

Report of Survey for Repairs, &c., of Engines and Boilers.

(Received at London Office)

No. 4075

Date of writing Report 30 - 10 - 42 When handed in at Local Office 10 Port of NEWCASTLE, N.S.W.
 No. in Reg. Book Survey held at Newcastle Date, First Survey 21-10-42 Last Survey 26 - 10 - 1942
 on the Machinery of the Wood, Iron or Steel Sc. Sr. " IRON KNIGHT " (No. of Visits Five)

Tonnage { Gross 4812
 Net 2737 Vessel built at Port Glasgow By whom Lithgows Ltd. Year. Month. 1937 10
 Nominal Horse Power 553 Engines made at Glasgow By whom D. Rowan & Co. Ltd. When 1937
 No. of W.T. Boilers 3 Boilers, when made (Main) 1937 (Donkey)
 No. of Donkey Boilers - Owners Broken Hill Pty. Co. Ltd. Owners' Address
 Steam Pressure in Main Boilers 250 Managers (if not already recorded in Appendix to Register Book.)
 No. of Donkey Boilers - If Surveyed Afloat or in Dry Dock Afloat Port Melbourne Voyage Interstate

Last Report No. 4067 Port N.S.W.

Particulars of Examination and Repairs (if any)

Periodical Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the nature of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on sides being detailed in the body of the report, should be briefly summarised at the end of the report. State also the damage cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose, and why they were declined.

As a damage report made by anyone else? If so, by whom?

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? Yes, Starboard

Did the Surveyor personally go inside each Donkey Boiler separately and make a thorough examination at this time?

Was not done, state for what reasons?

What parts of the Boilers could not be thus thoroughly examined? Headers, mud & superheater drums, tubes etc..

What special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler? Tested hydraulically to 375 lbs. per sq. in..

Latest date of internal examination of each boiler 21-10-42

Did the Surveyor examine the Safety Valves of the Main Boiler? Yes To what pressure were they afterwards adjusted under steam? 250 lbs..

Did the Surveyor examine the Safety Valves of Donkey Boiler? To what pressure were they afterwards adjusted under steam?

Did the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? Yes, and of the Donkey Boilers?

Did the Surveyor examine the drain plugs of the Main Boilers? , and of the Donkey Boilers?

Did the Surveyor examine all the mountings of the Main Boilers? Yes, and of the Donkey Boilers?

Has a new shaft now been drawn and examined? Is it fitted with continuous liner? Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

Has a shaft now been changed? If so, state reasons Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

Has a shaft now fitted been previously used? Has it a continuous liner? Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

State the distance between lignum vite or bearing metal of stern bush and top of after bearing of screw shaft

When engine parts, when referred to by numbers, should be counted from forward. Is electric light and/or power fitted?

Did the Surveyor examine the generators, motors, switchgear, cables and fuses?

Insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms?

If survey is not complete, state what arrangements have been made for its completion and what remains to be done

Doors removed from mud and superheater drums and from headers in way of 4" low tubes as required and one in two in way of small tubes, and headers, mud and superheater drums, tubes etc. examined through same found clean and in good order except a number of superheater tubes corroding in way of belled ends in both drums now thoroughly cleaned off and coated with apexior. 4" fire tubes tested with line on the furnace side and found within the 7/8" bending limit at 4th. from starboard side now renewed.

Baffles, steam and superheater drums, dash and wash plates, circulating nipples and downcomer return tubes examined and found in good condition.

Main check valve taken off and overhauled and both pillars on aux. check renewed.

Remarks: P.T.O.

General Observations, Opinion, and Recommendation:—

Is any alteration required to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, B.S. 9,11, B.&M.S. 9,11, & L.M.C. 9,11, or C.S. 3,34, 140 lb., F.D., &c.)

Is the vessel in my opinion to have record of BS, 6, 42, 250 lbs. made in the Register Book and fresh of MS (with date) when No. 1 Dynamo has been examined and Elec. Plant megger and load tested, the Reversing and Fwd. Circulating Pump Engines and the Aux. Condenser have been examined.

Is a Certificate required? If so, to be sent to _____

Signature: E. G. Hughes
Acting Engineer Surveyor to Lloyd's Register of Shipping

Date: TUE 9 FEB 1943

Committee's Minute

CHARACTER, for Special Survey Date of last Survey and of Periodical Surveys.	Years assigned for or expired.	Machinery and Boiler Surveys (including date of N.B., if any).
<u>+100AL with free-board</u>	<u>8.42</u>	<u>+TMC 10.37</u>
<u>Cargo battens not fitted.</u>		<u>BS 2.4</u>
		<u>TS (CL) 8.40</u>



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S. S. " IRON KNIGHT "

PART MS.

The Thrust Shaft and Bearing and No.1 Dynamo Engine were opened up and examined and found in good condition throughout.

The Evaporator was opened up and cleaned out and found in good condition, now blown at 25 lbs..

Satisfactory steam turns were seen taken out of Main Engines and all auxiliaries.



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