

REPORT ON MACHINERY.

No. 85042

Received at London Office 12 DEC 1921
 Date of writing Report 9th Dec. 1921 When handed in at Local Office 12 DEC 1921 Port of London (Fenchurch)
 in Survey held at Union Pier + Brightlingsea Date, First Survey 30th March 1921 Last Survey 9th Dec. 1921
 g. Book. 2880 on the Steel S. K. "Robert Double" (Number of Visits 9)
 Master Built at Gool. By whom built Gool S. B. Co Ltd Tons Gross 326 Net 150
 Engines made at Coathbridge By whom made H. Beardmore & Co. When built 1918
 Makers made at ✓ By whom made ✓ when made 1918
 Registered Horse Power 69. Owners The Admiralty Port belonging to London.
 m. Horse Power as per Section 28 ✓ Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted Yes

GINES, &c.—Description of Engines Triple expansion. No. of Cylinders 3 No. of Cranks 3
 a. of Cylinders 13"-23" + 37" Length of Stroke 36" Revs. per minute 7.39 Dia. of Screw shaft as per rule 8 1/4 Material of screw shaft Steel.
 the screw shaft fitted with a continuous liner the whole length of the stern tube Yes. Is the after end of the liner made water tight
 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 a plastic material insoluble in water and non-corrosive ✓ If two
 ers are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 35
 a. of Tunnel shaft as per rule 7 1/2 Dia. of Crank shaft journals as per rule 7 1/2 Dia. of Crank pin 7 1/2 Size of Crank webs 4 1/2 x 11 Dia. of thrust shaft under
 lars 7 1/2 Dia. of screw 9 1/2 Pitch of Screw 11-0 No. of Blades 4 State whether moveable No Total surface 33 1/2
 a. of Feed pumps one Diameter of ditto 2 5/8 Stroke 14 3/4 Can one be overhauled while the other is at work ✓
 a. of Bilge pumps one Diameter of ditto 2 5/8 Stroke 14 3/4 Can one be overhauled while the other is at work ✓
 a. of Donkey Engines one Sizes of Pumps 6" x 4 1/4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room Two 2' dia. + one 3' ejector. In Holds, &c. One 2' dia. + ejector.

a. of Bilge Injections one sizes 3 1/2 Connected to condenser, or to circulating pump in pp. Is a separate Donkey Suction fitted in Engine room & size Yes, 2'
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible ✓
 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
 Are the pipes carried through the bunkers Forward suction How are they protected Along casings.
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

ILERS, &c.—(Letter for record) Manufacturers of Steel
 Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers One single ended
 Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test 11-6-3-18 No. of Certificate F.L.S. 21516
 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
 Each boiler 2 opening loaded Area of each valve 4 9/16 Pressure to which they are adjusted 200 lb. Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 9" Mean dia. of boilers Length Material of shell plates
 Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
 g. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Percentages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
 Thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
 Working pressure by rules Steam dome: description of joint to shell % of strength of joint
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed
 SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

1 Connecting rod top end bolts & nuts.

2 " " bolts " " "

2 Main bearing bolts & nuts.

1 Set coupling bolts & nuts.

1 Set Fred. & helge pump valves.

1 Set Air & vac. pump valves

A quantity of assorted bolts & nuts.

The foregoing is a correct description,

Manufacturer.

Dates of Survey: During progress of work in shops - - 1921: - Mar 20 Apr 4.8 Sep 2.4.29 Oct 14 Nov 15 Dec 8
During erection on board vessel - -
Total No. of visits Nine

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—	Cylinders	Slides	Covers	Pistons	Rods
Connecting rods	Crank shaft	Thrust shaft	Tunnel shafts	Screw shaft	Propeller
Stern tube	Steam pipes tested	Engine and boiler seatings	Engines holding down bolts		
Completion of pumping arrangements	Boilers fixed	Engines tried under steam			
Completion of fitting sea connections	Stern tube	Screw shaft and propeller			
Main boiler safety valves adjusted	2-9-21. 2004.	Thickness of adjusting washers	F. 15/32 A. 13/32		
Material of Crank shaft	Identification Mark on Do.	Material of Thrust shaft	Identification Mark on Do.		
Material of Tunnel shafts	Identification Marks on Do.	Material of Screw shafts	Identification Marks on Do.		
Material of Steam Pipes		Test pressure			

Is an installation fitted for burning oil fuel

Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case

If so, state name of vessel

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

The Engines were constructed under British Corporation Survey, & the workmanship and materials appear good.

The boiler was constructed under the Survey of this Society, the number of certificate is not legible. & was presumably constructed under Mr. Sturgeon's supervision.

The amount of Entry Fee	£	When applied for,
Special	£	19
Donkey Boiler Fee	£	When received,
Travelling Expenses (if any)	£	19

Committee's Minute

FRI. 6 JAN. 1922

Assigned

A.B. Farmer

Engineer Surveyor to Lloyd's Register of Shipping.



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