

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 10 When handed in at Local Office 12/3/10 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at Wallsend Date, First Survey 12 July 1940 Last Survey 4 March 1941
 Reg. Book. on the SS. "EMPIRE SILVER" (Number of Visits _____)
 Built at Sunderland By whom built Sir J. Laing & Son Ltd Yard No. 733 When built 1941
 Engines made at Wallsend By whom made N.E. Marine Eng Co (1938) Ltd Engine No. 2976 When made 1941
 Boilers made at " By whom made " Boiler No. 2976 When made 1941
 Registered Horse Power _____ Owners The Ministry of Shipping Port belonging to Sunderland
 Nom. Horse Power as per Rule 674 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended Coast going Carrying Petroleum in Bulk

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 85
 Dia. of Cylinders 27-44-76 Length of Stroke 51 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 15.2 Crank pin dia. 16" Crank webs Mid. length breadth 2'-3 1/4" Thickness parallel to axis 9 3/8" 9 7/8" 10 1/8"
 as fitted 15 1/2" Mid. length thickness MP 10 5/8" Thickness around eye-hole P 8" J 8 1/4"
 Intermediate Shafts, diameter as per Rule 14.48 Thrust shaft, diameter at collars as per Rule 15.2
 as fitted 14 3/4" as fitted 15 3/4"
 Tube Shafts, diameter as per Rule _____ Screw Shaft, diameter as per Rule 16 Is the { tube } shaft fitted with a continuous liner { yes }
 as fitted _____ as fitted 16 1/4" as fitted _____
 Bronze Liners, thickness in way of bushes as per Rule .789 Thickness between bushes as per Rule .592 Is the after end of the liner made watertight in the
 as fitted 13/16 as fitted 13/16 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 _____
 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 no If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller 5'-5 1/4"
 Propeller, dia. 18'-3" Pitch 14'-6" No. of Blades 4 Material Brass whether Moveable no Total Developed Surface 131 3/4 sq. feet
 Feed Pumps worked from the Main Engines, No. _____ Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 5" Stroke 2'-3" Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 12 9 1/2 x 10" 22 12 1/2 x 24" Pumps connected to the { No. and size 12 10 x 12 x 12" 22 5 x 2'-3"
 How driven 3 Steam Main Bilge Line { How driven Steam M. Eng
 Ballast Pumps, No. and size 12 10 x 12 x 12" Lubricating Oil Pumps, including Spare Pump, No. and size none
 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 12 3 1/2" Eng Room P+S 12 3 1/2" Eng Room aft 12 3 1/2" Boiler Room for P+S 12 3 1/2" Bilge Room aft P+S
 In Pump Room 4 P+S For 12 2 1/2" In Holds, &c. [12 3" Bilge P+S to Transfer Pump]

MAIN WATER CIRCULATING PUMP DIRECT BILGE SUCTIONS, No. and size 12 10" **Independent Power Pump Direct Suctions to the Engine Room Bilges,**
 No. and size 12 5" Are all the Bilge Suction Pipes in holds and tanks filled 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 none 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 _____ Is it fitted with a watertight door _____ worked from _____

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 10020 ft
 Is Forced Draft fitted yes No. and Description of Boilers 3 SB Working Pressure 220
 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 1-6-40 Main Boilers 20-1-40 Auxiliary Boilers _____ Donkey Boilers _____
 Superheaters 15-2-40 General Pumping Arrangements 27-8-40 Oil fuel Burning Piping Arrangements 27-8-40

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes
 State the principal additional spare gear supplied: 1 C.I. Propeller, 2 half bottom end braces, bolts & nuts, 4 half top
 end braces, bolts & nuts, 2 M. Bearing bolts & nuts, 6 Coupling bolts & nuts, 12 piston studs
 1 set Air Pump valves, 2 Bilge Pump valves & seats, 1 set HP piston rings, 1 set wearing parts
 for piston rod packing, 50 Condenser ferrules, 100 packing rings, 1 set Thrust pads (ahead face)
 Poppet valve spares as required
 spares as required for Boiler Mountings, Auxiliaries, Filter, Lubricators &
 Sundries.

The foregoing is a correct description,

John Neill

Manufacturer.

DIRECTOR



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1940 July 12, Aug. 6, 15, Sep. 4, 13, 17, Oct. 7, 9, 11, 28, Nov. 4, 11, 14, 18, 20, 22, 25, 28.
 During progress of work in shops -- }
 1941 Dec. 3, 4, 5, 9, 12, 14, 19, 23, 27, 28, 30. Jan. 1, 2, 3, 8, 9, 13, 14, 16, 17, 21, 22, 27, 28, 29, 30, Feb.
 3, 4, 5, 6, 7, 11, 12, 14, 18, 21, Mar 4.
 During erection on board vessel --- }
 Total No. of visits 55.

Dates of Examination of principal parts—Cylinders 15.8.40 Slides 4.9.40 Covers 15.8.40
 Pistons 4.9.40 Piston Rods 4.9.40 Connecting rods 4.9.40
 Crank shaft 15.8.40 Thrust shaft 15.8.40 Intermediate shafts 14.12.40
 Tube shaft ✓ Screw shaft 4.9.40 Propeller 4.12.40
 Stern tube 14.10.40 11.11.40 Engine and boiler seatings 17.1.41 Engines holding down bolts 17.1.41

Completion of fitting sea connections 18.11.40
 Completion of pumping arrangements 18.2.41 Boilers fixed 17.1.41 Engines tried under steam 11.12.41
 Main boiler safety valves adjusted 12.2.41 19.2.41 Thickness of adjusting washers Ford. A 17/32 Spt. 1/4 P 3 1/32 Spt. 9/64 S 5 7/16 Spt. 1/2
 Crank shaft material Steel Identification Mark RM. 158.40 Thrust shaft material Steel Identification Mark 3238 AEG
 Intermediate shafts, material Steel Identification Marks 2976 RM. 14.12.40 Tube shaft, material ✓ Identification Mark various 9.11.41
 Screw shaft, material Steel Identification Mark RM. 4.9.40 Steam Pipes, material Steel Test pressure 660 Date of Test 5.2.41
 Is an installation fitted for burning oil fuel yes Is the flash point of the oil to be used over 150°F. yes

Have the requirements of the Rules for the use of oil as fuel been complied with yes
 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 no. If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been made & installed under special survey in accordance with the Requirements of the Rules & the approved plans. The materials & workmanship are good. The machinery proved satisfactory under working conditions alongside the quay & is eligible in my opinion to have the Records.
+ LMC 3.41. Rht 3 SB (Spt) F.D. CL.

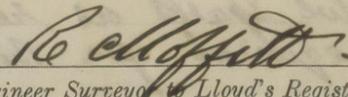
NEWCASTLE-ON-TYNE

Certificate to be sent to

The amount of Entry Fee ... £ 6 : 0 : 0 :
 Special ... £ 108 : 14 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :

When applied for, 12 MAR 1941

When received, 19


 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____
 Assigned + LMC 3.41
Fitt. for oil fuel or
32, CL.

FRI. 21 MAR 1941

