

# Lloyd's Register of Shipping,

71, Fenchurch Street, London, E.C. 3.



LLOYD'S REGISTER  
Received  
21 MAR 1938  
Amd.

19th March, 1938.

Please address  
the communications  
of this subject to  
THE SECRETARY  
at quote the following  
initial

Dear Sir,

In accordance with instructions I proceeded to Sunderland with a view to making an examination of the fractured sternframe of the s.s. "CORABELLA", and discussing the matter with Dr. Pickworth.

The vessel was built by Messrs. J.L. Thompson & Sons in 1937/8 and classed #100A1.

On the 17th instant accompanied by Dr. Pickworth the vessel was examined whilst lying in Messrs. T.W. Greenwell & Co.'s Dry Dock. The lower part of the sternframe, after shoe plate, and the plate above it on the starboard side were found to have been removed from the ship, and the structure in way of these parts was examined and found satisfactory.

Mr. Miller, the Ship Surveyor who has the vessel under survey, stated that in the aftermost frames below the boss there were about ten corroded and slack rivets on the port side and three or four on the starboard side.

From examination of the Forging Reports it is seen that the lower part of the sternframe is composed of two forgings electrically welded together and the upper part is a casting. The former was manufactured by Messrs. Grosses Forges et Usines de la Hestre S.A., Haine St. Pierre.

The lower part of the sternframe was examined

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S.S. "CORABELLA"

whilst lying in the shop of Messrs. J.L. Thompson's Manor Quay Fitting~~out~~ Yard, and it was found fractured on each side as shewn in the attached sketch.

The fracture on the starboard side was found more open than the one on the port side, and it was observed that there was a heavy score in the sole piece on the starboard side as indicated in the sketch, this score being more pronounced at the extreme after end.

The part of the sternframe where the forgings are stated to have been welded together was examined and found sound, and although the surfaces were brushed and cleaned, the actual welded part could not be discerned.

The lower part of the sternframe is now being renewed as recommended by Dr. Pickworth.

The rudder was examined and small fractures found on both sides as indicated on the sketch, the fractures on the starboard side being more severe than those on the port side.

It is proposed to weld these fractures and fit doubling plates which, in my opinion, will be a satisfactory repair.

In the course of conversation with Major Thompson in this Office before I proceeded to Sunderland, he informed me that <sup>IT IS</sup> ~~HE~~ understood there is excessive vibration when the

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s.s. "CORABELLA"

rudder is put hard over, and that this vibration is maintained for some time after the vessel has resumed her straight course when it gradually dies away.

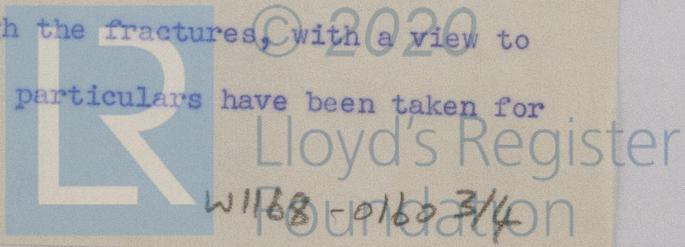
The matter was fully discussed with Dr. Pickworth and the following remarks are offered :-

If the very pronounced score on the starboard side of the stern frame was produced by a blow, as seems likely, this blow must have been a severe one, and could, in itself, be regarded as a reasonable initial cause for the fracture noted at the point of maximum bending moment, namely, where the shoe plate is attached to the stern frame.

This thrust or blow may have caused a minute fracture in this region, and such a fracture may have been progressive by the effect of vibration, side thrust on the gudgeon transmitted by the rudder, or even by corrosion.

The vessel has a bronze propeller, and no zinc plates were fitted when she was built, and much corrosion has taken place, especially on the rudder and the solepiece of the stern frame. There is also slight corrosion in the plating on the underside of the cruiser stern.

Dr. Pickworth proposes to have the sole piece of the stern frame broken through the fractures, with a view to further examination after the particulars have been taken for the new frame.



S.S. "CORABELLA"

An opportunity was taken of making an examination of the aft end of the sister vessel, Yard No. 586, on the stocks of Messrs. J.L.Thompson & Sons' North Sands Shipyard, and as far as could be seen the workmanship is satisfactory.

I am, Dear Sir,

Yours faithfully,

*James L. Butler*

The Secretary,  
LONDON.



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