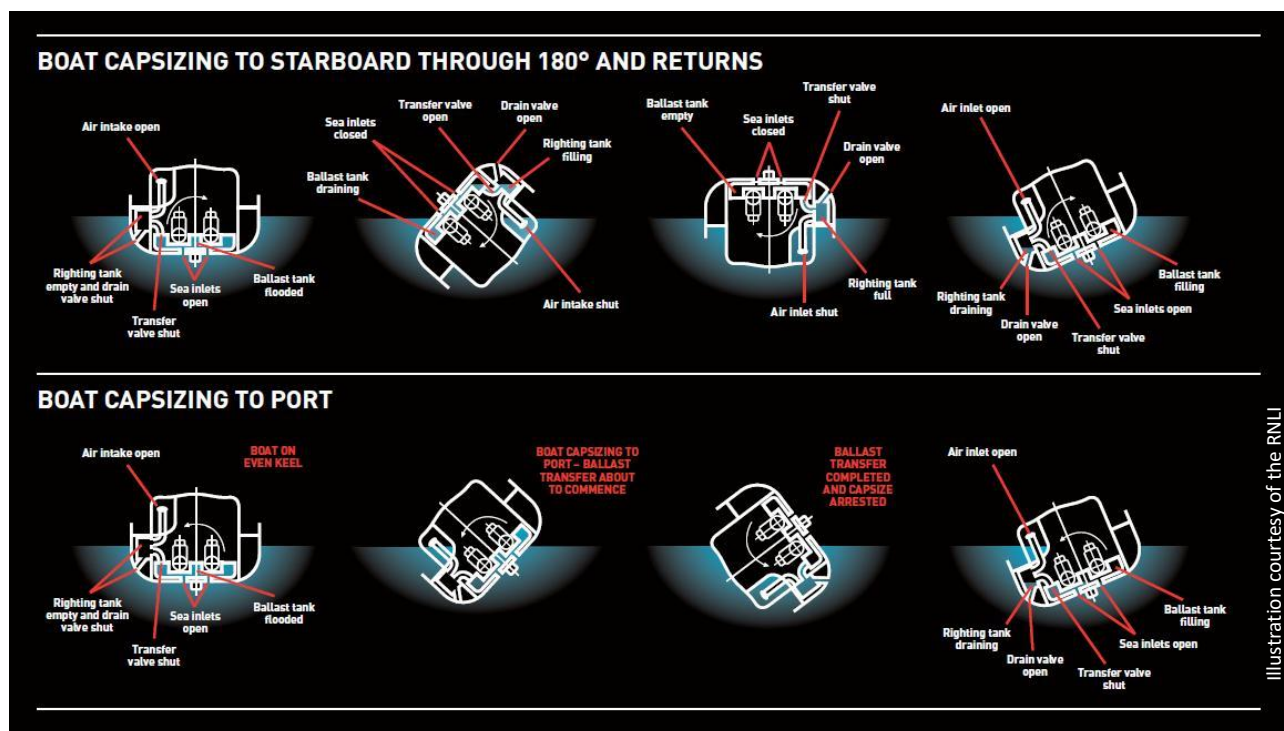


The Oakley Class lifeboat

Oakley class self-righting lifeboats served the UK and Irish coasts as a part of the Royal National Lifeboat Institution (RNLI) fleet from 1958 to 1993. Over that time the Oakleys saved 1,456 lives in 3,734 rescue launches and became one of the most popular lifeboat types among crews, its revolutionary design changing the whole mind-set around crew safety. Prior to the 1950s, lifeboat disasters and loss of life had been relatively common and just considered one of the hazards of the service, but the Oakleys' performance helped the RNLI to realise that disasters could be avoided by better engineering, and introduced a new approach to safer design in modern boats. Over the history of the Oakleys there was only one loss of life from the whole class, on an extreme occasion in December 1977 when the Irish lifeboat *Lady Murphy* capsized twice on the same mission.

Self-righting lifeboats had been developed as far back as the 1850s, using built-in cork and air-pockets to self-right, but being generally both lighter and taller had also been less controllable in difficult conditions and more prone to capsize. After the tragic loss of twenty-seven crew members from the St Anne's and Southport lifeboats on 9th December 1886, the RNLI gradually replaced its fleet with more stable but not self-righting designs; but during the 1950s a number of lifeboats capsizing, with significant loss of life, led to this approach also being reviewed.

Richard Oakley became Consultant and Naval Architect to the RNLI in 1947 and developed a radical new design which was both self-righting and highly stable. The new self-righting system used one and half tons of sea water as ballast, in a tank in the base of the hull, to contribute to the initial stability, but if the lifeboat capsized the water would transfer through special valves to a righting tank, and in a matter of seconds bring the boat back upright again. If the capsize was towards starboard (the right-hand side), the water would push the boat into a complete 360° roll, whereas if it was to port (the left), the ballast would transfer again, stopping the roll and allowing the boat to bounce back upright.



In practice, however, the boats proved so inherently stable that the *Lady Murphy* incident in 1977 was the only time in the whole class's history when the self-righting mechanism had to operate in a real-life situation – though in that event happening twice on the same rescue. On several occasions, however, the system helped boats self-right without fully capsizing.

As another safety feature, the Oakleys were also fitted with mercury switches, to turn off the engines automatically in a capsize, firstly so that a boat wouldn't keep going when righted, and so risk leaving crew behind in the water; and secondly so that its propellers wouldn't get fouled with eg ropes and equipment thrown overboard by the capsize, and so risk disabling the boat in the middle of an emergency.

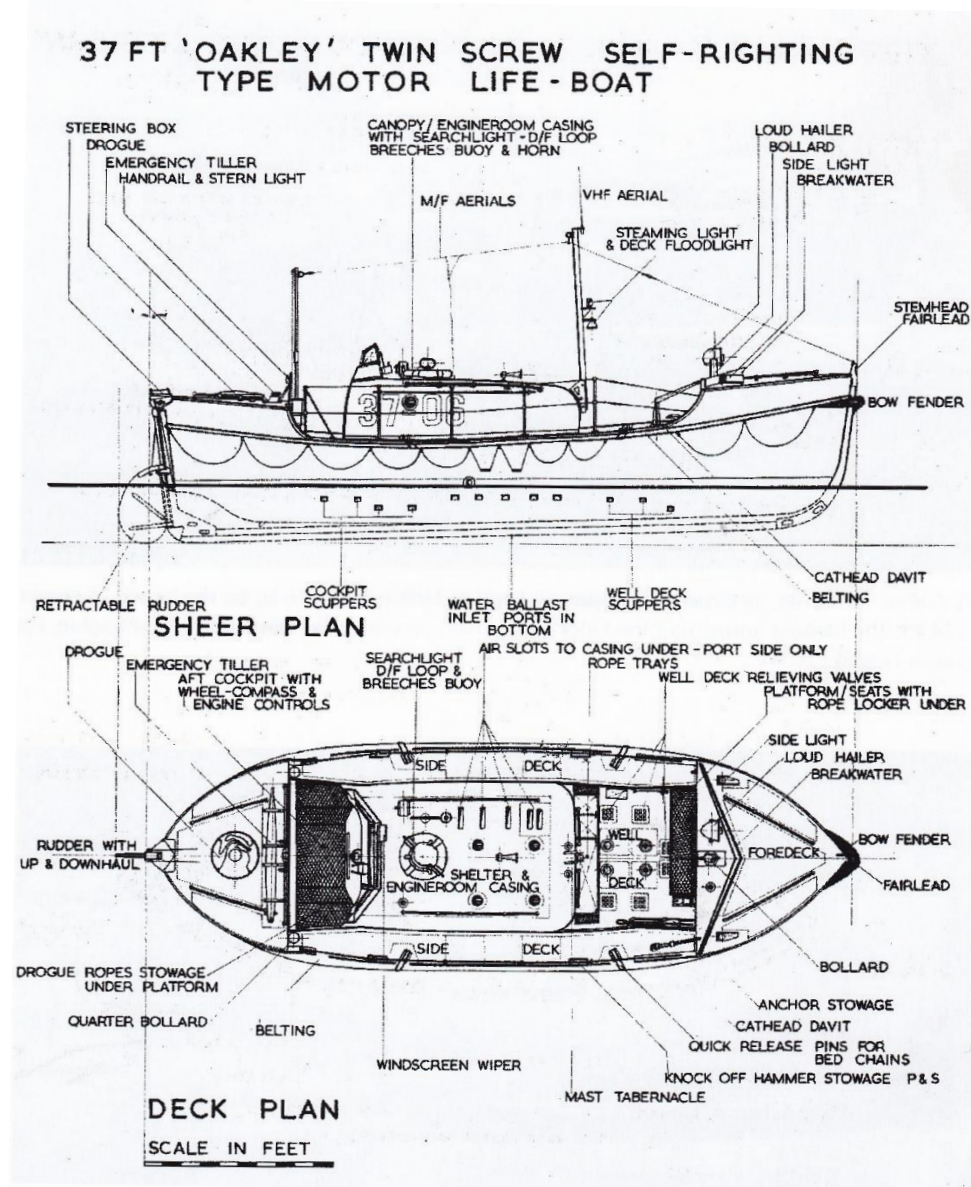
Following successful testing of a prototype in 1958, a total of twenty-six 37ft Oakleys were built, the last in 1972. They were among the RNLI's smaller boats and were intended for locations depending on beach launches rather than slipways, so had to be relatively light for easy handling in and out of the breakers. The boat's automatically taking on sea water as ballast when launched and discharging it again when taken out of the sea, was, therefore, another ingenious part of the design, to keep its weight down.

Five larger Oakleys were also built, in a more powerful and more expensive 48ft 6in version, for slipway launches.

Over time, however, the self-righting mechanism was found to cause unexpected structural problems in the boats' hulls. Richard Oakley had been aware of the potential problems of electrolysis but hadn't expected damp, salty sand left in the aluminium alloy ballast tank to cause an electrolytic reaction which eroded copper nails holding the double timber layers of the hull together. Furthermore a layer of calico between the two layers absorbed water and caused wood around the nails to deteriorate. The RNLI was so concerned that these could allow failure in an impact that it implemented a comprehensive programme of inspection and repair of all the boats during the '80s, either replanking them or re-covering them with fibre-glass. And from 1972 Oakleys were therefore superseded by the Rother class design, a modification of the Oakley but using a larger, watertight superstructure to provide self-righting instead of the ballast transfer system.

The new Rotherers also provided enclosed accommodation for the crew for the first time, but the fact that they were based on the older design, meant that, while still effective, they were relatively slow, and were phased out with the remaining Oakleys during the early 1990s to be replaced by faster Mersey class boats. Because of the corrosion problems, however, the RNLI decided that all the Oakleys must either be scrapped or handed on to owners who would ensure they would never be used again as boats, in case this might ultimately put their crews' lives at risk. This was an unusual and serious decision by the RNLI, which maintains its vessels so well that after retirement they are otherwise invariably sold on into other active uses elsewhere – and Rother class boats, for example, were sold on to become leisure or lifeboats in destinations as diverse as Estonia, New Zealand and Uruguay.

Since their retirement, five of the twenty-six 37ft Oakleys have been listed on the UK's National Historic Ships register, at least eight are understood to be displayed in museums, docks or other locations around the country, and the *William Henry & Mary King* was donated to Drayton Park School.



Drawing from 'Oakley Lifeboats – An Illustrated History of the RNLI's Oakley and Rother Lifeboats', Nicholas Leach, Tempus Publishing, 2003