.4.2 Basic flotation test ... 39
7.5 Capsize-recovery test ... 39
7.6 Knockdown recovery test ... 40
7.7 Wind stiffness test ... 41
7.7.1 General ... 41
7.7.2 Practical test ... 41
7.7.3 Compliance by calculation ... 42
7.7.4 Requirements ... 43
7.8 Inverted buoyancy ... 44
8 Safety signs ... **45**
9 Application ... **45**
9.1 Deciding the design category ... 45
9.2 Meaning of the design categories ... 45
Annex A (normative) **Full method for required downflooding height** ... **46**
Annex B (normative) **Methods for calculating downflooding angle** ... **49**
Annex C (normative) **Method for flotation tests** ... **51**
Annex D (normative) **Flotation material and elements** ... **56**
Annex E (normative) **Calculation method for basic flotation requirement** ... **58**
Annex F (normative) **Information for owner's manual** ... **60**
Annex G (informative) **Summary of requirements** ... **65**
Annex H (informative) **Worksheets** ... **67**
Annex I (informative) **Illustration of recess retention level** ... **84**
Bibliography ... **85**