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No. 7926

S.S. "GLANDRHYD"

THE MERCHANT SHIPPING ACT, 1894

REPORT OF COURT

In the matter of a Formal Investigation held at the Law Courts, Cardiff, on the 16th, 17th and 18th days of November, 1938, before J. G. Trapnell, Esq., K.C., assisted by Captain A. L. Gordon, Captain A. S. Leech and R. Buchanan Reith, Esq., M.I.N.A., into the circumstances attending the loss of the steamship "Glanrhyd" on the 14th January, 1938.

The Court, having carefully inquired into the circumstances attending the above-mentioned shipping casualty, finds, for the reasons stated in the Annex hereto, that the probable cause was either collision with submerged wreckage or exceptional seas which stove in her forward hatch, put her head down and caused her to break apart in the way of Nos. 3 and 4 hatchways.

Dated this 23rd day of November, 1938.

J. G. TRAPNELL, Judge.

We concur in the above Report:

ARTHUR L. GORDON,	} Assessors.
ALF. S. LEECH,	
R. BUCHANAN REITH.	

Annex to the Report.

This Inquiry was held at the Law Courts, Cardiff, on the 16th, 17th, and 18th days of November, 1938. Mr. E. M. Parsey appeared for the Board of Trade. Captain James Griffiths appeared on behalf of the National Sailors' and Firemen's Union. Mr. Noel Davies (Messrs. Vaughan and Roche, Cardiff) watched the case on behalf of the Owners, and Mr. Thomas Bernard Foley on behalf of the Transport and General Workers' Union.

The s.s. "Glanrhyd", official number 147638, registered in London, was a single screw steel-built transversely framed well-decked steamer, built at Barrow-in-Furness in 1924 by Messrs. Vickers, Limited, owned by Messrs. Harries Bros., & Co., Ltd., and her registered manager was Mr. Owen Lewis Harries.

The vessel was 245.9 feet in length, 38.8 feet in breadth and 18.0 feet in moulded depth. Her fore-castle was 19.0 feet long with a well-deck forward and after deck raised 6.0 feet and the bridge deck between these two.

The engine and boiler casings were on the raised after deck, protected by cabins except for side spaces giving access to the fidley and saloon entrances. The engines were of the direct acting triple expansion type, giving a speed of about 9 knots. She had two single-ended multitubular boilers, 12 feet 6 inches internal diameter with a mean length of 10 feet 6 inches fired with two coal furnaces each.

The vessel was built as a collier, designed as a self-trimmer but was, in fact, treated as an easy-trimmer, entitling her to full trimming at a reduced rate.

The two forward cargo holds were served by numbers 1 and 2 hatchways situated in the fore well-deck, and the two after holds by numbers 3 and 4 hatchways in the raised after deck. The hatchways were of the following dimensions:—

- No. 1. 27 feet by 24 feet tapering at forward end to 11 feet 6 inches.
- No. 2. 29 feet 3 inches by 26 feet each with coamings 4 feet.
- No. 3. 29 feet 3 inches by 25 feet.
- No. 4. 27 feet by 24 feet 6 inches tapering aft to 21 feet each with coamings 3 feet 2 inches.

Each pair of holds, i.e., numbers 1 and 2, and numbers 3 and 4, were divided by transverse wooden bulkheads abreast of the fore and main masts respectively. They were built of 9 feet 3 inches grooved and tongued deals, each being secured to the angle bars on the tank tops below and to a deck beam above.

Each bulkhead was stiffened on its after side by two 8 inch by 3½ inch by ¾ inch bulb angle bars athwart the vessel, riveted to side frames and bands about the mast spaced about equi-distantly between the tank top and the deck.

Each bulkhead plank was through-bolted to the stiffening bars, and steel ladders in sections were fixed to both faces of each bulkhead under and giving access to escape hatches in the starboard side of the deck. Each hatch bar was 2 feet 5 inches by 2 feet, with coamings 1 foot 8 inches high fitted with hinged wooden covers 3 inches thick.

In addition, there was a bunker hatch on the fore end of the raised deck, 4 feet 5 inches by 25 feet 2 inches with covers 3 inches thick and 3 feet coamings.

All wooden hatch covers were 3 inches thick, single plank type, generally 11 inches wide, and all cargo hatches were supplied with five thwartship beams 21 inches deep at the centre and 10 inches at each end by ¼ inch in thickness, mounted at top and bottom with two angle bars of 5½ inches by 3½ inches by ½ inch, except those of the four forward beams of No. 1 hold, which were 4½ inches by 3½ inches by ¼ inch. The bearing surface for hatches was 3 inches. The two forward hatchways were supplied with wire lashings set up with Warwick screws.

All hatchways were supplied with adequate tarpaulins, kept in good order, two of which were in place, properly secured and battened down, on each hatchway when the vessel sailed. The forward hatches were wire lashed with canvas protection in the way of the wires.

There were four watertight bulkheads placed as follows:—Fore peak, after end of No. 2 hold, after end of engine room, and after peak. A watertight door gave access to the tunnel from the engine room.

Three 14-inch hold vents in the fore deck had 36-inch coamings and the four in the after deck, coamings of 30 inches in height. The two 14-inch vents to the bridge space and cross bunkers had 36-inch coamings. These ventilators were provided with cowls and canvas covers and plugs as were those leading to the tunnel and crew space. The air tanks to the pipes were provided with wooden plugs.

Permanent bulwarks were fitted fore and aft the ship and at the fore end of the raised deck. Those on the fore deck were 4 feet and the remainder 3 feet high. Freeing ports were provided, which were adequate and efficient, and those on the fore deck were in excess of rule requirements. The two tonnage openings 4 feet 3 inches high by 3 feet wide were protected by plates secured by bolts spaced at 6 inches through the bulkhead plate and by sills about 12 inches deep.

The officers and engineers were accommodated in cabins situated on either side of the engine and boiler casings, on the raised deck, and the crew in a poop at the after end of that deck, entered through a steel built companion house.



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The boat deck, over the officers' and engineers' cabins, was of 5 inches by 2½ inches pitch pine.

The steering gear was a rod and chain type, the angle of chain around the forward lead blocks being about 90 degrees and that on each quarter about 130 degrees.

Some trouble with rudder vibration had been experienced in the past but this had been remedied by the time of the s.s. "Glanrhyd's" last special survey in May, 1937, and the rudder was proved to have been in satisfactory working order thereafter.

The vessel was equipped with adequate life-saving and signal appliances and was in every respect well-found.

The vessel was not equipped with wireless and we have no information as to her mechanical sounding apparatus.

The cargo loaded brought the vessel to her winter marks and this involved some vacant space in numbers 1 and 4 holds and the bunker space. This vacant space would permit a shift of cargo sufficient to produce a list of 5½ degrees. The cargo was described as of a sticky nature, very unlikely to shift. If any shift did take place we do not think it could have been sufficient to affect the ship's stability which was adequate. This vessel had frequently carried cargo of this description without any mishap.

The vessel sailed at 2.35 p.m. on the 14th January, 1938, drawing 15 feet 6 inches forward and 17 feet 7 inches aft; she left dock without any impact or contact that could have affected her safety and handled well in every respect.

The wind was very fresh from the S.S.W. and it was raining.

Shortly after leaving, the "Glanrhyd" fell in with the s.s. "Maywood" outward bound for Cardiff. The "Maywood" was a well-decked vessel of almost precisely similar design and approximately the same size.

The vessels were in company until about 7.30 p.m. when the "Maywood" was two miles north of the Foreland. At this time the barometer was falling and the weather worsening and Captain Storm Harrison of the "Maywood", fearing possible damage to his forward hatches on account of shipping heavy water, turned his vessel and proceeded to Minehead roads for shelter.

At this time the "Glanrhyd" was observed about 2 miles to the northward of the "Maywood", proceeding westward, and after this was never seen again by those on board the "Maywood" or, so far as can be ascertained, by anyone at all.

The "Maywood", a slightly faster vessel, had made about three knots over the ground up to this time in consequence of the bad weather, and we are satisfied the "Glanrhyd" could not have exceeded that speed and may not have been making as much, especially as the weather continued to get worse.

What happened thereafter is necessarily a matter of conjecture.

A witness from the Helwick Lightship, which is approximately 28 miles from the position in which the "Glanrhyd" was last seen, claimed to have seen the masthead lights of a vessel at 11.30 p.m. on that night. We do not think the "Glanrhyd" could possibly have reached any such position at that time in that weather. The same witness speaks of masthead lights in sight of the westward of the Lightship between 4.0 and 7.45 a.m. on the 15th January. We do not think this evidence throws any light on the casualty.

The auxiliary coast watcher, stationed at Port Eynon, saw a light which he considered was a steamer's masthead light, bearing west of his station at 4.55 a.m. on the 15th January. To get to this position the "Glanrhyd" would have had to cover at least 23 and possibly 25 miles in seven-and-a-half

hours against an increasing wind, by that time of gale force, and a flood tide. We do not think this light either had anything to do with the casualty.

The only other material from which it is possible to infer the position of the "Glanrhyd" at the time of the accident is the evidence from the Lightship of wreckage and bodies which came from the west and passed her starboard side (the Lightship was then heading south-west) at intervals between 1.30 and 1.45 p.m. on the 15th January, and that wreckage and bodies drifted ashore on either side of and within a few miles of the Worms Head.

The tide had been flowing to the east for 1½ to 2 hours only at the time the wreckage passed the Lightship, the speed being probably about 2 knots, and this wreckage, therefore, started its easterly drift about 4 miles to the west of the Lightship.

We do not think this can be taken as an indication that that was the scene of the casualty, because the "Glanrhyd" could only have reached that position by passing so near to the Lightship that we consider she must have been seen.

It is possible that if the casualty took place to the east of the Lightship, the wreckage and bodies might have been carried ultimately by the morning ebb of the 15th to the westward of the Lightship and returned on the ensuing flood.

We conclude, therefore, that the casualty probably happened at a point between the "Glanrhyd's" last known position and the Worms Head, but except that the position must have been one that would permit the wreckage, under the influence of the tide, to reach a point about 4 miles to the westward of the Helwick at about 11.30 a.m. on the 15th, we have no material to enable us to fix the locality.

It has been suggested the ship struck the Helwick bank; but having regard to her probable speed over the ground, she must have reached one or other of these banks near high water when the depth would have been such that we do not think she could possibly have struck even upon the most extravagant assumptions of the height of waves in those waters.

There were no such signs of wreckage on the shore as would suggest the vessel struck the shore, and there were no other dangers that it seems likely she could have reached.

The evidence satisfies us that an internal explosion was improbable, because no damaged wreckage indicative of such has been found.

The lifeboats appear to have been damaged in the way of the holding down gripes, which suggests the accident was so sudden that there was not sufficient time to clear the boats away. This view, i.e., of a sudden calamity, is supported by the absence of observation of any distress signal, the fact that some of the bodies recovered were almost unclothed and some of the victims appeared to have removed their lower garments to assist swimming.

We are driven, therefore, to the conclusion that the "Glanrhyd" either struck submerged wreckage or was overwhelmed by an exceptional sea or seas, which stove in her forward hatch, put her head down and caused her to break apart in the way of numbers 3 and 4 hatchways, thus liberating portions of that wooden bulkhead which were found ashore.

Notwithstanding that we think this vessel did not ground on Helwick sands, we are glad to be informed that the Trinity House Authorities propose to put a lighted bell buoy to mark this spot. We consider this a valuable assistance to coasting vessels.

We think it would be an advantage if small coasting vessels were supplied with wireless telephone apparatus, and if the Helwick Lightship could be provided with similar effective means of communicating with the shore.

We do not think the rod and chain steering gear had anything to do with this accident, because it

was working properly on departure; had it broken down afterwards we should have expected signals. It cannot, however, be excluded as a remote possibility and we recommend that owners should be encouraged to substitute a system of direct action steering.

The Court desires to express its appreciation of the careful manner in which this case has been presented by the Board of Trade and the assistance given by its experts, and to extend its deep sympathy to the relatives of the officers and men who so unfortunately lost their lives.

J. G. TRAPNELL, Judge.

ARTHUR L. GORDON,
ALF. S. LEECH,
R. BUCHANAN REITH. } Assessors.

Questions and Answers.

The Court's Answers to the Questions submitted by the Board of Trade are as follows:—

Q. 1. By whom was the s.s. "Glanrhyd" owned?

A. Messrs. Harries Bros. & Co., Ltd., Pembroke Place, Swansea, Glamorganshire.

Q. 2. Was she in good and seaworthy condition when she left Newport, Monmouthshire, on her last voyage?

A. Yes.

Q. 3. What life-saving appliances did the vessel carry? When were they last inspected?

A. Two Class 1A wooden lifeboats; six standard cork life-jackets; twelve standard Kapok life-jackets; six solid cork lifebuoys; one portable line throwing plant with two lines and four rockets. Last inspected on the 26th May, 1937.

Q. 4. For where was she bound?

A. Irlam, Manchester Ship Canal.

Q. 5. What amount and description of cargo was loaded into the vessel for her last voyage? How was it disposed in the vessel? Was it properly and safely loaded and adequately trimmed?

A. 2,173 tons 1 cwt. Tredegar washed duff coal.

Disposed as follows:

	Tons	Cwt.
No. 1. Hold	441	8
No. 2. Hold	693	16
No. 3. Hold	597	8
No. 4. Hold	440	9

It was properly and safely loaded and adequately trimmed.

Q. 6. How much bunker coal was loaded into the vessel for her last voyage? How much bunker coal was already in her at this time? Was the bunker coal properly and safely loaded and adequately trimmed?

A. 48.15 tons of bunker coal were loaded into the vessel for her last voyage. 40 tons of coal were already in the bunkers. It was properly and safely loaded and adequately trimmed.

Q. 7. On what day and at what time did the vessel leave Newport on her last voyage?

A. The vessel left Newport, Mon., on the 14th January, 1938, at 2.35 p.m.

Q. 8. What was the state of (a) the weather; (b) the wind; and (c) the sea, when the vessel left Newport on her last voyage?

A. When the vessel sailed from Newport the weather was dull and overcast, wind S.S.W. very fresh and raining.

Q. 9. What alterations in (a); (b) and (c) occurred between that time and the time of the casualty?

A. Wind gradually increased to gale force, with heavy rain, squalls and with variable and sometimes much diminished visibility; the sea became very heavy.

Q. 10. At what speed did the vessel proceed on her voyage?

A. The normal full speed of the vessel was nine knots, at which speed it is presumed the vessel proceeded.

Q. 11. On what day and at what time was the vessel last seen and what was her then position?

A. The vessel was last seen about 7.30 p.m. on the 14th January at a position to the northward of the Foreland Light estimated at about 4 miles distance off.

Q. 12. Was any, and if so what, wreckage from the s.s. "Glanrhyd" washed ashore: if so, when and where did it come ashore and of what did it consist?

A. Yes, as per list attached.

Q. 13. Were any, and if so how many, bodies from the s.s. "Glanrhyd" washed ashore? Where did they come ashore and when were they discovered? Were any, and if so how many, of them wearing lifebelts?

A. Eight bodies from the s.s. "Glanrhyd" were washed ashore; 2 at Port Eynon, 3 at Rossili Bay; 1 at Whitford; 1 at Burry Port; and 1 at Ferryside. The bodies were discovered on dates from the morning of the 17th January to 27th. Six of these bodies were wearing lifejackets.

Q. 14. What crew did the vessel carry on her last voyage? How many members of the crew lost their lives as the result of the casualty?

A. The vessel carried a crew of seventeen including the master, all of whom lost their lives as the result of the casualty.

Q. 15. What was the cause of the loss of the s.s. "Glanrhyd"?

A. The evidence is not sufficient to determine the cause with certainty but we think the vessel either struck submerged wreckage or was overwhelmed by exceptional seas which stove in her forward hatch, put her head down and caused her to break apart in the way of Nos. 3 and 4 hatchways.

J. G. TRAPNELL, Judge.

ARTHUR L. GORDON,
ALF. S. LEECH,
R. BUCHANAN REITH. } Assessors.

Particulars of wreckage referred to in the Answer to Question 12.

Oxwich Bay.

1 Lifeboat marked "Glanrhyd", London, considerably damaged and having no plug in. This boat was bottom up and was half buried in the sand. Sufficient sand was cleared away to read the name and port of registry, but a proper inspection of the gunwale and upper strakes was not possible. A hole in the planking, however, showed that at least one of the buoyancy tanks was missing. The dimensions of the boat could not be found.

1 Rope ladder rolled up and lightly tied, presumably a lifeboat ladder.

1 Board of Trade Standard Cork lifebelt.

4 Pieces tarred wood and a door of the same colour.

Several pieces of 3-inch timber black one side and tangerine colour the other.

Part base piece of boat chock with hook attached. One head knee of boat.

Piece of deck planking with 2 screw eyes 1 foot 6 inches apart; 2-inch eyes. Probably part of boat deck, the eyes being for securing the rope ladder.

Part of one lavatory seat.

Part door frame with hinge and small piece of door attached.

Piece of tongued and grooved board 6 feet by 9 inches by 3 inches, probably part of bulkhead.

One 6-inch and one 14-inch wooden ventilator plugs.

Quantities of cleading from lifeboat.

- 1 Ladder with wooden uprights and iron rungs.
- 2 Boat chocks cut to shape.

Part of cork lifebelt—one section.

- 2 teak doors $1\frac{1}{2}$ inches thick.

2 Lifeboat rudders.

2 Sections of topsides of lifeboat with brown gunwale and 2 white planks below.

One section of wooden bulkhead having bulb angle stiffeners 10 feet 6 inches long of 8 inches by $3\frac{1}{2}$ inches by $\frac{3}{8}$ inch steel. One end of the stiffener had an angle lug attached and the other end was sheered off.

Attached to the stiffeners by bolts were tongued and grooved boards 9 inches by 3 inches to form a solid and complete face. One extremity of each of these boards was broken off, but the other presented a fair edge. This edge was not, however, parallel to the stiffener but sloped 9 inches in about 6.4 feet. Also attached to stiffener was a steel ladder of the usual type found in a ship's hold. One surface of the rungs of this ladder was smoother than the other, indicating the worn side, and this in turn indicated that the broken ends of wood were the upper ends. The height of this section was 10 feet 6 inches.

One topmast broken top and bottom and painted buff. The size was 13.4 inches long by 12 inches diameter at one end and $7\frac{1}{4}$ inches diameter at the other. A metal band was fitted around the thinner end and there were several turns of seizing wire around the band.

Part wood deck with part broken ventilator coaming attached.

Half a lifebuoy painted white and dark red quarters.

Several pieces of wood decking.

Part deck plank, black one side and white the other, with electric wire clips attached on white side.

- 1 Louvre door 2 feet 6 inches by 12 inches.

Several hatch wedges.

A number of hatch covers as under:

- 1 of 8.8 feet by 10 inches by 3 inches.
- 1 of 8.9 feet by 10 inches by 3 inches.
- 1 of 5.4 feet by $11\frac{1}{4}$ inches by $2\frac{3}{4}$ inches.
- 1 of 9.65 feet by 10 inches by $2\frac{3}{4}$ inches marked with 3 circles and 3 painted lines.
- 1 of 8.9 feet by 11 inches by 3 inches marked 3.
- 1 of 9.75 feet by 11 inches by 3 inches.

- 1 of 9.7 feet by 10 inches by 3 inches.

- 1 of 8.95 feet by 10 inches by 3 inches marked

2.

- 1 of 9.5 feet by 11 inches by 3 inches marked 1.

- 1 of 9.75 feet by 11 inches by 3 inches marked

1.

- 1 of 9.75 feet by 11 inches by 3 inches marked

1.

- 1 of 8.9 feet by 11 inches by 3 inches.

- 1 of 9.6 feet by 11 inches by 3 inches.

- 1 of 8.9 feet by 11 inches by 3 inches.

- 1 of 9.6 feet by 11 inches by 3 inches marked 1.

- 1 of 8.9 feet by 11 inches by 3 inches.

- 1 of 9.6 feet by 11 inches by 3 inches.

- 1 of 8.9 feet by 11 inches by 3 inches.

- 1 of 9.6 feet by 11 inches by 3 inches marked 1.

- Double hatch 8.9 feet by 18 inches by 3 inches.

Total 20 single and 1 double hatch covers.

The Coastguard at Oxwich had in his store 2 meat trucks one painted black and one painted buff, 2 lifebuoys painted in red and white quarters and one tin of red lights as carried in a lifeboat.

Port Eynon Bay.

Horton—One lifeboat. The boat was painted black with buff gunwale and two upper strakes white. The name "Glanrhyd" was on the port side and "London" on starboard side. On each side of gunwale was cut in "24 Persons". The boat was bottom up and considerably damaged but much of the damage had been done since the boat came ashore. There was no plug in the boat when it came ashore and a section of the gunwale on the port side about $\frac{1}{4}$ of boat's length from stem, was broken out. There was also a certain amount of damage to stern but the hood ends were not broken open.

Slade Bay (in Port Eynon Bay).—Section of wooden bulkhead similar to the part found in Oxwich Bay, with two stiffeners of same section as previous one and spaced 5.2 feet apart. The wood broken irregularly at top and bottom. Sections of stiffeners were 7.9 feet long with 4 inch by 3 inch lugs at one end and the other ends sheered off. Total length of board—8 feet.

150 wooden hatch covers all of lengths suitable for one or other of the holds. None broken.

Another piece of 3 inch tongued and grooved board from bulkhead, and two broken pieces of 10 inch by 3 inch timber which when fitted together made one piece 7.75 feet long—too short for any hatch of "Glanrhyd".

Lucas Bay.

Wooden mast 12 feet long by 12 inches diameter. 5 single plank hatches 10 feet by 9 inches.

(Issued by the Board of Trade in London
on Friday, the 23rd day of December, 1938)

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