

Rpt. 4.

REPORT ON MACHINERY.

No. 73563
TUE. SEP. 21 1920

Date of writing Report

19

When handed in at Local Office

20 SEP 1920

Port of

Received at London Office

Newcastle on Tyne

1920.

Date, First Survey 9th AprilLast Survey 8th Sept

(Number of Visits 8)

No. in Survey held at
Reg. Book.

South Shields

on the S.S. Thropton ex Yillinery

Master W. Johnson

Built at Middlesbrough

By whom built Smiths Dock Co. Ltd

when made 1918

Engines made at Middlesbrough

By whom made Smiths Dock Co.

when made 1918

Boilers made at Newcastle on Tyne

By whom made Hawthorn Leslie & Co

Port belonging to Newcastle

Registered Horse Power

Owners Joplin & Hull

Is Electric Light fitted No.

Nom. Horse Power as per Section 28 113 116

Is Refrigerating Machinery fitted for cargo purposes No.

No. of Cylinders 3

No. of Cranks 3

ENGINES, &c.—Description of Engines Triple Expansion

Dia. of Cylinders 16, 26, 44

Length of Stroke 26

Revs. per minute

Dia. of Screw shaft

as per rule 8.5"

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

Length of stern bush 48 1/2"

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

as per rule 8.35"

Dia. of Crank pin 8 3/4"

Size of Crank webs 13 x 5 1/4"

Dia. of thrust shaft under

Dia. of Tunnel shaft

as fitted 8 1/4"

Dia. of Crank shaft journals

as fitted 8 1/2"

No. of Blades 4

State whether moveable No

Total surface 36 sq

collars 8 1/2"

Dia. of screw 9 1/2"

Pitch of Screw 8 1/2"

Stroke 18"

Can one be overhauled while the other is at work

Yes

No. of Feed pumps 2

Diameter of ditto 7"

Stroke 18"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 1

Diameter of ditto 6"

Stroke 6"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines 1

Diameter of ditto 6"

Stroke 6"

Can one be overhauled while the other is at work

Yes

In Engine Room 2

Boiler Room 1

Tunnel 1

In Holds, &c. Fore Peak 1

No. 1 Hold 1

No. 2 Hold 1

After Hold 1

No. 2 Hold 1

No. 1 Hold 1

No. 2 Hold 1

No. of Bilge Injections 1

sizes 6"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 2 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

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 stokehold 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

Yes

How are they protected

Yes

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

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

Yes

Is it fitted with a watertight door

Yes

worked from E.R. Platform

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from E.R. Platform

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from E.R. Platform

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

Total Heating Surface of Boilers 1825

Is Forced Draft fitted No

No. and Description of Boilers One Simple ended Multitubular

No. of Certificate

Working Pressure 200 lbs

Tested by hydraulic pressure to

Date of test

No. and Description of Safety Valves to

Can each boiler be worked separately

Yes

Area of fire grate in each boiler 51.5 sq

Are they fitted with easing gear

each boiler Yes spring loaded

Area of each valve 5.94 sq

Pressure to which they are adjusted 200 lbs

Material of shell plates Steel

Smallest distance between boilers or uptakes and bunkers or woodwork 9"

Mean dia. of boilers 13.0"

Length 11.6"

Descrip. of riveting: cir. seams DR Lap

Thickness 1 1/4"

Range of tensile strength 28/32 F

Are the shell plates welded or flanged No

Lap of plates or width of butt straps 19"

long. seams TRD Butt

Diameter of rivet holes in long. seams 1 1/4"

Pitch of rivets 9 5/16"

Size of manhole in shell 16" x 12"

Per centages of strength of longitudinal joint

rivets 83.8

Working pressure of shell by rules 200 lbs

Material Steel

Outside diameter 3' 5 3/4"

Size of compensating ring 2' 11 1/2" x 2' 7 1/2" x 1 1/2"

No. and Description of Furnaces in each boiler 3 Brighton

No. of strengthening rings

Length of plain part

top 1 1/2"

bottom 1 1/2"

Thickness of plates 9/16"

Description of longitudinal joint Welded

Working pressure by rules 207 lbs

Working pressure of furnace by the rules 211 lbs

Combustion chamber plates: Material Steel

Thickness: Sides 7/16"

Back 1/16"

Top 1/16"

Bottom 1"

Working pressure by rules 232 lbs

Pitch of stays to ditto: Sides 9" x 8 3/4"

Back 8 1/4" x 8 1/2"

Top 9" x 8 1/2"

If stays are fitted with nuts or riveted heads

No

Working pressure by rules 218 lbs

Material of stays Steel

Material of stays Steel

Area at smallest part 2.03 sq

How are stays secured 8.9 lbs

Working pressure by rules 202 lbs

Material of Front plates at bottom Steel

Working pressure of plate by rules 230 lbs

Material Steel

Thickness 1 3/16"

Pitch of stays 17 1/2"

Area supported by each stay 306.25 sq

Working pressure by rules 202 lbs

Material of Front plates at bottom Steel

Working pressure of plate by rules 230 lbs

Area at smallest part 5.93 sq

Area supported by each stay 306.25 sq

Working pressure by rules 202 lbs

Material of Front plates at bottom Steel

Working pressure of plate by rules 230 lbs

Working pressure of plate by rules 230 lbs

Thickness 1"

Material of Lower back plate Steel

Thickness 1"

Greatest pitch of stays 14" x 9"

Working pressure of plate by rules 230 lbs

Material of Front plates at bottom Steel

Working pressure of plate by rules 230 lbs

Diameter of tubes 2 1/2"

Pitch of tubes 3 3/4" x 3 1/16"

Material of tube plates Steel

Thickness: Front 1"

Back 3/4"

Mean pitch of stays 9 9/32"

Depth and

Pitch across wide water spaces 13 1/4"

Working pressures by rules 204 lbs

Girders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 8" x 1 3/4"

Length as per rule 31 1/4"

Distance apart 8 1/2"

Number and pitch of stays in each 2.9"

% of strength of joint

Working pressure by rules 202

Steam dome: description of joint to shell

Diam. of rivet holes

How stayed

Description of longitudinal joint

Thickness

How stayed

Description of longitudinal joint

Thickness

Diameter

Thickness of shell plates

Material

Crown plates

Thickness

How stayed

Description of longitudinal joint

Thickness

How stayed

Pitch of rivets

Working pressure of shell by rules

Material

Crown plates

Thickness

How stayed

Description of longitudinal joint

Thickness

How stayed

SUPERHEATER. Type

Date of Approval of Plan

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

Is Easing Gear fitted

Date of Test

Pressure to which each is adjusted

009522-009526-0226

Is Easing Gear fitted

Date of Test

Pressure to which each is adjusted

009522-009526-0226

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Date of Test

Pressure to which each is adjusted

009522-009526-0226

Is Easing Gear fitted

Date of Test

Pressure to which each is adjusted

If so, is a report now forwarded? ✓

The foregoing is a correct description,

Manufacturer.

Is the approved plan of main boiler forwarded herewith

” ” ” *donkey* ” ”

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. Yes

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 *Kell clan vessels*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery and Boilers were built*)
under the supervision and to the requirements of the British Corporation. The scantlings
of the boiler are to a plan approved by Lloyds Register of Shipping on the 25th Sept 1917.

The vessel was placed in Messrs J Readhead & Sons dry dock. The propeller stern bush, sea connections, & fastenings examined. The tail shaft was not drawn at this time. The cylinders, pistons slides, casings, crank, thrust, and tunnel shafting, the condenser & ballast air, circulating & feed pumps were opened out overhauled & examined. The Main Boilers & mountings doors and fastenings were examined. The scantlings of the engines and boilers were checked. One Boiler had been removed from the vessel and the provision of the one now installed was altered. The scantlings and fastenings are efficient. The fan and forced draught installation were removed. The main steam pipes were annealed and tested after alterations. The main & auxiliary machinery were tried under steam and the main boiler safety valves adjusted under steam. In my opinion the vessel is eligible for record of L.M.C. 9.20.

The amount of Entry Fee	...	£	:	:	} When applied for, 19....
Special	...	£	10	10	
Donkey Boiler Fee	...	£	:	:	
Travelling Expenses (if any)	£	:	:	} When received, 19....	

W. L. Hall.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. OCT. 1 1920

THE 29 NOV. 1927

Lloyd's Register
Foundation