

London

LEITH.

15th October, 1919.

J.R. Williamson.

the Ministry of Shipping attend on board the S.S. "Patmos" 1907 tons gross Register No. 22965 in the Society's Register Book while lying in the Imperial wet dock & Alexandra dry dock, Leith on the 3rd Sept., 1919 and subsequent dates for the purpose of ascertaining the general condition of the hull and machinery previous to the vessel being taken over by the Ministry of Shipping.

The Survey was held in conjunction with the Norske Veritas Surveyors and the Managers representative.

The following records were found on board:-

Germanischer Lloyd + 100 L from March 1914 dated Hamburg 7th May 1914.

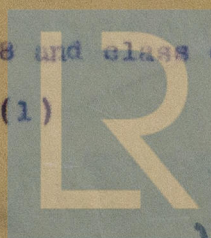
Special Survey No. 1 class renewed from March 1918 dated Hamburg 13th August., 1919.

Bottom damage through grounding examined and class continued.

+ M.C. from March 1914 dated Hamburg 7th May 1914.

Machinery survey held Jan. 1918 and class continued from March 1919

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Propeller shaft examined 2nd Jan. 1918.

How done: Vessel placed in dry dock and the bottom and rudder examined.

A number of bulwark and shell plates found somewhat indented on port and starboard sides, including bilge keels. Several defective rivets renewed in shell plates and bilge keel on the port side.

When afloat, the holds, peaks, bunkers, engine and boiler space, examined. Double bottom tanks not opened out at this time, these tanks tested and found tight. Tank top under boilers carefully examined, Limber boards removed, bilges cleaned and examined and limber boards relaid. Decks, casings, hatches, hatch covers, beams, frames, ventilators, watertight doors, windlass, steering gear and its connections, air and sounding pipes, masts and rigging (from deck) anchors and general equipment examined as far as possible, cables changed.

Found as follows. The frames, beams, stringers, bulkheads, and decks, in good condition although more or less bare of paint, Cargo battens and close ceiling fitted throughout in fairly good condition. Tank top under boilers considered satisfactory. Forecastle and engineers accommodation stated to be verminous, and remaining accommodation including lavatories found dirty. Forecastle bridge deck, and boat deck caulking perished, steering gear, chains, rods, and pins, more or less in bad condition. No. 3 derrick starboard side damaged, and remaining derricks with running gear and rigging generally more or less perished and rotten. Fresh water tank dirty, and suction pipe to same broken. A number of hatch covers and beams fore and aft either broken or found an indifferent fit. Bracket on taffrail aft for patent log missing. Wing shelters missing, ^{and} wood work generally on upper bridge in very poor condition and bare of paint. A number of belaying pins also found missing. Gangway door on starboard side of cabin house buckled, and unworkable. Rails fore and aft together with stanchions on gangways more or less damaged or missing. All navigation lights together with lamps in berths defective or broken. A number of deck lights including two windows in wheel house broken. Relieving blocks and tackle for steering gear aft missing. Galley

stove not up to requirements. Bridge weather cloths and oddgers perished and torn. Close ceiling in way of hatches damaged. Several bilge suction pipes in Nos. 2 & 4 holds, together with suction pipe in fore peak leaking. Watertight door to reserve bunker unworkable. Main funnel damaged and holed. Deck winches more or less out of order.

Machinery:-

The cylinders, pistons, slides, pumps, condenser and suctions, crank thrust and tunnel shafting, steering engine, Dynamo engine, and all auxiliary pumps opened up for examination.

Screw shaft drawn and examined, same found badly pitted in way of stern gland, spare shaft now fitted in place.

All sea cocks and valves opened up and found or put in good working order. The boilers and their mountings examined throughout. All valves and cocks to same ground in and made steam tight.

Found:- Ridge at top and bottom of H.P. cylinder, and piston rings to same slack. Joint between I.P. and L.P. cylinder leaking badly, and Rams bottom rings to L.P. piston defective. White metal in bottom half of L.P. crank pin bearing cracked, and a number of oil pipes broken. Several condenser tube plate studs wasted. Air pumps valves all more or less worn. Circulating pump bucket packing perished. White metal packing in feed pump glands worn, including both discharge valves to same. Bilge pump suction and delivery valves and seats worn. Oil ways in thrust collars choked up. Evaporator, and pump to same not working efficiently. One liner to ballast donkey water end chamber badly worn and chamber found patched. General service pump found more or less defective. Piston and valve spindle rods to reversing engine, scored, and piston rings to same slack. Ash hoist piston and valve spindle rods worn, and piston rings slack. Steering engine cylinders found ridged, and piston and valve spindle rods scored. The windlass generally in very bad condition, and patched in several places. Dynamo cylinder, and running parts worn generally. Tank and bilge suction valves found leaking. Deck steam and exhaust pipe joints leaking at engine room bulkhead. All electric wires stroughout more or less defective.

In my opinion, so far as I can judge from the inspection made of the

parts of the vessel and her engines and boilers which have been examined the vessel and her machinery appear to be in a fit condition to run for a period of six months provided the following repairs be carried out.

Fore castle and engineers accommodation to be gutted and refitted throughout as required, including all lavatories. Forecastle Bridge deck, ^{and} Boat deck, be recaulked. Steering gear to be generally overhauled, and put in good working order and 16 ft. of steering chain renewed. No. 3 derrick on Starboard side be renewed, and remaining derricks with running gear and rigging throughout be overhauled and repaired or renewed where necessary. Fresh water tank to be cleaned out and cement washed, and suction pipe to same repaired. Hatch covers and beams fore and aft to overhaul and refit or renew as required. New Bracket for patent log on taffrail aft to be fitted. Wood work generally on upper bridge to be renewed. Belaying pins to be supplied where missing. Gangway door on starboard side of cabin house to be faired, and rails fore and aft together with gangway stanchions repaired and renewed as necessary. All navigation lights together with lamps in berths to be repaired or renewed. All broken deck lights and wheel house windows to be renewed. Steering gear relieving blocks and tackles to be fitted. A new galley stove to be fitted to meet requirements. Ceiling in way of hatches to overhauled and make good. Deck winches to overhaul and put in good working order. Main funnel to be repaired. Leaky pipes in fore peak and in Nos. 2, & 4 holds be repaired. Watertight door to reserve bunker to be taken down and made workable. All boats and life saving appliances to be made good to Board of Trade requirements.

Ridge at top and bottom of H.P. cylinder to be ground off, and piston rings to same to be renewed. Joint between I.P. and L.P. cylinders to be renewed, and 3 new Ramsbottom rings to be fitted to L.P. piston. White metal to be renewed in bottom half of L.P. crank pin brass and repair all oil pipes where necessary. A number of condenser tube plate studs to be renewed. All air pump valves to be renewed throughout. Circulating pump bucket to be repacked, and white metal packing in feed pumps to be renewed, including both discharge valves

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to same. Bilge pump delivery valve seats to be bored out and new suction and delivery valves fitted. Oil ways in thrust collars to be cleared and gutters recut. Evaporator coils to be tested and pump to same to be put in good working order with renewals where required. One new liner to be fitted to waterend of ballast donkey pump, and chamber patched where holed, General service pump steam and water ends to be bored out and new pistons and buckets with rings supplied including working parts where necessary. Reversing engine piston and valve spindle rods to be skimmed up, new neck rings, and gland rebushed, and new piston rings supplied.

Ash hoist engine piston rods to be skimmed up, new neck rings and gland rebushed, two new piston rings fitted, 3 new valve spindles fitted, control valve faced up and liner fitted on back of cover.

Steering engine, piston and valve spindle rods skimmed up new neck rings and glands rebushed, ridge ground off ends of cylinders, and new piston rings to be fitted, including two new crank pin brasses, Windlass, one new cheek to be fitted on port side, two new collars fitted to prevent compression nut working too far along shaft, 4 cod pieces fitted in clutch gear, piston rings renewed, and all parts generally put in good working order, pending the fitting of a new windlass.

Dynamo engine cylinder to be bored out, new piston and rings fitted, piston and valve spindle rods skimmed up new neck rings and glands rebushed, new crosshead brasses fitted and all bearings adjusted.

Tank and bilge suction valves to be overhauled. Deck steam and exhaust pipes to be overhauled. All electric wiring to be overhauled and made good where required.

The above repairs have now been effected.

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J. R. Williamson

SURVEYOR TO LLOYD'S REGISTER OF SHIPPING.



Lloyd's Register

W132-0086(515)