

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

(Received at London Office 19 FEB 1934)

Date of writing Report 19 When handed in at Local Office 17 Feb 1934 Port of Belfast

No. in Reg. Book 23743 Survey held at Belfast Date, First Survey 3 July 1932 East Survey 6 Feb 1934 (No. of Visits 15)

Tonnage Gross 5924 Net 3779 Vessel built at Sunderland By whom W. & A. Shipyard & Co. Ltd. When 1924-6

Nominal Horse Power 574 Engines made at W. Hartlepool By whom W. & A. Shipyard & Co. Ltd. When 1924

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

No. of Donkey Boilers 1 Owners' Address (if not already recorded in Appendix to Register Book.)

Steam Pressure in Main Boilers 225 Managers Hall Line Ltd. Port Liverpool Voyage

If Surveyed Afloat or in Dry Dock Yes Alexandria D.D. (State name of Dock.)

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

CHARACTER for Special Survey. Date of last Survey and of Periodical Surveys.	Year assigned or expired.	Machinery and Boiler Surveys (including date of N.B. if any)
+100 A1. 11.31.		+LMC. 9.28.
SS. SNG. No 1-28.		BS. 3.32.
		CL. 12.30.
FITTED FOR OIL FUEL	7/24	
P.P. ABOVE 160° F.		

Last Report No.

Port

Particulars of Examination and Repairs (if any) BS & Machinery Alterations.

Periodical Surveys, when held, must be reported in detail and seriatim 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 summarized 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?

Was 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 15/11/33.

Do. " Donkey " " " " "

If this was not done, state for what reasons?

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

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?

Did the Surveyor examine the Safety Valves of the Main Boiler? Yes

To what pressure were they afterwards adjusted under steam? 225 lbs.

Did the Surveyor examine the Safety Valves of Donkey Boiler? Yes

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 Boiler? ✓

Did the Surveyor examine all the mountings of the Main Boilers? Yes

, and of the Donkey Boiler? ✓

Has screw shaft now been drawn and examined? Yes 27/10/33. 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? No

Has shaft now been changed? No. If so, state reasons

Has the 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? ✓

the distance betweenignum vite or bearing metal of stern bush and top of after bearing of screw shaft Working fit

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

Now done The vessel placed in dry dock, propeller and outside fastenings examined. Sea cocks & valves examined. Screw shaft drawn in & examined & refitted in good order.

The main boiler examined internally & externally, together with all their mountings, safety valves, doors & fastenings. Safety adjusted under steam as above.

The exhaust turbine geared to generator and the propulsion motor, the details of which are in the Manchester report No 7898, have been satisfactorily installed in the vessel. The exhaust turbine and generator have been fixed on the tween deck flat on the port side of the main engine room. The motor has been directly coupled to the main line shafting & fixed at the after end of the main engine room in the tunnel recess. The line shafting aft of the propulsion motor, except for one making up length has not been renewed and is 14 1/4" dia, as approved. (London letter dated 10/5/33.) The thrust shaft which is fitted forward of the propulsion motor has been renewed and a Mitchell Thrust Block fitted. The new thrust shaft is 15 1/4" dia and is stamped as on the enclosed forging report. P.T.O.

General Observations, Opinion, and Recommendation:— The machinery of this vessel is eligible (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.) in my opinion, to remain as classed in the Register Book, with a fresh record of BS 11.33 CL 10.33. Nominal HP 664.5 and description LP turbine with electric drive. MS 11.32 as previously recommended in Liverpool report No 101330.

Survey Fee (per Section 28) £ 4 : 0 : 0 Fees applied for 17/11 1934

Special Damage or Repair Fee (if any) (per Section 28.) £ : : Received by me 31/5/34

Travelling expenses (if chargeable) £ : :

Committee's Minute

Assigned

John K. Williams.

Engineer Surveyor to Lloyd's Register of Shipping.

TUE 19 JUN 1934

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Lloyd's Register

W539-0098

The new length of line shafting is $14\frac{3}{16}$ " dia & stamped

LLOYD'S NO 4603
J.K.W. 9/10/33.

A new main condenser, together with a Weirs Augmentor Plant, main injection valve, overboard discharge valve and suction & discharge pipes fitted.

Main engine exhaust pipes renewed & fitted with change over valve to plant & condenser.

A new Drysdale Thermal main circulating pump & engine fitted.

A Standby Weirs Lubricating Oil Pump, together with its connections for lubricating generator plant fitted on tween deck flat.

Various feed pipes & bilge pipes have been renewed to fit in with the new arrangement & tested under hydraulic pressure to rule requirements.

The main engines were partly dismantled for access and refitted in good order.

The electric cables, connections & fittings were fitted in the vessel under survey & to the approved plans.

The main and auxiliary machinery was tried out at a sea trial with satisfactory results. The main engines were manoeuvred with the turbo-generator working and power on the propulsion motor and the various cut outs worked satisfactorily. After the trial a megger test was made of the different circuits including the motor & generator with satisfactory results.

The following figures were taken on the sea trials.

Stop valve full open. Cut off 36.5" Augmentor shut off. With Augmentor

Revolutions.	85.	88.
Boiler pressure.	225 lbs.	225 lbs.
HP	225 lbs.	225 lbs.
IP	75 lbs.	75 lbs.
LP	13 lbs.	13½ lbs.
Condenser.	27½"	29"
Turbine revs.	3000.	3050.
Amps.	1750.	2300.
Volts	540.	560.
1 HP. reciprocating engines	3110.	no cards taken.
" Propulsion motor	1380.	
Total	4490.	
5.H.P. Propulsion motor	1267.	1725. ← Chaffing ok

At the designed revolutions of 81. Stop valve not full open.

1.H.P. reciprocating engines 2445.

" Propulsion motor. 1270. 9

Total 3715
~~3585~~ X

5.H.P. Propulsion motor. 1130.