



## Lloyd's Register of British &amp; Foreign Shipping,

Collingwood Buildings, Newcastle-on-Tyne.

27th. October 1904.

LLOYDS REGISTER  
LONDON.REC<sup>d</sup> 28 OCT 1904ANS<sup>d</sup> 31/10

Reference

The Secretary,

Lloyd's Register.

Sir,

I beg to forward herewith particulars of some experimental tests made on samples of  $\frac{3}{8}$ " and 10/20" high tensile (carbon) ship steel with a view to determine the effect of punching, drilling, punching for a rivet  $\frac{1}{8}$ " smaller than rule size and riming out to full size, and punching for a rivet  $\frac{1}{8}$ " smaller than rule size and countersinking to full size; also of tests on corresponding ordinary mild steel plates for comparison.

From the results obtained it appears that in the high tensile steel when the holes are punched for a rivet  $\frac{1}{8}$ " smaller than rule size and are rimed out to full size that the injury to the material due to punching is removed.

Messrs. Swan & Hunters desire to know as early as possible of the decision in this matter in order that they may put the bulkheads of the Cunard Express Steamer No.735 in hand.

I am, Sir,

Your obedient Servant,

*E. B. C. Hampshire*

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Lloyd's Register  
Foundation



Lloyd's Register of Shipping

Collingwood Buildings, Newcastle-on-Tyne

28th October 1904

The Secretary,

Lloyd's Register

Sir,

I beg to forward herewith particulars of some experimental tests made on samples of  $\frac{1}{2}$ " and  $10/32$ " high tensile (carbon) ship steel with a view to determine the effect of punching, drilling, punching for a rivet  $\frac{1}{2}$ " smaller than rivet size and turning out to full size, and punching for a rivet  $\frac{1}{2}$ " smaller than rivet size and counterboring to full size, also of tests on corresponding ordinary mild steel plates for comparison. From the results obtained it appears that in the high tensile steel when the holes are punched for a rivet  $\frac{1}{2}$ " smaller than rivet size and are turned out to full size that the injury to the material due to punching is removed.

Yours, Swan & Hunter's desire to know as early as possible of the decision in this matter in order that they may put the bulkheads of the Guard Express Steamship in hand.

I am, Sir,

Your obedient servant

*AS*  
28 OCT 1904  
*Early attention*  
*expressed*

Referred to the Chief Ship Surveyor  
and the Chief Engineer Surveyor.