LIVERPOOL NAUTICAL RESEARCH SOCIETY

THE LOSS OF THE "ELLAN VANNIN"

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THE LOSS OF THE "ELLAN VANNIN"

by L.N.R.S. Member Ron Evans

from Lloyd's Register, 1908/09:
ELLAN VANNIN Official Number: 27260 Signal Letters: P Q M G
Built as an iron paddle steamer with simple oscillating engines by Tod & McGregor, Meadowside, Glasgow in 1860, and named **Mona's Isle** (2).
Converted to twin-screw steamer in 1883 by Westray, Copeland & Co. of Barrow with 4-cylinder double compound engines.
Renamed **Ellan Vannin** on 16th November, 1883
Gross Tonnage: 380, Nett: 128 Overall length: 207ft Breadth: 22ft

'Oh Ellan Vannin of the Isle of Man Company
Oh Ellan Vannin lost in the Irish Sea

Few Manx men now remember
The third day of the month of December
The terrible storm in 1909
Ellan Vannin sailed for the very last time'

So goes the last verse of the song immortalised by The Spinners - *'The Ellan Vannin Tragedy'*. In this 90th anniversary year of the loss of the **Ellan Vannin**, the story of the disaster is remembered with perhaps some further explanations as to how it happened.

The sinking of the **Ellan Vannin** on 3rd December, 1909 with the loss of all 14 passengers and 21 crew, mail and 60 tons of cargo, was the worst peacetime disaster in the 169 year history of the Isle of Man Steam Packet Company.

In answers to questions the Court of Inquiry stated *'the **Ellan Vannin** was in good seaworthy condition as regards hull and equipment when she left Ramsey. Her cargo was properly stowed and secured from shifting, and the weight so distributed as to make the vessel easy in a seaway. She had the required freeboard and was in good trim for a voyage to Liverpool'*.

In the absence of any direct evidence as to the circumstances under which the vessel foundered it was impossible for the Court of Inquiry at the time to express a decided opinion as to the cause of the loss of the **Ellan Vannin**. To this day her loss remains something of a mystery.

The question has always remained as to why the disaster occurred so swiftly and without warning to a vessel which under the command of many experienced captains of the IOMSPCo. had made this voyage on countless occasions over the previous 49 years in all kinds of weather and in perfect safety.

The **Ellan Vannin** had become known affectionately as the *'Li'l Daisy'* by Manx sailors who thought of her as the mascot of the Manx fleet, and passengers and crew had every confidence in the vessel.

It may further help to explain the disaster by retracing the voyage with reference to sketch charts of the Irish Sea and the approaches to the River Mersey along with the synoptic chart for 07.00 on 3rd December 1909. The captain at that time did not have access to present day weather forecasting data and radio communications. It is therefore of some significance that Captain Teare of the **Ellan Vannin** would not have had any reliable weather forecast other than that obtained from the barometer reading of 28·30 inches (958 millibars) when leaving Ramsey.

VOYAGE TO DISASTER

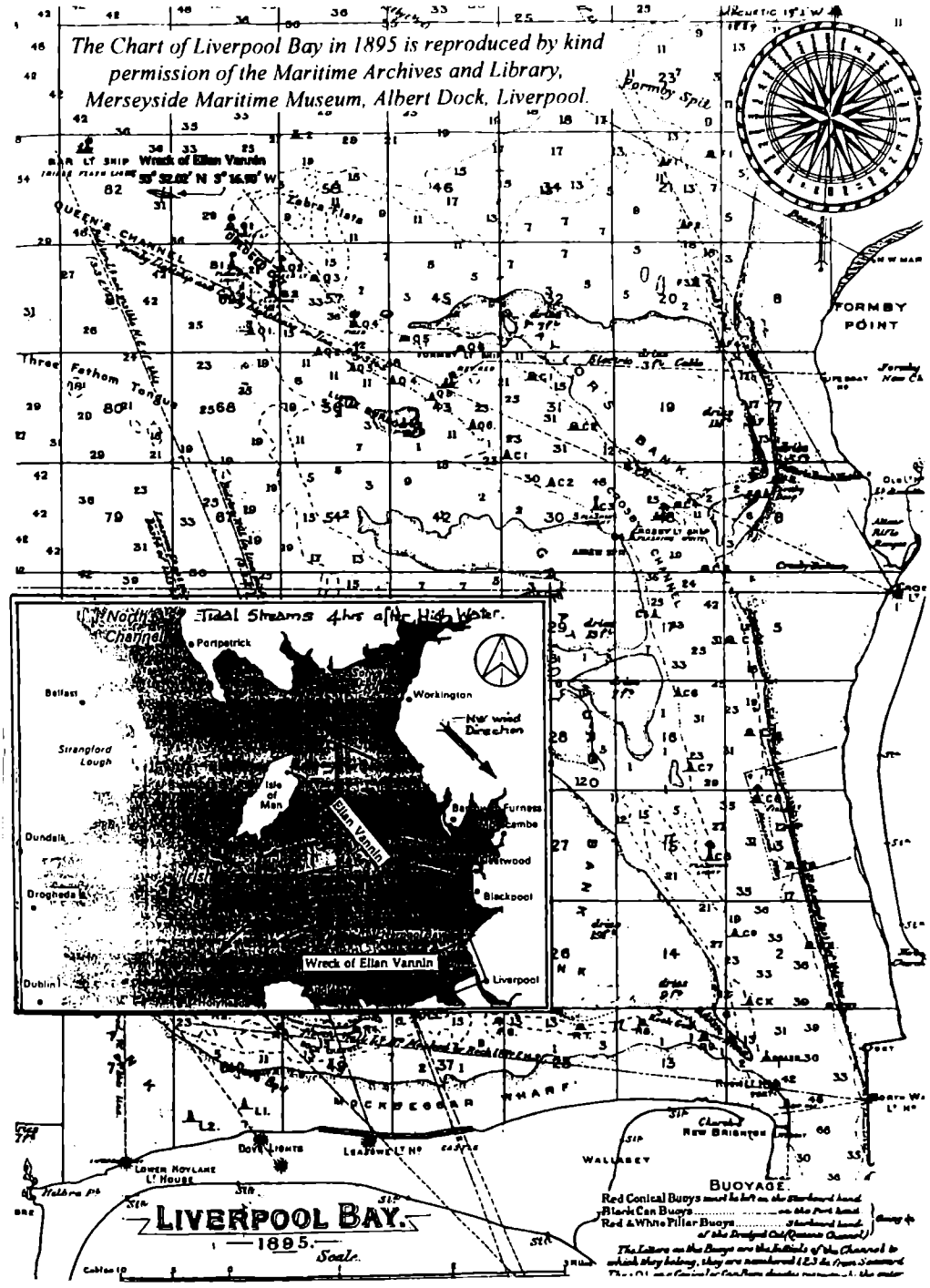
The **Ellan Vannin** left Ramsey at about 1a.m. on Friday 3rd December 1909 bound for Liverpool in weather which was described as 'dirty' with sleet falling but only a moderate wind, the barometer standing at 28·30 inches. There was no suggestion made by Captain Teare that the weather was unfit for the vessel to leave.

Ramsey is a sheltered port in a north-west wind and dries out at low water. The **Ellan Vannin** would have had to leave the harbour at about high tide. According to present day Admiralty charts, with high water at about 1a.m., tidal streams would have been in the vessel's favour. With the following wind the **Ellan Vannin** would have cleared the shelter of the Isle of Man in about an hour and a half. She was probably running quite easily before the following wind and tide, and as the wind increased she would have been too far into her voyage to change course and return to the shelter of the Island.

The 60 nautical miles from Ramsey to the Bar Lightship were covered in about five hours at an average speed of 12 knots, close to the vessel's maximum of 13 knots.

It appears from evidence given by those on board the Bar Lightship and other vessels in the vicinity that at about 4 a.m. a severe gale from the north-west sprang up, reaching force 11 with frequent rain squalls and a very rough sea. These conditions continued until about 8 a.m. with the waves becoming more dangerous and reported as up to 24 feet in height. The wind and waves were meeting the strong ebb tide from the Mersey estuary.

Shortly after 6.30am an inward bound steamer passed the Bar Lightship about half a mile to the northward. The lightship's crew saw her lights for about five minutes before they were obscured by heavy rain squalls. Taking into consideration the course usually taken by the **Ellan Vannin** from Ramsey to the Mersey Bar, and the direction from which the steamer was approaching, it is highly probable that the lights seen were those of the **Ellan Vannin**. At about 6.45am one of the seamen on the Bar Lightship saw what he described as a flash lasting about one second in the vicinity of the Bar. No other flash was seen although the seaman and the master of the lightship watched for about twenty minutes.


The Chart of Liverpool Bay in 1895 is reproduced by kind permission of the Maritime Archives and Library, Merseyside Maritime Museum, Albert Dock, Liverpool.
Wreck of Ellan Vannin
53° 52.02' N 3° 16.50' W
QUEEN'S CHANNEL
Formby Spit
FORMBY POINT
Three Fathom Tongue
Tidal Streams 4hrs after High Water.
North Channel
Portpatrick
Belfast
Strangford Lough
Isle of Man
Workington
NW wind Direction
Ellan Vannin
Barrow
Furness
Combe
Fleetwood
Blackpool
Liverpool
Dundalk
Drogheda
Dublin
Wreck of Ellan Vannin
LIVERPOOL BAY.
1895.
Scale.
BUOYAGE.
Red Conical Buoys must be left on the Starboard hand
Black Can Buoys ..... on the Port hand
Red & White Pillar Buoys ..... Starboard hand
of the Dredged Out Queens Channel.
The Letters on the Buoys are the Initials of the Channel to which they belong, they are numbered (1,3 &c from Seaward

At 11.30am a report was received by the Mersey Docks and Harbour Board that Q.1 Black Buoy was adrift. The Board's tender **Vigilant** went out to recover the buoy, and when she was off the Rock Lighthouse at about 1.30pm a lot of wreckage and several dozen lifebelts were sighted. The **Vigilant** recovered some of this wreckage, including a package of mails. At about 3.30am on the following day, 4th December, lifebelts marked 'Ellan Vannin', more wreckage and dead sheep were found by the coastguards at Blundellsands, and later the ship's clock, attached to some panelling, was found. The clock had stopped at 6.50.

THE DISCOVERY OF THE WRECK

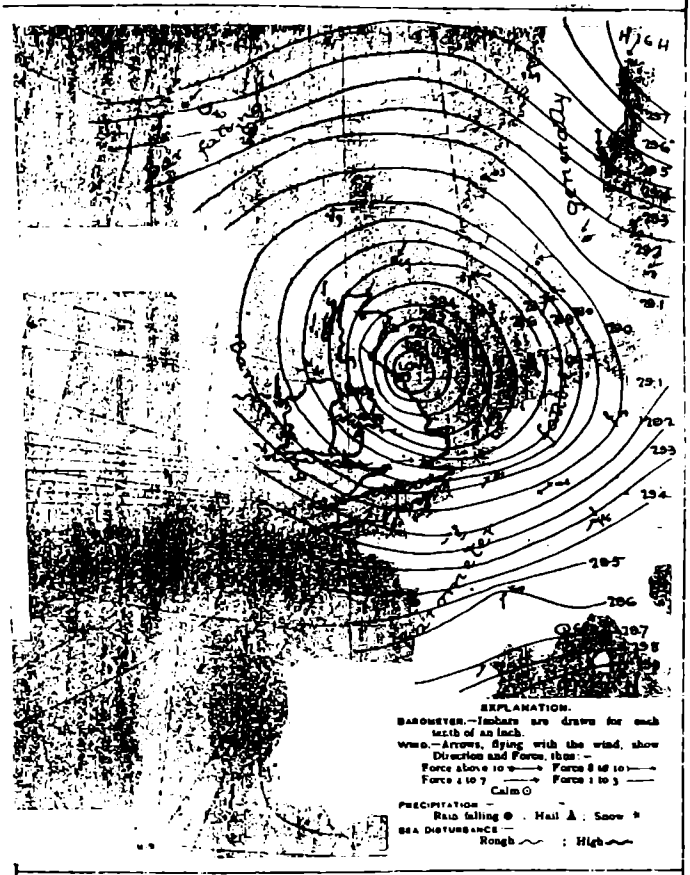
(extract from Annex to the Report of the Court of Inquiry)

The wreck of the **Ellan Vannin** was located on 4th December 1909, 1,170 yards from the Bar Lightship and 1,000 yards from the position of Q.1 Black Buoy on a direct line between them, and broadside on to the tide. The wreck was heading about West by South; the fore end was broken off about 35 feet from the stem and was separated from the after part by a space estimated at about 6 feet. The after portion was nearly upright; the forward portion had a list to port of from 15 to 20 degrees on the first examination. This list was increased to about 45 to 50 degrees on the 12th December when the last examination was made. The break, the whole way round from rail to rail was a straight one mainly in the line of the rivets, varying not more than 6 or 8 inches either way, except on the port side where the stringer waterway and sheer strake was attached to the forward part, and projected aft about 4 feet. The keel of the fore part at the fracture was bent up about 3 to 18 inches. The deck in the wake of the fracture was torn across except where the butts come; there the butts were torn but taking the deck bolts with the planks. Two divers reported an indentation of a part of the two plates below the sheer strake on the port side of the fracture, of about 18 inches in length in a vertical direction, the broken edges of the plates being bent inwards from 3 to 6 inches. One of the other divers did not notice any such indentation, and the fourth denied that it existed, but stated that some of the plates in the neighbourhood of the bilge were bent slightly inwards and upwards. The Court, however, does not attach much importance to the evidence on these points. The davits on the starboard lifeboat were stated to have been swung and guyed out. The boat was gone from the chocks. This boat was found the day after the wreck on the beach at New Brighton bottom up, cover on, and all her gear in. The davits of the port lifeboat were swung out but not guyed, the boat was gone, and no trace of her has been found. The divers found that the square house (which contained the saloon entrance and smoke room) on the after deck was completely washed away, only the whaling pieces on the deck being left to indicate where the house had been.

Here it may be mentioned that a theory was advanced that the **Ellan Vannin** fouled the Q.1 buoy. The buoy was reported by the master of the ss **Heroic** to have been in place when he passed it at about 6.am. It was missed from its position by those on board the Bar Lightship at 10.am. This buoy was recovered on the 4th December, but no marks were found on it, and the light was still burning. Therefore the Court is

Friday, WEATHER 3rd Dec. 1909

I. BAROMETER, WIND AND SEA AT 7 A.M. TO-DAY.



NOTES ON THE GENERAL SITUATION AT 7 A.M.

In the course of the past night an exceptionally deep cyclonic disturbance has moved the country from the Atlantic to the North Sea, and the barometer is now at nearly 28 ins. at the mouth of the Tyne, and below 29 ins. over the British Isles generally, the low centres, North Germany and Southern Norway. At the Azores the barometer stands above 30.5 ins. The gradient is very steep all round

The Synoptic Chart for 07.00hrs on Friday 3rd December 1909 is reproduced by kind permission of the National Meteorologiocal Library and Archive, Bracknell

unable to accept this theory, nor from a careful consideration of all the facts in evidence can it conclude that the **Ellan Vannin** was in collision with another vessel or with any wreckage whatever.

The twin-screw steamship **Heroic** made the passage from Belfast to Liverpool on the night of 2nd and morning of 3rd December, passing the Bar Lightship just before 6.am. The master, Arthur Porter, reported that the weather he experienced when approaching the mouth of the Mersey was of most exceptional violence and that during his experience of 11 years he had never known it so bad. The wind was from the north-west blowing with hurricane force, the sea broken and most dangerous.

T.S.S. **Heroic** 1906 1,869 tons Belfast Steamship Co.Ltd.
Length bp: 320·2ft Beam: 41·3ft Depth(mld): 16·8ft Speed: 18 knots.
Service: Belfast/Liverpool. T.S.S. **Heroic** was a much larger and more powerful vessel than the **Ellan Vannin** and had a full poop, bridge deck and forecastle.

The **Q1 Black Buoy** was 12ft diameter x 15ft high overall and weighed 9 tons 15 cwt. Iron keel plate 1¼inches thick, base ¾ inch and 5/16inch thick; superstructure 3/16inch thick plate. Moored with 1.5/8 inch iron cable, 5 fathoms formed bridle next to buoy, 30 fathoms in addition with anchor at end.

r.e.

THE FINDINGS OF THE COURT OF INQUIRY

The **Ellan Vannin** appears to have been kept in good repair and condition. She was periodically surveyed by the Board of Trade Surveyor who gave evidence and who had certified the vessel to be in a good seaworthy condition in September last, when she showed no signs of weakness. In that month the Board of Trade Certificate was renewed for one year. Plates had been removed from time to time and these were said to be in good condition. A plan has been put in showing the results of drilling a large number of plates in various sections of the vessel in 1902, and from this it appears that up to that date there had been no appreciable wasting of the iron. The fact, however, cannot be ignored that this vessel was 50 years old. Possibly some corrosion may have occurred at some places that were difficult to access (for example, the chain locker), and may have led to her breaking at this particular place, although there was nothing to indicate that such was the case. The chain locker was about 26 feet long, and had a wooden platform on which to stow the chain. It is well known that if corrosion took place at all this is the most likely part for it to do so.

The fact that the **Ellan Vannin** when examined by the divers was found to be partly across the channel and nearly at right angles to the wind and sea at the time she foundered indicates that she broached to before sinking.

In answer to the Board of Trade question (3): *'what was the cause of the loss of the **Ellan Vannin** and the loss of life?'*, the Court gave the following answer:

In the absence of any direct evidence as to the circumstances under which the vessel foundered, it is impossible for the Court to express a decided opinion as to the cause of the loss of the **Ellan Vannin**, but after carefully considering all the theories which have been suggested by various witnesses and weighing them in the light of the evidence produced, the Court is of the opinion that the following appears the most probable explanation of what occurred:-

The vessel passed the Bar Lightship at about 6.45am on the 3rd December, the weather at the time being very bad; the wind was hurricane force, the sea of a height of about 24 feet, and generally the weather the worst ever experienced in that vicinity. The wind and sea were slightly on the starboard quarter. Before reaching Q1 buoy the **Ellan Vannin** broached to and was probably swept by heavy seas which washed away the after companion, filling the after part of the vessel and causing her to sink by the stern, leaving the bows out of the water. While in this position the heavy seas striking the fore part of the ship would account for the bows being broken off as described by the divers.

The Court does not consider there is any evidence of the ship being previously in collision either with another vessel or with floating wreckage, nor does it consider that the fact of the bows breaking off under such exceptional circumstances implies structural weakness.

The catastrophe by which the vessel was overtaken must have been so sudden that there was probably no time for those on board even to put on lifebelts or to take other steps to save life, which accounts for the unfortunate loss of all on board.

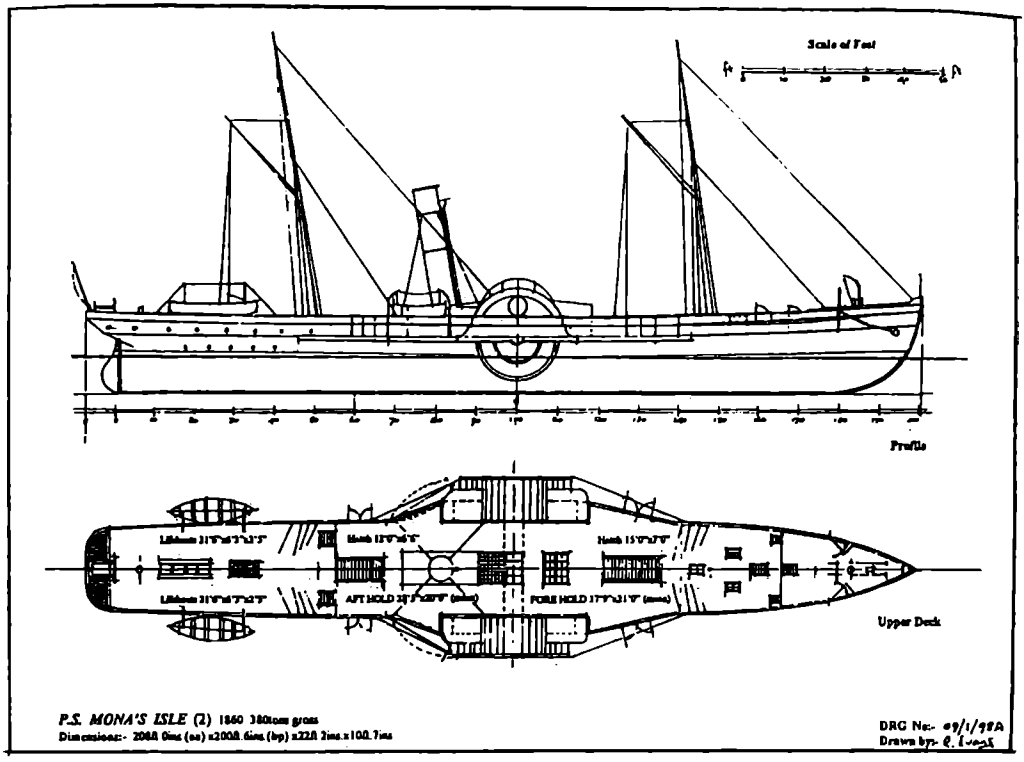
COMPARISON BETWEEN THE DRAWINGS OF THE "*MONA'S ISLE*" (2) AND THE "*ELLAN VANNIN*"

On the following two pages, drawings by Ron Evans of the ***Mona's Isle*** *(2) and the* ***Ellan Vannin*** *are reproduced. As has already been stated the* ***Mona's Isle*** *was a paddle steamer built in 1860. In 1883 she was converted into a twin screw steamer and renamed* ***Ellan Vannin****.*

The recent maritime tragedies involving modern, well-found, purpose-built car ferries have shown the cataclysmic effects of a large inflow of water into vehicular decks. This information and experience was not available at the time of the loss of the **Ellan Vannin**.

The Annex to the Report of the Court of Inquiry stated: *'It may be noted that the original plans and specifications were not produced to the Court and it would seem that they had long since ceased to exist.'*

A comparison between the reconstructed drawings (by the author) of the paddle steamer **Mona's Isle** (2) and the twin screw **Ellan Vannin** show many of the modifications which could have resulted in changes to the stability of the vessel, and in the ability of the vessel to resist a large inflow of water and some of these modifications may be summarised as follows:

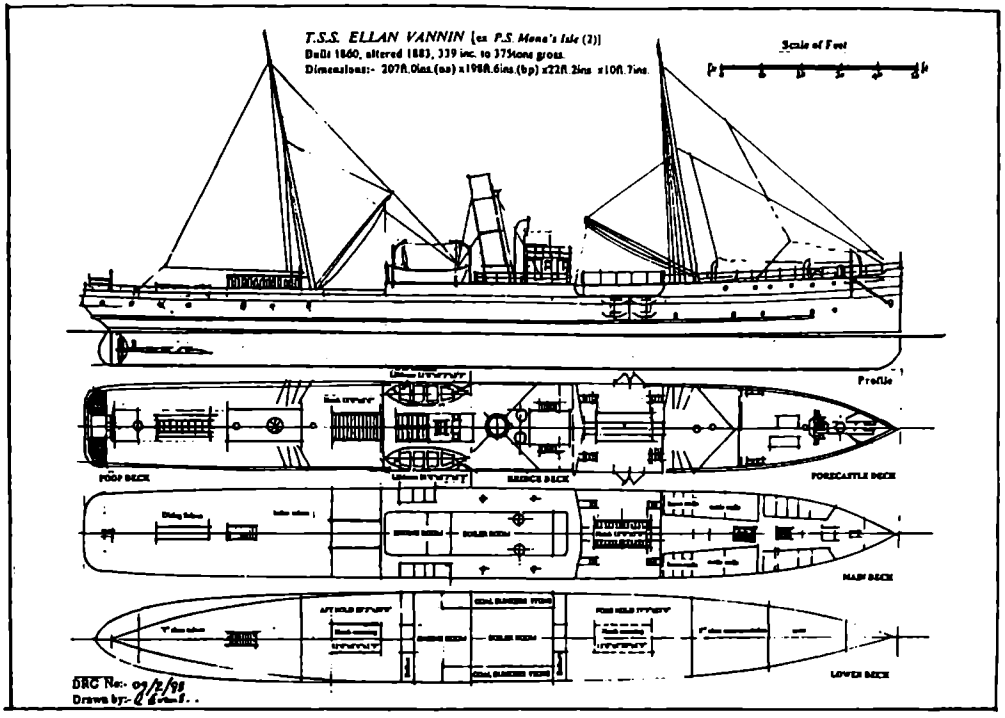


Fleet List Ref: 09. **Name:** *MONA'S ISLE* (2).
Type: Iron paddle steamer, simple oscillating.
Official No: 27260. **Signal Letters:** PQMG.
Builders: Tod & McGregor, Meadowside, Glasgow.
Launched: 10.04.1860. **Yard No:** Not known.
Tonnage: 380 tons gross. **Cost:** £10,673.
Dimensions: **Loa:** 208ft 0ins. **Lbp:** 200ft.6ins. **B:** 22ft.2ins. **D:** 10ft.7ins.
Machinery: Simple oscillating, 2/cyls.44ins.diameter, 48ins stroke, 25psi.130nhp. 12kts.

History:
1860 May 25: Trials, attained a speed of 12kts.
1882: Main mail carrier for 23years from Ramsey to Whitehaven, Liverpool and Scotland.
1882: Taken out of service for conversion to a twin screw vessel. Cost of conversion about £9,000.
1883 Nov.16: Renamed *Ellan Vannin* after conversion by Westray, Copeland & Co., Barrow.
1891 Dec: Special overhaul at the Naval Construction Works at Barrow, costing £2,914.
1900: After a collision, repairs by A & J Inglis, of Partick, Glasgow, cost of about £800.
1900-1909: General repairs by the owners from time to time, including new main deck cost £5,000.
1909 Dec 3: Left Ramsey for Liverpool with 14 passengers, a crew of 21, mail and 60tons of cargo. A severe north-westerly gale reaching Force 12 blew up as she was approaching the Mersey. She passed the Bar Light Vessel before 7a.m. Foundered shortly afterwards with the loss of all on board

Model Notes: The first vessel in the Company with simple oscillating engines instead of side lever. The ship had a raked stem, schooner rigged with two masts, and single funnel abaft the paddles.

Plans: Reconstructed by the author from paintings and photographs in the Manx Museum and also from a survey and photographs of the shipbuilders model in the Merseyside Maritime Museum.



Fleet List Ref: 09. **Name:** *ELLAN VANNIN* [ex *Mona's Isle* (2)].
Renamed *Ellan Vannin* 16.11.1883: Converted from an iron paddle steamer into a twin screw steamer by Messrs. Westray, Copland & Company, of Barrow, fitted with inverted vertical compound engines.
Tonnage: 379.53 tons gross. 128.30 tons net. 304 tons under deck.
Cost: £10,673 as built. Cost of conversion £9,000 approx.
Dimensions: Loa: 207ft.0ins. **Lbp:** 198ft.6ins. **B:** 22ft.2ins. **D:** 10ft.7ins.
Machinery: Compound engines, 4cyls.18ins.34ins.dia.,24ins.stroke,80psi.100nhp.500ihp.12kts. 2/single ended boilers 10ft.x9ft.6ins. 80psi. 4/furnaces 2ft.9ins.dia. firegrate area 55sqft. Heating surface 2004sq.ft. Coal consumption 9tons/24hours, bunkers 18tons.
Passengers: 1st 134, 3rd 165, total 299. **Crew:** 14.

Further Particulars: Schooner rigged, two masts, height deck/truck, fore 60ft.0ins., main 68ft.0ins.
Hull: Iron, single bottomed, one deck, 4/iron bulkheads, 2/waterballast tanks total capacity 44tons. Raised quarterdeck with new deckhouse over saloon companionway. Bridge deck amidships with wheelhouse, steering by hand, no steam steering gear. Engine room skylight 9ft., long x3ft.2ins., high. Topgallant forecastle under which was the steerage. Forward of the steerage was the forecastle. Below the forecastle was a chain locker and water ballast tank, between these compartments and forehold was an iron bulkhead. Iron bulkheads each end of holds. Height main deck/bridge deck 7ft.4ins. Bulwarks 4ft.6ins., high, 4/freeing ports, one each side 14ins.x9ins., and 24ins.x24ins. Three hand bilge pumps.

Cargo holds: Capacity:- Fore hold 6441cu.ft., 161tons. After hold 4830cu.ft., 120.7tons.
Hatches: Fore hatch 15ft.0ins.x6ft.10ins., after hatch 12ft.0ins.x6ft.4ins., coamings 15ins., high.
Lifeboats: 2/21ft.6ins.x6ft.3ins.x2ft.5ins.Capacity 382cu.ft.38 persons. 320 life belts, 6 life buoys.
Draught: Draught on leaving Ramsey on last voyage, aft 10ft., forward 7ft.6ins. Mean draught 8ft.9ins. Freeboard 2ft.9ins. Freeboard assigned by the Board of Trade 1ft.10ins.
Twin Screws: Cast iron, each 7ft.3ins.diameter, and 13ft.9ins. pitch, surface area 17sq.ft.

Plans: Reconstructed by the author from photographs and from plans of contemporary vessels.

1] Oscillating engines were changed to vertical compound engines requiring repositioning.

2] Boiler dimensions and positions were changed resulting in changes to their CGs.

3] Forecastle and Bridge Decks were added to form a well deck.

4] Paddles and sponsons were removed reducing the overall deadweight by about 60 tons.

5] Beam overall sponsons reduced from 43ft 6ins (approx) to beam (moulded) 22ft 2ins.

6] Twin screws instead of paddle wheels could have made the very narrow hull difficult to handle in very severe sea conditions especially if rudder dimensions were unaltered.

7] Beam to length ratio was 8.95 and beam to draught ratio was 2.535 compared with the **Fenella** (1) of 1881 of 7.69 and 2.30 respectively, indicating that the **Ellan Vannin** had a very slender hull of shallow draught compared with her contemporaries.

8] Hatches fore (15′ x 7′) and aft (12′ x 6′6") were twice the size of comparable vessels.

9] Deck structure over aft companionway to the saloon. Referred to in the Inquiry, but taken in conjunction with the very large after-hatch and the large skylight, a feature of the early paddle steamers, these could have provided many large openings for the inflow of water.

10] The **Ellan Vannin**, for her size, had a greater cargo capacity than her contemporaries, and it was also at one deck level. Cargo capacity:- Fore hold 6441 cu.ft., 161 tons. After hold 4830 cu.ft., 120·7 tons. At the time of her loss, the **Ellan Vannin** only carried 60 tons of cargo.

11] It will be noted that the **Ellan Vannin** was trimmed with a deeper draught aft than forward, many photographs refer. The deeper draught aft could have made her more vulnerable to following seas; the steps down to the main deck below the new bridge deck could have made the engine and boiler room more liable to flooding from aft, by-passing bulkheads.

12] The **Ellan Vannin** had the minimum of four bulkheads recommended at that time positioned at each end of the cargo holds and between engine room / boiler room. The forward bulkhead would also have served the dual purpose of a collision bulkhead.

EPILOGUE

The previously unpublished divers' reports provide a unique visual view of the wreck, which today would be provided by deep-sea submersibles and remote controlled video cameras. This evidence, in the light of present day knowledge and experience of recent maritime disasters, and research into stability and performance of

paddle steamers versus screw steamers support without further 'direct evidence' the most probable cause of the loss of the **Ellan Vannin** reached by the Court of Inquiry.

Chris Michael in his book *'The Wrecks of Liverpool Bay'* locates the wreck of the **Ellan Vannin** in position 53°32·02'N, 3°16·90'W, which confirms the position stated by the divers in evidence (chart refers). The wreck was dispersed soon after the vessel sank by the Mersey Docks and Harbour Board using explosives, so as not to be an obstacle to shipping. It is possible that the wreck site is now covered in sand and silt; the depth at low water is 11 metres to the seabed, but some wreckage may still remain.

The loss of the **Ellan Vannin** should no longer remain a maritime mystery. Certainly the tremendous power of the sea should never be underestimated and the causes of these disasters must always be investigated to answer the question: *'What caused the vessel to sink?'* ||||

BIBLIOGRAPHY

Report of Court of Inquiry and Annex to the Report. Ellan Vannin. (Guildhall Library, London, file 7338)

The First Atlantic Liners (1997) by Peter Allington and Basil Greenhill

The Iron Ship (1975) by Ewan Corlett

Historical Account of the Isle of Man Steam Packet Company (1904) by A.W.Moore

The Centenary of the Isle of Man Steam Packet Company (1930)

Island Lifeline (1980) by Connery Chappell

The Life and Times of the Steam Packet (1994) by John Shepherd

West Coast Steamers. (3rd edition - 1966) by Duckworth & Langmuir

The Wrecks of Liverpool Bay (1994) by Chris Michael

Manx Museum - Archives, ship photographs, reports etc.

Merseyside Maritime Museum - The Ship Models Collection