The Shannon class lifeboat

The RNLI is the charity that saves lives at sea

Royal National Lifeboat Institution, a charity registered in England and Wales (209603) and Scotland (SC037736). Registered charity number 20003326 in the Republic of Ireland

Photo: RNLI/Nigel Millard
Shannon class: facts and figures

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Launch type</td>
<td>carriage</td>
</tr>
<tr>
<td>Crew</td>
<td>6</td>
</tr>
<tr>
<td>Survivor capacity</td>
<td>self-righting – 23; non self-righting – 79</td>
</tr>
<tr>
<td>Length</td>
<td>13.6m</td>
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<tr>
<td>Max speed</td>
<td>25 knots</td>
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<tr>
<td>Range/endurance</td>
<td>250 nautical miles</td>
</tr>
<tr>
<td>Engines</td>
<td>2 x 13-litre 650hp Scania D13 engines Twin Hamilton HJ364 waterjets</td>
</tr>
<tr>
<td>Fuel capacity</td>
<td>2,740 litres</td>
</tr>
<tr>
<td>Construction</td>
<td>hull: fibre-reinforced plastic</td>
</tr>
</tbody>
</table>

What kind of lifeboat is this?
The Shannon class is an all-weather lifeboat, so she’s designed to operate in the worst of sea conditions. She is a self-righting lifeboat, so she will automatically turn the right way up in the event of a capsize.

How is the Shannon launched?
This class can be beach-launched with her new tractor-borne carriage. After being recovered from the beach bow first, a turntable in the carriage rotates the Shannon ready for its next launch.

What sort of rescues is the Shannon designed for?
With a top speed of 25 knots and a range of 250 nautical miles, this lifeboat is ideal for offshore searches and rescues in calm or rough seas. Her power means she can tow large vessels out of danger – and waterjet technology allows her to manoeuvre in shallow waters or be intentionally beached in an emergency.

What do the volunteer crew members think of this lifeboat?
Dungeness Mechanic Trevor Bunney says: ‘The manoeuvrability of a jet-driven boat is phenomenal, it really has to be seen to be believed. The launch and recovery equipment help us get safely back to shore no matter what the conditions.’
The Shannon has two steering positions: one at the upper steering position (pictured), which offers an elevated 360° view, and one in the wheelhouse, which provides shelter in challenging conditions.

A comprehensive suite of medical equipment is carried including oxygen and full resuscitation kit, Entonox for pain relief, large responder bag and three different stretchers. The basket stretcher can be securely mounted on the wheelhouse floor.

The specially designed suspension seats protect the volunteer crew from the most extreme wave impacts. They provide a comfortable workstation and from the safety of every seat the crew can control and monitor the SIMS screens using an integrated tracker ball control. Controls for the VHF radio and intercom are also integrated within the armrest while the helm has full control of the steering, jet buckets and throttles at their finger tips.

The Shannon is the first modern-generation all-weather lifeboat to run on waterjets rather than propellers. This allows the vessel to operate in shallow waters and to be intentionally beached. Waterjets give the coxswain greater control when alongside other craft, in confined waters and in all sea conditions. The waterjet intake is located below the transom and is protected by grills to stop large debris damaging the impellers. At maximum power, this craft pumps 1.5 tonnes of water each second from its waterjets.

Two 650hp Scania engines help the Shannon to achieve 25 knots. In fact, she only needs 80% of her power to do so, meaning the engines don't have to work so hard and should last longer. Each engine has its own 1,370-litre fuel tank. These can be refuelled at a rate of 200 litres a minute, so the lifeboat will never be out of action for long.

The initial part of the all-weather lifeboat’s number indicates the class. All Shannon class lifeboats begin with 13 because they are just over 13m in length. The numerals after the dash refer to the build number, so the first Shannon to be built was given the number 13-01.

The waterjet intake is located below the transom and is protected by grills to stop large debris damaging the impellers. At maximum power, this craft pumps 1.5 tonnes of water each second from its waterjets.

The Systems and Information Management System (SIMS) allows crew members to control the lifeboat and access information from their seats in the wheelhouse. It means they spend less time standing up and moving around the vessel and are therefore less prone to injury in rough weather. SIMS provides access to all communications (VHF and MF radio, direction finder [DF], intercom), navigation (radar, chart, global positioning system [GPS], depth and speed) and machinery monitoring including engines, transmission, fuel and bilge.

Local control for each workstation is by means of a large trackball with selection buttons and each screen is adaptable for operation in direct sunlight and fully dimmable for night operation.

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The shape of a boat’s hull is the most important factor in how she’ll handle at sea. During the development of the Shannon class lifeboat, a number of different hull shapes were trialled. The chosen hull gives the smoothest ride through rough seas.

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