

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 31 MAR 1937

Date of writing Report 19 When handed in at Local Office 27/3/37 Port of **NEWCASTLE-ON-TYNE**

No. in Survey held at **Newcastle on Tyne** Date, First Survey 29 April Last Survey 25/3/1937
Reg. Book. on the **S/S LLANDAFF** (Number of Visits 23)

Built at **Sunderland** By whom built **Bartram & Sons Ltd** Yard No. **275** When built **1937**

Engines made at **Newcastle on Tyne** By whom made **White's Mar. Eng. Co. Ltd** Engine No. **9.C** When made **1937**
L.P. Turbine made at **Newcastle on Tyne** " " **R.W. Hawthorn, Leske & Co. Ltd** Turbine No. **9887** " " **1937**
Boilers made at **Sunderland** By whom made **Geo Clark & Co. Ltd** Boiler No. When made **1937**

Registered Horse Power Owners **Evans Thomas Radcliffe & Co. Ltd** Port belonging to ?

Nom. Horse Power as per Rule **348** Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which Vessel is intended **Ocean going by w/dt.**

ENGINES, &c.—Description of Engines **Compound 4 Cyln. Recip. Engine SR Geared, Engine R.p.m 305**
& L.P. Turbine **D.R. Geared to One Screw Shaft Revs. per minute 61**

Dia. of Cylinders **2 of 10 1/2 + 2 of 20** Length of Stroke **13"** No. of Cylinders **4** No. of Cranks **4**

Crank shaft, dia. of journals **6.05** Crank pin dia. **7 3/4"** Crank webs Mid. length breadth **9 3/4"** Thickness parallel to axis
as fitted **7 3/4"** Mid. length thickness **4 7/8"** Thickness around eye-hole

Intermediate Shafts, diameter **11.70"** Thrust shaft, diameter at collars **12.29"**
as fitted **12** as fitted

Tube Shafts, diameter Screw Shaft, diameter **13 1/2"** Is the tube shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes Thickness between bushes Is the after end of the liner made watertight in the propeller boss

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft

Propeller, dia. **18'0"** Pitch **19.2"** No. of Blades **4** Material **Mang. Brg.** whether Movable **No** Total Developed Surface **106** sq. feet

Feed Pumps worked from the Main Engines, No. **None** Diameter Stroke Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. **None** Diameter Stroke Can one be overhauled while the other is at work

Feed Pumps { No. and size **two 6" x 8 1/2" x 18" stroke** Pumps connected to the Main Bilge Line { No. and size
How driven **Steam** How driven

Ballast Pumps, No. and size **Two 6' x 5 1/2" x 15"** Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room

In Pump Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size **Independent Power Pump Direct Suctions to the Engine Room Bilges,**
No. and size Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Overboard Discharges above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

What Pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks Have they been tested as per Rule

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers

Is Forced Draft fitted No. and Description of Boilers Working Pressure

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED? If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting **26/2/36** Main Boilers Auxiliary Boilers Donkey Boilers
(If not state date of approval) **+ 7/3/36**

Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

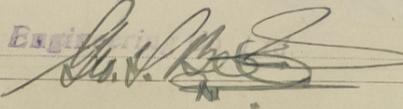
SPARE GEAR.

Has the spare gear required by the Rules been supplied **Yes**

State the principal additional spare gear supplied **2 top end bolts & nuts
2 bottom end bolts & nuts
2 main bearing bolts & nuts
9 piston junk ring studs & nuts**

**12 Condenser tubes, 60 Condenser ferrules, 1 set of valves for water ends of bilge pumps,
1 HP & 1 L.P. Escape Valve Springs, Assorted bolts, studs & nuts, and various
sigs. of iron, one Cast Iron Propeller.**

The foregoing is a correct description,

For White's Marine Engine Co. Ltd.  Manufacturer.



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 Uppern String
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 BILGE PLAT Strakes
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 STEEL.

1936
 Apr 29. May 8. 13. June 10. July 22. Sep. 1. 25. Oct. 1. 12. 29. Nov. 18. 23. 26. 30.
 1937
 Jan. 4. 19. 20. 27. Feb. 10. Mar. 12. 15. 20. 25.
 Dates of Survey while building
 During progress of work in shops --
 During erection on board vessel ---
 Total No. of visits 23.

Dates of Examination of principal parts—Cylinders 29/10/36 + 23/11/36 Slides 12/3/37 Covers 29/10/36 + 23/11/36
 Pistons 12/3/37 Piston Rods 27/1/37 Connecting rods 20/1/37
 Crank shaft 19/1/37 Thrust shaft ✓ Intermediate shafts ✓
 Tube shaft ✓ Screw shaft ✓ Propeller ✓
 Stern tube ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓
 Completion of fitting sea connections ✓
 Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam in shop 20/3/37.
 Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓
 Crank shaft material Forged M. Steel Identification Mark LLOYD'S NO 2405 PHLP + 2406 21/9/36 Thrust shaft material ✓ Identification Mark ✓
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material ✓ Identification Mark ✓ Steam Pipes, material ✓ Test pressure ✓ Date of Test ✓
 Is an installation fitted for burning oil fuel ✓ Is the flash point of the oil to be used over 150°F. ✓
 Have the requirements of the Rules for the use of oil as fuel been complied with ✓
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ✓ If so, have the requirements of the Rules been complied with ✓
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with ✓
 Is this machinery duplicate of a previous case Yes except dia. of HP Cylinder. If so, state name of vessel S/S LLANASHE. New Rpt 94262.

General Remarks (State quality of workmanship, opinions as to class, &c.)
 This Reciprocating Engine has been constructed under Special Survey in accordance with the Rules and approved plan, and the materials and workmanship are good. The Engine has been sent to Sunderland to be installed with its L.P Turbine and D/R, S/R Gearing in Messrs Bartram & Co. Yard no 275, S/S LLANBAFF.

For Basis of SHP + allocation of Fees, see Newcastle Rpt no 94262 for Engines of S/S LLANASHE
 New £ 21. 17. 0
 Low £ 9. 0. 0
 Std £ 46. 7. 0
 The amount of Entry Fee ... £ 5. 0. 0 When applied for
 Special ... LMC £ 77. 4. 0 30 MAR 1937
 Donkey Boiler Fee ... £ : : When received.
 Travelling Expenses (if any) £ 18/8 10. 5. 1927 New.
 London 9/6

A. Watt.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned
 See Std. No. 32092
 TUE 25 MAY 1937

