

Lloyd's Register of British & Foreign Shipping.

Head Office: 71, Fenchurch Street, London, E.C



~~P.O.B. (Castilla) 221.~~

OFFICE: No. 286 Calle Blanco.

C A L L A O.

Valparaiso

~~VALPARAISO~~

7th July 1916.

Copy

This is to Certify that

A. F. S M I T H

the undersigned Surveyor to this Society did at the request of

THE MANAGER of the Cia. Peruana de Vapores y Dique del Callao proceed on board the B.K. "Elisabeth" on the 22nd June and made daily visits subsequently up to this date for the purpose of holding Second Special Survey No.3 on Hull and now beg to report as follows:-

MAIN DECK.

The pine planking of this deck is rotten in many places and the plating underneath as far as seen is rusty. The broad planking of teak wood, is in good order. These teak planks are at waterway and also line with hatch ways and on both sides of fore and aft T reverse tie or strengthening bar, running the full length of the ship on either side of the main deck about 8 ft. in-board from waterway.

The soft wood requires lifting and renewal and the deck plating underneath scaled and well coated with red lead paint before the new deck planking is laid. Best selected Oregon pine may be used for the new deck, no other deck planking being available at this port. New planking must be same thickness and width as original. Should some of the original planking be found fresh and clean when lifted it can be again made use of.

CAULKING.

When the new deck planking is laid the whole of the seams must be well laid with three threads of good oakum, and then well ~~set~~^{sewed} with pitch. All bolt holes must be well dowed with cross grain dowls, a tight fit not less than one inch long, and well soaked with paint before being driven home.

'Tween decks being in fairly good order should be repaired where required, leaving trimming holes as necessary.

Forecastle deck is weather wasted in places and a number of the planks, as indicated, should be renewed and the whole well caulked.

Poop deck, originally of iron, is very badly corroded on flat and at forward end. I would recommend that this be cut accross, and fore and aft, at start of "tumble in" and the flat part renewed of 3 ins. Oregon pine deck planks fitted with 10 ins.X 3 ins. teak wood margin boards well bolted to original deck plates, to give firmness for caulking, which should be same as in main deck seams.

LOWER MASTS AND BOWSPRITS.

All the wedging of these must be removed. Masts thoroughly scaled in way of partners and if found in good condition, wedging to be replaced after masts have had a thorough good coating of paint. All defective wedges to be made new. New mast coats to be fitted to the whole of the masts, and the bowsprit wedging to be made watertight.

MASTS AND RIGGING.

The lower masts are all that are now standing. These, after being examined, and if found in good order must be each fitted with two shrouds and one back stay, on either side, and one fore stay, all of original thickness of rigging wire rope, and well set up with new lanyards or rigging screws, to ensure the safety of the masts against rolling and when working cargo. The bowsprit back stays will require renewal, and the martingale chains and rods annealing.

HATCHES.

A complete new set of these are required to be of suitable

sections of three inch boards, well secured by clench bolts and fitted with lifting rings set in flush to prevent chafe of tarpaulins.

Hatches to be all fitted in place and 'tween deck hatches to be set in place, renewed where wanting and repaired as required. Strong backs and hatch bearers all to be fitted in place and well secured as original. Hatch batten cleats to be overhauled and refitted where necessary. Hatch battens and wedges to be supplied as required. A complete set of locking bars, and approved padlocks to be fitted to each hatch.

TARPAULINS.

Two sets of new tarpaulins to be fitted to each hatch, these to be of ample size to fully allow for doubling and wedging. WINDLASS to be overhauled and friction gear cleaned. Mess^{on}age chains and wheels for same require renewal, as they are all considerably worn.

Chain cable to be ranged on deck and examined. This vessel should have 270 fathoms of 2 1/16 ins. cable. Should any part of it be found to be less than 1 27/32 ins. mean diam. it will require renewal. Stream chain should be 100 fths. of 1 1/8 ins.

ANCHORS.

She should have 3 bower anchors each weighing 40 cwt. ex stock. One stream anchor 12 cwt. and one kedge anchor 6 cwt. all in good order. Tow line:- 90 fths. of 12 ins. hemp rope or steel wire :- 4 ins. Hawling lines:- 2 coils of 7 ins.

PUMPS.

Parts of these are now wanting. It is required that all the deck pumps should be completed, fitted in place and tried before survey on hull is completed.

BOATS.

These should be:- two life boats fully equipped, one long boat, and one dinghy, fitted with suitable davits, skids chocks, gripes etc. all as per British Board of Trade Rules. Side lights and mast head lights must also be fitted.

STEERING GEAR.

Emergency gear on main deck aft is in good order, only requiring oiling and cleaning and the deck gland to rudder head repacked. Steering gear on bridge amidships has been ~~removed~~ ^{removed} and all guide pulleys, rollers, brackets and rods allowed to rust away and become useless. The gear requires to be refitted in place, all rollers renewed, guide pulleys overhauled and renewed where necessary. New chains [&] rods supplied and the steering gear completed and made a safe and satisfactory working job of.

HULL.

The vessel now being in dry dock, the following requirements are necessary:-

Outside plating should be thoroughly scraped brushed down and washed and allowed to dry. The painting on the lower part of the vessel is in very good order and need not be disturbed. The two strakes of plates between wind and water require to be thoroughly scaled and cleaned and well coated with red lead. The surface to be scaled should widen out to 10 or 12 feet on both bows and extend well up under the counter. Drilling of these plates should go on simultaneously with the scaling. Holes to be drilled as indicated, to ~~give~~ ^{the} thickness of plating. From the general appearance of the hull plating, I do not consider it will be necessary to renew any of the plates on account of wastage but this will be reported on separately.

DAMAGE TO HULL.

The vessel has been on shore at some time and has received damage to hull plating on both bows at, and aft of forward bulkhead, plating and frames being considerably set in. The garboard strake and two strakes above are involved in the damage, including six frames on either side from the bulkhead aft. The space inside of this damage is now filled with cement.

I would recommend as a permanent repair that on stbd. side, garboard strake be loosened and straightened. Plate next above be cut out for 12 feet and renewed. Third plate up be straightened in place. Frames at damage and floors be cut out straightened and

replaced. Cutting of frames to be as much apart as possible, and rejoining of same to be effected by bosom pieces or back to back frame pieces 3 feet in length and of same section as frames. Port side:- garboard strake, 8 feet to straighten. B. and C. strake of plates to be cut out for 12 feet and renewed. Butts of same to be as original in size, and pitch of rivets. Six frames on this side to be cut and straightened as on stbd. side. Blkb'd. to be cut straightened and replaced. It will be necessary to take out all cement to do this repair. When repairs are satisfactorily completed, inside to be well covered with cement; and outside new and adjacent plating, to be well coated with red lead and when dry, anticorrosive coating. Stem where chafed at fore foot to be sheathed with $\frac{3}{8}$ ins. plates, 6 ft. long, and taking both rows of rivets. Plates to be well rounded in to stem and chamfered off top and bottom. Keel where chafed in places to be closed in and all rivets renewed.

RUDDER to be lifted, pintles examined and steel washer 1 in. thick placed under foot step two dead wood ^{on} guard plates to be renewed.

When all work as above is completed the whole of the submerged surface to have one coat of antifouling composition.

INSIDE OF HULL.

Work required on inside of hull as stipulated on extract from "The Society's Rules" which I handed to your ^{Representative} Marine Superintendent, is progressing favourably. When the whole of the foregoing requirements are completed satisfactorily a certificate will be granted stating that the hull and necessary parts of her equipment required for use as a barge for deep sea towing are in compliance with Lloyd's requirements for same. To complete the vessel as a fully classed sailer she still requires topmasts, topgl'n masts and royals, and all yards, standing and running gear for all these, and ^{two} ~~three~~ complete suits of sails.

J. J. Moore.
Second Surveyor.

W. B. Smith.
Surveyor to Lloyd's Register
Foundation