

REPORT ON MACHINERY.

No. 57376

Port of Newcastle-on-Tyne Received at London Office MIN. 27 SEP 1909

No. in Survey held at Newcastle-on-Tyne Date, first Survey 21st April '09 Last Survey 20th Sep 1909

Reg. Book. S.S. "Belgique" (Number of Visits 30) Tons { Gross 2124
Net 1288

on the Wood Skinner Master Newcastle Built at Newcastle By whom built Wood Skinner When built 1888

Engines made at Newcastle By whom made North Eastern Marine Engine Co. Ltd. when made 1909

Boilers made at Newcastle By whom made North Eastern Marine Engine Co. Ltd. when made 1909

Registered Horse Power 201 Owners Societe Anonyme "Belgique" Port belonging to Antwerp

Nom. Horse Power as per Section 28 201 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders three No. of Cranks 3

Dia. of Cylinders 20" 33" 54" Length of Stroke 36 Revs. per minute 67½ Dia. of Screw shaft 11½" Material of iron
as per rule 11½" as fitted 11½" screw shaft)

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 length 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' 3"

Dia. of Tunnel shaft 9" 9" as per rule 10½" Dia. of Crank shaft journals 10½" as per rule 10½" Dia. of Crank pin 10½" Size of Crank webs 21x6½" Dia. of thrust shaft under

collars 10½" Dia. of screw 14' 9" Pitch of Screw 14' 9" No. of Blades 4 State whether moveable No Total surface 67 ft

No. of Feed pumps 2 Diameter of ditto 3" Stroke 20" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3½" Stroke 20" Can one be overhauled while the other is at work yes

No. of Donkey Engines two Sizes of Pumps 6x4x6, 7½x9x10" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4x6x3" In Holds, &c. 2x6x3" in fore hold 1x2½" Tunnel

well 2-2½" in after hold

No. of 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"

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 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 17/8/09 of Stern Tube 17/8/09 Screw shaft and Propeller 19/8/09

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 & Co.

Total Heating Surface of Boilers 3246 ft Is Forced Draft fitted No No. and Description of Boilers 2 Single ended glanded

Working Pressure 180 lbs Tested by hydraulic pressure to 260 lbs Date of test 5/7/09 No. of Certificate 7867

Can each boiler be worked separately yes Area of fire grate in each boiler 43.6 ft No. and Description of Safety Valves to

each boiler 1 pair direct spring Area of each valve 5.93 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 13" Mean dia. of boilers 13.3 Length 10' 6" Material of shell plates Steel

Thickness 1½" Range of tensile strength 28½ to 32" Are the shell plates welded or flanged No Descrip. of riveting: cir. seams d Cap

long. seams table butt Diameter of rivet holes in long. seams 1½" Pitch of rivets 8" Lap of plates or width of butt straps 16½"

Per centages of strength of longitudinal joint 86.9 Working pressure of shell by rules 185 Size of manhole in shell 16x12"

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Doughton Material Steel Outside diameter 3' 2½"

Length of plain part top 12" Thickness of plates bottom 32" Description of longitudinal joint welded No. of strengthening rings —

Working pressure of furnace by the rules 282 Combustion chamber plates: Material Steel Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 7/8"

Pitch of stays to ditto: Sides 9½x10½" Back 9½x10½" Top 9½x10½" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180 lbs

Material of stays Steel Diameter at smallest part 2.63 Area supported by each stay 98" Working pressure by rules 186 End plates in steam space:

Material Steel Thickness 1½" Pitch of stays 17½x23 How are stays secured 2 nuts Working pressure by rules 186 Material of stays Steel

Diameter at smallest part 7.07 Area supported by each stay 402.25" Working pressure by rules 183 Material of Front plates at bottom Steel

Thickness 1" Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 14½" Working pressure of plate by rules 189

Diameter of tubes 3½" Pitch of tubes 4½x4½" Material of tube plates Steel Thickness: Front 1" Back 3/4" Mean pitch of stays 11½"

Pitch across wide water spaces 14½" Working pressures by rules 182 Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 8½x7½" Length as per rule 2' 7½" Distance apart 10½" Number and pitch of stays in each (2) 9½"

Working pressure by rules 180 Superheater or Steam chest; how connected to boiler none 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 —

VERTICAL DONKEY BOILER—Manufacturers of Steel

No. 1 Description Vertical (Blacker Patent) See separate Report appended.
 Made at _____ By whom made _____ When made _____ Where fixed in Storehold
 Working pressure 100 tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety
 Valves Spring loaded No. of Safety Valves 2 Area of each 1.91 Pressure to which they are adjusted 100 Date of adjustment 20/9/09
 If fitted with easing gear yes If steam from main boilers can enter the donkey boiler no 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:— 2 Top end Collis Thrusts 2 Bottom end Collis Thrusts
2 main bearing Collis Thrusts 1 set of coupling Collis Thrusts. 2 fuel & 2
bridge pump valves iron Collis Thrusts mounted.

NORTH EASTERN MARINE ENGINEERING CO., LTD.

The foregoing is a correct description,

L. T. Harrison

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - }
 Total No. of visits 30 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 28/5/09 Slides 28/5/09 Covers 28/5/09 Pistons 28/5/09 Rods 1/6/09
 Connecting rods 1/6/09 Crank shaft 5/7/09 Thrust shaft 20/5/09 Tunnel shafts 26/5/09 Screw shaft 6/8/09 Propeller 6/8/09
 Stern tube 10/8/09 Steam pipes tested 2.27/5/09 Engine and boiler seatings 17/8/09 Engines holding down bolts 24/8/09
 Completion of pumping arrangements 30/8/09 Boilers fixed 24/8/09 Engines tried under steam 30/8/09
 Main boiler safety valves adjusted 30/8/09 Thickness of adjusting washers P¹³/₃₂ S¹³/₃₂ P¹³/₃₂ S³/₈
 Material of Crank shaft Steel Identification Mark on Do. amr 077/09 Material of Thrust shaft Steel Identification Mark on Do. 6698 N.W.C
 Material of Tunnel shafts iron Identification Marks on Do. 6697 N.W.C Material of Screw shafts Steel Identification Marks on Do. amr 4/8/09
 Material of Steam Pipes 5.5 Copper Test pressure 400 lbs

General Remarks (State quality of workmanship, opinions as to class, &c. These engines and boilers have
been built under special survey, the materials and workmanship
are of good description, they have been well fitted on board
and tried under steam
This machinery is now in my opinion eligible to have
notification of L.M.C. 9 09 in the Register Book.

The amount of Entry Fee. £ 2 : :
 Special .. £ 30 : :
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 25 SEP 1909
 When received, 20.9.09

Committee's Minute

TUES. 28 SEP 1909

Assigned

+ L.M.C. 9 09

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



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Lloyd's Register
FoundationMACHINERY CERTIFICATE
WRITTEN.Survey
Travelling

Committee

Assigned