

REPORT ON MACHINERY.

No. 51972
MUN. 14 FEB 1910

Received at London Office

of writing Report 19 When handed in at Local Office 10.2.1910 Port of Newcastle.
in Survey held at Newcastle Date, First Survey 9 Aug. 1907 Last Survey 9 Feb 1910
Book on the "S.S. Boverton" (Number of Visits 22.)

ter Built at Newcastle. By whom built Type & S B 6 L^o Tons { Gross 317 Net 1953 When built 1910
ines made at Newcastle By whom made N & M. Eng 6^o L^o when made 1910
ers made at " By whom made " " when made 1910

Registered Horse Power Owners Even Thomas, Radcliffe & Co. Port belonging to Garaff
Horse Power as per Section 28 298 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

INES, &c.—Description of Engines In C.P.D. No. of Cylinders 3 No. of Cranks 3
of Cylinders 24" 40" 65" Length of Stroke 42" Revs. per minute 64 Dia. of Screw shaft as per rule 1.3.36 Material of screw shaft as fitted 1.12 screw shaft
e 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
e 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
een the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive If two
s are fitted, is the shaft lapped or protected between the liners Length of stern bush 6 feet

of Tunnel shaft as per rule 11.49 Dia. of Crank shaft journals as per rule 12.34 Dia. of Crank pin 12 5/8" Size of Crank webs 24 1/2 x 8" Dia. of thrust shaft under
rs 12 5/8" Dia. of screw 16" 6" Pitch of Screw 16" 6" No. of Blades 4 State whether moveable f Total surface 85 f
of Feed pumps 2 Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work Yes
of Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes
of Donkey Engines 2 Sizes of Pumps 6 x 4 x 6 1/2 + 7 1/2 x 8 1/2 x 10 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps
ngine Room 4 of 3" + 1 of 2 1/2 in tunnel with 2 in Holds, &c. 2 of 3" to each

f Bilge Injections 1 sizes 4 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes - 3 1/2"
ll 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
ll connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks both
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
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
t pipes are carried through the bunkers nil How are they protected
all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

s of examination of completion of fitting of Sea Connections 3.12.09 of Stern Tube 3.12.09 Screw shaft and Propeller 3.12.09
e Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top platform

ELERS, &c.—(Letter for record S) Manufacturers of Steel J. Spencer & Sons L^o
l Heating Surface of Boilers 4616 Is Forced Draft fitted No No. and Description of Boilers 2 B.C.
king Pressure 180 lbs Tested by hydraulic pressure to 360 Date of test 8.11.07 No. of Certificate 7622

each boiler be worked separately Yes Area of fire grate in each boiler 62 1/2 f No. and Description of Safety Valves to
boiler 2 spring Area of each valve 7.070" Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
llest distance between boilers or uptakes and bunkers or woodwork 20" Mean dia. of boilers 15' 6" Length 10' 6" Material of shell plates S
kness 1 3/32 Range of tensile strength 28 1/2 - 32 Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams 2 + Lap
seams d butts Diameter of rivet holes in long. seams 1 3/32 Pitch of rivets 8 7/16 Lap of plates or width of butt straps 18 1/8

centages of strength of longitudinal joint rivets 84.9 plate 85.6 Working pressure of shell by rules 184. Size of manhole in shell 34" 16 x 12
of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Dayton Material S Outside diameter 49"
th of plain part top Thickness of plates crown 19 Description of longitudinal joint Weld No. of strengthening rings
bottom 32
king pressure of furnace by the rules 192. Combustion chamber plates: Material S Thickness: Sides 3/4 Back 3/4 Top 3/4 Bottom 1 1/8

of stays to ditto: Sides 1 1/8 x 8 3/4 Back 1 1/8 x 9 3/4 Top 1 1/8 x 8 3/4 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 185
erial of stays S Area Diameter at smallest part 2.05 Area supported by each stay 181" Working pressure by rules 181. End plates in steam space:
erial S Thickness 1 3/8 Pitch of stays 22 x 22 How are stays secured 2 nuts Working pressure by rules 185 Material of stays S
er at smallest part 8 1/8 Area supported by each stay 484. Working pressure by rules 182. Material of Front plates at bottom S
kness 1/4 Material of Lower back plate S Thickness 3/32 Greatest pitch of stays 14 1/2 Working pressure of plate by rules 197

eter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 3/4 Material of tube plates S Thickness: Front 1/8 Back 3/4 Mean pitch of stays 9 x 8 3/4
across wide water spaces 14 1/2 Working pressures by rules 260 Girders to Chamber tops: Material S Depth and
ness of girder at centre 82 x 1 3/4 Length as per rule 30 Distance apart 8 3/4, 11 1/8 Number and pitch of stays in each 2 @ 8 3/4
king pressure by rules 183 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
ately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
fined with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
king pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

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 top end, 2 bottom end, 2 main bearings and 1 set of Coupling bolts, 1 Propeller, 1 Propeller shaft, bolts & nuts assorted and iron of sizes, 1 set Feed and Relief pump Valve 2 Feed Check Valves.*

The foregoing is a correct description,
NORTH EASTERN MARINE ENGINEERING Co., LTD.

Manufacturer. *J. Y. Findlay*

1907
Aug. 9. 13. 28. 30. Sep. 12. Oct. 1. 4. 11. 14. 17. 18. 29. 30. Nov. 5. 14. 15. Dec. 11. 19. 27. 29.

Secretary. *J. Y. Findlay*

1910
Jan. 5. 17. Feb. 9.

Dates of Survey while building: During progress of work in shops - - - - - During erection on board vessel - - - - -

Total No. of visits *33*

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

Dates of Examination of principal parts—Cylinders *3.6.07* Slides *9.8.07* Covers *9.8.07* Pistons *9.8.07* Rods *9.8.07*

Connecting rods *9.8.07* Crank shaft *24.7.07* Thrust shaft *24.7.07* Tunnel shafts *31.7.07* Screw shaft *12.9.07* Propeller *4.10.07*

Stern tube *4.10.07* Steam pipes tested *17.12.09* Engine and boiler seatings *3.12.09* Engines holding down bolts *17.12.09*

Completion of pumping arrangements *29.12.09* Boilers fixed *17.12.09* Engines tried under steam *29.12.09*

Main boiler safety valves adjusted *29.12.09* Thickness of adjusting washers *P.P. 7/16, P.S. 7/16; S.P. 3/8, S.S. 7/16*

Material of Crank shaft *S* Identification Mark on Do. *R.J.T.F* Material of Thrust shaft *S* Identification Mark on Do. *R.A.L.C*

Material of Tunnel shafts *J* Identification Marks on Do. *R.J.T.F* Material of Screw shafts *J* Identification Marks on Do. *R.J.T.F*

Material of Steam Pipes *Copper* Test pressure *360 lbs*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery and boiler of this vessel have been built under Special Survey. The material & workmanship are good, the machinery has been satisfactorily fitted on board & the engines tried under steam.*

The boilers of this vessel have been carefully attended to and kept coated during the time they have been in the works and in my opinion may be considered new boilers at this date 1910

*We beg to recommend that this vessel is eligible in our opinion to have the record **L.M.C. 2.10** in the Register Book*

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 2.10

The amount of Entry Fee .. £ *2 : 0 : 0* When applied for, *12 FEB 1910*

Special .. £ *34 : 19 : 0*

Donkey Boiler Fee .. £ : : : When received, *14.2.10*

Traveling Expenses (if any) £ : : : *15.2*

J. Y. Findlay
R. V. Coomber
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *FRI. 18 FEB 1910*

Assigned *+ L.M.C. 2.10*



STI

FLAT PLATE (If Bar Keel GARBOARD)

State actual thickness way of Donkey Bottom

Write "Shear Stroke" opposite its corresponding letter.

DOUBLING

Length and thickness

POOP SID

BRIDGE S

FORECAST

Man

manufact

Plates, Pl

Conse

Mid

Sum

Has the S

FRAMES

REVERS

LOWER M

Bowsprit

Topmasts

Rigging, Sails.

EQUIP

Number of Certificate.

11405

10824

11149

9893

9957

Number of Certificate

3345

Iron-Strap Chain Steel W

Boats

Pumps,

Windla

Engine

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Number

Ceiling

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Number

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Builder's

Certificate (if required) to be sent to

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

MACHINERY CERTIFICATE

15.2.10

Rpt. 5

Date of

No. in

Reg. Bo

Master

Engines

Boilers

Register

MULTI

Letter J

Boilers

No. of

safety ca

Are they

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