

Messrs. Burmeister & Wain.

Proposed use of Thomas Steel for parts of Welded Bedplate.

This case was dealt with in the Secretary's letters of the 21st June, 1938 and the 21st July, 1938, when a design of welded bedplate proposed by Messrs. Burmeister & Wain received consideration.

In this design use is made of broad flanged "Differdinger" sections and the Firm asked whether these sections could be accepted if made from Thomas (Basic Bessemer) Steel.

This latter proposal was not accepted.

The Firm now state that it is impossible to obtain these particular sections on the European market in Open Hearth Steel, and that the sections in question are made only in Thomas steel.

The Firm also point out that the stresses in these parts are low, viz:- 1.9 tons per sq.inch (which fact has been confirmed by calculations made in this office), and they offer impact and tensile tests on the material together with a chemical analysis from both ends of each beam.

Mr. L. Ripley, Principal Surveyor for Steel, and Mr. W. E. Lewis, Special Surveyor for Steel, have been advised in terms of the above and were requested to state whether the tests now offered by the Firm would afford a basis on which these sections might be accepted if made from Thomas steel.

In advising the Surveyors, they were asked to consider the matter in the light of the Society's practice in the past, also from the point of view that bedplates are considered acceptable if made from cast iron ~~without~~ physical tests and with stresses of about 1.5 tons per sq.inch.

Messrs. Ripley and Lewis have now replied, and both recommend that the proposal should not be accepted.



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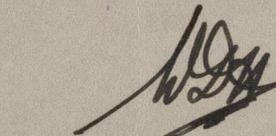
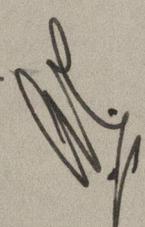
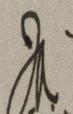
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IT IS SUBMITTED the Copenhagen Surveyors be asked to inform Messrs. Burmeister & Wain that the proposal to include in the welded entablatures of these engines, broad flanged "Differdinger" sections made from Thomas steel, has again been carefully considered and the matter has been referred to the Society's Principal and Special Surveyors for steel. At the same time the remarks contained in the Firm's letter of the 23rd September have received careful and detailed attention, and in all the circumstances it is regretted that the proposal to include Thomas steel in the entablatures of these engines, cannot be accepted.

With reference to the statement that it is impossible to procure these "Differdinger" sections made from Open Hearth steel, while the Differdinger Works are Makers of steel by the Thomas process only, it appears that Open Hearth steel ingots might be obtained from another source and rolled to the required section at these Works.

Alternatively, it might be suggested that these girders could be fabricated by welding together a webplate and flange which includes a suitable vee for welding. Such rolled flanges having square edges are, it is understood, manufactured by more than one Steel Works on the Continent.

A sketch illustrating this latter suggestion should be included for reference.



 14.10.38.

Mr. L. Ripley and Mr. W. E. Lewis should be advised and thanked for their remarks.

Lrs 17/10



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