

REPORT ON MACHINERY.

No. 21,076

Port of Hull

Received at London Office

MUN. 19 APR 1909

Survey held at Hull & Selby

Date, first Survey Dec 9/08

Last Survey Apr 6/1909

Number of Visits 26

Ship CLAUDIUS

Built at Selby

By whom built Cochrane & Sons

Tons Gross 285

Net 126

When built 1909

Hull

By whom made Amos, Smith & Co

when made 5

5

By whom made 5

when made 5

Power

Owners Consolidated S. F. & Co. Ltd

Port belonging to Grimsby

As per Section 28 87

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

Description of Engines Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dimensions 13-22-37

Length of Stroke 26

Revs. per minute 110

Dia. of Screw shaft 7.8

as per rule 7.8

Material of screw shaft Iron

Is the after end of the liner made water tight Yes

Is the after end of the liner made water tight 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 Yes

Is the space charged with a plastic material insoluble in water and non-corrosive Yes

If two Yes

Is the shaft lapped or protected between the liners Yes

Length of stern bush 33

as per rule 6.76

Dia. of Crank shaft journals 7.09

as per rule 7.09

Dia. of Crank pin 7.5

Size of Crank webs 4.8 x 4.2

Dia. of thrust shaft under 7.5

Dia. of screw 9.9

Pitch of Screw 11.3

No. of Blades 4

State whether moveable No

Total surface 34 sq ft

Revs. 2

Diameter of ditto 27.8

Stroke 12

Can one be overhauled while the other is at work Yes

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Diameter of ditto 27.8

Stroke 12

Can one be overhauled while the other is at work Yes

Engines 1

Sizes of Pumps 6 x 3 x 6

No. and size of Suctions connected to both Bilge and Donkey pumps 4-2

In Holds, &c. 4-2

(Forecastle, main hold, Forewell, after hold, well, &c.)

Is a separate Donkey Suction fitted in Engine room & size 1.2

Connected to condenser, or to circulating pump Yes

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 they accessible with the sea direct on the skin of the ship Yes

Are they Valves or Cocks Both

Are the Discharge Pipes above or below the deep water line Above

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Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes

Are they protected Wood casing

Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

How are they protected Wood casing

Is the shaft tunnel watertight None

Is it fitted with a watertight door Yes

worked from Yes

Letter for record S

Manufacturers of Steel Phoenix & Westphalia

Surface of Boilers 1485 sq ft

Is Forced Draft fitted No

No. and Description of Boilers 1. S.E. Multitubular

Tested by hydraulic pressure to 360 lbs

Date of test 19.3.09

No. of Certificate 1695

Area of fire grate in each boiler 41.69 sq ft

No. and Description of Safety Valves to Spring loaded

Area of each valve 3.97

Pressure to which they are adjusted 185 lbs

Are they fitted with easing gear Yes

Mean dia. of boilers 13.6

Length 10.6

Material of shell plates Steel

Range of tensile strength 28-32

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams ST Lap

Diameter of rivet holes in long. seams 1.8

Pitch of rivets 7.86

Top of plates or width of butt straps 16.2

Strength of longitudinal joint 85.7

Working pressure of shell by rules 180

Size of manhole in shell 17 x 13

No. and Description of Furnaces in each boiler 2 Deighton

Material Steel

Outside diameter 4.1 1/4

Thickness of plates 3/8

Description of longitudinal joint welded

No. of strengthening rings 1

Area of furnace by the rules 202

Combustion chamber plates: Material Steel

Thickness: Sides 23/32

Back 4/16

Top 8 1/2

Bottom 23/32

Working pressure by rules 182

Diameter at smallest part 1 1/2

Area supported by each stay 90

Working pressure by rules 206

End plates in steam space: None

Thickness 1/16

Pitch of stays 17 1/2 x 17

How are stays secured Welded

Working pressure by rules 182

Material of stays Steel

Area supported by each stay 293

Working pressure by rules 216

Material of Front plates at bottom Steel

Material of Lower back plate Steel

Thickness 23/32

Greatest pitch of stays 16 x 7 1/2

Working pressure of plate by rules 181

Pitch of tubes 5 1/2 x 4 3/4

Material of tube plates Steel

Thickness: Front 29/32

Back 7/8

Mean pitch of stays 12 1/2

Working pressures by rules 182

Girders to Chamber tops: Material Iron

Depth and 20 10

Distance apart 8 1/2

Number and pitch of stays in each 20 10

Superheater or Steam chest; how connected to boiler None

Can the superheater be shut off and the boiler worked Yes

Diameter 17 1/2

Length 2-8 1/2

Thickness of shell plates 182

Material Steel

Description of longitudinal joint welded

Diam. of rivet 1.8

Working pressure of shell by rules 180

Material of flue plates Steel

Thickness 3/8

End plates: Thickness 1/16

How stayed Welded

Distance between rings 17 1/2

Working pressure by rules 182

Area of safety valves to superheater 41.69

Are they fitted with easing gear Yes

Pressure of end plates 180

Area of safety valves to superheater 41.69

Area of safety valves to superheater 41.69

Are they fitted with easing gear Yes

Area of safety valves to superheater 41.69

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 _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— *Two tops, two bottom end connecting rod bolts, one set of main bearing bolts, one set of coupling bolts, one set of feed & bilge pump valves, one set of air & circulating pump valves, one man's one donkey feed check valve, assorted bolts, nuts &c.*

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

Manufacturer.

W. S. Hyde

Dates of Survey while building { During progress of work in shops - } 1908: Dec 9, 11, 24. 1909: Jan 27, 15, 19, 20, 27, Feb 3, 5, 6, 10, 16, 25. Mar 4, 6, 11, 13, 16.
 { During erection on board vessel - } Mar 19, 23, 27, Apr 1, 5, 6.
 Total No. of visits 26

Managing Director

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

Dates of Examination of principal parts—Cylinders 11.3.09. Slides 23.3.09. Covers 11.3.09. Pistons 23.3.09. Rods 12.3.09. Connecting rods 13.3.09. Crank shaft 23.3.09. Thrust shaft 23.3.09. Tunnel shafts ✓. Screw shaft 3.2.09. Propeller 3.2.09. Stern tube 3.2.09. Steam pipes tested 30.3.09. Engine and boiler seatings 5.2.09. Engines holding down bolts 27.3.09. Completion of pumping arrangements 6.4.09. Boilers fixed 1.4.09. Engines tried under steam 1.4.09. Main boiler safety valves adjusted 1.4.09. Thickness of adjusting washers *P 4 55*. Material of Crank shaft *Steel*. Identification Mark on Do. *480.5116*. Material of Thrust shaft *Steel*. Identification Mark on Do. *480.5116*. Material of Tunnel shafts ✓. Identification Marks on Do. ✓. Material of Screw shafts *Iron*. Identification Marks on Do. *480.5116*. Material of Steam Pipes *Solid drawn Copper*. Test pressure *360 lbs.*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery & boiler of this vessel have been constructed under Special Survey, are of good material workmanship & have been fitted & secured on board in accordance with the Rules. They are now in good working condition & eligible in my opinion to have record of T.L.M.C. 4-09 in the Register Book.*

To be submitted that this vessel is eligible for THE RECORD. + L.M.C. 4.09

*J.R.R. #48
19.4.09 19/4/09*

The amount of Entry Fee. £ 1 : 00
 Special £ 13 : 10
 Donkey Boiler Fee £ : :
 Travelling Expenses (if any) £ : 8 2

When applied for, 17.4.09
 When received, 29/4/09

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

Committee's Minute

TUES. 20 APR 1909

Assigned

+ L.M.C. 4.09

MACHINERY CERTIFICATE WRITTEN



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Lloyd's Register Foundation

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