

International 2.4mR Class Association, Technical Committee

$$R = (L + 2d - F + \sqrt{S}) / 2.37 = 2.4$$



2.4mR TC ADVICE 2025

2.4mR & 2.4 NOD BALLAST

BACKGROUND

The 2.4mR Technical Committee has been asked for advice regarding the ballast class rules.

2.4mR CLASS RULES

E.5 BALLAST

E.5.1 MATERIALS

- (a) The density of the **ballast** materials shall not be greater than the density of lead.

E.5.2 CONSTRUCTION

- (a) The ballast shall be internal in the boat and shall be removable from the inside of the boat.
- (b) The lead **ballast** shall consist of minimum 8 pieces and maximum 16 pieces. The maximum weight of one piece is 35kg.

2.4 NOD CLASS RULES

C.7.3 BALLAST

- (a) **Ballast** pigs shall comply with D.8.
- (b) The maximum weight of the **ballast**, including any equipment (eg. battery) placed below the floor level, but excluding electrical pump and associated hoses and cables, is 181kg. To exclude electrical pump and associated hoses and cables, the weight of these may not exceed 1.5 kg.

D.8 BALLAST

D.8.1 RULES

- (a) The **ballast** shall comply with the current **class rules**.

D.8.2 MATERIALS

- (b) The density of the **ballast** materials shall not be greater than the density of lead.

D.8.3 CONSTRUCTION

- (a) The **ballast** shall be internal in the **boat** and shall be removable from the inside of the **boat**.
- (b) The **ballast** shall be divided in lead pigs consisting of minimum 8 pieces and maximum 16 pieces. The maximum weight of one pig is 35kg. In addition, a battery may be one piece.
- (c) **Ballast** pigs shall have their primary dimension in horizontal direction.

EQUIPMENT RULES OF SAILING 2025-28

C.6.3 BOAT CONTROL DEFINITIONS

(f) BALLAST

Weight **installed** to influence the stability, flotation, trim or total weight of the **boat**.

Ballast types:

(i) INTERNAL BALLAST

Ballast positioned inside a **hull**.

C.7.1 TERMS

(c) FASTENING

To fix in place with bolts, screws, rivets or other suitable means

BALLAST PRINCIPLES

The Equipment Rules of Sailing 2025-28 defines **ballast** and **fastening**.

2.4mR & 2.4 NOD class rules specify that **ballast** shall consist of minimum 8 pieces and maximum 16 pieces with a maximum weight of one piece 35kg.

For 2.4mR boats weight to comply with their **certificate** and for 2.4 NOD boats to maximize ballast weight to 181kg adjustment may be required to the ballast.

2.4mR & 2.4 NOD class rules specify that If one or more electric pumps are on board when racing they are included in the boat weight.

The 2.4 NOD class rules allow the battery to be one ballast piece and specify that a battery placed below the floor level is included in the ballast weight of maximum 181kg.

To comply with the class rules only 16 pieces of ballast are permitted. Some boats have ballast in 16 pieces which does not allow for ballast adjustment. Ballast adjustment is typically accomplished by adding small pieces of ballast on top of the ballast pieces.

The 2.4mR Technical Committee notes that the recasting of lead to single pieces of a specific weight is a specialist task with health and safety risks so mechanical fastening should be accepted.

Ballast pieces may be fastened together with bolts or screws as illustrated to comply with the maximum 16 pieces of ballast class rule.

2.4mR boat WS plaque 957 ballast



To simplify compliance with the ballast class rules the 2.4mR Technical Committee suggests that the maximum number of ballast pieces should be changed from 16 to 18.

PROPOSED 2.4mR & 2.4 NOD CLASS RULE CHANGE

The 2.4mR Technical Committee intends to submit the following amendments to the 2.4mR & 2.4 NOD class rules for 2.4mR World Council approval at the next AGM as required under the 2.4mR Constitution.

The proposed amendment changes the maximum number of ballast pieces from 16 to 18 to allow for additional ballast pieces required to correct a 2.4mR ballast weight to comply with a boats **certificate** or to maximize a 2.4NOD ballast weight to 181kg.

The proposed amendment also clarifies that for 2.4 NOD boats a battery placed below floor level is counted as one piece of ballast.

2.4mR CLASS RULES

E.5 BALLAST

E.5.1 MATERIALS

(c) The density of the **ballast** materials shall not be greater than the density of lead.

E.5.2 CONSTRUCTION

(a) The ballast shall be internal in the boat and shall be removable from the inside of the boat.

(b) The lead **ballast** shall consist of minimum 8 pieces and **maximum 18 pieces**. The maximum weight of one piece is 35kg.

2.4 NOD CLASS RULES

D.8 BALLAST

D.8.1 RULES

(a) The **ballast** shall comply with the current **class rules**.

D.8.2 MATERIALS

(d) The density of the **ballast** materials shall not be greater than the density of lead.

D.8.3 CONSTRUCTION

(b) The **ballast** shall be internal in the **boat** and shall be removable from the inside of the **boat**.

(b) **The ballast shall be divided in lead pigs consisting of a minimum of 8 pieces and a maximum of 18 pieces. The maximum weight of one piece is 35kg. A battery placed below the floor level is counted as one piece of ballast.**

(c) **Ballast** pigs shall have their primary dimension in horizontal direction.