

"SAM" SHIP INQUIRY

Use of Shifting Boards for Ballast

MARINE SUPERINTENDENT'S CONFIDENCE

The M.O.T. inquiry into the heavy listing and abandonment of the Liberty-type steamer *Leicester* (ex *Samesk*), owned by the Federal Steam Navigation Company, Ltd., London, was continued in London yesterday when the chief engineer and two A.B.s gave an account of conditions on board. The owner's marine superintendent was then questioned as to ballasting arrangements, and particularly in regard to the shifting boards, and his view was that there was no possibility of the ballast shifting.

The inquiry is being conducted by Mr. Kenneth S. Carpmael, K.C., sitting as Wreck Commissioner, with three assessors, Captain J. P. Thomson, Commander W. A. Williamson and Mr. E. F. Spanner. The previous proceedings were reported in LLOYD'S LIST of June 28, 29 and 30.

Mr. Waldo Porges appeared for the Minister of Transport; Mr. Roland Adams, K.C., and Mr. H. V. Brandon, for the owners, the Federal Steam Navigation Company, Ltd., London, and the master; Mr. J. V. Naisby, K.C., and Mr. Guy N. Boyes for R. & H. Green & Silley Weir, Ltd., shiprepairers; Mr. P. F. Broadhead, of Messrs. Ingledew, Brown, Bennison & Garrett, for the Navigators' and Engineer Officers' Union and the Radio Officers' Union, on behalf of the second and third officers and the dependants of the deceased radio officer; and Mr. Neil Maclean for the National Union of Seamen and dependants of deceased members of the crew.

At the outset the Commissioner observed that they were not getting on very quickly, and said: "It looks as though a Saturday sitting is certain."

ROBERT McCANN, an A.B. in the *Leicester*, said that shortly after sailing he was engaged in painting the coamings in Nos. 4 and 5 holds. While he was doing this job he was standing on a stool on top of the ballast. To him the ballast seemed quite firm.

CHARLES ALBERT HUFFER, an A.B., who assisted in the painting, said the ballast appeared to be damp. His stool only sank in about an inch.

On the morning of the 15th he took a message from the chief engineer to the master. It was something concerning tanks and pumps. At the time the chief engineer was lying in the engine-room cross-alleyway and had his head split open.

MR. PORGES: Did you deliver the message?

WITNESS: Yes.

CONDITIONS IN ENGINE-ROOM

MR. GEORGE MALCOLM RHODES, chief engineer, said that at noon on Sept. 14 he was shown a hurricane message by the master. In the evening the weather began to worsen; gradually the roll increased. There were gale-force winds, and conditions were generally very unpleasant. There was nothing in the engine-room to cause concern. About 10 p.m. he went to the bridge and he was informed that the vessel was not steering properly. The engine revolutions had then been reduced to 60.

About 11.30 p.m. he made a routine visit to the engine-room and noticed the clinometer indicated a roll in

excess of the 30 degrees which the instrument should record. Soon after 12.20 a.m. on Sept. 15 the vessel seemed to take a heavy roll and developed a list to port. Immediately he went to the engine-room and everything seemed to be in order. He was told that instructions had been received from the bridge to transfer oil from port No. 3 deep tank to starboard No. 3 deep tank. The second engineer opened the valve and the pump was started.

Before he received the bridge message he "opened up" to flood No. 3 starboard double bottom tank. Soon afterwards, the vessel took another violent roll to port and remained over. The transfer of oil had begun, and under normal conditions the operation would take about one and a half to two hours. The filling of the water ballast tank might have been effective after the first list, but not after the second heavy roll. About this time the alarm bells began to ring, and the engine-room staff went on deck. Once there, the telegraph could be heard ringing in the engine-room. It was assumed this was for "stop," and as it was considered too dangerous to return to the engine-room it was decided to control the steam by means of the valves on deck.

"Later I made another attempt to get below to see if I could do anything, but I fell and injured my head. It was my intention to pump oil over the side, as I thought it might right the ship. But the oil was too cold and the pump would not take it. At that time the vessel had a list of probably about 40 to 70 degrees." While in the port alleyway, he saw water splashed into the accommodation.

Following his injury, he returned to the deck, tried to get to the starboard side, failed and landed down on the port side, where he thought he collapsed. Some time afterwards, he was found by some of the sailors and assisted by them.

Questioned by Mr. Roland Adams, he said that after the alarm, he ordered the fifth engineer and donkeyman to go on deck as "I thought it was pretty hopeless down in the engine-room." He and the second engineer stayed down probably another 10 minutes. It was difficult to see and the angle was awkward. There was no smoke, but there were fumes. There was water about, but it was not dangerous.

NOT POSSIBLE TO RAISE STEAM

To his knowledge, the second engineer later attempted to get down the engine-room again. He reported back that there was considerable water there, possibly three or four feet. "I asked him if it was possible to raise steam and he replied that under present conditions he did not think it was. I think he was right."

Captain HERBERT DAWSON, marine superintendent to the Federal Steam Navigation Company, Ltd., and the New Zealand Shipping Company, Ltd., said the companies had been owners or managers of four "Sam" vessels — the *Samsip*, *Samkey*, *Samingoy* and *Samesk*. The *Samsip* was lost on war operations, and the *Samkey* was lost in February, 1948. The *Samingoy* and the *Samesk* were now owned and operated by the Federal Steam Navigation Company, Ltd., under the names of *Stafford* and *Leicester*, having been purchased from the Ministry in April, 1947, and June, 1947, respectively.

During the *Samkey* inquiry he came to the conclusion that it would be advisable to have shifting boards fitted for ballast voyages in the future in spite of the fact that for 13 years he had loaded ballast in the 'tween decks without shifting boards. He made a recommendation to the general managers that this should be done and this was approved.

The first vessel to which this decision applied was the *Leicester*. About July, 1948, the *Leicester* was scheduled for a voyage from New York to New Zealand, which would involve her proceeding from London to New York light. He, therefore, instructed Captain Anderson, assistant marine superintendent, that she was to be fitted with shifting boards prior to this voyage. He discussed with the company's chief naval architect the proposed arrangement of the shifting boards, who confirmed that there was no regulation which laid down any definite size or method of fitting. There appeared to be no data on which they could work beyond such inferences as could be drawn from the regulations governing shifting boards for grain cargoes. Such cargoes involved entirely different problems and the regulations could only be taken as a guide. He therefore instructed Captain Anderson to approach Green & Silley Weir, the shiprepairers, to discuss with them the design and construction.

On the question of ballast Captain Dawson said he had in mind stowing in the 'tween decks and provisionally arranged for the supply of 2000 tons of solid ballast. After the *Leicester* arrived in London on Aug. 14 he spoke to the master as to the disposition of the ballast. Captain Dawson said he considered that 1500 tons would be ample for the ship, and this he agreed. Captain Dawson also suggested stowage in the 'tween decks.

LOW G.M. OBJECTIVE

MR. PORGES: Did you consider putting any of it in the lower holds?

Captain DAWSON: No, on account of stability. If any of the ballast were put into the hold it would have increased the G.M., whereas we wished to reduce it.

The Commissioner: With a high G.M. the vessel is made very stiff and you get a short quick roll?

Captain DAWSON: Yes.

With a low G.M. you get a much more comfortable motion, but the tendency is to roll over farther than with a stiff ship?—No, I don't think so.

MR. PORGES: After your attendance at the *Samkey* inquiry were you satisfied that this ballast was unlikely to shift?

Captain DAWSON: When I saw it myself prior to sailing I did not think there was a possibility of it.

In reply to further questions, he said that every protection had been taken to prevent the ballast shifting. The object of putting all the ballast in the 'tween decks and nothing in the lower holds was to keep the G.M. low.

MR. PORGES: If you have all the ballast in the 'tween decks, it will roll to a bigger arc?—Yes, but not very much.

Captain Dawson said he took into consideration his experience of ballast and shifting boards in sailing ships. In sailing ships, he said, they carried ballast in the lower holds — as there were no 'tween decks. They used to carry 1300 tons to 1500 tons, but the sailing ship's proposition was not the steamer's. "I have carried grain in bags and I have had it shift in sailing ships. I have been over to 30 deg. and got it back."

Mr. PORGES: "Did you see the ship after ballast was loaded?"

Captain Dawson: "I saw every 'tween deck before she sailed. I felt there was absolutely no possibility of its shifting."

Questioned by Mr. P. F. Broadhead, witness said: "Our first consideration is to give our ships a G.M. that is safe." It had not become a fetish to have a low G.M., it was a necessity.

Mr. BROADHEAD: In avoiding a high G.M. you do produce a number of problems?—Nothing that we have not been able to overcome.

At this point, Mr. Broadhead said he would suggest to the Commissioner hereafter that recommendations should be made on the subject of ballast in general.

Turning to Captain Dawson, he said: I am asking you if you don't think such recommendations would be helpful?

Captain Dawson: On shifting boards, yes.

And disposition of ballast?—It should be left to the master.

Mr. ADAMS: Had you prior to the *Samkey* any previous experience of ballast shifting?—None whatever.

LESSONS FROM "SAMKEY"

When you had heard the evidence in the *Samkey* inquiry did you then believe that shifting boards would be necessary?—I considered them advisable.

The Commissioner: Did you accept after the *Samkey* inquiry that it was shifting ballast which caused the loss?—I can't accept anything else.

Mr. ADAMS: When the *Leicester* sailed, did you believe that the shifting boards, as fitted in her, would prevent the shifting of ballast similar to that which had probably caused the loss of the *Samkey*?—Yes.

Do you think that if the ballast in the *Leicester* had not shifted she would not have taken up a dangerous list?—That is right.

Captain Dawson was then questioned on a Ministry of Transport notice, relating to the shifting of solid ballast in heavy weather, in which it was stated: "Serious lists have been caused by the shifting of shale, colliery stone, slag and sand ballast."

He said he was well aware of the liability of certain kinds of solid ballast to shift, and his attitude was that sand would shift if it was not trimmed.

The Commissioner: Even if it is trimmed and the vessel had a list of 20 to 30 degrees, would there not be a tendency to shift?—There might be.

As to the stowage of ballast, witness said he never influenced masters over its stowage. He was guided, by their experience. His attention was drawn to a Ministry letter which suggested the loading of solid ballast in the holds and 'tween decks, and he said he could not agree with the stowage of ballast in the lower holds.

"OF ADEQUATE STRENGTH"

Captain Dawson said he was fully convinced that the shifting boards were of adequate strength, properly supported and effectively secured.

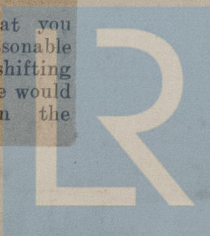
Mr. ADAMS: Supposing that you were satisfied beyond all reasonable doubt that you had adequate shifting boards in a "Sam" ship, where would you stow your ballast?—In the 'tween decks.

Asked by the Commissioner what degree of roll he had in mind when the *Leicester* sailed, he said up to 20 deg, not more. With the G.M. she had, she should not have rolled badly and did not before she met the hurricane. But some bad weather had been experienced before that time, and the master had observed that she behaved remarkably well.

The inquiry was adjourned until to-day.

A CORRECTION

In the report of the *Leicester* inquiry in yesterday's LLOYD'S LIST, a passage in the master's evidence (on page 11) should have read: "One long blast was given, instead of the emergency stations signal of six short blasts, followed by a long blast, but to the best of his [the master's] knowledge it was generally obeyed." The word "obeyed" has been substituted for "made," originally given.



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