

REPORT ON MACHINERY

No. 27167
MON. FEB. 9-1914

Received at London Office

Date of writing Report

19

When handed in at Local Office

1911 to 14 Port of Hull

No. in Survey held at Hull

Date, First Survey June 30thLast Survey Jan 9th

1914

1248, on the Hull Sc. "Tyke"

(Number of Visits 25)

Gross 81

Net 26

Master

Built at Hull

By whom built H. Scan.

When built 1913

Engines made at

By whom made

when made 1913

Boilers made at

Hull

By whom made

Messrs Charles D. Adams & Co. Ltd.

when made 1913

Registered Horse Power

Owners North Eastern Railway Co.

Port belonging to Hull

Nom. Horse Power as per Section 28 49

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

ENGINES, &c.—Description of Engines

Compound

No. of Cylinders 2

No. of Cranks 2

Dia. of Cylinders 14" - 30"

Length of Stroke 21"

Revs. per minute

Dia. of Screw shaft

as per rule 6.85

Material of screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No

Is the after end of the liner made water tight

in 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

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

Length of stern bush 2' - 4 3/8"

Dia. of Tunnel shaft

as per rule 6.222

Dia. of Crank shaft journals

as per rule 6.323

Dia. of Crank pin 6 5/8"

Size of Crank webs 4 3/8" x 2 1/2"

Dia. of thrust shaft under

collars 6 5/8"

Dia. of screw 4' - 4 1/2"

Pitch of Screw 9' - 0"

No. of Blades 4

State whether moveable No

Total surface 26 1/2 sq ft

No. of Feed pumps 1

Diameter of ditto 2 1/2"

Stroke 11"

Can one be overhauled while the other is at work

No. of Bilge pumps 1

Diameter of ditto 2 1/2"

Stroke 11"

Can one be overhauled while the other is at work

No. of Donkey Engines 1

Sizes of Pumps 6" x 4" x 6" duplex

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

In Engine Room One 2"

In Holds, &c. One 2" to four hold. One 2 1/2" to

No. of Bilge Injections 1

sizes 3"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 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

0

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

Hold outflows

How are they protected Wood casing

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 24.9.13

of Stern Tube 24.9.13

Screw shaft and Propeller 24.9.13

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Yes

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel The Steel Company of Scotland Ltd.

Total Heating Surface of Boilers 903 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers One up. multi. circ. mtd.

Working Pressure 140 lbs.

Tested by hydraulic pressure to 280 lbs.

Date of test 22.9.13

No. of Certificate 2015

Can each boiler be worked separately

Yes

Area of fire grate in each boiler 30.5 sq ft

No. and Description of Safety Valves to

each boiler Two spring

Area of each valve 3.94 sq in

Pressure to which they are adjusted 145 lbs.

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 14"

EX. Mean dia. of boilers 10' - 6"

Length 10' - 0"

Material of shell plates S

Thickness 23"

Range of tensile strength 28 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

20.8.2

long. seams 20.8.2

Diameter of rivet holes in long. seams 23"

Pitch of rivets 4 1/2"

Lap of plates or width of butt straps 10 5/8"

Per centages of strength of longitudinal joint

rivets 85.9

Working pressure of shell by rules 141 lbs.

Size of manhole in shell 16" x 12"

Size of compensating ring 4" x 23"

No. and Description of Furnaces in each boiler 2 plain

Material S

Outside diameter 3' - 2"

Length of plain part

top 6' - 4"

Thickness of plates

crown 5"

Description of longitudinal joint Weld

No. of strengthening rings 0

Working pressure of furnace by the rules 140 lbs.

Combustion chamber plates: Material S

Thickness: Sides 5"

Back 3 1/2"

Top 5"

Bottom 5"

Pitch of stays to ditto: Sides 10" x 9"

Back 10 1/2" x 9"

Top 10 1/2" x 9"

If stays are fitted with nuts or riveted heads

Both

Working pressure by rules 158 lbs.

Material of stays S

Diameter at smallest part 20 1/4"

Area supported by each stay 10' - 25"

Working pressure by rules 169 lbs.

End plates in steam space:

Material S

Thickness 13"

Pitch of stays 15" x 14"

How are stays secured 20.8.2

Working pressure by rules 148 lbs.

Material of stays S

Diameter at smallest part 30 3/4"

Area supported by each stay 210 sq in

Working pressure by rules 150 lbs.

Material of Front plates at bottom S

Thickness 13"

Material of Lower back plate S

Thickness 13"

Greatest pitch of stays 14" x 9"

Working pressure of plate by rules 164 lbs.

Diameter of tubes 3 1/2"

Pitch of tubes 4 3/8" x 4 3/8"

Material of tube plates S

Thickness: Front 13"

Back 25"

Mean pitch of stays 12.25"

Pitch across wide water spaces 13 3/8"

Working pressures by rules 142 lbs.

Girders to Chamber tops: Material S

Depth and

thickness of girder at centre 7 1/2" - 12 1/2"

Length as per rule 2' - 5 3/2"

Distance apart 10 1/4"

Number and pitch of stays in each 2 - 9"

Working pressure by rules 144 lbs.

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

No

Yes

No

Yes

No

IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— *Two each top & bottom mid connecting rod bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each fuel & life pump valves, iron of various sizes, a quantity of assorted bolts, nuts etc.*

The foregoing is a correct description,

p. pro CHARLES D. HOLMES & CO. LTD.

Harold Sheard MANAGER

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1913: June 30 Aug 8. 16. 19. 25. 29. 30. Sep. 9. 10. 13. 18. 19. 22. 23. 26. 27. Oct 2. 15.
During erection on board vessel -- Oct 22, Nov 11. Dec 10. 17. 24. 1914 Jan 7. 9.
Total No. of visits 25

Is the approved plan of main boiler forwarded herewith *yes*

" " " *donkey* " " "

Dates of Examination of principal parts—Cylinders *9.9.13* Slides *15.10.13* Covers *18.10.13* Pistons *26.9.13* Rods *2.10.13*
Connecting rods *2.10.13* Crank shaft *19.9.13* Thrust shaft *11.11.13* Tunnel shafts *11.11.13* Screw shaft *19.9.13* Propeller *19.9.13*
Stern tube *19.9.13* Steam pipes tested *24.12.13* Engine and boiler seatings *24.9.13* Engines holding down bolts *17.12.13*
Completion of pumping arrangements *9.1.14* Boilers fixed *7.1.14* Engines tried under steam *3.1.14*

Main boiler safety valves adjusted *3.1.14* Thickness of adjusting washers *Prod $\frac{3}{8}$ " Standard $\frac{3}{8}$ "*

Material of Crank shaft *Iron* Identification Mark on Do. *185 J.G.M.* Material of Thrust shaft *Steel* Identification Mark on Do. *185 T.G.D.*

Material of Tunnel shafts *Steel* Identification Marks on Do. *185 T.G.D.* Material of Screw shafts *Iron* Identification Marks on Do. *185 J.G.M.*

Material of Steam Pipes *Solid drawn copper* Test pressure *280 lbs. per sq. inch hydraulic*

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 *No.* If so, state name of vessel ☒

General Remarks (State quality of workmanship, opinions as to class, &c.) *The engines & boilers of this vessel have been constructed under special survey in accordance with the Rules. The materials & workmanship are sound & good. The boiler tested by hydraulic pressure & with the engines secured on board & tested under steam they are now in good order & safe working condition & respectfully submitted as being eligible in my opinion to be classed with the notation of 'L.M.C. 1.14' in the Register Book.*

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 1. 14.

JWR
9/1/14
ARR

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 8 : 0 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : 1/4 :
When applied for, 28-1-1914
When received, 30/1-1914

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

Committee's Minute

10 FEB. 10. 1914

Assigned

+ L.M.C. 1. 14.



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Foundation