

Forgotten Wrecks of the First World War



January
2016

Empress Queen

*Archaeological
Report*





**FORGOTTEN WRECKS
OF THE FIRST WORLD WAR**

EMPRESS QUEEN
SITE REPORT

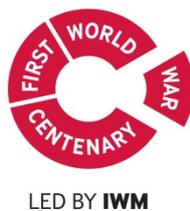


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Thanks are extended to:

The staff at Manx National Heritage for their permission to reproduce images from their online archive: www.imuseum.im

Merseyside Maritime Museum for providing an image of the ships builders model.

Martin Woodward for information on objects from the site.

ii Copyright Statement

This report has been produced by the MAT with the assistance of funding provided by the Heritage Lottery Fund through their Heritage Grants Programme. Unless otherwise stated images are copyright of the MAT. Where copyright of an image is uncertain this has been stated, if you have information on copyright holders, please let us know and we will update acknowledgements accordingly.

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1. Project Background

Forgotten Wrecks of the First World War is a Heritage Lottery Funded project dedicated to raising the profile of a currently under-represented aspect of the First World War. While attention is often focused on the Western Front and major naval battles like Jutland, historic remains from the war lie, largely forgotten, in and around our seas, rivers and estuaries.

With over 1,000 wartime wrecks along England's south coast alone, the conflict has left a rich heritage legacy and many associated stories of bravery and sacrifice. These underwater memorials represent the vestiges of a vital, yet little known, struggle that took place on a daily basis, just off our shores. The study and promotion of these archaeological sites presents a unique opportunity to better interpret them and improve physical and virtual access.

The project focuses on underwater and coastal sites from the Isle of Thanet in Kent, to beyond the Isles of Scilly, and over half way into the English Channel. The sites include merchant and naval ships, passenger, troop and hospital ships, U-boats, ports, wharfs, buildings and foreshore hulks. These sites, under water and on the foreshore, have been degrading and deteriorating due to natural and human processes for approximately 100 years and, as a result, are extremely fragile. In many cases, this project represents a final opportunity to record what remains on the seabed and foreshore before it is lost forever.

The project aims to characterise the nature and extent of the maritime First World War archaeological resource surviving on the south coast's seabed and around the coast. This will enable an understanding of maritime activity just off our shores during the conflict and provide a window onto some of the surviving sites. While it will not be possible to visit and record all c.1,000 vessels dating to the First World War lost off the south coast of England, a representative sample of sites have been selected for more detailed study, analysis and interpretation. This report relates to one of these sites.

This report, created as part of the MAT's Heritage Lottery funded, Forgotten Wrecks of the First World War project, collates information collected during the project, relating to one of the south coast's First World War wrecks, namely that of *Empress Queen*. The report constitutes one of the project outputs and will be lodged with the Archaeological Data Service, ensuring free public access beyond the life of the project.

2. Vessel Biography: *Empress Queen*

Empress Queen was chosen as one of the Forgotten Wrecks case study sites because it was used as a troop transport ship during the war and the remains of the wreck are located off the east coast of the Isle of Wight. The vessel is particularly interesting due to:

- its construction type being a paddle steamer (Figure 1 clearly shows the paddle wheels).
- the fact that the site is not frequently dived, meaning few photographs or reports are available.
- it being a large vessel in relatively shallow water, which makes an interesting case study for the preservation of WW1 period remains in this type of dynamic environment.

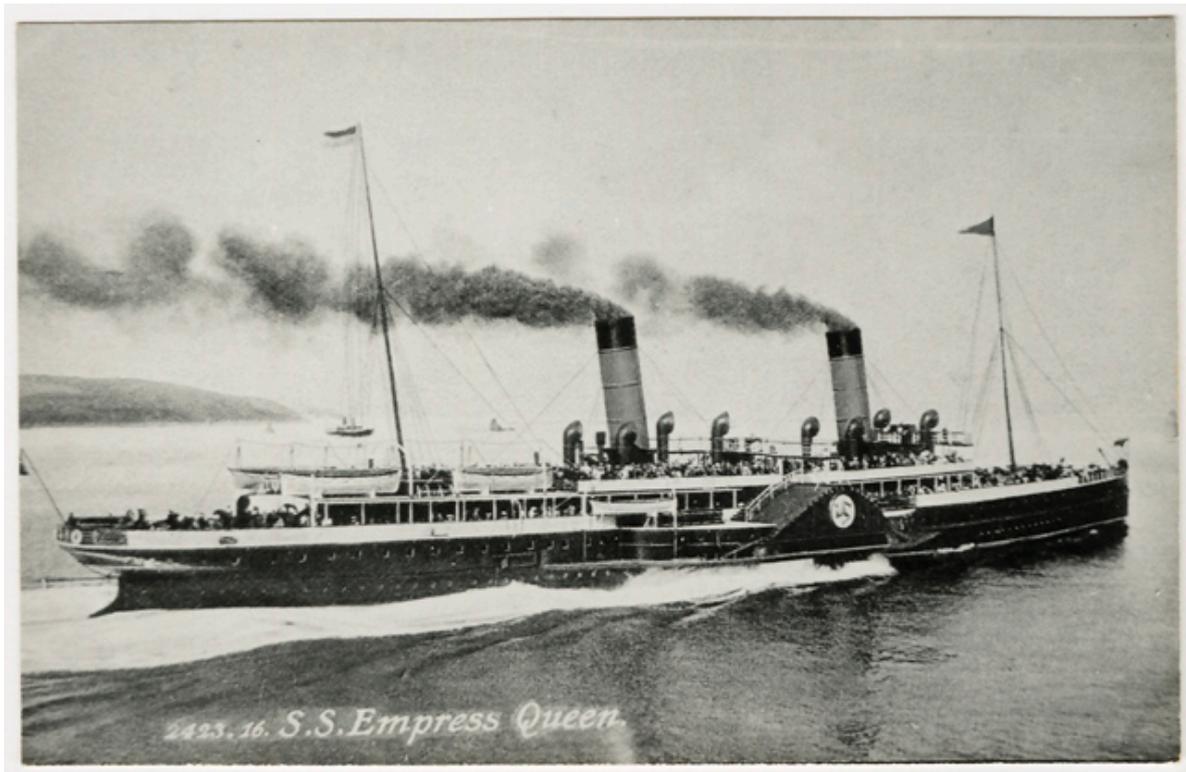


Figure 1: Photograph of the *Empress Queen* (Image from www.imuseum.im No detail of copyright holder, within the collection of Manx National Heritage).

2.1 Vessel Type and Build

The paddle steamer, *Empress Queen* was built by Fairfield Shipbuilding and Engineering Company, in Glasgow at a cost of £130,000. The launch took place on the 4th March 1897. The ship measured 360 ft (c.110m) long, with a beam of 42 ft (c.12.9m) and depth of 17ft. With a crew of 94, the ship carried up to 850 passengers.

The ship was powered by engines which were of advanced engineering design for the period. There were two diagonal three-crank compound engines driving the side wheel paddles with 1290 horse power, providing a top speed for the ship of 21.5 knots. The boiler had a steam pressure of 140 pounds per square inch (970 kPa). "One high pressure cylinder was 68" in diameter and was placed centrally with the two low pressure cylinders of 92" diameter on either side. The stroke was 84" and the usual running speed was 44 r.p.m" (https://en.wikipedia.org/wiki/SS_Empress_Queen).

There were 32 furnaces to power the engines, which required 16 men to keep them filled with coal. It has been claimed that the engines and paddle wheels were the heaviest ever placed in a paddle steamer.

2.2 Pre-war Career

When the *Empress Queen* came into service it was one of the fastest and most powerful paddle steamers on the seas. The ship had been built for the Isle of Man Steam Packet Company, it was named '*Empress Queen*' in honour of Queen Victoria's Diamond Jubilee.

The ship ferried passengers from Douglas Harbour on the Isle of Man across to Merseyside. The Isle of Man was a popular destination for those from Liverpool, being known as the 'playground of Lancashire'. The ship was very popular due to its speed, and provided many years of service to the Island before being called up into war service.

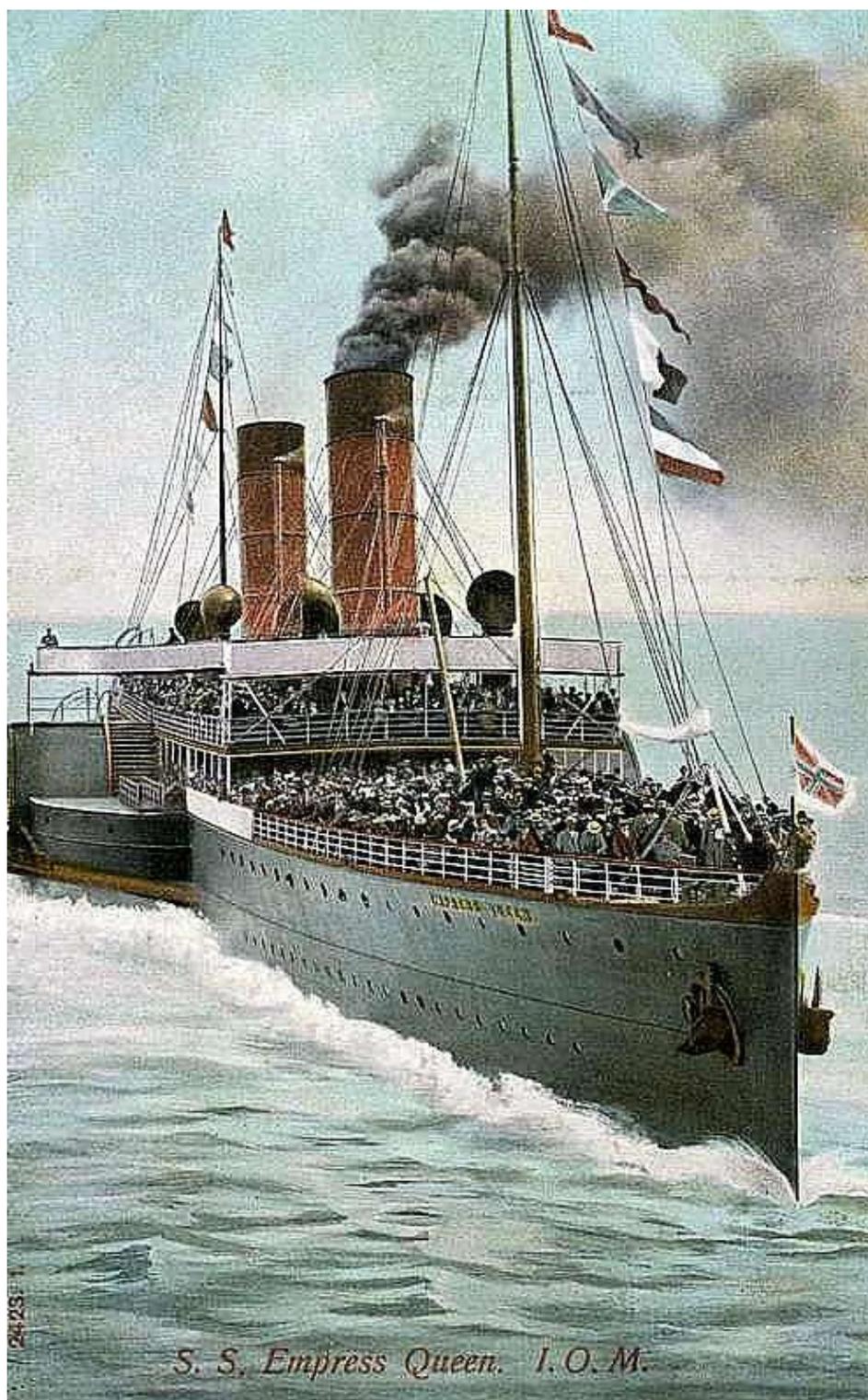


Figure 2: The *Empress Queen* carrying a full complement of passengers (Source via Wrecksite.eu, copyright unknown)



Figure 3: The *Empress Queen* coming alongside a dock (Image from www.imuseum.im No detail of copyright holder, within the permanent collection of Manx National Heritage).

2.3 First World War Use and Loss

The *Empress Queen* was chartered by the Admiralty on the 6th February 1915, the ship was fitted out as a troop carrier and within two weeks travelled to Southampton to begin transporting troops to Le Havre. Its first Channel crossing took 1,900 men of a Scottish regiment to Le Havre.

Almost a year of highly reliable service was then provided, the ship did not stop for weather or engine trouble within this time. However, at 5am on the 1st February 1916 in very low visibility the ship ran aground off Bembridge on the Isle of Wight. There were 1,300 troops on board who were being returned from France to Southampton, there are also reports that large quantities of ammunition were on board the vessel. Although visibility was poor, the winds were light and sea was calm. Due to the size of the ship the stern was still afloat and it retained an almost upright position while on the rocks.

The understanding of the loss of the vessel and detail of the rescue operation is greatly helped by the publication *How the Manx Fleet helped in the Great War: The Story of the Isle of Man Steam Packet boats on Service*. This was written by the company's Superintendent Engineer, C.J. Blackburn, who arrived at the ship after the troops had been removed, but while the crew was still on board and attempts were being made to re-float the vessel.

All troops were removed from the vessel onto any nearby boats that had answered the distress calls, this included all sorts of craft including Destroyers. The crew remained on board as it was expected to be an easy task to pull the vessel off the rocks. When C.J. Blackburn was piloted out to the ship he found the crew and other men from Portsmouth Dockyard with leak plugging equipment on board. However, at this time the weather turned against the rescue effort with gale force winds soon being experienced. Blackburn was not able to revisit the ship the following day and the decision was made to launch lifeboats to rescue the remaining crew. Although the Bembridge lifeboat was called at 9.30am it took a long time to reach the wreck and it was decided to land the men from the ship onto the flat rocks of the Bembridge Ledges at low water from where they could safely get to the shore. The first boat-loads were transported off at 2pm, with the very last of the crew taken off by local fishermen. By 5pm all crew were landed, including the ship's cat and dog: the latter animal was on the ship's articles, and wore a disc. The coxswain of the Bembridge lifeboat, John Holbrook, was awarded an RNLI silver medal for his actions.

The following day the weather abated and the Engineer could go on board. He recounts: "I shall never forget the scene of confusion on deck. The vessel had been swept from stern to stem by huge seas, piling up ropes, furniture, etc., on the foredeck in a confused mass. All the rooms had been gutted, and I do not think that any-one could have lived on the ship during that storm..... The spar deck aft had been beaten down by the seas, and the ship, being full of water, did not float again. Up to this time the after end of the ship had been afloat at high tide, and the saloons were quite dry, but during the gale, the after deck-house was smashed, and the saloons were flooded. All compartments, including the engine room, were now filled with water at high tide, and there seemed to be little hope of re-floating the ship".

Efforts were made to remove water from the ship with pumps, but this was soon given up and as much of the ship's gear as possible was then removed from the vessel. Failure to remove the ship from the rocks meant that it gradually began to break up over time. The two funnels of the ship became very familiar landmarks to local shipping and were still visible until the summer of 1919.

2.4 Post-loss Activity

C.J Blackman's account notes that "The salvage operations were finally put into the hands of a contractor, who, with a gang of workmen, recovered a large amount of valuable metal from the engine room and other parts of the ship. It was only during the summer months that the work could be safely carried on, and the temptation to work later on in the year, when the weather was bad, cost the contractor his life". It is not clear if this salvage work took place after the war and the funnels had slipped beneath the water level. However, the shallow nature of the area would have meant that low water salvage could have been carried out over many years.

The wreck has broken up over time. In the 1980s reports of jagged metal sticking up from the seabed were reported, with material scattered over 120m along Bembridge Ledges. The scattered nature of the site means that the wreck is not frequently dived intentionally, although the shallow depth and the marine life which inhabits the Bembridge Ledges makes the area a favoured spot for sport divers.

3. Methodology

A systematic approach to the work undertaken to gather information on the *Empress Queen* has to date taken place in the following manner:

3.1 Desk Based Historic Research

3.1.1 Online Information/Sources

Achieved via online searches. Sources consulted include: Pastscape, Wrecksite EU, Heritage Gateway, plus a general Google search.

3.1.2 Records at Other Archives/Collections

Contact with museums and individuals in relation to the site have included:

- Manx National Heritage
- Merseyside Maritime Museum
- Martin Woodward, Isle of Wight Shipwreck Centre

3.2 Associated Artefacts

While the Forgotten Wrecks project has a non-recovery policy, where possible, the project aims to 'virtually reunite' artefacts historically recovered from the Forgotten Wrecks.

3.2.1 Identification and Discovery of Relevant Artefacts

There is further work to be done to identify owners of artefacts from the wreck site, at the time of writing the following sources had been contacted in relation to objects from the site:

- RoW Wreck Amnesty Database of reported finds (no entries for *Empress Queen*)
- Martin Woodward Isle of Wight Shipwreck Centre
- Manx National Heritage
- Merseyside Maritime Museum

3.3 Diving Fieldwork

Forgotten Wrecks site visits and fieldwork aimed to:

- Provide opportunities for volunteers to access and take an active role in the recording and research of a range of different types of maritime First World War site.
- Record extant remains for heritage records.
- Record extant remains for public dissemination, enabling ‘virtual’ access for those not able to achieve physical access.

The most appropriate methods for site recording were chosen from the following, on a site-by-site basis:

- Site sketch
- Measured survey
- Photography
- Video

Forgotten Wrecks diving from the dive boat *Wight Spirit* took place on the wreck of the *Empress Queen* in 2013. These were initial dives which aimed to assess the condition of the remains and gather a video record of the site.

The diving conditions were relatively challenging due to tidal forces and the scattered nature of the remains, however, visibility was relatively good at 2-3 metres.

4. Description of the Known Archive

Prior to the Forgotten Wrecks project, records and information relating to First World War wrecks along the south coast existed in a number of collections and depositories, e.g. Pastscape, Wrecksite EU, Larn & Larn’s *The Shipwrecks Index of the British Isles (Volume 1 & 2)*, The National Archives, Receiver of Wreck records, local/regional archives, Dive Club websites, YouTube videos etc. Information from these sources about individual sites could be accessed by the public online or via visits to collections but the information was fragmented and dispersed and people had to know where to look. There was no means of studying the Forgotten Wrecks sites as a linked collection of archaeological and historic sites within a coastal and/or underwater landscape. The Forgotten Wrecks project provided a unique opportunity to address this by bringing together existing information and adding to it through research and recording activity incorporating as many volunteers as possible. The results will be publicly accessible via an interactive map of sites along the south coast.

4.1 Dispersed Archive Identified through the FW Project

4.1.1 Online Information/Sources Relating to *Empress Queen*:

Pastscape:	http://pastscape.org.uk/hob.aspx?hob_id=805422&sort=4&search=all&criteria=Empress Queen&rational=q&recordsperpage=10
Wrecksite EU:	http://www.wrecksite.eu/wreck.aspx?1222
Other URL:	A photograph of troops onboard the <i>Empress Queen</i> is held by the Ulster Museum in Belfast: http://www.independent.co.uk/life-style/history/prevously-unseen-ww1-moments-revealed-in-photographs-by-soldier-george-hackney-9866308.html#gallery (copyright National Museums Northern Ireland/ George Hackney)
Imuseums (Manx Heritage)	Historical accounts and images of the <i>Empress Queen</i> . http://www.imuseum.im/Collections/QuickSearchResults.mth?quicksearchtype=AllWords&quicksearchwithimagesonly=False&quicksearchtext=empress

	queen&quicksearchstatus=closed&quicksearchwithaudioonly=False&quicksearchwithvideoonly=False
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4.1.2 Artefacts Relating to the *Empress Queen*:

Objects recovered from the *Empress Queen* are held within a number of collections.

RoW records:	Nothing was reported during the in Amnesty in 2000
Martin Woodward collection:	Holds a number of objects recovered when the ship was stranded on the rocks at Bembridge
Public collections:	The ship's bell is held in the Manx Museum, Douglas, Isle of Man. Also a ship model in the House of Manannan, Peel, Isle of Man. Merseyside Maritime Museum have the builder's model of the <i>Empress Queen</i> .
Other private collections:	

4.2 Archive Generated by the HLF Forgotten Wrecks Project

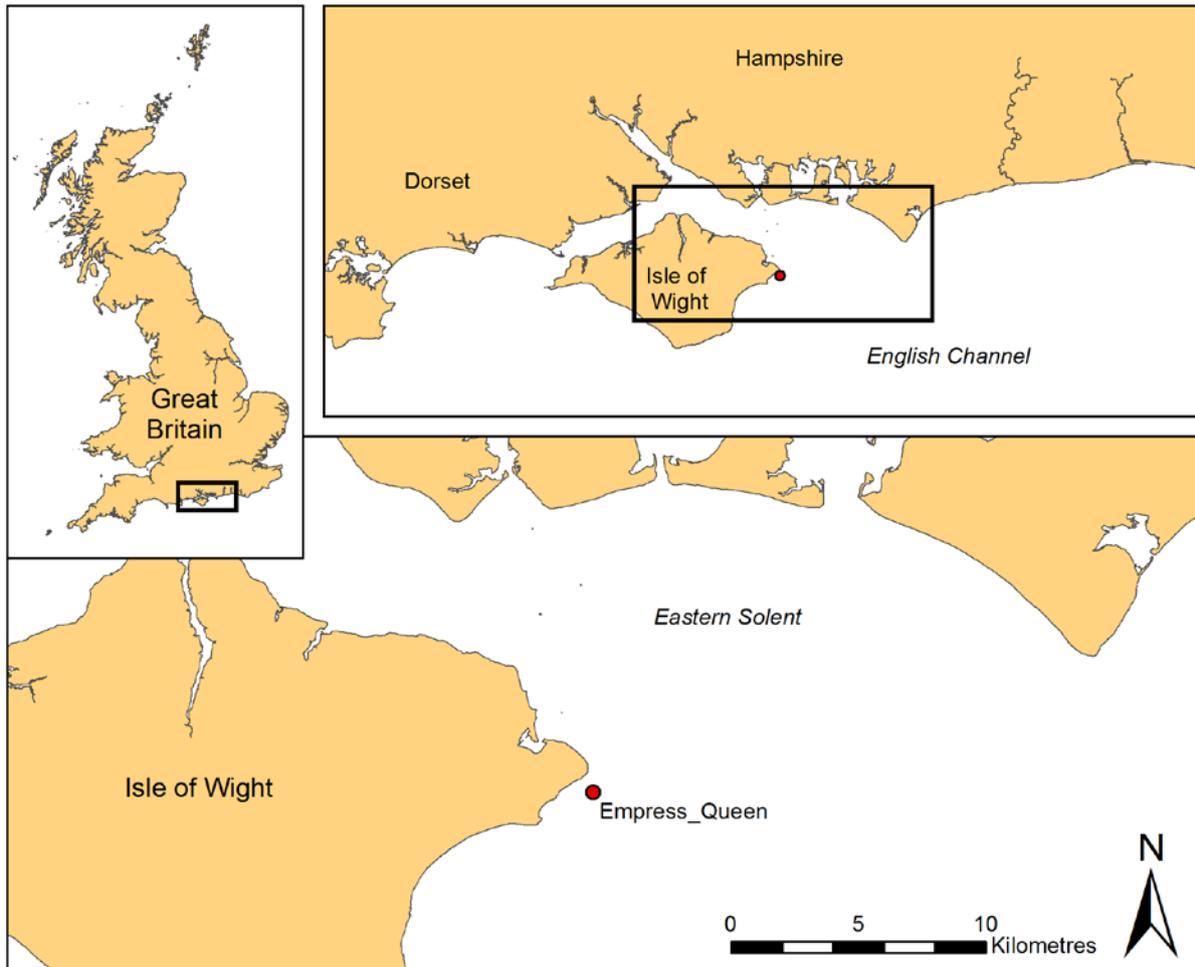
The following summarises the archive generated through the Forgotten Wrecks project, to date:

Record Type	Sub type	Number	Notes
Paper	Arch Rec Sheet	2	
	Dive record sheets	1	
Video	Go-Pro	1 file	
Digital	Images underwater	5	Generated from video capture

5. Seabed Remains

5.1 Site Location and Environment

The remains of the *Empress Queen* are found on Bembridge Ledges which are off the east of the Isle of Wight (Figure 4). The site is shallow in only 4 to 6 metres of water. The water depth means that there is abundant marine life in the area, although the exposed position means that strong tides are active at the site.



Map Datum: OSGB36
 Mean High Water data courtesy of the Marine Management Organisation.

Figure 4: Location of the wreck of the *Empress Queen* off Bembridge, Isle of Wight

5.2 Archaeological Methodology

An initial archaeological dive has taken place on the wreck site. The methodology applied included:

Conducting a visual survey to:

- locate the site and determine whether there are any coherent pieces of structure or parts of the wreck.
- attempt to identify features of the vessel for more detailed survey.
- confirm the nature of the seabed around the wreck – e.g. sand/ gravel/ stone.

Conducting a video survey to:

- collect general video of the wreck and divers on the wreck
- obtain footage of key features of the wreck

The conditions encountered meant that a relatively small area of wreckage was inspected during the dive.

5.3 Description of Surviving Vessel Remains

The wreck site is scattered over a large area of the Bembridge Ledges. Reports suggest that material can be found over a 120 metre wide area. The point dived on the site included an area of more up-standing remains which were used as the initial start point of the visual and video survey (Figure 5). Salvage and the ravages of the tide mean that the metal sections viewed can be difficult to interpret in terms of their original position within the vessel, however, careful observation does reveal features to allow some interpretation of the remains.



Figure 5: Diver inspects area of wreckage which has a dense covering of marine growth

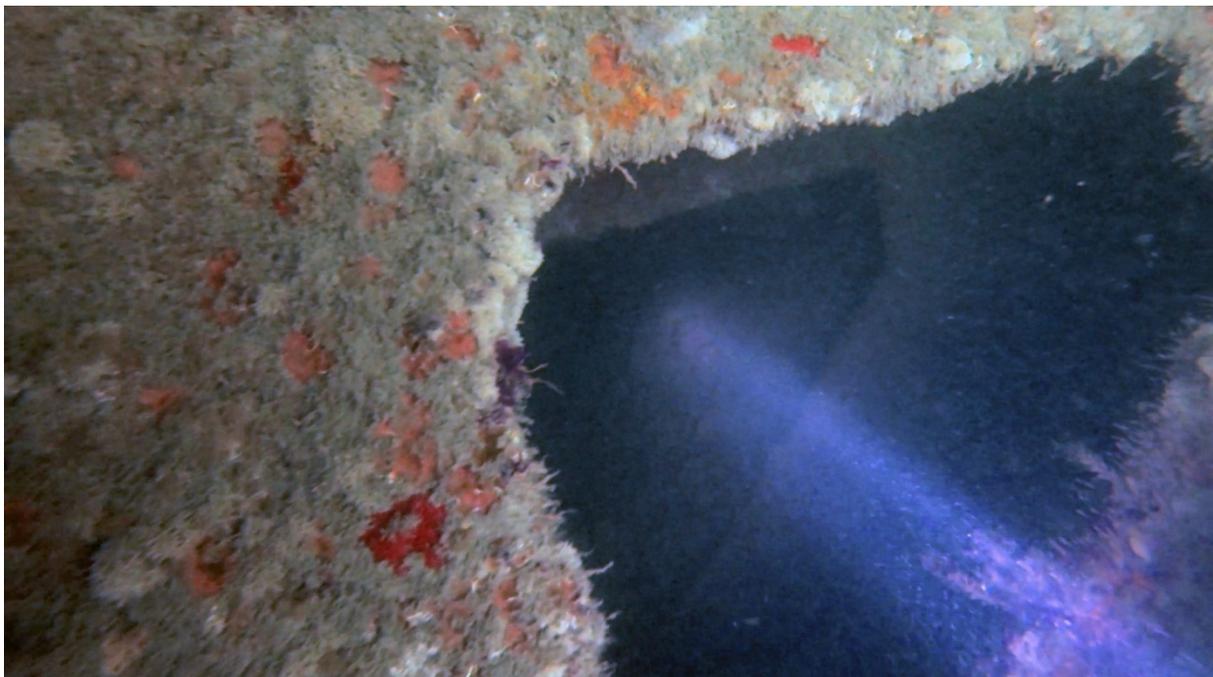


Figure 6: Diver's torch illuminates a section of wreckage.



Figure 7: Round feature, partially obscured, believed to be a porthole still within the wreckage lying flush to the seabed



Figure 8: Part of the boiler, the holes once contained the fire tubes, the curve of the edge of the boiler can be seen to the left of the fire holes



Figure 9: Diver inspects a drain cock which would once have been fitted to either the engine or on brackets attached to the boiler

The divers concentrated on an area of structure which stood up to 2m proud of the seabed. There were some areas where coherent pieces of hull were intact. Figure 6 provides an example of part of the structure which has survived due to the substantial and closely spaced sections of metal.

Heavy marine growth obscures most surfaces making it difficult to identify specific features. However, close inspection revealed what is thought to be a porthole still within hull metal but now lying flush to the seabed (Figure 7). Figures 1 and 2 show the arrangement of portholes on the *Empress Queen*, a lower level of round portholes ran the entire length of the hull, a further higher level of portholes includes round examples forward of the paddle wheels, while to aft the shape has changed to square portholes. It is difficult to accurately predict where on the hull the porthole may have originated, however, the accessibility of the wreck for salvage would make it more likely this would have been an example from lower in the hull which may have been more difficult to reach.

Further investigation around the area of structure revealed part of the boiler (Figure 8). The holes through this substantial metal element would have held the fire tubes. The fire tubes were essential for the production of steam to power the engines.

Further evidence related to the engine and boiler arrangement was discovered in the form of a drain cock (Figure 9). This would once have been fitted to the engine or on brackets attached to the boiler. Taken in combination with the evidence of the fire tubes, this indicates the structure surveyed is from the mid-ships area.

There is further diving work required to develop an understanding of the extent of structural elements surviving across the Bembridge Ledges. However, from initial work it is clear that although the remains of the vessel are partial and heavily impacted by salvage and the dynamic marine conditions, it is possible to identify elements of the ship, its fixtures and fittings.

6. Recovered Archive

6.1 Objects

There are a number of objects that have been recovered from the wreck that are now in public and private collections. Some objects were removed when the ship was stranded on the rocks, others by salvage undertaken soon after the ship became a wreck, with further recoveries more recently by divers. Research to date has been relatively limited and it is expected that other objects held by divers will be identified during the course of the Forgotten Wrecks project.

Ship's Bell

The bell is held by Manx National Heritage (<http://www.manxnationalheritage.im/>), it is not currently on display, but has been during past exhibitions (Figure 10).



Figure 10: The Ship's bell from the *Empress Queen* when it was on display (copyright Manx Heritage)

Objects held by Martin Woodward of the Isle of Wight Shipwreck Centre

There are a number of items held by Martin Woodward, some of which are on display at the Isle of Wight Shipwreck Centre (<http://shipwreckcentre.com/>).

These include items taken off by salvagers and locals at the time the vessel was stranded:

- A fold-up wooden washstand with a small sink inside
- Three pieces of square window glass with the 'three legs of Mann' symbol in the middle
- A small ornate wooden bottle stand

A further object recovered during diving on the wreck site around 30 years ago is:

- A black glass bottle

6.2 Builder's Model

The builder's model of the *Empress Queen* is held by Merseyside Maritime Museum (www.liverpoolmuseums.org.uk/maritime). The *Empress Queen* model is not currently on public display. The Merseyside Maritime Museum has a large and varied collection; unfortunately it cannot show everything at one time. But you can find out more about the *Empress Queen* here: <http://blog.liverpoolmuseums.org.uk/2007/12/empress-queen/>



Figure 11: Builder's Model of the *Empress Queen* (Copyright Merseyside Maritime Museum, reproduced with kind permission of the Museum)

7. Site Significance and Potential Further Research

As the centenary of the wrecking of the *Empress Queen* on Bembridge Ledges is marked, there is still much work to do to understand the history and significance of the ship and its full place in history. Initial work has highlighted the potential for further investigation in a number of areas:

- Review of historical documents for information on ships' plans, history of use pre-war and during the war, wrecking and subsequent salvage.
- Recording of objects from the site held by Martin Woodward and in other private collections.
- Further diving work to examine areas of structure and map the remains.

These areas of work will be pursued over the coming years of the Forgotten Wrecks project.