

pt. 4.

NEWCASTLE-ON-TYNE 73926

REPORT ON MACHINERY.

No. 73324

Date of writing Report

19

Main Boiler

When handed in at Local Office

17 July 1920 Port of

Received at London Office

WED. JUL. 21 1920

Survey held at

Leg. Book.

on the

S.S. Afterglow

Date, First Survey Oct. 20 1919 Last Survey 20 May 1920

(Number of Visits)

Master

Built at

S Shields

By whom built

J.P. Remolden & Co Ltd

Tons

Gross

956

Net

682

When built

1920

Engines made at

South Shields

By whom made

J.P. Remolden & Co Ltd

when made

1920

Boilers made at

Hebburn

By whom made

Palmer & Co Ltd - Boilers 973

when made

1920

Registered Horse Power

Owners

Stephen & Co (S.S.)

Port belonging to

London

Net Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines

a. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule as fitted Material of screw shaft

the screw shaft fitted with a continuous liner the whole length of the stern tube

the propeller boss 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

ers are fitted, is the shaft lapped or protected between the liners

a. of Tunnel shaft as per rule as fitted Dia. of Crank shaft journals as per rule as fitted Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under

lars Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface

a. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work

a. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work

a. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room In Holds, &c.

a. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size

all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

all connections with the sea direct on the skin of the ship Are they Valves or Cocks

they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

at pipes are carried through the bunkers How are they protected

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

ERS, &c.—(Letter for record S) Manufacturers of Steel Spencer & Sons Ltd

al Heating Surface of Boilers 1880 Is Forced Draft fitted No No. and Description of Boilers One S E Cyl Multi

Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 20. 5. 20 No. of Certificate 9406

each boiler be worked separately Area of fire grate in each boiler 54 sq ft No. and Description of Safety Valves to

boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

least distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length 10' 6" Material of shell plates Steel

thickness 1 1/8" Range of tensile strength 29/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams S R C P

seams T R S B S Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 8 1/2 Lap of plates or width of butt straps 1' 6"

percentages of strength of longitudinal joint rivets 86-1 Working pressure of shell by rules 180 lb Size of manhole in shell 16 x 12

of compensating ring 7 x 1 1/8 No. and Description of Furnaces in each boiler Three Suction Material Steel Outside diameter 3' 7"

th of plain part top Thickness of plates crown 17 1/2 Description of longitudinal joint weld No. of strengthening rings

bottom 32 Working pressure of furnace by the rules 190 lb Combustion chamber plates: Material Steel Thickness: Sides 1 1/8 Back 1 1/8 Top 1 1/8 Bottom 1 1/8

of stays to ditto: Sides 9 1/2 x 9 3/8 Back 9 1/2 x 9 3/8 Top 10 x 9 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 180 lb

Material of stays Steel Area at smallest part 7.03 Area supported by each stay 89.0 Working pressure by rules 205 lb End plates in steam space:

Material Steel Thickness 1 1/4 Pitch of stays 21 x 19 How are stays secured S R C P Working pressure by rules 184 lb Material of stays Steel

at smallest part 8.48 Area supported by each stay 399 Working pressure by rules 221 Material of Front plates at bottom Steel

thickness 1" Material of Lower back plate Steel Thickness 7/8 Greatest pitch of stays 13 1/2 x 9 3/8 Working pressure of plate by rules 180 lb

eter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 1" Back 3/4 Mean pitch of stays 13 1/2 x 9

across wide water spaces 14 Working pressures by rules 182 lb Girders to Chamber tops: Material Steel Depth and

ness of girder at centre 10" x 1 1/2 Length as per rule 2-8 Distance apart 10" Number and pitch of stays in each 2 of 9" pitch

Working pressure by rules 234 Steam dome: description of joint to shell None % of strength of joint

eter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

of rivets Working pressure of shell by rules Crown plates Thickness How stayed

REHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

f Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

ter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

W1642-0008

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
Palmer's Shipbuilding & Iron Co., Ltd.

A. Cameron

Manager Boiler Shop Dept.

Manufacturer for Boiler only

Dates of Survey while building
During progress of work in shops -- 1919. Oct 23, Dec 16, Feb 1920. Mar 2, 11, April May 20.
During erection on board vessel -- See Newcastle Report 73926
Total No. of visits 7

Is the approved plan of main boiler forwarded herewith 44

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods
Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller
Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts
Completion of pumping arrangements Boilers fixed Engines tried under steam
Completion of fitting sea connections Stern tube Screw shaft and propeller
Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel 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, ^{Boiler} no If so, state name of vessel

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

Re Boilers built under Special Survey the material and workmanship found good and efficient

Re Boilers tested under hydraulic pressure 260 lbs at main valves found satisfactory

Re Boiler is intended to be fitted in hold a small building for classification.

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

See for Boilers only
The amount of Entry Fee

Special £ 6 5

Donkey Boiler Fee £ :

Travelling Expenses (if any) £ :

When applied for,

20. 7. 1920.

When received,

27. 8. 1920.

Leonard Challinors

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. 17 DEC. 1920



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