

# International 2.4mR Class Association, Technical Committee

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


## 2.4mR TC ADVICE 2023

### 2.4mR PUMPS

#### Background

Pumps have been in the news of late, so a reminder of the Class Rules follows.

The 2.4mR Class Rule D.9.1 (a) (2) prescribes that one manual bilge pump with a minimum capacity of 0.5 litre/stroke shall be installed and C.4.1 (a) (2) permits one optional electric pump with battery.

The 2.4 NOD Class Rules also prescribes one manual bilge pump (with added installation requirements) and optional electric pump.

The TC notes that compliance with the required minimum capacity of 0.5 litre/stroke is not achieved by all hand pumps – the capacity of any pump should be checked with the manufacturer to ensure compliance and safe sailing. The TC also notes that the hose size is critical to achieve the specified minimum capacity. The Guzzler “500” with 32mm hose and the Whale Gusher Urchin with 25mm hose are compliant bilge pumps, other pumps may not be compliant. THIS IS NOT A PRODUCT ENDORSEMENT.

The TC notes that some sailors may not be able to use a manual hand pump and is suggesting the following revision to the class rules to allow one **or more** electric pumps to address possible pump failure.



Guzzler® GH-0500D

Guzzler "500". Reliable, lightweight hand pump ideal for larger bilge or fluid transfer applications in marine or sanitation applications as well as for home or industrial uses.

<b>Hose Size</b>	1-1/4 to 2 in 3.2 to 5.1 cm
<b>Volume per Stroke</b>	0.55 Qt 0.52 l
<b>Capacity</b>	12.0 gpm 45.4 lpm



#### Gusher® Urchin

Part nos: BP9005 On Deck - Fixed Handle (shown above), BP9013 Thru Deck / Bulkhead, BP9021 On Deck - Removable handle

A compact bilge and waste water transfer pump

- Flow rate up to 55L (14.5 US gals) per minute
- Smooth, easy operation
- Removable clamp ring for pump head rotation and easy maintenance
- Three different mounting models (on deck, bulkhead and thru deck models)

##### Performance Data

25 mm (1") Hose	BP9005 / BP9013 / BP9021
Suction Lift	1 m (3 ft)
Discharge Head	0.5 m (1.5 ft)
45 Strokes per Minute	25 ltrs (7 US gals)
70 Strokes per Minute	43 ltrs (11.4 US gals)
38 mm (1½") Hose	
Suction Lift	1 m (3 ft)
Discharge Head	0.5 m (1.5 ft)
45 Strokes per Minute	37.5 ltrs (9.9 US gals)
70 Strokes per Minute	55 ltrs (14.5 US gals)



Seaworld hand pump **NON-COMPLIANT**

- volume per stroke up to 0.33l

Peter Russell

Chairman of the 2.4mR ICA Technical Committee.

**The 2.4mR Technical Committee intends to submit the following amendments to the 2.4mR class rules for 2.4mR World Council approval at the next AGM as required under the 2.4mR Constitution. 2.4mR class rule amendments are subject to World Sailing approval before taking effect.**

#### **Existing 2.4mR Class Rule**

#### **C.4 PORTABLE EQUIPMENT**

##### **C.4.1 FOR USE**

###### **(a) OPTIONAL**

- (2) One electrical pump with battery

#### **Proposed 2.4mR Class Rule**

#### **C.4 PORTABLE EQUIPMENT**

##### **C.4.1 FOR USE**

###### **(a) OPTIONAL**

- (2) One **or more** electrical pumps with battery

#### **Existing 2.4 NOD Class Rule**

#### **C.5 PORTABLE EQUIPMENT**

##### **C.5.2 OPTIONAL**

- (a) One electrical pump with battery.

#### **Proposed 2.4 NOD Class Rule**

#### **C.5 PORTABLE EQUIPMENT**

##### **C.5.2 OPTIONAL**

- (a) One **or more** electrical pump with battery.