

"SAM" SHIP INQUIRY CONCLUDED

Findings in Due Course

QUESTION OF STOWAGE OF BALLAST IN LOWER HOLDS

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 concluded in London yesterday and the findings will be announced in due course. One of the last witnesses was the company's naval architect who flew to Bermuda to inspect the vessel on arrival, and he gave details of the shifting boards that had carried away. On this point reference was made to a recommendation the Ministry was understood to be considering with regard to the stowage of ballast in lower holds.

The inquiry was 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, 30 and July 1, 2 and 4.

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.

"RAFTS APT TO COME ADRIFT"

Captain H. N. LAWSON, master of the *Leicester*, recalled to give evidence as to the desirability of life-saving rafts, said he was of opinion that they were not of much use in such conditions as they had experienced. His reason for saying that was that the port rafts would either have been washed over the side or automatically have slipped with the angle of list, and those on the starboard side they would have had very great difficulty in launching due to their weight and the angle of the vessel. Normally at sea liferafts were apt to come adrift in heavy weather, and he thought he was right in saying that the number lost during the war in heavy weather was phenomenal.

The COMMISSIONER: Is it not a question of fitting?

Captain LAWSON: The idea of the rafts is that they should automatically float. In other words, they are not particularly secure. They have a gadget, like a trigger, which releases them automatically. If one of them breaks away in a heavy sea I think it is likely to endanger the ship.

It is a fact, when a ship takes a list, it is difficult to deal with the lifeboats?—Yes, but they are usually so designed that they have skids which will take a boat down the ship's side, even though she has a fairly big list. We did have a little difficulty in actually swinging out the starboard No. 1 boat, but once it was over the ship's side it went down

reasonably well, due to the skids. Our difficulty was that we could not get it over the bilge keel, which would also apply to the life rafts.

Captain LAWSON went on to say that, during the war, after a gale of wind or heavy weather, it was "absolutely amazing" the number of rafts which floated by.

The COMMISSIONER: That does bring it down to a question of fitting?—Yes.

Captain LAWSON remarked that he had the idea that the fitting of rafts was purely a wartime measure in order to permit personnel to escape if the ship sank immediately.

The COMMISSIONER: In this case only four people got into one of the boats?—Yes.

That was in spite of the fact that the incident was spread over a long time?—Yes. But there were sufficient boats on each side for the entire ship's company, and we were very unlucky.

Mr. PORGES (to Captain Lawson): As far as you know, some of the boats were not even used to hang on to?—They were not. When we abandoned ship by jumping into the sea I gave orders for a number of spare hatch boards to be thrown over the side for non-swimmers, and these easily supported them, and they seemed perfectly happy.

CREW MADE RAFTS

Captain Lawson then told the Court that during the day of Sept. 15, members of the crew were engaged in constructing rafts. In all about three rafts were made out of empty oil drums but they were lost during the night of Sept. 15-16.

Mr. PORGES: In what way were they lost?

Captain LAWSON: They were got ready for launching and they were washed over the side.

Do you think they could have been launched successfully?—If they had been ready, yes.

By that time, of course, the weather had moderated very considerably?—Yes.

At this point Mr. PORGES intimated to the Court that in 1945 a Working Party, on which the unions concerned and various other bodies were represented, met and unanimously decided to revert to peacetime practice and not carry rafts or red lights for life-jackets.

Captain LAWSON, continuing, said that before the war, and he thought in passenger ships to-day, there was a percentage of buoyant apparatus. "It is in the shape of a float, which would have been of great use to us."

Questioned on this point, he said it was hardly a Carley float. It was more of a box-shape affair.

The COMMISSIONER: Have you any views about the Carley float?

They would have been of great assistance to us, but I don't think it would warrant fitting them in all ships.

Mr. ADAMS: Is it right that it is the time factor rather than degree of list which led to the introduction of rafts as universal practice during the war?—Captain Lawson: Yes.

CHIEF OFFICER'S SUGGESTION

Mr. JAMES HERBERT BAILEY, the chief officer, recalled to express his view on life-saving rafts, said: "I was in trouble twice during the war through enemy action, and of course, in the *Leicester*. I feel most strongly that rafts in some shape or form, preferably of a small size, and perhaps able to carry four to six people, would be of great benefit in casualties of this nature.

"In the case of the *Leicester*, I think they would have been the means of saving, possibly, one or two lives, which after all should be worth while. I think the successful launching of boats under such conditions as we experienced is a matter of reasonable difficulty."

Witness commented that ships' crews to-day were not, as a whole, experienced in handling small boats under conditions of strain and heavy weather, and he thought that they would have been lucky, even with an experienced crew, to have launched one or two boats. It was one thing to get a boat over the ship's side and another to get it into the water, and he believed another means of supporting people in the water was desirable.

Asked to express an opinion on the desirability of lights for attachment to lifebelts he said he had no experience of their use in a casualty. "I would say, however, that they would have been of considerable benefit in such a casualty as the *Leicester*, or any comparable circumstance."

He added that, in his opinion, in the case of the *Leicester* it was almost impossible to launch boats in a reasonable condition; that was to say, without them being smashed up against the ship's side or partially flooded.

Mr. P. F. BROADHEAD: Have you any suggestion as to the best place to stow lifebelts?

WITNESS: On the poop and on the boat deck.

The type of raft he had in mind, he said, was one which could be thrown over the side—something which a man could hang or climb on to and wait. In peacetime it was reasonable to assume that one would be picked up in a reasonably short space of time.

STOWAGE OF BALLAST

Mr. ROBERT ANDERSON BEATTIE, assistant naval architect, New Zealand Shipping Company, Ltd., and Federal Steam Navigation Company, Ltd., who was with Mr. Hawkins, a M.O.T. Senior Ship Surveyor, at Bermuda, was called to give evidence, and a discussion ensued on the question of stowage of ballast. It was said by Mr. H. V. Brandon that he understood that the Ministry were considering making a recommendation that some of the ballast should be stowed in the lower hold.

Mr. BRANDON said it had been suggested by Mr. Broadhead and Mr. Hawkins that part of the ballast should be stowed in the lower holds and the owners opposed this view.

The COMMISSIONER: I feel that the cause of this casualty is that the ballast shifted.

Mr. BROADHEAD maintained that some of the ballast should be stowed in the lower holds. He suggested it was a proper practice and that a regulation should be made to that effect.

Mr. PORGES remarked that he could not go as far as to say that a regulation should be made. The Minister felt that unless there could be something amounting to a guarantee that ballast would not shift, then from the point of view of safety there should be sufficient G.M. They considered the owners and managers of ships could very well calculate the height of G.M. necessary to deal with that risk.

QUESTION OF EXPENSE

Mr. BROADHEAD said he could go a little farther than Mr. Porges. He thought it would be undesirable to have too complicated a shifting board system on account of expense. His

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clients were very worried that it might become very expensive to fix shifting boards and that some owners—not these owners—might well say that they would solve the problem easily and carry no ballast at all. They were very concerned that that situation should not arise. The greatest simplification of the problem was that a ship should have sufficient G.M., and they wished to see a reasonable percentage of ballast carried in the holds, or so disposed, that whatever the shift might be, the ship would not be in a dangerous position.

Mr. PORGES commented that it was not the Ministry's intention to say that it was necessary to carry solid ballast

in the ships—American owners of similar ships carried little or no solid ballast—but failing a guarantee of no shifting, they would say that there should be an adequate G.M. to make the ships safe.

The COMMISSIONER: You would like a guarantee of no shifting? Does the Minister regard it as a matter of seaworthiness?

Mr. PORGES: I don't think I should go as far as that at the moment. I don't think the Minister could say whether it is in fact possible to guarantee no shifting without excessive expense, and very complicated instructions which might hamper the commercial running of the ship. Before knowing whether it is possible to guarantee non-shifting, I think the Minister would rather say there should be sufficient G.M. to envisage the possibility of shifting. Also Mr. Hawkins was very definitely of the view that the trimming should be even and if it is not even it is a factor which makes shifting all the more likely. The Minister does not feel that it can be put beyond doubt on present experience that no shifting will occur.

LOADING ON HATCHWAY

The COMMISSIONER: Has the Minister considered whether the ballast could be confined in the square of the hatch? I appreciate it introduces an extra concentration of loading in the hatch, but I understand that providing there is proper shoring underneath to take care of the extra concentration, the loading of one thousand tons spread over the various hatchways is possible. And if one combines that with another 500 tons below, you would provide for a G.M. of four feet, which I should have thought was a comfortable G.M.

Mr. BEATTIE, giving evidence, said there were sound technical reasons for having a relatively low G.M.—somewhere between 3 ft. to 3½ ft. His objection to a high G.M. was that a higher G.M. had a faster, shorter period of roll. With faster rolling, larger forces were thrown into the ship and her contents at the end of the roll. It rendered the crew less comfortable and less efficient. It rendered the management less efficient.

The COMMISSIONER: It is a question of degree?—Entirely.

Mr. BEATTIE said that a high G.M. also caused a greater amplitude of roll. Ships with small G.M.'s were notoriously sluggish.

Questioned by the COMMISSIONER as to what would have happened if the ship had not been fitted with shifting boards, Mr. BEATTIE said a shift of ballast would undoubtedly have occurred.

Mr. BRANDON then questioned Mr. Beattie regarding his inspection of the ship's holds in Bermuda. Describing what he found in No. 2 hold, Mr. BEATTIE said the port door had

“skewed” up slightly and the fastenings were broken. This had allowed about 15 tons of ballast to come through the main part of the door into the forward locker.

In certain cases the bulkhead was broken and the rest of the bulkhead on the port side was bulging. The whole of the port portion of the after bulkhead from the door opening out to the port side of the vessel had hinged aft against the ship's side and was covered with ballast. The shifting boards along the starboard side of No. 2 hatch had been carried away from the lower deck, hinged up and had allowed all of the ballast in the starboard side of the ship to slip beneath them. The shifting boards on the port side of the hatch had been completely carried away and were buried in ballast against the port side of the ship. He could not say with certainty whether the bulkhead doors were strengthened in any way. He saw no signs of it.

Mr. Beattie was questioned by the COMMISSIONER as to whether he had given consideration to the question of the design of shifting boards after he saw the *Leicester* at Bermuda.

Do you agree that it is a matter for a naval architect?—At the time, no.

Even though it was something that was being considered because of the loss of another ship?—Yes, bearing in mind the *Samkey* findings had not been published then.

It was quite clear at that time that great importance had been attached to the layout of shifting boards?—It was.

SYNCHRONISATION FACTOR

Mr. BROADHEAD (to Mr. Beattie): Have you ever heard of a ship with a five foot G.M. comparable in size to the *Leicester*, capsizing because she synchronised?—No, I have not.

Have not you considered this question of the *Leicester* solely from the point of view of justifying under all circumstances a G.M. of three feet?—Certainly not.

He did not know there was a good deal of experimental work going on regarding synchronisation.

Do you think the *Leicester* was safe when she left London Docks with 1500 tons of ballast in the 'tween decks with the shifting boards as they were?—I only knew of the shifting boards in a general way.

Were you consulted in a general way as to whether the shifting boards would be adequate?—That was not my province.

The COMMISSIONER: What position do you hold?—I am directly concerned with the design and supervision of all hull details and technical repairs to ships in the fleet.

Mr. BROADHEAD: Had it ever occurred to you to inquire what other companies were doing with the ballasting of their “Sam” ships?—I have had an open mind on the subject.

Mr. PORGES: In sending the *Leicester* to sea, had you in mind that the loss of the *Samkey* was due to the shift of ballast?—I very seriously considered it.

Had you any doubt that the loss of the *Samkey* was due to the shift of ballast?—At that time I did entertain doubts.

He added that they did not think that the ballast of the *Samkey* could shift.

Mr. PORGES: As regards the trimming of the ballast, do you consider that important?—I am in entire agreement with Mr. Hawkins that ballast should be trimmed right across.

Had you been consulted when it was decided to put shifting boards into the *Leicester* would you now say that any improvements which have been mentioned would have occurred to you before she sailed?—In the light of the fact that I have been thinking nothing but *Leicester* for nine months I find that question very difficult to answer.

Later he said he would have adopted Mr. Hawkins' suggestion that the ballast must be trimmed level.

SURPRISED AT AMOUNT OF SAG

Mr. Beattie agreed that his company were very surprised at the amount of sag found in the *Leicester* and considered it something abnormal. The shifting boards were fitted in all good faith to stop any shift of ballast.

Mr. BROADHEAD, addressing the Court, regretted that the Commissioner should be listening again to a casualty affecting the same company's ships. He said this advisedly because they did know in the past the very fine reputation the company had established, and they did recognise to a large extent the company could be called a national asset. He submitted that the limitation of the master's discretion or his requirement was not really a matter the owners were primarily concerned with.

“In this case we have had abundant evidence to show that this company has adopted a policy of creed or dogma on G.M. It is very strangely reminiscent of certain political theories we have to-day. This company has for a very long time operated a very specialised type of ship—excellent ships, indeed. But it is absolutely ridiculous to expect the same standard of comfort in a different type of ship to what they have in their own specially designed ships. I submit in this case the real test here is the master's responsibility. That is not a matter of discretion.”

He asked the Court to make recommendations as to the disposal of solid ballast, and asked that the recommendations should be such that a reasonable percentage of such ballast should be carried in the lower holds to ensure safety of ships and any possibility of the shifting of the ballast. He hoped the Court would also make recommendations for the Ministry to consider, regarding shifting boards. He wanted them to be very careful that they did not frighten other ship-owners by making the expense too heavy.

He pointed out that there were no regulations of any sort on the subject of the ballast condition of any ship. It might well be that if they considered regulations and recommendations necessary, they might also consider some further inquiry into the whole subject of ballasting.

On the question of wireless, Mr. Broadhead went on to suggest that it was undesirable to have several leads in one trunk and he asked the Court to condemn any such practice in future. He also asked the Court to condemn the trunkway inspection plate which was almost impossible for a wireless officer to use to inspect his aerial leads. Finally Mr. Broadhead asked the Court to consider recommending that more than one radio officer should be carried on a ship in view of the complexity of modern equipment.

In his address to the Court, Mr. ADAMS paid tribute to the master of the ship. He said that he had behaved at all times with competence and

personal intrepidity and had shown a very great knowledge of his ship and of his duties as a seaman. "I have not heard a breath against him from any quarter."

Mr. PORCES submitted that it was now very clear that the uprights and shifting boards were asked to withstand a weight for which they were never intended and which could never have been anticipated.

In our report of the M.O.T. inquiry into the listing and abandonment of the *Leicester* in Saturday's LLOYD'S LIST, Mr. G. H. McNeil was incorrectly described as a former assistant contractor of the ship management of the Ministry of War Transport. In fact, Mr. McNeil was a former director of the Ship Management Division of the Ministry of War Transport.



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