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WALLSEND SHIPYARD,

M.C.

WALLSEND ON TYNE.

22nd September 1904.

Thursday.

Ann 24/9/04

Dear Mr. Cornish,

CUNARD EXPRESS STEAMER No. 735.

When discussing the stress figures at Glasgow recently, I find that I quoted you in error 10.18 tons as the tensile stress of the upper member of the girder, whereas it should have been 9.88 as quoted in our letter of the 13th inst. The 10.18 was the stress calculated by Mr. Black under certain conditions, which were not applicable in the present instance. Our bending moment of 960,000 tons was very carefully calculated and not arrived at by an approximate method. In arriving at the modulus of resistance of 97,145 foot tons, also quoted in our letter of the 13th - the manholes in the intercostals in the tank were not deducted when taking out the sectional area of the material, ^{but} to the depth of the ^{intercostal was only taken to the length of the} lugs connecting them to the floors, and the top and bottom bars connecting intercostal to the tank top and shell were omitted. We did not deduct the manholes because we took the stress out in a line with the rivet holes in the framing, which we considered to be the weakest part of the structure; but should the manholes in the intercostals be deducted then the modulus of resistance will be 95,736 foot



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DEPARTMENT.

H.J. Cornish Esq.,

tons and the stress of the upper member of the top girder
10.02^{tons} which corresponds with the stress already agreed to.
We trust that this will be satisfactory.

We are now making calculations to the effect of
reducing the thickness of the shear strake doublings and
the upper deck stringers and decks, substituting, at these
parts, high tensile steel for ordinary steel; The reduction
of thickness for high tensile steel being approximately 10 per
cent. I will forward these figures as soon as they are
completed.

HIGH TENSILE STEEL TESTS.- I have arranged to-day
with Mr. Champlessⁿ to visit Spencers Works on Monday to see
the tests made with this material, which I understand, have
up to the present proved satisfactory. No doubt Mr.
Champlessⁿ will report to you in due course.

I am, dear Sir,

Yours faithfully,

W. D. P. Smith

H.J. CORNISH Esq.,

Lloyds, Registry,

71, Fenchurch Street,

LONDON, E.C.



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Foundation