

REPORT ON MACHINERY.

No. 10749
MON. NOV. 28 1920

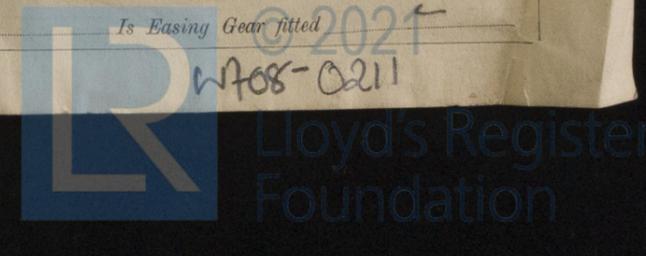
Received at London Office

Date of writing Report 2nd Nov. 1920 When handed in at Local Office 6th Nov. 1920 Port of Southampton
 Survey held at Comes, Isle of Wight Date, First Survey 12th Dec. 1919 Last Survey 29th Oct. 1920
 Book. on the S.S. RIVER TEES (Number of Visits 22)
 Gross Tons 749.00
 Net Tons 370.43
 When built 1920
 Built at Comes By whom built J.S. White & Co. L^{td} when made 1920
 By whom made J.S. White & Co. L^{td} when made 1920
 Owners Messrs. Lythgoe, Prince & Co. L^{td} Port belonging to Newcastle-on-Tyne
 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

LINEAS, &c.—Description of Engines Triple Expansion Surface Condensing No. of Cylinders 3 No. of Cranks 3
 of Cylinders 15"-25½"-41" Length of Stroke 30" Revs. per minute 105 Dia. of Screw shaft 8.32 Material of steel
 as fitted 9.25 screw shaft)
 Is the after end of the liner made water tight 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
 are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 3'-0½"
 Dia. of Tunnel shaft 7.77 as per rule 8.166 Dia. of Crank shaft journals 8.25 as per rule 8.25 Dia. of Crank pin 8.25 Size of Crank webs 5/8 Dia. of thrust shaft under
 Dia. of screw 8 5/8 Dia. of screw 10'-6" Pitch of Screw 11'-6" No. of Blades 4 State whether moveable No Total surface 37 1/2
 of Feed pumps 2 Diameter of ditto 2 3/4 Stroke 15" Can one be overhauled while the other is at work yes
 of Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 15" Can one be overhauled while the other is at work yes
 of Donkey Engines 2 Sizes of Pumps 7x5x8" & 7x5x10" No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 2-2 1/2" and 2-2" In Holds, &c. 3-2" for Holdwell and 1-2 1/2" for Fore-peak.
 of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump C.P.M.P. Is a separate Donkey Suction fitted in Engine room & size yes
 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
 all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Both
 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
 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
 at pipes are carried through the bunkers None How are they protected yes
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes
 the Screw Shaft Tunnel watertight None Is it fitted with a watertight door yes worked from yes

PLATES, &c.—(Letter for record S) Manufacturers of Steel The Port Talbot & the Parkgate Steel C^o L^{td}
 Heating Surface of Boilers 1127 1/2 Is Forced Draft fitted No No. and Description of Boilers One cylindrical, return tube
 Working Pressure 180 lb. Tested by hydraulic pressure to 360 lb. Date of test 6-10-20 No. of Certificate 336
 each boiler be worked separately yes Area of fire grate in each boiler 56.25 No. and Description of Safety Valves to
 boiler 2 Spring Loaded Area of each valve 5.939 Pressure to which they are adjusted 183 lb. Are they fitted with easing gear yes
 least distance between boilers or uptakes and bunkers or woodwork 4" Mean dia. of boilers 15'-0" Length 10'-9" Material of shell plates steel
 thickness 1 3/32 Range of tensile strength 28 to 32 Are the shell plates welded or flanged Flanged Descrip. of riveting: cir. seams D.R.LAP.
 Double T.R. Butt Strap Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 9 1/2 Lap of plates or width of butt straps 1-7 1/2
 percentages of strength of longitudinal joint rivets 86.9% Working pressure of shell by rules 184.3 Size of manhole in shell 12"x16"
 plate 86.18%
 of compensating ring 2-9 3/4"x2-5 3/4" No. and Description of Furnaces in each boiler 3 Corrugated Material steel Outside diameter 3'-9 1/4"
 length of plain part top 9" Thickness of plates crown 9/16 Description of longitudinal joint Welded No. of strengthening rings yes
 bottom 1/16
 working pressure of furnace by the rules 194.7 Combustion chamber plates: Material steel Thickness: Sides 2 3/32 Back 2 1/32 Top 1/16 Bottom 2 3/32
 thickness of stays to ditto: Sides 9 1/4"x8 1/2" Back 9 1/2"x8 1/2" Top 10"x9" If stays are fitted with nuts or riveted heads None Working pressure by rules 183.1
 material of stays steel Area at smallest part 1.79 Area supported by each stay 80.75 Working pressure by rules 199.5 End plates in steam space:
 material steel Thickness 1 1/4 Pitch of stays 19 1/2"x20 1/2" How are stays secured DOUBLE NITS Working pressure by rules 184.8 Material of stays steel
 area at smallest part 6.95 Area supported by each stay 399.75 Working pressure by rules 181 Material of Front plates at bottom steel
 thickness 1" Material of Lower back plate steel Thickness 2 7/32 Greatest pitch of stays 13"x9.5" Working pressure of plate by rules 189.8
 diameter of tubes 3 1/4" Pitch of tubes 4 1/2"x4 1/2" Material of tube plates steel Thickness: Front 1" Back 2 5/32 Mean pitch of stays 9"x9"
 pitch across wide water spaces 14" Working pressures by rules 182.8 Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 9 1/4"x3 1/4"(2) Length as per rule 2'-10" Distance apart 9" Number and pitch of stays in each 2-10"
 working pressure by rules 180.6 Steam dome: description of joint to shell yes % of strength of joint yes
 diameter yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet holes yes
 pitch of rivets yes Working pressure of shell by rules yes Crown plates yes Thickness yes How stayed yes

SUPERHEATER. Type yes Date of Approval of Plan yes Tested by Hydraulic Pressure to yes
 Date of Test yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
 diameter of Safety Valve yes Pressure to which each is adjusted yes Is Easing Gear fitted yes



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Conn^g Rod top end Bolts & Nuts, 2 Conn^g Rod bottom end Bolts & Nuts, 2 Main Bearing Bolts & Nuts, 1 Set of Coupling Bolts & Nuts, 1 Feed & 1 Bilge Pump Suction Valve, 1 Feed & 1 Bilge Pump Discharge Valve, 50 Assorted Bolts & Nuts, 12 Junk Ring Stands & Nuts, Bar iron stand & flat of various sizes, 1 Escape Valve Spring of each size - 2 Pump Piston Brasses, 36 Condenser Tubes, 24 Boiler Tubes, 1 Set of Safety Valve Springs, 2 Feed Check Valves, 1 Propeller.

The foregoing is a correct description,
For J. SAMUEL WHITE & COMPANY, LTD

J. Samuel White

Managing Director, Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1919. $\frac{12}{12}$. 1920. $\frac{8}{1}$. $\frac{3-15-29}{2}$. $\frac{23-29}{3}$. $\frac{9}{4}$. $\frac{6}{5}$. $\frac{21-24}{6}$. $\frac{28-29}{7}$.	
		During erection on board vessel - - -	$\frac{11-19-26-27}{8}$. $\frac{10}{9}$. $\frac{6-21-27-29}{10}$.
		Total No. of visits	22

Is the approved plan of main boiler forwarded herewith *yes*

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *24-6-20* Slides *21-6-20* Covers *21-6-20* Pistons *21-6-20* Rods *21-6-20*
 Connecting rods *21-6-20* Crank shaft *6-5-20* Thrust shaft *21-6-20* Tunnel shafts Screw shaft *29-3-20* Propeller *9-4-20*
 Stern tube *29-3-20* Steam pipes tested *20-10-20* Engine and boiler seatings *21-6-20* Engines holding down bolts *21-10-20*
 Completion of pumping arrangements *21-10-20* Boilers fixed *21-10-20* Engines tried under steam *29-10-20*
 Completion of fitting sea connections *28-8-20* Stern tube *19-8-20* Screw shaft and propeller *26-8-20*
 Main boiler safety valves adjusted *27-10-20* Thickness of adjusting washers S:- $\frac{11}{16}$ " P:- $\frac{19}{32}$ "
 Material of Crank shaft *Steel* Identification Mark on Do. *N^o 1547 440405 6-5-20 A.H.B.* Material of Thrust shaft *Steel* Identification Mark on Do. *N^o 1547 440405 29-3-20 A.H.B.*
 Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *Steel* Identification Marks on Do. *N^o 1547 440405 29-3-20 A.H.B.*
 Material of Steam Pipes *Copper* Test pressure *360 lb.*

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 *yes* If so, state name of vessel *S.S. "RIVER WEAR"*

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

The Machinery and Boiler have been built under Special Survey and during erection on board. The Materials & workmanship being sound and good.

The Spare Gear is in order with the rule requirements.

On Trial the Machinery and Boiler proved satisfactory, and the same is eligible in my opinion to have notation + L.M.C. 10.20.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 10.20.

Reh
8/11/20

J.F.E.

The amount of Entry Fee ... £ *2* : *0* : When applied for,
 Special ... £ *18* : *0* : *6/11/20*
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ *1* : *3* : *1/1/20*
 FRI. NOV. 12 1920

A.H. Boyle
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *+ L.M.C. 10.20*

Certificate (if required) to be sent to The Surveyors are requested not to write on or below the space for Committee's Minute.

CERTIFICATE WRITTEN



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