

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

(Received at London Office - 8 JUL 1925)

Date of writing Report 19 When handed in at Local Office July 7th 1925 Port of NEWCASTLE-ON-TYNE.

No. in Reg. Book 28813 Survey held at Jan. on Tynes Date, First Survey May 21 Last Survey June 30th 1925. (No. of Visits 17.)

on the Machinery of the Wood, Iron or Steel S.S. "FARNWORTH"

Tonnage { Gross 4944 Net 3043 Vessel built at Glasgow By whom R. & L. S. & Co. Ltd When 1924-9

Nominal Horse Power 425 Engines made at Greenock By whom J. G. Kincaid & Co. Ltd When 1924

No. of Main Boilers 3 Boilers, when made (Main) 1924 (Donkey) -

No. of Donkey Boilers 0 Owners J. & L. S. & Co. Ltd Owners' Address (if not already recorded in Appendix to Register Book).

Steam Pressure in Main Boilers 180 Managers W. S. J. & Co. Ltd Port Newcastle Voyage

in Donkey Boilers 1 If Surveyed Afloat or in Dry Dock Mercantile Tynes. Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

Last Report No. Port

Particulars of Examination and Repairs (if any) Boiler Special 100 P. 19. 24

Periodical Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the cause of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and besides being detailed in the body of the report, should be briefly summarised at the end of the report. State also the dates and initials of any letters respecting this case.

In 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 *yes not required*

Was a damage report made by anyone else? If so, by whom? *yes Under manager.*

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

Do. " Donkey " " " " "

If this was not done, state for what reasons? *yes*

And what parts of the Boilers could not be thus thoroughly examined? *yes*

Also 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? *yes*

Did the Surveyor examine the Safety Valves of the Main Boiler? *yes* To what pressure were they afterwards adjusted under steam? *not required*

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

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

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

Did the Surveyor examine all the mountings of the Main Boilers? *yes* , and of the Donkey Boiler? *yes*

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

Has shaft now been changed? *yes* If so, state reasons *yes*

Is the shaft now fitted new? *yes* Has it a continuous liner? *yes* Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? *yes*

State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft? *yes*

If the Survey is not complete, state what arrangements have been made for its completion and what remains to be done? *Survey complete.*

Now done - Vessel placed in dry dock propeller, stern bush & fastenings of sea connection examined

Now done for Damage stated to have been caused to the Port & Starboard boilers through some substance, element or elements being in the boilers causing excessive wastage to the iron tubes and combustion chamber stays whilst in the first voyage from the Clyde to Larva Galveston, Pinaus, Genoa, (Australia) Fremantle, Durban, St Vincent, Algiers to the Tynes.

The three main boilers examined inside & outside. The centre main boiler was found in good condition but excessive wastage was found in the Port & Starboard boilers, and by an examination of the chief engineers by the

General Observations, Opinion, and Recommendation: - *The boilers of this vessel*

(State clearly what alteration, if any, is suggested 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, or L.M.C. 9.11, 140 lb., F.D., &c.)

are now in a good & efficient condition & eligible in our opinion to remain as classed without fresh record of survey.

Survey Fee (per Section 28) £ 1

Special Damage or Repair Fee (if any) (per Section 28.) £ 5-5-0

Travelling Expenses (if chargeable) £ 1

Committee's Minute

Assigned

Fees applied for 1925

Received by me, *W. S. J. & Co. Ltd*

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

wasting appears to have only been active in the last three months of the voyage. The wasting was chiefly confined to the iron tubes and iron C.C. screw stays. The back tube plates were also slightly pitted. The following tubes and stays were renewed.

Harboard Boiler			Tubes renewed as follows
Screw Stays	No		
Head C.C. Back	71		225 Plain tubes
Centre "	70		95 Stay "
Port "	71		
Port Wing Thrust shell	32		Pitted holes in back tube plates welded up.
Head "	26		
Head Port "	33		
Port "	32		
C.C. Tops	30		
Total	365		

"PORT BOILER"			Tubes renewed
Screw Stays	No		
Head C.C. Back	33	Stays	15 Stay tubes
Centre "	43	"	12 Plain tubes
Port "	38	"	
Port Wing Thrust shell	8		
Head "	21		
Port partition	11		
Head "	17		
Total	171		

NOTE. THE RENEWED C.C. STAYS ARE NOW MADE OF STEEL.

CENTRE BOILER.

The good tube was cut out of this boiler the material analysed also a microscopic examination taken. This was also done in the case of the wasted material and the material in each instance found good, with practically the same result from each sample. The tube taken out of centre boiler was afterwards renewed. The Port & Harboard boilers after repairs were tested by hydraulic pressure to $1\frac{1}{2}$ times W.P. & found sound & tight. The boilers were boiled out with caustic soda and coated with zinc powder. Zinc plates were fitted. Air escape cocks were fitted to the bottom of each air vessel on the feed pumps discharge pipes. The owners intend to open up the boilers for examination at short periods and should any further wasting be evident the British surveyors will be notified.