

## REPORT ON MACHINERY.

No. 78603

Received at London Office

-5 DEC 1924

Date of writing Report

When handed in at Local Office

4/12/1924 Port of

NEWCASTLE-ON-TYNE.

No. in Survey held at  
Reg. Book.  
on theJanow-on-Tyne  
S. S. BRITISH CONSULDate, First Survey 31<sup>st</sup> Jan<sup>uary</sup>  
(Number of Visits 80)Last Survey  
2/12/1924

Master

Built at Sunderland By whom built Sir J. G. Lang &amp; Sons Ltd.

Gross Tons

Engines made at

Janow-on-Tyne By whom made Palmers Ltd. (M. 6438) when made

Net Tons

Boilers made at

do By whom made

do

when made

Registered Horse Power

Owners British Tanker Co. Ltd.

Port belonging to London.

Nom. Horse Power as per Section 28 587.581 Is Refrigerating Machinery fitted for cargo purposes

Yes ✓

Is Electric Light fitted Yes ✓

## ENGINES, &amp;c.—Description of Engines

Triple expansion.

No. of Cylinders 3 ✓

No. of Cranks 3 ✓

Dia. of Cylinders 28-46-76 ✓ Length of Stroke 57" Revs. per minute 70 ✓ Dia. of Screw shaft as per rule 15.32 ✓ 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 ✓ 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 liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 5-5 ✓

Dia. of Tunnel shaft as per rule 13.958 ✓ Dia. of Crank shaft journals as per rule 14.65 ✓ Dia. of Crank pin 15" Size of Crank webs 28/10 Dia. of thrust shaft under collars 15" Dia. of screw 19-3 Pitch of Screw 17-9" No. of Blades 4 State whether moveable Yes Total surface 105 ft²

No. of Feed pumps 2 Diameter of ditto 4½ Stroke 27" Can one be overhauled while the other is at work Yes ✓

No. of Bilge pumps 2 Diameter of ditto 4½ Stroke 27" Can one be overhauled while the other is at work Yes ✓

No. of Donkey Engines 2 Sizes of Pumps 129" x 10" x 10" ✓ No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 3 Boiler Room 3 2 3/2 ✓ In Holds, &amp;c.

No. of Bilge Injections 1 sizes 9/2" Connected to condenser, or to circulating pump as per rule Is a separate Donkey Suction fitted in Engine room &amp; size Yes 6" 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 stowhold 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 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 ✓ Is it fitted with a watertight door ✓ Worked from —  
BOILERS, &c.—(Letter for record S. (7)) Manufacturers of Steel John Green & Sons, David Bowles & Sons.

Total Heating Surface of Boilers 8634 ft² Is Forced Draft fitted Yes ✓ No. and Description of Boilers 3 SE Multi Working Pressure 180 lbs/sq.in Tested by hydraulic pressure to 320 lbs/sq.in Date of test 20/12/24 No. of Certificate 9345, 9352

Can each boiler be worked separately Yes ✓ Area of fire grate in each boiler oil fuel No. and Description of Safety Valves to each boiler 2 spigot loaded Area of each valve 12.566" Pressure to which they are adjusted 185 lbs/sq.in Are they fitted with easing gear Yes ✓

Smallest distance between boilers or uptakes and bunkers or woodwork 1-6" Mean dia. of boilers 15-9/8" Length 12-3/2" Material of shell plates Steel

Thickness 15" Range of tensile strength 28/32 Tons Are the shell plates welded or flanged No ✓ Descrip. of riveting: cir. seams T.R.L long. seams T.R.I.B.S. Diameter of rivet holes in long. seams 13/8" Pitch of rivets 9/16" Lap of plates or width of butt straps 1-83/32

Per centages of strength of longitudinal joint rivets 91.74% Working pressure of shell by rules 183.9 lbs/sq.in Size of manhole in shell 16 x 12" Size of compensating ring 2 1/2 x 2-9/16" No. and Description of Furnaces in each boiler 3 1/2 ft² Material Steel Outside diameter 4-1/2"

Length of plain part top Thickness of plates crown bottom 3 19/32" Description of longitudinal joint Welded ✓ No. of strengthening rings ✓ Working pressure of furnace by the rules 186 lbs/sq.in Combustion chamber plates: Material Steel Thickness: Sides 23/32 Back 13/16 Top 25/32 Bottom 7/8

Pitch of stays to ditto: Sides 9/8 x 10 3/8 Back 9/8 x 9/8 Top 11/8 x 8" If stays are fitted with nuts or riveted heads 183.2" Working pressure by rules 182.7 End plates in steam space: Material of stays Steel Area at smallest part 2-7/16" Area supported by each stay 83.25" Working pressure by rules 183.2" Material of stays Steel

Material Steel Thickness 13/32" Pitch of stays 23 x 22" How are stays secured 100% galvanized Working pressure by rules 183 lbs/sq.in Material of stays Steel

Area at smallest part 8.48" Area supported by each stay 577.5" Working pressure by rules 183" Material of Front plates at bottom Steel

Thickness 45/64" Material of Lower back plate Steel Thickness 13/32 Greatest pitch of stays 11/2 x 9/8" Working pressure of plate by rules 298 lbs/sq.in

Diameter of tubes 3/8" Pitch of tubes 11/2 x 4 1/2" Material of tube plates Steel Thickness: Front 15/16" Back 15/16" Mean pitch of stays 11.125"

Pitch across wide water spaces 11/2" Working pressures by rules 211 lbs/sq.in Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9/4 x 1 1/2" Length as per rule 2-10 5/8" Distance apart 8" Number and pitch of stays in each tier 2 1/4" % of strength of joint —

Working pressure by rules 194 lbs/sq.in Steam dome: description of joint to shell ✓ Diam. of rivet holes

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

Cellular Construction  
Machinery Space

Length. Water Capacity

Feet. Tons.

23.0 204

16.0 154

44.0 631

Yes

8.14.24.28.11.25

15.11.15.18.19.20

3.6.8.9.12.13.15

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Total No. of Visits

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IS A DONKEY BOILER FITTED?

Yes ✓

If so, is a report now forwarded? Yes ✓

of writing Report

No. in Survey held at  
eg. Book.

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engines made at

ilers made at

gistered Horse Power

ULTITUBULAR

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ilers See byd

o. of Certificate 9853

safety valves to each boiler

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aterial of shell plates 7

escrip. of riveting: cir. s

ap. of plates or width of

les 124.5 Mr. Size of

boiler 2 freight tons

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ates: Material Steel

on 82x10 If stays are

1.733" 1.358 Area

pitch of stays 19x23.5 H

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