

REPORT ON MACHINERY.

No. 59005

11th. 30 AUG 1910

Received at London Office

Date of writing Report

19

When handed in at Local Office

29 AUG 1910

Port of

Newcastle on Tyne & Had.

No. in Survey held at
Reg. Book.Date, First Survey 13th May 1910 Last Survey 28th Sept 1910

(Number of Visits 1)

on the

S.S. "Deau Forest"

Master

Built at Middlesbrough

By whom built

Messrs. Smith's Dock Co. Ltd.

Tons
Gross
Net

When built 1910

Engines made at

North Shields

By whom made

Shields Engineering Co. Ltd.

when made

1910

Boilers made at

South Shields

By whom made

J. T. Eltringham & Co.

when made

1910

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

62

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Inverted Compound

No. of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

16" x 34"

Length of Stroke

24"

Revs. per minute

110

Dia. of Screw shaft

as per rule 7.3

Material of

screw shaft

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

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

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

Length of stern bush

3' 0"

Dia. of Tunnel shaft

as per rule 6.7

Dia. of Crank shaft journals

as per rule 7.0

Dia. of Crank pin

7 3/16"

Size of Crank webs

4 1/2" x 13 3/4"

collars

7 3/16"

Dia. of screw

8" x 8"

Pitch of Screw

10' 9"

No. of Blades

4

State whether moveable Total surface

33.84

No. of Feed pumps

2

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

one

Sizes of Pumps

6 x 4 x 6"

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

In Engine Room

2 of 2"

In Holds, &c.

1 of 2" from hold

No. of Bilge Injections

1

size

3"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

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

Hold & fore peak tank and main

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

10.8.10

of Stern Tube

10.8.10

Screw shaft and Propeller

10.8.10

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Yes

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

plate

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

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

Diam. of rivet

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

W494-0053

Lloyd's Register
Foundation

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description		Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety	
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment		
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length			
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams			
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates	
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays		
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint		
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by			
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey			

SPARE GEAR. State the articles supplied:— 2 Top end, 2 bottom end, 2 Main bearing & 1 set of Coupling bolts, 1 set feed & tiller pump Valves, 6 piston bolts & brass nuts, 1 propeller, 1 set piston rings for each piston, bolts & nuts assorted & iron sizes

The foregoing is a correct description,

Jno. Blakey

Manufacturer.

Dates of Survey while building
 During progress of work in shops -- May 13. 19. 26. Jun. 2. 14. 29. Sep. 8. 21. Aug. 8. 9. 10. 12. 17
 During erection on board vessel -- W. H. B. Aug. 24. Sept. 28
 Total No. of visits 13 + 2

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 14.6.10 Slides 14.6.10 Covers 29.6.10 Pistons 14.6.10 Rods 14.6.10
 Connecting rods 14.6.10 Crank shaft 16.5.10 Thrust shaft 16.5.10 Tunnel shafts ✓ Screw shaft 16.5.10 Propeller 8.7.10
 Stern tube 9.8.10 Steam pipes tested 12.8.10 Engine and boiler seatings 9.8.10 Engines holding down bolts 17.8.10
 Completion of pumping arrangements 17.8.10 Boilers fixed 17.8.10 Engines tried under steam 17.8.10
 Main boiler safety valves adjusted 17.8.10 Thickness of adjusting washers P. 11/32 - S 3/8 -
 Material of Crank shaft Steel Identification Mark on Do. 79 E.M.S. Material of Thrust shaft Steel Identification Mark on Do. 79 E.M.S.
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do. 79 E.M.S.
 Material of Steam Pipes Copper Test pressure 260 lbs

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been constructed under special survey the workmanship and materials used are both of good quality. The engines have been tried under steam and worked satisfactorily.

We beg to recommend that this vessel is eligible in our opinion to have the record in the Register Book. L.M.C. 9-10

The amount of Entry Fee £ 1 : 0 : 0
 Special £ 9 : 6 : 0
 Donkey Boiler Fee £ : :
 Travelling Expenses (if any) £ : :
 When applied for 29 AUG 1910
 When received 31.8.1910

Committee's Minute

Assigned

FRI 14 OCT 1910

+ L.M.C. 9.10

MACHINERY CERTIFICATE
 WRITTEN.



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 Foundation

NEWCASTLE ON TYNE

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