

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

FEB 17 1938

Received at London Office
 Date of writing Report 19 When handed in at Local Office 18 FEB 1938 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at Newcastle on Tyne Date, First Survey 10 Sept 1937 Last Survey 9/2/ 1938
 Reg. Book. on the s/s TASSO (Number of Visits 54) Gross 1586 Tons Net 768
 Built at Newcastle By whom built Swan Hunter & Wigham Richardson Ltd Yard No. 1580 When built 1938-2
 Engines made at do By whom made do Engine No. 1580 When made 1938
 Boilers made at do By whom made do Boiler No. 1580 When made 1938
 Registered Horse Power ✓ Owners Ellerman's Wilson Line Port belonging to HULL.
 Nom. Horse Power as per Rule } 335 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 of Recip Eng & LP Turb }
 Trade for which Vessel is intended Ocean going.

ENGINES, &c.—Description of Engines Triple 3 Cyl Recip Eng & LP Turbine with DP bearing. Revs. per minute 115
 Dia. of Cylinders 19½ + 33 + 54 Length of Stroke 36 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 10.73 Crank pin dia. 10¾ Crank webs Mid. length breadth 16½ Thickness parallel to axis 6¾
 as fitted 10¾ Mid. length thickness 6¾ shrunk Thickness around eye-hole at pin 4¾
 Intermediate Shafts, diameter as per Rule 10.73 Thrust shaft, diameter at collars as per Rule 10.73
 as fitted 10¾ as fitted 29.0 (11.41) ✓
 Tube Shafts, diameter as per Rule 12.054 Screw Shaft, diameter as per Rule 12.054 Is the tube screw shaft fitted with a continuous liner? Yes ✓
 as fitted 12.054 as fitted 12.054
 Bronze Liners, thickness in way of bushes as per Rule 21.35/32 Thickness between bushes as per Rule 16/32 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 In one length ✓
 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 fits full length ✓
 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 No ✓ If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 4-1 ✓
 Propeller, dia. 13-3 Pitch 13-3 No. of Blades 4 Material M. Brz whether Moveable No ✓ Total Developed Surface 60 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. 2 Diameter 3½ Stroke 22 Can one be overhauled while the other is at work Yes ✓
 Feed Pumps { No. and size Two 6" x 8½" x 18" Pumps connected to the { No. and size one 8" x 9" x 8" Ballast & one 7" x 5" x 6" Gen. Serv.
 How driven Steam Main Bilge Line How driven Steam ✓
 Ballast Pumps, No. and size one 8" x 9" x 8" Lubricating Oil Pumps, including Spare Pump, No. and size Two 8" x 7" x 18" ✓
 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 37 2½; 29 2" and 19 2½" in Tunnel well. ✓
 In Pump Room ✓ In Holds, &c. Not Held 27 2½; No 2 Hold 29 2½; No 3 Hold 29 3" ✓

Main Water Circulating Pump Direct Bilge Suctions, No. and size 19 8" on port side ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 19 3½" on starboard side ✓ 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 None ✓ How are they protected ✓
 What pipes pass through the deep tanks no deep tank ✓ 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 upper deck ✓

MAIN BOILERS, &c.—(Letter for record S. ✓) Total Heating Surface of Boilers 4043 sq. feet ✓
 Is Forced Draft fitted Yes ✓ No. and Description of Boilers 2 S.E. ✓ Working Pressure 210 lbs/sq. in ✓
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes ✓
 IS A DONKEY BOILER FITTED? No ✓ 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 5/4/37 Main Boilers 5/4/37 Auxiliary Boilers ✓ Donkey Boilers ✓
 (If not state date of approval)
 Superheaters ✓ General Pumping Arrangements 18/4/37 & 18/6/37 Oil fuel Burning Piping Arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes ✓ 1936-37 Rules
 State the principal additional spare gear supplied a number of Condenser valves, one set of Cylr relief valve springs, Impeller & spindle for Centrif. Circ. Water Pump, one air pump rod, a number of Cylr Cover Studs & nuts, 2 top end bearings, one set of piston rings for each piston, one screw shaft, 1 set of air pump valves, 1 set of feed check valves, 1 set of Safety valve Springs, a number of plain & stay tubes for boilers & a number of junk ring bolts.

The foregoing is a correct description,
 SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

G. J. Hunter
 DIRECTOR.

Manufacturer.



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Lloyd's Register
 Foundation

W87-0105

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During progress of work in shops - - 22.23.25.26.30. Dec. 2.6.13.15.20.23.24.28.30. 1938 Jan. 3.5.6.10.13.14.19.20.21.24.26.31.
Dates of Survey while building During erection on board vessel - - Feb. 8.9.
Total No. of visits 54

Dates of Examination of principal parts - Cylinders 15/11/37 Slides 23/11/37 Covers 15/11/37
Pistons 23/11/37 Piston Rods 25/11/37 Connecting rods 25/11/37
Crank shaft 16/11/37 Thrust shaft 2/12/37 Intermediate shafts 8/11/37
Tube shaft ✓ Screw shaft 8/11/37 Propeller 17/11/37
Stern tube 8/11/37 Engine and boiler seatings 5/1/38, 19/1/38 Engines holding down bolts 5/1/38
Completion of fitting sea connections 8/11/37
Completion of pumping arrangements 31/1/38 Boilers fixed 19/1/38 Engines tried under steam 31/1/38 & 9/2/38
Main boiler safety valves adjusted 31/1/38 Thickness of adjusting washers 13/1/38 13 1/2 13 1/2 14 1/2 14 1/2
Crank shaft material SM forged steel Identification Mark 2511 : 5451 Thrust shaft material SM.FS. Identification Mark 12432 J.L.
Intermediate shafts, material SM.FS. Identification Marks 5447-8-9 5465 J.Q. Identification Mark ✓
Screw shaft, material SM.FS. Identification Mark WORKING 5466 J.Q. Steam Pipes, material S.D. STEEL Test pressure 630 lbs. Date of Test 18/10/37 to 26/1/38
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 Yes ✓
Is this machinery duplicate of a previous case Yes ✓ If so, state name of vessel 45 LECH.

General Remarks (State quality of workmanship, opinions as to class, &c.)
The Machinery has been constructed under special survey in accordance with the Rules and approved plans, and the materials & workmanship are good.
The machinery has been satisfactorily installed on board the vessel, examined under working conditions & found satisfactory.
Please also see Reports herewith on Boilers and L.P. Turbine.
The machinery is eligible in my opinion to have the records + LMC. 2.38. TSCA. and the notation "Strengthens for navigation in Ice."

Newcastle-on-Tyne

The amount of Entry Fee ... £ 5 : - :
Special ... £ 75 : 5 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 16 FEB 1938
When received, 25/2 1938

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

Committee's Minute
Assigned + LMC 2.38 280 210 lb
JH CL