No. 122 Integral Buoyancy Casings in Lifeboats and Rescue Boats

(Jan 2012)

1. Cases have been discovered where water ingress into the Integrated (Built-in) Buoyancy Casings of Rescue Boats and Lifeboats has caused damage to the internal buoyancy foam material. Where such foam is of the open cell two-part expanding polyurethane type the ingress can lead to significant damage to the foam, which may absorb the water and take on sponge-like characteristics. In these cases the laden weight of the boat may be significantly affected and may cause an overload on the boat or launching appliance.

2. Where the foam is known to be of the open cell type, or doubt exists as to the type of foam incorporated in the boat's buoyancy casings, it is recommended that the following precautions be taken by the safety officer or Service Company at the time of each boat inspection.

2.1 The boat's hull in way of all buoyancy casings should be thoroughly examined for cracks, holes, buckling or folding of the structure and general deterioration. Particular attention should be paid in way of the hull to deck connection and the buoyancy casing to hull connections.

2.2 Any foam injection points (subsequently closed) should be examined for cracking or deterioration.

2.3 The external hull and any fendering points in way of integrated buoyancy casings should be examined for holing, cracking and deterioration.

2.4 Any penetrations to the buoyancy chambers, for example, where seat belts, thwarts or grab lines are attached, should be closely examined for fit, gasketting (where fitted) and tightness. Loose fittings should be adjusted and the affected buoyancy chamber examined with special care regarding water penetration.

2.5 The drain plugs should be removed from the boat at the time of the inspection and the quantity of water drained should be monitored to ensure it is not excessive.

2.6 Boat performance whilst manoeuvring should be monitored for unusual performance, heaviness or excessive sluggishness which might be attributable to an increased boat weight.

3. Should any doubt exist as to the integrity of the integral buoyancy, and water ingress is suspected, the boat should be weighed to confirm that boat weight remains unchanged.

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