

REPORT ON MACHINERY.

Nav. Rpt. No. 56134.

0/283

No. 23916.

MUN. 15 FEB 1909

8 DEC 1908

Received at London Office

Port of Sunderland

No. in Survey held at Sunderland

Date, first Survey 17th Dec 1907

Last Survey with Dec 1908

1908

Reg. Book.

on the S/S Brantford

(Number of Visits 69)

Master James

Built at Newcastle

By whom built Northumberland S. B. Co

Tons Gross 4844

Net 2067

When built 1908

Engines made at Sunderland

By whom made John Richardson Melfarth & Co L^d when made 1908

Boilers made at Sunderland

By whom made Sitto when made 1908

Registered Horse Power

Owners Furness withy & Co. Ltd

Port belonging to West Hartlepool

Com. Horse Power as per Section 28 562

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Inverted triple expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 28", 46", 77"

Length of Stroke 54"

Revs. per minute 70

Dia. of Screw shaft as per rule 15.63

as fitted 16.34

Material of Iron

the screw shaft fitted with a continuous liner the whole length of the stern tube Yes (on working) Is the after end of the liner made water tight Yes

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

When two shafts are fitted, is the shaft lapped or protected between the liners no, 2 liners fitted to spare Length of stern bush 5' 9"

Dia. of Tunnel shaft as per rule 14.24 as fitted 14.2 Dia. of Crank shaft journals as per rule 14.95 as fitted 15.4 Dia. of Crank pin 15.4 Size of Crank webs 21 1/2 x 10 1/2 Dia. of thrust shaft under

lars 15.2 Dia. of screw 18.6 Pitch of Screw 19.6 No. of Blades 4 State whether moveable No Total surface 106 sq ft

No. of Feed pumps 2 Diameter of ditto 4 1/2 Stroke 30 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 30 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 12x12 & 7 1/2 x 4 1/2 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 4 of 3 1/2 In Holds, &c. two of 3 1/2 in each

of Bilge Injections one sizes 6" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes - 4"

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

of examination of completion of fitting of Sea Connections Oct 12 08 of Stern Tube 18-11-08 Screw shaft and Propeller 18-11-08

the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes, top platform

BOILERS, &c.—(Letter for record a)

Manufacturers of Steel J. Spencer & Sons & Leeds Forge Co

Heating Surface of Boilers 7925 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 S.E. Cyl^s Multi

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 11-4-08 No. of Certificate 2697

Can each boiler be worked separately Yes Area of fire grate in each boiler 62 sq ft No. and Description of Safety Valves to

boiler 2 spring Area of each valve 9.6 sq ft Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Least distance between boilers or uptakes and bunkers or woodwork 1.9 Mean dia. of boilers 16.3 Length 11.6 Material of shell plates Steel

Thickness 1/4 Range of tensile strength 28 1/2/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams Lap, D & T.R.

seams L & D R.S. Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 8 7/8 Lap of plates or width of butt straps 17

Percentage of strength of longitudinal joint 90.6 Working pressure of shell by rules 185.6 lbs Size of manhole in shell 16 x 12

of compensating ring flanged No. and Description of Furnaces in each boiler 3 expansion Material steel Outside diameter 48 1/2

Thickness of plates top 19/32 Description of longitudinal joint weld No. of strengthening rings Yes

Working pressure of furnace by the rules 193 lbs Combustion chamber plates: Material steel Thickness: Sides 5/8 Back 7/8 Top 5/8 Bottom 7/8

No. of stays to ditto: Sides 7 1/2 x 8 Back 8 x 8 Top 8 1/2 x 7 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 210 lbs

Material of stays steel Diameter at smallest part 1.5 Area supported by each stay 64 Working pressure by rules 187 lbs End plates in steam space:

Material steel Thickness 1 1/2 Pitch of stays 15 x 18 How are stays secured drawn Working pressure by rules 206 lbs Material of stays steel

Thickness at smallest part 6.1 Area supported by each stay 270 Working pressure by rules 225 lbs Material of Front plates at bottom steel

Thickness 3/4 Material of Lower back plate steel Thickness 3/4 Greatest pitch of stays 14 x 8 Working pressure of plate by rules 300 lbs

No. of tubes 2 1/2 Pitch of tubes 3 1/2 x 3 1/2 Material of tube plates steel Thickness: Front 25/32 Back 7/8 Mean pitch of stays 9

Working pressures by rules 187 lbs Girders to Chamber tops: Material steel Depth and

Distance apart 8 1/2 Number and pitch of stays in each 3 - 7 1/2

Working pressure by rules 209 lbs Superheater or Steam chest; how connected to boiler Yes Can the superheater be shut off and the boiler worked

by Yes Diameter 18 Length 18 Thickness of shell plates 1/2 Material steel Description of longitudinal joint lap Diam. of rivet

Pitch of rivets 8 Working pressure of shell by rules 187 lbs Diameter of flue 18 Material of flue plates steel Thickness 1/2

End plates: Thickness 1/2 How stayed drawn

Working pressure of end plates 187 lbs Area of safety valves to superheater 187 lbs Are they fitted with easing gear Yes

