

ference

Lloyd's Register of British
and Foreign Shipping.
342, Argyle Street, Glasgow.

25th October 1895

The Secretary
Lloyd's Register
Sir,

In compliance with your request I have prepared the attached sketch of the main steam pipes of the S. S. Langhank. In my opinion any considerable length of small horizontal steam piping is dangerous, particularly if, as in this case, it occupies the lowest position of the system, ~~as~~ all condensed water will collect there. On opening either of the wing valves this water will be driven either to the other wing or into the vertical pipe, and should a vacuum be formed, due to the contact ^{of steam} and this comparatively cold water, it will be sucked back again producing the well known water hammer action, which has

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been the cause of many burst pipes, the details of which are contained in the Board of Trade reports on boiler explosions.

In the case of the "Langhank" the danger would appear to be greatest if the port wing stop valve were opened first, as this is the greatest length of pipe (about 18 ft to the main steam pipe) but this was exactly what the foreman did immediately after I had finished setting the safety valves to 205 lbs, and while they were still blowing off. There could be no doubt that there was much water in the main steam pipes, for it was issuing out of all three expansion joint glands in large quantities ^{as shown in red}. On account of the noise which surrounded us I was unable to say whether there was any cracking in the main steam pipes, but I was so much impressed with the danger which was threatening us, that that I climbed up to the foreman at the port stop valve to tell him to open the valve most carefully. This had by that time been done.

The Chief Engineer was a witness to this operation and from what he said I understand that he

took the same view of the matter as myself. I had spoken to the foreman before and after the safety valves were set about getting a small drain cock fitted and thought this would be done, and it was only on the trial trip that I learned from Mr. Jackson himself that he had ordered it not to be done.

I am Sir

Your obedient servant
C. H. Cromeyer.



26 OCT. 1895

Also for Mr. Hill to note.

In view of the arrangement of
steam pipes being a common one
and not being dangerous, it is submitted
that there is no necessity for endorsing
the certificate. ^{certificate should be issued} & that a new ^{The} draw cocks
which are to be fitted at Colombo will be
an improvement, but no risk whatever will
be run if steam is raised in the usual
manner with the stop valves open.

It may be mentioned that Messrs Blair & Co
in nearly all cases make the same

Arrangement of steam pipes without
draw cocks.

J. M.

26/10/95

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