

Messrs.Aalborg Yard No.64.

Welded Bedplate.

IT IS SUBMITTED the Owners of this vessel, Messrs. Lauritzen, be informed that, according to a communication received from Messrs.Burmeister & Wain, it is understood they wish to be fully acquainted with the essential facts concerning the approval by this Society of the bed plate for one of the engines in Messrs.Aalborg's Yard No.64. These are as follows:-

- (1) Girders made of Bessemer Steel have been included in the bedplate in question: are as follows:-
- (2) The Society's Rules state that rolled steel or forged steel used in the construction of engines and boilers is to be made by the Open Hearth Process, and hitherto this Rule has been rigidly observed to the entire exclusion of Bessemer Steel.
- (3) Bedplates, until recent years, have been made of cast iron but welded steel bedplates are now in fairly common use.
- (4) Messrs.Burmeister & Wain state that the calculated stress in the parts in question is low and this has been confirmed by calculations made in this office. The actual stress allowed is only about 25% greater than that used in cast iron construction, whereas the tensile strength of the steel is nearly three times as great as that of cast iron.
- (5) Tensile and bend test pieces, six in all, have been cut from the actual girders and tested by the Society's Surveyors with satisfactory results. In addition, impact tests which the Rules do not require to be made on rolled steel have also been carried out and the results were satisfactory.
- (6) The running trials of this engine have extended over a considerable period of time and it is stated that there are no indications whatsoever of any defects in the material or in the bedplate as a whole.
- (7) In all the circumstances it is considered that the bedplate could be approved but Messrs.Burmeister & Wain were informed that the Owners should be made fully aware of the features of the case and their written consent be obtained.

Admrs. Messrs. Burmeister & Wain

S.D. [Signature]

[Signature] 11.2.39.

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