

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 11 NOV 1929

Date of writing Report 10 When handed in at Local Office 6.11.29 Port of **NEWCASTLE-ON-TYNE**

No. in Survey held at **Newcastle-on-Tyne**. Date, First Survey **4 Feb** Last Survey **2nd Nov 1929**.
 Reg. Book on the **Steel. Se. "KITTY TAYLOR"** (Number of Visits 102)

Gross Tons 4640
 Net Tons 2785

Built at **Wellington Quay**. By whom built **Sir W. G. Armstrong Whitworth & Co (Shipbuilders)** Yard No. **1054** When built **1929**.

Engines made at **Scotswood** By whom made **Sir W. G. Armstrong Whitworth & Co (Engs)** Engine No. **82** when made **1929**.

Boilers made at **Scotswood** By whom made **Sir W. G. Armstrong Whitworth & Co (Engs)** Boiler No. **82** when made **1929**.

Registered Horse Power Owners **Eros Steamship Co Ltd** Port belonging to **London**.

Nom. Horse Power as per Rule **419** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**.

Trade for which Vessel is intended **Ocean Going**.

ENGINES, &c.—Description of Engines **Triple Expansion Inverted**. Revs. per minute **68**.

Dia. of Cylinders **26" x 43" x 72"** Length of Stroke **48"** No. of Cylinders **3** No. of Cranks **3**

Crank shaft, dia. of journals as per Rule **13.5"** as fitted **13.5"** Crank pin dia. **13.5"** Crank webs Mid. length breadth **6.2"** Thickness parallel to axis **8.625"**
 as fitted **13.5"** Mid. length thickness **8.625"** shrunk Thickness around eye-hole **6.125"**

Intermediate Shafts, diameter as per Rule **12.88"** as fitted **13"** Thrust shaft, diameter at collars as per Rule **13.5"** as fitted **13.5"**

Tube Shafts, diameter as per Rule **14.36"** as fitted **14.5"** Is the screw shaft fitted with a continuous liner **Yes**

Bronze Liners, thickness in way of bushes as per Rule **.74"** as fitted **.817"** Thickness between bushes as per Rule **.555"** as fitted **.75"** Is the after end of the liner made watertight in the propeller boss **Yes**. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **Continuous**

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. **17'-9"** Pitch **18'-3"** No. of Blades **4** Material **C.I.** whether Movable **Solid** Total Developed Surface **98** sq. feet

Feed Pumps worked from the Main Engines, No. **Two** Diameter **4 1/4"** Stroke **24"** Can one be overhauled while the other is at work **Yes**

Bilge Pumps worked from the Main Engines, No. **Two** Diameter **4 1/4"** Stroke **24"** Can one be overhauled while the other is at work **Yes**

Feed Pumps { No. and size **Two 6" x 4" x 6" & 7 1/2" x 5" x 6"** Pumps connected to the { No. and size **One 9" x 10" x 10"**
 How driven **Steam** Main Bilge Line How driven **Steam**

Ballast Pumps, No. and size **One 9" x 10" x 10"** 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 **4 @ 2 1/2" wing Suctions one @ 4 1/2" Bilge direct**

In Holds, &c. **No 1 Hold - 2 @ 2 3/4" No 2 Hold - 2 @ 3 1/2" No 3 Hold - 2 @ 2 3/4" No 4 Hold - 2 @ 2 3/4"**
Fore Peak 3" After Peak 3"

Main Water Circulating Pump Direct Bilge Suctions, No. and size **One @ 8"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **One @ 4 1/2"** Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes **Yes**

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 **Yes**

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

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

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

What Pipes pass through the bunkers **None** 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 **Yes**

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 **Yes** Is the Shaft Tunnel watertight **Yes** Is it fitted with a watertight door **Yes** worked from **E.R. Grating**

MAIN BOILERS, &c.—(Letter for record **S.**) Total Heating Surface of Boilers **6870 sq ft.**

Is Forced Draft fitted **No** No. and Description of Boilers **3. Single Ended.** Working Pressure **180 lbs/sq"**

IS A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes**

IS A DONKEY BOILER FITTED? **No** If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting **17/11/29** Main Boilers **20/12/28** Auxiliary Boilers Donkey Boilers

(If not state date of approval)

Superheaters General Pumping Arrangements **24/4/29** Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:— **2 top end bolts & nuts, 2 bottom end bolts & nuts, 2 main bearing bolts, 1 set of Coupling bolts, 1 set of feed & bilge pump valves, a quantity of assorted bolts & nuts, Iron of various sizes, Propeller & screw shaft.**

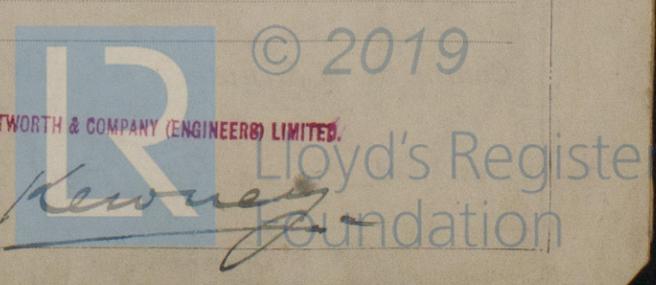
The foregoing is a correct description,

FOR SIR W. G. ARMSTRONG WHITWORTH & COMPANY (ENGINEERS) LIMITED.

Manufacturer.

H. Kewney

W163-0047



NOTE.—The records which do not apply should be deleted.

1929 Feb. 4, 7, 15, Mar. 1, 5, 6, 7, 8, 11, 13, 20, 22, 25, 26, 27, 28, Apr. 3, 5, 8, 9, 10, 11, 15, 16, 17, 18, 19, 23, 24, 26, 29, May 1, 2, 3, 6, 7, 8, 9, 11, 13, 16, 17,

Dates of Survey while building: During progress of work in shops -- 21, 23, 24, 27, 28, 29, June 4, 5, 6, 10, 12, 17, 19, 20, 24, July 2, 3, 9, 12, 16, 19, 23, 24, 26, 31, Aug. 1, 6, 7, 9, 13, 14, 16, 19, 21, 23, 26, 27, 29, Sep. 2, 17, 20, 25, 27, 30, Oct. 2, 3, 7, 8, 10, 11, 14, 15, 21, 24, 25, 26, 28, 30, Nov. 1, 2. Total No. of visits 102.

Dates of Examination of principal parts: HP. 20.6.29, IP. 2.7.29, LP. 7.8.29. Slides 27/8/29, Covers 27/8/29. Pistons 23/7/29, Piston Rods 22/8/29, Connecting rods 26/7/29. Crank shaft 31/7/29, Thrust shaft 27/8/29, Intermediate shafts 3/7/29. Tube shaft ✓, Screw shaft 26/7/29, Propeller 14/8/29. Steam tube piece 27/8/29, Stern tube 21/8/29, Engine and boiler seatings 2/9/29, Engines holding down bolts 24/10/29. Completion of fitting sea connections 15/8/29. Completion of pumping arrangements 24/10/29, Boilers fixed 24/10/29, Engines tried under steam 26/10/29. Main boiler safety valves adjusted 25/10/29, Thickness of adjusting washers P. Boiler 1 1/2" SV 3/2, C. Boiler 5" SV 7/16, S. Boiler 1 1/2" PV 7/32 SV 3/2. Crank shaft material Steel, Identification Mark 885, 887, 889. Thrust shaft material Steel, Identification Mark 2089. Intermediate shafts, material Steel, Identification Marks 2091, 5193, 5191, 2092, 5188, 2086. Screw shaft, material Steel, Identification Mark 2088. Steam Pipes, material Steel, Test pressure 540 lb/sq. Date of Test 14/10/29. Is an installation fitted for burning oil fuel No. Is the flash point of the oil to be used over 150°F. ✓ Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓ Is this machinery duplicate of a previous case No. If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been built under special survey in accordance with the requirements of the Society's Rules and the approved plans. The materials & workmanship are sound and good. The machinery was examined under steam at mooring & also during sea trials and was found satisfactory. The machinery of this vessel is eligible in my opinion to have the notation of + LMC 11,29 and TS CL.

It is submitted that this vessel is eligible for the notation + LMC 11,29 CL.

J. J. [Signature] 18/11/29

The amount of Entry Fee ... £ 5 : - : When applied for, 29 NOV 1929. Special ... £ 87 : 17 : Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ : : When received, 18.11.29

L. Pickett, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 15 NOV 1929. Assigned + LMC 11,29 CL



Newcastle-on-Tyne

The Surveyors are requested not to write on or below the space for Committee's Minute.

Vertical text on the right edge of the page, including 'Date of survey', 'No. in Reg. Book', 'Master', 'Engines', 'Boilers', 'Nominations', 'MUL', 'Manufacture', 'Total H', 'No. and', 'Tested', 'Area of', 'Area of', 'In case of', 'Smaller', 'Smaller', 'Larger', 'Thickn', 'long. s', 'Perce', 'Perce', 'Thickn', 'Mater', 'Lengt', 'Dimen', 'End', 'How', 'Tube', 'Mean', 'Gird', 'at ce', 'in ce', 'Tens', 'Pite', 'Wor', 'Thic', 'Pite', 'Wor', 'Dia', 'Wor', 'Dia'