

Lloyd's Register of Shipping.

LLOYD'S COLLEGE BUILDINGS, Newcastle-on-Tyne.
LONDON.

24th September, 1921

REC'D SEP 26 1921

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LLOYD'S REGISTER,
LONDON.

REC'D SEP 26 1921

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Sir,

Your letter of the 9th instant having reference to report dated the 23rd ultimo on the cast steel sternframe of the S.S. "KORANTON" has been handed to me by Mr. Noton, Principal Surveyor of this Port, on my return from day, and I regret to note from its contents that my opinion of the fracture and my views and opinions of the cause of the failure of the sternframe are not clearly understood.

In my report I have inadvertently stated that the sternframe was found to be unsound in the radius at the bottom of the back post, whereas I should have specified the unsoundness as being at the bottom of the boss leg.

When making the sketch shewing fracture it did not occur to me as being necessary to mark it top, bottom or starboard, deeming it sufficient to shew the defective thereon. I have however prepared another sketch the effect of which I hope will be clearly understood. The sketch is to scale its only purpose being to shew the surface of the fracture in the frame where broken since its arrival at the forge

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for the purpose of having the lower half renewed, it being a scarphed frame. On the sketch I have purposely left the solid or homogeneous part of the sternframe clear, the five small parts shaded and marked "A" are of a smooth character shewing a want of homogeneity, and which in my opinion is due to slight pulls caused by contraction due to the uneven rate of cooling etc.; beyond the middle of the section I found a small triangular cavity "C" about $\frac{3}{8}$ " deep.

The surface dotted and marked "B" is of a jagged and torn character, shewing that where the frame had been broken it was not perfectly homogeneous although fairly well knit together on this portion.

In my opinion the reason for the cause of the original defects is that the head which is on this part of the frame has been too small to feed the casting to a sound finish, and when the weight of metal is insufficient to force itself forward it begins to run slowly, this causes the metal to be of a weaker or less homogeneous nature. When the frame begins to cool down the amount of contraction which takes place at this part of the frame, where also the sections are unequal, is such as to cause a slight separation of the material in parts, but is not such as to tear the parts asunder but leaves it in rather a porous condition, which condition can only be ascertained if the frame should break at this part and reveal what I have already described in my letter of the 23rd

in all castings

time as a jagged and torn surface.

Trusting the above description is considered
satisfactory.

I am, Dear Sir,

Yours faithfully,

W. Campbell

Secretary,

London.



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Foundation

(3/3)WS2-0118



Trusting the above description is considered
satisfactory.
I am, Dear Sir,
Yours faithfully,

[Handwritten signature]

Secretary,
London.

Referred to the Chief Surveyor and
the Chief Engineer Surveyor.

C.D. 26 SEP 1921

For Mr. W. H. G. H. G.
to make



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