

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

-6 NOV 1930

Date of writing Report 31. 10. 1930 When handed in at Local Office 31. 10. 1930 Port of MIDDLESBROUGH

No. in Survey held at STOCKTON Date, First Survey 19 March Last Survey 23. 10. 1930
 Reg. Book. 68903 on the sc. "DARTFORD" (Number of Visits 40) Tons Gross 4076 Net 2443

Built at Stockton By whom built Smiths Dock Co. Ltd Yard No. 921 When built 1930

Engines made at do. By whom made Blair & Co (1926) Ltd Engine No. 1986 When made 1930

Boilers made at do. By whom made do. Boiler No. 1986 When made 1930

Registered Horse Power Owners Britain S.S. Co. Ltd Port belonging to London

Nom. Horse Power as per Rule 367.7 368 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Ye

Trade for which Vessel is intended General cargo

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 65.

Dia. of Cylinders 23½" 40" 67" Length of Stroke 45" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 12.56" Crank pin dia. 14" Crank webs Mid. length breadth 1' 10½" Thickness parallel to axis 9" shrunk Thickness around eye-hole 6½"

Intermediate Shafts, diameter as per Rule 11.96" Thrust shaft, diameter at collars as per Rule 12.56" as fitted 13" as fitted 14"

Tube Shafts, diameter as per Rule 45/64" Screw Shaft, diameter as per Rule 13.31" Is the tube shaft fitted with a continuous liner Ye

Bronze Liners, thickness in way of bushes as per Rule 3" Thickness between bushes as per Rule 32" Is the after end of the liner made watertight in the propeller boss Ye If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Ye

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 Ye

If two liners are fitted, is the shaft lapped or protected between the liners Ye 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' 2"

Propeller, dia. 16' 9" Pitch 16' 9" No. of Blades 4 Material Bronze whether Movable no Total Developed Surface 92 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 3½" Stroke 33" Can one be overhauled while the other is at work Ye

Bilge Pumps worked from the Main Engines, No. 2 Diameter 3½" Stroke 33" Can one be overhauled while the other is at work Ye

Feed Pumps No. and size 2-8½" x 6" x 18" weir Steam Pumps connected to the No. and size 2-8" x 9" x 8" Hamant Duplex How driven 2-7" x 5" x 8" Hamant Duplex Main Bilge Line How driven Steam

Ballast Pumps, No. and size 2-8" x 9" x 8" Hamant Duplex Lubricating Oil Pumps, including Spare Pump, No. and size Ye

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 3-2½" 1-2" in Tunnel 1-2½" in Tunnel well In Pump Room In Holds, &c. No 1: 2-3" No 2: 3-2-3½" No 4: 2-2¾" No 5: 2-2½"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-7" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-4½" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Ye or half with perforated covers Ye

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 Ye

Are all Sea Connections fitted direct on the skin of the ship Ye 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 Ye Are the Overboard Discharges above or below the deep water line above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Ye Are the Blow Off Cocks fitted with a spigot and brass covering plate Ye

What Pipes pass through the bunkers For 1 bilge suction How are they protected wood casings

What pipes pass through the deep tanks none Have they been tested as per Rule Ye

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Ye

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 Ye Is the Shaft Tunnel watertight Ye Is it fitted with a watertight door Ye worked from E.R. entrance main deck level

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 6173 sq. ft.

Is Forced Draft fitted no No. and Description of Boilers 3 S.B. Working Pressure 185 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Ye

IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? Ye

Is the donkey boiler intended to be used for domestic purposes only Ye

PLANS. Are approved plans forwarded herewith for Shafting Ye Main Boilers Ye Auxiliary Boilers Ye Donkey Boilers Ye

(If not state date of approval)

Superheaters Ye General Pumping Arrangements Ye Oil fuel Burning Piping Arrangements Ye

SPARE GEAR.

Has the spare gear required by the Rules been supplied Ye

State the principal additional spare gear supplied 1 C.D. propeller; 1 tail shaft; 1 pair bottom end branks; 1 pair top end branks; 2 safety valve springs; 2 main & 2 donkey check valve lids; 12 piston bolts; 3 piston nuts; 12 anchor gland covers studs; 12 anchor brass studs & nuts for pumps; 6 holding down bolts; 3 condenser tubes; 25 condenser ferrules; 2 furnace doors; quantity firebars, baffle, back bridge, primer blades, gauge glass and cone.

The foregoing is a correct description,

For BLAIR & CO. (1926) LIMITED.

Manufacturer.

H. J. Chambers
SECRETARYLloyd's Register
Foundation

W163-0021

Dates
of Survey
while
building

During progress of
work in shops - -

During erection on
board vessel - -

Total No. of visits

1930: Mar 19, Apr 7, 15, 23, 25, May 7, 9, 16, 20, 27, 29, June 3, 4, 12, 16, 24, 30, July 4, 7
15, 22, 25, 30, Aug 6, 25, 27, Sep 12, 17, 18, 23

1930: Sep 25, Oct 1, 2, 3, 6, 7, 9, 10, 22, 23

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Dates of Examination of principal parts—Cylinders 27.5.30. Slides 15.7.30. Covers 27.5.30.
Pistons 16.6.30. Piston Rods 16.6.30. Connecting rods 24.6.30.
Crank shaft 16.6.30. Thrust shaft 16.6.30. Intermediate shafts 30.6.30.
Tube shaft 17.9.30. Screw shaft 25.8.30. Propeller 17.9.30.
Stern tube 17.9.30. Engine and boiler seatings 18.9.30. Engines holding down bolts 9.10.30.
Completion of fitting sea connections 18.9.30.
Completion of pumping arrangements 20.10.30. Boilers fixed 2.10.30. Engines tried under steam 23.10.30.
Main boiler safety valves adjusted 9.10.30. Thickness of adjusting washers Port $\frac{11}{32}$ p. $\frac{3}{8}$ S; Centre bolt $\frac{11}{32}$; Star p. $\frac{5}{16}$ S.
Crank shaft material Steel Identification Mark LLOYDS No 1323 M. Thrust shaft material Steel Identification Mark LLOYDS No 36018.
Intermediate shafts, material steel Identification Marks LLOYDS No 1340 M. Tube shaft, material Identification Mark LLOYDS No 1388 M.
Screw shaft, material iron Identification Mark LLOYDS No 1388 M. Steam Pipes, material Steel Test pressure 560 lb. Date of Test 3.10.30.
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 the use of oil as fuel been complied with ✓
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 no.
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.

This machinery has been built under special survey in accordance with the Rules and approved Plans, it has been securely fitted aboard and tested under working conditions with satisfactory results and is, in my opinion, suitable for classification with record + L.M.C. 10.30.

It is submitted that
this vessel is eligible for
THE RECORD + L.M.C. 10.30 C-L.

10/11/30

The amount of Entry Fee ... £ 5-0-0
Special ... £ 80-4-0
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 5 Nov 1930
When received, 11.11.30

Committee's Minute

Assigned

FRI. 14 NOV 1930

+ L.M.C. 10.30 L.

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation