

REPORT ON MACHINERY.

No. 52390

Port of Newcastle

Received at London Office

TUES. FEB 19 1907

No. in Survey held at Newcastle

Date, first Survey Aug 22 '06 Last Survey Feb 17 1907

Reg. Book.

on the

S/S "Sisak"

(Number of Visits 33)

Master

Built at Newcastle By whom built Armstrong Whitworth

Gross 4657
Tons Net 2970
When built 1906-7

Engines made at Newcastle

By whom made Wallsend Slipway

when made 1906-7

Boilers made at

By whom made

when made 1906-7

Registered Horse Power 478

Owners Deutsche Dampfschiffahrts-Gesellschaft

Port belonging to Hamburg

Nom. Horse Power as per Section 28 468

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

ENGINES, &c.—Description of Engines

In Cpd.

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 27. 45 75

Length of Stroke 48"

Revs. per minute 67.

Dia. of Screw shaft as per rule 15 3/8

Material of screw shaft 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 yes.

If two

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

Length of stern bush 5'5"

Dia. of Tunnel shaft as per rule 12 1/2

as fitted 13 3/4

Dia. of Crank shaft journals as per rule 13 1/2

as fitted 14 1/2

Dia. of Crank pin 14 1/2

Size of Crank webs 29 1/2 x 9 1/2

Dia. of thrust shaft under

collars 14 1/2

Dia. of screw 18 f.

Pitch of Screw 18 f.

No. of Blades 4

State whether moveable yes

Total surface 110 f.

No. of Feed pumps 16

Diameter of ditto 7 x 9 1/2

Stroke 21"

Can one be overhauled while the other is at work yes.

No. of Bilge pumps 2

Diameter of ditto 4 3/4

Stroke 24"

Can one be overhauled while the other is at work yes.

No. of Donkey Engines 3

Sizes of Pumps 10 x 7 1/2 x 12 1/2 x 3 1/2 x 5 1/2

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

In Engine Room 4 of 32

In Holds, &c. 12 of 32

No. 1, 2, 3 - 2 of 32

No. 4 - 2 of 32

No. of Bilge Injections 1

sizes 8"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size 3 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

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 3/12/06

of Stern Tube 30/11/06

Screw shaft and Propeller 30/11/06

Is the Screw Shaft Tunnel watertight yes

Is it fitted with a watertight door yes

worked from top platform

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

Spencer.

Total Heating Surface of Boilers 6504 1/2

Is Forced Draft fitted yes

No. and Description of Boilers 3 S. ended.

Working Pressure 180 lbs

Tested by hydraulic pressure to 360.

Date of test 14.12.06

No. of Certificate 7393

Can each boiler be worked separately yes

Area of fire grate in each boiler 58.5 f.

No. and Description of Safety Valves to

each boiler 2 Spring

Area of each valve 11.04

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 feet

Mean dia. of boilers 14.3 3/8

Length 11'6"

Material of shell plates S

Thickness 1 5/16

Range of tensile strength 28.32

Are the shell plates welded or flanged Ends

Descrip. of riveting: cir. seams 2 r laps

long. seams d. butt

Diameter of rivet holes in long. seams 1 3/8

Pitch of rivets 9 3/16

Lap of plates or width of butt strap 20 8

Per centages of strength of longitudinal joint rivets 89.6

plate 85.4

Working pressure of shell by rules 206

Size of manhole in shell 16" x 12.

Size of compensating ring McNeil

No. and Description of Furnaces in each boiler 3 Monson

Material S

Outside diameter 3'9 3/8

Length of plain part top

Thickness of plates crown 3 9/16

Description of longitudinal joint welded

No. of strengthening rings

Working pressure of furnace by the rules 192

Combustion chamber plates: Material S

Thickness: Sides 3/8

Back 3/8

Top 3/8

Bottom 1 5/16

Pitch of stays to ditto: Sides 8 x 7 1/4

Back 8 x 7 3/8

Top 7 1/2 x 7 1/4

If stays are fitted with nuts or riveted heads nuts.

Working pressure by rules 220

Material of stays S

Diameter at smallest part 1 1/4

Area supported by each stay 59"

Working pressure by rules 193

End plates in steam space:

Material S

Thickness 1 1/8

Pitch of stays 15 1/2 x 14

How are stays secured d. nuts

Working pressure by rules 230

Material of stays S

Diameter at smallest part 5 1/4

Area supported by each stay 210"

Working pressure by rules 250

Material of Front plates at bottom S

Thickness 1

Material of Lower back plate S

Thickness 1 3/16

Greatest pitch of stays 13 3/16

Working pressure of plate by rules 214

Diameter of tubes 2 1/2

Pitch of tubes 3 1/8 x 3 3/8

Material of tube plates S

Thickness: Front 1

Back 3/4

Mean pitch of stays 7 1/2

Pitch across wide water spaces 13

Working pressures by rules 212

Girders to Chamber tops: Material S

Depth and

thickness of girder at centre 8 1/2 x 12

Length as per rule 30 1/2

Distance apart 8

Number and pitch of stays in each 3 - 1/4

Working pressure by rules 188 1/2

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

Are they fitted with easing gear

Manufacturers of Steel report attached.

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		Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— 1 Set connecting rod bolts and nuts.
2 main bearing bolts & nuts. 1 Set coupling bolts & nuts. 1 Set
valves for beam pumps. 1 Set bilge pump valves. Propeller & Shaft
nuts bolts and assorted iron

The foregoing is a correct description,

Manufacturer.

FOR THE WALLSEND SLIPWAY & ENGINEERING CO., LIMITED.

SECRETARY.

Dates of Survey while building { During progress of work in shops - - } 1906 Aug. 22, 23, 28 Sep. 4, 12, 21, 26 Oct. 3, 5, 11 Nov. 7, 16, 21, 29 Dec. 3, 17, 10, 11, 12, 13, 14, 15, 27, 31. 1907 Jan. 8, 9, 14, 15, 23, 31 Feb. 6, 8

{ During erection on board vessel - - }

Total No. of visits 33.

Is the approved plan of main boiler forwarded herewith Yes.

Is the approved plan of main boiler forwarded herewith Yes.

1906
 Dates of Examination of principal parts—Cylinders $\frac{6}{7}$, $\frac{8}{7}$, $\frac{8}{11}$ Slides $\frac{5}{7}$, $\frac{13}{12}$ Covers $\frac{15}{4}$ Pistons $\frac{5}{4}$ Rods $\frac{15}{4}$
 Connecting rods $\frac{15}{7}$ Crank shaft $\frac{16}{11}$, $\frac{12}{12}$ Thrust shaft $\frac{14}{11}$, $\frac{12}{12}$ Tunnel shafts $\frac{16}{12}$ Screw shaft $\frac{20}{11}$ Propeller $\frac{20}{11}$
 Stern tube $\frac{30}{11}$ Steam pipes tested 17 Nov. 06. Engine and boiler seatings $\frac{12}{12}$ Engines holding down bolts $\frac{13}{11}$, $\frac{17}{12}$
 Completion of pumping arrangements Boilers fixed $\frac{10}{12}$ Engines tried under steam $\frac{6}{12}$, $\frac{10}{12}$
 Main boiler safety valves adjusted $\frac{6}{2}$, $\frac{10}{12}$ Thickness of adjusting washers PBP $\frac{7}{16}$ S $\frac{11}{32}$ CBP $\frac{9}{32}$ S $\frac{7}{16}$ SBP $\frac{3}{8}$ S $\frac{3}{8}$
 Material of Crank shaft S Identification Mark on Do. $\frac{1R}{TF}$ 11/06 Material of Thrust shaft $\frac{1R}{TF}$ S Identification Mark on Do. $\frac{1R}{TF}$ 12/06
 Material of Tunnel shafts S Identification Marks on Do. $\frac{1R}{TF}$ 12/06 Material of Screw shafts S Identification Marks on Do. $\frac{1R}{TF}$ 12/06
 Material of Steam Pipes W. Iron. Test pressure 540

General Remarks (State quality of workmanship, opinions as to class, &c. Machinery and boilers built under Special Survey. Materials & workmanship good. Engines & boilers examined under full steam & found satisfactory. In my opinion this vessel is eligible for the record of ~~the~~ L. M. C. 2/04.

It is submitted that
this vessel is eligible for
THE RECORD **HLM**

ILMC 2.07 ED. ELEC: LIGHT.

L.L. 19.2.07 Fin.S. 19.2.07

The amount of Entry Fee..	£ 3	:	:	When applied for,
Special	£ 43	:	:	1.8 FEB 1907
Donkey Boiler Fee	£ -	:	:	When received,
Travelling Expenses (if any) £	:	:	:	2072 19

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

Committee's Minute

FRI. FEB 22 1907

Assigned

MACHINERY CERTIFICATE
WRITTEN

F. W. Elec. Light

Lloyd's Register
Foundation