

REPORT ON MACHINERY

No. 26459

TUE. JUN. 1-1915

Received at London Office

Date of writing Report

19

When handed in at Local Office

31 MAY 1915

Port of Sunderland.

No. in Survey held at

Sunderland.

Date, First Survey

28 Sep 14

Last Survey

24.5.15 1915

Reg. Book.

on the

S/S Spenny Moor

(Number of Visits 44)

Master G. Knott.

Built at

Sland.

By whom built

J. Blumer & Co

Tons

Gross 3992

Net 2544

When built

1915

Engines made at

Sland.

By whom made

J. Dickinson & Sons L

when made

1915

Boilers made at

"

By whom made

"

when made

1915

Registered Horse Power

Owners

Messrs. L. & R. Runciman & Co.

Port belonging to

London.

Nom. Horse Power as per Section 28

363.

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no.

ENGINES, &c.—Description of Engines

Tri-C.P.D.

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

25. 42. 68

Length of Stroke

45"

Revs. per minute

70

Dia. of Screw shaft

as per rule 14

Material of

to S.

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

If two

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

-

Length of stern bush

4.9"

Dia. of Tunnel shaft

as per rule 2.42

Dia. of Crank shaft journals

as per rule 13.08

Dia. of Crank pin

13.4

Size of Crank webs

Patent

Dia. of thrust shaft under

collars

13.4

Dia. of screw

17 ft.

Pitch of Screw

16' 6"

No. of Blades

4

State whether moveable

F

Total surface

91 sq.

No. of Feed pumps

2

Diameter of ditto

4"

Stroke

22 1/2"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2"

Stroke

22 1/2"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

9, 8, 5, 6 cph

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

In Engine Room

one Centre 3 1/2", two wing 3"

In Holds, &c.

two 3" in each

No. of Bilge Injections

1

sizes

5 1/2"

Connected to condenser, or to circulating pump

C.P.

Is a separate Donkey Suction fitted in Engine room & size

yes

4"

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

-

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

none

How are they protected

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

4.5.15

of Stern Tube

5.5.15

Screw shaft and Propeller

5.5.15

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

top platform

BOILERS, &c.—(Letter for record

5)

Manufacturers of Steel

J. Spencer & Sons L.

Total Heating Surface of Boilers

5976

Is Forced Draft fitted

no

No. and Description of Boilers

two multitubular

Working Pressure

180

Tested by hydraulic pressure to

360

Date of test

27.3.1915

No. of Certificate

3291

Can each boiler be worked separately

yes

Area of fire grate in each boiler

692 sq.

No. and Description of Safety Valves to

each boiler

two Spring

Area of each valve

9.6

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

2' 9"

Mean dia. of boilers

17' 6"

Length

11' 6"

Material of shell plates

S

Thickness

1 5/16

Range of tensile strength

294-33

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

D.R.L.

long. seams

J.R.D.B.

Diameter of rivet holes in long. seams

1 3/8"

Pitch of rivets

9 1/2"

Lap of plates or width of butt straps

1' 8 1/2"

Per centages of strength of longitudinal joint

plate 88.57

Working pressure of shell by rules

180

Size of manhole in shell

16 x 12

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

3 Bag

Material

S

Outside diameter

4' 3"

Length of plain part

top 9"

Thickness of plates

crown 19"

Description of longitudinal joint

weld

No. of strengthening rings

-

Working pressure of furnace by the rules

185

Combustion chamber plates: Material

S

Thickness: Sides

11/16"

Back

11/16"

Top

11/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

9 x 10"

Back

9 3/8 x 9 3/8"

Top

9 x 10"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

181

Material of stays

S

Diameter at smallest part

1.6"

Area supported by each stay

90

Working pressure by rules

203

End plates in steam space:

Material

S

Thickness

1 3/16"

Pitch of stays

17 1/8 x 20 1/2"

How are stays secured

at nut

Working pressure by rules

180

Material of stays

S

Diameter at smallest part

2.9/2"

Area supported by each stay

366

Working pressure by rules

190

Material of Front plates at bottom

S

Thickness

7/8"

Material of Lower back plate

S

Thickness

29/32"

Greatest pitch of stays

15 x 9 3/8"

Working pressure of plate by rules

181

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/4 x 4 1/4"

Material of tube plates

S

Thickness: Front

1 1/2 x 7/8"

Back

7/8"

Mean pitch of stays

9 1/2, 9 1/2"

Pitch across wide water spaces

7' 3 1/2"

Working pressures by rules

210

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

6 3/8 x 14

Length as per rule

2.6"

Distance apart

10'

Number and pitch of stays in each

2 @ 9"

Working pressure by rules

183

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

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 Safe
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
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	Plates
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:— Propeller & propeller shaft, Slide Spindle set of top and bottom end bolts & nuts, two main bearing bolts & nuts, Set of coupling bolts, Set of feed and bilge pump valves, Air & Bilge valves, assorted, Iron Nuts & bolts.

The foregoing is a correct description,

John Dickinson & Sons, Limited.

Manufacturer.

Dates of Survey while building	During progress of work in shops --	1914 Sep 28 29 Oct 8 13 19 22 27 30 Nov 5 17 19 Dec 7 18 23 30 Jan 5 11
	During erection on board vessel --	Feb 3 15 17 19 23 26 Mar 8 10 12 17 19 23 26 27 30 Apr 1 7 14 19 May 4 5 6 7 12
Total No. of visits		14 22 24 (44)

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " " " " " " " " " "

Dates of Examination of principal parts—Cylinders	5 11 14	Slides	5 11 14	Covers	5 11 14	Pistons	5 11 14	Rods	5 11 14
Connecting rods	5 11 14	Crank shaft	19 2 15	Thrust shaft	19 2 15	Tunnel shafts	19 2 15	Screw shaft	19 2 15
Stern tube	21 1 15	Steam pipes tested	4 5 15	Engine and boiler seatings	4 5 15	Engines holding down bolts	4 5 15		
Completion of pumping arrangements	22 5 15	Boilers fixed	4 5 15	Engines tried under steam	12 5 15				
Main boiler safety valves adjusted	12 5 15	Thickness of adjusting washers	P. f. 5/16 A 3/32 B. f. 5/16 A 7/16						
Material of Crank shaft	S	Identification Mark on Do.	R. J. F.	Material of Thrust shaft	S	Identification Mark on Do.	L. R. M.		
Material of Tunnel shafts	S	Identification Marks on Do.	R. J. F.	Material of Screw shafts	W. S.	Identification Marks on Do.	R. J. F.		
Material of Steam Pipes	Copper	Test pressure	360						

General Remarks (State quality of workmanship, opinions as to class, &c.) Machinery & boilers built under Special Survey. Materials and workmanship good. Engines and boilers examined under full steam & found satisfactory. It is submitted that the record of LMC 5. 15 be granted by the Committee for this vessel.

It is submitted that this vessel is eligible for THE RECORD + LMC 5. 15.

JWD. 1/6/15.

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

The amount of Entry Fee	£ 3 : -- : 0	When applied for,	31 MAY 1915
Special	£ 38 : 3 : 0	When received,	3/6/15
Donkey Boiler Fee	£ 2 : 2 : 0		
Travelling Expenses (if any)	£ : : 0		

Committee's Minute

FRI JUN 4 1915

Assigned

+ LMC 5. 15.



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