

(No. 5070.)

"RANZANI" (S.S.)

The Merchant Shipping Acts, 1854 to 1887.

In the matter of a formal Investigation held at the Moot Hall, Newcastle-on-Tyne, on the 22nd, 23rd, and 24th days of January 1895, before WILLIAM SUTTON and HUGH MORTON, Esquires, two of Her Majesty's Justices of the Peace acting in and for the city and county of Newcastle-on-Tyne, assisted by Captains CASTLE, WARD, and KIDDLE, R.N., and Mr. A. GRAY, into the circumstances attending the casualty which happened on board the British steamship "RANZANI," of Newcastle, in the English Channel, on the 4th September 1894, whereby loss of life ensued.

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 explosion, whereby John Shaughnessey, one of the firemen, lost his life, was caused by the excessive accumulation of salt preventing the escape of water or steam generated in the starboard combustion chamber of the starboard boiler owing to the leakage therein from the boiler. The Court finds Alexander Steele, the chief engineer, in default, but under the circumstances does not deal with his certificate, and also censures William Arthur Edwards, the owner's superintending engineer at Cardiff, for not properly inspecting the boiler.

Dated this twenty-fourth day of January 1895.

(Signed) WM. SUTTON, }
HUGH MORTON, } Judges.

We concur in the above report.

(Signed) JOHN S. CASTLE, }
C. Y. WARD, }
JAMES KIDDLE, } Assessors.
ALEXANDER GRAY, }

Annex to the Report.

This was an inquiry into the circumstances attending the casualty which happened on board the steamship "Ranzani" on 4th September 1894, whereby loss of life ensued, and was held at the Moot Hall, Newcastle-on-Tyne, on the 22nd, 23rd, and 24th days of January 1895, before William Sutton and Hugh Morton, Esquires, assisted by Captains Castle, Ward, and Kiddle, R.N. (nautical assessors), and Mr. Gray (engineer assessor).

Mr. Dendy appeared for the Board of Trade, Mr. Temperley for the owners and Mr. W. Edwards, their superintending engineer at Cardiff, while the chief engineer, Mr. Alexander Steele, appeared in person.

The "Ranzani," of Newcastle, official number 80,536, was an iron screw steamship of 1,421.63 gross, and 912.71 net registered tonnage, and was built in 1879 by the Tyne Iron Ship Building Company (Limited) at Willington-Quay-on-Tyne. She had two masts, was schooner-rigged, and fitted with two compound surface-condensing engines of 140 h.p. (combined), built by Mr. John Dickinson, Palmer's Hill Engine Works, Sunderland, in 1879, her length being 258 ft., breadth 32 ft., and depth of hold 21.25 ft. She was owned by the Red R. Steamship Company (Limited), of Newcastle-on-Tyne, and others whose names are set out in the transcript of the vessel's register, Mr. Daniel Stephens, of Newcastle-on-Tyne being appointed managing owner on 30th November 1887.

The vessel, so far as her general equipment is concerned, appears to have been in good and seaworthy condition and well-found.

In January 1894 the "Ranzani" was laid up in the Tyne, and Mr. Cowen Landreth, the owners' superintending engineer, thought it a fitting opportunity to

overhaul the boilers, which were naturally, having regard to their age, somewhat the worse for wear.

He accordingly inspected them, and, finding certain defects, eventually accepted the tender of Mr. Anthony Proud, ship repairer, of Tyne Dock, to do the necessary work for 67*l.* On the starboard combustion chamber of the starboard boiler were two old patches which, to use the words of Mr. Landreth, were a "little soft." It was determined to cut these out and substitute a large patch, and what was actually done in this respect was thus described in the account for the work sent in to the owners by Mr. Proud:—"Cutting off two patches on side of combustion chamber in starboard boiler, cutting out damaged plate and fitting new plate, drilling out four stays in way of this and fitting new stays, and caulking back end plates."

The repairs were all carried out under the superintendence and to the satisfaction of Mr. Landreth, who stated that he found no leakage, and that no complaint was subsequently made to him or to the owners of any defect.

In February 1894, the "Ranzani" left the Tyne for Piræus, where the back ends of the boilers were cleaned out, and, according to the second engineer, a little salt was found in all the furnaces, particularly in the starboard combustion chamber of the starboard boiler. The second engineer also stated he caulked the patch already mentioned, and chipped the salt off the side of the chamber. The vessel then proceeded to Constantinople, Galatz, and Sulina, at which last-mentioned place the boilers were also cleaned out and a little salt found. The "Ranzani" subsequently arrived at Galway, where she discharged her cargo, and proceeded to Cardiff, arriving there on 28th April.

Mr. William Arthur Edwards was the owners' superintending engineer at Cardiff, but no report appears to have been made to him on this occasion of any defects in the boilers, and the vessel left again for Constantinople on 2nd May, arriving there on the 25th. Here the combustion chambers were cleaned, and the chief engineer's attention was called to the quantity of salt found, and he caulked the leak. At Sulina the back ends were again cleaned out, with the same result. The vessel subsequently returned to this country, arriving in Cardiff on 1st July after first discharging her cargo at Bristol. Mr. Edwards here inspected the boiler, and his attention was called by the chief engineer to the deposit of salt and the leak. He, however, took no steps to satisfy himself as to the condition of the boiler on the water side of the combustion chamber, but restricted his attention to the outside, telling the chief engineer that a simple caulking would be sufficient to remedy the defects.

These instructions were carried out, and the vessel again left for Constantinople on the 9th July, arriving on the 26th. The cargo was discharged and the boiler blown out, and the patch cleared of salt and recaulked. A portion of the salt in the back end of the boiler was cleared, but, owing to its being so hard, there was not time during their stay to remove it. The vessel then proceeded to Nicolaief, arriving there on 4th August. Here the salt was entirely cleared and the patch recaulked. On the 16th, the "Ranzani" left for Dunkirk with a cargo of 1,800 tons of barley under the command of Mr. John Edward Searle, with a crew of 20 hands all told and two passengers. It appears that no report was made to the captain, either on this or previous voyages, in reference to the defective state of the boilers. They coaled at Gibraltar on 28th August, proceeding on the voyage the same day. Up to this time the salt had been accumulating as before, and, according to the evidence, it greatly increased after leaving Gibraltar, and the pigeon-holes eventually became choked. There was a conflict of testimony between the witnesses in reference to the quantity of salt, the chief engineer especially minimising the extent to which it had accumulated, but the Court is satisfied that prior to the explosion the pigeon-holes had become choked.

Fears had frequently been expressed by the firemen to the engineers on watch that some explosion would take place owing to the leak, which the presence of the salt in such quantities clearly indicated. They evidently anticipated an explosion of the boiler, but the engineers replied that the pressure was not sufficient to give cause for any anxiety on that score, and it

never appeared to any one that there could be a possibility of an explosion arising from the accumulation of salt in the combustion chamber.

At 11 a.m. of the 4th September, the vessel being then off Beachy Head, an explosion took place in the starboard combustion chamber of the starboard boiler, blowing the fire into the stoke-hold and also bursting open the smoke-box door.

John Shaughnessy, one of the stokers, who was at the time attending to the fires, received the full force of the explosion and was severely burnt and scalded. The master did all he could to alleviate his sufferings, and, immediately on the arrival of the vessel at Dunkirk, a doctor came on board and recommended his removal to the hospital, where he died the following day. The explosion did no damage to the ship or boilers, the vessel arriving at Dunkirk at 5 a.m. of the 5th. Here, on examination, it was found that two rivets in the patch on the combustion chamber were defective, and the repairs were made good by two boiler-makers from the shore. The cargo was discharged and the vessel proceeded to Blyth, arriving there on 13th September.

At the conclusion of the evidence the following questions were submitted on behalf of the Board of Trade, Mr. Temperley addressed the Court for the owners and Mr. Edwards, and Mr. Dendy replied.

1. Were the boilers and combustion chambers of the vessel in good and seaworthy condition when the vessel was at Cardiff in July last?

2. Had there been any leakage of importance from the boilers before the vessel arrived at Cardiff in July, and was there any complaint or report made to Mr. Edwards, the superintending engineer, as to their condition?

3. Did Mr. Edwards take proper and sufficient measures to ensure that the boilers and combustion chambers were in good and seaworthy condition before the vessel left Cardiff?

4. What was the cause of the accumulations of salt in the combustion chambers and ashpits on the voyage to Constantinople, Nicolaieff, Gibraltar, and Dunkirk? were complaints made from time to time by the firemen to the engineers concerning the boilers leaking, and did the chief engineer cause proper and sufficient repairs to be executed?

5. What was the cause of the explosion in the combustion chamber of the starboard furnace at or about 11 a.m. of the 4th September last, and of the death of Shaughnessy, the fireman?

6. Whether the engineers are, or either of them is, in default, and whether blame attaches to Mr. William A. Edwards, superintending engineer to the owners?

In the opinion of the Board of Trade the certificate of Alexander Steele, the chief engineer, should be dealt with.

To which the Court replied as follows:—

1. The boilers and combustion chambers of the vessel, which were over fifteen years old, and con-

sequently somewhat the worse for wear, were not in good and seaworthy condition when the vessel arrived at Cardiff in July last, inasmuch as there was a leak in the starboard combustion chamber of the starboard boiler, in the vicinity of an old patch, through which the water percolated from the boiler, causing a considerable salt deposit.

2. There had been a considerable leakage, as mentioned in the last answer, prior to the arrival of the vessel at Cardiff in July last, which was then verbally reported to Mr. Edwards, the superintending engineer, by the chief engineer.

3. Mr. Edwards did not take proper and sufficient measures to ensure that the boilers and combustion chambers were in good and seaworthy condition before the vessel left Cardiff, as he made no inspection of the leak in question on the water side of the combustion chamber, but simply directed the chief engineer to caulk it on the outside, which instructions were carried out.

4. The accumulation of salt in the combustion chambers and ashpits was caused by the water from the boiler percolating through the before-mentioned leak into the combustion chamber and thence into the ashpit, leaving there a deposit of salt. Complaints were made from time to time by the firemen to the engineers, and the chief engineer did not cause any repairs to be executed to make good the defects which the means adopted by Mr. Edwards had failed to remedy.

5. The Court is of opinion that the explosion which occurred at or about 11 a.m. of the 4th September last, was caused by the excessive accumulation of salt, arising from the leakage of water into the combustion chamber, the pigeon hole in the bridge being practically choked up, thus preventing any escape of water or steam from below the salt, and allowing an undue pressure of steam to accumulate. The fireman Shaughnessy, who was at the time attending to the fires, was badly burnt and scalded, and succumbed to his injuries in the hospital at Dunkirk despite all efforts made to relieve him.

6. The Court finds the chief engineer, Mr. Alexander Steele, in default; but, having regard to the unusual nature of the cause of the explosion, of which he apparently had no conception, the Court does not deal with his certificate.

The Court also finds that great blame attaches to Mr. William Arthur Edwards, the superintending engineer at Cardiff, for not properly inspecting the boiler, and censures him for such neglect.

(Signed) WM. SUTTON, } Justices.
HUGH MORTON, }

We concur.

(Signed) JOHN S. CASTLE, } Assessors.
C. Y. WARD, }
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