

T.Sc.S. "HAKUSAN MARU".Repair to No.7 Main boiler:- (continued)

No.7 main boiler examined and found, port and starboard wing furnaces badly deformed, about half of their diameters.

All smoke tubes found slack more or less, all combustion chambers seams with rivet slack, girder stays on chamber top slack.

Combustion chamber tube plates slightly buckled.

Now done:- Port and starboard wing furnaces removed.

Port wing smoke tubes, 34 in number removed for renewal and all others expanded, centre smoke tubes all in number expanded and starboard wing smoke tubes, 28 in number removed for renewal and all others expanded.

All girder stays removed, faced up and refitted. Girder stay nuts, 36 in number renewed.

All combustion chamber seam edges and rivets caulked and several rivets in centre chamber seams renewed.

Combustion chamber back small stays, each 2 pieces on port and starboard wing renewed and

Combustion chamber and shell side small stays, each 9 pieces on port & starboard wings, renewed.

All other small stays caulked and their nuts, 35 pcs. on port wing, 62 pcs. in centre and 7 pcs. on starboard wing, renewed.

Recommended:-

Port and starboard wing furnaces to be renewed and several smoke tubes on centre furnace to be renewed, and all other work for access to the above repairs to be made in good order, and the boiler to be tested under pressure.

Note:- It was stated by the Owners that they intend to carry out the above repairs to No.7 main boiler on her arrival at Liverpool on the 7th May, 1940, if they can get those furnace materials there.

62 new smoke tubes in total for port and starboard wing furnaces, were supplied.

For **reference** one copy of the above repair plan is attached hereto.

Intermediate docking. Vessel placed in dry dock, propellers, aft end of stern bushes, and shell fastenings of sea connections, examined and found or now placed in good condition.

Propeller damage, stated to have been caused by port side propeller touching some object, date and place unknown, and starboard side propeller striking a buoy on the 13th Oct. 1939, at Moji.

Found and recommended as follows:-

<u>FOUND</u>	<u>RECOMMENDED</u>
<u>Port side Propeller (bronze blades, removable)</u>	
"K" blade bent gradually to forward, about $2\frac{1}{2}$ inches at end from a point of 3'-9" apart.	To be removed, faired and refitted.
"L" blade bent gradually to forward, about $2\frac{5}{8}$ inches at end from a point of 3'-11" apart.	To be removed, faired and refitted.
"J" blade bent gradually to forward, about 2 inches at end.	To be removed, faired and refitted.

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Port side propeller, (continued).

Now done for the time being, K and L blades have been replaced by spare blades, marked "M" and "N" respectively.

Starboard side Propeller.

"B" blade edge of ahead side, badly cracked and buckled, in a range of 10½" and 4½" deep, faired in place and repaired by welding.

"E" blade edge of ahead side, slightly cracked and buckled, in a range of 8" and 3½" deep, faired in place and repaired by welding.

These recommendations to starboard propeller have now been carried out to my satisfaction.



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