

Date of writing Report

19

When handed in at Local Office

11/3/14

Port of

Grimsby

Received at London Office

THU. MAR. 12. 1914

No. in Survey held at

Reg. Book.

1619.

on the

Gr Lea of Sorrento

Date, First Survey

29/1/14

Last Survey

27/2/1914

(Number of Visits)

Sixteen

Tons

Gross

Net

Master

Built at

Sandefjord

By whom built

Hammar Mek Verksted

When built

1906

Engines made at

Christiana

By whom made

Aker Mek Verksted

when made

1906

Boilers made at

do.

By whom made

Aker Mek Verksted

when made

1906

Registered Horse Power

Owners

Port belonging to

Praeus

Nom. Horse Power as per Section 28

156

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &c.—Description of Engines

Triple Expansion Inverted

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

18. 29. 48

Length of Stroke

33

Revs. per minute

Dia. of Screw shaft

9.76

Material of screw shaft

as fitted 9.75

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

no

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

Solid

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

Length of stern bush

40

Dia. of Tunnel shaft

as per rule 8.95

as fitted 8.87

Dia. of Crank shaft journals

as per rule 9.44

as fitted 9.35

Dia. of Crank pin

9.375

Size of Crank webs

16 1/2 x 6 1/2

Dia. of thrust shaft under collars

9.375

Dia. of screw

11-6

Pitch of Screw

12-7

No. of Blades

4

State whether moveable

no

Total surface

40

No. of Feed pumps

2

Diameter of ditto

27/8

Stroke

20

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

3 3/4

Stroke

16

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

7 1/2 x 9 1/4 x 6

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

In Engine Room

2-2 1/4 1-2 1/2 3mm bilge & an throatwell In Holds, &c.

2 at mngo 2 1/2 at centre well.

and

No. of Bilge Injections

1

sizes

4 1/2

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

2 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

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

below

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

Suctions to forepit & forehold

How are they protected

wood covering

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

of Stern Tube

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

upper CR. platform

BOILERS, &c.—(Letter for record 15)

Total Heating Surface of Boilers

3607

Is Forced Draft fitted

no

No. and Description of Boilers

2 no SE return tube

Working Pressure

176 lb.

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

yes

Area of fire grate in each boiler

48

No. and Description of Safety Valves to each boiler

2 direct spring

Area of each valve

7.07

Pressure to which they are adjusted

175 lb.

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

30

Mean dia. of boilers

12-3

Length

10-0

Material of shell plates

steel

Thickness

1

Range of tensile strength

29 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

single

long. seams

Double outside strap

Diameter of rivet holes in long. seams

1 3/16

Pitch of rivets

8 1/16

Lap of plates or width of butt straps

11 1/2 outer 18 inner

Per centages of strength of longitudinal joint

95.0

Working pressure of shell by rules

180

Size of manhole in shell

12 x 16

Size of compensating ring

24 x 28 x 1 1/4

No. and Description of Furnaces in each boiler

2 Morrison

Material

steel

Outside diameter

48

Length of plain part

top 7

bottom 7

Thickness of plates

top 9/16

bottom 3/8

Description of longitudinal joint

welded

No. of strengthening rings

none

Working pressure of furnace by the rules

184

Combustion chamber plates: Material

steel

Thickness: Sides

5/8

Back

5/8

Top

5/8

Bottom

3/4

Pitch of stays to ditto: Sides

7 3/4 x 6 7/8

Back

7 3/8 x 7 1/4

Top

9 1/4 x 8

If stays are fitted with nuts or riveted heads

yes

Working pressure by rules

180 lb.

Material of stays

steel

Diameter at smallest part

1.76

Area supported by each stay

74

Working pressure by rules

190

End plates in steam space: Material

steel

Thickness

1 3/32

Pitch of stays

17 3/8 x 18

How are stays secured

d. nuts & washers

Working pressure by rules

183

Material of stays

steel

Diameter at smallest part

7.07

Area supported by each stay

3 1/2

Working pressure by rules

204

Material of Front plates at bottom

steel

Thickness

13/16

Material of Lower back plate

steel

Thickness

5/8

Greatest pitch of stays

15

Working pressure of plate by rules

180

Diameter of tubes

3 1/2

Pitch of tubes

4 3/4

Material of tube plates

steel

Thickness: Front

13/16

Back

13/16

Mean pitch of stays

11.9

Pitch across wide water spaces

14

Working pressures by rules

206

Girders to Chamber tops: Material

Depth and thickness of girder at centre

8 x 2-3/4

Length as per rule

27.5

Distance apart

9.25

Number and pitch of stays in each

2-8

Working pressure by rules

240

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

Is a Report also sent on the status of the ship?

1m.212, T.

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description *vertical x tube wet uptake*
 Made at *Sandefjord* By whom made *Tranvaer Mek Verksköt* When made *1906* Where fixed *Stokkehold*
 Working pressure *90* tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area *23*^{sq} Description of Safety
 Valves *direct spring* No. of Safety Valves *one* Area of each *9.6*^{sq} Pressure to which they are adjusted *90 lb* Date of adjustment *27/2/14*
 If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *7'-0"* Length *11'-0"*
 Material of shell plates *S* Thickness *1/2"* Range of tensile strength _____ Descrip. of riveting long. seams *double*
 Dia. of rivet holes *15/16"* Whether punched or drilled _____ Pitch of rivets *2 7/8"* Lap of plating *4 3/8"* Per centage of strength of joint _____ Rivets *81.6*
 Working pressure of shell by rules *99* Thickness of shell crown plates *13/16"* Radius of do. *10'-9"* No. of stays to do. *six* ^{area} Dia. of stays *4.11* Plates *67.5*
 Diameter of furnace Top *6'-0"* Bottom *6'-1"* Length of furnace *4'-10"* Thickness of furnace plates *5/8"* Description of joint *welded*
 Working pressure of furnace by rules *90* Thickness of furnace crown plates *13/16"* Radius of do. *9'-2"* Stayed by *six* stays
 Diameter of uptake *20"* Thickness of uptake plates *1/2"* Thickness of water tubes *3/8"* Dates of survey _____

SPARE GEAR. State the articles supplied:— *Piston valve, one eccentric cheare, air pump rod, cross head brasses, bottom end brasses, safety valve escape valve springs, set of coupling trls and top & bottom end bolts, circulating pump rod, crank shaft, screw shaft, LP over, (cyl) feed, bilge, air circulating pump valves, check valves, assorted iron, bolts nuts & tube*
The foregoing is a correct description, *drifters* ✓ *- 2 11/16*

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - - }
 Total No. of visits _____

Is the approved plan of main boiler forwarded herewith *yes* ✓
 " " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____ Pistons _____ Rods _____
 Connecting rods _____ Crank shaft _____ Thrust shaft _____ Tunnel shafts _____ Screw shaft _____ Propeller _____
 Stern tube _____ Steam pipes tested _____ Engine and boiler seatings _____ Engines holding down bolts _____
 Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____
 Main boiler safety valves adjusted _____ Thickness of adjusting washers _____
 Material of Crank shaft _____ Identification Mark on Do. _____ Material of Thrust shaft _____ Identification Mark on Do. _____
 Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts _____ Identification Marks on Do. _____
 Material of Steam Pipes *Copper* ✓ Test pressure *360 lb.* ✓

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

The shafting of this vessel is good for a working pressure of 175 lb and the safety valves have been adjusted to 175 lb. no more being required.
In examination of machinery see attached report.

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

The amount of Entry Fee .. £ _____ : When applied for, _____
 Special £ _____ : _____
 Donkey Boiler Fee £ _____ : When received, _____
 Travelling Expenses (if any) £ _____ : _____

Committee's Minute

Assigned

TUE. MAR. 17. 1914

LUC 2, 14

Charles

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



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MACHINERY CERTIFICATE

WRITTEN 17.3.14

Copy 10.6.15