

29325

S.S. "ORIDONO MARU", No. 69267 in R.B., built at Kobe in 1917 and classed 100A1. S.S.No.1-22.

Rule Dimensions: 400 x 54.5 x 30

This vessel is constructed with two decks and poop, bridge and forecastle.

A Report has been received from the Society's Surveyors at Kobe stating that in No.1 hold in way of lower panting stringers eight channel side frames on port side and eleven channel side frames on starboard side have been found cracked, the cause not being stated.

The side framing in this vessel consists of 10 x  $3\frac{1}{2}$  x  $3\frac{1}{2}$  x .60 channels spaced 33" apart amidships and 27" forward of three-fifths length forward in way of panting arrangement, as per Rule.

The panting arrangements are on the web frame system with webs spaced four frame spaces apart and two plate stringers spaced eight feet apart, the latter being continued for some distance abaft the webs as ordinary side stringers.

The Surveyors report that tensile and bend tests have been carried out since the damage on the frame material, which was found to have an ultimate tensile strength of 23.72 tons per square inch, with an elongation of 24.2%; the cold bend tests were good. The material is stated to have been manufactured by the Imperial (Yawati) Steel Works, Japan.

The steel used in the construction of the vessel was tested in accordance with the Rules, which provide for a range of tensile strength of 28 to 32 tons per square inch, with a minimum elongation of 20%.

The panting webs as fitted are 22" deep as compared with 28", with stringers spaced 8 feet apart. The Revised Rules would require the webs 28" in depth with stringers 6 feet apart.

The requirements of the Revised Rules for the

riveted attachments to the margin plate of the margin plate brackets at lower ends of side frames at fore end of vessel have been increased above those of the Rules which were in force at the time the vessel was built.

At the time this vessel was constructed the strengthening for panting was in accordance with the Committee's practice; it will be seen that the Revised Rules provide for a somewhat higher standard. Defects of the nature reported are exceedingly rare, and though the results of the recent tests would indicate softness of material, it is considered the defects have probably been brought about by stresses set up in the ship due to panting.

*PH*  
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