

# International 2.4mR Class Association, Technical Committee

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


## 2.4mR TC ADVICE 2023 CARBON MAST SPAR FITTINGS CLASS RULES

### BACKGROUND

The 2.4mR class rules define mast spar fittings as optional so carbon mast spar fittings are approved.

Keith Gordon has advised that carbon mast spar fittings were approved for use at the 2016 Paralympics – fittings were optional under the class rules and not controlled by the ERS.

World Sailing amended the ERS effective 1 January 2017 so that fittings (and corrector weights) were included in the mast spar definition.

The 2015 2.4 NOD class rules defined the mast spar as constructed of aluminium so all fittings from 1 January 2017 were required to be aluminium. Carbon mast spar fittings were prohibited from this date.

### EQUIPMENT RULES OF SAILING

The change from 2013-2016 ERS **spar** to 2017-2020 & 2021-2024 ERS **spar** is as follows:

#### ERS 2013-2016

F.1.3 Spar The main structural part(s) of the rig, to, or from which sails are attached and/or supported.

#### ERS 2017-2020 & 2021-2024

F.1.3 Spar The main structural part(s) of the rig, to, or from which sails are attached and/or supported. It includes its fittings and any corrector weights.

### 2.4mR CLASS RULES 2022

The 2022 2.4mR class rules update retained the 2015 rule as follows:

#### F.3 MAST

##### F.3.1 MATERIALS

(a) The spar excluding fittings and corrector weights shall be of either wood, Glass Reinforced Plastic or aluminium alloy.

### 2.4 NOD CLASS RULES UPDATE 2022

The 2022 2.4 NOD SPAR amendment resulted from an ERS compliance check of the class rules.

The mast spar amendment excludes fittings (and corrector weights) from the mast spar so they are of optional materials – stainless steel and plastics are permitted. The spar amendment also specifies that the mast crane and spreaders shall be of aluminium alloy.

#### F.3 MAST

##### F.3.1 MATERIALS

(a) The spar (excluding fittings and corrector weights) shall be of aluminium alloy. The mast crane and spreaders shall be of aluminium alloy.

The Equipment Rules of Sailing (ERS) 2021-24 define a spar as including fittings and corrector weights which as the mast spar material is controlled requires fittings and corrector weights to be excluded.

The mast spar crane and spreaders are controlled as aluminium alloy to be consistent with standard mast manufacture.

## **2.4mR TC ADVICE**

There is no grandfathering of the 2.4 NOD class rules with respect to carbon mast spar crane and spreader fittings.

2.4 NOD carbon mast spar fittings have been prohibited since 1 January 2017.

The 2.4 NOD 2022 class rules update resolved the situation where fittings were required to be manufactured from aluminium with stainless steel and plastic fittings prohibited under the ERS.

So the simple and uncomfortable answer is that for 2.4 NOD boats carbon mast spar cranes and spreader fittings should be changed to aluminium alloy.

We understand that there will be some cost to effect this change, hopefully the replaced aluminium parts are available for reuse.

Peter Russell

Chairman of the 2.4mR Technical Committee