

Rpt. 4.

REPORT ON MACHINERY.

No. 27436

Date of writing Report

No. in Survey held at
Reg. Book.

50. on the steel s.s. "DUNNET."

Master

Built at

Engines made at

Boilers made at

Registered Horse Power

Nom. Horse Power as per Section 28

When handed in at Local Office

4.5-10/4 Port of

Date, First Survey

Last Survey

(Number of Visits)

Tons

Net

When built

ENGINES, &c.—Description of Engines

Dia. of Cylinders 10.17.28.

Length of Stroke 24.

Revs. per minute

No. of Cylinders 3.

No. of Cranks 3.

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

Is the after end of the liner made water tight

in the propeller boss

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 32"

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

Dia. of Tunnel shaft as per rule 5.76

Dia. of Crank shaft journals as per rule 6.1

as fitted 6.1

Dia. of Crank pin 6.1

Size of Crank webs 48x12

Dia. of thrust shaft under

collars 6.2

Dia. of screw 10.3

Pitch of Screw 9.3

No. of Blades 4.

State whether moveable

No. of Feed pumps 1.

Total surface 29.8

No. of Bilge pumps 1.

Diameter of ditto 2.2

Stroke 11"

Can one be overhauled while the other is at work

No. of Donkey Engines 1.

Diameter of ditto 2.2

Stroke 11"

Can one be overhauled while the other is at work

In Engine Room Two 2"

Sizes of Pumps 6.4x4.4x6.

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

In Hold, Fare hold 2.2"

In Holds, &c. Three 2"

Ballast tank Main

No. of Bilge Injections 1.

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size 2.2"

Are 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

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Are 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

Are 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

What pipes are carried through the bunkers

How are they protected

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

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

Dates of examination of completion of fitting of Sea Connections

of Stern Tube

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers 835

Is Forced Draft fitted

Working Pressure 200 lbs.

Tested by hydraulic pressure to

Can each boiler be worked separately

Area of fire grate in each boiler

each boiler 2-Spring-loaded

Area of each valve

Smallest distance between boilers or uptakes and bunkers or woodwork

Pressure to which they are adjusted

Thickness 3/32

Range of tensile strength 29-33.

long. seams 10.55

Diameter of rivet holes in long. seams

Per centages of strength of longitudinal joint

Working pressure of shell by rules

Size of compensating ring 30x40x32

No. and Description of Furnaces in each boiler

Length of plain part

Thickness of plates

Working pressure of furnace by the rules

Combustion chamber plates: Material

Pitch of stays to ditto: Sides 8.2x8.2

Back 8.2x8.2

Material of stays

Diameter at smallest part

Thickness 1"

Pitch of stays

Material of Lower back plate

Thickness 1"

Diameter of tubes 3.4

Pitch of tubes

Pitch across wide water spaces 13.4

Working pressures by rules

thickness of girder at centre 8.4x1.4

Length as per rule

Working pressure by rules

Superheater or Steam chest: how connected to boiler

separately

Diameter

Pitch of rivets

Working pressure of shell by rules

If stiffened with rings

Distance between rings

Working pressure of end plates

Area of safety valves to superheater

Diameter of flue

Material of flue plates

Thickness

How stayed

End plates: Thickness

Are they fitted with easing gear

Working pressure by rules

Material of front plates at bottom

Working pressure of plate by rules

Mean pitch of stays

Depth and

Number and pitch of stays in each

Can the superheater be shut off and the boiler worked

Description of longitudinal joint

Diam. of rivet

worked from

Phoenix Abt. Horden Verein of Harde

One single-ended.

No. and Description of Boilers

No. of Certificate

No. and Description of Safety Valves to

Are they fitted with easing gear

Descrip. of riveting: cir. seams

Lap of plates or width of butt straps

Material of shell plates

Size of manhole in shell

Material of stays

Working pressure by rules

End plates in steam space:

Material of stays

Working pressure of plate by rules

Mean pitch of stays

Depth and

Number and pitch of stays in each

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Number and pitch of

IS A DONKEY BOILER FITTED?

no.

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:— Two each top and bottom end connecting rod bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each feed & bilge pump valves, iron of various sizes, a quantity of assorted bolts & nuts etc.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

Secretary.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1913: Nov 18. 26. Dec 9. 17. 23. 1914: Jan 2. 15. 27. Feb 5. 13. 17. 23. Mar 9. 17. 23. 30 Apr 1.
During erection on board vessel - - - Apr 2. 6. 15. 20. 22. 25. 28. 29
Total No. of visits 25

Is the approved plan of main boiler forwarded herewith R/L 27395

Dates of Examination of principal parts—Cylinders 23.3.14. Slides 23.3.14. Covers 30.3.14. Pistons 6.4.14. Rods 15.4.14.
Connecting rods 15.4.14. Crank shaft 1.4.14. Thrust shaft 1.4.14. Tunnel shafts ✓ Screw shaft 13.2.14. Propeller 13.2.14.
Stern tube 13.2.14. Steam pipes tested 22.4.14. Engine and boiler seatings 13.2.14. Engines holding down bolts 20.4.14.
Completion of pumping arrangements 25.4.14. Boilers fixed 20.4.14. Engines tried under steam 25.4.14.
Main boiler safety valves adjusted 25.4.14. Thickness of adjusting washers PV $\frac{3}{32}$ " SV $\frac{1}{32}$ ".
Material of Crank shaft S. Identification Mark on Do. 1209. Material of Thrust shaft S. Identification Mark on Do. 1209.
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts 1209. Identification Marks on Do. 1209.
Material of Steam Pipes Copper solid drawn. Test pressure 400 lbs hyd. press.
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 yes. If so, state name of vessel S.Y. "Pentland."

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

The engines & boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The Boiler tested by hydraulic pressure and with the engines secured on board & tested under steam, they are now in good order & safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of +LMC 4.14 in the Register book.

It is submitted that this vessel is eligible for THE RECORD. +LMC 4.14.

The amount of Entry Fee ... £ 1 : : When applied for.
Special ... £ 8 : 0 : 5/57 19.14
Donkey Boiler Fee ... £ : : When received.
Travelling Expenses (if any) £ : 4 : 1 29.5.14

Committee's Minute FRI. MAY 8 - 1914

Assigned

+LMC 4.14

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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