

## REPORT ON MACHINERY.

No. 56019

Port of Newcastle

Received at London Office

WED. 20 JAN. 1909

No. in Survey held at NewcastleDate, first Survey Aug 1908Last Survey 15 Jan 1909

Reg. Book.

on the

45 Roi Léopold(Number of Visits 23)

Master

Built at Newcastle. By whom built H. Dobson & Sons LtdTons Gross 2081Net 868When built 1908-9Engines made at NewcastleBy whom made M. M. Eng Cal.when made 1908-9

Boilers made at

By whom made

when made

Registered Horse Power

Owners L. Dene & Co.Port belonging to AntwerpNom. Horse Power as per Section 28 278Is Refrigerating Machinery fitted for cargo purposes noIs Electric Light fitted noENGINES, &c.—Description of Engines TripleNo. of Cylinders 3No. of Cranks 3Dia. of Cylinders 22 1/4 Length of Stroke 42Revs. per minute 64

Dia. of Screw shaft

as per rule 22Material of S.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 ✓

If two

liners are fitted, is the shaft lapped or protected between the liners ✓ 11-76Length of stern bush 4-8

Dia. of Tunnel shaft

as per rule 11-2

Dia. of Crank shaft journals

as per rule 11-2Dia. of Crank pin 12Size of Crank webs 23 1/2

Dia. of thrust shaft under

collars 12Dia. of screw 15 1/2Pitch of Screw 16 1/2No. of Blades 4State whether moveable fTotal surface 42 1/2No. of Feed pumps 2Diameter of ditto 3 1/2Stroke 21Can one be overhauled while the other is at work yesNo. of Bilge pumps 2Diameter of ditto 3 1/2Stroke 21Can one be overhauled while the other is at work yesNo. of Donkey Engines 3Sizes of Pumps 6 1/2, 4 1/2, 3 1/2, 2 1/2, 1 1/2

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

In Engine Room 3 of 2 3/4. one 3In Holds, &c. 1 hold. 2 of 2 3/4. 1 hold. 2 of 2 3/4No. of Bilge Injections 1sizes 4Connected to condenser, or to circulating pump CPAs a separate Donkey Suction fitted in Engine room & size yes 3Are all the bilge suction pipes fitted with roses yesAre the roses in Engine room always accessible yesAre 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 bothAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yesAre the Discharge Pipes above or below the deep water line aboveAre they each fitted with a Discharge Valve always accessible on the plating of the vessel yesAre the Blow Off Cocks fitted with a spigot and brass covering plate yesWhat pipes are carried through the bunkers noneHow are they protected ✓Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yesDates of examination of completion of fitting of Sea Connections 2.12.08 of Stern Tube 2.12.08 Screw shaft and Propeller 2.12.08Is the Screw Shaft Tunnel watertight yesIs it fitted with a watertight door yesworked from top platformBOILERS, &c.—(Letter for record S)Manufacturers of Steel J. Spencer & Son Ltd.Total Heating Surface of Boilers 4530 Is Forced Draft fitted no No. and Description of Boilers 3 S.E.Working Pressure 180Tested by hydraulic pressure to 360Date of test 3.12.08No. of Certificate 7782Can each boiler be worked separately yesArea of fire grate in each boiler 43 f

No. and Description of Safety Valves to

each boiler 2 SpringArea of each valve 4-9Pressure to which they are adjusted 185Are they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork openMean dia. of boilers 12 1/2Length 10 1/2Material of shell plates SThickness 1 3/4Range of tensile strength 28 1/2-32Are the shell plates welded or flanged bothDescrip. of riveting: cir. seams drilllong. seams drillDiameter of rivet holes in long. seams 1 1/2Pitch of rivets 7 1/2Lap of plates or width of butt straps 13 1/2

Per centages of strength of longitudinal joint

rivets 80-3

Working pressure of shell by rules

181Size of manhole in shell end 16 x 12Size of compensating ring flangedNo. and Description of Furnaces in each boiler 2 BayMaterial SOutside diameter 46

Length of plain part

top

Thickness of plates

crown

bottom

Description of longitudinal joint weld

No. of strengthening rings

Working pressure of furnace by the rules 190Combustion chamber plates: Material SThickness: Sides 23/32Back 23/32Top 23/32Bottom 1 3/4Pitch of stays to ditto: Sides 10-9 1/4Back 10-9 1/4Top 10-9 1/4If stays are fitted with nuts or riveted heads nutsWorking pressure by rules 180Material of stays SDiameter at smallest part 2-06Area supported by each stay 94-5Working pressure by rules 184

End plates in steam space:

Material SThickness 1 3/4Pitch of stays 26 x 18 1/2How are stays secured drillWorking pressure by rules 183Material of stays SDiameter at smallest part 8-48Area supported by each stay 485Working pressure by rules 181Material of Front plates at bottom SThickness 8Material of Lower back plate SThickness 3 1/2Greatest pitch of stays 14 1/2Working pressure of plate by rules 186Diameter of tubes 3 1/2Pitch of tubes 4 1/2 x 4 1/2Material of tube plates SThickness: Front 8Back 3 1/4Mean pitch of stays 9-8 3/4Pitch across wide water spaces 14 1/2Working pressures by rules 266Girders to Chamber tops: Material S

Depth and

thickness of girder at centre 8 1/2 x 1 1/2Length as per rule 31Distance apart 10Number and pitch of stays in each 20-9 1/4Working pressure by rules 184Superheater 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

Pitch of rivets

Working pressure of shell by rules 180

Diameter of flue

Material of flue plates

Thickness

How stayed

stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

Are they fitted with easing gear

Working pressure of end plates

Area of safety valves to superheater

Working pressure by rules

End plates: Thickness

How stayed

W1116-0157



# 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
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 & nuts, 1 set main beam bolts & nuts, 1 set coupling bolts & nuts, 1 set feed & bilge pump bolts & propeller & shaft nuts bolts & assorted iron.

The foregoing is a correct description,

NORTH EASTERN MARINE ENGINEERING CO., LTD.

Manufacturer.

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

Secretary

1908 Aug 7 Sep 10 Oct 13 14 19 Nov 16 17 Dec 12 3 4 7 14 17  
1909 Jan 5 7 8 11 15

Is the approved plan of main boiler forwarded herewith 4.08

Dates of Examination of principal parts—Cylinders 7.8.08 Slides 7.8.08 Covers 7.8.08 Pistons 1.9.08 Rods 30.10.08  
Connecting rods 30.10.08 Crank shaft 19.10.08 Thrust shaft 19.10.08 Tunnel shafts 19.10.08 Screw shaft 19.10.08 Propeller 17.11.08  
Stern tube 17.11.08 Steam pipes tested 21.12.08 Engine and boiler seatings 2.12.08 Engines holding down bolts 14.12.08  
Completion of pumping arrangements 7.1.09 Boilers fixed 14.12.08 Engines tried under steam 5.1.09  
Main boiler safety valves adjusted 5.1.09 Thickness of adjusting washers 1/16 5/16 5/16 5/16 5/16 5/16 5/16 5/16  
Material of Crank shaft S Identification Mark on Do. R.T.F. Material of Thrust shaft S Identification Mark on Do. R.T.F.  
Material of Tunnel shafts S Identification Marks on Do. R.T.F. Material of Screw shafts S Identification Marks on Do. R.T.F.  
Material of Steam Pipes Copper. Test pressure 360

General Remarks (State quality of workmanship, opinions as to class, &c. Materials & workmanship good. Built under Special Survey. Engines & boilers examined under full steam & found satisfactory. It is submitted that this vessel is eligible for the Record of L.M.C. 1.09.

It is submitted that this vessel is eligible for THE RECORD. + LMC 1.09.

ARK

20.1.09

HED

20/1/09

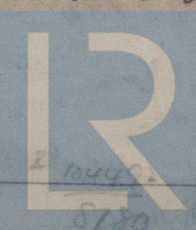
The amount of Entry Fee... £ 2 :  
Special... £ 33 : 18 :  
Donkey Boiler Fee... £ :  
Travelling Expenses (if any) £ :  
When applied for, 19 JAN 1909  
When received, 29/1/09

Committee's Minute

FRI. 22 JAN 1909

Assigned

MACHINERY CERTIFICATE WRITTEN.



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