

s.s. "CONTE ROSSO".

Loeffler Boiler and Escher Wyss Turbine Installation.

Plan No.2507/H. showing diagrammatically the piping arrangements for the new installation will be approved, but the following comments are made and should be discussed with the representatives of Messrs. Cantieri Riuniti dell'Adriatico and the Owners:-

(A). Charging Pipes (Nos. 1 on the list) 50-60 mm. diameter are at one end in connexion with pipes carrying steam which has just left the convection superheater, and will therefore be subjected to a temperature of 475°C.

It is suggested that these pipes should be made of Loeffler Normal Steel instead of Carbon Steel, or, alternatively, that shut-off valves should be fitted at a point near the connection to the convection superheater outlet pipe.

(B). Drain Pipes (No.3 on the list).

Some of these pipes appear to be in connexion with the convection superheater headers (working temperature 475°C.) and the radiation superheater outlet headers (working temperature 450°C.), and it is suggested that these pipes should be made of Loeffler Normal Steel between the headers and the shut-off valves.

(C). It appears that high pressure steam used for heating the intermediate superheater passes through non-return valves to two of the do-uble ended cylindrical boilers.

No objection will be taken to this arrangement provided the safety valves of these cylindrical boilers are adequate to deal with the additional steam as well as that produced in normal firing conditions. In order to verify that this is the case, an accumulation test on these two boilers should be carried out on the vessel's trials.

(D). It is noted that the two safety valves, Nos.45 on the 2nd



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H.P. turbine exhaust and on the cross connection between the H.P. steam line and the existing steam line, are to be adjusted at 16 Kgs. per square cm. The working pressure of the existing installation is 200 lbs. per square inch, or 14 Kgs. per square cm., and it is considered therefore that these safety valves should be adjusted to a pressure very little in excess of the working pressure of the existing installation, say 14.5 Kgs. per square cm.

Further, the pipe of 117.5 - 127 mm. ^{ing} diameter, connected the existing auxiliary steam line with a water separator, and which appears to be supplied with steam also from the steam pump gland exhaust, is stated to be for a working pressure of 16 Kgs. per square cm., whilst the working pressure of the existing installation is 14 Kgs. per square cm. The pressure in this pipe should be limited to that of the existing installation.

(E). The description of pipe No.8 on the list of pipes, viz: "blow down line to cylindrical boilers - drain pipe to throttle valve" suggests that the blow down systems of the Loeffler Boiler and the cylindrical boilers are common. It is considered that the two blow down systems should be separate.

(F). The thickness of pipe No.11 - 93-108 of carbon steel 55 Kgs. per square mm. - Feed water pipe, feed pump to economiser, should not be less than 9 mm. instead of $7\frac{1}{2}$ mm. as proposed.

(G). The thickness of pipe No.13 - 70-83 mm. of Loeffler Steel - pipe for superheated steam to stop valve B40 () should not be less than 7.5 mm. instead of $6\frac{1}{2}$ mm. as proposed.

(H). Pipe No.29 70-83 mm. - Pipe connecting radiation superheater headers to main H.P. steam pipe - should not be less than 7.5 mm. instead of 6.5 mm. as proposed.

It is understood that amended plans will be submitted in due course.

Plan No.5056 showing typical water gauge will be approved.
Plan No.2649H. showing water gauge has been examined, but it is desired that a description of the apparatus should be forwarded in order that the plan may be dealt with adequately.
Plan No.2642H., showing sediment separator has been examined and the scantlings of the parts are such as could be accepted. It is not clear from this plan, nor from the piping arrangement plan, how this apparatus works, and a full description should be forwarded. It should be added it appears that no provision has been made for the removal of sediment which may collect in the separator.



7.11.35.

