

(No. 7342.)

“TREVORIAN” (S.S.).

The Merchant Shipping Act, 1894.

In the matter of a Formal Investigation held at the Council Chamber, Penzance, Cornwall, on the 5th, 6th, and 7th days of April, 1910, before A. K. BARNETT, R. H. PRESTON, and H. TREMBATH, Esquires, Justices of the Peace in and for the Borough of Penzance aforesaid, assisted by Captains J. H. WALKER and DAVID DAVIES and JOHN McLAREN, Esquire, into the circumstances attending the abandonment and loss of the British steamship “TREVORIAN,” of St. Ives, in or near latitude 48° 5' N., longitude 6° 44' W., North Atlantic Ocean, on or about the 25th day of January, 1910.

Report of Court.

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 abandonment and subsequent loss of the vessel was caused by a sudden inrush of water into the engine-room and stokehold from the port side in way of the reserve bunker, which proved to be beyond the capacity of the pumps to cope with, and which in a short space of time were rendered useless in consequence of the fires being drowned out.

The Court is unable to determine whether the leak was caused by the heavy straining of the vessel or from contact with some submerged wreckage, but the Court, however, attaches no blame to the master or chief engineer or either of them for the loss of the vessel.

Dated this 7th day of April, 1910.

A. K. BARNETT, } Justices of the Peace for the Borough of Penzance.
ROBT. H. PRESTON, }
HENRY TREMBATH, }

We concur in the above Report.

J. H. WALKER, } Assessors.
DAVID DAVIES, }
JOHN McLAREN, } Engineer Assessor.

Annex to the Report.

This Inquiry was held at the Council Chambers, Penzance, in the County of Cornwall, on the 5th, 6th, and 7th days of April, 1910.

Mr. Hamar Greenwood, K.C. (instructed by Messrs. Borlase and Venning, solicitors, Penzance), appeared for the Board of Trade, Mr. Dawson Miller for the owners and chief engineer, and Mr. A. T. Miller appeared on behalf of the master (Mr. Nicholas John Woolcock).

The “Trevorian,” Official No. 91348, was a British screw steamship, built of steel at South Shields, in 1889, by Messrs. John Redhead & Sons, and was registered at the port of St. Ives.

She had two masts and was schooner rigged, and was of the following dimensions:—Length, 293.3 feet; breadth, 39 feet; depth in hold from tonnage deck to ceiling at midships, 18.8 feet.

Her gross tonnage was 2,270.18 tons and her registered tonnage 1,442.51 tons.

She was fitted with triple expansion surface condensing engines of 250 horse-power, placed amidships, with cylinders of 23 inches, 37½ inches, and 61½ inches diameters respectively, and length of stroke 39 inches; speed about 8 knots.

(16237—1.) Wt. 72—57. 180. 4/10. D & S.

She had two single ended steel boilers, having a working pressure of 160 lbs., three furnaces in each boiler, and was fired from the forward part of stokehold; she had also a donkey boiler with a working pressure of 80 lbs., placed in a recess in fore part of stokehold; engines and boilers were constructed by the builders of the vessel.

She is stated to have had the following steam pumps, namely: two bilge pumps of about 3 inches diameter, worked off the main engines, and each had a pumping capacity of 3 tons of water per hour when the engines were working full speed; one ballast pump with a suction pipe 4½ inches in diameter, capable of pumping 65 tons of water per hour at a speed of 80 revolutions; one Worthington pump, with a pumping capacity of about 6 tons per hour. The circulating pump was worked from the main engines, which had a suction pipe from the ship's side of 8 inches diameter; the bilge injection pipe was connected to the main suction pipe and was 3½ inches in diameter.

In addition to these, she had three hand pumps, which were worked from the deck, two of which were connected with main hold bilges and one to the after well.

Her sea connections were as follows:—In the engine-room port side, main injection valve 8 inches diameter; tank filling and water service valve 6 inches diameter.

She had two blow-down valves in after part of stokehold, one on each side, and also a water-service cock in the fore part of stokehold.

The engine-room bilges ran from the stokehold bulkhead to engine-room bulkhead on port and starboard sides of ballast tanks.

In engine-room she had two bunkers extending from main deck down to level of tank top; the one on the port side had a capacity of about 60 tons, and the one on the starboard side about 80 tons. In addition to these she had permanent bunkers in her 'tween decks port and starboard, and her total permanent bunkers capacity was about 250 tons.

She had the following sluice valves, viz., on the bulkhead dividing Nos. 1 and 2 holds, one sluice valve on each side; on stokehold bulkhead one sluice valve on each side; on engine-room bulkhead one sluice valve on each side—and all these were controlled from the deck.

She had three water-tight doors, one entering from engine-room to tunnel, and two on the stokehold bulkhead, one on each side.

This vessel was of the well deck type, with fore-castle, bridge and poop, had one iron deck, and between deck beams, but no deck laid on these.

She was constructed with six water-tight transverse bulkheads carried right up to the main deck, had four holds for cargo, and had a cellular double bottom divided into five water ballast tanks giving a capacity of 515 tons, and also an after peak tank with a capacity of 41 tons, making in all 556 tons.

The bilges of each hold were fitted with the necessary rose boxes for pumping, which were all connected with the engine-room.

The vessel carried three boats, two of which were life-boats, and were carried on chocks under davits on the bridge deck, and had their proper equipment.

She also had 23 life-belts, and six life-buoys on board.

The vessel was steered by steam on the upper bridge, and had also hand gear in the wheelhouse, and had two navigating compasses in use and one spare.

She was owned by The Hain Steamship Company, Limited, of St. Ives, Cornwall, and Mr. Edward Hain, of St. Ives, was the person to whom the management of the vessel was entrusted, by and on behalf of her owners by advice received on the 4th of October, 1901.

The “Trevorian” arrived at Barry Dock in January last from Svendborg (Denmark), where she had grounded in entering that port, and was dry docked at Barry on the 14th of January for the purpose of surveying her hull and machinery, which was carried out by representatives of Lloyds, the underwriters, and her owners.

With the exception of the paint being found scraped on the port side of the bottom under No. 4 hold, she is stated to have sustained no injury to her structure in consequence of this grounding.

It was also stated that the tail-end shaft was drawn and all other shafting lifted; the condenser, engines and boilers opened for examination, and that all valves and cocks on ship's sides were overhauled, and no damage was found due to grounding.

After coating of bottom the vessel was undocked on the 18th of January, and was placed in loading berth where she took on board 2,826½ tons of coal for the Italian Government, distributed in the following manner:—

	Tons. cwt.	
No. 1 hold	...	599 2
No. 2 hold	...	973 0
No. 3 hold	...	695 19
No. 4 hold	...	553 10

No. 2 and 3 holds were full.

No. 1 and 4 holds had empty spaces left, estimated at about 150 tons.

Shifting boards were in position in all holds except in the hatchways. She also took on board 570 tons of bunker coals, making a total weight of coal shipped 3,396½ tons, and it was stated that there remained about 10 tons of bunkers on board from the previous voyage.

When the loading had been completed and the vessel ready for sea, and lying inside the deep-water dock, a Board of Trade official made the customary examination of her draught.

According to evidence the winter mark on either side was 1 inch submerged, and her draught forward was 20 feet 8 inches and 20 feet 6 inches aft, and that the difference in specific gravity between the water in the dock and sea water outside would cause the vessel to rise a little over 1 inch when she got outside.

The "Trevorian" left Barry at noon on the 22nd of January under the command of Captain Nicholas J. Woolcock, who held a certificate of competency numbered 012415, and a crew of 21 hands (which included three engineers and two officers), bound for Taranto (Italy). With the weather at that time being moderate breeze from W.N.W., she proceeded down Channel, at 8.20 a.m. on Sunday the 23rd. She passed the Wolf Rock Lighthouse, wind and sea increasing from the westward, and vessel making about 7 knots per hour.

Towards evening the wind and sea further increased, and at 10 p.m. the fore and aft fly bridge over the well deck forward was carried away by the sea, and tearing away tarpaulin on No. 1 hatch.

This was replaced at once with a new tarpaulin.

Up to this time the ship had behaved well, and had made no water.

At midnight the wind had increased to a strong gale with high confused sea, and the master decided to "heave to."

At 2 p.m. on the 24th a heavy sea struck the starboard lifeboat, carrying away the gripes and damaging her gunwales, and at 4 p.m. the cover of the engine-room skylight was washed off.

This was replaced at once and lashed down. The vessel was then labouring and straining heavily, and shipping heavy seas fore and aft, but up to that time there was, apparently, no anxiety as to the safety of the vessel.

At 5.45 p.m. a fireman on watch observed water coming from under the port boiler as the vessel rolled to starboard, and this was at once reported to the chief engineer, who, upon examination, ordered all the pumps to be put on, and sent word to the master that the vessel had sprung a leak under the port reserve bunker.

The master immediately went below to investigate, and found a heavy inrush of water from the forward and after ends of this bunker, and he and the engineering staff made every effort to locate the position of the leak, but were unable to do so owing to the great quantity of water rushing in upon them.

Meantime the pumps were working to their full capacity, and the bilge injection had also been put on, but it was seen that the water was rapidly gaining upon them.

In the course of half an hour, the water had reached and drowned out the lower fires, and by 7 p.m. the engines and pumps stopped from want of steam; the water at this time was from 3 to 4 feet above the engine-room platform and the vessel listing heavily to port.

Seeing that nothing further could be done in the engine-room, the water-tight doors in stokehold and engine-room were closed, but those in the stokehold bulkhead did not, owing to accumulation of coal, close quite down; the engine-room staff then went on deck, and life-belts were served out to them, and to the other members of the crew; previous to this an attempt had been made by those on deck to get a tarpaulin under the ship's bottom in way of the leak, but owing to the heavy seas breaking on board, it was found impossible to do so.

About 10 p.m. the port life-boat was washed over board from the davits, but the painter being fast on board, they were able to slack her astern where she hung for some time, but broke adrift during the night.

Rockets and blue lights were discharged at intervals during the night in the hope of attracting attention, and two steamers came within a short distance of them, one of which showed a blue light, but neither of them rendered any assistance.

Towards morning of the 25th the fore trysail and stay-sail were set, and a bon-fire was made on the bridge deck which drew the attention of the steamers "Carham" and "Thomas Wayman" which bore down upon the "Trevorian."

Signals were exchanged with the "Carham," which steamer poured oil on the water and came under their lee.

Owing to the heavy list to port the "Trevorian" had taken during the night, it was found impossible to make any use of the jolly-boat, which was carried on starboard side of bridge deck, and in view of this, three rafts had been constructed out of ladders and planks, as a last resource.

At 7.30 a.m. a lifeboat from the "Carham," was sent to their rescue, but owing to the mountainous sea, could not approach the "Trevorian" closely; and the aforesaid rafts were utilized to transfer the crew to her.

By 10.30 a.m. the whole of the crew were safely on board the "Carham" where they received every attention.

The "Carham" stood by until 4.45 p.m. when the "Trevorian" sank bow first in or near latitude 48° 5' N., longitude 6° 44' W., North Atlantic Ocean.

The "Carham" then proceeded to Ferrol, and landed the shipwrecked crew, who were afterwards sent on to Corunna and from there took passage on the s.s. "Oriana," and were eventually landed at Liverpool.

The Court is of opinion that the water which so quickly rose in the engine-room and stokehold found its way into the cross-bunker and No. 2 hold, through the water-tight doors not being able to be properly shut down on the account of this operation being delayed slightly too long.

The Court, however, refrained, having regard to the difficult circumstances in which the responsible officers were placed, from attaching blame to any of them for this oversight.

At the conclusion of the evidence, Mr. Hamar Greenwood, on behalf of the Board of Trade, submitted the attached questions for the opinion of the Court.

Mr. A. T. Miller addressed the Court on behalf of the master.

Mr. Dawson Miller addressed the Court on behalf of the owners and chief engineer.

Mr. Hamar Greenwood replied on behalf of the Board of Trade.

The Court gave judgment, returning the answers to the questions of the Board of Trade as herewith set out.

Questions.

(1) What was the cost of the vessel to her owners? What was her value at the time of sailing from Barry Dock on her last voyage? What insurances were effected upon and in connection with her.

(2) When the vessel left Barry Dock on or about the 22nd January last—

(a) Was she in good and seaworthy condition as regards hull and equipment?

(b) Was her cargo properly stowed and secured from shifting, and was the weight so distributed as to make her easy in a seaway?

(c) Had she the required freeboard, and was she in good trim for a voyage to Taranto?

(d) Were all deck openings properly covered and secured?

(3) What was the cause of the vessel taking a list to port on the 24th January? Was every possible effort made to get her upright?

(4) When did the vessel first commence to make an unusual quantity of water in the engine-room and stokehold? Were prompt and proper measures taken to ascertain the cause of it and to keep the water under?

(5) Was every possible effort made to save the ship?

(6) Was the vessel navigated with proper and seaman-like care?

(7) Was she prematurely abandoned?

(8) Was the loss of the steamship "Trevorian" caused by the wrongful act or default of the master and chief engineer, or of either of them?

Answers.

(1) The initial cost of the s.s. "Trevorian" to her owners in 1889 was £22,815.

At the time of sailing from Barry Dock on her last voyage she was valued, for insurance purposes, at £13,000. This amount is considered by the Court as being somewhat in excess of her real market value at that time.

The insurances effected upon, and in connection with her, were as follows:—

Hull and machinery for total loss and general average	£11,700
Risk on hull and machinery taken by owners... ..	1,300
Freights, 12 months' running policy ...	2,000
Disbursements and premiums... ..	1,800
	£16,800

(2) When the vessel left Barry Dock on or about the 22nd of January last—

- (a) She was in good and seaworthy condition as regards hull and equipment.
- (b) Her cargo was properly stowed and secured from shifting, and the weight distributed in a satisfactory manner so as to make her easy in a seaway.
- (c) The vessel had the required freeboard and was in good trim for a voyage to Taranto.
- (d) All the deck openings were properly covered and secured.

(3) The cause of the vessel taking a list to port on the 24th of January last was in consequence of a large volume of water finding its way into the engine-room and stokehold from the port side. The vessel was at that time "laid to" with the wind and sea on starboard bow. Every possible effort was made to get her upright by pumping the water out.

(4) About 5.45 p.m. on the 24th January an unusual quantity of water was first observed in the stokehold and then in the engine-room.

Prompt and proper measures were taken to ascertain the cause of it and to keep the water under by using all the steam pumps.

(5) The Court is satisfied that every effort was made to cope with the inrush of the water, but considers that earlier attention should have been directed towards the complete closing of all water-tight doors in the bulkheads of engine-room and stokehold, and so confine the water in this space.

(6) The vessel was navigated with proper and seaman-like care.

(7) She was not prematurely abandoned.

(8) The loss of the steamship "Trevorian" was not caused by the wrongful act or default of the master and chief engineer, or either of them.

The Court have great pleasure in placing on record their high appreciation of the most valuable services rendered by the master and crew of the "Carham," and especially the men who manned the boat of the "Carham," which resulted in the saving of the lives of the crew of the "Trevorian."

The Court consider that the services were rendered in the face of unusual risk, and performed with great judgment and ability, and well uphold the high reputation British seamen have earned all over the world.

The Court regret they are unable to favourably comment on the conduct of the master of the vessel, which just answered the "Trevorian's" signals of distress, and went on her course without attempting to render any assistance.

Dated at Penzance this 9th day of April, 1910.

A. K. BARNETT, } Justices of the Peace
ROBT. H. PRESTON, } for the Borough
HENRY TREMBATH, } of Penzance.

We concur in the above Report.

J. H. WALKER, } Assessors.
DAVID DAVIES, }
JOHN McLAREN, }
Engineer Assessor.

(Issued in London by the Board of Trade on the 26th day of April, 1910.)