

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Sta No. 29460

18 JUN 1927 19 SEP 1927

Date of writing Report

19

When handed in at Local Office

17 JUNE 1927

Port of Sunderland

No. in Survey held at
Reg. Book.

Sunderland

Date, First Survey 2nd Sep '26 Last Survey 8th Sept 1927

(Number of Visits 41)

on the New Steel S.S. "Sir David"

Built at South Shields By whom built John Readhead & Sons

Yard No. 485

Tons { Gross 1275
Net 697

When built

Engines made at Sunderland

By whom made N. E. Marine Eng Co Ltd

Engine No. 2631

when made

1927

Boilers made at Wallsend-on-Tyne

By whom made N. E. Marine Eng Co Ltd

Boiler No. 2631

when made

Registered Horse Power

Owners Gas, Light & Coke Co

Port belonging to London

Nom. Horse Power as per Rule

158

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple Expansion

Dia. of Cylinders 18"-30"-49" Length of Stroke 33" Revs. per minute 80 No. of Cylinders 3 No. of Cranks 3

Dia. of Crank shaft journals as per rule 9.34" as fitted 9.5" Dia. of Crank pin 9.5" Crank webs Mid. length breadth 15.75" Mid. length thickness 5.9375" Thickness parallel to axis 5.9375" Thickness around eye-hole 4.75"

Diameter of Thrust shaft under collars as per rule 9.34" as fitted 9.5" Diameter of Tunnel shaft as per rule 8.9" as fitted none Diameter of Screw shaft as per rule 10.0" as fitted 10.34" Is the Screw shaft

fitted with a continuous liner the whole length of the stern tube yes 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 joints burned If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with 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 appliance fitted at the after end of the shaft to permit

of it being efficiently lubricated No Length of Stern Bush Diameter of Propeller 13' 3"

Pitch of Propeller 13' 3" No. of Blades 4 State whether Moveable No Total Surface 55 square feet.

No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 3" Stroke 15" Can one be overhauled while the other is at work yes

No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 3.5" Stroke 15" Can one be overhauled while the other is at work yes

Total number and size of power driven Feed and Bilge Auxiliary Pumps 1 @ 5 1/2 x 3 1/2 x 5

No. and size of Pumps connected to the Main Bilge Line 2 on Main Engines & one Ballast pump

No. and size of Ballast Pumps 1 @ 9 x 11 x 10 No. and size of Lubricating Oil Pumps, including Spare Pump none

Are two independent means arranged for circulating water through the Oil Cooler No. and size of suction connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room 3-2 1/2" and in Holds, &c. No 1 Hold 2 @ 2 1/2"

No 2 Hold 2 @ 2 1/2"

No. and size of Main Water Circulating Pump Bilge Suctions

1 @ 5"

No. and size of Donkey Pump Direct Suctions

to the Engine Room Bilges 1 @ 3 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 connections with the sea direct on the skin of the ship yes Are they 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 Discharge Pipes 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 are carried through the bunkers Hold bilge suction How are they protected Wood Casings

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 Screw Shaft Tunnel watertight none Is it fitted with a watertight door worked from

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

2550 sq ft

Is Forced Draft fitted

No. and Description of Boilers

One single ended

Working Pressure

180 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting (If not state date of approval)

Main Boilers yes

Auxiliary Boilers

Donkey Boilers yes

General Pumping Arrangements

yes

Oil fuel Burning Piping Arrangements

yes

SPARE GEAR. State the articles supplied:— One Spare Propeller, Two Bottom End Bolts & Nuts, Two Top End Bolts & Nuts, Two Main Bearing Bolts & Nuts, Two Feed & Two Bilge Pump Valves, Six Piston Bolts & Nuts, Fifty Condenser Perforators & Packing, One Set of Feed Donkey Valves. 1 set Coupling bolts & nuts. Quantity of assorted bolts nuts & iron.

The foregoing is a correct description,

for THE NORTH EASTERN MARINE ENGINEERING CO. LD

C. T. Adams.

Manufacturer.

Manager.



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005480-005488-0034

1926 Sep 2, 10, 22 Oct. 8, 11 Nov. 4 1927 Feb 4, 9 Mar. 14, 21, 29 Apr. 21, 22.
 During progress of work in shops -- May 3, June 11, 13 = 18 Visits
 Dates of Survey while building During erection on board vessel -- 1927 MAR. 4, 31. APRIL 7, 12, 20, 27. MAY 4, 11, 13. JUNE 10, 17, 27. JULY 8, 11, 13, 14, 29. AUG 4, 9, 10, 15. SEP. 7, 8.
 Total No. of visits 23

Dates of Examination of principal parts - Cylinders 4-11-26. Slides 4-11-26.
 Covers 1-3-27. Pistons 1-3-27. Rods 9-2-27.
 Connecting rods 9-2-27. Crank shaft 22-4-27. Thrust shaft 22-4-27.
 Tunnel shafts none. Screw shaft 10-6-27. Propeller 21-6-27.
 Stern tube 14-6-27. Engine and boiler seatings 8-1-27. Engines holding down bolts 9-8-27.
 Completion of pumping arrangements 10-8-27. Boilers fixed 9-8-27. Engines tried under steam 10-8-27.
 Completion of fitting sea connections 8-11-27. Stern tube 29-11-27. Screw shaft and propeller 29-11-27.
 Main boiler safety valves adjusted 10-8-27. Thickness of adjusting washers 17/32" 57/32".
 Material of Crank shaft Ingot Steel Identification Mark on Do. LLOYDS N^o 774N. 22-4-27. A.T.G.
 Material of Thrust shaft Ingot Steel Identification Mark on Do. LLOYDS N^o 774N. 22-4-27. A.T.G.
 Material of Tunnel shafts none Identification Marks on Do. ✓
 Material of Screw shafts old steel Identification Marks on Do. 4666 J.B. W.B.
 Material of Steam Pipes solid drawn steel ✓ Test pressure 5 Holes ✓ Date of Test 11-11-27.
 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 Yes If so, state name of vessel S.S. "Fireglow" ✓

General Remarks (State quality of workmanship, opinions as to class, &c.) The materials and workmanship are good. The engine & thrust shaft have been constructed under Special Survey and are eligible in my opinion for classification and record of L.M.C. (with date) when the machinery has been satisfactorily installed in the vessel. The engine & thrust shaft have been to South Shields where they will be fitted in the vessel. This machinery has been built under Special Survey. Materials & workmanship good. Hydraulic tests satisfactory. The whole of the machinery is efficiently installed & fixed in the vessel & was tried under steam & is in good & safe working condition & eligible in my opinion to be classed & have records. L.M.C. 9-27. Yail shaft, C.L.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.27. CL.

19/9/27.

The amount of Entry Fee ... £ 3: : When applied for, 17 JUNE 1927
 Special 2/5 fee £ 15: 16: :
 Donkey Boiler Fee " ... £ 23: 14: 0:
 Travelling Expenses (if any) £ :
 ✓ Letter from R.W. 22 June 1927
 ✓ Address for 17.2.28. 1927
 ✓ Paid 30/9/27 666 (23/11/0).

A. T. Griffith. William Butler.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. 23 SEP 1927

CERTIFICATE WRITTEN.



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