

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

9 FEB 1926

Date of writing Report 19 When handed in at Local Office - 8 FEB 1926 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey Sep. 16 Last Survey 3<sup>rd</sup> 7<sup>th</sup> 1926  
 Reg. Book. 8744 in on the new steel S.S. DEMETERTON (Number of Visits 40) Tons { Gross 5251  
 Net 3244  
 Built at Sunderland By whom built Short Bros Ltd Yard No. 422 When built 1926

Engines made at Sunderland By whom made J. Dickinson & Sons Ltd Engine No. 882 when made 1926  
 Boilers made at Sunderland By whom made J. Dickinson & Sons Ltd Boiler No. 882 when made 1926

Registered Horse Power Owners Carlton S. S. Co. Ltd. Port belonging to Newcastle  
 Nom. Horse Power as per Rule 363. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion

Dia. of Cylinders 25-41-68 Length of Stroke 48 Revs. per minute 65 No. of Cylinders 3 No. of Cranks 3  
 Dia. of Crank shaft journals as per rule 13.1445 Dia. of Crank pin 13 3/4 Crank webs Mid. length breadth 26 3/8 Thickness parallel to axis 8 5/8  
 as fitted 13 3/4 Mid. length thickness 8 5/8 shrunk Thickness around eye-hole 6 3/8  
 Diameter of Thrust shaft under collars as per rule 13.1445 Diameter of Tunnel shaft as per rule 12.55 Diameter of Screw shaft as per rule 13.984 Is the Screw shaft  
 as fitted 13 3/4 as fitted 12 3/4 as fitted 14 3/4 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 Yes 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 Yes  
 If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved appliance fitted at the after end of the shaft to permit  
 of it being efficiently lubricated Yes Length of Stern Bush 5-3 Diameter of Propeller 14-6  
 Pitch of Propeller 17-0 No. of Blades 4 State whether Moveable No Total Surface 98 square feet.  
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes  
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 4 1/2 Stroke 24 Can one be overhauled while the other is at work Yes  
 Total number and size of power driven Feed and Bilge Auxiliary Pumps Two - 4" x 9 1/2" x 21" Feed Pumps One 4 1/2" x 5" x 6" General Service  
 No. and size of Pumps connected to the Main Bilge Line One 9" x 11" x 10" Ballast pump  
 No. and size of Ballast Pumps One 9" x 11" x 10" No. and size of Lubricating Oil Pumps, including Spare Pump Yes  
 Are two independent means arranged for circulating water through the Oil Cooler Yes No. and size of suction connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room 3 @ 3" dia and in Holds, &c. For Hold 2 @ 3" dia  
For main hold and cross bunkers. 2 @ 3 1/2" dia. Aft main hold 2 @ 3" dia. Aft hold 2 @ 3" dia  
Tunnel well one @ 2 1/4"  
 No. and size of Main Water Circulating Pump Bilge Suctions One @ 8" dia No. and size of Donkey Pump Direct Suctions  
 to the Engine Room Bilges One @ 5" dia 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 Forward Hold Suctions How are they protected Under Limber Boards  
 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 Top platform

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 5806 sq. ft.  
 Is Forced Draft fitted No No. and Description of Boilers Two single ended marine type Working Pressure 180 lbs.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes

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

SPARE GEAR. State the articles supplied:— One C.I. Propeller, One Propeller shaft,  
2 Top end bolts and nuts, 2 Connecting rod bottom end bolts and nuts,  
2 Main bearing bolts, 1 Set of Coupling bolts, 1 Set of feed and bilge pump  
valves, A quantity of assorted bolts and nuts, Iron of various sizes.

The foregoing is a correct description,

For John Dickinson & Sons, Limited.

*W. H. ...*  
Director.

Manufacturer.

W 383 - 0188



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Lloyd's Register Foundation

1925 Sep. 16, 18, 23, Oct. 2, 12, 15, 20, Nov. 2, 5, 6, 9, 12, 25, 26, 27, Dec. 1, 2, 8.  
 During progress of work in shops -- 21, 28, 29, 30, 31.  
 Dates of Survey while building During erection on board vessel --- 1926. Jan. 6, 9, 11, 12, 13, 14, 18, 21, 22, 25, 27, 28, 29, Feb. 1, 2, 3.  
 Total No. of visits 40

Dates of Examination of principal parts - Cylinders 30-12-25 Slides 8-12-25  
 Covers 9-11-25 Pistons 21-12-25 Rods 28-12-25  
 Connecting rods 30-12-25 Crank shaft 8-12-25 Thrust shaft 6-1-26  
 Tunnel shafts 6-1-26 Screw shaft Working 11-1-26 Spare 21-1-26 Propeller 9-1-26  
 Stern tube 18-1-26 Engine and boiler seatings 25-1-26 Engines holding down bolts 25-1-26  
 Completion of pumping arrangements 25-1-26 Boilers fixed 28-1-26 Engines tried under steam 29-1-26  
 Completion of fitting sea connections 29-12-25 Stern tube 21-1-26 Screw shaft and propeller 22-1-26  
 Main boiler safety valves adjusted 29-1-26 Thickness of adjusting washers Pt. B4:  $\frac{5}{16}$ "  $\frac{3}{8}$ " Star B4  $\frac{5}{16}$ "  $\frac{3}{8}$ "  
 Material of Crank shaft Ingot Steel Identification Mark on Do. LLOYDS No. 4086 G.A. 8-12-25  
 Material of Thrust shaft Ingot Steel Identification Mark on Do. LLOYDS No. 7439 G.A. 6-1-26  
 Material of Tunnel shafts Ingot Steel Identification Marks on Do. LLOYDS No. 7459, 7461, 7462, 7460 G.A. 6-1-26  
 Material of Screw shafts Scrap Iron Identification Marks on Do. LLOYDS No. 4024 G.A. 21-1-26  
 Material of Steam Pipes Lap Welder Wrote Iron Test pressure 540 lbs. Date of Test 14-1-26, 18-1-26, 27-1-26  
 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 materials and workmanship are good.  
 The machinery has been constructed under special survey and is eligible in my opinion for classification in the Society's Register with the record of + L.M.C. 2-26

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 2.26. CL.

*George Anderson*  
 11/2/26

The amount of Entry Fee ... £ 5 : - :  
 Special ... £ 49 : 9 :  
 Donkey Boiler Fee ... £ 7 : 2 :  
 Travelling Expenses (if any) £ : :  
 When applied for, 15 Feb 1926  
 When received, 9.2.26

*George Anderson*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 12 FEB 1926  
 Assigned + L.M.C. 2.26 C.L.



SUNDERLAND

The Surveyors are requested not to write on or below the space for Committee's Minute.

Certificate to be sent to