

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 1 AUG 1932

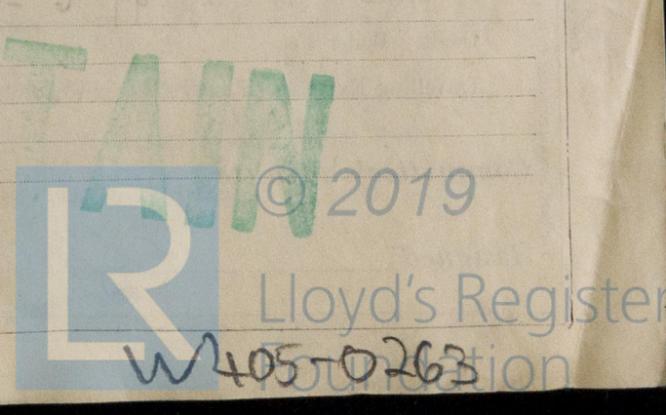
Date of writing Report 27.7.32 When handed in at Local Office 27.7.32 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at Wallsend-on-Tyne. Date, First Survey 30 Dec/31 Last Survey 26 July 1932
 Reg. Book. on the New Steel S.S. "Harlesden" (Number of Volls 66) Gross 5483 Tons Net 3220
 Built at Hebburn By whom built Hawthorne Leslie & Co. Ltd. Yard No. 586 When built 1932
 Engines made at Wallsend By whom made North Eastern Marine Eng. Co. Ltd. Engine No. 2488 When made 1932
 Boilers made at Wallsend By whom made North Eastern Marine Eng. Co. Ltd. Boiler No. 2488 When made 1932
 Registered Horse Power 487 Owners National S.S. Co. Ltd. Port belonging to London
 Nom. Horse Power as per Rule 487 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended general cargo, ocean going.

ENGINES, &c.—Description of Engines Triple expansion, poppet valves on HP cylinders. Revs. per minute 55
 Dia. of Cylinders 22 1/2 x 40 x 65 Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals 13.64 as per Rule 14 1/8 Crank pin dia. 14 1/8 Crank webs 2 1/4 x 4 1/2 Mid. length breadth 4.25 Mid. length thickness 4.25 Thickness parallel to axis 4.25 Thickness around eye-hole 4.25
 Intermediate Shafts, diameter 12.99 as per Rule 13 1/2 Thrust shaft, diameter at collars 13.64 as per Rule 14 1/8
 Tube Shafts, diameter 14.53 as per Rule 15 1/8 Is the tube shaft fitted with a continuous liner yes
 Screw Shaft, diameter 15 1/8 as per Rule 15 1/8 Is the screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes 1 1/8 as per Rule 2 1/8 Thickness between bushes 2 1/8 as per Rule 2 1/8 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 yes
 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 yes
 If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft no
 Propeller, dia. 18-6 Pitch 19-6 No. of Blades 4 Material Brass C.I. whether Movable yes Total Developed Surface 100 sq. feet
 Feed Pumps worked from the Main Engines, No. no Diameter 4 1/2 Stroke 26 Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2 Stroke 26 Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 2 Weirs 4 1/2 x 2 1/2; genservice 6 x 8 x 15 Pumps connected to the Main Bilge Line { No. and size 1 @ 10 1/2 x 12 1/2 x 21 + main engine pumps
 How driven Steam How driven Steam
 Ballast Pumps, No. and size 1 @ 10 1/2 x 12 1/2 x 21 Lubricating Oil Pumps, including Spare Pump, No. and size none
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 @ 3" dia 1 @ 2 1/2" tunnel well 1 @ 2 1/2" tunnel
 In Pump Room no In Holds, &c. no 2 @ 3" nos 2-3 2 @ 3 1/2" Bunkers 2 @ 2"
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 5" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 8"
 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 below
 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 hold suction How are they protected wood casing
 What pipes pass through the deep tanks yes Have they been tested as per Rule yes
 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 top platform

MAIN BOILERS, &c.—(Letter for record PR) Total Heating Surface of Boilers 6846 \$
 Is Forced Draft fitted yes No. and Description of Boilers 2 main 1 aux. S.E. Working Pressure 220 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes 2 SB 1 aux SB
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes
 Is the donkey boiler intended to be used for domestic purposes only yes
PLANS. Are approved plans forwarded herewith for Shafting no Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes
 Superheaters Standard approved General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR.
 Has the spare gear required by the Rules been supplied yes
 State the principal additional spare gear supplied. one set of valves for each auxiliary pump. set of HP piston rings, 6 thrust pads, gear in propeller blades. 1 Yawl shaft 1 spring gear and fitted safety valves. 1 set wearing parts of metallic packing for HP & LP piston rods & LP slide rods. 2 valve springs & 1 tappet spring for HP valve gear.

The foregoing is a correct description,
W. Campbell
 Manufacturer.



1931 1932
 Dec. 30. Jan. 11, 14, 20, 21, 22, 29. Feb. 3, 12, 16, 23, 24. Mar. 7, 8, 7, 8, 11, 16, 22, 29, 30, 31. Apr. 7, 8, 14.
 15, 20, 21, 22, 25, 27, 29. May 3, 4, 5, 6, 9, 12, 13, 17, 18, 19, 20, 23, 24, 25, 26, 30, 31. June 1, 2, 6, 8, 10, 14.
 16, 27, 28. July 1, 5, 7, 8, 21, 26.
 Total No. of visits **66.**

Dates of Examination of principal parts—Cylinders 6-5-31. Slides 4-5-32 Covers 4-5-32.
 Pistons 4-5-32 Piston Rods 20-4-32 Connecting rods 20-4-32
 Crank shaft 12-5-32 Thrust shaft 4-5-32 Intermediate shafts 12-5-32
 Tube shaft ✓ Screw shaft 12-5-32 Propeller 31-5-32.
 Stern tube 5-5-32 Engine and boiler seatings 2-6-32 Engines holding down bolts 24-6-32
 Completion of fitting sea connections 7-4-32
 Completion of pumping arrangements 8-4-32 Boilers fixed 24-6-32 Engines tried under steam 5-4-32 + 26-4-32.
 Main boiler safety valves adjusted 5-7-32 Thickness of adjusting washers Pist. $\frac{3}{16}$ $\frac{5}{16}$ $\frac{1}{2}$ Pist. B $\frac{3}{16}$ $\frac{5}{16}$ $\frac{1}{2}$. Aux. B. P + 81 $\frac{1}{32}$.
 Crank shaft material O.H. Steel Identification Mark 2488 W.B. Thrust shaft material O.H. Steel Identification Mark 8096D. W.B.
 Intermediate shafts, material O.H. Steel Identification Marks 8096D. W.B. Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material O.H. Steel Identification Mark 8096D W.B. Steam Pipes, material S.D. Steel Test pressure 660 lbs. Date of Test 20-5-32 to 16-6-32
 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 the use of oil as fuel been complied with ✓
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No 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. If so, state name of vessel Harpalion.

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The machinery of this vessel has been built under special survey materials & workmanship good, hydraulic tests satisfactory. The whole of the machinery has been efficiently installed & fixed in place & tried under steam & is in good & safe working condition & eligible in my opinion to be classed & have records. ✠ L.M.C. Y-32. Tail shaft C.L. in the Register Book.

The amount of Entry Fee ... £ 5 :-
 Special ... £ 94 : 6
 Donkey Boiler Fee ... £ : ✓
 Travelling Expenses (if any) £ : ✓
 When applied for, 26.7.19.32
 When received, 30.7.19.32

William D. Bates
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute WED. AUG 3 1932

Assigned + L.M.C. 7.32

CERTIFICATE WRITTEN F.D. C.L.



NEWCASTLE-ON-TYNE

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