

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

26 AUG 1924

Date of writing Report 19 When handed in at Local Office 22<sup>nd</sup> Aug 1924 Port of Middleborough  
 No. in Survey held at South Bank Date, First Survey 17<sup>th</sup> April Last Survey 8<sup>th</sup> August 1924  
 Reg. Book. on the S S STELLING (Number of Visits 43)  
 Built at South Bank By whom built Smith's Dock Co Yard No. 796 Tons Gross Net  
 Engines made at South Bank By whom made Smith's Dock Co Engine No. 262 when made  
 Boilers made at Stockton on Tees By whom made Blair & Co Ltd Boiler No. A53 when made  
 Registered Horse Power Owners Port belonging to  
 Nom. Horse Power as per Rule 231 1/4 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

## ENGINES, &amp;c.—Description of Engines

Triple expansion  
 Dia. of Cylinders 20 1/2 - 33 - 54 Length of Stroke 39 Revs. per minute 73 No. of Cylinders 3 No. of Cranks 3  
 Dia. of Crank shaft journals as per rule 10 3/4 as fitted 11 1/4 Dia. of Crank pin 11 1/4 Crank webs Mid. length breadth 17 1/4 Thickness parallel to axis 7  
 Diameter of Thrust shaft under collars as per rule 10 3/4 as fitted 11 1/4 Diameter of Tunnel shaft as per rule 10 3/4 as fitted 10 3/4 Diameter of Screw shaft as per rule 12 08 as fitted 12 1/2 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 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 appliance fitted at the after end of the shaft to permit of it being efficiently lubricated — Length of Stern Bush 4 8 1/4 Diameter of Propeller 15 3  
 Pitch of Propeller 15 9 No. of Blades 4 State whether Moveable No Total Surface 69 square feet.  
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 3 1/4 Stroke 20 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 1/4 Stroke 20 Can one be overhauled while the other is at work Yes  
 Total number and size of power driven Feed and Bilge Auxiliary Pumps 3 - 1 @ 6 x 4 x 6 1 @ 8 x 5 x 8 7 1 @ 8 x 10 x 10  
 No. and size of Pumps connected to the Main Bilge Line 1 - 1 @ 8 x 10 x 10  
 No. and size of Ballast Pumps 1 Duplex 8 x 10 x 10 No. and size of Lubricating Oil Pumps, including Spare Pump —  
 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 @ 3 and in Holds, &c. 2 @ 3 each hold  
1 @ 3 Tunnel well

No. and size of Main Water Circulating Pump Bilge Suctions 1 @ 6 No. and size of Donkey Pump Direct Suctions —  
 to the Engine Room Bilges 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 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 Main below not 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 Bilge Suction to Fore holds How are they protected Wood ceiling  
 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 Yes Is it fitted with a watertight door Yes worked from Upper Deck

## MAIN BOILERS, &amp;c.—(Letter for record (S))

Total Heating Surface of Boilers 4023 <sup>25B</sup>  
 Is Forced Draft fitted No No. and Description of Boilers 2 Single end Working Pressure 180 lbs  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes 100 Rpt No 11974  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? —

PLANS. Are approved plans forwarded herewith for Shafting — Main Boilers Yes Auxiliary Boilers — Donkey Boilers —  
 (If not state date of approval)  
 General Pumping Arrangements Yes Oil uel Burning Piping Arrangements —

SPARE GEAR. State the articles supplied:— Two each of connecting rod top and bottom end and main bearing bolts and nuts  
One set of coupling bolts and nuts. One set of feed pump and bilge pump valves and seats  
100 assorted bolts and nuts Iron of various sizes  
6 junk ring studs and nuts

The foregoing is a correct description,  
 FOR SMITH'S DOCK COMPANY, L<sup>td</sup>

S. O. Steers

Manufacturer.

22/8/24  
 Engine Works Manager



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Lloyd's Register  
 Foundation

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1924, Apr. 17. 23. 28. May. 1. 7. 14. 17. 23. 26. 28. 30. June 2. 4. 6. 12. 16. 19. 23. 25. 27. 30. July 3. 4. 5. 7. 8. 10. 14.  
During progress of work in shops - - -  
15. 17. 18. 21. 22. 24. 25. 28. 31. Aug. 2. 4. 5. 6. 7. 8.  
Dates of Survey while building  
During erection on board vessel - - -  
Total No. of visits 43

Dates of Examination of principal parts - Cylinders 19-6-24 Slides 23-6-24  
Covers 12-6-24 Pistons 12-6-24 Rods 5-5-24  
Connecting rods 16-6-24 Crank shaft 13-5-24 Lth Thrust shaft 13-5-24 Lth  
Tunnel shafts 17-6-24 Screw shaft 13-5-24 Lth Propeller 30-6-24  
Stern tube 19-6-24 Engine and boiler seatings 3-7-24 Engines holding down bolts 25-7-24  
Completion of pumping arrangements 5-8-24 Boilers fixed 25-7-24 Engines tried under steam 6-8-24  
Completion of fitting sea connections 3-7-24 Stern tube 4-7-24 Screw shaft and propeller 5-7-24  
Main boiler safety valves adjusted to 180 lbs 6-8-24 Thickness of adjusting washers 1/16 5/16 5/16 5/16  
Material of Crank shaft Ingot Steel Identification Mark on Do. 816  
Material of Thrust shaft Ingot Steel Identification Mark on Do. 817  
Material of Tunnel shafts Ingot Steel Identification Marks on Do. 818  
Material of Screw shafts Steel continuous 1/2 in diameter Identification Marks on Do. 819  
Material of Steam Pipes Solid drawn copper Test pressure 400 lbs Date of Test 24-7-24  
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 No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey. The material and workmanship are sound and good. The engines, boilers, and auxiliaries were examined under steam and all found satisfactory. The machinery is now in a good and safe working condition and renders the vessel eligible in my opinion, to have the notation + LMC 8.24 in the Register book.

Note: - This vessel is fitted with electric light and wireless.

It is submitted that this vessel is eligible for THE RECORD. + LMC 8.24. CL.

28/8/24  
A. D. Morris

The amount of Entry Fee ... £ 4. 0. :  
Special ... £ 30. 19. :  
Donkey Boiler Fee ... £ :  
Travelling Expenses (if any) £ :  
When applied for, 25.8.1924  
When received, 24.8.1924

Committee's Minute TUES. 2 SEP 1924  
Assigned L.M.C. 8.24 C.L.

FRI, 24 OCT '24  
FRI, 12 DEC 1924



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Rpt. 5a.  
Date of writing Report  
No. in Survey h  
Reg. Book.  
on the  
Master  
Engines made at  
Boilers made at  
Nominal Horse Po  
MULTITUBU  
Manufacturers of  
Total Heating Sur  
No. and Descripti  
Tested by hydraul  
Area of Firegrate  
Area of each set o  
In case of donkey b  
Smallest distance b  
Smallest distance b  
Largest internal d  
Thickness 1 1/2  
long. seams 8. 13  
5 Riv  
Percentage of stren  
Percentage of stren  
Thickness of butt s  
Material 1/2  
Length of plain pa  
Dimensions of stiff  
End plates in stea  
How are stays secu  
Tube plates: Mate  
Mean pitch of stay  
Girders to combust  
at centre 8 3/4  
in each 2  
Tensile strength  
Pitch of stays to dit  
Working pressure b  
Thickness 1 1/2  
Pitch of stays at w  
Working Pressure  
Diameter { At body of  
or  
Over threads  
Working pressure b  
Diameter { At turned off  
or  
Over threads