

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

E9 NOV 1948

Date of writing Report 19 When handed in at Local Office 8th November 1948 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 13th April 1948 Last Survey 29th October 1948
 Reg. Book (Number of Visits 69)
 on the S.S. Admiral Fraser
 Built at Sunderland By whom built Wm Pickersgill & Sons Yard No. 311 Tons { Gross 2276
 Engines made at Sunderland By whom made R.E. Marine & Eng Co (Sunderland) Ltd Engine No. 4203 When built 1948
 Boilers made at Sunderland By whom made R.E. Marine & Eng Co (Sunderland) Ltd Boiler No. 4203 When made 1948
 Registered Horse Power Owners Stratton Shipping Co Ltd Port belonging to London
 Nom. Horse Power as per Rule 366 = MN Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which vessel is intended

ENGINES, &c.—Description of Engines

Triple Expansion
 Dia. of Cylinders 20 1/2", 33", 57" Length of Stroke 39" No. of Cylinders 3 No. of Cranks 3 Revs. per minute
 Crank shaft, dia. of journals as per Rule 11.555 as fitted 11.75" Crank pin dia. 11.75" Crank webs Mid. length breadth 1'-7 1/2" Thickness parallel to axis 7.375"
 Intermediate Shafts, diameter as per Rule 11.005" as fitted 11.125" Thrust shaft, diameter at collars as per Rule 11.555 as fitted 11.75" 11.25" at ends
 Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 12.235" as fitted 12.50" 12.625" Is the tube screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule 21.49/32 as fitted .75" Thickness between bushes as per Rule 16.13/32 as fitted 1 1/16" 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
 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 at No If so, state type Length of Bearing in Stern Bush next to and supporting propeller 4'-2"
 Propeller, dia. 14'-9" Pitch 15'-6" No. of Blades 4 Material Bronze whether Moveable no Total Developed Surface 78 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 3 1/4" Stroke 22" Can one be overhauled while the other is at work yes
 Feed Pumps No. and size 2 8 1/2" x 6" x 18" Pumps connected to the Main Bilge Line No. and size 1-9" x 10" x 10" How driven Steam
 Ballast Pumps, No. and size 1-9" 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 both to Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room ER 4 D 2 1/2" Cofferdam 2 D 2 1/2" (For 1st) In Pump Room In Holds, &c. N°1 Hold 2 D 3" N°2 Hold 2 D 3" N°3 Hold 2 D 2 1/2" N°4 Hold 2 D 2 1/2" Tunnel well 1 D 2 1/2" Thrust Recess 1 D 2 1/2" Fore Cofferdam 1 D 2 1/2"
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-7" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, No. and size 1-4"
 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 direct & on boxes 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 both
 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

MAIN BOILERS, &c.—(Letter for record)

Total Heating Surface of Boilers 4132 sq ft Superheaters 1570 sq ft
 Which Boilers are fitted with Forced Draft yes Which Boilers are fitted with Superheaters yes
 No. and Description of Boilers 2 Multitubular Working Pressure 220 lbs 10"
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded?
 Can the donkey boiler be used for other than domestic purposes
 PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers Donkey Boilers
 (If not state date of approval)
 Superheaters yes General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

C I Propeller
Screw shaft.

The foregoing is a correct description.

Manufacturer.



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Lloyd's Register
Foundation

00 318-003022-0076

1948 Apr 13 19 22 29 30 May 10 12 14 18 20 27 Jun 1 2 3 4 14 17 18 22 24 28 Jul 1 2 5 7 8 9 (1) 12 13 14 15 16 19 20 21 22 Aug 4 6 9.
 10 12 13 20 27 Sep 1 2 6 8 9 10 11 13 14 15 16 17 23 30 Oct 1 4 6 7 8 13 14 25 27 29

Dates of Survey while building

During progress of work in shops ---

During erection on board vessel ---

Total No. of visits 69

Dates of Examination of principal parts—Cylinders HP 9-7-48 LP 9-7-48 18-6-48 Slides 9-7-48 Covers 9-7-48

Pistons 9-7-48 Piston Rods 18-6-48 Connecting rods 21-7-48

Crank shaft 28-6-48 Thrust shaft 14-7-48 Intermediate shafts 19-7-48

Tube shaft — Screw shaft 13-7-48 Propeller 13-7-48

Stern tube 18-7-48 Engine and boiler seatings 6-9-48 Engines holding down bolts 10-9-48

Completion of fitting sea connections 15-7-48

Completion of pumping arrangements 13-10-48 Boilers fixed 15-9-48 Engines tried under steam 13-10-48 27-10-48

Main boiler safety valves adjusted 13-10-48 Thickness of adjusting washers Pat. Bl. Pr. $\frac{5}{32}$ SV $\frac{3}{16}$ Sub. Pr. $\frac{1}{32}$ ST Bl. Pr. $\frac{1}{32}$ SV $\frac{3}{16}$ Sub. Pr. $\frac{1}{32}$

Crank shaft material Steel Identification Mark 4203 Thrust shaft material Steel Identification Mark 4161

Intermediate shafts, material Steel Identification Marks 4164 4167 4168 4169 Tube shaft, material — Identification Mark —

Screw shaft, material Steel Identification Mark 4163 Steam Pipes, material Steel Test pressure 660 lb/10" Date of Test 6-9-48 23-1-10-48

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. 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. C 4166 "NEFERTITI" N° 34595

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under Special Survey in accordance with the approved plans Secretary's letter and the Requirements of the Rules. The workmanship and materials are good. The machinery has been efficiently fitted on board the vessel and tried under working conditions and found satisfactory and is eligible in my opinion for the Record of LMC 10.48 TS(CL) 2SB(SPT) 220 lb/10" FD

The amount of Entry Fee ... £ : : When applied for, NOV - 8 1948

Special ... £ 134 : 16 : 0

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 19.

Date. 3 DEC 1948

Committee's Minute. + LMC 10.48

FITTED FOR OIL FUEL 10.48 FLASH POINT ABOVE 150° F.

F.D. C.L. 2 SB 220 lb Spt.

J. Grieve

Engineer Surveyor to Lloyd's Register of Shipping.



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