No. 7905

"PENDENNIS" S.S.

THE MERCHANT SHIPPING ACT, 1894.

REPORT OF COURT

In the matter of a Formal Investigation held at the County Court, Sunderland, on the 16th, 17th, 18th and 24th days of June, 1936, before His Honour Judge Richardson, O.B.E., sitting as Wreck Commissioner, assisted by Captain W. E. Whittingham, O.B.E., R.D., R.N.R., and Captain Piers de Legh, into the circumstances attending the loss of the s.s. "Pendennis" on the 20th October, 1935.

The Court having before it the Questions submitted by the Board of Trade finds upon the evidence given at the Investigation and for the reasons stated in this Report and in the Annex hereto, that the said Questions ought to be answered as follows:—

Questions and Answers.

1. Q. Who were the owners of the s.s. "Pendennis"?

A. The Pendennis Steamship Co., Ltd., having its principal place of business at 7, Side, Newcastle-on-Tyne.

2. Q. When and by whom was she built?

A. In 1911, by S. P. Austin & Son, Ltd., Sunderland.

3. Q. When and from whom was she purchased by the Pendennis Steamship Co., Ltd.?

A. Purchased in 1929. From H. Harrison, Ltd., London.

4. Q. What was the cost of the s.s. "Pendennis" to her owners? What was her value when she left West Hartlepool on her last voyage? What was the amount of the insurance then in force on and in connection with the vessel?

A. Her cost was £15,200. Her value when she left West Hartlepool on her last voyage was £10,000. Amount of insurance then in force, £15,000 on all risks, to pay £10,000 on a total loss—£1,500 on freight and £1,000 for disbursements.

5. Q. What surveys of the vessel were carried out by the Surveyors to Lloyd's Register of Shipping between the date of the last Special Survey and the date when she sailed on her last voyage?

A. Special Survey—6th July, 1932, at Newcastle-on-Tyne (Survey for freeboard).

1st February, 1933, at Pelaw and South Shields—Survey for repairs, etc. Engines and boilers.

15th February, 1933, at South Shields—Survey for repairs, etc. Engines and boilers.

15th December, 1933, at River Blackwater—Survey for repairs, etc.

19th and 30th January, 1934, at South Shields—Survey for repairs, etc. Engines and boilers.

5th February, 1934, at South Shields—Annual Survey.

27th August, 1934, at Ostend—Survey for repairs, etc. Engines and boilers.

8th January, 1935, at South Shields—Survey for repairs, etc.

26th February, 1935, at South Shields—Survey for repairs, etc.

14th March, 1935, at South Shields—Survey for repairs, etc. Engines and boilers.

12th October, 1935, at South Shields—Survey for repairs, etc. Engines and boilers.

6. Q. What classification did Lloyd's assign to the vessel as the result of the surveys referred to in Question 5?

A. ✠ 100 A.1.

7. Q. With what steering gear was the vessel fitted? Was it in good and proper condition when she left West Hartlepool on her last voyage?

A. Rod and chain gear. It was in good and proper condition when the vessel left West Hartlepool on her last voyage.

8. Q. Was the construction of her hatchways, including the coamings, cleats and angle bar stiffeners, such as to ensure safety at sea? If not, in what respect were they insufficient to ensure safety?

A. The construction of her hatchways, including the coamings, cleats and angle bar stiffeners, were within the Board of Trade regulations, and in ordinary circumstances were sufficient to ensure safety at sea. This Question is further dealt with in the Annex.

9. Q. (*a*) Were the hatchways adequately covered, protected and secured? (*b*) Were the hatch covers of adequate thickness and in good condition? (*c*) Were the tarpaulins, cleats, battens and wedges in good condition and sufficient for their purpose?

A. (*a*) The hatchways were adequately covered, protected and secured. (*b*) The hatchway covers were of adequate thickness and in good condition. (*c*) The tarpaulins, battens and wedges were in good condition and sufficient for their purpose in ordinary circumstances. The cleats are dealt with in the Annex.

10. Q. Was the vessel sufficiently supplied for the contemplated voyage with spare tarpaulins, wedges, battens and lashings for the hatches?

A. Yes.

11. Q. In what class was the vessel classified for trimming purposes in respect of each of her holds? Had she been in that class throughout her ownership by the Pendennis Steamship Co., Ltd.?

A. The vessel was classified as a self-trimmer in each of her holds; she had been in that class throughout her ownership by the Pendennis Steamship Co., Ltd.

12. Q. When and where did the vessel load the cargo which she carried on her last voyage?

A. She loaded her cargo on the 16th and 17th October, 1935, at West Hartlepool.

13. Q. What amount and description of cargo was loaded in each of her holds?

A. The amounts of coal loaded in the various holds were as follows:

No. 1, 1,045 tons.
No. 2, 1,140 tons 1 cwt.
No. 3, 942 tons 10 cwt.
No. 4, 726 tons 1 cwt.

All above coal was "peas and duff," partly from Shotton Colliery and the balance from Blackhall Colliery. It was washed coal and contained a good deal of water.

14. Q. Was the cargo stowed and trimmed in accordance with the usual practice at West Hartlepool for the stowage and trimming of vessels similar to the s.s. "Pendennis"?

A. The cargo was stowed and trimmed in accordance with the usual practice of the port, that is, by gravity spouts. As this vessel was a self-trimmer, no trimming was done below the deck, the coal only being levelled off in the hatchways.

15. Q. Was such stowage and trimming safe and adequate for the contemplated voyage?

A. In view of the nature of the coal stowed, the Court is of the opinion that the stowage and trimming was inadequate—see Annex.

16. Q. Who was responsible for the proper and safe stowage of the coal cargo?

A. There is no one responsible for the safe stowage of the coal cargo other than the master whose responsibility could only be borne in a general manner.

17. Q. What supervision of the stowage of the coal cargo was carried out, and by whom? If such supervision was carried out, was it proper and sufficient?

A. According to the National Coal Trimming Tariff "all trimming shall be done under the control and to the satisfaction of the ship's officer in charge or his deputy," and in this case it was done under the

supervision of the mate acting for the master. The Court considers such supervision was not proper and sufficient.

18. Q. Was the vessel so loaded as to ensure safe stability?

A. In view of the fact that the vessel foundered, it would appear that she was not so loaded. See Annex.

19. Q. Was the vessel in proper trim and upright when she left West Hartlepool on her last voyage? If not, what list had she and in what direction was it?

A. The vessel left West Hartlepool with a slight list to port, a matter of one to two degrees.

20. Q. When the vessel left West Hartlepool on her last voyage (*a*) was she in good and seaworthy condition as regards her hull and equipment; and (*b*) was she properly supplied with boats, lifesaving appliances and distress signals?

A. (*a*) When the vessel left West Hartlepool she was in good and seaworthy condition as regards her hull and equipment. (*b*) She was properly supplied with boats, lifesaving appliances and distress signals.

21. Q. When the vessel left on her last voyage, was the freeboard in accordance with the Load Line Certificate granted for her?

A. Yes.

22. Q. On what day did the vessel sail on her last voyage?

A. On the 18th October, 1935.

23. Q. What was the state of (*a*) the wind; (*b*) the sea in the vicinity of the vessel between the time when she left on her last voyage and the time when she was abandoned?

A. When the vessel left West Hartlepool the wind was light westerly and sea calm. At 4 p.m. on the 18th October, wind was W.S.W. force 6 or 7, sea rough. At midnight on 18th October wind was W.S.W. force 7 or 8, sea rough confused. At 6 a.m. on the 19th October, wind shifted to N.W. force about 8, and a heavy confused sea. At noon on the 19th October, wind N.W. force about 9, and a heavy confused sea. At midnight on the 19th October, wind N.W. force about 9, and a heavy confused sea. At 6 a.m. on the 20th October, wind N. force about 9, and a heavy confused sea. At noon on the 20th October, wind N.N.W. moderated to force 7, and a heavy confused sea. At 3 p.m. on the 20th October, wind N.N.W. force 7, and a heavy confused sea. The weather was squally throughout.

24. Q. Were the tarpaulins lifted at any time during the voyage? If so, (*a*) from which hatches were they lifted; (*b*) when were they lifted; (*c*) were they all adequately resecured; (*d*) if not, which of them was not so resecured?

A. Yes, the tarpaulins were lifted. (*a*) They were lifted from the fore hatch of No. 3 hold and the aft hatch of No. 2 hold (hatches 4 and 3). (*b*) The fore hatch of No. 3 hold tarpaulin was lifted shortly after midnight on the 18th-19th October. The aft hatch of No. 2 hold tarpaulin was lifted at 6 a.m. on the 19th October. (*c*) and (*d*) They were never really adequately resecured owing to the great difficulties under which the crew were working.

25. Q. Were the hatch covers lifted at any time during the voyage? If so (*a*) from which hatches were they lifted; (*b*) when were they lifted; (c) were they all adequately resecured; (*d*) if not, which of them was not so resecured?

A. According to the evidence of the master no hatch covers were lifted until immediately prior to abandoning the vessel, when it was quite impossible to resecure them. The hatch covers on No. 2 hold were then lifted.

26. Q. Did water enter the holds as the result of the tarpaulins and/or hatches being lifted? If so, what effect, if any, did it have on the vessel?

A. Water entered the holds No. 2 and No. 3 as the result of the tarpaulins being lifted, and in the opinion of the Court this, coupled with the movement of the vessel, shifted the cargo and increased the list.

27. Q. Did water enter the vessel at any other point or points, and, if so, where and when?

A. One heavy sea entered the weather side of the engine room skylight at 9 a.m. on the 19th October. The weather skylight was afterwards closed. There was no evidence that water entered the vessel from any other point.

28. Q. If water did so enter the vessel, what effect, if any, did it have on her trim?

A. It had practically no effect.

29. Q. Was any damage done on board the vessel during the voyage? If so, what was its nature and was it satisfactorily repaired?

A. At noon on the 19th October, the W.T. aerial came down and was afterwards secured. At about the same time the port side door of the wireless operator's room was stove in, also port alley way door, and the front of the wheelhouse on the bridge was washed away. Some attempt was made to secure the wireless operator's room door, otherwise nothing could be done. About 2 p.m. the rudder chain came off the quadrant and the vessel was put in hand gear until the rudder chain was replaced.

30. Q. At about noon on the 19th October, had the vessel a list to port? If so, what was the amount of the list and did it increase before the vessel was abandoned? If so, when and by how much did it increase?

A. The vessel had a list to port of between 5 and 6 degrees at noon on the 19th October. This list increased to 10 degrees by midnight, and to 20 degrees by 11 a.m. on the 20th October, increasing to 30 to 35 degrees before the vessel was abandoned at 4.30 p.m. on the 20th October.

31. Q. Did the master take any, and if so what, steps to get the vessel into a more upright position? When were such steps taken?

A. The only possible step for the master to take was to pump out the water in the ship; this the chief engineer had been doing all the time.

32. Q. Was an S.O.S. signal sent out from the vessel? If so, when? Was it answered by any, and if so what, vessels?

A. Yes. An S.O.S. was sent out by the "Pendennis" at about 11.30 a.m. G.M.T. on the 20th October and was answered by the s.s. "Suecia" and the s.s. "Iris."

33. Q. Was the vessel abandoned by the crew at about 4.30 p.m. on the 20th October?

A. Yes.

34. Q. Where was the vessel abandoned? What was the approximate degree of the list at this time and in what direction was it?

A. Vessel's position was approximately Lat. 54° N. Long. 4° E. The vessel had a port list of 30 to 35 degrees.

35. Q. Was the vessel's port lifeboat safely launched? If so, how many of the crew of the vessel got into her? Were they subsequently picked up by the s.s. "Iris" and safely landed?

A. The vessel's port lifeboat was safely launched. The whole of the crew of 19 got into her and were picked up by the s.s. "Iris" and safely landed.

36. Q. What was the cause of the loss of the s.s. "Pendennis"?

A. The loss of the s.s. "Pendennis" was due to the shifting of the cargo caused by the heavy labouring of the vessel during the exceptionally heavy weather and the entry of water in Nos. 2 and 3 holds.

37. Q. Were the abandonment and subsequent total loss of the s.s. "Pendennis" caused or contributed to by the wrongful act or default of her owners, the Pendennis Steamship Co., Ltd., and her manager, Samuel Thubron, or either, and if so which of them?

A. No wrongful act or default of her owners and manager caused or contributed to the abandonment and subsequent total loss of the steamship "Pendennis."

Dated this 24th day of June, 1936.

T. RICHARDSON,
Wreck Commissioner.

We concur in the above Report.

W. E. WHITTINGHAM. } *Assessors.*
PIERS DE LEGH. }

Annex to the Report.

Mr. O. L. Bateson (instructed by the Solicitor, Board of Trade) appeared for the Board of Trade. Mr. C. V. Temperley appeared for the Pendennis Steamship Co., Ltd., and Mr. S. Thubron (manager). Mr. E. P. Merritt appeared for the London and North Eastern Railway Company. Mr. S. Brown appeared for the Mercantile Marine Service Association, on behalf of H. E. Cousins, chief officer of the "Pendennis." Mr. Stephen Furness (instructed by Pattinson and Brewer) appeared for the Navigators' and Engineer Officers' Union, on behalf of the master, the National Union of Railwaymen, and the Transport and General Workers' Union, on behalf of the trimmers. Mr. Stephen Furness (instructed by Russell Jones and Co.) appeared for the National Union of Seamen, on behalf of the crew.

Mr. W. Stanley Metcalfe held a watching brief for Lloyd's Register of Shipping.

The steamship "Pendennis," official number 129,164, was built at Sunderland in 1911 by Messrs. S. P. Austin and Son, Ltd. She was then known as the s.s. "Sir Arthur." She was a steel single screw steamship of gross tonnage 2,001·23, net 1,161·33; length 280 ft., beam 40·5 ft., depth 21·5 ft. She was fitted with triple expansion engines of 207 horse power nominal.

She had a single deck, large hatches, and was what is called a self-trimmer. She had six hatches which fed four holds.

No. 1 hatch led into No. 1 hold.
Nos. 2 and 3 hatches into No. 2 hold.
Nos. 4 and 5 hatches into No. 3 hold.
No. 6 hatch into No. 4 hold.

Her steering gear was of the rod and chain type.

At the time of her loss she was owned by the Pendennis Steamship Co., Ltd., who purchased her in 1929 for £15,200 and renamed her "Pendennis."

She had been known by a number of different names during her career.

She had been laid up from the 12th March to the 15th October, 1935, when she started on her last voyage.

She was loaded with mixed small coal known as "peas and duff" and began her loading at West Hartlepool at 6.45 a.m. on the 16th October, 1935, and finished loading at 9.45 p.m. on the 17th October. This coal is small washed coal, wet and very cohesive. Consequently she would self-trim with difficulty. On the other hand, her cargo would not easily shift.

She sailed with a slight list to port of 2 degrees at 6.30 a.m. on the 18th October, when all her hatches were properly battened down. The weather was then fine and clear, with a light westerly wind.

The list was in part accounted for by water in No. 3 tank. The balance of the list must have been due to some unsymmetrical loading, but was not in itself of any moment.

By 4 p.m. on the 18th October the wind had reached force 7—a moderate gale. Shortly after midnight, in the early morning of the 19th October, the wedges and tarpaulins came adrift from the hatches of No. 3 hold. The vessel was hove to, and it took from one to one and a half hours to secure the hatches again. The vessel remained hove to until 6 a.m.

At 6 a.m. the wind shifted to the north west, force 8, and the wedges and tarpaulins of No. 2 hatch came adrift. Both the well decks were flooded with water and the vessel was shipping seas continuously. In order that the hatches of No. 2 hold might be secured the vessel was put on her course again at a reduced speed.

Her port list had now increased to 5 or 6 degrees, and thereafter the crew had constant trouble with these same two hatches.

At 9 a.m. the vessel took a very heavy sea which went down the engineroom skylight. At 2 p.m. the rudder chain came off the quadrant and it was necessary to rig the hand gear. The steering gear was secured, but the trouble with Nos. 2 and 3 holds continued, and by midnight of 19th-20th the list had increased to 10 degrees.

By 9 a.m. on the 20th October the crew had used up all the spare hatch wedges of which there were 200 when the ship sailed. The list had increased to 15 to 20 degrees.

At 11.30 a.m. the master sent out the following wireless message:—"'Pendennis' to all stations. S.O.S., s.s. 'Pendennis,' 54·03 N. 4 E. approx. Tarpaulins going, dangerous list to port, bilges full, require any ships in vicinity to stand by".

The s.s. "Suecia" and the s.s. "Iris" replied to this call.

By 4.30 p.m. the list had increased to 30 to 35 degrees and the master decided to abandon ship. The port lifeboat was successfully launched and the crew got safely into it. They were picked up three-quarters of an hour later by the s.s. "Iris."

The Court would wish to refer to the excellent work done by the master, officers and crew in a time of great stress and difficulty, and to the fine piece of seamanship displayed by the master of the s.s. "Iris" in rescuing the crew of the "Pendennis."

The following is the list of the crew:

J. L. House, master.
H. E. Cousins, first mate.
D. Nicol, second mate.
L. G. Brennan, wireless operator.
B. Olsson, boatswain.
C. Shipley, A.B.
R. Codling, A.B.
T. Ogilvie, A.B.
J. Coles, A.B.
A. Walton, A.B.
W. B. Jones, chief engineer.
L. R. Caizley, 2nd engineer.
J. W. Coltman, donkeyman.
J. M. Shipley, fireman.
H. Profit, fireman.
J. W. Gorman, fireman.
H. Dixon, fireman.
J. S. Randall, steward.
C. Smith, messroom steward.
Total, 19.

The Hatch Coverings.

There can be no doubt that something in the condition of the confused seas washed out the wedges from the cleats on hatches of Nos. 2 and 3 holds. This was a very unusual and unexpected occurrence which, with the exception of an occasion when a few wedges were washed out in the Bay of Biscay from a hatch of No. 3 hold, had never occurred in the 47 years' experience of the master, Captain House.

Some of the cleats were sprung or bent out, but not enough of them to account for the wholesale washing out of the wedges as described by the witnesses, although it is possible that these sprung or bent out cleats contributed to the trouble.

It is impossible to impute any blame or responsibility upon the owners for these defective cleats. They knew nothing about them. The matter had not been brought to their notice.

It would appear that the stiffener was too low to protect the wedges from the force of the sea in the special circumstances of this case.

The cleats were vulnerable.

In old ships where lug cleats are being renewed it is recommended by the Board of Trade that the cleats should be set at an angle and not parallel as in the case of the "Pendennis," and that the bulb angle stiffener, if fitted, should not be more than 10 inches below the upper edge of the hatch coaming.

The Court has no doubt that if both or either of these recommendations of the Board of Trade had been carried out on the "Pendennis" the trouble which undoubtedly eventually led to her foundering would not have been experienced.

But it is impossible to blame the owners for this, as there was no obligation upon them to comply with these recommendations.

It may be, in view of the experiences of the "Pendennis," that the recommendations of the Board of Trade should be made obligatory in the future.

The Court is of the opinion that in view of the difficulty of standardising wedges the suggested lip to the cleat is impracticable and that a stiffener fitted as high as possible would itself stop what happened in this case—the forcing out of the wedges by the driving action of the sea from below.

Loading and List.

The "Pendennis" had very good natural stability. She sailed with substantial empty spaces in her holds, especially in holds 2 and 3. There can be no doubt that a considerable unknown quantity of water entered these two holds during the 19th-20th October. The entry of this water would not in itself account for the list of 30 to 35 degrees which was present when the vessel was abandoned.

To account for this list there must have been a movement of her cargo.

The cargo was not of a character likely to shift in itself; but if there was an accumulation of water in these holds the movement of the ship in the steep confused seas would move the coal, and the large empty spaces inevitably left in a self-trimming ship shipping the sort of coal loaded into the "Pendennis" would become a very serious menace and danger to the stability and safety of the vessel.

Mr. Nutton, a Surveyor in the Consultative Branch of the Board of Trade, made very careful calculations based upon the coal shipped into the individual holds, the capacity of the holds and the stowage rates for the Blackhall and Shotton Coal shipped into the "Pendennis." These showed empty spaces in No. 2 hold of 9,567 cubic feet and in No. 3 hold of 7,834 cubic feet. In other words there were particularly large empty spaces in these two holds. Such empty spaces will always be dangerous unless such a coal cargo is properly trimmed into the wings.

In view of the facts and findings in this case and in that of the s.s. "Sheaf Brook," it would appear to the Court that the loading of so-called self-trimmers with small coal, whether of the sort easily liable to shift, as in the case of the s.s. "Sheaf Brook," or of the small coal in a more or less viscous condition as loaded into the s.s. "Pendennis," may each lead to danger to the ship and crew in bad conditions of weather in its different way, and that it should be a matter for serious consideration whether small coal of any sort should be so loaded without a proper trimming of the coal into the wings and a general trimming of the whole surface level.

Manning.

Although the number of the crew of the s.s. "Pendennis" complied with the Board of Trade regulations and were no doubt sufficient for the ordinary routine work to be done on board in normal conditions of wind and weather, the Court is of opinion that a carpenter should be carried. The Court thinks that the presence of a carpenter on board the "Pendennis" might have enabled the crew of the "Pendennis" to save their ship.

T. Richardson,

Wreck Commissioner.

We concur.

W. E. Whittingham, } *Assessors.*
Piers de Legh, }

(Issued by the Board of Trade in London on Tuesday, the 14th day of July, 1936)

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