

REPORT ON MACHINERY.

Received at London Office NEWCASTLE-ON-TYNE

Date of writing Report

19

When handed in at Local Office

11th July 1919 Port of

TUE 15 JUL 1919

No. in Survey held at Newcastle-on-Tyne

Date, First Survey 18 March 18

Last Survey 26^d June 1919

Reg. Book.

(Number of Vents 55)

Gross 703

on the SCREW STEAMER "CANTERBURY BELL"

Tons } Net 319

Master Built at L. Shields

By whom built C. Remondron 167

When built 1919

Engines made at L. Shields

By whom made Shields Eng. & Dry Dock Coy. Ltd. Newcastle

when made 1919

Boilers made at Newcastle-on-Tyne

By whom made R.W. Hawthorn Leslie 167 Ltd.

when made 1919

Registered Horse Power

Owners Pile & Co.

Port belonging to London

Nom. Horse Power as per Section 28 110

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Expansion

No. of Cylinders Three

No. of Cranks Three

Dia. of Cylinders 14 1/2 - 24 - 39

Length of Stroke 24

Revs. per minute 100

Dia. of Screw shaft as per rule 8 1/2"

Material of screw shaft Iron

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 on length 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 If two liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 3' 2 1/2"

Dia. of Tunnel shaft as per rule 4.29

as fitted 4 1/2"

Dia. of Crank shaft journals as per rule 4.65

as fitted 4 1/2"

Dia. of Crank pin 4 1/2"

Size of Crank webs 15 x 5 1/2"

Dia. of thrust shaft under collars 7 1/2"

Dia. of screw 10' 6"

Pitch of Screw 11' 6"

No. of Blades 4

State whether moveable No

Total surface 425 sq. ft.

No. of Feed pumps 2

Diameter of ditto 2 1/2"

Stroke 10 1/2"

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 2 1/2"

Stroke 10 1/2"

Can one be overhauled while the other is at work Yes

No. of Donkey Engines Two

Sizes of Pumps 3 1/2 x 3 1/2"

Ballast

6 x 4 x 4"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two: 2 1/2" dia.

In Holds, &c. Two: 2" dia.

No. of Bilge Injections 1

sizes 3 1/2"

Connected to condenser, or to circulating pump C.R.

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 Forward suction

How are they protected Cased in

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

Dates of examination of completion of fitting of Sea Connections 24/1/19

of Stern Tube 24/1/19

Screw shaft and Propeller 24/1/19

Is the Screw Shaft Tunnel watertight Yes

Is it fitted with a watertight door Yes worked from _____

OILERS, &c.—(Letter for record S)

Manufacturers of Steel J. Spencer Sons Ltd.

Total Heating Surface of Boilers 2028

Is Forced Draft fitted No

No. and Description of Boilers 2: 4' 6" diam. single

Working Pressure 180 lb

Tested by hydraulic pressure to 360 lb

Date of test 12/10/18

No. of Certificate 9140

Can each boiler be worked separately Yes

Area of fire grate in each boiler 33 sq. ft.

No. and Description of Safety Valves to each boiler 2: Relief Spring

Area of each valve 3.976

Pressure to which they are adjusted 185 lb

Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork About 48"

Mean dia. of boilers 10' 6"

Length 10' 5" Material of shell plates Steel

Thickness 3/32

Range of tensile strength 28/32 tons

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Lap double

long. seams 013 Seams

Diameter of rivet holes in long. seams 1"

Pitch of rivets 6 1/2"

Lap of plates or width of butt straps 15 1/2"

Per centages of strength of longitudinal joint 98.4

Size of compensating ring 3 1/2 x 3 1/2 x 2 1/2"

No. and Description of Furnaces in each boiler 2: Plain

Material Steel

Outside diameter 27 1/2"

Length of plain part 50"

Thickness of plates 3/32"

Description of longitudinal joint Weld

No. of strengthening rings None

Working pressure of furnace by the rules 192 lb

Pitch of stays to ditto: Sides 8 1/2 x 9"

Back 8 1/2 x 9"

Top 8 1/2 x 9"

If stays are fitted with nuts or riveted heads Nuts

Working pressure by rules 186 lb

Material of stays Steel

Diameter at smallest part 1 1/2"

Area supported by each stay 42"

Working pressure by rules 192 lb

Material Steel

Thickness 1"

Pitch of stays 18 x 18"

How are stays secured Nuts

Working pressure by rules 182 lb

Material of stays Steel

Diameter at smallest part 1 1/2"

Area supported by each stay 234"

Working pressure by rules 203 lb

Material of Lower back plate Steel

Thickness 1"

Greatest pitch of stays 15"

Working pressure of plate by rules 337 lb

Diameter 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 10 1/8"

Pitch across wide water spaces 14 1/2"

Working pressures by rules 202 lb 196 lb

Girders to Chamber tops: Material Steel

Depth and thickness of girder at centre 9' x 1 1/2"

Length as per rule 25.6

Distance apart 9'

Number and pitch of stays in each 2: 8"

Working pressure by rules 295 lb

Superheater or Steam chest; how connected to boiler None

Can the superheater be shut off and the boiler worked separately Yes

Diameter _____

Length _____

Thickness of shell plates _____

Material _____

Description of longitudinal joint _____

Diam. of rivet holes _____

Pitch of rivets _____

Working pressure of shell by rules _____

Diameter of flue _____

Material of flue plates _____

Thickness _____

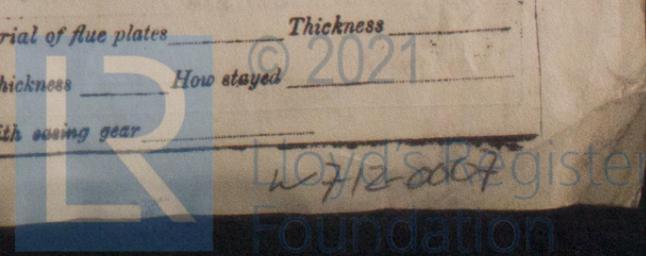
End plates: Thickness _____

How stayed _____

Working pressure of end plates _____

Area of safety valves to superheater _____

Are they fitted with easing gear _____



IS A DONKEY BOILER FITTED? None

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 1 set Coupling Bolts, 1 set main Bearing Bolts, 1 set Crank Pin Bolts, 1 set Crosshead Bolts, 1 set Piston Pump valves, 1 set Relief Pump valves, 6 frame Ring Bolts, 2 escape valve springs, Bolts nuts assorted sizes none of various sizes.

The foregoing is a correct description.

W. Bradshaw Manufacturer.

Aug 8th 1919.

Dates of Survey while building	During progress of work in shops --	Mar 1918	18. 25.	Apr 10. 16. 26.	May 21. 28.	Jun 4. 17.	Jul 3. 10. 18. 30.	Aug 13. 16.	Sept 16. 23. 30.
		During erection on board vessel --	Oct 1. 10. 12.	Nov 4. 21. 27.	Dec 3. 10. 13. 17. 19. 24. 30.	Jan 7. 21. 24.	Feb 11. 17. 24.	Mar 6. 10.	Apr 7. 11.
			Total No. of visits	53.					

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 2/12/18 Slides 10/12/18 Covers 19/6/19 Pistons 2/12/18 Rods 26/8/18

Connecting rods 14/12/18 Crank shaft ~~2/12/18~~ Thrust shaft 13/12/18 Tunnel shafts 26/8/18 Screw shaft 11/4/19 Propeller 11/4/19

Stern tube 2/19 Steam pipes tested 22/1/19 Engine and boiler seatings 30/5/19 Engines holding down bolts 30/5/19

Completion of pumping arrangements 26/6/19. Boilers fixed 25/6/19 Engines tried under steam 19/6/19.

Main boiler safety valves adjusted 24/5/19 Thickness of adjusting washers all 3/8" thick

Material of Crank shaft Steel Identification Mark on Do. 4124 Material of Thrust shaft Iron Identification Mark on Do. 3928

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Iron Identification Marks on Do. 7656

Material of Steam Pipes Copper Test pressure 360 lbs

Is an installation fitted for burning oil fuel No 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 If so, state name of vessel

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

The Engines and Boilers of this vessel were built under Special Survey and the workmanship is good. On completion they were examined under steam and found to work well.

The machinery throughout is now in good and efficient condition and eligible in our opinion to have the record of ***LMC 7.19.** marked in the Society's Register Book

It is submitted that this vessel is eligible for THE RECORD + LMC 6.19.

Well

JWD 16.7.19
JJM

The amount of Entry Fee ...	£ 2	When applied for,	1.4 JUL 1919
Special ...	£ 16	When received,	3.9.19
Donkey Boiler Fee ...	£		
Travelling Expenses (if any) £			

Committee's Minute

FRI. 25 JUL 1919

Assigned

L.M.C. 6.19
MACHINERY CERTIFICATE WRITTEN



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Lloyd's Register Foundation

NEWCASTLE-ON-TYNE

Certificate (if required) to be sent to

The Registrar and Registrar of Marine Insurance for the Society of Lloyd's (Limited)