

Hall's Great Exhibition model lifeboat



Stanley Bruce shares a small, untold part of Aberdeen's shipbuilding heritage



I am privileged to have been the owner of the model lifeboat built by Messrs A Hall & Co, of Aberdeen, for the Great Exhibition of 1851, held in the Crystal Palace, Hyde Park, London.

The official exhibition catalogue description (Class VIII, section 136, Northumberland Lifeboat Committee, Somerset House, London) reads: "Models of life-boats sent in to compete for the premium of 100 guineas, offered by the Duke of Northumberland, with the names of the designers or builders. Communicated by Captain Washington, RN, FRS."

Hall's entry is number 21 on the list of 54 entries displayed at the exhibition. The entry reads: "21. Hall, Messrs, Aberdeen. Model of life-boat. Scale: 1 inch to a foot, length, 33.5 feet, breadth, 8.5 feet, depth, 4 feet."

A grand total of 280 models from all over the world were entered into the competition, but only the best 54 were displayed. The design criteria were:

- Being self-righting.
- Being of lighter construction than before and easier to launch and transport.
- Able to free itself of water faster (ie self-draining).
- Of lower cost.

The model submitted by James Beeching (1788-1858), an English boat builder

based in Great Yarmouth, won Admiral Algernon Percy (1792-1865), 4th Duke of Northumberland's prize of 100 guineas.

Hall's shipyard was already known for making ship models and developing them in a water tank. They had done so in 1839, when they developed the Aberdeen Bow, first used on the *Scottish Maid* - a design later copied and used on clipper ships all

over the world. So it is more than likely that William Hall (c1807-1887), son of Alexander Hall (1760-1849), tested or oversaw the righting capabilities of the Great Exhibition lifeboat in a tank.

It is not known why Hall's entered the competition; perhaps the job was given to a trainee designer/draughtsman, or possibly simply because they had an

affinity with the RNLI. It certainly wasn't because they weren't busy: they built two ships in 1850 and two in 1851.

Studying Hall's lifeboat model, we see that it had 12 oars, which, judging by the dimensions of the boat, could take 12 crewmen. The hull was designed so that buoyancy would right the boat should it capsize. The port and starboard sides have buoyancy tanks, with most of the buoyancy being at the fore and aft ends. The floor had holes for drainage, and was hinged in two halves, longitudinally, which, if the boat capsized, would open so that any crewmen trapped underneath could get out. A good idea, perhaps - but I imagine the floor would rise up and down with the swell of the sea and would definitely make the crewmen wet and could possibly trap their legs. Even worse, there is a risk that if the floor opened, a crew member could fall into the sea and the doors close on top of him - so I can see why this feature wasn't adopted in the final Beeching-Peake SR (self-righting) lifeboat design. If the lifeboat were to be truly self-righting, no-one should get trapped underneath for any significant period of time.

The hull of the boat was in the form of a catamaran, which would have made the boat very stable, and the final Beeching-Peake design, in cross-section, was similar, although it had the centre section filled in.

All along both sides of the lifeboat,



The former offices of A Hall & Co - later Hall Russell Training Centre

above the waterline, are metal rods for tying survivors to the boat. On the vessel's underside, port and starboard, is a bilge keel, which I don't think added much to the stability of the boat, since it hasn't much depth - but this would offer some protection to the hull should the lifeboat be grounded.

In the first half of the 19th century, lifeboats were small, very basic clinker-built open boats with no deck, which were rowed out to sea by their gallant crews, and many crew members were sadly lost trying to save others. In 1824, the National Institution for the Preservation of Life from Shipwreck was founded. In 1849, Prince Albert (1819-1861)

added his support to the institution and five years later, the name was changed to the Royal National Lifeboat Institution (RNLI).

The final RNLI design was Beeching's model, tweaked by James Peake and firstly manufactured by the Admiralty. The design had similar features to those of the model designed by Hall's, and became the standard for RNLI purchase of new lifeboats. It should be noted that the lifeboat was self-righting, which means it could still capsize, as did the Fraserburgh lifeboats of 1919, 1953, and 1970, with the tragic loss of crew members. Among them, in 1953, on the RNLI *John and Charles Kennedy*, was an uncle I never knew: crew member John Buchan, who left my Aunt Frances a widow with two young sons, my cousins, John and Lawrence.

The lifeboat model was kept for many years in the Hall Russell Training Centre, York Street, Aberdeen (former offices of A Hall & Co), which was demolished in 2015. A Hall & Co merged with Hall Russell & Co in 1955. I spent two months in the training centre, as a 16-year-old apprentice, in 1980. Knowing some of the staff, I acquired the model from the Training Centre in 2006, and displayed it in Macduff in 2006 and 2007, in the Banffshire Maritime & Heritage Association Visitors Corner, which was dedicated to Hall Russell Shipbuilders, Aberdeen. I have recently donated the model to RNLI Museums.

Photographs by Stanley Bruce

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"Exhibition 1851" emblem on the bow



Underside of the lifeboat