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s.s. "CONTE ROSSO".

Loeffler Boiler Installation.

Extract from Memorandum forwarded to the Trieste Surveyors
17.7.35.

Welding.

In regard to the welding, the Firm should be informed that it ^{will be} is necessary in the first instance to carry out a series of special tests in order to demonstrate to the satisfaction ^{of} to the Society's Surveyors the soundness and reliability of their welding work, having regard to the special importance of this construction and the high pressures involved.

For the purpose of this series of tests, test plates should be prepared and cut up to provide specimens which are to be tested under the supervision of the Society's Surveyors. The material of the test plates, the preparation, welding technique and process are to be the same as proposed for the actual manufacture of the boiler. In this connexion, full particulars of the materials forming the welding joints should be forwarded and in cases where welds are made between two materials having different chemical and physical properties, sample test plates should be made using these materials.

Test pieces cut from the test plates should include the following specimens:-

- (a). Tensile specimens taken transversely across the joint.
- (b). Bend specimens.
- (c). Impact specimens. Tests to be taken in way of fusion zone, weld metal and parent plates.
- (d). Specimens selected by the Surveyor are to be polished and etched and photomicrographs taken at 100 magnifications at the following positions:-
 1. Parent plate remote from weld.
 2. Fusion zone.
 3. Centre of weld.

A sufficient number of tests should be taken in order that the results obtained may be regarded as representative.

With reference to the ^{© 2018} welding details shown on the plans, it is observed that many of the important joints



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-2-

are ~~electrically~~ welded from one side only. It should be pointed out that in all cases joints should be arranged, as far as possible, so that welding and subsequent inspection can be carried out from both sides.

It is considered important that in the welding of parts subjected to steam pressure, complete penetration of the weld metal and the absence of entrapped slag should be ensured.

Plan No.2500H.

It is recommended that the form of joint in way of the division plate in the headers should be as shown in red on the plan.

Plan No.2238H.

It is recommended that the form of joint in way of the division plates in the headers should be as shown in red on the plan.



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