

REPORT ON MACHINERY

No. 28236
WED. DEC. 28 1921

Date of writing Report

19

When handed in at Local Office

23 DEC 1921

Port of

Received at London Office

SUNDERLAND.

No. in Survey held at
Reg. Book.

SUNDERLAND.

Date, First Survey 14th Jan 1921 Last Survey 14th Dec 1921on the *S/S 'BRITISH JUDGE'*

(Number of Visits 43)

Gross 6735

Net 4025

When built 1921

Master Built at *Sunderland* By whom built *Sir Jas doing same Lt (679)*Engines made at *Sunderland* By whom made *Messrs G. Clark Lt (1054)* when made 1921Boilers made at *Sunderland* By whom made *Messrs G. Clark Lt (1054)* when made 1921Registered Horse Power Owners *The British Tanker Co. Ltd* Port belonging to *London*Nom. Horse Power as per Section 28 *560* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *YES*ENGINES, &c.—Description of Engines *Triple* No. of Cylinders *3* No. of Cranks *3*Dia. of Cylinders *28" 46" 75"* Length of Stroke *51"* Revs. per minute *75* Dia. of Screw shaft *as per rule 75.37* Material of *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 tightin the 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *—* If twoliners are fitted, is the shaft lapped or protected between the liners *—* Length of stern bush *5'-2"*Dia. of Tunnel shaft *as per rule 7* Dia. of Crank shaft journals *as per rule 14.64* Dia. of Crank pin *15 1/4* Size of Crank webs *10 x 22 1/2* Dia. of thrust shaft undercollars *15 1/2* Dia. of screw *18-6* Pitch of Screw *16-6* No. of Blades *4* State whether moveable *Yes* Total surface *108 1/2*No. of Feed pumps *2* Diameter of ditto *4"* Stroke *27"* Can one be overhauled while the other is at work *Yes*No. of Bilge pumps *2* Diameter of ditto *4 1/2* Stroke *27"* Can one be overhauled while the other is at work *Yes*No. of Donkey Engines *3* Sizes of Pumps *8 x 10 1/2 x 21, 7 x 5 x 6, 8 x 8 x 16* No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room *3 @ 3 1/2" 1 @ 3" 6 O.F. Pump in E. Room Lifting* Holds, &c.No. of Bilge Injections *1* sizes *9"* Connected to *condenser, or to circulating pump* *Yes* Is a separate Donkey Suction fitted in Engine room & size *4 1/2 @ 3 1/2"*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 *None*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 *Both*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 *None* How are they protected *—*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 *None* Is it fitted with a watertight door *MACH: AFT* worked from *—*BOILERS, &c.—(Letter for record *S*) Manufacturers of Steel *Spencer & Sons*Total Heating Surface of Boilers *8277 1/2* Is Forced Draft fitted *Yes* No. and Description of Boilers *Three Single ended*Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *18.7.21* No. of Certificate *3769*Can each boiler be worked separately *Yes* Area of fire grate in each boiler *OIL FUEL ONLY* No. and Description of Safety Valves toeach boiler *2 Spring Valves* Area of each valve *11.04 sq. ft.* Pressure to which they are adjusted *185 lbs* Are they fitted with easing gear *Yes*Smallest distance between boilers or uptakes and bunkers or woodwork *18"* Ex. Mean dia. of boilers *15-9* Length *11-6"* Material of shell plates *S*Thickness *1 1/4"* Range of tensile strength *29-32 1/2* Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *Lap all*long. seams *d. 1/4" to 9/16"* Diameter of rivet holes in long. seams *1 5/16"* Pitch of rivets *9 5/16"* Lap of plates or width of butt straps *20 1/8"*Per centages of strength of longitudinal joint rivets *87* Working pressure of shell by rules *185* Size of manhole in shell *12 x 16*Size of compensating ring *8 1/2" x 1 1/4"* No. and Description of Furnaces in each boiler *3 Brighton* Material *S* Outside diameter *4'-1"*Length of plain part top *—* bottom *—* Thickness of plates crown *3 1/4"* bottom *3 1/4"* Description of longitudinal joint *Welded* No. of strengthening rings *—*Working pressure of furnace by the rules *225* Combustion chamber plates: Material *S* Thickness: Sides *23/32* Back *23/32* Top *23/32* Bottom *7/8*Pitch of stays to ditto: Sides *9 3/8" x 9 1/4"* Back *8 x 8 1/2"* Top *8 1/2" x 11"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *184*Material of stays *S* Area at smallest part *2.36 sq. ft.* Area supported by each stay *95 sq. ft.* Working pressure by rules *224* End plates in steam space:Material *S* Thickness *1 5/16"* Pitch of stays *18 x 21* How are stays secured *d. n. & w.* Working pressure by rules *200* Material of stays *S*Area at smallest part *(8.9 sq. ft.)* Area supported by each stay *296 sq. ft.* Working pressure by rules *230* Material of Front plates at bottom *S*Thickness *1 5/16"* Material of Lower back plate *S* Thickness *1 5/16"* Greatest pitch of stays *15"* Working pressure of plate by rules *195*Diameter of tubes *2 1/2"* Pitch of tubes *3 3/4" x 3 5/8"* Material of tube plates *S* Thickness: Front *1 5/16"* Back *3/4"* Mean pitch of stays *10 7/8" x 7 1/2"*Pitch across wide water spaces *13 1/2"* Working pressures by rules *180* Girders to Chamber tops: Material *S* Depth andthickness of girder at centre *7 5/8" x 1 3/4"* Length as per rule *33* Distance apart *8 1/2"* Number and pitch of stays in each *2, 11"*Working pressure by rules *180* 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 *—*

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