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S.S. "VENICE MARU".

The practice of accepting electric welding as a substitute for a row of rivets or for caulking in the case of seams of inner bottom plating or of deep tanks where it was intended to carry oil fuel, was first adopted in the case of the welded ship "FULLAGAR", built in July 1920.

Since that time the same course has been adopted in a number of instances in the case of ordinary riveted double bottoms.

With the exception of a few cases from Glasgow, the results obtained when the tanks were tested are reported to have been thoroughly satisfactory, and it has not been thought necessary to require special subsequent reports to be furnished.

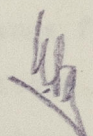
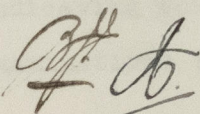
In view of these reports from Glasgow, the whole subject is being further investigated, but in the meantime it may be of interest to the Committee to have the report of Mr. H. J. Cox on the welding carried out in this and sister vessels.

In brief, Mr. Cox states that in three vessels (Messrs. the Kawasaki Dockyard Co's Nos. 477/8/9) the seams of the inner bottom plating were arranged for single riveting only, and on conversion to oil fuel the edges were welded to compensate for the additional row of rivets required, and also to act as caulking. In the operation, great care was taken to allow dissipation of the heat and to prevent buckling of the plate through expansion; the surface of the weld was not hammered down or caulked in any way. The double bottom was tested with a head of 36'6" of water, and no sign of leakage was observed in way of the welded seams.

The second case of interest relates to the conversion of the S.S. "EMPRESS OF SCOTLAND", ex "KAISERIN AUGUSTE VICTORIA", to burn oil fuel, the arrangements being made by Messrs. The A. G. Vulcan, of Stettin. This firm proposes to adopt double riveting for new work, and to reinforce this by electric welding. It is stated that the Builders place great reliance on electric welding in connection with oil-tight work, and they

emphasize the importance of the selection of skilful welders for this purpose. The Builders also stated that in the case of the S.S. "HANSA", ex "DEUTSCHLAND", recently converted by them for oil fuel burning, the electric welding in the oil tanks was entirely successful, and stood a test with light oil for 36 hours.

For the present it does not appear desirable to make any regulation requiring subsequent examination of such welding, more particularly as the continued efficiency of the work is bound to show itself very quickly in service. It may however happen that the enquiry which is at present being made will cause this opinion to be somewhat modified.


W.J.
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J.H.



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