

REPORT ON MACHINERY.

No. 11041

Received at London Office

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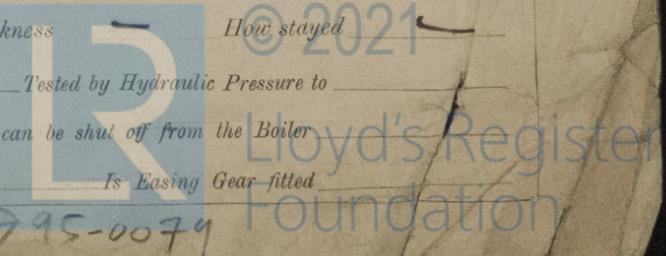
Date of writing Report 10 When handed in at Local Office 11th Oct. 1921 Port of Southampton
 No. in Survey held at Cowes Date, First Survey Nov 29th 1920 Last Survey May 13th 1921
 Reg. Book. on the S.S. "KILDAVIN" NOW "LEESIDE" (Number of Visits 7)
 Master Smith's Dock C^o Ltd Built at Middlesbrough By whom built Smith's Dock C^o Ltd When built 1918
 Engines made at Middlesbrough By whom made Smith's Dock C^o Ltd when made 1918
 Boilers made at Jarrow By whom made Palmer's S.B.C^o when made 1918
 Registered Horse Power 132 Owners The Side Shipping C^o Port belonging to Newcastle
 Nom. Horse Power as per Section 28 132 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 16" x 26" x 44" Length of Stroke 26" Revs. per minute 85 Dia. of Screw shaft 8 1/2" Material of screw shaft steel
 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 water tight 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 a plastic material insoluble in water and non-corrosive Yes If two liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4'-0 1/2"
 Dia. of Tunnel shaft 7.94" Dia. of Crank shaft journals 8.33" Dia. of Crank pin 8 1/2" Size of Crank webs 5 1/2" x 13" Dia. of thrust shaft under collars 8 1/2" Dia. of screw 9'-6" Pitch of Screw - No. of Blades 4 State whether moveable No Total surface -
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 18" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 6" Stroke 6" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 duplex Sizes of Pumps 7" x 4 1/2" x 8'-6" x 6" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps 2
 In Engine Room 3'-2" and quarter In Holds, &c. 2" in each compartment
 No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump to pump Is a separate Donkey Suction fitted in Engine room of size Yes 2" diam
 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 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 sections How are they protected strong casing
 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 Yes Is it fitted with a watertight door Yes (hinged) worked from bottom platform

BOILERS, &c.—(Letter for record -) Manufacturers of Steel -
 Total Heating Surface of Boilers 1825 Is Forced Draft fitted Yes No. and Description of Boilers one cylindrical multitubular
 Working Pressure 200 Tested by hydraulic pressure to - Date of test - No. of Certificate -
 Can each boiler be worked separately Yes Area of fire grate in each boiler 5-1.5 ft No. and Description of Safety Valves to each boiler 2 spring loaded Area of each valve 5.94" Pressure to which they are adjusted 200 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 13ft Length 11'-6" Material of shell plates steel
 Thickness 1 1/4" Range of tensile strength 28 to 32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams double long. seams TR Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 9 3/8" Lap of plates or width of butt straps 18 1/2"
 Per centages of strength of longitudinal joint 86.59 Working pressure of shell by rules 201 Size of manhole in shell 16" x 12"
 Size of compensating ring 7" x 1 1/4" No. and Description of Furnaces in each boiler 3 Dugltons Material steel Outside diameter 41 5/8"
 Length of plain part top Thickness of plates bottom 9" Description of longitudinal joint welded No. of strengthening rings -
 Working pressure of furnace by the rules 211 Combustion chamber plates: Material steel Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 11/16"
 Pitch of stays to ditto: Sides 9 x 8 1/4" Back 8 3/4 x 8 1/2" Top 9 x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 207
 Material of stays steel Area at smallest part 2.1 Area supported by each stay 78.75 Working pressure by rules 240 End plates in steam space: Material steel Thickness 1 3/8" Pitch of stays 17 1/2 x 17 1/2" How are stays secured by nuts Working pressure by rules 211 Material of stays steel
 Area at smallest part 6.6 Area supported by each stay 306 Working pressure by rules 220 Material of Front plates at bottom steel Thickness 1" Material of Lower back plate steel Thickness 1" Greatest pitch of stays 14 1/2 x 8 1/4" Working pressure of plate by rules 241
 Diameter of tubes 2 1/2" Pitch of tubes 3 1/4" x 3 1/4" Material of tube plates steel Thickness: Front 1" Back 1 1/8" Mean pitch of stays 8 3/4"
 Pitch across wide water spaces 13 1/4" Working pressures by rules 204 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8 x 1 1/4" Length as per rule 31 1/4" Distance apart 8 1/2" Number and pitch of stays in each 2 x 9"
 Working pressure by rules 202 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 -

008789-008795-0079



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

2 connecting rod top end bolts & nuts; 2 bottom end bolts and nuts; 1 main bearing bolt; set of coupling bolts; set of feed & bilge pump valves; set of piston rings; a quantity of assorted bolts and nuts and iron of various sizes

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
(During progress of work in shops --
During SURVEY on board vessel --
Total No. of visits

29, 10.16, 12. 1920. 7, 15, 3, 5. 1921
on 7

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders	Slides	Covers	Pistons	Rods
Connecting rods	Crank shaft	Thrust shaft	Tunnel shafts	Screw shaft
Stern tube	Steam pipes tested	Engine and boiler seatings	Engines holding down bolts	Propeller
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	Thickness of adjusting washers	PORT VALVE $\frac{25}{64}$	STEAM VALVE $\frac{23}{64}$	
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	<i>Steel</i>	Test pressure	<i>600 lbs</i>	

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 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 machinery of this vessel has not been built under special survey. All cylinders, pistons, slide valves & faces, condenser, air, circulating, feed & bilge pumps examined; Crank, Thrust & intermediate shafting examined and all found sound & free from defects. Auxiliary machinery examined and found in good order.

Main boiler examined internally and externally with mountings and found in a good & safe working condition; Safety valves adjusted under steam to 200 lbs per sq inch & found satisfactory.

The propeller shaft and sea cocks were examined in September 1920 by the B.C. Surveyor (see London letter dated Dec 7th 1920)

Steam pipes tested to 600 lbs per sq inch

This vessel's machinery is in safe working condition eligible in my opinion to have the notation U.M.C 5-21

Certificate (if required) to be sent to the Surveyors on or before the date for Committee's Minute.

The amount of Entry Fee ... £
Special Inclusive fee on
stamp duty of 3-11-20/
 Donkey Boiler Fee ... £
 Travelling Expenses (if any) £

When applied for.
11-00-21
 When received.
19
 FRI. OCT. 20 1921

H. Shelley
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. NOV. 17 1922

As signed

U.M.C. 5-21 G.D. C.H.

MACHINERY CERTY
WRITTEN



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Foundation