

## APPENDIX A – Moveable and Variable Ballast

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Notwithstanding the maximum length limit of 24m in the standard, this Appendix invokes International Standard ISO 12217-2, Small craft – Stability and buoyancy assessment and categorization – Part 2: Sailing boats of hull length greater than or equal to 6m. The functions FKR (Knockdown Recovery Factor) and FIR (Inversion Recovery Factor) are defined in ISO 12217-2, except as modified by this Appendix.

This Appendix applies to Monohull boats only. Unless specifically stated, a requirement applies to Special Regulations Categories 0, 1, 2, 3 and 4.

### A Stability

#### A.1 Boat Condition

In the calculation of stability data:

- (a) Deck and other enclosed volume above the sheerline and cockpit volume shall be taken into account.
- (b) Mass shall be taken as Minimum Operating Mass as defined by ISO 12217-2, paragraph 3.5.3.

#### A.2 General Standards

In the assessment of ISO category for boats fitted with moveable and/or variable ballast, ISO 12217-2, paragraph 6.1.4 b) shall not apply. Boats shall comply with paragraphs 6.2.3, 6.3.1 and 6.4. Calculations shall be for the ballast condition that results in the most adverse result when considering each individual stability requirement. ISO 12217-2 Annex C, paragraph C.3.3, first sentence, the word 'may' is replaced with 'shall'. ISO 12217-2 Annex C, paragraph C.3.4 shall not be used in the calculation of righting lever.

#### A.3 Knockdown Recovery

Boats with moveable/variable ballast shall comply with the following minimum values of Knockdown Recovery Factor (FKR) calculated in accordance with ISO 12217-2 paragraph 6.4.4 with the modification that the reference to ISO 8666 paragraph 5.5.2 changed to incorporate actual mainsail area and centre of effort. The lesser of FKR<sub>90</sub> and FKR<sub>90</sub> shall be used:

| Race Category | 0   | 1,2 | 3   | 4   |
|---------------|-----|-----|-----|-----|
| FKR           | 1.0 | 0.9 | 0.8 | 0.7 |

Boats with **series date** prior to November 2004 may seek dispensation from this section 1.3 by application to World Sailing.

#### A.4 Capsize Recovery

For boats racing under Offshore Special Regulations Category 0, regulation 3.04.3 is modified to read:

- 3.04.3 Either with, or without, reasonable intervention from the crew, a boat shall be capable of self-righting from an inverted position. Self-righting shall be achievable whether or not the rig is intact. Boats with moveable/variable ballast shall comply with this requirement in flat water using manual power only and shall demonstrate that any equipment to be used in re-righting the boat is ready for use at all times and will function and is useable by the crew with the boat inverted. Re-righting the boat shall not require flooding any part of the boat.

Boats with moveable/variable ballast shall comply with the following minimum values of Inversion Recovery Factor (FIR) calculated in accordance with ISO 12217-2:

|                   |     |
|-------------------|-----|
| Offshore Category | 0   |
| FIR               | 0.9 |

Boats with **series date** prior to November 2004 may seek dispensation from this section 1.4 by application to World Sailing.