

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. S.S. RIVER TEES (Number of Visits 22)

on the S.S. RIVER TEES Tons { Gross 749.00
 Net 370.43
 When built 1920

er W. E. Stringer Built at Comes By whom built J. S. White & Co. L^{td} when made 1920
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tered Horse Power 120 Owners Messrs. Lythgoe, Prince & Co. L^{td} Port belonging to Newcastle-on-Tyne
 Horse Power as per Section 28 120 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

INES, &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 per rule 8.32 as fitted 9.25 screw shaft

he 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
 he propeller boss yes If the liner is in more than one length are the joints burned — If the liner does not fit tightly at the part
 een the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive — If two
 s are fitted, is the shaft lapped or protected between the liners — Length of stern bush 3'-0½"

of Tunnel shaft 7.77 Dia. of Crank shaft journals 8.166 Dia. of Crank pin 8.25 Size of Crank webs 5½" Dia. of thrust shaft under
 as per rule 7.77 as fitted 8.25 Dia. of screw 10'-6" Pitch of Screw 11'-6" No. of Blades 4 State whether moveable No Total surface 37 ft

of Feed pumps 2 Diameter of ditto 2¼" Stroke 15" Can one be overhauled while the other is at work yes
 of Bilge pumps 2 Diameter of ditto 2½" 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 2-2½" and 2-2" In Holds, &c. 3-2" for Holdwell and 1-2½" for Fore-peak.

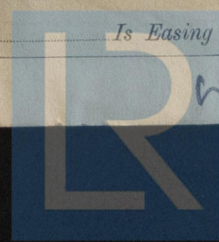
of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump C.P.M.P. Is a separate Donkey Suction fitted in Engine room & size yes
 all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible 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 —
 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 — worked from —

TLERS, &c.—(Letter for record S) Manufacturers of Steel The Port Talbot & the Parkgate Steel C^o L^{td}

al Heating Surface of Boilers 1127 ft Is Forced Draft fitted No No. and Description of Boilers One cylindrical, return tube
 rking 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 — Area of fire grate in each boiler 56.25 ft No. and Description of Safety Valves to
 boiler 2 Spring Loaded Area of each valve 5.939 ft Pressure to which they are adjusted 183 lb. Are they fitted with easing gear yes
 allest distance between boilers or uptakes and bunkers or woodwork 4" Mean dia. of boilers 15'-0" Length 10'-9" Material of shell plates steel
 ckness 1½" Range of tensile strength 28 to 32 Are the shell plates welded or flanged Flanged Descrip. of riveting: cir. seams D.R. LAP.
 1. seams T.R. BUTT STRAP Diameter of rivet holes in long. seams 1½" Pitch of rivets 9½" Lap of plates or width of butt straps 1'-7½"
 centages of strength of longitudinal joint rivets 86.9% Working pressure of shell by rules 184.3 Size of manhole in shell 12"x16"
 e of compensating ring 2'-9¾"x2'-5¾" No. and Description of Furnaces in each boiler 3. Corrugated Material steel Outside diameter 3'-9¼"
 gth of plain part top 9" Thickness of plates crown 16" Description of longitudinal joint Welded No. of strengthening rings —
 bottom 16" Working pressure of furnace by the rules 194.7 Combustion chamber plates: Material steel Thickness: Sides 23/32" Back 21/32" Top 1/16" Bottom 23/32"
 ch of stays to ditto: Sides 9¼"x8½" Back 9½"x8½" Top 10"x9" If stays are fitted with nuts or riveted heads None Working pressure by rules 183.1
 aterial of stays steel Area at smallest part 1.79 ft Area supported by each stay 80.75 ft Working pressure by rules 199.5 End plates in steam space:
 aterial steel Thickness 1¼" Pitch of stays 19½"x20½" How are stays secured DOUBLE NUTS Working pressure by rules 184.8 Material of stays steel
 ea at smallest part 6.95 ft Area supported by each stay 399.75 ft Working pressure by rules 181 Material of Front plates at bottom steel
 ickness 1" Material of Lower back plate steel Thickness 27/32" Greatest pitch of stays 13"x9.5" Working pressure of plate by rules 189.8
 iameter of tubes 3¼" Pitch of tubes 4½"x4½" Material of tube plates steel Thickness: Front 1" Back 25/32" Mean pitch of stays 9"x9"
 ch across wide water spaces 14" Working pressures by rules 182.8 Girders to Chamber tops: Material steel Depth and
 ckness of girder at centre 9¼"x¾"(2) Length as per rule 2'-10" Distance apart 9" Number and pitch of stays in each 2-10"
 orking pressure by rules 180.6 Steam dome: description of joint to shell — % of strength of joint —
 iameter — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet holes —
 ch of rivets — Working pressure of shell by rules — Crown plates — Thickness — How stayed —

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

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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 Studs & Nuts, Bar iron round & flat of various sizes, 1 Escape Valve Spring of each size, 2 Pump Thrust 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. $\frac{8}{1}$. $\frac{3.18.29}{2}$. $\frac{23.29}{3}$. $\frac{9}{4}$. $\frac{6}{5}$. $\frac{21.24}{6}$. $\frac{28.29}{7}$.	
			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 18-8-20 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. No 1547 6-5-20 A.H.B. Material of Thrust shaft Steel Identification Mark on Do. No 1547 21-6-20 A.H.B. Material of Tunnel shafts — Identification Marks on Do. — Material of Screw shafts Steel Identification Marks on Do. No 1547 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

Committee's Minute

Assigned

+ L.M.C. 10.20

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



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