

SS OF S.S. RADYR.

Findings of Court of Inquiry.

Criticisms of Coal-Trimming Methods.

Suggested Use of Steel Hatch-Covers.

Important Recommendations to Board of Trade.

Important recommendations concerning coal trimming and hatchboards on "self-trimmer" ships are contained in the findings of the Court of Inquiry by the Board of Trade into the loss, with all hands, of the steamer Radyr, which foundered off Hartland Point in December last.

The findings were delivered at the Law Courts, Cardiff, yesterday, by the deputy Stipendiary Magistrate, (Mr. Hugh Jones, K.C.).

The deputy Stipendiary said:—

The s.s. Radyr was acquired by her owners under contract, dated 21st March, 1929, made between Franklin Thomas and Co., Ltd., Cardiff, as agents for the purchasers, and the Societe Anonyme des Armateurs Nantais, of Paris, the vendors, subject, *inter-alia* (a) To approval after inspection in drydock in the Bristol Channel; (b) to placing her in a graving dock for inspection at the bottom and at the tail-end shaft, if required by the purchasers; (c) to the vendors making good any damage found in the bottom or tail-end shaft, and to payment of all expenses in connection therewith; (d) to the expenses of dry docking and drawing and replacing the tail-end shaft being borne by the purchasers if no damage should be discovered to the bottom and/or the tail-end shaft; (e) to payment by the purchasers of all taxes or expenses in connection with her transfer to the British flag; and (f) to the survey of her boilers due in 1929 being undergone at the expense of the vendors. The vessel was delivered on the 29th April, 1929, and on being transferred to the British registry her name was changed from Jura to Radyr. She was reconditioned between 26th April and 2nd May, 1929, under a survey by Lloyd's and the Board of Trade. At this time 58 single and 14 double plank hatch-covers were renewed, and 39 hatch-covers were repaired.

The new single plank hatch-covers were constructed of 4th grade Archangel red pine wood, and new double plank hatch covers of second grade Archangel white pine wood. The wood of all new covers was three inches in thickness.

The purchase price was £18,000, but with the costs of transfer and other charges the registered managing owner regarded the total cost as £19,525, and when the vessel last left Cardiff, £22,000. The insurances were: Hull and machinery, £18,000; freight, £1,000; disbursements, £1,600; premiums, £1,680, making a total of £22,480. The actual value of premiums reducing at the time of loss was £831 12s. The Radyr was classed as a self-trimmer for all holds.

Loading Operations.

There is no direct evidence showing by whom the plan of loading was decided and approved on the last voyage from Cardiff. According to the evidence of the coal foreman for the owners, he obtained from the shippers the amount of coal for shipment, and then informed the master as to the quantities to be loaded in each hold. The Court is of the opinion that the master approved of the plan of loading the vessel. There is no evidence that the master received instructions as to the trimming of the cargo loaded into the four holds.

It was estimated that about 23 tons of coal were lost on the previous voyage. The coal was trimmed in accordance with the practice at Cardiff. The opinion as to the practice in trimming was held. According to the evidence of Mr. J. T. Clatworthy, President of the Cardiff Coal-trimmers Union, the National Coal Trimming Tariff prescribed for self-trimmers requires that coal in hatches only should be levelled. He stated that the only service trimmers can be called upon to perform in connection with the levelling of the coal is when the coal reaches the hatches, and the coal has then to be levelled for replacement of the hatch covers. He further stated that there is no obligation to level the coal in an incompletely filled hold. He considered it the duty of the trimmers to direct a chute fore-and-aft and athwartships in the hatchway to secure, as far as possible, an even distribution of the cargo in the hold, so as to prevent the formation of a cone, and he expressed the opinion that the building up of a cone in the hold would not be a workmanlike method of loading a ship. Mr. E. Street, chief supervisor, Employers' Clearing House, Cardiff, stated that it had always been the custom to take off the top of a cone in an incompletely filled hold, although no provision was made therefor by the tariff. Mr. Clatworthy, however, denied that such a custom existed, but that the trimmers might either take off the top of the cone to oblige an officer, or take it off and insist upon payment therefor. The coal left in the form of a cone, or coal not properly levelled in an incompletely filled hold, may, through its tendency to shift in heavy weather, imperil the safety of a vessel. The Court, therefore, recommends that some provision be made to secure that coal in all incompletely filled holds of vessels of self-trimmer class should be properly levelled.

Condition of Steamer When She Left Cardiff.

When the Radyr left Cardiff on December 6th, 1929, she was in a good and seaworthy condition as regards hull, and was also in good condition as regards equipment, except as hereinafter mentioned. She was properly supplied with boats, life-saving appliances, and distress signals.

The hatchways were covered in accordance with Board of Trade requirements, but having regard to the hatches being stove-in, they were not adequately protected and secured. Tarpaulins, battening-down appliances, and hatch lashing wires were satisfactory and in good condition.

Adequate provision was made for the supervision of the loading and trimming of the cargo. It was the duty of the coal foreman for the owners to superintend the loading of the vessel, but he did not appear to regard it as his duty to exercise any supervision over the stowage and the trimming of the cargo. The outdoor foreman for the shippers had the duty of seeing that the coal was shipped in a proper manner, but he appeared to have been mainly concerned with the arrangements for the mixing of the coal. It was the duty of the assistant supervisor of the Employers' Clearing House to see that the loading was carried out to the satisfaction of the master or the officer in charge. On the third night of the Radyr's loading, when Nos 1 and 4 holds were completed, he did not go on board, but inspected those holds while standing at the extreme edge of the cradle of the tip, and when about twenty feet above the deck.

Criticisms of Trimming Practices.

This, in the opinion of the Court, does not constitute an inspection of a hold. Three supervisors supervised the trimming on behalf of the coaltrimmers' union. It does not appear that No. 3 hold was inspected. The supervisor on duty, when Nos. 1 and 4 holds were completed, was on the quay, but did not go on board to inspect the work done by the trimmers.

The Court considers that where supervisors are provided the existence of such a provision should not be regarded by supervisors as relieving them of the responsibility of exercising proper and efficient supervision, and thereby imposing on the master or officer in charge the necessity of making complaints as to the character of loading. It appears to the Court that inspection of holds upon completion of loading is most essential. Thence, although adequate provision was made for the supervision of the trimming of the cargo, **the Court considers that the trimming of the cargo was not adequately and efficiently supervised.**

There is a conflict of evidence as to the trimming of No. 4 hold. Mr. Powell, a leading trimmer, when asked in the Court why the coal was not trimmed, replied: "If she pays a tariff we make her seaworthy, and go down to the wings." The Court does not consider that the whole of the coal in hold No. 4 was loaded in the centre in the shape of a cone, but is of the opinion that about 284 tons were first loaded in the forward end of the hold against the bulkhead, with the coal sloping towards the after-end, and that the chute was later shifted to the after part of the hatchway, when about 90 tons were loaded in the shape of a cone over the slope made by the coal in the forward end. Whether a part of the coal was trimmed in the shape of a cone, or even in the manner described by Mr. Davies, the assistant supervisor for the Employers' Clearing House, neither method of trimming was proper nor workmanlike. Further, in loading No. 4 hold, the coal was so tipped as to cause a list to port. Thence, the Court found that the cargo shipped in No. 4 hold was not properly and efficiently trimmed. The list to port shows that the coal in No. 4 hold had been loaded to the port side, and the error was improperly corrected by the trimming of the coal to the starboard side of No. 1 hold. Thence the Court is of the opinion that the cargo in No. 1 hold was not properly and efficiently trimmed.

Whilst the loading of Nos. 1 and 4 holds would tend to cause a list in the event of the vessel meeting heavy weather, yet the Court considers that such loading was not of itself sufficient to regard her as being in an unsafe or unseaworthy condition. It was, however, a source of danger, in that it was calculated to cause her hatchways in heavy weather to be more exposed to the impact of the seas.

When the Radyr Foundered.

The Court proceeded to say that after leaving Cardiff on the morning of the 6th December the Radyr was sighted several times from the s.s. Headcliffe, but that she was last seen at about 9 p.m. by the second officer of that vessel. She then appeared to be behaving normally. Her approximate position was N. 10 deg. W. (true) and about 4½ miles from Hartland Point (latitude 81 mins. 5½ secs. N., and longitude 4 mins. 32½ deg. W.). At about 7.48 a.m. on the 7th December a wireless S.O.S. message was sent out by the Radyr, and received at Fishguard Wireless Telegraph Station. The message was: "Off Hartland Point—require immediate assistance—hatches stove in—require immediate assistance." According to the log of that station a message was sent at 7.49 a.m.: "Do you want lifeboat or boat to stand by?" At 7.50 the reply received from the Radyr at the station was: "Require anything—near sinking—trying launch lifeboat." This was the last message received at that station from the Radyr. Having given a summary of the official weather report, the judgment continued: Immediate action was taken at Fishguard Wireless Station on receipt of the message from the Radyr at 7.48 a.m. Every effort appears to have been made to get into contact with steamers in the vicinity of Hartland Point,

and messages were continually transmitted and received relating to the Radyr until about 10.51 a.m., but, in the circumstances which prevailed, the Court considers that it was not possible for assistance to reach the vessel in time to be of any good.

State of Hatch-Covers.

Having referred to the evidence concerning the recovery of some of the bodies of the crew, and about 108 hatch-covers, the Court said it was satisfied from its examination, and from the evidence of Mr. Steel, that six hatch-covers had been stove in whilst they were in position on the hatches, and that the immediate cause of their being stove in was the force of the heavy seas breaking on the hatches. It also considered that the fractures in the parts of some broken hatch-covers were all caused or contributed to by the lack of strength and by defects of the timber. According to the examination made by Mr. Steele, the hatch-covers which he inspected appeared to have been made of European red, yellow, and white wood, with the exception of four,

which were of oak, and 64 appeared to be old, and 27 new.

Conclusions of the Court.

In conclusion, the Court said:—Having regard to the wireless message received, and in the absence of any other evidence, the Court considers the Radyr foundered and was lost shortly after 7.50 a.m. on the 7th December, 1929, off Hartland Point. The cause of the loss of the vessel and all hands on board was due to the large influx of water into two or more of the holds, owing to the force of heavy seas breaking in the hatches during weather of exceptional violence. In the absence of direct evidence, the Court cannot express a definite opinion, but it is probable:

(1) That the cargo in Nos. 1 and 4 holds shifted during the heavy weather, and thus caused a list which rendered the vessel more vulnerable to the impact of the seas;

(2) That the breaking-in of the hatches was caused by the inferior quality and defective condition of some of the hatch-covers; and

(3) That in the heavy weather experienced the large area of hatchways in proportion to the area of the deck constituted a serious danger, and exposed the whole of the hatches to exceptional strain. All the circumstances tend to show that the disaster to the Radyr, with the most regrettable loss of the lives of all those on board, was sudden and overwhelming.

The Court is of opinion that definite provisions and stipulations should be made in the specification for timber ordered for, and used in, the construction of hatch-covers in large and exposed hatchways on sea-going vessels; and recommend that where covers are made of wood they should be of high grades, straight grained timber, free from knots, shakes and sap. **It is, however, strongly urged that the question of the use of steel in the construction of hatch-covers should be considered.** It such recommendation be adopted, it does not appear to be necessary to take precautions in the selection of such timber used for the purpose of hatch-covers, but it is necessary and desirable that all hatch-covers should, after being made and before being coated and painted, be subject to the approval of a Board of Trade surveyor.

It is further recommended that there should be more frequent and periodical surveys of the hatch-covers of such vessels.

In conclusion, the Deputy-Stipendiary Magistrate said:—

"There is one more melancholy duty, and that is to express the very deep and heartfelt sympathy of the Court with the relatives of those unfortunate men who lost their lives in this sad disaster. We ought not to close the inquiry without also expressing our grateful thanks for the assistance we have received from those who have presented the case to us so very excellently."

Mr. Allan Pratt associated himself with the expression of sympathy, and thanked the Deputy-Stipendiary for his reference to the conduct of the case.