Offshore Special Regulations

OSR 4.30

A submission from the Chairman

Emergency Pumps

Purpose or Objective

To require provision of emergency pumping arrangements.

Proposal

Add new regulation as follows:

<table>
<thead>
<tr>
<th>4.30</th>
<th>Emergency Pumps</th>
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<tr>
<td>Mo0,1,2 4.30.1</td>
<td>either fixed or portable pump to remove egress water from any compartment.</td>
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</table>

This pump shall have a minimum rated capacity at a head of 1m(3.3ft)(10KPa) of:

<table>
<thead>
<tr>
<th>LH</th>
<th>l/min</th>
<th>US Gallons per hour</th>
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<tbody>
<tr>
<td>Less than 12m</td>
<td>100</td>
<td>1585</td>
</tr>
<tr>
<td>Greater than 12m</td>
<td>150</td>
<td>2377</td>
</tr>
</tbody>
</table>

- be operated by battery, main engine powered or a separate engine
- sufficient ‘non-collapsible’ hose to discharge directly overboard or into the cockpit.

A combination of permanently installed and portable pumps may be combined to meet the above requirement. A boat of a class with class rules that specify permanent buoyancy requirements and/or watertight bulkheads may reduce the pumping capacity required.

Current Position

None

Reasons

1. To specify a pump minimum requirement for emergencies.
2. Next to hull integrity, pumps are a vessel’s first – and often only – line of defence against sinking. They can give the crew extra time when taking on water – time that can be spent repairing the leak, donning life-jackets, or making a distress call.

3. ISO 15083:2003- Small craft Bilge-pumping systems specifies requirements for pumping or alternative means designed to remove normal accumulations of bilge water for small craft. The standard specifies that the capacity of each pump shall not be less than 15 l/min for boats with LH 6m – 12m, and 30 l/min over 12m LH. The volumes per minute shall be achieved when the pump is subject to a back pressure of 10kPa.

4. Note: Conversion factors 1 US Gallon/Hour = 0.063 Litres/Minute. 1 Imperial Gallon/Hour = 0.076 L/min 225 l/min = 2970 Imperial Gallon/Hour = 3566 US gallon/Hour

5. Minutes of last meeting;

Submission SR02-18 from the Chairman regarding Emergency Pumps was received.

It was noted that the principle was to try and make the boat a safe haven in the case of a leak which was beyond the capacity of typical bilge pumps which are intended for the removal of normal accumulation of bilge water.

The working party had debated issues including the pump capacity required and the suitability of collapsible hoses.

Glen Stanaway noted that the issue had been prompted by several yachts sinking following rudder damage. As an observer, Hasso Hoffmeister (Senior Principal Engineer – DNV GL) noted that for racing yachts, DNV_GL will be specifying that rudder stocks are stronger between the top and bottom rudder bearings, and that classification rules require a bulkhead in front of the rudder.

James Dadd highlighted that Volvo Ocean Race boats had on 8 or 9 occasions used their emergency pumps, rudder failure is not the sole reason.

Feedback on the submission had raised concerns regarding the high flow capacity specified and the electrical power available. It was proposed that practical tests were needed to demonstrate the effectiveness of the specifications. The submission was withdrawn for further consideration, noting concerns raised and that it should be re-presented under a new OSR section number for Emergency Pumps.